SCHUNK

Toolholding technology
Workholding technology

Catalog

Hand in hand for tomorrow





More than **11,000** standard components

Awards

2,000 Customized solutions per year

60 Apprentices & students per year





95% Retention rate

3,700 Employees

Sustainability



CoLab

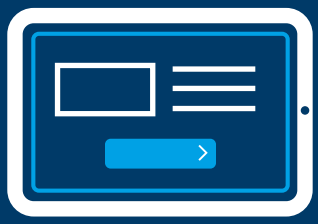
Planning and implementation of industrial automation and robotics applications



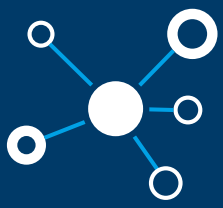
8 Plants

34 Subsidiaries worldwide

Represented in **50** countries



Digital services



Cooperation partner



Visionary leader



1945

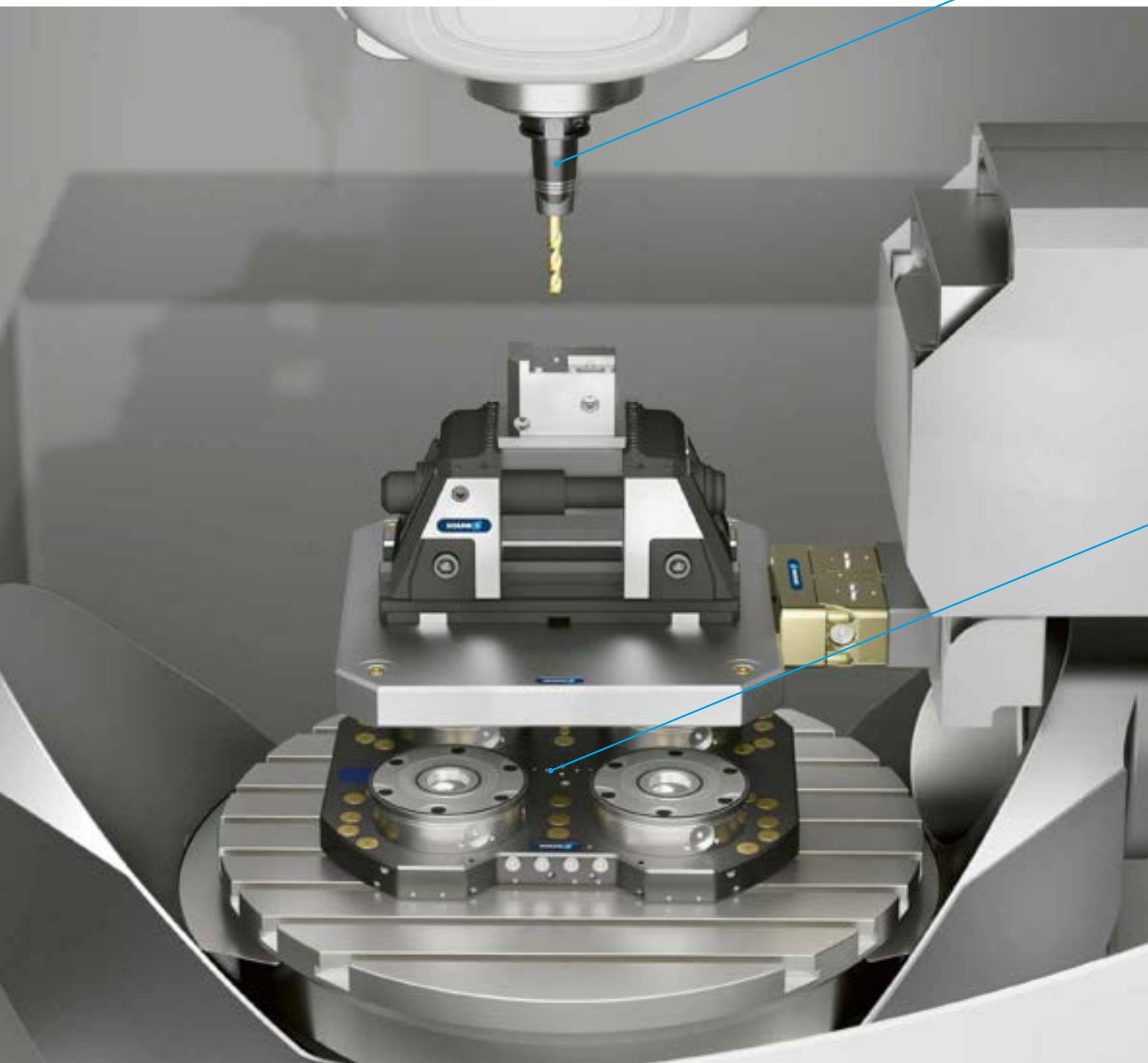
Founded by Friedrich Schunk in a garage

Hand in hand for tomorrow

Shaping the future with innovative technologies – that is the claim of SCHUNK. To this end, the experienced automation and production specialist is pushing the further development and digitalization of its product and service portfolio in order to make industrial processes more efficient, transparent and sustainable. The family-owned company with headquarters in Lauffen/Neckar is a global leader in toolholding and workholding, gripping and automation technology. Approximately 3,700 employees in 8 plants and 34 directly owned subsidiaries and distribution partners in more than 50 countries throughout the world ensure an intensive market presence.

Reliable clamping technology for your workpieces and tools

We offer a wide range of high-quality clamping technology that can be tailored to the specific requirements of your application. From proven chuck jaws to innovative lathe chucks to intelligent automation solutions. At SCHUNK, you will find everything you need to increase the productivity of your machine, and to optimize the quality of your machined parts. SCHUNK stands for decades of experience, state-of-the-art technology, and highest quality standards. We gladly support you in increasing the efficiency of your production – because efficiency is the key to your success!



Toolholders

For any application and cutting edge

Diversity of toolholders
Unique product range meeting customer requirements

Precision without compromises
Innovative and high-precision toolholders from micro and fine machining to heavy duty and volumetric cutting

Specialists
We also find the optimal toolholder for your task for special applications

Workholding technology

Efficient, powerful and diverse

Variety of workholding technology
From lathe chucks to stationary workholding to complete clamping systems with high clamping forces

Over 40 years of know-how
Ensured innovative technology, manufactured by specialized staff with a focus on outstanding quality

Quality promise
Thanks to our quality management system according to DIN EN ISO 9001/20215



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Lathe chucks

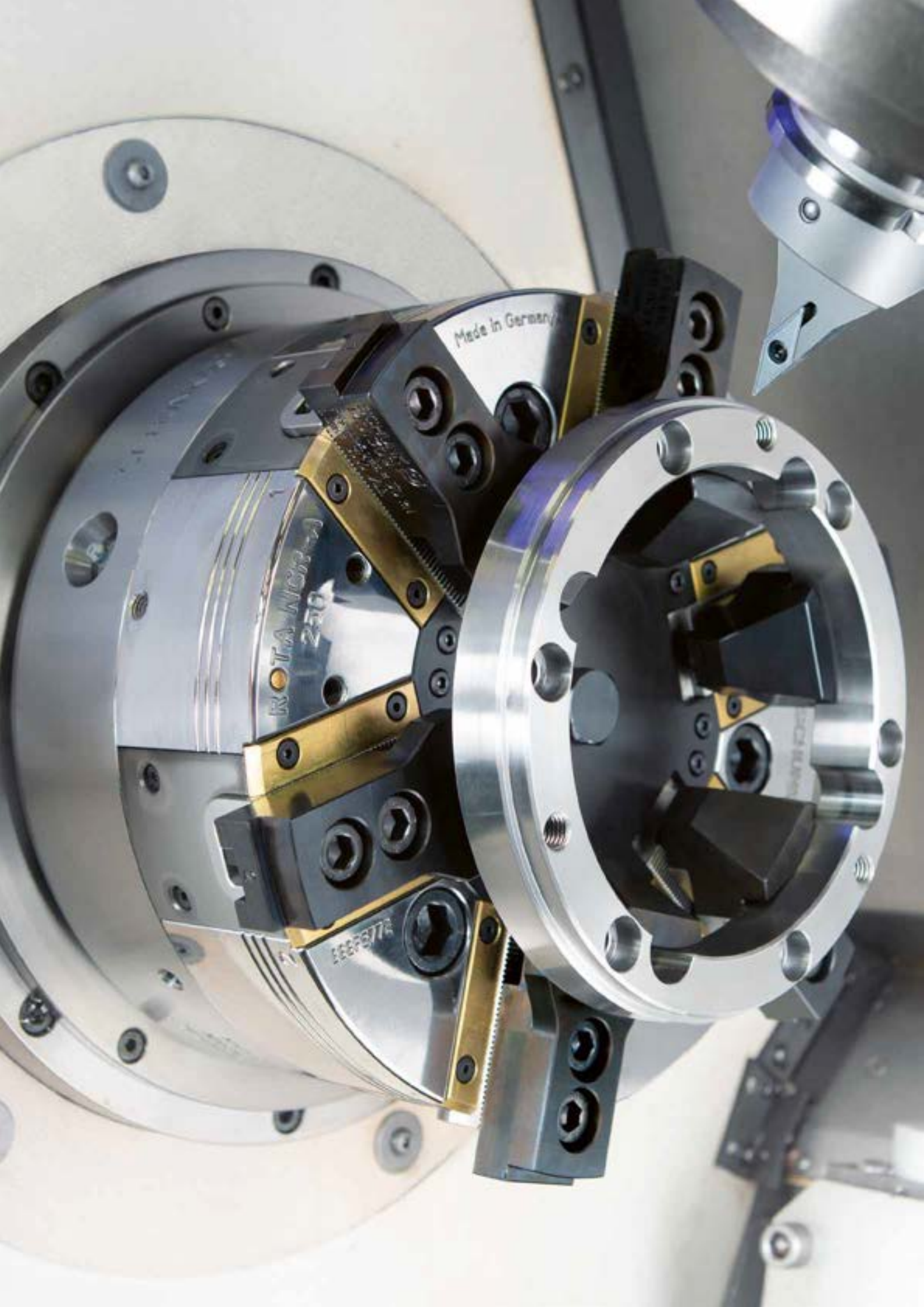
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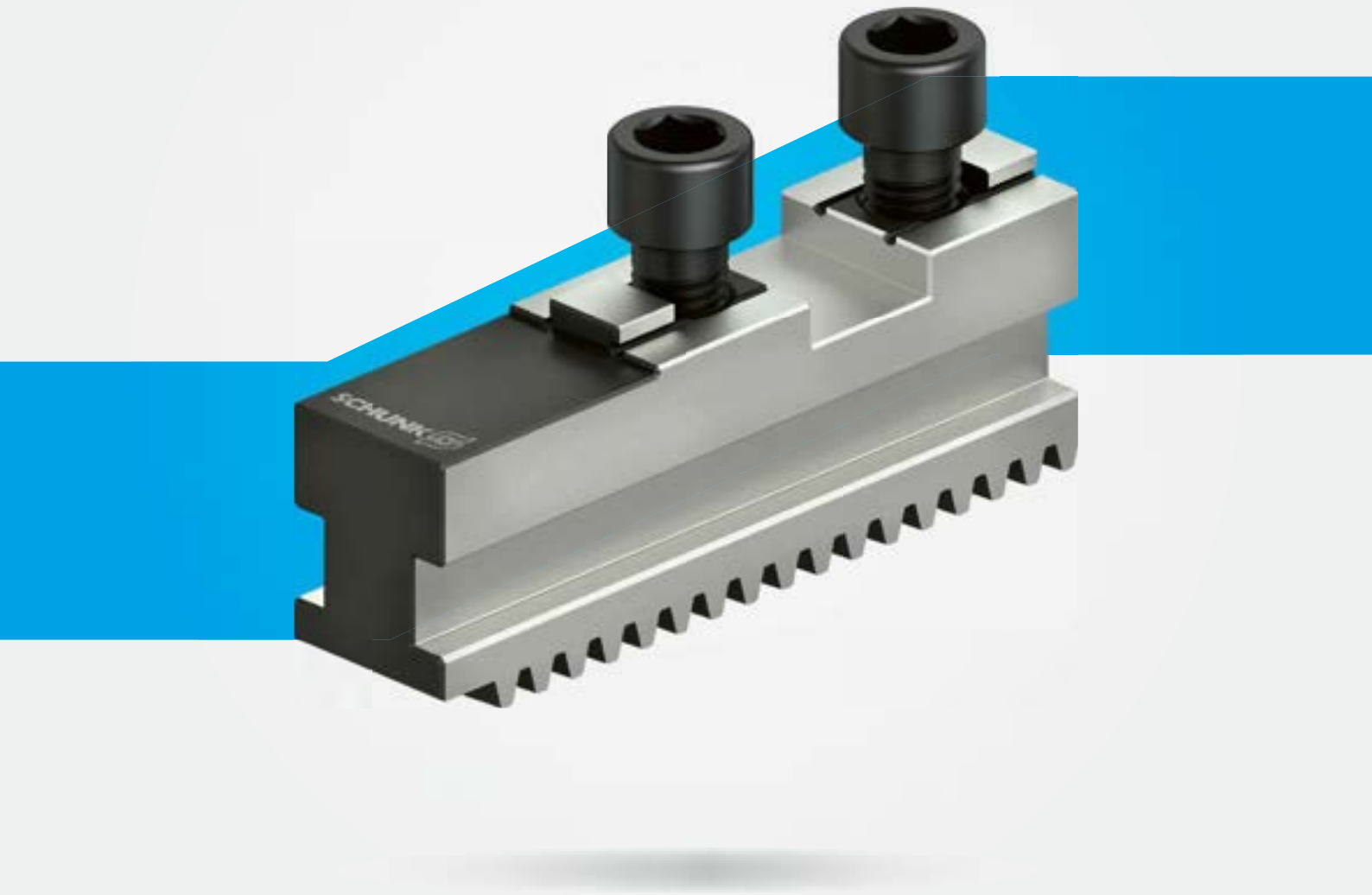

Made in Germany
ROTA NCT-A
250

Overview chuck jaws

Chuck jaws

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schunk.com/basejaw



Dimensionally accurate. Repeat accuracy. Quick change.
Base jaws

At SCHUNK, you will find the largest offering of base jaws for all lathe chuck types. In addition to the jaw interface with tongue and groove, SCHUNK also offers hardened, precision-ground base jaws for the use of pointed top jaws. If seamless clamping is not possible with your quick-change chuck equipped with claw jaws, such clamping gaps can be covered, for example, with base jaws featuring ½-tooth offset.
The delivery unit comprises 1 set = 3 pieces, including cylindrical screws. Except for base jaws EWB-TG which are supplied without cylindrical screws.

Functions & highlights

- **Excellent fit and change accuracy**
  The ground tongue and groove and the ground bearing surface ensure high dimensional accuracy and fast and easy handling
- **30 to 40% less wear**
  A ground serration ensures high precision and surface quality of the base jaws as well as an increased service life
- **Rapid set-up times**
  Exchanging a clamping unit consisting of base jaw and top jaw into the chuck reduces set-up times



Field of application

Base jaws

For lathe chucks with jaw quick change

Chuck jaw quickfinder for lathe chucks



The chuck jaw quickfinder from SCHUNK gives you a quick overview of possible chuck jaw solutions, including accessory products such as T-nuts for all conventional lathe chuck manufacturers.

schunk.com/chuckjaw-quickfinder

schunk.com/hardclawjaws



Weight-reduced. Stable. Powerful. Claw jaws

Weight-reduced and hardened claw jaws made of 16MnCr5 steel for I.D., O.D. and bar clamping with more grip. The pointed serration quickly claws itself into the workpiece surface, allowing for reliable clamping. The delivery unit comprises 1 set = 3 pieces, the workpiece stops are not included in the scope of delivery.

Functions & highlights

- **Increased flexibility**
  One set of universal top jaws can be used for I.D., O.D., and bar clamping
- **Reduced set-up costs**
  The versatility of the chuck jaws reduces set-up times and therefore also set-up costs, particularly with small and varying lot sizes
- **Increased economic efficiency**
  Due to the use of universal claw jaws, up to five clamping positions can be covered with one set of jaws



Field of application

Claw jaws

For all common manufacturers and types of lathe chucks

Chuck jaw quickfinder for lathe chucks



The chuck jaw quickfinder from SCHUNK gives you a quick overview of possible chuck jaw solutions, including accessory products such as T-nuts for all conventional lathe chuck manufacturers.

schunk.com/chuckjaw-quickfinder

easyJaw chuck jaw configurator



Adapt standard jaws to your individual machining tasks now: fast, online and customized.

schunk.com/easyjaw

schunk.com/steppedtopjaws



Universal. Versatile. Gentle. Stepped top jaws

Case-hardened stepped jaws made of steel 16MnCr5 are universally suitable for use with O.D., I.D. and bar clamping. The diamond serration offers a set-up with reduced clamping marks, making it a gentle clamping solution for your raw materials.
The delivery unit comprises 1 set = 3 pieces. For the top jaw SHB/4 and SP-HB-M/4, the delivery unit comprises 1 set = 4 pieces for a 4-jaw chuck.

Functions & highlights

- **Universal application possibilities**
  Suitable for O.D., I.D., and bar clamping
- **Various application options**
  The different clamping levels offer numerous application options, allowing a wide range of clamping solutions to be implemented
- **Gentle clamping**
  The clamping teeth of the diamond serration just slightly penetrate into the workpiece



Field of application

Stepped top jaws

For all common manufacturers and types of lathe chucks

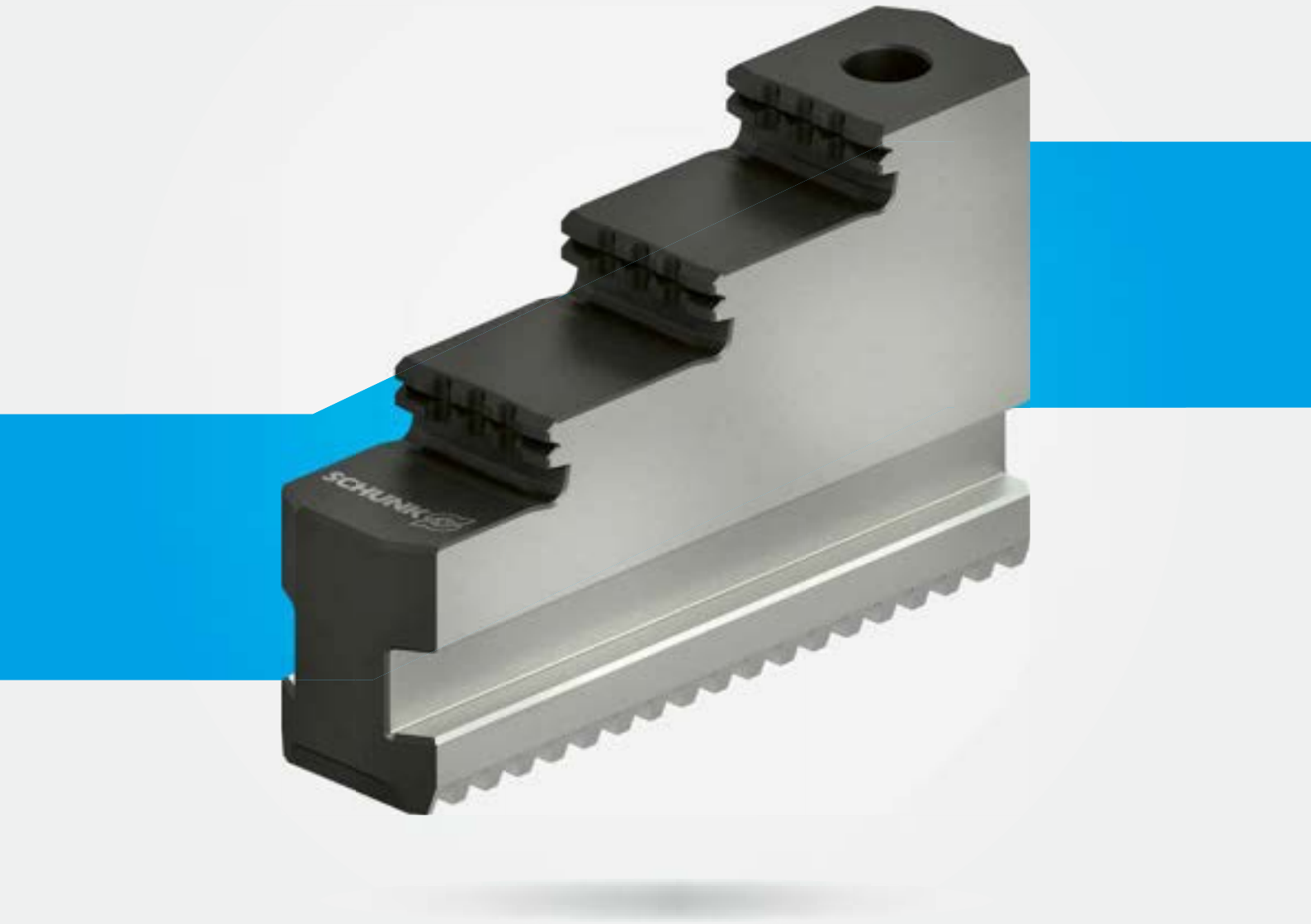
Chuck jaw quickfinder for lathe chucks



The chuck jaw quickfinder from SCHUNK gives you a quick overview of possible chuck jaw solutions, including accessory products such as T-nuts for all conventional lathe chuck manufacturers.

schunk.com/chuckjaw-quickfinder

schunk.com/steppedblockjaws



Universal. Stable. Precise. Stepped block jaws

Stepped block jaws made of steel 16MnCr5 are universally suitable for use with O.D., I.D. and bar clamping. The one-piece design of the stepped block jaw ensures exceptionally high precision and therefore offers superior stability and accuracy during machining. The delivery unit comprises 1 set = 3 pieces.

Functions & highlights

- **Universal application possibilities**
  Suitable for O.D., I.D., and bar clamping
- **High stability**
  The one-piece design of the stepped block jaw ensures superior stability during machining
- **Precise**
  The one-piece design of the stepped block jaw ensures a high level of precision during machining



Field of application

Stepped block jaws

For all common manufacturers and types of lathe chucks

Chuck jaw quickfinder for lathe chucks



The chuck jaw quickfinder from SCHUNK gives you a quick overview of possible chuck jaw solutions, including accessory products such as T-nuts for all conventional lathe chuck manufacturers.

schunk.com/chuckjaw-quickfinder

schunk.com/softtopjaws



Universal. Easy. Modifiable. Soft top jaws

Soft top jaws made of aluminum AlZnMgCu1.5 and steel 15MnCr5 are versatile in use. They can be flexibly turned to the desired clamping diameter. Take advantage of our wide variety of different dimensions for your individual clamping solution. The delivery unit comprises 1 set = 3 pieces. For top jaw SWB-AL/4 1 set = 4 pieces for a 4-jaw chuck.

Functions & highlights

- **Ground serration**
  The high accuracy of fit protects the base jaws against wear and makes them more durable
- **For universal use**
  Soft top jaws are versatile in use. They can be flexibly turned to the desired clamping diameter
- **Individually modifiable**
  Weight reduction and/or inclined clamping surface (for small workpiece diameters) according to your specifications. Made of blanks or standard jaws, therefore cost-effective and available at short notice



Field of application

Soft top jaws

For all common manufacturers and types of lathe chucks

Chuck jaw quickfinder for lathe chucks



The chuck jaw quickfinder from SCHUNK gives you a quick overview of possible chuck jaw solutions, including accessory products such as T-nuts for all conventional lathe chuck manufacturers.

schunk.com/chuckjaw-quickfinder

easyJaw chuck jaw configurator



Adapt standard jaws to your individual machining tasks now: fast, online and customized.

schunk.com/easyjaw

schunk.com/soft-monoblock-jaws



Versatile. Individual. Stable. Soft monoblock jaws

Soft monoblock jaws made of C45 hardened and tempered steel for optimal precision in finished parts machining. By saving one additional interface, the monoblock jaw achieves a higher accuracy compared to the combination of base and top jaws. The delivery unit comprises 1 set = 3 pieces.

Functions & highlights

- **Longer life span of the lathe chuck**
  Both the serration and the guidance are inductively hardened
- **Great variety for your applications**
  Available in many height and length variants for your individual clamping requirements
- **High stability**
  The one-piece design of the soft monoblock jaw ensures superior stability during machining

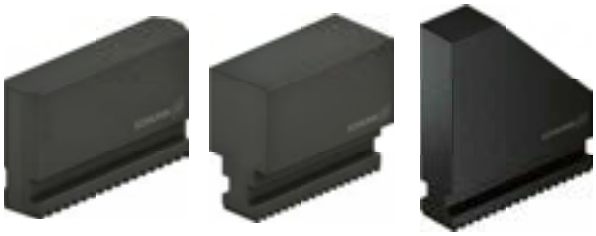


Field of application

Soft monoblock jaws

For all common manufacturers and types of lathe chucks

Chuck jaw quickfinder for lathe chucks



The chuck jaw quickfinder from SCHUNK gives you a quick overview of possible chuck jaw solutions, including accessory products such as T-nuts for all conventional lathe chuck manufacturers.

schunk.com/chuckjaw-quickfinder

easyJaw chuck jaw configurator



Adapt standard jaws to your individual machining tasks now: fast, online and customized.

schunk.com/easyjaw

schunk.com/jawblanks

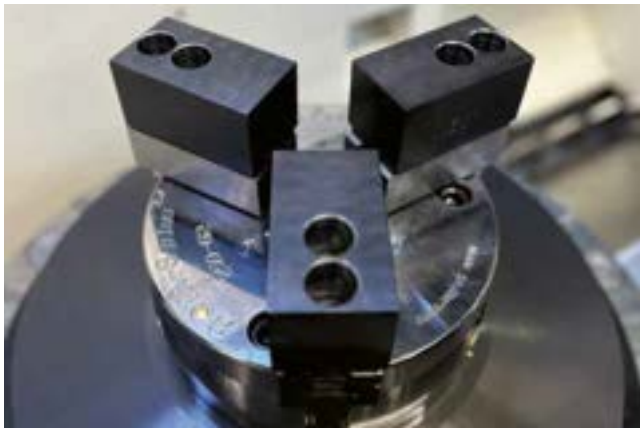


Versatile. Universal. Modifiable. Jaw blanks

Soft jaw blanks made of case-hardened steel 16MnCr5 are manufactured to customer specifications with individual dimensions. The jaw blanks can be ordered drilled or undrilled as well as in a version with continuously ground groove and serration in order to meet the highest requirements for precision and run-out accuracy. The delivery unit comprises 1 piece.

Functions & highlights

- **Above average service life**
  The high quality standards for material and processing ensure a longer service life of the products
- **For universal use**
  Soft jaw blanks are for universal use. They can be flexibly turned to the desired clamping diameter
- **Individually modifiable**
  Weight reduction and/or inclined clamping surface (for small workpiece diameters) according to your specifications. Made of blanks or standard jaws, therefore cost-effective and available at short notice



Field of application

Jaw blanks

For all common manufacturers and types of lathe chucks

Chuck jaw quickfinder for lathe chucks



The chuck jaw quickfinder from SCHUNK gives you a quick overview of possible chuck jaw solutions, including accessory products such as T-nuts for all conventional lathe chuck manufacturers.

schunk.com/chuckjaw-quickfinder

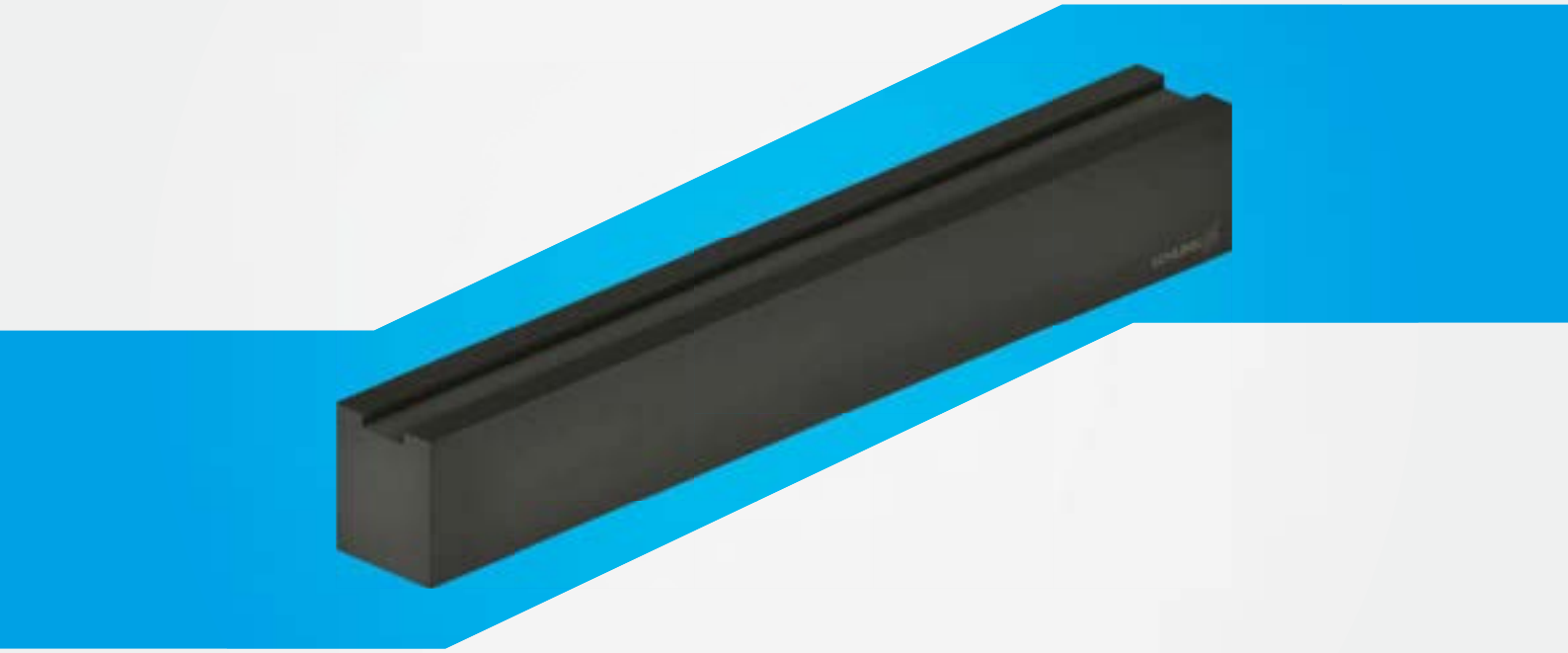
easyJaw chuck jaw configurator



Adapt standard jaws to your individual machining tasks now: fast, online and customized.

schunk.com/easyjaw

schunk.com/serratedbars

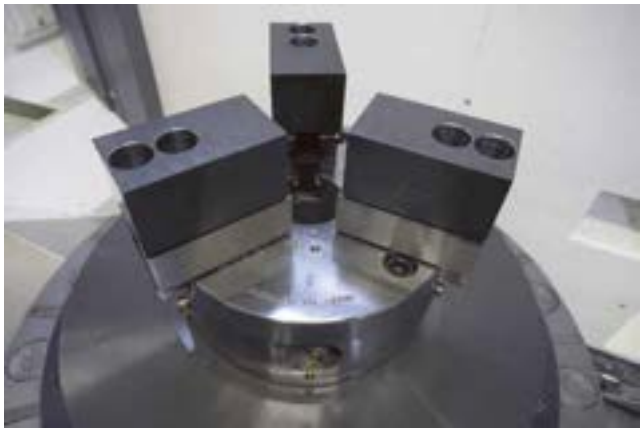


Individual. Simple. Flexible. Serrated bars

Serrated bars made from case-hardened 16MnCr5 steel and AlZnMgCu1.5 aluminum are ideal for producing long, individual top jaws. They facilitate maximum flexibility through cutting to length. The delivery unit comprises 1 piece.

Functions & highlights

- **Universal application possibilities**
  Undrilled for custom cutting
- **Ground serration**
  The high accuracy of fit protects the base jaws against wear and makes them more durable
- **High level of flexibility**
  The different dimensions allow flexible production of customized clamping jaws according to individual requirements



Field of application

Serrated bars

For all common manufacturers and types of lathe chucks

Chuck jaw quickfinder for lathe chucks



The chuck jaw quickfinder from SCHUNK gives you a quick overview of possible chuck jaw solutions, including accessory products such as T-nuts for all conventional lathe chuck manufacturers.

schunk.com/chuckjaw-quickfinder

schunk.com/softfullgripjaws



Comprehensive. Productive. Low-deformation. Full grip jaws

Full grip jaws are made of aluminum and steel and are used for machining sensitive workpieces. The large bearing surface ensures that clamping forces are evenly distributed over the workpiece area, thereby reducing deformation of the workpiece. The delivery unit comprises 1 set = 3 pieces. For top jaw SWB-M/4 1 set = 4 pieces for a 4-jaw chuck.

Functions & highlights

- **Comprehensive**
  Thanks to the clamping surface, the workpiece can be clamped precisely and true to size
- **Reduced deformation of the workpiece**
  Higher clamping forces can be transmitted due to the large clamping surface
- **Reduced centrifugal forces**
  The weight-reduced aluminum version ensures lower centrifugal forces



Field of application

Full grip jaws

For all common manufacturers and types of lathe chucks

Chuck jaw quickfinder for lathe chucks



The chuck jaw quickfinder from SCHUNK gives you a quick overview of possible chuck jaw solutions, including accessory products such as T-nuts for all conventional lathe chuck manufacturers.

schunk.com/chuckjaw-quickfinder

easyJaw chuck jaw configurator



Adapt standard jaws to your individual machining tasks now: fast, online and customized.

schunk.com/easyjaw

schunk.com/pendulumjaws



Efficient. Flexible. Compensating. Pendulum jaws

Standardized pendulum jaws from SCHUNK enable cost-efficient and safe clamping of thin-walled workpieces that are prone to deformation. The pendulum jaw consists of a supporting jaw with bearing pins, a pendulum body and clamping inserts. To clamp other workpiece diameters, the pendulum bodies can be easily exchanged. The delivery unit comprises 1 piece.

Functions & highlights

- **Flexible jaws for efficient solutions**
  Within the shortest amount of time, conventional 3-jaw chucks can be cost-efficiently converted into six-point clamping
- **Special designs with pendulum jaws**
  Pendulum jaws offer a variety of options for mastering unusual clamping tasks with confidence
- **Compensational clamping**
  A compensating clamping ensures that the pressure is evenly distributed across the workpiece to prevent deformation and optimize accuracy



Field of application

Pendulum jaws

For all common manufacturers and types of lathe chucks

Chuck jaw quickfinder for lathe chucks





The chuck jaw quickfinder from SCHUNK gives you a quick overview of possible chuck jaw solutions, including accessory products such as T-nuts for all conventional lathe chuck manufacturers.

schunk.com/chuckjaw-quickfinder

schunk.com/quentes



Reduced material wear. Glass-fiber reinforced. Gentle clamping. QUENTES plastic jaws

QUENTES fiberglass jaws provide a powerful hold with maximum surface protection. The clamping inserts are made of glass fiberreinforced plastic, enabling a high coefficient of friction of approx. 0.3 to 0.4 and, therefore, preventing the formation of clamping marks on the workpiece surface. Set-up is done without a trace. The delivery unit comprises 1 set = 3 pieces.

Functions & highlights

- **High coefficient of friction due to the use of a glass-fiber reinforced plastic**
  Prevents the formation of clamp marks on the workpiece surface
- **Gentle clamping and smooth surface finish**
  Excellent for ground or surface treated parts
- **Large workpiece location and interchangable clamping inserts**
  Cost-effective system for low-deformation clamping



Field of application

QUENTES plastic jaws

For gentle clamping

Chuck jaw quickfinder for lathe chucks



The chuck jaw quickfinder from SCHUNK gives you a quick overview of possible chuck jaw solutions, including accessory products such as T-nuts for all conventional lathe chuck manufacturers.

schunk.com/chuckjaw-quickfinder

schunk.com/rapido



Process-reliable. Repeat accuracy. Flexible. RAPIDO jaw quick-change system

The jaw quick-change system RAPIDO enables jaw changes in a matter of seconds and completely without the use of tools. It reduces the set-up time of a complete set of jaws to less than 60 seconds. Different clamping diameters, unmachined and finished parts can be clamped in the shortest time in a reliable process. RAPIDO can be used on a SCHUNK chuck with a corresponding interface or can be retrofitted on an existing lathe chuck using an intermediate jaw.

Functions & highlights

- **Toolfree exchange of chuck jaws**
  The chuck jaws can be changed quickly and easily without tools in less than a minute
- **Fully automated with integrated RAPIDO interface**
  Jaw changes can be fully automated with RAPIDO. Four standardized bore holes in the changing jaws ensure process-reliable set-up by means of form-fit locking
- **High repeatability and expandability**
  This system is suitable for both I.D. and O.D. clamping and can be retrofitted to all standard lathe chucks and features a repeat accuracy of 0.02 mm



Field of application

RAPIDO jaw quick-change system

Suitable for SCHUNK lathe chucks with integrated RAPIDO interface

Chuck jaw quickfinder for lathe chucks



The chuck jaw quickfinder from SCHUNK gives you a quick overview of possible chuck jaw solutions, including accessory products such as T-nuts for all conventional lathe chuck manufacturers.

schunk.com/chuckjaw-quickfinder

easyJaw chuck jaw configurator



Adapt standard jaws to your individual machining tasks now: fast, online and customized.

schunk.com/easyjaw

schunk.com/t-nuts



Accurate in change. Precise. Stable. T-nuts

T-nuts are used for fastening and positioning the top jaws on the base jaw. They are therefore indispensable components of safe clamping solutions. This requires robust and highly accurate products to ensure a long service life without any risks. Ground guidances additionally ensure a higher change accuracy. When selecting the T-nuts, please check the connection dimensions of the lathe chuck (serration/slot width).

Functions & highlights

- **Precise guidances**
  Ensured high changeover accuracy
- **Large product range**
  SCHUNK T-nuts are available in many different dimensions and shapes
- **Stable fastening**
  T-nuts are essential for stable fastening and accurate alignment of the top jaws on the base jaw, and contribute to a secure clamping solution



Field of application

T-nuts

For attaching top jaws

Chuck jaw quickfinder for lathe chucks

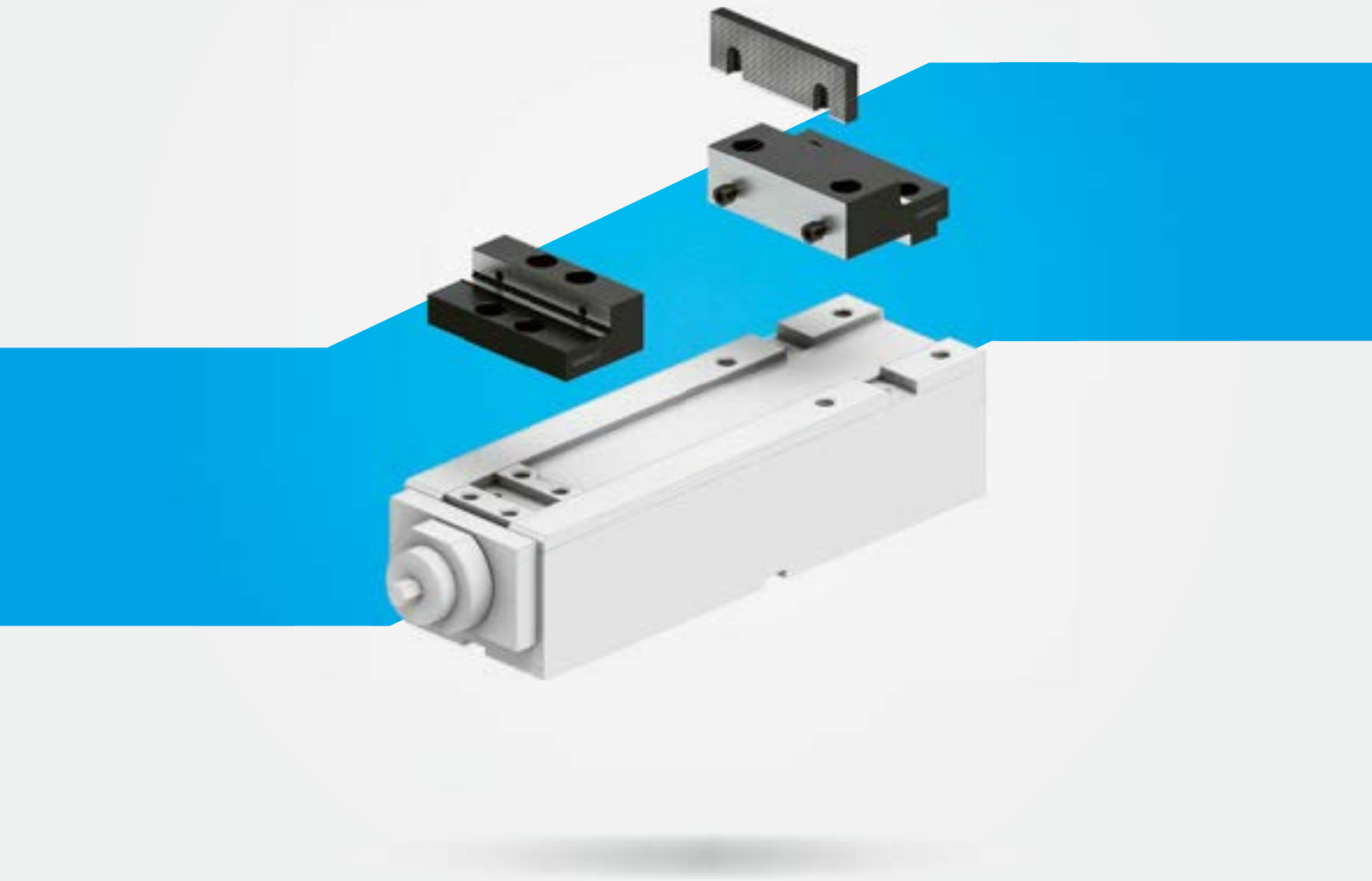




The chuck jaw quickfinder from SCHUNK gives you a quick overview of possible chuck jaw solutions, including accessory products such as T-nuts for all conventional lathe chuck manufacturers.

schunk.com/chuckjaw-quickfinder

schunk.com/adapt-r



Compatible. Sustainable. Economical. Adapter jaws

With the SCHUNK Adapt-R adapter jaws, you no longer have to rely on expensive, system-specific top jaws. With the adapter jaws for your machine vises from Allmatic, Atorn, Garant, Kesel, Röhm or Roemheld Hilma, we provide our customers access to the SCHUNK jaw portfolio.

Functions & highlights

- **Compatible**
  SCHUNK Adapt-R adapter jaws are available for machine vises from Allmatic, Atorn, Garant, Kesel, Röhm and Roemheld Hilma
- **Sustainable**
  Thanks to the adapter system, the existing third-party machine vise can continue to be used; if necessary, the old system jaws can also be screwed back on and the existing top jaws can continue to be used
- **Economical**
  Due to the cost-effective SCHUNK top jaw portfolio, the SCHUNK adapter jaws amortize within a very short time



Field of application

Adapter jaws

With the adapter jaws, SCHUNK offers you a cost-effective solution to expand your options. You are no longer tied to a specific system. Unleash the potential of your existing machine vises with SCHUNK Adapt-R adapter jaws. Take advantage of the versatility and increase your efficiency.

Chuck jaw quickfinder for stationary workholding



Find the right jaw for your stationary clamping device quickly and easily.

schunk.com/chuckjaw-quickfinder-stationary



Flexible. Individual. Project-related. SCHUNK Engineering

Here you will find individual solutions for precise and efficient workpiece clamping technology for your production requirements: from customized special designs and individual configuration options to advanced simulations. Optimize your production processes with SCHUNK clamping technology that has been developed especially for you.

Customized chuck jaws

- Reduced deformation
  due to optimal adaptation to the workpiece to be clamped
- Increased economic efficiency
- Maximum run-out and repeat accuracy down to < 0.01 mm



Customized special designs

SCHUNK Engineering

From the initial discussion through to the integration of the finished clamping element, you benefit from our customer-orientation and development expertise. Thanks to an individual design, we ensure optimal adaptation of the clamping device to workpiece and machine – regardless of whether you want an adaptation to a standard product, or require a new, complex clamping solution. More than 85,000 successfully implemented customized projects for extreme requirements have proven: SCHUNK offers perfectly made-to-measure precision clamping technology.

easyJaw chuck jaw configurator



Adapt standard jaws to your individual machining tasks now: fast, online and customized.

schunk.com/easyjaw

Simulation services for your customized solution



To optimize your machining process, we can simulate your workpiece clamping. For example, the following evaluations are possible:

- Determination of the workpiece deformation
- Load on the chuck jaws/lathe chucks
- Adjustment of the clamping forces
- Investigation of the load due to centrifugal forces

Your contact to the specialist department:
sonderbacken@de.schunk.com
or give us a call: +49 7133 103 2750


ROTA THW3
225-66
max

Overview lathe chucks

Manual lathe chucks

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Power lathe chucks

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Magnetic chucks

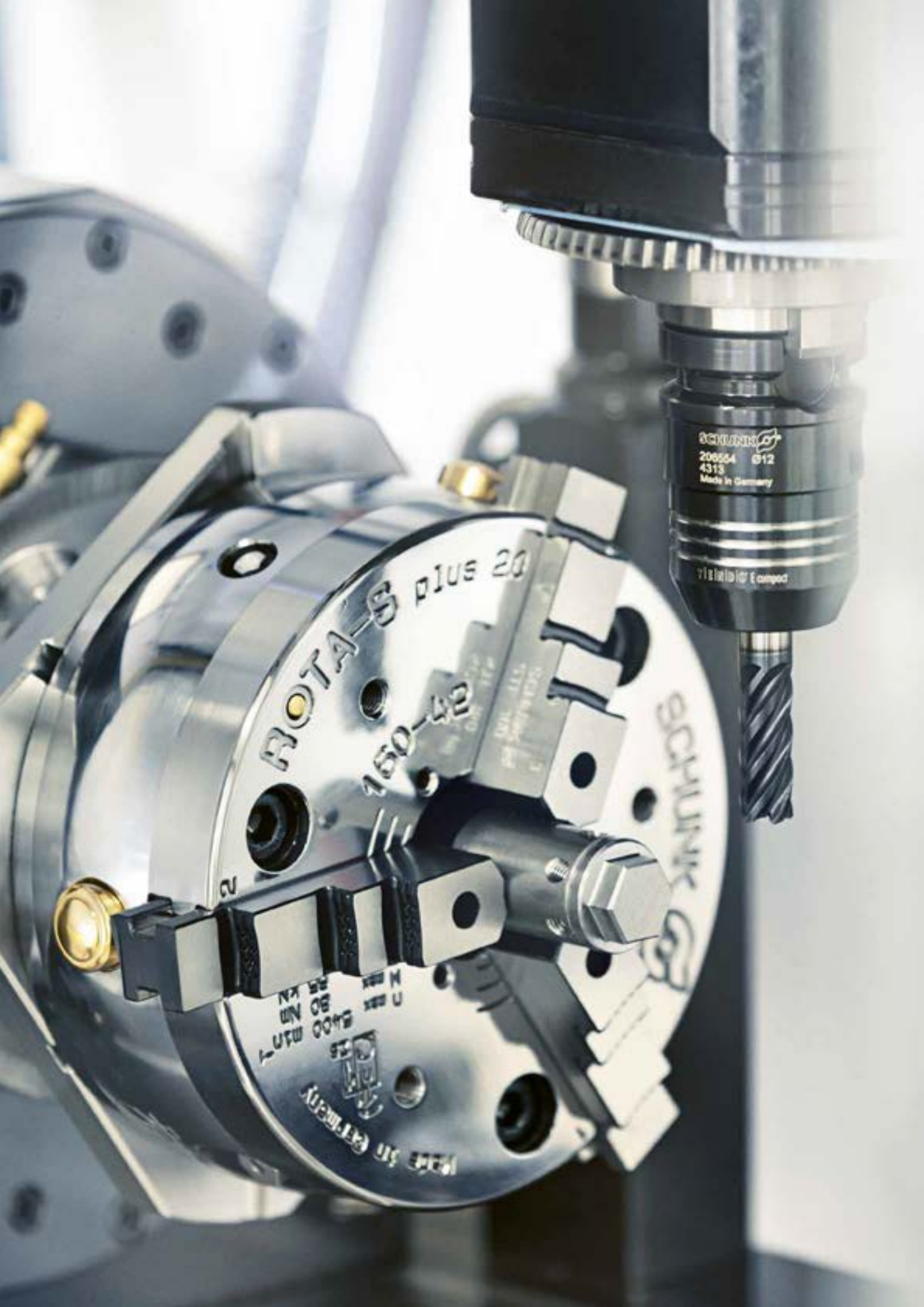
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Steady rests

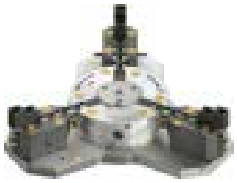
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SCHUNK
SCHUNK
208564 Ø12
4313
Made in Germany

Overview manual lathe chucks



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Manual lathe chuck ROTA-S flex Page 56



Manual lathe chuck ROTA-ML flex 2+2 Page 62



Jaw boxes SPK Page 68

schunk.com/rota-s-plus-2-0



Universal. Economical. Process-reliable. Manual lathe chuck ROTA-S plus 2.0

The ROTA-S plus 2.0 manual lathe chuck is a highly efficient power lathe chuck for the most varied of clamping tasks. This is available as a 2-jaw as well as a 3-jaw chuck. The high degree of efficiency of the wedge bar system and the optimized lubrication system ensure powerful clamping. The excellent clamping force-speed ratio allows the perfect utilization of the machine output and increases efficiency in your production.

Functions & highlights

- **Convenient jaw quick-change system**
  The jaw quick-change system minimizes set-up times and thus increases the efficiency of the lathe chuck
- **Universal clamping**
  Whether for O.D. or I.D clamping, for machining of raw or finished parts
- **High process reliability**
  The optimized lubrication system and the high efficiency wedge bar system ensure reliable clamping



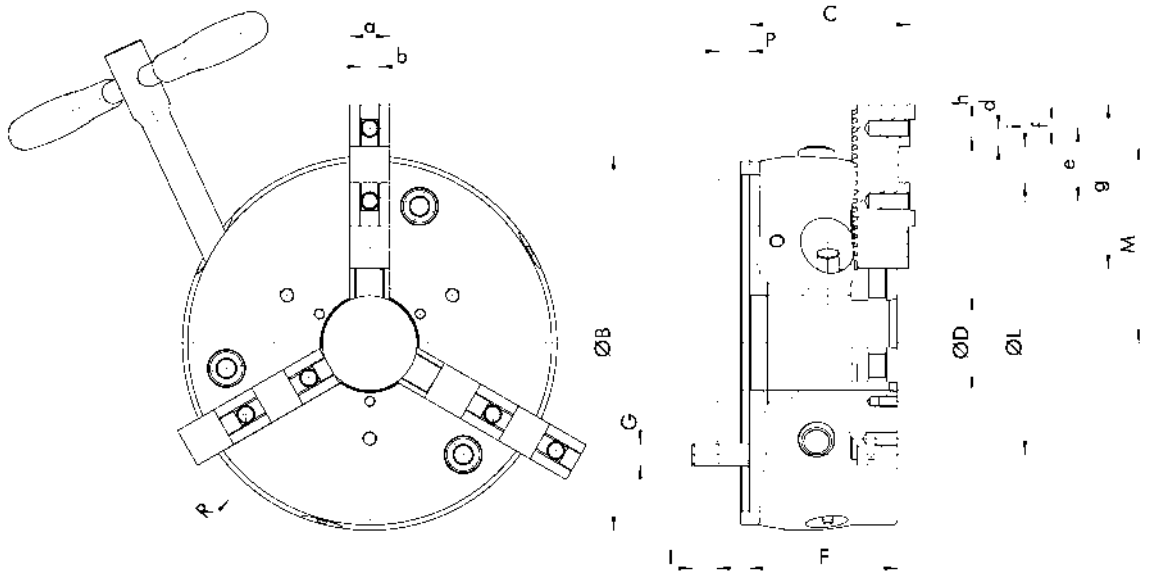
Field of application

ROTA-S plus 2.0

The ROTA-S plus 2.0 manual lathe chuck has been specifically designed for storage solutions and conventional lathes without hydraulic or pneumatic cylinders. The jaw quick-change system makes the chucks suitable for flexible production starting from batch size 1. There is no need to rebore the jaws on the chuck. The base jaw interface is compatible with the predecessors from SCHUNK.



1. **Wedge bar actuation system**
2. **Hardened and extremely rigid base body**
3. **Large through-hole**
4. **Optimized lubrication system**
5. **Mounting thread**
6. **Jaw quick-change system**
7. **Base jaws with angled serration (SFG)**
8. **Locking mechanism**
9. **Plunger pin**



Dimensions

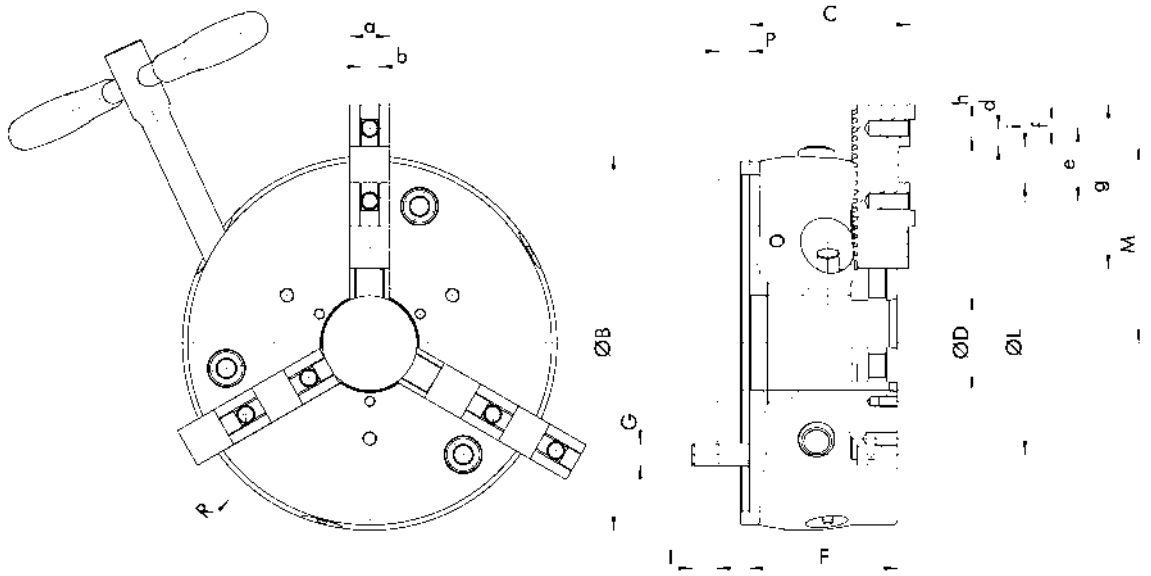
ID	ØB	C	ØD	F	G	I	ØL	M	P	R	a	b	d	e	f	g	h	i
	mm	mm	mm	mm		mm	mm	mm	mm	mm	mm		mm	mm	mm	mm		
0819001	165	69.1	42	63.5	M10	16.5	125	61.8 - 84.9		104.3	20	8 h8	7	32	19	74	M8x1/16	18 H7
0819011	165	69.1	42	63.5			125	61.8 - 84.9	6.4	104.3	20	8 h8	7	32	19	74	M8x1/16	18 H7
0819021	165	69.1	42	63.5			125	61.8 - 84.9	10.4	104.3	20	8 h8	7	32	19	74	M8x1/16	18 H7
0819031	165	69.1	42	63.5			125	61.8 - 84.9	16.4	104.3	20	8 h8	7	32	19	74	M8x1/16	18 H7
0819041	165	69.1	42	63.5			125	61.8 - 84.9	16.4	104.3	20	8 h8	7	32	19	74	M8x1/16	18 H7
0819051	165	69.1	42	63.5			125	61.8 - 84.9	18.4	104.3	20	8 h8	7	32	19	74	M8x1/16	18 H7
0819061	165	69.1	42	63.5			125	61.8 - 84.9	34.4	104.3	20	8 h8	7	32	19	74	M8x1/16	18 H7
0819071	165	69.1	42	63.5			125	61.8 - 84.9	12.4	104.3	20	8 h8	7	32	19	74	M8x1/16	18 H7
0819081	165	69.1	42	63.5			125	61.8 - 84.9	14.4	104.3	20	8 h8	7	32	19	74	M8x1/16	18 H7
0819002	205.8	88.1	52	81.3	M12	16.7	160	74.4 - 107.8		131.6	22	10 h8	10	40	23	90	M8x1/16	20 H7
0819012	205.8	88.1	52	81.3			160	74.4 - 107.8	5.2	131.6	22	10 h8	10	40	23	90	M8x1/16	20 H7
0819022	205.8	88.1	52	81.3			160	74.4 - 107.8	7.2	131.6	22	10 h8	10	40	23	90	M8x1/16	20 H7
0819032	205.8	88.1	52	81.3			160	74.4 - 107.8	9.2	131.6	22	10 h8	10	40	23	90	M8x1/16	20 H7
0819072	205.8	88.1	52	81.3			160	74.4 - 107.8	18.2	131.6	22	10 h8	10	40	23	90	M8x1/16	20 H7
0819082	205.8	88.1	52	81.3			160	74.4 - 107.8	11.2	131.6	22	10 h8	10	40	23	90	M8x1/16	20 H7
0819042	205.8	88.1	52	81.3			160	74.4 - 107.8	20.2	131.6	22	10 h8	10	40	23	90	M8x1/16	20 H7
0819092	205.8	88.1	52	81.3			160	74.4 - 107.8	12.2	131.6	22	10 h8	10	40	23	90	M8x1/16	20 H7
0819052	205.8	88.1	52	81.3			160	74.4 - 107.8	11.2	131.6	22	10 h8	10	40	23	90	M8x1/16	20 H7
0819091	205.8	88.1	52	81.3			160	74.4 - 107.8	15.2	131.6	22	10 h8	10	40	23	90	M8x1/16	20 H7
0819062	205.8	88.1	52	81.3			160	74.4 - 107.8	13.2	131.6	22	10 h8	10	40	23	90	M8x1/16	20 H7
0819003	256	99.1	62	92	M16	20	200	93.7 - 134		161.6	26	12 h8	10	40	26	110	M12x1.5/23	20H6
0819013	256	99.1	62	92			200	93.7 - 134	7.9	161.6	26	12 h8	10	40	26	110	M12x1.5/23	20H6
0819023	256	99.1	62	92			200	93.7 - 134	8.9	161.6	26	12 h8	10	40	26	110	M12x1.5/23	20H6
0819033	256	99.1	62	92			200	93.7 - 134	12.9	161.6	26	12 h8	10	40	26	110	M12x1.5/23	20H6
0819043	256	99.1	62	92			200	93.7 - 134	12.9	161.6	26	12 h8	10	40	26	110	M12x1.5/23	20H6
0819053	256	99.1	62	92			200	93.7 - 134	17.9	161.6	26	12 h8	10	40	26	110	M12x1.5/23	20H6
0819063	256	99.1	62	92			200	93.7 - 134	22.9	161.6	26	12 h8	10	40	26	110	M12x1.5/23	20H6
0819073	256	99.1	62	92			200	93.7 - 134	10.9	161.6	26	12 h8	10	40	26	110	M12x1.5/23	20H6
0819083	256	99.1	62	92			200	93.7 - 134	12.9	161.6	26	12 h8	10	40	26	110	M12x1.5/23	20H6
0819093	256	99.1	62	92			200	93.7 - 134	20.9	161.6	26	12 h8	10	40	26	110	M12x1.5/23	20H6
0819004	323	118.7	92	111	M20	35	250	106.4 - 163		200.7	32	12 h8	14	54	30	125	M12x1.5/25	26 H7

ID	ØB	C	ØD	F	G	I	ØL	M	P	R	a	b	d	e	f	g	h	i
	mm	mm	mm	mm		mm	mm	mm	mm	mm	mm		mm	mm	mm	mm		
0819014	323	118.7	92	111			250	106.4 – 163	10.3	200.7	32	12 h8	14	54	30	125	M12x1.5/25	26 H7
0819024	323	118.7	92	111			250	106.4 – 163	12.3	200.7	32	12 h8	14	54	30	125	M12x1.5/25	26 H7
0819034	323	118.7	92	111			250	106.4 – 163	15.3	200.7	32	12 h8	14	54	30	125	M12x1.5/25	26 H7
0819044	323	118.7	92	111			250	106.4 – 163	15.3	200.7	32	12 h8	14	54	30	125	M12x1.5/25	26 H7
0819054	323	118.7	92	111			250	106.4 – 163	20.3	200.7	32	12 h8	14	54	30	125	M12x1.5/25	26 H7
0819064	323	118.7	92	111			250	106.4 – 163	25.3	200.7	32	12 h8	14	54	30	125	M12x1.5/25	26 H7
0819074	323	118.7	92	111			250	106.4 – 163	17.3	200.7	32	12 h8	14	54	30	125	M12x1.5/25	26 H7
0819084	323	118.7	92	111			250	106.4 – 163	17.3	200.7	32	12 h8	14	54	30	125	M12x1.5/25	26 H7
0819094	323	118.7	92	111			250	106.4 – 163	27.3	200.7	32	12 h8	14	54	30	125	M12x1.5/25	26 H7

Technical data

Product name	Machine interface	ID Standard	ID Special Offer Package 1	ID Special Offer Package 2	Max. rotational speed	Max. clamping force	Max. torque	Stroke/ jaw	Tooth pitch	Weight
					RPM	kN	Nm	mm	mm	kg
ROTA-S plus 2.0 160-42	Z145	0819001	0819201	0819101	5400	65	80	6.5	4.8	7.9
ROTA-S plus 2.0 160-42	ISO 702-3 Nr. 4	0819011	0819211	0819111	5400	65	80	6.5	4.8	9.3
ROTA-S plus 2.0 160-42	ISO 702-3 Nr. 5	0819021	0819221	0819121	5400	65	80	6.5	4.8	9.6
ROTA-S plus 2.0 160-42	ISO 702-3 Nr. 6	0819031	0819231	0819131	5400	65	80	6.5	4.8	10.4
ROTA-S plus 2.0 160-42	ISO 702-2 Nr. 4	0819041	0819241	0819141	5400	65	80	6.5	4.8	10.3
ROTA-S plus 2.0 160-42	ISO 702-2 Nr. 5	0819051	0819251	0819151	5400	65	80	6.5	4.8	10.6
ROTA-S plus 2.0 160-42	ISO 702-2 Nr. 6	0819061	0819261	0819161	5400	65	80	6.5	4.8	14.4
ROTA-S plus 2.0 160-42	ISO 702-1 Nr. 4	0819071	0819271	0819171	5400	65	80	6.5	4.8	9.8
ROTA-S plus 2.0 160-42	ISO 702-1 Nr. 5	0819081	0819281	0819181	5400	65	80	6.5	4.8	9.8
ROTA-S plus 2.0 200-52	Z185	0819002	0819202	0819102	4800	100	120	7	4.8	16.2
ROTA-S plus 2.0 200-52	ISO 702-3 Nr. 4	0819012	0819212	0819112	4800	100	120	7	4.8	18.4
ROTA-S plus 2.0 200-52	ISO 702-3 Nr. 5	0819022	0819222	0819122	4800	100	120	7	4.8	18.6
ROTA-S plus 2.0 200-52	ISO 702-3 Nr. 6	0819032	0819232	0819132	4800	100	120	7	4.8	18.6
ROTA-S plus 2.0 200-52	ISO 702-2 Nr. 6	0819072	0819272	0819172	4800	100	120	7	4.8	20.6
ROTA-S plus 2.0 200-52	ISO 702-1 Nr. 4	0819082	0819282	0819182	4800	100	120	7	4.8	19.3
ROTA-S plus 2.0 200-52	ISO 702-3 Nr. 8	0819042	0819242	0819142	4800	100	120	7	4.8	22
ROTA-S plus 2.0 200-52	ISO 702-1 Nr. 5	0819092	0819292	0819192	4800	100	120	7	4.8	19.3
ROTA-S plus 2.0 200-52	ISO 702-2 Nr. 4	0819052	0819252	0819152	4800	100	120	7	4.8	19.4
ROTA-S plus 2.0 200-52	ISO 702-1 Nr. 6	0819091	0819291	0819191	4800	100	120	7	4.8	19.5
ROTA-S plus 2.0 200-52	ISO 702-2 Nr. 5	0819062	0819262	0819162	4800	100	120	7	4.8	19.8
ROTA-S plus 2.0 250-62	Z235	0819003	0819203	0819103	4200	160	210	7.7	6	28.8
ROTA-S plus 2.0 250-62	ISO 702-3 Nr. 5	0819013	0819213	0819113	4200	160	210	7.7	6	33.2
ROTA-S plus 2.0 250-62	ISO 702-3 Nr. 6	0819023	0819223	0819123	4200	160	210	7.7	6	33.2
ROTA-S plus 2.0 250-62	ISO 702-3 Nr. 8	0819033	0819233	0819133	4200	160	210	7.7	6	33.9
ROTA-S plus 2.0 250-62	ISO 702-2 Nr. 5	0819043	0819243	0819143	4200	160	210	7.7	6	34.8
ROTA-S plus 2.0 250-62	ISO 702-2 Nr. 6	0819053	0819253	0819153	4200	160	210	7.7	6	36.2
ROTA-S plus 2.0 250-62	ISO 702-2 No. 8	0819063	0819263	0819163	4200	160	210	7.7	6	37
ROTA-S plus 2.0 250-62	ISO 702-1 Nr. 5	0819073	0819273	0819173	4200	160	210	7.7	6	33.8
ROTA-S plus 2.0 250-62	ISO 702-1 Nr. 6	0819083	0819283	0819183	4200	160	210	7.7	6	34
ROTA-S plus 2.0 250-62	ISO 702-1 Nr. 8	0819093	0819293	0819193	4200	160	210	7.7	6	35.7
ROTA-S plus 2.0 315-92	Z300	0819004	0819204	0819104	3400	180	220	9.8	7	54.2
ROTA-S plus 2.0 315-92	ISO 702-3 Nr. 6	0819014	0819214	0819114	3400	180	220	9.8	7	62.1
ROTA-S plus 2.0 315-92	ISO 702-3 Nr. 8	0819024	0819224	0819124	3400	180	220	9.8	7	62.6
ROTA-S plus 2.0 315-92	ISO 702-3 Nr. 11	0819034	0819234	0819134	3400	180	220	9.8	7	63.3
ROTA-S plus 2.0 315-92	ISO 702-2 Nr. 6	0819044	0819244	0819144	3400	180	220	9.8	7	64.7
ROTA-S plus 2.0 315-92	ISO 702-2 No. 8	0819054	0819254	0819154	3400	180	220	9.8	7	66.7
ROTA-S plus 2.0 315-92	ISO 702-2 Nr. 11	0819064	0819264	0819164	3400	180	220	9.8	7	67.5
ROTA-S plus 2.0 315-92	ISO 702-1 Nr. 6	0819074	0819274	0819174	3400	180	220	9.8	7	65.6
ROTA-S plus 2.0 315-92	ISO 702-1 Nr. 8	0819084	0819284	0819184	3400	180	220	9.8	7	64.8
ROTA-S plus 2.0 315-92	ISO 702-1 Nr. 11	0819094	0819294	0819194	3400	180	220	9.8	7	67.6

ⓘ Enlargement of the through-hole and 2-jaw variant available upon request.



Dimensions

ID	ØB	C	ØD	F	G	I	ØL	M	P	R	a	b	d	e	f	g	h	i
	mm	mm	mm	mm		mm	mm	mm	mm	mm	mm		mm	mm	mm	mm		
0814240	408	129	102	118	M24	34	315	139 - 210.2		254.8	45	18 h8	15	60	35	160	M16x1.5/30	30 H7
0814241	408	129	102	118			315	139 - 210.2		254.8	45	18 h8	15	60	35	160	M16x1.5/30	30 H7
0814242	408	129	102	118			315	139 - 210.2		254.8	45	18 h8	15	60	35	160	M16x1.5/30	30 H7
0814243	408	129	102	118			315	139 - 210.2		254.8	45	18 h8	15	60	35	160	M16x1.5/30	30 H7
0814244	408	129	102	118			315	139 - 210.2		254.8	45	18 h8	15	60	35	160	M16x1.5/30	30 H7
0814245	408	129	102	118			315	139 - 210.2		254.8	45	18 h8	15	60	35	160	M16x1.5/30	30 H7
0814246	408	129	102	118			315	139 - 210.2		254.8	45	18 h8	15	60	35	160	M16x1.5/30	30 H7
0814249	408	129	102	118			315	139 - 210.2	20	254.8	45	18 h8	15	60	35	160	M16x1.5/30	30 H7
0814250	507	130	162	119	M24	23	400	144.8 - 252.9		297.3	45	18 h8	15	60	35	160	M16x1.5/30	30 H7
0814251	507	130	162	119			400	144.8 - 252.9		297.3	45	18 h8	15	60	35	160	M16x1.5/30	30 H7
0814252	507	130	162	119			400	144.8 - 252.9		297.3	45	18 h8	15	60	35	160	M16x1.5/30	30 H7
0814253	507	130	162	119			400	144.8 - 252.9		297.3	45	18 h8	15	60	35	160	M16x1.5/30	30 H7
0814254	507	130	162	119			400	144.8 - 252.9		297.3	45	18 h8	15	60	35	160	M16x1.5/30	30 H7
0814255	507	130	162	119			400	144.8 - 252.9		297.3	45	18 h8	15	60	35	160	M16x1.5/30	30 H7
0814256	507	130	162	119			400	144.8 - 252.9		297.3	45	18 h8	15	60	35	160	M16x1.5/30	30 H7
0814257	507	130	162	119			400	144.8 - 252.9		297.3	45	18 h8	15	60	35	160	M16x1.5/30	30 H7
0814258	507	130	162	119			400	144.8 - 252.9		297.3	45	18 h8	15	60	35	160	M16x1.5/30	30 H7
0814259	507	130	162	119			400	144.8 - 252.9	19	297.3	45	18 h8	15	60	35	160	M16x1.5/30	30 H7
0814260	639	155	252	143	M24	38	520	197.8 - 331		385	35	24 h8	21	82	52	230	M20/32	30 H7
0814261	639	155	252	143			520	197.8 - 331		385	35	24 h8	21	82	52	230	M20/32	30 H7
0814262	639	155	252	143			520	197.8 - 331		385	35	24 h8	21	82	52	230	M20/32	30 H7
0814263	639	155	252	143			520	197.8 - 331		385	35	24 h8	21	82	52	230	M20/32	30 H7
0814264	639	155	252	143			520	197.8 - 331		385	35	24 h8	21	82	52	230	M20/32	30 H7
0814265	639	155	252	143			520	197.8 - 331		385	35	24 h8	21	82	52	230	M20/32	30 H7
0814266	639	155	252	143			520	197.8 - 331		385	35	24 h8	21	82	52	230	M20/32	30 H7
0814280	800	155	252	143	M24	38	520	231.8 - 382.5		435.7	65	24 h8	21	82	52	264	M20/32	40 H7
0814284	800	155	252	143			520	231.8 - 382.5		435.7	65	24 h8	21	82	52	264	M20/32	40 H7
0814290	1000	170	402	148	M24	38	850	291.2 - 519.2		572.3	65	24 h8	21	82	52	314	M20/32	40 H7

Technical data

Product name	Machine interface	ID Standard	ID Special Offer Package 1	ID Special Offer Package 2	Max. rotational speed	Max. clamping force	Max. torque	Stroke/ jaw	Tooth pitch	Weight
					RPM	kN	Nm	mm	mm	kg
ROTA-S plus 400-102	ISO 702-4 Nr. 15 (Z380)	0814240	0814340	0814640	2200	230	280	12	8.5	99
ROTA-S plus 400-102	ISO 702-3 Nr. 8	0814241	0814341	0814641	2200	230	280	12	8.5	113
ROTA-S plus 400-102	ISO 702-3 Nr. 11	0814242	0814342	0814642	2200	230	280	12	8.5	110
ROTA-S plus 400-102	ISO 702-2 No. 8	0814243	0814343	0814643	2200	230	280	12	8.5	117
ROTA-S plus 400-102	ISO 702-2 Nr. 11	0814244	0814344	0814644	2200	230	280	12	8.5	118
ROTA-S plus 400-102	ISO 702-1 Nr. 8	0814245	0814345	0814645	2200	230	280	12	8.5	108
ROTA-S plus 400-102	ISO 702-1 Nr. 11	0814246	0814346	0814646	2200	230	280	12	8.5	107
ROTA-S plus 400-102	ISO 702-1 Nr. 15	0814249	0814349	0814649	2200	230	280	12	8.5	105
ROTA-S plus 500-162	Z460	0814250	0814350	0814650	1500	270	320	12	8.5	152
ROTA-S plus 500-162	ISO 702-3 Nr. 8	0814251	0814351	0814651	1500	270	320	12	8.5	175
ROTA-S plus 500-162	ISO 702-3 Nr. 11	0814252	0814352	0814652	1500	270	320	12	8.5	172
ROTA-S plus 500-162	ISO 702-3 Nr. 15	0814253	0814353	0814653	1500	270	320	12	8.5	174
ROTA-S plus 500-162	ISO 702-2 No. 8	0814254	0814354	0814654	1500	270	320	12	8.5	180
ROTA-S plus 500-162	ISO 702-2 Nr. 11	0814255	0814355	0814655	1500	270	320	12	8.5	182
ROTA-S plus 500-162	ISO 702-2 Nr. 15	0814256	0814356	0814656	1500	270	320	12	8.5	200
ROTA-S plus 500-162	ISO 702-1 Nr. 8	0814257	0814357	0814657	1500	270	320	12	8.5	192
ROTA-S plus 500-162	ISO 702-1 Nr. 11	0814258	0814358	0814658	1500	270	320	12	8.5	171
ROTA-S plus 500-162	ISO 702-1 Nr. 15	0814259	0814359	0814659	1500	270	320	12	8.5	183
ROTA-S plus 630-252	Z580	0814260		0814660	1000	270	350	15	8.5	256
ROTA-S plus 630-252	ISO 702-3 Nr. 11	0814261		0814661	1000	270	350	15	8.5	256
ROTA-S plus 630-252	ISO 702-3 Nr. 15	0814262		0814662	1000	270	350	15	8.5	256
ROTA-S plus 630-252	ISO 702-2 Nr. 11	0814263		0814663	1000	270	350	15	8.5	256
ROTA-S plus 630-252	ISO 702-2 Nr. 15	0814264		0814664	1000	270	350	15	8.5	256
ROTA-S plus 630-252	ISO 702-1 Nr. 11	0814265		0814665	1000	270	350	15	8.5	256
ROTA-S plus 630-252	ISO 702-1 Nr. 15	0814266		0814666	1000	270	350	15	8.5	256
ROTA-S plus 800-252	Z750	0814280			1000	270	350	15	8.5	465
ROTA-S plus 800-252	ISO 702-1 Nr. 15	0814284			1000	270	350	15	8.5	465
ROTA-S plus 1000-402	Z920	0814290			900	270	350	15	8.5	720

ⓘ Enlargement of the through-hole available upon request.

Special offer packages

Special offer package 1



Scope of delivery

Description	Quantity
Stepped block jaws type STF (ground on the lathe chuck)	1 set
Spanner wrench	1 piece
Mounting screws	1 set

Special offer package 2

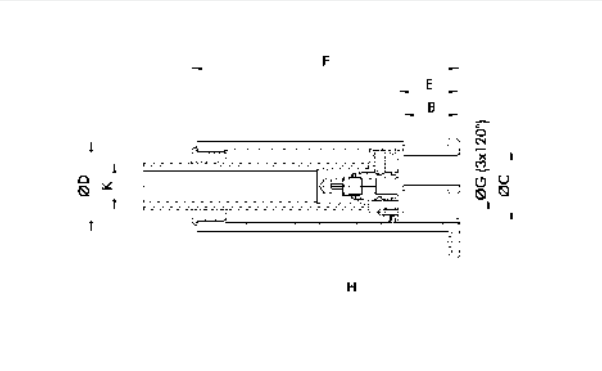


Scope of delivery

Description	Quantity
Base jaws type SFG	1 set
Hard top jaws type SHF (ground on the lathe chuck)	1 set
Spanner wrench	1 piece
Mounting screws	1 set

Center sleeves

Center sleeve with adjustable stop



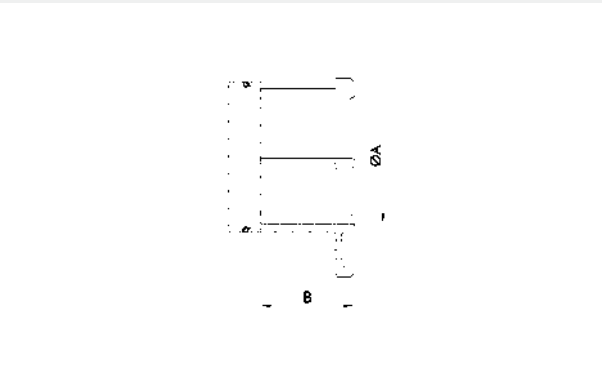


Technical data

Description	ID	Suitable for	B	ØC	ØD	E	F	ØG	H	K	Weight
			mm	mm	mm	mm	mm	mm			kg
SBS-T-S 160	8704853	ROTA-S plus 2.0 160-42	28.8	34	42	28.8 - 88.3	141.5	24	M4x8	M27	0.9
SBS-T-S 200	8704854	ROTA-S plus 2.0 200-52	32.3	42	52	32.3 - 91.1	147.8	30	M4x8	M27	2
SBS-T-S 250	8704855	ROTA-S plus 2.0 250-62	38.3	51	62	38.3 - 80.3	140	35	M6x12	M27	1.9
SBS-T-S 315	8704856	ROTA-S plus 2.0 315-92	44	75	92	44 - 68	147	50	M6x12	M27	4.1

ⓘ Important: Check the spindle/draw tube through-hole
The spindle through-hole must be at least Ø D + 0.5 mm

Center sleeve closed





Technical data

Description	ID	Suitable for	ØA	B	Weight
			mm	mm	kg
SBS-G-S 160	8704845	ROTA-S plus 2.0 160-42	36	28	0.6
SBS-G-S 200	8704846	ROTA-S plus 2.0 200-52	46	32.3	0.3
SBS-G-S 250	8704847	ROTA-S plus 2.0 250-62	56	36.8	0.4
SBS-G-S 315	8704848	ROTA-S plus 2.0 315-92	86	43.5	0.8

Accessories

Clamping force tester

For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Suitable for	Description	ID
ROTA-S plus 2.0 160-42 ROTA-S plus 2.0 200-52 ROTA-S plus 2.0 250-62 ROTA-S plus 2.0 315-92 ROTA-S plus 400-102 ROTA-S plus 500-162 ROTA-S plus 630-252 ROTA-S plus 800-252 ROTA-S plus 1000-402	IFT Set	1404235

Extension set for large chucks

For use as an extension of the IFT measuring head for measuring the jaw clamping force of large chucks of Ø 400 mm and more.



Suitable for	Description	ID
ROTA-S plus 400-102 ROTA-S plus 500-162 ROTA-S plus 630-252 ROTA-S plus 800-252 ROTA-S plus 1000-402	IFT adapter set	1498512

Maintenance kit

Consisting of a grease gun, LINOMAX plus grease cartridge, chip protection, and sealing plug.



Suitable for	Description	ID
ROTA-S plus 2.0 160-42	WTS-S 160	0899014
ROTA-S plus 2.0 200-52	WTS-S 200	0899015
ROTA-S plus 2.0 250-62	WTS-S 250	0899016
ROTA-S plus 2.0 315-92	WTS-S 315	0899017
ROTA-S plus 400-102	WTS-S 400	0899018
ROTA-S plus 500-162	WTS-S 500	0899019
ROTA-S plus 630-252	WTS-S 630	0899020

Torque wrench

Torque wrench for actuation of SCHUNK manual lathe chucks.



Suitable for	Description	ID
ROTA-S plus 2.0 160-42 ROTA-S plus 2.0 200-52	SSH-D-1/2" 40-200	9938065
ROTA-S plus 2.0 250-62 ROTA-S plus 2.0 315-92 ROTA-S plus 400-102	SSH-D-1/2" 60-300	1301281
ROTA-S plus 500-162 ROTA-S plus 630-252 ROTA-S plus 800-252 ROTA-S plus 1000-402	SSH-D-3/4" 80-400	1301023

Hexagon actuation wrench

Spanner wrench for manual actuation of the SCHUNK manual lathe chucks with hexagonal connections.



Suitable for	Description	ID
ROTA-S plus 2.0 160-42 ROTA-S plus 2.0 200-52	SSH-SK SW12-160	1330869
ROTA-S plus 2.0 160-42 ROTA-S plus 2.0 200-52	SSH-SL SW12-260	8704921
ROTA-S plus 2.0 250-62 ROTA-S plus 2.0 315-92	SSH-SK SW16-230	1330894
ROTA-S plus 2.0 250-62 ROTA-S plus 2.0 315-92	SSH-SL SW16-330	8704923

Square actuation wrench

Spanner wrench for manual actuation of the SCHUNK ROTA-S plus and ROTA-G manual lathe chucks.



Suitable for	Description	ID
ROTA-S plus 400-102 ROTA-S plus 500-162	SSH-VK SW19-255	8700131
ROTA-S plus 630-252 ROTA-S plus 800-252 ROTA-S plus 1000-402	SSH-VK SW24-420	8700132

Long square actuation wrench

Spanner wrench for manual actuation of the SCHUNK ROTA-S plus and ROTA-G manual lathe chucks.



Suitable for	Description	ID
ROTA-S plus 400-102 ROTA-S plus 500-162	SSH-VL SW19-420	8705475
ROTA-S plus 630-252 ROTA-S plus 800-252 ROTA-S plus 1000-402	SSH-VL SW24-600	88004486

Wrench with movable cross handle

Spanner wrench with ejector for manual actuation of SCHUNK ROTA-S plus and ROTA-G manual lathe chucks.



Suitable for	Description	ID
ROTA-S plus 400-102 ROTA-S plus 500-162	SSH-VQ SW19-255	88018809
ROTA-S plus 630-252	SSH-VQ SW24-420	88018579

Square connection for torque wrench

Extension for torque wrench for actuation of SCHUNK ROTA-S plus and ROTA-G manual chucks.



Suitable for	Description	ID
ROTA-S plus 400-102 ROTA-S plus 500-162	SAV-I 1/2"-SW19	8702917
ROTA-S plus 630-252 ROTA-S plus 800-252 ROTA-S plus 1000-402	SAV-I 3/4"-SW24	8705087

Consol plate

Standard version for conversion of all ROTA-S plus 2.0 manual lathe chucks for stationary applications. The sizes 400 to 630 are available on request.



Suitable for	Description	ID
ROTA-S plus 2.0 160-42	KSL 160	0814270
ROTA-S plus 2.0 200-52	KSL 200	0814271
ROTA-S plus 2.0 250-62	KSL 250	0814272
ROTA-S plus 2.0 315-92	KSL 315	0814273

Sealing plug

For closing the through-hole on manual lathe chucks ROTA-S plus 2.0, ROTA-S plus and ROTA-G.



Suitable for	Description	ID
ROTA-S plus 2.0 160-42	VST Ø42	8702833
ROTA-S plus 2.0 200-52	VST Ø52	8702867
ROTA-S plus 2.0 250-62	VST Ø62	8702868
ROTA-S plus 2.0 315-92	VST Ø92	8702869
ROTA-S plus 400-102	VST Ø102	8702870
ROTA-S plus 500-162	VST Ø162	8702871
ROTA-S plus 630-252 ROTA-S plus 800-252	VST Ø252	8702872

Chip protection

For better protection against the penetration of chips for the manual lathe chucks ROTA-S plus 2.0, ROTA-S plus and ROTA-G.



Suitable for	Description	ID
ROTA-S plus 2.0 160-42 ROTA-S plus 2.0 200-52	SPS 160/200	9966639
ROTA-S plus 2.0 250-62	SPS 250	9966640
ROTA-S plus 2.0 315-92	SPS 315	9966641
ROTA-S plus 400-102 ROTA-S plus 500-162	SPS 400/500	9966642
ROTA-S plus 630-252	SPS 630	9966607

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.5	Grease gun	9900543

schunk.com/rota-s-flex



Light. Flexible. Efficient.
Manual lathe chuck ROTA-S flex

The ROTA-S flex is an extremely weight-optimized manual lathe chuck with optimal accessibility to the workpiece. The wedge bar system of the lathe chuck enables high efficiency and process-reliable clamping. Furthermore, the lathe chuck features extended guideways and an integrated jaw quick change, which ensure that the lathe chuck can be used for a wide range of applications.

Functions & highlights

- **Convenient jaw quick-change system**
  The jaw quick-change system minimizes set-up times and thus increases the efficiency of the lathe chuck
- **Maximum flexibility due to extended guideways**
  Extremely large clamping range for I.D. and O.D. clamping
- **High jaw change repeat accuracy**
  No reboring of machined jaws necessary



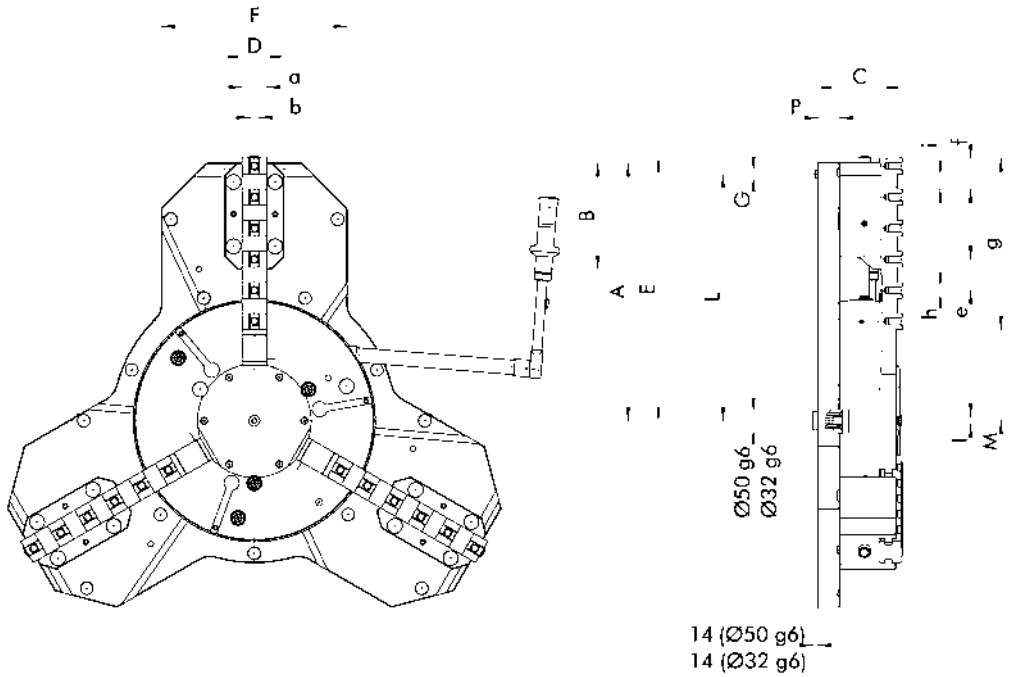
Field of application

ROTA-S flex

The ROTA-S flex was specially developed for mill/turn centers and offers numerous advantages over conventional manual lathe chucks. Thanks to the special focus on lightweight design, the machine dynamics can be optimally utilized and even heavy components can be loaded without permanently pushing the machine to its load limit. The jaw quick-change and the extended guideways offer maximum flexibility and enable economical clamping even in case of small batch sizes.



1. **Wedge bar actuation system**
2. **Hardened and extremely rigid base body**
3. **Optimized lubrication system**
4. **Mounting thread**
5. **Jaw quick-change system**
6. **Base jaws with angled serration (SFG)**
7. **Standard jaw interface**
8. **Exchangeable guideway extension**
9. **Improved design which is insensitive to dirt**



Dimensions

ID	A	B	C	D	E	F	G	I	L	M	P	a	b	e	f	g	h	i
	mm	mm	mm	mm	mm	mm			mm	mm	mm	mm		mm	mm	mm		
0814810	269	129	124	80	231.8 – 277.1	145	14 g6	M20	250	52.8 – 98.1	29.5	22	10 h8	40	40	179	M8x1	20 H7
0814820	350	170	158.7	110	313.7 – 374.1	280	14 g5	M20	325	69.7 – 130.7	33.6	32	12 h8	54	54	244	M12x1.5	26 H7
0814830	475	230	176.9	135	424.5 – 487.9	350	18 g6	M20	440	94.4 – 157.9	41.6	45	18 h8	60	60	330	M16x1.5	30 H7
0814840	600	230	182.8	135	567.6 – 630.4	450	22 g6	M20	550	117.3 – 180.4	46.5	45	18 h8	60	60	450	M16x1.5	30 H7
0814850	680	280	218.8	156	609.6 – 692.8	490	22 g6	M20	650	157.6 – 240.8	57.5	65	24 h8	82	82	452	M20	40 H7

Technical data

Product name	ID	Lathe chuck used	Max. rotational speed	Max. clamping force	Max. torque	Stroke/jaw	Max. rotary table torque	Weight
			RPM	kN	Nm	mm	Nm	kg
ROTA-S flex 550	0814810	ROTA-S plus 2.0 200	1000	100	120	7	2000	65
ROTA-S flex 700	0814820	ROTA-S plus 2.0 315	800	180	220	9.7	2000	170
ROTA-S flex 1000	0814830	ROTA-S plus 400	500	230	280	12	4000	360
ROTA-S flex 1200	0814840	ROTA-S plus 500	500	270	320	12	6300	490
ROTA-S flex 1400	0814850	ROTA-S plus 630	400	270	350	15	8000	830

ⓘ Lathe chuck suitable for a 22.5° star groove table

Accessories

Clamping force tester

For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Suitable for	Description	ID
ROTA-S flex 550		
ROTA-S flex 700		
ROTA-S flex 1000		
ROTA-S flex 1200		
ROTA-S flex 1400	IFT Set	1404235

Extension set for large chucks

For use as an extension of the IFT measuring head for measuring the jaw clamping force of large chucks of Ø 400 mm and more.



Suitable for	Description	ID
ROTA-S flex 550		
ROTA-S flex 700		
ROTA-S flex 1000		
ROTA-S flex 1200		
ROTA-S flex 1400	IFT adapter set	1498512

Torque wrench

Torque wrench for actuation of SCHUNK manual lathe chucks.



Suitable for	Description	ID
ROTA-S flex 550	SSH-D-1/2" 40-200	9938065
ROTA-S flex 700	SSH-D-1/2" 60-300	1301281
ROTA-S flex 1000		
ROTA-S flex 1200		
ROTA-S flex 1400	SSH-D-3/4" 80-400	1301023

Ratchets

Ratchet for fast actuation of SCHUNK manual lathe chucks.



Suitable for	Description	ID
ROTA-S flex 550		
ROTA-S flex 700	SSH-K 1/2"-350	1151118
ROTA-S flex 1000	SSH-K 3/4"-510	9987240
ROTA-S flex 1200		
ROTA-S flex 1400	SSH-K 3/4"-620	9987241

Hexagon spanner wrench adapter with ejector

For use as an attachment for a torque wrench and ratchet for actuating SCHUNK manual lathe chucks with hexagonal connection.



Suitable for	Description	ID
ROTA-S flex 550	SAS-I 1/2"-SW12	8705487
ROTA-S flex 700	SAS-I 1/2"-SW16	8705471

Square spanner wrench adapter with ejector

For use as an attachment for a torque wrench and ratchet for actuating SCHUNK manual lathe chucks with hexagonal connection.



Suitable for	Description	ID
ROTA-S flex 1000		
ROTA-S flex 1200	SAV-I 3/4"-SW19	8705470
ROTA-S flex 1400	SAV-I 3/4"-SW24	8705476

Centering pins

For precise alignment of SCHUNK ROTA-S flex manual lathe chucks on the machine table.



Suitable for	Description	ID
ROTA-S flex 550		
ROTA-S flex 700		
ROTA-S flex 1000		
ROTA-S flex 1200		
ROTA-S flex 1400	ZTB Ø32	0814847
ROTA-S flex 550		
ROTA-S flex 700		
ROTA-S flex 1000		
ROTA-S flex 1200		
ROTA-S flex 1400	ZTB Ø50	0814827

Cover plate

For covering up the fastening screws of the chuck body as well as the guideway extensions.



Suitable for	Description	ID
ROTA-S flex 550		
ROTA-S flex 700	VSD M12	40009901
ROTA-S flex 1000	VSD M16	40009903
ROTA-S flex 1200		
ROTA-S flex 1400	VSD M20	40009907

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

schunk.com/rota-ml-flex

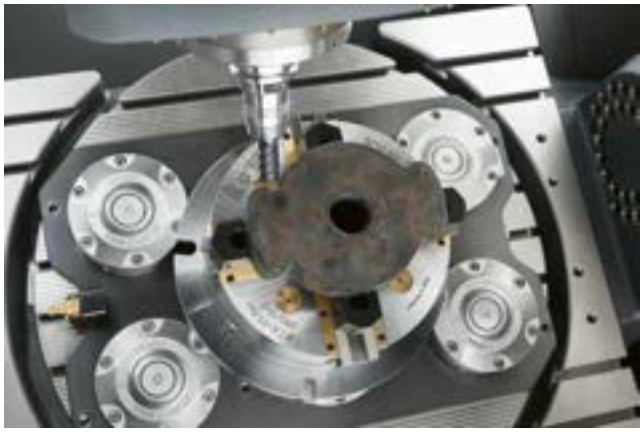


All-rounder. Flexible. Weight-reduced. Manual lathe chuck ROTA-ML flex 2+2

The ROTA-ML flex 2+2 from SCHUNK is an extremely flexible 4-jaw manual lathe chuck that combines the advantages of 2-, 3- and 4-jaw chucks on lathes, as well as vises on mill/turn machines. The patented drive concept ensures centric clamping without overdetermination. This enables precise clamping of round, cubic and geometrically unshaped workpieces.

Functions & highlights

- **Compensation mechanism**
  Enables deformation-sensitive clamping even of thin-walled workpieces
- **Patented drive concept**
  Independent installation of the jaw pairs with subsequent centrically compensating workpiece clamping
- **Flexible clamping system**
  For clamping round, cubic, or geometrically bulky workpieces



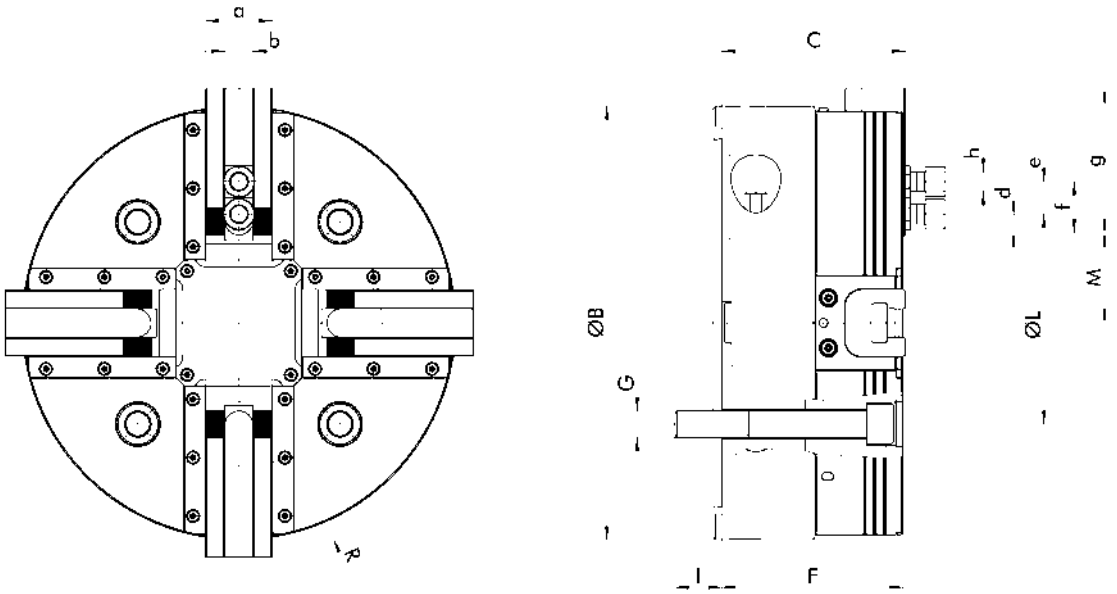
Field of application

ROTA-ML flex 2+2

Clamping of round, cubic, and geometrically unshaped parts – no problem for the ROTA-ML flex 2+2. Thanks to the patented drive concept with coupled jaw pairs, any workpiece geometry can be clamped centrically and without overdetermination. The chucks are used in particular in storage solutions and on mill/turn machines, but can also be used on lathes. The special sealing also allows cast and forged parts to be machined without hesitation.



1. **Wedge bar actuation system**
2. **Patented drive concept**
3. **Hardened and extremely rigid base body**
4. **Central lubrication system with grease reservoir**
5. **Sealing of the lathe chuck**
6. **Long jaw guidance**
7. **Standard jaw interface**
8. **Actuation via hexagon connection**
9. **Indicator pin**



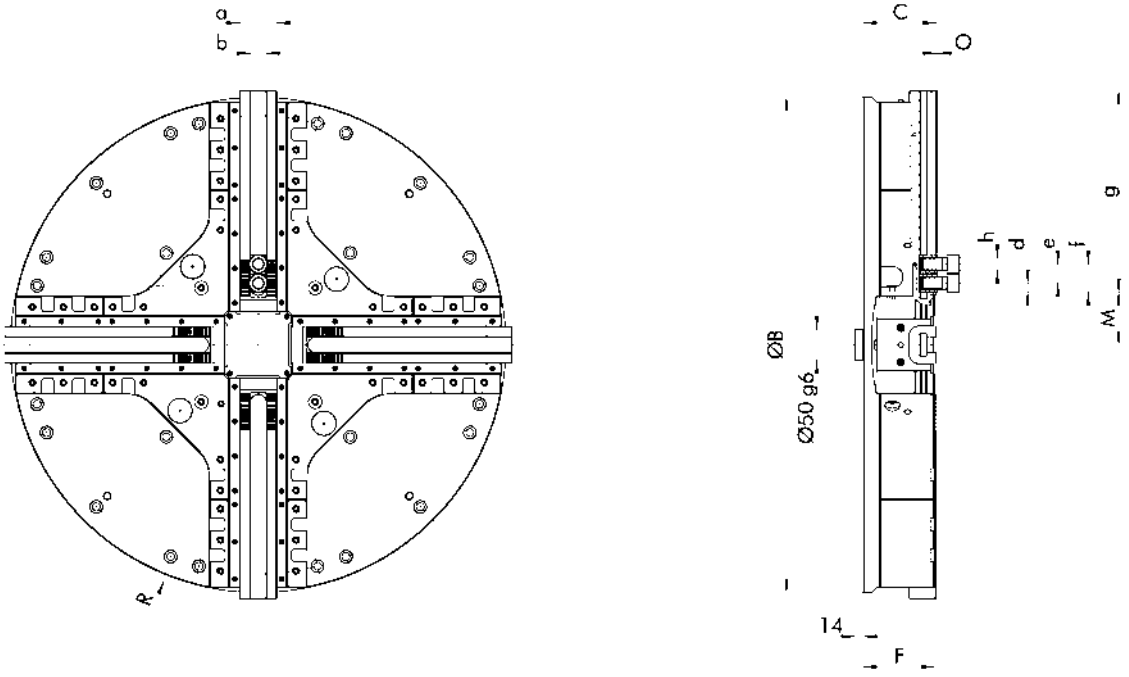
Dimensions

ID	ØB	C	F	G	I	ØL	M	ØR	a	b	d	e	f	g	h
	mm	mm	mm		mm	mm	mm	mm	mm		mm	mm	mm	mm	
1389670	260	110.1	109	M16	28	171.4	44.6 - 54	283.4	40	17 H7	11.2	19.5	76.5	86.2	M12
1400911	315	110.1	108.5	M16	28	171.4	44.6 - 54.1	387	40	17 H7	11.2	19.5	103.5	113.2	M12
1407684	400	139.6	138	M24	31	330.2	55.2 - 69.7	432.6	50	21 H7	16.7	25	133.2	145.2	M16

Technical data

Product name	Spindle type	Spindle size	ID	Serration	Max. rotational speed	Max. clamping force	Max. torque	Stroke/jaw	Compensation stroke/jaw	Weight
					RPM	kN	Nm	mm	mm	kg
ROTA-M flex 2+2 260	ISO 702-4	Nr. 8 (Z220)	1389670	1/16" x 90°	2700	100	120	9.5	5.1	41
ROTA-M flex 2+2 315	ISO 702-4	Nr. 8 (Z220)	1400911	1/16" x 90°	2200	100	120	9.5	5.1	63
ROTA-M flex 2+2 400	ISO 702-4	Nr. 15 (Z380)	1407684	1/16" x 90°	1500	150	200	14.5	7.9	125

ⓘ **Stationary applications:**
For stationary use, the ROTA-M flex 2+2 can be retrofitted with standardized console and adapter plates (see accessories).
Application 2-jaw clamping:
When using the 2-jaw clamping, a locking cover is additionally required to block one pair of jaws This is included in the scope of delivery (see accessories).
Clamping force, 2-jaw clamping:
When changing to 2-jaw clamping, the maximum clamping force is halved at the same torque.



Dimensions

ID	ØB	C	F	M	O	ØR	a	b	d	e	f	g	h
	mm	mm	mm	mm	mm	mm	mm		mm	mm	mm	mm	
1583348	524	114.4	115	68 - 85.3	3.3	539	60	25.5 H7	18.8	31	173	186.9	M20
1570299	630	114.4	115	68 - 85.3	3.3	648	60	25.5 H7	18.8	31	227.1	241.6	M20
1573345	800	117.9	115	68 - 85.3	2.3	822	60	25.5 H7	14.3	31	310.6	324.5	M20
1573346	1000	127.9	125	68 - 85.3	2.3	1025	60	25.5 H7	14.3	31	412.1	426	M20
1573347	1200	127.9	125	68 - 85.3	2.3	1227	60	25.5 H7	14.3	31	513.1	527	M20

Technical data

Product name	ID	Serration	Max. rotational speed	Max. clamping force	Max. torque	Stroke/jaw	Compensation stroke/jaw	Weight
			RPM	kN	Nm	mm	mm	kg
ROTA-ML flex 2+2 500	1583348	3/32" x 90°	1500	180	210	17.3	12	130
ROTA-ML flex 2+2 630	1570299	3/32" x 90°	1300	180	210	17.3	12	167
ROTA-ML flex 2+2 800	1573345	Modul 2	1100	180	210	17.3	12	244
ROTA-ML flex 2+2 1000	1573346	Modul 2	850	180	210	17.3	12	396
ROTA-ML flex 2+2 1200	1573347	Modul 2	750	180	210	17.3	12	530

ⓘ Lathe chucks suitable for a 22.5°, 30° or 45° star groove table

Application 2-jaw clamping:

When using the 2-jaw clamping, a locking cover is additionally required to block one pair of jaws This is included in the scope of delivery (see accessories).

Clamping force, 2-jaw clamping:

When changing to 2-jaw clamping, the maximum clamping force is halved at the same torque.

Console jaws

Console jaw movable
With 3/32" x 90° or module 2 serration.
For suitable top jaws, see "Interface" column.



Suitable for	Description	Interface	ID
ROTA-ML flex 2+2 500			
ROTA-ML flex 2+2 630	SKB-SV90° 100	W-100-1	1572700
ROTA-ML flex 2+2 800			
ROTA-ML flex 2+2 1000			
ROTA-ML flex 2+2 1200	SKB-M2 100	W-100-1	1572701

Console jaw fixed
Can be positioned in the chuck face via T-slots.
For suitable top jaws, see "Interface" column.



Suitable for	Description	Interface	ID
ROTA-ML flex 2+2 500			
ROTA-ML flex 2+2 630			
ROTA-ML flex 2+2 800			
ROTA-ML flex 2+2 1000			
ROTA-ML flex 2+2 1200	SKB-F 100	W-100-1	1572658

Accessories

Clamping force tester
For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Suitable for	Description	ID
ROTA-M flex 2+2 260		
ROTA-M flex 2+2 315		
ROTA-M flex 2+2 400		
ROTA-ML flex 2+2 500		
ROTA-ML flex 2+2 630		
ROTA-ML flex 2+2 800		
ROTA-ML flex 2+2 1000		
ROTA-ML flex 2+2 1200	IFT Set	1404235

Measuring head adapter for 4-jaw clamping
For use as an extension of the IFT measuring head for measuring the jaw clamping force of 4-jaw chucks.



Suitable for	Description	ID
ROTA-M flex 2+2 260		
ROTA-M flex 2+2 315		
ROTA-M flex 2+2 400		
ROTA-ML flex 2+2 500		
ROTA-ML flex 2+2 630		
ROTA-ML flex 2+2 800		
ROTA-ML flex 2+2 1000		
ROTA-ML flex 2+2 1200	IFT MA4	1452686

Extension set for large chucks
For use as an extension of the IFT measuring head for measuring the jaw clamping force of large chucks of Ø 400 mm and more.



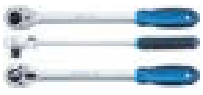
Suitable for	Description	ID
ROTA-M flex 2+2 400		
ROTA-ML flex 2+2 500		
ROTA-ML flex 2+2 630		
ROTA-ML flex 2+2 800		
ROTA-ML flex 2+2 1000		
ROTA-ML flex 2+2 1200	IFT adapter set	1498512

Torque wrench
Torque wrench for actuation of SCHUNK manual lathe chucks.



Suitable for	Description	ID
ROTA-M flex 2+2 260		
ROTA-M flex 2+2 315		
ROTA-M flex 2+2 400	SSH-D-1/2" 40-200	9938065
ROTA-ML flex 2+2 500		
ROTA-ML flex 2+2 630		
ROTA-ML flex 2+2 800		
ROTA-ML flex 2+2 1000		
ROTA-ML flex 2+2 1200	SSH-D-1/2" 60-300	1301281

Ratchets
Ratchet for fast actuation of SCHUNK manual lathe chucks.



Suitable for	Description	ID
ROTA-M flex 2+2 260		
ROTA-M flex 2+2 315		
ROTA-M flex 2+2 400		
ROTA-ML flex 2+2 500		
ROTA-ML flex 2+2 630		
ROTA-ML flex 2+2 800		
ROTA-ML flex 2+2 1000		
ROTA-ML flex 2+2 1200	SSH-K 1/2"-350	1151118

Hexagon actuation wrench

Spanner wrench for manual actuation of the SCHUNK manual lathe chucks with hexagonal connections.



Suitable for	Description	ID
ROTA-M flex 2+2 260 ROTA-M flex 2+2 315	SSH-SK SW12-160	1330869
ROTA-M flex 2+2 260 ROTA-M flex 2+2 315	SSH-SL SW12-260	8704921
ROTA-M flex 2+2 400	SSH-SK SW16-230	1330894
ROTA-M flex 2+2 400	SSH-SL SW16-330	8704923

Hexagon spanner wrench adapter with ejector

For use as an attachment for a torque wrench and ratchet for actuating SCHUNK manual lathe chucks with hexagonal connection.



Suitable for	Description	ID
ROTA-M flex 2+2 260 ROTA-M flex 2+2 315	SAS-I 1/2"-SW12	8705487
ROTA-M flex 2+2 400 ROTA-ML flex 2+2 500 ROTA-ML flex 2+2 630 ROTA-ML flex 2+2 800 ROTA-ML flex 2+2 1000 ROTA-ML flex 2+2 1200	SAS-I 1/2"-SW16	8705471

Consol plate

For mounting the ROTA-M flex 2+2 manual lathe chucks on T-slot tables. The console plate must still be adapted to the respective machine table.



Suitable for	Description	ID
ROTA-M flex 2+2 260	KSL flex 260	1452440
ROTA-M flex 2+2 315	KSL flex 315	1452441
ROTA-M flex 2+2 400	KSL flex 400	1452442

Adapter plate

As a standard size for sizes Ø 260 to Ø 400 mm.



Suitable for VERO-S	Description	ID
NSL3 400	ADP-NSL3 400	1454646
NSL3 turn 450-3	ADP-NSL3 turn 450	1454659
NSL3 turn 450-3-Z	ADP-NSL3 turn 450-Z	1454670
NSL3 turn 570-5	ADP-NSL3 turn 570	1454668
NSL3 turn 570-5-Z	ADP-NSL3 turn 570-Z	1454671

Locking cover

For locking of a jaw pair to realize a two jaw clamping.



Suitable for	Description	ID
ROTA-M flex 2+2 260 ROTA-M flex 2+2 315	SLC 260-315	1471984
ROTA-M flex 2+2 400	SLC 400	1471987
ROTA-ML flex 2+2 500 ROTA-ML flex 2+2 630 ROTA-ML flex 2+2 800 ROTA-ML flex 2+2 1000 ROTA-ML flex 2+2 1200	SLC 500-1200	1471989

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

schunk.com/spk



Individual. Durable. Convenient. Jaw boxes SPK

The jaw boxes SPK from SCHUNK offer a robust solution for face plates with parallel running T-slots. Their fully enclosed jaw drive ensures permanent protection against dust, chips and cooling lubricants resulting in low wear and a long service life. The base jaws of the jaw box are available with either tongue and groove or fine serrations allowing a high degree of flexibility in the area of top jaws.

Functions & highlights

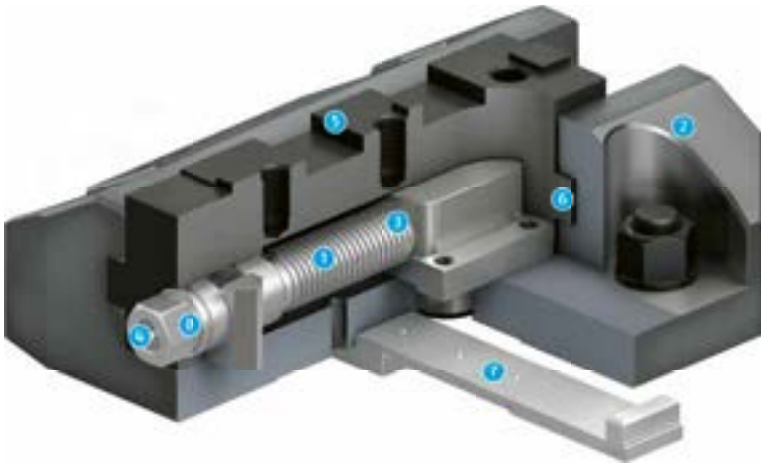
- **Improved design which is dirt-resistant**
  The completely enclosed jaw drive permanently ensures optimal protection
- **Individual adjustment to suit the face plate of your machine**
  Thanks to the variable gauge clearance, the jaw boxes can be adapted to your face plate
- **High flexibility in the range of top jaws**
  Base jaws with tongue and groove or fine serration enable a broad selection of top jaws



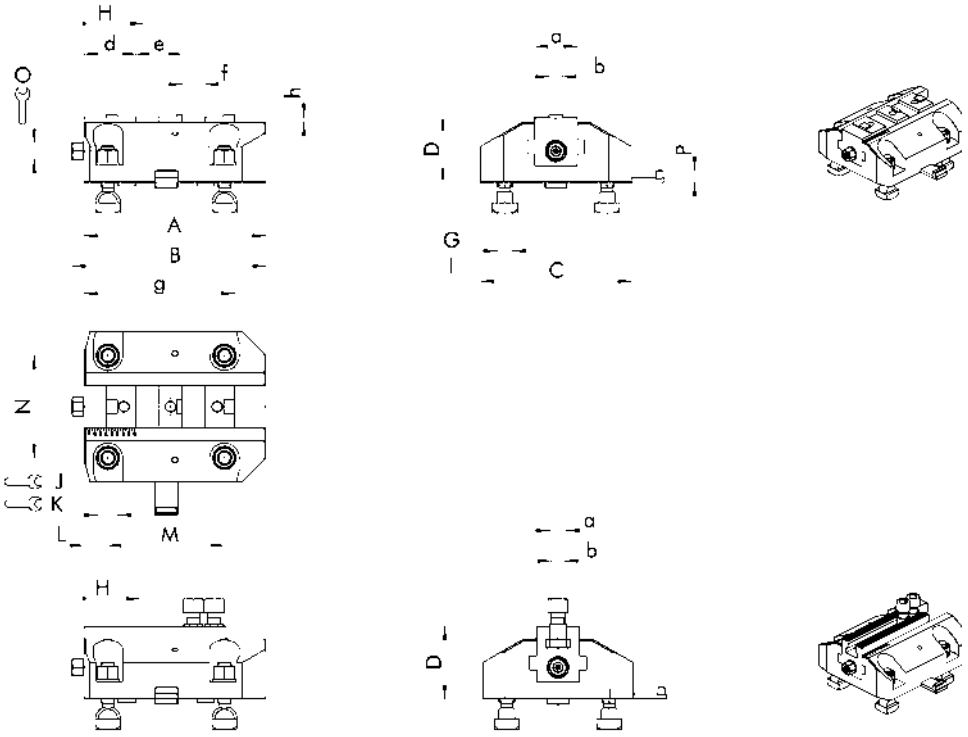
Field of application

SPK

SCHUNK's dirt-resistant jaw boxes are specially designed for individual clamping solutions on face plates with parallel running T-slots. The variable adjustment of the gauge clearance makes it possible for the jaw boxes to be customized to the respective face plate. A completely enclosed jaw drive permanently ensures optimal protection against dust, chips, and coolant.



1. **Spindle drive**
2. **Hardened and extremely rigid base body**
3. **Completely encapsulated spindle**
4. **Optimized lubrication system**
5. **Standard jaw interface**
6. **Long jaw guidance**
7. **Crossbar**
8. **Actuation via hexagon connection**



Dimensions

ID	A	B	C	D	G	I	J	K	L	M	N	O	P	a	b	d	e	f	g	h
	mm	mm	mm	mm					mm	mm	mm	mm	mm			mm	mm	mm	mm	mm
0812151	275	296	225	105	22 h6 (M20)	28 h6 (M24)	30 (M20)	36 (M24)	42	165	140 – 180	30	21	60	18	45	60	30	230	9
0812150	275	296	225	111	22 h6 (M20)	28 h6 (M24)	30 (M20)	36 (M24)	42	165	180 – 220	30	21	25.5 H7	M20					16
0812161	320	341	265	115	22 h6 (M20)	28 h6 (M24)	30 (M20)	36 (M24)	42	205	140 – 180	30	21	75	24	91	82	40	265	9
0812160	320	341	265	127	22 h6 (M20)	28 h6 (M24)	30 (M20)	36 (M24)	42	205	220 – 260	30	21	30 H7	M24					22
0812171	350	371	320	115	36 h6 (M30)	28 h6 (M24)		36 (M24)	50	220	180 – 220	30	21	75	24	111	82	40	285	9
0812170	350	371	320	127	36 h6 (M30)	28 h6 (M24)		36 (M24)	50	220	220 – 260	30	21	30 H7	M24					22

Technical data

Description	ID	Serration	Max. clamping force	Max. torque	Adjustment range chuck jaw	Gauge	Width T-slot	Weight
			kN	Nm	mm	mm	mm	kg
SPK 180 SV90°	0812151	3/32" x 90°	55	230	75	140 – 180	22 – 28	33.5
SPK 180 KV	0812150	Tongue and groove	55	230	75	140 – 180	22 – 28	33.5
SPK 220 SV90°	0812161	3/32" x 90°	68	330	90	180 – 220	22 – 28	52.7
SPK 220 KV	0812160	Tongue and groove	68	330	90	180 – 220	22 – 28	52.7
SPK 260 SV90°	0812171	3/32" x 90°	75	360	100	220 – 260	28 – 36	68.8
SPK 260 KV	0812170	Tongue and groove	75	360	100	220 – 260	28 – 36	68.8

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543


ROTA THW3
500-165

Overview power lathe chucks with jaw quick-change



Jaw quick-change chuck ROTA THW3 Page 74



Jaw quick-change RAPIDO-A2 Page 82

schunk.com/rota-thw3



Sealed. Flexible. Reliable.
Jaw quick-change chuck ROTA THW3

The ROTA THW3 power lathe chuck with jaw quick-change system offers complete sealing and permanent lubrication for constant clamping forces. Thanks to the patented sealing system on the pusher jaws and the release mechanism, the clamping force is maintained while the penetration of grease, fine chips or dirt is prevented.

Functions & highlights

- **Sealed power lathe chuck**
  Thanks to the patented seal, the ROTA THW3 achieves much longer maintenance intervals and offers optimal protection against chips and dirt
- **Convenient jaw quick-change system**
  The jaw quick-change system minimizes set-up times and thus increases the efficiency of the lathe chuck
- **Large assortment of standard top jaws available**
  The enormous variety of top jaws ensures the best solution for optimal workpiece clamping



Field of application

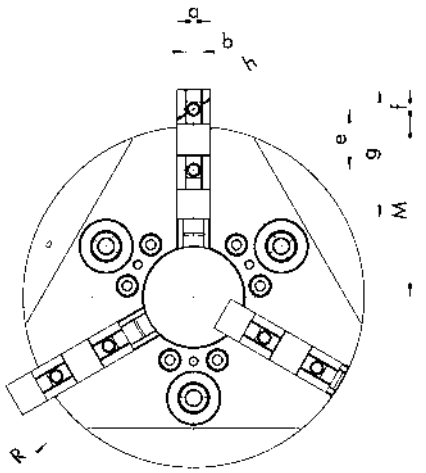
ROTA THW3

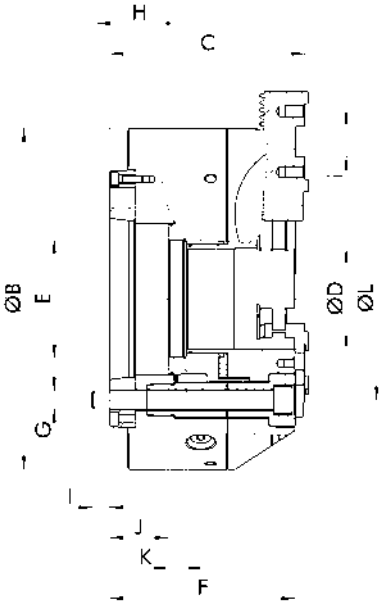
Constant clamping forces, minimal maintenance costs and increased energy efficiency – all in a power chuck with jaw quick-change system – that's exactly what the new ROTA THW3 promises. Thanks to the jaw quick-change system, the chucks are suitable for flexible production starting from batch size 1. Furthermore, the patented seal allows use in applications with fine chips and dirty environments.



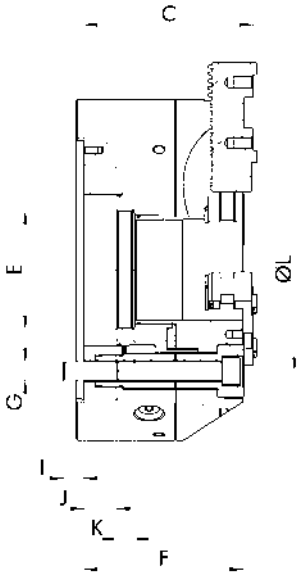
1. **Wedge hook drive in ring piston design**
2. **Hardened and extremely rigid base body**
3. **Large through-hole**
4. **Patented sealing system**
5. **Mounting thread**
6. **Jaw quick-change system**
7. **Locking mechanism**
8. **Base jaws with straight serration (GBK)**
9. **Inlays at the mounting holes**

ISO 702-1





ISO 702-4



Dimensions

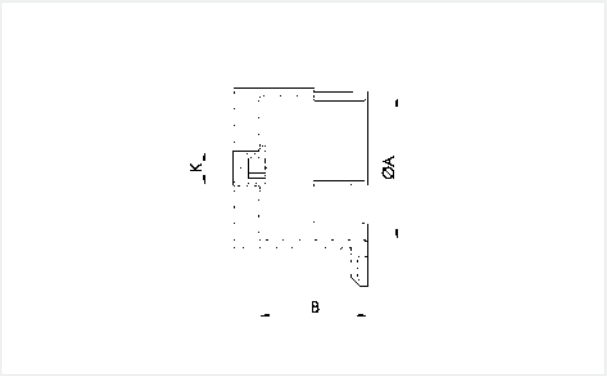
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	mm	mm	mm		mm		mm	mm	mm	mm	mm	mm	mm		mm	mm	mm		
1366679	200	101.1	52	M64x1.5	95	M10	10.7	0 – 17.5	11.5	104.8	53.6 – 93.3	225.4	20	8 h8	32	19	65	M8/12	18 H7
1366680	200	129.1	52	M64x1.5	123	M12	16.5	28.2 – 45.7	11.5	133.4	53.6 – 93.3	225.4	20	8 h8	32	19	65	M8/12	18 H7
1366681	200	117.1	52	M64x1.5	111	M10	14.7	16.2 – 33.7	11.5	104.8	53.6 – 93.3	225.4	20	8 h8	32	19	65	M8/12	18 H7
1366682	200	135.1	52	M64x1.5	129	M12	15.5	34.2 – 51.7	11.5	133.4	53.6 – 93.3	225.4	20	8 h8	32	19	65	M8/12	18 H7
1366706	225	111.6	66	M78x1.5	105	M12	13.7	0 – 21	11.8	133.4	68.6 – 113.7	274.2	22	10 h8	40	23	85	M8/13	20 H7
1366707	225	128.6	66	M78x1.5	122	M12	11.7	17.4 – 38.4	11.8	133.4	68.6 – 113.7	274.2	22	10 h8	40	23	85	M8/13	20 H7
1366708	225	151.6	66	M78x1.5	145	M16	19	40.4 – 61.4	11.8	133.4	68.6 – 113.7	274.2	22	10 h8	40	23	85	M8/13	20 H7
1366710	265	131.6	81	M90x2	124.3	M16	22.4	0 – 24	13.4	171.4	89.1 – 135.8	324.6	26	12 h8	40	26	104	M12/20	20 H7
1366711	265	157.6	81	M90x2	150.3	M16	12	26 – 50	13.4	133.4	89.1 – 135.8	324.6	26	12 h8	40	26	104	M12/20	20 H7
1366712	265	159.6	81	M90x2	152.3	M16	15	28 – 52	13.4	133.4	89.1 – 135.8	324.6	26	12 h8	40	26	104	M12/20	20 H7
1366713	265	150.6	81	M90x2	143.3	M16	23.4	19 – 43	13.4	171.4	89.1 – 135.8	324.6	26	12 h8	40	26	104	M12/20	20 H7
1366715	315	143.8	104	M115x2	132.5	M16	19.2	0 – 25	14.6	171.4	103.6 – 161.7	376.8	32	12 h8	40	26	115	M12/20	20 H7
1366716	315	162.8	104	M115x2	151.5	M16	15.2	29 – 44	14.6	171.4	103.6 – 161.7	376.8	32	12 h8	40	26	115	M12/20	20 H7
1366717	315	193.8	104	M115x2	182.5	M20	28	50 – 75	14.6	235	103.6 – 161.7	376.8	32	12 h8	40	26	115	M12/20	20 H7
1366718	400	149.8	128	M140x2	139	M20	21.7	0 – 25	14.6	235	119.9 – 200	461.2	32	12 h8	54	30	125	M12/17	12 H7
1366719	400	170.8	128	M140x2	160	M20	20.7	21 – 46	14.6	235	119.9 – 200	461.2	32	12 h8	54	30	125	M12/17	12 H7
1366720	400	204.8	128	M140x2	194	M24	31	55 – 60	14.6	330.2	119.9 – 200	461.2	32	12 h8	54	30	125	M12/17	12 H7
1366721	500	179.6	165	M175x2	169	M24	35.7	0 – 30	14.6	330.2	147.5 – 249	569.8	45	18 h8	60	35	160	M16/34	30 H7
1366722	500	217.6	165	M175x2	207	M20	23.5	38.4 – 68.4	14.6	235	147.5 – 249	569.8	45	18 h8	60	35	160	M16/34	30 H7
1366723	500	202.6	165	M175x2	192	M24	32.7	23.5 – 53.5	14.6	330.2	147.5 – 249	569.8	45	18 h8	60	35	160	M16/34	30 H7
1366724	630	179.6	165	M175x2	169	M24	25.7	0 – 30	14.6	330.2	188.3 – 296.8	665	45	18 h8	60	35	200	M16/34	30 H7

Technical data

Product name	Spindle type	Spindle size	ID	Max. rotational speed	Max. clamping force	Max. actuating force	Stroke/jaw	Tooth pitch	Piston stroke (H)	Moment of inertia	Weight
				RPM	kN	kN	mm	mm	mm	kgm²	kg
ROTA THW3 200-52	ISO 702-4	Nr. 5 (Z140)	1366679	6000	64	38	6.7	4.712	17.5	0.11	18.6
ROTA THW3 200-52	ISO 702-4	Nr. 6 (Z170)	1366680	6000	64	38	6.7	4.712	17.5	0.13	22.8
ROTA THW3 200-52	ISO 702-1	Nr. 5	1366681	6000	64	38	6.7	4.712	17.5	0.11	20
ROTA THW3 200-52	ISO 702-1	Nr. 6	1366682	6000	64	38	6.7	4.712	17.5	0.12	22
ROTA THW3 225-66	ISO 702-4	Nr. 6 (Z170)	1366706	5400	82	41	7.4	4.712	21	0.19	25.1
ROTA THW3 225-66	ISO 702-1	Nr. 6	1366707	5400	82	41	7.4	4.712	21	0.19	26.8
ROTA THW3 225-66	ISO 702-1	Nr. 8	1366708	5400	82	41	7.4	4.712	21	0.23	31
ROTA THW3 265-81	ISO 702-4	Nr. 6 (Z170)	1366710	4000	115	59	8.2	5.498	24	0.48	49.3
ROTA THW3 265-81	ISO 702-4	Nr. 8 (Z220)	1366711	4000	115	59	8.2	5.498	24	0.44	43.3
ROTA THW3 265-81	ISO 702-1	Nr. 6	1366712	4000	115	59	8.2	5.498	24	0.48	49.3
ROTA THW3 265-81	ISO 702-1	Nr. 8	1366713	4000	115	59	8.2	5.498	24	0.47	47.1
ROTA THW3 315-104	ISO 702-4	Nr. 8 (Z220)	1366715	3600	150	80	8.6	5.498	25	0.83	58.1
ROTA THW3 315-104	ISO 702-1	Nr. 8	1366716	3600	150	80	8.6	5.498	25	0.86	61.8
ROTA THW3 315-104	ISO 702-1	Nr. 11	1366717	3600	150	80	8.6	5.498	25	1	72.7
ROTA THW3 400-128	ISO 702-4	Nr. 11 (Z300)	1366718	3000	240	128	8.6	5.498	25	2.35	103.2
ROTA THW3 400-128	ISO 702-1	Nr. 11	1366719	3000	240	128	8.6	5.498	25	2.46	110.3
ROTA THW3 400-128	ISO 702-1	Nr. 15	1366720	3000	240	128	8.6	5.498	25	2.95	129.2
ROTA THW3 500-165	ISO 702-4	Nr. 15 (Z380)	1366721	2200	240	128	10.5	7	30	7.23	199.1
ROTA THW3 500-165	ISO 702-1	Nr. 11	1366722	2200	240	128	10.5	7	30	7.83	225.1
ROTA THW3 500-165	ISO 702-1	Nr. 15	1366723	2200	240	128	10.5	7	30	7.52	209.3
ROTA THW3 630-165	ISO 702-4	Nr. 20 (Z520)	1366724	1700	240	128	10.5	7	30	14.2	292

Center sleeves

Center sleeve closed

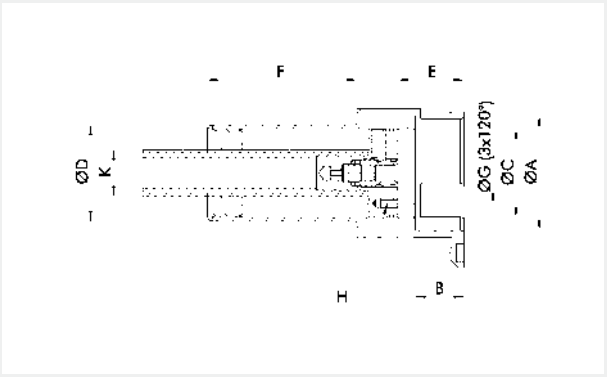




Technical data

Description	ID	Suitable for	ØA mm	B mm	Weight kg
SBS-G-W3 200	1442935	ROTA THW3 200-52	46	39	0.3
SBS-G-W3 225	1442937	ROTA THW3 225-66	58	46	0.6
SBS-G-W3 265	1442951	ROTA THW3 265-81	71	45	0.8
SBS-G-W3 315	1442955	ROTA THW3 315-104	94	56	1.4
SBS-G-W3 400	1447526	ROTA THW3 400-128	118	56	2.1
SBS-G-W3 500/630	1447529	ROTA THW3 500-165 ROTA THW3 630-165	155	75	3.6

Center sleeve with adjustable stop





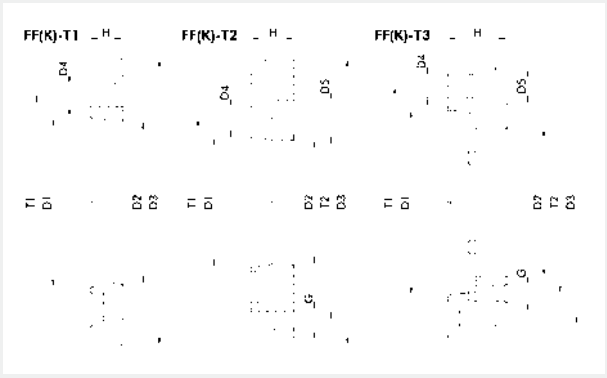
Technical data

Description	ID	Suitable for	ØA mm	B mm	ØC mm	ØD mm	E mm	F mm	ØG mm	H	K	Weight kg
SBS-T-W3 200	1444933	ROTA THW3 200-52	46	30.5	42	46.5	30.5 - 111	142.5	30	M4x8	M27	1.2
SBS-T-W3 225	1444951	ROTA THW3 225-66	58	32.5	51	55.5	32.5 - 111	141.8	35	M5x10	M27	1.8
SBS-T-W3 265	1444958	ROTA THW3 265-81	71	39.5	61	65.5	39.5 - 111	141.8	40	M5x10	M27	2.5
SBS-T-W3 315	1444960	ROTA THW3 315-104	91	41.5	75	80.5	41.5 - 111	155.8	50	M6x12	M27	4.1

ⓘ Important: Check the spindle/draw tube through-hole
The spindle through-hole must be at least Ø D + 0.5 mm

Adapter plates

Z-mount on short taper ISO 702-1





Technical data

Description	Adapter plate type	ID	Suitable for	D1	D2	D3	D4	D5	G	H	T1	T2
					mm		mm	mm		mm	mm	mm
FF-T2 Z140-A4	FF-T2	0805000	ROTA THW3 200-52	Nr. 4	61	Z140	11 (6x60°)	17	M10 (6x60°)	21	82.6	104.8
FF-T1 Z140-A5	FF-T1	0803000	ROTA THW3 200-52	Nr. 5	79.6	Z140	11 (6x60°)			16	104.8	
FF-T3 Z140-A6	FF-T3	0801000	ROTA THW3 200-52	Nr. 6	85	Z140	13 (6x60°)	20	M10 (6x60°)	34	133.4	104.8
FF-T2 Z170-A5	FF-T2	0805001	ROTA THW3 225-66	Nr. 5	79.6	Z170	11 (6x60°)	18	M12 (12 x 30°)	25	104.8	133.4
FF-T1 Z170-A6	FF-T1	0803001	ROTA THW3 225-66	Nr. 6	103.2	Z170	13 (6x60°)			17	133.4	
FF-T3 Z170-A8	FF-T3	0801001	ROTA THW3 225-66	Nr. 8	113	Z170	17 (6x60°)	26	M12 (6x60°) M12 (2x180°)	40	171.4	133.4
FF-T2 Z220-A5	FF-T2	0805002	ROTA THW3 265-81 ROTA THW3 315-104	Nr. 5	79.6	Z220	11 (6x60°)	17	M16 (6x60°) M16 (2x180°)	28	104.8	171.4
FF-T2 Z220-A6	FF-T2	0805003	ROTA THW3 265-81 ROTA THW3 315-104	Nr. 6	103.2	Z220	13 (6x60°)	20	M16 (6x60°) M16 (2x180°)	28	133.4	171.4
FF-T1 Z220-A8	FF-T1	0803002	ROTA THW3 265-81 ROTA THW3 315-104	Nr. 8	136.2	Z220	17 (6x60°) 17 (2x180°)			19	171.4	
FF-T3 Z220-A11	FF-T3	0803003	ROTA THW3 265-81 ROTA THW3 315-104	Nr. 11	130	Z220	21 (6x60°)	32	M16 (12 x 30°)	50	235	171.4
FF-T3 Z220-A15-1	FF-T3	0803020	ROTA THW3 265-81 ROTA THW3 315-104	Nr. 15	145	Z220	26 (6x60°)	38	M16 (6x60°)	55	330.2	171.4
FF-T3 Z220-A15-2	FF-T3	0803021	ROTA THW3 265-81 ROTA THW3 315-104	Nr. 15	145	Z220	23 (6x60°)	35	M16 (6x60°)	55	330.2	171.4
FF-T2 Z300-A6	FF-T2	0805004	ROTA THW3 400-128	Nr. 6	103.2	Z300	14 (6x60°)	20	M20 (6x60°) M20 (3x120°)	30	133.4	235
FF-T2 Z300-A8	FF-T2	0805005	ROTA THW3 400-128	Nr. 8	136.2	Z300	17 (6x60°)	26	M20 (6x60°) M20 (3x120°)	30	171.4	235
FF-T1 Z300-A11	FF-T1	0803004	ROTA THW3 400-128	Nr. 11	192.9	Z300	22 (6x60°) 22 (3x120°)			21	235	
FF-T3 Z300-A15-1	FF-T3	0803005	ROTA THW3 400-128	Nr. 15	190	Z300	26 (6x60°)	38	M20 (6x60°)	55	330.2	235
FF-T3 Z300-A15-2	FF-T3	0803022	ROTA THW3 400-128	Nr. 15	190	Z300	23 (6x60°)	35	M20 (6x60°)	55	330.2	235
FF-T2 Z380-A8	FF-T2	0805010	ROTA THW3 500-165	Nr. 8	136.2	Z380	17 (6x60°)	26	M24 (12 x 30°)	38	171.4	330.2
FF-T2 Z380-A11	FF-T2	0803006	ROTA THW3 500-165	Nr. 11	192.9	Z380	21 (6x60°)	32	M24 (6x60°) M24 (3x120°)	38	235	330.2
FF-T1 Z380-A15-1	FF-T1	0803023	ROTA THW3 500-165	Nr. 15	281.5	Z380	26 (6x60°)			47	330.2	
FF-T2 Z520-A20	FF-T2	0805008	ROTA THW3 630-165	Nr. 20	290	Z520	26 (6x60°)	40	M24 (12 x 30°)	62	330.2	463.6

ⓘ Direct adapter plates FF-T1 are used if the spindle mounting bolt circle has the same size as the lathe chuck mounting bolt circle.
Reduction adapter plates FF-T2 are used if the mounting bolt circle of the spindle is smaller than the one of the lathe chuck mounting bolt circle.
Expansion adapter plates FF-T3 are used if the mounting bolt circle of the spindle is larger than the one of the lathe chuck mounting bolt circle.

Accessories

Clamping force tester

For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Suitable for	Description	ID
ROTA THW3 200-52		
ROTA THW3 225-66		
ROTA THW3 265-81		
ROTA THW3 315-104		
ROTA THW3 400-128		
ROTA THW3 500-165		
ROTA THW3 630-165	IFT Set	1404235

Extension set for large chucks

For use as an extension of the IFT measuring head for measuring the jaw clamping force of large chucks of Ø 400 mm and more.



Suitable for	Description	ID
ROTA THW3 400-128		
ROTA THW3 500-165		
ROTA THW3 630-165	IFT adapter set	1498512

Jaw change wrench

Wrench for fast change of the jaws for power lathe chucks with jaw quick-change system.



Suitable for	Description	ID
ROTA THW3 200-52		
ROTA THW3 225-66		
ROTA THW3 265-81	SSH-A SW6-128	8705452
ROTA THW3 315-104		
ROTA THW3 400-128		
ROTA THW3 500-165		
ROTA THW3 630-165	SSH-A SW8-148	8703298

Mounting wrench

For power lathe chucks with turnable threaded rings as wrench design with driving pins that snap into the threaded ring.



Suitable for	Description	ID
ROTA THW3 265-81	SSH-MN Ø81-228	1383213
ROTA THW3 315-104	SSH-MN Ø104-228	1375097
ROTA THW3 400-128	SSH-MN Ø128-228	1461383
ROTA THW3 500-165		
ROTA THW3 630-165	SSH-MN Ø165-228	1446103

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

schunk.com/rapido-a2



Quick. Convenient. Automatable. Jaw quick-change RAPIDO-A2

The jaw quick-change system RAPIDO-A2 from SCHUNK enables jaw changes in a matter of seconds, completely without using any tools. The jaw change with a conventional 3-jaw chuck 60 s at maximum and offers a repeat accuracy of 0.02 mm. The jaw quick-change system is available both with a through-hole (ROTA NCF plus 2) and without a through-hole (ROTA NCO).

Functions & highlights

- **Manual or fully-automated for selected SCHUNK power lathe chucks**
  A very flexible system based on customer requirements
- **Convenient jaw quick-change system**
  Fast, fully integrated jaw change in less than 60 seconds without any tools at all
- **High jaw quick-change repeat accuracy**
  Only one-time turning of the top jaws is necessary



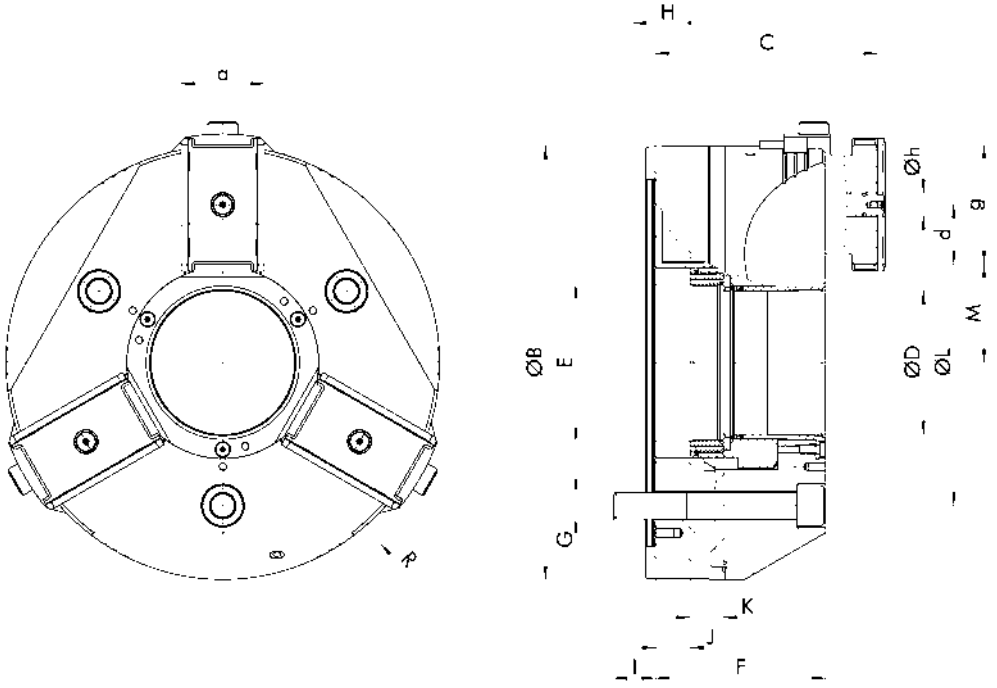
Field of application

RAPIDO-A2

The RAPIDO-A2 jaw quick-change system was specially developed to meet the challenges of automation and for a wide range of different parts. The system promises minimal set-up times and enables both manual, tool-free jaw changes but also automated jaw changes by robot. As a result, the jaw quick-change system increases your productivity and allows you to stay one step ahead of your competitors thanks to maximum flexibility and the shortest possible response time.



1. **Lathe chuck**
2. **RAPIDO-A2 base jaw**
3. **RAPIDO interchangeable insert**
4. **RAPIDO dual interface**
5. **Actuation pin**
6. **Locking pin**
7. **Standardized gripper fingers**
8. **Gripping unit**
9. **Actuation cylinder**

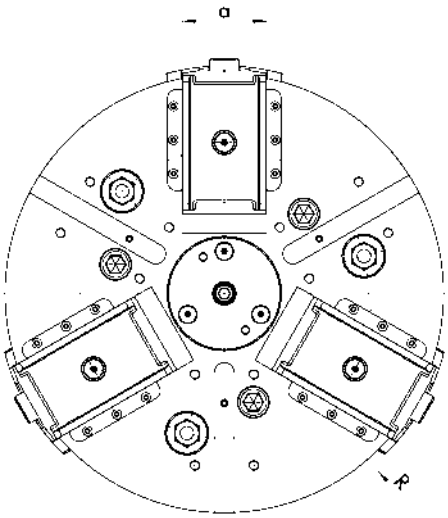


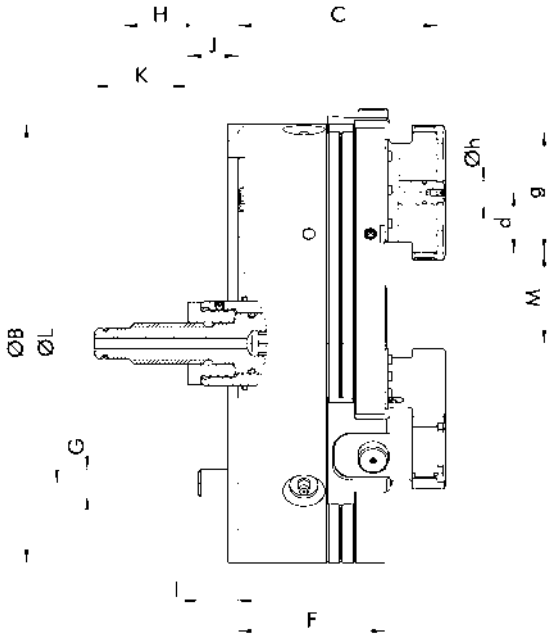
Dimensions

ID	ØB	C	ØD	E	F	G	I	J	K	ØL	M	ØR	a	d	g	Øh
	mm	mm	mm		mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
1520664	215	124	66	M74x1.5	93	M12	20	0.6 - 20.6	15	133.4	43.1 - 48.4	238	40	28.3	56.6	12
1520665	260	133	86	M94x1.5	102	M16	25	0.8 - 20.8	20	171.4	53.6 - 58.9	289	50	35.8	71.6	14
1520666	315	143	104	M115x2	112	M16	25	0.8 - 20.8	22.7	171.4	63 - 68.1	330	50	42	84	16
1520667	400	164	120	M128x2	133	M20	28	0.5 - 30.5	29	235	76.5 - 84.5	406	60	56	112	20

Technical data

Product name	Spindle type	Spindle size	ID	Serration	Max. rotational speed	Max. clamping force	Max. actuating force	Stroke/ jaw	Piston stroke (H)	Moment of inertia	Weight
					RPM	kN	kN	mm	mm	kgm²	kg
ROTA NCF plus 2 215-66	ISO 702-4	Nr. 6 (Z170)	1520664	RAPIDO	4000	85	35.5	5.3	20	0.14	20
ROTA NCF plus 2 260-86	ISO 702-4	Nr. 8 (Z220)	1520665	RAPIDO	3500	110	47	5.3	20	0.35	32
ROTA NCF plus 2 315-104	ISO 702-4	Nr. 8 (Z220)	1520666	RAPIDO	3000	130	58	5.3	20	0.69	54
ROTA NCF 400-120	ISO 702-4	Nr. 11 (Z300)	1520667	RAPIDO	2500	187.5	77	8	30	1.95	110





Dimensions

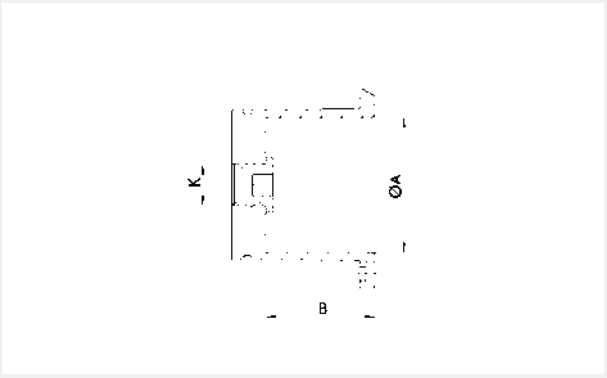
ID	ØB	C	F	G	I	J	K	ØL	M	ØR	a	d	g	Øh
	mm	mm	mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
1520668	210	111	80	M12	18.5	30 – 57	50	133.4	33.4 – 42.4	232	40	28.3	56.6	14
1520669	260	118	87	M16	23.6	30 – 60	55	133.4	43.7 – 53.7	280	50	35.8	71.6	14
1520670	315	132	101	M16	24.6	30 – 70	55	171.4	58.7 – 71.7	338	50	42	84	16
1520671	400	145	114	M20	30	30 – 60	55	235	69.3 – 84.6	415	65	56	112	20

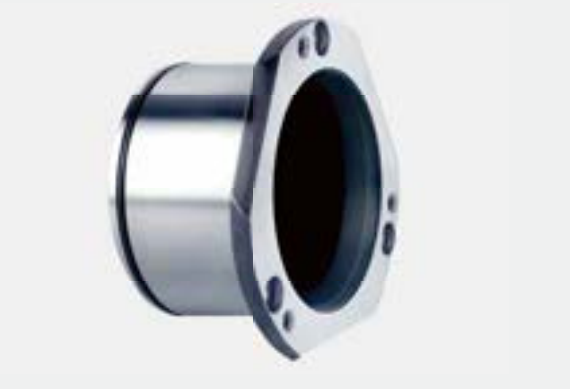
Technical data

Product name	Spindle type	Spindle size	ID	Serration	Max. rotational speed	Max. clamping force	Max. actuating force	Stroke/ jaw	Piston stroke (H)	Moment of inertia	Weight
					RPM	kN	kN	mm	mm	kgm²	kg
ROTA NCO 210	ISO 702-4	Nr. 6 (Z170)	1520668	RAPIDO	3000	85	37.5	9	27	0.14	21
ROTA NCO 260	ISO 702-4	Nr. 8 (Z220)	1520669	RAPIDO	2800	110	45	10	30	0.35	37
ROTA NCO 315	ISO 702-4	Nr. 8 (Z220)	1520670	RAPIDO	2300	130	62	13	40	0.86	59
ROTA NCO 400	ISO 702-4	Nr. 11 (Z300)	1520671	RAPIDO	1700	185	83	15	45	0.34	108

Center sleeves

Center sleeve closed

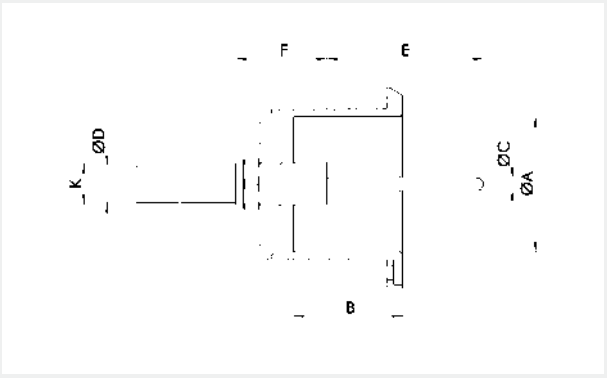


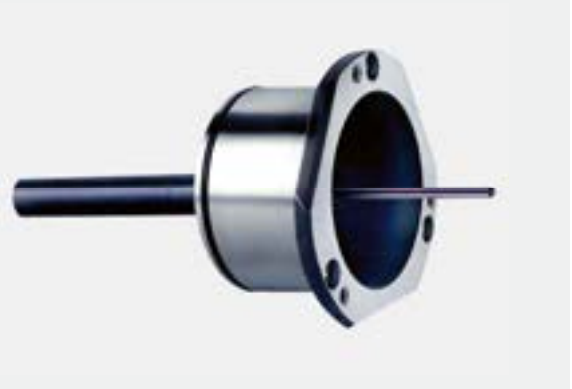


Technical data

Description	ID	Suitable for	ØA mm	B mm	K	Weight kg
SBS-G-C 215	8703755	ROTA NCF plus 2 215-66	66	37	M16x1.5	0.8
SBS-G-C2 260	8705191	ROTA NCF plus 2 260-86	86	38	M16x1.5	0.8
SBS-G-C2 315	8705198	ROTA NCF plus 2 315-104	104	44	M16x1.5	1.6
SBS-G-C 400	8704560	ROTA NCF 400-120	120	41		4

Protection sleeve with ejector



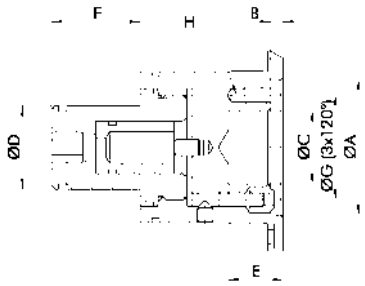


Technical data

Description	Suitable for	ØA mm	B mm	ØC mm	ØD mm	E mm	F mm	K
SBS-A-C 215	ROTA NCF plus 2 215-66	66	37	4.8	14	10 - 100	35	M16x1.5
SBS-A-C2 260	ROTA NCF plus 2 260-86	86	38	4.8	14	10 - 100	35	M16x1.5
SBS-A-C2 315	ROTA NCF plus 2 315-104	104	44	4.8	14	10 - 100	35	M16x1.5

ⓘ Center sleeves with ejector are available on request.
The ejector stroke can be selected in 10 increments from 10 – 100 mm.
The ejection force is selectable with 40, 100, 150, 200, 250, or 300 N.

Protection sleeve with spray nozzles

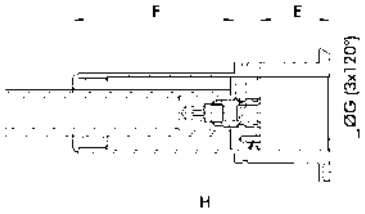




Technical data

Description	ID	Suitable for	ØA	B	ØC	ØD	F	ØG	H	Weight
			mm	mm	mm	mm	mm	mm		kg
SBS-S-C 215	8703753	ROTA NCF plus 2 215-66	66	5	32	32	47	49	M6x10	1.6
SBS-S-C2 260	8705189	ROTA NCF plus 2 260-86	86	5	48	32	47	67	M6x10	2.7
SBS-S-C2 315	8705196	ROTA NCF plus 2 315-104	104	5	48	32	47	76	M6x10	4.2

Center sleeve with adjustable stop





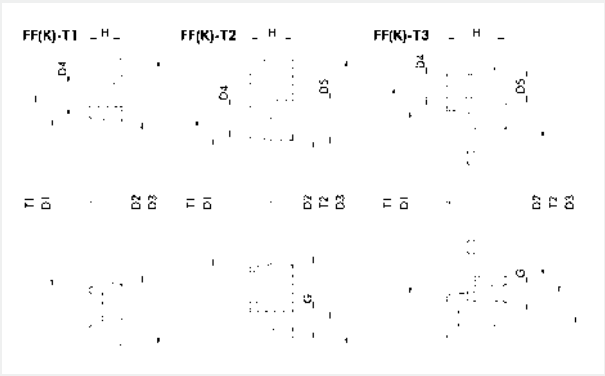
Technical data

Description	ID	Suitable for	ØC	ØD	E	F	ØG	H	K	Weight
			mm	mm	mm	mm	mm			kg
SBS-T-C 215	8703749	ROTA NCF plus 2 215-66	51	55.5	0 - 110.8	97.8	35	M5x10	M27	2
SBS-T-C2 260	8705185	ROTA NCF plus 2 260-86	61	65.5	0 - 110.8	96.8	40	M5x10	M27	3.2
SBS-T-C2 315	8705192	ROTA NCF plus 2 315-104	75	80.5	0 - 110.8	104.8	50	M6x12	M27	4.9

ⓘ Important: Check the spindle/draw tube through-hole
The spindle through-hole must be at least Ø D + 0.5 mm

Adapter plates

Z-mount on short taper ISO 702-1





Technical data

Description	Adapter plate type	ID	Suitable for	D1	D2	D3	D4	D5	G	H	T1	T2
					mm		mm	mm		mm	mm	mm
FF-T2 Z170-A5	FF-T2	0805001	ROTA NCF plus 2 215-66 ROTA NCO 210	Nr. 5	79.6	Z170	11 (6x60°)	18	M12 (12 x 30°)	25	104.8	133.4
FF-T1 Z170-A6	FF-T1	0803001	ROTA NCF plus 2 215-66 ROTA NCO 210	Nr. 6	103.2	Z170	13 (6x60°)			17	133.4	
FF-T3 Z170-A8	FF-T3	0801001	ROTA NCF plus 2 215-66 ROTA NCO 210	Nr. 8	113	Z170	17 (6x60°)	26	M12 (6x60°) M12 (2x180°)	40	171.4	133.4
FF-T2 Z220-A5	FF-T2	0805002	ROTA NCF plus 2 260-86 ROTA NCF plus 2 315-104 ROTA NCO 260 ROTA NCO 315	Nr. 5	79.6	Z220	11 (6x60°)	17	M16 (6x60°) M16 (2x180°)	28	104.8	171.4
FF-T2 Z220-A6	FF-T2	0805003	ROTA NCF plus 2 260-86 ROTA NCF plus 2 315-104 ROTA NCO 260 ROTA NCO 315	Nr. 6	103.2	Z220	13 (6x60°)	20	M16 (6x60°) M16 (2x180°)	28	133.4	171.4
FF-T1 Z220-A8	FF-T1	0803002	ROTA NCF plus 2 260-86 ROTA NCF plus 2 315-104 ROTA NCO 260 ROTA NCO 315	Nr. 8	136.2	Z220	17 (6x60°) 17 (2x180°)			19	171.4	
FF-T3 Z220-A11	FF-T3	0803003	ROTA NCF plus 2 260-86 ROTA NCF plus 2 315-104 ROTA NCO 260 ROTA NCO 315	Nr. 11	130	Z220	21 (6x60°)	32	M16 (12 x 30°)	50	235	171.4
FF-T3 Z220-A15-1	FF-T3	0803020	ROTA NCF plus 2 260-86 ROTA NCF plus 2 315-104 ROTA NCO 260 ROTA NCO 315	Nr. 15	145	Z220	26 (6x60°)	38	M16 (6x60°)	55	330.2	171.4
FF-T3 Z220-A15-2	FF-T3	0803021	ROTA NCF plus 2 260-86 ROTA NCF plus 2 315-104 ROTA NCO 260 ROTA NCO 315	Nr. 15	145	Z220	23 (6x60°)	35	M16 (6x60°)	55	330.2	171.4
FF-T2 Z300-A6	FF-T2	0805004	ROTA NCF 400-120 ROTA NCO 400	Nr. 6	103.2	Z300	14 (6x60°)	20	M20 (6x60°) M20 (3x120°)	30	133.4	235
FF-T2 Z300-A8	FF-T2	0805005	ROTA NCF 400-120 ROTA NCO 400	Nr. 8	136.2	Z300	17 (6x60°)	26	M20 (6x60°) M20 (3x120°)	30	171.4	235
FF-T1 Z300-A11	FF-T1	0803004	ROTA NCF 400-120 ROTA NCO 400	Nr. 11	192.9	Z300	22 (6x60°) 22 (3x120°)			21	235	
FF-T3 Z300-A15-1	FF-T3	0803005	ROTA NCF 400-120 ROTA NCO 400	Nr. 15	190	Z300	26 (6x60°)	38	M20 (6x60°)	55	330.2	235

Description	Adapter plate type	ID	Suitable for	D1	D2	D3	D4	D5	G	H	T1	T2
					mm		mm	mm		mm	mm	mm
FF-T3 Z300-A15-2	FF-T3	0803022	ROTA NCF 400-120 ROTA NCO 400	Nr. 15	190	Z300	23 (6x60°)	35	M20 (6x60°)	55	330.2	235

ⓘ Direct adapter plates FF-T1 are used if the spindle mounting bolt circle has the same size as the lathe chuck mounting bolt circle.
Reduction adapter plates FF-T2 are used if the mounting bolt circle of the spindle is smaller than the one of the lathe chuck mounting bolt circle.
Expansion adapter plates FF-T3 are used if the mounting bolt circle of the spindle is larger than the one of the lathe chuck mounting bolt circle.

Accessories

Clamping force tester

For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Suitable for	Description	ID
ROTA NCF plus 2 215-66		
ROTA NCF plus 2 260-86		
ROTA NCF plus 2 315-104		
ROTA NCF 400-120		
ROTA NCO 210		
ROTA NCO 260		
ROTA NCO 315		
ROTA NCO 400	IFT Set	1404235

Extension set for large chucks

For use as an extension of the IFT measuring head for measuring the jaw clamping force of large chucks of Ø 400 mm and more.



Suitable for	Description	ID
ROTA NCF 400-120		
ROTA NCO 400	IFT adapter set	1498512

Mounting wrench

For power lathe chucks with a turnable threaded ring in pipe design with two actuation tabs.



Suitable for	Description	ID
ROTA NCF plus 2 260-86	SSH-MR Ø86-150	8703837
ROTA NCF plus 2 315-104	SSH-MR Ø104-150-3	8703808

Mounting wrench

For power lathe chucks with turnable threaded rings as wrench design with driving pins that snap into the threaded ring.



Suitable for	Description	ID
ROTA NCF 400-120	SSH-MN Ø120-228	8700302

Modification coolant supply

Coolant through feeding with integrated non-return valve and spray nozzle.



Suitable for	Description	ID
ROTA NCO 210	ROTA NCO-K 210	0856212
ROTA NCO 260	ROTA NCO-K 260	0856222
ROTA NCO 315	ROTA NCO-K 315	0856232
ROTA NCO 400	ROTA NCO-K 400	0856242

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543



Overview power lathe chucks



Power lathe chuck ROTA NCE Page 94



Power lathe chuck ROTA NC plus 2 Page 102



Power lathe chuck ROTA NCF plus 2 Page 114



Power lathe chuck ROTA NCO Page 124



Power lathe chuck ROTA NCO2 Page 130



Power lathe chuck ROTA NCR Page 136



Power lathe chuck ROTA NCR-A Page 142



Power lathe chuck ROTA 2B Page 148

ROTA NCE

schunk.com/rota-nce



Light. Robust. Energy-efficient. Power lathe chuck ROTA NCE

The SCHUNK ROTA NCE combines lightweight design, maximum bearing load capacity, and an extraordinary design language. The geometry of the lathe chuck was adapted to the power flow so that despite its lightweight geometry maximum rigidity is ensured. Compared to conventional lathe chucks, the inertia is reduced by up to 40% depending on the size.

Functions & highlights

- **Energy efficient thanks to extremely low weight**
  Shorter cycle times and reduced energy costs
- **Optimized lubrication system**
  Consistently high clamping forces ensured
- **Universal power lathe chuck**
  Jaw interface with 1/16" x 90° or 1.5 mm x 60°



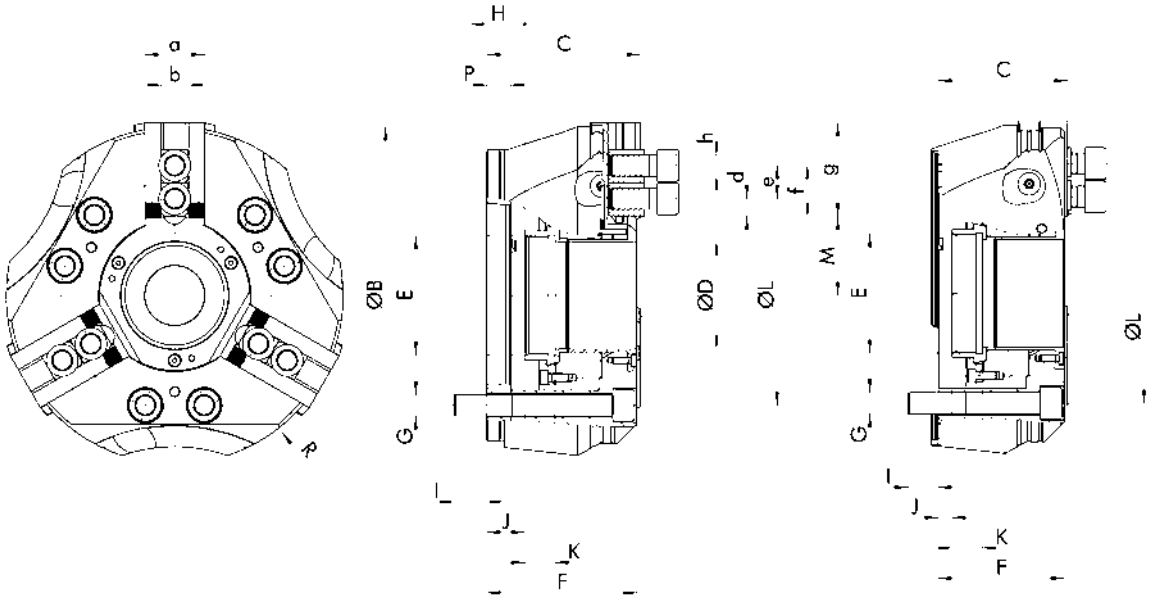
Field of application

ROTA NCE

The ROTA NCE provides the ideal requirements for high process dynamics and productivity with minimum energy consumption. The lightweight chuck particularly shows its strengths in large-scale production thanks to the moment of inertia being reduced by as much as 40%. The lathe chuck is also ideally suited to fulfill the prerequisites for the DIN EN ISO 50001 energy management certification.



1. **Wedge hook drive**
2. **Hardened and extremely rigid base body**
3. **Large through-hole**
4. **Optimized lubrication system**
5. **Mounting thread**
6. **Base jaw interface**
7. **Jaw stroke display**
8. **Blank draw nut**
9. **Weight-optimized design**



Dimensions

ID	ØB	C	ØD	E	F	G	I	J	K	ØL	M	P	ØR	a	b	d min.	e	f max.	g	h
	mm	mm	mm		mm		mm	mm	mm	mm	mm	mm	mm	mm		mm	mm	mm	mm	
1334152	124	62.5	38	M38x1.5	62	M10	15	0 – 14	11	82.6	–		131	22.5	10 H7					
0808010	170	78	53	M60x2	76	M10	16	-3 – 11	17.5	104.8	36.9 – 40.2		178	32	14 H7	8	min. 18	39.2	47.2	M10
0808011	170	93	53	M60x2	91	M10	16	12 – 26	17.5	104.8	36.9 – 40.2	15	178	32	14 H7	8	min. 18	39.2	47.2	M10
0808012	170	78	53	M60x2	76	M10	16	-3 – 11	17.5	104.8	36.9 – 40.2		178	32	12 H7	7	20	39.5	47.2	M10
0808013	170	93	53	M60x2	91	M10	16	12 – 26	17.5	104.8	36.9 – 40.2	15	178	32	12 H7	87	20	39.5	47.2	M10
0808020	210	89	66	M75 x 2	87	M12	17	-2.1 – 15.9	18.5	133.4	46 – 50.2		218.5	37	17 H7	9.5	min. 19	47	57.4	M12
0808021	210	106	66	M75 x 2	104	M12	15	14.9 – 32.9	18.5	133.4	46 – 50.2	17	218.5	37	17 H7	9.5	min. 19	47	57.4	M12
0808022	210	89	66	M75 x 2	87	M12	17	-2.1 – 15.9	18.5	133.4	46 – 50.2		218.5	37	14 H7	9.1	25	46.7	57.4	M12
0808023	210	106	66	M75 x 2	104	M12	15	13.5 – 31.4	18.5	133.4	46 – 50.2	17	218.5	37	14 H7	9.1	25	46.7	57.4	M12
0808030	254	97.5	81	M90x2	95	M16	23	-10.6 – 10.4	23	171.4	54.5 – 59.4		264	45	21 H7	13.5	min. 25	58.6	70.7	M16
0808031	254	122.5	81	M90x2	120	M16	25	12.5 – 33.5	23	171.4	54.5 – 59.4	25	264	45	21 H7	13.5	min. 25	58.6	70.7	M16
0808032	254	115.5	81	M90x2	113	M16	23	5.5 – 26.5	23	171.4	54.5 – 59.4	18	264	45	21 H7	13.5	min. 25	58.6	70.7	M16
0808033	254	97.5	81	M90x2	95	M16	23	-10.6 – 10.4	23	171.4	54.5 – 59.4		264	45	16 H7	9	30	59.9	70.7	M12
0808034	254	122.5	81	M90x2	120	M16	19	12.5 – 33.5	23	171.4	54.5 – 59.4	25	264	45	16 H7	9	30	59.9	70.7	M12
0808035	254	115.5	81	M90x2	113	M16	23	5.5 – 26.5	23	171.4	54.5 – 59.4	18	264	45	16 H7	9	30	59.9	70.7	M12
0808040	310	105	106	M115x2	102	M16	24.6	-17 – 8	28	171.4	68.8 – 74.6		332.2	50	21 H7	11.8	min. 26	72.5	84.5	M16
0808042	310	123	106	M115x2	120	M16	21.6	1 – 26	28	171.4	68.8 – 74.6	18	332.2	50	21 H7	11.8	min. 26	72.5	84.5	M16
0808043	310	141	106	M115x2	138	M16	32	19 – 44	28	171.4	68.8 – 74.6	36	332.2	50	21 H7	11.8	min. 26	72.5	84.5	M16
0808044	310	105	106	M115x2	102	M16	24.6	-17 – 8	28	171.4	68.8 – 74.6		332.2	50	21 H7	10.8	30	71.3	84.5	M16
0808046	310	123	106	M115x2	120	M16	21.6	1 – 26	28	171.4	68.8 – 74.6	18	332.2	50	21 H7	10.8	30	71.3	84.5	M16
0808047	310	141	106	M115x2	138	M16	32	19 – 44	28	171.4	68.8 – 74.6	36	332.2	50	21 H7	10.8	30	71.3	84.5	M16

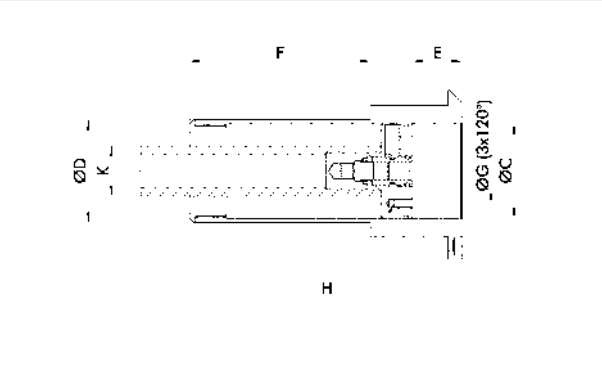
Technical data

Product name	Spindle type	Spindle size	ID	Serration	Max. rotational speed	Max. clamping force	Max. actuating force	Stroke/ jaw	Piston stroke (H)	Moment of inertia	Weight
					RPM	kN	kN	mm	mm	kgm²	kg
ROTA NCE 130-38	–	Z100	1334152	Tongue and groove	7500	45	19	3.2	14	0.009	4.1
ROTA NCE 165-53	ISO 702-4	Nr. 5 (Z140)	0808010	1/16" x 90°	6000	65	26	3.3	14	0.032	8.6
ROTA NCE 165-53	ISO 702-1	Nr. 5	0808011	1/16" x 90°	6000	65	26	3.3	14	0.035	9.7
ROTA NCE 165-53	ISO 702-4	Nr. 5 (Z140)	0808012	1.5 mm x 60°	6000	65	26	3.3	14	0.032	8.6
ROTA NCE 165-53	ISO 702-1	Nr. 5	0808013	1.5 mm x 60°	6000	65	26	3.3	14	0.035	9.7
ROTA NCE 210-66	ISO 702-4	Nr. 6 (Z170)	0808020	1/16" x 90°	5000	100	38	4.2	18	0.08	15
ROTA NCE 210-66	ISO 702-1	Nr. 6	0808021	1/16" x 90°	5000	100	38	4.2	18	0.092	16.7
ROTA NCE 210-66	ISO 702-4	Nr. 6 (Z170)	0808022	1.5 mm x 60°	5000	100	38	4.2	18	0.08	15
ROTA NCE 210-66	ISO 702-1	Nr. 6	0808023	1.5 mm x 60°	5000	100	38	4.2	18	0.092	16.7
ROTA NCE 260-81	ISO 702-4	Nr. 8 (Z220)	0808030	1/16" x 90°	4500	130	45	4.9	21	0.195	24
ROTA NCE 260-81	ISO 702-1	Nr. 6	0808031	1/16" x 90°	4500	130	45	4.9	21	0.235	28.9
ROTA NCE 260-81	ISO 702-1	Nr. 8	0808032	1/16" x 90°	4500	130	45	4.9	21	0.22	26.5
ROTA NCE 260-81	ISO 702-4	Nr. 8 (Z220)	0808033	1.5 mm x 60°	4500	130	45	4.9	21	0.195	24
ROTA NCE 260-81	ISO 702-1	Nr. 6	0808034	1.5 mm x 60°	4500	130	45	4.9	21	0.235	28.9
ROTA NCE 260-81	ISO 702-1	Nr. 8	0808035	1.5 mm x 60°	4500	130	45	4.9	21	0.22	26.5
ROTA NCE 315-106	ISO 702-4	Nr. 8 (Z220)	0808040	1/16" x 90°	3500	155	58	5.8	25	0.44	37.7
ROTA NCE 315-106	ISO 702-1	Nr. 8	0808042	1/16" x 90°	3500	155	58	5.8	25	0.465	40.6
ROTA NCE 315-106	ISO 702-1	Nr. 11	0808043	1/16" x 90°	3500	155	58	5.8	25	0.62	49.8
ROTA NCE 315-106	ISO 702-4	Nr. 8 (Z220)	0808044	1.5 mm x 60°	3500	155	58	5.8	25	0.44	37.7
ROTA NCE 315-106	ISO 702-1	Nr. 8	0808046	1.5 mm x 60°	3500	155	58	5.8	25	0.465	40.3
ROTA NCE 315-106	ISO 702-1	Nr. 11	0808047	1.5 mm x 60°	3500	155	58	5.8	25	0.62	49.8

ⓘ Detailed dimensions for the variants with tongue and groove can be found online.

Center sleeves

Center sleeve with adjustable stop



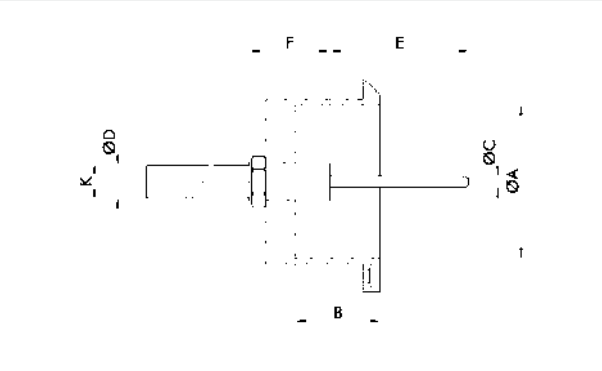


Technical data

Description	ID	ØC	ØD	E	F	ØG	H	K	Weight
		mm	mm	mm	mm	mm			kg
SBS-T-E 165	1300323	42	46.5	0 – 110	104.5	30	M4x8	M27	1.4
SBS-T-E 210	1311441	51	55.5	0 – 110	97.5	35	M5x10	M27	2.1
SBS-T-E 260	1300324	61	65.5	0 – 110	95	40	M5x10	M27	2.9
SBS-T-E 315	1344116	75	80.5	0 – 110	104.5	50	M6x12	M27	4.6

ⓘ Important: Check the spindle/draw tube through-hole
The spindle through-hole must be at least Ø D + 0.5 mm

Protection sleeve with ejector



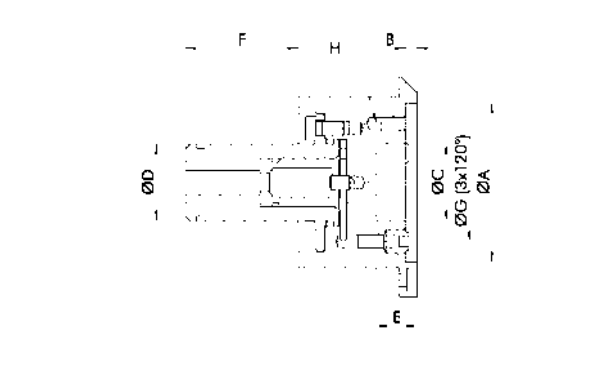


Technical data

Description	ØA	B	ØC	ØD	E	F	K
	mm	mm	mm	mm	mm	mm	
SBS-A-E 165	53	29.9	4.8	14	10 – 100	35	M16x1.5
SBS-A-E 210	66	36	4.8	14	10 – 100	35	M16x1.5
SBS-A-E 260	81	39	4.8	14	10 – 100	35	M16x1.5
SBS-A-E 315	104	44	4.8	14	10 – 100	35	M16x1.5

ⓘ Center sleeves with ejector are available on request.
The ejector stroke can be selected in 10 increments from 10 – 100 mm.
The ejection force is selectable with 40, 100, 150, 200, 250, or 300 N.

Protection sleeve with spray nozzles

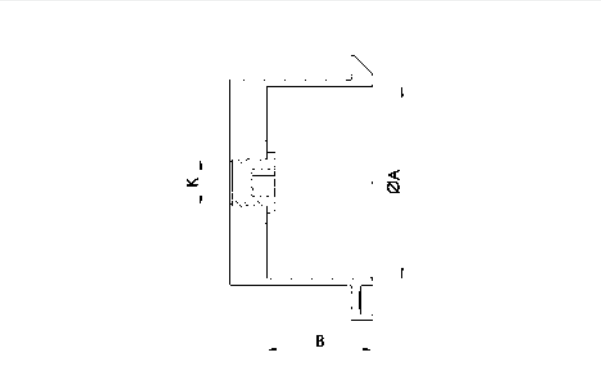




Technical data

Description	ID	ØA	B	ØC	ØD	F	ØG	H	Weight
		mm	mm	mm	mm	mm	mm		kg
SBS-S-E 165	1300316	53	5	25	32	34	39	M6x10	0.9
SBS-S-E 210	1311440	66	5	32	32	47	49	M6x10	1.6
SBS-S-E 260	1300317	81	5	48	32	47	67	M6x10	2.2
SBS-S-E 315	1344115	104	5	70	32	47	85	M6x10	4.2

Center sleeve closed



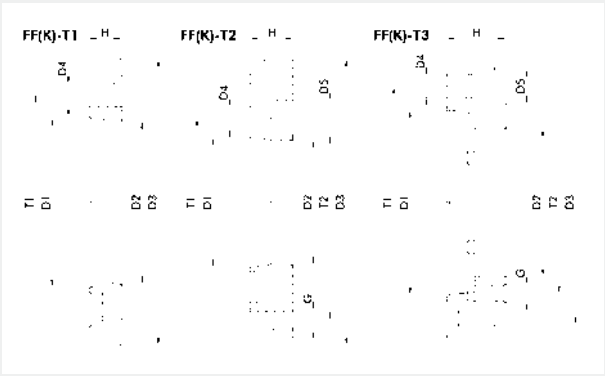


Technical data

Description	ID	ØA	B	K	Weight
		mm	mm		kg
SBS-G-E 165	1300320	53	29.9	M16x1.5	0.4
SBS-G-E 210	1311442	66	36.7	M16x1.5	0.7
SBS-G-E 260	1300322	81	39	M16x1.5	1
SBS-G-E 315	1344113	104	44	M16x1.5	1.6

Adapter plates

Z-mount on short taper ISO 702-1





Technical data

Description	Adapter plate type	ID	D1	D2	D3	D4	D5	G	H	T1	T2
				mm		mm	mm		mm	mm	mm
FF-T1 Z100-A4	FF-T1	0803010	Nr. 4	61	Z100	11 (6x60°)			12	82.6	
FF-T3 Z100-A5	FF-T3	0801008	Nr. 5	66	Z100	11 (6x60°)	17	M10 (6x60°)	30	104.8	82.6
FFK-T1 Z140-A5	FF-T1	0805120	Nr. 5	79.6	Z140	12 (6x60°) 12 (3x120°)			15	104.8	
FFK-T3 Z140-A6	FF-T3	0805115	Nr. 6	80	Z140	13 (6x60°)	20	M10 (6x60°)	34	133.4	104.8
FFK-T2 Z170-A5	FF-T2	0805109	Nr. 5	79.6	Z170	11 (6x60°)	17	M12 (6x60°) M12 (3x120°)	25	104.8	133.4
FFK-T1 Z170-A6	FF-T1	0805102	Nr. 6	103.2	Z170	14 (6x60°) 14 (3x120°)			17	133.4	
FFK-T3 Z170-A8	FF-T3	0805111	Nr. 8	110	Z170	17 (6x60°)	26	M12 (6x60°) M12 (3x120°)	40	171.4	133.4
FFK-T2 Z220-A5	FF-T2	0805113	Nr. 5	79.6	Z220	11 (6x60°) 11 (3x120°)	17	M16 (6x60°) M16 (3x120°)	28	104.8	171.4
FFK-T2 Z220-A6	FF-T2	0805122	Nr. 6	103.2	Z220	14 (6x60°)	20	M16 (6x60°) M16 (3x120°)	25	133.4	171.4
FFK-T1 Z220-A8	FF-T1	0805123	Nr. 8	136.2	Z220	18 (6x60°) 18 (3x120°)			18	171.4	
FFK-T3 Z220-A11	FF-T3	0805121	Nr. 11	148	Z220	21 (6x60°)	32	M16 (6x60°) M16 (3x120°)	36	235	171.4
FFK-T1 Z220-A8	FF-T1	0805124	Nr. 8	136.2	Z220	18 (6x60°) 18 (3x120°)			18	171.4	

ⓘ Direct adapter plates FF-T1 are used if the spindle mounting bolt circle has the same size as the lathe chuck mounting bolt circle.
Reduction adapter plates FF-T2 are used if the mounting bolt circle of the spindle is smaller than the one of the lathe chuck mounting bolt circle.
Expansion adapter plates FF-T3 are used if the mounting bolt circle of the spindle is larger than the one of the lathe chuck mounting bolt circle.

Accessories

Clamping force tester

For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Suitable for	Description	ID
ROTA NCE 130-38		
ROTA NCE 165-53		
ROTA NCE 210-66		
ROTA NCE 260-81		
ROTA NCE 315-106	IFT Set	1404235

Mounting wrench

For power lathe chucks with a turnable threaded ring in pipe design with two actuation tabs.



Suitable for	Description	ID
ROTA NCE 165-53	SSH-MR Ø53-122.5	1301751
ROTA NCE 210-66	SSH-MR Ø66-130	1301752
ROTA NCE 260-81	SSH-MR Ø81-165	1301753
ROTA NCE 315-106	SSH-MR Ø106-165	1301754

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

schunk.com/rota-nc-plus2



Universal. Precise. Durable. Power lathe chuck ROTA NC plus 2

Power lathe chuck ROTA NC plus 2 has been developed to meet the highest demands of modern lathes. The highly robust, hardened and ground flat guidances ensure process-stable operation even at maximum load. The double-guided chuck piston enables outstandingly high rigidity and precision. The modular sealed center sleeve system increases flexibility for the most various applications.

Functions & highlights

- **Precision wedge-hook power lathe chuck for highest quality requirements**
  Allows excellent machining results
- **Modular center sleeve system**
  Optimal adjustment to new clamping tasks thanks to the exchangeable center sleeves
- **Large through-hole**
  Machining all standard pipe diameters



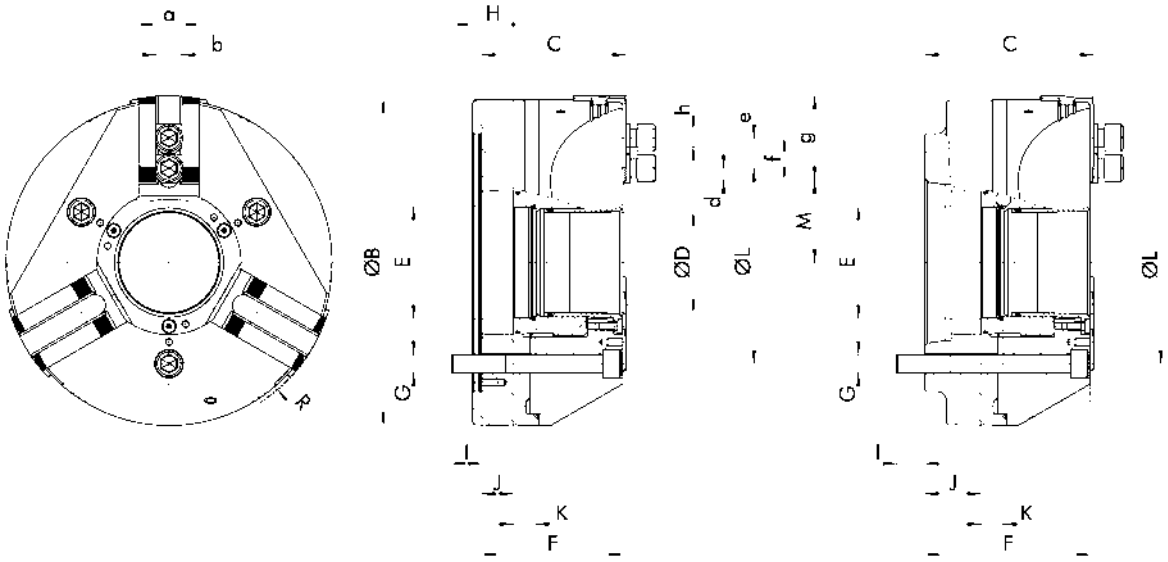
Field of application

ROTA NC plus 2

The ROTA NC plus 2 series is the universal power lathe chuck. The wide range of 2, 3, and 4-jaw chucks allows us to meet almost all customer requirements for lathes. The modular sealed center sleeve system also increases flexibility. This series is also often used as a basis for special applications.



1. **Wedge hook drive**
2. **Hardened and extremely rigid base body**
3. **Large through-hole**
4. **Optimized lubrication system**
5. **Mounting thread**
6. **Base jaw serration**
7. **Robust and advanced wedge-hook**
8. **Innovative piston guidance**
9. **Weight-optimized design**



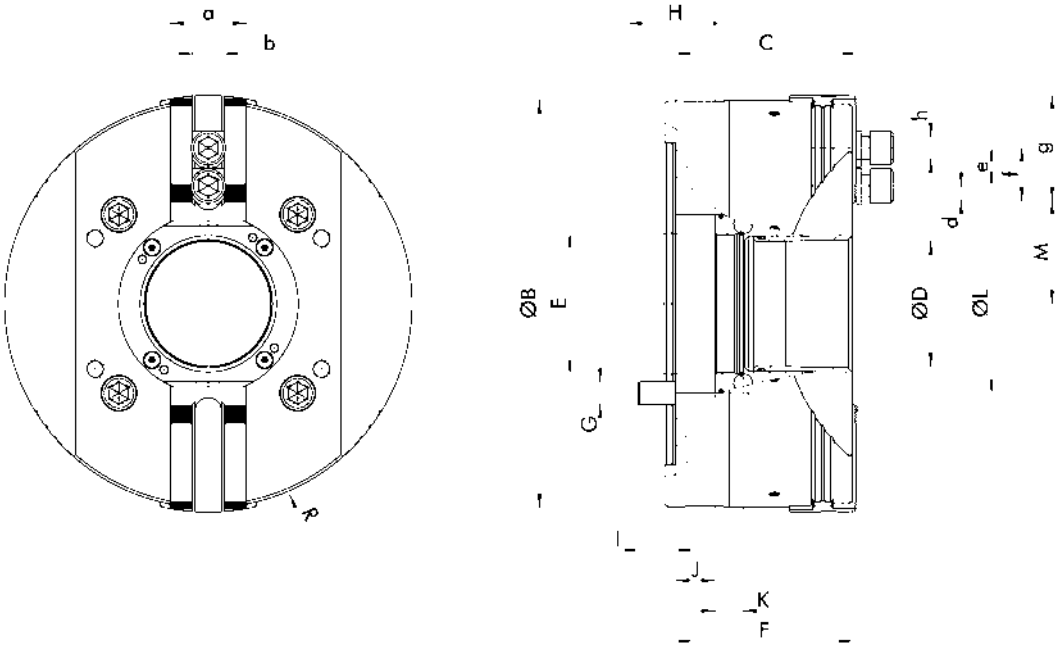
Dimensions

ID	ØB	C	ØD	E	F	G	I	J	K	ØL	M max.	ØR	a	b	d min.	e	f max.	g	h
	mm	mm	mm		mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
0852106	185	95	52	M67x1.5	93	M10	18	0.6 – 20.6	15	104.8	47	191	37	14 H7	5	min. 19	41.1	48.1	M10
0852107	185	111	52	M67x1.5	109	M10	17	0.6 – 20.6	15	104.8	47	191	37	14 H7	5	min. 19	41.1	48.1	M10
0852108	185	95	52	M67x1.5	93	M10	18	0.6 – 20.6	15	104.8	47	191	37	14 H7	5	20	41.1	48.1	M10
0852109	185	95	52	M67x1.5	109	M10	17	0.6 – 20.6	15	104.8	47	191	37	14 H7	5	20	41.1	48.1	M10
0852116	215	95	66	M74x1.5	93	M12	20	0.6 – 20.6	15	133.4	54.5	221	40	17 H7	7.8	min. 19	47.5	55.5	M12
0852117	215	111	66	M74x1.5	109	M12	19	0.6 – 20.6	15	133.4	54.5	221	40	17 H7	7.8	min. 19	47.5	55.5	M12
0852118	215	95	66	M74x1.5	93	M12	20	0.6 – 20.6	15	133.4	54.5	221	40	14 H7	7.5	25	47.5	55.5	M12
0852119	215	111	66	M74x1.5	109	M12	19	0.6 – 20.6	15	133.4	54.5	221	40	14 H7	7.5	25	47.5	55.5	M12
0852126	260	104	86	M94x1.5	102	M16	25	0.7 – 20.7	20.1	171.4	64	266	45	21 H7	10.1	min. 25	58	69	M16
0852127	260	124	86	M94x1.5	122	M16	25	20.8 – 40.8	20.1	171.4	64	266	45	21 H7	10.1	min. 25	58	69	M16
0852128	260	104	86	M94x1.5	102	M16	25	0.7 – 20.7	20.1	171.4	64	266	45	16 H7	7	30	61	69	M12
0852129	260	124	86	M94x1.5	122	M16	25	20.8 – 40.8	20.1	171.4	64	266	45	16 H7	7	30	61	69	M12
0852136	315	114	104	M115x2	112	M16	25	0.8 – 20.8	22.7	171.4	74.8	321	50	21 H7	14	min. 25	77	85.5	M16
0852137	315	134	104	M115x2	132	M16	25	20.8 – 40.8	22.7	171.4	74.8	321	50	21 H7	14	min. 25	77	85.5	M16
0852138	315	114	104	M115x2	112	M16	25	0.8 – 20.8	22.7	171.4	74.8	321	50	21 H7	11	30	77	85.5	M16
0852139	315	134	104	M115x2	132	M16	25	20.8 – 40.8	22.7	171.4	74.8	321	50	21 H7	11	30	77	85.5	M16

Technical data

Product name	Spindle type	Spindle size	ID	Serration	Max. rotational speed	Max. clamping force	Max. actuating force	Stroke/ jaw	Piston stroke (H)	Moment of inertia	Weight
					RPM	kN	kN	mm	mm	kgm²	kg
ROTA NC plus 2 185-52	ISO 702-4	Nr. 5 (Z140)	0852106	1/16" x 90°	5000	72	30	5.3	20	0.068	14
ROTA NC plus 2 185-52	ISO 702-1	Nr. 5	0852107	1/16" x 90°	5000	72	30	5.3	20	0.072	16
ROTA NC plus 2 185-52	ISO 702-4	Nr. 5 (Z140)	0852108	1.5 mm x 60°	5000	72	30	5.3	20	0.068	14
ROTA NC plus 2 185-52	ISO 702-1	Nr. 5	0852109	1.5 mm x 60°	5000	72	30	5.3	20	0.072	16
ROTA NC plus 2 215-66	ISO 702-4	Nr. 6 (Z170)	0852116	1/16" x 90°	5000	100	42	5.3	20	0.12	19
ROTA NC plus 2 215-66	ISO 702-1	Nr. 6	0852117	1/16" x 90°	5000	100	42	5.3	20	0.13	21
ROTA NC plus 2 215-66	ISO 702-4	Nr. 6 (Z170)	0852118	1.5 mm x 60°	5000	100	42	5.3	20	0.12	19

Product name	Spindle type	Spindle size	ID	Serration	Max. rotational speed	Max. clamping force	Max. actuating force	Stroke/ jaw	Piston stroke (H)	Moment of inertia	Weight
					RPM	kN	kN	mm	mm	kgm²	kg
ROTA NC plus 2 215-66	ISO 702-1	Nr. 6	0852119	1.5 mm x 60°	5000	100	42	5.3	20	0.13	21
ROTA NC plus 2 260-86	ISO 702-4	Nr. 8 (Z220)	0852126	1/16" x 90°	4000	140	60	5.3	20	0.29	30
ROTA NC plus 2 260-86	ISO 702-1	Nr. 8	0852127	1/16" x 90°	4000	140	60	5.3	20	0.31	35
ROTA NC plus 2 260-86	ISO 702-4	Nr. 8 (Z220)	0852128	1.5 mm x 60°	4000	140	60	5.3	20	0.29	30
ROTA NC plus 2 260-86	ISO 702-1	Nr. 8	0852129	1.5 mm x 60°	4000	140	60	5.3	20	0.31	35
ROTA NC plus 2 315-104	ISO 702-4	Nr. 8 (Z220)	0852136	1/16" x 90°	3500	160	70	5.3	20	0.62	47
ROTA NC plus 2 315-104	ISO 702-1	Nr. 8	0852137	1/16" x 90°	3500	160	70	5.3	20	0.64	51
ROTA NC plus 2 315-104	ISO 702-4	Nr. 8 (Z220)	0852138	1.5 mm x 60°	3500	160	70	5.3	20	0.62	47
ROTA NC plus 2 315-104	ISO 702-1	Nr. 8	0852139	1.5 mm x 60°	3500	160	70	5.3	20	0.64	51

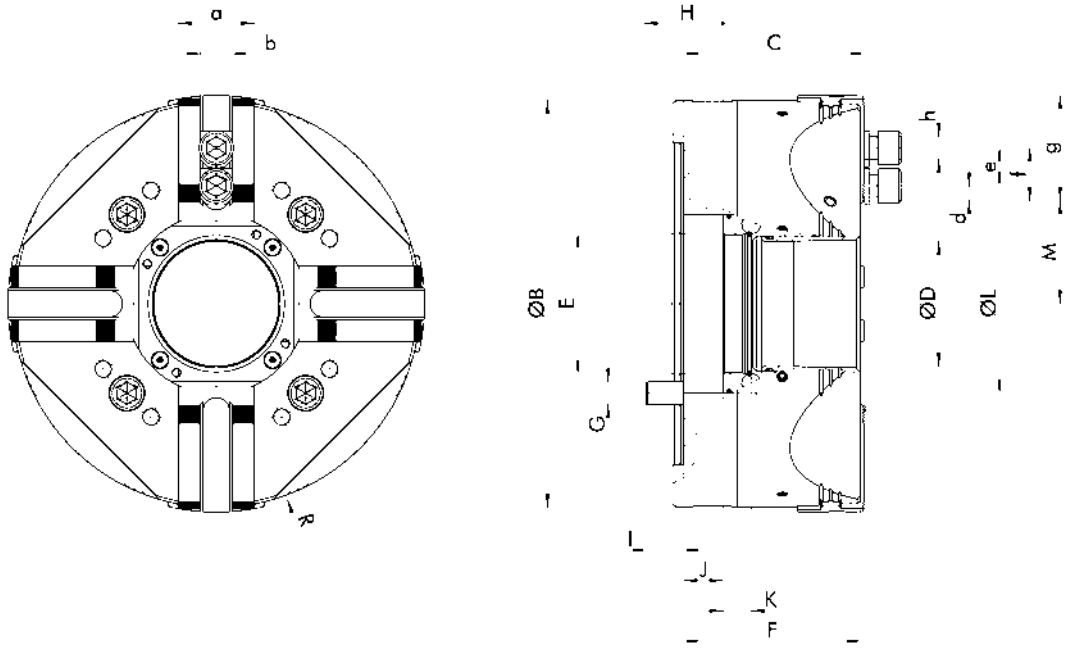


Dimensions

ID	ØB	C	ØD	E	F	G	I	J	K	ØL	M max.	ØR	a	b	d min.	f max.	g	h
	mm	mm	mm		mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
1344272	185	95	52	M67x1.5	93	M10	18	0.6 - 20.6	15	104.8	47	191	37	14 H7	5	41.1	48.1	M10
1316839	215	95	66	M74x1.5	93	M12	20	0.6 - 20.6	15	133.4	54.5	221	40	17 H7	7.8	47.5	55.5	M12
1316843	260	104	86	M94x1.5	102	M16	25	0.7 - 20.7	20.1	171.4	64	266	45	21 H7	10.1	47	69	M16
1316845	315	114	104	M115x2	112	M16	25	0.8 - 20.8	22.7	171.4	74.8	321	50	21 H7	14	77	85.5	M16
1348228	185	95	52	M67x1.5	93	M10	18	0.6 - 20.6	15	104.8	47	191	37	14 H7	5	41.1	48.1	M10
1348229	215	95	66	M74x1.5	93	M12	20	0.6 - 20.6	15	133.4	54.5	221	40	14 H7	7.5	47.5	55.5	M12
1348230	260	104	86	M94x1.5	102	M16	25	0.7 - 20.7	20.1	171.4	64	266	45	16 H7	7	61	69	M16
1331433	315	114	104	M115x2	112	M16	25	0.8 - 20.8	22.7	171.4	74.8	321	50	21 H7	14	74.5	85.5	M16

Technical data

Product name	Spindle type	Spindle size	ID	Serration	Max. rotational speed	Max. clamping force	Max. actuating force	Stroke/ jaw	Piston stroke (H)	Moment of inertia	Weight
					RPM	kN	kN	mm	mm	kgm²	kg
ROTA NC plus 2 185-52/2	ISO 702-4	Nr. 5 (Z140)	1344272	1/16" x 90°	4700	48	20	5.3	20	0.068	16
ROTA NC plus 2 215-66/2	ISO 702-4	Nr. 6 (Z170)	1316839	1/16" x 90°	4200	66	28	5.3	20	0.12	20
ROTA NC plus 2 260-86/2	ISO 702-4	Nr. 8 (Z220)	1316843	1/16" x 90°	3500	95	40	5.3	20	0.29	33
ROTA NC plus 2 315-104/2	ISO 702-4	Nr. 8 (Z220)	1316845	1/16" x 90°	2800	106	46	5.3	20	0.69	47
ROTA NC plus 2 185-52/2	ISO 702-4	Nr. 5 (Z140)	1348228	1.5 mm x 60°	4700	48	20	5.3	20	0.068	16
ROTA NC plus 2 215-66/2	ISO 702-4	Nr. 6 (Z170)	1348229	1.5 mm x 60°	4200	66	28	5.3	20	0.12	20
ROTA NC plus 2 260-86/2	ISO 702-4	Nr. 8 (Z220)	1348230	1.5 mm x 60°	3500	95	40	5.3	20	0.29	33
ROTA NC plus 2 315-104/2	ISO 702-4	Nr. 8 (Z220)	1331433	1.5 mm x 60°	2800	106	46	5.3	20	0.69	47

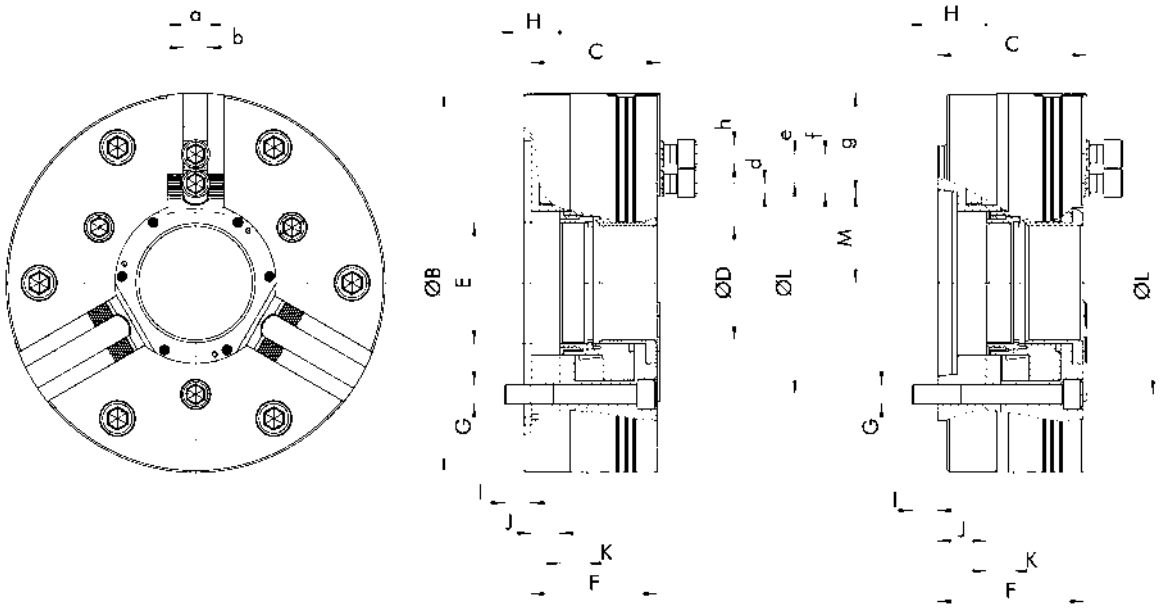


Dimensions

ID	ØB	C	ØD	E	F	G	I	J	K	ØL	M max.	ØR	a	b	d min.	e	f max.	g	h
	mm	mm	mm		mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
1316846	215	95	66	M74x1.5	93	M12	20	0.6 – 20.6	15	133.4	54.5	221	40	17 H7	7.8	min. 20	47.5	55.5	M12
1316849	260	104	86	M94x1.5	102	M16	25	0.7 – 20.7	20.1	171.4	64	266	45	21 H7	10.1	min. 26	47	69	M16
1316850	315	114	104	M115x2	112	M16	25	0.8 – 20.8	22.7	171.4	74.8	321	50	21 H7	14	min. 25	77	85.5	M16
1348234	215	95	66	M74x1.5	93	M12	20	0.6 – 20.6	15	133.4	54.5	221	40	14 H7	7.5	25	47.5	55.5	M12
1348235	260	104	86	M94x1.5	102	M16	25	0.7 – 20.7	20.1	171.4	64	266	45	16 H7	7	30	61	69	M12
1348236	315	114	104	M115x2	112	M16	25	0.8 – 20.8	22.7	171.4	74.8	321	50	21 H7	8.5	30	74	85.5	M16

Technical data

Product name	Spindle type	Spindle size	ID	Serration	Max. rotational speed	Max. clamping force	Max. actuating force	Stroke/ jaw	Piston stroke (H)	Moment of inertia	Weight
					RPM	kN	kN	mm	mm	kgm²	kg
ROTA NC plus 2 215-66/4	ISO 702-4	Nr. 6 (Z170)	1316846	1/16" x 90°	3000	66	28	5.3	20	0.13	20
ROTA NC plus 2 260-86/4	ISO 702-4	Nr. 8 (Z220)	1316849	1/16" x 90°	3000	95	40	5.3	20	0.31	33
ROTA NC plus 2 315-104/4	ISO 702-4	Nr. 8 (Z220)	1316850	1/16" x 90°	2000	105	45	5.3	20	0.71	51
ROTA NC plus 2 215-66/4	ISO 702-4	Nr. 6 (Z170)	1348234	1.5 mm x 60°	3000	66	28	5.3	20	0.13	20
ROTA NC plus 2 260-86/4	ISO 702-4	Nr. 8 (Z220)	1348235	1.5 mm x 60°	3000	95	40	5.3	20	0.31	33
ROTA NC plus 2 315-104/4	ISO 702-4	Nr. 8 (Z220)	1348236	1.5 mm x 60°	2000	105	45	5.3	20	0.71	51



Dimensions

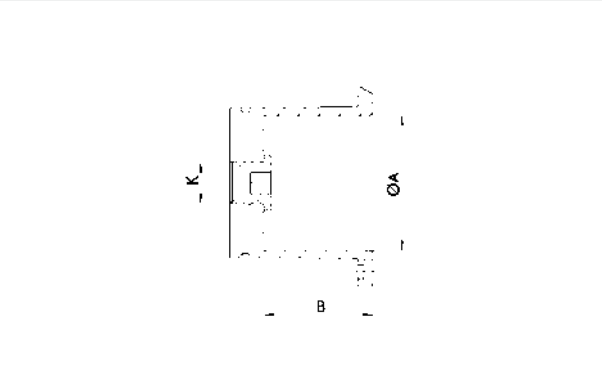
ID	ØB	C	ØD	E	F	G	I	J	K	ØL	M max.	a	b	d min.	e	f max.	g	h
	mm	mm	mm		mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
0852040	400	136	120	M128x2	133	M20	28	0.5 – 30.5	29	235	94.6	60	25.5 H7	10.4	min. 31	95	105.8	M20
0852041	400	157	120	M128x2	154	M20	27	21.5 – 51.5	29	235	94.6	60	25.5 H7	10.4	min. 31	95	105.8	M20
0852042	400	159	120	M128x2	156	M24	29	23.5 – 53.5	29	330.2	94.6	60	25.5 H7	10.4	min. 31	95	105.8	M20
0852043	400	136	120	M128x2	133	M20	28	0.5 – 30.5	29	235	93.8	60	25.5 H7	13.2	43	95	105.8	M20
0852044	400	157	120	M128x2	154	M20	27	21.5 – 51.5	29	235	93.8	60	25.5 H7	13.2	43	95	105.8	M20
0852050	500	144	160	M175x2	141	M24	34	0.7 – 30.7	29	330.2	121	60	25.5 H7	12.9	min. 31	118	128.4	M20
0852060	630	192	180	M200x2	189	M24	36	0.5 – 42.5	40	330.2	135	75	30 H7	15.6		167	180.1	M24
0852070	800	173	230	M250x2	170	M24	35	0.7 – 42.7	40	463.6	161.8	75	30 H7	10.2		205	237.6	M24
0852081	1000	181	350	M362x2	182	M30	49	0.2 – 50.2		647.6	232.5	85	30 H7	10.2		256.8	279.7	M24
0852080	1000	181	350	M362x2	182	M30	49	0.2 – 50.2		647.6	232.5	85	30 H7	16.4		260	279.7	M24

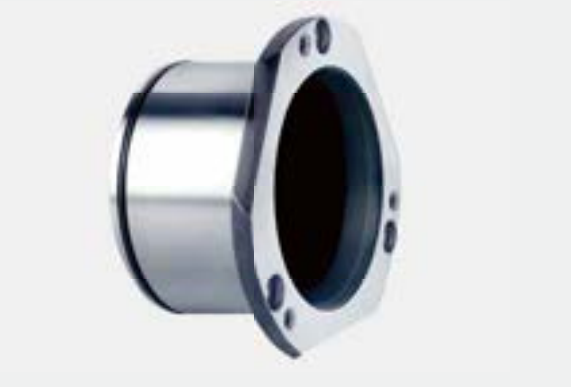
Technical data

Product name	Spindle type	Spindle size	ID	Serration	Max. rotational speed	Max. clamping force	Max. actuating force	Stroke/ jaw	Piston stroke (H)	Moment of inertia	Weight
					RPM	kN	kN	mm	mm	kgm²	kg
ROTA NC 400-120	ISO 702-4	Nr. 11 (Z300)	0852040	3/32" x 90°	2500	187.5	77	8	30	2.6	117
ROTA NC 400-120	ISO 702-1	Nr. 11	0852041	3/32" x 90°	2500	187.5	77	8	30	2.6	117
ROTA NC 400-120	ISO 702-1	Nr. 15	0852042	3/32" x 90°	2500	187.5	77	8	30	2.6	117
ROTA NC 400-120	ISO 702-4	Nr. 11 (Z300)	0852043	1.5 mm x 60°	2500	187.5	77	8	30	2.6	117
ROTA NC 400-120	ISO 702-1	Nr. 11	0852044	1.5 mm x 60°	2500	187.5	77	8	30	2.6	117
ROTA NC 500-160	ISO 702-4	Nr. 15 (Z380)	0852050	3/32" x 90°	2000	200	75	8	30	6.1	180
ROTA NC 630-180	–	Z520	0852060	3/32" x 90°	1800	300	122	11.2	42	19.8	365
ROTA NC 800-230	ISO 702-4	Nr. 20 (Z520)	0852070	3/32" x 90°	1200	370	120	11.2	42	51	575
ROTA NC 1000-350	ISO 702-4	Nr. 28 (Z720)	0852081	3/32" x 90°	700	410	180	16	50	100	957
ROTA NC 1000-350	ISO 702-4	Nr. 28 (Z720)	0852080	Modul 2	700	410	180	16	50	100	957

Center sleeves

Center sleeve closed

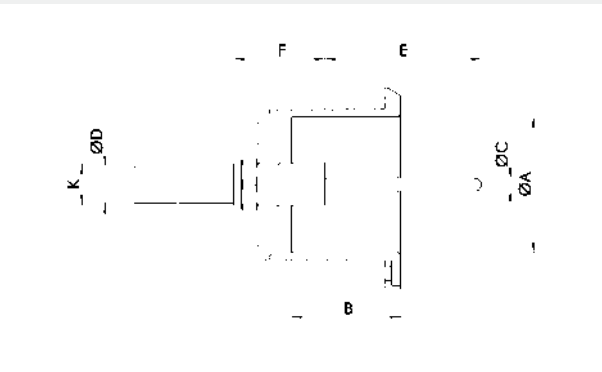


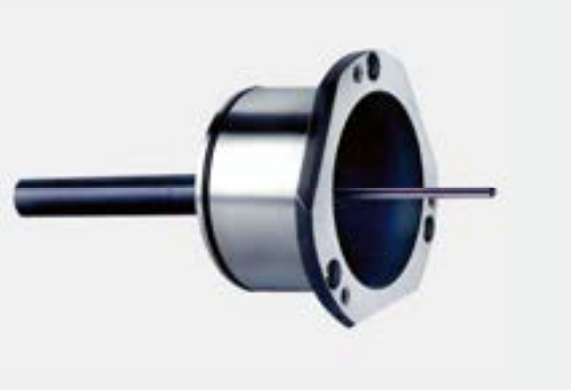


Technical data

Description	ID	Suitable for	ØA mm	B mm	K	Weight kg
SBS-G-C 185	8703865	ROTA NC plus 2 185-52	52	42	M16x1.5	0.6
SBS-G-C 215	8703755	ROTA NC plus 2 215-66	66	37	M16x1.5	0.8
SBS-G-C2 260	8705191	ROTA NC plus 2 260-86	86	38	M16x1.5	0.8
SBS-G-C2 315	8705198	ROTA NC plus 2 315-104	104	44	M16x1.5	1.6
SBS-G-C 400	8704560	ROTA NC 400-120	120	41		4
SBS-G-C 500	8704561	ROTA NC 500-160	160	49		5.9
SBS-G-C 630	8704562	ROTA NC 630-180	180	74		8.4
SBS-G-C 800	8704563	ROTA NC 800-230	230	57		11.7

Protection sleeve with ejector



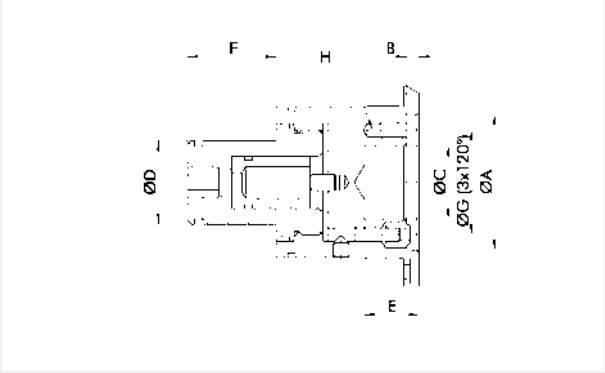


Technical data

Description	Suitable for	ØA mm	B mm	ØC mm	ØD mm	E mm	F mm	K
SBS-A-C 185	ROTA NC plus 2 185-52	52	42	4.8	14	10 – 100	35	M16x1.5
SBS-A-C 215	ROTA NC plus 2 215-66	66	37	4.8	14	10 – 100	35	M16x1.5
SBS-A-C2 260	ROTA NC plus 2 260-86	86	38	4.8	14	10 – 100	35	M16x1.5
SBS-A-C2 315	ROTA NC plus 2 315-104	104	44	4.8	14	10 – 100	35	M16x1.5

ⓘ Center sleeves with ejector are available on request.
The ejector stroke can be selected in 10 increments from 10 – 100 mm.
The ejection force is selectable with 40, 100, 150, 200, 250, or 300 N.

Protection sleeve with spray nozzles

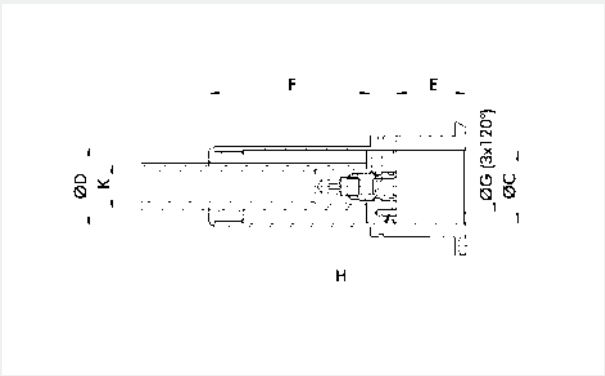




Technical data

Description	ID	Suitable for	ØA	B	ØC	ØD	F	ØG	H	Weight
			mm	mm	mm	mm	mm	mm		kg
SBS-S-C 185	8703863	ROTA NC plus 2 185-52	52	5	28	32	34	41	M6x10	1.2
SBS-S-C 215	8703753	ROTA NC plus 2 215-66	66	5	32	32	47	49	M6x10	1.6
SBS-S-C2 260	8705189	ROTA NC plus 2 260-86	86	5	48	32	47	67	M6x10	2.7
SBS-S-C2 315	8705196	ROTA NC plus 2 315-104	104	5	48	32	47	76	M6x10	4.2

Center sleeve with adjustable stop





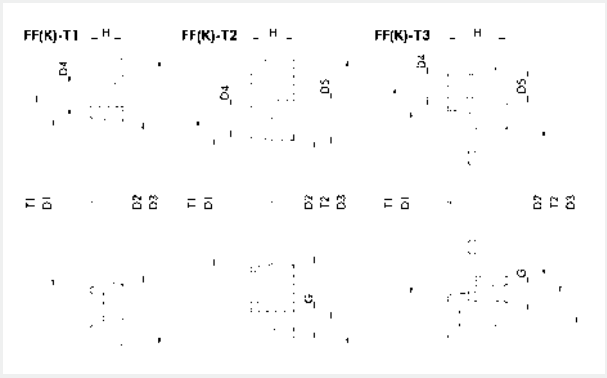
Technical data

Description	ID	Suitable for	ØC	ØD	E	F	ØG	H	K	Weight
			mm	mm	mm	mm	mm			kg
SBS-T-C 185	8703859	ROTA NC plus 2 185-52	42	46.5	0 - 110.8	92.8	30	M4x8	M27	1.5
SBS-T-C 215	8703749	ROTA NC plus 2 215-66	51	55.5	0 - 110.8	97.8	35	M5x10	M27	2
SBS-T-C2 260	8705185	ROTA NC plus 2 260-86	61	65.5	0 - 110.8	96.8	40	M5x10	M27	3.2
SBS-T-C2 315	8705192	ROTA NC plus 2 315-104	75	80.5	0 - 110.8	104.8	50	M6x12	M27	4.9

ⓘ Important: Check the spindle/draw tube through-hole
The spindle through-hole must be at least Ø D + 0.5 mm

Adapter plates

Z-mount on short taper ISO 702-1





Technical data

Description	Adapter plate type	ID	Suitable for	D1	D2	D3	D4	D5	G	H	T1	T2	T3
					mm		mm	mm		mm	mm	mm	mm
FF-T2 Z140-A4	FF-T2	0805000	ROTA NC plus 2 185-52	Nr. 4	61	Z140	11 (6x60°)	17	M10 (6x60°)	21	82.6	104.8	
FF-T1 Z140-A5	FF-T1	0803000	ROTA NC plus 2 185-52	Nr. 5	79.6	Z140	11 (6x60°)			16	104.8		
FF-T3 Z140-A6	FF-T3	0801000	ROTA NC plus 2 185-52	Nr. 6	85	Z140	13 (6x60°)	20	M10 (6x60°)	34	133.4	104.8	
FF-T2 Z170-A5	FF-T2	0805001	ROTA NC plus 2 215-66	Nr. 5	79.6	Z170	11 (6x60°)	18	M12 (12 x 30°)	25	104.8	133.4	
FF-T1 Z170-A6	FF-T1	0803001	ROTA NC plus 2 215-66	Nr. 6	103.2	Z170	13 (6x60°)			17	133.4		
FF-T3 Z170-A8	FF-T3	0801001	ROTA NC plus 2 215-66	Nr. 8	113	Z170	17 (6x60°)	26	M12 (6x60°) M12 (2x180°)	40	171.4	133.4	
FF-T2 Z220-A5	FF-T2	0805002	ROTA NC plus 2 260-86 ROTA NC plus 2 315-104	Nr. 5	79.6	Z220	11 (6x60°)	17	M16 (6x60°) M16 (2x180°)	28	104.8	171.4	
FF-T2 Z220-A6	FF-T2	0805003	ROTA NC plus 2 260-86 ROTA NC plus 2 315-104	Nr. 6	103.2	Z220	13 (6x60°)	20	M16 (6x60°) M16 (2x180°)	28	133.4	171.4	
FF-T1 Z220-A8	FF-T1	0803002	ROTA NC plus 2 260-86 ROTA NC plus 2 315-104	Nr. 8	136.2	Z220	17 (6x60°) 17 (2x180°)			19	171.4		
FF-T3 Z220-A11	FF-T3	0803003	ROTA NC plus 2 260-86 ROTA NC plus 2 315-104	Nr. 11	130	Z220	21 (6x60°)	32	M16 (12 x 30°)	50	235	171.4	
FF-T3 Z220-A15-1	FF-T3	0803020	ROTA NC plus 2 260-86 ROTA NC plus 2 315-104	Nr. 15	145	Z220	26 (6x60°)	38	M16 (6x60°)	55	330.2	171.4	
FF-T3 Z220-A15-2	FF-T3	0803021	ROTA NC plus 2 260-86 ROTA NC plus 2 315-104	Nr. 15	145	Z220	23 (6x60°)	35	M16 (6x60°)	55	330.2	171.4	
FF-T2 Z300-A6	FF-T2	0805004	ROTA NC 400-120	Nr. 6	103.2	Z300	14 (6x60°)	20	M20 (6x60°) M20 (3x120°)	30	133.4	235	
FF-T2 Z300-A8	FF-T2	0805005	ROTA NC 400-120	Nr. 8	136.2	Z300	17 (6x60°)	26	M20 (6x60°) M20 (3x120°)	30	171.4	235	
FF-T1 Z300-A11	FF-T1	0803004	ROTA NC 400-120	Nr. 11	192.9	Z300	22 (6x60°) 22 (3x120°)			21	235		
FF-T3 Z300-A15-1	FF-T3	0803005	ROTA NC 400-120	Nr. 15	190	Z300	26 (6x60°)	38	M20 (6x60°)	55	330.2	235	
FF-T3 Z300-A15-2	FF-T3	0803022	ROTA NC 400-120	Nr. 15	190	Z300	23 (6x60°)	35	M20 (6x60°)	55	330.2	235	
FF-T2 Z380-A8	FF-T2	0805010	ROTA NC 500-160	Nr. 8	136.2	Z380	17 (6x60°)	26	M24 (12 x 30°)	38	171.4	330.2	
FF-T2 Z380-A11	FF-T2	0803006	ROTA NC 500-160	Nr. 11	192.9	Z380	21 (6x60°)	32	M24 (6x60°) M24 (3x120°)	38	235	330.2	
FF-T1 Z380-A15-1	FF-T1	0803023	ROTA NC 500-160	Nr. 15	281.5	Z380	26 (6x60°)			47	330.2		
FF-T2 Z520-A11	FF-T2	0801003	ROTA NC 630-180	Nr. 11	192.9	Z520	21 (6x60°)	33	M24 (12 x 30°)	40	235	330.2	463.6
FF-T1 Z520-A15	FF-T1	0805007	ROTA NC 630-180	Nr. 15	281.5	Z520	26 (6x60°)			28	330.2		
FF-T2 Z520-A20	FF-T2	0805008	ROTA NC 630-180	Nr. 20	290	Z520	26 (6x60°)	40	M24 (12 x 30°)	62	330.2	463.6	
FF-T2 Z520-A15-1	FF-T2	0801004	ROTA NC 800-230	Nr. 15	281.5	Z520	26 (6x60°)	40	M24 (6x60°)	40	330.2	463.6	
FF-T2 Z520-A15-2	FF-T2	0803025	ROTA NC 800-230	Nr. 15	281.5	Z520	23 (6x60°)	35	M24 (6x60°)	40	330.2	463.6	

ⓘ Direct adapter plates FF-T1 are used if the spindle mounting bolt circle has the same size as the lathe chuck mounting bolt circle. Reduction adapter plates FF-T2 are used if the mounting bolt circle of the spindle is smaller than the one of the lathe chuck mounting bolt circle. Expansion adapter plates FF-T3 are used if the mounting bolt circle of the spindle is larger than the one of the lathe chuck mounting bolt circle.

Accessories

Clamping force tester

For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Suitable for	Description	ID
ROTA NC plus 2 185-52		
ROTA NC plus 2 215-66		
ROTA NC plus 2 260-86		
ROTA NC plus 2 315-104		
ROTA NC plus 2 185-52/2		
ROTA NC plus 2 215-66/2		
ROTA NC plus 2 260-86/2		
ROTA NC plus 2 315-104/2		
ROTA NC 400-120		
ROTA NC 500-160		
ROTA NC 630-180		
ROTA NC 800-230		
ROTA NC 1000-350	IFT Set	1404235

Measuring head adapter for 4-jaw clamping

For use as an extension of the IFT measuring head for measuring the jaw clamping force of 4-jaw chucks.



Suitable for	Description	ID
ROTA NC plus 2 215-66/4		
ROTA NC plus 2 260-86/4		
ROTA NC plus 2 315-104/4	IFT MA4	1452686

Extension set for large chucks

For use as an extension of the IFT measuring head for measuring the jaw clamping force of large chucks of Ø 400 mm and more.



Suitable for	Description	ID
ROTA NC 400-120		
ROTA NC 500-160		
ROTA NC 630-180		
ROTA NC 800-230		
ROTA NC 1000-350	IFT adapter set	1498512

Mounting wrench

For power lathe chucks with a turnable threaded ring in pipe design with two actuation tabs.



Suitable for	Description	ID
ROTA NC plus 2 260-86		
ROTA NC plus 2 260-86/2		
ROTA NC plus 2 260-86/4	SSH-MR Ø86-150	8703837
ROTA NC plus 2 315-104		
ROTA NC plus 2 315-104/2		
ROTA NC plus 2 315-104/4	SSH-MR Ø104-150-3	8703808

Mounting wrench

For power lathe chucks with turnable threaded rings as wrench design with driving pins that snap into the threaded ring.



Suitable for	Description	ID
ROTA NC 400-120	SSH-MN Ø120-228	8700302
ROTA NC 500-160	SSH-MN Ø160-228	8700320
ROTA NC 630-180	SSH-MS Ø180-200	8700956
ROTA NC 800-230	SSH-MS Ø230-275	88000243
ROTA NC 1000-350	SSH-MS Ø350-292	8704038

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

schunk.com/rota-ncf-plus2



Powerful. RPM resistant. Precise. Power lathe chuck ROTA NCF plus 2

The ROTA NCF plus 2 has an integrated centrifugal force compensation to counteract the loss of clamping force at high speeds. Especially robust, hardened and ground flat guides inside the lightweight chuck ensure process-stable functioning even at maximum load.

Functions & highlights

- **Very high RPM without significant clamping force reduction**
  The integrated centrifugal force compensation enables optimal utilization of the machine performance
- **Low chuck weight**
  Fast acceleration and deceleration operations shorten the cycle times
- **Precision wedge-hook power lathe chuck for highest quality requirements**
  Consistently high clamping forces for process reliable clamping



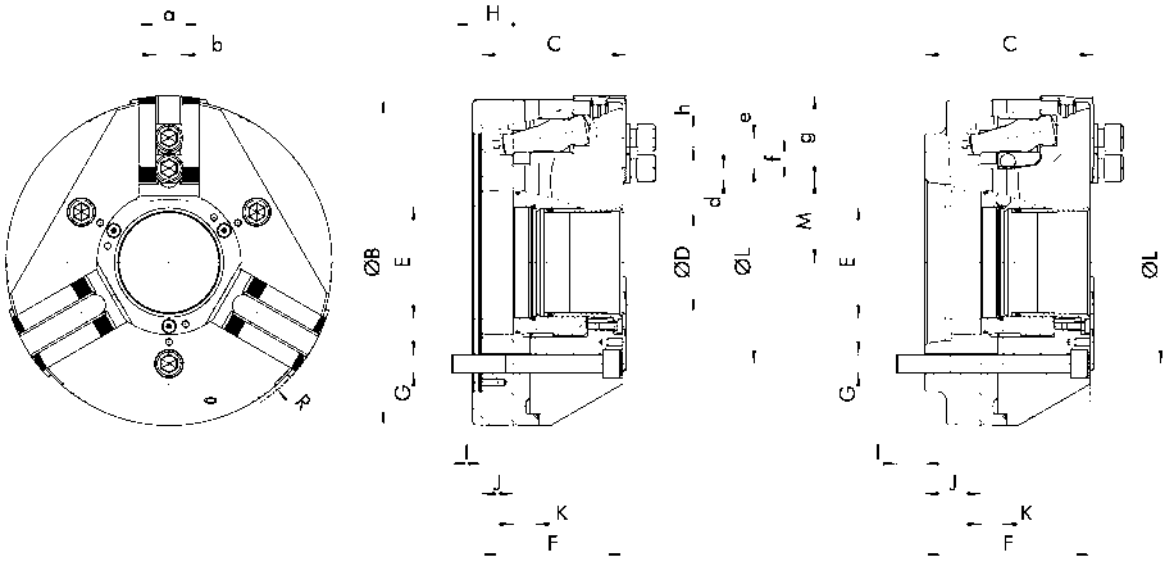
Field of application

ROTA NCF plus 2

The ROTA NCF plus 2 is optimally designed for modern lathes and turn/mill centers. The full potential efficiency of the lathe chuck can be fully used thanks to the integrated centrifugal force compensation and the low chuck weight. The advantages of the ROTA NCF plus 2 are particularly evident in high speed ranges. In addition, the lathe chuck offers an exceptionally high rigidity and precision.



1. **Wedge hook drive**
2. **Hardened and extremely rigid base body**
3. **Large through-hole**
4. **Optimized lubrication system**
5. **Mounting thread**
6. **Base jaw serration**
7. **Integrated centrifugal force compensation**
8. **Robust and advanced wedge-hook**
9. **Innovative piston guidance**



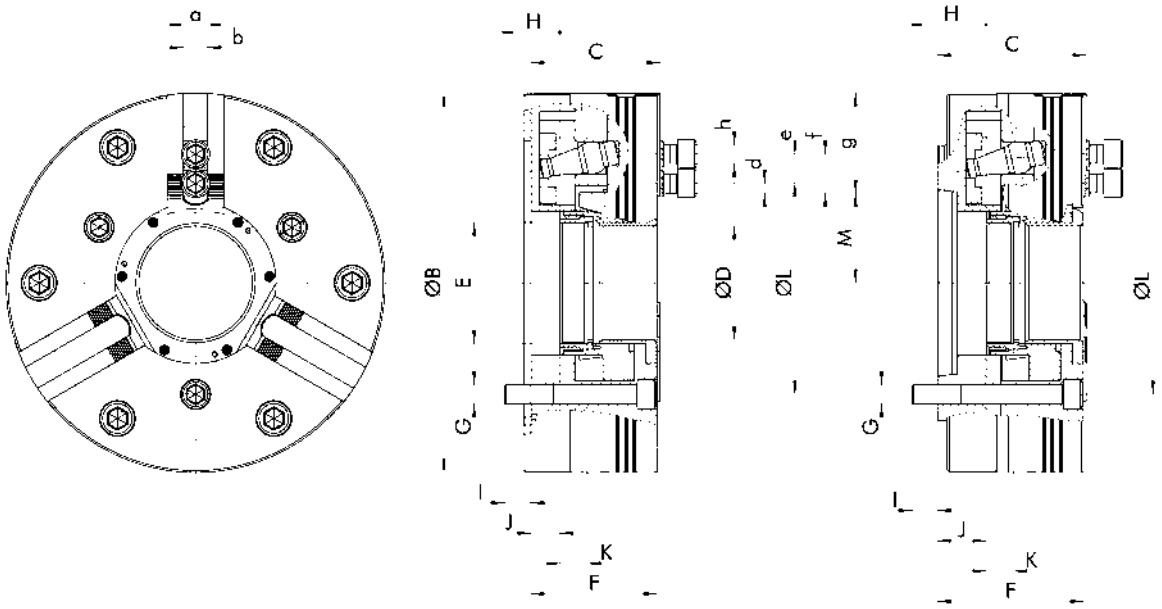
Dimensions

ID	ØB	C	ØD	E	F	G	I	J	K	ØL	M max.	ØR	a	b	d min.	e	f max.	g	h
	mm	mm	mm		mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
0854106	185	95	52	M67x1.5	93	M10	18	0.6 – 20.6	15	104.8	47	191	37	14 H7	5	min. 19	41.1	48.1	M10
0854107	185	111	52	M67x1.5	109	M10	18	0.6 – 20.6	15	104.8	47	191	37	14 H7	5	min. 19	41.1	48.1	M10
0854108	185	95	52	M67x1.5	93	M10	18	0.6 – 20.6	15	104.8	47	191	37	14 H7	5	20	41.1	48.1	M10
0854109	185	111	52	M67x1.5	109	M10	18	0.6 – 20.6	15	104.8	47	191	37	14 H7	5	20	41.1	48.1	M10
0854116	215	95	66	M74x1.5	93	M12	20	0.6 – 20.6	15	133.4	54.5	221	40	17 H7	7.8	min. 19	47.5	55.5	M12
0854117	215	111	66	M74x1.5	109	M12	19	16.6 – 36.6	15	133.4	54.5	221	40	17 H7	7.8	min. 19	47.5	55.5	M12
0854118	215	95	66	M74x1.5	93	M12	20	0.6 – 20.6	15	133.4	54.5	221	40	17 H7	7.5	25	47.5	55.5	M12
0854119	215	111	66	M74x1.5	109	M12	19	16.6 – 36.6	15	133.4	54.5	221	40	17 H7	7.5	25	47.5	55.5	M12
0854126	260	104	86	M94x1.5	102	M16	25	0.7 – 20.7	20.1	171.4	64	266	45	21 H7	10.1	min. 25	58	69	M16
0854127	260	124	86	M94x1.5	122	M16	25	20.8 – 40.8	20.1	171.4	64	266	45	21 H7	10.1	min. 25	58	69	M16
0854128	260	104	86	M94x1.5	102	M16	25	0.7 – 20.7	20.1	171.4	64	266	45	16 H7	7	30	61	69	M12
0854129	260	124	86	M94x1.5	122	M16	25	20.8 – 40.8	20.1	171.4	64	266	45	16 H7	7	30	61	69	M12
0854136	315	114	104	M115x2	112	M16	25	0.8 – 20.8	22.7	171.4	74.8	321	50	21 H7	14	min. 25	77	85.5	M16
0854137	315	134	104	M115x2	132	M16	25	20.8 – 40.8	22.7	171.4	74.8	321	50	21 H7	14	min. 25	77	85.5	M16
0854138	315	114	104	M115x2	112	M16	25	0.8 – 20.8	22.7	171.4	74.8	321	50	21 H7	11	30	77	85.5	M16
0854139	315	134	104	M115x2	132	M16	25	20.8 – 40.8	22.7	171.4	74.8	321	50	21 H7	11	30	77	85.5	M16

Technical data

Product name	Spindle type	Spindle size	ID	Serration	Max. rotational speed	Max. clamping force	Max. actuating force	Stroke/ jaw	Piston stroke (H)	Moment of inertia	Weight
					RPM	kN	kN	mm	mm	kgm²	kg
ROTA NCF plus 2 185-52	ISO 702-4	Nr. 5 (Z140)	0854106	1/16" x 90°	6000	72	30	5.3	20	0.063	14
ROTA NCF plus 2 185-52	ISO 702-1	Nr. 5	0854107	1/16" x 90°	6000	72	30	5.3	20	0.067	15
ROTA NCF plus 2 185-52	ISO 702-4	Nr. 5 (Z140)	0854108	1.5 mm x 60°	6000	72	30	5.3	20	0.063	14
ROTA NCF plus 2 185-52	ISO 702-1	Nr. 5	0854109	1.5 mm x 60°	6000	72	30	5.3	20	0.067	15
ROTA NCF plus 2 215-66	ISO 702-4	Nr. 6 (Z170)	0854116	1/16" x 90°	6000	100	42	5.3	20	0.12	19
ROTA NCF plus 2 215-66	ISO 702-1	Nr. 6	0854117	1/16" x 90°	6000	100	42	5.3	20	0.12	20
ROTA NCF plus 2 215-66	ISO 702-4	Nr. 6 (Z170)	0854118	1.5 mm x 60°	6000	100	42	5.3	20	0.12	19

Product name	Spindle type	Spindle size	ID	Serration	Max. rotational speed	Max. clamping force	Max. actuating force	Stroke/ jaw	Piston stroke (H)	Moment of inertia	Weight
					RPM	kN	kN	mm	mm	kgm²	kg
ROTA NCF plus 2 215-66	ISO 702-1	Nr. 6	0854119	1.5 mm x 60°	6000	100	42	5.3	20	0.12	20
ROTA NCF plus 2 260-86	ISO 702-4	Nr. 8 (Z220)	0854126	1/16" x 90°	4500	140	60	5.3	20	0.27	30
ROTA NCF plus 2 260-86	ISO 702-1	Nr. 8	0854127	1/16" x 90°	4500	140	60	5.3	20	0.3	33
ROTA NCF plus 2 260-86	ISO 702-4	Nr. 8 (Z220)	0854128	1.5 mm x 60°	4500	140	60	5.3	20	0.27	30
ROTA NCF plus 2 260-86	ISO 702-1	Nr. 8	0854129	1.5 mm x 60°	4500	140	60	5.3	20	0.3	33
ROTA NCF plus 2 315-104	ISO 702-4	Nr. 8 (Z220)	0854136	1/16" x 90°	4000	160	70	5.3	20	0.61	47
ROTA NCF plus 2 315-104	ISO 702-1	Nr. 8	0854137	1/16" x 90°	4000	160	70	5.3	20	0.63	49
ROTA NCF plus 2 315-104	ISO 702-4	Nr. 8 (Z220)	0854138	1.5 mm x 60°	4000	160	70	5.3	20	0.61	47
ROTA NCF plus 2 315-104	ISO 702-1	Nr. 8	0854139	1.5 mm x 60°	4000	160	70	5.3	20	0.63	49



Dimensions

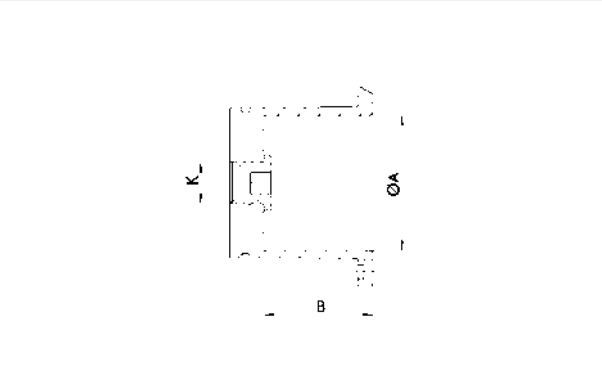
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	mm	mm	mm		mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
0854040	400	136	120	M128x2	133	M20	28	0.5 – 30.5	29	235	94.6	60	25.5 H7	10.4	min. 31	95	105.8	M20
0854041	400	157	120	M128x2	154	M20	27	21.5 – 51.5	29	235	94.6	60	25.5 H7	10.4	min. 31	95	105.8	M20
0854042	400	159	120	M128x2	156	M24	29	23.5 – 53.5	29	330.2	94.6	60	25.5 H7	10.4	min. 31	95	105.8	M20
0854043	400	136	120	M128x2	133	M20	28	0.5 – 30.5	29	235	94.6	60	24 H7	13.2	43	95	105.8	M20
0854044	40	157	120	M128x2	154	M20	27	21.5 – 51.5	29	235	94.6	60	24 H7	13.2	43	95	105.8	M20
0854050	500	144	160	M175x2	141	M24	34	0.65 – 30.65	29	330.2	121	60	25.5 H7	12.9	min. 31	118	128.4	M20
0854060	630	192	180	M200x2	189	M24	36	0.5 – 42.5	40	330.2	135	75	30 H7	15.6	min. 38	167	180.1	M24

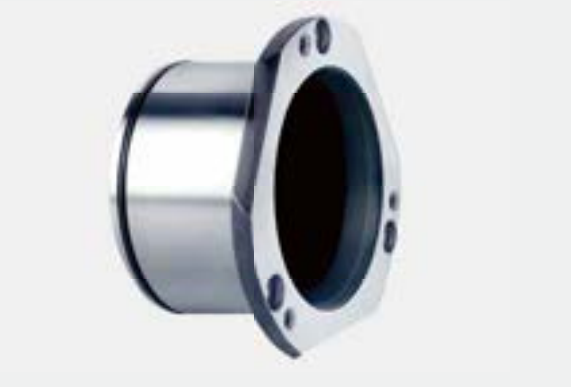
Technical data

Product name	Spindle type	Spindle size	ID	Serration	Max. rotational speed	Max. clamping force	Max. actuating force	Stroke/ jaw	Piston stroke (H)	Moment of inertia	Weight
					RPM	kN	kN	mm	mm	kgm²	kg
ROTA NCF 400-120	ISO 702-4	Nr. 11 (Z300)	0854040	3/32" x 90°	3300	187.5	77	8	30	0.95	110
ROTA NCF 400-120	ISO 702-1	Nr. 11	0854041	3/32" x 90°	3300	187.5	77	8	30	0.95	114
ROTA NCF 400-120	ISO 702-1	Nr. 15	0854042	3/32" x 90°	3300	187.5	77	8	30	0.95	117
ROTA NCF 400-120	ISO 702-4	Nr. 11 (Z300)	0854043	1.5 mm x 60°	3300	187.5	77	8	30	0.95	110
ROTA NCF 400-120	ISO 702-1	Nr. 11	0854044	1.5 mm x 60°	3300	187.5	77	8	30	0.95	114
ROTA NCF 500-160	ISO 702-4	Nr. 15 (Z380)	0854050	3/32" x 90°	2200	200	75	8	30	6.1	170
ROTA NCF 630-180	–	Z520	0854060	3/32" x 90°	1800	300	122	11.2	42	19.8	366

Center sleeves

Center sleeve closed

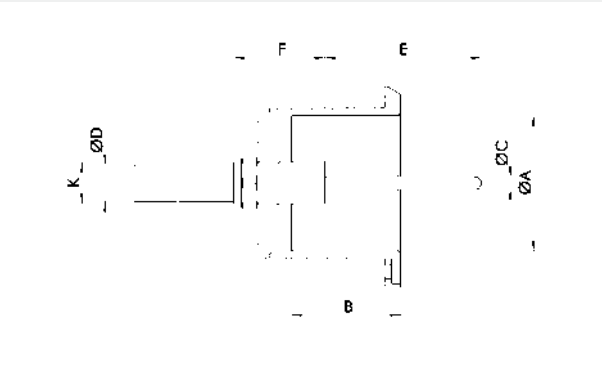


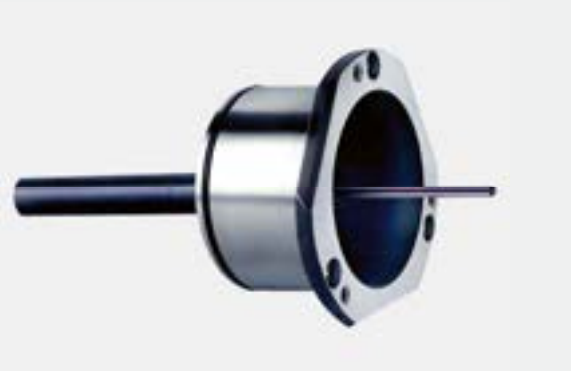


Technical data

Description	ID	Suitable for	ØA	B	K	Weight
			mm	mm		kg
SBS-G-C 185	8703865	ROTA NCF plus 2 185-52	52	42	M16x1.5	0.6
SBS-G-C 215	8703755	ROTA NCF plus 2 215-66	66	37	M16x1.5	0.8
SBS-G-C2 260	8705191	ROTA NCF plus 2 260-86	86	38	M16x1.5	0.8
SBS-G-C2 315	8705198	ROTA NCF plus 2 315-104	104	44	M16x1.5	1.6
SBS-G-C 400	8704560	ROTA NCF 400-120	120	41		4
SBS-G-C 500	8704561	ROTA NCF 500-160	160	49		5.9
SBS-G-C 630	8704562	ROTA NCF 630-180	180	74		8.4

Protection sleeve with ejector



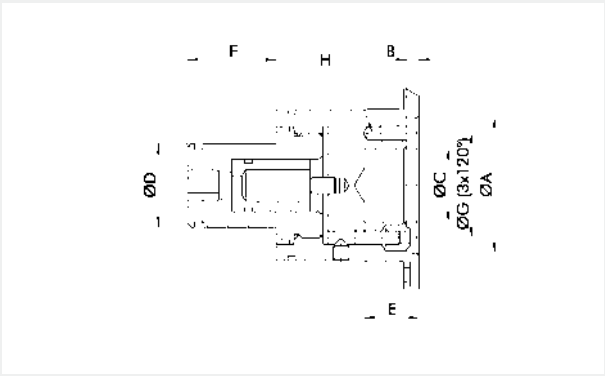


Technical data

Description	Suitable for	ØA	B	ØC	ØD	E	F	K
		mm	mm	mm	mm	mm	mm	
SBS-A-C 185	ROTA NCF plus 2 185-52	52	42	4.8	14	10 – 100	35	M16x1.5
SBS-A-C 215	ROTA NCF plus 2 215-66	66	37	4.8	14	10 – 100	35	M16x1.5
SBS-A-C2 260	ROTA NCF plus 2 260-86	86	38	4.8	14	10 – 100	35	M16x1.5
SBS-A-C2 315	ROTA NCF plus 2 315-104	104	44	4.8	14	10 – 100	35	M16x1.5

ⓘ Center sleeves with ejector are available on request.
The ejector stroke can be selected in 10 increments from 10 – 100 mm.
The ejection force is selectable with 40, 100, 150, 200, 250, or 300 N.

Protection sleeve with spray nozzles

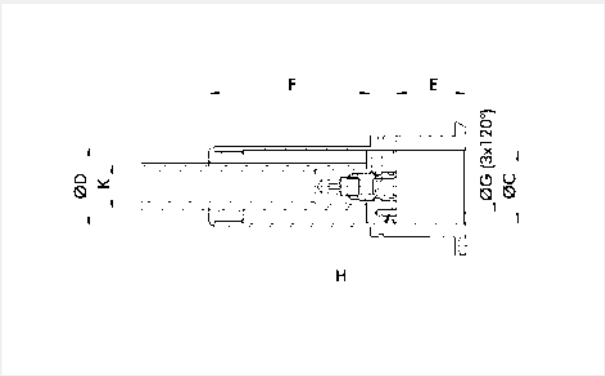




Technical data

Description	ID	Suitable for	ØA mm	B mm	ØC mm	ØD mm	F mm	ØG mm	H	Weight kg
SBS-S-C 185	8703863	ROTA NCF plus 2 185-52	52	5	28	32	34	41	M6x10	1.2
SBS-S-C 215	8703753	ROTA NCF plus 2 215-66	66	5	32	32	47	49	M6x10	1.6
SBS-S-C2 260	8705189	ROTA NCF plus 2 260-86	86	5	48	32	47	67	M6x10	2.7
SBS-S-C2 315	8705196	ROTA NCF plus 2 315-104	104	5	48	32	47	76	M6x10	4.2

Center sleeve with adjustable stop





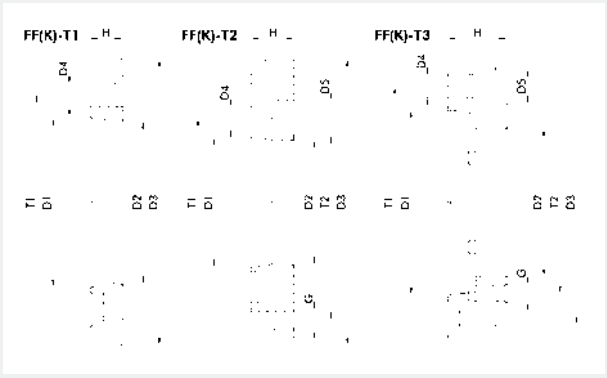
Technical data

Description	ID	Suitable for	ØC mm	ØD mm	E mm	F mm	ØG mm	H	K	Weight kg
SBS-T-C 185	8703859	ROTA NCF plus 2 185-52	42	46.5	0 - 110.8	92.8	30	M4x8	M27	1.5
SBS-T-C 215	8703749	ROTA NCF plus 2 215-66	51	55.5	0 - 110.8	97.8	35	M5x10	M27	2
SBS-T-C2 260	8705185	ROTA NCF plus 2 260-86	61	65.5	0 - 110.8	96.8	40	M5x10	M27	3.2
SBS-T-C2 315	8705192	ROTA NCF plus 2 315-104	75	80.5	0 - 110.8	104.8	50	M6x12	M27	4.9

ⓘ Important: Check the spindle/draw tube through-hole
The spindle through-hole must be at least Ø D + 0.5 mm

Adapter plates

Z-mount on short taper ISO 702-1





Technical data

Description	Adapter plate type	ID	Suitable for	D1	D2	D3	D4	D5	G	H	T1	T2	T3
					mm		mm	mm		mm	mm	mm	mm
FF-T2 Z140-A4	FF-T2	0805000	ROTA NCF plus 2 185-52	Nr. 4	61	Z140	11 (6x60°)	17	M10 (6x60°)	21	82.6	104.8	
FF-T1 Z140-A5	FF-T1	0803000	ROTA NCF plus 2 185-52	Nr. 5	79.6	Z140	11 (6x60°)			16	104.8		
FF-T3 Z140-A6	FF-T3	0801000	ROTA NCF plus 2 185-52	Nr. 6	85	Z140	13 (6x60°)	20	M10 (6x60°)	34	133.4	104.8	
FF-T2 Z170-A5	FF-T2	0805001	ROTA NCF plus 2 215-66	Nr. 5	79.6	Z170	11 (6x60°)	18	M12 (12 x 30°)	25	104.8	133.4	
FF-T1 Z170-A6	FF-T1	0803001	ROTA NCF plus 2 215-66	Nr. 6	103.2	Z170	13 (6x60°)			17	133.4		
FF-T3 Z170-A8	FF-T3	0801001	ROTA NCF plus 2 215-66	Nr. 8	113	Z170	17 (6x60°)	26	M12 (6x60°) M12 (2x180°)	40	171.4	133.4	
FF-T2 Z220-A5	FF-T2	0805002	ROTA NCF plus 2 260-86 ROTA NCF plus 2 315-104	Nr. 5	79.6	Z220	11 (6x60°)	17	M16 (6x60°) M16 (2x180°)	28	104.8	171.4	
FF-T2 Z220-A6	FF-T2	0805003	ROTA NCF plus 2 260-86 ROTA NCF plus 2 315-104	Nr. 6	103.2	Z220	13 (6x60°)	20	M16 (6x60°) M16 (2x180°)	28	133.4	171.4	
FF-T1 Z220-A8	FF-T1	0803002	ROTA NCF plus 2 260-86 ROTA NCF plus 2 315-104	Nr. 8	136.2	Z220	17 (6x60°) 17 (2x180°)			19	171.4		
FF-T3 Z220-A11	FF-T3	0803003	ROTA NCF plus 2 260-86 ROTA NCF plus 2 315-104	Nr. 11	130	Z220	21 (6x60°)	32	M16 (12 x 30°)	50	235	171.4	
FF-T3 Z220-A15-1	FF-T3	0803020	ROTA NCF plus 2 260-86 ROTA NCF plus 2 315-104	Nr. 15	145	Z220	26 (6x60°)	38	M16 (6x60°)	55	330.2	171.4	
FF-T3 Z220-A15-2	FF-T3	0803021	ROTA NCF plus 2 260-86 ROTA NCF plus 2 315-104	Nr. 15	145	Z220	23 (6x60°)	35	M16 (6x60°)	55	330.2	171.4	
FF-T2 Z300-A6	FF-T2	0805004	ROTA NCF 400-120	Nr. 6	103.2	Z300	14 (6x60°)	20	M20 (6x60°) M20 (3x120°)	30	133.4	235	
FF-T2 Z300-A8	FF-T2	0805005	ROTA NCF 400-120	Nr. 8	136.2	Z300	17 (6x60°)	26	M20 (6x60°) M20 (3x120°)	30	171.4	235	
FF-T1 Z300-A11	FF-T1	0803004	ROTA NCF 400-120	Nr. 11	192.9	Z300	22 (6x60°) 22 (3x120°)			21	235		
FF-T3 Z300-A15-1	FF-T3	0803005	ROTA NCF 400-120	Nr. 15	190	Z300	26 (6x60°)	38	M20 (6x60°)	55	330.2	235	
FF-T3 Z300-A15-2	FF-T3	0803022	ROTA NCF 400-120	Nr. 15	190	Z300	23 (6x60°)	35	M20 (6x60°)	55	330.2	235	
FF-T2 Z380-A8	FF-T2	0805010	ROTA NCF 500-160	Nr. 8	136.2	Z380	17 (6x60°)	26	M24 (12 x 30°)	38	171.4	330.2	
FF-T2 Z380-A11	FF-T2	0803006	ROTA NCF 500-160	Nr. 11	192.9	Z380	21 (6x60°)	32	M24 (6x60°) M24 (3x120°)	38	235	330.2	
FF-T1 Z380-A15-1	FF-T1	0803023	ROTA NCF 500-160	Nr. 15	281.5	Z380	26 (6x60°)			47	330.2		
FF-T2 Z520-A11	FF-T2	0801003	ROTA NCF 630-180	Nr. 11	192.9	Z520	21 (6x60°)	33	M24 (12 x 30°)	40	235	330.2	463.6
FF-T1 Z520-A15	FF-T1	0805007	ROTA NCF 630-180	Nr. 15	281.5	Z520	26 (6x60°)			28	330.2		
FF-T2 Z520-A20	FF-T2	0805008	ROTA NCF 630-180	Nr. 20	290	Z520	26 (6x60°)	40	M24 (12 x 30°)	62	330.2	463.6	

ⓘ Direct adapter plates FF-T1 are used if the spindle mounting bolt circle has the same size as the lathe chuck mounting bolt circle.
Reduction adapter plates FF-T2 are used if the mounting bolt circle of the spindle is smaller than the one of the lathe chuck mounting bolt circle.
Expansion adapter plates FF-T3 are used if the mounting bolt circle of the spindle is larger than the one of the lathe chuck mounting bolt circle.

Accessories

Clamping force tester

For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Suitable for	Description	ID
ROTA NCF plus 2 185-52		
ROTA NCF plus 2 215-66		
ROTA NCF plus 2 260-86		
ROTA NCF plus 2 315-104		
ROTA NCF 400-120		
ROTA NCF 500-160		
ROTA NCF 630-180	IFT Set	1404235

Extension set for large chucks

For use as an extension of the IFT measuring head for measuring the jaw clamping force of large chucks of Ø 400 mm and more.



Suitable for	Description	ID
ROTA NCF 400-120		
ROTA NCF 500-160		
ROTA NCF 630-180	IFT adapter set	1498512

Mounting wrench

For power lathe chucks with a turnable threaded ring in pipe design with two actuation tabs.



Suitable for	Description	ID
ROTA NCF plus 2 260-86	SSH-MR Ø86-150	8703837
ROTA NCF plus 2 315-104	SSH-MR Ø104-150-3	8703808

Mounting wrench

For power lathe chucks with turnable threaded rings as wrench design with driving pins that snap into the threaded ring.



Suitable for	Description	ID
ROTA NCF 400-120	SSH-MN Ø120-228	8700302
ROTA NCF 500-160	SSH-MN Ø160-228	8700320
ROTA NCF 630-180	SSH-MS Ø180-200	8700956

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

ROTA NCO

schunk.com/rota-nco



Precise. Robust. Powerful.
Power lathe chuck ROTA NCO

The ROTA NCO is a wedge hook power lathe chuck with a long jaw stroke. The lathe chuck has adjustable brass wipers for optimal protection against chips and dirt. The technology of the ROTA NCO is designed for maximum precision and long service life. The lathe chuck also features a media feed-through for coolant or air as standard.

Functions & highlights

- **Longest jaw stroke at high jaw clamping force**
  Reliable and variable clamping of workpieces over interfering contours
- **Sealing on the base jaw as standard**
  Excellently suitable for the use on vertical lathes
- **Low height**
  Maximum use of the machine room and maximum rigidity of the system



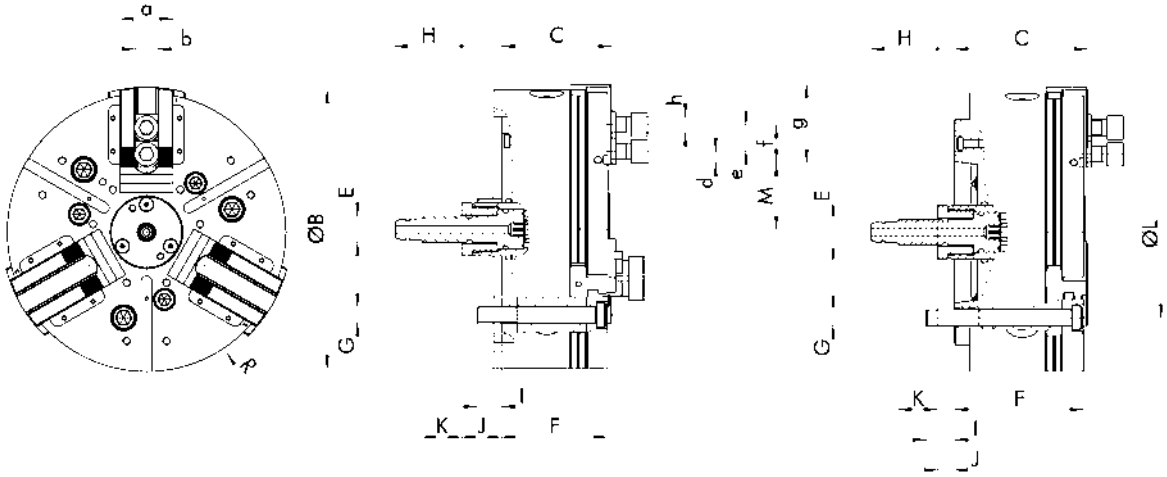
Field of application

ROTA NCO

The ROTA NCO is considered to be a problem solver par excellence on horizontal as well as vertical lathes. The long jaw stroke enables the lathe chuck to clamp over interfering contours of the workpiece. The special feature: Despite its long jaw stroke, the ROTA NCO achieves a high clamping force, which means that clamping of these components is also process-reliable.



1. **Wedge hook drive**
2. **Hardened and extremely rigid base body**
3. **Optimized lubrication system**
4. **Mounting thread**
5. **Additional guide groove on the chuck face**
6. **Long jaw guidance**
7. **Low height**
8. **Wiper strips**
9. **Integrated air through-feed with mounting holes**



Dimensions

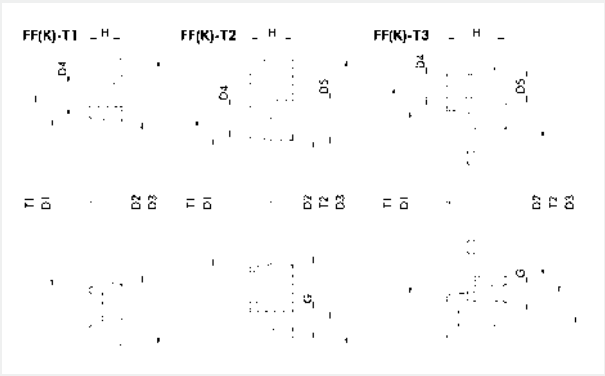
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	mm	mm		mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
0856000	165	74	M16	86	M10	14	25 - 49	25	104.8	39.5	172	37	17 H7	10	19	40.2	46.4	M12
0856001	165	90	M16	88	M10	18	9 - 33	25	104.8	39.5	172	37	17 H7	10	19	40.2	46.4	M12
0856002	165	74	M16	86	M10	14	25 - 49	25	104.8	63	172	37	16 H7					
0856003	165	90	M16	88	M10	18	9 - 33	25	104.8	63	172	37	16 H7					
0856010	210	83	M20	86	M12	18.5	30 - 57	30	133.4	50.3	218.6	40	17 H7	8.6	19	53.1	59.2	M12
0856011	210	99	M20	96	M10	13	14 - 41	30	104.8	50.3	218.6	40	17 H7	8.6	19	53.1	59.2	M12
0856012	210	100	M20	97	M12	21.5	13 - 40	30	133.4	50.3	218.6	40	17 H7	8.6	19	53.1	59.2	M12
0856013	210	83	M20	86	M12	18.5	30 - 57	30	133.4	50.3	218.6	40	16 H7					
0856014	210	83	M20	96	M10	13	14 - 41	30	104.8	50.3	218.6	40	16 H7					
0856015	210	83	M20	97	M12	21.5	13 - 40	30	133.4	50.3	218.6	40	16 H7					
0856020	260	90	M24	95	M16	23.6	30 - 60	35	171.4	61.6	269.6	50	21 H7	11.6	25	65	73.4	M16
0856021	260	107	M24	104	M16	19	13 - 43	35	171.4	61.6	269.6	50	21 H7	11.6	25	65	73.4	M16
0856022	260	109	M24	106	M16	24.6	11 - 41	35	171.4	61.6	269.6	50	21 H7	11.6	25	65	73.4	M16
0856023	260	90	M24	95	M16	23.6	30 - 60	35	171.4	61.6	269.6	50	20 H7					
0856024	260	107	M24	104	M16	19	13 - 43	35	171.4	61.6	269.6	50	20 H7					
0856025	260	109	M24	106	M16	24.6	11 - 41	35	171.4	61.6	269.6	50	20 H7					
0856030	315	104	M24	111	M16	24.6	30 - 70	35	171.4	67.9	328.9	50	21 H7	11.8	26	87	96.8	M16
0856032	315	122	M24	120	M16	20.6	11 - 51	35	171.4	67.9	328.9	50	21 H7	11.8	26	87	96.8	M16
0856033	315	125	M24	122	M20	31	9 - 49	35	235	67.9	328.9	50	21 H7	11.8	26	87	96.8	M16
0856034	315	104	M24	111	M16	24.6	30 - 70	35	171.4	67.9	328.9	50	20 H7					
0856036	315	122	M24	120	M16	20.6	11 - 51	35	171.4	67.9	328.9	50	20 H7					
0856037	315	125	M24	122	M20	31	9 - 49	35	235	67.9	328.9	50	20 H7					
0856040	400	118	M30	118	M20	30	30 - 75	33.5	235	81.3	414.5	65	25.5 H7	16	31	116	126.1	M20
0856041	400	139	M30	135	M20	29	9 - 54	33.5	235	81.3	414.5	65	25.5 H7	16	31	116	126.1	M20
0856042	400	118	M30	118	M20	30	30 - 75	33.5	235	81.3	414.5	65	22 H7					
0856043	400	118	M30	118	M20	30	9 - 54	33.5	235	81.3	414.5	65	22 H7					
0856050	500	118	M30	114	M24	36	30 - 75	33.5	330.2	81.3	512.7	65	25.5 H7	16	31	165	176.1	M20
0856051	500	141	M30	137	M24	33	7 - 52	33.5	330.2	81.3	512.7	65	25.5 H7	16	31	165	176.1	M20
0856060	630	113	M30	114	M24	36	30 - 75	33.5	330.2	81.1	640.7	65	25.5 H7	14	31	230	239.8	M20

Technical data

Product name	Spindle type	Spindle size	ID	Serration	Max. rotational speed	Max. clamping force	Max. actuating force	Stroke/jaw	Piston stroke (H)	Moment of inertia	Weight
					RPM	kN	kN	mm	mm	kgm²	kg
ROTA NCO 165	ISO 702-4	Nr. 5 (Z140)	0856000	1/16" x 90°	6000	72	30	6.4	24	0.04	11
ROTA NCO 165	ISO 702-1	Nr. 5	0856001	1/16" x 90°	6000	72	30	6.4	24	0.04	13
ROTA NCO 165	ISO 702-4	Nr. 5 (Z140)	0856002	Tongue and groove	6000	72	30	6.4	24	0.04	11
ROTA NCO 165	ISO 702-1	Nr. 5	0856003	Tongue and groove	6000	72	30	6.4	24	0.04	13
ROTA NCO 210	ISO 702-4	Nr. 6 (Z170)	0856010	1/16" x 90°	5000	95	42	9	27	0.11	21
ROTA NCO 210	ISO 702-1	Nr. 5	0856011	1/16" x 90°	5000	95	42	9	27	0.12	23
ROTA NCO 210	ISO 702-1	Nr. 6	0856012	1/16" x 90°	5000	95	42	9	27	0.12	23
ROTA NCO 210	ISO 702-4	Nr. 6 (Z170)	0856013	Tongue and groove	5000	95	42	9	27	0.11	21
ROTA NCO 210	ISO 702-1	Nr. 5	0856014	Tongue and groove	5000	95	42	9	27	0.12	23
ROTA NCO 210	ISO 702-1	Nr. 6	0856015	Tongue and groove	5000	95	42	9	27	0.12	23
ROTA NCO 260	ISO 702-4	Nr. 8 (Z220)	0856020	1/16" x 90°	4500	150	62	10	30	0.3	34
ROTA NCO 260	ISO 702-1	Nr. 6	0856021	1/16" x 90°	4500	150	62	10	30	0.33	39
ROTA NCO 260	ISO 702-1	Nr. 8	0856022	1/16" x 90°	4500	150	62	10	30	0.33	38
ROTA NCO 260	ISO 702-4	Nr. 8 (Z220)	0856023	Tongue and groove	4500	150	62	10	30	0.3	34
ROTA NCO 260	ISO 702-1	Nr. 6	0856024	Tongue and groove	4500	150	62	10	30	0.33	39
ROTA NCO 260	ISO 702-1	Nr. 8	0856025	Tongue and groove	4500	150	62	10	30	0.33	38
ROTA NCO 315	ISO 702-4	Nr. 8 (Z220)	0856030	1/16" x 90°	3600	190	90	13	40	0.77	59
ROTA NCO 315	ISO 702-1	Nr. 8	0856032	1/16" x 90°	3600	190	90	13	40	0.86	66
ROTA NCO 315	ISO 702-1	Nr. 11	0856033	1/16" x 90°	3600	190	90	13	40	0.85	65
ROTA NCO 315	ISO 702-4	Nr. 8 (Z220)	0856034	Tongue and groove	3600	190	90	13	40	0.77	59
ROTA NCO 315	ISO 702-1	Nr. 8	0856036	Tongue and groove	3600	190	90	13	40	0.86	66
ROTA NCO 315	ISO 702-1	Nr. 11	0856037	Tongue and groove	3600	190	90	13	40	0.85	65
ROTA NCO 400	ISO 702-4	Nr. 11 (Z300)	0856040	3/32" x 90°	2500	270	120	15	45	2.25	108
ROTA NCO 400	ISO 702-1	Nr. 11	0856041	3/32" x 90°	2500	270	120	15	45	2.36	114
ROTA NCO 400	ISO 702-4	Nr. 11 (Z300)	0856042	Tongue and groove	2500	270	120	15	45	2.25	108
ROTA NCO 400	ISO 702-1	Nr. 11	0856043	Tongue and groove	2500	270	120	15	45	2.36	114
ROTA NCO 500	ISO 702-4	Nr. 15 (Z380)	0856050	3/32" x 90°	2000	330	140	15	45	5.3	164
ROTA NCO 500	ISO 702-1	Nr. 15	0856051	3/32" x 90°	2000	330	140	15	45	5.6	172
ROTA NCO 630	ISO 702-4	Nr. 15 (Z380)	0856060	3/32" x 90°	1600	330	140	15	45	13.8	263

Adapter plates

Z-mount on short taper ISO 702-1





Technical data

Description	Adapter plate type	ID	Suitable for	D1	D2	D3	D4	D5	G	H	T1	T2
					mm		mm	mm		mm	mm	mm
FF-T2 Z140-A4	FF-T2	0805000	ROTA NCO 165	Nr. 4	61	Z140	11 (6x60°)	17	M10 (6x60°)	21	82.6	104.8
FF-T1 Z140-A5	FF-T1	0803000	ROTA NCO 165	Nr. 5	79.6	Z140	11 (6x60°)			16	104.8	
FF-T3 Z140-A6	FF-T3	0801000	ROTA NCO 165	Nr. 6	85	Z140	13 (6x60°)	20	M10 (6x60°)	34	133.4	104.8
FF-T2 Z170-A5	FF-T2	0805001	ROTA NCO 210	Nr. 5	79.6	Z170	11 (6x60°)	18	M12 (12 x 30°)	25	104.8	133.4
FF-T1 Z170-A6	FF-T1	0803001	ROTA NCO 210	Nr. 6	103.2	Z170	13 (6x60°)			17	133.4	
FF-T3 Z170-A8	FF-T3	0801001	ROTA NCO 210	Nr. 8	113	Z170	17 (6x60°)	26	M12 (6x60°) M12 (2x180°)	40	171.4	133.4
FF-T2 Z220-A5	FF-T2	0805002	ROTA NCO 260 ROTA NCO 315	Nr. 5	79.6	Z220	11 (6x60°)	17	M16 (6x60°) M16 (2x180°)	28	104.8	171.4
FF-T2 Z220-A6	FF-T2	0805003	ROTA NCO 260 ROTA NCO 315	Nr. 6	103.2	Z220	13 (6x60°)	20	M16 (6x60°) M16 (2x180°)	28	133.4	171.4
FF-T1 Z220-A8	FF-T1	0803002	ROTA NCO 260 ROTA NCO 315	Nr. 8	136.2	Z220	17 (6x60°) 17 (2x180°)			19	171.4	
FF-T3 Z220-A11	FF-T3	0803003	ROTA NCO 260 ROTA NCO 315	Nr. 11	130	Z220	21 (6x60°)	32	M16 (12 x 30°)	50	235	171.4
FF-T3 Z220-A15-1	FF-T3	0803020	ROTA NCO 260 ROTA NCO 315	Nr. 15	145	Z220	26 (6x60°)	38	M16 (6x60°)	55	330.2	171.4
FF-T3 Z220-A15-2	FF-T3	0803021	ROTA NCO 260 ROTA NCO 315	Nr. 15	145	Z220	23 (6x60°)	35	M16 (6x60°)	55	330.2	171.4
FF-T2 Z300-A6	FF-T2	0805004	ROTA NCO 400	Nr. 6	103.2	Z300	14 (6x60°)	20	M20 (6x60°) M20 (3x120°)	30	133.4	235
FF-T2 Z300-A8	FF-T2	0805005	ROTA NCO 400	Nr. 8	136.2	Z300	17 (6x60°)	26	M20 (6x60°) M20 (3x120°)	30	171.4	235
FF-T1 Z300-A11	FF-T1	0803004	ROTA NCO 400	Nr. 11	192.9	Z300	22 (6x60°) 22 (3x120°)			21	235	
FF-T3 Z300-A15-1	FF-T3	0803005	ROTA NCO 400	Nr. 15	190	Z300	26 (6x60°)	38	M20 (6x60°)	55	330.2	235
FF-T3 Z300-A15-2	FF-T3	0803022	ROTA NCO 400	Nr. 15	190	Z300	23 (6x60°)	35	M20 (6x60°)	55	330.2	235
FF-T2 Z380-A8	FF-T2	0805010	ROTA NCO 500 ROTA NCO 630	Nr. 8	136.2	Z380	17 (6x60°)	26	M24 (12 x 30°)	38	171.4	330.2
FF-T2 Z380-A11	FF-T2	0803006	ROTA NCO 500 ROTA NCO 630	Nr. 11	192.9	Z380	21 (6x60°)	32	M24 (6x60°) M24 (3x120°)	38	235	330.2
FF-T1 Z380-A15-1	FF-T1	0803023	ROTA NCO 500 ROTA NCO 630	Nr. 15	281.5	Z380	26 (6x60°)			47	330.2	

ⓘ Direct adapter plates FF-T1 are used if the spindle mounting bolt circle has the same size as the lathe chuck mounting bolt circle.
Reduction adapter plates FF-T2 are used if the mounting bolt circle of the spindle is smaller than the one of the lathe chuck mounting bolt circle.
Expansion adapter plates FF-T3 are used if the mounting bolt circle of the spindle is larger than the one of the lathe chuck mounting bolt circle.

Accessories

Clamping force tester
For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Suitable for	Description	ID
ROTA NCO 165		
ROTA NCO 210		
ROTA NCO 260		
ROTA NCO 315		
ROTA NCO 400		
ROTA NCO 500		
ROTA NCO 630	IFT Set	1404235

Extension set for large chucks
For use as an extension of the IFT measuring head for measuring the jaw clamping force of large chucks of Ø 400 mm and more.



Suitable for	Description	ID
ROTA NCO 400		
ROTA NCO 500		
ROTA NCO 630	IFT adapter set	1498512

Modification air control
Transfer of the medium via threaded holes at the face of the groove which is integrated in the chuck body.



Suitable for	Description	ID
ROTA NCO 165	ROTA NCO-L 165	0856201
ROTA NCO 210	ROTA NCO-L 210	0856211
ROTA NCO 260	ROTA NCO-L 260	0856221
ROTA NCO 315	ROTA NCO-L 315	0856231
ROTA NCO 400		
ROTA NCO 500	ROTA NCO-L 400	0856241

Modification coolant supply
Coolant through feeding with integrated non-return valve and spray nozzle.



Suitable for	Description	ID
ROTA NCO 165	ROTA NCO-K 165	0856202
ROTA NCO 210	ROTA NCO-K 210	0856212
ROTA NCO 260	ROTA NCO-K 260	0856222
ROTA NCO 315	ROTA NCO-K 315	0856232
ROTA NCO 400		
ROTA NCO 500	ROTA NCO-K 400	0856242

Grease

LINOMAX plus
High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



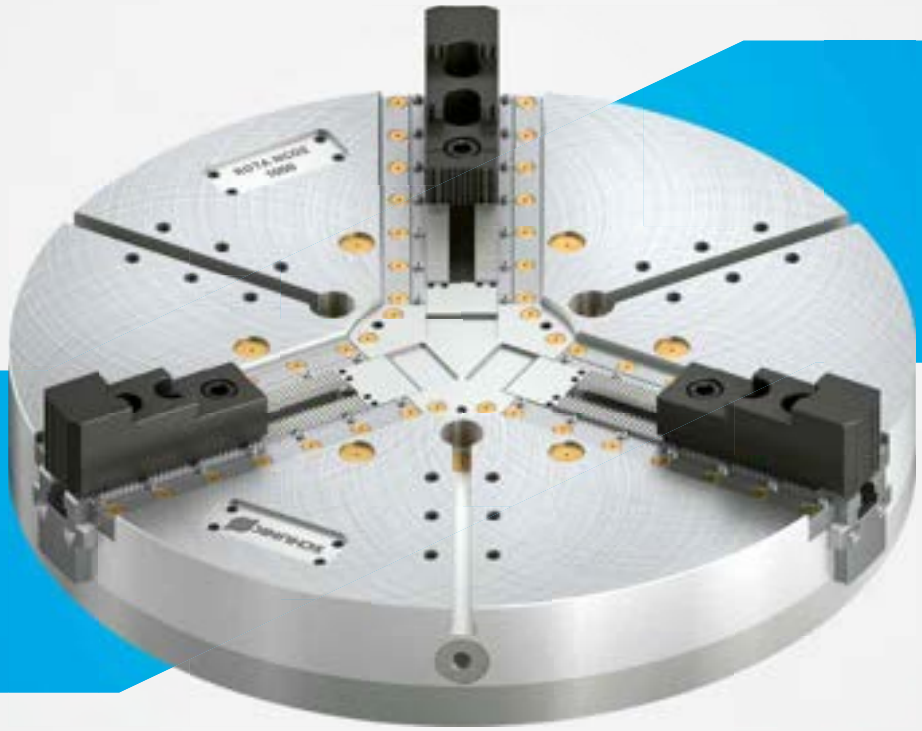
Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun
Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

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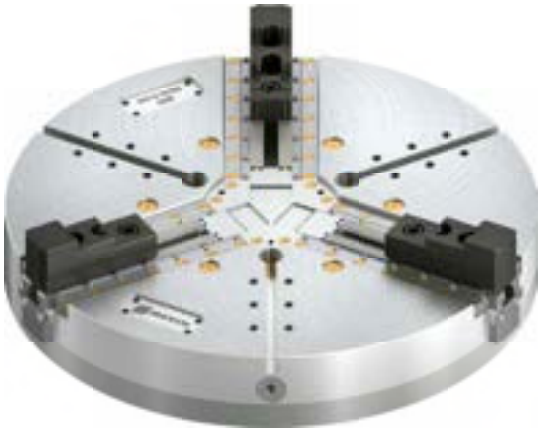


Precise. Robust. Powerful. Power lathe chuck ROTA NCO2

The ROTA NCO2 combines highest clamping forces with long jaw strokes. The lathe chuck has an innovative lubrication system and a seal on the base jaws. These ensure low maintenance efforts and a long service life. In addition to the standard variant, the ROTA NCO2 is also available with centrifugal force compensation or with individual jaw adjustment.

Functions & highlights

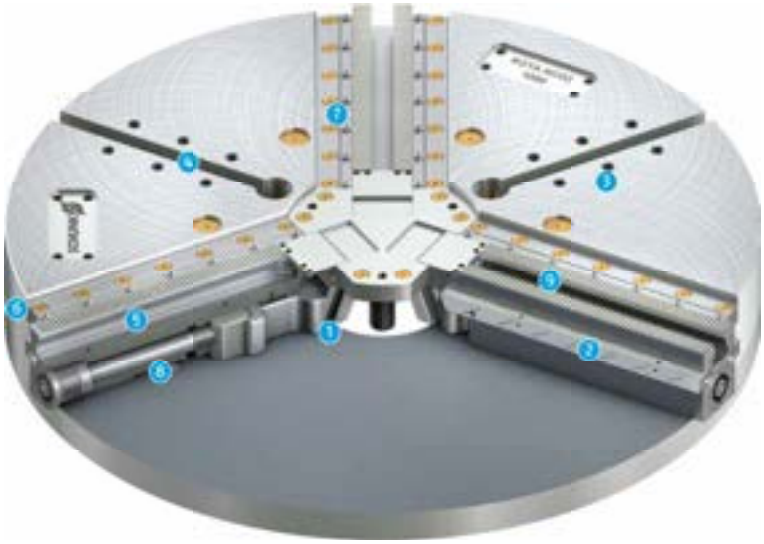
- **Weight-optimized cast body**
  Reduced energy consumption and higher workpiece weights possible
- **Sealing on the base jaw as standard**
  Excellently suitable for the use on vertical lathes
- **Module 2 serration**
  For easy setting up and cleaning of the base jaws



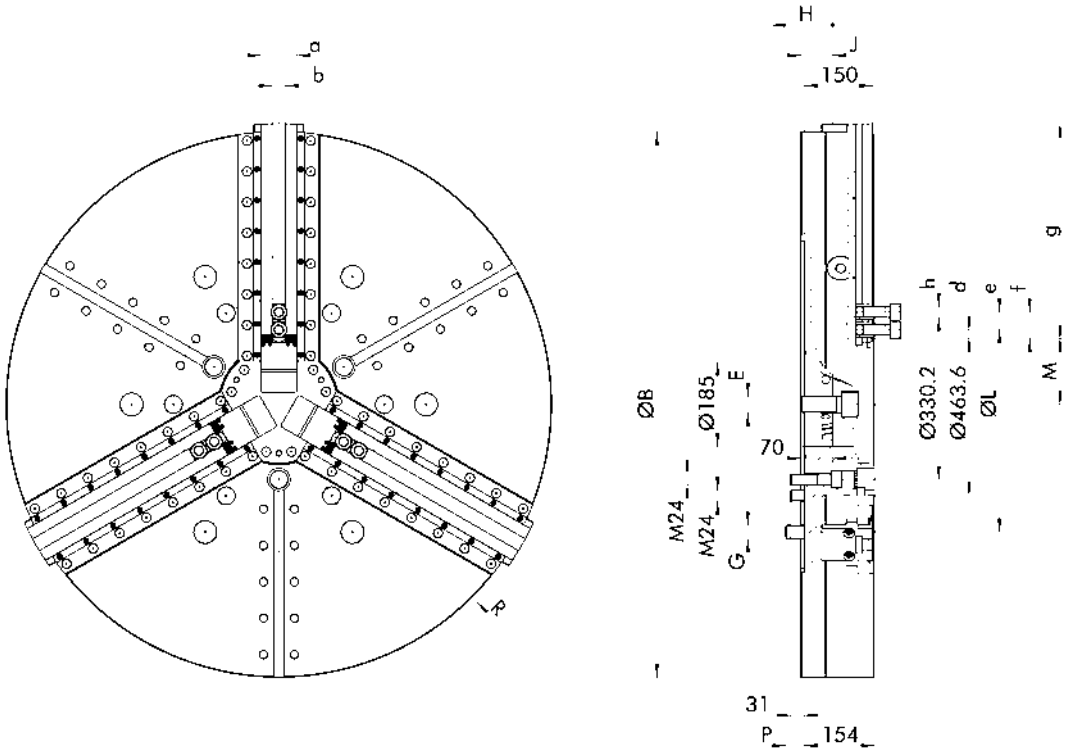
Field of application

ROTA NC02

The ROTA NC02 has been specially developed for vertical lathes. Higher workpiece weights can be clamped thanks to the weight-optimized chuck body. The long jaw strokes combined with high clamping forces enable workpieces with a large interfering contour to be clamped in reliable processes. As an option, the chucks can be equipped with centrifugal force compensation and individual jaw adjustment in order to run at higher speeds or to optimally align complicated workpieces to the clamping center.



1. **Wedge hook drive**
2. **Optimized lubrication system**
3. **Mounting thread**
4. **Additional guide groove on the chuck face**
5. **Long jaw guidance**
6. **Low height**
7. **Combined sealing strips**
8. **Individual jaw adjustment as option**
9. **Module 2 serration**



Dimensions

ID	ØB	E	G	J	ØL	M	P	ØR	a	b	d min.	e min.	f max.	g	h
	mm			mm	mm	mm	mm	mm	mm		mm	mm	mm	mm	
1481247	800	M36		13 - 70		121.6 - 144.6		834.3	80	30 H7	19.5	39	254.2	272.5	M24
1486021	800	M36		13 - 70		121.6 - 144.6		834.3	80	30 H7	19.5	39	254.2	272.5	M24
1481248	800	M36		13 - 70		121.6 - 144.6		834.3	80	30 H7	19.5	39	254.2	272.5	M24
1481305	1000	M36		13 - 70		121.6 - 144.6		1034.1	80	30 H7	19.5	39	354.5	372.5	M24
1486022	1000	M36		13 - 70		121.6 - 144.6		1034.1	80	30 H7	19.5	39	354.5	372.5	M24
1481306	1000	M36		13 - 70		121.6 - 144.6		1034.1	80	30 H7	19.5	39	354.5	372.5	M24
1481309	1200	M36	M30	13 - 70	647.6	121.6 - 144.6	41	1234.1	80	30 H7	19.5	39	454.3	472.5	M24
1486023	1200	M36	M30	13 - 70	647.6	121.6 - 144.6	41	1234.1	80	30 H7	19.5	39	454.3	472.5	M24
1481310	1200	M36	M30	13 - 70	647.6	121.6 - 144.6	41	1234.1	80	30 H7	19.5	39	454.3	472.5	M24
1481323	1400	M36	M30	13 - 70	647.6	121.6 - 144.6	41	1434.1	80	30 H7	19.5	39	554.5	572.5	M24
1486024	1400	M36	M30	13 - 70	647.6	121.6 - 144.6	41	1434.1	80	30 H7	19.5	39	554.5	572.5	M24
1481324	1400	M36	M30	13 - 70	647.6	121.6 - 144.6	41	1434.1	80	30 H7	19.5	39	554.5	572.5	M24

Technical data

Product name	Spindle size	ID	Serration	Max. rotational speed	Max. clamping force	Max. actuating force	Stroke/ jaw	Piston stroke (H)	Moment of inertia	Special features:	Weight
				RPM	kN	kN	mm	mm	kgm²		kg
ROTA NC02 800	Z520	1481247	Modul 2	900	300	170	23	57	32	Standard	391
ROTA NC02 800	Z520	1486021	Modul 2	900	300	170	23	57	32	Centrifugal force compensation	391
ROTA NC02 800	Z520	1481248	Modul 2	900	300	170	23	57	32	individual jaw adjustment	399
ROTA NC02 1000	Z520	1481305	Modul 2	700	300	170	23	57	65	Standard	519
ROTA NC02 1000	Z520	1486022	Modul 2	700	300	170	23	57	65	Centrifugal force compensation	519
ROTA NC02 1000	Z520	1481306	Modul 2	700	300	170	23	57	66	individual jaw adjustment	532
ROTA NC02 1200	Z720	1481309	Modul 2	600	300	170	23	57	122	Standard	671
ROTA NC02 1200	Z720	1486023	Modul 2	600	300	170	23	57	122	Centrifugal force compensation	671
ROTA NC02 1200	Z720	1481310	Modul 2	600	300	170	23	57	124	individual jaw adjustment	690
ROTA NC02 1400	Z720	1481323	Modul 2	500	300	170	23	57	200	Standard	824
ROTA NC02 1400	Z720	1486024	Modul 2	500	300	170	23	57	200	Centrifugal force compensation	824
ROTA NC02 1400	Z720	1481324	Modul 2	500	300	170	23	57	205	individual jaw adjustment	849

Accessories

Clamping force tester

For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Suitable for	Description	ID
ROTA NC02 800		
ROTA NC02 1000		
ROTA NC02 1200		
ROTA NC02 1400	IFT Set	1404235

Extension set for large chucks

For use as an extension of the IFT measuring head for measuring the jaw clamping force of large chucks of Ø 400 mm and more.



Suitable for	Description	ID
ROTA NC02 800		
ROTA NC02 1000		
ROTA NC02 1200		
ROTA NC02 1400	IFT adapter set	1498512

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

ROTA NCR

schunk.com/rota-ncr



Sensitive. Universal. Precise. Power lathe chuck ROTA NCR

The 6-jaw compensation chuck ROTA NCR is based on the oscillating movement of the chuck jaws in pairs. Two base jaws are always connected to each other via a pendulum body. This results in workpiece centering between six contact points without overdetermination. The ROTA NCR is available in the sizes Ø 165 mm and Ø 200 mm, all larger sizes are covered by the sealed version ROTA NCR-A.

Functions & highlights

- **Compensational and concentric clamping**
  For complete machining of deformation-sensitive workpieces
- **Precise and low-deformation clamping of workpieces**
  Best machining results and roundness of the workpieces
- **Standardized jaw interface**
  Large selection of top jaws for all clamping tasks



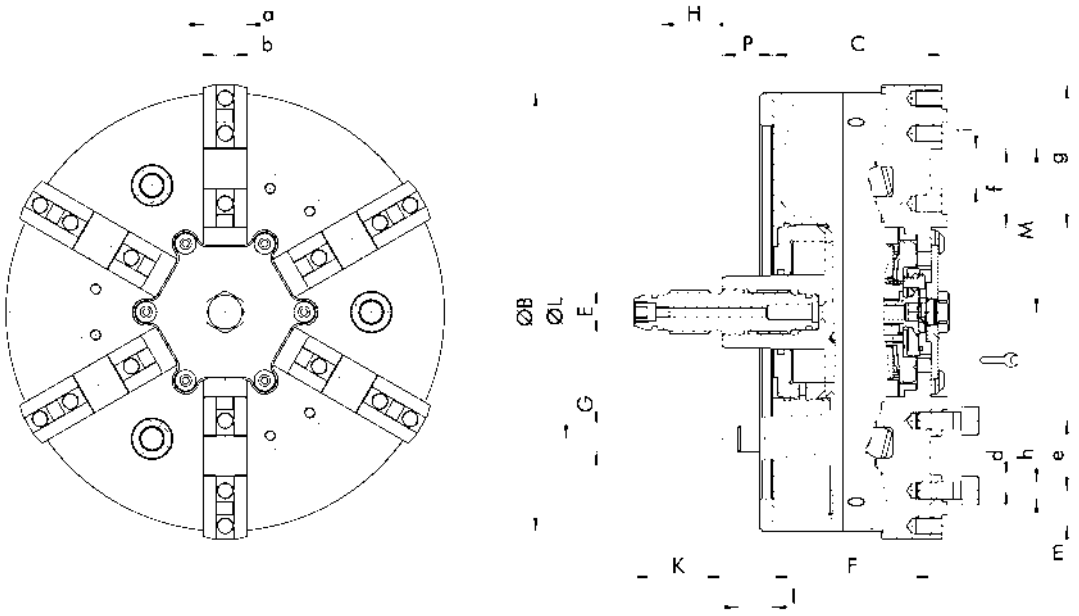
Field of application

ROTA NCR

The ROTA NCR is particularly suitable for low-deformation clamping of workpieces that are sensitive to deformation, such as thin-walled rings. Thanks to the oscillating movement of the chuck jaws in pairs. Thanks to the optional centrifugal force compensation, a constant clamping force can be achieved even at high speeds which ensures secure clamping of the workpiece.



1. **Angle lever drive**
2. **Hardened and extremely rigid base body**
3. **Optimized lubrication system**
4. **Mounting thread**
5. **Standard jaw interface**
6. **Long jaw guidance**
7. **Low height**
8. **Dirt-resistant design**
9. **Internal pendulum body**



Dimensions

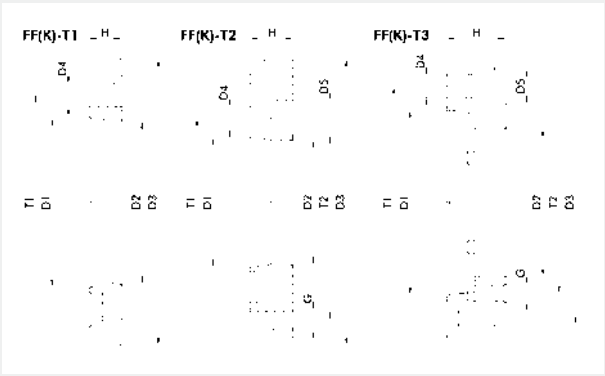
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	mm	mm		mm		mm	mm	mm	mm	mm	mm		mm	mm	mm	mm			mm
0860010	165	74	M10	70	M10	16	40	104.8	56.5 - 62.5	25 - 38.5	20	10 H7				47			
0860020	200	77	M12	72	M12	16	40	133.4	68.5 - 74.5	23.3 - 38.3	20	8 h8	7	32	36	65	M8	18 H7	16
0860025	200	77	M12	72	M12	16	40	133.4	68.5 - 74.5	23.3 - 38.3	20	8 h8	7	32	36	65	M8	18 H7	16

Technical data

Product name	Spindle type	Spindle size	ID	Serration	Max. rotational speed	Max. clamping force	Max. actuating force	Stroke/ jaw	Piston stroke (H)	Pendulum compensation	Weight
					RPM	kN	kN	mm	mm	mm	kg
ROTA NCR 165	ISO 702-4	Nr. 5 (Z140)	0860010	Tongue and groove	4000	36	22	6	13.5	1	11.5
ROTA NCR 200	ISO 702-4	Nr. 6 (Z170)	0860020	Tongue and groove	3500	50	28	6	15	1	17.5
ROTA NCR 200	ISO 702-4	Nr. 6 (Z170)	0860025	Tongue and groove	3500	50	28	6	15	1	17.5

Adapter plates

Z-mount on short taper ISO 702-1





Technical data

Description	Adapter plate type	ID	D1	D2	D3	D4	D5	G	H	T1	T2
				mm		mm	mm		mm	mm	mm
FF-T2 Z140-A4	FF-T2	0805000	Nr. 4	61	Z140	11 (6x60°)	17	M10 (6x60°)	21	82.6	104.8
FF-T1 Z140-A5	FF-T1	0803000	Nr. 5	79.6	Z140	11 (6x60°)			16	104.8	
FF-T3 Z140-A6	FF-T3	0801000	Nr. 6	85	Z140	13 (6x60°)	20	M10 (6x60°)	34	133.4	104.8
FF-T2 Z170-A5	FF-T2	0805001	Nr. 5	79.6	Z170	11 (6x60°)	18	M12 (12 x 30°)	25	104.8	133.4
FF-T1 Z170-A6	FF-T1	0803001	Nr. 6	103.2	Z170	13 (6x60°)			17	133.4	
FF-T3 Z170-A8	FF-T3	0801001	Nr. 8	113	Z170	17 (6x60°)	26	M12 (6x60°) M12 (2x180°)	40	171.4	133.4

ⓘ Direct adapter plates FF-T1 are used if the spindle mounting bolt circle has the same size as the lathe chuck mounting bolt circle.
Reduction adapter plates FF-T2 are used if the mounting bolt circle of the spindle is smaller than the one of the lathe chuck mounting bolt circle.
Expansion adapter plates FF-T3 are used if the mounting bolt circle of the spindle is larger than the one of the lathe chuck mounting bolt circle.

Accessories

Clamping force tester

For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Suitable for	Description	ID
ROTA NCR 165 ROTA NCR 200	IFT Set	1404235

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

ROTA NCR-A

schunk.com/rota-ncr-a



Sensitive. Sealed. Precise. Power lathe chuck ROTA NCR-A

The ROTA NCR-A features workpiece centering between six contact points, which can be adjusted in pairs. Special seals on the jaw interfaces and on the pistons prevent grease from being rinsed out and clamping force from being lost. The seal also prevents the penetration of dirt and chips, thus ensuring greater process reliability and longer maintenance intervals.

Functions & highlights

- **Sealed power lathe chuck**
  For significantly longer maintenance intervals
- **Precise and low-deformation clamping of workpieces**
  Best machining results and roundness of the workpieces
- **Media feed-through (coolant or air) as standard option integrated in the chuck body**
  Flexibility depending on the application



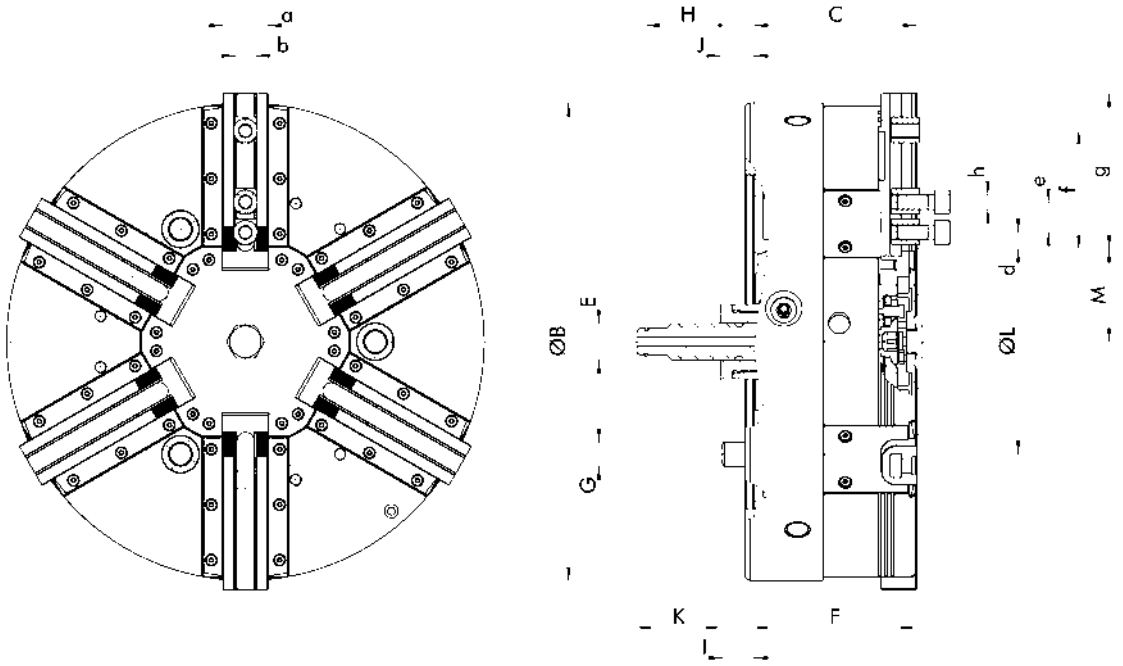
Field of application

ROTA NCR-A

Sealed 6-jaw compensation chuck for clamping deformation-sensitive, thin-walled workpieces. The sealing system ensures constant clamping forces, minimal maintenance effort, and an even broader range of applications, for example the machining of cast-iron parts.



1. **Angle lever drive**
2. **Hardened and extremely rigid base body**
3. **Optimized lubrication system**
4. **Mounting thread**
5. **Base jaw serration**
6. **Long jaw guidance**
7. **Internal pendulum body**
8. **Sealing of the lathe chuck**
9. **Cover element**



Dimensions

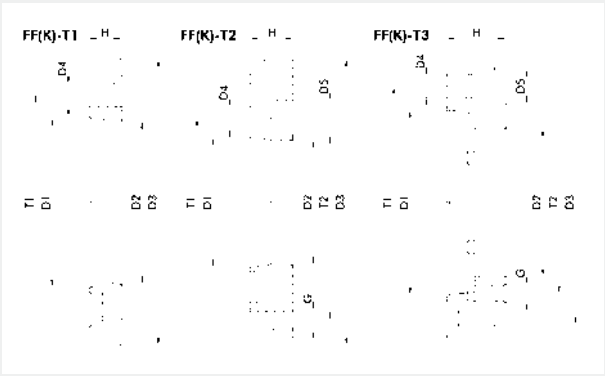
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	mm	mm		mm		mm	mm	mm	mm	mm	mm		mm	mm	mm	mm	
1331058	250	107	M24	106	M16	21	22.5 – 41	55	171.4	53.1 – 61.1	30	14 H7	11	17	60.5	69.5	M10
1339984	250	107	M24	106	M16	21	22.5 – 41	55	171.4	53.1 – 61.1	30	14 H7	11	17	60.5	69.5	M10
1339987	315	107	M24	112	M16	15	22.5 – 42.5	55	171.4	53.1 – 61.1	30	14 H7	10.2	17	92.5	102.5	M10
1339988	315	107	M24	112	M16	15	22.5 – 42.5	55	171.4	53.1 – 61.1	30	14 H7	10.2	17	92.5	102.5	M10
1339989	400	145	M30	142	M20	24	30 – 60	55	235	66 – 78	44	21 H7	25	25	119.4	131.4	M16
1339990	400	145	M30	142	M20	24	30 – 60	55	235	66 – 78	44	21 H7	25	25	119.4	131.4	M16
1339995	500	145	M30	142	M24	35	30 – 60	55	330.2	66 – 78	44	21 H7	30	25	169.4	181.4	M16
1339996	500	145	M30	142	M24	35	30 – 60	55	330.2	66 – 78	44	21 H7	30	25	169.4	181.4	M16
1339997	630	199	M30	199.5	M24	34.5	30 – 70	55	330.2	96.3 – 112.3	50	21 H7	25	25	201	213	M16
1339998	630	199	M30	199.5	M24	33.5	30 – 70	55	330.2	96.3 – 112.3	50	21 H7	25	25	201	213	M16
1340108	800	199	M30	199.5	M24	33.5	30 – 70	55	463.6	96.3 – 112.3	50	21 H7	25.3	24.5	285.8	298	M16
1340109	1000	261	M36	261.5	M24	28.5	83 – 123	70	463.6	149.4 – 174.4	60	25.5 H7	18	30	323	343	M20

Technical data

Product name	Spindle type	Spindle size	ID	Serration	Max. rotational speed	Max. clamping force	Max. actuating force	Stroke/ jaw	Piston stroke (H)	Pendulum compensation	Centrifugal force compensation	Weight
					RPM	kN	kN	mm	mm	mm		kg
ROTA NCR-A 250	ISO 702-4	Nr. 8 (Z220)	1331058	1/16" x 90°	3000	64	38	8	18.5	2	no	36
ROTA NCR-A 250	ISO 702-4	Nr. 8 (Z220)	1339984	1/16" x 90°	3000	64	38	8	18.5	2	yes	38
ROTA NCR-A 315	ISO 702-4	Nr. 8 (Z220)	1339987	1/16" x 90°	2500	80	40	8	20	2	no	55
ROTA NCR-A 315	ISO 702-4	Nr. 8 (Z220)	1339988	1/16" x 90°	2500	80	40	8	20	2	yes	61
ROTA NCR-A 400	ISO 702-4	Nr. 11 (Z300)	1339989	1/16" x 90°	1400	100	54	12	30	2.5	no	118
ROTA NCR-A 400	ISO 702-4	Nr. 11 (Z300)	1339990	1/16" x 90°	1400	100	54	12	30	2.5	yes	130
ROTA NCR-A 500	ISO 702-4	Nr. 15 (Z380)	1339995	1/16" x 90°	1200	125	65	12	30	2.5	no	177
ROTA NCR-A 500	ISO 702-4	Nr. 15 (Z380)	1339996	1/16" x 90°	1200	125	65	12	30	2.5	yes	198
ROTA NCR-A 630	ISO 702-4	Nr. 20 (Z520)	1339997	1/16" x 90°	1000	160	80	16	40	3.5	no	400
ROTA NCR-A 630	ISO 702-4	Nr. 20 (Z520)	1339998	1/16" x 90°	1000	160	80	16	40	3.5	yes	417
ROTA NCR-A 800	ISO 702-4	Nr. 20 (Z520)	1340108	1/16" x 90°	700	160	80	16	40	3.5	no	497
ROTA NCR-A 1000	ISO 702-4	Nr. 20 (Z520)	1340109	3/32" x 90°	600	300	150	25	60	6	no	1244

Adapter plates

Z-mount on short taper ISO 702-1





Technical data

Description	Adapter plate type	ID	D1	D2	D3	D4	D5	G	H	T1	T2	T3
				mm		mm	mm		mm	mm	mm	mm
FF-T2 Z220-A5	FF-T2	0805002	Nr. 5	79.6	Z220	11 (6x60°)	17	M16 (6x60°) M16 (2x180°)	28	104.8	171.4	
FF-T2 Z220-A6	FF-T2	0805003	Nr. 6	103.2	Z220	13 (6x60°)	20	M16 (6x60°) M16 (2x180°)	28	133.4	171.4	
FF-T1 Z220-A8	FF-T1	0803002	Nr. 8	136.2	Z220	17 (6x60°) 17 (2x180°)			19	171.4		
FF-T3 Z220-A11	FF-T3	0803003	Nr. 11	130	Z220	21 (6x60°)	32	M16 (12 x 30°)	50	235	171.4	
FF-T3 Z220-A15-1	FF-T3	0803020	Nr. 15	145	Z220	26 (6x60°)	38	M16 (6x60°)	55	330.2	171.4	
FF-T3 Z220-A15-2	FF-T3	0803021	Nr. 15	145	Z220	23 (6x60°)	35	M16 (6x60°)	55	330.2	171.4	
FF-T2 Z300-A6	FF-T2	0805004	Nr. 6	103.2	Z300	14 (6x60°)	20	M20 (6x60°) M20 (3x120°)	30	133.4	235	
FF-T2 Z300-A8	FF-T2	0805005	Nr. 8	136.2	Z300	17 (6x60°)	26	M20 (6x60°) M20 (3x120°)	30	171.4	235	
FF-T1 Z300-A11	FF-T1	0803004	Nr. 11	192.9	Z300	22 (6x60°) 22 (3x120°)			21	235		
FF-T3 Z300-A15-1	FF-T3	0803005	Nr. 15	190	Z300	26 (6x60°)	38	M20 (6x60°)	55	330.2	235	
FF-T3 Z300-A15-2	FF-T3	0803022	Nr. 15	190	Z300	23 (6x60°)	35	M20 (6x60°)	55	330.2	235	
FF-T2 Z380-A8	FF-T2	0805010	Nr. 8	136.2	Z380	17 (6x60°)	26	M24 (12 x 30°)	38	171.4	330.2	
FF-T2 Z380-A11	FF-T2	0803006	Nr. 11	192.9	Z380	21 (6x60°)	32	M24 (6x60°) M24 (3x120°)	38	235	330.2	
FF-T1 Z380-A15-1	FF-T1	0803023	Nr. 15	281.5	Z380	26 (6x60°)			47	330.2		
FF-T1 Z520-A15	FF-T1	0805007	Nr. 15	281.5	Z520	26 (6x60°)			28	330.2		
FF-T2 Z520-A20	FF-T2	0805008	Nr. 20	290	Z520	26 (6x60°)	40	M24 (12 x 30°)	62	330.2	463.6	
FF-T2 Z520-A15-1	FF-T2	0801004	Nr. 15	281.5	Z520	26 (6x60°)	40	M24 (6x60°)	40	330.2	463.6	
FF-T2 Z520-A15-2	FF-T2	0803025	Nr. 15	281.5	Z520	23 (6x60°)	35	M24 (6x60°)	40	330.2	463.6	
FF-T2 Z520-A11	FF-T2	0801003	Nr. 11	192.9	Z520	21 (6x60°)	33	M24 (12 x 30°)	40	235	330.2	463.6

ⓘ Direct adapter plates FF-T1 are used if the spindle mounting bolt circle has the same size as the lathe chuck mounting bolt circle.
Reduction adapter plates FF-T2 are used if the mounting bolt circle of the spindle is smaller than the one of the lathe chuck mounting bolt circle.
Expansion adapter plates FF-T3 are used if the mounting bolt circle of the spindle is larger than the one of the lathe chuck mounting bolt circle.

Accessories

Clamping force tester

For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Suitable for	Description	ID
ROTA NCR-A 250		
ROTA NCR-A 315		
ROTA NCR-A 400		
ROTA NCR-A 500		
ROTA NCR-A 630		
ROTA NCR-A 800		
ROTA NCR-A 1000	IFT Set	1404235

Extension set for large chucks

For use as an extension of the IFT measuring head for measuring the jaw clamping force of large chucks of Ø 400 mm and more.



Suitable for	Description	ID
ROTA NCR-A 400		
ROTA NCR-A 500		
ROTA NCR-A 630		
ROTA NCR-A 800		
ROTA NCR-A 1000	IFT adapter set	1498512

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

schunk.com/rota-2b



Powerful. Compact. Versatile. Power lathe chuck ROTA 2B

The ROTA 2B is a robust 2-jaw chuck with a long jaw stroke and high clamping forces. The low height of the lathe chuck allows optimal utilization of the machine room. The lathe chuck also has adjustable brass wipers on the base jaws, which ensure optimal protection against cooling lubricants and chips.

Functions & highlights

- **Longest jaw stroke at high jaw clamping force**
  Reliable and variable clamping of workpieces over interfering contours
- **Media feed-through (coolant or air) as option integrated in the chuck body**
  Flexibility depending on the application
- **Base jaws with fine serration or tongue and groove as standard**
  High flexibility in the range of top jaws



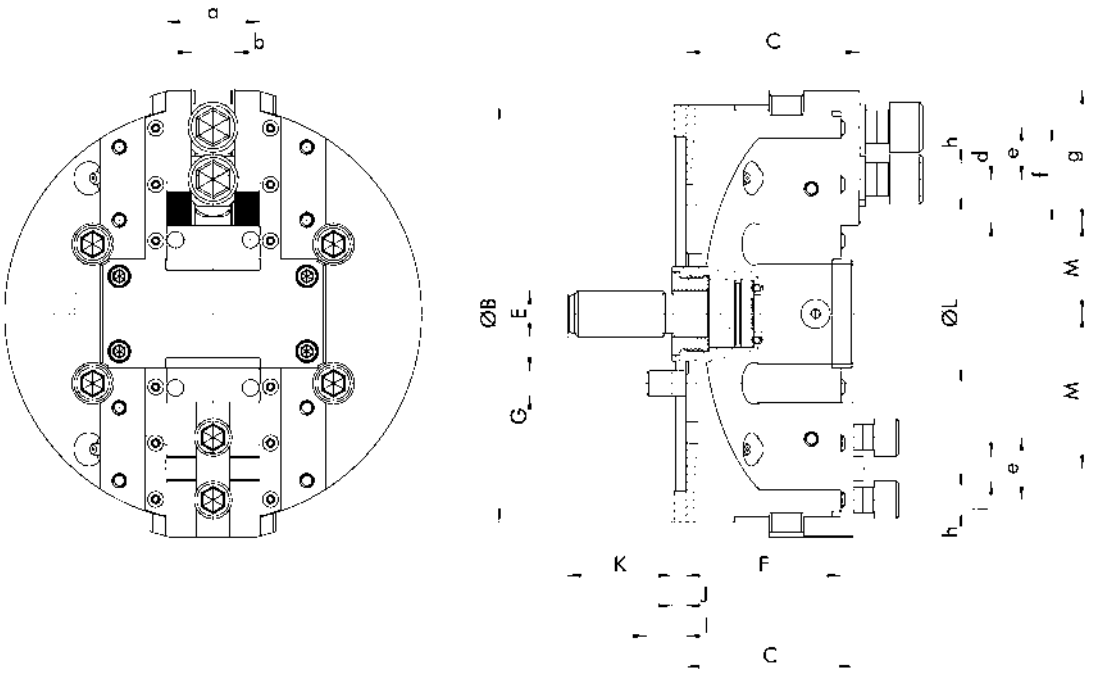
Field of application

ROTA 2B

The SCHUNK 2-jaw chuck ROTA 2B is particularly suitable for clamping workpieces for which a large interfering contour must be clamped (e.g. for fitting parts). For this purpose, the lathe chuck combines a long jaw stroke with maximum clamping forces. Standard mounting threads allow many ways of mounting workpiece stops or consoles.



1. **Wedge hook drive**
2. **Hardened and extremely rigid base body**
3. **Optimized lubrication system**
4. **Mounting thread**
5. **Base jaws with fine serration**
6. **Cover plate**
7. **Long jaw guidance**
8. **Low height**
9. **Wiper strips**



Dimensions

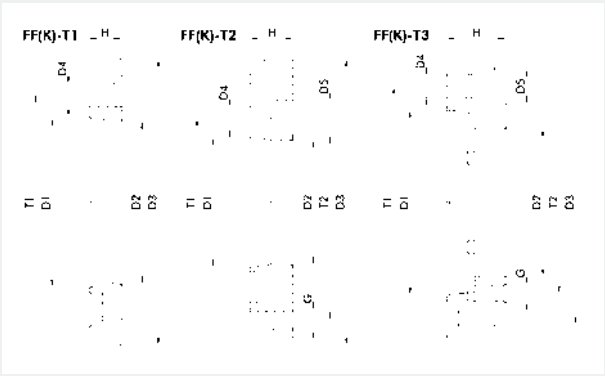
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	mm	mm		mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		mm
0813031	125	56	M16	50	M12	14.5	28	-8.5 - 9	92	25 - 39	35	14 H7					M12	16 g6
0813040	160	64	M16	58	M10	18	40	7 - 15	104.8	22.6 - 35.1	40	17 H7	15.9	min. 20	45.5	51.5	M12	
0813041	160	64	M16	58	M10	18	40	-7 - 15	104.8	40.6 - 53.1	40	18 H7					M16	18 g6
0813050	200	83	M22	74	M12	19	50	7 - 33	133.4	28.8 - 43.8	45	21 H7	19.7	min. 25	55.5	63.5	M16	
0813051	200	83	M22	74	M12	19	50	7 - 33	133.4	59.3 - 74.3	45	16 H7		30			M12	12 g6
0813060	250	87	M22	81	M16	21.5	50	-27 - 1	171.4	32.9 - 48.9	60	25.5 H7	31.1	min. 32	74.1	84.5	M20	
0813061	250	87	M22	81	M16	21.5	50	-27 - 1	171.4	76.4 - 92.4		20 H7		40			M16	16 g6
0813070	315	95	M24	87	M16	19.5	50	-1 - 31	171.4	37.4 - 55.4	60	25.5 H7	34.6	min. 32	101.5	111.5	M20	
0813071	315	95	M24	87	M16	19.5	50	-1 - 31	171.4	85.9 - 103.9	60	20 H7		50			M16	16 g6
0813080	400	95	M24	87	M20	29.5	50	1 - 33	235	37.4 - 55.4	60	25.5 H7	34.6	min. 32	143.6	154	M20	
0813081	400	95	M24	87	M20	29.5	50	1 - 33	235	120.4 - 138.4	60	22 H7		60			M16	18 g6

Technical data

Product name	Spindle type	Spindle size	ID	Serration	Max. rotational speed	Max. clamping force	Max. actuating force	Stroke/ jaw	Piston stroke (H)	Moment of inertia	Weight
					RPM	kN	kN	mm	mm	kgm²	kg
ROTA 2B 125	–	Z115	0813031	Tongue and groove	5300	26	23	10	17.5	0.007	3.7
ROTA 2B 160	ISO 702-4	Nr. 5 (Z140)	0813040	1/16" x 90°	4000	40	32	12.5	22	0.02	6.7
ROTA 2B 160	ISO 702-4	Nr. 5 (Z140)	0813041	Tongue and groove	4000	40	32	12.5	22	0.02	6.7
ROTA 2B 200	ISO 702-4	Nr. 6 (Z170)	0813050	1/16" x 90°	3200	54	45	15	26	0.06	13
ROTA 2B 200	ISO 702-4	Nr. 6 (Z170)	0813051	Tongue and groove	3200	54	45	15	26	0.06	13
ROTA 2B 250	ISO 702-4	Nr. 8 (Z220)	0813060	1/16" x 90°	2700	75	61	16	28	0.16	22
ROTA 2B 250	ISO 702-4	Nr. 8 (Z220)	0813061	Tongue and groove	2700	75	61	16	28	0.16	22
ROTA 2B 315	ISO 702-4	Nr. 8 (Z220)	0813070	1/16" x 90°	2200	85	68	18	32	0.38	36
ROTA 2B 315	ISO 702-4	Nr. 8 (Z220)	0813071	Tongue and groove	2200	85	68	18	32	0.38	36
ROTA 2B 400	ISO 702-4	Nr. 11 (Z300)	0813080	1/16" x 90°	2000	85	68	18	32	0.38	53
ROTA 2B 400	ISO 702-4	Nr. 11 (Z300)	0813081	Tongue and groove	2000	85	68	18	32	0.38	53

Adapter plates

Z-mount on short taper ISO 702-1





Technical data

Description	Adapter plate type	ID	D1	D2	D3	D4	D5	G	H	T1	T2
				mm		mm	mm		mm	mm	mm
FF-T2 Z115-A3	FF-T2	0806005	Nr. 3	30	Z115	11 (6x60°)	17	M12 (2 x 180°)	18	70.6	92
FF-T2 Z115-A4	FF-T2	0806006	Nr. 4	30	Z115	11 (6x60°)	17	M12 (2 x 180°)	18	82.6	92
FF-T3 Z115-A5	FF-T3	0806007	Nr. 5	72	Z115	11 (6x60°)	18	M12 (2 x 180°)	32	104.8	92
FF-T2 Z140-A4	FF-T2	0805000	Nr. 4	61	Z140	11 (6x60°)	17	M10 (6x60°)	21	82.6	104.8
FF-T1 Z140-A5	FF-T1	0803000	Nr. 5	79.6	Z140	11 (6x60°)			16	104.8	
FF-T3 Z140-A6	FF-T3	0801000	Nr. 6	85	Z140	13 (6x60°)	20	M10 (6x60°)	34	133.4	104.8
FF-T2 Z170-A5	FF-T2	0805001	Nr. 5	79.6	Z170	11 (6x60°)	18	M12 (12 x 30°)	25	104.8	133.4
FF-T1 Z170-A6	FF-T1	0803001	Nr. 6	103.2	Z170	13 (6x60°)			17	133.4	
FF-T3 Z170-A8	FF-T3	0801001	Nr. 8	113	Z170	17 (6x60°)	26	M12 (6x60°) M12 (2x180°)	40	171.4	133.4
FF-T2 Z220-A5	FF-T2	0805002	Nr. 5	79.6	Z220	11 (6x60°)	17	M16 (6x60°) M16 (2x180°)	28	104.8	171.4
FF-T2 Z220-A6	FF-T2	0805003	Nr. 6	103.2	Z220	13 (6x60°)	20	M16 (6x60°) M16 (2x180°)	28	133.4	171.4
FF-T1 Z220-A8	FF-T1	0803002	Nr. 8	136.2	Z220	17 (6x60°) 17 (2x180°)			19	171.4	
FF-T3 Z220-A11	FF-T3	0803003	Nr. 11	130	Z220	21 (6x60°)	32	M16 (12 x 30°)	50	235	171.4
FF-T3 Z220-A15-1	FF-T3	0803020	Nr. 15	145	Z220	26 (6x60°)	38	M16 (6x60°)	55	330.2	171.4
FF-T3 Z220-A15-2	FF-T3	0803021	Nr. 15	145	Z220	23 (6x60°)	35	M16 (6x60°)	55	330.2	171.4
FF-T2 Z300-A6	FF-T2	0805004	Nr. 6	103.2	Z300	14 (6x60°)	20	M20 (6x60°) M20 (3x120°)	30	133.4	235
FF-T2 Z300-A8	FF-T2	0805005	Nr. 8	136.2	Z300	17 (6x60°)	26	M20 (6x60°) M20 (3x120°)	30	171.4	235
FF-T1 Z300-A11	FF-T1	0803004	Nr. 11	192.9	Z300	22 (6x60°) 22 (3x120°)			21	235	
FF-T3 Z300-A15-1	FF-T3	0803005	Nr. 15	190	Z300	26 (6x60°)	38	M20 (6x60°)	55	330.2	235
FF-T3 Z300-A15-2	FF-T3	0803022	Nr. 15	190	Z300	23 (6x60°)	35	M20 (6x60°)	55	330.2	235

ⓘ Direct adapter plates FF-T1 are used if the spindle mounting bolt circle has the same size as the lathe chuck mounting bolt circle.
Reduction adapter plates FF-T2 are used if the mounting bolt circle of the spindle is smaller than the one of the lathe chuck mounting bolt circle.
Expansion adapter plates FF-T3 are used if the mounting bolt circle of the spindle is larger than the one of the lathe chuck mounting bolt circle.

Accessories

Clamping force tester

For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Suitable for	Description	ID
ROTA 2B 125		
ROTA 2B 160		
ROTA 2B 200		
ROTA 2B 250		
ROTA 2B 315		
ROTA 2B 400	IFT Set	1404235

Extension set for large chucks

For use as an extension of the IFT measuring head for measuring the jaw clamping force of large chucks of Ø 400 mm and more.



Suitable for	Description	ID
ROTA 2B 400	IFT adapter set	1498512

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543



Overview pneumatic power lathe chucks



Pneumatic power lathe chuck ROTA TP Page 156



Pneumatic power lathe chuck ROTA TB2 Page 164



Pneumatic power lathe chuck ROTA TB2-LH Page 170

schunk.com/rota-tp



Robust. Reliable. Automatable. Pneumatic power lathe chuck ROTA TP

ROTA TP power lathe chuck from SCHUNK are equipped with an integrated pneumatic cylinder. During downtime these lathe chucks can be opened and closed via a distributor ring using a special air supply system. A double check valve prevents the compressed air from escaping again after removal of the system pressure. The ROTA TP is also available as a 2-jaw chuck on request and with optional clamping force reduction.

Functions & highlights

- **Air supply via distributor ring**
  Very simple control of the chuck
- **Large through-hole**
  Machining all standard pipe diameters
- **Pneumatic cylinder integrated in the chuck**
  Especially suited for machines and systems without clamping hydraulics



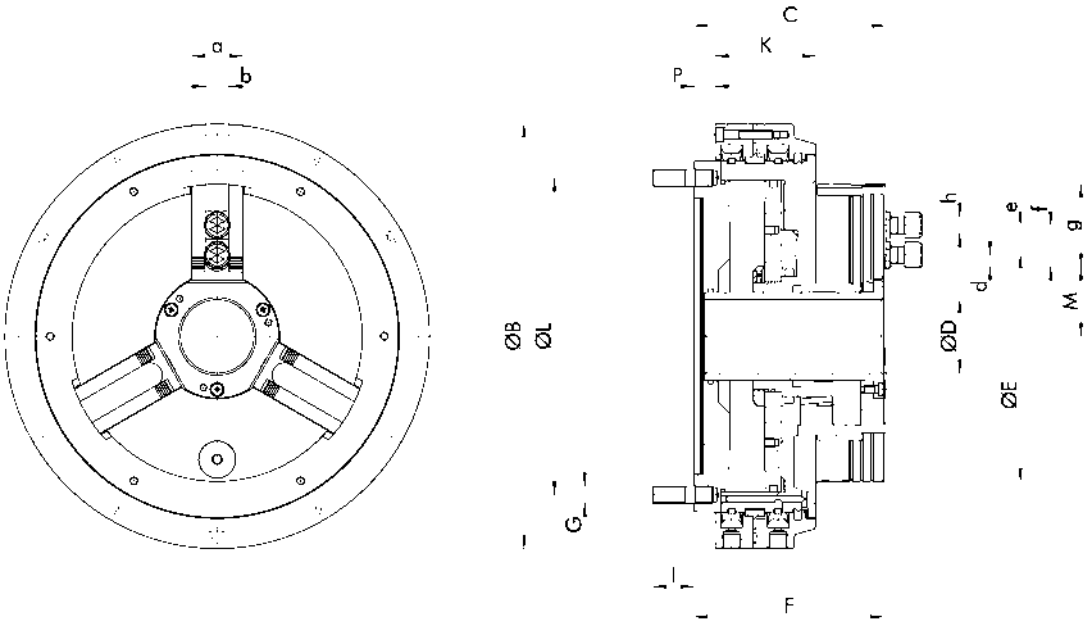
Field of application

ROTA TP

The ROTA TP power lathe chuck is especially suitable for small lathes that do not have a hydraulic clamping cylinder but are to be operated via a fluid medium. The lathe chuck is also very useful in automation technology. In addition, the ROTA TP can also be used in stationary applications. For this purpose, the lathe chuck is equipped with a console plate, and can then be mounted on the machine table.



1. **Distributor ring**
2. **Distributor ring cover**
3. **Profile sealing rings**
4. **Pneumatic cylinder integrated in the chuck**
5. **Very stable base jaw**
6. **Large through-hole**
7. **Very stable wedge hook**
8. **Long piston guidance**
9. **Pressure maintenance valve**



Dimensions

ID	ØB	C	ØD	E	F	G	I	K	ØL	M	P	a	b	d min.	e min.	f max.	g	h
	mm	mm	mm	mm	mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
0816125	204	103	26	130	101.5	M8	30	63.1	137	25.5 - 29.5	10.4	24	11 H7	5.5	16	31.5	38	M8
0816135	255	131	38	165	129.5	M12	40	78	180	35.9 - 40.1	14.5	30	14 H7	6.4	18	40.4	48	M10
0816145	300	135.5	52	205	134	M12	29	71	223.8	45 - 49.2	15	36	17 H7	8.3	19	51.3	58.4	M12
0816155	372	147.5	68	255	146	M12	30	88.7	290.5	54.5 - 59.4	15.5	44	21 H7	10	25	64	73.6	M16
0816165	413	158	90	320	156.5	M12	40	84	318	65.6 - 70.6	21.5	44	21 H7	9.4	26	84	94.7	M16
0816150	372	157.5	105	335	156	M12	40	92.8	290.5	74.1 - 79.1	21	44	21 H7	13	29	84	95	M16
0816160	372	157.5	115	350	156	M12	40	73	290.5	79.1 - 84.1	21	44	21 H7	13	29	85	95	M16
0816170	372	191.5	115	360	190	M12	33.5	77.3	290.5	86.9 - 101.9	21	44	21 H7	10.1	28	77.9	89.9	M16

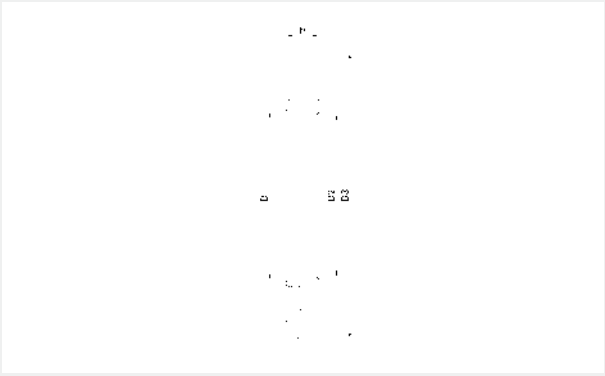
Technical data

Product name	Spindle size	ID	Opening/ closing time	Max. RPM 1	Max. RPM 2	Max. clamping force (at 6 bar)	Actuation pressure	Stroke/jaw	Air consump-tion/jaw stroke at 6 bar	Moment of inertia	Weight
			s	RPM	RPM	kN	bar	mm	l	kgm²	kg
ROTA TP 125-26	Z120	0816125	1.5	4000	4200	22	3 - 8	3	1.3	0.028	11
ROTA TP 160-38	Z155	0816135	2	3500	4200	39	3 - 8	4.2	3.2	0.13	23
ROTA TP 200-52	Z195	0816145	4	2800	3800	68	3 - 8	4.2	5	0.26	38
ROTA TP 250-68	Z235	0816155	5	2200	3500	105	3 - 8	5	9.2	0.68	59
ROTA TP 315-90	Z270	0816165	7	1800	2500	140	3 - 8	5	11.2	1.35	85
ROTA TP 315-105	Z235	0816150	5	2200	3000	100	3 - 8	5	8	1.13	78
ROTA TP 350-115	Z235	0816160	5	2200	2200	90	3 - 8	5	7.6	1.38	79
ROTA TP-LH 350-115	Z235	0816170		2200		90	3 - 8	15	11.1	1.6	99

ⓘ "Max. RPM 1" is the maximum RPM when using a distributor ring with centering ring.
"Max. RPM 2" is the maximum RPM with a stationary fastening of distributor ring.
Pmin = 3 bar (for lower clamping forces, a clamping force reduction can be offered as an option)
2-jaw chuck available upon request

Adapter plates

Z-mount on short taper ISO 702-1

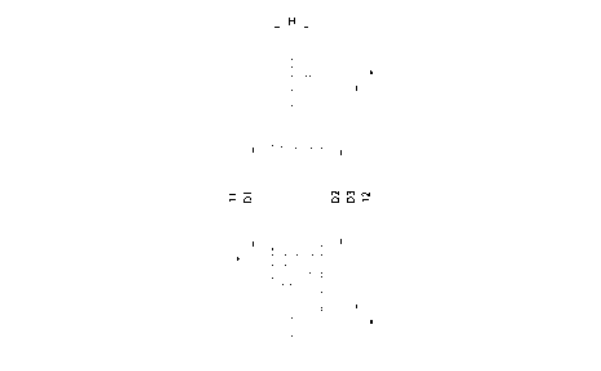




Technical data

Description	ID	D1	D2	D3	H
			mm		mm
FFV Z120-A3	0836000	Nr. 3	51.5	Z120	23
FFV Z120-A4	0836001	Nr. 4	61	Z120	23
FFV Z120-A5	0836002	Nr. 5	79.6	Z120	23
FFV Z155-A4	0836010	Nr. 4	61	Z155	25.5
FFV Z155-A5	0836011	Nr. 5	79.6	Z155	25.5
FFV Z155-A6	0836012	Nr. 6	103.2	Z155	30
FFV Z155-A8	0836013	Nr. 8	136.2	Z155	30
FFV Z195-A5	0836020	Nr. 5	79.6	Z195	25
FFV Z195-A6	0836021	Nr. 6	103.2	Z195	30
FFV Z195-A8	0836022	Nr. 8	136.2	Z195	30
FFV Z195-A11	0836023	Nr. 11	175	Z195	40
FFV Z235-A6	0836030	Nr. 6	103	Z235	32
FFV Z235-A8	0836031	Nr. 8	136	Z235	34
FFV Z235-A11	0836032	Nr. 11	192.9	Z235	34
FFV Z270-A6	0836040	Nr. 6	103.2	Z270	32
FFV Z270-A8	0836041	Nr. 8	136.2	Z270	38
FFV Z270-A11	0836042	Nr. 11	192.9	Z270	36

Z-mount on camlock ISO 702-2

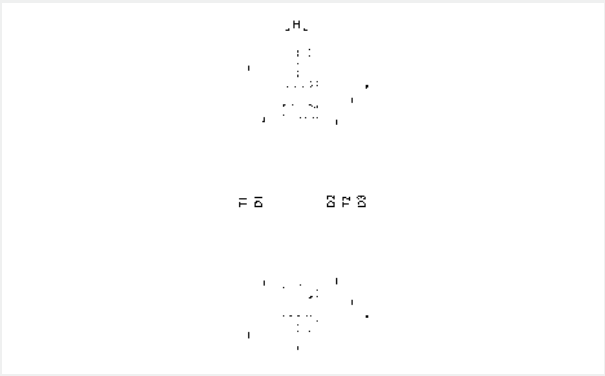




Technical data

Description	ID	D1	D2	D3	H
			mm		mm
FFV Z120-D3	0836200	Nr. 3	51.5	Z120	20
FFV Z120-D4	0836201	Nr. 4	61	Z120	22
FFV Z120-D5	0836202	Nr. 5	79.6	Z120	24
FFV Z155-D4	0836210	Nr. 4	61	Z155	24
FFV Z155-D5	0836211	Nr. 5	79.6	Z155	24
FFV Z155-D6	0836212	Nr. 6	103.2	Z155	29
FFV Z195-D5	0836220	Nr. 5	79.6	Z195	24
FFV Z195-D6	0836221	Nr. 6	103.2	Z195	29
FFV Z195-D8	0836222	Nr. 8	136.2	Z195	32
FFV Z195-D11	0836223	Nr. 11	175	Z195	45
FFV Z235-D6	0836230	Nr. 6	103.2	Z235	29
FFV Z235-D8	0836231	Nr. 8	136.2	Z235	34
FFV Z235-D11	0836232	Nr. 11	192.9	Z235	45
FFV Z270-D6	0836240	Nr. 6	103.2	Z270	29
FFV Z270-D8	0836241	Nr. 8	136.2	Z270	34
FFV Z270-D11	0836242	Nr. 11	192.9	Z270	39

Z-mount on bayonet ISO 702-3





Technical data

Description	ID	D1	D2	D3	H
			mm		mm
FFV Z155-C6	0836112	Nr. 6	103.2	Z155	22
FFV Z195-C6	0836121	Nr. 6	103.2	Z195	20
FFV Z195-C8	0836122	Nr. 8	136.2	Z195	22
FFV Z235-C6	0836130	Nr. 6	103	Z235	24
FFV Z235-C8	0836131	Nr. 8	136	Z235	24
FFV Z235-C11	0836132	Nr. 11	192.9	Z235	30

Accessories

Clamping force tester

For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Description	ID
IFT Set	1404235

Pressure measuring unit

For checking pressure tightness.



Description	ID
DMG Ø12-NPT1/4"	8702678
DMG Ø20-NPT1/4"	8702679

Maintenance unit

For processing the required compressed air.



Description	ID
WEH 1/4"	0890021

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

ROTA TB2

schunk.com/rota-tb2



Robust. Sealed. Reliable.
Pneumatic power lathe chuck ROTA TB2

The pneumatic ROTA TB2 power lathe chuck can be opened and closed at a standstill using a special air supply system thanks to the integrated pneumatic cylinder and distributor ring. A clamping force of up to 280 kN can be achieved at an air pressure of 6 bar. Depending on the task, this clamping force can be easily adjusted via the applied air pressure.

Functions & highlights

- **Monitoring of the opening and closing process**
  Process-reliable operation of the lathe chuck
- **Very large through-hole**
  Machining all standard pipe diameters
- **Integrated pneumatic cylinder**
  Easy air supply via rear distributor ring



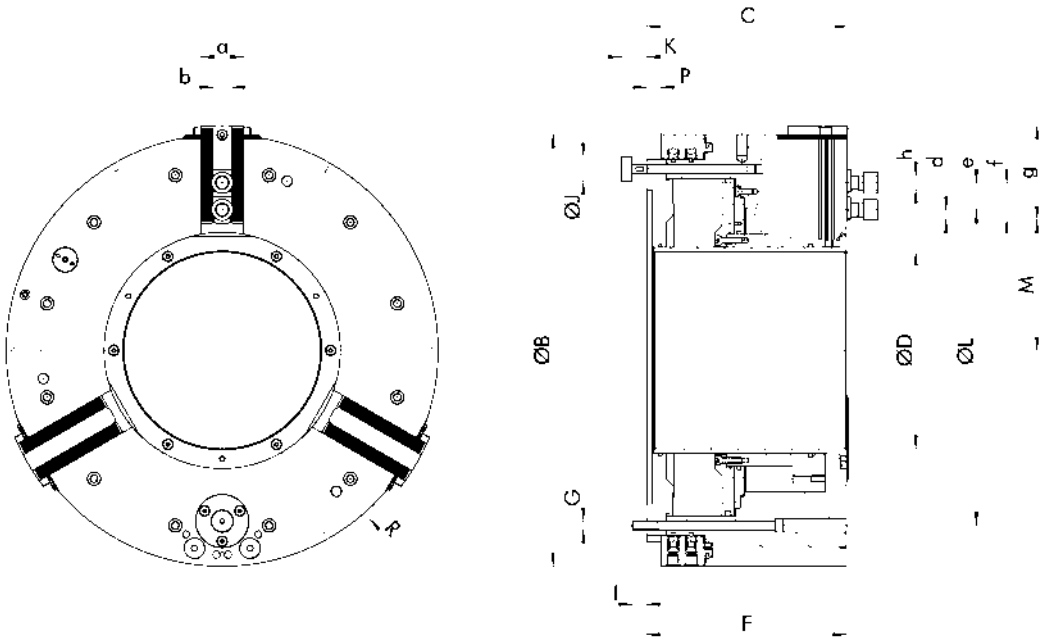
Field of application

ROTA TB2

The pneumatic power lathe chuck ROTA TB2 sets a new standard in machining of rods and pipes for the oil industry as well as the mining and construction sectors. Despite the compact outer dimensions, the ROTA TB2 has an extremely large through-hole of up to 560 mm. Very high clamping forces up to 280 kN can be achieved at the maximum air pressure of 6 bar.



1. **Wedge hook drive**
2. **Hardened and extremely rigid base body**
3. **Very large through-hole**
4. **Mounting thread**
5. **Optimized lubrication system**
6. **Seal of the base jaw guidance**
7. **Pneumatic cylinder integrated in the chuck**
8. **Static distributor ring**
9. **Pressure maintenance valve**



Dimensions

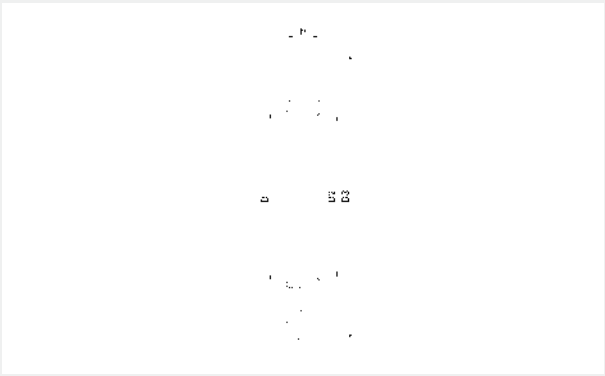
ID	ØB	C	ØD	F	G	I	J	K	ØL	M	P	R	a	b	d min.	e min.	f max.	g	h
	mm	mm	mm	mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
0818302	470	216	185	214	M12	19	35	32.7 – 35.2	374	130.1 – 137.3	20	190	60	25.5 H7	14.6	31	88.6	106.8	M20
1522957	520	272	191	270	M12	25	35	27.9 – 35.1	414	142 – 156.6	20	553	60	25.5 H7	12.5	31	100.5	118.7	M20
0818312	570	282	230	280	M12	20	35	30.6 – 34.9	474	152.8 – 164.5	20	593	60	25.5 H7	13.7	31	117.7	131.7	M20
0818350	605	282	275	280	M12	20	35	31.2 – 35.5	508	171.5 – 183.2	20	631	60	25.5 H7	13.7	31	104	131.7	M20
0818322	685	270.5	325	268.5	M16	21.5	35	31.4 – 35	580	203.2 – 213.2	19.5	710	75	30 H7	16	47	78	141.1	M24
0818331	850	317	375	315	M16	24	35	30.7 – 35	745	239.2 – 251	25	880	75	30 H7	13.3	47	161.6	188.3	M24
0818345	1000	332	560	330	M16	24	35	30.3 – 35	815	322.4 – 335.2	33	1030	75	30 H7	13.3	47	162.8	179.3	M24

Technical data

Product name	Spindle size	ID	Max. rotational speed	Max. clamping force (at 6 bar)	Actuation pressure	Stroke/jaw	Air consumption/jaw stroke at 6 bar	Moment of inertia	Weight
			RPM	kN	bar	mm	l	kgm²	kg
ROTA TB2 470-185	Z310	0818302	1700	115	3 - 8	7	15.1	6	185
ROTA TB2 520-191	Z310	1522957	1300	115	3 - 8	14.6	31.8	13.4	282
ROTA TB2 570-230	Z415	0818312	1300	220	3 - 8	11.7	39.9	17	345
ROTA TB2 600-275	Z450	0818350	1300	200	3 - 8	11.7	43.8	20.4	370
ROTA TB2 685-325	Z510	0818322	1000	280	3 - 8	10	45.3	32.2	440
ROTA TB2 850-375	Z700	0818331	750	240	3 - 8	11.8	50.4	100	910
ROTA TB2 1000-560	Z700	0818345	500	240	3 - 8	12.8	57.4	161	1015

Adapter plates

Z-mount on short taper ISO 702-1





Technical data

Description	ID	D1	D2	D3	H
			mm		mm
FFV Z310-A11-2	0836052	Nr. 11	185	Z310	38
FFV Z310-A15-2	0836057	Nr. 15	185	Z310	50.5
FFV Z310-A11-1	1539524	Nr. 11	191	Z310	38.5
FFV Z310-A15-1	1539525	Nr. 15	191	Z310	51
FFV Z450-A11	0836074	Nr. 11	193	Z450	35
FFV Z450-A15	0836075	Nr. 15	275	Z450	50
FFV Z450-A20	0836076	Nr. 20	275	Z450	51
FFV 510-A11	0836070	Nr. 11	193	Z510	42.5
FFV 510-A15	0836071	Nr. 15	281	Z510	50
FFV 510-A20	0836072	Nr. 20	325	Z510	50
FFV Z700-A15	0836080	Nr. 15	280	Z700	50
FFV Z700-A20-1	0836081	Nr. 20	375	Z700	65
FFV Z700-A20-2	0836092	Nr. 20	408	Z700	65

Accessories

Clamping force tester

For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Description	ID
IFT Set	1404235

Extension set for large chucks

For use as an extension of the IFT measuring head for measuring the jaw clamping force of large chucks of Ø 400 mm and more.



Description	ID
IFT adapter set	1498512

Maintenance unit

For processing the required compressed air.



Description	ID
WEH 1/4"	0890021

Pressure measuring unit

For checking pressure tightness.



Description	ID
DMG Ø24-NPT1/4"	8702680

Pressure monitoring retrofit kit

Retrofit kit for monitoring pneumatic pressure during machining, consisting of control cam, compression spring and other accessories.
An inductive proximity switch is also required.



Description	ID
NRS-PM	0818205

Inductive proximity switches

For pneumatic power lathe chucks for permanent pressure and/or path monitoring during processing in two versions. Opener (ID 9987327) and closer (ID 9986713).



Description	ID
BES M12MI-POC40B-S04G	9987327
BES M12MI-PSC40B-S04G	9986713

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

schunk.com/rota-tb2-lh



Robust. Sealed. Reliable. Pneumatic power lathe chuck ROTA TB2-LH

The principle of the ROTA TB2-LH power lathe chuck is based on achieving a long, fast jaw stroke in combination with maximum clamping force at low air consumption. This is achieved by a dual stroke system (LH) based on two different transmission ratios of the chuck body. However, these power lathe chucks can only be used for O.D. clamping!

Functions & highlights

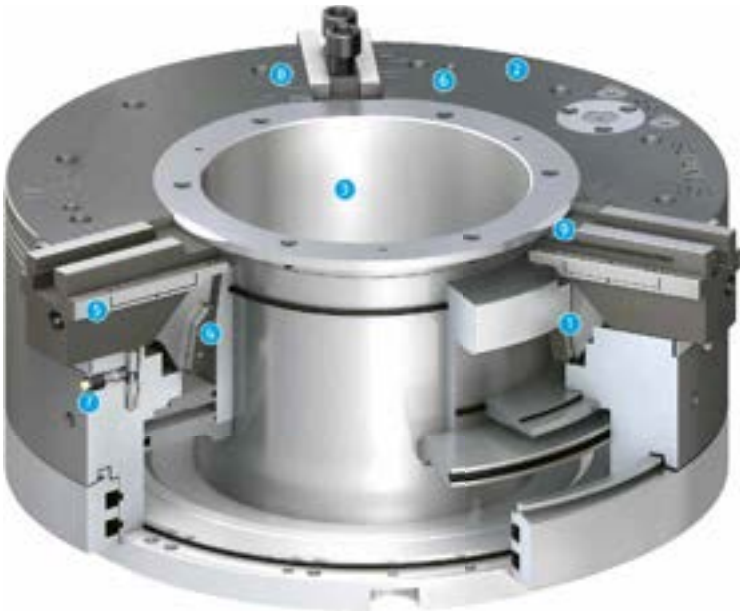
- **Monitoring of the opening and closing process**
  Process-reliable operation of the lathe chuck
- **Fast ventilation of the pressure chambers**
  Shorter process times
- **Integrated pneumatic cylinder**
  Easy air supply via rear distributor ring



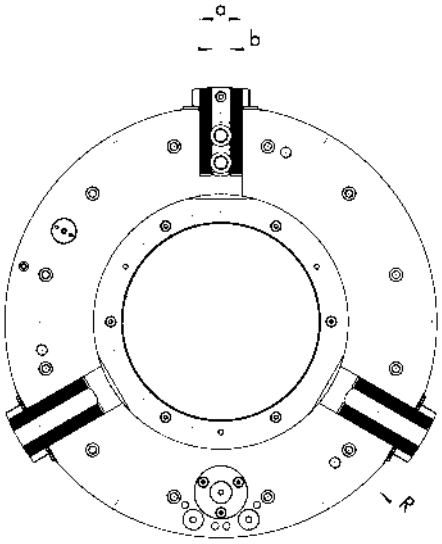
Field of application

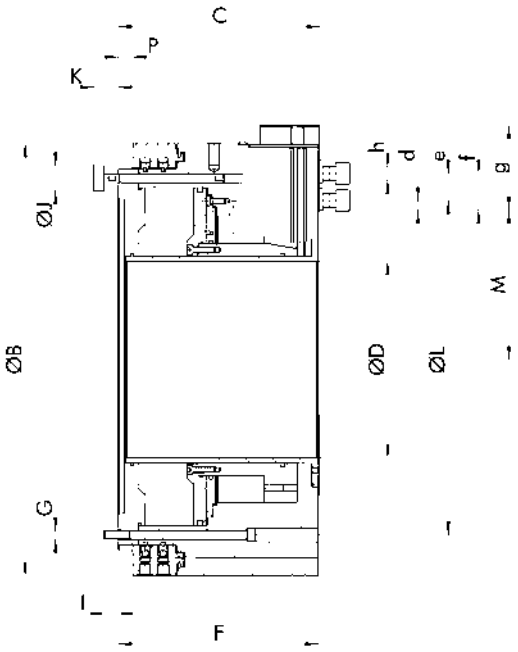
ROTA TB2-LH

The ROTA TB2-LH has a long jaw stroke, which makes it possible to clamp workpieces over interfering contours. The lathe chuck achieves a high clamping force and has a large through-hole, which is the reason why the chuck is often used in the machining of pipes for the oil industry, for example.



1. **Wedge hook drive**
2. **Hardened and extremely rigid base body**
3. **Very large through-hole**
4. **Dual stroke system**
5. **Optimized lubrication system**
6. **Mounting thread**
7. **Indicator pin**
8. **Jaw stroke display**
9. **Seal of the base jaw guidance**





Dimensions

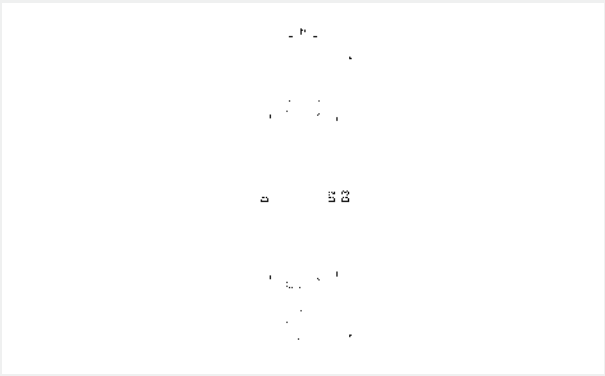
ID	ØB	C	ØD	F	G	I	J	K	ØL	M	P	R	a	b	d min.	e min.	f max.	g	h
	mm	mm	mm	mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
0818304	470	240	185	138	M12	25	35	27.7 – 35.2	374	138.5 – 158.5	20	512	60	25.5 H7	10.2	31	81.5	96.3	M20
0818316	570	282	230	280	M12	20	35	25.4 – 34.9	474	166.6 – 192	20	622	60	25.5 H7	13.2	31	104.5	118.5	M20
0818351	605	282	275	280	M12	20	35	25.7 – 35.2	508	184.1 – 209.5	20	657	60	25.5 H7	13.2	31	105	118.5	M20
0818325	627	325	275	323	M12	18	35	21.1 – 35	508	199.5 – 237.6	20	706	60	25.5 H7	12.2	31	97	115.2	M20
0818326	685	307.5	325	305.5	M16	24.5	35	25.7 – 35	580	214.2 – 239.6	19.5	744	75	30 H7	13	47	115.5	131.9	M24
0818335	850	354	375	352	M16	28	35	25.8 – 35	745	247.3 – 272.7	25	903	75	30 H7	12.8	47	161.6	178.6	M24
0818346	1000	332	560	330	M16	24	35	28.8 – 35.2	815	333.2 – 358.6	33	1052	75	30 H7	12.3	47	150.6	167.3	M24

Technical data

Product name	Spindle size	ID	Max. rotational speed	Max. clamping force (at 6 bar)	Actuation pressure	Stroke/jaw	Air consumption/jaw stroke at 6 bar	Moment of inertia	Weight
			RPM	kN	bar	mm	l	kgm²	kg
ROTA TB2 470-185 LH	Z310	0818304	1300	115	3 - 8	20	19.7	6.5	195
ROTA TB2 570-230 LH	Z415	0818316	1300	220	3 - 8	25.4	39.9	16.8	345
ROTA TB2 600-275 LH	Z450	0818351	1100	200	3 - 8	25.4	43.8	20.4	370
ROTA TB2 630-275 LH	Z450	0818325	1000	200	3 - 8	38.1	63.7	25.5	431
ROTA TB2 685-325 LH	Z510	0818326	900	280	3 - 8	25.4	54.1	37.3	500
ROTA TB2 850-375 LH	Z700	0818335	750	240	3 - 8	25.4	61.5	109	1010
ROTA TB2 1000-560 LH	Z700	0818346	500	240	3 - 8	25.4	57.4	161	1000

Adapter plates

Z-mount on short taper ISO 702-1





Technical data

Description	ID	D1	D2	D3	H
			mm		mm
FFV Z310-A11-2	0836052	Nr. 11	185	Z310	38
FFV Z310-A15-2	0836057	Nr. 15	185	Z310	50.5
FFV Z450-A11	0836074	Nr. 11	193	Z450	35
FFV Z450-A15	0836075	Nr. 15	275	Z450	50
FFV Z450-A20	0836076	Nr. 20	275	Z450	51
FFV 510-A11	0836070	Nr. 11	193	Z510	42.5
FFV 510-A15	0836071	Nr. 15	281	Z510	50
FFV 510-A20	0836072	Nr. 20	325	Z510	50
FFV Z700-A15	0836080	Nr. 15	280	Z700	50
FFV Z700-A20-1	0836081	Nr. 20	375	Z700	65
FFV Z700-A20-2	0836092	Nr. 20	408	Z700	65

Accessories

Clamping force tester

For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Description	ID
IFT Set	1404235

Extension set for large chucks

For use as an extension of the IFT measuring head for measuring the jaw clamping force of large chucks of Ø 400 mm and more.



Description	ID
IFT adapter set	1498512

Maintenance unit

For processing the required compressed air.



Description	ID
WEH 1/4"	0890021

Pressure measuring unit

For checking pressure tightness.



Description	ID
DMG Ø24-NPT1/4"	8702680

Pressure monitoring retrofit kit

Retrofit kit for monitoring pneumatic pressure during machining, consisting of control cam, compression spring and other accessories. An inductive proximity switch is also required.



Description	ID
NRS-PM	0818205

Inductive proximity switches

For pneumatic power lathe chucks for permanent pressure and/or path monitoring during processing in two versions. Opener (ID 9987327) and closer (ID 9986713).



Description	ID
BES M12MI-POC40B-S04G	9987327
BES M12MI-PSC40B-S04G	9986713

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

Overview magnetic chucks



Manual hybrid chuck ROTA NCML Page 178



Radial pole technology for turning applications on vertical lathes MGT Page 184

ROTA NCML

schunk.com/rota-ncml



Powerful. Universal. Precise. Manual hybrid chucks ROTA NCML

The ROTA NCML combines conventional manual lathe chucks with magnetic chuck to achieve optimal machining results. The hybrid chuck is controlled via a control unit or directly via the machine control system. Double AlNiCo magnets are integrated in the magnetic chuck, which allow for demagnetization of the workpiece after machining.

Functions & highlights

- **Deformation-free magnetic workpiece clamping**
  For highest run-out and repeat accuracy
- **Optimal dirt sealing, encapsulated centering chuck**
  Low maintenance and ensured high clamping accuracy
- **High clamping force due to jaw support**
  Improved cutting performance, particularly during hard turning



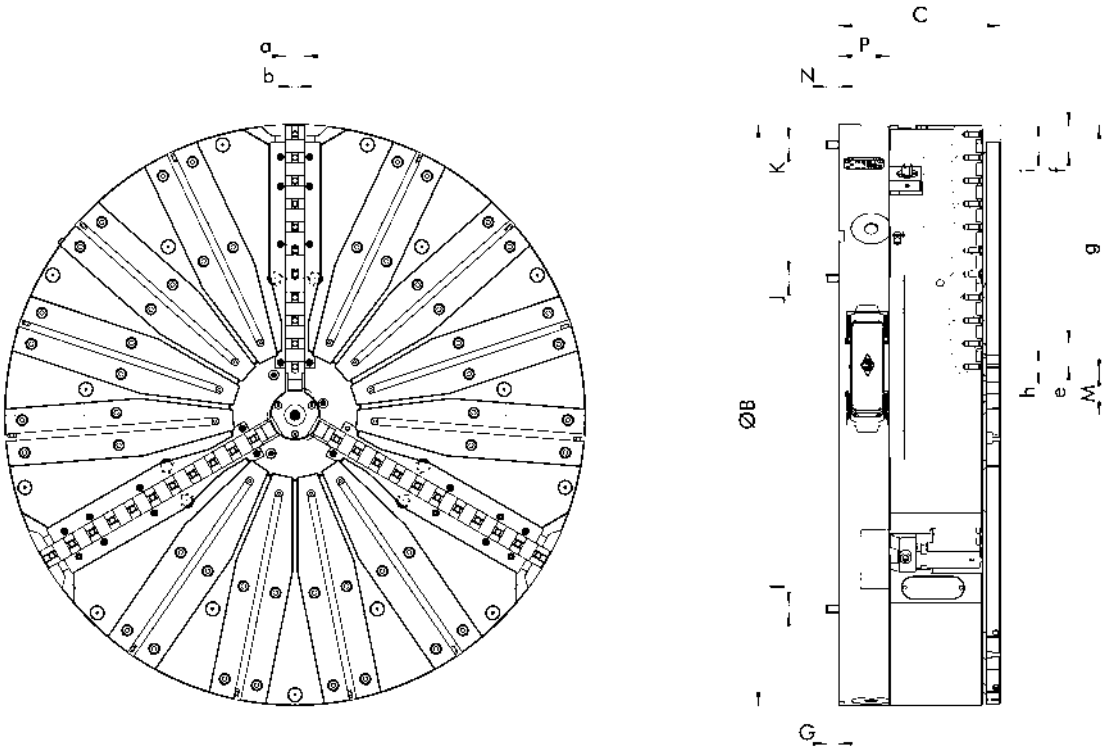
Field of application

ROTA NCML

With the ROTA NCML, the workpiece is centered via the manual lathe chuck and then clamped by the magnetic chuck. With this clamping method, workpieces can be clamped without deformation or vibration. This makes the ROTA NCML ideally suitable for high-precision machining when grinding or hard turning thin-walled rings or disks. The hybrid lathe chucks are also available as a ROTA NCM version with a pneumatic or hydraulic centering chuck as a special design.



1. **Manual centering chuck ROTA-S plus 2.0 or ROTA-S plus**
2. **Long base jaws with multiple tongue and groove**
3. **Actuation via hexagon connection**
4. **Push button for jaw release**
5. **Invertible AlNiCo-magnets**
6. **Coil body, insulated version**
7. **Steel pole**
8. **Synthetic resin casting**
9. **Pole shoe**



Dimensions

ID	B	C	G	I	J	K	M	N	P	a	b	e	f	g	h	i
	mm	mm	mm				mm	mm	mm	mm	mm	mm	mm	mm		
1381351	630	223.8	20	M12	M12		78.4 – 99.3	20	70	26	8 h8	32	37	211	M8x1	18 H7
0809001	800	223	16.5	M10	M10	M10	58.4 – 79.3	16.5	70	26	8 h8	32	37	340	M8	18 H7
0809004	1000	240.5	18.5	M8	M16		89.5 – 110.9	25.5	76	22	10 h8	40	40	380	M8x1	20 H7
0809005	1250	240	21.5	M12	M16		119.6 – 150.5	26	71	40	12 h8	54	55	473	M12x1.5	26 H7
0809002	1400	240	21.5	M12	M16		112.6 – 143.5	26	71	40	12 h8	54	54	568	M12x1.5	26 H7
0809003	1600	250.5	21	M12	M16		184.6 – 222.1	25.5	76	45	18 h8	60	60	570	M16x1.5	30 H7

Technical data

Product name	ID	Max. rotational speed	Max. magnetic holding force	Magnet clamping range	Number of poles	Connection	Number of channels	Mains voltage	Weight
		RPM	N/cm²	mm					kg
ROTA NCML 630	1381351	600	160	180 – 630	12	7-PIN	3	400 V / 50 Hz	395
ROTA NCML 800	0809001	500	160	180 – 800	12	7-PIN	3	400 V / 50 Hz	705
ROTA NCML 1000	0809004	320	160	220 – 1000	18	7-PIN	3	400 V / 50 Hz	1110
ROTA NCML 1250	0809005	300	160	350 – 1250	24	13-PIN	6	400 V / 50 Hz	1700
ROTA NCML 1400	0809002	280	160	350 – 1400	24	13-PIN	6	400 V / 50 Hz	2165
ROTA NCML 1600	0809003	230	160	540 – 1600	30	13-PIN	6	400 V / 50 Hz	2920

Accessories

Clamping force tester

For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Suitable for	Description	ID
ROTA NCML 630		
ROTA NCML 800		
ROTA NCML 1000		
ROTA NCML 1250		
ROTA NCML 1400		
ROTA NCML 1600	IFT Set	1404235

Manual gaussmeter

For determining the residual magnetism in the workpiece after machining.



Suitable for	Description	ID
ROTA NCML 630		
ROTA NCML 800		
ROTA NCML 1000		
ROTA NCML 1250		
ROTA NCML 1400		
ROTA NCML 1600	MG10	0422950

Extension set for large chucks

For use as an extension of the IFT measuring head for measuring the jaw clamping force of large chucks of Ø 400 mm and more.



Suitable for	Description	ID
ROTA NCML 630		
ROTA NCML 800		
ROTA NCML 1000		
ROTA NCML 1250		
ROTA NCML 1400		
ROTA NCML 1600	IFT adapter set	1498512

Pole extensions

Fixed pole extension

With through-hole, fixing screw M6 and T-nut for guide 10 mm.



Suitable for	Description	Length mm	Width mm	Height mm	ID
ROTA NCML 630					
ROTA NCML 800					
ROTA NCML 1000					
ROTA NCML 1250					
ROTA NCML 1400					
ROTA NCML 1600	RVF 30-54	90	30	54	0422620
ROTA NCML 630					
ROTA NCML 800					
ROTA NCML 1000					
ROTA NCML 1250					
ROTA NCML 1400					
ROTA NCML 1600	RVF 50-54	110	50	54	0422621
ROTA NCML 630					
ROTA NCML 800					
ROTA NCML 1000					
ROTA NCML 1250					
ROTA NCML 1400					
ROTA NCML 1600	RVF 70-54	150	70	54	0422622

Flexible pole extensions

With through-hole, fixing screw M6 and T-nut for guide 10 mm.
Compensation stroke 7 mm.



Suitable for	Description	Length mm	Width mm	Height mm	ID
ROTA NCML 630					
ROTA NCML 800					
ROTA NCML 1000					
ROTA NCML 1250					
ROTA NCML 1400					
ROTA NCML 1600	RVB 30-54	90	30	54	0422623
ROTA NCML 630					
ROTA NCML 800					
ROTA NCML 1000					
ROTA NCML 1250					
ROTA NCML 1400					
ROTA NCML 1600	RVB 50-54	110	50	54	0422624
ROTA NCML 630					
ROTA NCML 800					
ROTA NCML 1000					
ROTA NCML 1250					
ROTA NCML 1400					
ROTA NCML 1600	RVB 70-54	150	70	54	0422625

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

Control units

Control unit 400 V/50 Hz

For magnetizing or demagnetizing MGT magnetic chucks.



Suitable for	Description	Channels	ID
ROTA NCML 630 ROTA NCML 800 ROTA NCML 1000	KEH-MGT plus 03 400V/50Hz	3	1472406
ROTA NCML 1250 ROTA NCML 1400 ROTA NCML 1600	KEH-MGT plus 06 400V/50Hz	6	1472407

Control unit 460 V/60 Hz

For magnetizing or demagnetizing MGT magnetic chucks.



Suitable for	Description	Channels	ID
ROTA NCML 630 ROTA NCML 800 ROTA NCML 1000	KEH-MGT plus 03 460V/60Hz	3	1472409
ROTA NCML 1250 ROTA NCML 1400 ROTA NCML 1600	KEH-MGT plus 06 460V/60Hz	6	1472410

MAGNOS

schunk.com/mgt



Efficient. Automatable. Precise. Radial pole technology for turning applications on vertical lathes MGT

The MGT magnetic chucks generate a uniform, permanent magnetic clamping force over the entire workpiece, allowing it to be clamped with little deformation and low vibration. The magnetic chucks have a special demagnetization cycle with which the residual magnetism can be reduced at the end of machining.

Functions & highlights

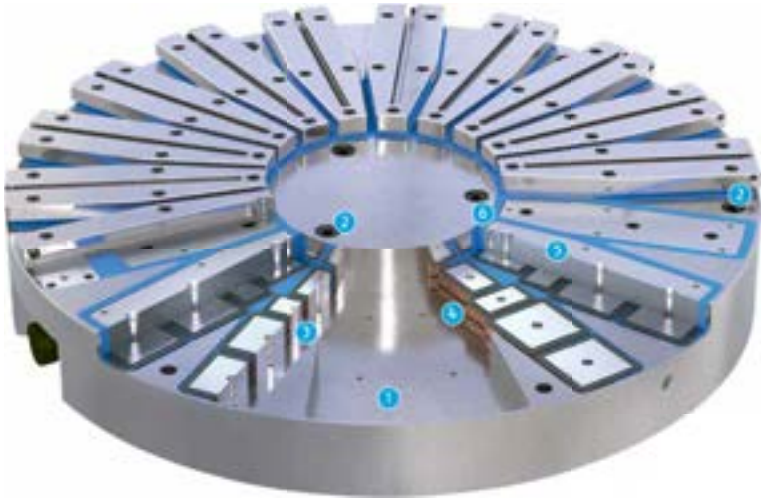
- **3-sided workpiece machining in one set-up**
  Higher accuracy by setting up once and best access to the machine spindle
- **Low-deformation clamping**
  No deformation and internal forces in the workpiece due to the clamping force
- **Clamping within a few seconds**
  Shortest possible setup times and a resulting increase in productivity



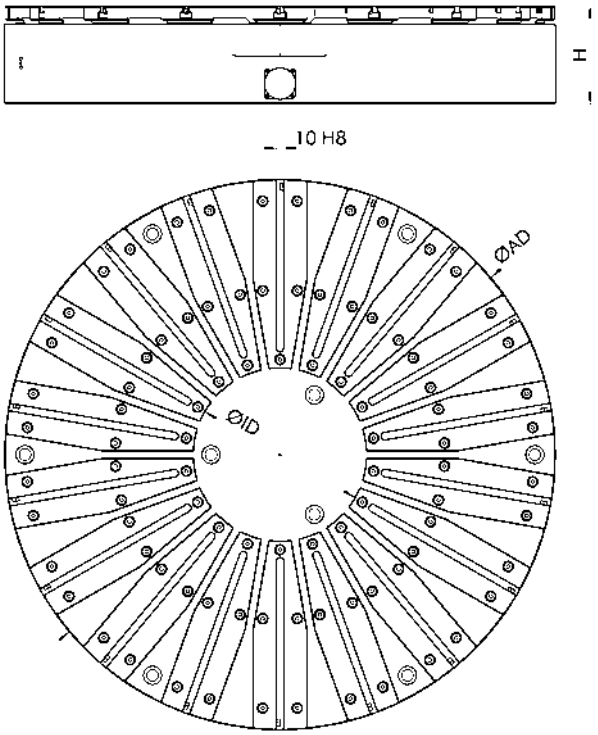
Field of application

MGT

MAGNOS electropermanent magnetic chucks with radial pole pitch are designed for the turning and grinding of rings and washers on lathes and grinding machines. The workpieces are clamped so they are low in deformation and vibration due to the consistent, permanent magnetic clamping force, resulting in improved surfaces and significantly increased precision.



1. **Stable base body**
2. **Mounting hole**
3. **Invertible AlNiCo-magnets**
4. **Coil body, insulated version**
5. **Steel pole**
6. **Synthetic resin casting**



Technical data

Description	ID	ØAD	ØID	Height H	Max. clamping force	Number of poles	Connection	Number of channels	Max. rotational speed	Weight
		mm	mm	mm	N/cm²				RPM	kg
MGT-IC Ø600	1311855	600	140	158	160	12	7-PIN	1	650	290
MGT-IC Ø800	1311856	800	250	142	160	18	7-PIN	3	500	460
MGT-IC Ø1000	1311857	1000	250	142	160	18	7-PIN	3	400	720
MGT-IC Ø1250	1311858	1250	400	142	160	24	13-PIN	6	300	1120
MGT-IC Ø1500	1311859	1500	600	142	160	32	13-PIN	6	240	1700

Accessories

Docking station
Bracket for connection cable with a check whether the cable has been removed from the magnetic chuck.



Suitable for	Description	ID
7-pin connector CIR24	DKS.C1 CIR24 7-PIN	1469395
13-pin connector CIR32B	DKS.C5 CIR 13-PIN	1470019

Pole extensions

Fixed pole extension
With through-hole, fixing screw M6 and T-nut for guide 10 mm.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MGT-IC	RVF 30-54	90	30	54	0422620
MGT-IC	RVF 50-54	110	50	54	0422621
MGT-IC	RVF 70-54	150	70	54	0422622

Flexible pole extensions
With through-hole, fixing screw M6 and T-nut for guide 10 mm.
Compensation stroke 7 mm.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MGT-IC	RVB 30-54	90	30	54	0422623
MGT-IC	RVB 50-54	110	50	54	0422624
MGT-IC	RVB 70-54	150	70	54	0422625

Control units

Control unit 400 V/50 Hz
For magnetizing or demagnetizing MGT magnetic chucks.



Suitable for	Description	Channels	ID
MGT-IC	KEH-MGT plus 01 400V/50Hz	1	1472405
MGT-IC	KEH-MGT plus 03 400V/50Hz	3	1472406
MGT-IC	KEH-MGT plus 06 400V/50Hz	6	1472407

Control unit 460 V/60 Hz
For magnetizing or demagnetizing MGT magnetic chucks.



Suitable for	Description	Channels	ID
MGT-IC	KEH-MGT plus 01 460V/60Hz	1	1472408
MGT-IC	KEH-MGT plus 03 460V/60Hz	3	1472409
MGT-IC	KEH-MGT plus 06 460V/60Hz	6	1472410

Overview clamping cylinders

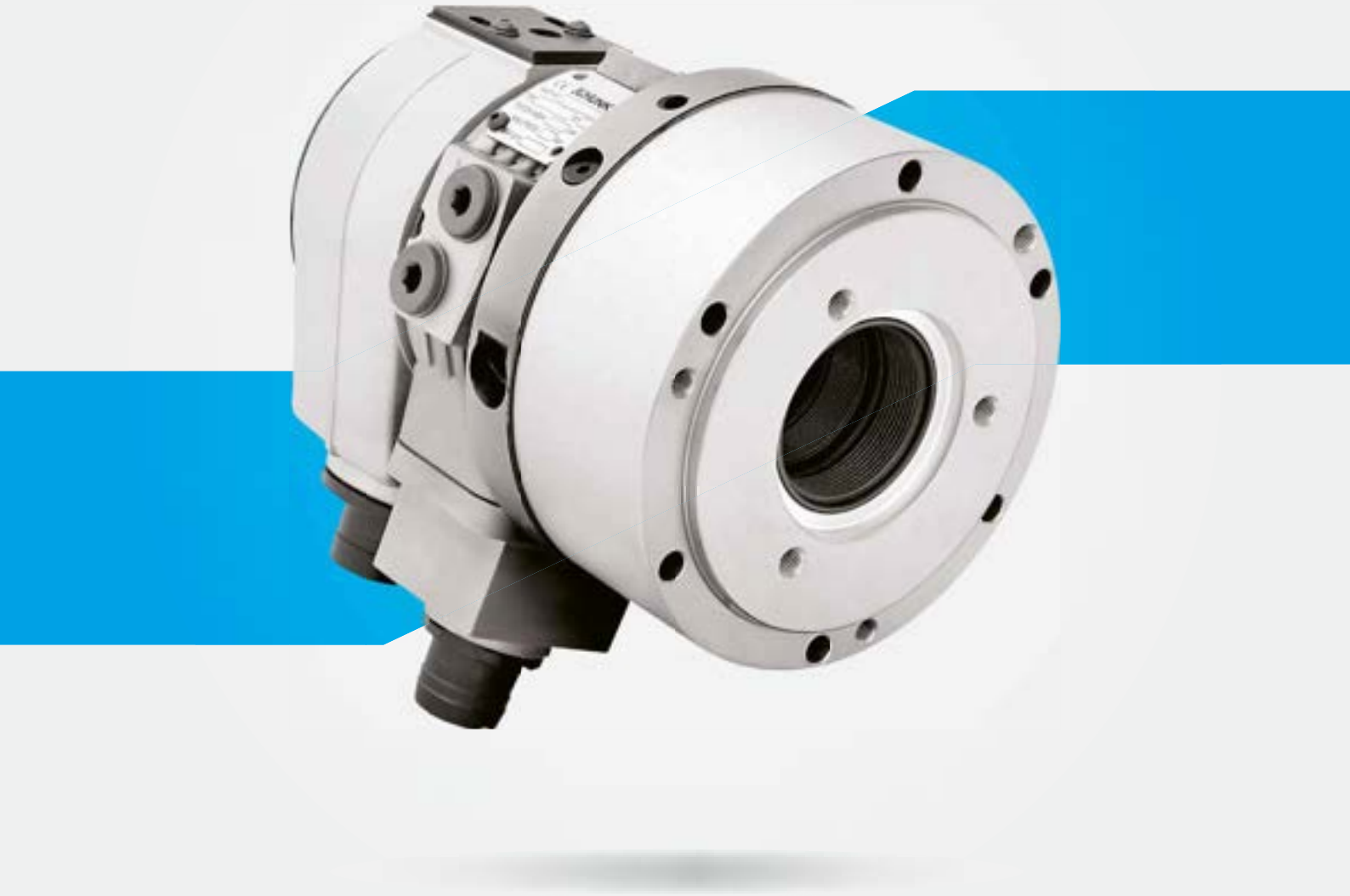


Open-center cylinder OPUS-H3 Page 190



Closed-center cylinder OPUS-V Page 194

schunk.com/opus-h3



Efficient. Powerful. Durable. Open-center cylinder OPUS-H3

Open-center cylinders for hydraulically operated power lathe chucks with large through-hole, wide adjustment range and shortest switching times.

Functions & highlights

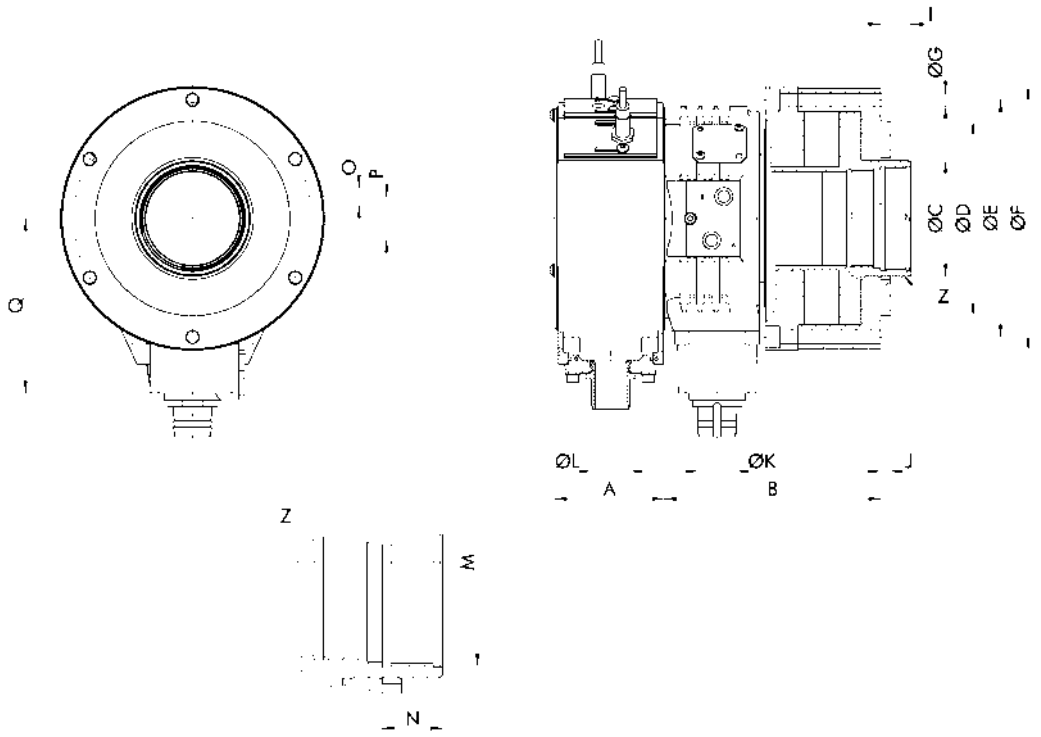
- **Integrated control cam for stroke monitoring**
  Two proximity switches allow easy adjustment and monitoring of the clamping stroke
- **Integrated check valve**
  Temporarily maintains the pressure in the hydraulic cylinder in case of cable break
- **Long actuating stroke**
  Suitable for actuation of all standard power chucks



Field of application

OPUS-H3

The clamping cylinder OPUS-H3 is the ideal standard cylinder with a large through-hole for all conventional power lathe chucks. The clamping cylinder is designed for high rotational speeds and can be operated at a hydraulic pressure of up to 45 bar. Two proximity switches allow easy adjustment and monitoring of the clamping stroke via an integrated control cam.



Dimensions

ID	A	B	ØC	ØD	ØE	ØF	ØG	I	J	ØK	ØL	M	N	O	P	Q
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		mm		mm	mm
1360383	65	151	50	110 h6	125	145	9	-2 - 24	5	32	32	M44 x 1.5	20	G3/8"	28	111
1360384	65	152	61	110 h6	147	165	9	-3 - 22	5	32	32	M55 x 2	25	G3/8"	28	122
1360385	80	152	70	140 h6	165	185	9	-3 - 22	5	32	32	M60 x 1.5	25	G3/8"	28	128
1360386	90	178	85	160 h6	180	202	11	-4 - 25	8	32	32	M75 x 2	25	G3/8"	36	138
1360387	90	178	95	160 h6	195	217	11	-4 - 25	8	32	32	M85 x 2	25	G3/8"	36	143
1360393	90	203	105	180 h6	210	234	11	-3 - 31	8	32	32	M95x2	32	G3/8"	36	153
1360394	90	208	115	210 h6	227	249	11	-3 - 31	8	32	32	M105x2	32	G3/8"	36	165
1360395	100	245	130	210 h6	240	266	11	-4 - 31	8	32	32	M120x2	32	G3/8"	36	185
1360396	100	265	145	250 h6	270	295	13	4 - 44	5	32	32	M135x2	32	G3/8"	36	198

Technical data

Description	ID	Max. rotational speed	Piston surface	Piston stroke	Through-hole	Max. pressure	Pull force at 45 bar	Oil leakage rate	Moment of inertia	Power consump-tion	Weight
		RPM	cm²	mm	mm	bar	kN	l/min	kgm²	kW	kg
OPUS-H3 70-37	1360383	8000	70	26	37.5	45	31	2.5	0.013	0.85	8
OPUS-H3 102-46	1360384	7000	103	25	46.5	45	46	3	0.028	1	12
OPUS-H3 130-52	1360385	6300	131	25	52.5	45	58	3.5	0.04	1.2	15
OPUS-H3 150-67	1360386	5500	152	29	67.5	45	68	4	0.07	1.5	20
OPUS-H3 170-77	1360387	5000	170	29	77	45	76	4.5	0.09	1.8	23
OPUS-H3 200-86	1360393	4500	197	34	86	45	88	5	0.13	1.9	27
OPUS-H3 225-95	1360394	4000	225	34	95	45	100	7	0.17	1.9	30
OPUS-H3 250-110	1360395	3600	247	35	110.5	45	110	9	0.28	2.2	49
OPUS-H3 320-127	1360396	3200	325	40	127.5	45	144	12	0.54	2.5	61

schunk.com/opus-v



Efficient. Powerful. Durable. Closed-center cylinder OPUS-V

Closed-center cylinders for hydraulically operated power lathe chucks with large control range and shortest switching times.

Functions & highlights

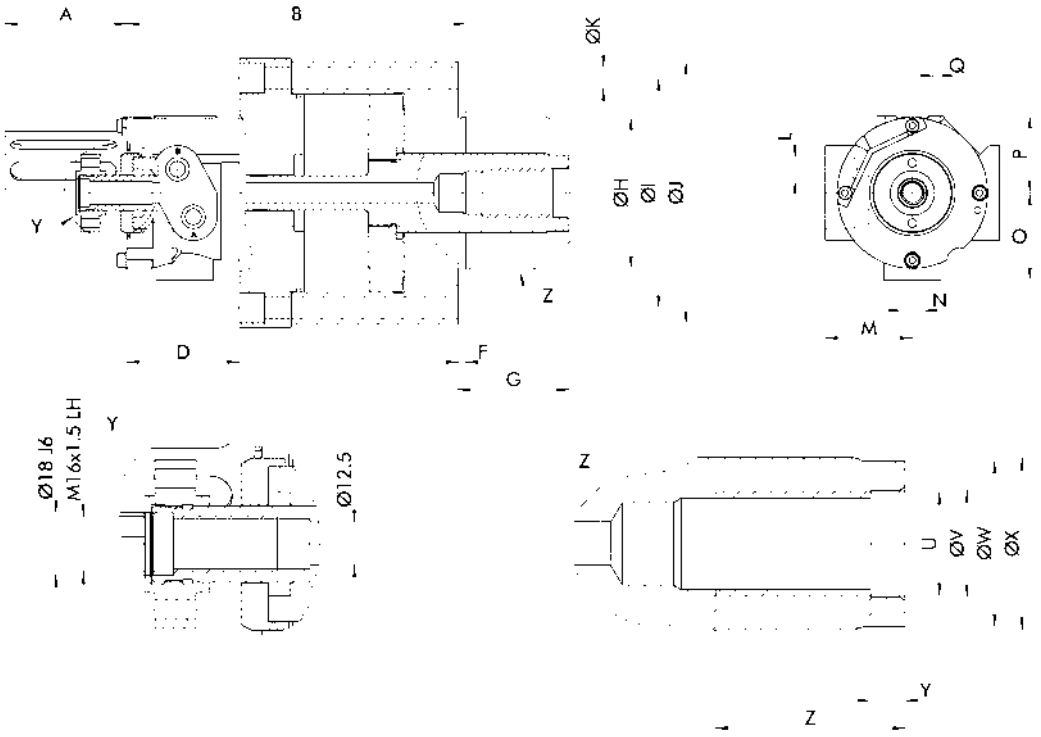
- **Integrated check valve**
  Temporarily maintains the pressure in the hydraulic cylinder in case of cable break
- **Integrated control cam for stroke monitoring**
  Two proximity switches allow easy adjustment and monitoring of the clamping stroke
- **Long actuating stroke**
  Suitable for actuation of all standard power chucks



Field of application

OPUS-V

OPUS-V without a through-hole is the ideal standard cylinder for all conventional power lathe chucks. The clamping cylinder is designed for high rotational speeds and can be operated at a hydraulic pressure of up to 70 bar. Two proximity switches allow easy adjustment and monitoring of the clamping stroke via an integrated control cam.



Dimensions

ID	A	B	D	F	G	ØH	ØI	ØJ	ØK	L	M	N	O	P	Q	U	ØV	ØW	ØX	Y	Z
	mm	mm	mm	mm	mm	mm	mm	mm	mm		mm		mm	mm			mm		mm	mm	mm
0823320	77	200	50 h6	5	15 – 55	50 h6	100	120	9	G3/8"	55	G3/8"	55	48	M5	M20	20.5	30 h7	32	10	40
0823321	77	192	50 h6	5	15 – 47	50 h6	100	120	9	G3/8"	55	G3/8"	55	48	M5	M20	20.5	30 h7	32	10	40
0823322	77	196	80 h6	5	15 – 47	80 h6	120	140	11	G3/8"	55	G3/8"	55	48	M5	M24	25	38 h7	40	10	45
0823323	77	216	95 h6	5	30 – 70	95 h6	145	166	13	G3/8"	55	G3/8"	55	48	M5	M30	31	48 h7	50	10	55
0823324	77	216	95 h6	5	30 – 70	95 h6	170	192	13	G3/8"	55	G3/8"	55	48	M5	M30	31	48 h7	50	10	55
0823325	77	226	125 h6	5	25 – 70	125 h6	195	217	13	G3/8"	55	G3/8"	55	48	M5	M36	37	58 h7	60	10	55
0823326	97	288	125 h6	5	30 – 80	125 h6	225	250	17	G1/2"	65	G1/2"	65	59	M5	M42	44	62 h7	65	12	60
0823327	97	313	160 h6	5	25 – 85	160 h6	275	300	17	G1/2"	65	G1/2"	65	59	M5	M42	44	62 h7	65	12	60

Technical data

Description	ID	Max. rotational speed	Piston surface	Piston stroke	Max. pressure	Pull force at 40 bar	Oil leakage rate	Moment of inertia	Weight
		RPM	cm²	mm	bar	kN	l/min	kgm²	kg
OPUS-V 70	0823320	7000	28	40	70	11	1.5	0.012	8.5
OPUS-V 85	0823321	7000	48	32	70	19	1.5	0.012	8
OPUS-V 100	0823322	7000	66	32	70	26	1.5	0.016	11
OPUS-V 125	0823323	6000	103	40	70	41	1.5	0.04	16
OPUS-V 150	0823324	6000	157	40	70	62	1.5	0.08	20
OPUS-V 175	0823325	5000	212	45	70	84	1.5	0.12	24
OPUS-V 200	0823326	4000	280	50	70	112	2	0.32	45
OPUS-V 250	0823327	2000	457	60	50	180	2	0.92	88


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Overview steady rests



Steady rest THL plus Page 200

ZENTRICO

schunk.com/thl



Universal. Durable. Precise. Steady rest THL plus

Due to the optimized lever kinematics, central lubrication, integrated roller rinsing, and improved chip protection, the SCHUNK ZENTRICO THL plus steady rest achieves maximum clamping forces for each roller as well as excellent centering and repeat accuracies.

Functions & highlights

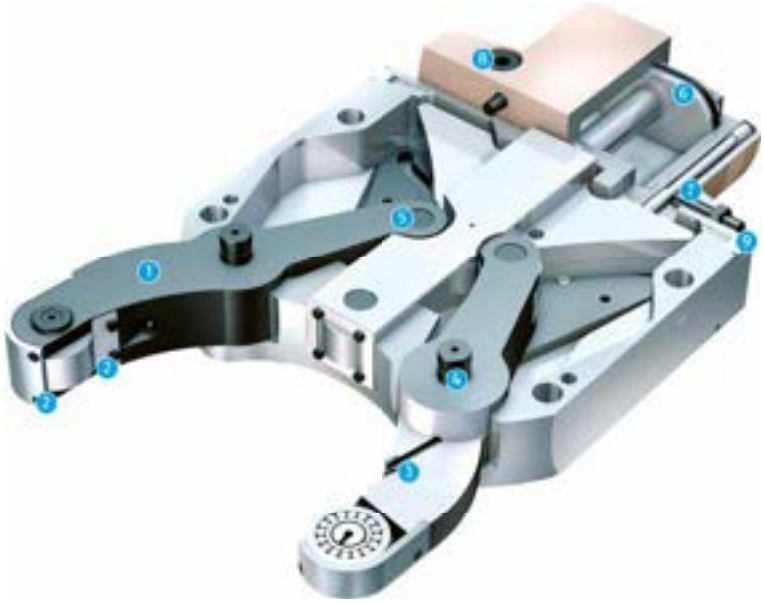
- **Precision-lever steady rest for top quality demands**
  Allows excellent machining results
- **Serially sealed against chips and air purge connection as a standard**
  Ensure higher process reliability and extended maintenance intervals
- **Integrated safety valve and end position control**
  Maximum operating safety



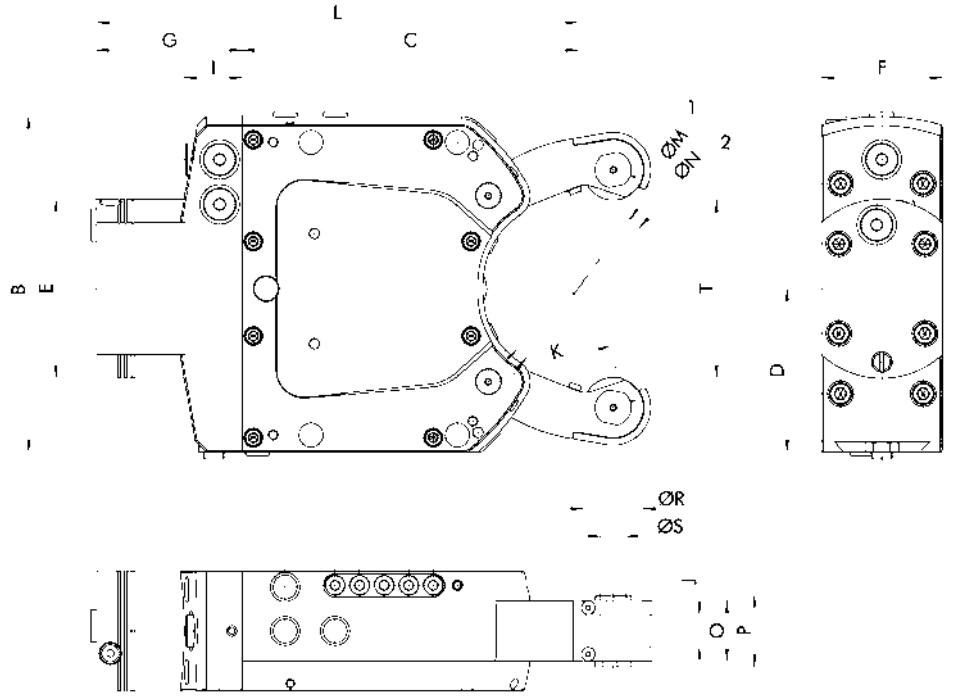
Field of application

THL plus

Hydraulically actuated, self-centering steady rests with high clamping forces to support long workpieces on lathes. For better accessibility to large workpieces, the steady rests are also available with an optional swing-out lever arm.



1. **Lever drive**
2. **Sealed with double, extremely robust chip protection**
3. **Roller rinsing as standard**
4. **Stable lever bearing**
5. **Swing-out lever arm**
6. **Oval piston cylinder**
7. **Standard version ready for installation of piston position monitoring**
8. **Safety check valve**
9. **Air purge connection**



Dimensions

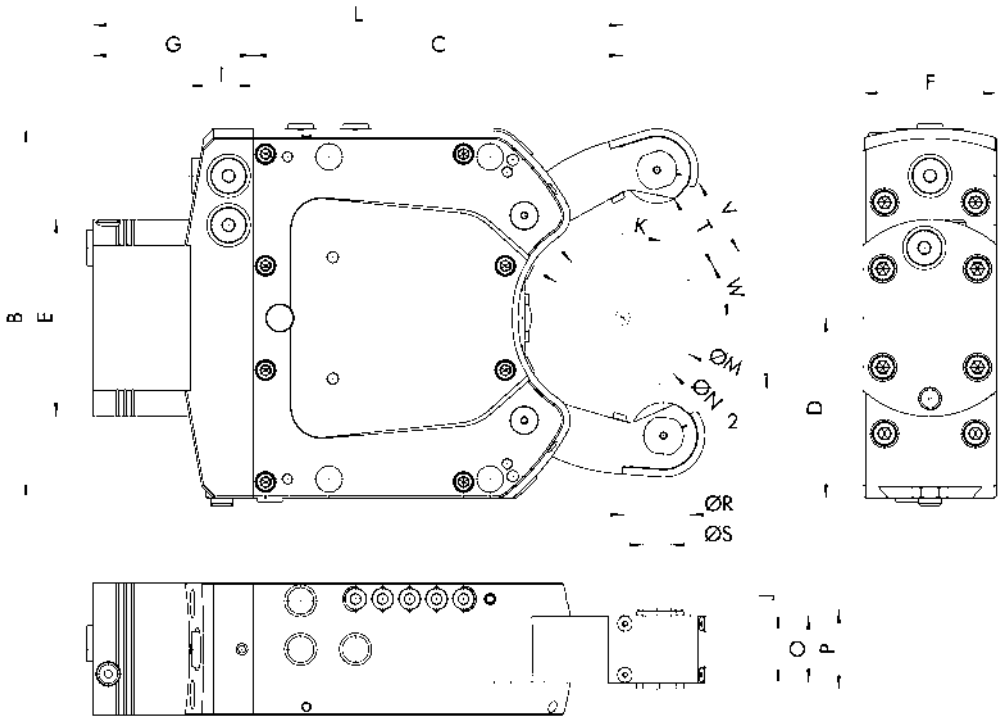
ID	B	C	D	E	F	G	I	J	K	L	ØM*	ØN**	O	P	ØR	ØS	T
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
0825111	135	137	66	80	55	69	34.5	19	50.5	206	4 – 66	8 – 66	20	24	19	6	67.5
0825113	135	137	66	80	55	69	34.5	19	50.5	206	4 – 66	8 – 66	20	24	19	6	67.5
0825112	135	137	66	80	55	69	34.5	19	50.5	206	4 – 66	8 – 66	20	24	19	6	67.5
0825114	135	137	66	80	55	69	34.5	19	50.5	206	4 – 66	8 – 66	20	24	19	6	67.5
0825211	195	195	95	104	70	84.5	33.6	19	74	279.5	8 – 101	16 – 101	35	42	35	15	103
0825213	195	195	95	104	70	84.5	33.6	19	74	279.5	8 – 101	16 – 101	35	42	35	15	103
0825212	195	195	95	104	70	84.5	33.6	19	74	279.5	8 – 101	16 – 101	35	42	35	15	103
0825214	195	195	95	104	70	84.5	33.6	19	74	279.5	8 – 101	16 – 101	35	42	35	15	103
0825311	295	312	145	158	85	117	37.7	25	118	429	12 – 152	22 – 152	45	52	47	20	155.6
0825313	295	312	145	158	85	117	37.7	25	118	429	12 – 152	22 – 152	45	52	47	20	155.6
0825312	295	312	145	158	85	117	37.7	25	118	429	12 – 152	22 – 152	45	52	47	20	155.6
0825314	295	312	145	158	85	117	37.7	25	118	429	12 – 152	22 – 152	45	52	47	20	155.6
0825411	295	320	145	158	85	117	37.7	25	124	437	20 – 165		45	52	47	20	167
0825413	295	320	145	158	85	117	37.7	25	124	437	20 – 165		45	52	47	20	167
0825412	295	320	145	158	85	117	37.7	25	124	437	20 – 165		45	52	47	20	167
0825414	295	320	145	158	85	117	37.7	25	124	437	20 – 165		45	52	47	20	167
0825911	295.1	335	145	158	85	117	37.7	25	139	452	50 – 200		45	52	47	20	201.2
0825913	295.1	335	145	158	85	117	37.7	25	139	452	50 – 200		45	52	47	20	201.2
0825912	295.1	335	145	158	85	117	37.7	25	139	452	50 – 200		45	52	47	20	201.2
0825914	295.1	335	145	158	85	117	37.7	25	139	452	50 – 200		45	52	47	20	201.2
0825511	407	448	200	200	110	160	58.4	25	172	608	35 – 245		60	67	52	25	246.4
0825513	407	448	200	200	110	160	58.4	25	172	608	35 – 245		60	67	52	25	246.4
0825512	407	448	200	200	110	160	58.4	25	172	608	35 – 245		60	67	52	25	246.4
0825514	407	448	200	200	110	160	58.4	25	172	608	35 – 245		60	67	52	25	246.4
0825611	448	510	220	165	145	187.5	49.8	29	209	697.5	50 – 310		75	83	62	30	317
0825613	448	510	220	165	145	187.5	49.8	29	209	697.5	50 – 310		75	83	62	30	317
0825612	448	510	220	165	145	187.5	49.8	29	209	697.5	50 – 310		75	83	62	30	317
0825614	448	510	220	165	145	187.5	49.8	29	209	697.5	50 – 310		75	83	62	30	317
0825711	448	530	220	165	145	187.5	49.8	29	229	717.5	85 – 350		75	83	62	30	352.5
0825713	448	530	220	165	145	187.5	49.8	29	229	717.5	85 – 350		75	83	62	30	352.5
0825712	448	530	220	165	145	187.5	49.8	29	229	717.5	85 – 350		75	83	62	30	352.5

ID	B	C	D	E	F	G	I	J	K	L	ØM*	ØN**	O	P	ØR	ØS	T
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
0825714	448	530	220	165	145	187.5	49.8	29	229	717.5	85 – 350		75	83	62	30	352.5
0825811	688	705	340	240	145	235.5	59.8	29	290	940.5	125 – 460		75	83	80	35	466
0825813	688	705	340	240	145	235.5	59.8	29	290	940.5	125 – 460		75	83	80	35	466
0825812	688	705	340	240	145	235.5	59.8	29	290	940.5	125 – 460		75	83	80	35	466
0825814	688	705	340	240	145	235.5	59.8	29	290	940.5	125 – 460		75	83	80	35	466

Technical data

Description	ID	Type of lubrication	Rollers	Clamping range	Max. clamping force/roller	Operating pressure	Centering accuracy	Repeat accuracy	Max. circumferential speed	Weight
				mm	kN	bar	mm	mm	m/min	kg
THL plus 100 Z-Z	0825111	Central lubrication	cylindrical	4 – 66	1	6 – 50	< 0.02	< 0.005	895	6.5
THL plus 100 Z-B	0825113	Central lubrication	spherical	4 – 66	1	6 – 50	< 0.02	< 0.005	895	6.5
THL plus 100 M-Z	0825112	Manual lubrication	cylindrical	4 – 66	1	6 – 50	< 0.02	< 0.005	895	6.5
THL plus 100 M-B	0825114	Manual lubrication	spherical	4 – 66	1	6 – 50	< 0.02	< 0.005	895	6.5
THL plus 200 Z-Z	0825211	Central lubrication	cylindrical	8 – 101	3.5	8 – 60	< 0.02	< 0.005	605	16
THL plus 200 Z-B	0825213	Central lubrication	spherical	8 – 101	3.5	8 – 60	< 0.02	< 0.005	605	16
THL plus 200 M-Z	0825212	Manual lubrication	cylindrical	8 – 101	3.5	8 – 60	< 0.02	< 0.005	605	16
THL plus 200 M-B	0825214	Manual lubrication	spherical	8 – 101	3.5	8 – 60	< 0.02	< 0.005	605	16
THL plus 300 Z-Z	0825311	Central lubrication	cylindrical	12 – 152	10	8 – 60	< 0.04	< 0.007	590	50
THL plus 300 Z-B	0825313	Central lubrication	spherical	12 – 152	10	8 – 60	< 0.04	< 0.007	590	50
THL plus 300 M-Z	0825312	Manual lubrication	cylindrical	12 – 152	10	8 – 60	< 0.04	< 0.007	590	50
THL plus 300 M-B	0825314	Manual lubrication	spherical	12 – 152	10	8 – 60	< 0.04	< 0.007	590	50
THL plus 310 Z-Z	0825411	Central lubrication	cylindrical	20 – 165	10	8 – 60	< 0.04	< 0.007	590	50
THL plus 310 Z-B	0825413	Central lubrication	spherical	20 – 165	10	8 – 60	< 0.04	< 0.007	590	50
THL plus 310 M-Z	0825412	Manual lubrication	cylindrical	20 – 165	10	8 – 60	< 0.04	< 0.007	590	50
THL plus 310 M-B	0825414	Manual lubrication	spherical	20 – 165	10	8 – 60	< 0.04	< 0.007	590	50
THL plus 320 Z-Z	0825911	Central lubrication	cylindrical	50 – 200	10	8 – 60	< 0.04	< 0.007	590	50
THL plus 320 Z-B	0825913	Central lubrication	spherical	50 – 200	10	8 – 60	< 0.04	< 0.007	590	50
THL plus 320 M-Z	0825912	Manual lubrication	cylindrical	50 – 200	10	8 – 60	< 0.04	< 0.007	590	50
THL plus 320 M-B	0825914	Manual lubrication	spherical	50 – 200	10	8 – 60	< 0.04	< 0.007	590	50
THL plus 400 Z-Z	0825511	Central lubrication	cylindrical	35 – 245	15	8 – 60	< 0.05	< 0.01	535	102
THL plus 400 Z-B	0825513	Central lubrication	spherical	35 – 245	15	8 – 60	< 0.05	< 0.01	535	102
THL plus 400 M-Z	0825512	Manual lubrication	cylindrical	35 – 245	15	8 – 60	< 0.05	< 0.01	535	102
THL plus 400 M-B	0825514	Manual lubrication	spherical	35 – 245	15	8 – 60	< 0.05	< 0.01	535	102
THL plus 500 Z-Z	0825611	Central lubrication	cylindrical	50 – 310	15	8 – 60	< 0.06	< 0.01	565	166
THL plus 500 Z-B	0825613	Central lubrication	spherical	50 – 310	15	8 – 60	< 0.06	< 0.01	565	166
THL plus 500 M-Z	0825612	Manual lubrication	cylindrical	50 – 310	15	8 – 60	< 0.06	< 0.01	565	166
THL plus 500 M-B	0825614	Manual lubrication	spherical	50 – 310	15	8 – 60	< 0.06	< 0.01	565	166
THL plus 510 Z-Z	0825711	Central lubrication	cylindrical	85 – 350	15	8 – 60	< 0.06	< 0.01	565	168
THL plus 510 Z-B	0825713	Central lubrication	spherical	85 – 350	15	8 – 60	< 0.06	< 0.01	565	168
THL plus 510 M-Z	0825712	Manual lubrication	cylindrical	85 – 350	15	8 – 60	< 0.06	< 0.01	565	168
THL plus 510 M-B	0825714	Manual lubrication	spherical	85 – 350	15	8 – 60	< 0.06	< 0.01	565	168
THL plus 600 Z-Z	0825811	Central lubrication	cylindrical	125 – 460	25	8 – 60	< 0.06	< 0.02	400	360
THL plus 600 Z-B	0825813	Central lubrication	spherical	125 – 460	25	8 – 60	< 0.06	< 0.02	400	360
THL plus 600 M-Z	0825812	Manual lubrication	cylindrical	125 – 460	25	8 – 60	< 0.06	< 0.02	400	360
THL plus 600 M-B	0825814	Manual lubrication	spherical	125 – 460	25	8 – 60	< 0.06	< 0.02	400	360

ⓘ Pneumatic version available on request.
Steady rests with lateral cylinder available on request.
*Ø N describes the clamping range without chip protection
**Ø N describes the clamping range with chip protection



Dimensions

ID	B	C	D	E	F	G	I	J	K	L	ØM*	ØN**	O	P	ØR	ØS	T	V	W
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	°
0825121	135	137	66	80	55	69	34.5	19	50.5	206	4 – 52	7 – 52	20	24	19	6	26.5		30
0825123	135	137	66	80	55	69	34.5	19	50.5	206	4 – 52	7 – 52	20	24	19	6	26.5		30
0825122	135	137	66	80	55	69	34.5	19	50.5	206	4 – 52	7 – 52	20	24	19	6	26.5		30
0825124	135	137	66	80	55	69	34.5	19	50.5	206	4 – 52	7 – 52	20	24	19	6	26.5		30
0825224	195	195	95	104	70	84.5	33.6	19	74	279.5	8 – 80	16 – 80	35	42	35	15	41		30
0825222	195	195	95	104	70	84.5	33.6	19	74	279.5	8 – 80	16 – 80	35	42	35	15	41		30
0825223	195	195	95	104	70	84.5	33.6	19	74	279.5	8 – 80	16 – 80	35	42	35	15	41		30
0825221	195	195	95	104	70	84.5	33.6	19	74	279.5	8 – 80	16 – 80	35	42	35	15	41		30
0825324	295	312	145	158	85	117	37.7	25	118	429	12 – 130	22 – 130	45	52	47	20	66	64	30
0825322	295	312	145	158	85	117	37.7	25	118	429	12 – 130	22 – 130	45	52	47	20	66	64	30
0825323	295	312	145	158	85	117	37.7	25	118	429	12 – 130	22 – 130	45	52	47	20	66	64	30
0825321	295	312	145	158	85	117	37.7	25	118	429	12 – 130	22 – 130	45	52	47	20	66	64	30
0825424	295	320	145	158	85	117	37.7	25	124	437	20 – 150		45	52	47	20	76	75	30
0825422	295	320	145	158	85	117	37.7	25	124	437	20 – 150		45	52	47	20	76	75	30
0825423	295	320	145	158	85	117	37.7	25	124	437	20 – 150		45	52	47	20	76	75	30
0825421	295	320	145	158	85	117	37.7	25	124	437	20 – 150		45	52	47	20	76	75	30
1150404	295.1	335	145	158	85	117	37.7	25	139	452	54 – 182		45	52	47	20	93.8	93.4	30
1150403	295.1	335	145	158	85	117	37.7	25	139	452	54 – 182		45	52	47	20	93.8	93.4	30
1150406	295.1	335	145	158	85	117	37.7	25	139	452	54 – 182		45	52	47	20	93.8	93.4	30
1150405	295.1	335	145	158	85	117	37.7	25	139	452	54 – 182		45	52	47	20	93.8	93.4	30
0825524	407	448	200	200	110	160	58.4	25	172	608	35 – 220		60	67	52	25	111	108.5	30
0825522	407	448	200	200	110	160	58.4	25	172	608	35 – 220		60	67	52	25	111	108.5	30
0825523	407	448	200	200	110	160	58.4	25	172	608	35 – 220		60	67	52	25	111	108.5	30
0825521	407	448	200	200	110	160	58.4	25	172	608	35 – 220		60	67	52	25	111	108.5	30
0825624	448	510	220	165	145	187.5	49.8	29	209	697.5	50 – 268		75	83	62	30	134.5	131.6	30
0825622	448	510	220	165	145	187.5	49.8	29	209	697.5	50 – 268		75	83	62	30	134.5	131.6	30
0825623	448	510	220	165	145	187.5	49.8	29	209	697.5	50 – 268		75	83	62	30	134.5	131.6	30
0825621	448	510	220	165	145	187.5	49.8	29	209	697.5	50 – 268		75	83	62	30	134.5	131.6	30
1304803	448	530	220	165	145	187.5	49.8	29	229	717.5	95 – 310		75	83	62	30	157.7	155	30
1304802	448	530	220	165	145	187.5	49.8	29	229	717.5	95 – 310		75	83	62	30	157.7	155	30
1304801	448	530	220	165	145	187.5	49.8	29	229	717.5	95 – 310		75	83	62	30	157.7	155	30

ID	B	C	D	E	F	G	I	J	K	L	ØM*	ØN**	O	P	ØR	ØS	T	V	W
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	°
1304800	448	530	220	165	145	187.5	49.8	29	229	717.5	95 – 310		75	83	62	30	157.7	155	30

Technical data

Description	ID	Type of lubrication	Rollers	Clamping range	Max. clamping force/roller	Operating pressure	Centering accuracy	Repeat accuracy	Max. circumfe-rential speed	Weight
				mm	kN	bar	mm	mm	m/min	kg
THL-A plus 100 Z-Z	0825121	Central lubrication	cylindrical	4 – 52	1	6 – 50	< 0.02	< 0.005	895	6.5
THL-A plus 100 Z-B	0825123	Central lubrication	spherical	4 – 52	1	6 – 50	< 0.02	< 0.005	895	6.5
THL-A plus 100 M-Z	0825122	Manual lubrication	cylindrical	4 – 52	1	6 – 50	< 0.02	< 0.005	895	6.5
THL-A plus 100 M-B	0825124	Manual lubrication	spherical	4 – 52	1	6 – 50	< 0.02	< 0.005	895	6.5
THL-A plus 200 M-B	0825224	Manual lubrication	spherical	8 – 80	3.5	8 – 60	< 0.02	< 0.005	605	16
THL-A plus 200 M-Z	0825222	Manual lubrication	cylindrical	8 – 80	3.5	8 – 60	< 0.02	< 0.005	605	16
THL-A plus 200 Z-B	0825223	Central lubrication	spherical	8 – 80	3.5	8 – 60	< 0.02	< 0.005	605	16
THL-A plus 200 Z-Z	0825221	Central lubrication	cylindrical	8 – 80	3.5	8 – 60	< 0.02	< 0.005	605	16
THL-A plus 300 M-B	0825324	Manual lubrication	spherical	12 – 130	10	8 – 60	< 0.04	< 0.007	590	50
THL-A plus 300 M-Z	0825322	Manual lubrication	cylindrical	12 – 130	10	8 – 60	< 0.04	< 0.007	590	50
THL-A plus 300 Z-B	0825323	Central lubrication	spherical	12 – 130	10	8 – 60	< 0.04	< 0.007	590	50
THL-A plus 300 Z-Z	0825321	Central lubrication	cylindrical	12 – 130	10	8 – 60	< 0.04	< 0.007	590	50
THL-A plus 310 M-B	0825424	Manual lubrication	spherical	20 – 150	10	8 – 60	< 0.04	< 0.007	590	50
THL-A plus 310 M-Z	0825422	Manual lubrication	cylindrical	20 – 150	10	8 – 60	< 0.04	< 0.007	590	50
THL-A plus 310 Z-B	0825423	Central lubrication	spherical	20 – 150	10	8 – 60	< 0.04	< 0.007	590	50
THL-A plus 310 Z-Z	0825421	Central lubrication	cylindrical	20 – 150	10	8 – 60	< 0.04	< 0.007	590	50
THL-A plus 320 M-B	1150404	Manual lubrication	spherical	54 – 182	10	8 – 60	< 0.04	< 0.007	590	50
THL-A plus 320 M-Z	1150403	Manual lubrication	cylindrical	54 – 182	10	8 – 60	< 0.04	< 0.007	590	50
THL-A plus 320 Z-B	1150406	Central lubrication	spherical	54 – 182	10	8 – 60	< 0.04	< 0.007	590	50
THL-A plus 320 Z-Z	1150405	Central lubrication	cylindrical	54 – 182	10	8 – 60	< 0.04	< 0.007	590	50
THL-A plus 400 M-B	0825524	Manual lubrication	spherical	35 – 220	15	8 – 60	< 0.05	< 0.01	535	102
THL-A plus 400 M-Z	0825522	Manual lubrication	cylindrical	35 – 220	15	8 – 60	< 0.05	< 0.01	535	102
THL-A plus 400 Z-B	0825523	Central lubrication	spherical	35 – 220	15	8 – 60	< 0.05	< 0.01	535	102
THL-A plus 400 Z-Z	0825521	Central lubrication	cylindrical	35 – 220	15	8 – 60	< 0.05	< 0.01	535	102
THL-A plus 500 M-B	0825624	Manual lubrication	spherical	50 – 268	15	8 – 60	< 0.06	< 0.01	565	166
THL-A plus 500 M-Z	0825622	Manual lubrication	cylindrical	50 – 268	15	8 – 60	< 0.06	< 0.01	565	166
THL-A plus 500 Z-B	0825623	Central lubrication	spherical	50 – 268	15	8 – 60	< 0.06	< 0.01	565	166
THL-A plus 500 Z-Z	0825621	Central lubrication	cylindrical	50 – 268	15	8 – 60	< 0.06	< 0.01	565	166
THL-A plus 510 M-B	1304803	Manual lubrication	spherical	95 – 310	15	8 – 60	< 0.06	< 0.01	565	168
THL-A plus 510 M-Z	1304802	Manual lubrication	cylindrical	95 – 310	15	8 – 60	< 0.06	< 0.01	565	168
THL-A plus 510 Z-B	1304801	Central lubrication	spherical	95 – 310	15	8 – 60	< 0.06	< 0.01	565	168
THL-A plus 510 Z-Z	1304800	Central lubrication	cylindrical	95 – 310	15	8 – 60	< 0.06	< 0.01	565	168

ⓘ Pneumatic version available on request.
Steady rests with lateral cylinder available on request.
*Ø N describes the clamping range without chip protection
**Ø N describes the clamping range with chip protection

Accessories

Stroke measuring system

Enables a continuous position monitoring and a partial opening of the lever arms.



Suitable for	Description	ID
THL plus 100	APS THL plus 100	0820521
THL plus 200	APS THL plus 200	0820522
THL plus 300	APS THL plus 300	0820523
THL plus 310 THL plus 320	APS THL plus 310	0820524
THL plus 400	APS THL plus 400	0820525
THL plus 500	APS THL plus 500	0820526
THL plus 510 THL-A plus 510	APS THL plus 510	0820527
THL plus 600	APS THL plus 600	0820528
THL-A plus 100	APS THL-A plus 100	0820531
THL-A plus 200	APS THL-A plus 200	0820532
THL-A plus 300	APS THL-A plus 300	0820533
THL-A plus 310	APS THL-A plus 310	0820534
THL-A plus 400	APS THL-A plus 400	0820535
THL-A plus 500	APS THL-A plus 500	0820536

Roller fine adjustment

Allows fast fine adjustment of the center via eccentric roll pins at the arms of the steady rest.



Suitable for	Description	ID
THL plus 200 THL-A plus 200	RFV THL plus 200	0820512
THL plus 300 THL-A plus 300	RFV THL plus 300	0820513
THL plus 310 THL plus 320 THL-A plus 310	RFV THL plus 310	0820514
THL plus 400 THL-A plus 400	RFV THL plus 400	0820515
THL plus 500 THL-A plus 500	RFV THL plus 500	0820516
THL plus 510 THL-A plus 510	RFV THL plus 510	0820517
THL plus 600	RFV THL plus 600	0820518

Cylindrical rollers

Sealed rollers for stationary use on the steady rests. Special rollers and coated rollers are available on request.



Suitable for	Description	ID
THL plus 100 THL-A plus 100	LFR-Z 100	0820500
THL plus 200 THL-A plus 200	LFR-Z 200	0820501
THL plus 300 THL plus 310 THL plus 320 THL-A plus 300 THL-A plus 310	LFR-Z 300	0820502
THL plus 400 THL-A plus 400	LFR-Z 400	0820503
THL plus 500 THL plus 510 THL-A plus 500 THL-A plus 510	LFR-Z 500	0820504
THL plus 600	LFR-Z 600	0820506

Spherical rollers

Sealed rollers for stationary use on travelling (leading) steady rests. Special rollers and coated rollers are available on request.



Suitable for	Description	ID
THL plus 100 THL-A plus 100	LFR-B 100	0820505
THL plus 200 THL-A plus 200	LFR-B 200	0820551
THL plus 300 THL plus 310 THL plus 320 THL-A plus 300 THL-A plus 310	LFR-B 300	0820552
THL plus 400 THL-A plus 400	LFR-B 400	0820553
THL plus 500 THL plus 510 THL-A plus 500 THL-A plus 510	LFR-B 500	0820554
THL plus 600	LFR-B 600	0820556

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543


SCHUNK

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Overview quick-change pallet systems



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schunk.com/nsl3



Fast. Precise. Process-reliable. Clamping Stations NSL3

The NSL3 clamping stations are equipped with NSE3 modules and therefore offer the ideal basis for extremely fast retooling processes of clamping devices. The clamping stations are available in various sizes and with different NSE3 modules to find the best choice for every application. All NSL3 clamping stations can be operated with 6 bar system pressure.

Functions & highlights

- **Form-fit, self-retained locking**
  Full pull-down force is maintained even in the event of a pressure drop
- **The modules are corrosion-free and completely sealed**
  Long lifetime and maximum process reliability
- **100% compatible with NSL plus clamping stations**
  Existing NSL plus clamping stations can be replaced 1:1 by new NSL3 clamping stations



Field of application

NSL3

VERO-S NSL3 clamping stations enable the fastest retooling processes with maximum user-friendliness. With a repeat accuracy of < 0.005 mm, the best machining results can be ensured. The NSL3 clamping stations therefore offer the optimum basis for simplifying and speeding up your processes.



1. **Clamping pins type A for fastening**
2. **Clamping pins type B for positioning – diamond shaped**
3. **Clamping pins type C with centering play**

schunk.com/nsl3-turn

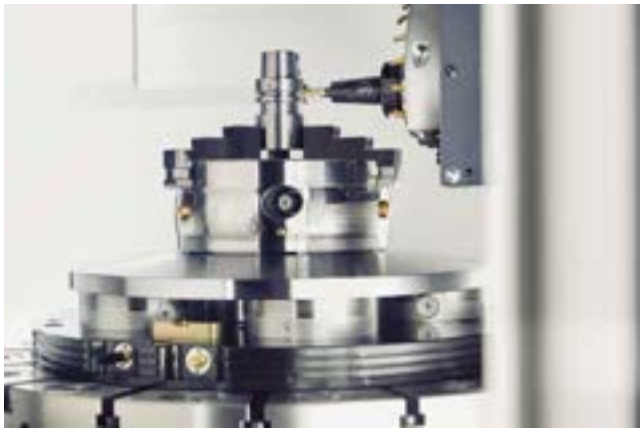


Reliable. Powerful. Precise. Clamping stations NSL3 turn

VERO-S NSL3 turn – SCHUNK competence in lathe chuck technology and stationary workholding combined in a new clamping station. The set-up time optimizer for mill/turn centers ensures high pull-down forces of the modules for an extremely rigid and safe clamping of the device. A visual monitor provides information of the current clamping state (turbo function).

Functions & highlights

- **Positioning via patented flex taper**
  Very simple joining behavior at a run-out accuracy of <0.01 mm
- **Turbo integrated by default**
  Pull-down force increased up to 300% for optimal utilization of the machine's performance, hence high efficiency
- **The modules are corrosion-free and completely sealed**
  Long lifetime and maximum process reliability



Field of application

NSL3 turn

VERO-S NSL3 turn has been specially developed to achieve minimum set-up times on milling-turning centers. To achieve this, the clamping station has extremely high pull-down forces and a high run-out accuracy. The stainless steel modules also ensure a long service life and maximum process reliability.



1. **Patented and high-precision flex taper centering**
2. **Turbo function**
3. **Indicator pin**
4. **Pneumatic system**
5. **Alignment with centering pins**
6. **Mounting using alignment pins**
7. **Mounting via T-nuts**
8. **Quick-change pallet system NSE3 138**
9. **Ring-shaped air distribution**

schunk.com/nse3



Powerful. Compact. Versatile. Quick-change pallet system NSE3

The VERO-S NSE3 is a pneumatic quick-change pallet system for universal milling machining. It enables positioning and clamping in a single operation, and ensures longer machine running times and efficient production from batch size 1. The system is fully compatible with the previous VERO-S modular system, and it comprises more than 1,000 combination options for highly efficient workpiece clamping.

Functions & highlights

- **Turbo integrated by default**
  The pull-down force increases by up to 250% for optimal use of the machine performance, hence high efficiency
- **SCHUNK modular system**
  Benefit from the largest modular system with over 1,000 variants of workpiece clamping: For your individual application
- **Form-fit, self-retained locking**
  Full pull-down force is maintained even in the event of a pressure drop



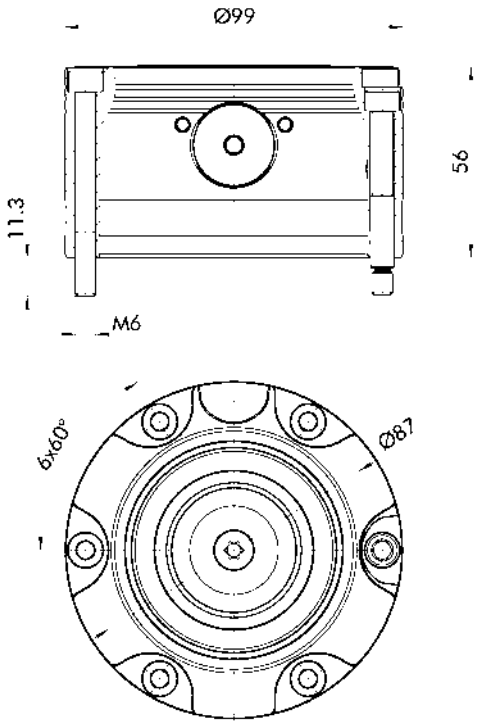
Field of application

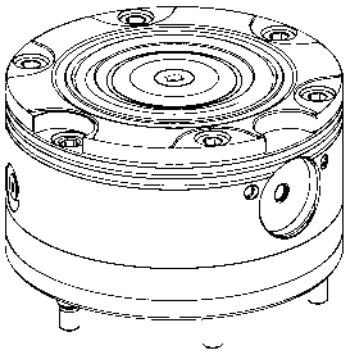
NSE3

The powerful quick-change pallet modules of the NSE3 series can be used universally in milling machining due to their high pull-down forces. The NSE3 offers a wide range of variants to perfectly meet the specific requirements of each application.



1. Optional cone seal
2. Patented dual stroke system
3. Turbo function
4. Large contact surfaces
5. Completely sealed system
6. Large flat surface
7. Monitoring of the clamping slide position "open condition" and "locked condition"
8. Flat seal to protect the interface during machining
9. Cover plugs for mounting screws

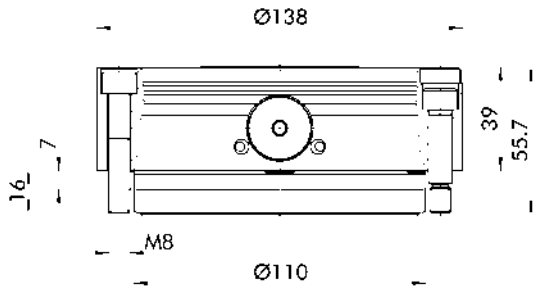


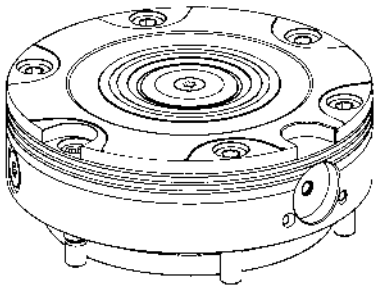


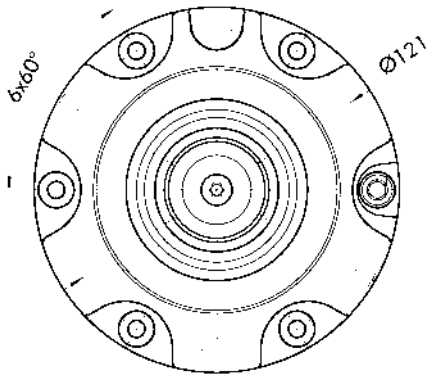
Technical data

Description	ID	Cone seal	Pull-down force	Pull-down force with turbo	Unlocking pressure	Repeat accuracy	Weight
			kN	kN	bar	mm	kg
NSE3 99	1440333	no	5	18	6	< 0.005	2.4
NSE3 99-K	1440335	yes	5	18	6	< 0.005	2.5
NSE3 99-V1	1440336	no	5	18	6	< 0.005	2.4
NSE3 99-V1-K	1440337	yes	5	18	6	< 0.005	2.5

ⓘ -V1: Anti-rotation protection V1 for indexing single clamping pallets



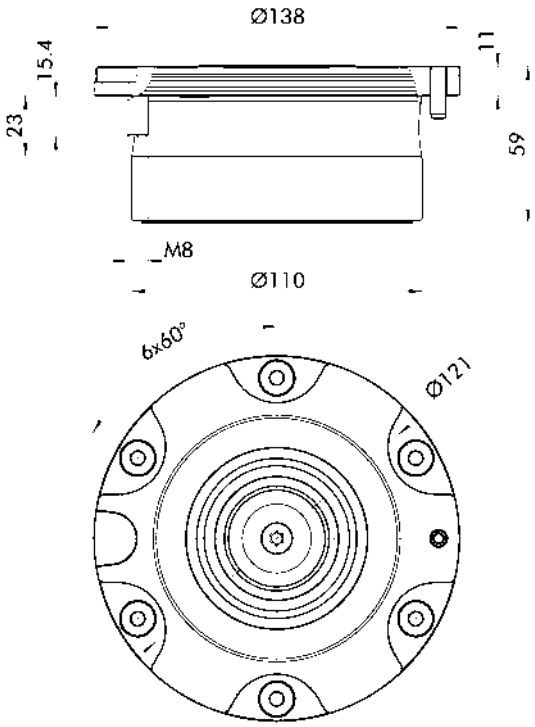


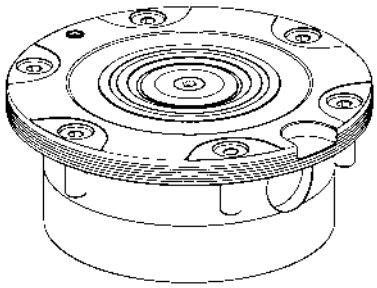


Technical data

Description	ID	Cone seal	Media transfer unit	Pull-down force	Pull-down force with turbo	Unlocking pressure	Permissible system pressures	Repeat accuracy	Weight
				kN	kN	bar	bar	mm	kg
NSE3 138	1313721	no	no	8	28	6		< 0.005	4.4
NSE3 138-K	1313722	yes	no	8	28	6		< 0.005	4.5
NSE3 138-V1	1313723	no	no	8	28	6		< 0.005	4.4
NSE3 138-V1-K	1313724	yes	no	8	28	6		< 0.005	4.5
NSE3 138-V4	1327417	no	no	8	28	6		< 0.005	4.3
NSE3 138-V4-K	1327418	yes	no	8	28	6		< 0.005	4.4
NSE3 138-P	1337166	no	yes	8	28	6	300	< 0.005	4.4
NSE3 138-P-K	1337167	yes	yes	8	28	6	300	< 0.005	4.5
NSE3 138-V1-P	1359500	no	yes	8	28	6	300	< 0.005	4.4
NSE3 138-V1-P-K	1409031	yes	yes	8	28	6	300	< 0.005	4.4

ⓘ -V1: Anti-rotation protection V1 for indexing single clamping pallets
-V4: Anti-rotation protection V4 for indexing single clamping pallets for automated machine loading

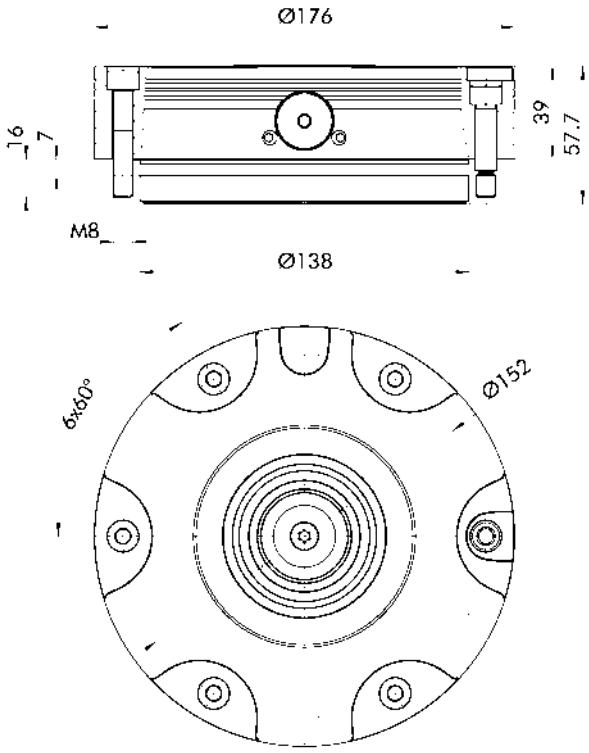


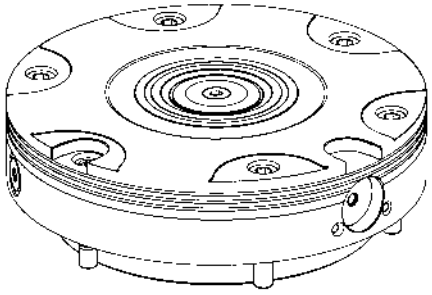


Technical data

Description	ID	Cone seal	Pull-down force	Pull-down force with turbo	Unlocking pressure	Repeat accuracy	Weight
			kN	kN	bar	mm	kg
NSE-T3 138	1313726	no	7	24	6	< 0.005	3.5
NSE-T3 138-K	1313727	yes	7	24	6	< 0.005	3.6
NSE-T3 138-V1	1313728	no	7	24	6	< 0.005	3.5
NSE-T3 138-V1-K	1313729	yes	7	24	6	< 0.005	3.6
NSE-T3 138-V4	1327419	no	7	24	6	< 0.005	3.4
NSE-T3 138-V4-K	1327420	yes	7	24	6	< 0.005	3.5

ⓘ -V1: Anti-rotation protection V1 for indexing single clamping pallets
-V4: Anti-rotation protection V4 for indexing single clamping pallets for automated machine loading

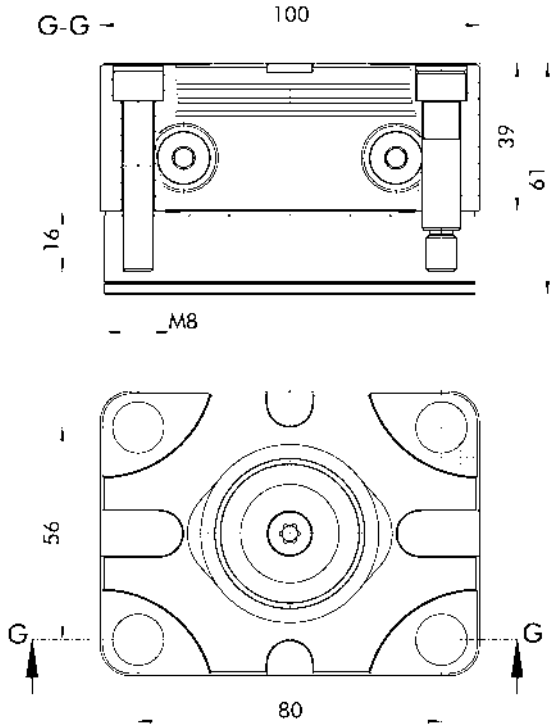


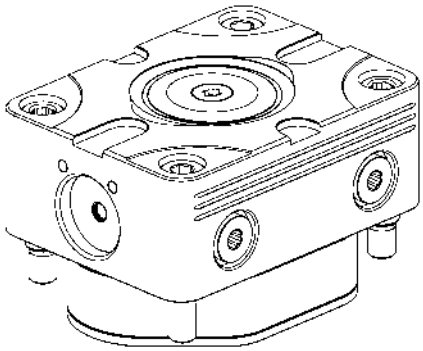


Technical data

Description	ID	Cone seal	Pull-down force	Pull-down force with turbo	Unlocking pressure	Repeat accuracy	Weight
			kN	kN	bar	mm	kg
NSE3 176	1464667	no	9	40	6	< 0.005	8
NSE3 176-K	1464668	yes	9	40	6	< 0.005	8
NSE3 176-V1	1464669	no	9	40	6	< 0.005	8
NSE3 176-V1-K	1464670	yes	9	40	6	< 0.005	8

ⓘ -V1: Anti-rotation protection V1 for indexing single clamping pallets





Technical data

Description	ID	Cone seal	Pull-down force	Pull-down force with turbo	Unlocking pressure	Repeat accuracy	Weight
			kN	kN	bar	mm	kg
NSE3 100-75	1502948	no	4	14	6	< 0.005	2.2
NSE3 100-75-K	1503018	yes	4	14	6	< 0.005	2.3

Clamping pins

Clamping pins
Standard clamping pins for positive locking of workpieces or devices with the NSE3 clamping modules.



Description	Version	M10 kN	M12 kN	ID
SPA 40	Centering pins	35	50	0471151
SPB 40	Positioning pin	35	50	0471152
SPC 40	Clamping pin	35	50	0471153

Clamping pins
Standard clamping pins with M16 thread for form-fit connection of workpieces or devices with NSE3 clamping modules.



Description	Version	M12 kN	M16 kN	ID
SPA 40-16	Centering pins	50	75	0471064
SPB 40-16	Positioning pin	50	75	0471065
SPC 40-16	Clamping pin	50	75	0471066

Compensation pins
Clamping pin for compensating fluctuations of the bore hole gauges.
SPA-X 40 = compensation in one direction of ±1 mm.
SPA-XY 40 = compensation in all directions of ±1 mm.



Description	Version	M10 kN	ID
SPA-X 40	Compensation in one direction	35	0471155
SPA-XY 40	Compensation in all directions	35	0471156

Accuracy pin
Clamping pins with patented flex taper with a repeat accuracy of less than 0.002 mm.



Description	Version	M10 kN	M12 kN	ID
SPG 40	Centering pins	35	50	0471154

Dove tail pins
Clamping pins with a mounting depth of 3.5 mm



Description	Version	ID
SPA-S 40	Centering pins	1310630
SPB-S 40	Positioning pin	1323856
SPC-S 40	Clamping pin	1323857

Clamping pins without centering collar
The clamping pin is screwed into the workpiece using a fitting screw.
Fitting screw with fitting diameter Ø 8 mm = ID 0471634.
Fitting screw with fitting diameter Ø 10 mm = ID 0471635.



Description	Version	M10 kN	ID
SPA-OB 40	Centering pins	35	0471631
SPB-OB 40	Positioning pin	35	1316935
SPC-OB 40	Clamping pin	35	1316936

Heavy duty pins
Clamping pins with integrated mounting threads for high holding forces.



Description	Version	ID
SPA-F 40	Centering pins	0471171
SPC-F 40	Clamping pin	0471172

Clamping stations

Clamping station

Clamping stations for general milling applications with VERO-S NSE3 modules as a basis for extremely fast set-up processes of clamping devices.



Description	Dimensions	Pull-down force kN	Pull-down force with turbo kN	Number of modules	ID
NSL3 150-V1	Ø198 x 150 x 60 mm	8		1	1345770
NSL3 150-V1-T	Ø198 x 150 x 60 mm	8	28	1	1323568
NSL3 150-V4-T	Ø198 x 150 x 60 mm	8	28	1	1375448
NSL3 200	399 x 199 x 60 mm	16		2	1323569
NSL3 200-V1-T	399 x 199 x 60 mm	16	56	2	1323570
NSL3 300-200	Ø399 x 60 mm	24		3	1323571
NSL3 400	399 x 399 x 60 mm	32		4	1323572
NSL3 600	599 x 399 x 60 mm	48		6	1323574
NSL3 800	799 x 399 x 60 mm	64		8	1323575
NST3 400-250	400 x 400 x 74 mm	32	112	4	1337138
NST3 500-300	500 x 500 x 74 mm	32	112	4	1337139

Clamping station

Clamping stations with VERO-S NSE3 modules, particularly developed for mill/turn centers, as a basis for extremely fast set-up processes of clamping devices.



Description	Dimensions	Pull-down force with turbo kN	Number of modules	ID
NSL3 turn 450-3	Ø450 x 75 mm	84	3	1323582
NSL3 turn 450-3-Z	Ø450 x 75 mm	84	3	1323583
NSL3 turn 570-5	Ø570 x 79 mm	140	5	1323584
NSL3 turn 570-5-Z	Ø570 x 79 mm	140	5	1323585

Clamping pallets

Clamping pallet

Empty clamping pallets for placing on the VERO-S clamping stations and VERO-S tombstones, and for customized design with clamping devices.



Description	Dimensions	Material	ID
PAL A 159 x 159	159 x 159 x 25 mm	Aluminum	0471015
PAL A 199 x 199	199 x 199 x 25 mm	Aluminum	0471019
PAL A 399 x 159	399 x 159 x 25 mm	Aluminum	0471025
PAL A 399 x 399	399 x 399 x 25 mm	Aluminum	0470050
PAL A 599 x 159	599 x 159 x 25 mm	Aluminum	0471033
PAL A-V4 159 x 159	159 x 159 x 25 mm	Aluminum	1327424
PAL S 119 x 75	119 x 74,8 x 16 mm	Steel	0471058
PAL S 159 x 159	159 x 159 x 20 mm	Steel	0471010
PAL S 199 x 199	199 x 199 x 20 mm	Steel	0471016
PAL S 399 x 159	399 x 159 x 20 mm	Steel	0471020
PAL S 399 x 399	399 x 399 x 20 mm	Steel	0470049
PAL S 599 x 159	599 x 159 x 20 mm	Steel	0471030
PAL S-V4 159 x 159	159 x 159 x 20 mm	Steel	1327423

Clamping pallet with clamping grooves

Empty clamping pallets with T-slots on the top and clamping pins on the bottom for customized design with clamping devices



Description	Dimensions	Material	ID
PAN-S 400	399 x 399 x 45 mm	Steel	0471560
PAN-S 600	399 x 599 x 45 mm	Steel	0471561

Clamping pallet with clamping device

Already completed clamping pallets with clamping devices for placing on VERO-S clamping stations and VERO-S tombstones.



Description	Dimensions	Clamping Devices	ID
PAL ROTA-S plus 2.0 160-1	159 x 159 x 89 mm	ROTA-S plus 2.0 160	0471532
PAL ROTA-S plus 2.0 160-2	340 x 126 x 140 mm	ROTA-S plus 2.0 160	0471537
PAL ROTA-S plus 2.0 200-1	Ø200 x 112 mm	ROTA-S plus 2.0 200	0471533
PAL ROTA-S plus 2.0 200-2	340 x 202 x 159,3 mm	ROTA-S plus 2.0 200	0471534

3-way pyramid console

Already completed clamping pallets with clamping devices for placing on VERO-S clamping stations and VERO-S tombstones.



Description	Dimensions	Clamping Devices	ID
SEP ROTA-S plus 2.0 160-3	Ø420 x 212,2 mm	ROTA-S plus 2.0 160	0471539

Clamping device height extensions

3-way pyramid console
Height extensions to increase the machine running time and accessibility of the machine spindle.



Description	Dimensions	ID
SEP 270-3	Ø280 x 120 mm	0471520

4-way pyramid console
Height extensions to increase the machine running time and accessibility of the machine spindle.



Description	Dimensions	ID
SEP 370-4	370 x 370 x 130 mm	0471528

Collet chuck mounting
Height extensions to increase the machine running time and accessibility of the machine spindle.



Description	Dimensions	ID
SEZ-ER32-120	Ø154 x 120 mm	0471576
SEZ-ER40-120	Ø154 x 120 mm	0471575

Module height extensions

Module height extension
Module height extensions for lifting the clamping device from the machine table and for increasing the accessibility to the machine spindle.



Description	Dimensions	ID
MEQ3 200-2	399 (424) x 160 x 199 mm	1337153
MES3 120-1	Ø190 x 120 mm	1337140
MES3 120-2	338 x 138 x 120 mm	1337151
MES3 150-1	Ø190 x 150 mm	1337141
MES3 150-2	338 x 138 x 150 mm	1337152

Module height extension angle bracket
Module height extension angle bracket for lifting the clamping device from the machine table and for increasing the accessibility to the machine spindle.



Description	Dimensions	ID
MEW3 45-4	340 x 270 x 146 mm	1337154

Fixture membrane

Fixture membrane
Clamping device for deformation-free clamping on the entire circumference up to a diameter of 125 mm.



Description	Dimensions	ID
SPM plus 138	Ø149 x 55 mm	0471158
SPM plus 138-L	Ø149 x 55 mm	0471159

Accessories

Clamping pin extension
For lifting the workpiece from the machine table, and for improving the accessibility of the machine spindle.



Suitable for	Description	ID
Module Ø 138	SP-VL 50-10-SPA	0471405
Module Ø 138	SP-VL 50-10-SPB	0471407
Module Ø 138	SP-VL 50-10-SPC	0471409
Module Ø 138	SP-VL 50-12-SPA	0471406
Module Ø 138	SP-VL 50-12-SPB	0471408
Module Ø 138	SP-VL 50-12-SPC	0471410
Module Ø 138	SP-VL 100-10-SPA	0471464
Module Ø 138	SP-VL 100-10-SPB	0471466
Module Ø 138	SP-VL 100-10-SPC	0471468
Module Ø 138	SP-VL 100-12-SPA	0471465
Module Ø 138	SP-VL 100-12-SPB	0471467
Module Ø 138	SP-VL 100-12-SPC	0471469

Centering taper
Centering taper for customer-side retrofitting on application clamping stations NSL turn or NSL3 turn for precise positioning of the clamping pallet.



Suitable for	Description	ID
NSL3 turn 450-3		
NSL3 turn 570-5	ZKE-A4	0471452

Centering ring
Centering ring for retrofitting clamping pallets on NSL turn or NSL3 turn clamping stations.



Suitable for	Description	ID
NSL3 turn 450-3		
NSL3 turn 450-3-Z		
NSL3 turn 570-5		
NSL3 turn 570-5-Z	ZRI-A4	0471460

Indexing pin
Used as an anti-rotation protection for VERO-S modules with anti-rotation protection V1.



Suitable for	Description	ID
NSE3 99		
NSE3 138		
NSE-T3 138		
NSE 176	IXB V1	0471980
NSE3 99		
NSE3 138		
NSE-T3 138		
NSE 176	IXB V1-K	0432371
NSE3 100-75	IXB V1 mini	0435930

Indexing pins
Used as an anti-rotation protection for VERO-S modules with anti-rotation protection V4.



Suitable for	Description	ID
NSL3 150-V4-T		
PAL S-V4 159 x 159		
PAL A-V4 159 x 159	IXB V4	9982432

Cone seal
For quick and easy retrofitting of existing modules NSE3 without cone seal to protect the change interface.



Suitable for	Description	ID
NSE3 99		
NSE3 138		
NSE-T3 138		
NSE3 100-75		
NSE 176	KVS 40	1313742

Monitoring unit
Integrated monitoring of clamping slide positions and pallet presence via IO-Link.



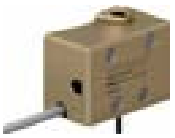
Suitable for	Description	ID
Module Ø 99	AFS3 IOL 99	1488904
Module Ø 138	AFS3 IOL 138	1488905
Module 100-75	AFS3 IOL 100-75	1528100
Modul Ø 176	AFS3 IOL 176	1536492

Inductive monitoring segments
Integrated monitoring of clamping slide positions and pallet presence.



Suitable for	Description	ID
Module Ø 138	AFS3 138 PMI	1325645

Magnetic monitoring segments
Integrated monitoring of clamping slide positions and pallet presence.



Suitable for	Description	ID
Module Ø 138	AFS3 138 MMS	1325646

Connecting strip
1-way strip for convenient actuation of VERO-S clamping stations.



Suitable for	Description	ID
NSL3 200 NSL3 300-200 NSL3 400 NSL3 600 NSL3 800	ASL 1-G1/8	1327465

Connecting strip
2-way connection strips for convenient operation of VERO-S clamping stations.



Suitable for	Description	ID
NSL3 200-V1-T NST3 400-250 NST3 500-300	ASL 2-G1/8	1315007

Locking coupling
Quick-change coupling for easy actuation of VERO-S clamping stations or module height extensions.



Suitable for	Description	ID
NSL3 NSL3 turn NST3	VSK Ø10-NW7.4	9988214

Cylindrical clamp blanks
For individual fastening of the clamping stations or console plates on all common machine table slot spacings



Suitable for	Description	ID
NSL3 NST3	BRR 50	0470020

Cover caps
Used to cover the mounting screws and to avoid the accumulation of chips.



Suitable for	Description	ID
NSE3 99 NSE3 138 NSE3 176		
NSE3 100-75	ADK-1 M8-SW6	9988527
NSE-T3 138	ADK M8-SW5	9985032

Media transfer unit
Plug & Work media transfer unit for universal use.



Suitable for	Description	ID
NSL3 NST3	MDN 3-2	0471102

Coupling
Used as a counter piece in clamping pallets or devices for the transfer of compressed air or hydraulics.



Suitable for	Description	ID
NSE3 138	VSK-K NSE3	9985387

schunk.com/nse-mini



High-performance. Compact. Versatile. Quick-change pallet system NSE mini

VERO-S NSE mini are compact clamping modules that are available in two different designs. The NSE mini 90 is driven by a drive ring and three flat clamping slides, and can therefore have a very low height. The NSE mini 90-25 is driven by axial pistons and two round clamping slides, which makes the module slightly higher, but also provides significantly more pull-down force.

Functions & highlights

- **Turbo integrated by default**
  Pull-down force increased by up to 300% for optimal utilization of the machine's performance, hence high efficiency
- **SCHUNK modular system**
  Innumerable combinations of standard clamping devices to suit all different types of machines
- **Corrosion-free stainless steel design**
  Long lifetime and maximum process reliability



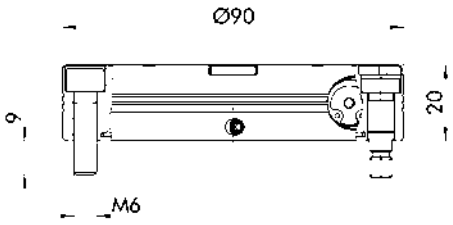
Field of application

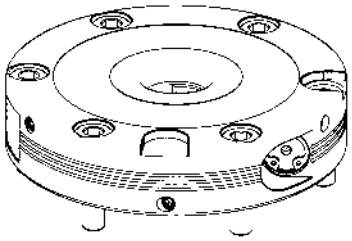
NSE mini

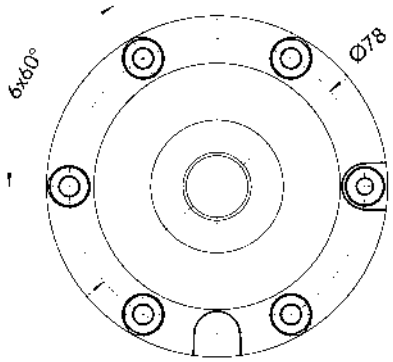
VERO-S NSE mini 90 modules are particularly suitable for applications with light force application such as machining aluminum and plastic or for use on measuring devices. The NSE mini 90-25 offers a significantly higher pull-down force and is therefore ideal for light milling work.



1. **High-precision short taper centering**
2. **Patented dual stroke system**
3. **Turbo function**
4. **Large contact surfaces**
5. **Completely sealed system**
6. **Large flat surface**
7. **Monitoring of the clamping slide position**
8. **Cover plugs for mounting screws**
9. **Insertion radii on the clamping pin**
10. **Pneumatic system**



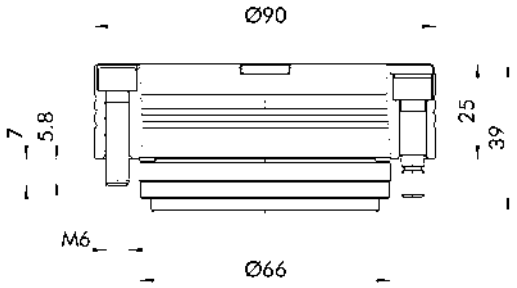


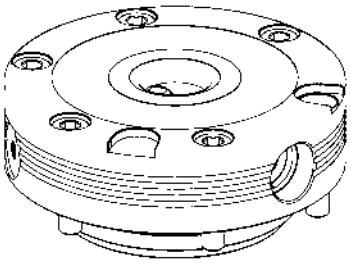


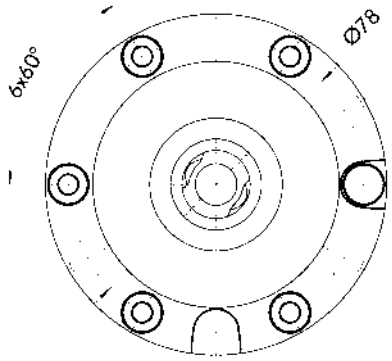
Technical data

Description	ID	Pull-down force	Pull-down force with turbo	Unlocking pressure	Unlocking torque	Repeat accuracy	Weight
		N	N	bar	Nm	mm	kg
NSE mini 90	0435100	500	1500	6		< 0.005	1
NSE-M mini 90	0435140	1000			10	< 0.005	1
NSE mini 90-V1	0435105	500	1500	6		< 0.005	1
NSE-M mini 90-V1	0435145	1000			10	< 0.005	1

ⓘ -V1: Anti-rotation protection V1 for indexing single clamping pallets







Technical data

Description	ID	Pull-down force	Pull-down force with turbo	Unlocking pressure	Repeat accuracy	Weight
		N	N	bar	mm	kg
NSE mini 90-25	1319696	1500	6000	6	< 0.005	1.3
NSE mini 90-25-V1	1460873	1500	6000	6	< 0.005	1.3

ⓘ -V1: Anti-rotation protection V1 for indexing single clamping pallets

Clamping pins

Clamping pins

Standard clamping pins for positive locking of workpieces or devices with the NSE mini clamping modules. Holding force clamping pin = 15 kN (M6), 25 kN (M8).



Description	Version	ID
SPA mini 20	Centering pins	0435610
SPB mini 20	Positioning pin	0435620
SPC mini 20	Clamping pin	0435630

Clamping stations

Clamping station

Clamping stations from VERO-S NSE mini modules are used as the basis for extremely fast set-up processes of clamping pallets, clamping devices or workpieces.



Description	Dimensions	Pull-down force	Pull-down force with turbo	Number of modules	ID
	mm	N	N		
NSL mini 100-2	199 x 99.8 x 30	1000	3000	2	0435220
NSL mini 100-25-2	199 x 99 x 40	3000	12000	2	1357102
NSL mini 100-25-4	199 x 199 x 40	6000	24000	4	1357103
NSL mini 100-25-V1	119 x 99 x 40	1500	6000	1	1460952
NSL mini 100-4	199 x 199.8 x 30	2000	6000	4	0435240
NSL mini 100-V1	99.8 x 99.8 x 30	500	1500	1	1304680

Clamping pallets

Clamping pallet

Empty clamping pallets for placing on the VERO-S clamping stations for customized design with clamping devices.



Description	Dimensions	Material	ID
PAL S mini 199 x 199	199 x 199 x 16 mm	Steel	0435340
PAL S mini 199 x 99	199 x 99 x 16 mm	Steel	0435320
PAL S mini 99 x 99-V1	99 x 99 x 16 mm	Steel	0435310

Accessories

Coupling set
For connecting two NSL mini 100-2 clamping stations.



Suitable for	Description	ID
NSL mini 100-2 NSL mini 100-4	VSK-K NSL mini	1543512

Clamping pin extension
For lifting the workpiece from the machine table, and for improving the accessibility of the machine spindle.



Suitable for	Description	ID
NSE mini 90 NSE mini 90-25	SP-VL mini 30-6-SPA	0435640
NSL mini 90 NSL mini 90-25	SP-VL mini 60-6-SPA	0435650

Indexing pin
Used as an anti-rotation protection for VERO-S modules with anti-rotation protection V1.



Suitable for	Description	ID
NSE mini 90 NSE mini 90-25	IXB V1 mini	0435930

Locking coupling
Quick-change coupling for easy actuation of VERO-S clamping stations or module height extensions.



Suitable for	Description	ID
NSL mini 100-2 NSL mini 100-4 NSL mini 100-25-2 NSL mini 100-25-4 NSL mini 100-25-V1 NSL mini 100-V1	VSK G1/8-NW2.7	9985830

Protection covers
Used to close the changing interface and to cover the contact surface.



Suitable for	Description	ID
NSE mini 90 NSE mini 90-25	SDE mini 90	0435670

Protection covers
For closing the changing interface.



Suitable for	Description	ID
NSE mini 90 NSE mini 90-25	SDE mini 20	0435660

Cylindrical clamp blanks
For individual fastening of the clamping stations or console plates on all common machine table slot spacings



Suitable for	Description	ID
NSL mini 100-2 NSL mini 100-4 NSL mini 100-25-2 NSL mini 100-25-4 NSL mini 100-25-V1 NSL mini 100-V1	BRR mini 40	8508199

Cover caps
Used to cover the mounting screws and to avoid the accumulation of chips.



Suitable for	Description	ID
NSE mini 90 NSE mini 90-25	ADK M6-SW5	9985503
NSE mini 90-V1 NSE mini 90-25-V1	ADK M6-SW4	0435911

schunk.com/nse-mikro



Tiny. Repeatably accurate. Fast. Quick-change pallet system NSE mikro

With a height of just 12 mm, the NSE mikro 49 is the flattest quick-change pallet module in the world! The NSE mikro 49 is driven by a drive ring and three flat clamping slides, resulting in an extremely flat design. On the other hand, the NSE mikro 49-13 is driven by an axial piston and two round clamping slides, which makes the module slightly taller, but significantly higher pull-down forces can be achieved.

Functions & highlights

- **Form-fit, self-retained locking**
  Full pull-down force is maintained even in the event of a pressure drop
- **Corrosion-free stainless steel design**
  Long lifetime and maximum process reliability
- **Turbo integrated by default**
  Pull-down force increased up to 300% for optimal utilization of the machine's performance, hence high efficiency



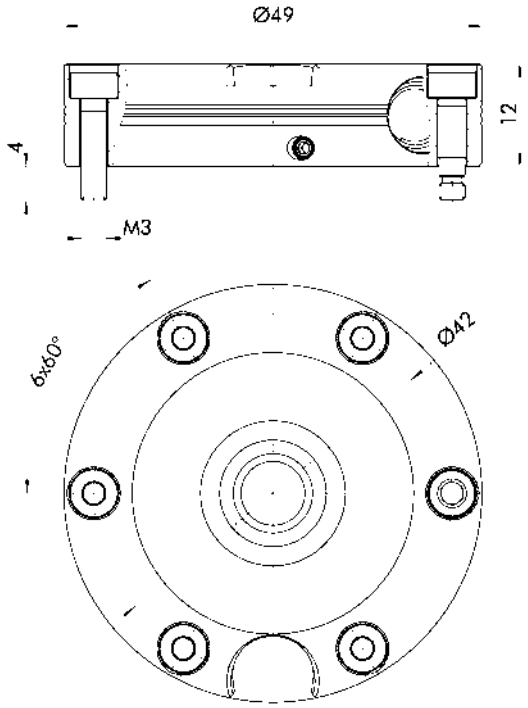
Field of application

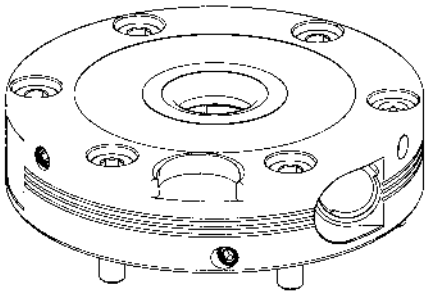
NSE mikro

The NSE mikro clamping modules have been specially developed for micro-cutting. This means that even the smallest parts can be changed within seconds with a repeat accuracy of 0.005 mm. The NSE mikro 49 is characterized above all by its extremely low height. If a higher pull-down force is required, the NSE mikro 49-13 can be used.



1. **High-precision short taper centering**
2. **Patented dual stroke system**
3. **Turbo function**
4. **Large contact surfaces**
5. **Completely sealed system**
6. **Large flat surface**
7. **Monitoring of the clamping slide position**
8. **Cover plugs for mounting screws**
9. **Sliding bearings in the force flow**
10. **Pneumatic system**

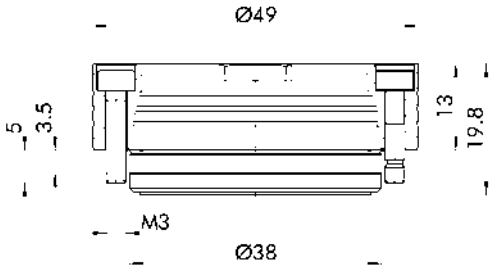


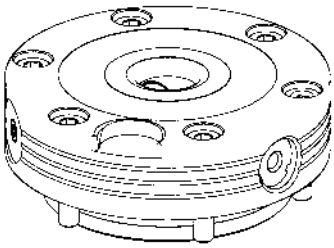


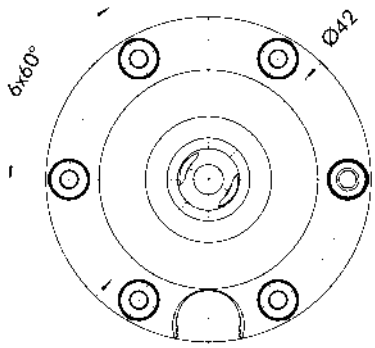
Technical data

Description	ID	Pull-down force	Pull-down force with turbo	Unlocking pressure	Repeat accuracy	Weight
		N	N	bar	mm	kg
NSE mikro 49	0436100	150	400	6	< 0.005	0.2
NSE mikro 49-V10	0436105	150	400	6	< 0.005	0.2

ⓘ -V10: Anti-rotation protection V10 for indexing single clamping pallets







Technical data

Description	ID	Pull-down force N	Pull-down force with turbo N	Unlocking pressure bar	Repeat accuracy mm	Weight kg
NSE mikro 49-13	1322876	400	1500	6	< 0.005	0.2
NSE mikro 49-13-V10	1357110	400	1500	6	< 0.005	0.2

ⓘ -V10: Anti-rotation protection V10 for indexing single clamping pallets

Clamping pins

Clamping pins

Standard clamping pins for positive locking of workpieces or devices with the NSE mikro clamping modules. Holding force clamping pin = 3 kN (M3), 5 kN (M4).



Description	Version	ID
SPA mikro 10	Centering pins	0436610
SPB mikro 10	Positioning pin	0436620
SPC mikro 10	Clamping pin	0436630

Clamping stations

Clamping station

Clamping stations for micro applications with VERO-S NSE mikro modules as a basis for extremely fast set-up processes of clamping devices.



Description	Dimensions	Pull-down force	Pull-down force with turbo	Number of modules	ID
	mm	N	N		
NSL mikro 50-13-2	99.5 x 49.5 x 26	800	3000	2	1358959
NSL mikro 50-13-V10	59.5 x 49.5 x 26	400	1500	1	1358958

Clamping pallets

Clamping pallet

Empty clamping pallets for placing on the VERO-S clamping stations for customized design with clamping devices.



Description	Dimensions	Material	ID
PAL S mikro 110 x 50	109,8 x 49,8 x 12 mm	Steel	1358961
PAL S mikro 60 x 50-V10	59,8 x 49,8 x 12 mm	Steel	1358960

Accessories

Indexing pin

Used as an anti-rotation protection for VERO-S modules with anti-rotation protection V10.



Suitable for	Description	ID
NSE mikro 49 NSE mikro 49-13	IXB V10 mikro	0436930

schunk.com/wdp



Modular. Fast. Easy. Pneumatic direct workpiece clamping system WDP-5X

The modular system VERO-S WDB-5X brings the efficiency effects of the SCHUNK VERO-S quick-change pallet system specifically to machining applications for direct workpiece clamping. The modules are clamped via spring force and can be opened simultaneously with compressed air. Depending on the customer request, the pneumatic modules can be replaced by manual modules in order to enable manual actuation.

Functions & highlights

- **Modular clamping pillars**
  Flexible clamping of large workpieces and free forged parts
- **Integrated air feed-through to the clamping module**
  Easy control of modules and monitoring of workpiece presence
- **Enormously high pull-down forces**
  Up to 15 kN for high cutting parameters and greater production efficiency

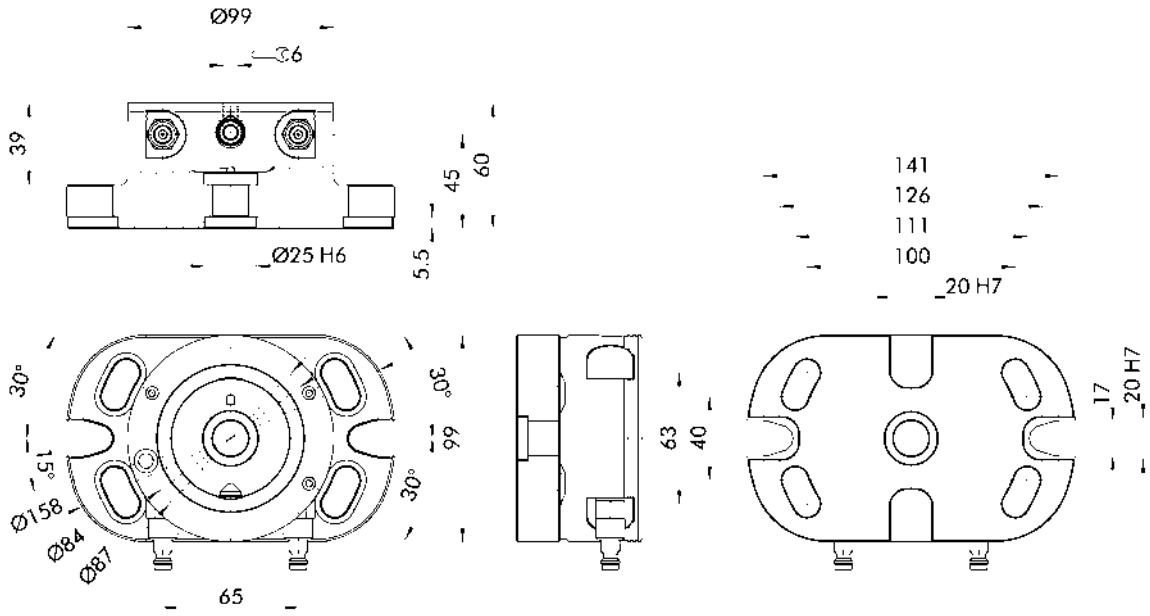


Field of application

WDP-5X

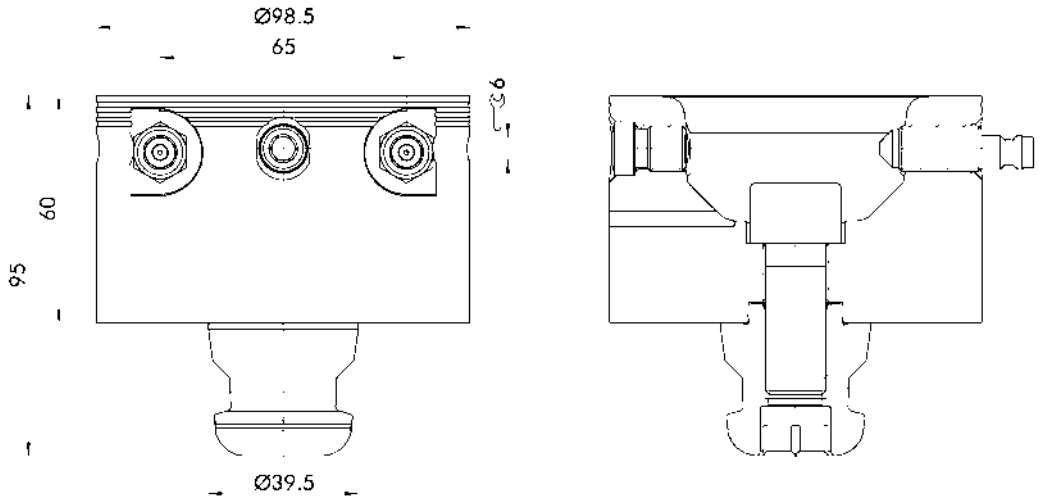
Workpieces of all kinds can be lifted off the machine table and directly clamped in seconds without interfering contours due to clamping pillars with a modular structure. Because of specially designed clamping modules and a large range of clamping pins, the clamping pillars can be adapted to suit all customer requirements.





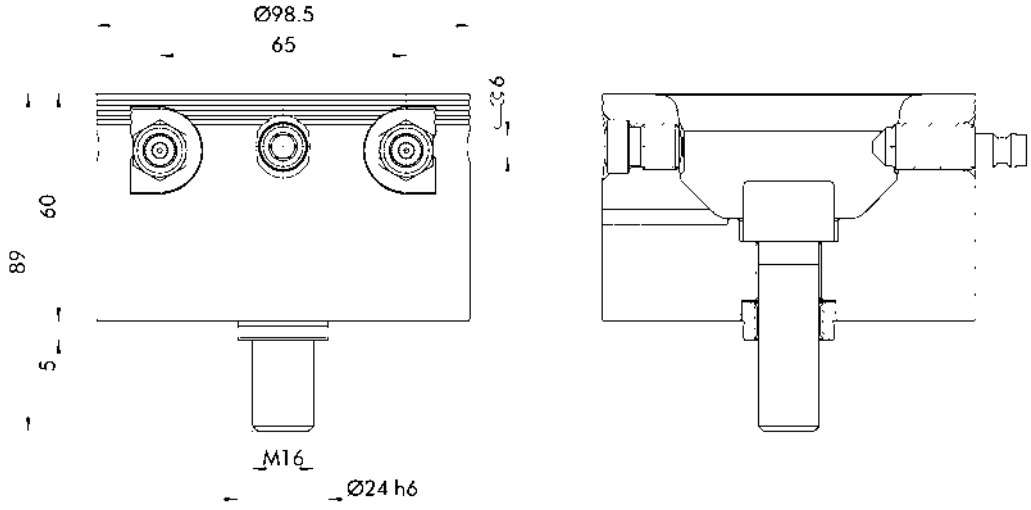
Technical data

Description	ID	Pull-down force module interface	Holding force module interface	Actuation torque	Max. actuation moment	Repeat accuracy	Height H	Weight
		kN	kN	Nm	Nm	mm	mm	kg
WDP-5X-BM 99-60	0471617	10 – 25	50	20 – 50	50	< 0.005	60	3.2



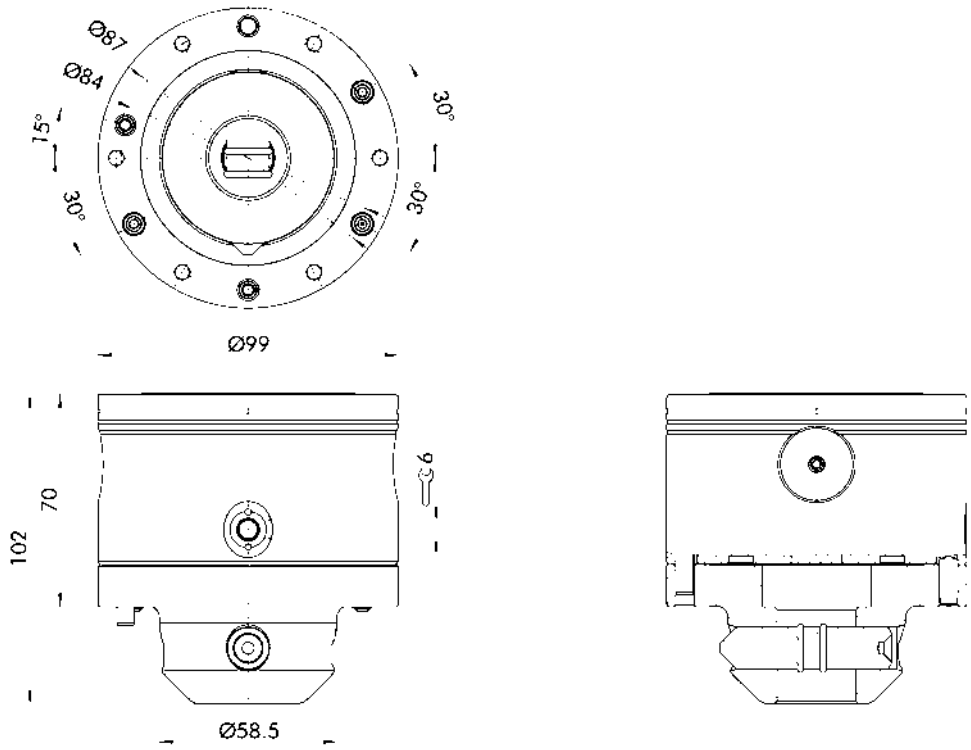
Technical data

Description	ID	Pull-down force module interface	Holding force module interface	Actuation torque	Max. actuation moment	Repeat accuracy	Height H	Weight
		kN	kN	Nm	Nm	mm	mm	kg
WDP-5X-BMG 99-60	0471618	10 - 25	50	20 - 50	50	< 0.005	60	2.6



Technical data

Description	ID	Pull-down force module interface	Holding force module interface	Actuation torque	Max. actuation moment	Repeat accuracy	Height H	Weight
		kN	kN	Nm	Nm	mm	mm	kg
WDP-5X-BMR 99-60	0471619	10 - 25	50	20 - 50	50	< 0.005	60	3



Technical data

Description	ID	Pull-down force	Pull-down force with turbo	Unlocking pressure	Max. actuation moment	Repeat accuracy	Height H	Weight
		kN	kN	bar	Nm	mm	mm	kg
WDP-5X-DSM 99-70	0471603	5	18	6		< 0.005	70	3.9
WDP-5X-DSM 99-70-M	0471611	15			20	< 0.005	70	3.9

Modules used for height adjustment

Stacking module



The stacking modules are used for presetting the height of the clamping pillars. The modules are available in five standardized heights. The stacking modules can be quickly integrated into the clamping pillars via a high-precision short taper centering upwards as well as downwards.

Description	Height mm	ID
WDP-5X-SM 99-120	120	0471608
WDP-5X-SM 99-160	160	0471609
WDP-5X-SM 99-30	30	0471601
WDP-5X-SM 99-50	50	0471602
WDP-5X-SM 99-80	80	0471607

Compensation module



The compensation modules are available in pneumatic or manual versions. With the aid of the compensation pin, height differences of up to 11 mm can be continuously compensated. The pneumatic modules are supplied with compressed air via an integrated media transfer through the respective basic module.

Description	Height mm	ID
WDP-5X-ASM 99-70-Ø36	70	0471615
WDP-5X-ASM 99-70-Ø36-M	70	1358030

Clamping pins

Clamping pins
Standard clamping pins for positive locking of workpieces or devices with the WDP-5X clamping modules.



Description	Version	M10 kN	M12 kN	ID
SPA 40	Centering pins	35	50	0471151
SPB 40	Positioning pin	35	50	0471152
SPC 40	Clamping pin	35	50	0471153

Clamping pins
Standard clamping pins with M16 thread for form-fit connection of workpieces or devices with WDP-5X clamping modules.



Description	Version	M12 kN	M16 kN	ID
SPA 40-16	Centering pins	50	75	0471064
SPB 40-16	Positioning pin	50	75	0471065
SPC 40-16	Clamping pin	50	75	0471066

Compensation pins
Clamping pin for compensating fluctuations of the bore hole gauges.
SPA-X 40 = compensation in one direction of ±1 mm.
SPA-XY 40 = compensation in all directions of ±1 mm.



Description	Version	M10 kN	ID
SPA-X 40	Compensation in one direction	35	0471155
SPA-XY 40	Compensation in all directions	35	0471156

Accuracy pin
Clamping pins with patented flex taper with a repeat accuracy of less than 0.002 mm.



Description	Version	M10 kN	M12 kN	ID
SPG 40	Centering pins	35	50	0471154

Dove tail pins
Clamping pins with a mounting depth of 3.5 mm.



Description	Version	ID
SPA-S 40	Centering pins	1310630
SPB-S 40	Positioning pin	1323856
SPC-S 40	Clamping pin	1323857

Clamping pins without centering collar
The clamping pin is screwed into the workpiece using a fitting screw.
Fitting screw with fitting diameter Ø 8 mm = ID 0471634.
Fitting screw with fitting diameter Ø 10 mm = ID 0471635.



Description	Version	M10 kN	ID
SPA-OB 40	Centering pins	35	0471631
SPB-OB 40	Positioning pin	35	1316935
SPC-OB 40	Clamping pin	35	1316936

Heavy duty pins
Clamping pins with integrated mounting threads for high holding forces.



Description	Version	ID
SPA-F 40	Centering pins	0471171
SPC-F 40	Clamping pin	0471172

Direct clamping pin
Clamping pins for stepless compensation of height differences up to 11 mm.



Description	Version	M10 kN	M12 kN	ID
SPC-ASM 36	Clamping pin	35	50	0471616

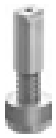
Accessories

Clamping pin extension
Serves to reduce the interfering contour and improves the accessibility of the machine spindle to the workpiece.



Suitable for	Description	ID
WDP-5X-DSM 99	SPA-VLK 50	1318565
WDP-5X-DSM 99	SPB-VLK 50	1317936
WDP-5X-DSM 99	SPC-VLK 50	1317937

Positioning arbor
For manual pre-adjustment and subsequent accurate positioning – without opening – the modules using the machine spindle.



Suitable for	Description	ID
WDP-5X-DSM 99	SPA-PDK 40	40108422

Connecting strip
4-way or 8-way connecting strips for fast and easy actuation of pneumatic clamping pillars on the machine table.



Suitable for	Description	ID
WDP-5X-BM 99 WDP-5X-BMG 99 WDP-5X-BMR 99	ASL 4	1368298
WDP-5X-BM 99 WDP-5X-BMG 99 WDP-5X-BMR 99	ASL 8	1368299

Cover caps
Used to cover the mounting screws and to avoid the accumulation of chips.



Suitable for	Description	ID
WDP-5X-ASM 99-70-Ø36 WDP-5X-ASM 99-70-Ø36-M	ADK M6-SW5	9985503

Protection covers
Used to close the changing interface and to cover the contact surface.



Suitable for	Description	ID
WDP-5X-DSM 99	SDE 40	0471017
WDP-5X-DSM 99	SDE 99	0471038

Bracket for protection covers
For mounting SDE type protection covers.
HAT 5 = Storage of up to five covers.
HAT 10 = Storage of up to ten covers.



Suitable for	Description	ID
WDP-5X-DSM 99	HAT 5	40102043
WDP-5X-DSM 99	HAT 10	40102000

Sleeve
Serves as insert for basic modules WDP-5X-BM 99 or WDP-5X-BMR 99 for positioning on grid plates.



Suitable for	Description	ID
WDP-5X-BM 99 WDP-5X-BMR 99	HUE Ø24/Ø25	0471632

Alignment element
Alignment element for basic module with the fitting widths 14 h7, 18 h7, and 22 h7.



Suitable for	Description	ID
WDP-5X-BM 99	ARE 25	1319098

Accessory 5-axis stabilizers

Telescopic clamping unit
Clamping unit can be pulled out and extended through the use of extension elements.



Suitable for	Description	ID
WDP-5X-DSM 99	TKE 255-305	1398469
WDP-5X-DSM 99	TKE 355-505	1398470

Clamping ball with conical seat
Central connecting element with turning and swiveling function for telescopic clamping units.



Suitable for	Description	ID
WDP-5X-DSM 99	SKG Ø25.4	1535214

Extensions
With Ø 25 mm for the extension of telescopic clamping units.



Suitable for	Description	ID
WDP-5X-DSM 99	TKE-VL 75	1398480
WDP-5X-DSM 99	TKE-VL 100	1398481
WDP-5X-DSM 99	TKE-VL 150	1398482
WDP-5X-DSM 99	TKE-VL 250	1398483
WDP-5X-DSM 99	TKE-VL 500	1398484

Fine adjustment
Used for final and accurate alignment of the workpiece.



Suitable for	Description	ID
WDP-5X-DSM 99	TKE-FE	1398490

Magnet including clamping balls
Used for the quick and simple mounting of telescopic clamping units on the machine table or ferromagnetic workpieces.



Suitable for	Description	ID
WDP-5X-DSM 99	MHM-ITS 125-2	1398491

Metal sheet clamp
Used for mounting the clamping ball on metal sheets and thin workpieces.



Suitable for	Description	ID
WDP-5X-DSM 99	BKW	1398492

Mounting kit
Used for mounting the clamping ball on the clamping modules.



Suitable for	Description	ID
WDP-5X-DSM 99	BFS-SPA 40	1398493

Clamping ball without screw thread
Used for mounting the clamping ball by means of threads.



Suitable for	Description	ID
WDP-5X-DSM 99	BFS-SC M12-40	1471460
WDP-5X-DSM 99	BFS-SC M16-40	1471462
WDP-5X-DSM 99	BFS-SC M18-40	1471463
WDP-5X-DSM 99	BFS-SC M20-50	1471464
WDP-5X-DSM 99	BFS-SC M24-50	1471466

Stabilizer set
Set consisting of telescopic clamping unit TKE 355-505, extension TKE-LV 100/150, mounting kit and case.



Suitable for	Description	ID
WDP-5X-DSM 99	TKE Set	1398521

schunk.com/wdm



Modular. Fast. Easy.
Manual direct workpiece clamping system WDM-5X

VERO-S WDM-5X is the manual, modular clamping system for direct workpiece clamping. Due to a wide range of basic- and stacking modules, and height extensions the clamping pillars can be customized to any height. The individual components are connected via a clamping pin connection.

Functions & highlights

- **Modular clamping pillars**
  Flexible clamping of large workpieces and free-forged parts
- **High pull-down forces**
  Up to 15 kN for high cutting parameters and greater production efficiency
- **Form-fit, self-retained locking**
  The full pull-down force is available at all times



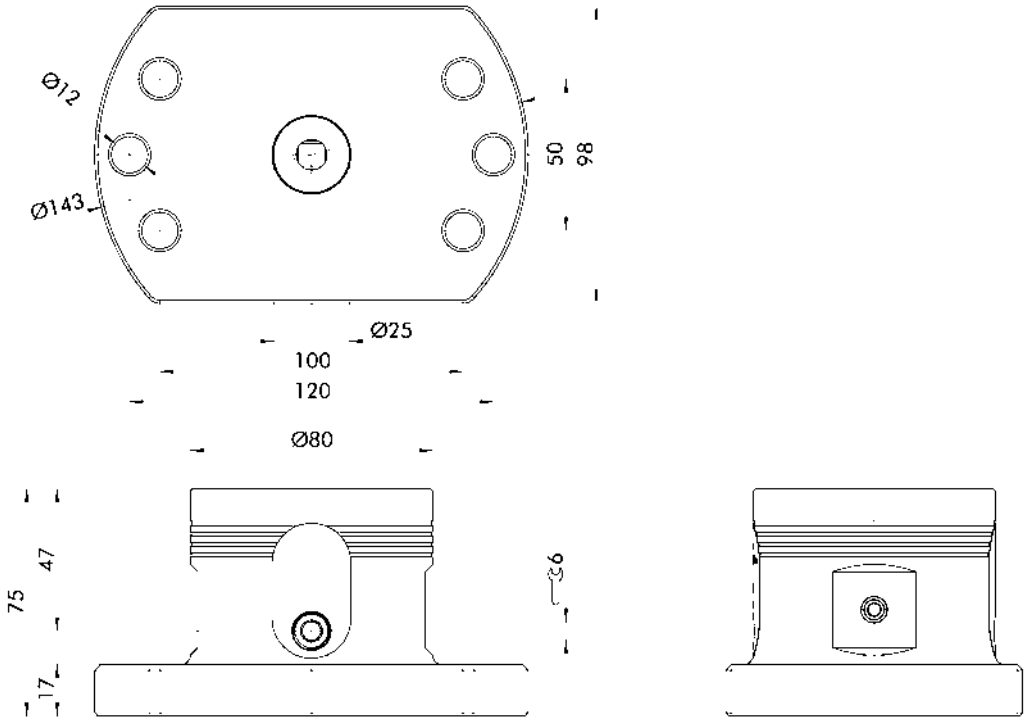
Field of application

WDM-5X

Workpieces of all kinds can be lifted off the machine table and directly clamped in seconds without interfering contours due to clamping pillars with a modular structure. Because of specially designed clamping modules and a large range of clamping pins, the clamping pillars can be adapted to suit all customer requirements.



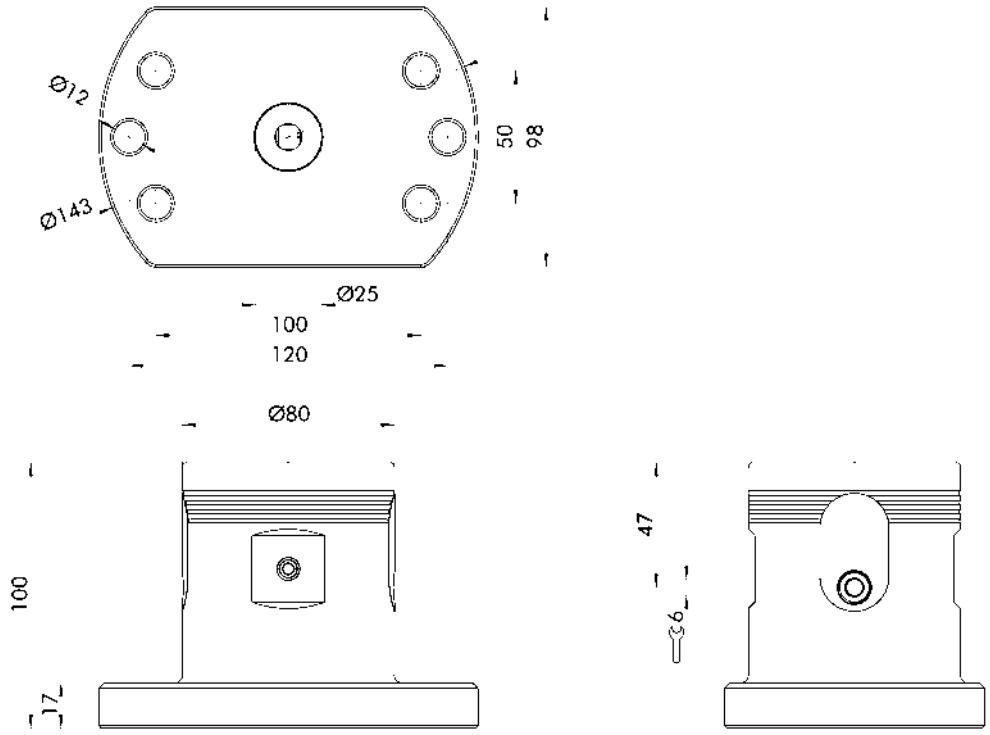
1. **Stabilizers for avoiding vibrations (see chapter accessories)**
2. **Fastening via magnets, clamping balls with screw thread and much more**
3. **WDM modules for fastening the workpiece**



Technical data

Description	ID	Pull-down force kN	Actuation torque Nm	Repeat accuracy mm	Height H mm	Weight kg
WDM-5X-BM 80-75	1398160	15	15	< 0.005	75	3.6

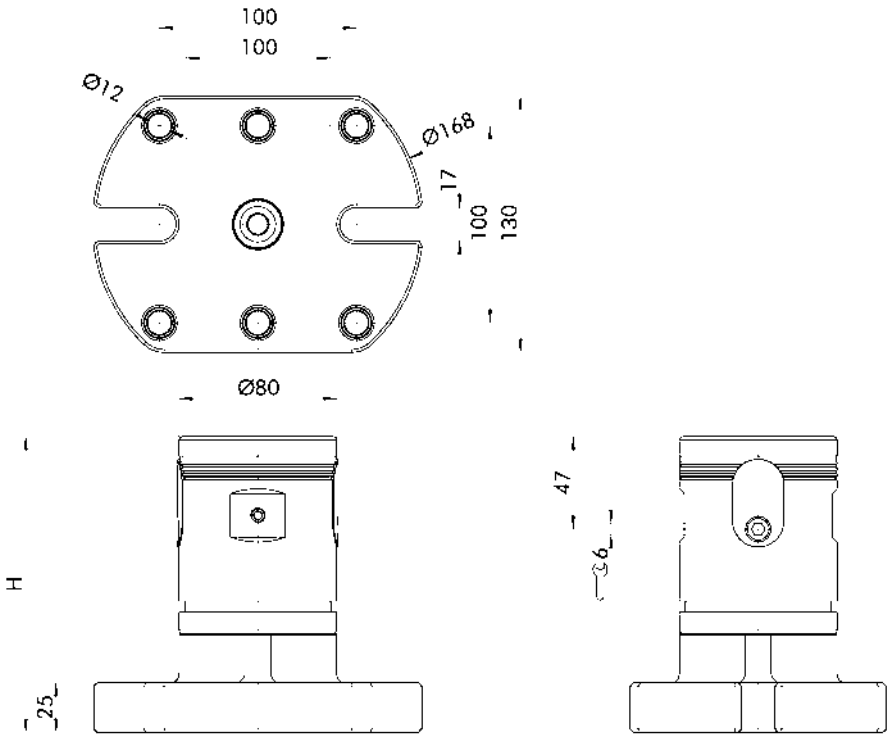
ⓘ Bottom prepared for fastening with VERO-S SPA 40 clamping pins (ID 0471151)



Technical data

Description	ID	Pull-down force	Actuation torque	Repeat accuracy	Height H	Weight
		kN	Nm	mm	mm	kg
WDM-5X-BM 80-100	1398161	15	15	< 0.005	100	4.5

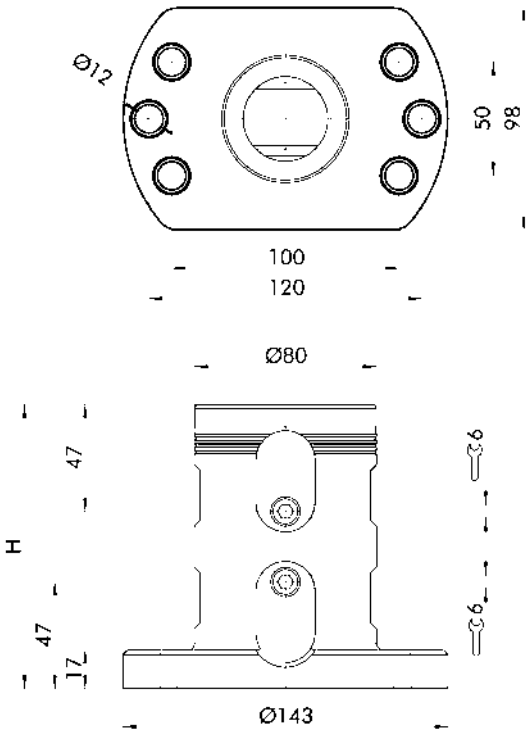
ⓘ Bottom prepared for fastening with VERO-S SPA 40 clamping pins (ID 0471151)



Technical data

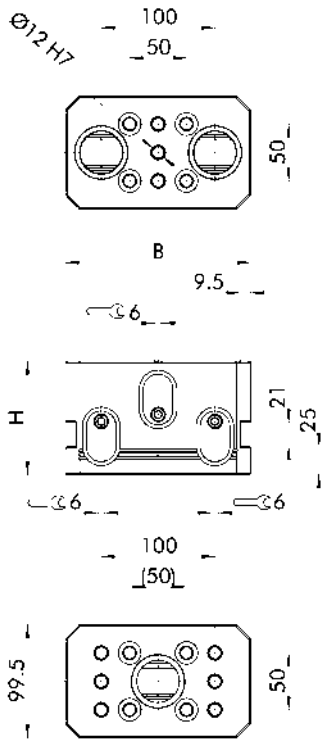
Description	ID	Pull-down force	Actuation torque	Repeat accuracy	Height H	Weight
		kN	Nm	mm	mm	kg
WDM-5X-BM 80-125	1398162	15	15	< 0.005	125	6.7
WDM-5X-BM 80-150	1398163	15	15	< 0.005	150	7.6
WDM-5X-BM 80-175	1398164	15	15	< 0.005	175	8.5

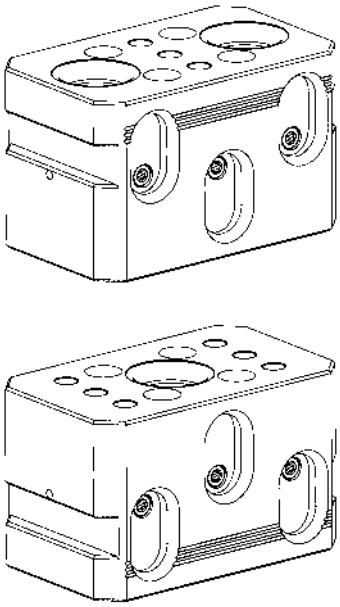
ⓘ Bottom prepared for fastening with VERO-S SPA 40 clamping pins (ID 0471151)



Technical data

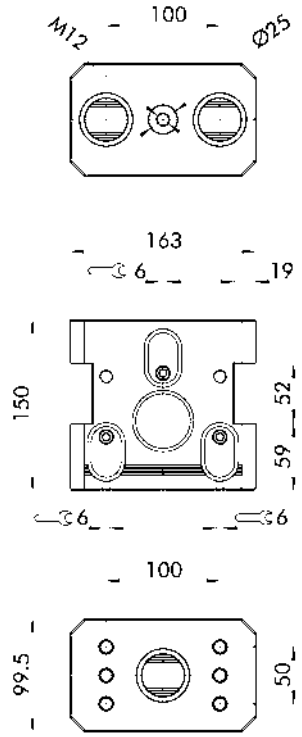
Description	ID	Pull-down force kN	Actuation torque Nm	Repeat accuracy mm	Height H mm	Weight kg
WDM-5X-BDM 80-125	1398171	15	15	< 0.005	125	5

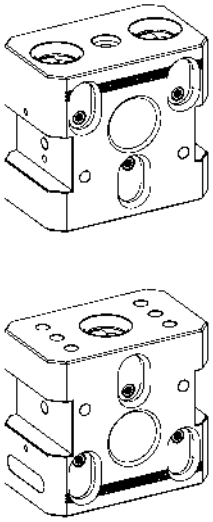




Technical data

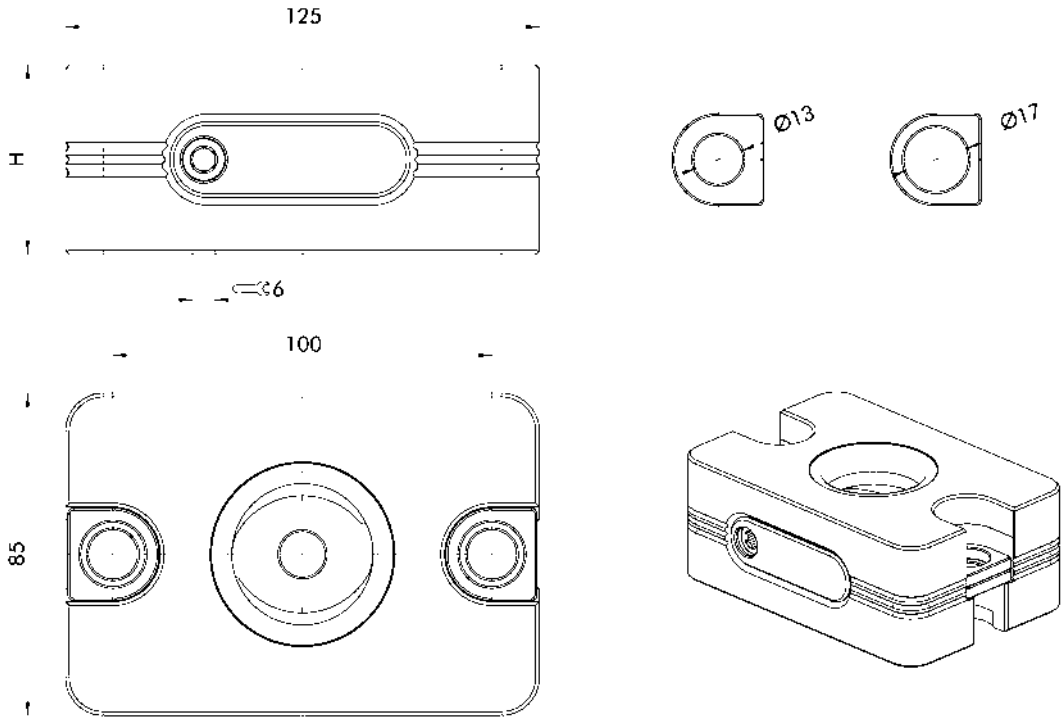
Description	ID	Width B	Pull-down force	Actuation torque	Height H	Weight
		mm	kN	Nm	mm	kg
WDM-5X-DUO 150-100-75	1436463	149.5	15	15	75	6.7
WDM-5X-DUO 163-100-100	1436464	162.5	15	15	100	7.6





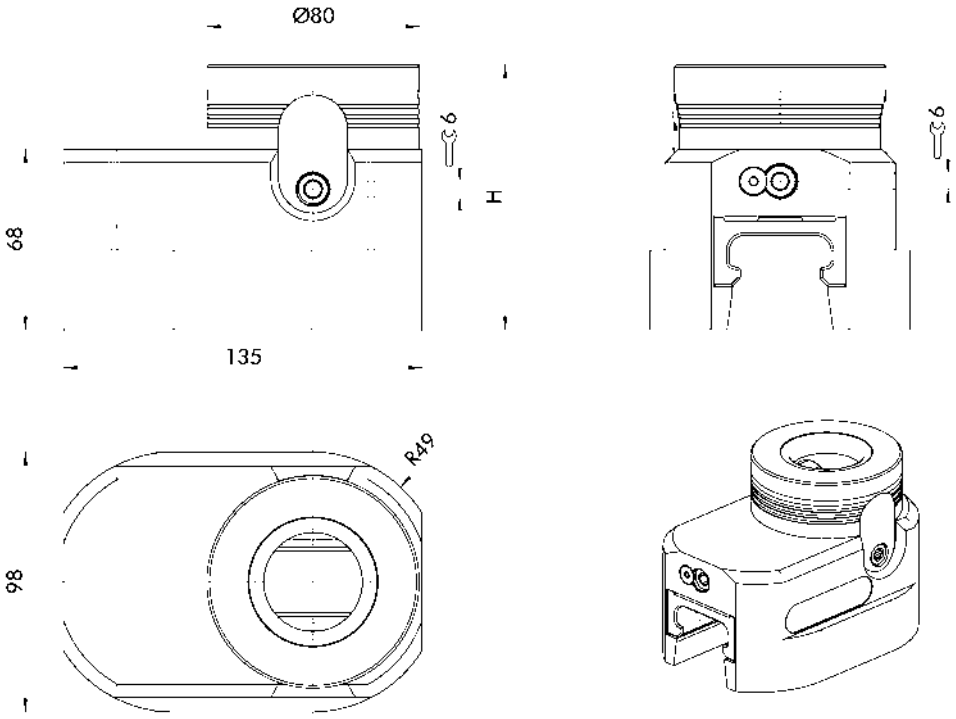
Technical data

Description	ID	Width B	Pull-down force	Actuation torque	Height H	Weight
		mm	kN	Nm	mm	kg
WDM-5X-DUO 163-100-150	1436465	162.5	15	15	150	15.4



Technical data

Description	ID	Pull-down force	Actuation torque	Height H	Weight
		kN	Nm	mm	kg
WDM-5X-BMF 125-85-40	1436485	15	15	40	2.9
WDM-5X-BMF 125-85-50	1436486	15	15	50	3.4



Technical data

Description	ID	Pull-down force	Actuation torque	Height H	Weight
		kN	Nm	mm	kg
WDM-5X-VARIO 135-98-100	1436480	15	15	100	7
WDM-5X-VARIO 135-98-125	1436481	15	15	125	9

Modules used for height adjustment

Stacking module
Modules to heighten the basic modules. This makes it easier to clamp hard-to-reach workpieces in different heights.



Description	Height mm	ID
WDM-5X-SM 80-100	100	1398182
WDM-5X-SM 80-125	125	1398183
WDM-5X-SM 80-75	75	1398181

Stacking module with double clamping pin interface
Stacking module for diverse VERO-S WDM-5X elements. They can also be used as a basic module for mounting on the machine table.



Description	Height mm	ID
WDM-5X-SDM 80-125	125	1398184

Clamping pins

Clamping pins
Standard clamping pins for positive locking of workpieces or devices with the WDM-5X clamping modules.



Description	Version	M10 kN	M12 kN	ID
SPA 40	Centering pins	35	50	0471151
SPB 40	Positioning pin	35	50	0471152
SPC 40	Clamping pin	35	50	0471153

Clamping pins
Standard clamping pins with M16 thread for form-fit connection of workpieces or devices with WDM-5X clamping modules.



Description	Version	M12 kN	M16 kN	ID
SPA 40-16	Centering pins	50	75	0471064
SPB 40-16	Positioning pin	50	75	0471065
SPC 40-16	Clamping pin	50	75	0471066

Compensation pins
Clamping pin for compensating fluctuations of the bore hole gauges.
SPA-X 40 = compensation in one direction of ±1 mm.
SPA-XY 40 = compensation in all directions of ±1 mm.



Description	Version	M10 kN	ID
SPA-X 40	Compensation in one direction	35	0471155
SPA-XY 40	Compensation in all directions	35	0471156

Dove tail pins
Clamping pins with a mounting depth of 3.5 mm



Description	Version	ID
SPA-S 40	Centering pins	1310630
SPB-S 40	Positioning pin	1323856
SPC-S 40	Clamping pin	1323857

Heavy duty pins
Clamping pins with integrated mounting threads for high holding forces.



Description	Version	ID
SPA-F 40	Centering pins	0471171
SPC-F 40	Clamping pin	0471172

Clamping pin with centering collar Ø 16 h6
Clamping pin with reduced centering diameter for the form-fit connection of workpieces with the clamping modules. Prepared for screw M12.



Description	Version	M12 kN	ID
SPA 40-16h6	Centering pins	50	1398325
SPB 40-16h6	Positioning pin	50	1398326
SPC 40-16h6	Clamping pin	50	1398327

Clamping pin with centering collar Ø 18 h6
Clamping pin with reduced centering diameter for the form-fit connection of workpieces with the clamping modules. Prepared for screw M12.



Description	Version	M12 kN	ID
SPA 40-18h6	Centering pins	50	1398330
SPB 40-18h6	Positioning pin	50	1398331
SPC 40-18h6	Clamping pin	50	1398332

Clamping pin with centering collar Ø 20 h6

Clamping pin with reduced centering diameter for the form-fit connection of workpieces with the clamping modules.
Prepared for screw M12.



Description	Version	M12 kN
SPA 40-20h6	Centering pins	50
SPB 40-20h6	Positioning pin	50
SPC 40-20h6	Clamping pin	50

Clamping pin with through-bore, centering collar Ø 25h6

Used for flexible mounting on the workpiece with minimal compensation of thread coax errors.
Prepared for adjustment screw M16.



Description	Version	M16 kN	ID
SPA-B 40	Centering pins	75	1398345
SPB-B 40	Positioning pin	75	1398346
SPC-B 40	Clamping pin	75	1398347

Clamping pins without centering collar

Prepared for fitting screws with the fitting Ø 12 h5 and Ø 16 h5.



Description	Version	M12 kN	M16 kN	ID
SPA-OB 40-12G6	Centering pins	50		1398355
SPB-OB 40-12G6	Positioning pin	50		1398356
SPC-OB 40-12G6	Clamping pin	50		1398357
SPA-OB 40-16G6	Centering pins	50	75	1398359
SPB-OB 40-16G6	Positioning pin	50	75	1398360
SPC-OB 40-16G6	Clamping pin	50	75	1398361

Accessories

Basic height extension

It functions as a stable substructure for building on the basic modules WDM-5X.



Suitable for	Description	ID
WDM-5X-BM 80 WDM-5X-BDM 80	WDM-5X-BP 235-235-50	1398172
WDM-5X-BM 80 WDM-5X-BDM 80	WDM-5X-BP 270-250-36	1398173

Clamping pin for groove installation 14g6

Prepared for screw M10.



Description	Version	M10 kN	ID
SPA-T 40-14g6	Centering pins	35	1398453
SPC-T 40-14g6	Clamping pin	35	1398454

Clamping pin for groove installation 16g6

Prepared for screw M12.



Description	Version	M12 kN	ID
SPA-T 40-16g6	Centering pins	50	1398455
SPC-T 40-16g6	Clamping pin	50	1398456

Clamping pin for groove installation 18g6

Prepared for screw M12.



Description	Version	M12 kN	ID
SPA-T 40-18g6	Centering pins	50	1398459
SPC-T 40-18g6	Clamping pin	50	1398460

Clamping pin for groove installation 22g6

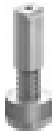
Prepared for screw M12.



Description	Version	M12 kN	ID
SPA-T 40-22g6	Centering pins	50	1398461
SPC-T 40-22g6	Clamping pin	50	1398462

Positioning arbor

For manual pre-adjustment and subsequent accurate positioning – without opening – the modules using the machine spindle.



Suitable for	Description	ID
WDM-5X-BM 80 WDM-5X-BDM 80	SPA-PDK 40	40108422

Reduction adapter Ø 80/Ø 40
Prepared for fitting screw M16.



Suitable for	Description	ID
WDM-5X-BM 80 WDM-5X-BDM 80	SPA-VL-P 50-M16	1398227

Reduction adapter Ø 80/Ø 27
For adjustment via milling rings of milling arbors Ø27/13.
Prepared for fitting screw M16.



Suitable for	Description	ID
WDM-5X-BM 80 WDM-5X-BDM 80	SPA-VL-PA 50-M16	1398228

Reduction adapter Ø 80/Ø 50, low
Soft version for customized rework.



Suitable for	Description	ID
WDM-5X-BM 80 WDM-5X-BDM 80	SPA-VL 25-M12	1398229

Reduction adapter Ø 80/Ø 50, high
Soft version for customized rework.



Suitable for	Description	ID
WDM-5X-BM 80 WDM-5X-BDM 80	SPA-VL 50-M12	1398240

Plane grip adapter
They are used for machining small components.



Suitable for	Description	ID
WDM-5X-BM 80 WDM-5X-BDM 80	SPA-VLK 75-M10	1398308

Collet adapter
For mounting ER50 collets.



Suitable for	Description	ID
WDM-5X-BM 80 WDM-5X-BDM 80	SPA-SEZ ER50-100	1398309

Adjustment screw
To be used in combination with the clamping pin with enlarged through-bore.



Suitable for	Description	ID
SPA-B 40 SPB-B 40 SPC-B 40	PDSC M12-60	1398348
SPA-B 40 SPB-B 40 SPC-B 40	PDSC M16-65	1398350
SPA-B 40 SPB-B 40 SPC-B 40	PDSC M16-70	1398351

Fitting screws
To be used in combination with the clamping pin without collar depending on the fitting.



Suitable for	Description	ID
SPA-OB 40-16G6 SPB-OB 40-16G6 SPC-OB 40-16G6	PSC Ø16h6-M10-34.5	1539971
SPA-OB 40-12G6 SPB-OB 40-12G6 SPC-OB 40-12G6	PSC Ø12h6-M12-50	1398388
SPA-OB 40-12G6 SPB-OB 40-12G6 SPC-OB 40-12G6	PSC Ø12h6-M12-55	1398389
SPA-OB 40-16G6 SPB-OB 40-16G6 SPC-OB 40-16G6	PSC Ø16h6-M12-28	1398390
SPA-OB 40-16G6 SPB-OB 40-16G6 SPC-OB 40-16G6	PSC Ø16h6-M12-37.5	1398391
SPA-OB 40-16G6 SPB-OB 40-16G6 SPC-OB 40-16G6	PSC Ø16h6-M16-43.5	1398392
SPA-OB 40-16G6 SPB-OB 40-16G6 SPC-OB 40-16G6	PSC Ø16h6-M16-55	1398393

Accessory 5-axis stabilizers

Telescopic clamping unit
Clamping unit can be pulled out and extended through the use of extension elements.



Suitable for	Description	ID
WDM-5X-BM 80 WDM-5X-BDM 80	TKE 255-305	1398469
WDM-5X-BM 80 WDM-5X-BDM 80	TKE 355-505	1398470

Clamping ball with conical seat
Central connecting element with turning and swiveling function for telescopic clamping units.



Suitable for	Description	ID
WDM-5X-BM 80 WDM-5X-BDM 80	SKG Ø25.4	1535214

Extensions
With Ø 25 mm for the extension of telescopic clamping units.



Suitable for	Description	ID
WDM-5X-BM 80 WDM-5X-BDM 80	TKE-VL 75	1398480
WDM-5X-BM 80 WDM-5X-BDM 80	TKE-VL 100	1398481
WDM-5X-BM 80 WDM-5X-BDM 80	TKE-VL 150	1398482
WDM-5X-BM 80 WDM-5X-BDM 80	TKE-VL 250	1398483
WDM-5X-BM 80 WDM-5X-BDM 80	TKE-VL 500	1398484

Fine adjustment
Used for final and accurate alignment of the workpiece.



Suitable for	Description	ID
WDM-5X-BM 80 WDM-5X-BDM 80	TKE-FE	1398490

Magnet including clamping balls
Used for the quick and simple mounting of telescopic clamping units on the machine table or ferromagnetic workpieces.



Suitable for	Description	ID
WDM-5X-BM 80 WDM-5X-BDM 80	MHM-ITS 125-2	1398491

Metal sheet clamp
Used for mounting the clamping ball on metal sheets and thin workpieces.



Suitable for	Description	ID
WDM-5X-BM 80 WDM-5X-BDM 80	BKW	1398492

Mounting kit
Used for mounting the clamping ball on the clamping modules.



Suitable for	Description	ID
WDM-5X-BM 80 WDM-5X-BDM 80	BFS-SPA 40	1398493

Clamping ball without screw thread
Used for mounting the clamping ball by means of threads.



Suitable for	Description	ID
WDM-5X-BM 80 WDM-5X-BDM 80	BFS-SC M12-40	1471460
WDM-5X-BM 80 WDM-5X-BDM 80	BFS-SC M16-40	1471462
WDM-5X-BM 80 WDM-5X-BDM 80	BFS-SC M18-40	1471463
WDM-5X-BM 80 WDM-5X-BDM 80	BFS-SC M20-50	1471464
WDM-5X-BM 80 WDM-5X-BDM 80	BFS-SC M24-50	1471466

Stabilizer set
Set consisting of telescopic clamping unit TKE 355-505, extension TKE-LV 100/150, mounting kit and case.



Suitable for	Description	ID
WDM-5X-BM 80 WDM-5X-BDM 80	TKE Set	1398521

schunk.com/gfd



Lightweight. Compact. Flexible. Set-up system GFD

Integrated mechanical quick-change pallet system with 52 x 52 mm gauge on consoles, pyramid consoles and tombstones

Functions & highlights

- **Simple set-up system for SCHUNK vises for small components**
  Quick and easy conversion of the KSC mini and KSC3 80-130 centric vises for small components
- **Low weight through the use of high-strength and hard-anodized aluminum alloy**
  For highest payloads, especially in pallet automation
- **Optimal accessibility**
  Ideally suited for 5-sided machining



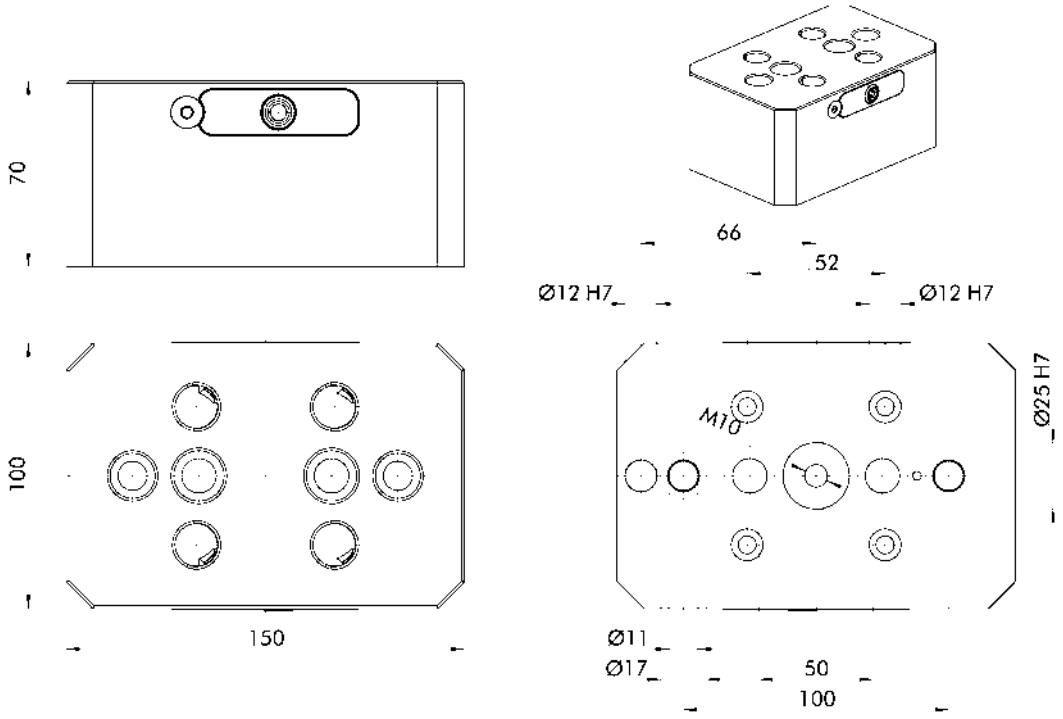
Field of application

GFD

With KONTEC GFD, SCHUNK introduces weight-optimized brackets with integrated quick-change pallet system for small vises KSC3 80 and KSC mini. The vises can be quickly and easily clamped manually via four clamping pins on the console. Thanks to base bodies made of hard-anodized aluminum, the quick-change pallet system is an inexpensive and lightweight turnkey solution especially for pallet automation and helps to increase machine running times and reduce set-up times.

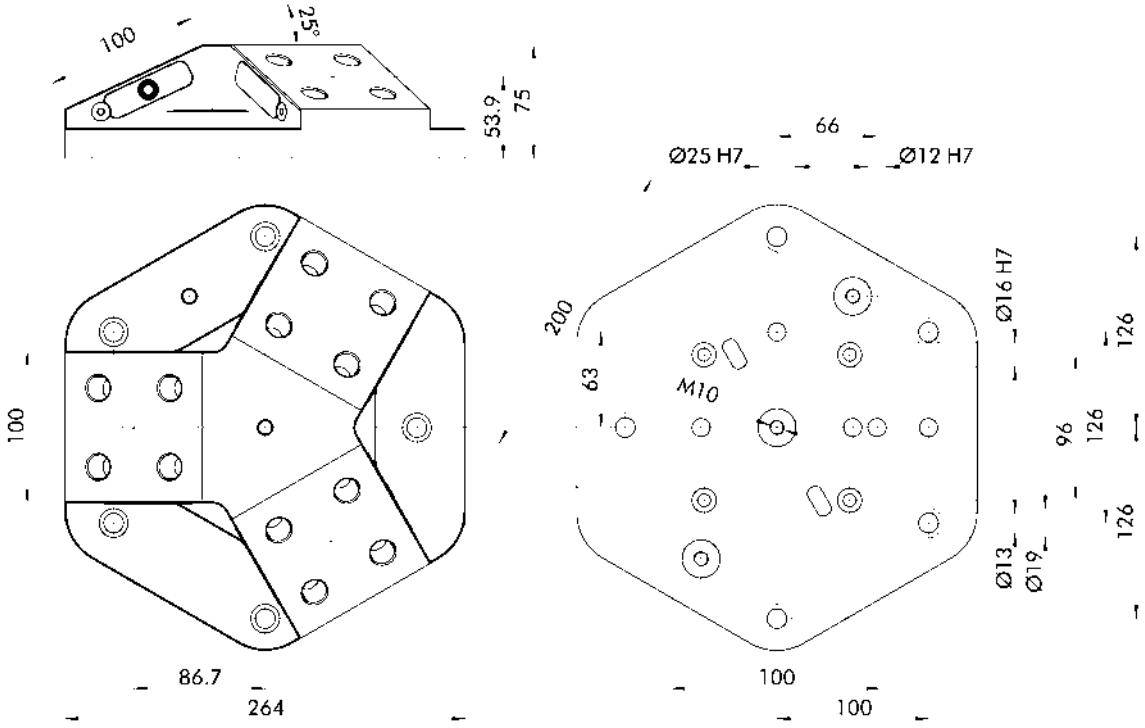


1. **Actuation via hexagon connection**
2. **Spindle drive**
3. **Clamping rod**
4. **Mounting holes in 52 x 52 mm pitch**
5. **Base body made from a high-strength and hard-anodized aluminum alloy**



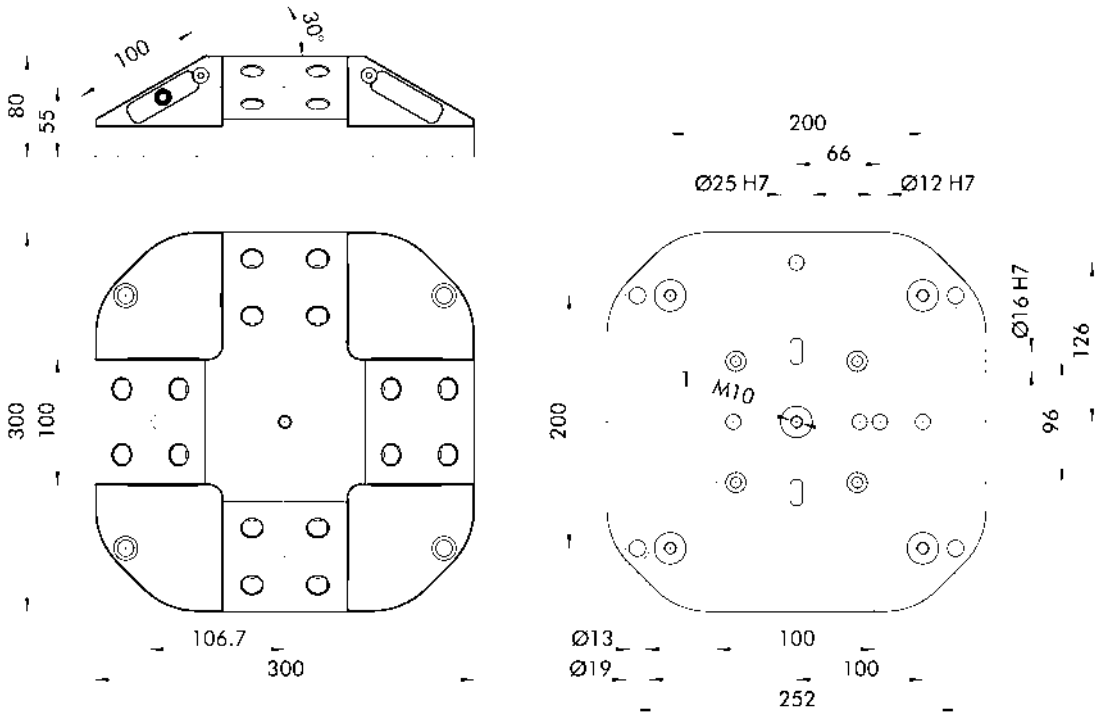
Technical data

Description	ID	Pull-down force	Max. torque	Weight
		kN	Nm	kg
SKQ-GFD 70-1	1561244	15	30	2.9



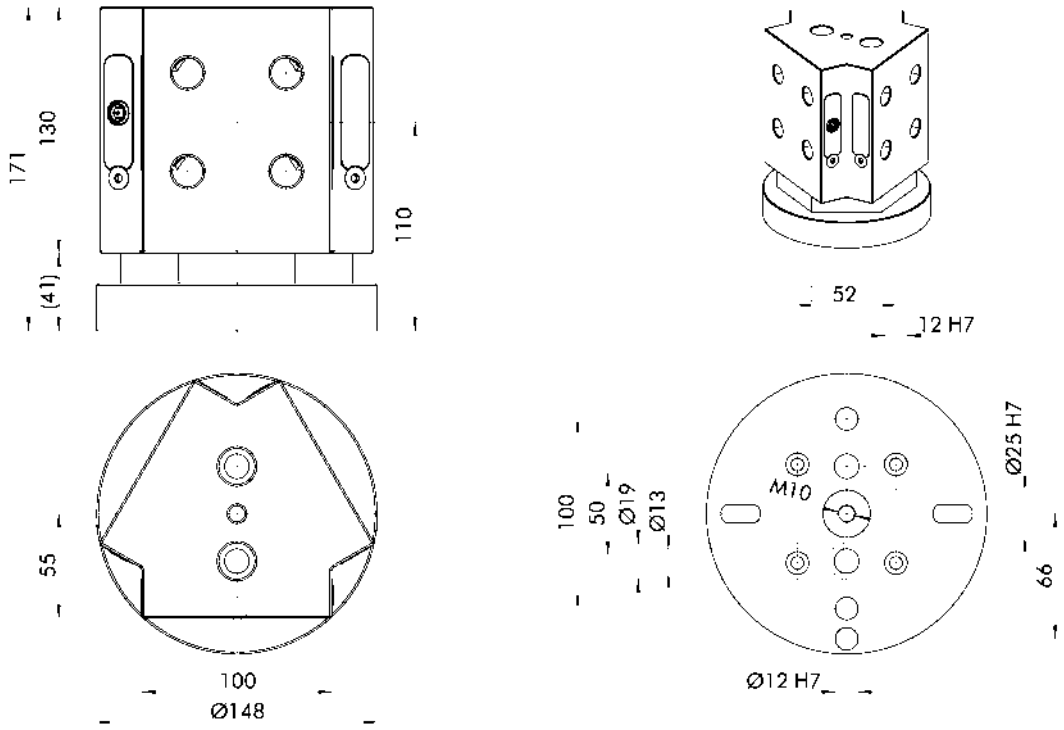
Technical data

Description	ID	Pull-down force	Max. torque	Weight
		kN	Nm	kg
SEP-GFD 264-3	1561241	15	30	6.5



Technical data

Description	ID	Pull-down force kN	Max. torque Nm	Weight kg
SEP-GFD 300-4	1561242	15	30	11.6



Technical data

Description	ID	Pull-down force	Max. torque	Weight
		kN	Nm	kg
SAT-GFD 3V Ø150-171	1561243	15	30	6.3

Clamping pins

Clamping pins
Standard clamping pins for positive locking of workpieces or devices with the NSE3 clamping modules.



Description	Version	M10 kN	M12 kN	ID
SPA 40	Centering pins	35	50	0471151
SPB 40	Positioning pin	35	50	0471152

Accessories

Clamping pins
Clamping pins with Ø 16 h6 screws for positive locking of consoles to the small components centric vises.
1 set = 4 pieces.



Suitable for	Description	ID
SKQ-GFD 70-1 SEP-GFD 264-3 SEP-GFD 300-4 SAT-GFD 3V Ø150-171	GFD-SP Ø16 h6	1561291

Indexing pin
Used as an anti-rotation protection for VERO-S modules with anti-rotation protection V1.



Suitable for	Description	ID
SKQ-GFD 70-1 SEP-GFD 264-3 SEP-GFD 300-4 SAT-GFD 3V Ø150-171	IXB V1	0471980

Torque wrench 5 – 50 Nm
Serves for applying a defined torque.
With 3/8" square drive.



Suitable for	Description	ID
SKQ-GFD 70-1 SEP-GFD 264-3 SEP-GFD 300-4 SAT-GFD 3V Ø150-171	GSH-D 5-50	0432355

Hexagon pin insert SW 6
Suitable for square drive 3/8".



Suitable for	Description	ID
SKQ-GFD 70-1 SEP-GFD 264-3 SEP-GFD 300-4 SAT-GFD 3V Ø150-171	GSK-A SW6-3/8"	1561290

Clamping screws
Only for 1-way console SKQ-GFD 70-1.



Suitable for	Description	ID
T-slot 12 mm/M10	GSC-G-3 M10-T12	1561283
T-slot 14 mm/M12	GSC-G-3 M12-T14	1561284
T-Nut 16 mm/M12	GSC-G-3 M12-T16	1561285
T-Nut 18 mm/M12	GSC-G-3 M12-T18	1561286

Alignment and centering set
Only for 1-way console SKQ-GFD 70-1.



Suitable for	Description	ID
T-slot 12 mm/M10	GAZ-5 T12	1561268
T-Nut 14 mm/M10	GAZ-5 T14	1561269
T-Nut 16 mm/M10	GAZ-5 T16	1561280
T-Nut 18 mm/M10	GAZ-5 T18	1561281



Overview automation modules



Quick-change pallet system NSE-A3 Page 274



Quick-change pallet system NSA3 Page 280



Robot couplings NSR Page 284

schunk.com/nse-a3



All-rounder. Process-reliable. High-performance. Quick-change pallet system NSE-A3

The VERO-S NSE-A3 138 quick-change pallet system offers numerous extras especially for automated machine loading. For example, the integrated media transfer unit enables the transfer of fluids at up to 300 bar. The module also has integrated scanning, a cleaning function, and a cone seal.

Functions & highlights

- **Turbo integrated by default**
  Clamping force increased by up to 250% for optimal utilization of the machine's performance, hence an increase in efficiency
- **Integrated cone seal by default**
  For protecting the change interface from coolant, dust, and chips
- **Form-fit, self-retained locking**
  Full pull-down force is maintained even in the event of a pressure drop



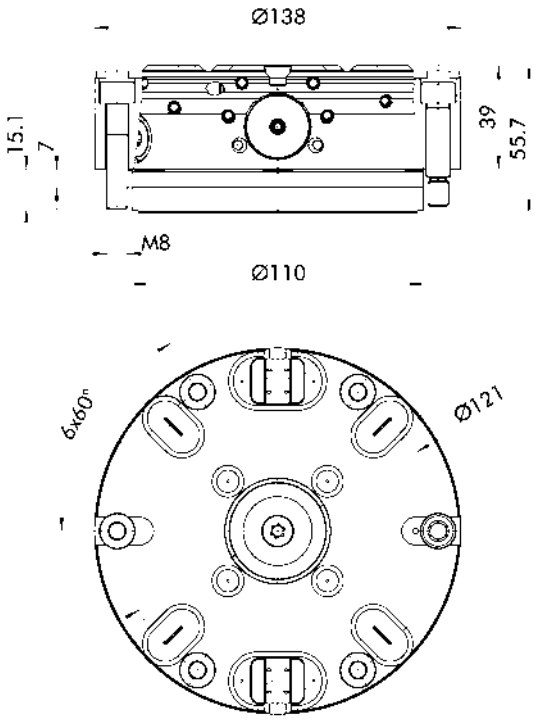
Field of application

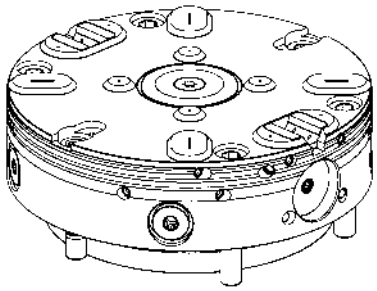
NSE-A3

SCHUNK has developed the VERO-S NSE-A3 138 automation module specifically for automated machine tool loading as well as for applications in handling, assembly and automation technology. The clamping module is part of the extensive SCHUNK VERO-S modular system, which enables more than 1,000 possible combinations for efficient workpiece clamping.



1. **Standard cone seal**
2. **Anti-rotation protection V4**
3. **Patented dual stroke system**
4. **Turbo function**
5. **Completely sealed system**
6. **Monitoring of the clamping slide position "open condition" and "locked condition"**
7. **Stepped contact surfaces**
8. **Integrated media transfer unit**





Technical data

Description	ID	Pull-down force	Pull-down force with turbo	Unlocking pressure	Permissible system pressures	Repeat accuracy	Min. pallet weight	Weight
		kN	kN	bar	bar	mm	kg	kg
NSE-A3 138	1364306	8	28	6		< 0.005		4.1
NSE-A3 138-V4	1364307	8	28	6		< 0.005		4.1
NSE-A3 138-V4-P	1351708	8	28	6	300	< 0.005	20	4.2
NSE-A3 138-V4-P1	1339726	8	28	6	9	< 0.005		4.2

ⓘ -V4: Anti-rotation protection V4 for indexing single clamping pallets for automated machine loading
-P: Version with media transfer unit for pneumatics or hydraulics
-P1: Version with media transfer unit for pneumatics

Clamping pins

Clamping pins
Standard clamping pins for positive locking of workpieces or devices with the NSE3 clamping modules.



Description	Version	M10 kN	M12 kN	ID
SPA 40	Centering pins	35	50	0471151
SPB 40	Positioning pin	35	50	0471152
SPC 40	Clamping pin	35	50	0471153

Clamping pins
Standard clamping pins with M16 thread for form-fit connection of workpieces or devices with NSE3 clamping modules.



Description	Version	M12 kN	M16 kN	ID
SPA 40-16	Centering pins	50	75	0471064
SPB 40-16	Positioning pin	50	75	0471065
SPC 40-16	Clamping pin	50	75	0471066

Compensation pins
Clamping pin for compensating fluctuations of the bore hole gauges.
SPA-X 40 = compensation in one direction of ±1 mm.
SPA-XY 40 = compensation in all directions of ±1 mm.



Description	Version	M10 kN	ID
SPA-X 40	Compensation in one direction	35	0471155
SPA-XY 40	Compensation in all directions	35	0471156

Accuracy pin
Clamping pins with patented flex taper with a repeat accuracy of less than 0.002 mm.



Description	Version	M10 kN	M12 kN	ID
SPG 40	Centering pins	35	50	0471154

Dovetail pins
Clamping pins with a mounting depth of 3.5 mm



Description	Version	ID
SPA-S 40	Centering pins	1310630
SPB-S 40	Positioning pin	1323856
SPC-S 40	Clamping pin	1323857

Clamping pins without centering collar
The clamping pin is screwed into the workpiece using a fitting screw.
Fitting screw with fitting diameter Ø 8 mm = ID 0471634.
Fitting screw with fitting diameter Ø 10 mm = ID 0471635.



Description	Version	M10 kN	ID
SPA-OB 40	Centering pins	35	0471631
SPB-OB 40	Positioning pin	35	1316935
SPC-OB 40	Clamping pin	35	1316936

Heavy duty pins
Clamping pins with integrated mounting threads for high holding forces.



Description	Version	ID
SPA-F 40	Centering pins	0471171
SPC-F 40	Clamping pin	0471172

Accessories

Clamping pin extensions

For lifting the workpiece from the machine table, and for improving the accessibility of the machine spindle.



Suitable for	Description	ID
Module Ø 138	SP-VL 50-10-SPA	0471405
Module Ø 138	SP-VL 50-10-SPB	0471407
Module Ø 138	SP-VL 50-10-SPC	0471409
Module Ø 138	SP-VL 50-12-SPA	0471406
Module Ø 138	SP-VL 50-12-SPB	0471408
Module Ø 138	SP-VL 50-12-SPC	0471410
Module Ø 138	SP-VL 100-10-SPA	0471464
Module Ø 138	SP-VL 100-10-SPB	0471466
Module Ø 138	SP-VL 100-10-SPC	0471468
Module Ø 138	SP-VL 100-12-SPA	0471465
Module Ø 138	SP-VL 100-12-SPB	0471467
Module Ø 138	SP-VL 100-12-SPC	0471469

Indexing pins

Used as an anti-rotation protection for VERO-S modules with anti-rotation protection V4.



Suitable for	Description	ID
NSE-A3 138-V4 NSE-A3 138-V4-P NSE-A3 138-V4-P1	IXB V4	9982432

Monitoring unit

Integrated monitoring of clamping slide positions and pallet presence via IO-Link.



Suitable for	Description	ID
Module Ø 138	AFS3 IOL 138	1488905

Inductive monitoring segments

Integrated monitoring of clamping slide positions and pallet presence.



Suitable for	Description	ID
Module Ø 138	AFS3 138 PMI	1325645

Magnetic monitoring segments

Integrated monitoring of clamping slide positions and pallet presence.



Suitable for	Description	ID
Module Ø 138	AFS3 138 MMS	1325646

Coupling

Used as a counter piece in clamping pallets or devices for the transfer of compressed air or hydraulics.



Suitable for	Description	ID
NSE-A3 138-V4-P	VSK-K NSE3	9985387

schunk.com/nsa3



Powerful. Compact. Robust. Quick-change pallet system NSA3

NSA3 modules offer a high-end solution for automated machine tool loading. Monitoring such as "module open" or "module closed" and a pallet lift-off function are integrated into the modules as standard, thus ensuring maximum process reliability. In addition, the NSA3 modules are maintenance-free over their entire service life thanks to their use of stainless steel and hermetic sealing.

Functions & highlights

- **Integrated monitoring and lifting function make this development particularly suitable for automated production**
  Maximum process reliability even with rough machining
- **Turbo integrated by default**
  Pull-down force increased up to 300% for optimal utilization of the machine's performance, hence high efficiency
- **Form-fit, self-retained locking**
  Full pull-down force is maintained even in the event of a pressure drop



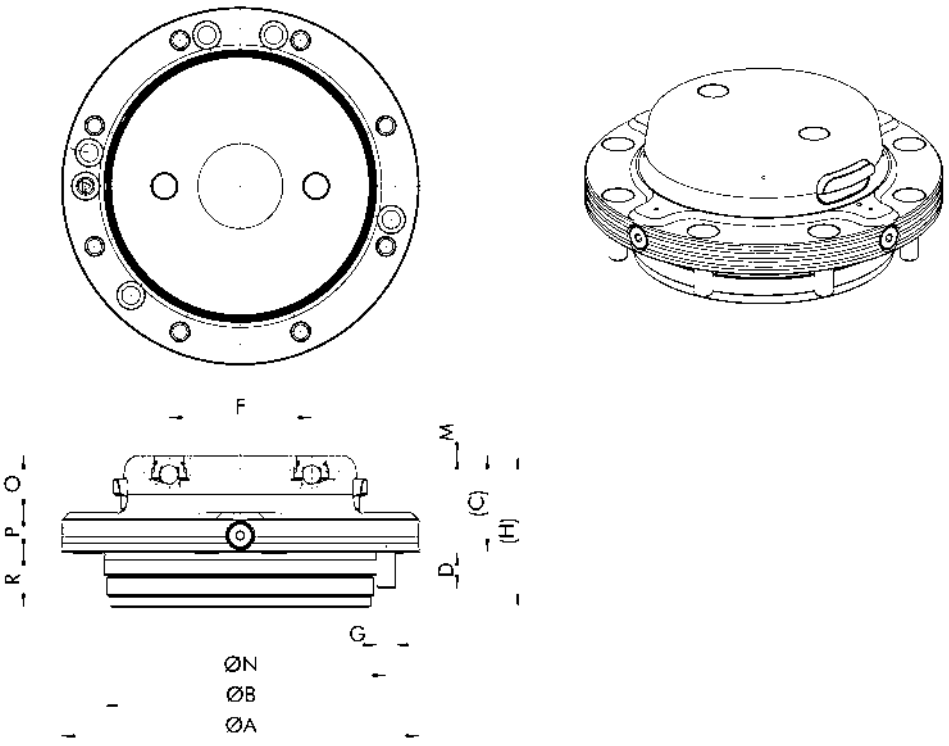
Field of application

NSA3

The NSA3 palletizing modules are the perfect solution for automated machine tool loading. The numerous extras such as the clamping slide position monitoring, the pallet lift-off function and the cleaning and monitoring of the flat work surface ensure maximum process reliability. The modules have an extremely flat design and therefore allow optimum use of the machine room.



1. **High-precision short taper centering**
2. **Patented dual stroke system**
3. **Turbo function**
4. **Large contact surfaces**
5. **Completely sealed system**
6. **Contact surface at outer diameter**
7. **Cover plugs for mounting screws**
8. **Lifting function when opening the modules**
9. **Contact monitoring**
10. **Entry radii on the module**
11. **Flexible piston**
12. **Pneumatic system**



Dimensions

Description	ØA	ØB	C	D	F	G	H	M	ØN	O	P	R
	mm	mm	mm	mm	mm		mm	mm	mm	mm	mm	mm
NSA3 120	118	90	31.9	12	47	M6	50	-0.1 - 0.5	104	18.9	13	18.1
NSA plus 160	158	128	39.9	16	68	M8	69.5	-0.1 - 0.5	142	23.9	16	29.6

Technical data

Description	ID	Pull-down force	Pull-down force with turbo	Unlocking pressure	Repeat accuracy	Weight
		kN	kN	bar	mm	kg
NSA3 120	1531269	3	10	6	< 0.005	2
NSA plus 160	0471710	5	15	6	< 0.005	5.8

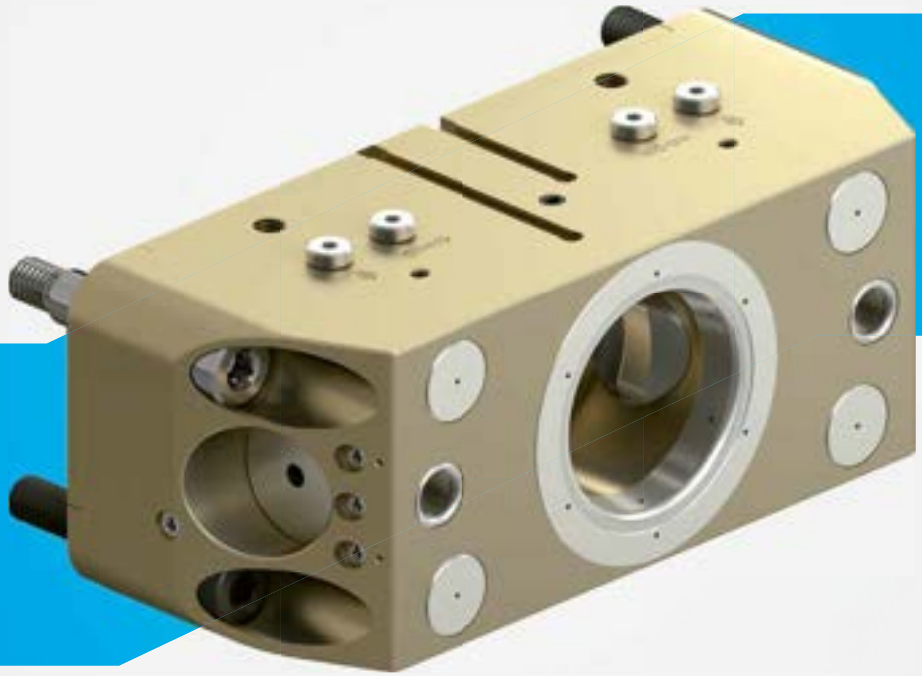
Clamping pins

Clamping ring



Description	Version	ID
SRA 120	Centering ring	0471650
SRA 160	Centering ring	0471750
SRB 120	Positioning ring	0471651
SRB 160	Positioning ring	0471751
SRC 120	Clamping ring	0471652
SRC 160	Clamping ring	0471752

schunk.com/nsr



Lightweight. Compact. Powerful. Robot couplings NSR

The NSR robot couplings offer the perfect solution for pallet handling. The high pull-down forces create an exceptionally rigid system, allowing for maximum torques. The different sizes make them the optimal solution for any application.

Functions & highlights

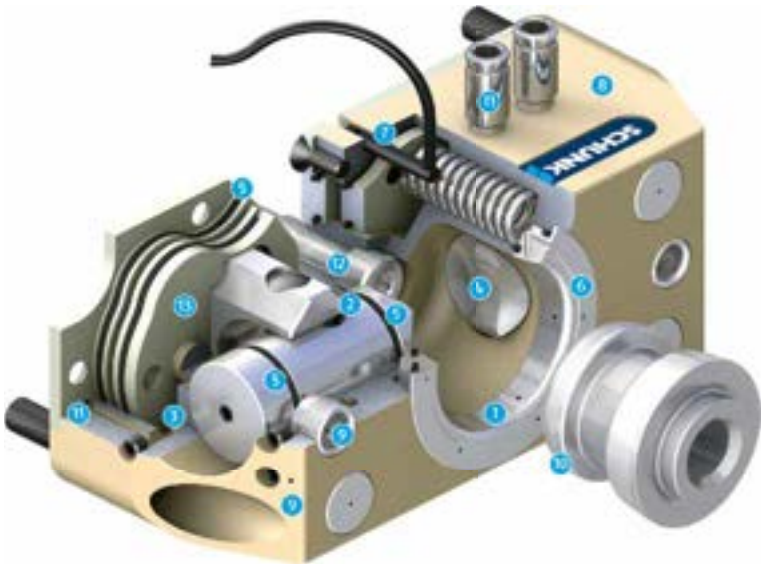
- **Compact lightweight**
  Aluminium base body in slim design ensures optimum accessibility at the machine table
- **The modules are corrosion-free and completely sealed**
  Long lifetime and maximum process reliability
- **Form-fit, self-retained locking**
  Full pull-down force is maintained even in the event of a pressure drop



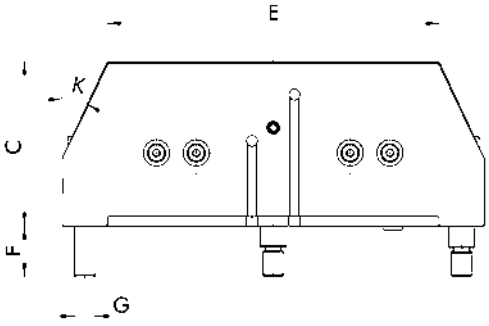
Field of application

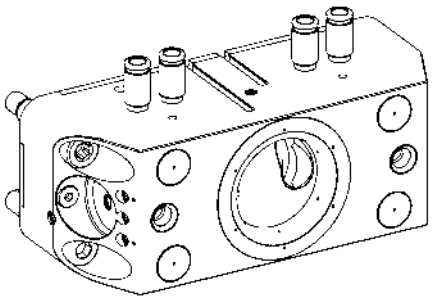
NSR

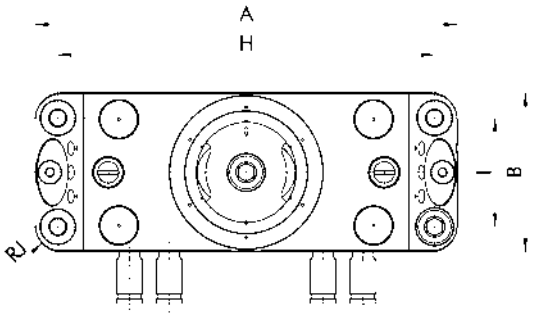
The NSR robot couplings are ideal for automated pallet loading. The NSR micro 60, NSR mini 100 and the NSR 160 modules are characterized above all by their light and slim design, which enables pallets to be loaded extremely close to the machine table. The NSR3 138 and the NSR maxi 220, on the other hand, are particular distinguished by their robust design and high moment payloads.

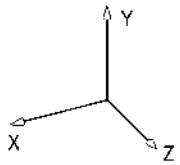


1. **High-precision short taper centering**
2. **Patented dual stroke system**
3. **Turbo function**
4. **Large contact surfaces**
5. **Completely sealed system**
6. **Steel inlays with integrated cleaning function**
7. **Monitoring of the piston position "module opened" and "module closed"**
8. **Weight-optimized design**
9. **Anti-rotation protection**
10. **Insertion radii on the clamping pin**
11. **Actuation of the module**
12. **Fitting screws**
13. **Pneumatic system**







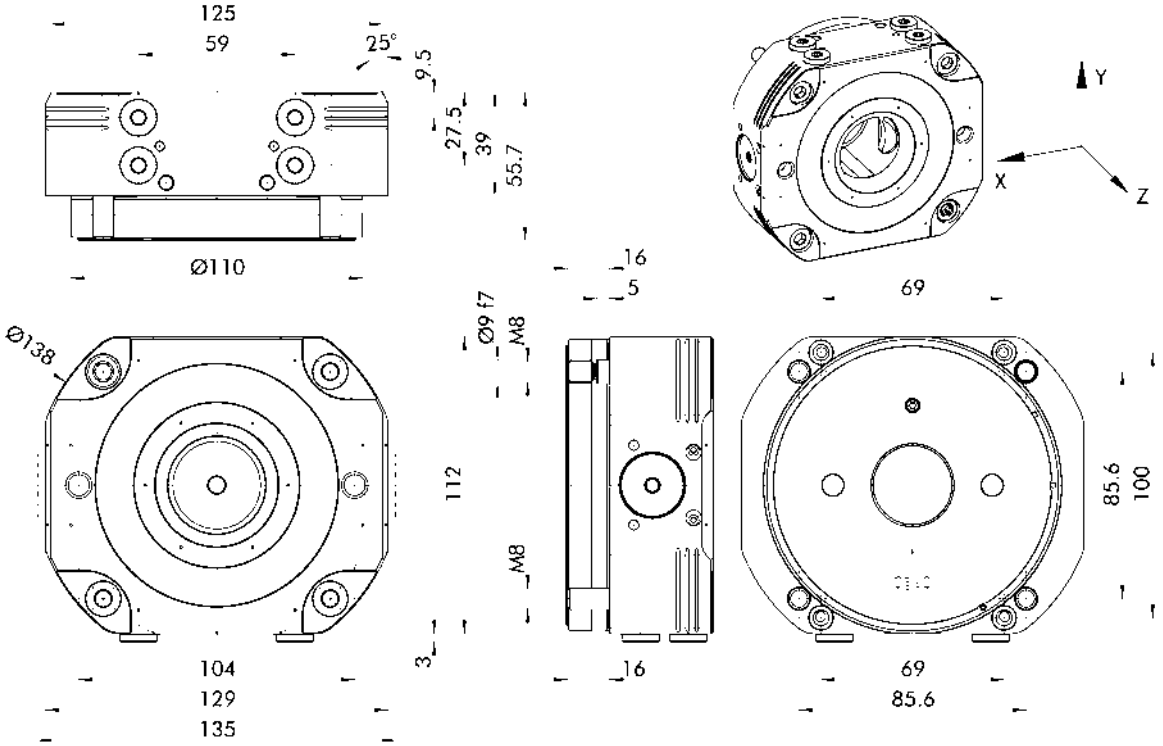


Dimensions

Description	A	B	C	E	F	G	H	I	RJ	K
	mm/"	mm	mm	mm	mm		mm	mm	mm	°
NSR 160	159	60	62	125.2	19.2	M8	142	41	10	25
NSR mini 100	100	39.5	38	74	12	M6	86	27	5	30
NSR mikro 60	60	29	26.2	46	5	M3	53	21	2.5	30

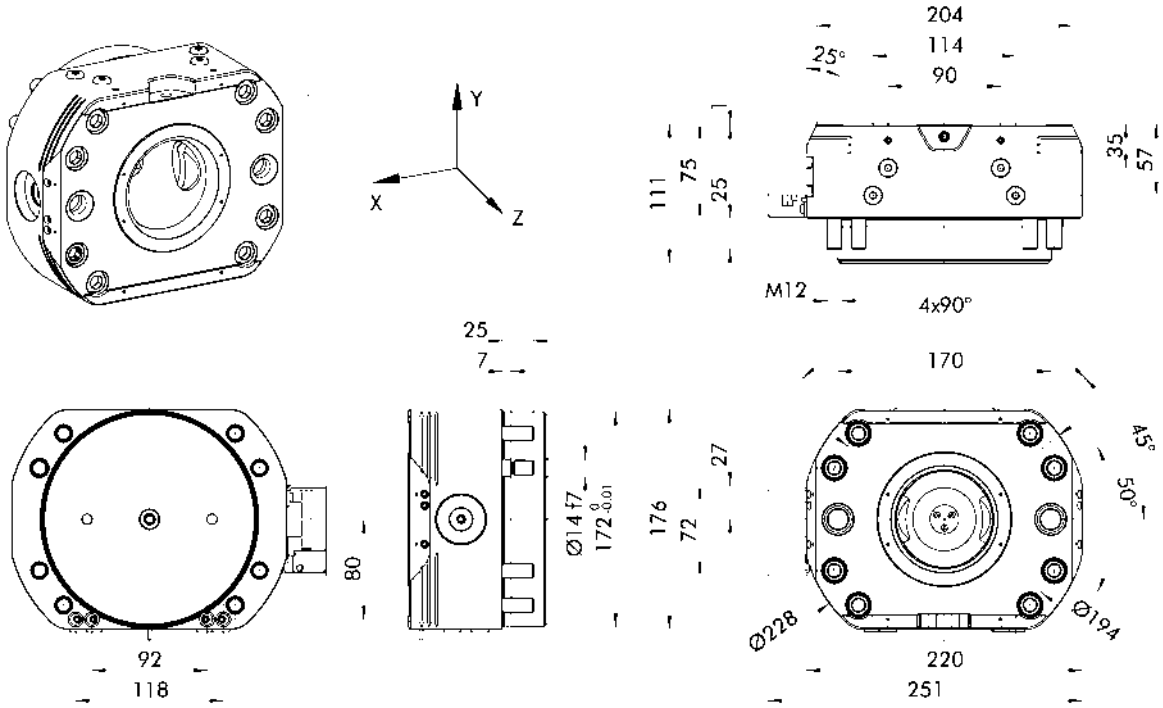
Technical data

Description	ID	Pull-down force	Pull-down force with turbo	Actuation angle	Unlocking pressure	Repeat accuracy	Max. moment Mx	Max. moment Mz	Weight
		kN	kN	°	bar	mm	Nm	Nm	kg
NSR 160	0471915	4	15	25	6	< 0.02	600	1600	1.6
NSR mini 100	0471960	1	4	30	6	< 0.02	75	200	0.4
NSR mikro 60	1357111	0.5	1.5	30	6	< 0.02	15	32	0.15



Technical data

Description	ID	Pull-down force	Pull-down force with turbo	Unlocking pressure	Repeat accuracy	Max. moment Mx	Max. moment Mz	Weight
		kN	kN	bar	mm	Nm	Nm	kg
NSR3 138	1492479	8	28	6	< 0.02	1500	1600	3.8



Technical data

Description	ID	Pull-down force	Pull-down force with turbo	Unlocking pressure	Repeat accuracy	Max. moment Mx	Max. moment Mz	Weight
		kN	kN	bar	mm	Nm	Nm	kg
NSR maxi 220	0471940	12	50	6	< 0.05	4000	4000	21

Clamping pins

Clamping pins
Standard clamping pins for positive locking of workpieces or devices with the NSR robot couplings.
Holding force clamping pin = 15 kN (M6), 25 kN (M8).



Description	Version	ID
SPA mikro 10	Centering pins	0436610
SPA mini 20	Centering pins	0435610
SPA 80-30	Centering pins	0471181

Clamping pins
Standard clamping pins with M16 thread for form-fit connection of workpieces or devices with NSR robot couplings.



Description	Version	M10	M12 kN	M16 kN	ID
SPA 40-16	Centering pins		50	75	0471064

Pallet adapters

Pallet adapter mikro
Suitable for robot module NSR mikro 60



Suitable for	Description	ID
NSR mikro 60	PKL mikro 60	1357112

Pallet adapter mini
Suitable for robot module NSR mini 100



Suitable for	Description	ID
NSR mini 100	PKL mini 100	0471970

Pallet adapter 160
Suitable for robot module NSR 160



Suitable for	Description	ID
NSR 160	PKL 160	0471930

Pallet adapter 160 Lean
Suitable for robot module NSR 160



Suitable for	Description	ID
NSR 160	PKL 160 Lean	40103658

Pallet adapter 138
Suitable for robot module NSR3 138



Suitable for	Description	ID
NSR3 138	PKL 138	1492512

Pallet adapter maxi
Suitable for robot module NSR maxi 220



Suitable for	Description	ID
NSR maxi 220	PKL maxi 220	0471950

Accessories media coupling

Adapter flange for robot module

Used as a connecting element for robot, robot module, and coupling nipple. The adapter flange is available upon request and needs to be adjusted to the respective robot interface.



Description	ID
FFA-NSR	on request

Coupling nipple for robot module

With one-way media transfer for actuating clamping stations and clamping devices via the appropriate coupling strip.



Description	ID
MDR-NSR-1	1350336

Coupling strip for clamping pallet

With one-way mounting for the transmission of compressed air from the robot module to the clamping device.



Description	Min. coupling force N	ID
MDR-PAL-1	51	1440495

Coupling strip for clamping station

With one-way mounting for the transmission of compressed air from the robot module to the clamping station.



Description	Min. coupling force N	ID
MDR-NSL-1	51	1350331

Coupling nipple for robot module

With two-way media transfer for actuating clamping stations and clamping devices via the appropriate coupling strip.



Description	ID
MDR-NSR-2	1350334

Coupling strip for clamping pallet

With two-way mounting for the transmission of compressed air from the robot module to the clamping device.



Description	Min. coupling force N	ID
MDR-PAL-2	102	1426829

Coupling strip for clamping station

With two-way mounting for the transmission of compressed air from the robot module to the clamping station.



Description	Min. coupling force N	ID
MDR-NSL-2	102	1350323

Overview i4.0 READY



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Quick-change pallet system NSE-S mini Page 298



Quick-change pallet system NSE3-PH 138 IOL Page 302



Quick-change pallet system NSE-E mini 90-25 IOL Page 306



Clamping force blocks KSE3 IOL Page 310



Quick-change pallet system KRE3 IOL Page 314

schunk.com/nse-s3



Sensory. Process-reliable. Compact. Quick-change pallet system NSE-S3

The NSE-S3 enables monitoring of the clamping slide position and pallet presence, along with the capability to detect whether the turbo function is active. In this way, the quick-change pallet module provides all relevant information to ensure process reliability. Since all sensors are integrated into the vise, there is no additional interfering contour and perfect accessibility is maintained.

Functions & highlights

- **Monitoring of the pallet presence**
  Via integrated inductive proximity switch
- **Monitoring of the clamping slide position**
  For the statuses "open", "clamped" and "closed without clamping pin"
- **Control via IO-Link**
  For easy integration in commonly used fieldbus systems



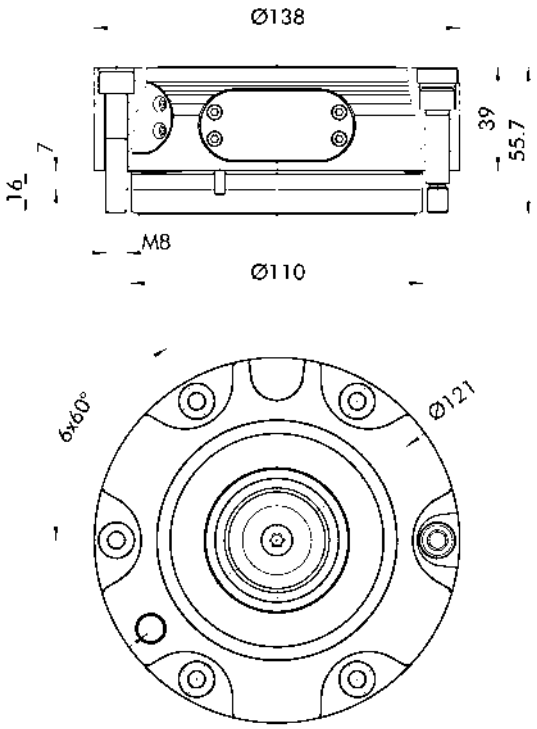
Field of application

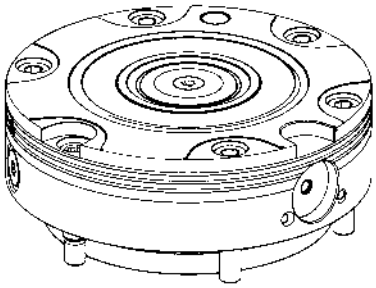
NSE-S3

The VERO-S NSE-S3 is particularly suitable for automated processes thanks to its integrated monitoring functions. Here, the sensory quick-change pallet module can ensure maximum process reliability and thus enables reliable automation.



1. Optional cone seal
2. High-precision short taper centering
3. Large contact surfaces
4. Cover plugs for mounting screws
5. Integrated electronics
6. Pressure sensor
7. Inductive distance sensor
8. Inductive proximity switch
9. Spring contact interface
10. Clamping status display via LED





Technical data

Description	ID	Cone seal	Pull-down force	Pull-down force with turbo	Unlocking pressure	Mains voltage	Repeat accuracy	Weight
			kN	kN	bar	V DC	mm	kg
NSE-S3 138 IOL	1514230	no	8	28	6	24	< 0.005	4.4
NSE-S3 138-K IOL	1545576	yes	8	28	6	24	< 0.005	4.4
NSE-S3 138-V1 IOL	1514231	no	8	28	6	24	< 0.005	4.4
NSE-S3 138-V1-K IOL	1545577	yes	8	28	6	24	< 0.005	4.4

ⓘ -V1: Anti-rotation protection V1 for indexing single clamping pallets
Suitable accessories identical to NSE3 138 in chapter "quick-change pallet technology"

schunk.com/nse-s-mini



Sensory. Process-reliable. Compact. Quick-change pallet system NSE-S mini

The NSE-S mini 90-25 IOL enables monitoring of the clamping slide position and pallet presence, along with the capability to detect whether the turbo function is active. In this way, the quick-change pallet module provides all relevant information to ensure process reliability. Since all sensors are integrated into the vise, there is no additional interfering contour and perfect accessibility is maintained.

Functions & highlights

- **Monitoring of the pallet presence**
  Via integrated inductive proximity switch
- **Monitoring of the clamping slide position**
  For the statuses "open", "clamped" and "closed without clamping pin"
- **Control via IO-Link**
  For easy integration in commonly used fieldbus systems



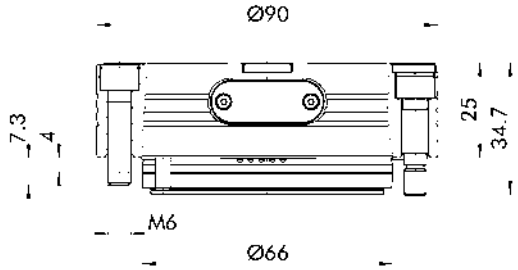
Field of application

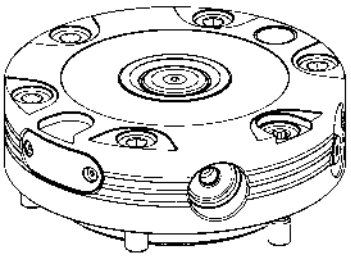
NSE-S mini

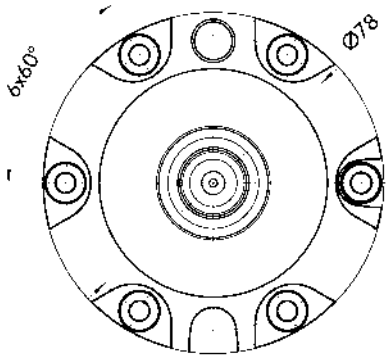
The VERO-S NSE-S mini is particularly suitable for automated processes thanks to its integrated monitoring functions. Here, the sensory quick-change pallet module can ensure maximum process reliability and thus enables reliable automation.



1. Optional cone seal
2. Large contact surfaces
3. Cover plugs for mounting screws
4. Integrated electronics
5. Pressure sensor
6. Inductive distance sensor
7. Inductive proximity switch
8. Clamping status display via LED
9. Spring contact interface







Technical data

Description	ID	Cone seal	Pull-down force	Pull-down force with turbo	Unlocking pressure	Mains voltage	Repeat accuracy	Weight
			kN	kN	bar	V DC	mm	kg
NSE-S mini 90-25-IOL	1528088	no	1.5	6	6	24	< 0.005	1.1
NSE-S mini 90-25-K IOL	1554050	yes	1.5	6	6	24	< 0.005	1.1
NSE-S mini 90-25-V1 IOL	1455855	no	1.5	6	6	24	< 0.005	1.1
NSE-S mini 90-25-V1-K IOL	1554051	yes	1.5	6	6	24	< 0.005	1.1

ⓘ -V1: Anti-rotation protection V1 for indexing single clamping pallets
Suitable accessories identical to NSE mini 90-25 in chapter "quick-change pallet technology"

schunk.com/nse3-ph



Electric. High-performance. Universal. Quick-change pallet system NSE3-PH 138 IOL

VERO-S NSE3-PH IOL is the most innovative clamping device in the field of electromechanical clamping devices – with an unbeatable performance. The piezo-hydraulic drive achieves almost the same pull-down forces with an electromechanical quick-change pallet system as fluid-actuated clamping devices do in the same installation space. Especially when it comes to completely replacing pneumatic systems, there is no way around this module.

Functions & highlights

- **100% electric quick-change pallet system**
  For all applications where pneumatics or hydraulics are not available
- **Monitoring of the clamping slide position**
  For "open" and "clamped" statuses
- **Control via IO-Link**
  For easy integration in commonly used fieldbus systems



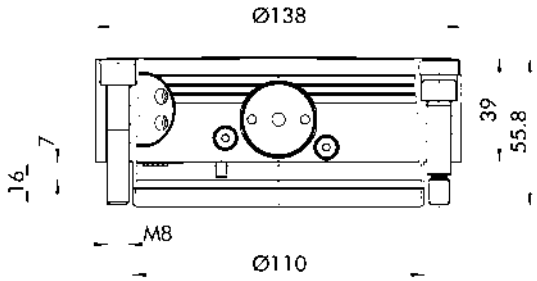
Field of application

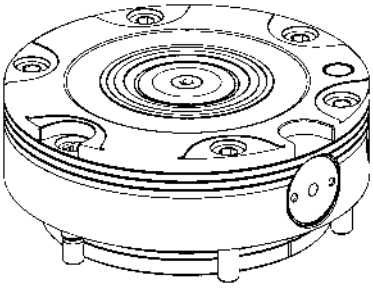
NSE3-PH 138 IOL

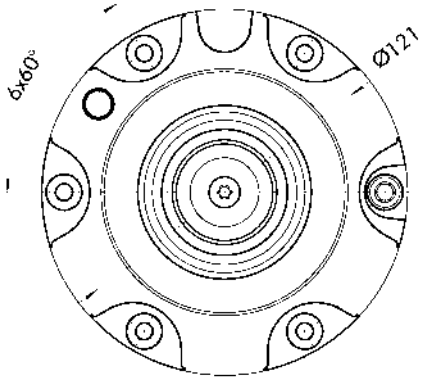
The NSE3-PH 138 IOL has query options for all relevant clamping statuses, and therefore offers an optimal basis for automation. Thanks to the piezo-hydraulic drive, only an electrical connection is required, which means that no pneumatics are needed on the machine table to operate the quick-change pallet module.



1. **Integrated electronics and actuators**
2. **Control via IO-Link**
3. **Monitoring of the clamping slide position**
4. **Piezo-hydraulic drive**
5. **Floating piston**
6. **Clamping pins with proven pull-down kinematics**
7. **Completely sealed system**
8. **High-precision short taper centering**
9. **Large contact surfaces**
10. **Flat seal to protect the interface during machining**
11. **Cover plugs for mounting screws**
12. **Lower-lying countersunk screws**







Technical data

Description	ID	Cone seal	Pull-down force	Mains voltage	Repeat accuracy	Closing/opening time	Weight
			kN	V DC	mm	s	kg
NSE3-PH 138 IOL	1515320	no	20	24	< 0.005	10	4.5
NSE3-PH 138-K IOL	1580206	yes	20	24	< 0.005	10	4.6
NSE3-PH 138-V1 IOL	1515321	no	20	24	< 0.005	10	4.5
NSE3-PH 138-V1-K IOL	1580207	yes	20	24	< 0.005	10	4.6

ⓘ -V1: Anti-rotation protection V1 for indexing single clamping pallets
Further accessories such as clamping pins can be found in the "quick-change pallet technology" chapter for the NSE3 modules

schunk.com/nse-e-mini



Electric. Digital. Process-reliable. Quick-change pallet system NSE-E mini 90-25 IOL

The NSE-E mini 90-25 is a fully electrically controlled quick-change pallet system. The module offers the possibility of monitoring of pallet presence and clamping slide position. In addtition, the NSR-E mini 90-25 IOL features an adjustable clamping slide position, which prevents alignment issues during handling tasks.

Functions & highlights

- **100% electric quick-change pallet system**
  For all applications where pneumatics or hydraulics are not available
- **Monitoring of pallet presence**
  Via integrated inductive proximity switch
- **Monitoring of the clamping slide position**
  For the statuses "open", "clamped" and "closed without clamping pin"



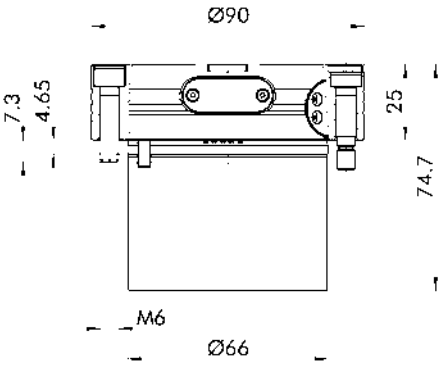
Field of application

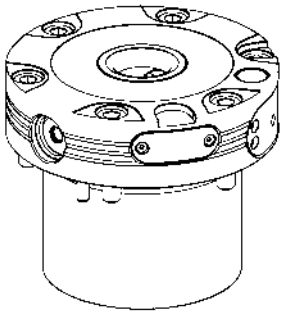
NSE-E mini 90-25 IOL

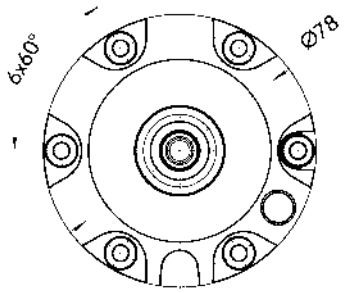
The NSE-E mini is fully electrically controlled. This is the reason why the module is ideally suited for applications, where pneumatic control is not possible. Due to the various query options, such as pallet presence and clamping slide position, the system ensures secure and reliable processes, especially in automation.



1. **High-precision short taper centering**
2. **Large contact surfaces**
3. **Cover plugs for mounting screws**
4. **Integrated electronics**
5. **Integrated actuators**
6. **Spring contact interface**
7. **Patented dual stroke system**
8. **Completely sealed system**
9. **Inductive proximity switch**







Technical data

Description	ID	Pull-down force	Power consumption	Mains voltage	Repeat accuracy	Closing/opening time	Weight
		kN	W	V DC	mm	s	kg
NSE-E mini 90-25 IOL	1521521	4	30	24	< 0.005	1.5	1.5
NSE-E mini 90-25-V1 IOL	1521522	4	30	24	< 0.005	1.5	1.5
NSE-E mini 90-25 DIC12	1547865	4	30	24	< 0.005	1.5	1.5
NSE-E mini 90-25-V1 DIC12	1547866	4	30	24	< 0.005	1.5	1.5

ⓘ -V1: Anti-rotation protection V1 for indexing single clamping pallets
Suitable accessories identical to NSE mini 90-25 in chapter "quick-change pallet technology"

schunk.com/kse3



Electric. Powerful. Process-reliable. Clamping force blocks KSE3 IOL

The networking of different machines is becoming increasingly important as a result of digitalization and the associated automation of processes. In addition, more and more production lines are being operated completely without hydraulics or pneumatics. The 2-jaw clamping force block KSE3 IOL was developed specifically to meet these requirements.

Functions & highlights

- **100% electric clamping force block**
  For all applications where pneumatics or hydraulics are not available
- **Integrated electronics and actuators**
  Signal processing is done exclusively in the clamping device
- **Control via IO-Link**
  For easy integration in commonly used fieldbus systems



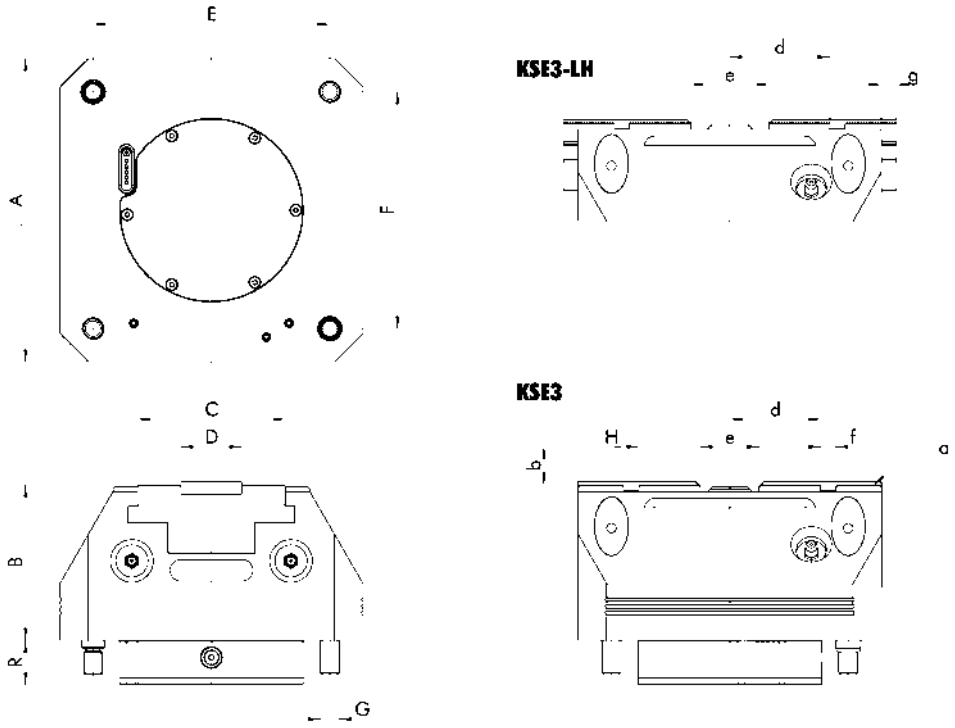
Field of application

KSE3 IOL

The electromechanical clamping force block KSE3 IOL offers an electrical alternative to fluid-driven clamping force blocks. By eliminating pneumatics and hydraulics, considerable costs can be saved and control via IO-Link enables easy integration into the machine control system.



1. Motor gearbox combination
2. Spindle drive
3. Integrated electronics and bottom-sided connection
4. Wedge hook drive
5. Low height
6. Long jaw guidance
7. Standard jaw interface
8. Chuck pistons guided in the body
9. Innovative greasing system
10. Ideal outside contour
11. Coolant drainage hole



Dimensions

Description	A	B	C	D	E	F	G	a	b	d	e	f	g
	mm	mm	mm	mm	mm	mm			mm	mm	mm		mm
KSE3 100 IOL	100	69.2	47	20 g6	80	80	M8	1.5 mm x 60°	16	26 - 28	21 - 25	6 H7	
KSE3-LH 100 IOL	100	69.2	47	20 g6	80	80	M8	1.5 mm x 60°	16	25.5 - 31.5	19 - 31	6 H7	0 - 6
KSE3 140 IOL	140	72.7	68	28 g6	110	110	M8	1.5 mm x 60°	20	35 - 38	23 - 29	8 H7	
KSE3-LH 140 IOL	140	72.7	68	28 g6	110	110	M8	1.5 mm x 60°	20	35.3 - 42.3	23.5 - 37.5	8 H7	-2.6 - 4.4
KSE3 160 IOL	160	82.2	78	32 g6	125	125	M10	1.5 mm x 60°	25	45 - 48	25 - 31	8 H7	
KSE3-LH 160 IOL	160	82.2	78	32 g6	125	125	M10	1.5 mm x 60°	25	44.8 - 52.8	25 - 41	8 H7	0 - 8

Technical data

Description	Clamping force	Stroke per jaw	Max. jaw height	Repeat accuracy	Weight
	kN	mm	mm	mm	kg
KSE3 100 IOL	5.4 - 18	2	60	< 0.01	4.5
KSE3-LH 100 IOL	2.4 - 8	6	150	< 0.01	4.5
KSE3 140 IOL	9 - 30	3	60	< 0.01	9
KSE3-LH 140 IOL	4.5 - 15	7	120	< 0.01	9
KSE3 160 IOL	10.5 - 35	3	60	< 0.01	13.1
KSE3-LH 160 IOL	4.5 - 15	8	200	< 0.01	13.1

ⓘ You can find suitable jaws in the chapter "2-jaw clamping force blocks" under "system and top jaws"

schunk.com/kre3



Electric. Powerful. Process-reliable. Quick-change pallet system KRE3 IOL

The networking of different machines is becoming increasingly important as a result of digitalization and the associated automation of processes. In addition, more and more production lines are being operated completely without hydraulics or pneumatics. The 3-jaw clamping force block KRE3 IOL was developed specifically to meet these requirements.

Functions & highlights

- **100% electric clamping force block**
  For all applications where pneumatics or hydraulics are not available
- **Integrated electronics and actuators**
  Signal processing is done exclusively in the clamping device
- **Control via IO-Link**
  For easy integration in commonly used fieldbus systems



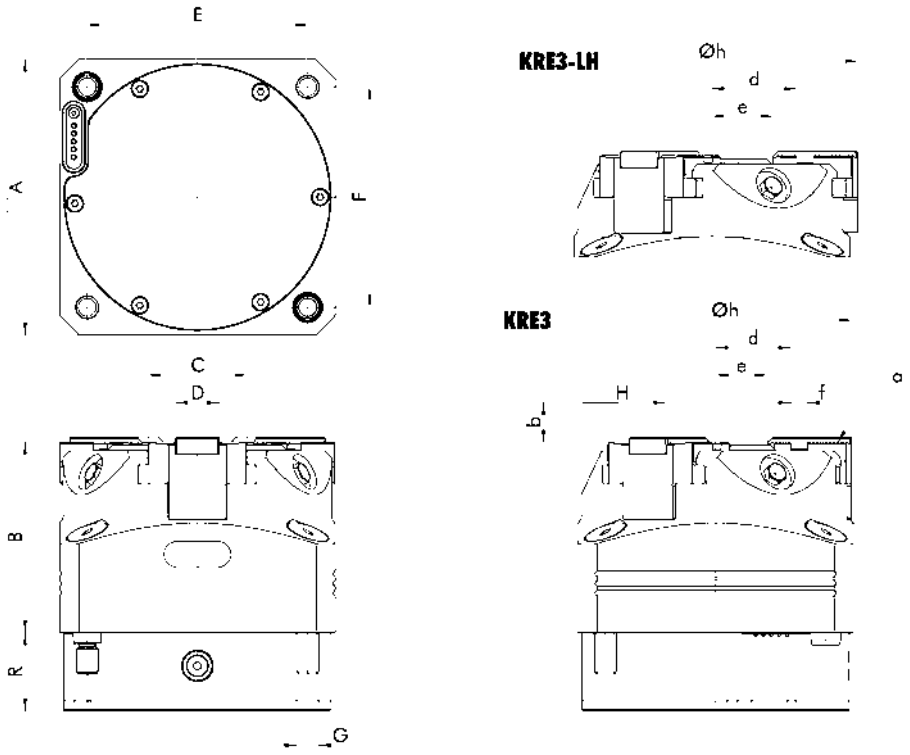
Field of application

KRE3 IOL

The TANDEM KRE3 IOL clamping force blocks are completely electrically driven, and are therefore ideal for all production systems, where no hydraulic or pneumatic connection is available. As a 3-jaw vise, the KRE3 IOL is ideally suited for low-deformation clamping of cylindrical workpieces. Control via IO-Link allows all main parameters such as clamping force, clamping position, and opening position to be controlled.



1. **Bottom-sided connection**
2. **Integrated electronics and actuators**
3. **Standard jaw interface**
4. **Wedge hook drive**



Dimensions

Description	A	B	C	D	E	F	G	R	a	b	d	e	f	Øh
	mm	mm	mm	mm	mm	mm		mm		mm	mm	mm		mm
KRE3 100 IOL	100	69.2	36	16 g6	80	80	M8	28.4	1.5 mm x 60°	16	25.2 - 27.2	16.7 - 18.7	6 H7	102
KRE3-LH 100 IOL	100	69.2	36	16 g6	80	80	M8	28.4	1.5 mm x 60°	16	25.5 - 31.5	16.9 - 22.9	6 H7	110

Technical data

Description	ID	Stroke/jaw	Clamping force	Max. jaw height	Power consumption	Mains voltage	Repeat accuracy	Closing/ opening time	Weight
		mm	kN	mm	W	V DC	mm	s	kg
KRE3 100 IOL	1528089	2	5.4 - 18	60	50	24	< 0.01	7	4.5
KRE3-LH 100 IOL	1517283	6	2.4 - 8	120	50	24	< 0.01	7	4.5

ⓘ You can find suitable jaws in the chapter "3-jaw clamping force blocks" under "system jaws"


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Overview 2-jaw clamping force blocks



TANDEM overview Page 366



Pneumatic clamping force blocks KSP3 Page 322



Hydraulic clamping force blocks KSH3 Page 328



Spring-packaged clamping force blocks KSF3 Page 334



Pneumatic clamping force blocks with jaw quick-change KSP3-BWA Page 340



Hydraulic clamping force blocks with jaw quick-change KSH3-BWA Page 346



Pneumatic aluminum clamping force blocks PGS3 Page 352



System and top jaws Page 356

TANDEM3 lead vise – way above 300 standard versions

Pneumatic KSP3

Standard stroke



KSP3

Size	64	100	140	160	200	250	315
Jaw stroke [mm]	2	2	3	3	4	5	6.5
Clamping force [kN]	4.5	18	30	45	55	55	100

Long stroke



KSP3-LH

Size	64	100	140	160	200	250	315
Jaw stroke [mm]	4	6	7	8	10	15	18
Clamping force [kN]	2.3	8	15	20	25	20	40

With fixed jaw



KSP3-F

Size	64	100	140	160	200	250	315
Jaw stroke [mm]	4	4	6	6	8	10	13
Clamping force [kN]	4.5	18	30	45	55	55	100

Variants

-Z Jig-machined positioning bores
-AS Force amplification for O.D. clamping
-PM Pneumatic monitoring
-IM Inductive jaw monitoring

Hydraulic KSH3



KSH3

Size	64	100	140	160	200
Jaw stroke [mm]	2	2	3	3	4
Clamping force [kN]	4.5	18	30	45	60



KSH3-LH

Size	64	100	140	160	200	250	315
Jaw stroke [mm]	4	6	7	8	10	15	18
Clamping force [kN]	4.5	16	30	40	53	50	95



KSH3-F

Size	64	100	140	160	200
Jaw stroke [mm]	4	4	6	6	8
Clamping force [kN]	4	18	30	45	60

Variants

-Z Jig-machined positioning bores
-PM Pneumatic monitoring
-IM Inductive jaw monitoring

Spring force KSF3



KSF3							
Size	64	100	140	160	200	250	315
Jaw stroke [mm]	2	2	3	3	4	5	6.5
Clamping force [kN]	2 – 2.5	7 – 12	13.5 – 18.5	20 – 30	26 – 35	37 – 50	69 – 95



KSF3-LH							
Size	64	100	140	160	200	250	315
Jaw stroke [mm]	4	6	7	8	10	15	18
Clamping force [kN]	1 – 1.5	3 – 5	6.5 – 9	10 – 15	12 – 17	15 – 21	27 – 37



KSF3-F							
Size	64	100	140	160	200	250	315
Jaw stroke [mm]	4	4	6	6	8	10	13
Clamping force [kN]	2 – 2.5	7 – 12	13.5 – 18.5	20 – 30	26 – 35	37 – 50	69 – 95

Variants

-Z Jig-machined positioning bores
-PM Pneumatic monitoring

Pneumatic PGS3



PGS3		
Size	100	140
Jaw stroke [mm]	2	3
Clamping force [kN]	10	17



PGS3-LH		
Size	100	140
Jaw stroke [mm]	6	7
Clamping force [kN]	4.5	8.5

schunk.com/ksp3



Reliable. High-performance. Versatile. Pneumatic clamping force blocks KSP3

The TANDEM KSP3 pneumatic clamping force blocks stand out with their versatility and extremely wide range of variants. The clamping force blocks have numerous optional extras, such as clamping force amplification on O.D. clamping, patented pneumatic monitoring of the base jaw position and workpiece contact monitoring by the base jaw or jig-machined positioning bores.

Functions & highlights

- **High flexibility of system jaws**
  Base jaws with tongue and groove and fine serration as a dual interface as standard
- **Enormous diversity of variants**
  Therefore ensuring highest flexibility with by far the largest and most powerful standard range of pneumatically actuated clamping force blocks
- **Highest process reliability for automation**
  By optional media transfer into the base jaw and monitoring of the jaw positions "opened" and "clamped"



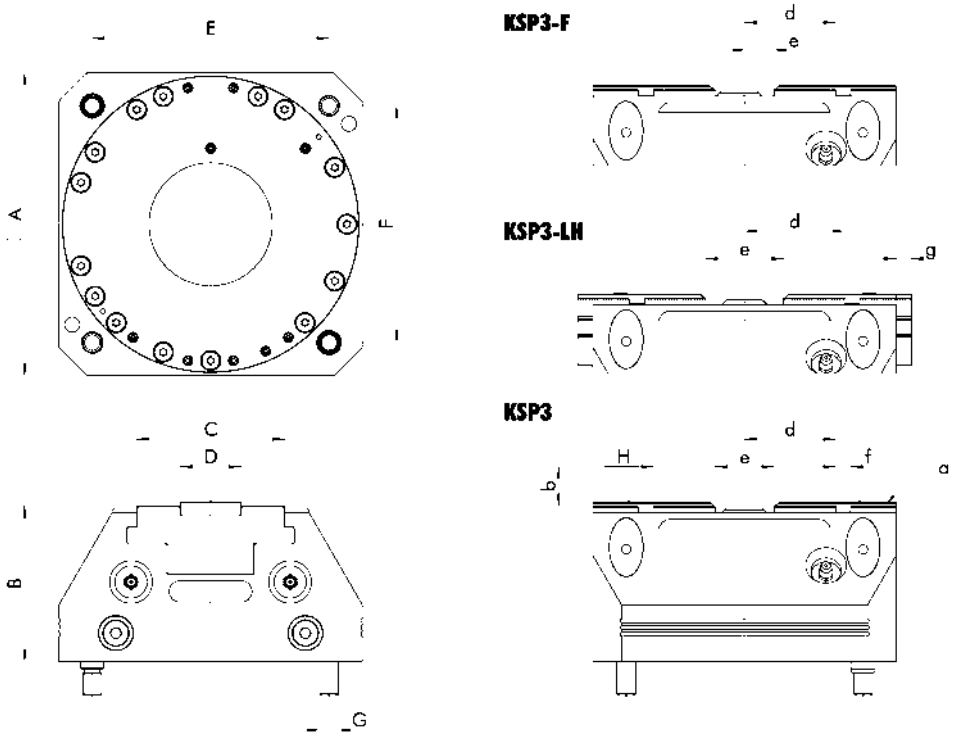
Field of application

KSP3

The TANDEM KSP3 clamping force blocks have an extremely wide range of applications, and can be used, whenever pneumatics are available on the machine. The numerous extras and the special monitoring options make the vise ideal for automation solutions. Thanks to a variant with clamping force reinforcement for external clamping, the vise can also be used without hesitation in heavy-duty machining.



1. **Wedge hook drive**
2. **Hardened and extremely rigid base body**
3. **Innovative greasing system**
4. **Long jaw guidance**
5. **Low height design**
6. **Dirt-resistant design**
7. **Standard jaw interface**
8. **Ideal outside contour**
9. **Control of the clamping force block**



Dimensions

Description	A	B	C	D	E	F	G	a	b	d	e	f	g
	mm	mm	mm	mm	mm	mm			mm	mm	mm	mm	mm
KSP3 64	64	50.7	30	14 g6	50	50	M6	1.5 mm x 60°	10	13.2 – 15.2	13.4 – 17.4	4 H7	
KSP3 100	100	69.2	47	20 g6	80	80	M8	1.5 mm x 60°	16	26 – 28	21 – 25	6 H7	
KSP3 140	140	72.7	68	28 g6	110	110	M8	1.5 mm x 60°	20	35 – 38	23 – 29	8 H7	
KSP3 160	160	82.2	78	32 g6	125	125	M10	1.5 mm x 60°	25	45 – 48	25 – 31	8 H7	
KSP3 200	200	90.2	102	45 g6	160	160	M12	1.5 mm x 60°	30	57.8 – 61.8	33.6 – 41.6	10 H7	
KSP3 250	250	98.2	125	50 g6	200	200	M12	1.5 mm x 60°	40	56 – 61	36 – 46	10 H7	
KSP3 315	315	136	160	70 g6	250	250	M16	1.5 mm x 60°	40	73.5 – 80	50 – 63	12 H7	
KSP3-LH 64	64	50.7	30	14 g6	50	50	M6	1.5 mm x 60°	10	13 – 17	14.3 – 22.3	4 H7	0 – 4.1
KSP3-LH 100	100	69.2	47	20 g6	80	80	M8	1.5 mm x 60°	16	25.5 – 31.5	19 – 31	6 H7	0 – 6
KSP3-LH 140	140	72.7	68	28 g6	110	110	M8	1.5 mm x 60°	20	35.3 – 42.3	23.5 – 37.5	8 H7	-2.6 – 4.4
KSP3-LH 160	160	82.2	78	32 g6	125	125	M10	1.5 mm x 60°	25	44.8 – 52.8	25 – 41	8 H7	0 – 8
KSP3-LH 200	200	90.2	102	45 g6	160	160	M12	1.5 mm x 60°	30	58.2 – 68.2	33.6 – 53.6	10 H7	0 – 10
KSP3-LH 250	250	98.2	125	50 g6	200	200	M12	1.5 mm x 60°	40	51.5 – 66.5	35 – 65	10 H7	-5.5 – 9.5
KSP3-LH 315	315	136	160	70 g6	250	250	M16	1.5 mm x 60°	40	72 – 90	50 – 86	12 H7	-4 – 14
KSP3-F 64	64	50.7	30	14 g6	50	50	M6	1.5 mm x 60°	10	13.2 – 17.2	6.7 – 10.7	4 H7	
KSP3-F 100	100	69.2	47	20 g6	80	80	M8	1.5 mm x 60°	16	24 – 28	8.5 – 12.5	6 H7	
KSP3-F 140	140	72.7	68	28 g6	110	110	M8	1.5 mm x 60°	20	33.5 – 39.5	11.5 – 17.5	8 H7	
KSP3-F 160	160	82.2	78	32 g6	125	125	M10	1.5 mm x 60°	25	42 – 48	9.5 – 15.5	8 H7	
KSP3-F 200	200	90.2	102	45 g6	160	160	M12	1.5 mm x 60°	30	53.8 – 61.8	13 – 21	10 H7	
KSP3-F 250	250	98.2	125	50 g6	200	200	M12	1.5 mm x 60°	40	51 – 61	13 – 23	10 H7	
KSP3-F 315	315	136	160	70 g6	250	250	M16	1.5 mm x 60°	40	67 – 80	18.5 – 31.5	12 H7	

Technical data

Description	Clamping force	Additional clamping force provided from spring assembly (-AS)	Operating pressure	Stroke per jaw	Max. jaw height	Repeat accuracy	Air consumption per double stroke at 6 bar	Closing/ opening time	Weight
	kN	kN	bar	mm	mm	mm	cm³	s	kg
KSP3 64	4.5	0.5 - 1.5	2 - 9	2	60	< 0.01	220	0.1	1.5
KSP3 100	18	2.5 - 6.5	2 - 9	2	60	< 0.01	1000	0.2	4
KSP3 140	30	4.5 - 9	2 - 9	3	60	< 0.01	2300	0.3	7.1
KSP3 160	45	5.5 - 11	2 - 9	3	60	< 0.01	3400	0.4	11
KSP3 200	55	8.5 - 16	2 - 9	4	100	< 0.02	5100	1	18.9
KSP3 250	55	10.5 - 20	2 - 6	5	150	< 0.02	9100	1.6	32
KSP3 315	100	16 - 32.5	2 - 6	6.5	200	< 0.02	21500	2	70
KSP3-LH 64	2.3	0.4 - 0.8	2 - 9	4	120	< 0.01	220	0.1	1.5
KSP3-LH 100	8	1 - 2.5	2 - 9	6	150	< 0.01	1000	0.2	4
KSP3-LH 140	15	2 - 4	2 - 9	7	120	< 0.01	2300	0.3	7.1
KSP3-LH 160	20	2 - 4.5	2 - 9	8	200	< 0.01	3400	0.4	11
KSP3-LH 200	25	3.5 - 7	2 - 9	10	200	< 0.02	5100	1	18.9
KSP3-LH 250	20	3.5 - 7	2 - 6	15	500	< 0.02	9100	1.6	32
KSP3-LH 315	40	6.5 - 12.5	2 - 6	18	500	< 0.02	21500	2	70
KSP3-F 64	4.5	0.5 - 1.5	2 - 9	4	60	< 0.01	220	0.1	1.5
KSP3-F 100	18	2.5 - 6.5	2 - 9	4	60	< 0.01	1000	0.2	4
KSP3-F 140	30	4.5 - 9	2 - 9	6	60	< 0.01	2300	0.3	7.1
KSP3-F 160	45	5.5 - 11	2 - 9	6	60	< 0.01	3400	0.4	11
KSP3-F 200	55	8.5 - 16	2 - 9	8	100	< 0.01	5100	1	18.9
KSP3-F 250	55	10.5 - 20	2 - 6	10	150	< 0.01	9100	1.6	32
KSP3-F 315	100	16 - 32.5	2 - 6	13	200	< 0.01	21500	2	70

IDs

Product name	Standard	-Z	-AS	-Z-AS	-PM	-Z-PM	-AS-PM	-Z-AS-PM
KSP3 64	1409254	1409255	1409256	1409257	1433619	1433620	1433621	1433622
KSP3 100	1382588	1409263	1409264	1409265	1433664	1433665	1433666	1433667
KSP3 140	1409267	1409268	1409269	1409270	1433689	1433690	1433691	1433692
KSP3 160	1409271	1409272	1409273	1409274	1433718	1433719	1433720	1433721
KSP3 200	1409277	1409278	1409279	1409280	1433775	1433776	1433777	1433779
KSP3 250	1409281	1409282	1409283	1409284	1433812	1433813	1433814	1433815
KSP3 315	1409287	1409288	1409289	1409290	1496888	1496889	1496930	1496931
KSP3-LH 64	1409295	1409296	1409297	1409298	1433636	1433637	1433638	1433639
KSP3-LH 100	1409300	1409301	1409302	1409303	1433671	1433672	1433673	1433674
KSP3-LH 140	1409307	1409308	1409309	1409310	1433695	1433696	1433697	1433698
KSP3-LH 160	1409311	1409312	1409313	1409314	1433724	1433725	1433726	1433727
KSP3-LH 200	1409316	1409317	1409318	1409319	1433785	1433786	1433787	1433788
KSP3-LH 250	1409321	1409322	1409323	1409324	1433818	1433819	1433820	1433821
KSP3-LH 315	1409325	1409327	1409328	1409329	1496932	1496933	1496934	1496935
KSP3-F 64	1409334	1409335	1409336	1409337	1433654	1433655	1433656	1433657
KSP3-F 100	1409342	1409343	1409344	1409345	1433682	1433683	1433684	1433685
KSP3-F 140	1409346	1409347	1409348	1409349	1433701	1433702	1433703	1433704
KSP3-F 160	1409350	1409351	1409352	1409353	1433756	1433757	1433758	1433759
KSP3-F 200	1409354	1409355	1409356	1409357	1433793	1433794	1433795	1433796
KSP3-F 250	1409358	1409359	1409360	1409361	1433822	1433823	1433824	1433825
KSP3-F 315	1409365	1409366	1409367	1409368	1496936	1496937	1496938	1496939

ⓘ Definition of clamping force

The clamping force is the arithmetic sum of the individual forces occurring at the chuck jaws at distance "H" at maximum pressure.

Versions

-LH: Long-stroke version
-F: Version with fixed jaw
-Z: Jig-machined positioning bores for a better positioning accuracy
-AS: Clamping force amplification for O.D. clamping by spring assemblies
-PM: Pneumatic monitoring of the base jaw position and workpiece presence control by the system jaw

Clamping pins

Clamping pins
Standard clamping pins for positive locking of workpieces or devices with the NSE3 clamping modules.



Description	Version	M10 kN	M12 kN	ID
SPA 40	Centering pins	35	50	0471151
SPB 40	Positioning pin	35	50	0471152
SPC 40	Clamping pin	35	50	0471153

Accessories

Clamping force tester
For measuring the jaw clamping force of stationary clamping devices.



Suitable for	Description	ID
KSP3 64		
KSP3 100		
KSP3 140		
KSP3 160		
KSP3 200		
KSP3 250		
KSP3 315	IFT SST Set	1475766

Indexing pin
Used as an anti-rotation protection for VERO-S modules with anti-rotation protection V1.



Suitable for	Description	ID
ABP-h plus 100/160-1		
KSL3 64-1		
KSL3 100-1		
KSL3 140-1		
KSL3 160-1	IXB V1	0471980

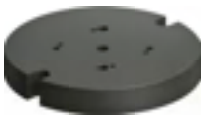
Cylindrical clamp blanks
For individual fastening of the clamping stations or console plates on all common machine table slot spacings



Suitable for	Description	ID
KSL3 64-1		
KSL3 100-1		
KSL3 140-1		
KSL3 160-1	BRR 50	0470020

Base plates

Consol plate
For direct mounting on VERO-S or T-slot tables.



Suitable for	Description	ID
KSP3 64	KSL3 64-1	1466118
KSP3 100	KSL3 100-1	1466119
KSP3 140	KSL3 140-1	1466120
KSP3 160	KSL3 160-1	1466121
KSP3 200	KSL3 200-1	1466122

Single base plate
For direct mounting and actuation of one TANDEM clamping force block both with and without VERO-S.



Suitable for	Description	ID
KSP3 100		
KSP3 160	ABP-h plus 100/160-1	1323973
KSP3 250	ABP-h plus 250-1	1323976

Double base plate
For direct mounting and actuation of up to two TANDEM clamping force blocks with and also without VERO-S.



Suitable for	Description	ID
KSP3 100		
KSP3 160	ABP-h plus 100/160-2	1323974
KSP3 250	ABP-h plus 250-2	1323977

Triple base plate
For direct mounting and actuation of up to three TANDEM clamping force blocks with and also without VERO-S.



Suitable for	Description	ID
KSP3 100		
KSP3 160	ABP-h plus 100/160-3	1323975

Grease

LP 410
High-performance grease as standard for regularly lubricating SCHUNK TANDEM clamping force blocks.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LP 410 cartridge	0184213

Grease gun
Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

schunk.com/ksh3



Powerful. Compact. Versatile. Hydraulic clamping force blocks KSH3

The TANDEM KSH3 hydraulic clamping force blocks stand out with their versatility and extremely wide range of variants. The clamping force blocks have numerous optional extras, such as patented pneumatic monitoring of the base jaw position and workpiece contact monitoring by the base jaw or jig-machined positioning bores.

Functions & highlights

- **High flexibility of system jaws**
  Base jaws with tongue and groove and fine serration as a dual interface as standard
- **Enormous diversity of variants**
  Therefore ensuring highest flexibility with the largest and most powerful standard range of hydraulic clamping force blocks
- **Highest process reliability for the automation**
  By optional media transfer into the base jaw and monitoring of the jaw positions "opened" and "clamped"



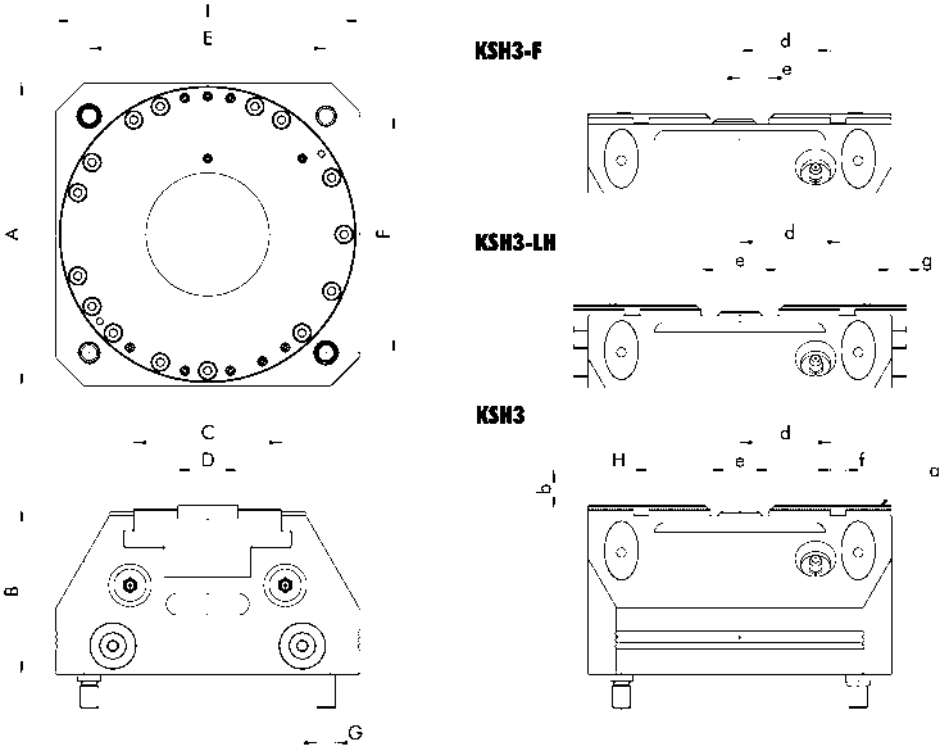
Field of application

KSH3

The TANDEM KSH3 clamping force blocks have an extremely wide range of applications, and can be used, whenever hydraulics are available on the machine. The numerous extras and the special query options make the vise ideal for automation solutions.



1. **Wedge hook drive**
2. **Hardened and extremely rigid base body**
3. **Innovative greasing system**
4. **Long jaw guidance**
5. **Low height design**
6. **Dirt-resistant design**
7. **Standard jaw interface**
8. **Ideal outside contour**
9. **Control of the clamping force block**



Dimensions

Description	A	B	C	D	E	F	G	I	a	b	d	e	f	g
	mm	mm	mm	mm	mm	mm		mm		mm	mm	mm	mm	mm
KSH3 64	64	55.7	30	14 g6	50	50	M6	64	1.5 mm x 60°	10	13.2 – 15.2	13.4 – 17.4	4 H7	
KSH3 100	100	74.2	47	20 g6	80	80	M8	100	1.5 mm x 60°	16	26 – 28	21 – 25	6 H7	
KSH3 140	140	77.7	68	28 g6	110	110	M8	140	1.5 mm x 60°	20	35 – 38	23 – 29	8 H7	
KSH3 160	160	87.2	78	32 g6	125	125	M10	160	1.5 mm x 60°	25	45 – 48	25 – 31	8 H7	
KSH3 200	200	95.2	102	45 g6	160	160	M12	200	1.5 mm x 60°	25	57.8 – 61.8	33.6 – 41.6	10 H7	
KSH3-LH 64	64	55.7	30	14 g6	50	50	M6	64	1.5 mm x 60°	10	13.2 – 17.2	6.7 – 10.7	4 H7	0 – 4.1
KSH3-LH 100	100	74.2	47	20 g6	80	80	M8	100	1.5 mm x 60°	16	25.5 – 31.5	19 – 31	6 H7	0 – 6
KSH3-LH 140	140	77.7	68	28 g6	110	110	M8	140	1.5 mm x 60°	20	35.3 – 42.3	23.5 – 37.5	8 H7	-2.6 – 4.4
KSH3-LH 160	160	87.2	78	32 g6	125	125	M10	160	1.5 mm x 60°	25	44.8 – 52.8	25 – 40.9	8 H7	0 – 8
KSH3-LH 200	200	95.2	102	45 g6	160	160	M12	200	1.5 mm x 60°	25	58.2 – 68.2	33.6 – 53.6	10 H7	0 – 10
KSH3-LH 250	250	103.2	125	50 g6	180	200	M12	210	1.5 mm x 60°	40	51.5 – 66.5	35 – 65	10 H7	-5.5 – 9.5
KSH3-LH 315	315	141	160	70 g6	250	250	M16	315	1.5 mm x 60°	40	72 – 90	50 – 86	12 H7	-4 – 14
KSH3-F 64	64	55.7	30	14 g6	50	50	M6	64	1.5 mm x 60°	10	13 – 17	14.3 – 22.3	4 H7	
KSH3-F 100	100	74.2	47	20 g6	80	80	M8	100	1.5 mm x 60°	16	24 – 28	8.5 – 12.5	6 H7	
KSH3-F 140	140	77.7	68	28 g6	110	110	M8	140	1.5 mm x 60°	20	33.5 – 39.5	11.5 – 17.5	8 H7	
KSH3-F 160	160	87.2	78	32 g6	125	125	M10	160	1.5 mm x 60°	25	42 – 48	9.5 – 15.5	8 H7	
KSH3-F 200	200	95.2	102	45 g6	160	160	M12	200	1.5 mm x 60°	25	53.8 – 61.8	13 – 21	10 H7	

Technical data

Description	Clamping force	Operating pressure	Stroke per jaw	Max. jaw height	Repeat accuracy	Oil consumption per double stroke	Closing/opening time	Weight
	kN	bar	mm	mm	mm	cm³	s	kg
KSH3 64	4.5	10 – 60	2	60	< 0.01	10	0.5	1.5
KSH3 100	18	10 – 60	2	60	< 0.01	30	1	5
KSH3 140	30	10 – 60	3	60	< 0.01	70	1	9.1
KSH3 160	45	10 – 60	3	60	< 0.01	100	1.5	14
KSH3 200	60	10 – 60	4	100	< 0.02	150	1.3	24
KSH3-LH 64	4.5	10 – 120	4	60	< 0.01	10	0.5	1.5
KSH3-LH 100	16	10 – 120	6	60	< 0.01	30	1	5
KSH3-LH 140	30	10 – 120	7	60	< 0.01	70	1	9.1
KSH3-LH 160	40	10 – 120	8	60	< 0.01	100	1.5	14
KSH3-LH 200	53	10 – 120	10	200	< 0.02	150	1.3	24
KSH3-LH 250	50	10 – 60	15	150	< 0.02	330	2.5	35
KSH3-LH 315	95	10 – 120	18	200	< 0.02	465	4	83
KSH3-F 64	4	10 – 60	4	60	< 0.01	10	0.5	1.5
KSH3-F 100	18	10 – 60	4	60	< 0.01	30	1	5
KSH3-F 140	30	10 – 60	6	60	< 0.01	70	1	9.1
KSH3-F 160	45	10 – 60	6	60	< 0.01	100	1.5	14
KSH3-F 200	60	10 – 60	8	100	< 0.01	150	1.3	24

IDs

Product name	Standard	-Z	-PM	-Z-PM
KSH3 64	1448271	1463152	1448280	1463153
KSH3 100	1463172	1463173	1448284	1463174
KSH3 140	1463181	1463182	1448291	1463183
KSH3 160	1463201	1463202	1448279	1463203
KSH3 200	1486527	1486528	1486529	1486540
KSH3-LH 64	1463154	1463155	1448281	1463156
KSH3-LH 100	1463175	1463180	1448285	1463176
KSH3-LH 140	1463184	1463185	1448292	1463186
KSH3-LH 160	1463204	1463224	1448300	1463205
KSH3-LH 200	1486541	1486542	1486551	1486544
KSH3-LH 250	1463199	1463210	1448294	1463211
KSH3-LH 315	1498229	1498260	1498261	1498262
KSH3-F 64	1463157	1463158	1448282	1463159
KSH3-F 100	1463177	1463178	1448287	1463179
KSH3-F 140	1463187	1463188	1448293	1463189
KSH3-F 160	1463206	1463207	1448301	1463208
KSH3-F 200	1486545	1486546	1486547	1486549

ⓘ Definition of clamping force

The clamping force is the arithmetic sum of the individual forces occurring at the chuck jaws at distance "H" at maximum pressure.

Versions

-LH: Long-stroke version

-F: Version with fixed jaw

-Z: Jig-machined positioning bores for a better positioning accuracy

-PM: Pneumatic monitoring of the base jaw position and workpiece presence control by the system jaw

Clamping pins

Clamping pins
Standard clamping pins for positive locking of workpieces or devices with the NSE3 clamping modules.



Description	Version	M10 kN	M12 kN	ID
SPA 40	Centering pins	35	50	0471151
SPB 40	Positioning pin	35	50	0471152
SPC 40	Clamping pin	35	50	0471153

Accessories

Clamping force tester
For measuring the jaw clamping force of stationary clamping devices.



Suitable for	Description	ID
KSH3 64		
KSH3 100		
KSH3 140		
KSH3 160		
KSH3 200		
KSH3-LH 250		
KSH3-LH 315	IFT SST Set	1475766

Indexing pin
Used as an anti-rotation protection for VERO-S modules with anti-rotation protection V1.



Suitable for	Description	ID
KSL3 64-1		
KSL3 100-1		
KSL3 140-1		
KSL3 160-1	IXB V1	0471980

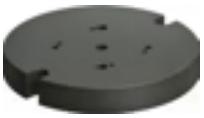
Cylindrical clamp blanks
For individual fastening of the clamping stations or console plates on all common machine table slot spacings



Suitable for	Description	ID
KSL3 64-1		
KSL3 100-1		
KSL3 140-1		
KSL3 160-1	BRR 50	0470020

Base plates

Consol plate
For direct mounting on VERO-S or T-slot tables.



Suitable for	Description	ID
KSH3 64	KSL3 64-1	1466118
KSH3 100	KSL3 100-1	1466119
KSH3 140	KSL3 140-1	1466120
KSH3 160	KSL3 160-1	1466121
KSH3 200	KSL3 200-1	1466122

Grease

LP 410
High-performance grease as standard for regularly lubricating SCHUNK TANDEM clamping force blocks.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LP 410 cartridge	0184213

Grease gun
Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

schunk.com/ksf3



Self-retaining. Secure. Reliable. Spring-packaged clamping force blocks KSF3

The KSF3 clamping force blocks are clamped and opened pneumatically via integrated spring assemblies. As a result, the clamping force is fully retained even after the compressed air supply is removed. However, the vises can only be used for O.D. clamping due to clamping via the spring assemblies. Thanks to extras such as pneumatic monitoring or jig-machined positioning bores, the vises have a wide range of applications.

Functions & highlights

- **Spring-packaged clamping force blocks**
  Media-independent workpiece clamping, especially for tombstone or storage applications
- **High flexibility of system jaws**
  Base jaws with tongue and groove and fine serration as a dual interface as standard
- **Enormous diversity of variants**
  Therefore ensuring highest flexibility with by far the largest and most powerful standard range of pneumatically actuated clamping force blocks



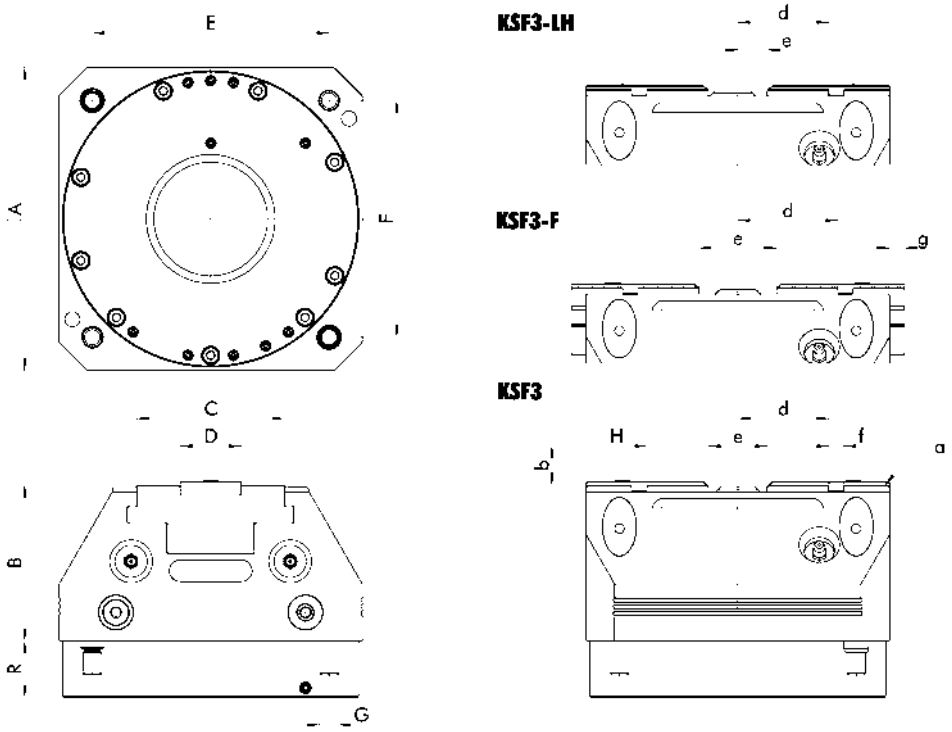
Field of application

KSF3

As the clamping force of the spring-loaded clamping force blocks is maintained even after the compressed air has been removed, they are particularly suitable for use in tower and storage solutions. Thanks to the pneumatic monitoring, the vise provides important information to ensure process reliability, especially for automation solutions.



1. **Wedge hook drive**
2. **Hardened and extremely rigid base body**
3. **Innovative greasing system**
4. **Long jaw guidance**
5. **Low height**
6. **Dirt-resistant design**
7. **Standard jaw interface**
8. **Ideal outside contour**
9. **Control of the clamping force block**



Dimensions

Description	A	B	C	D	E	F	G	R	a	b	d	e	f	g
	mm	mm	mm	mm	mm	mm		mm		mm	mm	mm	mm	mm
KSF3 64	64	50.7	30	14 g6	50	50	M6		1.5 mm x 60°	10	13.2 – 15.2	13.4 – 17.4	4 H7	
KSF3 100	100	69.2	47	20 g6	80	80	M8	29.8	1.5 mm x 60°	16	26 – 28	21 – 25	6 H7	
KSF3 140	140	72.7	68	28 g6	110	110	M8	34.8	1.5 mm x 60°	20	35.3 – 42.3	23.5 – 37.5	8 H7	
KSF3 160	160	82.2	78	32 g6	125	125	M10	29.8	1.5 mm x 60°	25	45 – 48	25 – 31	8 H7	
KSF3 200	200	90.2	102	45 g6	160	160	M12	34.8	1.5 mm x 60°	30	57.8 – 61.8	33.6 – 41.6	10 H7	
KSF3 250	250	98.2	125	50 g6	200	200	M12	39.8	1.5 mm x 60°	40	56 – 61	36 – 46	10 H7	
KSF3 315	315	136	160	70 g6	250	250	M16	54.8	1.5 mm x 60°	40	73.5 – 80	50 – 63	12 H7	
KSF3-LH 64	64	50.7	30	14 g6	50	50	M6		1.5 mm x 60°	10	13 – 17	14.3 – 22.3	4 H7	0 – 4.1
KSF3-LH 100	100	69.2	47	20 g6	80	80	M8	29.8	1.5 mm x 60°	16	25.5 – 31.5	19 – 31	6 H7	0 – 6
KSF3-LH 140	140	72.7	68	28 g6	110	110	M8	34.8	1.5 mm x 60°	20	35.3 – 42.3	23.5 – 37.5	8 H7	-2.6 – 4.4
KSF3-LH 160	160	82.2	78	32 g6	125	125	M10	29.8	1.5 mm x 60°	25	44.8 – 52.8	25 – 41	8 H7	0 – 8
KSF3-LH 200	200	90.2	102	45 g6	160	160	M12	34.8	1.5 mm x 60°	30	58.2 – 68.2	33.6 – 53.6	10 H7	0 – 10
KSF3-LH 250	250	98.2	125	50 g6	200	200	M12	39.8	1.5 mm x 60°	40	51.5 – 66.5	35 – 65	10 H7	-5.5 – 9.5
KSF3-LH 315	315	136	160	70 g6	250	250	M16	54.8	1.5 mm x 60°	40	73.5 – 80	50 – 63	12 H7	
KSF3-F 64	64	50.7	30	14 g6	50	50	M6		1.5 mm x 60°	10	13.2 – 17.2	6.7 – 10.7	4 H7	
KSF3-F 100	100	69.2	47	20 g6	80	80	M8	29.8	1.5 mm x 60°	16	24 – 28	8.5 – 12.5	6 H7	
KSF3-F 140	140	72.7	68	28 g6	110	110	M8	34.8	1.5 mm x 60°	20	33.5 – 39.5	11.5 – 17.5	8 H7	
KSF3-F 160	160	82.2	78	32 g6	125	125	M10	29.8	1.5 mm x 60°	25	42 – 48	9.5 – 15.5	8 H7	
KSF3-F 200	200	90.2	102	45 g6	160	160	M12	34.8	1.5 mm x 60°	30	58.2 – 68.2	33.6 – 53.6	10 H7	
KSF3-F 250	250	98.2	125	50 g6	200	200	M12	39.8	1.5 mm x 60°	40	51 – 61	13 – 23	10 H7	
KSF3-F 315	315	136	160	70 g6	250	250	M16	54.8	1.5 mm x 60°	40	67 – 80	18.5 – 31.5	12 H7	

Technical data

Description	Clamping force range	Clamping force range with turbo	Opening pressure	Max. turbo pressure	Stroke per jaw	Max. jaw height	Repeat accuracy	Air consumption per stroke	Closing/ opening time	Weight
	kN	kN	bar	bar	mm	mm	mm	cm³	s	kg
KSF3 64	2 - 2.5		6 - 9		2	60	< 0.01	110	0.1	1.5
KSF3 100	7 - 12		6 - 9		2	60	< 0.01	500	0.2	4.5
KSF3 140	13.5 - 18.5		6 - 9		3	60	< 0.01	1150	0.6	8.1
KSF3 160	20 - 30		6 - 9		3	60	< 0.01	1700	0.8	13
KSF3 200	26 - 35		6 - 9		4	100	< 0.02	2550	1.2	24
KSF3 250	37 - 50		6 - 9		5	150	< 0.02	4600	1.5	40
KSF3 315	69 - 95		6 - 9		6.5	200	< 0.02	10750	2	86
KSF3-LH 64	1 - 1.5	2.5 - 3	6 - 9	6	4	120	< 0.01	110	0.1	1.5
KSF3-LH 100	3 - 5	9 - 11	6 - 9	6	6	150	< 0.01	500	0.2	4.5
KSF3-LH 140	6.5 - 9	16.5 - 24	6 - 9	6	7	120	< 0.01	1150	0.6	8.1
KSF3-LH 160	10 - 15	29 - 34	6 - 9	6	8	200	< 0.01	1700	0.8	13
KSF3-LH 200	12 - 17	31 - 36	6 - 9	6	10	200	< 0.02	2550	1.2	24
KSF3-LH 250	15 - 21	40 - 46	6 - 9	6	15	500	< 0.02	4600	1.5	40
KSF3-LH 315	27 - 37	67 - 77	6 - 9	6	18	500	< 0.02	10750	2	86
KSF3-F 64	2 - 2.5		6 - 9		4	60	< 0.01	110	0.1	1.5
KSF3-F 100	7 - 12		6 - 9		4	60	< 0.01	500	0.2	4.5
KSF3-F 140	13.5 - 18.5		6 - 9		6	60	< 0.01	1150	0.6	8.1
KSF3-F 160	20 - 30		6 - 9		6	60	< 0.01	1700	0.8	13
KSF3-F 200	26 - 35		6 - 9		8	100	< 0.01	2550	1.2	24
KSF3-F 250	37 - 50		6 - 9		10	150	< 0.01	4600	1.5	40
KSF3-F 315	69 - 95		6 - 9		13	200	< 0.01	10750	2	86

IDs

Product name	Standard	-Z	-PM	-Z-PM
KSF3 64	1518520	1518521	1518522	1518531
KSF3 100	1457382	1457345	1448288	1457346
KSF3 140	1514305	1514306	1514307	1514308
KSF3 160	1457388	1457389	1448302	1457400
KSF3 200	1514328	1514329	1514330	1514331
KSF3 250	1457393	1457394	1448298	1457395
KSF3 315	1514340	1514341	1514342	1514343
KSF3-LH 64	1518523	1518524	1518532	1518525
KSF3-LH 100	1457347	1448289	1457348	1457349
KSF3-LH 140	1514309	1514321	1514320	1514322
KSF3-LH 160	1457402	1448304	1457403	1457405
KSF3-LH 200	1514332	1514334	1514333	1514335
KSF3-LH 250	1457396	1448295	1457397	1457398
KSF3-LH 315	1514344	1514346	1514345	1514347
KSF3-F 64	1518526	1518529	1518527	1518530
KSF3-F 100	1457390	1448290	1457391	1457392
KSF3-F 140	1514323	1514325	1514324	1514326
KSF3-F 160	1457406	1448305	1457407	1457413
KSF3-F 200	1514336	1514338	1514337	1514339
KSF3-F 250	1457430	1448297	1457399	1460101
KSF3-F 315	1514348	1514350	1514349	1514351

ⓘ Definition of clamping force

The clamping force is the arithmetic sum of the individual forces occurring at the chuck jaws at distance "H" at maximum pressure.

Versions

-LH: Long-stroke version
-F: Version with fixed jaw
-Z: Jig-machined positioning bores for a better positioning accuracy
-PM: Pneumatic monitoring of the base jaw position and workpiece presence control by the system jaw

Accessories

Clamping force tester
For measuring the jaw clamping force of stationary clamping devices.



Suitable for	Description	ID
KSF3 64		
KSF3 100		
KSF3 140		
KSF3 160		
KSF3 200		
KSF3 250		
KSF3 315	IFT SST Set	1475766

Grease

LP 410
High-performance grease as standard for regularly lubricating SCHUNK TANDEM clamping force blocks.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LP 410 cartridge	0184213

Grease gun
Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

schunk.com/ksp3-bwa



Reliable. Fast. Efficient. Pneumatic clamping force blocks with jaw quick-change – KSP3-BWA

The KSP3-BWA clamping force blocks enable jaws to be changed completely without tools in just a few seconds. The jaws can be exchanged either manually or fully automatically. In addition to the standard integrated pneumatic monitoring, the clamping force blocks are also optionally available with jig-machined positioning bores and clamping force amplification for O.D. clamping.

Functions & highlights

- **Convenient tool-free jaw quick-change system**
  Fast and easy adaptation to new clamping tasks, especially for multiple applications and tombstones
- **Jaw change possible, both manually and automatically**
  Shorter set-up times in all applications
- **Pneumatic monitoring integrated as standard**
  For a maximized process reliability in automation



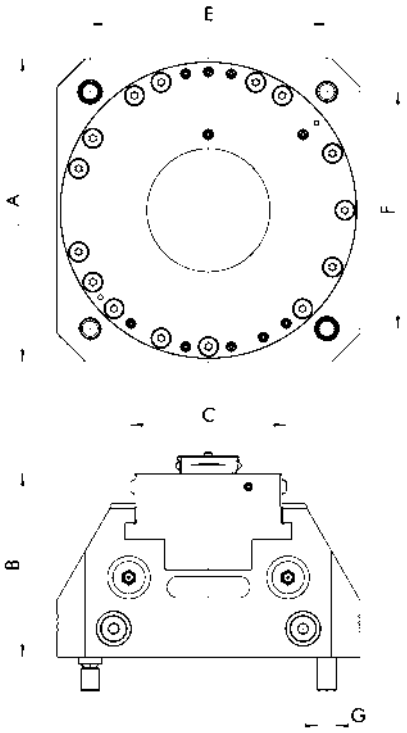
Field of application

KSP3-BWA

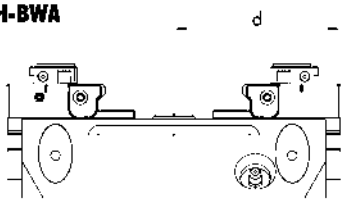
Thanks to the jaw quick change and the associated option for automated jaw changes, the clamping force blocks KSP3-BWA are particularly suitable for automation solutions. But wherever set-up times play an important role, the clamping force blocks can also offer a significant advantage thanks to the jaw quick change.



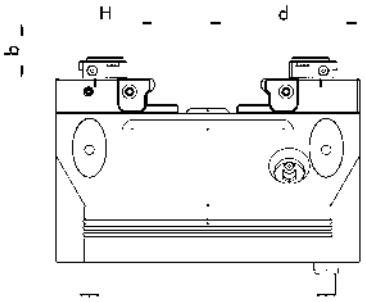
1. **Wedge hook drive**
2. **Hardened and extremely rigid base body**
3. **Greasing system**
4. **Long jaw guidance**
5. **Dirt-resistant design**
6. **Jaw quick-change interface**
7. **Standardized, prepared media transfer to the system jaw**
8. **Ideal outside contour**
9. **Control of the clamping force block**
10. **Chuck pistons guided in the body**
11. **Greasing channels in the cover plate**
12. **Fitting screws available as an option**



KSP3-LH-BWA



KSP3-BWA



Dimensions

Description	A	B	C	E	F	G	b	d
	mm	mm	mm	mm	mm		mm	mm
KSP3 100-BWA	100	79	51.1	80	80	M8	14.5	48 - 50
KSP3-LH 100-BWA	100	79	51.1	80	80	M8	14.5	50 - 56
KSP3 140-BWA	140	85.5	72.1	110	110	M8	17.5	67 - 70
KSP3-LH 140-BWA	140	85.5	72.1	110	110	M8	17.5	67.4 - 74.4
KSP3 160-BWA	160	97	82.1	125	125	M10	19.5	77 - 80
KSP3-LH 160-BWA	160	97	82.1	125	125	M10	19.5	80 - 88
KSP3 250-BWA	250	116	129.2	200	200	M12	22.5	120 - 125
KSP3-LH 250-BWA	250	116	129.2	200	200	M12	22.5	119.5 - 134.5

Technical data

Description	Clamping force	Operating pressure	Stroke per jaw	Max. jaw height	Repeat accuracy of vise	Air consumption per double stroke at 6 bar	Closing/opening time	Weight
	kN	bar	mm	mm	mm	cm³	s	kg
KSP3 100-BWA	18	2 - 9	2	27	< 0.01	1000	0.2	4
KSP3-LH 100-BWA	8	2 - 9	6	27	< 0.01	1000	0.2	4
KSP3 140-BWA	30	2 - 9	3	33	< 0.01	2300	0.3	8
KSP3-LH 140-BWA	15	2 - 9	7	33	< 0.01	2300	0.3	8
KSP3 160-BWA	45	2 - 9	3	41	< 0.01	3400	0.4	11.5
KSP3-LH 160-BWA	20	2 - 9	8	41	< 0.01	3400	0.4	11.5
KSP3 250-BWA	55	2 - 6	5	52	< 0.02	9100	1.6	34.5
KSP3-LH 250-BWA	20	2 - 6	15	52	< 0.02	9100	1.6	34.5

IDs

Product name	Standard	-Z	-AS	-Z-AS
KSP3 100-BWA	1479153	1479154	1479155	1479156
KSP3-LH 100-BWA	1479158	1479159	1479160	1479161
KSP3 140-BWA	1479191	1479192	1479193	1479194
KSP3-LH 140-BWA	1479196	1479197	1479198	1479199
KSP3 160-BWA	1479243	1479244	1479245	1479246
KSP3-LH 160-BWA	1479262	1479263	1479264	1479265
KSP3 250-BWA	1479282	1479283	1479284	1479285
KSP3-LH 250-BWA	1479288	1479289	1479290	1479291

ⓘ Definition of clamping force

The clamping force is the arithmetic sum of the individual forces occurring at the chuck jaws at distance "H" at maximum pressure.

Versions

-LH: Long-stroke version

-Z: Jig-machined positioning bores for a better positioning accuracy

-AS: Clamping force amplification for O.D. clamping by spring assemblies

Clamping pins

Clamping pins
Standard clamping pins for positive locking of workpieces or devices with the NSE3 clamping modules.



Description	Version	M10 kN	M12 kN	ID
SPA 40	Centering pins	35	50	0471151
SPB 40	Positioning pin	35	50	0471152
SPC 40	Clamping pin	35	50	0471153

Accessories

Gripper fingers
Gripper fingers specifically designed to clamp the WTR-A and WTG-A quick-change jaws.
Suitable for parallel gripper series PGN-plus and PGN-plus-P.



Suitable for	Suitable grippers	Description	ID
WTR-A 100, WTG-A 100	PGN-plus 80-1, PGN-plus-P 80-1	FIN WTR-A 100	1485599
WTR-A 140, WTG-A 140	PGN-plus 100-1, PGN-plus-P 100-1	FIN WTR-A 140	1485600
WTR-A 160, WTG-A 160	PGN-plus 100-1, PGN-plus-P 100-1	FIN WTR-A 160	1485601
WTR-A 250, WTG-A 250	PGN-plus 125-1, PGN-plus-P 125-1	FIN WTR-A 250	1485602

Clamping force tester
For measuring the jaw clamping force of stationary clamping devices.



Suitable for	Description	ID
KSP3 100-BWA KSP3 140-BWA KSP3 160-BWA KSP3 250-BWA	IFT SST Set	1475766

Indexing pin
Used as an anti-rotation protection for VERO-S modules with anti-rotation protection V1.



Suitable for	Description	ID
ABP-h plus 100/160-1 KSL3 100-1 KSL3 140-1 KSL3 160-1	IXB V1	0471980

Cylindrical clamp blanks
For individual fastening of the clamping stations or console plates on all common machine table slot spacings

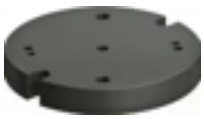


Suitable for	Description	ID
KSL3 100-1 KSL3 140-1 KSL3 160-1	BRR 50	0470020

Base plates

Consol plate

For direct mounting on VERO-S or T-slot tables.



Suitable for	Description	ID
KSP3 100-BWA	KSL3 100-1	1466119
KSP3 140-BWA	KSL3 140-1	1466120
KSP3 160-BWA	KSL3 160-1	1466121

Single base plate

For direct mounting and actuation of one TANDEM clamping force block both with and without VERO-S.



Suitable for	Description	ID
KSP3 100-BWA		
KSP3 160-BWA	ABP-h plus 100/160-1	1323973
KSP3 250-BWA	ABP-h plus 250-1	1323976

Double base plate

For direct mounting and actuation of up to two TANDEM clamping force blocks with and also without VERO-S.



Suitable for	Description	ID
KSP3 100-BWA		
KSP3 160-BWA	ABP-h plus 100/160-2	1323974
KSP3 250-BWA	ABP-h plus 250-2	1323977

Triple base plate

For direct mounting and actuation of up to three TANDEM clamping force blocks with and also without VERO-S.



Suitable for	Description	ID
KSP3 100-BWA		
KSP3 160-BWA	ABP-h plus 100/160-3	1323975

Grease

LP 410

High-performance grease as standard for regularly lubricating SCHUNK TANDEM clamping force blocks.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LP 410 cartridge	0184213

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

schunk.com/ksh3-bwa



Reliable. Fast. Efficient. Hydraulic clamping force blocks with jaw quick-change – KSH3-BWA

TANDEM KSH3-BWA from SCHUNK stand for high-performance, hydraulically actuated clamping force blocks with jaw quick-change system. With this jaw quick-change system, the jaws can be changed manually or automatically via a robot within seconds – completely without tools! This leads to an enormous reduction in set-up time, especially for multiple applications and tombstones.

Functions & highlights

- **Convenient tool-free jaw quick-change system**
  Fast and easy adaptation to new clamping tasks, especially for multiple applications and tombstones
- **Jaw change possible, both manually and automatically**
  Shorter set-up times for all applications
- **Pneumatic monitoring integrated as standard**
  For a maximized process reliability in automation



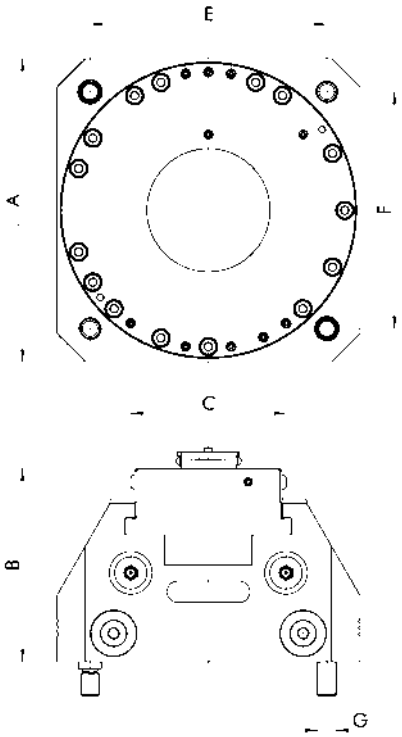
Field of application

KSH3-BWA

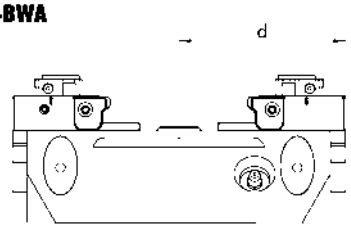
Thanks to the jaw quick-change and the associated option for automated jaw changes, the clamping force blocks KSH3-BWA are particularly suitable for automation solutions. But wherever set-up times play an important role, the clamping force blocks can also offer a significant advantage thanks to the jaw quick change.



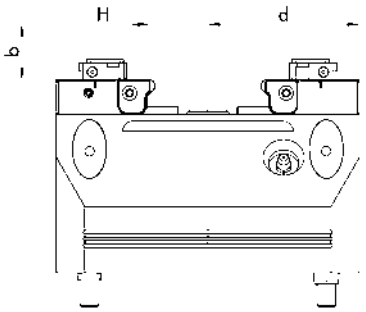
1. **Wedge hook drive**
2. **Hardened and extremely rigid base body**
3. **Greasing system**
4. **Long jaw guidance**
5. **Dirt-resistant design**
6. **Jaw quick-change interface**
7. **Standardized, prepared media transfer to the system jaw**
8. **Ideal outside contour**
9. **Control of the clamping force block**
10. **Chuck pistons guided in the body**
11. **Greasing channels in the cover plate**
12. **Fitting screws available as an option**



KSH3-LH-BWA



KSH3-BWA



Dimensions

Description	A	B	C	E	F	G	b	d
	mm	mm	mm	mm	mm		mm	mm
KSH3 100-BWA	100	84	51.1	80	80	M8	14.5	48 - 50
KSH3 140-BWA	140	90.5	72.1	110	110	M8	17.5	67 - 70
KSH3 160-BWA	160	102	82.1	125	125	M10	19.5	77 - 80
KSH3-LH 100-BWA	100	84	51.1	80	80	M8	14.5	50 - 56
KSH3-LH 140-BWA	140	90.5	72.1	110	110	M8	17.5	67.4 - 74.4
KSH3-LH 160-BWA	160	102	82.1	125	125	M10	19.5	80 - 88
KSH3-LH 250-BWA	250	121	129.3	180	200	M12	22.5	119.5 - 134.5

Technical data

Description	Clamping force	Operating pressure	Stroke per jaw	Max. jaw height	Repeat accuracy of vise	Oil consumption per double stroke	Closing/opening time	Weight
	kN	bar	mm	mm	mm	cm³	s	kg
KSH3 100-BWA	18	10 - 60	2	27	< 0.01	30	1	5
KSH3 140-BWA	30	10 - 60	3	33	< 0.01	70	1	10
KSH3 160-BWA	45	10 - 60	3	41	< 0.01	100	1.5	15
KSH3-LH 100-BWA	16	10 - 120	6	27	< 0.01	30	1	5
KSH3-LH 140-BWA	30	10 - 120	7	33	< 0.01	70	1	10
KSH3-LH 160-BWA	40	10 - 120	8	41	< 0.01	100	1.5	15
KSH3-LH 250-BWA	50	10 - 60	15	52	< 0.02	330	2.5	40

IDs

Product name	Standard	-Z
KSH3 100-BWA	1529557	1529558
KSH3 140-BWA	1529584	1529585
KSH3 160-BWA	1529602	1529603
KSH3-LH 100-BWA	1529559	1529580
KSH3-LH 140-BWA	1529586	1529587
KSH3-LH 160-BWA	1529604	1529605
KSH3-LH 250-BWA	1529610	1529611

ⓘ Definition of clamping force

The clamping force is the arithmetic sum of the individual forces occurring at the chuck jaws at distance "H" at maximum pressure.

Versions

-LH: Long-stroke version

-Z: Jig-machined positioning bores for a better positioning accuracy

Clamping pins

Clamping pins
Standard clamping pins for positive locking of workpieces or devices with the NSE3 clamping modules.



Description	Version	M10 kN	M12 kN	ID
SPA 40	Centering pins	35	50	0471151

Accessories

Gripper fingers
Gripper fingers specifically designed to clamp the WTR-A and WTG-A quick-change jaws.
Suitable for parallel gripper series PGN-plus and PGN-plus-P.



Suitable for	Suitable grippers	Description	ID
WTR-A 100, WTG-A 100	PGN-plus 80-1, PGN-plus-P 80-1	FIN WTR-A 100	1485599
WTR-A 140, WTG-A 140	PGN-plus 100-1, PGN-plus-P 100-1	FIN WTR-A 140	1485600
WTR-A 160, WTG-A 160	PGN-plus 100-1, PGN-plus-P 100-1	FIN WTR-A 160	1485601
WTR-A 250, WTG-A 250	PGN-plus 125-1, PGN-plus-P 125-1	FIN WTR-A 250	1485602

Clamping force tester
For measuring the jaw clamping force of stationary clamping devices.



Suitable for	Description	ID
KSH3 100-BWA KSH3 140-BWA KSH3 160-BWA	IFT SST Set	1475766

Indexing pin
Used as an anti-rotation protection for VERO-S modules with anti-rotation protection V1.



Suitable for	Description	ID
KSL3 100-1 KSL3 140-1 KSL3 160-1	IXB V1	0471980

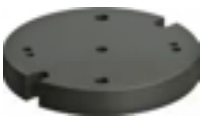
Cylindrical clamp blanks
For individual fastening of the clamping stations or console plates on all common machine table slot spacings



Suitable for	Description	ID
KSL3 100-1 KSL3 140-1 KSL3 160-1	BRR 50	0470020

Base plates

Consol plate
For direct mounting on VERO-S or T-slot tables.



Suitable for	Description	ID
KSH3 100-BWA	KSL3 100-1	1466119
KSH3 140-BWA	KSL3 140-1	1466120
KSH3 160-BWA	KSL3 160-1	1466121

Grease

LP 410
High-performance grease as standard for regularly lubricating SCHUNK TANDEM clamping force blocks.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LP 410 cartridge	0184213

Grease gun
Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

schunk.com/pgs3



Beginner-friendly. Lightweight. Compact. Pneumatic aluminum clamping force blocks PGS3

Despite its compact design, the PGS3 pneumatic clamping force block has a long jaw stroke, a considerable clamping force, and high repeat accuracy. The clamping force blocks offer multiple possibilities for fastening on the machine table without an additional console plate. For example, the PGS3 can be mounted directly on the machine table, rotary tables or on SCHUNK VERO-S NSL3 150 clamping stations.

Functions & highlights

- **Integrated console plate**
  Direct mounting on machine tables, deviding heads, as well as VERO-S clamping modules with anti-twist protection
- **Low height**
  Maximum use of the machine room and maximum rigidity of the system
- **Base body made of light aluminum**
  Highly combinable in light machining and simple automation



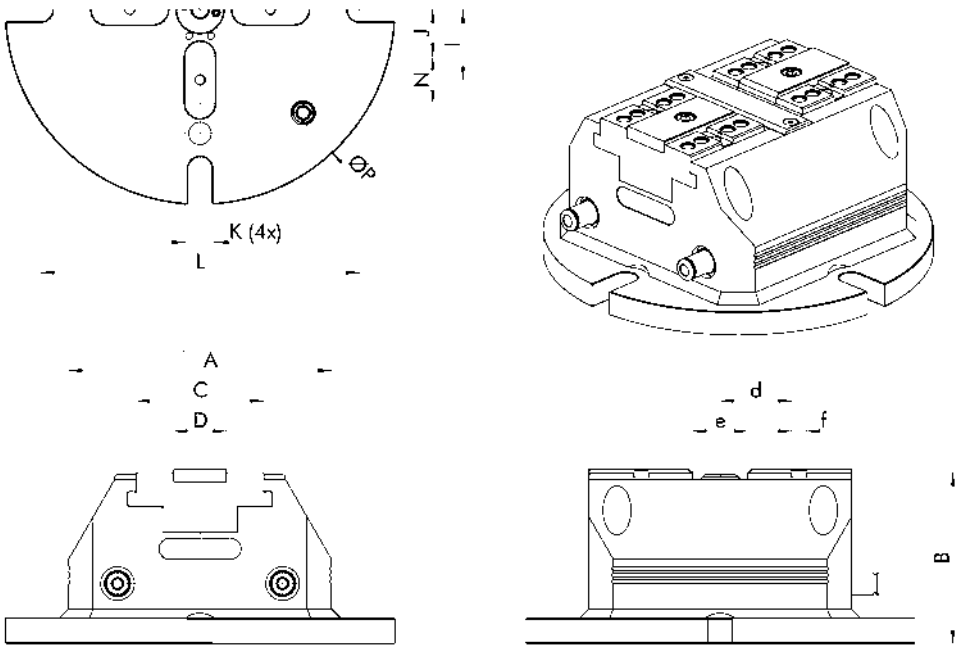
Field of application

PGS3

Thanks to its simplicity, the PGS3 clamping force block offers the perfect entry-level option for automated machine loading. The lightweight aluminum clamping force block reveals its strengths particularly in light milling. The compact design enables optimum use of the machine room.



1. **Wedge hook drive**
2. **Integrated console plate**
3. **Long jaw guidance**
4. **Compact design**
5. **Dirt-resistant design**
6. **Jaw interface with tongue and groove**
7. **Simple lateral control of the clamping force block**
8. **Chuck pistons guided in the body**



Description	A	B	C	I	J	K	L	N	P	d	e	f
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
PGS3 100	100	87.7	47	36	25	16	126	22	158	26 – 28	21 – 25	6 H7
PGS3-LH 100	100	87.7	47	36	25	16	126	22	158	25.5 – 31.5	19 – 31	6 H7
PGS3 140	140	91.2	68	37.5	25	16	170	25	208	35 – 38	23 – 29	8 H7
PGS3-LH 140	140	91.2	68	37.5	25	16	170	25	208	35.3 – 42.3	23.5 – 37.5	8 H7

Technical data

Description	ID	Stroke per jaw	Clamping force at max. operating pressure	Operating pressure	Repeat accuracy	Max. jaw height	Air consumption per stroke at 6 bar	Weight
		mm	kN	bar	mm	mm	cm³	kg
PGS3 100	1446779	2	10	2 – 6	< 0.01	30	1000	5
PGS3-LH 100	1446791	6	4.5	2 – 6	< 0.01	45	1000	5
PGS3 140	1452817	3	17	2 – 6	< 0.01	30	2300	8.75
PGS3-LH 140	1452818	7	8.5	2 – 6	< 0.01	45	2300	8.75

ⓘ Definition of clamping force

The clamping force is the arithmetic sum of the individual forces occurring at the chuck jaws at distance "H" at maximum pressure.

Versions

-LH: Long-stroke version

Only jaws with tongue and groove are compatible with the PGS3

Clamping pins

Clamping pins
Standard clamping pins for positive locking of workpieces or devices with the NSE3 clamping modules.



Description	Version	M10 kN	M12 kN	ID
SPA 40	Centering pins	35	50	0471151

Accessories

Clamping force tester
For measuring the jaw clamping force of stationary clamping devices.



Suitable for	Description	ID
PGS3 100		
PGS3 140	IFT SST Set	1475766

Indexing pin
Used as an anti-rotation protection for VERO-S modules with anti-rotation protection V1.



Suitable for	Description	ID
PGS3 100		
PGS3 140	IXB V1	0471980
PGS3 100		
PGS3 140	IXB V1-K	0432371

Kingpin
For bottom-side control of the clamping force block.
For different machine types on request.



Suitable for	Description	ID
PGS3 100		
PGS3 140	on request	

schunk.com/chuckjaw-quickfinder-stationary

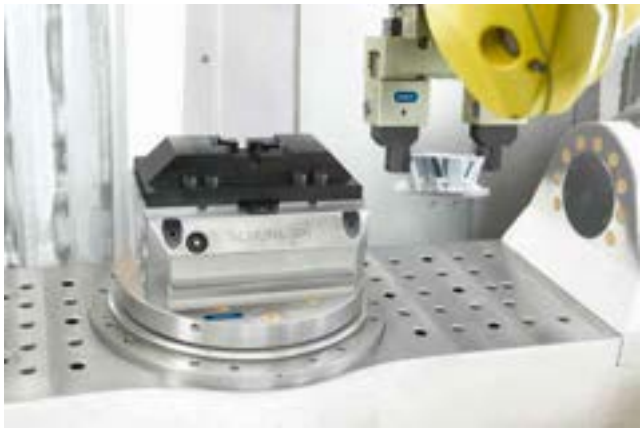


Versatile. Individual. Customizable. System and top jaws

SCHUNK offers a unique program of jaws for your clamping force block. This is why the right jaws can be found for any application.

Functions & highlights

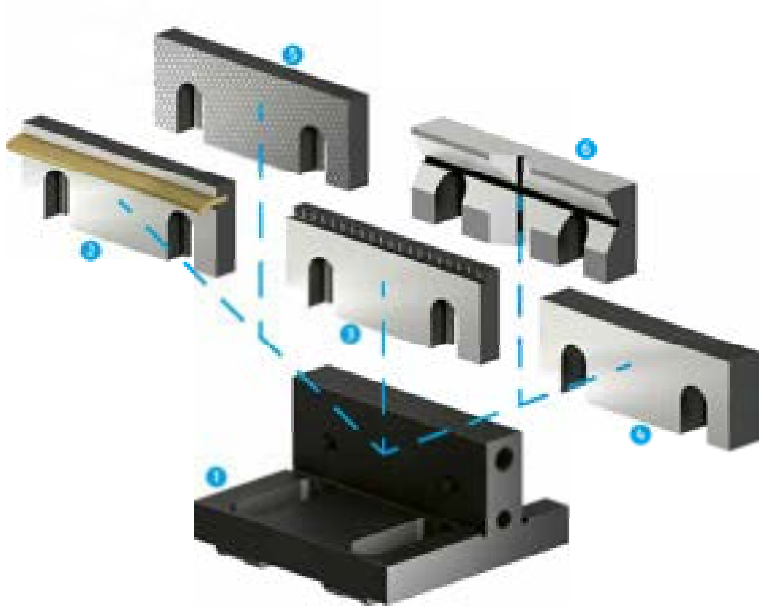
- **Individually adjustable to new clamping tasks**
  Virtually any workpiece contour can be clamped
- **Supporting jaw system**
  Eliminates a large number of the special chuck jaws that would otherwise be required
- **Large modular system of matching top jaws**
  Extremely flexible unfinished and finished part clamping on one supporting jaw



Field of application

System jaws and top jaws

Due to the wide selection of top jaw blanks and claw jaws, the right jaw is available as a standard option for almost every application. The top jaw blanks are specially manufactured for customer-specific rework and can be individually adapted, depending on the workpiece. Claw jaws ensure maximum hold in workpiece clamping due to their special contour.



1. Supporting jaw
2. Pull-down jaw
3. Stepped jaw
4. Smooth jaw
5. Serrated jaw
6. Prismatic jaw

System jaws

Quick-change Jaw
Top jaw blanks with jaw quick-change interface BWA for reworking by the customer.



Suitable for	Description	ID
Size 100-BWA	WTR-A 100	1479313
Size 140-BWA	WTR-A 140	1479314
Size 160-BWA	WTR-A 160	1479315
Size 250-BWA	WTR-A 250	1479316

Quick-change Jaw
Top jaw with mounting threads to accommodate clamping inserts or clamping bars with jaw quick-change interface BWA.



Suitable for	Description	Interface	ID
Size 100-BWA	WTG-A 100	W-55 W-18	1479317
Size 140-BWA	WTG-A 140	W-80-2 W-28	1479318
Size 160-BWA	WTG-A 160	W-90-3 W-28	1479319
Size 250-BWA	WTG-A 250	W-140-1 W-34	1479320

Supporting jaw TBA-D
Reversible supporting jaws with fine serration for mounting standard top jaws from SCHUNK.



Suitable for	Description	Interface	ID
Size 100	TBA-D 100	W-65-1	0402294
Size 140	TBA-D 140	W-90-1 W-100-1	1349715
Size 160	TBA-D 160	W-100-1	0402295
Size 200	TBA-D 200	W-100-1	1498197
Size 250	TBA-D 250	W-125-1	0402296
Size 315	TBA-D 315	W-160	1498198

3-axis jaw grip S3A-G5
With grip step, 5 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Suitable for	Description	ID
Size 64	S3A-G5 64	1471165
Size 100	S3A-G5 100	1471166
Size 140	S3A-G5 140	1471167
Size 160	S3A-G5 160	1471168
Size 200	S3A-G5 200	1471186
Size 250	S3A-G5 250	1471187
Size 315	S3A-G5 315	1471188

5-axis jaw grip S5A-G5
With grip step, 5 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Suitable for	Description	ID
Size 64	S5A-G5 64	1471189
Size 100	S5A-G5 100	1471190
Size 140	S5A-G5 140	1471197
Size 160	S5A-G5 160	1471198
Size 200	S5A-G5 200	1471199
Size 250	S5A-G5 250	1471200
Size 315	S5A-G5 315	1471201

Top jaw blank STR
Top jaw blanks with fine serration for customer rework.



Suitable for	Description	ID
Size 64	STR 64	0402100
Size 100	STR 100	0402101
Size 140	STR 140	1349709
Size 160	STR 160	0402102
Size 200	STR 200	1446894
Size 250	STR 250	0402103
Size 315	STR 315	1446896

Top jaw blank STR-H
High top jaw blanks with fine serration for customer rework.



Suitable for	Description	ID
Size 64	STR-H 64	0402200
Size 100	STR-H 100	0402201
Size 160	STR-H 160	0402202
Size 200	STR-H 200	1446905
Size 250	STR-H 250	0402203
Size 315	STR-H 315	1446907

Top jaw blank KTR
Top jaw blanks with tongue and groove and preassembled mounting holes for customer rework.



Suitable for	Description	ID
Size 64	KTR 64	0402120
Size 100	KTR 100	0402121
Size 140	KTR 140	1349707
Size 160	KTR 160	0402122
Size 200	KTR 200	1446913
Size 250	KTR 250	0402123
Size 315	KTR 315	1446915

Top jaw blank KTR-H
High top jaw blanks with tongue and groove and preassembled mounting holes for customer rework.



Suitable for	Description	ID
Size 64	KTR-H 64	0402220
Size 100	KTR-H 100	0402221
Size 140	KTR-H 140	1349708
Size 160	KTR-H 160	0402222
Size 200	KTR-H 200	1446923
Size 250	KTR-H 250	0402223
Size 315	KTR-H 315	1446925

Top jaw blank STR-S
Top jaw blanks with fine serration and preassembled mounting groove for customer rework.



Suitable for	Description	ID
Size 64	STR-S 64	0402110
Size 100	STR-S 100	0402111
Size 140	STR-S 140	1349712
Size 160	STR-S 160	0402112
Size 200	STR-S 200	1446933
Size 250	STR-S 250	0402113
Size 315	STR-S 315	1446935

Top jaws

Clamping bar
With three different grip steps.



Description	Width mm	Height mm	Interface	ID
STG 100	20	11	W-55	0402314
STG 140	26	16	W-80-2	1452063
STG 160	26	16	W-90-3	0402315
STG 250	36	18	W-140-1	0402316

6-way reversal jaws
With five carbide grip steps as well as a coated clamping surface.



Description	Width mm	Height mm	Interface	ID
SEI M6	18	8	W-18	0402317
SEI M8	28	13	W-28	0402318
SEI M10	34	16	W-34	0402319

Jaw profiled
For increasing the friction between jaw and workpiece without clamping impressions.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBD 100-35-10	100	35	10	W-100-1	1373346
GBD 125-40-11.5	125	40	11.5	W-125-1	1373349
GBD 160-50-13.5	160	50	13.5	W-160	1373350

Soft jaw
Hardenable jaws for rework at the customer site, e.g. for incorporating contours or special shapes.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBW 100-35-16	100	35	16	W-100-1	1373287
GBW 125-40-20	125	40	20	W-125-1	1373288
GBW 160-50-20	160	50	20	W-160	1373289

Stepped jaw
With ground step, 8 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS 100-35-10-5	100	35	10	W-100-1	1373325
GBS 125-40-11.5-8	125	40	11.5	W-125-1	1373327
GBS 160-50-13.5-8	160	50	13.5	W-160	1373328

Stepped jaw
With ground step, 17 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS 125-40-11.5-17	125	40	11.5	W-125-1	0430413

Stepped jaw
With coated step, 5 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-W 100-35-10-5	100	35	10	W-100-1	1395510
GBS-W 125-40-11.5-5	125	40	11.5	W-125-1	0430414
GBS-W 160-50-13.5-5	160	50	13.5	W-160	1395511

Stepped jaw
With grip step 3 mm and ground step 18 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G3 125-40-21.5-18	125	40	21.5	W-125-1	0430415
GBS-G3 125-40-24-18	125	40	24	W-125-1	1322989

Stepped jaw
With special "soft" grip step, 5 mm.
For embossed clamping of soft materials such as plastic or aluminum.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-SG5 125-40-11.5	125	40	11.5	W-125-1	1393552

Stepped jaw
With grip step, 3 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G3 100-35-10	100	35	10	W-100-1	1373330
GBS-G3 125-40-11.5	125	40	11.5	W-125-1	1373331
GBS-G3 160-50-13.5	160	50	13.5	W-160	1373332

Stepped jaw
With grip step, 5 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G5 65-22-8	65	22	8	W-65-1	1465122
GBS-G5 100-35-10	100	35	10	W-100-1	1373333
GBS-G5 125-40-11.5	125	40	11.5	W-125-1	1373334
GBS-G5 160-50-13.5	160	50	13.5	W-160	1373335

Stepped jaw
With grip step, 8 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G8 100-35-10	100	35	10	W-100-1	1373337
GBS-G8 125-40-11.5	125	40	11.5	W-125-1	1373338

Stepped jaw
With carbide grip step, 3 mm.
For embossed clamping of hardened materials up to 58 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-CG3 100-35-10	100	35	10	W-100-1	1428440
GBS-CG3 125-40-11.5	125	40	11.5	W-125-1	1395524
GBS-CG3 160-50-13.5	160	50	13.5	W-160	1431232

Stepped jaw
With carbide grip step, 5 mm.
For embossed clamping of hardened materials up to 58 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-CG5 100-35-12	100	35	12	W-100-1	1428441
GBS-CG5 125-40-11.5	125	40	11.5	W-125-1	1424000
GBS-CG5 160-50-15.5	160	50	15.5	W-160	1431233

Stepped jaw
With special grip step, 3 mm.
For clamping pre-embossed materials and workpieces.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-GL3 125-40-11.5	125	40	11.5	W-125-1	1395577

Stepped jaw with T-slot
With grip step, 3 mm.
T-slot for mounting the positioning strip.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G3-T 100-35-17.5	100	35	17.5	W-100-1	0430242
GBS-G3-T 125-40-17.5	125	40	17.5	W-125-1	0430248

Stepped jaw with T-slot
With grip step, 5 mm.
T-slot for mounting the positioning strip.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G5-T 100-35-17.5	100	35	17.5	W-100-1	0430241
GBS-G5-T 125-40-17.5	125	40	17.5	W-125-1	0430247
GBS-G5-T 160-50-20	160	50	20	W-160	0430250

Stepped jaw with T-slot
With grip step, 8 mm.
T-slot for mounting the positioning strip.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G8-T 100-35-17.5	100	35	17.5	W-100-1	0430240
GBS-G8-T 125-40-17.5	125	40	17.5	W-125-1	0430237
GBS-G8-T 160-50-20	160	50	20	W-160	0430249

Positioning bar
To suit all stepped jaws with T-slot.



Description	Width mm	Height mm	Depth mm	Interface	ID
GPL 100-32-13.5	100	32	13.5	W-100-1	0430246
GPL 125-32-13.5	125	32	13.5	W-125-1	0430238
GPL 160-32-13.5	160	32	13.5	W-160	0430251

Spring leaf pull-down jaw
For an active jaw pull-down function with a light clamping impression on the workpiece for more precise machining results.



Description	Width mm	Height mm	Depth mm	Interface	ID
GFA 100-35-10	100	35	10	W-100-1	1373301
GFA 125-40-11.5	125	40	11.5	W-125-1	1373304
GFA 160-50-13.5	160	50	13.5	W-160	1373306

Spring plate pull-down jaw
For an active jaw pull-down function without clamping impressions on the workpiece for more precise machining results.



Description	Width mm	Height mm	Depth mm	Interface	ID
GFB 100-34-10	100	34	10	W-100-1	0430191
GFB 125-39-10	125	39	10	W-125-1	0430192

Precision pull-down jaw
For an active jaw pull-down function without clamping impressions on the workpiece for more precise machining results.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBN-P 100-35-25	100	35	25	W-100-1	0430146
GBN-P 125-40-25	125	40	25	W-125-1	0430147
GBN-P 160-50-27.5	160	50	27.5	W-160	0430148

Serrated jaw
For increasing the friction between jaw and workpiece with minimal clamping impressions.
Height = 22 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBC 90-35-11	90	35	11	W-90	0490569
GBC 65-22-8	64	22	8	W-65-1	0490565
GBC 100-35-11	100	35	11	W-100-1	1373267
GBC 125-40-12.5	125	40	12.5	W-125-1	1373268
GBC 160-50-14.4	160	50	14.4	W-160	1373269

Ground jaw
With a completely ground clamping surface.
Height = 22 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBP 90-35-10	90	35	10	W-90	0490580
GBP 65-22-7.7	64	22	7.7	W-65-1	0490566
GBP 100-35-10	100	35	10	W-100-1	1373272
GBP 125-40-11.5	125	40	11.5	W-125-1	1373278
GBP 160-50-13.5	160	50	13.5	W-160	1373281

Soft jaw
Blanks for rework by the customer
Height = 22 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBW 90-35-16	90	35	16	W-90	0490570
GBW 65-22-20	64	22	20	W-65-1	0490567

Grip jaw
For embossed clamping of unhardened materials up to 22 HRC.
Height = 22 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBG 100-35-10	100	35	10	W-100-1	1373282
GBG 125-40-11.5	125	40	11.5	W-125-1	1373284
GBG 160-50-13.5	160	50	13.5	W-160	1373285
GBG 90-35-10	90	35	10	W-90	0490571
GBG 65-22-7.8	64	22	7.8	W-65-1	0430804

Reversible grip jaw
Reversible jaw with grip step 3 mm in vertical direction and 5 mm in horizontal direction.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBG-W 65-22-8	65	22	8	W-65-1	0430729

Prism jaw, ground

For precise clamping of round workpieces.
Height = 22 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GVA 100-35-15.5	100	35	15.5	W-100-1	1373342
GVA 125-40-17.5	125	40	17.5	W-125-1	1373344
GVA 160-50-19.5	160	50	19.5	W-160	1373345
GVA 65-22-15	65	22	15	W-65-1	0430707

Universal stepped jaw

Versatile stepped jaw with ground step.



Description	Width mm	Height mm	Depth mm	Interface	ID
GPE 65-22-8-3	65	22	8	W-65-1	0430704


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Overview 3-jaw clamping force blocks



TANDEM overview Page 366



Pneumatic clamping force blocks KRP3 Page 368



Hydraulic clamping force blocks KRH3 Page 374



Spring-packaged clamping force blocks KRF3 Page 380



System jaws Page 386

TANDEM3 lead vises – way above 300 standard versions

Pneumatic KRP3

Standard stroke



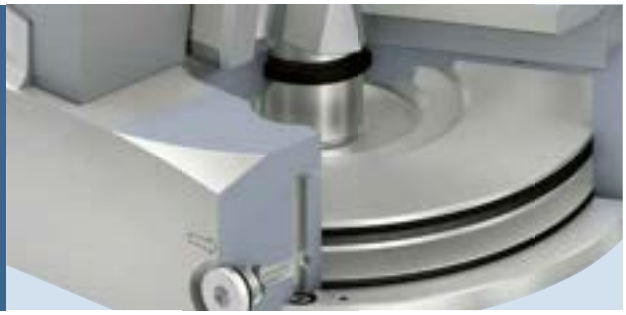
KRP3				
Size	100	160	200	250
Jaw stroke [mm]	2	3	4	5
Clamping force [kN]	18	45	55	55

Long stroke



KRP3-LH				
Size	100	160	200	250
Jaw stroke [mm]	6	8	10	15
Clamping force [kN]	8	20	25	20

Drive



Clamping and releasing is done via a double-acting pneumatic cylinder with constant pressure. Via integrated springs (AS variant), the clamping force for O.D. clamping can still be increased.

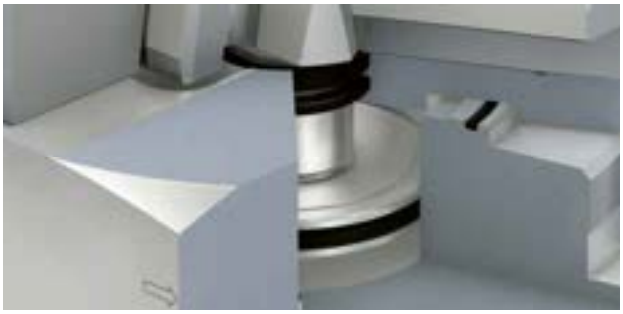
Hydraulic KRH3



KRH3			
Size	100	160	200
Jaw stroke [mm]	2	3	4
Clamping force [kN]	18	45	60



KRH3-LH				
Size	100	160	200	250
Jaw stroke [mm]	6	8	10	15
Clamping force [kN]	16	40	53	50



Clamping and releasing is done via a double-acting hydraulic cylinder with constant pressure.

Spring force KRF3



KRF3				
Size	100	160	200	250
Jaw stroke [mm]	2	3	4	5
Clamping force [kN]	7 – 12	20 – 30	26 – 35	37 – 50



KRF3-LH				
Size	100	160	200	250
Jaw stroke [mm]	6	8	10	15
Clamping force [kN]	3 – 5	10 – 15	12 – 17	15 – 21



If the vise is depressurized, the preloaded pressure spring transfers its force to the piston.

- Secure clamping without pressure
- Increase of clamping force in long-stroke version via turbo function possible

schunk.com/krp3



Reliable. High-performance. Versatile. Pneumatic clamping force blocks KRP3

The KRP3 clamping force blocks extend the assortment of pneumatic clamping force blocks with various 3-jaw variants. With the exception of the PM variants, the 3-jaw clamping force blocks KRP3 are 100% compatible with the 2-jaw clamping force blocks KSP3. Optional extras such as jig-machined positioning bores, clamping force amplification with O.D. clamping or pneumatic monitoring make the vise even more versatile.

Functions & highlights

- **3-jaw clamping force blocks for cylindrical workpieces**
  This reduces deformation during clamping, especially with thin-walled workpieces
- **100% compatible with KSP3 (except PM variants)**
  An existing 2-jaw clamping force block can be exchanged 1:1 by a 3-jaw clamping force block
- **Enormous diversity of variants**
  Therefore ensuring highest flexibility with by far the largest and most powerful standard range of pneumatically actuated clamping force blocks



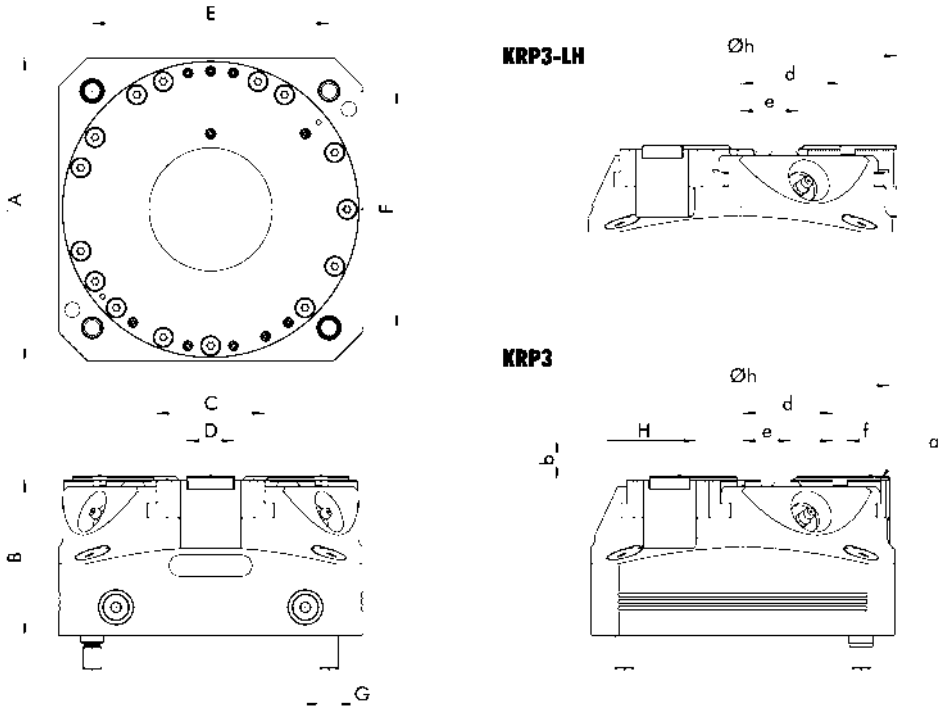
Field of application

KRP3

The clamping with three jaws makes the KRP3 power clamping blocks particularly suitable for clamping cylindrical workpieces. Thanks to the improved force distribution, the cylindrical workpieces can be clamped with little deformation even without requiring special jaws. In stationary applications, the clamping force blocks, therefore, are real alternatives to stationary chucks.



1. **Bottom-side interface 100% compatible with KSP3 (except PM variants)**
2. **Wedge hook drive**
3. **Hardened and extremely rigid base body**
4. **Innovative greasing system**
5. **Long jaw guidance**
6. **Low height**
7. **Dirt-resistant design**
8. **Standard jaw interface**
9. **Ideal outside contour**



Dimensions

Description	A	B	C	D	E	F	G	a	b	d	e	f	Øh
	mm	mm	mm	mm	mm	mm			mm	mm	mm	mm	mm
KRP3 100	100	69.2	36	16 g6	80	80	M8	1.5 mm x 60°	16	25.2 - 27.2	16.7 - 18.7	6 H7	102
KRP3 160	160	82.2	57	25 g6	125	125	M10	1.5 mm x 60°	25	44.3 - 47.3	22.3 - 25.3	8 H7	155
KRP3 200	200	90.2	72	30 g6	160	160	M12	1.5 mm x 60°	30	54.4 - 58.4	28.1 - 32.1	10 H7	196
KRP3 250	250	98.2	85	35 g6	200	200	M12	1.5 mm x 60°	40	63.3 - 68.3	36.3 - 41.3	10 H7	244
KRP3-LH 100	100	69.2	36	16 g6	80	80	M8	1.5 mm x 60°	16	25.5 - 31.5	16.9 - 22.9	6 H7	110
KRP3-LH 160	160	82.2	57	25 g6	125	125	M10	1.5 mm x 60°	25	44.5 - 52.5	22.5 - 30.5	8 H7	165.5
KRP3-LH 200	200	90.2	72	30 g6	160	160	M12	1.5 mm x 60°	30	54.5 - 64.5	28.2 - 38.2	10 H7	205
KRP3-LH 250	250	98.2	85	35 g6	200	200	M12	1.5 mm x 60°	40	63.4 - 78.4	36.4 - 51.4	10 H7	259

Technical data

Description	Clamping force	Additional clamping force provided from spring assembly (-AS)	Operating pressure	Stroke per jaw	Max. jaw height	Repeat accuracy	Air consumption per double stroke at 6 bar	Closing/ opening time	Weight
	kN	kN	bar	mm	mm	mm	cm³	s	kg
KRP3 100	18	2 - 5	2 - 9	2	60	< 0.01	1000	0.2	4
KRP3 160	45	4 - 8	2 - 9	3	60	< 0.01	3400	0.4	11
KRP3 200	55	6.5 - 12	2 - 9	4	100	< 0.02	5100	1	19
KRP3 250	55	9 - 15	2 - 6	5	150	< 0.02	9100	1.6	32
KRP3-LH 100	8	0.75 - 2	2 - 9	6	150	< 0.01	1000	0.2	4
KRP3-LH 160	20	2 - 3.5	2 - 9	8	200	< 0.01	3400	0.4	11
KRP3-LH 200	25	3 - 5.5	2 - 9	10	200	< 0.02	5100	1	19
KRP3-LH 250	20	3 - 5.5	2 - 6	15	500	< 0.02	9100	1.6	32

IDs

Product name	Standard	-Z	-AS	-Z-AS	-PM	-Z-PM	-AS-PM	-Z-AS-PM
KRP3 100	1449373	1475575	1475576	1475577	1475581	1475582	1475583	1475584
KRP3 160	1499464	1499466	1499467	1499468	1499469	1499471	1499472	1499473
KRP3 200	1499427	1499428	1499429	1499490	1499491	1499492	1499493	1499494
KRP3 250	1499503	1499504	1499505	1499506	1499507	1499508	1499509	1499520
KRP3-LH 100	1475585	1475586	1475587	1475588	1475591	1475592	1475593	1475595
KRP3-LH 160	1499474	1499475	1499476	1499477	1499478	1499479	1499480	1499481
KRP3-LH 200	1499495	1499496	1499497	1499498	1499499	1499500	1499501	1499502
KRP3-LH 250	1499521	1499522	1499523	1499524	1499525	1499526	1499527	1499528

ⓘ Definition of clamping force

The clamping force is the arithmetic sum of the individual forces occurring at the chuck jaws at distance "H" at maximum pressure.

Versions

-LH: Long-stroke version

-Z: Jig-machined positioning bores for a better positioning accuracy

-AS: Clamping force amplification for O.D. clamping by spring assemblies

-PM: Pneumatic monitoring of the base jaw position and workpiece presence control by the system jaw

Clamping pins

Clamping pins
Standard clamping pins for positive locking of workpieces or devices with the NSE3 clamping modules.



Description	Version	M10 kN	M12 kN	ID
SPA 40	Centering pins	35	50	0471151
SPB 40	Positioning pin	35	50	0471152
SPC 40	Clamping pin	35	50	0471153

Accessories

Clamping force tester
For measuring the jaw clamping force of stationary clamping devices.



Suitable for	Description	ID
KRP3 100		
KRP3 160		
KRP3 200		
KRP3 250	IFT SST Set	1475766

Indexing pin
Used as an anti-rotation protection for VERO-S modules with anti-rotation protection V1.



Suitable for	Description	ID
ABP-h plus 100/160-1		
KSL3 100-1		
KSL3 160-1	IXB V1	0471980

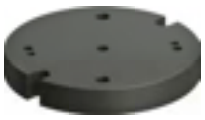
Cylindrical clamp blanks
For individual fastening of the clamping stations or console plates on all common machine table slot spacings



Suitable for	Description	ID
KSL3 100-1		
KSL3 160-1	BRR 50	0470020

Base plates

Consol plate
For direct mounting on VERO-S or T-slot tables.



Suitable for	Description	ID
KRP3 100	KSL3 100-1	1466119
KRP3 160	KSL3 160-1	1466121
KRP3 200	KSL3 200-1	1466122

Single base plate
For direct mounting and actuation of one TANDEM clamping force block both with and without VERO-S.



Suitable for	Description	ID
KRP3 100		
KRP3 160	ABP-h plus 100/160-1	1323973
KRP3 250	ABP-h plus 250-1	1323976

Double base plate
For direct mounting and actuation of up to two TANDEM clamping force blocks with and also without VERO-S.



Suitable for	Description	ID
KRP3 100		
KRP3 160	ABP-h plus 100/160-2	1323974
KRP3 250	ABP-h plus 250-2	1323977

Triple base plate
For direct mounting and actuation of up to three TANDEM clamping force blocks with and also without VERO-S.



Suitable for	Description	ID
KRP3 100		
KRP3 160	ABP-h plus 100/160-3	1323975

Grease

LP 410
High-performance grease as standard for regularly lubricating SCHUNK TANDEM clamping force blocks.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LP 410 cartridge	0184213

Grease gun
Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

schunk.com/krh3



Powerful. Compact. Versatile. Hydraulic clamping force blocks KRH3

The KRH3 clamping force blocks extend the assortment of spring-loaded clamping force blocks with various 3-jaw variants. With the exception of the PM variants, the 3-jaw clamping force blocks KRH3 are 100% compatible with the 2-jaw clamping force blocks KSH3. Optional extras such as jig-machined positioning bores or pneumatic monitoring make the vise even more versatile.

Functions & highlights

- **3-jaw clamping force blocks for cylindrical workpieces**
  This reduces deformation during clamping, especially with thin-walled workpieces
- **100% compatible with KSH3 (except PM variants)**
  An existing 2-jaw clamping force block can be exchanged 1:1 by a 3-jaw clamping force block
- **Enormous diversity of variants**
  Therefore ensuring highest flexibility with by far the largest and most powerful standard range of pneumatically actuated clamping force blocks



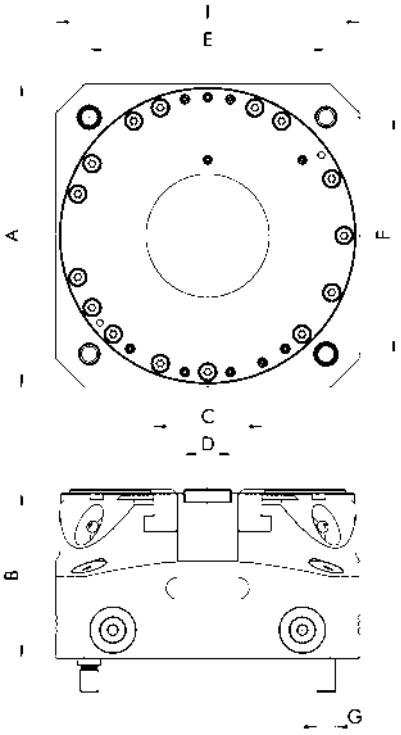
Field of application

KRH3

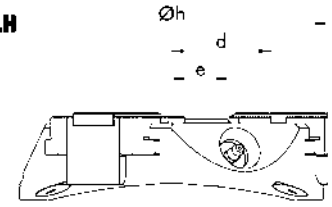
The clamping with three jaws makes the KRH3 power clamping blocks particularly suitable for clamping cylindrical workpieces. Thanks to the improved force distribution, the cylindrical workpieces can be clamped with little deformation even without requiring special jaws. In stationary applications, the clamping force blocks, therefore, are real alternatives to stationary chucks.



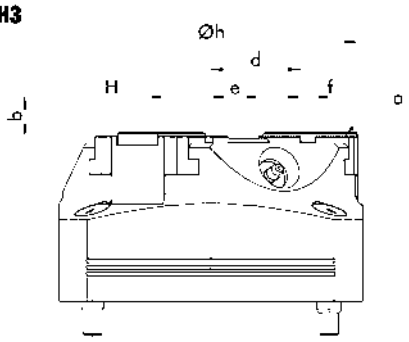
1. **Bottom-side interface 100% compatible with KSP3 (except PM variants)**
2. **Wedge hook drive**
3. **Hardened and extremely rigid base body**
4. **Innovative greasing system**
5. **Long jaw guidance**
6. **Low height**
7. **Dirt-resistant design**
8. **Standard jaw interface**
9. **Ideal outside contour**



KRH3-LH



KRH3



Dimensions

Description	A	B	C	D	E	F	G	a	b	d	e	f	Øh
	mm	mm	mm	mm	mm	mm			mm/"	mm	mm	mm	mm
KRH3 100	100	74.2	36	16 g6	80	80	M8	1.5 mm x 60°	16	25.2 - 27.2	16.7 - 18.7	6 H7	102
KRH3 160	160	87.2	57	25 g6	125	125	M10	1.5 mm x 60°	25	44.3 - 47.3	22.3 - 25.3	8 H7	159
KRH3 200	200	95.2	72	30 g6	160	160	M12	1.5 mm x 60°	30	54.4 - 58.4	28.1 - 32.1	10 H7	197
KRH3-LH 100	100	74.2	36	16 g6	80	80	M8	1.5 mm x 60°	16	25.5 - 31.5	16.9 - 22.9	6 H7	110
KRH3-LH 160	160	87.2	57	25 g6	125	125	M10	1.5 mm x 60°	25	44.5 - 52.5	22.5 - 30.5	8 H7	169
KRH3-LH 200	200	95.2	72	30 g6	160	160	M12	1.5 mm x 60°	30	54.5 - 64.5	28.2 - 38.2	10 H7	209
KRH3-LH 250	250	103.2	85	35 g6	180	200	M12	1.5 mm x 60°	40	63.4 - 78.4	36.4 - 51.4	10 H7	263.5

Technical data

Description	Clamping force	Operating pressure	Stroke per jaw	Max. jaw height	Repeat accuracy	Oil consumption per double stroke	Closing/opening time	Weight
	kN	bar	mm	mm	mm	cm³	s	kg
KRH3 100	18	10 – 60	2	60	< 0.01	30	1	5
KRH3 160	45	10 – 60	3	60	< 0.01	100	1.5	14
KRH3 200	60	10 – 60	4	100	< 0.02	150	1.3	23
KRH3-LH 100	16	10 – 120	6	60	< 0.01	30	1	5
KRH3-LH 160	40	10 – 120	8	60	< 0.01	100	1.5	14
KRH3-LH 200	53	10 – 120	10	100	< 0.02	150	1.3	23
KRH3-LH 250	50	10 – 60	15	150	< 0.02	330	2.5	39

IDs

Product name	Standard	-Z	-PM	-Z-PM
KRH3 100	1518363	1518364	1518365	1518366
KRH3 160	1518381	1518382	1518383	1518384
KRH3 200	1518389	1518390	1518391	1518392
KRH3-LH 100	1518367	1518368	1518369	1518380
KRH3-LH 160	1518385	1518386	1518387	1518388
KRH3-LH 200	1518393	1518394	1518395	1518396
KRH3-LH 250	1518397	1518398	1518399	1518400

ⓘ Definition of clamping force

The clamping force is the arithmetic sum of the individual forces occurring at the chuck jaws at distance "H" at maximum pressure.

Versions

-LH: Long-stroke version

-Z: Jig-machined positioning bores for a better positioning accuracy

-PM: Pneumatic monitoring of the base jaw position and workpiece presence control by the system jaw

Clamping pins

Clamping pins
Standard clamping pins for positive locking of workpieces or devices with the NSE3 clamping modules.



Description	Version	M10 kN	M12 kN	ID
SPA 40	Centering pins	35	50	0471151
SPB 40	Positioning pin	35	50	0471152
SPC 40	Clamping pin	35	50	0471153

Accessories

Clamping force tester
For measuring the jaw clamping force of stationary clamping devices.



Suitable for	Description	ID
KRH3 100 KRH3 160 KRH3 200 KRH3-LH 250	IFT SST Set	1475766

Indexing pin
Used as an anti-rotation protection for VERO-S modules with anti-rotation protection V1.



Suitable for	Description	ID
KSL3 100-1 KSL3 160-1	IXB V1	0471980

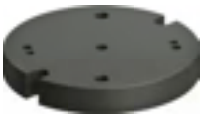
Cylindrical clamp blanks
For individual fastening of the clamping stations or console plates on all common machine table slot spacings



Suitable for	Description	ID
KSL3 100-1 KSL3 160-1	BRR 50	0470020

Base plates

Consol plate
For direct mounting on VERO-S or T-slot tables.



Suitable for	Description	ID
KRH3 100	KSL3 100-1	1466119
KRH3 160	KSL3 160-1	1466121
KRH3 200	KSL3 200-1	1466122

Grease

LP 410
High-performance grease as standard for regularly lubricating SCHUNK TANDEM clamping force blocks.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LP 410 cartridge	0184213

Grease gun
Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

schunk.com/krf3



Self-retained. Secure. Reliable.
Spring-packaged clamping force blocks KRF3

The KRF3 clamping force blocks extend the range of spring-loaded clamping force blocks with various 3-jaw variants. With the exception of the PM variants, the 3-jaw clamping force blocks KRF3 are 100% compatible with the 2-jaw clamping force blocks KSF3. Optional extras such as jig-machined positioning bores or pneumatic monitoring make the vise even more versatile.

Functions & highlights

- **3-jaw clamping force blocks for cylindrical workpieces**
  This reduces deformation during clamping, especially with thin-walled workpieces
- **Spring-packaged clamping force blocks**
  Media-independent workpiece clamping, especially for tombstone or storage applications
- **High flexibility of system jaws**
  Base jaws with tongue and groove and fine serration as standard dual interface



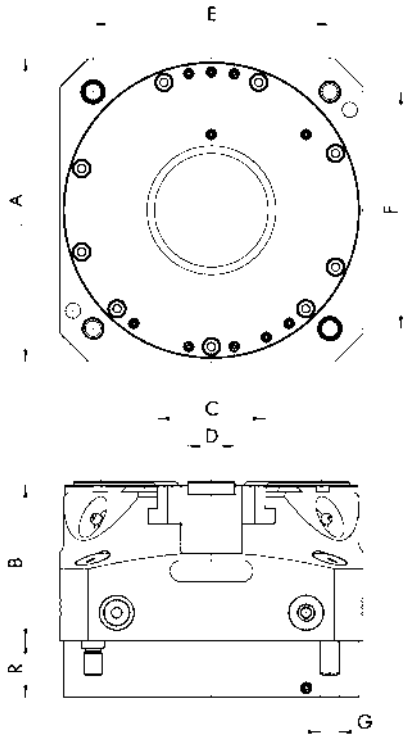
Field of application

KRF3

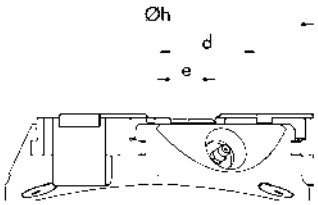
The spring tension makes the KRF3 clamping force blocks particularly suitable for use in tombstone or storage solutions, as the clamping force is fully maintained after the compressed air is removed. Since clamping of the KRF3 takes place with 3 jaws, this results in better force distribution whereby specially cylindrical workpieces can be clamped with low deformation.



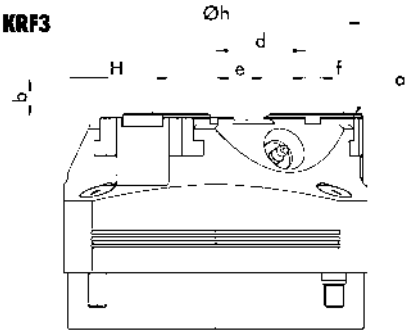
1. **Bottom-side interface 100% compatible with KSF3 (except PM variants)**
2. **Wedge hook drive**
3. **Hardened and extremely rigid base body**
4. **Innovative greasing system**
5. **Long jaw guidance**
6. **Low height**
7. **Dirt-resistant design**
8. **Standard jaw interface**
9. **Ideal outside contour**



KRF3-LH



KRF3



Dimensions

Description	A	B	C	D	E	F	G	l	R	a	b	d	e	f	Øh
	mm	mm	mm	mm	mm	mm		mm	mm		mm	mm	mm	mm	mm
KRF3 100	100	69.2	36	16 g6	80	80	M8	100	19.8	1.5 mm x 60°	16	25.2 - 27.2	16.7 - 18.7	6 H7	102
KRF3 160	160	82.2	57	25 g6	125	125	M10	160	29.8	1.5 mm x 60°	25	44.3 - 47.3	22.3 - 25.3	8 H7	159
KRF3 200	200	90.2	72	30 g6	160	160	M12	200	34.8	1.5 mm x 60°	30	54.4 - 58.4	28.1 - 32.1	10 H7	197
KRF3 250	200	98.2	85	35 g6	200	200	M12	250	39.8	1.5 mm x 60°	40	64.3 - 69.3	37.3 - 42.3	10 H7	245
KRF3-LH 100	100	69.2	36	16 g6	80	80	M8	100	19.8	1.5 mm x 60°	16	25.5 - 31.5	16.9 - 22.9	6 H7	110
KRF3-LH 160	160	82.2	57	25 g6	125	125	M10	160	29.8	1.5 mm x 60°	25	44.5 - 52.5	22.5 - 30.5	8 H7	169
KRF3-LH 200	200	90.2	72	30 g6	160	160	M12	200	34.8	1.5 mm x 60°	30	54.5 - 64.5	28.2 - 38.2	10 H7	209
KRF3-LH 250	200	98.2	85	35 g6	200	200	M12	250	39.8	1.5 mm x 60°	40	63.4 - 78.4	36.4 - 51.4	10 H7	263.5

Technical data

Description	Clamping force range	Clamping force range with turbo	Opening pressure	Max. turbo pressure	Stroke per jaw	Max. jaw height	Repeat accuracy	Air consumption per stroke	Closing/ opening time	Weight
	kN	kN	bar	bar	mm	mm	mm	cm³	s	kg
KRF3 100	7 – 12		6 – 9		2	60	< 0.01	500	0.2	4.5
KRF3 160	20 – 30		6 – 9		3	60	< 0.01	1700	0.8	13
KRF3 200	26 – 35		6 – 9		4	100	< 0.02	2550	1.2	24
KRF3 250	37 – 50		6 – 9		5	150	< 0.02	4600	1.5	40
KRF3-LH 100	3 – 5	9 – 11	6 – 9	6	6	150	< 0.01	500	0.2	4.5
KRF3-LH 160	10 – 15	29 – 34	6 – 9	6	8	200	< 0.01	1700	0.8	13
KRF3-LH 200	12 – 17	31 – 36	6 – 9	6	10	200	< 0.02	2550	1.2	24
KRF3-LH 250	15 – 21	40 – 46	6 – 9	6	15	500	< 0.02	4600	1.5	40

IDs

Product name	Standard	-Z	-PM	-Z-PM
KRF3 100	1518292	1518293	1518294	1518295
KRF3 160	1518320	1518321	1518322	1518323
KRF3 200	1518329	1518330	1518331	1518332
KRF3 250	1518337	1518338	1518339	1518342
KRF3-LH 100	1518296	1518297	1518298	1518299
KRF3-LH 160	1518325	1518326	1518327	1518328
KRF3-LH 200	1518333	1518334	1518335	1518336
KRF3-LH 250	1518343	1518344	1518345	1518352

ⓘ Definition of clamping force

The clamping force is the arithmetic sum of the individual forces occurring at the chuck jaws at distance "H" at maximum pressure.

Versions

-LH: Long-stroke version

-Z: Jig-machined positioning bores for a better positioning accuracy

-PM: Pneumatic monitoring of the base jaw position and workpiece presence control by the system jaw

Accessories

Clamping force tester
For measuring the jaw clamping force of stationary clamping devices.



Suitable for	Description	ID
KRF3 100		
KRF3 160		
KRF3 200		
KRF3 250	IFT SST Set	1475766

Grease

LP 410
High-performance grease as standard for regularly lubricating SCHUNK TANDEM clamping force blocks.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LP 410 cartridge	0184213

Grease gun
Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

schunk.com/chuckjaw-quickfinder-stationary



Versatile. Individual. Customizable. System jaws

SCHUNK offers a unique program of jaws for your 3-jaw clamping force block. This ensures that the right jaw for your application can definitely be found in our standard selection.

Functions & highlights

- **Individually adjustable for new clamping tasks**
  Virtually any workpiece contour can be clamped
- **Wide range of different variants**
  There is a suitable jaw for every requirement
- **Powerful clamping with claw jaws**
  High holding forces against radially acting machining forces



Field of application

System jaws

Due to the wide selection of top jaw blanks and claw jaws, the right jaw is available as a standard option for almost every application. The top jaw blanks are specially manufactured for customer-specific rework and can be individually adapted, depending on the workpiece. Claw jaws ensure maximum hold in workpiece clamping thanks to their special contour.

System jaws

Top jaw blank KTR-H

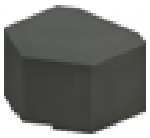
High top jaw blanks with tongue and groove and preassembled mounting holes for customer rework.



Suitable for	Description	ID
Size 100	KTR-H 100/3	1516437
Size 160	KTR-H 160/3	1516438
Size 200	KTR-H 200/3	1516439
Size 250	KTR-H 250/3	1516450

Top jaw blank STR

Top jaw blanks with fine serration for customer rework.



Suitable for	Description	ID
Size 100	STR 100/3	1516454
Size 160	STR 160/3	1516455
Size 200	STR 200/3	1516456
Size 250	STR 250/3	1516457

Top jaw blank STR-H

High top jaw blanks with fine serration for customer rework.



Suitable for	Description	ID
Size 100	STR-H 100/3	1516475
Size 160	STR-H 160/3	1516476
Size 200	STR-H 200/3	1516477
Size 250	STR-H 250/3	1516478

Top jaw blank STR-S

Top jaw blanks with fine serration and preassembled mounting groove for customer rework.



Suitable for	Description	ID
Size 100	STR-S 100/3	1516479
Size 160	STR-S 160/3	1516490
Size 200	STR-S 200/3	1516491
Size 250	STR-S 250/3	1516492

Claw jaw

Claw jaws with fine serration.



Suitable for	Description	ID
Size 100	STK 100/3	1516562
Size 160	STK 160/3	1516563
Size 200	STK 200/3	1516564
Size 250	STK 250/3	1516565

Claw jaw

Claw jaws with extended clamping range and fine serration.



Suitable for	Description	ID
Size 100	STK-V 100/3	1516572
Size 160	STK-V 160/3	1516573
Size 200	STK-V 200/3	1516574
Size 250	STK-V 250/3	1516575

Top jaw blank KTR

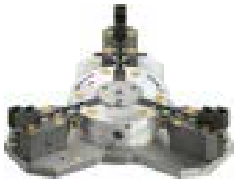
Top jaw blanks with tongue and groove and preassembled mounting holes for customer rework.



Suitable for	Description	ID
Size 100	KTR 100/3	1516430
Size 160	KTR 160/3	1516431
Size 200	KTR 200/3	1516432
Size 250	KTR 250/3	1516433



Overview stationary lathe chucks



Manual lathe chuck ROTA-S flex Page 392



Manual lathe chuck ROTA-ML flex 2+2 Page 398



Jaw boxes SPK Page 404



Manual lathe chuck ROTA-S plus 2.0 Page 408



Pneumatic lathe chuck ROTA TPS Page 414



Hydraulic lathe chuck ROTA NCK-S plus Page 420

schunk.com/rota-s-flex



Light. Flexible. Efficient.
Manual lathe chuck ROTA-S flex

The ROTA-S flex is an extremely weight-optimized manual lathe chuck with optimal accessibility to the workpiece. The wedge bar system of the lathe chuck enables high efficiency and process-reliable clamping. Furthermore, the lathe chuck has extended guideways and an integrated jaw quick-change, which ensures that the lathe chuck can be used for a wide range of applications.

Functions & highlights

- **Convenient jaw quick-change system**
  The jaw quick-change system minimizes set-up times and thus increases the efficiency of the lathe chuck
- **Maximum flexibility due to extended guideways**
  Extremely large clamping range for I.D. and O.D. clamping
- **High jaw quick-change repeat accuracy**
  No reboring of already machined jaws necessary



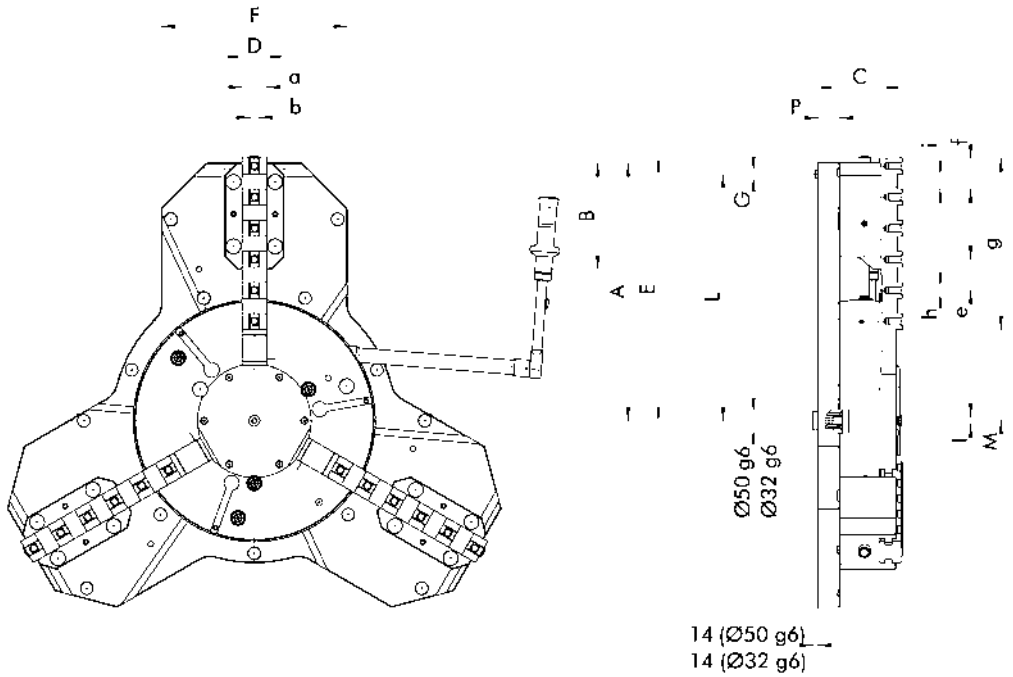
Field of application

ROTA-S flex

The ROTA-S flex was specially developed for mill/turn centers, and offers numerous advantages over conventional manual lathe chucks. Thanks to the special focus on lightweight design, the machine dynamics can be optimally utilized, and even heavy components can be loaded without permanently pushing the machine to its load limit. The jaw quick-change and the extended guideways offer maximum flexibility and enable economical clamping even in case of small batch sizes.



1. **Wedge bar actuation system**
2. **Hardened and extremely rigid base body**
3. **Optimized lubrication system**
4. **Mounting thread**
5. **Jaw quick-change system**
6. **Base jaws with diagonal serration (SFG)**
7. **Standard jaw interface**
8. **Exchangeable guideway extension**
9. **Dirt-resistant design**



Dimensions

ID	A	B	C	D	E	F	G	I	L	M	P	a	b	e	f	g	h	i
	mm	mm	mm	mm	mm	mm			mm	mm	mm	mm		mm	mm	mm		
0814810	269	129	124	80	231.8 – 277.1	145	14 g6	M20	250	52.8 – 98.1	29.5	22	10 h8	40	40	179	M8x1	20 H7
0814820	350	170	158.7	110	313.7 – 374.1	280	14 g5	M20	325	69.7 – 130.7	33.6	32	12 h8	54	54	244	M12x1.5	26 H7
0814830	475	230	176.9	135	424.5 – 487.9	350	18 g6	M20	440	94.4 – 157.9	41.6	45	18 h8	60	60	330	M16x1.5	30 H7
0814840	600	230	182.8	135	567.6 – 630.4	450	22 g6	M20	550	117.3 – 180.4	46.5	45	18 h8	60	60	450	M16x1.5	30 H7
0814850	680	280	218.8	156	609.6 – 692.8	490	22 g6	M20	650	157.6 – 240.8	57.5	65	24 h8	82	82	452	M20	40 H7

Technical data

Product name	ID	Lathe chuck used	Max. rotational speed	Max. clamping force	Max. torque	Stroke/jaw	Max. rotary table torque	Weight
			RPM	kN	Nm	mm	Nm	kg
ROTA-S flex 550	0814810	ROTA-S plus 2.0 200	1000	100	120	7	2000	65
ROTA-S flex 700	0814820	ROTA-S plus 2.0 315	800	180	220	9.7	2000	170
ROTA-S flex 1000	0814830	ROTA-S plus 400	500	230	280	12	4000	360
ROTA-S flex 1200	0814840	ROTA-S plus 500	500	270	320	12	6300	490
ROTA-S flex 1400	0814850	ROTA-S plus 630	400	270	350	15	8000	830

ⓘ Lathe chuck suitable for a 22.5° star groove table

Accessories

Clamping force tester

For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Suitable for	Description	ID
ROTA-S flex 550		
ROTA-S flex 700		
ROTA-S flex 1000		
ROTA-S flex 1200		
ROTA-S flex 1400	IFT Set	1404235

Extension set for large chucks

For use as an extension of the IFT measuring head for measuring the jaw clamping force of large chucks of Ø 400 mm and more.



Suitable for	Description	ID
ROTA-S flex 550		
ROTA-S flex 700		
ROTA-S flex 1000		
ROTA-S flex 1200		
ROTA-S flex 1400	IFT adapter set	1498512

Torque wrench

Torque wrench for actuation of SCHUNK manual lathe chucks.



Suitable for	Description	ID
ROTA-S flex 550	SSH-D-1/2" 40-200	9938065
ROTA-S flex 700	SSH-D-1/2" 60-300	1301281
ROTA-S flex 1000		
ROTA-S flex 1200		
ROTA-S flex 1400	SSH-D-3/4" 80-400	1301023

Ratchets

Ratchet for fast actuation of SCHUNK manual lathe chucks.



Suitable for	Description	ID
ROTA-S flex 550		
ROTA-S flex 700	SSH-K 1/2"-350	1151118
ROTA-S flex 1000	SSH-K 3/4"-510	9987240
ROTA-S flex 1200		
ROTA-S flex 1400	SSH-K 3/4"-620	9987241

Hexagon spanner wrench adapter with ejector

For use as an attachment for a torque wrench and ratchet for actuating SCHUNK manual lathe chucks with hexagonal connection.



Suitable for	Description	ID
ROTA-S flex 550	SAS-I 1/2"-SW12	8705487
ROTA-S flex 700	SAS-I 1/2"-SW16	8705471

Square spanner wrench adapter with ejector

For use as an attachment for a torque wrench and ratchet for actuating SCHUNK manual lathe chucks with hexagonal connection.



Suitable for	Description	ID
ROTA-S flex 1000		
ROTA-S flex 1200	SAV-I 3/4"-SW19	8705470
ROTA-S flex 1400	SAV-I 3/4"-SW24	8705476

Centering pins

For precise alignment of SCHUNK ROTA-S flex manual lathe chucks on the machine table.



Suitable for	Description	ID
ROTA-S flex 550		
ROTA-S flex 700		
ROTA-S flex 1000		
ROTA-S flex 1200		
ROTA-S flex 1400	ZTB Ø32	0814847
ROTA-S flex 550		
ROTA-S flex 700		
ROTA-S flex 1000		
ROTA-S flex 1200		
ROTA-S flex 1400	ZTB Ø50	0814827

Cover plate

For covering up the fastening screws of the chuck body as well as the guideway extensions.



Suitable for	Description	ID
ROTA-S flex 550		
ROTA-S flex 700	VSD M12	40009901
ROTA-S flex 1000	VSD M16	40009903
ROTA-S flex 1200		
ROTA-S flex 1400	VSD M20	40009907

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

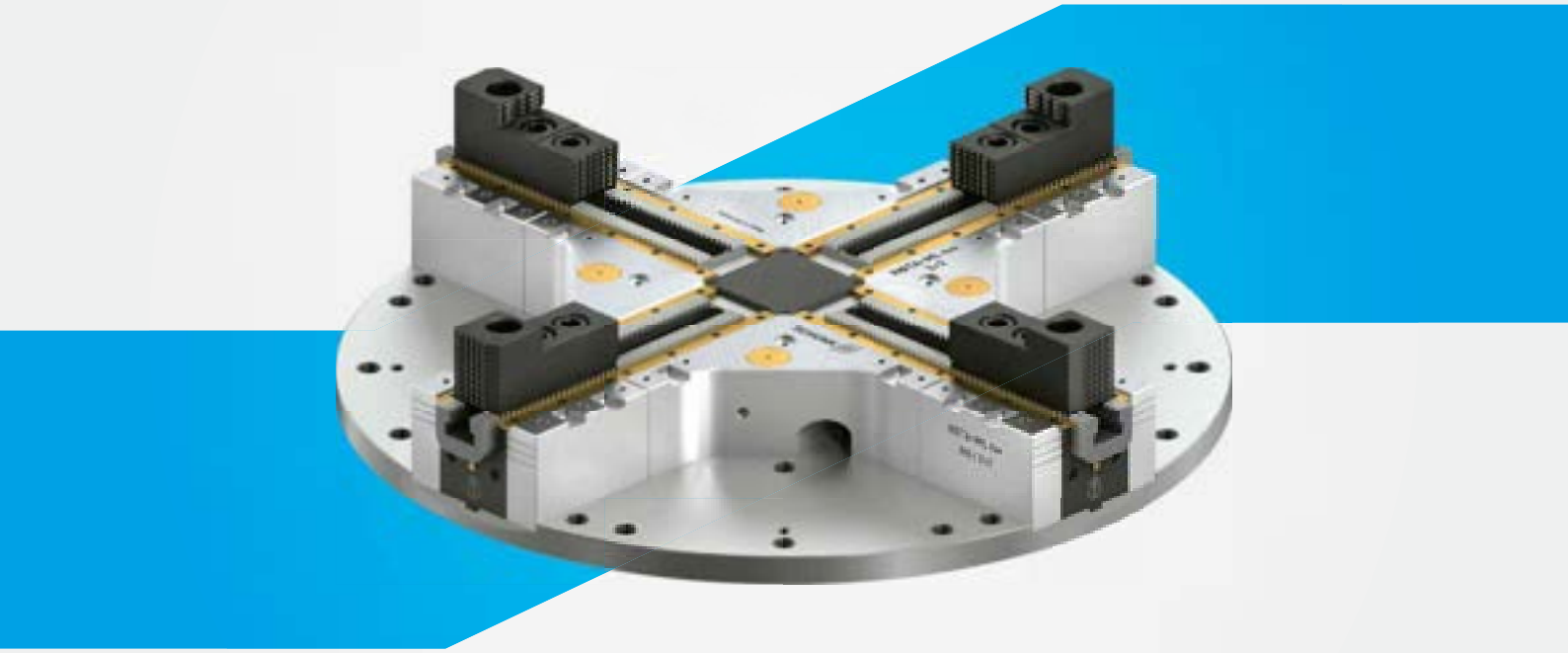
Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

schunk.com/rota-ml-flex

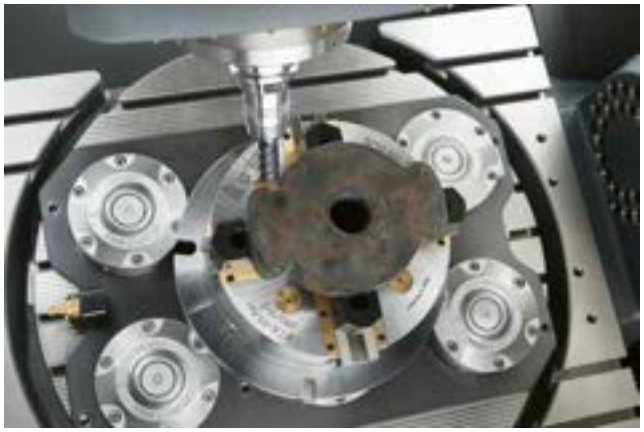


All-rounder. Flexible. Weight-reduced. Manual lathe chuck ROTA-ML flex 2+2

The ROTA-ML flex 2+2 from SCHUNK is an extremely flexible 4-jaw manual lathe chuck that combines the advantages of 2-, 3- and 4-jaw chucks on lathes as well as vises on mill/turn machines. The patented drive concept ensures centric clamping without overdetermination. This enables precise clamping of round, cubic and geometrically unshaped workpieces.

Functions & highlights

- **Compensation mechanism**
  Enables deformation-sensitive clamping even of thin-walled workpieces
- **Patented drive concept**
  Independent installation of the jaw pairs with subsequent centrically compensating workpiece clamping
- **Flexible clamping system**
  For clamping round, cubic, or geometrically bulky workpieces



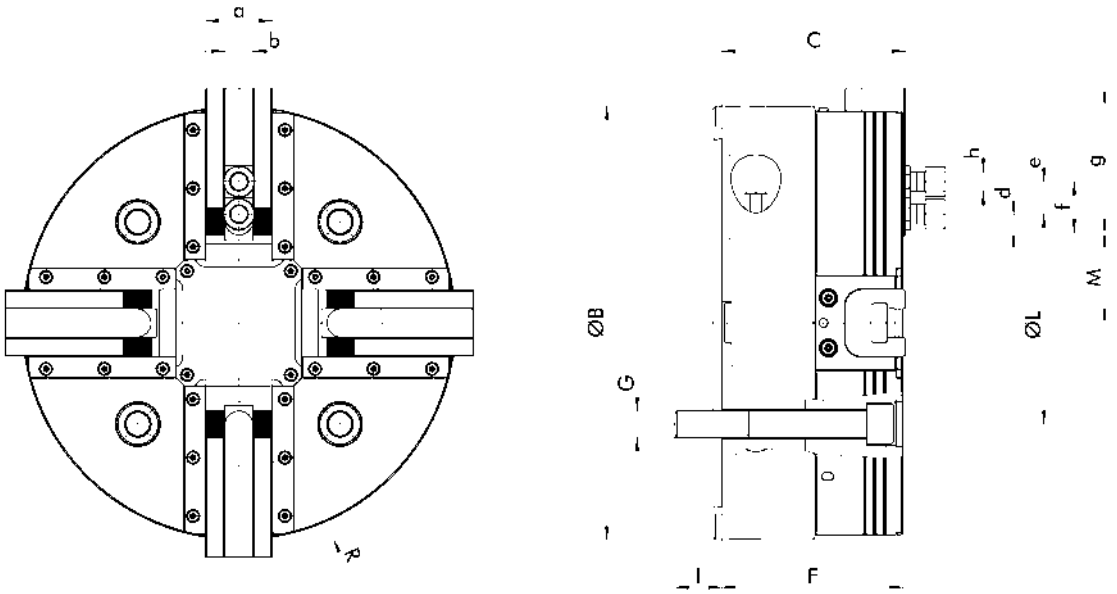
Field of application

ROTA-ML flex 2+2

Clamping of round, cubic, and geometrically unshaped parts – no problem for the ROTA-ML flex 2+2. Thanks to the patented drive concept with coupled jaw pairs, any workpiece geometry can be clamped centrically and without overdetermination. The chucks are used in particular in storage solutions and on mill/turn machines, but can also be used on lathes. The special sealing also allows cast and forged parts to be machined without hesitation.



1. **Wedge bar actuation system**
2. **Patented drive concept**
3. **Hardened and extremely rigid base body**
4. **Central lubrication system with grease reservoir**
5. **Sealing of the lathe chuck**
6. **Long jaw guidance**
7. **Standard jaw interface**
8. **Actuation via hexagon connection**
9. **Indicator pin**



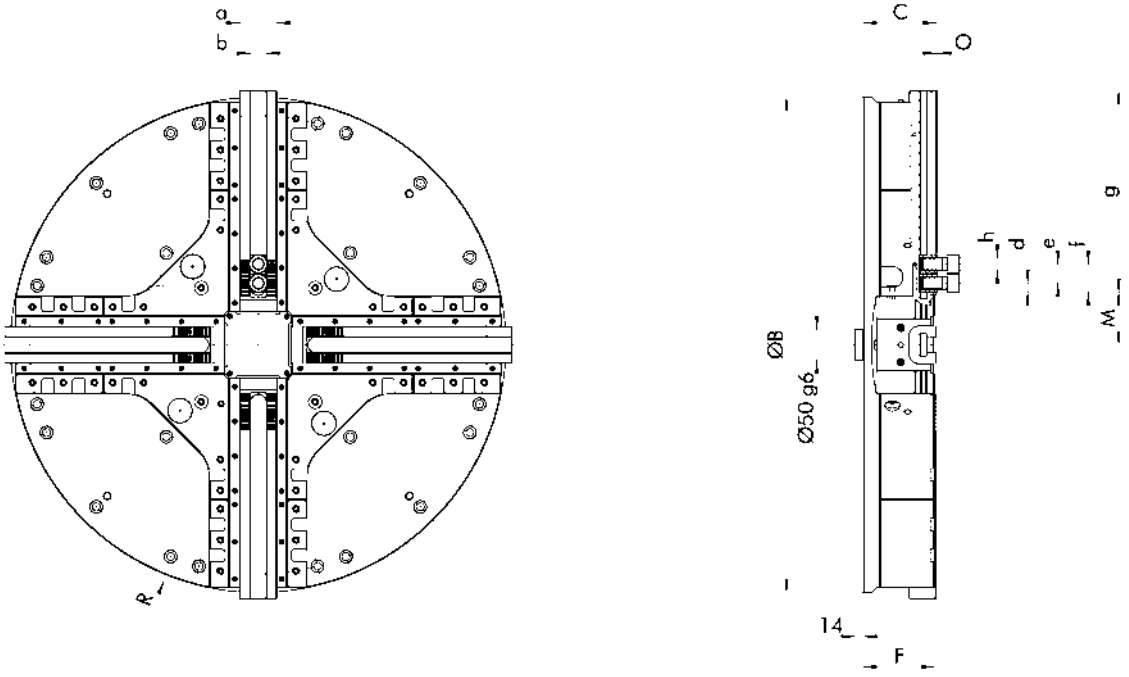
Dimensions

ID	ØB	C	F	G	I	ØL	M	ØR	a	b	d	e	f	g	h
	mm	mm	mm		mm	mm	mm	mm	mm		mm	mm	mm	mm	
1389670	260	110.1	109	M16	28	171.4	44.6 - 54	283.4	40	17 H7	11.2	19.5	76.5	86.2	M12
1400911	315	110.1	108.5	M16	28	171.4	44.6 - 54.1	387	40	17 H7	11.2	19.5	103.5	113.2	M12
1407684	400	139.6	138	M24	31	330.2	55.2 - 69.7	432.6	50	21 H7	16.7	25	133.2	145.2	M16

Technical data

Product name	Spindle type	Spindle size	ID	Serration	Max. rotational speed	Max. clamping force	Max. torque	Stroke/jaw	Compensation stroke/jaw	Weight
					RPM	kN	Nm	mm	mm	kg
ROTA-M flex 2+2 260	ISO 702-4	Nr. 8 (Z220)	1389670	1/16" x 90°	2700	100	120	9.5	5.1	41
ROTA-M flex 2+2 315	ISO 702-4	Nr. 8 (Z220)	1400911	1/16" x 90°	2200	100	120	9.5	5.1	63
ROTA-M flex 2+2 400	ISO 702-4	Nr. 15 (Z380)	1407684	1/16" x 90°	1500	150	200	14.5	7.9	125

ⓘ **Stationary applications:**
For stationary use, the ROTA-M flex 2+2 can be retrofitted with standardized console and adapter plates (see accessories).
Application 2-jaw clamping:
When using the 2-jaw clamping, a locking cover is additionally required to block one pair of jaws This is included in the scope of delivery (see accessories).
Clamping force, 2-jaw clamping:
When changing to 2-jaw clamping, the maximum clamping force is halved at the same torque.



Dimensions

ID	ØB	C	F	M	O	ØR	a	b	d	e	f	g	h
	mm	mm	mm	mm	mm	mm	mm		mm	mm	mm	mm	
1583348	524	114.4	115	68 - 85.3	3.3	539	60	25.5 H7	18.8	31	173	186.9	M20
1570299	630	114.4	115	68 - 85.3	3.3	648	60	25.5 H7	18.8	31	227.1	241.6	M20
1573345	800	117.9	115	68 - 85.3	2.3	822	60	25.5 H7	14.3	31	310.6	324.5	M20
1573346	1000	127.9	125	68 - 85.3	2.3	1025	60	25.5 H7	14.3	31	412.1	426	M20
1573347	1200	127.9	125	68 - 85.3	2.3	1227	60	25.5 H7	14.3	31	513.1	527	M20

Technical data

Product name	ID	Serration	Max. rotational speed	Max. clamping force	Max. torque	Stroke/jaw	Compensation stroke/jaw	Weight
			RPM	kN	Nm	mm	mm	kg
ROTA-ML flex 2+2 500	1583348	3/32" x 90°	1500	180	210	17.3	12	130
ROTA-ML flex 2+2 630	1570299	3/32" x 90°	1300	180	210	17.3	12	167
ROTA-ML flex 2+2 800	1573345	Modul 2	1100	180	210	17.3	12	244
ROTA-ML flex 2+2 1000	1573346	Modul 2	850	180	210	17.3	12	396
ROTA-ML flex 2+2 1200	1573347	Modul 2	750	180	210	17.3	12	530

ⓘ Lathe chucks suitable for a 22.5°, 30° or 45° star groove table

Application 2-jaw clamping:

When using the 2-jaw clamping, a locking cover is additionally required to block one pair of jaws This is included in the scope of delivery (see accessories).

Clamping force, 2-jaw clamping:

When changing to 2-jaw clamping, the maximum clamping force is halved at the same torque.

Console jaws

Console jaw movable
With 3/32" x 90° or module 2 serration.
For suitable top jaws, see "Interface" column.



Suitable for	Description	Interface	ID
ROTA-ML flex 2+2 500			
ROTA-ML flex 2+2 630	SKB-SV90° 100	W-100-1	1572700
ROTA-ML flex 2+2 800			
ROTA-ML flex 2+2 1000			
ROTA-ML flex 2+2 1200	SKB-M2 100	W-100-1	1572701

Console jaw fixed
Can be positioned in the chuck face via T-slots.
For suitable top jaws, see "Interface" column.



Suitable for	Description	Interface	ID
ROTA-ML flex 2+2 500			
ROTA-ML flex 2+2 630			
ROTA-ML flex 2+2 800			
ROTA-ML flex 2+2 1000			
ROTA-ML flex 2+2 1200	SKB-F 100	W-100-1	1572658

Accessories

Clamping force tester
For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Suitable for	Description	ID
ROTA-M flex 2+2 260		
ROTA-M flex 2+2 315		
ROTA-M flex 2+2 400		
ROTA-ML flex 2+2 500		
ROTA-ML flex 2+2 630		
ROTA-ML flex 2+2 800		
ROTA-ML flex 2+2 1000		
ROTA-ML flex 2+2 1200	IFT Set	1404235

Measuring head adapter for 4-jaw clamping
For use as an extension of the IFT measuring head for measuring the jaw clamping force of 4-jaw chucks.



Suitable for	Description	ID
ROTA-M flex 2+2 260		
ROTA-M flex 2+2 315		
ROTA-M flex 2+2 400		
ROTA-ML flex 2+2 500		
ROTA-ML flex 2+2 630		
ROTA-ML flex 2+2 800		
ROTA-ML flex 2+2 1000		
ROTA-ML flex 2+2 1200	IFT MA4	1452686

Extension set for large chucks
For use as an extension of the IFT measuring head for measuring the jaw clamping force of large chucks of Ø 400 mm and more.



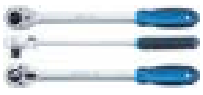
Suitable for	Description	ID
ROTA-M flex 2+2 400		
ROTA-ML flex 2+2 500		
ROTA-ML flex 2+2 630		
ROTA-ML flex 2+2 800		
ROTA-ML flex 2+2 1000		
ROTA-ML flex 2+2 1200	IFT adapter set	1498512

Torque wrench
Torque wrench for actuation of SCHUNK manual lathe chucks.



Suitable for	Description	ID
ROTA-M flex 2+2 260		
ROTA-M flex 2+2 315		
ROTA-M flex 2+2 400	SSH-D-1/2" 40-200	9938065
ROTA-ML flex 2+2 500		
ROTA-ML flex 2+2 630		
ROTA-ML flex 2+2 800		
ROTA-ML flex 2+2 1000		
ROTA-ML flex 2+2 1200	SSH-D-1/2" 60-300	1301281

Ratchets
Ratchet for fast actuation of SCHUNK manual lathe chucks.



Suitable for	Description	ID
ROTA-M flex 2+2 260		
ROTA-M flex 2+2 315		
ROTA-M flex 2+2 400		
ROTA-ML flex 2+2 500		
ROTA-ML flex 2+2 630		
ROTA-ML flex 2+2 800		
ROTA-ML flex 2+2 1000		
ROTA-ML flex 2+2 1200	SSH-K 1/2"-350	1151118

Hexagon actuation wrench

Spanner wrench for manual actuation of the SCHUNK manual lathe chucks with hexagonal connections.



Suitable for	Description	ID
ROTA-M flex 2+2 260 ROTA-M flex 2+2 315	SSH-SK SW12-160	1330869
ROTA-M flex 2+2 260 ROTA-M flex 2+2 315	SSH-SL SW12-260	8704921
ROTA-M flex 2+2 400	SSH-SK SW16-230	1330894
ROTA-M flex 2+2 400	SSH-SL SW16-330	8704923

Hexagon spanner wrench adapter with ejector

For use as an attachment for a torque wrench and ratchet for actuating SCHUNK manual lathe chucks with hexagonal connection.



Suitable for	Description	ID
ROTA-M flex 2+2 260 ROTA-M flex 2+2 315	SAS-I 1/2"-SW12	8705487
ROTA-M flex 2+2 400 ROTA-ML flex 2+2 500 ROTA-ML flex 2+2 630 ROTA-ML flex 2+2 800 ROTA-ML flex 2+2 1000 ROTA-ML flex 2+2 1200	SAS-I 1/2"-SW16	8705471

Consol plate

For mounting the ROTA-M flex 2+2 manual lathe chucks on T-slot tables. The console plate must still be adapted to the respective machine table.



Suitable for	Description	ID
ROTA-M flex 2+2 260	KSL flex 260	1452440
ROTA-M flex 2+2 315	KSL flex 315	1452441
ROTA-M flex 2+2 400	KSL flex 400	1452442

Adapter plate

As a standard size for sizes Ø 260 to Ø 400 mm.



Suitable for VERO-S	Description	ID
NSL3 400	ADP-NSL3 400	1454646
NSL3 turn 450-3	ADP-NSL3 turn 450	1454659
NSL3 turn 450-3-Z	ADP-NSL3 turn 450-Z	1454670
NSL3 turn 570-5	ADP-NSL3 turn 570	1454668
NSL3 turn 570-5-Z	ADP-NSL3 turn 570-Z	1454671

Locking cover

For locking of a jaw pair to realize a two jaw clamping.



Suitable for	Description	ID
ROTA-M flex 2+2 260 ROTA-M flex 2+2 315	SLC 260-315	1471984
ROTA-M flex 2+2 400	SLC 400	1471987
ROTA-ML flex 2+2 500 ROTA-ML flex 2+2 630 ROTA-ML flex 2+2 800 ROTA-ML flex 2+2 1000 ROTA-ML flex 2+2 1200	SLC 500-1200	1471989

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

schunk.com/spk



Individual. Durable. Convenient. Jaw boxes SPK

The jaw boxes SPK from SCHUNK offer a robust solution for face plates with parallel T-slots. Their fully enclosed jaw drive ensures permanent protection against dust, chips, and cooling lubricants resulting in low wear and a long service life. The base jaws of the jaw box are available with either tongue and groove or fine serrations, which allows a high degree of flexibility in the area of top jaws.

Functions & highlights

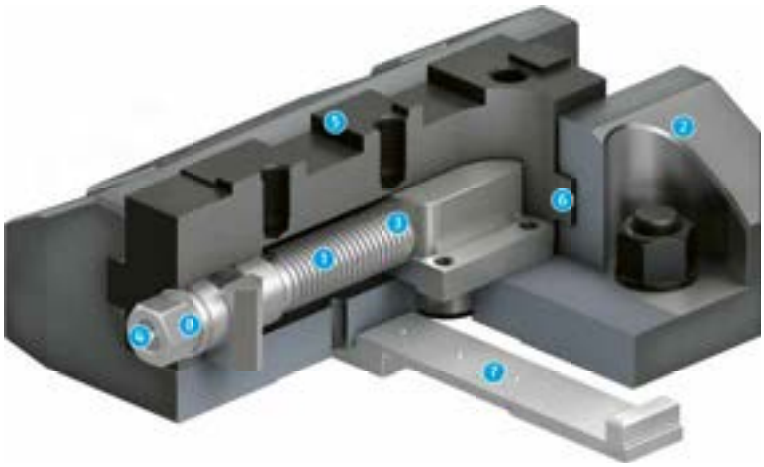
- **Improved design which is insensitive to dirt**
  The completely enclosed jaw drive permanently ensures optimal protection
- **Individual adjustment to suit the face plate of your machine**
  Thanks to the variable gauge clearance, the jaw boxes can be adapted to your face plate
- **High flexibility in the range of top jaws**
  Base jaws with tongue and groove or fine serration enable a broad selection of top jaws



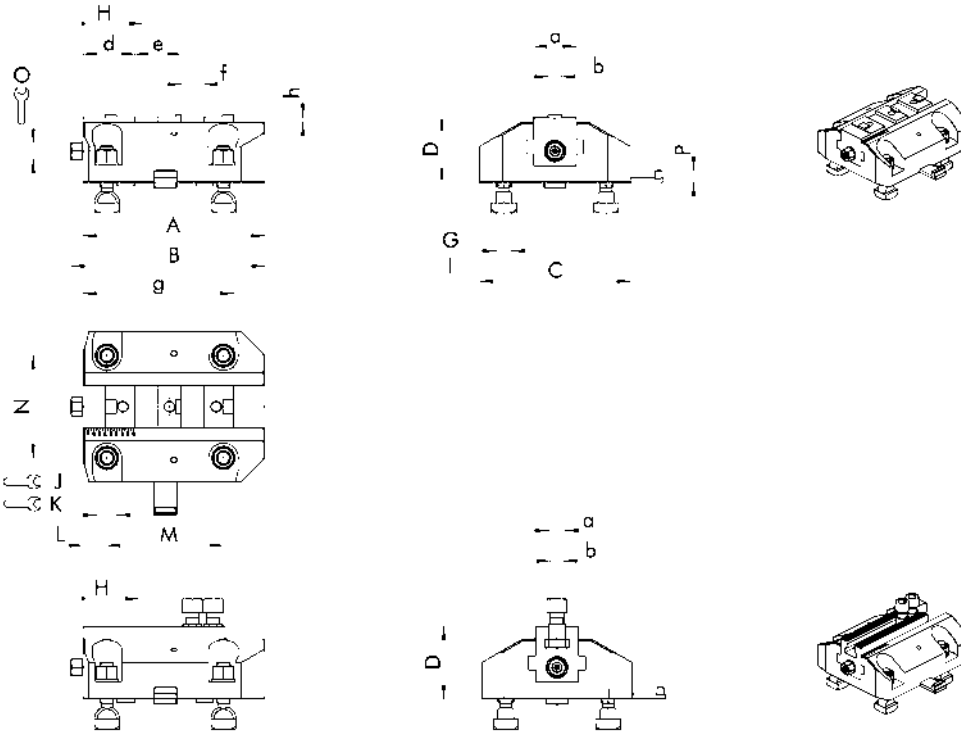
Field of application

SPK

SCHUNK's dirt-resistant jaw boxes are specially designed for individual clamping solutions on face plates with T-slots running in parallel. The variable adjustment of the gauge clearance makes it possible for the jaw boxes to be customized to the respective face plate. A completely enclosed jaw drive permanently ensures optimal protection against dust, chips, and coolant.



1. **Spindle drive**
2. **Hardened and extremely rigid base body**
3. **Completely encapsulated spindle**
4. **Optimized lubrication system**
5. **Standard jaw interface**
6. **Long jaw guidance**
7. **Crossbar**
8. **Actuation via hexagon connection**



Dimensions

ID	A	B	C	D	G	I	J	K	L	M	N	O	P	a	b	d	e	f	g	h
	mm	mm	mm	mm					mm	mm	mm	mm	mm			mm	mm	mm	mm	mm
0812151	275	296	225	105	22 h6 (M20)	28 h6 (M24)	30 (M20)	36 (M24)	42	165	140 – 180	30	21	60	18	45	60	30	230	9
0812150	275	296	225	111	22 h6 (M20)	28 h6 (M24)	30 (M20)	36 (M24)	42	165	180 – 220	30	21	25.5 H7	M20					16
0812161	320	341	265	115	22 h6 (M20)	28 h6 (M24)	30 (M20)	36 (M24)	42	205	140 – 180	30	21	75	24	91	82	40	265	9
0812160	320	341	265	127	22 h6 (M20)	28 h6 (M24)	30 (M20)	36 (M24)	42	205	220 – 260	30	21	30 H7	M24					22
0812171	350	371	320	115	36 h6 (M30)	28 h6 (M24)		36 (M24)	50	220	180 – 220	30	21	75	24	111	82	40	285	9
0812170	350	371	320	127	36 h6 (M30)	28 h6 (M24)		36 (M24)	50	220	220 – 260	30	21	30 H7	M24					22

Technical data

Description	ID	Serration	Max. clamping force	Max. torque	Adjustment range chuck jaw	Gauge	Width T-slot	Weight
			kN	Nm	mm	mm	mm	kg
SPK 180 SV90°	0812151	3/32" x 90°	55	230	75	140 – 180	22 – 28	33.5
SPK 180 KV	0812150	Tongue and groove	55	230	75	140 – 180	22 – 28	33.5
SPK 220 SV90°	0812161	3/32" x 90°	68	330	90	180 – 220	22 – 28	52.7
SPK 220 KV	0812160	Tongue and groove	68	330	90	180 – 220	22 – 28	52.7
SPK 260 SV90°	0812171	3/32" x 90°	75	360	100	220 – 260	28 – 36	68.8
SPK 260 KV	0812170	Tongue and groove	75	360	100	220 – 260	28 – 36	68.8

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

schunk.com/rota-s-plus

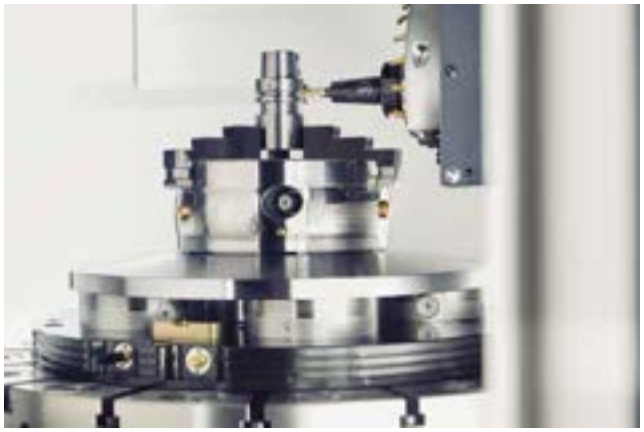


Universal. Economical. Process-reliable. Manual lathe chuck ROTA-S plus 2.0

The manual lathe chuck with jaw quick-change system ROTA-S plus 2.0 ensures optimal results in workpiece clamping on machining centers. The optimized wedge-bar drive as well as the improved lubrication system ensure constantly high clamping forces.

Functions & highlights

- **Convenient jaw quick-change system**
  The jaw quick-change system minimizes set-up times and thus increases the efficiency of the lathe chuck
- **Universal clamping**
  No matter wether for O.D. or I.D. clamping, or for raw or finish-part machining
- **High process reliability**
  The optimized lubrication system and the high efficiency of the wedge bar system ensure reliable clamping



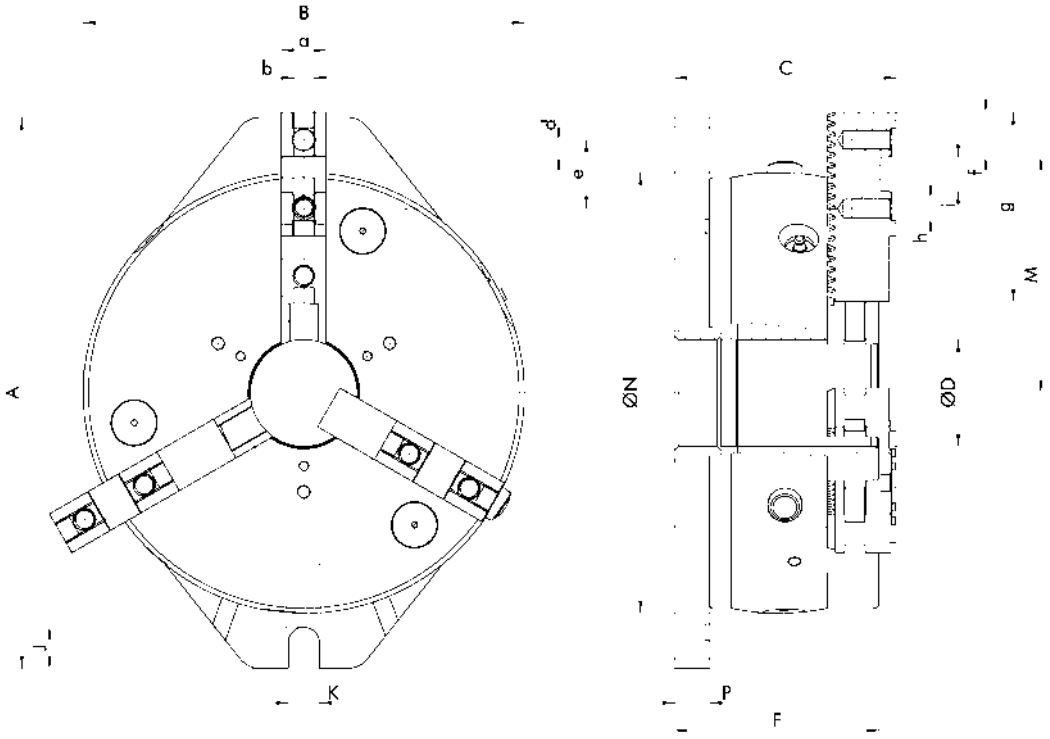
Field of application

ROTA-S plus 2.0

The ROTA-S plus 2.0 manual lathe chuck is specifically designed for storage solutions and conventional lathes without hydraulic or pneumatic cylinders. The jaw quick-change system makes the lathe chucks suitable for flexible manufacturing from batch size 1. The manual lathe chucks can be quickly and easily attached to the machine table using a base plate or, in combination with VERO-S, can also be automatically inserted and removed using a robot.



1. **Wedge bar actuation system**
2. **Hardened and extremely rigid base body**
3. **Large through-hole**
4. **Optimized lubrication system**
5. **Mounting thread**
6. **Jaw quick-change system**
7. **Base jaws with angled serration (SFG)**
8. **Locking mechanism**
9. **Plunger pin**

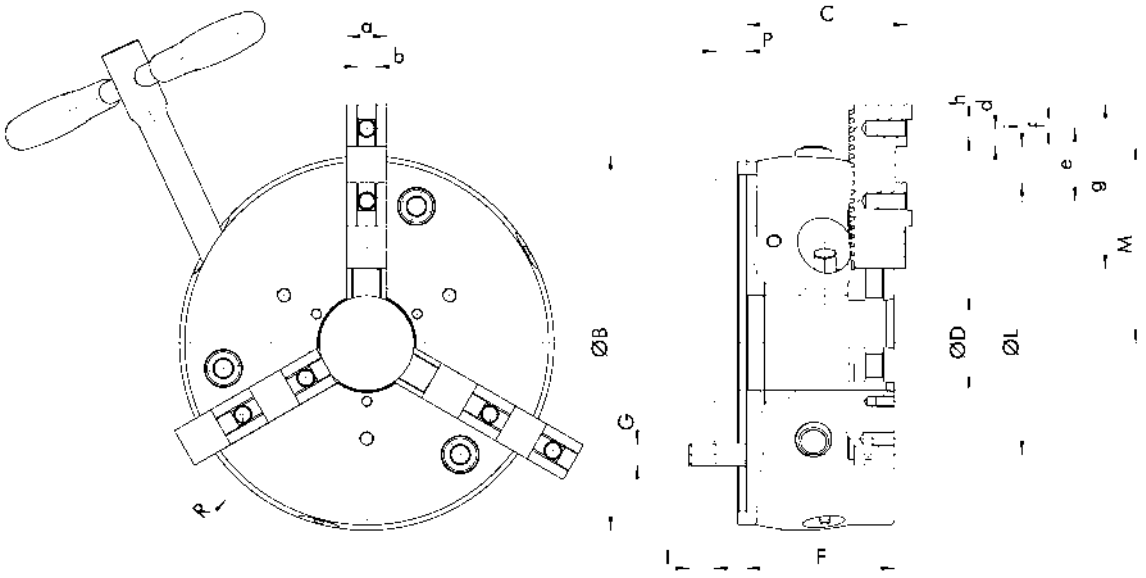


Dimensions

ID	A	B	C	ØD	F	J	K	M	ØN	P	a	b	d	e	f	g	h	i
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		mm	mm	mm	mm		
0819921	220	165	91.46	42	83.5	24	14	70.3 – 84.8	165	14.8	20	8 h8	7	32	19	74	M8x1	18 H7
0819922	282	209.6	115.1	52	105.3	26	14	83.7 – 108.2	205.8	18.8	22	10 h8	10	32	23	90	M8x1	20 H7
0819923	320	256	128.6	62	118.5	24	18	98.9 – 135.1	255	20.3	26	12 h8	10	40	26	110	M12x1.5	20 H7
0819924	410	322.9	155.9	92	145	30	20	113.7 – 170.1	322	27.8	32	12 h8	14	54	30	125	M12x1.5	26 H7

Technical data

Description	ID	Mounting	Max. clamping force	Max. torque	Stroke per jaw	Tooth pitch	Weight
			kN	Nm	mm	mm	kg
ROTA-S plus 2.0 160 K-SFG	0819921	Consol plate	65	80	6.5	4.8	12
ROTA-S plus 2.0 200 K-SFG	0819922	Consol plate	100	120	7	4.8	25.5
ROTA-S plus 2.0 250 K-SFG	0819923	Consol plate	160	210	7.7	6	42.2
ROTA-S plus 2.0 315 K-SFG	0819924	Consol plate	180	220	9.9	7	80



Dimensions

ID	ØB	C	ØD	F	G	I	ØL	M	R	a	b	d	e	f	g	h	i
	mm	mm	mm	mm		mm	mm	mm	mm	mm		mm	mm	mm	mm		
0819911	165	69.1	42	63.5	M10	16.5	125	52.5 – 67	104.3	20	8 h8	7	32	19	74	M8x1	18 H7
0819912	205.8	88.1	52	81.3	M12	16.7	160	58.7 – 83.2	131.6	22	10 h8	10	32	23	90	M8x1	20 H7
0819913	255	99.1	62	92	M20	20	200	58.9 – 95.1	161.6	26	12 h8	10	40	26	110	M12x1.5	20 H7
0819914	322	118.7	92	111	M20	35	250	73.7 – 130.1	200.7	32	12 h8	14	54	30	125	M12x1.5	26 H7
0410015	408	129	102	118	M24	34	330.2	138.6 – 218.6	254.8	45	18 h8	15	60	35	160	M16x1.5	30 H7
0410016	507	130	162	119	M24	23	330.2	155.5 – 261.5	297.3	45	18 h8	15	60	35	160	M16x1.5	30 H7

Technical data

Description	ID	Mounting	Max. clamping force	Max. torque	Stroke per jaw	Tooth pitch	Weight
			kN	Nm	mm	mm	kg
ROTA-S plus 2.0 160 Z145-SFG	0819911	Centering recess	65	80	6.5	4.8	7.9
ROTA-S plus 2.0 200 Z185-SFG	0819912	Centering recess	100	120	7	4.8	16.2
ROTA-S plus 2.0 250 Z235-SFG	0819913	Centering recess	160	210	7.7	6	28.8
ROTA-S plus 2.0 315 Z300-SFG	0819914	Centering recess	180	220	9.9	7	54.2
ROTA-S plus 400 Z380-SFG	0410015	Centering recess	230	280	12	8.5	99
ROTA-S plus 500 Z460-SFG	0410016	Centering recess	270	320	12	8.5	152

Accessories

Clamping force tester
For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Suitable for	Description	ID
ROTA-S plus 2.0 160 ROTA-S plus 2.0 200 ROTA-S plus 2.0 250 ROTA-S plus 2.0 315 ROTA-S plus 400 ROTA-S plus 500	IFT Set	1404235

Extension set for large chucks
For use as an extension of the IFT measuring head for measuring the jaw clamping force of large chucks of Ø 400 mm and more.



Suitable for	Description	ID
ROTA-S plus 400 ROTA-S plus 500	IFT adapter set	1498512

Maintenance kit
Consisting of a grease gun, LINOMAX plus grease cartridge, chip protection, and sealing plug.



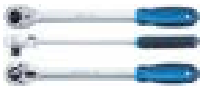
Suitable for	Description	ID
ROTA-S plus 2.0 160	WTS-S 160	0899014
ROTA-S plus 2.0 200	WTS-S 200	0899015
ROTA-S plus 2.0 250	WTS-S 250	0899016
ROTA-S plus 2.0 315	WTS-S 315	0899017
ROTA-S plus 400	WTS-S 400	0899018
ROTA-S plus 500	WTS-S 500	0899019

Torque wrench
Torque wrench for actuation of SCHUNK manual lathe chucks.



Suitable for	Description	ID
ROTA-S plus 2.0 160 ROTA-S plus 2.0 200	SSH-D-1/2" 40-200	9938065
ROTA-S plus 2.0 250 ROTA-S plus 2.0 315	SSH-D-1/2" 60-300	1301281
ROTA-S plus 400 ROTA-S plus 500	SSH-D-3/4" 80-400	1301023

Ratchets
Ratchet for fast actuation of SCHUNK manual lathe chucks.



Suitable for	Description	ID
ROTA-S plus 2.0 160 ROTA-S plus 2.0 200 ROTA-S plus 2.0 250		
ROTA-S plus 2.0 315	SSH-K 1/2"-350	1151118
ROTA-S plus 400	SSH-K 3/4"-510	9987240
ROTA-S plus 500	SSH-K 3/4"-620	9987241

Hexagon spanner wrench adapter with ejector
For use as an attachment for a torque wrench and ratchet for actuating SCHUNK manual lathe chucks with hexagonal connection.



Suitable for	Description	ID
ROTA-S plus 2.0 160 ROTA-S plus 2.0 200	SAS-I 1/2"-SW12	8705487
ROTA-S plus 2.0 250 ROTA-S plus 2.0 315	SAS-I 1/2"-SW16	8705471

Square spanner wrench adapter with ejector
For use as an attachment for a torque wrench and ratchet for actuating SCHUNK manual lathe chucks with hexagonal connection.



Suitable for	Description	ID
ROTA-S plus 400 ROTA-S plus 500	SAV-I 3/4"-SW19	8705470

Consol plate
Standard version for conversion of all ROTA-S plus 2.0 manual lathe chucks for stationary applications. The sizes 400 to 630 are available on request.



Suitable for	Description	ID
ROTA-S plus 2.0 160	KSL 160	0814270
ROTA-S plus 2.0 200	KSL 200	0814271
ROTA-S plus 2.0 250	KSL 250	0814272
ROTA-S plus 2.0 315	KSL 315	0814273

Sealing plug

For closing the through-hole on manual lathe chucks ROTA-S plus 2.0, ROTA-S plus and ROTA-G.



Suitable for	Description	ID
ROTA-S plus 2.0 160	VST Ø42	8702833
ROTA-S plus 2.0 200	VST Ø52	8702867
ROTA-S plus 2.0 250	VST Ø62	8702868
ROTA-S plus 2.0 315	VST Ø92	8702869
ROTA-S plus 400	VST Ø102	8702870
ROTA-S plus 500	VST Ø162	8702871

Chip protection

For better protection against the penetration of chips for the manual lathe chucks ROTA-S plus 2.0, ROTA-S plus and ROTA-G.



Suitable for	Description	ID
ROTA-S plus 2.0 160		
ROTA-S plus 2.0 200	SPS 160/200	9966639
ROTA-S plus 2.0 250	SPS 250	9966640
ROTA-S plus 2.0 315	SPS 315	9966641
ROTA-S plus 400		
ROTA-S plus 500	SPS 400/500	9966642

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

schunk.com/rota-tps



Powerful. Versatile. Pneumatic. Pneumatic lathe chuck ROTA TPS

Power transmission of the ROTA TPS is carried out via the proven wedge-hook system. With an air pressure of 6 bar, it is already possible to achieve high clamping forces, which can easily be adapted to the particular task.

Functions & highlights

- **Mounting via console plate**
  Adapts quickly and easily to any machine table
- **Pneumatic cylinder integrated in the chuck**
  No additional backside cylinder is necessary
- **All sides of the functional parts are hardened and ground**
  Ensures a long service life



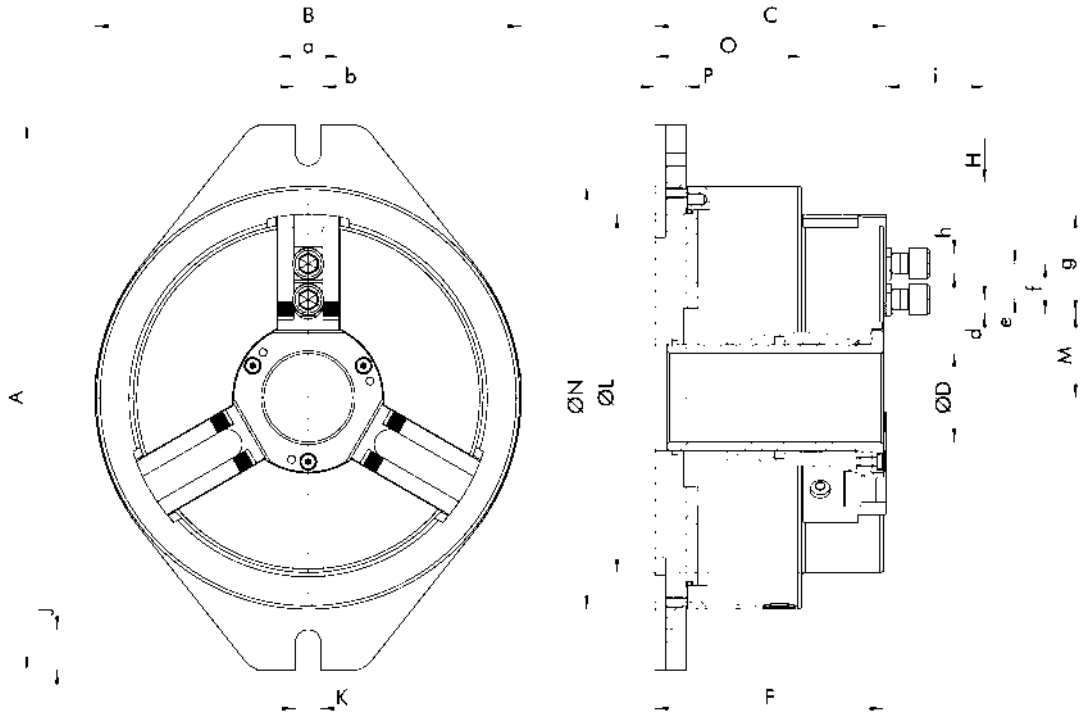
Field of application

ROTA TPS

The pneumatic ROTA TPS power lathe chucks are especially designed for stationary use. Particularly, if there are no hydraulic systems, they are suitable as an adequate replacement due to the integrated pneumatic cylinder. The ROTA TPS power lathe chuck can be adapted quickly and easily to any machine table by using a console plate.



1. **Wedge hook drive**
2. **Hardened and extremely rigid base body**
3. **Large through hole**
4. **Optimized lubrication system**
5. **Low height**
6. **Standard jaw interface**
7. **Adaptation to the machine table**
8. **Dirt-resitant design**
9. **Integrated pneumatic cylinder**
10. **Pneumatic system**

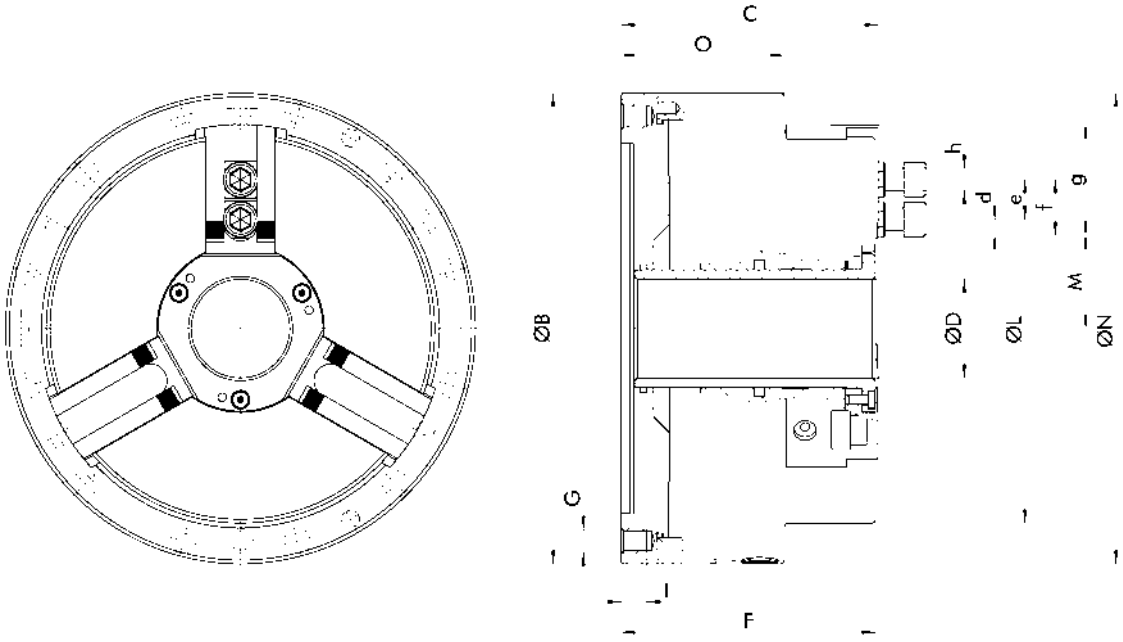


Dimensions

ID	A	B	C	ØD	F	J	K	ØL	M	ØN	O	P	a	b	d	e	f	g	h	i
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		mm	mm	mm	mm		mm
0816127	220	161	104	26	102.5	13	22	130	26.5 – 29.5	160	67.5	14.5	24	11 H7	5.5	16	31.5	38	M8	40
0816137	275	206	131	38	129.5	15	24	165	35.9 – 40.1	206	83.5	18.5	30	14 H7	6.4	18	40.4	48	M10	45
0816147	320	250	135.5	52	134	15	24	205	45 – 49.2	248	86	18.5	36	17 H7	8.3	21	51.3	58.4	M12	50
0816157	400	316	147	68	145.5	18	30	225	54.4 – 59.4	315	93.5	19.5	44	21 H7	9.6	26	64	74	M16	70
88000779	400	335	158	105	156.5	18	30	335	74.1 – 79.1	315	86.5	26	44	21 H7	13	26	84	95	M16	70
0816167	430	351	158	90	156.5	20	30	320	65.6 – 70.6	346	104.5	26	44	21 H7	9.4	26	84	94.9	M16	70

Technical data

Description	ID	Mounting	Max. clamping force (at 6 bar)	Actuation pressure	Stroke per jaw	Weight
			kN	bar	mm	kg
ROTA TPS 125-26 K-SV90°	0816127	Consol plate	22	3 – 8	3	12
ROTA TPS 160-38 K-SV90°	0816137	Consol plate	39	3 – 8	4.2	23
ROTA TPS 200-52 K-SV90°	0816147	Consol plate	68	3 – 8	4.2	34
ROTA TPS 250-68 K-SV90°	0816157	Consol plate	105	3 – 8	5	60
ROTA TPS 315-105 K-SV90°	88000779	Consol plate	100	3 – 8	5	72
ROTA TPS 315-90 K-SV90°	0816167	Consol plate	140	3 – 8	5	82



Dimensions

ID	B	C	ØD	F	G	I	ØL	M	ØN	O	a	b	d	e	f	g	h	i
	mm	mm	mm	mm		mm	mm	mm	mm	mm	mm		mm	mm	mm	mm		mm
0816126	160	104	26	101.5	M8	10.5	130	26.5 – 29.5	160	66.5	24	11 H7	5.5	16	31.5	38	M8	40
0816136	205	131	38	129.5	M12	13.5	165	35.9 – 40.1	206	83.5	30	14 H7	6.4	18	40.4	48	M10	45
0816146	248	135.5	52	134	M12	13.5	205	45 – 49.2	248	86	36	17 H7	8.3	21	51.3	58.4	M12	50
0816156	315	147.5	68	146	M12	15	225	54.4 – 59.4	315	93.5	44	21 H7	9.6	26	64	74	M16	70
88000785	315	157.5	105	156	M12	18	335	74.1 – 79.1	315	86	44	21 H7	13	26	84	95	M16	70
0816166	350	158	90	156.5	M12	15	320	65.6 – 70.6	346	104.5	44	21 H7	9.4	26	84	94.9	M16	70

Technical data

Description	ID	Mounting	Max. clamping force (at 6 bar)	Actuation pressure	Stroke per jaw	Weight
			kN	bar	mm	kg
ROTA TPS 125-26 Z-SV90°	0816126	Centering recess	22	3 – 8	3	12
ROTA TPS 160-38 Z-SV90°	0816136	Centering recess	39	3 – 8	4.2	23
ROTA TPS 200-52 Z-SV90°	0816146	Centering recess	68	3 – 8	4.2	34
ROTA TPS 250-68 Z-SV90°	0816156	Centering recess	105	3 – 8	5	60
ROTA TPS 315-105 Z-SV90°	88000785	Centering recess	100	3 – 8	5	72
ROTA TPS 315-90 Z-SV90°	0816166	Centering recess	140	3 – 8	5	82

Accessories

Clamping force tester

For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Suitable for	Description	ID
ROTA TPS 125-26		
ROTA TPS 160-38		
ROTA TPS 200-52		
ROTA TPS 250-68		
ROTA TPS 315-105		
ROTA TPS 315-90	IFT Set	1404235

Pressure measuring unit

For checking pressure tightness.



Suitable for	Description	ID
ROTA TPS 125-26	DMG Ø12-NPT1/4"	8702678
ROTA TPS 160-38		
ROTA TPS 200-52		
ROTA TPS 250-68		
ROTA TPS 315-105		
ROTA TPS 315-90	DMG Ø20-NPT1/4"	8702679

Maintenance unit

For processing the required compressed air.



Suitable for	Description	ID
ROTA TPS 125-26		
ROTA TPS 160-38		
ROTA TPS 200-52		
ROTA TPS 250-68		
ROTA TPS 315-105		
ROTA TPS 315-90	WEH 1/4"	0890021

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543

schunk.com/rota-nck-s-plus



Powerful. Compact. Process-reliable. Hydraulic lathe chuck ROTA NCK-S plus

The ROTA NCK-S plus has a one-piece, hardened chuck body, long jaw guidances, as well as a long and precise piston guidance. Due to the integrated lubrication of the wedge hook and wear-resistant parts, the robust and versatile chuck can also be easily maintained.

Functions & highlights

- **Integrated hydraulic cylinder**
  Delicate clamping due to large control range
- **Low height**
  Maximum use of the machine room and maximum rigidity of the system
- **Excellent price-performance ratio**
  Optimal use of the lathe chuck



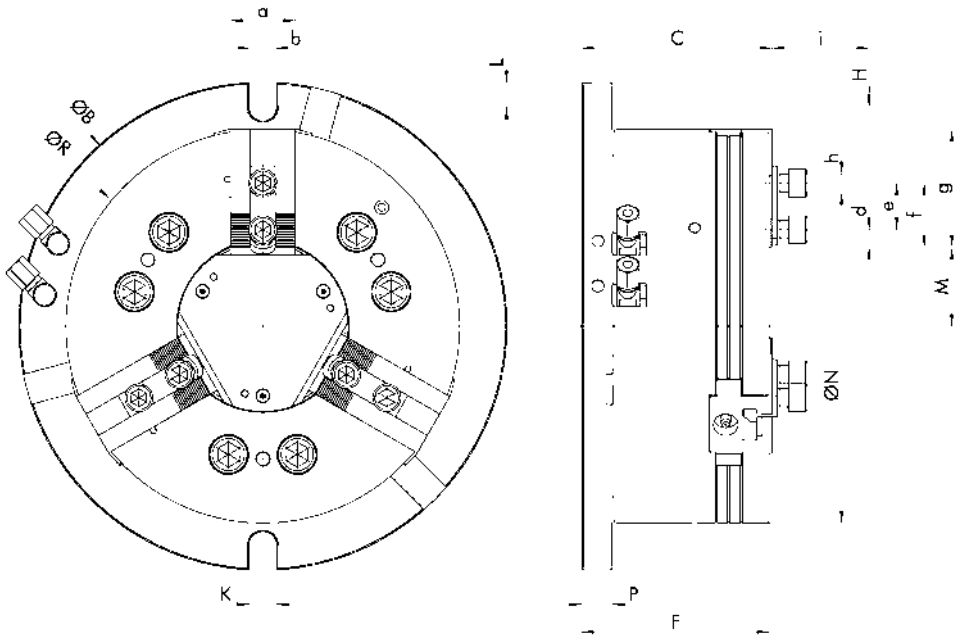
Field of application

ROTA NCK-S plus

The extremely flat, precision wedge-hook power lathe chuck ROTA NCK-S plus with integrated hydraulic cylinder is a price-attractive clamping solution for stationary use. High clamping forces and accuracy make the chuck the ideal clamping device for daily use.



1. **Wedge hook drive**
2. **Hardened and extremely rigid base body**
3. **Long jaw guidance**
4. **Optimized lubrication system**
5. **Fastening thread**
6. **Serration of the base jaws**
7. **Jaw stroke display**
8. **Low height**
9. **Integrated hydraulic cylinder**
10. **Hydraulic system**



Dimensions

Description	ØB mm	C mm	F mm	K mm	L mm	ØN mm	M mm	P mm	ØR mm	a mm	b	d min. mm	e mm	f max. mm	g mm	h	i mm
ROTA NCK-S plus 165 K-SV60°	240	104	102	14	23	169	30.45 - 33.2	20	177	32	12 H7	8	20	48.1	53.3	M10	47
ROTA NCK-S plus 165 K-SV90°	240	104	102	14	23	169	30.55 - 33.3	20	177	32	14 H7	8.5	min. 26.5	48	53.2	M10	47
ROTA NCK-S plus 210 K-SV60°	270	114.2	111.4	14	19	210	36.4 - 40.1	20	213	37	14 H7	9.5	25	58.2	64.4	M12	53
ROTA NCK-S plus 210 K-SV90°	270	114.2	111.4	14	19	210	36.5 - 40.2	20	213	37	17 H7	9.8	min. 20	58.2	64.3	M12	53
ROTA NCK-S plus 250 K-SV60°	315	123	121	18	16	254	48.1 - 52.5	20	258	42	16 H7	9.9	30	68.4	74.6	M12	58
ROTA NCK-S plus 250 K-SV90°	315	123	121	18	16	254	48.2 - 52.6	20	258	42	17 H7	10.6	min. 20	67.6	74.5	M12	58
ROTA NCK-S plus 315 K-SV60°	365	133	131	20	17.5	304	57.4 - 62.7	20	307.5	52	21 H7	13	30	80.2	88.5	M16	65
ROTA NCK-S plus 315 K-SV90°	365	133	131	20	17.5	304	57.4 - 62.7	20	307.5	52	21 H7	16.5	min. 26	80.2	88.4	M16	65

Technical data

Description	ID	Mounting	Max. clamping force kN	Actuation pressure bar	Stroke per jaw mm	Weight kg
ROTA NCK-S plus 165 K-SV60°	0450200	Consol plate	57	195	2.75	20.1
ROTA NCK-S plus 165 K-SV90°	0450204	Consol plate	57	195	2.75	20.1
ROTA NCK-S plus 210 K-SV60°	0450201	Consol plate	84	195	3.7	31.2
ROTA NCK-S plus 210 K-SV90°	0450205	Consol plate	84	195	3.7	31.2
ROTA NCK-S plus 250 K-SV60°	0450202	Consol plate	111	120	4.4	47.6
ROTA NCK-S plus 250 K-SV90°	0450206	Consol plate	111	120	4.4	47.6
ROTA NCK-S plus 315 K-SV60°	0450203	Consol plate	144	120	5.3	72.4
ROTA NCK-S plus 315 K-SV90°	0450207	Consol plate	144	120	5.3	72.4

Accessories

Clamping force tester

For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM.



Suitable for	Description	ID
ROTA NCK-S plus 165		
ROTA NCK-S plus 210		
ROTA NCK-S plus 250		
ROTA NCK-S plus 315	IFT Set	1404235

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Weight kg	Description	ID
Cartridge	0.5	LINOMAX plus cartridge	1342585
Can	1	LINOMAX plus can	1342586
Bucket	21.5	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Weight kg	Description	ID
Cartridge	1.46	Grease gun	9900543


SCHUNK KONTEC KSC3 125
SCHUNK KONTEC SKD 125-2

Overview manual clamping systems



KONTEC configurator Page 426



5-axis vise for 6-sided machining KSX-C2 Page 428



Power-amplified 5-axis vise KSX Page 438



Power-reinforced vise with fixed jaws KSG Page 450



Vise with fixed jaw KSC-F Page 464



Centric clamping vise KSC3 Page 478



Centric clamping vise for small components KSC mini Page 494



Double clamping vise KSC-D Page 500



Clamping rail KSM2 Page 510

schunk.com/kontec-configurator



Quick. Online. Customized.
KONTEC configurator

The KONTEC configurator offers an intuitive way to configure complete clamping systems online. You will receive a visual 3D image of your current configuration.

Functions & highlights

- **Limitless possibilities**
  By combining many KONTEC clamping systems and jaws
- **3D data in real time**
  Visualize desired product, download as .step file, and export parts lists
- **Preconfigured solutions to get you started**
  Extensive collection of customer solutions to find inspiration for your manufacturing



Field of application

KONTEC configurator

With the help of the KONTEC configurator, you can configure complete clamping solutions yourself as required. After successful configuration, both a parts list with all IDs and the 3D data can be downloaded.



1. **3D model in real-time view**
2. **Suitable jaws**
3. **Download of 3D data and parts list**
4. **Products included in configuration**

schunk.com/ksx-c2



Precise. Efficient. Flexible.
5-axis vise KSX-C2 for 6-sided machining

The KSX-C2 single-acting vise has numerous unbeatable features that make it so special. The absolute highlight is the active jaw pull-down function, which enables particularly precise machining of the sixth side. Thanks to the jaw quick-change system, the jaws can be replaced completely without tools within just a few seconds.

Functions & highlights

- **Active jaw pull-down**
  Optionally allows complete and precise machining of the sixth side
- **Jaw quick-change without any tools**
  Adjustment to new clamping tasks within seconds
- **Extendable clamping range**
  Enables clamping of various workpiece lengths



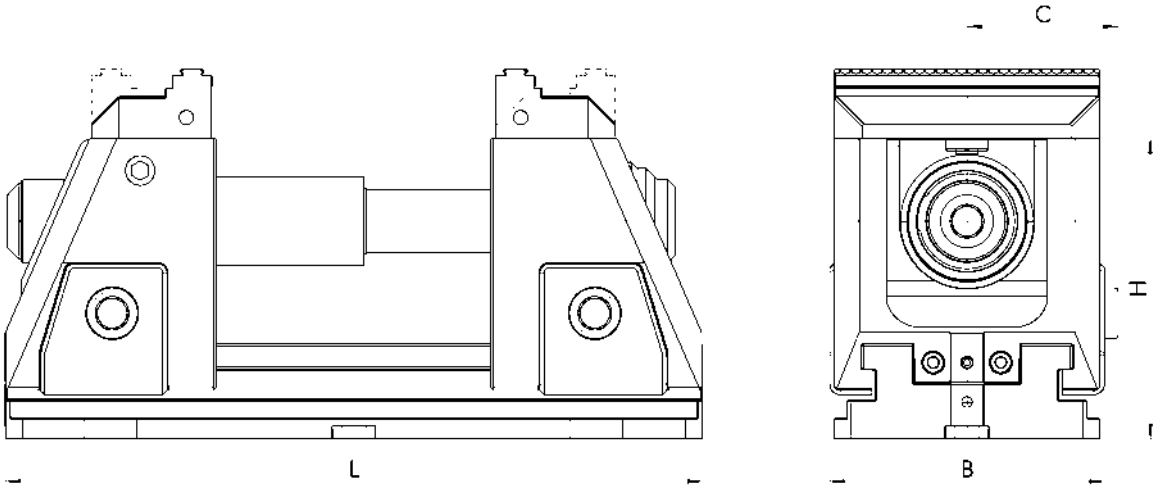
Field of application

KSX-C2

The adjustable clamping center, optimal accessibility to the workpiece and the basic clamping stroke of 130 mm make the KSX-C2 the ideal 5-axis vise for 6-sided machining. The active pull-down function and the optional drawbar extension underline the flexible use of the vise.

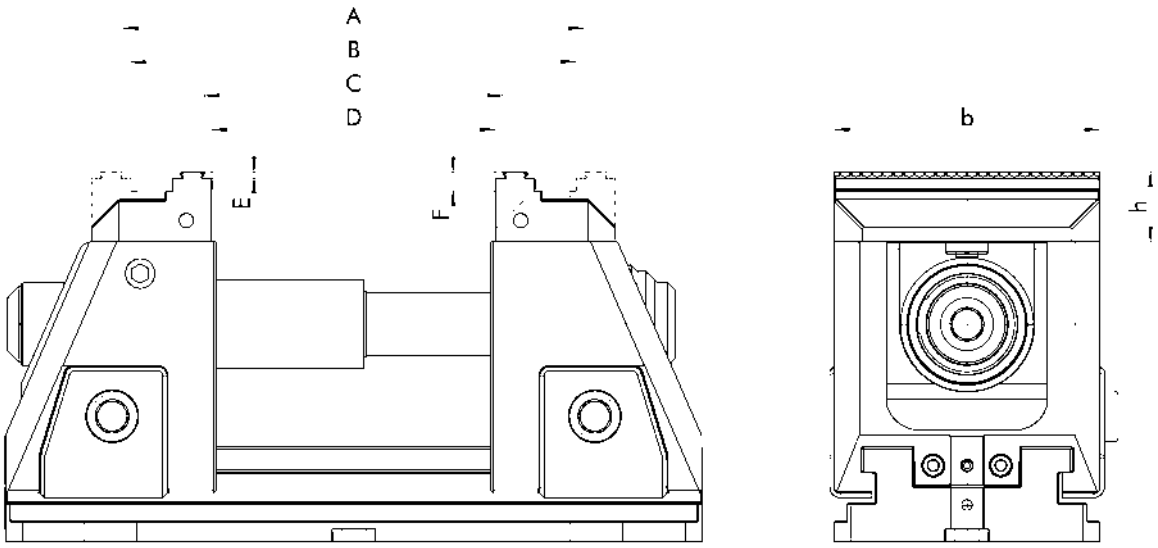


1. Jaw quick-change system
2. Jaw pull-down mechanism
3. Actuation via hexagon connection
4. Completely encapsulated spindle
5. Long jaw guidance
6. Jaw clamping via hexagonal connection
7. Spring-loaded pressure piece
8. Quick-change jaws
9. Diverse applications



Technical data

Description	ID	B	C	H	L	Max. clamping force raw part/precision clamping	Max. torque raw part/precision clamping	Basic clamping stroke	Weight
		mm	mm	mm	mm	kN	Nm	mm	kg
KSX-C2 125-330	1493455	130	71.5	181	330	50/40	100/120	130	32.1
KSX-C2 125-330-L	1493456	130	71.5	142	330	50/34	100/120	130	26.1
KSX-C2 125-430	1493457	130	71.5	181	430	50/40	100/120	130	35.1
KSX-C2 125-430-L	1478165	130	71.5	142	430	50/34	100/120	130	29.1
KSX-C2 125-500	1493458	130	71.5	181	500	50/40	100/120	130	37.2
KSX-C2 125-500-L	1493482	130	71.5	142	500	50/34	100/120	130	31.1
KSX-C2 125-630	1493483	130	71.5	181	630	50/40	100/120	130	40.8
KSX-C2 125-630-L	1493484	130	71.5	142	630	50/34	100/120	130	34.8
KSX-C2 125-800	1478166	130	71.5	181	800	50/40	100/120	130	45.7
KSX-C2 125-800-L	1467354	130	71.5	142	800	50/34	100/120	130	39.7

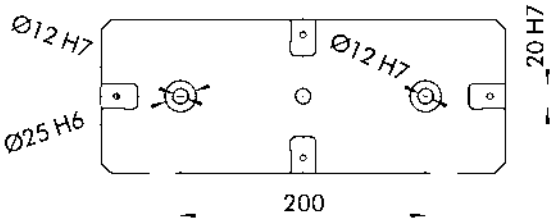


Clamping ranges

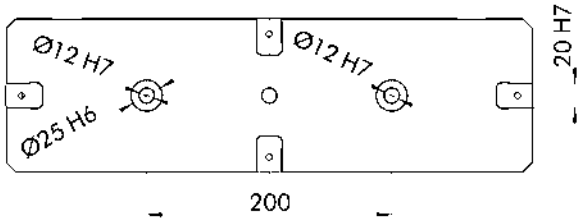
Vise	Description	Jaw designation	ID	A	B	C	D	E	F	b	h
				mm	mm	mm	mm	mm	mm	mm	mm
KSX-C2 125-330	Reversible grip jaw	SGWB-G3-B	1494299	88 - 217	80 - 210	12 - 141	5 - 134	3	6	125	27
KSX-C2 125-330	Reversible grip jaw	SGWB-G5-B	1494306	88 - 217	80 - 210	12 - 141	5 - 134	5		125	27
KSX-C2 125-330	Reversible carbide-grip jaw	SGWB-CG5-B	1494323	88 - 217	80 - 210	12 - 141	5 - 134	5		125	27
KSX-C2 125-430	Reversible grip jaw	SGWB-G3-B	1494299	88 - 317	80 - 310	12 - 241	5 - 234	3	6	125	27
KSX-C2 125-430	Reversible grip jaw	SGWB-G5-B	1494306	88 - 317	80 - 310	12 - 241	5 - 234	5		125	27
KSX-C2 125-430	Reversible carbide-grip jaw	SGWB-CG5-B	1494323	88 - 317	80 - 310	12 - 241	5 - 234	5		125	27
KSX-C2 125-500	Reversible grip jaw	SGWB-G3-B	1494299	88 - 387	80 - 380	12 - 311	5 - 304	3	6	125	27
KSX-C2 125-500	Reversible grip jaw	SGWB-G5-B	1494306	88 - 387	80 - 380	12 - 311	5 - 304	5		125	27
KSX-C2 125-500	Reversible carbide-grip jaw	SGWB-CG5-B	1494323	88 - 387	80 - 380	12 - 311	5 - 304	5		125	27
KSX-C2 125-630	Reversible grip jaw	SGWB-G3-B	1494299	88 - 517	80 - 510	12 - 441	5 - 434	3	6	125	27
KSX-C2 125-630	Reversible grip jaw	SGWB-G5-B	1494306	88 - 517	80 - 510	12 - 441	5 - 434	5		125	27
KSX-C2 125-630	Reversible carbide-grip jaw	SGWB-CG5-B	1494323	88 - 517	80 - 510	12 - 441	5 - 434	5		125	27
KSX-C2 125-800	Reversible grip jaw	SGWB-G3-B	1494299	88 - 687	80 - 680	12 - 611	5 - 604	3	6	125	27
KSX-C2 125-800	Reversible grip jaw	SGWB-G5-B	1494306	88 - 687	80 - 680	12 - 611	5 - 604	5		125	27
KSX-C2 125-800	Reversible carbide-grip jaw	SGWB-CG5-B	1494323	88 - 687	80 - 680	12 - 611	5 - 604	5		125	27

Interfaces

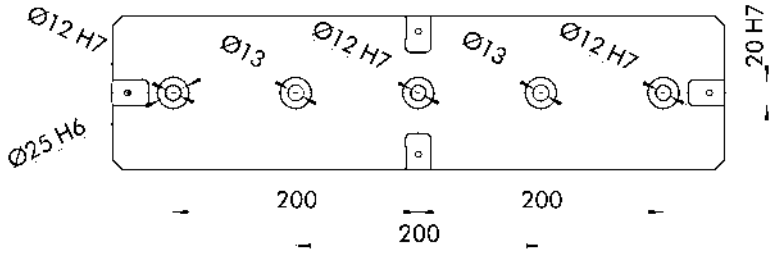
KSX-C2 125-330



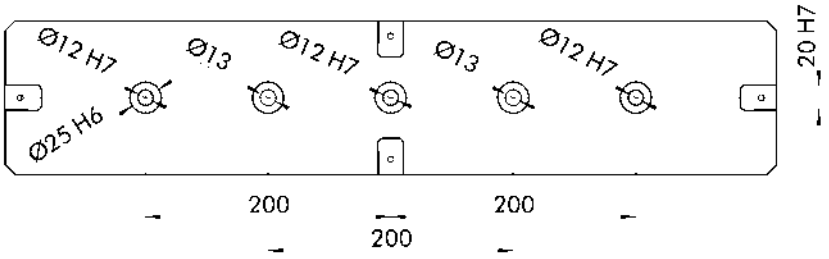
KSX-C2 125-430



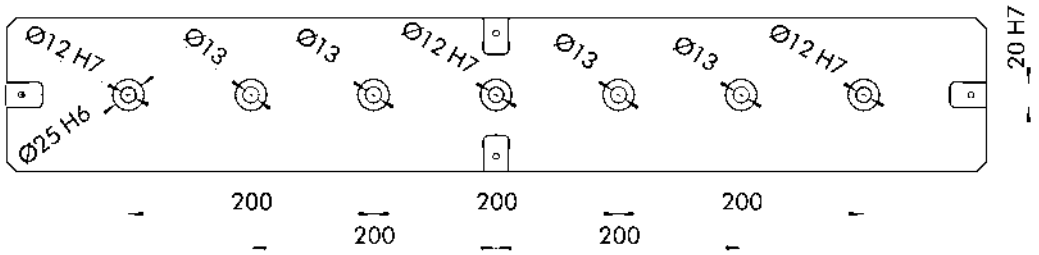
KSX-C2 125-500



KSX-C2 125-630



KSX-C2 125-800



Clamping pins

Clamping pins
Standard clamping pins for positive locking of workpieces or devices with the NSE3 clamping modules.



Description	Version	M10 kN	M12 kN	ID
SPA 40	Centering pins	35	50	0471151
SPB 40	Positioning pin	35	50	0471152
SPC 40	Clamping pin	35	50	0471153

System jaws

Reversible jaw
Designed as a quick-change jaw.
One side with a smooth 6 mm step for enlarged clamping width, one side with a smooth clamping surface.



Suitable for	Description	ID
KSX-C2 125	SGWB-B 125-57-27	1502843

Reversible grip jaw
Designed as a quick-change jaw.
With grip step 3 mm (up to 22 HRC) and a smooth clamping surface on both sides.



Suitable for	Description	ID
KSX-C2 125	SGWB-G3-B 40-57-27	1494296
KSX-C2 125	SGWB-G3-B 65-57-27	1494297
KSX-C2 125	SGWB-G3-B 80-57-27	1494298
KSX-C2 125	SGWB-G3-B 125-57-27	1494299
KSX-C2 125	SGWB-G5-B 40-57-27	1494303
KSX-C2 125	SGWB-G5-B 65-57-27	1494304
KSX-C2 125	SGWB-G5-B 80-57-27	1494305
KSX-C2 125	SGWB-G5-B 125-57-27	1494306

Reversible carbide-grip jaw
Designed as a quick-change jaw.
With carbide-grip step 5 mm (up to 58 HRC) and smooth clamping surface on both sides.



Suitable for	Description	ID
KSX-C2 125	SGWB-CG5-B 40-57-27	1494320
KSX-C2 125	SGWB-CG5-B 65-57-27	1494321
KSX-C2 125	SGWB-CG5-B 80-57-27	1494322
KSX-C2 125	SGWB-CG5-B 125-57-27	1494323

Reversible jaw with embossed profile
Designed as a quick-change jaw.
Both sides with embossed profile LANG, step 3 mm and smooth clamping surface.



Suitable for	Description	ID
KSX-C2 125	SGWB-GL-B 125-57-27	1494324

Steel jaw
Designed as a quick-change jaw.
Hardenable jaws for rework at the customer site, e.g. for incorporating contours or special shapes.



Suitable for	Description	ID
KSX-C2 125	SGS-B 125-57-33	1453106

Swivel plate
Designed as a quick-change jaw.
Used – in combination with adapter plates and 6-way reversal jaws – to clamp bulky workpieces.



Suitable for	Description	Interface	ID
KSX-C2 125	SGP-2 195-105-22	W-38	1453108

Adapter plate
Designed as a quick-change jaw.
Used – in combination with swivel plates and 6-way reversal jaws – to clamp bulky workpieces.



Suitable for	Description	Interface	ID
KSX-C2 125	SGA-2 195-72-22	W-38	1453107

Precision jaw set
Designed as a quick-change jaw.
Precision jaws that can be finish milled under preliminary clamping, for even greater angularity on the workpiece.



Suitable for	Description	ID
KSX-C2 125	SGWP-B 125-57-27	1494333

Top jaws

6-way reversal jaws
With five carbide grip steps as well as a coated clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBG-6W 38-38-18	38.5	18	38.2	W-38	0430803

6-way reversal jaws
With five carbide grip steps as well as a smooth clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBCG-6W 38-38-18	38.5	18	38.2	W-38	1395550

Accessories

Clamping force tester
For measuring the jaw clamping force of stationary clamping devices.



Suitable for	Description	ID
KSX-C2 125	IFT SST Set	1475766

Actuating lever, articulated
For convenient clamping range presetting
With 1/2" square drive



Suitable for	Description	ID
KSX-C2 125	GSH-G 1/2"	0432478

Torque wrench 20 – 200 Nm
Serves for applying a defined torque.
With 1/2" square drive



Suitable for	Description	ID
KSX-C2 125	GSH-D 20-200	0432487

Crank handle AF 14
For fast and convenient adjustment of the clamping range.



Suitable for	Description	ID
KSX-C2 125	GHK-K-A SW14	1322990

Hexagonal pin insert AF 14
Suitable for square drive 1/2".



Suitable for	Description	ID
KSX-C2 125	GSK-A SW14-1/2"	0490784

Workpiece stop, magnetic
For quick and easy attachment to system jaws or vises.



Suitable for	Description	ID
KSX-C2 125	GWSA-M 60 x 15	1391293
KSX-C2 125	GWSA-M 115 x 15	1391331

Extensions
As an accessory for the magnetic workpiece stops.



Suitable for	Description	ID
KSX-C2 125	GWSA-V Ø68 x 30	1394477

Spindle, mechanical
As a conversion kit with a basic clamping stroke of 130 mm.



Suitable for	Description	ID
KSX-C2 125	GSD-M 125	1453120

Precision T-nuts
Suitable for all conventional T-groove widths of machine tables.



Suitable for	Description	ID
T-slot 12 mm/M6	GPN M6-T12	0490590
T-slot 14 mm/M6	GPN M6-T14	0490547
T-Nut 16 mm/M6	GPN M6-T16	0490548
T-slot 18 mm/M6	GPN M6-T18	0490587
T-slot 20 mm/M6	GPN M6-T20	1359734
T-slot 22 mm/M6	GPN M6-T22	0490621

Clamping screws for clamping claws
For mounting clamping devices in combination with clamping claws.



Suitable for	Description	ID
T-slot 12 mm/M10	GSC-S M10-T12	0432043
T-slot 14 mm/M12	GSC-S M12-T14	0432044
T-Nut 16 mm/M14	GSC-S M14-T16	0432045
T-slot 18 mm/M16	GSC-S M16-T18	0432046
T-slot 20 mm/M16	GSC-S M16-T20	1550423
T-slot 22 mm/M16	GSC-S M16-T22	1550424

Clamping claws
For quick and easy mounting of SCHUNK clamping devices.



Suitable for	Description	ID
KSX-C2 125	GSPR-A 50-57	0490604

Fitting screws
For precise position orientation and mounting of manual clamping vises on the machine table.



Suitable for	Description	ID
KSX-C2 125	GPSC-2 Ø12f7-M12	0490546

Drawbar extensions

Draw bar extension
For extension of the clamping range starting from base body length 430 mm.



Suitable for	Description	Length mm	ID
KSX-C2 125	GZV-2 430	100	1453116

Draw bar extension
For extension of the clamping range starting from base body length 630 mm.



Suitable for	Description	Length mm	ID
KSX-C2 125	GZV-2 630	300	1453118

Draw bar extension
For extension of the clamping range starting from base body length 500 mm.



Suitable for	Description	Length mm	ID
KSX-C2 125	GZV-2 500	130	1453117

Draw bar extension
For extension of the clamping range of base body length 800 mm.



Suitable for	Description	Length mm	ID
KSX-C2 125	GZV-2 800	470	1453119

Workpiece supports set

Set of workpiece supports – width 125 mm
Suitable for system jaws H = 27 mm with grip level 3 mm.
Heights = 8, 12, 15, 20, and 22 mm.



Suitable for	Description	ID
KSX-C2 125	GWU-S grip 125-27	1494332

Workpiece supports

Workpiece supports – width 125 mm
In different heights.
1 set = 2 pieces



Suitable for	Description	Height mm	ID
KSX-C2 125	GWU-M 125-8	8	1450266
KSX-C2 125	GWU-M 125-9	9	1462567
KSX-C2 125	GWU-M 125-10	10	1411328
KSX-C2 125	GWU-M 125-12	12	1447369
KSX-C2 125	GWU-M 125-15	15	1411350
KSX-C2 125	GWU-M 125-20	20	1452308
KSX-C2 125	GWU-M 125-22	22	1457551
KSX-C2 125	GWU-M 125-23	23	1411380
KSX-C2 125	GWU-M 125-25	25	1484475
KSX-C2 125	GWU-M 125-27	27	1461008

KONTEC

schunk.com/ksx



Expandable. Accessible. Fast. Power-amplified 5-axis vise KSX

The special design of the power-amplified 5-axis KONTEC KSX vise ensures optimal accessibility for "true" 5-axis complete/simultaneous machining. Workpieces are clamped within seconds with its lever quick-clamping, which also prevents bending of the base body. The clamping force for this is infinitely adjustable.

Functions & highlights

- **Continuous adjustment of the clamping force up to 40 kN**
  Suitable for the machining of both raw and finished parts
- **Optimal accessibility**
  Allows the workpiece to be machined from five sides
- **Extendable clamping range**
  Also enables the clamping of large workpieces



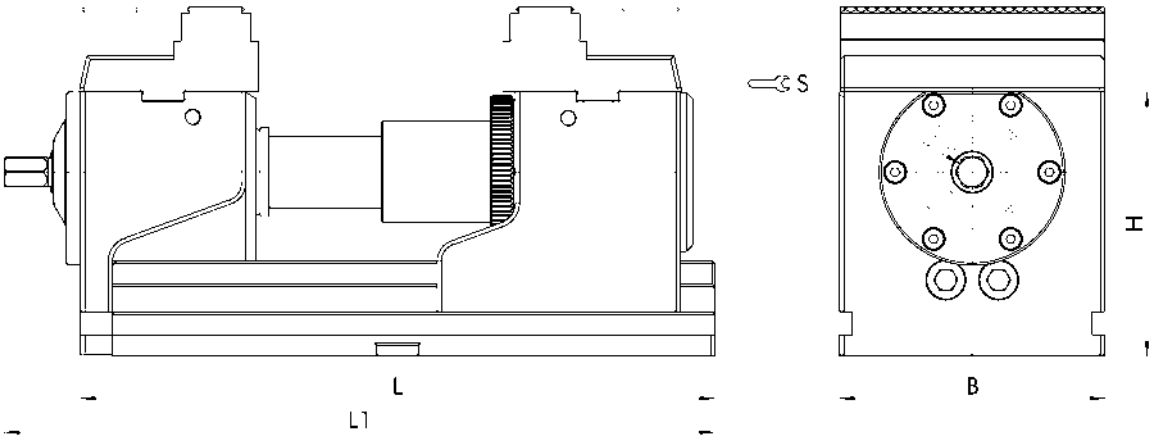
Field of application

KSX

Thanks to its design, the KSX offers optimum accessibility to the workpiece and is therefore ideal for 5-axis machining. The KSX is available in two different heights and modular design which means that the clamping range can be extended as required. The KSX therefore offers a flexible clamping solution for "real" 5-axis complete/simultaneous machining.

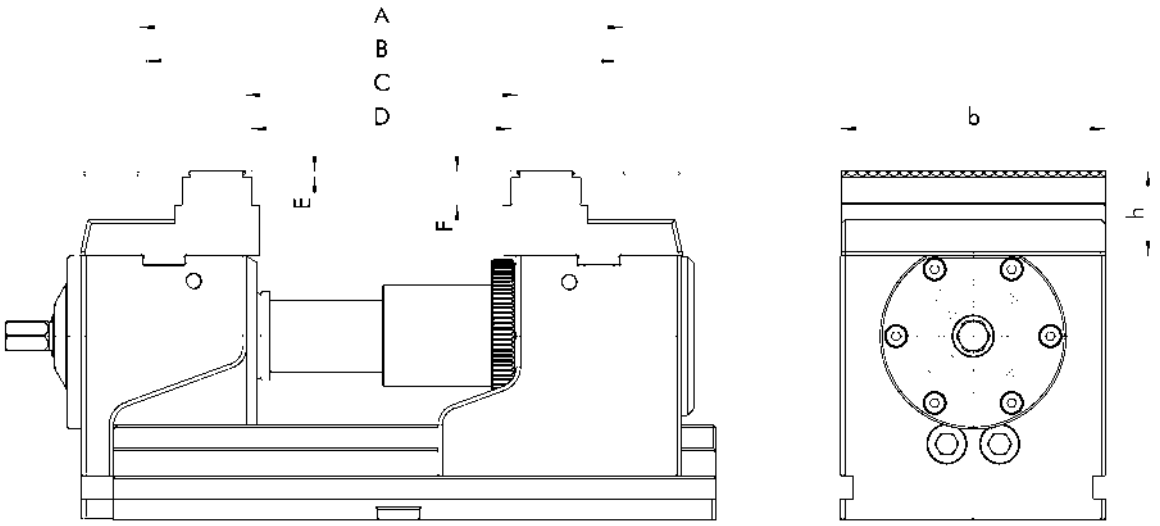


1. **Actuation via hexagon connection**
2. **Completely encapsulated spindle**
3. **Long jaw guidance**
4. **Continuous adjustment of the clamping force**
5. **Mechanical force transmission**
6. **Standard jaw interface**
7. **Diverse applications**



Technical data

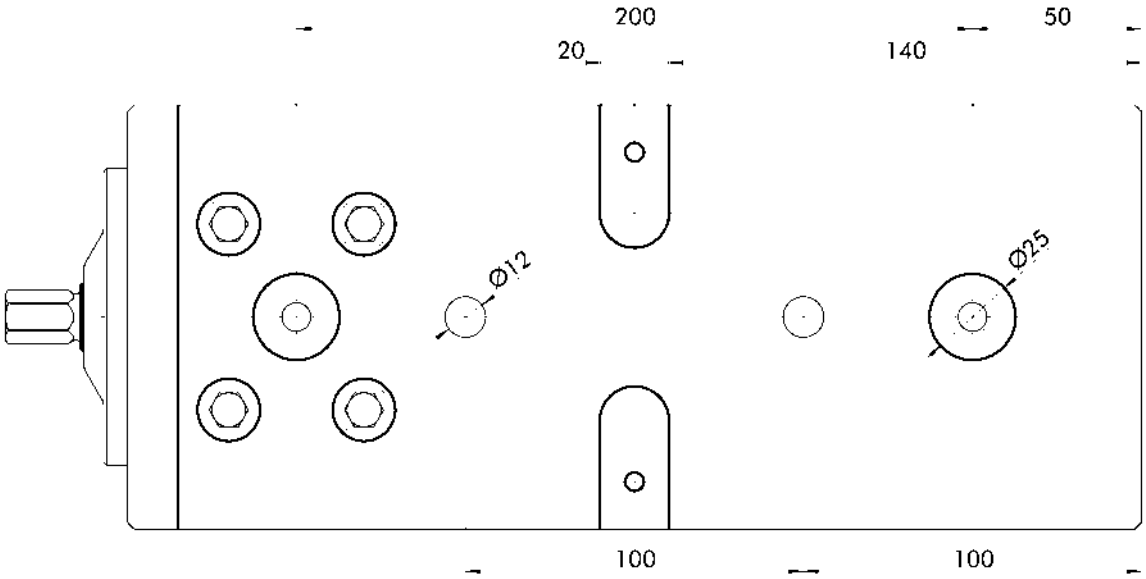
Description	ID	B	H	L	M	S	Clamping force	Weight
		mm	mm	mm	mm	mm	kN	kg
KSX 125	0432253	125	174	300	336.5	14	5 - 40	30.2
KSX 125-L	0432271	125	125	300	336.5	14	5 - 40	22.6



Clamping ranges

Vise	Description	Jaw designation	ID	A mm	B mm	C mm	D mm	E mm	F mm	b mm	h mm
KSX 125	Reversible grip jaw	SGWB-G3 125-84.5-40	1395496	123 - 246	117 - 240	146 - 23	17 - 140	3	16	125	40

Interfaces



System jaws

Steel jaw
Hardenable jaws for rework at the customer site, e.g. for incorporating contours or special shapes.



Suitable for	Description	ID
KSX 125	SGS 125-76-44	1546503

Reversible jaw
One side with a step for an enlarged clamping width, one side slotted with M8/M10 threads for attachment of top jaws.



Suitable for	Description	Interface	ID
KSX 125	SGWB 125-76-40	W-125-1 W-125-2	0432254

Reversible grip jaw
With a 3 mm grip step and a smooth clamping surface on both sides.



Suitable for	Description	Interface	ID
KSX 125	SGWB-G3 125-84.5-40		1395496

5-axis jaw, grip
Jaw width 125 mm, with a smooth 18 mm step and a grip step of 3 mm.



Suitable for	Description	Interface	ID
KSX 125	SG5A 125-77.8-40	W-125-2	1322988

Top jaws

6-way reversal jaws
With five carbide grip steps as well as a coated clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBG-6W 38-38-18	38.5	18	38.2	W-38	0430803

5-axis jaw
Jaw width 65 mm, including reversible jaw with grip step 3 mm.



Suitable for	Description	Interface	ID
KSX 125	SG5A 65-76-45	W-65-1	0432258

Alu jaw
Used for rework at the customer site e.g. for incorporating contours or special shapes.



Suitable for	Description	ID
KSX 125	SGAL 125-76-40	0432257

Swivel plate
Used – in combination with adapter plates and 6-way reversal jaws – to clamp bulky workpieces.



Suitable for	Description	Interface	ID
KSX 125	SGP-2 192-130-22	W-38	0432256

Adapter plate
Used – in combination with swivel plates and 6-way reversal jaws – to clamp bulky workpieces.



Suitable for	Description	Interface	ID
KSX 125	SGA-2 192-130-22	W-38	0432255

6-way jaw system
Jaw set for clamping the workpiece from six sides to attain a significantly higher clamping force.



Suitable for	Description	ID
KSX 125	SG6F 125-81.5-40	0432486

6-way reversal jaws
With five carbide grip steps as well as a smooth clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBCG-6W 38-38-18	38.5	18	38.2	W-38	1395550

Jaw profiled
For increasing the friction between jaw and workpiece without clamping marks.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBD 125-40-11.5	125	40	11.5	W-125-1	1373349

Serrated jaw
For increasing the friction between jaw and workpiece with minimal clamping marks.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBC 125-40-12.5	125	40	12.5	W-125-1	1373268

Ground jaw
With a completely ground clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBP 125-40-11.5	125	40	11.5	W-125-1	1373278

Soft jaw
Hardenable jaws for rework at the customer site, e.g. for incorporating contours or special shapes.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBW 125-40-20	125	40	20	W-125-1	1373288

Stepped jaw
With ground step, 8 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS 125-40-11.5-8	125	40	11.5	W-125-1	1373327

Stepped jaw
With ground step, 17 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS 125-40-11.5-17	125	40	11.5	W-125-1	0430413

Stepped jaw
With coated step, 5 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-W 125-18-7.6-5	125	18	7.6	W-125-2	0432276
GBS-W 125-40-11.5-5	125	40	11.5	W-125-1	0430414

Stepped jaw
With grip step 3 mm and ground step 18 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G3 125-40-21.5-18	125	40	21.5	W-125-1	0430415
GBS-G3 125-40-24-18	125	40	24	W-125-1	1322989

Stepped jaw
With special "soft" grip step, 5 mm.
For embossed clamping of soft materials such as plastic or aluminum.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-SG5 125-40-11.5	125	40	11.5	W-125-1	1393552

Stepped jaw
With grip step, 3 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G3 125-40-11.5	125	40	11.5	W-125-1	1373331
GBS-G3 125-18-8	125	18	8	W-125-2	0432275

Stepped jaw
With grip step, 5 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G5 125-40-11.5	125	40	11.5	W-125-1	1373334
GBS-G5 65-22-8	65	22	8	W-65-1	1465122
GBS-G5 125-18-8	125	18	8	W-125-2	0432260

Stepped jaw
With grip step, 8 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G8 125-40-11.5	125	40	11.5	W-125-1	1373338

Stepped jaw
With carbide grip step, 3 mm.
For embossed clamping of hardened materials up to 58 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-CG3 125-40-11.5	125	40	11.5	W-125-1	1395524

Stepped jaw
With carbide grip step, 5 mm.
For embossed clamping of hardened materials up to 58 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-CG5 125-40-11.5	125	40	11.5	W-125-1	1424000

Stepped jaw
With special grip step, 3 mm.
For clamping pre-embossed materials and workpieces.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-GL3 125-40-11.5	125	40	11.5	W-125-1	1395577

Stepped jaw with T-slot
With grip step, 3 mm.
T-slot for mounting the positioning strip.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G3-T 125-40-17.5	125	40	17.5	W-125-1	0430248

Stepped jaw with T-slot
With grip step, 5 mm.
T-slot for mounting the positioning strip.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G5-T 125-40-17.5	125	40	17.5	W-125-1	0430247

Stepped jaw with T-slot
With grip step, 8 mm.
T-slot for mounting the positioning strip.



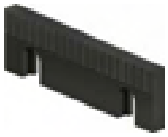
Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G8-T 125-40-17.5	125	40	17.5	W-125-1	0430237

Positioning bar
To suit all stepped jaws with T-slot.



Description	Width mm	Height mm	Depth mm	Interface	ID
GPL 125-32-13.5	125	32	13.5	W-125-1	0430238

Grip jaw
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBG 125-40-11.5	125	40	11.5	W-125-1	1373284
GBG 125-18-7.8	125	18	7.8	W-125-2	0432261

Prism jaw, ground
For precise clamping of round workpieces.



Description	Width mm	Height mm	Depth mm	Interface	ID
GVA 125-40-17.5	125	40	17.5	W-125-1	1373344
GVA 65-22-15	65	22	15	W-65-1	0430707

Universal stepped jaw
Versatile stepped jaw with ground step.



Description	Width mm	Height mm	Depth mm	Interface	ID
GPE 65-22-8-3	65	22	8	W-65-1	0430704

Coated jaw
For increasing the friction between jaw and workpiece.
Height = 18 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBB 125-18-7.6	125	18	7.6	W-125-2	0432262

Accessories

Clamping force tester
For measuring the jaw clamping force of stationary clamping devices.



Suitable for	Description	ID
KSX 125	IFT SST Set	1475766

VERO-S retrofit kit without intermediate plate
Consisting of two VERO-S clamping pins for use on NSL3 clamping stations.



Suitable for	Description	ID
KSX 125	GNRS 125	0430082

Clamping lever
For convenient actuation of KONTEC vises.



Suitable for	Description	ID
KSX 125	GSH-1 SW14	0430201

Hand crank AF 14
For fast and convenient adjustment of the clamping range.



Suitable for	Description	ID
KSX 125	GHK-I SW14	0432263

Short hand crank AF 14
For fast and convenient adjustment of the clamping range.



Suitable for	Description	ID
KSX 125	GHK-K-I SW14	0432272

Workpiece stop
For connecting thread M8/M10.



Suitable for	Description	ID
KSX 125	GWSA-3 M8/M10	0430021

Workpiece stop, magnetic
For quick and easy attachment to system jaws or vises.



Suitable for	Description	ID
KSX 125	GWSA-M 60 x 15	1391293
KSX 125	GWSA-M 115 x 15	1391331

Extensions
As an accessory for the magnetic workpiece stops.



Suitable for	Description	ID
KSX 125	GWSA-V Ø68 x 30	1394477

Base body extension
Used in conjunction with the drawbar extension to extend the clamping range.



Suitable for	Description	ID
KSX 125	GKV 125-250	0432269

Precision T-nuts
Suitable for all conventional T-groove widths of machine tables.



Suitable for	Description	ID
T-slot 12 mm/M6	GPN M6-T12	0490590
T-slot 14 mm/M6	GPN M6-T14	0490547
T-Nut 16 mm/M6	GPN M6-T16	0490548
T-slot 18 mm/M6	GPN M6-T18	0490587
T-slot 20 mm/M6	GPN M6-T20	1359734
T-slot 22 mm/M6	GPN M6-T22	0490621

Clamping screws for clamping claws
For mounting clamping devices in combination with clamping claws.



Suitable for	Description	ID
T-slot 12 mm/M10	GSC-S M10-T12	0432043
T-slot 14 mm/M12	GSC-S M12-T14	0432044
T-Nut 16 mm/M14	GSC-S M14-T16	0432045
T-slot 18 mm/M16	GSC-S M16-T18	0432046
T-slot 20 mm/M16	GSC-S M16-T20	1550423
T-slot 22 mm/M16	GSC-S M16-T22	1550424

Clamping claws
For quick and easy mounting of SCHUNK clamping devices.



Suitable for	Description	ID
KSX 125	GSPR-A 50-57	0490604

Fitting screws
For precise position orientation and mounting of manual clamping vises on the machine table.



Suitable for	Description	ID
KSX 125	GPSC-2 Ø12f7-M12	0490546

Drawbar extensions

Drawbar extension 125 mm
Extends the clamping range of the corresponding vise by a further 125 mm.



Suitable for	Description	Length mm	ID
KSX 125	GZV-1 125	125	0432264

Drawbar extension 250 mm
Extends the clamping range of the corresponding vise by a further 250 mm.



Suitable for	Description	Length mm	ID
KSX 125	GZV-1 250	250	0432268

Workpiece supports set

Set of workpiece supports – width 125 mm
Suitable for system jaws H = 40 mm.
Heights = 12, 25, 30, 35, and 37 mm.



Suitable for	Description	ID
KSX 125	GWU-S 125-40	1394228

Workpiece supports

Workpiece supports – width 125 mm
In different heights.
1 set = 2 pieces



Suitable for	Description	Height mm	ID
KSX 125	GWU-M 125-8	8	1450266
KSX 125	GWU-M 125-9	9	1462567
KSX 125	GWU-M 125-10	10	1411328
KSX 125	GWU-M 125-12	12	1447369
KSX 125	GWU-M 125-15	15	1411350
KSX 125	GWU-M 125-20	20	1452308
KSX 125	GWU-M 125-22	22	1457551
KSX 125	GWU-M 125-23	23	1411380
KSX 125	GWU-M 125-25	25	1484475
KSX 125	GWU-M 125-27	27	1461008
KSX 125	GWU-M 125-30	30	1411387
KSX 125	GWU-M 125-31	31	1484477
KSX 125	GWU-M 125-32	32	1411398
KSX 125	GWU-M 125-33	33	1484478
KSX 125	GWU-M 125-34	34	1484480
KSX 125	GWU-M 125-35	35	1411391
KSX 125	GWU-M 125-36	36	1429618
KSX 125	GWU-M 125-37	37	1411395
KSX 125	GWU-M 125-38	38	1429615

schunk.com/ksg



Fast. Modular. Precise.
Power-reinforced vise with fixed jaws
KSG

The KONTEC KSG power-reinforced single-acting vise enables the clamping module to be flexibly adjusted to a wide variety of clamping tasks. Workpieces can be clamped within seconds using a quick-release lever. The clamping force can be infinitely adjusted between 4 kN and 40 kN using a handwheel without tools. This enables clamping of the workpiece with extreme repeat accuracy.

Functions & highlights

- **Quick-clamping lever**
  Simple, fast, and reliable workpiece clamping
- **Continuous adjustment of the clamping force**
  Suitable for the machining of both raw and finished parts
- **Clamping by tension – prevents the base body from bending**
  Maximum machining precision



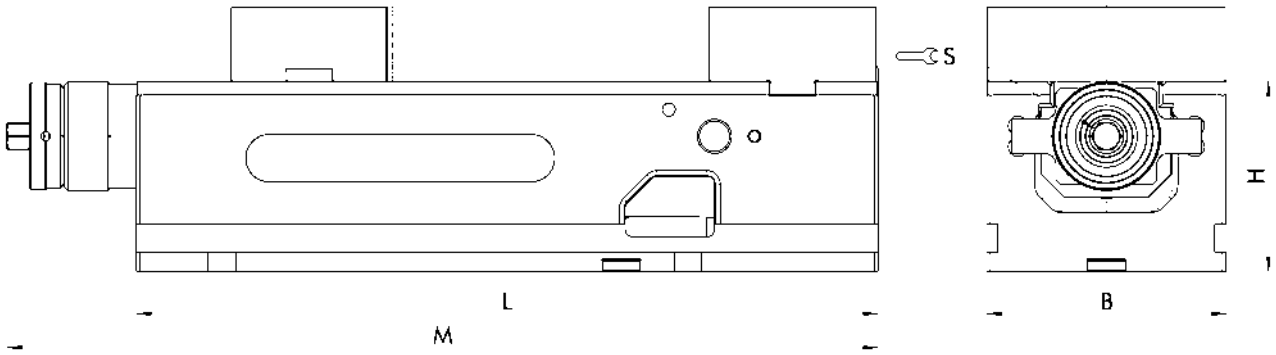
Field of application

KSG

The power-amplified single-acting vise KONTEC KSG is a modular machine vise that can be adapted to any clamping task with a variety of system jaws. Workpieces are clamped within seconds with its lever quick-clamping, which also prevents bending of the base body. The clamping force for this is infinitely adjustable.

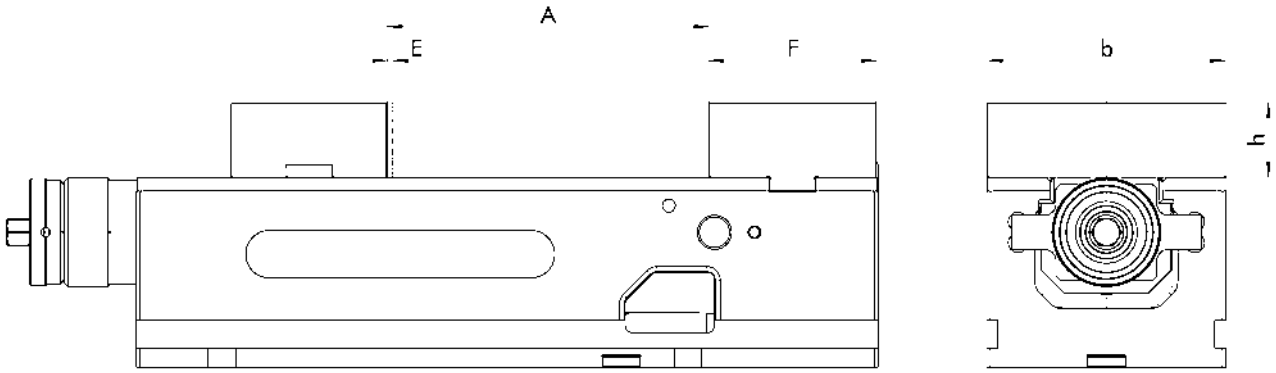


1. **Actuation via hexagon connection**
2. **Spindle drive**
3. **Completely encapsulated drawbar**
4. **Continuous adjustment of the clamping force**
5. **Mechanical force transmission**
6. **Standard jaw interface**
7. **Easy removal of spindle assembly group**
8. **Drainage slots**
9. **Wear-resistant base body**



Technical data

Description	ID	B	H	L	M	S	Jaw width	Clamping force	Weight
		mm	mm	mm	mm	mm	mm	kN	kg
KSG 100	0430300	100	75	305	374	14	100	4 - 30	19.5
KSG VS 100	0430301	100	75	305	374	14	100	4 - 30	19
KSG R 100	0430808	100	75	305	374	14	160	4 - 30	19
KSG 5A-VS 100	0430319	100	75	305	374	14	100	4 - 30	22
KSG 125	0430302	126	100	390	457	14	125	4 - 40	35
KSG VS 125	1405571	126	100	390	457	14	125	4 - 40	34
KSG R 125	0430800	126	100	390	457	14	192	4 - 40	34
KSG 5A-VS 125	0430503	126	100	390	457	14	125	4 - 40	42
KSG 160	0430315	161	115	530	600	14	160	4 - 40	70
KSG VS 160	0430316	161	115	530	600	14	160	4 - 40	68
KSG R 160	0430809	161	115	530	600	14	256	4 - 40	68

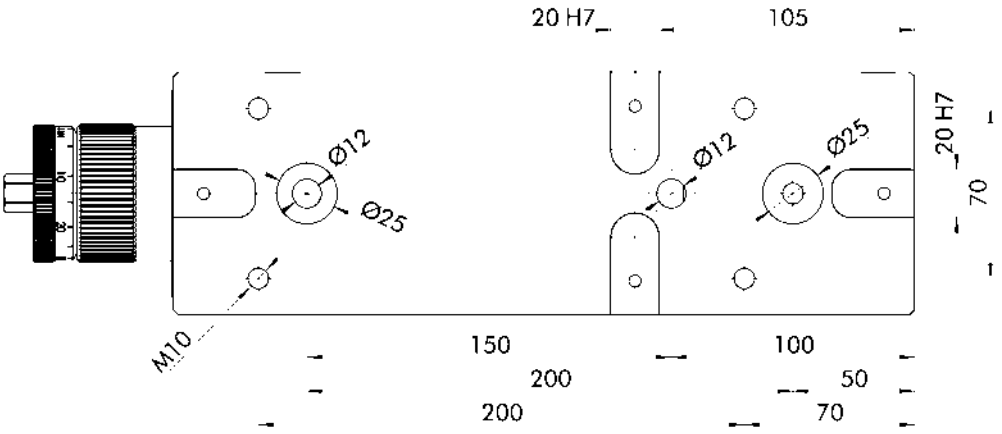


Clamping ranges

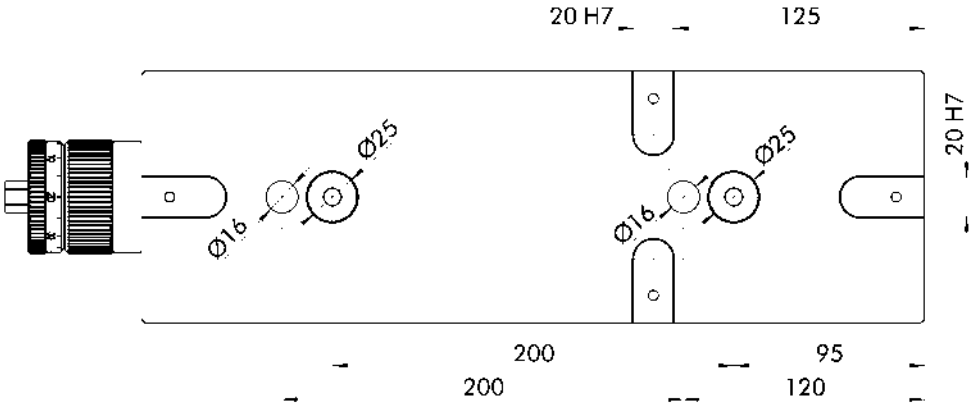
Vise	Description	Jaw designation	ID	A	E	F	b	h
				mm	mm	mm	mm	mm
KSG 100	Monoblock jaw, movable	SGBB-B 125-82-39	0430086	0 - 155	0 - 2.5	77	100	34
KSG 100	Monoblock jaw, fixed	SGBB-F 100-76-34	0430083	0 - 155	0 - 2.5	77	100	34
KSG 125	Monoblock jaw, movable	SGBB-B 125-82-39	0430087	0 - 212	0 - 3	89	125	39
KSG 125	Monoblock jaw, fixed	SGBB-F 125-88-39	0430085	0 - 212	0 - 3	89	125	39
KSG 160	Monoblock jaw, movable	SGBB-B 160-108-49	0430166	0 - 314	0 - 3	108	160	49
KSG 160	Monoblock jaw, fixed	SGBB-F 160-108-49	0430165	0 - 314	0 - 3	108	160	49

Interfaces

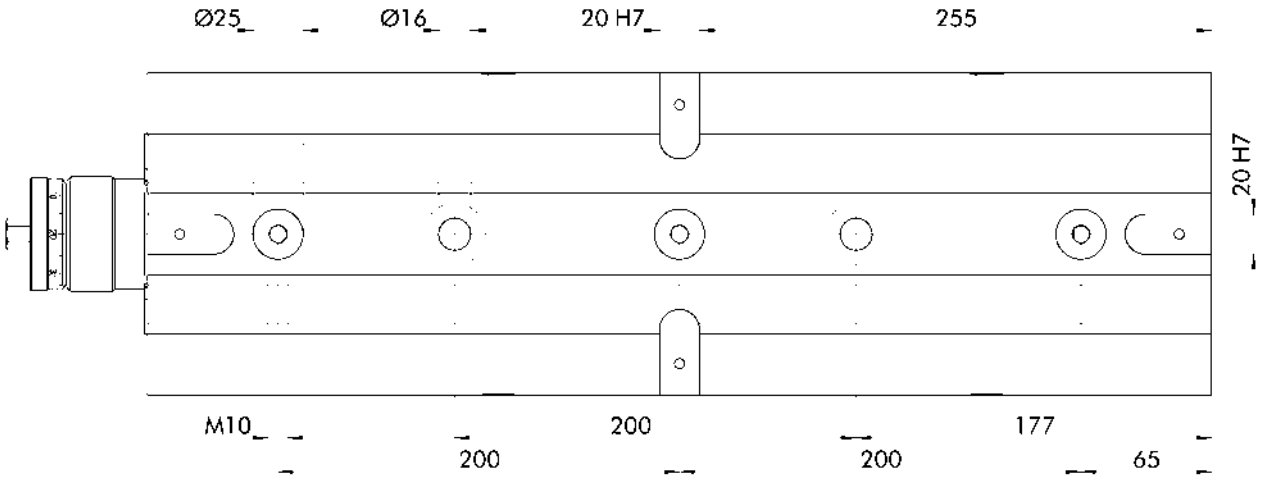
KSG 100



KSG 125



KSG 160



System jaws

Monoblock jaw
Design as movable jaw.
One side smooth, one side slotted with M8/M10 threads for attachment of top jaws.



Suitable for	Description	Interface	ID
KSG 100	SGBB-B 100-67-34	W-100-1	0430086
KSG 125	SGBB-B 125-82-39	W-125-1	0430087
KSG 160	SGBB-B 160-108-49	W-160	0430166

Monoblock jaw
Design as fixed jaw.
One side smooth, one side slotted with M8/M10 threads for attachment of top jaws.



Suitable for	Description	Interface	ID
KSG 100	SGBB-F 100-76-34	W-100-1	0430083
KSG 125	SGBB-F 125-88-39	W-125-1	0430085
KSG 160	SGBB-F 160-108-49	W-160	0430165

Reversible jaw
Design as movable jaw.
One side with a step for an enlarged clamping width, one side slotted with M8/M10 threads for attachment of top jaws.



Suitable for	Description	Interface	ID
KSG 100	SGWB-B 100-67-34	W-100-1	0430090
KSG 125	SGWB-B 125-82-39	W-125-1	0430091
KSG 125	SGWB-B 125-82-40	W-125-1 W-125-2	1395495
KSG 160	SGWB-B 160-108-49	W-160	0430044

Reversible jaw
Design as fixed jaw.
One side with a step for an enlarged clamping width, one side slotted with M8/M10 threads for attachment of top jaws.



Suitable for	Description	Interface	ID
KSG 100	SGWB-F 100-76-34	W-100-1	0430088
KSG 125	SGWB-F 125-88-39	W-125-1	0430089
KSG 125	SGWB-F 125-88-40	W-125-1 W-125-2	1395494
KSG 160	SGWB-F 160-108-49	W-160	0430043

Steel jaw
Design as movable jaw.
Hardenable jaws for rework at the customer site, e.g. for incorporating contours or special shapes.



Suitable for	Description	ID
KSG 100	SGS-B 100-85-50	0430098
KSG 125	SGS-B 125-100-50	0430099

Steel jaw
Design as fixed jaw.
Hardenable jaws for rework at the customer site, e.g. for incorporating contours or special shapes.



Suitable for	Description	ID
KSG 100	SGS-F 100-95-50	0430096
KSG 125	SGS-F 125-110-50	0430097

Swivel plate
Used – in combination with adapter plates and 6-way reversal jaws – to clamp bulky workpieces.



Suitable for	Description	Interface	ID
KSG 100	SGP-1 160-110-22	W-38	0430799
KSG 125	SGP-1 192-130-22	W-38	0430802
KSG 160	SGP-1 256-170-22	W-38	0430173

Adapter plate
Used – in combination with swivel plates and 6-way reversal jaws – to clamp bulky workpieces.



Suitable for	Description	Interface	ID
KSG 100	SGA-1 160-110-22	W-38	0430798
KSG 125	SGA-1 192-130-22	W-38	0430801
KSG 160	SGA-1 256-170-22	W-38	0430172

VS jaw, high
Design as movable jaw.
For increasing the accessibility of the tool to the workpiece and enlarging the clamping range at the same time.
Including stepped jaw, grip 5 mm.



Suitable for	Description	Interface	ID
KSG 100	SGVS-B 100-91-125	W-100-1	0430144
KSG 125	SGVS-B 125-105-150	W-125-1	0430142

VS jaw, high
Design as fixed jaw.
For increasing the accessibility of the tool to the workpiece and enlarging the clamping range at the same time.
Including stepped jaw, grip 5 mm.



Suitable for	Description	Interface	ID
KSG 100	SGVS-F 100-80-125	W-100-1	0430143
KSG 125	SGVS-F 125-95-150	W-125-1	0430141

Intermediate jaw with slot
Floating version for clamping two workpieces in one set-up. Both sides are prepared for mounting spring plates or top jaws.



Suitable for	Description	Interface	ID
KSG 100	GFA-Z 100-35-28	W-100-1	0430174
KSG 125	GFA-Z 125-40-20	W-125-1	0430078
KSG 160	GFA-Z 160-50-20	W-160	0430162

Top jaws

6-way reversal jaws
With five carbide grip steps as well as a coated clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBG-6W 38-38-18	38.5	18	38.2	W-38	0430803

6-way reversal jaws
With five carbide grip steps as well as a smooth clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBCG-6W 38-38-18	38.5	18	38.2	W-38	1395550

Jaw profiled
For increasing the friction between jaw and workpiece without clamping marks.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBD 100-35-10	100	35	10	W-100-1	1373346
GBD 125-40-11.5	125	40	11.5	W-125-1	1373349
GBD 160-50-13.5	160	50	13.5	W-160	1373350

Serrated jaw
For increasing the friction between jaw and workpiece with minimal clamping marks.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBC 100-35-11	100	35	11	W-100-1	1373267
GBC 125-40-12.5	125	40	12.5	W-125-1	1373268
GBC 160-50-14.4	160	50	14.4	W-160	1373269

Ground jaw
With a completely ground clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBP 125-18-7.6	125	18	7.6	W-125-2	0432259
GBP 100-35-10	100	35	10	W-100-1	1373272
GBP 125-40-11.5	125	40	11.5	W-125-1	1373278
GBP 160-50-13.5	160	50	13.5	W-160	1373281

Soft jaw
Hardenable jaws for rework at the customer site, e.g. for incorporating contours or special shapes.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBW 100-35-16	100	35	16	W-100-1	1373287
GBW 125-40-20	125	40	20	W-125-1	1373288
GBW 160-50-20	160	50	20	W-160	1373289

Stepped jaw
With ground step, 8 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS 100-35-10-5	100	35	10	W-100-1	1373325
GBS 125-40-11.5-8	125	40	11.5	W-125-1	1373327
GBS 160-50-13.5-8	160	50	13.5	W-160	1373328

Stepped jaw
With ground step, 17 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS 125-40-11.5-17	125	40	11.5	W-125-1	0430413

Stepped jaw
With coated step, 5 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-W 125-18-7.6-5	125	18	7.6	W-125-2	0432276
GBS-W 100-35-10-5	100	35	10	W-100-1	1395510
GBS-W 125-40-11.5-5	125	40	11.5	W-125-1	0430414
GBS-W 160-50-13.5-5	160	50	13.5	W-160	1395511

Stepped jaw
With grip step 3 mm and ground step 18 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G3 125-40-21.5-18	125	40	21.5	W-125-1	0430415
GBS-G3 125-40-24-18	125	40	24	W-125-1	1322989

Stepped jaw
With special "soft" grip step, 5 mm.
For embossed clamping of soft materials such as plastic or aluminum.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-SG5 125-40-11.5	125	40	11.5	W-125-1	1393552

Stepped jaw
With grip step, 3 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G3 100-35-10	100	35	10	W-100-1	1373330
GBS-G3 125-40-11.5	125	40	11.5	W-125-1	1373331
GBS-G3 160-50-13.5	160	50	13.5	W-160	1373332
GBS-G3 125-18-8	125	18	8	W-125-2	0432275

Stepped jaw
With grip step, 5 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G5 100-35-10	100	35	10	W-100-1	1373333
GBS-G5 125-40-11.5	125	40	11.5	W-125-1	1373334
GBS-G5 160-50-13.5	160	50	13.5	W-160	1373335
GBS-G5 125-18-8	125	18	8	W-125-2	0432260

Stepped jaw
With grip step, 8 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G8 100-35-10	100	35	10	W-100-1	1373337
GBS-G8 125-40-11.5	125	40	11.5	W-125-1	1373338
GBS-G8 160-50-13.5	160	50	13.5	W-160	1373340

Stepped jaw
With carbide grip step, 3 mm.
For embossed clamping of hardened materials up to 58 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-CG3 100-35-10	100	35	10	W-100-1	1428440
GBS-CG3 125-40-11.5	125	40	11.5	W-125-1	1395524
GBS-CG3 160-50-13.5	160	50	13.5	W-160	1431232

Stepped jaw
With carbide grip step, 5 mm.
For embossed clamping of hardened materials up to 58 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-CG5 100-35-12	100	35	12	W-100-1	1428441
GBS-CG5 125-40-11.5	125	40	11.5	W-125-1	1424000
GBS-CG5 160-50-15.5	160	50	15.5	W-160	1431233

Stepped jaw
With special grip step, 3 mm.
For clamping pre-embossed materials and workpieces.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-GL3 125-40-11.5	125	40	11.5	W-125-1	1395577

Stepped jaw with T-slot
With grip step, 3 mm.
T-slot for mounting the positioning strip.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G3-T 100-35-17.5	100	35	17.5	W-100-1	0430242
GBS-G3-T 125-40-17.5	125	40	17.5	W-125-1	0430248

Stepped jaw with T-slot
With grip step, 5 mm.
T-slot for mounting the positioning strip.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G5-T 100-35-17.5	100	35	17.5	W-100-1	0430241
GBS-G5-T 125-40-17.5	125	40	17.5	W-125-1	0430247
GBS-G5-T 160-50-20	160	50	20	W-160	0430250

Stepped jaw with T-slot
With grip step, 8 mm.
T-slot for mounting the positioning strip.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G8-T 100-35-17.5	100	35	17.5	W-100-1	0430240
GBS-G8-T 125-40-17.5	125	40	17.5	W-125-1	0430237
GBS-G8-T 160-50-20	160	50	20	W-160	0430249

Positioning bar
To suit all stepped jaws with T-slot.



Description	Width mm	Height mm	Depth mm	Interface	ID
GPL 100-32-13.5	100	32	13.5	W-100-1	0430246
GPL 125-32-13.5	125	32	13.5	W-125-1	0430238
GPL 160-32-13.5	160	32	13.5	W-160	0430251

Grip jaw
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBG 100-35-10	100	35	10	W-100-1	1373282
GBG 125-40-11.5	125	40	11.5	W-125-1	1373284
GBG 160-50-13.5	160	50	13.5	W-160	1373285
GBG 125-18-7.8	125	18	7.8	W-125-2	0432261

Chuck jaw with locating pins
Retractable locating pins for quickly adjusting the jaw to the respective workpiece.



Description	Width mm	Height mm	Depth mm	Interface	ID
GPS 125-40-17	125	40	16.7	W-125-1	1509316

Prism jaw, ground
For precise clamping of round workpieces.



Description	Width mm	Height mm	Depth mm	Interface	ID
GVA 100-35-15.5	100	35	15.5	W-100-1	1373342
GVA 125-40-17.5	125	40	17.5	W-125-1	1373344
GVA 160-50-19.5	160	50	19.5	W-160	1373345

Spring leaf pull-down jaw
For an active jaw pull-down function with a light clamping marks on the workpiece for more precise machining results.



Description	Width mm	Height mm	Depth mm	Interface	ID
GFA 100-35-10	100	35	10	W-100-1	1373301
GFA 125-40-11.5	125	40	11.5	W-125-1	1373304
GFA 160-50-13.5	160	50	13.5	W-160	1373306

Spring plate pull-down jaw
For an active jaw pull-down function without clamping marks on the workpiece for more precise machining results.



Description	Width mm	Height mm	Depth mm	Interface	ID
GFB 100-34-10	100	34	10	W-100-1	0430191
GFB 125-39-10	125	39	10	W-125-1	0430192
GFB 160-49-12	160	49	12	W-160	0430266

Precision pull-down jaw
For an active jaw pull-down function without clamping marks on the workpiece for more precise machining results.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBN-P 100-35-25	100	35	25	W-100-1	0430146
GBN-P 125-40-25	125	40	25	W-125-1	0430147
GBN-P 160-50-27.5	160	50	27.5	W-160	0430148

Coated jaw
For increasing the friction between jaw and workpiece.
Height = 18 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBB 125-18-7.6	125	18	7.6	W-125-2	0432262

Accessories

Clamping force tester
For measuring the jaw clamping force of stationary clamping devices.



Suitable for	Description	ID
KSG 100 KSG 125 KSG 160	IFT SST Set	1475766

VERO-S retrofit kit with intermediate plate
Consisting of an intermediate plate and two VERO-S clamping pins for use on NSL3 clamping stations.



Suitable for	Description	ID
KSG 100	GNRS-Z 100	0430080

VERO-S retrofit kit without intermediate plate
Consisting of two VERO-S clamping pins for use on NSL3 clamping stations.



Suitable for	Description	ID
KSG 125	GNRS 125	0430082
KSG 160	GNRS 160	0430267

Clamping lever
For convenient actuation of KONTEC vises.



Suitable for	Description	ID
KSG 100 KSG 125 KSG 160	GSH-1 SW14	0430201

Quick adjustment
For fast and convenient adjustment of the clamping range.



Suitable for	Description	ID
KSG 100	GSV-KSG 100	0430020
KSG 125 KSG 160	GSV-KSG 125/160	0430170

Spindle nut
For fast and easy exchange of already existing spindle nuts.



Suitable for	Description	ID
KSG 100	GSDM-KSG 100	0430805
KSG 125	GSDM-KSG 125	0430806
KSG 160	GSDM-KSG 160	0430807

Handle
For easier handling.



Suitable for	Description	ID
KSG 100 KSG 125	GRI-KSG 100/125	0430202

Cover plates
To protect the open spindle opening from falling chips.



Suitable for	Description	ID
KSG 100	GAB-KSG 100	0430555
KSG 125	GAB-KSG 125	0430556
KSG 160	GAB-KSG 160	0430557

Workpiece stop
For connecting thread M8/M10.



Suitable for	Description	ID
KSG 100 KSG 125 KSG 160	GWSA-3 M8/M10	0430021

Workpiece stop, magnetic
For quick and easy attachment to system jaws or vises.



Suitable for	Description	ID
KSG 100 KSG 125 KSG 160	GWSA-M 60 x 15	1391293
KSG 100 KSG 125 KSG 160	GWSA-M 115 x 15	1391331

Extensions
As an accessory for the magnetic workpiece stops.



Suitable for	Description	ID
KSG 100		
KSG 125		
KSG 160	GWSA-V Ø68 x 30	1394477

Force box
Mechanical force box for quick and easy replacement of force boxes that are already present.



Suitable for	Description	ID
KSG 100	GKK-KSG 100	0430213
KSG 125	GKK-KSG 125	0430214
KSG 160	GKK-KSG 160	0430222

Spindle assembly group
For fast and easy exchange of already existing spindles.



Suitable for	Description	ID
KSG 100	GSBG-KSG 100	0430560
KSG 125	GSBG-KSG 125	0430372
KSG 160	GSBG-KSG 160	1377162

Coupling pin
Used for quickly and easily connecting the spindle assembly group to the force box.



Suitable for	Description	ID
KSG 100	GKB-KSG 100	1377160
KSG 125		
KSG 160	GKB-KSG 125/160	0430564

Precision T-nuts
Suitable for all conventional T-groove widths of machine tables.



Suitable for	Description	ID
T-slot 12 mm/M6	GPN M6-T12	0490590
T-slot 14 mm/M6	GPN M6-T14	0490547
T-Nut 16 mm/M6	GPN M6-T16	0490548
T-slot 18 mm/M6	GPN M6-T18	0490587
T-slot 20 mm/M6	GPN M6-T20	1359734
T-slot 22 mm/M6	GPN M6-T22	0490621

Clamping screws for clamping claws
For mounting clamping devices in combination with clamping claws.



Suitable for	Description	ID
T-slot 12 mm/M10	GSC-S M10-T12	0432043
T-slot 14 mm/M12	GSC-S M12-T14	0432044
T-Nut 16 mm/M14	GSC-S M14-T16	0432045
T-slot 18 mm/M16	GSC-S M16-T18	0432046
T-slot 20 mm/M16	GSC-S M16-T20	1550423
T-slot 22 mm/M16	GSC-S M16-T22	1550424

Clamping claws
For quick and easy mounting of SCHUNK clamping devices.



Suitable for	Description	ID
KSG 100		
KSG 125		
KSG 160	GSPR-A 50-57	0490604

Fitting screws
For precise position orientation and mounting of manual clamping vises on the machine table.



Suitable for	Description	ID
KSG 100	GPSC-1 Ø12f7-M12	0432047
KSG 125		
KSG 160	GPSC-1 Ø16g5-M16	0490640

Fitting shoulder screws
For precise position orientation and mounting of manual clamping vises on the machine table.



Suitable for	Description	ID
KSG 125		
KSG 160	GPSC-S Ø16k7-Ø12f7-M12	0430243

Workpiece supports set

Set of workpiece supports – width 100 mm
Suitable for system jaws H = 35 mm.
Heights = 12, 20, 25, 30, and 32 mm.



Suitable for	Description	ID
KSG 100	GWU-S 100-35	1394226

Set of workpiece supports – width 125 mm
Suitable for system jaws H = 40 mm.
Heights = 12, 25, 30, 35, and 37 mm.



Suitable for	Description	ID
KSG 125	GWU-S 125-40	1394228

Set of workpiece supports – width 160 mm
Suitable for system jaws H = 50 mm.
Heights = 15, 30, 40, 45, and 47 mm.



Suitable for	Description	ID
KSG 160	GWU-S 160-50	1394231

Workpiece supports

Workpiece supports – width 100 mm

In different heights.
1 set = 2 pieces



Suitable for	Description	Height mm	ID
KSG 100	GWU-M 100-12	12	1466268
KSG 100	GWU-M 100-20	20	1597013
KSG 100	GWU-M 100-25	25	1559885
KSG 100	GWU-M 100-27	27	1597018
KSG 100	GWU-M 100-29	29	1597019
KSG 100	GWU-M 100-30	30	1559886
KSG 100	GWU-M 100-31	31	1588978
KSG 100	GWU-M 100-32	32	1538999

Workpiece supports – width 125 mm

In different heights.
1 set = 2 pieces



Suitable for	Description	Height mm	ID
KSG 125	GWU-M 125-8	8	1450266
KSG 125	GWU-M 125-9	9	1462567
KSG 125	GWU-M 125-10	10	1411328
KSG 125	GWU-M 125-12	12	1447369
KSG 125	GWU-M 125-15	15	1411350
KSG 125	GWU-M 125-20	20	1452308
KSG 125	GWU-M 125-22	22	1457551
KSG 125	GWU-M 125-23	23	1411380
KSG 125	GWU-M 125-25	25	1484475
KSG 125	GWU-M 125-27	27	1461008
KSG 125	GWU-M 125-30	30	1411387
KSG 125	GWU-M 125-31	31	1484477
KSG 125	GWU-M 125-32	32	1411398
KSG 125	GWU-M 125-33	33	1484478
KSG 125	GWU-M 125-34	34	1484480
KSG 125	GWU-M 125-35	35	1411391
KSG 125	GWU-M 125-36	36	1429618
KSG 125	GWU-M 125-37	37	1411395
KSG 125	GWU-M 125-38	38	1429615

Workpiece supports – width 160 mm

In different heights.
1 set = 2 pieces



Suitable for	Description	Height mm	ID
KSG 160	GWU-M 160-15	15	1464957
KSG 160	GWU-M 160-22	22	1461402
KSG 160	GWU-M 160-30	30	1538303
KSG 160	GWU-M 160-37	37	1443672
KSG 160	GWU-M 160-40	40	1504993
KSG 160	GWU-M 160-41	41	1597020
KSG 160	GWU-M 160-42	42	1410170
KSG 160	GWU-M 160-43	43	1534944
KSG 160	GWU-M 160-44	44	1484499
KSG 160	GWU-M 160-45	45	1410169
KSG 160	GWU-M 160-46	46	1497132
KSG 160	GWU-M 160-47	47	1410166

KONTEC

schunk.com/ksc-f



Light. Simple. Compact.
Vise with fixed jaw KSC-F

The KONTEC KSC-F single-acting vises achieve high clamping forces even at comparatively low torques. The vise has a quick-clamping system using a torque wrench, which enables the workpiece to be clamped quickly and reliably. As the clamping is tensile, the bending load on the base body is minimized, making the vise ideal for use in combination with VERO-S quick-change pallet systems.

Functions & highlights

- **Quick clamping via torque wrench**
  Simple, fast, and reliable workpiece clamping
- **Extremely flat design**
  For maximum utilization of the machine room
- **VERO-S interface**
  Versatile range of combinations thanks to the VERO-S modular system for even shorter set-up times



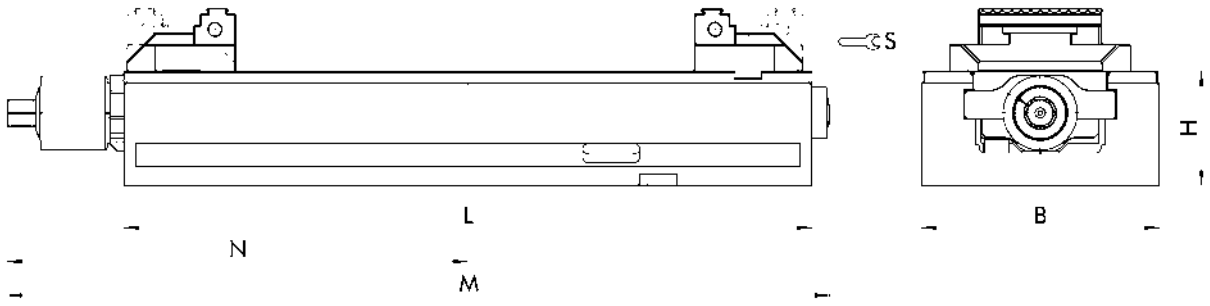
Field of application

KSC-F

SCHUNK KONTEC KSC-F single-acting vise with fixed jaw is especially suitable for use in automated machine loading. They score with a quick adjustment of the clamping range, flat design, and low weight. These are the perfect conditions for the use in pallet storage units. The sizes KSC-F 80, KSC-F 125, and KSC-F 160 are particularly designed for the common pallet sizes 320 x 320 mm, 400 x 400 mm and 500 x 500 mm.

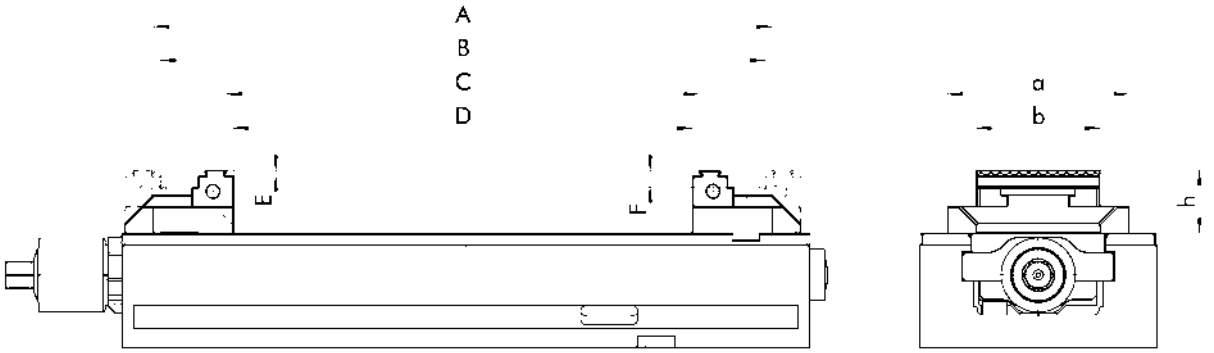


1. **Spindle drive**
2. **Long jaw guidance**
3. **Drainage slots**
4. **Mounting thread for workpiece stop**
5. **Standard jaw interface**
6. **Low height**
7. **Mechanical force transmission**
8. **Actuation via hexagon connection**



Technical data

Description	ID	B	H	L	M	N	S	Max. clamping force	Max. torque	Weight
		mm	mm	mm	mm	mm	mm	kN	Nm	kg
KSC-F 80-214	0432729	80	55	214	284	168	14	25	50	5
KSC-F 125-362	0432488	125	60	362	432	243	14	40	90	15
KSC-F 125-740	1440492	125	60	740	798	428	14	40	90	30
KSC-F 160-480	0432620	160	70	480	559	309	14	50	120	28.5

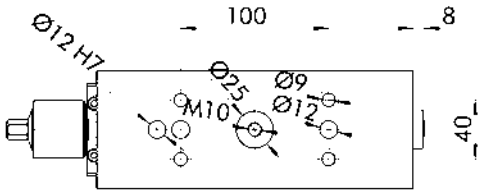


Clamping ranges

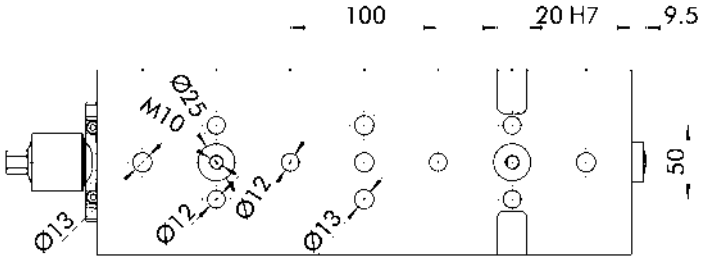
Vise	Description	Jaw designation	ID	A	B	C	D	E	F	a	b	h
				mm	mm	mm	mm	mm	mm	mm	mm	mm
KSC-F 80-214	Reversal jaw grip, movable	SGWB-G3-B 80-40.3-28	0432715	63 - 192	59 - 188	4 - 134	0 - 130	3	8	80		28
KSC-F 80-214	Reversible grip jaw, fixed	SGWB-G3-F 80-40.3-28	0432732	63 - 192	59 - 188	4 - 134	0 - 130	3	8	80		28
KSC-F 80-214	Reversal jaw grip, movable	SGWB-G3-B 40-40.3-28	0432716	63 - 192	59 - 188	4 - 134	0 - 130	3	8	80	40	28
KSC-F 80-214	Reversible grip jaw, fixed	SGWB-G3-F 40-40.5-28	0432730	63 - 192	59 - 188	4 - 134	0 - 130	3	8	80	40	28
KSC-F 125-362	Reversal jaw grip, movable	SGWB-G3-B 125-66-40	0432490	78 - 308	71 - 301	8 - 238	0 - 231	3	18	125		40
KSC-F 125-362	Reversible grip jaw, fixed	SGWB-G3-F 125-66-40	0432489	84 - 324	77 - 317	8 - 247	0 - 240	3	18	125		40
KSC-F 125-362	Reversal jaw grip, movable	SGWB-G3-B 65-57-33	0432717	84 - 324	77 - 317	8 - 247	0 - 240	3	9	125	65	33
KSC-F 125-362	Reversible grip jaw, fixed	SGWB-G3-F 65-57-30	0432494	84 - 324	77 - 317	8 - 247	0 - 240	3	9	125	65	33
KSC-F 125-740	Reversal jaw grip, movable	SGWB-G3-B 125-66-40	0432490	144 - 682	137 - 675	74 - 612	66 - 605	3	18	125		40
KSC-F 125-740	Reversible grip jaw, fixed	SGWB-G3-F 125-66-40	0432489	144 - 682	137 - 675	74 - 612	66 - 605	3	18	125		40
KSC-F 125-740	Reversal jaw grip, movable	SGWB-G3-B 65-57-33	0432717	160 - 697	153 - 697	83 - 621	76 - 614	3	9	125	65	33
KSC-F 125-740	Reversible grip jaw, fixed	SGWB-G3-F 65-57-30	0432494	160 - 697	153 - 697	83 - 621	76 - 614	3	9	125	65	33

Interfaces

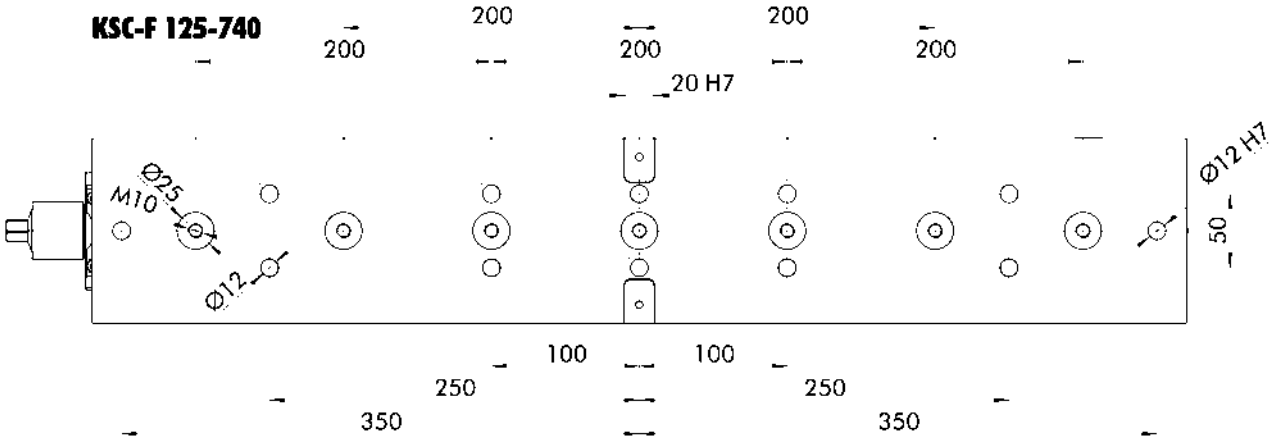
KSC-F 80-214



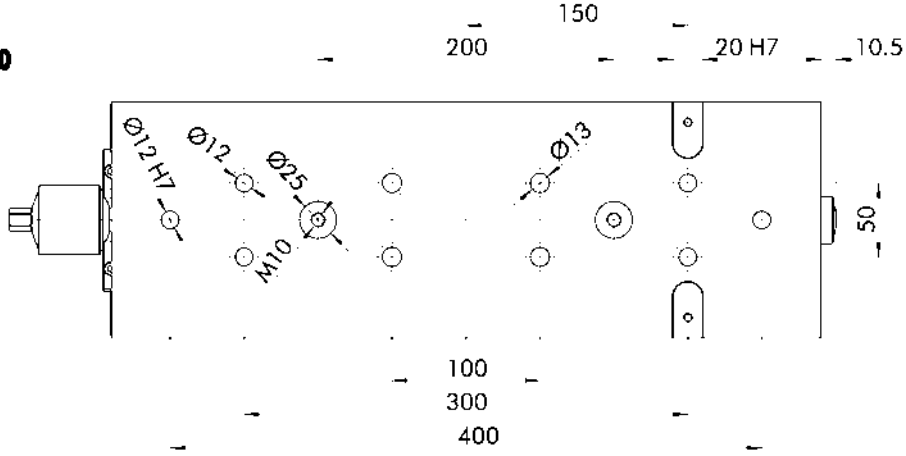
KSC-F 125-362



KSC-F 125-740



KSC-F 160-480



Clamping pins

Standard clamping pins
Standard clamping pins for positive locking of workpieces or devices with the NSE3 clamping modules.
With shortened fastening screw.



Description	Version	M10 kN	ID
SPA 40-K	Centering pins	35	0432369
SPB 40-K	Positioning pin	35	0432370

System jaws

Reversible grip jaw
Design as movable jaw.
With grip step 3 mm (up to 22 HRC) and a smooth clamping surface on both sides.



Suitable for	Description	Interface	ID
KSC-F 80	SGWB-G3-B 80-40.3-28	W-80-1	0432715
KSC-F 125	SGWB-G3-B 125-66-40	W-125-1 W-125-2	0432490
KSC-F 160	SGWB-G3-B 160-81-50	W-160	0432614

Reversible grip jaw
Design as fixed jaw.
With grip step 3 mm (up to 22 HRC) and a smooth clamping surface on both sides.



Suitable for	Description	Interface	ID
KSC-F 80	SGWB-G3-F 80-40.3-28	W-80-1	0432732
KSC-F 125	SGWB-G3-F 125-66-40	W-125-1 W-125-2	0432489
KSC-F 160	SGWB-G3-F 160-81-50	W-160	0432624
KSC-F 80	SGWB-G3-F 40-40.5-28		0432730
KSC-F 125	SGWB-G3-F 65-57-30	W-65-1	0432494

Steel jaw
Design as fixed jaw.
Used for rework at the customer site e.g. for incorporating contours or special shapes.



Suitable for	Description	ID
KSC-F 125	SGS-F 125-68-40	1559434

Steel jaw
Design as movable jaw.
Used for rework at the customer site e.g. for incorporating contours or special shapes.



Suitable for	Description	ID
KSC-F 125	SGS-B 125-68-40	1452569

Alu jaw
Design as movable jaw.
Used for rework at the customer site e.g. for incorporating contours or special shapes.



Suitable for	Description	ID
KSC-F 80	SGAL-B 80-48-28	0432718
KSC-F 125	SGAL-B 125-68-40	0432469
KSC-F 160	SGAL-B 160-85-50	0432623

Alu jaw
Design as fixed jaw.
Used for rework at the customer site e.g. for incorporating contours or special shapes.



Suitable for	Description	ID
KSC-F 80	SGAL-F 80-48-28	0432733
KSC-F 125	SGAL-F 125-68-40	0432492
KSC-F 160	SGAL-F 160-85-50	0432625

Swivel plate
Used – in combination with adapter plates and 6-way reversal jaws – to clamp bulky workpieces.



Suitable for	Description	Interface	ID
KSC-F 80	SGP-3 125-76-19	W-38	0432720
KSC-F 125	SGP-3 180-95-22	W-38	0432470
KSC-F 160	SGP-3 256-170-22	W-38	0432615

Adapter plate
Used – in combination with swivel plates and 6-way reversal jaws – to clamp bulky workpieces.



Suitable for	Description	Interface	ID
KSC-F 80	SGA-4 125-48-19	W-38	0432735
KSC-F 125	SGA-4 180-62-22	W-38	0432493
KSC-F 160	SGA-4 256-125-22	W-38	0432621

Monoblock jaw
Design as movable jaw.
Jaw with a smooth clamping surface for mounting top jaws.



Suitable for	Description	Interface	ID
KSC-F 80	SGBB-B 80-40-28	W-80-1	1349856
KSC-F 125	SGBB-B 125-66-40	W-125-1	1349858
KSC-F 160	SGBB-B 160-81-50	W-160	1349865

Monoblock jaw
Design as fixed jaw.
Jaw with a smooth clamping surface for mounting top jaws.



Suitable for	Description	Interface	ID
KSC-F 80	SGBB-F 80-40-28	W-80-1	1349855
KSC-F 125	SGBB-F 125-66-40	W-125-1	1349857
KSC-F 160	SGBB-F 160-81-50	W-160	1349864

Top jaws

6-way reversal jaws
With five carbide grip steps as well as a coated clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBG-6W 38-38-18	38.5	18	38.2	W-38	0430803

6-way reversal jaws
With five carbide grip steps as well as a smooth clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBCG-6W 38-38-18	38.5	18	38.2	W-38	1395550

Jaw profiled
For increasing the friction between jaw and workpiece without clamping marks.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBD 125-40-11.5	125	40	11.5	W-125-1	1373349
GBD 160-50-13.5	160	50	13.5	W-160	1373350

Serrated jaw
For increasing the friction between jaw and workpiece with minimal clamping marks.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBC 125-40-12.5	125	40	12.5	W-125-1	1373268
GBC 160-50-14.4	160	50	14.4	W-160	1373269

Ground jaw
With a completely ground clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBP 125-18-7.6	125	18	7.6	W-125-2	0432259
GBP 125-40-11.5	125	40	11.5	W-125-1	1373278
GBP 160-50-13.5	160	50	13.5	W-160	1373281

Soft jaw
Hardenable jaws for rework at the customer site, e.g. for incorporating contours or special shapes.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBW 125-40-20	125	40	20	W-125-1	1373288
GBW 160-50-20	160	50	20	W-160	1373289

Stepped jaw
With ground step, 8 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS 125-40-11.5-8	125	40	11.5	W-125-1	1373327
GBS 160-50-13.5-8	160	50	13.5	W-160	1373328

Stepped jaw
With ground step, 17 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS 125-40-11.5-17	125	40	11.5	W-125-1	0430413

Stepped jaw
With coated step, 5 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-W 125-18-7.6-5	125	18	7.6	W-125-2	0432276
GBS-W 80-28-10-5	80	28	10	W-80-1	1395509
GBS-W 125-40-11.5-5	125	40	11.5	W-125-1	0430414
GBS-W 160-50-13.5-5	160	50	13.5	W-160	1395511

Stepped jaw
With grip step 3 mm and ground step 18 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G3 125-40-21.5-18	125	40	21.5	W-125-1	0430415
GBS-G3 125-40-24-18	125	40	24	W-125-1	1322989

Stepped jaw
With special "soft" grip step, 5 mm.
For embossed clamping of soft materials such as plastic or aluminum.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-SG5 125-40-11.5	125	40	11.5	W-125-1	1393552

Stepped jaw
With grip step, 3 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G3 80-28-10	80	28	10	W-80-1	1326805
GBS-G3 125-40-11.5	125	40	11.5	W-125-1	1373331
GBS-G3 160-50-13.5	160	50	13.5	W-160	1373332
GBS-G3 125-18-8	125	18	8	W-125-2	0432275

Stepped jaw
With grip step, 5 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G5 125-40-11.5	125	40	11.5	W-125-1	1373334
GBS-G5 65-22-8	65	22	8	W-65-1	1465122
GBS-G5 160-50-13.5	160	50	13.5	W-160	1373335
GBS-G5 125-18-8	125	18	8	W-125-2	0432260

Stepped jaw
With grip step, 8 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G8 125-40-11.5	125	40	11.5	W-125-1	1373338
GBS-G8 160-50-13.5	160	50	13.5	W-160	1373340

Stepped jaw
With carbide grip step, 3 mm.
For embossed clamping of hardened materials up to 58 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-CG3 125-40-11.5	125	40	11.5	W-125-1	1395524
GBS-CG3 160-50-13.5	160	50	13.5	W-160	1431232

Stepped jaw
With carbide grip step, 5 mm.
For embossed clamping of hardened materials up to 58 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-CG5 125-40-11.5	125	40	11.5	W-125-1	1424000
GBS-CG5 160-50-15.5	160	50	15.5	W-160	1431233

Stepped jaw
With special grip step, 3 mm.
For clamping pre-embossed materials and workpieces.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-GL3 125-40-11.5	125	40	11.5	W-125-1	1395577

Stepped jaw with T-slot
With grip step, 3 mm.
T-slot for mounting the positioning strip.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G3-T 125-40-17.5	125	40	17.5	W-125-1	0430248

Stepped jaw with T-slot
With grip step, 5 mm.
T-slot for mounting the positioning strip.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G5-T 125-40-17.5	125	40	17.5	W-125-1	0430247
GBS-G5-T 160-50-20	160	50	20	W-160	0430250

Stepped jaw with T-slot
With grip step, 8 mm.
T-slot for mounting the positioning strip.



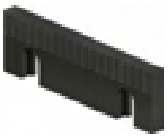
Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G8-T 125-40-17.5	125	40	17.5	W-125-1	0430237
GBS-G8-T 160-50-20	160	50	20	W-160	0430249

Positioning bar
To suit all stepped jaws with T-slot.



Description	Width mm	Height mm	Depth mm	Interface	ID
GPL 125-32-13.5	125	32	13.5	W-125-1	0430238
GPL 160-32-13.5	160	32	13.5	W-160	0430251

Grip jaw
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBG 125-40-11.5	125	40	11.5	W-125-1	1373284
GBG 160-50-13.5	160	50	13.5	W-160	1373285
GBG 125-18-7.8	125	18	7.8	W-125-2	0432261

Chuck jaw with locating pins
Retractable locating pins for quickly adjusting the jaw to the respective workpiece.



Description	Width mm	Height mm	Depth mm	Interface	ID
GPS 125-40-17	125	40	16.7	W-125-1	1509316

Prism jaw, ground
For precise clamping of round workpieces.



Description	Width mm	Height mm	Depth mm	Interface	ID
GVA 125-40-17.5	125	40	17.5	W-125-1	1373344
GVA 160-50-19.5	160	50	19.5	W-160	1373345
GVA 65-22-15	65	22	15	W-65-1	0430707

Spring leaf pull-down jaw
For an active jaw pull-down function with a light clamping mark on the workpiece for more precise machining results.



Description	Width mm	Height mm	Depth mm	Interface	ID
GFA 125-40-11.5	125	40	11.5	W-125-1	1373304
GFA 160-50-13.5	160	50	13.5	W-160	1373306

Spring plate pull-down jaw
For an active jaw pull-down function without clamping marks on the workpiece for more precise machining results.



Description	Width mm	Height mm	Depth mm	Interface	ID
GFB 80-24-9	80	24.3	9	W-80-1	0432736
GFB 125-35-10	125	35	10	W-125-1	0432498
GFB 160-45-12	160	45	12	W-160	0432629

Precision pull-down jaw
For an active jaw pull-down function without clamping marks on the workpiece for more precise machining results.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBN-P 125-40-25	125	40	25	W-125-1	0430147
GBN-P 160-50-27.5	160	50	27.5	W-160	0430148

Universal stepped jaw
Versatile stepped jaw with ground step.



Description	Width mm	Height mm	Depth mm	Interface	ID
GPE 80-28-10-5	80	28	10	W-80-1	0432721
GPE 65-22-8-3	65	22	8	W-65-1	0430704

Coated jaw
For increasing the friction between jaw and workpiece.
Height = 18 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBB 125-18-7.6	125	18	7.6	W-125-2	0432262

Accessories

Clamping force tester
For measuring the jaw clamping force of stationary clamping devices.



Suitable for	Description	ID
KSC-F 80 KSC-F 125 KSC-F 160	IFT SST Set	1475766

Actuating lever, articulated
For convenient clamping range presetting
With 1/2" square drive



Suitable for	Description	ID
KSC-F 80 KSC-F 125 KSC-F 160	GSH-G 1/2"	0432478

Torque wrench 10 – 100 Nm
Serves for applying a defined torque.
With 1/2" square drive



Suitable for	Description	ID
KSC-F 80 KSC-F 125	GSH-D 10-100	0432477

Torque wrench 20 – 200 Nm
Serves for applying a defined torque.
With 1/2" square drive



Suitable for	Description	ID
KSC-F 160	GSH-D 20-200	0432487

Hexagonal insert SW 12
Suitable for square drive 1/2".



Suitable for	Description	ID
KSC-F 80	GSK-I SW12-1/2"	0432479

Hexagonal insert AF 14
Suitable for square drive 1/2".



Suitable for	Description	ID
KSC-F 125 KSC-F 160	GSK-I SW14-1/2"	0432619

Workpiece stop
For reversal jaw grip, width 40 mm.
For reversal jaw grip, width 65 mm.
For 5-axis jaw, width 65 mm.



Suitable for	Description	ID
KSC-F 80 KSC-F 125	GWSA-1 M6	0432354

Workpiece stop
For connecting thread M8.



Suitable for	Description	ID
KSC-F 80 KSC-F 125 KSC-F 160	GWSA-2 M8	0430710

Workpiece stop
For connecting thread M8/M10.



Suitable for	Description	ID
KSC-F 80 KSC-F 125 KSC-F 160	GWSA-3 M8/M10	0430021

Workpiece stop, magnetic
For quick and easy attachment to system jaws or vises.



Suitable for	Description	ID
KSC-F 80 KSC-F 125 KSC-F 160	GWSA-M 60 x 15	1391293
KSC-F 80 KSC-F 125 KSC-F 160	GWSA-M 115 x 15	1391331

Extensions
As an accessory for the magnetic workpiece stops.



Suitable for	Description	ID
KSC-F 80 KSC-F 125 KSC-F 160	GWSA-V Ø68 x 30	1394477

Precision T-nuts
Suitable for all conventional T-groove widths of machine tables.



Suitable for	Description	ID
T-slot 12 mm/M6	GPN M6-T12	0490590
T-slot 14 mm/M6	GPN M6-T14	0490547
T-Nut 16 mm/M6	GPN M6-T16	0490548
T-slot 18 mm/M6	GPN M6-T18	0490587
T-slot 20 mm/M6	GPN M6-T20	1359734
T-slot 22 mm/M6	GPN M6-T22	0490621

Clamping screws for clamping claws
For mounting clamping devices in combination with clamping claws.



Suitable for	Description	ID
T-slot 12 mm/M10	GSC-S M10-T12	0432043
T-slot 14 mm/M12	GSC-S M12-T14	0432044
T-Nut 16 mm/M14	GSC-S M14-T16	0432045
T-slot 18 mm/M16	GSC-S M16-T18	0432046
T-slot 20 mm/M16	GSC-S M16-T20	1550423
T-slot 22 mm/M16	GSC-S M16-T22	1550424

Clamping screws for base body
Used for directly attaching clamping devices via the base body.



Suitable for	Description	ID
T-slot 12 mm/M10	GSC-G-1 M10-T12	0430422
T-slot 14 mm/M12	GSC-G-1 M12-T14	0430423
T-Nut 16 mm/M12	GSC-G-1 M12-T16	0430424
T-Nut 18 mm/M12	GSC-G-1 M12-T18	0430425

Clamping claws
For quick and easy mounting of SCHUNK clamping devices.



Suitable for	Description	ID
KSC-F 80 KSC-F 125 KSC-F 160	GSPR-A 50-57	0490604

Fitting screws
For precise position orientation and mounting of manual clamping vises on the machine table.



Suitable for	Description	ID
KSC-F 125	GPSC-1 Ø12f7-M12	0432047
KSC-F 160	GPSC-2 Ø12f7-M12	0490546

Alignment and centering set
For clamping width 80 mm.



Suitable for	Description	ID
T-Nut 12 mm	GAZ-1 T12	1326851
T-Nut 14 mm	GAZ-1 T14	1326852
T-Nut 16 mm	GAZ-1 T16	1326853
T-Nut 18 mm	GAZ-1 T18	1326854

Cylinder pin set
For easier assembly of the clamping device on the machine table.



Suitable for	Description	ID
KSC-F 80 KSC-F 125 KSC-F 160	GZS Ø12m6	1373755

Workpiece supports set

Set of workpiece supports – width 80 mm
Suitable for system jaws H = 28 mm with grip level 3 mm.
Heights = 5, 10, 15, 20, and 22 mm.



Suitable for	Description	ID
KSC-F 80	GWU-S grip 80-28	1394225

Set of workpiece supports – width 125 mm
Suitable for system jaws H = 40 mm with grip level 3 mm.
Heights = 9, 22, 27, 32, and 34 mm.



Suitable for	Description	ID
KSC-F 125	GWU-S grip 125-40	1394229

Set of workpiece supports – width 160 mm
Suitable for system jaws H = 50 mm.
Heights = 15, 30, 40, 45, and 47 mm.



Suitable for	Description	ID
KSC-F 160	GWU-S 160-50	1394231

Workpiece supports

Workpiece supports – width 80 mm

In different heights.
1 set = 2 pieces



Suitable for	Description	Height mm	ID
KSC-F 80	GWU-M 80-5	5	1465960
KSC-F 80	GWU-M 80-10	10	1465956
KSC-F 80	GWU-M 80-15	15	1460327
KSC-F 80	GWU-M 80-20	20	1411113
KSC-F 80	GWU-M 80-22	22	1411114

Workpiece supports – width 125 mm

In different heights.
1 set = 2 pieces



Suitable for	Description	Height mm	ID
KSC-F 125	GWU-M 125-8	8	1450266
KSC-F 125	GWU-M 125-9	9	1462567
KSC-F 125	GWU-M 125-10	10	1411328
KSC-F 125	GWU-M 125-12	12	1447369
KSC-F 125	GWU-M 125-15	15	1411350
KSC-F 125	GWU-M 125-20	20	1452308
KSC-F 125	GWU-M 125-22	22	1457551
KSC-F 125	GWU-M 125-23	23	1411380
KSC-F 125	GWU-M 125-25	25	1484475
KSC-F 125	GWU-M 125-27	27	1461008
KSC-F 125	GWU-M 125-30	30	1411387
KSC-F 125	GWU-M 125-31	31	1484477
KSC-F 125	GWU-M 125-32	32	1411398
KSC-F 125	GWU-M 125-33	33	1484478
KSC-F 125	GWU-M 125-34	34	1484480
KSC-F 125	GWU-M 125-35	35	1411391
KSC-F 125	GWU-M 125-36	36	1429618
KSC-F 125	GWU-M 125-37	37	1411395
KSC-F 125	GWU-M 125-38	38	1429615

Workpiece supports – width 160 mm

In different heights.
1 set = 2 pieces



Suitable for	Description	Height mm	ID
KSC-F 160	GWU-M 160-15	15	1464957
KSC-F 160	GWU-M 160-22	22	1461402
KSC-F 160	GWU-M 160-30	30	1538303
KSC-F 160	GWU-M 160-37	37	1443672
KSC-F 160	GWU-M 160-40	40	1504993
KSC-F 160	GWU-M 160-41	41	1597020
KSC-F 160	GWU-M 160-42	42	1410170
KSC-F 160	GWU-M 160-43	43	1534944
KSC-F 160	GWU-M 160-44	44	1484499
KSC-F 160	GWU-M 160-45	45	1410169
KSC-F 160	GWU-M 160-46	46	1497132
KSC-F 160	GWU-M 160-47	47	1410166

KONTEC

schunk.com/ksc3



Corrosion-resistant. Universal. Compact. Centric clamping vise KSC3

The KONTEC KSC3 centric clamping vise offers an impressively high clamping force and high precision in an extremely flat design. The nickel-plated base body optimally protects the vise against corrosion and thus significantly extends the fields of application compared to its predecessor, the KONTEC KSC. Some sizes of the KSC3 series also have an improved interfering contour, which results in better accessibility to the workpiece.

Functions & highlights

- **Corrosion-resistant design**
  Nickel coating ensures a long service life
- **Clamping by tension**
  No bending of base body
- **Extremely flat design**
  For maximum utilization of the machine room



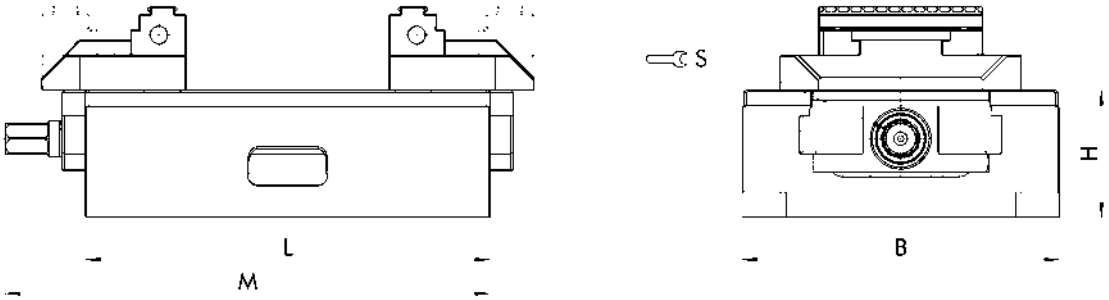
Field of application

KSC3

The KSC3 offers an extremely wide range of system and top jaws, which is unique on the market and enables a wide field of applications. Extras such as a laser-etched scale on the base body and the system jaws as well as the jaw change with just two screws ensure easy handling and short set-up times.



1. **Encapsulated system**
2. **Recessed hexagonal connection**
3. **Spindle drive**
4. **Long slide**
5. **Drainage slots**
6. **Mounting thread for workpiece stop**
7. **System jaw with grip step and smooth clamping surface**
8. **Ball bearing mounted, clearance-free spindle**
9. **Low height**

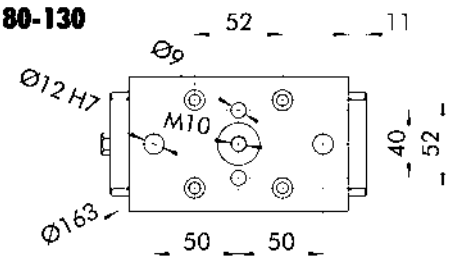


Technical data

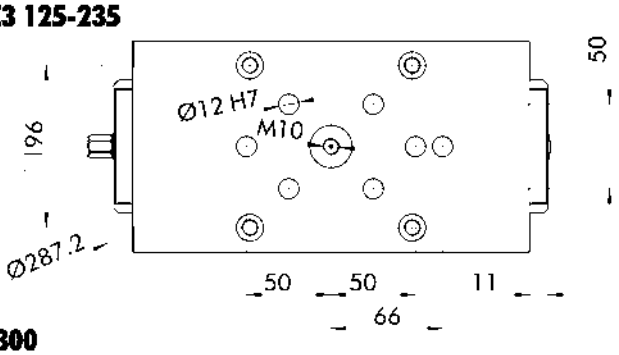
Description	ID	B	H	L	M	S	Jaw width	Max. clamping force	Max. torque	Length compensation	Repeat accuracy	Weight
		mm	mm	mm	mm	mm	mm	kN	Nm	mm	mm	kg
KSC3 80-130	1508857	80	50	130	157	12		25	90		±0.01	3.1
KSC3 80-130-S	1514209	80	50	130	157	12		25	90	±3	±0.01	3.1
KSC3 grip 80-130	1514206	80	50	130	157	12	80	25	90		±0.01	3.9
KSC3 80-190	1514208	80	50	190	205.5	12		25	90		±0.01	4.5
KSC3 80-190-S	1514220	80	50	190	205.5	12		25	90	±3	±0.01	4.5
KSC3 grip 80-190	1514207	80	50	190	205.5	12	80	25	90		±0.01	5.5
KSC3 125-160	1514241	125	50	160	200	12		35	100		±0.01	6.3
KSC3 125-160-S	1514247	125	50	160	200	12		35	100	±5	±0.01	6.5
KSC3 grip 125-160	1514238	125	50	160	200	12	125	35	100		±0.01	8.7
KSC3 125-235	1514242	125	50	235	272	12		35	100		±0.01	9.5
KSC3 125-235-S	1514248	125	50	235	272	12		35	100	±5	±0.01	9.5
KSC3 grip 125-235	1514239	125	50	235	272	12	125	35	100		±0.01	12
KSC3 125-300	1514246	125	50	300	348	12		35	100		±0.01	12.5
KSC3 125-300-S	1514249	125	50	300	348	12		35	100	±5	±0.01	12.5
KSC3 grip 125-300	1514240	125	50	300	348	12	125	35	100		±0.01	14.5
KSC3 160-280	1514250	160	70	280	290	12		50	175		±0.015	25
KSC3 160-280-S	1514255	160	70	280	290	12		50	175	±5	±0.015	25
KSC3 160-480	1514254	480	70	280	521	12		50	175		±0.015	35
KSC3 160-480-S	1514256	480	70	280	521	12		50	175	±5	±0.015	35

Interfaces

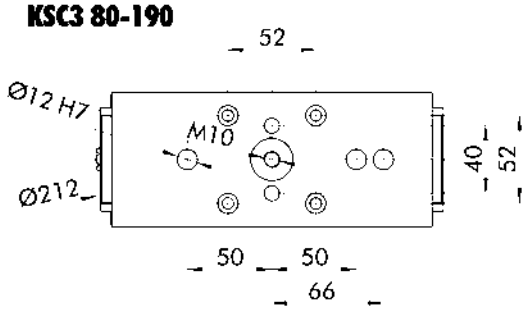
KSC3 80-130



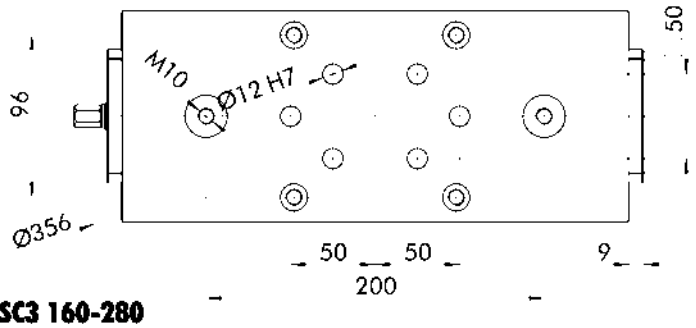
KSC3 125-235



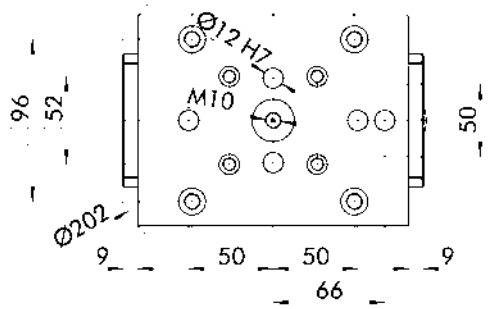
KSC3 80-190



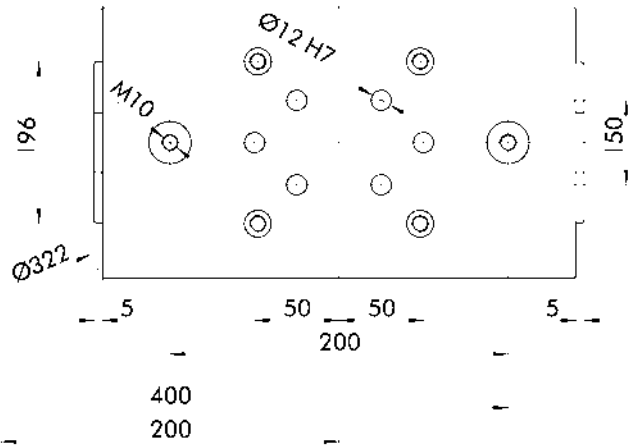
KSC3 125-300



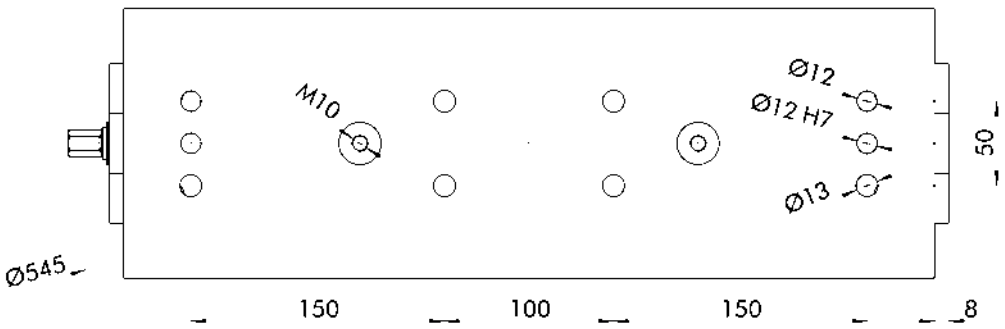
KSC3 125-160

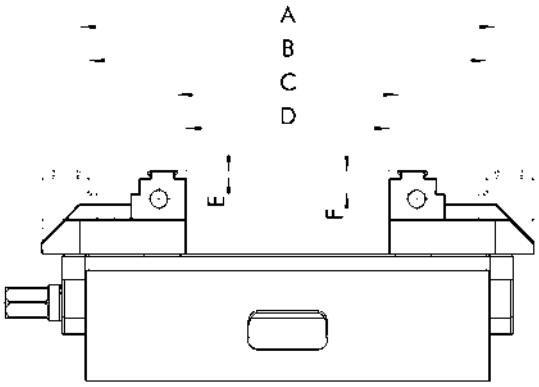


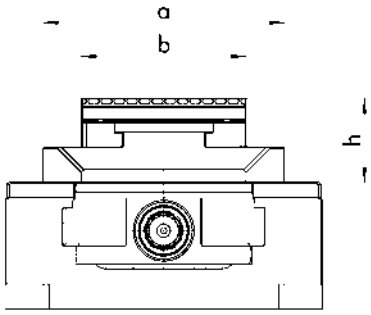
KSC3 160-280



KSC3 160-480







Clamping ranges

Vise	Description	Jaw designation	ID	A	B	C	D	E	F	a	b	h
				mm	mm	mm	mm	mm	mm	mm	mm	mm
KSC3 80-130	Reversible grip jaw	SGWB-G3-B 80-40.3-28	432715	63 - 121	59 - 117	4 - 63	0 - 59	3	8		80	28
KSC3 80-130	Reversible grip jaw	SGWB-G3-B 40-40.3-28	1514379	63 - 121	59 - 117	4 - 63	0 - 59	3	8		40	28
KSC3 80-130	Reversible grip jaw	SGWB-G5-B 80-41.5-28	1514364	63 - 185	59 - 181	4 - 127	0 - 123	5	10		80	28
KSC3 80-130	Reversible carbide-grip jaw	SGWB-CG3-B 80-40-28	1514368	63 - 121	59 - 117	4 - 63	0 - 59	3	8		80	28
KSC3 80-130	Reversible carbide-grip jaw	SGWB-CG3-B 40-40.3-28	1414567	63 - 121	59 - 117	4 - 63	0 - 59	3	8		40	28
KSC3 80-130	Reversible carbide-grip jaw	SGWB-CG5-B 80-40-28	1514375	63 - 185	59 - 181	4 - 127	0 - 123	5	10		80	28
KSC3 80-190	Reversible grip jaw	SGWB-G3-B 80-40.3-28	432715	63 - 185	59 - 181	4 - 127	0 - 123	3	8		80	28
KSC3 80-190	Reversible grip jaw	SGWB-G3-B 40-40.3-28	1514379	63 - 185	59 - 181	4 - 127	0 - 123	3	8		40	28
KSC3 80-190	Reversible grip jaw	SGWB-G5-B 80-41.5-28	1514364	63 - 185	59 - 181	4 - 127	0 - 123	5	10		80	28
KSC3 80-190	Reversible carbide-grip jaw	SGWB-CG3-B 80-40-28	1514368	63 - 185	59 - 181	4 - 127	0 - 123	3	8		80	28
KSC3 80-190	Reversible carbide-grip jaw	SGWB-CG3-B 40-40.3-28	1414567	63 - 185	59 - 181	4 - 127	0 - 123	3	8		40	28
KSC3 80-190	Reversible carbide-grip jaw	SGWB-CG5-B 80-40-28	1514375	63 - 185	59 - 181	4 - 127	0 - 123	5	10		80	28
KSC3 125-160	Reversible grip jaw	SGWB-G3-B 125-57-33	432474	84 - 163	77 - 156	8 - 87	0 - 80	3	9		125	33
KSC3 125-160	Reversible grip jaw	SGWB-G3-B 65-57-33	1514380	84 - 163	77 - 156	8 - 87	0 - 80	3	9	95	65	33
KSC3 125-160	Reversible grip jaw	SGWB-G5-B 125-57-33	1514365	84 - 163	77 - 156	8 - 87	0 - 80	5	11		125	33
KSC3 125-160	Reversible carbide-grip jaw	SGWB-CG3-B 125-57-33	1514374	84 - 163	77 - 156	8 - 87	0 - 80	3	9		125	33
KSC3 125-160	Reversible carbide-grip jaw	SGWB-CG3-B 65-57-33	1414568	84 - 163	77 - 156	8 - 87	0 - 80	3	9	95	65	33
KSC3 125-160	Reversible carbide-grip jaw	SGWB-CG5-B 125-57-33	1514376	84 - 163	77 - 156	8 - 87	0 - 80	5	11		125	33
KSC3 125-235	Reversible grip jaw	SGWB-G3-B 125-57-33	432474	84 - 226	77 - 219	8 - 150	0 - 143	3	9		125	33
KSC3 125-235	Reversible grip jaw	SGWB-G3-B 65-57-33	1514380	84 - 226	77 - 219	8 - 150	0 - 143	3	9	95	65	33
KSC3 125-235	Reversible grip jaw	SGWB-G5-B 125-57-33	1514365	84 - 226	77 - 219	8 - 150	0 - 143	5	11		125	33
KSC3 125-235	Reversible carbide-grip jaw	SGWB-CG3-B 125-57-33	1514374	84 - 226	77 - 219	8 - 150	0 - 143	3	9		125	33
KSC3 125-235	Reversible carbide-grip jaw	SGWB-CG3-B 65-57-33	1414568	84 - 226	77 - 219	8 - 150	0 - 143	3	9	95	65	33
KSC3 125-235	Reversible carbide-grip jaw	SGWB-CG5-B 125-57-33	1514376	84 - 226	77 - 219	8 - 150	0 - 143	5	11		125	33
KSC3 125-300	Reversible grip jaw	SGWB-G3-B 125-57-33	432474	84 - 303	77 - 296	8 - 227	0 - 220	3	9		125	33
KSC3 125-300	Reversible grip jaw	SGWB-G3-B 65-57-33	1514380	84 - 303	77 - 296	8 - 227	0 - 220	3	9	95	65	33
KSC3 125-300	Reversible grip jaw	SGWB-G5-B 125-57-33	1514365	84 - 303	77 - 296	8 - 227	0 - 220	5	11		125	33
KSC3 125-300	Reversible carbide-grip jaw	SGWB-CG3-B 125-57-33	1514374	84 - 303	77 - 296	8 - 227	0 - 220	3	9		125	33
KSC3 125-300	Reversible carbide-grip jaw	SGWB-CG3-B 65-57-33	1414568	84 - 303	77 - 296	8 - 227	0 - 220	3	9	95	65	33
KSC3 125-300	Reversible carbide-grip jaw	SGWB-CG5-B 125-57-33	1514376	84 - 303	77 - 296	8 - 227	0 - 220	5	11		125	33

Vise	Description	Jaw designation	ID	A	B	C	D	E	F	a	b	h
				mm	mm	mm	mm	mm	mm	mm	mm	mm
KSC3 160-280	Reversible grip jaw	SGWB-G3-B 160-81-50	432614	125 - 251	118 - 244	8 - 134	0 - 127	3	10		160	50
KSC3 160-280	Reversible carbide-grip jaw	SGWB-CG3-B 160-81-50	1395527	125 - 251	118 - 244	8 - 134	0 - 127	3	10		160	50
KSC3 160-480	Reversible grip jaw	SGWB-G3-B 160-81-50	432614	139 - 465	132 - 458	22 - 348	15 - 341	3	10		160	50
KSC3 160-480	Reversible carbide-grip jaw	SGWB-CG3-B 160-81-50	1395527	139 - 465	132 - 458	22 - 348	15 - 341	3	10		160	50

Clamping pins

Standard clamping pins

Standard clamping pins for positive locking of workpieces or devices with the NSE3 clamping modules.
With shortened fastening screw.



Description	Version	M10 kN	ID
SPA 40-K	Centering pins	35	0432369
SPB 40-K	Positioning pin	35	0432370

System jaws

Reversal jaw, soft grip

Design as movable jaw.
With a special 5 mm grip step on both sides to enable clamping of soft materials such as aluminum or plastic.



Suitable for	Description	ID
KSC3 80	SGWB-SG5-B 80-40.3-28	1514366
KSC3 125	SGWB-SG5-B 125-57-33	1514367

Reversible grip jaw

Design as movable jaw.
With grip step 3 mm (up to 22 HRC) and a smooth clamping surface on both sides.



Suitable for	Description	Interface	ID
KSC3 80	SGWB-G3-B 80-40.3-28	W-80-1	0432715
KSC3 125	SGWB-G3-B 125-57-33		0432474
KSC3 160	SGWB-G3-B 160-81-50	W-160	0432614
KSC3 80	SGWB-G3-B 40-40.3-28		1514379
KSC3 125	SGWB-G3-B 65-57-33		1514380
KSC3 80	SGWB-G5-B 80-41.5-28		1514364
KSC3 125	SGWB-G5-B 125-57-33		1514365
KSC3 160	SGWB-G5-B 160-81-50	W-160	1522330

Reversible carbide-grip jaw

Design as movable jaw.
Jaw width 40 mm, with carbide-grip step 3 mm (up to 58 HRC) and a smooth clamping surface on both sides.



Suitable for	Description	Interface	ID
KSC3 80	SGWB-CG3-B 80-40-28		1514368
KSC3 125	SGWB-CG3-B 125-57-33		1514374
KSC3 160	SGWB-CG3-B 160-81-50	W-160	1395527
KSC3 80	SGWB-CG3-B 40-40.3-28		1414567
KSC3 125	SGWB-CG3-B 65-57-33		1414568
KSC3 80	SGWB-CG5-B 80-40-28		1514375
KSC3 125	SGWB-CG5-B 125-57-33		1514376
KSC3 160	SGWB-CG5-B 160-81-50	W-160	1497022

Reversible jaw with embossed profile

Design as movable jaw.
With a special grip step on both sides for clamping pre-embossed workpieces simply and securely.



Suitable for	Description	ID
KSC3 80	SGWB-GL-B 80-40-28	1514377
KSC3 125	SGWB-GL-B 125-57-33	1514378

Alu jaw

Design as movable jaw.
Used for rework at the customer site e.g. for incorporating contours or special shapes.



Suitable for	Description	ID
KSC3 80	SGAL-B 80-48-28	0432718
KSC3 125	SGAL-B 125-68-40	0432469
KSC3 160	SGAL-B 160-85-50	0432623

Steel jaw

Design as movable jaw.
Used for rework at the customer site e.g. for incorporating contours or special shapes.



Suitable for	Description	ID
KSC3 80	SGS-B 80-48-28	1367467
KSC3 125	SGS-B 125-68-40	1452569

Swivel plate

Used – in combination with adapter plates and 6-way reversal jaws – to clamp bulky workpieces.



Suitable for	Description	Interface	ID
KSC3 80	SGP-3 125-76-19	W-38	0432720
KSC3 125	SGP-3 180-95-22	W-38	0432470
KSC3 160	SGP-3 256-170-22	W-38	0432615

Adapter plate
Used – in combination with swivel plates and 6-way reversal jaws – to clamp bulky workpieces.



Suitable for	Description	Interface	ID
KSC3 80	SGA-3 125-39-19	W-38	0432719
KSC3 125	SGA-3 180-62-22	W-38	0432471
KSC3 160	SGA-3 256-125-22	W-38	0432616

Reversible jaw
Design as movable jaw.
One side with grip step 3 mm (up to 22 HRC), one side height 40 mm with smooth clamping surface and threads for mounting top jaws.



Suitable for	Description	Interface	ID
KSC3 125	SGWB-G3-B 125-59-40	W-125-1 W-125-2	0430387

5-axis jaw
Design as movable jaw.
Jaw width 125 mm, one side with smooth clamping surface and threads for mounting top jaws.



Suitable for	Description	Interface	ID
KSC3 125	SG5A-B 65-57-40	W-65-1	0432473
KSC3 125	SG5A-B 125-45.5-40	W-125-1	0432472
KSC3 160	SG5A-B 160-73-50	W-160	0432617

Combi jaw
Design as movable jaw.
One side prepared for the mounting of top jaws.
VS-top jaws can also be installed additionally.



Suitable for	Description	Interface	ID
KSC3 125	SGK-B 125-45.5-40	W-125-1 W-125-3	0432468

Top jaws

6-way reversal jaws
With five carbide grip steps as well as a coated clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBG-6W 38-38-18	38.5	18	38.2	W-38	0430803

6-way jaw system
Jaw set for clamping the workpiece from six sides to attain a significantly higher clamping force.



Suitable for	Description	ID
KSC3 125	SG6F 125-57-40	0432485

Prismatic jaw
Design as movable jaw.
For the horizontal and vertical clamping of round materials.



Suitable for	Description	ID
KSC3 80	SGVA-B 80-38.5-52	1395548
KSC3 125	SGVA-B 125-57-67	1395549

Prism jaw vertical
Design as movable jaw.
For vertical clamping of round workpieces.
With grip step 5 mm (up to 22 HRC) and a smooth clamping surface on both sides.



Suitable for	Description	ID
KSC3 80	SGVA-B 80-25-40	1468522
KSC3 125	SGVA-B 125-25-57	1468523
KSC3 160	SGVA-B 160-30-81	1468524

Central jaw grip
Floating version for clamping of two workpieces in one set-up. Both sides are prepared for mounting spring plates or top jaws.



Suitable for	Description	ID
KSC3 80	SGM-G3 80-16-28	1474205
KSC3 80	SGM-G3 80-24-28	1474206
KSC3 125	SGM-G3 125-16-33	1474207
KSC3 125	SGM-G3 125-26-33	1474208

6-way reversal jaws
With five carbide grip steps as well as a smooth clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBCG-6W 38-38-18	38.5	18	38.2	W-38	1395550

Jaw profiled
For increasing the friction between jaw and workpiece without clamping marks.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBD 125-40-11.5	125	40	11.5	W-125-1	1373349
GBD 160-50-13.5	160	50	13.5	W-160	1373350

Serrated jaw
For increasing the friction between jaw and workpiece with minimal clamping marks.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBC 125-40-12.5	125	40	12.5	W-125-1	1373268
GBC 160-50-14.4	160	50	14.4	W-160	1373269

Ground jaw
With a completely ground clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBP 125-18-7.6	125	18	7.6	W-125-2	0432259
GBP 125-40-11.5	125	40	11.5	W-125-1	1373278
GBP 160-50-13.5	160	50	13.5	W-160	1373281

Soft jaw
Hardenable jaws for rework at the customer site, e.g. for incorporating contours or special shapes.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBW 125-40-20	125	40	20	W-125-1	1373288
GBW 160-50-20	160	50	20	W-160	1373289

Stepped jaw
With ground step, 8 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS 125-40-11.5-8	125	40	11.5	W-125-1	1373327
GBS 160-50-13.5-8	160	50	13.5	W-160	1373328

Stepped jaw
With ground step, 17 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS 125-40-11.5-17	125	40	11.5	W-125-1	0430413

Stepped jaw
With coated step, 5 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-W 125-18-7.6-5	125	18	7.6	W-125-2	0432276
GBS-W 80-28-10-5	80	28	10	W-80-1	1395509
GBS-W 125-40-11.5-5	125	40	11.5	W-125-1	0430414
GBS-W 160-50-13.5-5	160	50	13.5	W-160	1395511

Stepped jaw
With grip step 3 mm and ground step 18 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G3 125-40-21.5-18	125	40	21.5	W-125-1	0430415
GBS-G3 125-40-24-18	125	40	24	W-125-1	1322989

Stepped jaw
With special "soft" grip step, 5 mm.
For embossed clamping of soft materials such as plastic or aluminum.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-SG5 125-40-11.5	125	40	11.5	W-125-1	1393552

Stepped jaw
With grip step, 3 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G3 80-28-10	80	28	10	W-80-1	1326805
GBS-G3 125-40-11.5	125	40	11.5	W-125-1	1373331
GBS-G3 160-50-13.5	160	50	13.5	W-160	1373332
GBG-W 35-35-10.5	35	35	10.5	W-40	0430718
GBG-W 22-22-8	22	22	8		0430708
GBS-G3 125-18-8	125	18	8	W-125-2	0432275

Stepped jaw
With grip step, 5 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G5 125-40-11.5	125	40	11.5	W-125-1	1373334
GBS-G5 65-22-8	65	22	8	W-65-1	1465122
GBS-G5 160-50-13.5	160	50	13.5	W-160	1373335
GBS-G5 125-18-8	125	18	8	W-125-2	0432260

Stepped jaw
With grip step, 8 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G8 125-40-11.5	125	40	11.5	W-125-1	1373338
GBS-G8 160-50-13.5	160	50	13.5	W-160	1373340

Stepped jaw
With carbide grip step, 3 mm.
For embossed clamping of hardened materials up to 58 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-CG3 125-40-11.5	125	40	11.5	W-125-1	1395524
GBS-CG3 160-50-13.5	160	50	13.5	W-160	1431232

Stepped jaw
With carbide grip step, 5 mm.
For embossed clamping of hardened materials up to 58 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-CG5 125-40-11.5	125	40	11.5	W-125-1	1424000
GBS-CG5 160-50-15.5	160	50	15.5	W-160	1431233

Stepped jaw
With special grip step, 3 mm.
For clamping pre-embossed materials and workpieces.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-GL3 125-40-11.5	125	40	11.5	W-125-1	1395577

Stepped jaw with T-slot
With grip step, 3 mm.
T-slot for mounting the positioning strip.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G3-T 125-40-17.5	125	40	17.5	W-125-1	0430248

Stepped jaw with T-slot
With grip step, 5 mm.
T-slot for mounting the positioning strip.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G5-T 125-40-17.5	125	40	17.5	W-125-1	0430247
GBS-G5-T 160-50-20	160	50	20	W-160	0430250

Stepped jaw with T-slot
With grip step, 8 mm.
T-slot for mounting the positioning strip.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G8-T 125-40-17.5	125	40	17.5	W-125-1	0430237
GBS-G8-T 160-50-20	160	50	20	W-160	0430249

Positioning bar
To suit all stepped jaws with T-slot.



Description	Width mm	Height mm	Depth mm	Interface	ID
GPL 125-32-13.5	125	32	13.5	W-125-1	0430238
GPL 160-32-13.5	160	32	13.5	W-160	0430251

Grip jaw
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBG 125-40-11.5	125	40	11.5	W-125-1	1373284
GBG 160-50-13.5	160	50	13.5	W-160	1373285
GBG 125-18-7.8	125	18	7.8	W-125-2	0432261

Jaw with locating pins
Retractable locating pins for quickly adjusting the jaw to the respective workpiece.



Description	Width mm	Height mm	Depth mm	Interface	ID
GPS 125-40-17	125	40	16.7	W-125-1	1509316

Prism jaw, ground
For precise clamping of round workpieces.



Description	Width mm	Height mm	Depth mm	Interface	ID
GVA 125-40-17.5	125	40	17.5	W-125-1	1373344
GVA 160-50-19.5	160	50	19.5	W-160	1373345
GVA 65-22-15	65	22	15	W-65-1	0430707

Spring leaf pull-down jaw
For an active jaw pull-down function with a light clamping mark on the workpiece for more precise machining results.



Description	Width mm	Height mm	Depth mm	Interface	ID
GFA 125-40-11.5	125	40	11.5	W-125-1	1373304
GFA 160-50-13.5	160	50	13.5	W-160	1373306

Spring plate pull-down jaw
For an active jaw pull-down function without clamping marks on the workpiece for more precise machining results.



Description	Width mm	Height mm	Depth mm	Interface	ID
GFB 80-24-9	80	24.3	9	W-80-1	0432736
GFB 125-39-10	125	39	10	W-125-1	0430192
GFB 160-49-12	160	49	12	W-160	0430266
GFB 160-45-12	160	45	12	W-160	0432629

Precision pull-down jaw
For an active jaw pull-down function without clamping marks on the workpiece for more precise machining results.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBN-P 125-40-25	125	40	25	W-125-1	0430147
GBN-P 160-50-27.5	160	50	27.5	W-160	0430148

Soft jaw
Blanks for rework by the customer
Height = 22 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBW 65-22-20	64	22	20	W-65-1	0490567

Reversible grip jaw
Reversible jaw with grip step 3 mm in vertical direction and 5 mm in horizontal direction.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBG-W 65-22-8	65	22	8	W-65-1	0430729

Universal stepped jaw
Versatile stepped jaw with ground step.



Description	Width mm	Height mm	Depth mm	Interface	ID
GPE 80-28-10-5	80	28	10	W-80-1	0432721
GPE 65-22-8-3	65	22	8	W-65-1	0430704

Smooth jaw VS
Horizontally insertable jaw with enlarged clamping range and ground step.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBE-VS 125-19-45	125	19	45	W-125-3	0430416

Grip jaw VS
Jaw that can be used horizontally with enlarged clamping range and a grip step of 3 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBG-VS 125-17-40	125	17	40	W-125-3	0430417

Coated jaw
For increasing the friction between jaw and workpiece.
Height = 18 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBB 125-18-7.6	125	18	7.6	W-125-2	0432262

Accessories

Clamping force tester
For measuring the jaw clamping force of stationary clamping devices.



Suitable for	Description	ID
KSC3 80 KSC3 125 KSC3 160	IFT SST Set	1475766

Actuating lever, articulated
For convenient clamping range presetting
With 1/2" square drive



Suitable for	Description	ID
KSC3 80 KSC3 125 KSC3 160	GSH-G 1/2"	0432478

Torque wrench 10 – 100 Nm
Serves for applying a defined torque.
With 1/2" square drive



Suitable for	Description	ID
KSC3 80 KSC3 125	GSH-D 10-100	0432477

Torque wrench 20 – 200 Nm
Serves for applying a defined torque.
With 1/2" square drive



Suitable for	Description	ID
KSC3 160	GSH-D 20-200	0432487

Hexagonal insert AF 12
Suitable for square drive 1/2".



Suitable for	Description	ID
KSC3 80 KSC3 125	GSK-I SW12-1/2"	0432479

Hexagonal insert AF 14
Suitable for square drive 1/2".



Suitable for	Description	ID
KSC3 160	GSK-I SW14-1/2"	0432619

Hexagonal adapter
Hexagonal adapter for increasing the wrench size from AF 12 to AF 27.



Suitable for	Description	ID
KSC3 80 KSC3 125	GAD-6 SW12-SW27	1317853

Workpiece stop
For reversal jaw grip, width 40 mm.
For reversal jaw grip, width 65 mm.
For 5-axis jaw, width 65 mm.



Suitable for	Description	ID
KSC3 80 KSC3 125	GWSA-1 M6	0432354

Workpiece stop
For connecting thread M8.



Suitable for	Description	ID
KSC3 80 KSC3 125 KSC3 160	GWSA-2 M8	0430710

Workpiece stop
For connecting thread M8/M10.



Suitable for	Description	ID
KSC3 80 KSC3 125 KSC3 160	GWSA-3 M8/M10	0430021

Workpiece stop, magnetic
For quick and easy attachment to system jaws or vises.



Suitable for	Description	ID
KSC3 80 KSC3 125 KSC3 160	GWSA-M 60 x 15	1391293
KSC3 80 KSC3 125 KSC3 160	GWSA-M 115 x 15	1391331

Extensions
As an accessory for the magnetic workpiece stops.



Suitable for	Description	ID
KSC3 80 KSC3 125 KSC3 160	GWSA-V Ø68 x 30	1394477

Indexing pin
Used as an anti-rotation protection for VERO-S modules with anti-rotation protection V1.



Suitable for	Description	ID
KSC3 80 KSC3 125	IXB V1-K	0432371

Clamping screws for clamping claws
For mounting clamping devices in combination with clamping claws.



Suitable for	Description	ID
T-slot 12 mm/M10	GSC-S M10-T12	0432043
T-slot 14 mm/M12	GSC-S M12-T14	0432044
T-Nut 16 mm/M14	GSC-S M14-T16	0432045
T-slot 18 mm/M16	GSC-S M16-T18	0432046
T-slot 20 mm/M16	GSC-S M16-T20	1550423
T-slot 22 mm/M16	GSC-S M16-T22	1550424

Clamping screws for base body
Used for directly attaching clamping devices via the base body.



Suitable for	Description	ID
T-slot 12 mm/M10	GSC-G-1 M10-T12	0430422
T-slot 14 mm/M12	GSC-G-1 M12-T14	0430423
T-Nut 16 mm/M12	GSC-G-1 M12-T16	0430424
T-Nut 18 mm/M12	GSC-G-1 M12-T18	0430425

Clamping claws
For quick and easy mounting of SCHUNK clamping devices.



Suitable for	Description	ID
KSC3 160	GSPR-A 50-57	0490604

Fitting screws
For precise position orientation and mounting of manual clamping vises on the machine table.



Suitable for	Description	ID
KSC3 125		
KSC3 160	GPSC-2 Ø12f7-M12	0490546

Alignment and centering set
Only for KSC3 125-300 and KSC3 160-280.



Suitable for	Description	ID
T-Nut 12 mm	GAZ-3 T12	0430418
T-Nut 14 mm	GAZ-3 T14	0430419
T-Nut 16 mm	GAZ-3 T16	0430420
T-Nut 18 mm	GAZ-3 T18	0430421

Cylinder pin set
For easier assembly of the clamping device on the machine table.



Suitable for	Description	ID
KSC3 80		
KSC3 125		
KSC3 160	GZS Ø12m6	1373755

Angular console
For lifting off the clamping device from the machine table and increased accessibility.



Suitable for	Description	ID
KSC3 80		
KSC3 125	SKQ 80/125-1	1363520
KSC3 125	SKQ 125-2	1423758
KSC3 160	SKQ 160-1	1423759

Assembly set
For quick and easy assembly of KSC3 vises on an angular console.

Suitable for	Description	ID
KSC3 80	GMS-1 KSC 80	1363522
KSC3 125		
KSC3 160	GMS-1 KSC 125/160	1368859

Sealing plug
For thread in the base body.



Suitable for	Description	ID
KSC3 80		
KSC3 125		
KSC3 160	GVSS M10x12	1323002

Workpiece supports set

Set of workpiece supports – width 80 mm

Suitable for system jaws H = 28 mm with grip level 3 mm.
Heights = 5, 10, 15, 20, and 22 mm.



Suitable for	Description	ID
KSC3 80	GWU-S grip 80-28	1394225

Set of workpiece supports – width 125 mm

Suitable for system jaws H = 33 mm with grip level 3 mm.
Heights = 8, 12, 20, 25, and 27 mm.



Suitable for	Description	ID
KSC3 125	GWU-S grip 125-33	1394227

Set of workpiece supports – width 160 mm

Suitable for system jaws H = 50 mm.
Heights = 15, 30, 40, 45, and 47 mm.



Suitable for	Description	ID
KSC3 160	GWU-S 160-50	1394231

Workpiece supports

Workpiece supports – width 80 mm

In different heights.
1 set = 2 pieces



Suitable for	Description	Height mm	ID
KSC3 80	GWU-M 80-5	5	1465960
KSC3 80	GWU-M 80-10	10	1465956
KSC3 80	GWU-M 80-15	15	1460327
KSC3 80	GWU-M 80-20	20	1411113
KSC3 80	GWU-M 80-22	22	1411114

Workpiece supports – width 125 mm

In different heights.
1 set = 2 pieces



Suitable for	Description	Height mm	ID
KSC3 125	GWU-M 125-8	8	1450266
KSC3 125	GWU-M 125-9	9	1462567
KSC3 125	GWU-M 125-10	10	1411328
KSC3 125	GWU-M 125-12	12	1447369
KSC3 125	GWU-M 125-15	15	1411350
KSC3 125	GWU-M 125-20	20	1452308
KSC3 125	GWU-M 125-22	22	1457551
KSC3 125	GWU-M 125-23	23	1411380
KSC3 125	GWU-M 125-25	25	1484475
KSC3 125	GWU-M 125-27	27	1461008
KSC3 125	GWU-M 125-30	30	1411387
KSC3 125	GWU-M 125-31	31	1484477
KSC3 125	GWU-M 125-32	32	1411398
KSC3 125	GWU-M 125-33	33	1484478
KSC3 125	GWU-M 125-34	34	1484480
KSC3 125	GWU-M 125-35	35	1411391
KSC3 125	GWU-M 125-36	36	1429618
KSC3 125	GWU-M 125-37	37	1411395
KSC3 125	GWU-M 125-38	38	1429615

Workpiece supports – width 160 mm

In different heights.
1 set = 2 pieces



Suitable for	Description	Height mm	ID
KSC3 160	GWU-M 160-15	15	1464957
KSC3 160	GWU-M 160-22	22	1461402
KSC3 160	GWU-M 160-30	30	1538303
KSC3 160	GWU-M 160-37	37	1443672
KSC3 160	GWU-M 160-40	40	1504993
KSC3 160	GWU-M 160-41	41	1597020
KSC3 160	GWU-M 160-42	42	1410170
KSC3 160	GWU-M 160-43	43	1534944
KSC3 160	GWU-M 160-44	44	1484499
KSC3 160	GWU-M 160-45	45	1410169
KSC3 160	GWU-M 160-46	46	1497132
KSC3 160	GWU-M 160-47	47	1410166

schunk.com/ksc-mini



Tiny. Accessible. Powerful. Centric clamping vise for small components KSC mini

Thanks to the jaw quick-change system, the KONTEC KSC mini vise for small components ensures that jaws can be changed within seconds without the need for additional tools. The KSC mini has a broad spectrum of system jaws with widths of 45 or 70 mm. The stainless steel base body promises a long service life for the clamping device.

Functions & highlights

- **Small and compact design**
  Ideal for multiple applications to increase machine running time
- **Base body in stainless steel**
  For a long service life
- **Jaw quick-change without any tools**
  Adjustment to new clamping tasks within seconds



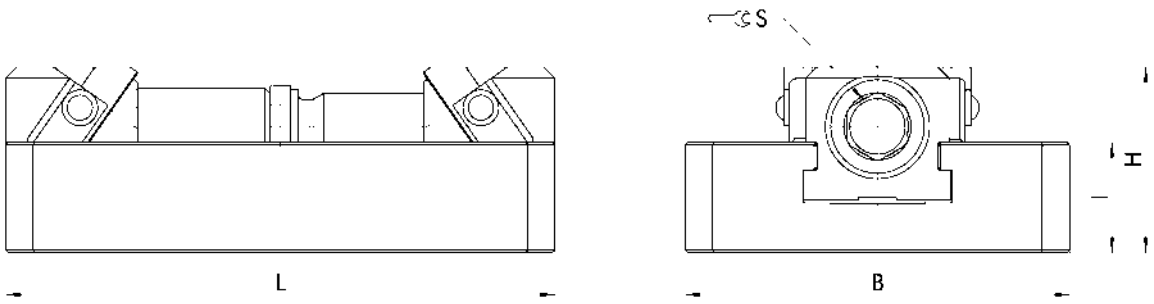
Field of application

KSC mini

KONTEC KSC mini promises the simplest handling of small components due to symmetrical clamping with high clamping forces. By virtue of its compact dimensions and accessibility from all sides, the vise is ideally suitable for raw and finished parts machining, multiple clamping and automation applications.



1. **Jaw quick-change system**
2. **Stainless and hardened base body**
3. **Actuation via hexagon connection**
4. **Spindle drive**
5. **Spring-loaded pressure piece**
6. **Quick-change jaws**
7. **Diverse applications**



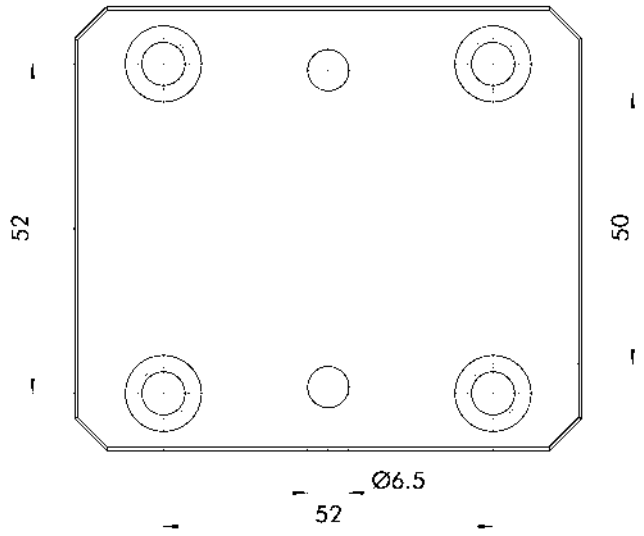
Technical data

Description	ID	B	H	I	L	S	Max. clamping force	Max. torque	Weight
		mm	mm	mm	mm	mm	kN	Nm	kg
KSC mini 70-80	1452102	70	33.7	20	80	11	16	50	0.9
KSC mini 70-100	1452103	70	33.7	20	100	11	16	50	1.1

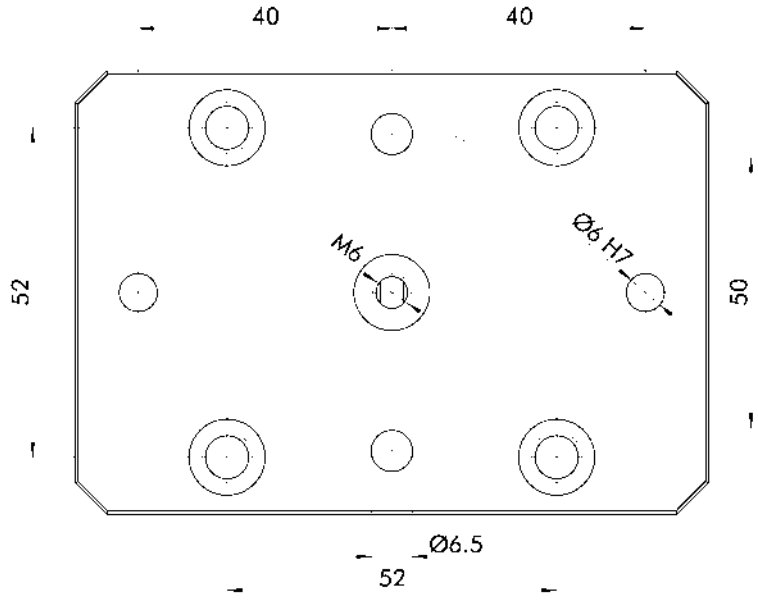
ⓘ Clamping range KSC mini 70-80 with grip jaw: 7 – 33 mm
Clamping range KSC mini 70-100 with grip jaw: 7 – 53 mm

Interfaces

KSC mini 70-80



KSC mini 70-100



Clamping pins

Clamping pins
Standard clamping pins for positive locking of workpieces or devices with the NSE3 clamping modules.
With shortened fastening screw.



Description	Version	ID
SPA mini 20-K	Centering pins	1490545

System jaws

Grip jaw
Designed as a quick-change jaw.
Jaw width 45 mm, with a grip step of 3 mm.



Suitable for	Description	ID
KSC mini	SGWB-G3-B 45-26.5-22	1452105
KSC mini	SGWB-G3-B 70-26.5-22	1452106

Smooth jaw
Designed as a quick-change jaw.
Jaw width 45 mm, with a ground step of 5 mm.



Suitable for	Description	ID
KSC mini	SGWB-S5-B 45-26.5-24	1452107
KSC mini	SGWB-S5-B 70-26.5-24	1452108

Jaw with embossed profile
Designed as a quick-change jaw.
Jaw width 45 mm, with a special grip step for clamping pre-embossed workpieces simply and safely.



Suitable for	Description	ID
KSC mini	SGWB-GL-B 45-26.5-22	1497092
KSC mini	SGWB-GL-B 70-26.5-22	1497093

VS grip jaw
Designed as a quick-change jaw.
Jaw width 45 mm, with a grip step of 3 mm.



Suitable for	Description	ID
KSC mini	SGVS-G3-B 45-26.5-22	1452074
KSC mini	SGVS-G3-B 70-26.5-22	1452075

VS smooth jaw
Designed as a quick-change jaw.
Jaw width 45 mm, with a ground step of 5 mm.



Suitable for	Description	ID
KSC mini	SGVS-S5-B 70-26.5-24	1452077
KSC mini	SGVS-S5-B 45-26.5-24	1452076

VS jaws with embossed profile
Designed as a quick-change jaw.
Jaw width 45 mm, with a special grip step for clamping pre-embossed workpieces simply and safely.



Suitable for	Description	ID
KSC mini	SGVS-GL-B 45-26.5-22	1497094
KSC mini	SGVS-GL-B 70-26.5-22	1497095

Steel jaw
Designed as a quick-change jaw.
Jaw width 45 mm, as hardenable jaws for rework at the customer site, e.g. for incorporating contours or special shapes.



Suitable for	Description	ID
KSC mini	SGS-B 45-26.5-24	1465309
KSC mini	SGS-B 70-26.5-24	1465350

Accessories

Indexing pin
Used as an anti-rotation protection for VERO-S modules with anti-rotation protection V1.
Shortened version.



Suitable for	Description	ID
KSC mini	IXB V1-K mini	1490546

Workpiece stop, magnetic
For quick and easy attachment to system jaws or vises.



Suitable for	Description	ID
KSC mini	GWSA-M 60 x 15	1391293

Hexagonal insert AF 11
Suitable for square drive 3/8".



Suitable for	Description	ID
KSC mini	GSK-I SW11-3/8"	1452078

Torque wrench 5 – 50 Nm
Serves for applying a defined torque.
With 3/8" square drive.



Suitable for	Description	ID
KSC mini	GSH-D 5-50	0432355

KONTEC

schunk.com/ksc-d



Efficient. Space-saving. Versatile. Double clamping vise KSC-D

The KSC-D double clamp enables two workpieces to be clamped in just one set-up. The third-hand function can be used to fix the first workpiece while the second workpiece is being inserted into the vise. This means that the vises can be loaded safely and easily on tombstones, for example.

Functions & highlights

- **Third-hand function**
  Reliable pre-loading of the first workpiece when clamping the second workpiece
- **Innovative encapsulation of the base jaws**
  Perfectly prepared for tombstone solutions
- **Vast chuck jaw program**
  Optimal adaptation to new clamping tasks



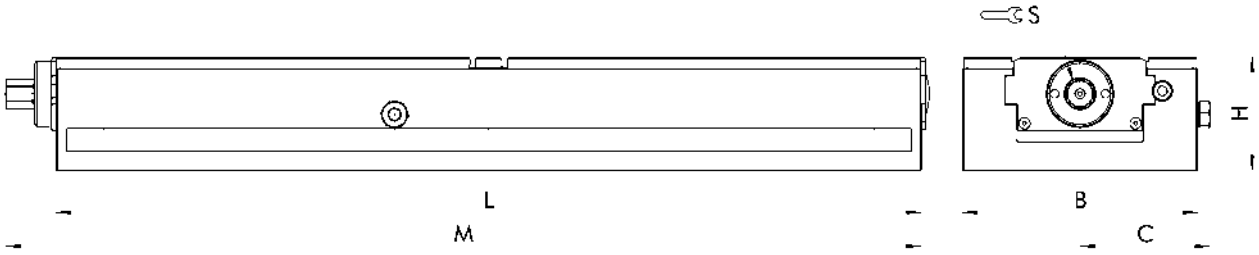
Field of application

KSC-D

The manual KONTEC KSC-D double vises from SCHUNK are specially designed for demanding continuous use in automated machine tools with workpiece storage. Due to the nickel-plated base body, these vises are perfectly protected against corrosion. As part of the large KSC modular system, they can be quickly and easily adapted to new clamping tasks.



1. **Spindle drive**
2. **Long jaw guidance**
3. **Third-hand function**
4. **Mounting thread for workpiece stop**
5. **Standard jaw interface**
6. **Low height**
7. **Central jaw**
8. **Actuation via hexagon connection**



Technical data

Description	ID	B	C	H	L	M	S	Max. clamping force	Max. torque	Weight
		mm	mm	mm	mm	mm	mm	kN	Nm	kg
KSC-D 80-300	1322945	80	46.5	55	300	308	14	25	100	8
KSC-D 125-320	1322939	125	69	60	320	347	14	40	100	14
KSC-D 125-390	1334720	125	69	60	390	417	14	40	100	17
KSC-D 125-460	1334721	125	69	60	460	487	14	40	100	20
KSC-D 125-530	1334722	125	69	60	530	557	14	40	100	24
KSC-D 125-600	1334723	125	69	60	600	627	14	40	100	27
KSC-D 125-670	1334724	125	69	60	670	697	14	40	100	30
KSC-D 125-740	1322940	125	69	60	740	767	14	40	100	34

Clamping ranges

KSC-D 80-300

schunk.com/ksc-d-80-300

KSC-D 125-320

schunk.com/ksc-d-125-320

KSC-D 125-390

schunk.com/ksc-d-125-390

KSC-D 125-460

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KSC-D 125-530

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KSC-D 125-600

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KSC-D 125-670

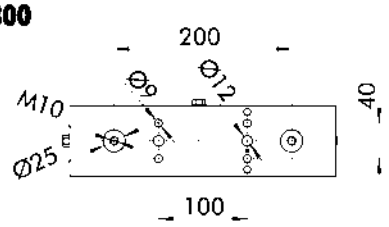
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KSC-D 125-740

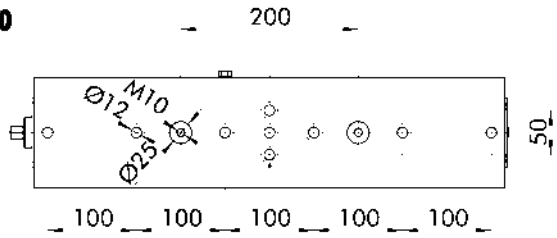
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Interfaces

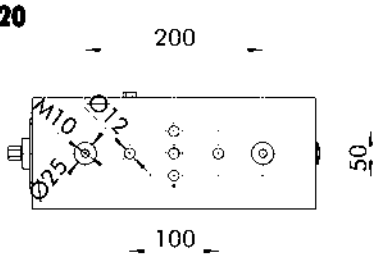
KSC-D 80-300



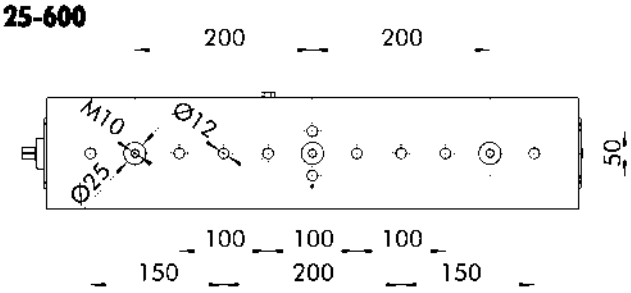
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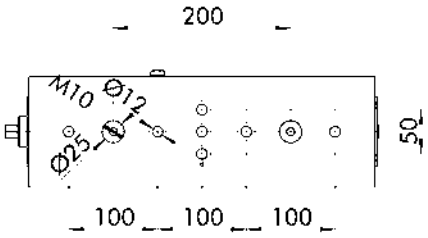
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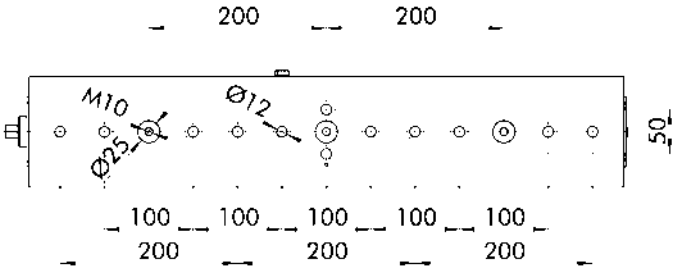
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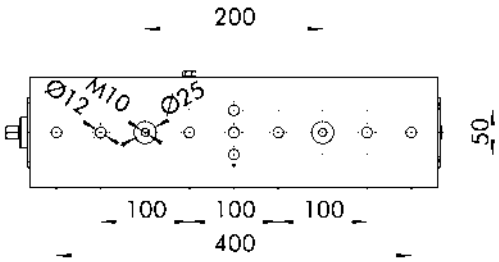
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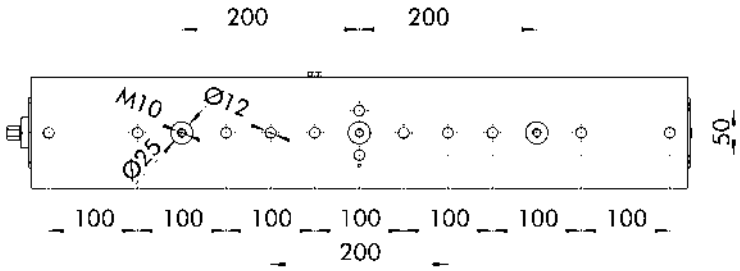
KSC-D 125-670



KSC-D 125-460



KSC-D 125-740



Clamping pins

Standard clamping pins

Standard clamping pins for positive locking of workpieces or devices with the NSE3 clamping modules.
With shortened fastening screw.



Description	Version	M10 kN	ID
SPA 40-K	Centering pins	35	0432369
SPB 40-K	Positioning pin	35	0432370
SPC 40-K	Clamping pin	35	1327450

System jaws

Reversible grip jaw

Design as movable jaw.
With grip step 3 mm (up to 22 HRC) and a smooth clamping surface on both sides.



Suitable for	Description	Interface	ID
KSC-D 80	SGWB-G3-B 80-40.3-28	W-80-1	0432715
KSC-D 125	SGWB-G3-B 125-66-40	W-125-1 W-125-2	0432490

Central jaw grip

With grip step 3 mm (up to 22 HRC) and a smooth clamping surface on both sides.



Suitable for	Description	Interface	ID
KSC-D 80	SGM-G3 80-72-28		1322972
KSC-D 125	SGM-G3 125-98-40	W-125-2	1322973

Smooth central jaw

With a smooth clamping surface on both sides for mounting top jaws.



Suitable for	Description	Interface	ID
KSC-D 80	SGM-E 80-72-28	W-80-1	1323071
KSC-D 125	SGM-E 125-98-40	W-125-1	1322974

Alu jaw

Design as movable jaw.
Used for rework at the customer site e.g. for incorporating contours or special shapes.



Suitable for	Description	ID
KSC-D 80	SGAL-B 80-48-28	0432718
KSC-D 125	SGAL-B 125-68-40	0432469

Central jaw aluminum

Used for rework at the customer site e.g. for incorporating contours or special shapes.



Suitable for	Description	ID
KSC-D 80	SGM-AL 80-72-28	1323072
KSC-D 125	SGM-AL 125-98-40	1322975

Swivel plate

Used – in combination with adapter plates and 6-way reversal jaws – to clamp bulky workpieces.



Suitable for	Description	Interface	ID
KSC-D 80	SGP-3 125-76-19	W-38	0432720
KSC-D 125	SGP-3 180-95-22	W-38	0432470

Adapter plate

Used – in combination with swivel plates and 6-way reversal jaws – to clamp bulky workpieces.



Suitable for	Description	Interface	ID
KSC-D 80	SGA-5 125-72-19	W-38	1323073
KSC-D 125	SGA-5 180-98-22	W-38	1322976

Monoblock jaw

Design as movable jaw.
Jaw with a smooth clamping surface for mounting top jaws.



Suitable for	Description	Interface	ID
KSC-D 80	SGBB-B 80-40-28	W-80-1	1349856
KSC-D 125	SGBB-B 125-66-40	W-125-1	1349858

Top jaws

6-way reversal jaws
With five carbide grip steps as well as a coated clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBG-6W 38-38-18	38.5	18	38.2	W-38	0430803

6-way reversal jaws
With five carbide grip steps as well as a smooth clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBCG-6W 38-38-18	38.5	18	38.2	W-38	1395550

Jaw profiled
For increasing the friction between jaw and workpiece without clamping marks.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBD 125-40-11.5	125	40	11.5	W-125-1	1373349

Serrated jaw
For increasing the friction between jaw and workpiece with minimal clamping marks.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBC 125-40-12.5	125	40	12.5	W-125-1	1373268

Ground jaw
With a completely ground clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBP 125-18-7.6	125	18	7.6	W-125-2	0432259
GBP 125-40-11.5	125	40	11.5	W-125-1	1373278

Soft jaw
Hardenable jaws for rework at the customer site, e.g. for incorporating contours or special shapes.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBW 125-40-20	125	40	20	W-125-1	1373288

Stepped jaw
With ground step, 8 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS 125-40-11.5-8	125	40	11.5	W-125-1	1373327

Stepped jaw
With ground step, 17 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS 125-40-11.5-17	125	40	11.5	W-125-1	0430413

Stepped jaw
With coated step, 5 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-W 125-18-7.6-5	125	18	7.6	W-125-2	0432276
GBS-W 80-28-10-5	80	28	10	W-80-1	1395509
GBS-W 125-40-11.5-5	125	40	11.5	W-125-1	0430414

Stepped jaw
With grip step 3 mm and ground step 18 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G3 125-40-21.5-18	125	40	21.5	W-125-1	0430415
GBS-G3 125-40-24-18	125	40	24	W-125-1	1322989

Stepped jaw
With special "soft" grip step, 5 mm.
For embossed clamping of soft materials such as plastic or aluminum.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-SG5 125-40-11.5	125	40	11.5	W-125-1	1393552

Stepped jaw
With grip step, 3 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G3 80-28-10	80	28	10	W-80-1	1326805
GBS-G3 125-40-11.5	125	40	11.5	W-125-1	1373331
GBS-G3 125-18-8	125	18	8	W-125-2	0432275

Stepped jaw
With grip step, 5 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G5 125-40-11.5	125	40	11.5	W-125-1	1373334
GBS-G5 125-18-8	125	18	8	W-125-2	0432260

Stepped jaw
With grip step, 8 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G8 125-40-11.5	125	40	11.5	W-125-1	1373338

Stepped jaw
With carbide grip step, 3 mm.
For embossed clamping of hardened materials up to 58 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-CG3 125-40-11.5	125	40	11.5	W-125-1	1395524

Stepped jaw
With carbide grip step, 5 mm.
For embossed clamping of hardened materials up to 58 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-CG5 125-40-11.5	125	40	11.5	W-125-1	1424000

Stepped jaw
With special grip step, 3 mm.
For clamping pre-embossed materials and workpieces.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-GL3 125-40-11.5	125	40	11.5	W-125-1	1395577

Stepped jaw with T-slot
With grip step, 3 mm.
T-slot for mounting the positioning strip.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G3-T 125-40-17.5	125	40	17.5	W-125-1	0430248

Stepped jaw with T-slot
With grip step, 5 mm.
T-slot for mounting the positioning strip.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G5-T 125-40-17.5	125	40	17.5	W-125-1	0430247

Stepped jaw with T-slot
With grip step, 8 mm.
T-slot for mounting the positioning strip.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBS-G8-T 125-40-17.5	125	40	17.5	W-125-1	0430237

Positioning bar
To suit all stepped jaws with T-slot.



Description	Width mm	Height mm	Depth mm	Interface	ID
GPL 125-32-13.5	125	32	13.5	W-125-1	0430238

Grip jaw
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBG 125-40-11.5	125	40	11.5	W-125-1	1373284
GBG 125-18-7.8	125	18	7.8	W-125-2	0432261

Chuck jaw with locating pins
Retractable locating pins for quickly adjusting the jaw to the respective workpiece.



Description	Width mm	Height mm	Depth mm	Interface	ID
GPS 125-40-17	125	40	16.7	W-125-1	1509316

Prism jaw, ground
For precise clamping of round workpieces.



Description	Width mm	Height mm	Depth mm	Interface	ID
GVA 125-40-17.5	125	40	17.5	W-125-1	1373344

Spring leaf pull-down jaw
For an active jaw pull-down function with a light clamping mark on the workpiece for more precise machining results.



Description	Width mm	Height mm	Depth mm	Interface	ID
GFA 125-40-11.5	125	40	11.5	W-125-1	1373304

Spring plate pull-down jaw
For an active jaw pull-down function without clamping marks on the workpiece for more precise machining results.



Description	Width mm	Height mm	Depth mm	Interface	ID
GFB 80-24-9	80	24.3	9	W-80-1	0432736
GFB 125-35-10	125	35	10	W-125-1	0432498

Accessories

Clamping force tester
For measuring the jaw clamping force of stationary clamping devices.



Suitable for	Description	ID
KSC-D 80 KSC-D 125	IFT SST Set	1475766

Actuating lever, articulated
For convenient clamping range presetting
With 1/2" square drive



Suitable for	Description	ID
KSC-D 80 KSC-D 125	GSH-G 1/2"	0432478

Torque wrench 10 – 100 Nm
Serves for applying a defined torque.
With 1/2" square drive



Suitable for	Description	ID
KSC-D 80 KSC-D 125	GSH-D 10-100	0432477

Precision pull-down jaw
For an active jaw pull-down function without clamping marks on the workpiece for more precise machining results.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBN-P 125-40-25	125	40	25	W-125-1	0430147

Universal stepped jaw
Versatile stepped jaw with ground step.



Description	Width mm	Height mm	Depth mm	Interface	ID
GPE 80-28-10-5	80	28	10	W-80-1	0432721

Coated jaw
For increasing the friction between jaw and workpiece.
Height = 18 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBB 125-18-7.6	125	18	7.6	W-125-2	0432262

Hexagonal insert AF 12
Suitable for square drive 1/2".



Suitable for	Description	ID
KSC-D 80	GSK-I SW12-1/2"	0432479

Hexagonal insert AF 14
Suitable for square drive 1/2".



Suitable for	Description	ID
KSC-D 125	GSK-I SW14-1/2"	0432619

Workpiece stop
For connecting thread M8.



Suitable for	Description	ID
KSC-D 80 KSC-D 125	GWSA-2 M8	0430710

Workpiece stop
For connecting thread M8/M10.



Suitable for	Description	ID
KSC-D 80 KSC-D 125	GWSA-3 M8/M10	0430021

Workpiece stop, magnetic
For quick and easy attachment to system jaws or vises.



Suitable for	Description	ID
KSC-D 80 KSC-D 125	GWSA-M 60 x 15	1391293
KSC-D 80 KSC-D 125	GWSA-M 115 x 15	1391331

Extensions
As an accessory for the magnetic workpiece stops.



Suitable for	Description	ID
KSC-D 80 KSC-D 125	GWSA-V Ø68 x 30	1394477

Precision T-nuts
Suitable for all conventional T-groove widths of machine tables.



Suitable for	Description	ID
T-slot 12 mm/M6	GPN M6-T12	0490590
T-slot 14 mm/M6	GPN M6-T14	0490547
T-Nut 16 mm/M6	GPN M6-T16	0490548
T-slot 18 mm/M6	GPN M6-T18	0490587
T-slot 20 mm/M6	GPN M6-T20	1359734
T-slot 22 mm/M6	GPN M6-T22	0490621

Clamping screws for clamping claws
For mounting clamping devices in combination with clamping claws.



Suitable for	Description	ID
T-slot 12 mm/M10	GSC-S M10-T12	0432043
T-slot 14 mm/M12	GSC-S M12-T14	0432044
T-Nut 16 mm/M14	GSC-S M14-T16	0432045
T-slot 18 mm/M16	GSC-S M16-T18	0432046
T-slot 20 mm/M16	GSC-S M16-T20	1550423
T-slot 22 mm/M16	GSC-S M16-T22	1550424

Clamping screws for base body
Used for directly attaching clamping devices via the base body.



Suitable for	Description	ID
T-slot 12 mm/M10	GSC-G-1 M10-T12	0430422
T-slot 14 mm/M12	GSC-G-1 M12-T14	0430423
T-Nut 16 mm/M12	GSC-G-1 M12-T16	0430424
T-Nut 18 mm/M12	GSC-G-1 M12-T18	0430425

Clamping claws
For quick and easy mounting of SCHUNK clamping devices.



Suitable for	Description	ID
KSC-D 80 KSC-D 125	GSPR-A 50-57	0490604

Fitting screws
For precise position orientation and mounting of manual clamping vises on the machine table.



Suitable for	Description	ID
KSC-D 80 KSC-D 125	GPSC-2 Ø12f7-M12	0490546

Alignment and centering set
For clamping width 80 mm.



Suitable for	Description	ID
T-Nut 12 mm	GAZ-1 T12	1326851
T-Nut 14 mm	GAZ-1 T14	1326852
T-Nut 16 mm	GAZ-1 T16	1326853
T-Nut 18 mm	GAZ-1 T18	1326854

Alignment and centering set
For clamping width 125 mm.



Suitable for	Description	ID
T-Nut 14 mm	GAZ-2 T14	0432209
T-Nut 16 mm	GAZ-2 T16	0432210
T-Nut 18 mm	GAZ-2 T18	0432211

Cylinder pin set
For easier assembly of the clamping device on the machine table.



Suitable for	Description	ID
KSC-D 80		
KSC-D 125	GZS Ø12m6	1373755

Sealing plug
For thread in the base body.



Suitable for	Description	ID
KSC-D 80		
KSC-D 125	GVSS M10x12	1323002

Workpiece supports set

Set of workpiece supports – width 80 mm
Suitable for system jaws H = 28 mm with grip level 3 mm.
Heights = 5, 10, 15, 20, and 22 mm.



Suitable for	Description	ID
KSC-D 80	GWU-S grip 80-28	1394225

Set of workpiece supports – width 125 mm
Suitable for system jaws H = 40 mm with grip level 3 mm.
Heights = 9, 22, 27, 32, and 34 mm.



Suitable for	Description	ID
KSC-D 125	GWU-S grip 125-40	1394229

Workpiece supports

Workpiece supports – width 80 mm
In different heights.
1 set = 2 pieces



Suitable for	Description	Height mm	ID
KSC-D 80	GWU-M 80-5	5	1465960
KSC-D 80	GWU-M 80-10	10	1465956
KSC-D 80	GWU-M 80-15	15	1460327
KSC-D 80	GWU-M 80-20	20	1411113
KSC-D 80	GWU-M 80-22	22	1411114

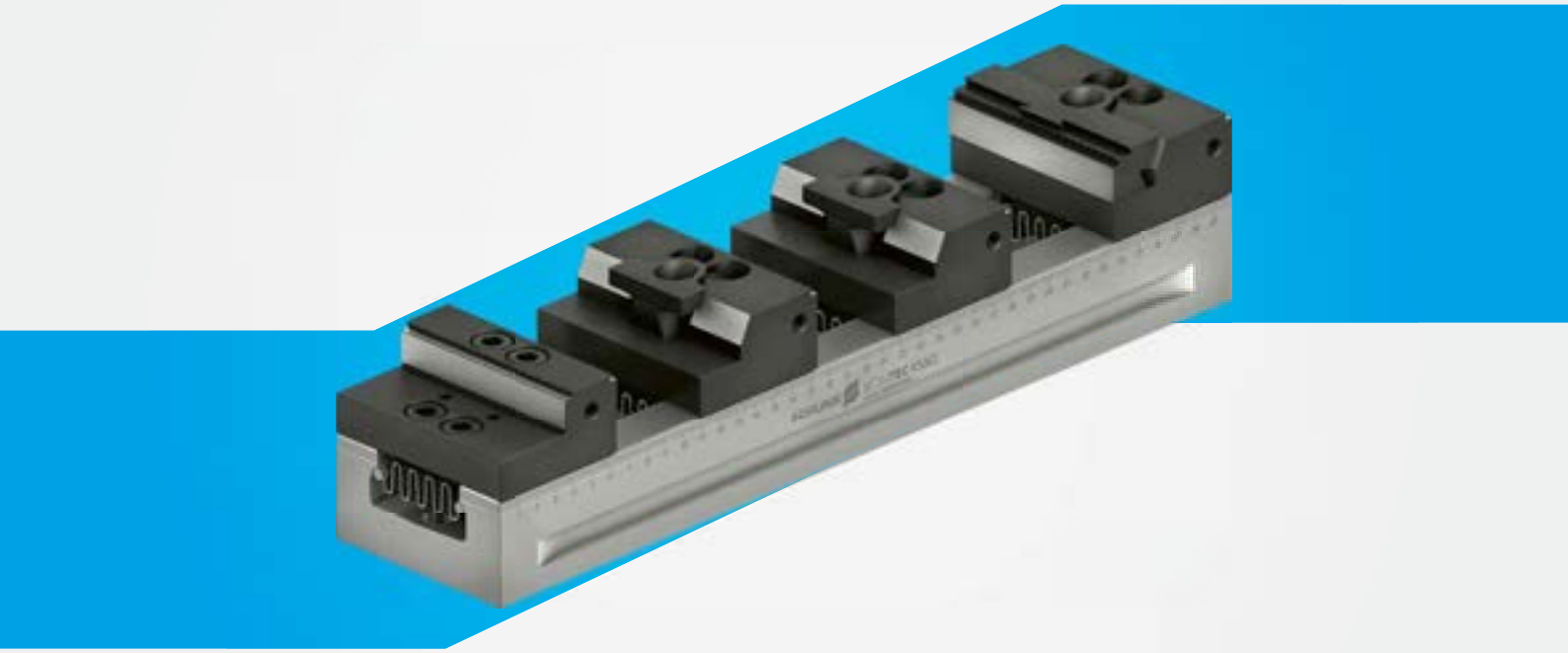
Workpiece supports – width 125 mm
In different heights.
1 set = 2 pieces



Suitable for	Description	Height mm	ID
KSC-D 125	GWU-M 125-8	8	1450266
KSC-D 125	GWU-M 125-9	9	1462567
KSC-D 125	GWU-M 125-10	10	1411328
KSC-D 125	GWU-M 125-12	12	1447369
KSC-D 125	GWU-M 125-15	15	1411350
KSC-D 125	GWU-M 125-20	20	1452308
KSC-D 125	GWU-M 125-22	22	1457551
KSC-D 125	GWU-M 125-23	23	1411380
KSC-D 125	GWU-M 125-25	25	1484475
KSC-D 125	GWU-M 125-27	27	1461008
KSC-D 125	GWU-M 125-30	30	1411387
KSC-D 125	GWU-M 125-31	31	1484477
KSC-D 125	GWU-M 125-32	32	1411398
KSC-D 125	GWU-M 125-33	33	1484478
KSC-D 125	GWU-M 125-34	34	1484480
KSC-D 125	GWU-M 125-35	35	1411391
KSC-D 125	GWU-M 125-36	36	1429618
KSC-D 125	GWU-M 125-37	37	1411395
KSC-D 125	GWU-M 125-38	38	1429615

KONTEC

schunk.com/ksm2



Universal. Versatile. Powerful. Clamping rail KSM2

Absolute flexibility with high part density – this is exactly what the KONTEC KSM2 multiple clamping system offers. A wide-ranging modular system of combinable clamping rails, system and top jaws as well as an extensive range of accessories make this system an all-rounder in workpiece clamping.

Functions & highlights

- **Combination of several clamping rails**
  High level of flexibility
- **Vast chuck jaw program**
  Optimal adaptation to new clamping tasks
- **VERO-S interface**
  Versatile range of combinations thanks to the VERO-S modular system for even shorter set-up times



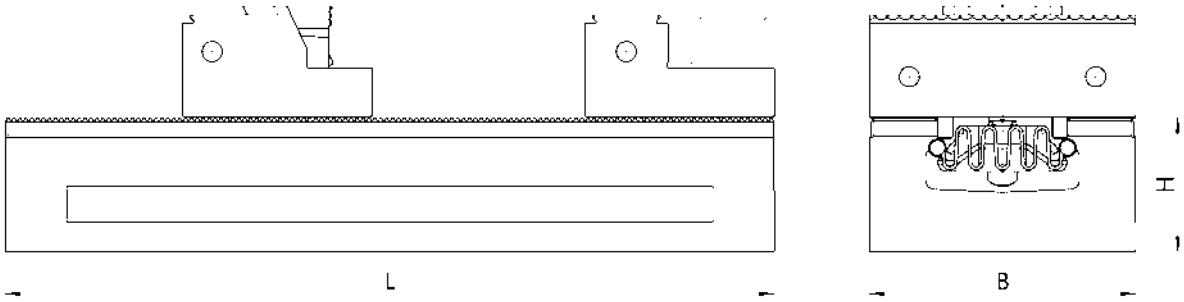
Field of application

KSM2

The KSM2 clamping rail offers the possibility of clamping a very high part density on just one clamping device. Thanks to the innovative jaw quick-change system, individual jaws can be removed directly from the rail with just one wrench, which drastically reduces set-up times. The clamping rails can be used on 3-, 4- or 5-axis machines.

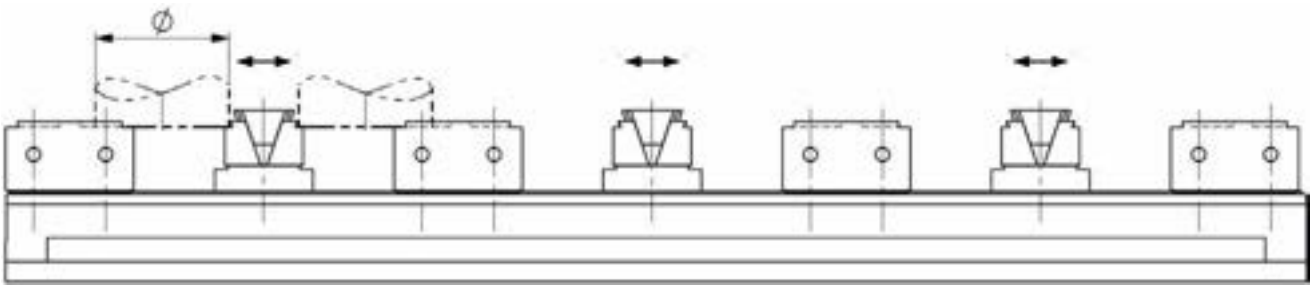


1. **Hardened and ground serration**
2. **Fixed jaw as a part of the extensive jaw range**
3. **Wide range of clamping inserts**
4. **Adjustable jaw, also reversible by 180°**
5. **Extremely rigid clamping rail**
6. **VERO-S interface**
7. **Laser-etched ruler**
8. **Jaw quick-change system**



Technical data

Description	ID	Max. clamping force	Max. torque	Length L	Width B	Height H
		kN	Nm	mm	mm	mm
KSM2 90-260	0490723	30	50	260	90	45
KSM2 90-400	0490724	30	50	400	90	45
KSM2 90-500	0490725	30	50	500	90	45
KSM2 90-600	0490726	30	50	600	90	45
KSM2 90-650	0490727	30	50	650	90	45

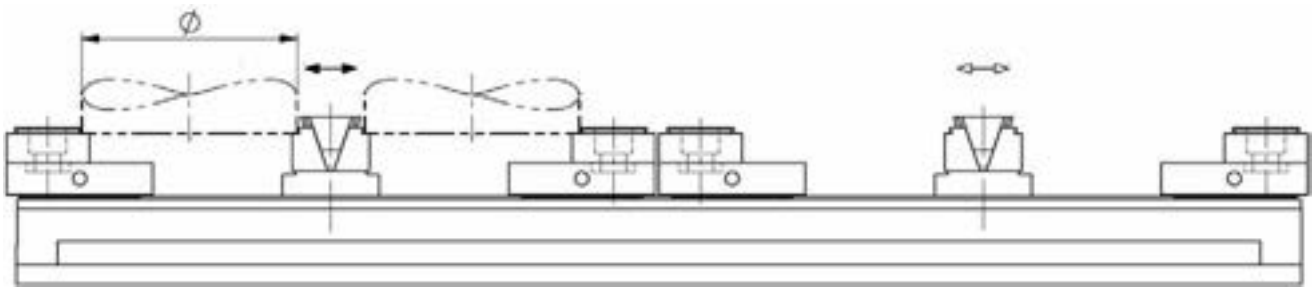


Raw part clamping, round with prism jaw

Description	ØA (2 workpieces) mm	ØA (4 workpieces) mm	ØA (6 workpieces) mm	ØA (8 workpieces) mm
KSM2 90-260	36 - 72			
KSM2 90-400	36 - 136	36 - 58		
KSM2 90-500	36 - 160	36 - 82	36 - 48	
KSM2 90-600	36 - 160	36 - 105	36 - 64	36 - 43
KSM2 90-650	36 - 160	36 - 116	36 - 70	36 - 49

Required jaws and accessories

Type	Description	ID	2 Workpieces	4 Workpieces	6 Workpieces	8 Workpieces
Prism jaw grip	SGVA-F 90-64-34.9	1329341	2 pieces	3 pieces	4 pieces	5 pieces
Wedge clamping element, grip	SGKSE-G3 65-49-39	1329347	1 piece	2 pieces	3 pieces	4 pieces

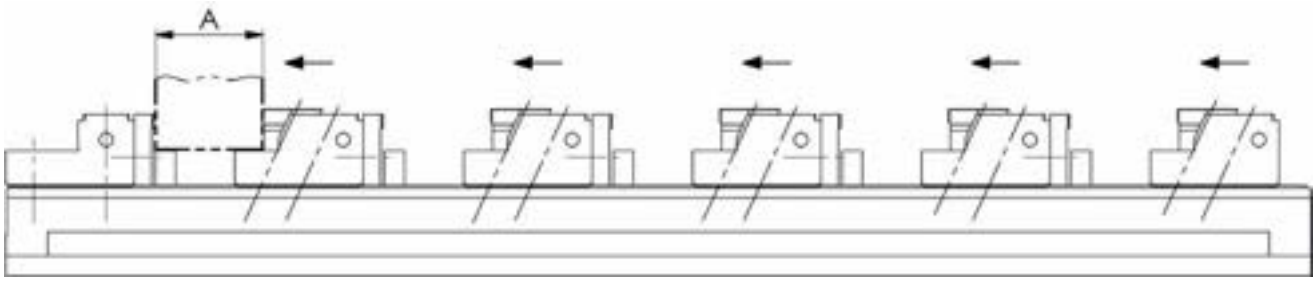


Raw part clamping, round with adapter jaw

Description	ØA (2 workpieces) mm	ØA (4 workpieces) mm
KSM2 90-260	90 – 104	
KSM2 90-400	90 – 172	
KSM2 90-500	90 – 217	90 – 97
KSM2 90-600	90 – 230	90 – 117
KSM2 90-650	90 – 230	90 – 217

Required jaws and accessories

Type	Description	ID	2 Workpieces	4 Workpieces
Adapter plate	SGA-6 160-74-17	1329343	2 pieces	4 pieces
Insert jaws, round grip 3 mm	GBR-R Ø42-18-3	1589817	4 pieces	8 pieces
Wedge clamping element, grip	SGKSE-G3 65-49-39	1329347	1 piece	2 pieces

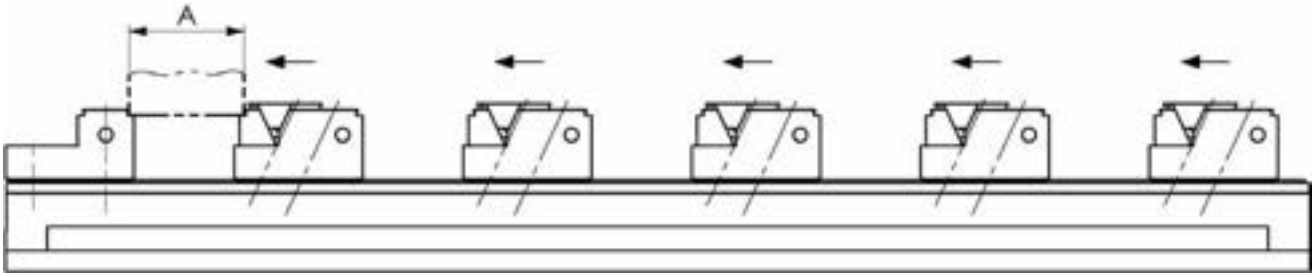


Raw part clamping, cubic with pull-down jaw

Description	A (1 workpiece) mm	A (2 workpieces) mm	A (3 workpieces) mm	A (4 workpieces) mm	A (5 workpieces) mm	A (6 workpieces) mm
KSM2 90-260	25 – 134	25 – 37				
KSM2 90-400	25 – 274	25 – 107	25 – 51			
KSM2 90-500	25 – 374	25 – 157	25 – 82	25 – 48	25 – 26	
KSM2 90-600	25 – 474	25 – 207	25 – 117	25 – 72	25 – 46	25 – 27
KSM2 90-650	25 – 524	25 – 524	25 – 133	25 – 86	25 – 56	25 – 35

Required jaws and accessories

Type	Description	ID	1 Workpiece	2 Workpieces	3 Workpieces	4 Workpieces	5 Workpieces	6 Workpieces
Reversible grip jaw	SGWB-G3-F 90-64-34.9 SGWB-G3-F 65-64-34.9 SGWB-G3-F 40-64-34.9	0490730 0490729 0490728	1 piece	1 piece	1 piece	1 piece	1 piece	1 piece
Adjustable grip jaw	SGV 90-64-34.9 SGV 65-64-34.9 SGV 40-64-34.9	0490733 0490732 0490731	1 piece	2 pieces	3 pieces	4 pieces	5 pieces	6 pieces
Grip jaw	GBG 90-35-10 GBG 65-35-10 GBG 40-35-10	0490571 0490564 0490767	1 piece	2 pieces	3 pieces	4 pieces	5 pieces	6 pieces
Pull-down jaw, serrated	GBVS-N-R 40-25-41	0490750	1 piece	2 pieces	3 pieces	4 pieces	5 pieces	6 pieces
Workpiece supports	GWU-4 90-17 GWU-4 65-17	0490762 0490759	1 set	1 set	2 sets	2 sets	3 sets	3 sets

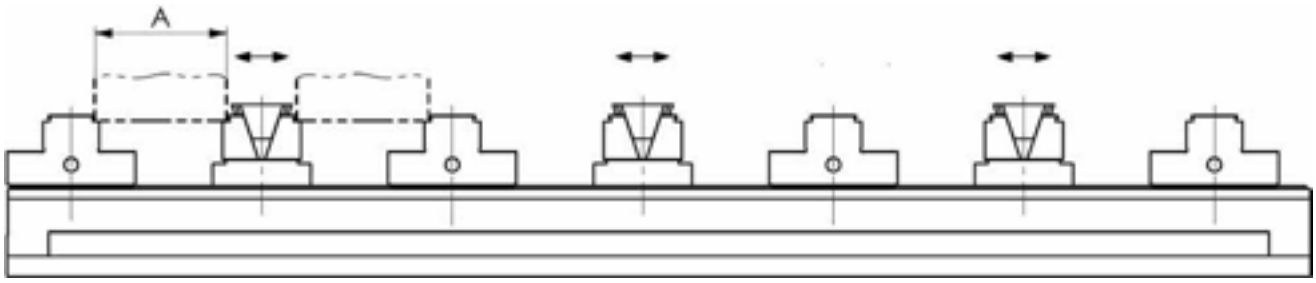


Raw part clamping, cubic with parallel jaw

Description	A (1 workpiece) mm	A (2 workpieces) mm	A (3 workpieces) m/mm	A (4 workpieces) mm	A (5 workpieces) mm	A (6 workpieces) mm	A (7 workpieces) mm	A (8 workpieces) mm
KSM2 90-260	10 – 138	10 – 40						
KSM2 90-400	10 – 278	10 – 110	10 – 54	10 – 26				
KSM2 90-500	10 – 378	10 – 160	10 – 86	10 – 50	10 – 28	10 – 14		
KSM2 90-600	10 – 478	10 – 210	10 – 120	10 – 76	10 – 48	10 – 30	10 – 18	
KSM2 90-650	10 – 528	10 – 234	10 – 136	10 – 88	10 – 58	10 – 38	10 – 26	10 – 14

Required jaws and accessories

Type	Description	ID	1 Workpiece	2 Workpieces	3 Workpieces	4 Workpieces	5 Workpieces	6 Workpieces	7 Workpieces	8 Workpieces
	SGWB-G3-F 90-64-34.9	0490730								
	SGWB-G3-F 65-64-34.9	0490729								
Reversible grip jaw	SGWB-G3-F 40-64-34.9	0490728	1 piece	1 piece	1 piece	1 piece	1 piece	1 piece	1 piece	1 piece
	SGV 90-64-34.9	0490733								
	SGV 65-64-34.9	0490732								
Adjustable grip jaw	SGV 40-64-34.9	0490731	1 piece	2 pieces	3 pieces	4 pieces	5 pieces	6 pieces	7 pieces	8 pieces
	GBVS-P-G3 90-41-22	0490753								
	GBVS-P-G3 65-41-22	0490752								
Parallel grip jaw	GBVS-P-G3 40-41-22	0490751	1 piece	2 pieces	3 pieces	4 pieces	5 pieces	6 pieces	7 pieces	8 pieces

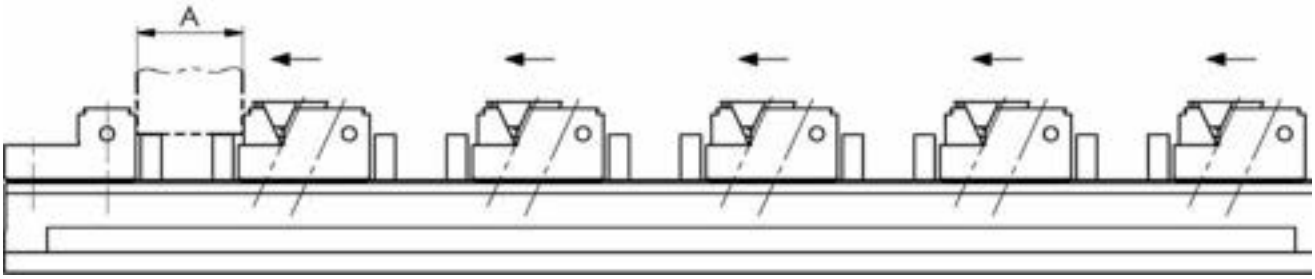


Raw part clamping, cubic with wedge clamping element

A (2 workpieces) mm	A (4 workpieces) mm	A (6 workpieces) mm	A (8 workpieces) mm
28 – 68			
28 – 138	28 – 54		
28 – 188	28 – 79	28 – 42	
28 – 238	28 – 104	28 – 59	28 – 37
28 – 263	28 – 116	28 – 67	28 – 43

Required jaws and accessories

Type	Description	ID	2 Workpieces	4 Workpieces	6 Workpieces	8 Workpieces
Grip jaw VS	SGKSE-G3-F 90-28-32 SGKSE-G3-F 40-28-32	1589877 1589876	2 pieces	3 pieces	4 pieces	5 pieces
Wedge clamping element, grip	SGKSE-G3 65-49-39	1329347	1 piece	2 pieces	3 pieces	4 pieces

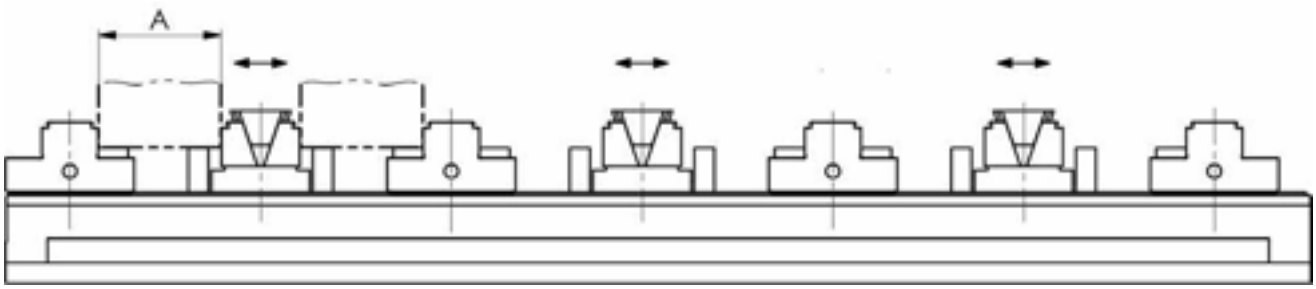


Smooth clamping, cubic with pull-down jaw

Description	A (1 workpiece) mm	A (2 workpieces) mm	A (3 workpieces) mm	A (4 workpieces) mm	A (5 workpieces) mm	A (6 workpieces) mm	A (7 workpieces) mm
KSM2 90-260	12 – 133	12 – 35					
KSM2 90-400	12 – 273	12 – 105	12 – 49	12 – 21			
KSM2 90-500	12 – 373	12 – 155	12 – 71	12 – 45	12 – 23		
KSM2 90-600	12 – 473	12 – 205	12 – 104	12 – 71	12 – 43	12 – 25	
KSM2 90-650	12 – 523	12 – 229	12 – 120	12 – 83	12 – 53	12 – 33	12 – 21

Required jaws and accessories

Type	Description	ID	1 Workpiece	2 Workpieces	3 Workpieces	4 Workpieces	5 Workpieces	6 Workpieces	7 Workpieces
Reversible grip jaw	SGWB-G3-F 90-64-34.9 SGWB-G3-F 40-64-34.9	0490730 0490728	1 piece	1 piece	1 piece	1 piece	1 piece	1 piece	1 piece
Adjustable grip jaw	SGV 90-64-34.9 SGV 40-64-34.9	0490733 0490731	1 piece	2 pieces	3 pieces	4 pieces	5 pieces	6 pieces	7 pieces
Pull-down grip jaw	GBVS-N-R 40-25-41	490750	1 piece	2 pieces	3 pieces	4 pieces	5 pieces	6 pieces	7 pieces
Workpiece supports	GWU-4 90-17 GWU-4 65-17	0490762 0490759	1 set	2 sets	3 sets	4 sets	5 sets	6 sets	7 sets



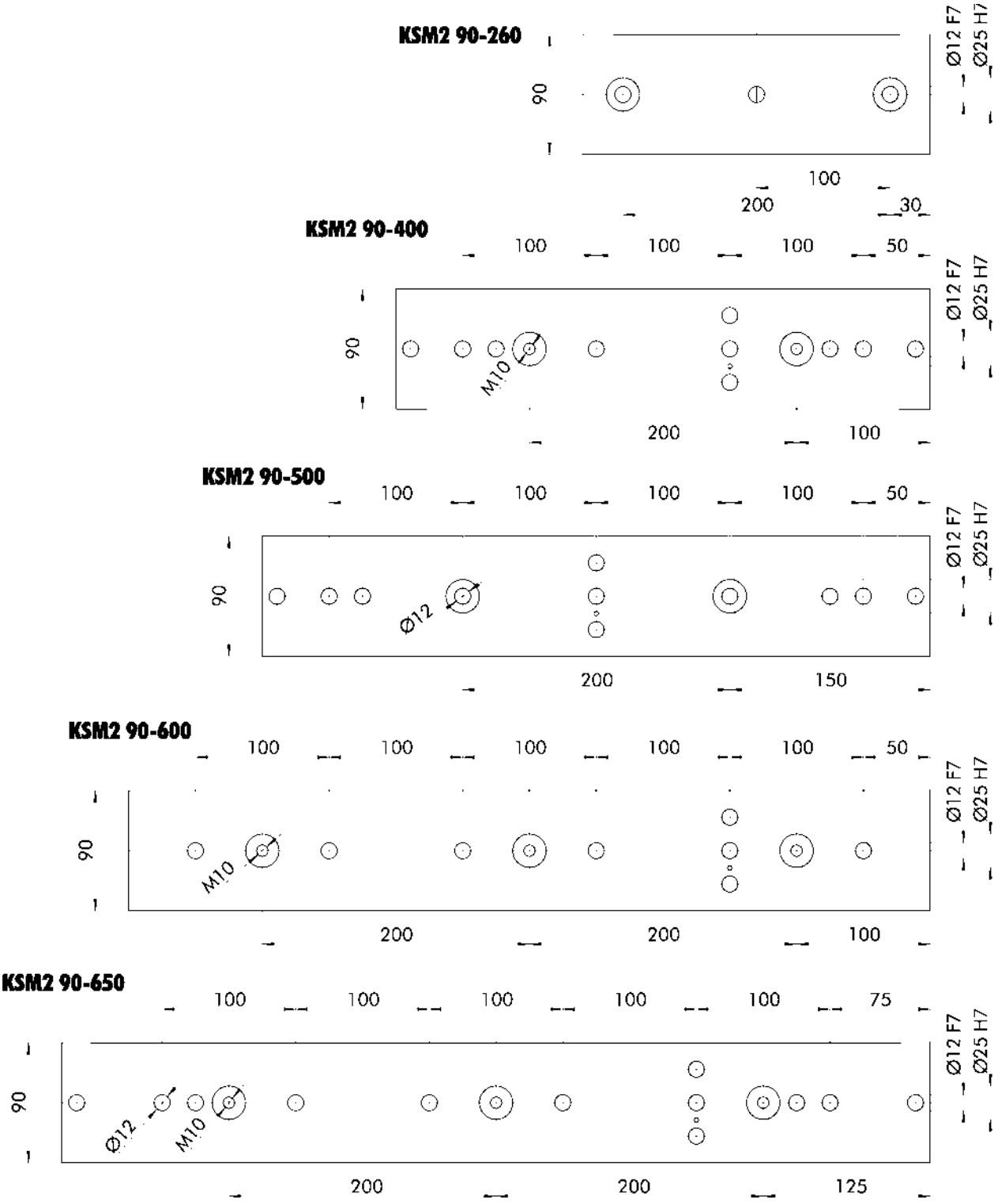
Smooth clamping, cubic with wedge clamping element

Description	A (2 workpieces) mm	A (4 workpieces) mm	A (6 workpieces) mm	A (8 workpieces) mm
KSM2 90-260	33 - 63			
KSM2 90-400	33 - 133	33 - 49		
KSM2 90-500	33 - 183	33 - 74	33 - 37	
KSM2 90-600	33 - 233	33 - 99	33 - 54	
KSM2 90-650	33 - 258	33 - 111	33 - 62	33 - 38

Required jaws and accessories

Type	Description	ID	2 Workpieces	4 Workpieces	6 Workpieces	8 Workpieces
Grip jaw VS	SGKSE-G3-F 90-28-32 SGKSE-G3-F 40-28-32	1589877 1589876	2 pieces	3 pieces	4 pieces	5 pieces
Wedge clamping element, grip	SGKSE-G3 65-49-39	1329347	1 piece	2 pieces	3 pieces	4 pieces
Support	GAFL-H 90 GAFL-H 40	1600815 1600813	2 pieces	4 pieces	6 pieces	8 pieces
Workpiece supports	GWU-4 90-22 GWU-4 40-22	1589889 1589878	1 set	2 sets	3 sets	4 sets

Interfaces


KSM2 90-260
90
100
200
30
Ø12 F7
Ø25 H7
KSM2 90-400
100
100
100
50
90
M10
200
100
KSM2 90-500
100
100
100
100
50
90
Ø12
200
150
KSM2 90-600
100
100
100
100
100
50
90
M10
200
200
100
KSM2 90-650
100
100
100
100
100
75
90
Ø12
M10
200
200
125

System jaws

Reversible jaw
Fixed stop for workpieces.
On both sides with smooth clamping surface.



Suitable for	Description	Interface	ID
KSM2	SGWB-E-F 90-64-34.9	W-90	1329339

Reversible grip jaw
Fixed stop for workpieces.
With grip step 3 mm (up to 22 HRC) and a smooth clamping surface on both sides.



Suitable for	Description	Interface	ID
KSM2	SGWB-G3-F 40-64-34.9	W-40	0490728
KSM2	SGWB-G3-F 65-64-34.9	W-65-2	0490729
KSM2	SGWB-G3-F 90-64-34.9	W-90	0490730

Adjustable jaw
First side for mounting clamping inserts, second side with smooth clamping surface.



Suitable for	Description	Interface	ID
KSM2	SGV-E 90-64-34.9	W-90 W-SEI	1329342

Adjustable grip jaw
First side for mounting clamping inserts, second side with grip step 3 mm (up to 22 HRC) and smooth clamping surface.



Suitable for	Description	Interface	ID
KSM2	SGV 40-64-34.9	W-40 W-SEI	0490731
KSM2	SGV 65-64-34.9	W-65-2 W-SEI	0490732
KSM2	SGV 90-64-34.9	W-90 W-SEI	0490733

Adjustable grip jaw
Raised adjustable jaw (H = 165 mm), first side for holding clamping inserts, second side for holding top jaws.



Suitable for	Description	Interface	ID
KSM2	SGV-H 65-124-164.3	W-SEI	0490734

Monoblock jaw
Central jaw when clamping two workpieces, with grip step 3 mm (up to 22 HRC) and smooth clamping surface on both sides.



Suitable for	Description	Interface	ID
KSM2	SGBB-F 90-64-34.9	W-90	1329340

Prism jaw grip
Central jaw when clamping two bulky workpieces, with prism-shaped grip step 3 mm (up to 22 HRC) on both sides.



Suitable for	Description	ID
KSM2	SGVA-F 90-64-34.9	1329341

Adapter plate
Used – in combination with adjustable jaws, clamping inserts and 6-way reversal jaws – to clamp bulky workpieces.



Suitable for	Description	Interface	ID
KSM2	SGA-6 160-74-17	W-38	1329343

Wedge clamping element, smooth
Central jaw when clamping two workpieces, with smooth clamping surface on both sides, support height 11 mm.



Suitable for	Description	ID
KSM2	SGKSE-E 65-49-39	1329345

Wedge clamping element, grip
Central jaw when clamping two workpieces, with grip step 3 mm (up to 22 HRC) and smooth clamping surface on both sides, support height 11 mm)



Suitable for	Description	ID
KSM2	SGKSE-G3 65-49-39	1329347

Wedge clamping element, serrated
Central jaw when clamping two workpieces, with serrated clamping surface on both sides, support height 11 mm.



Suitable for	Description	ID
KSM2	SGKSE-R 65-49-39	1329346

Top jaws

6-way reversal jaws
With five carbide grip steps as well as a coated clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBG-6W 38-38-18	38.5	18	38.2	W-38	0430803

6-way reversal jaws
With five carbide grip steps as well as a smooth clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBCG-6W 38-38-18	38.5	18	38.2	W-38	1395550

Pull-down jaw, serrated
Clamping insert for adjustable jaws with serrated clamping surface and pull-down effect.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBVS-N-R 40-25-41	40	25	41	W-SEI	0490750

Pull-down jaw serrated, round
Clamping insert for adjustable jaws with round, serrated clamping surface and pull-down effect.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBVS-NR-R 40-25-41	40	25	41	W-SEI	1329348



Description	Width mm	Height mm	Depth mm	Interface	ID
GBVS-PR-R 40-25-41	40	25	41	W-SEI	1329349

Parallel jaw smooth
Clamping insert for adjustable jaws with smooth clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBVS-P-E 40-41-22	40	22	41	W-SEI	0490778
GBVS-P-E 65-41-22	65	22	41	W-SEI	0490779
GBVS-P-E 90-41-22	90	22	41	W-SEI	0490780

Parallel grip jaw
Clamping insert for adjustable jaws with 3 mm stage grip, and smooth clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBVS-P-G3 40-41-22	40	22	41	W-SEI	0490751
GBVS-P-G3 65-41-22	65	22	41	W-SEI	0490752
GBVS-P-G3 90-41-22	90	22	41	W-SEI	0490753

Parallel jaw, serrated
Clamping insert for adjustable jaws with serrated clamping surface.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBVS-P-R 90-42.5-25	90	25	42.5	W-SEI	0490786

Pendulum jaw, serrated
Clamping insert for adjustable jaws with serrated clamping surfaces and pendulum mechanism for compensating minor workpiece unevenness.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBVS-A-R 90-41-25	90	25	41	W-SEI	0490754

Clamping wedge
Clamping insert for adjustable jaws for mounting soft chuck jaws.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBVS-K 90-41-25	90	25	41	W-SEI	0490721

Serrated jaw
For increasing the friction between jaw and workpiece with minimal clamping marks.
Height = 35 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBC 40-35-11	40	35	11	W-40	0490555
GBC 65-35-11	64	35	11	W-65-2	0490562
GBC 90-35-11	90	35	11	W-90	0490569

Ground jaw
With a completely ground clamping surface.
Height = 35 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBP 40-35-10	40	35	10	W-40	0490578
GBP 65-35-10	64	35	10	W-65-2	0490579
GBP 90-35-10	90	35	10	W-90	0490580

Soft jaw
Blanks for rework by the customer
Height = 35 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBW 40-35-16	40	35	16	W-40	0490556
GBW 65-35-16	64	35	16	W-65-2	0490589
GBW 90-35-16	90	35	16	W-90	0490570

Accessories

Hexagonal pin insert AF 8
Suitable for square drive 3/8".



Suitable for	Description	ID
KSM2	GSK-A SW8-3/8"	0490764

Connecting element
Used for connecting two or more clamping rails.



Suitable for	Description	ID
KSM2	GVE-KSM2 90	0490765

Workpiece stop
For connecting thread M8.



Suitable for	Description	ID
KSM2	GWSA-2 M8	0430710

Grip jaw
For embossed clamping of unhardened materials up to 22 HRC.
Height = 35 mm.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBG 40-35-10	40	35	10	W-40	0430183
GBG 65-35-10	64	35	10	W-65-2	0490564
GBG 90-35-10	90	35	10	W-90	0490571

Stepped jaw
With grip step, 3 mm.
For embossed clamping of unhardened materials up to 22 HRC.



Description	Width mm	Height mm	Depth mm	Interface	ID
GBG-W 35-35-10.5	35	35	10.5	W-40	0430718

Workpiece stop, magnetic
For quick and easy attachment to system jaws or vises.



Suitable for	Description	ID
KSM2	GWSA-M 60 x 15	1391293
KSM2	GWSA-M 115 x 15	1391331

Extensions
As an accessory for the magnetic workpiece stops.



Suitable for	Description	ID
KSM2	GWSA-V Ø68 x 30	1394477

Torque wrench 5 – 50 Nm
Serves for applying a defined torque.
With 3/8" square drive.



Suitable for	Description	ID
KSM2	GSH-D 5-50	0432355

Clamping screws for base body
Used for directly attaching clamping devices via the base body.



Suitable for	Description	ID
T-Nut 12 mm/M12	GSC-G-2 M12-T12	0490756
T-slot 14 mm/M12	GSC-G-2 M12-T14	0490549
T-Nut 16 mm / M12	GSC-G-2 M12-T16	0490550
T-Nut 18 mm/M12	GSC-G-2 M12-T18	0490588
T-Nut 20 mm/M12	GSC-G-2 M12-T20	1329403
T-Nut 22 mm/M12	GSC-G-2 M12-T22	1329404
T-Nut 24 mm/M12	GSC-G-2 M12-T24	1329405

Clamping screws for clamping claws
For mounting clamping devices in combination with clamping claws.



Suitable for	Description	ID
T-slot 12 mm/M10	GSC-S M10-T12	0432043
T-slot 14 mm/M12	GSC-S M12-T14	0432044
T-Nut 16 mm/M14	GSC-S M14-T16	0432045
T-slot 18 mm/M16	GSC-S M16-T18	0432046
T-slot 20 mm/M16	GSC-S M16-T20	1550423
T-slot 22 mm/M16	GSC-S M16-T22	1550424

Clamping claws
For quick and easy mounting of SCHUNK clamping devices.



Suitable for	Description	ID
KSM2	GSPR-A 50-57	0490604

Fitting screws
For precise position orientation and mounting of manual clamping vises on the machine table.



Suitable for	Description	ID
KSM2	GPSC-1 Ø12f7-M12	0432047

Alignment and centering set
For clamping width 90, 100 and 125 mm.



Suitable for	Description	ID
T-Nut 14 mm	GAZ-2 T14	0432209
T-Nut 16 mm	GAZ-2 T16	0432210
T-Nut 18 mm	GAZ-2 T18	0432211

Alignment pin
Serves for precise aligment of clamping devices.



Suitable for	Description	ID
T-Nut 14 mm	GAZ-4 T14	1329406
T-Nut 16 mm	GAZ-4 T16	1329407
T-Nut 18 mm	GAZ-4 T18	1329408

Adjustable support
Adjustable workpiece support for vibration damping when machining long workpieces with the KSM2 clamping rails.



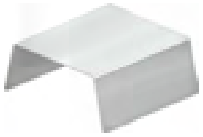
Suitable for	Description	ID
KSM2	GAFL-A 90-17	1329385

Support
Height compensation elements matching the workpiece support for vibration damping.



Suitable for	Description	ID
KSM2	GAFL 90-8	1329386
KSM2	GAFL 90-13	1329387

Cover plates
Cover plates to prevent accumulation of chips within the clamping device.



Suitable for	Description	ID
KSM2	GAB-KSM2 84 x 50	1334879
KSM2	GAB-KSM2 86 x 50	1334878
KSM2	GAB-KSM2 86 x 200	1334880

Workpiece supports

Workpiece supports – width 40 mm
In different heights.
1 set = 2 pieces



Suitable for	Description	Height mm	ID
KSM2	GWU-4 40-25	25	0490757
KSM2	GWU-4 40-30	30	0490787

Workpiece supports – width 65 mm
In different heights.
1 set = 2 pieces



Suitable for	Description	Height mm	ID
KSM2	GWU-4 65-11	11	0490758
KSM2	GWU-4 65-17	17	0490759
KSM2	GWU-4 65-25	25	0490760
KSM2	GWU-4 65-30	30	0490788

Workpiece supports – width 90 mm
In different heights.
1 set = 2 pieces



Suitable for	Description	Height mm	ID
KSM2	GWU-4 90-11	11	0490761
KSM2	GWU-4 90-17	17	0490762
KSM2	GWU-4 90-25	25	0490763
KSM2	GWU-4 90-30	30	0490789

Overview tombstones



Tombstones with VERO-S quick-change pallet system VAT Page 528



Tombstones with clamping devices SAT Page 534



Tombstones without clamping devices SAT Page 542



Clamping pillars for rotary tables SAT Page 548

schunk.com/vat



Universal. Fast. Efficient. Tombstones with VERO-S quick-change pallet system VAT

The VERO-S tombstones are available as double angled, triangular and octangular tombstones, each with 400 x 400 mm or 500 x 500 mm pallet size. With one central connection per module row, the modules can be quickly and easily unlocked.

Functions & highlights

- **Preconfigured tombstones with quick-change pallet system**
  For all SCHUNK clamping devices with VERO-S interface
- **Stable hollow body design**
  High rigidity and excellent vibration damping
- **Integrated turbo function**
  The maximum pull-down force also ensures reliable clamping of heavy workpieces



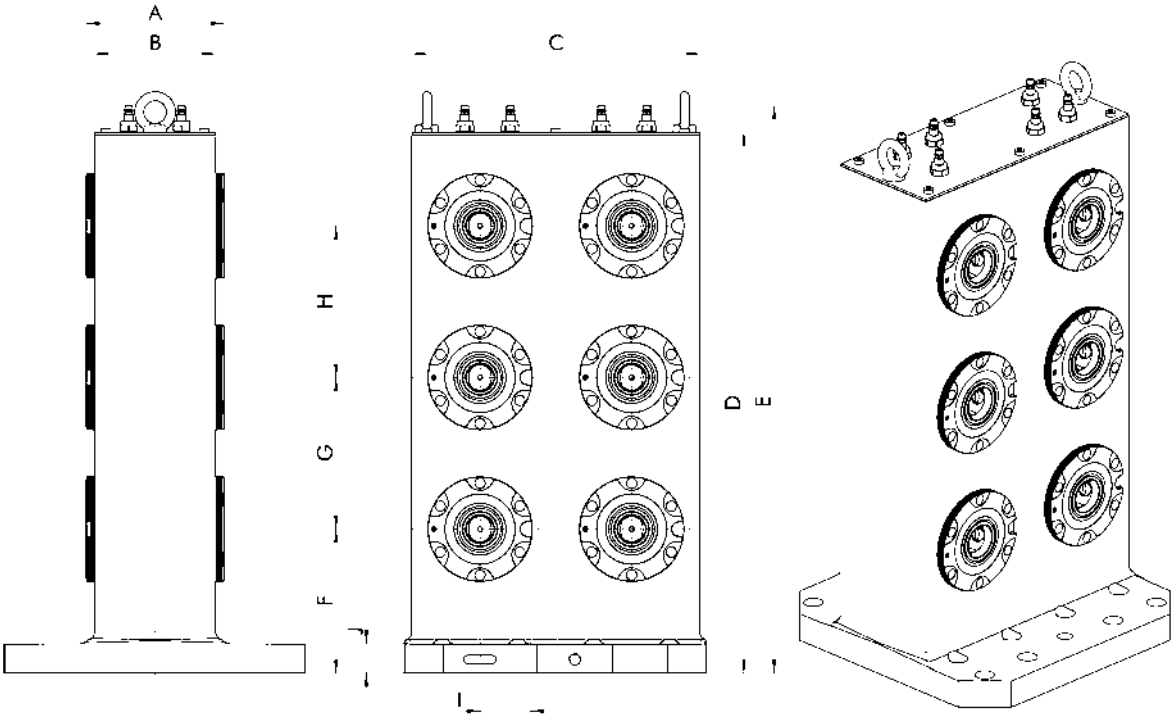
Field of application

VAT

VERO-S tombstones from SCHUNK have been prepared with the VERO-S NSE-T3 138-V1 quick-change pallet modules. These tombstones can be equipped with clamping devices from the huge SCHUNK modular system within a very short time. Set-up times can be drastically reduced while machine running time is increased.

VAT3-DW

Tombstones with VERO-S quick-change pallet system

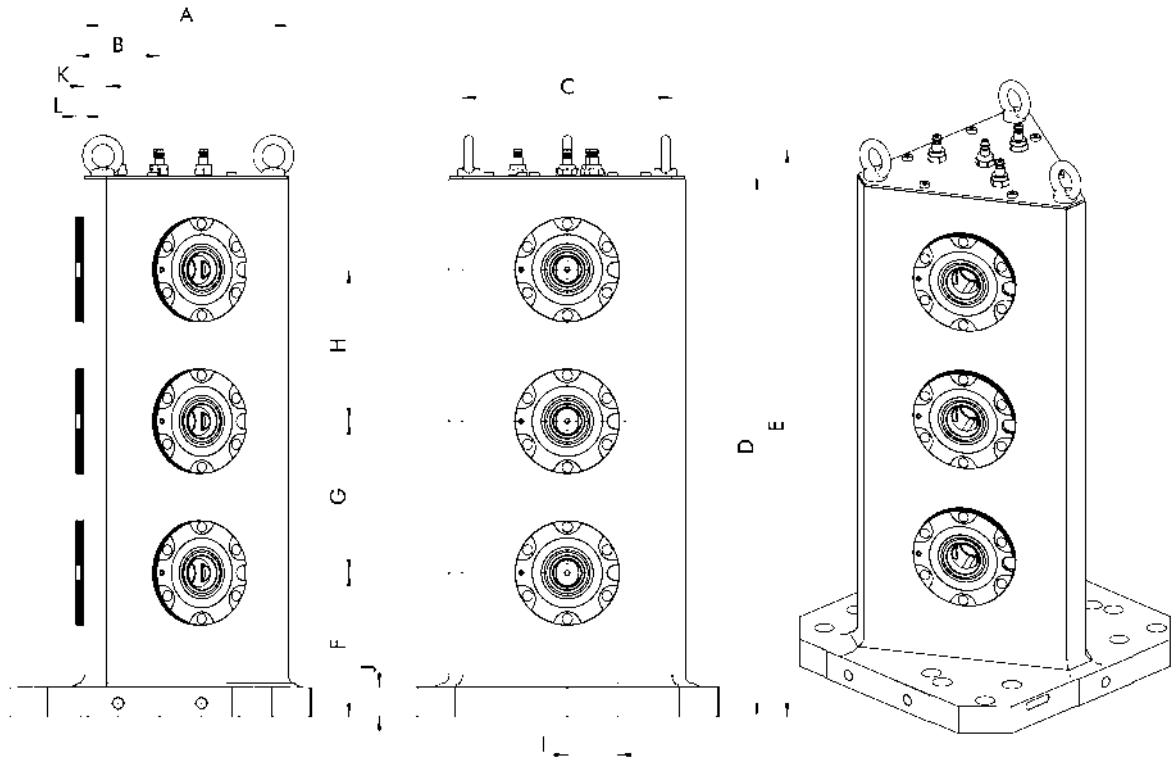


Dimensions

ID	A	B	C	D	E	F	G	H	I	J
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
1334327	182	160	380	713	748.5	190	200	200	66	40
1334328	182	160	380	713	748.5	190	200	200	66	40

Technical data

Description	ID	Pallet size	Pull-down force	Pull-down force with turbo	Opening pressure	Weight
		mm	kN	kN	bar	kg
VAT3-DW 400	1334327	400/400	7	24	6	206
VAT3-DW 500	1334328	500/500	7	24	6	228



Dimensions

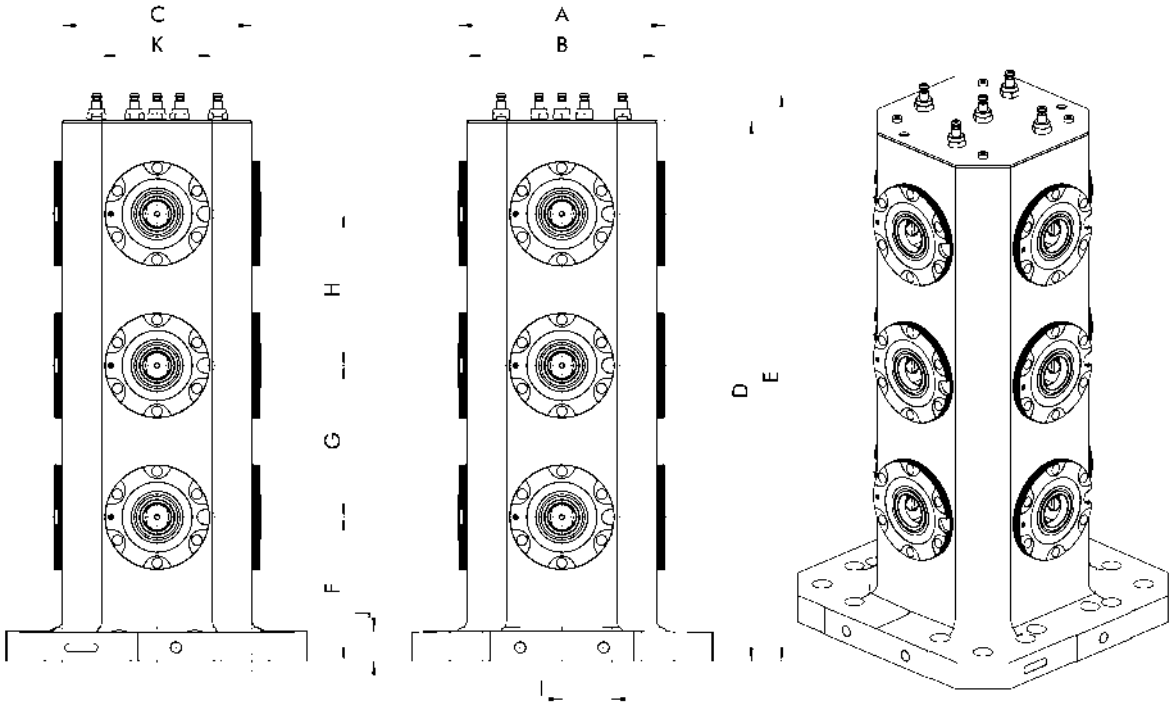
ID	A	B	C	D	E	F	G	H	I	J	K	L
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
1334351	270	111	277	713	748.5	190	200	200	66	40	30	11
1334352	270	111	277	713	748.5	190	200	200	66	40	30	11

Technical data

Description	ID	Pallet size	Pull-down force	Pull-down force with turbo	Opening pressure	Weight
		mm	kN	kN	bar	kg
VAT3-DR 400	1334351	400/400	7	24	6	183.4
VAT3-DR 500	1334352	500/500	7	24	6	202

VAT3-AE

Tombstones with VERO-S quick-change pallet system



Dimensions

ID	A	B	C	D	E	F	G	H	I	J	K
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
1334353	272	250	250	713	748.5	190	200	200	66	40	146
1334354	272	250	250	713	748.5	190	200	200	66	40	146

Technical data

Description	ID	Pallet size	Pull-down force	Pull-down force with turbo	Opening pressure	Weight
		mm	kN	kN	bar	kg
VAT3-AE 400	1334353	400/400	7	24	6	182
VAT3-AE 500	1334354	500/500	7	24	6	208

schunk.com/sat



Powerful. Compact. Versatile. Tombstones with clamping devices SAT

SCHUNK tombstones with clamping devices are fully configured, standard clamping solutions. Whether you need tombstones with reinforced KONTEC KSG machine vise, KONTEC KSC-F single-acting vise, KONTEC KSC-D double-acting vise, KONTEC KSM2 clamping rail, or with spring-actuated TANDEM KSF3 clamping force blocks – we have the right standard tombstone for your particular application.

Functions & highlights

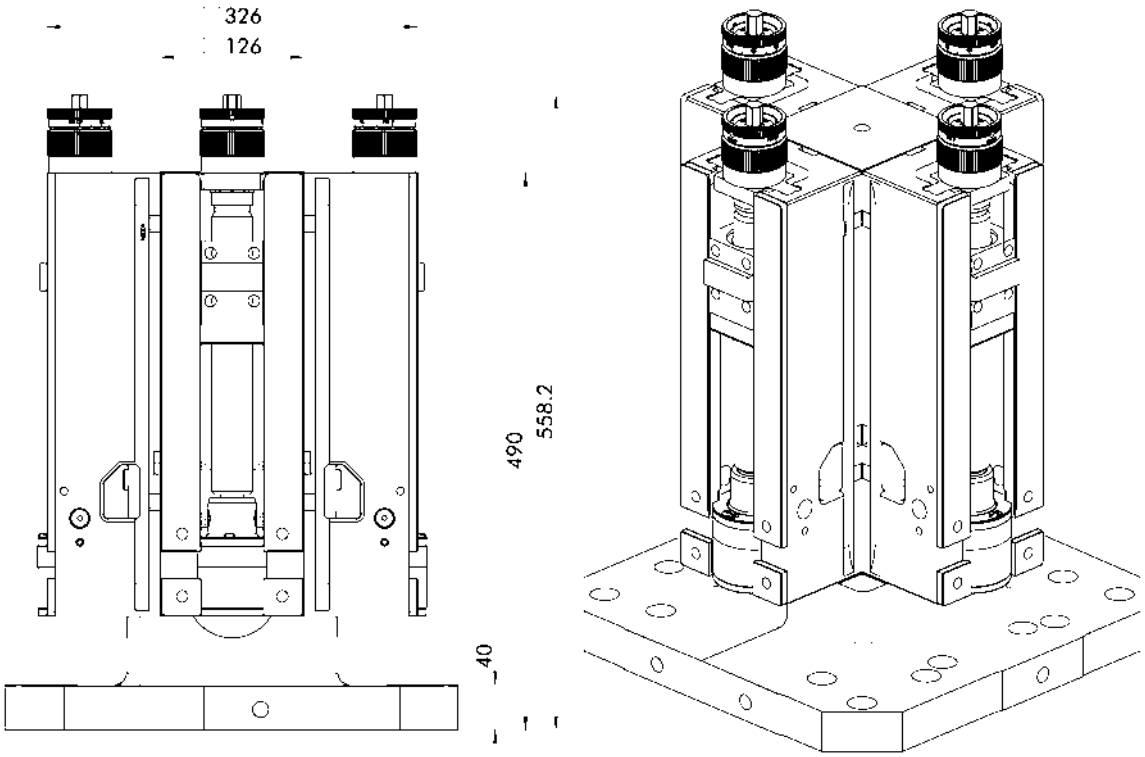
- **Preconfigured tombstones**
  Ready for immediate use
- **Stable hollow body design**
  High rigidity and excellent vibration damping
- **Perpendicularity to base plate of 0.01 mm over 200 mm**
  High basic accuracy, no additional surface grinding of tombstone necessary



Field of application

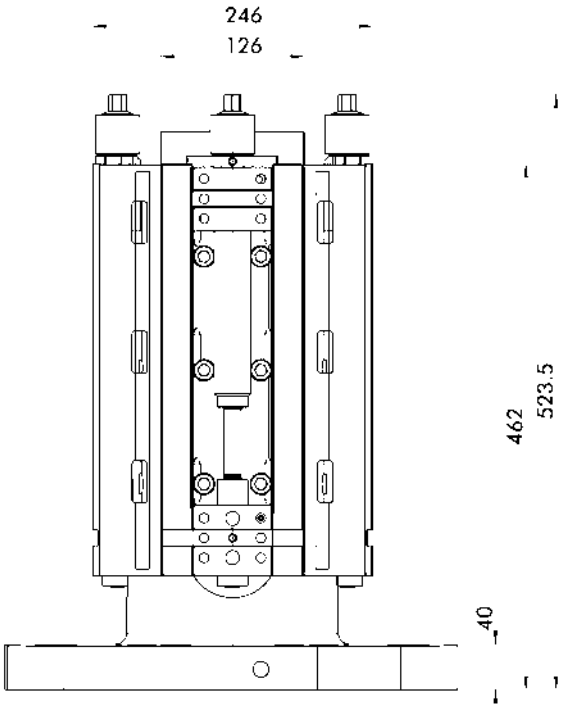
SAT

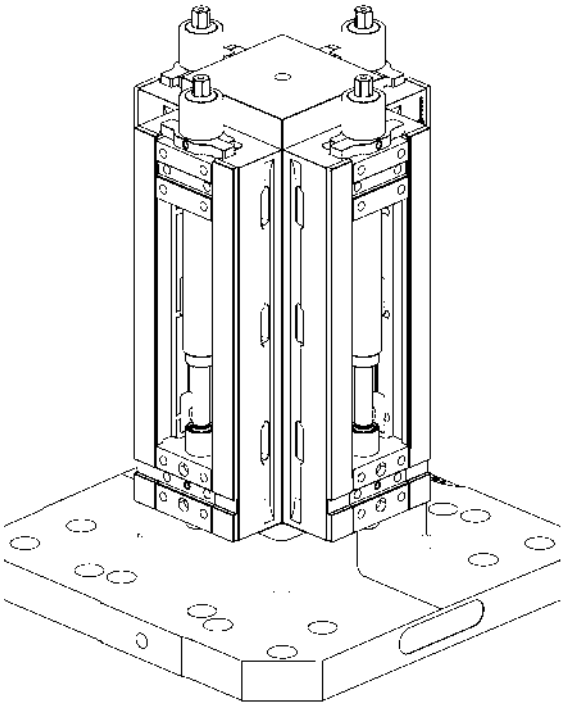
SCHUNK tombstones are available with a wide range of clamping devices and tombstones. This means that the right tombstone with a suitable clamping device can be found in the standard range for every application.



Technical data

Description	ID	Pallet size mm	Clamping force kN	Weight kg
SAT-KSG 125-390 4V 400 x 400	1352193	400/400	4/40	225
SAT-KSG 125-390 4V 500 x 500	1352194	500/500	4/40	225

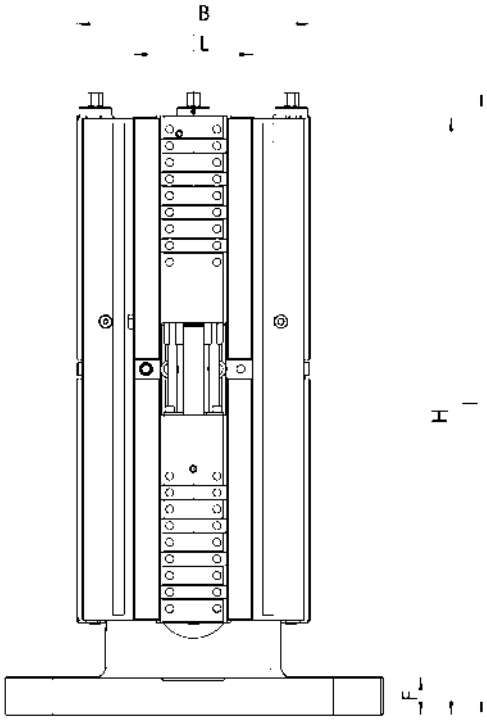


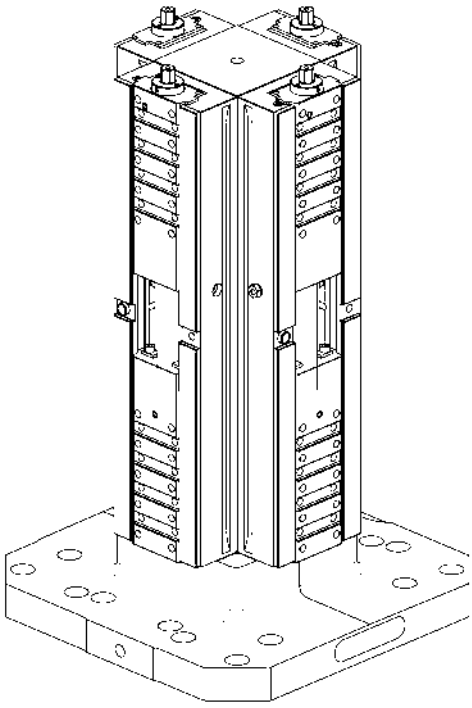


Technical data

Description	ID	Pallet size	Max. clamping force	Max. torque	Weight
		mm	kN	Nm	kg
SAT-KSC-F 125-362 4V 400 x 400	1352187	400/400	40	90	160
SAT-KSC-F 125-362 4V 500 x 500	1352188	500/500	40	90	160

SAT-KSC-D
Tombstones with clamping devices



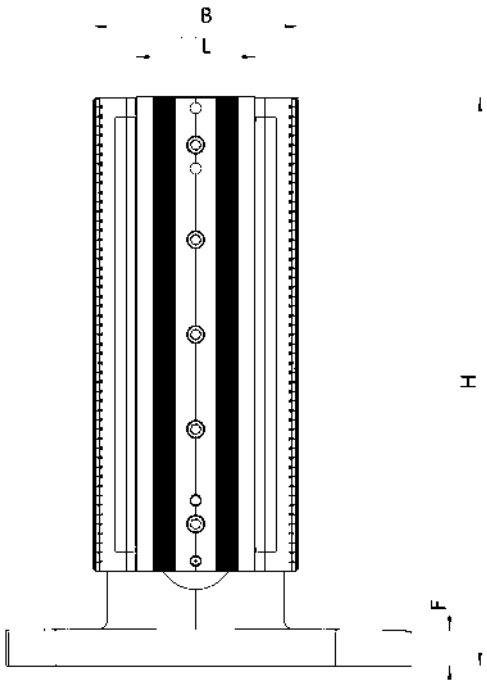


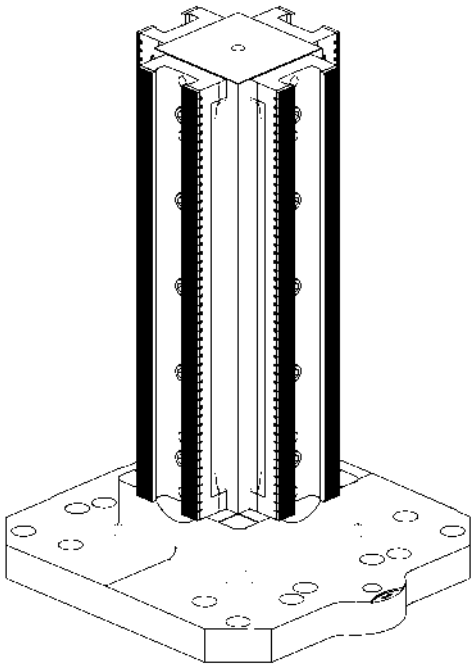
Dimensions

ID	B	F	H	I	L
	mm	mm	mm	mm	mm
1352145	201	35	390	398	91
1352155	246	40	490	513.4	126
1352156	246	40	490	513.4	126
1352163	246	40	560	586.9	126
1352164	246	40	560	586.9	126
1352171	246	40	630	656.9	126
1352172	246	40	630	656.9	126

Technical data

Description	ID	Pallet size	Max. clamping force	Max. torque	Weight
		mm	kN	Nm	kg
SAT-KSC-D 80-300 4V 300 x 300	1352145	300/300	25	90	76
SAT-KSC-D 125-390 4V 400 x 400	1352155	400/400	40	100	170
SAT-KSC-D 125-390 4V 500 x 500	1352156	500/500	40	100	170
SAT-KSC-D 125-460 4V 400 x 400	1352163	400/400	40	100	190
SAT-KSC-D 125-460 4V 500 x 500	1352164	500/500	40	100	190
SAT-KSC-D 125-530 4V 400 x 400	1352171	400/400	40	100	210
SAT-KSC-D 125-530 4V 500 x 500	1352172	500/500	40	100	210





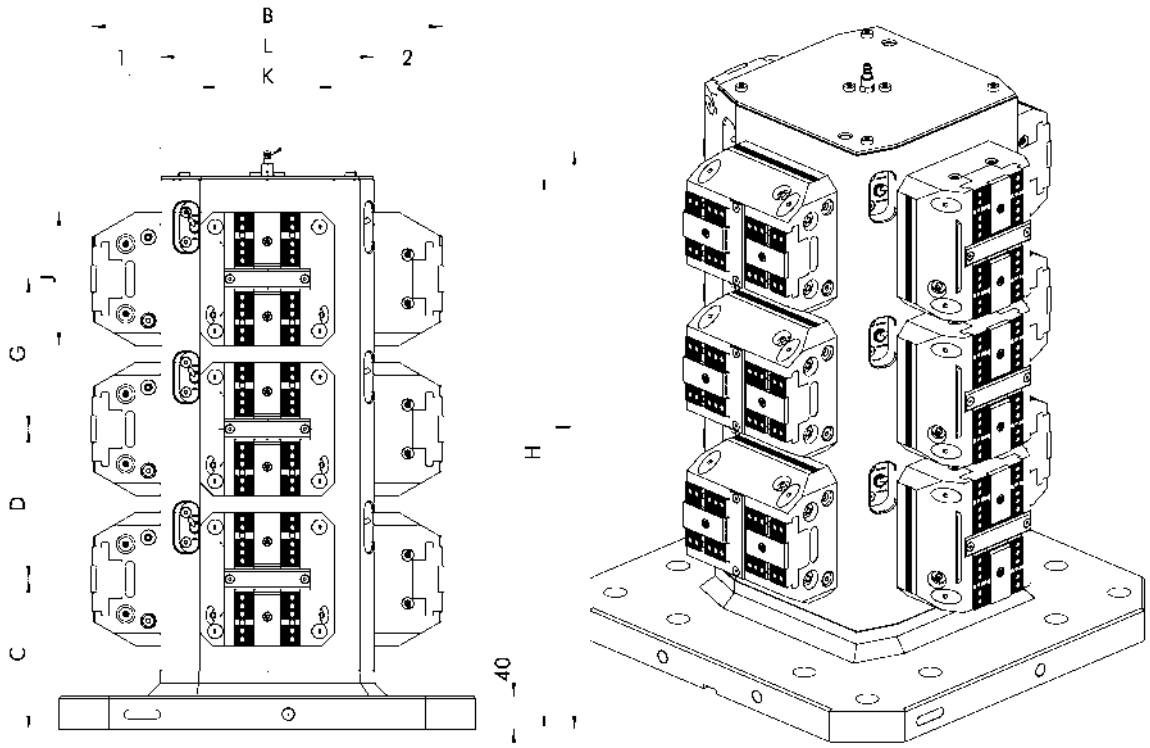
Dimensions

ID	B	F	H	L
	mm	mm	mm	mm
1346919	216	40	500	126
1346921	216	40	500	126
1346920	216	40	600	126
1346922	216	40	600	126

Technical data

Description	ID	Pallet size	Max. clamping force	Max. torque	Weight
		mm	kN	Nm	kg
SAT-KSM2 90-400 4V 400 x 400	1346919	400/400	30	50	132
SAT-KSM2 90-400 4V 500 x 500	1346921	500/500	30	50	132
SAT-KSM2 90-500 4V 400 x 400	1346920	400/400	30	50	152
SAT-KSM2 90-500 4V 500 x 500	1346922	500/500	30	50	152

SAT-KSF3
Tombstones with clamping devices



Dimensions

ID	B	C	D	G	H	I	J	K	L
	mm	mm	mm	mm	mm	mm	mm	mm	mm
0471550	320	180	120	120	523	553	100	100	181.6
0471551	320	180	120	120	523	553	100	100	181.6
0471555	420	180	180	180	663	693	160	160	255.6

Technical data

Description	ID	Pallet size	Clamping force range	Opening pressure	Weight
		mm	kN	bar	kg
SAT-KSF3 100 12V 400 x 400	0471550	400/400	7/12	6	160
SAT-KSF3 100 12V 500 x 500	0471551	500/500	7/12	6	188
SAT-KSF3 160 12V 500 x 500	0471555	500/500	7/12	6	355

schunk.com/tombstones



Robust. Easy. Versatile.
Tombstones without clamping devices SAT

SCHUNK tombstones without clamping devices enable the attachment of clamping devices from several sides. The tombstones are available in double angled, triangular, cubic or octagonal designs. Due to their shape, they enable optimal accessibility for the machine spindle. Due to the stable hollow body desgin, they have a high degree of rigidity as well as good vibration damping.

Functions & highlights

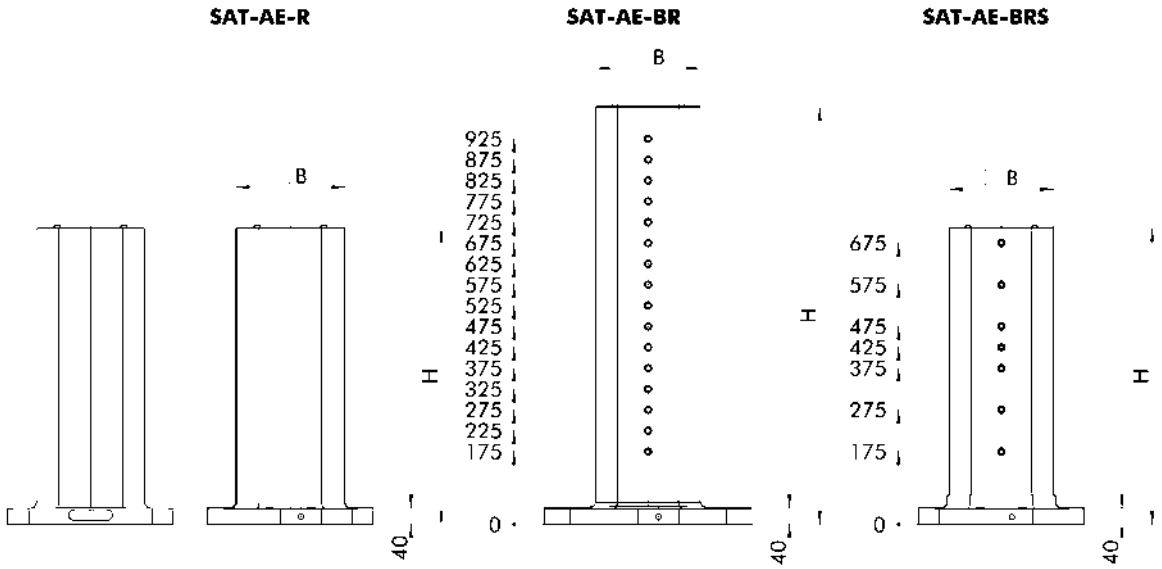
- **Stable hollow body design**
  High rigidity and excellent vibration damping
- **Finely milled clamping surfaces**
  Exact position of workpieces and clamping vises
- **Blank clamping surfaces or with bore hole grid**
  For reworking by the customer or direct adaptation of SCHUNK clamping devices



Field of application

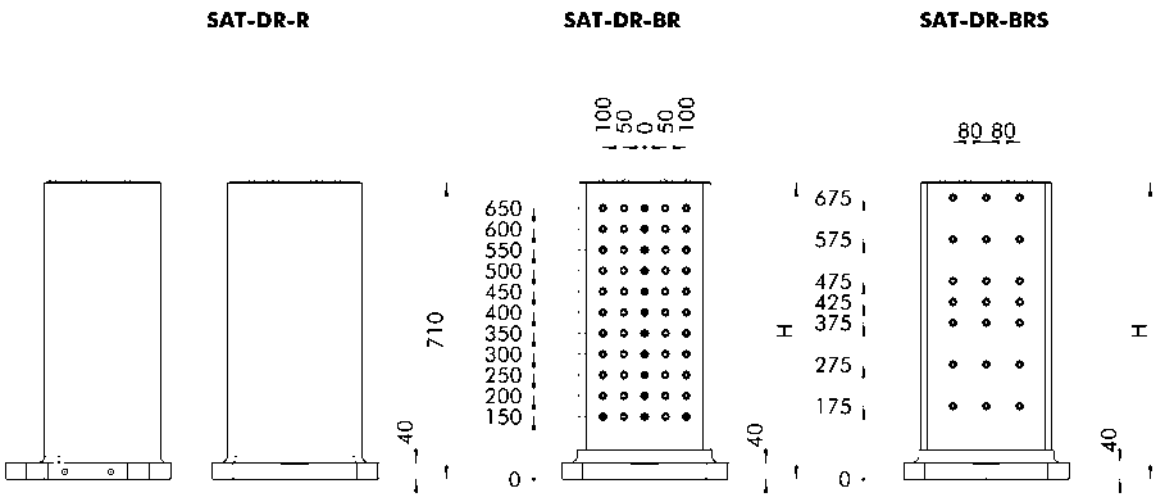
SAT

The tombstones without clamping devices are available either with raw clamping surface, with a 50 x 50 mm bore hole grid or with special bore hole grids for SCHUNK clamping devices. The tombstones also differ in their geometry and pallet sizes.



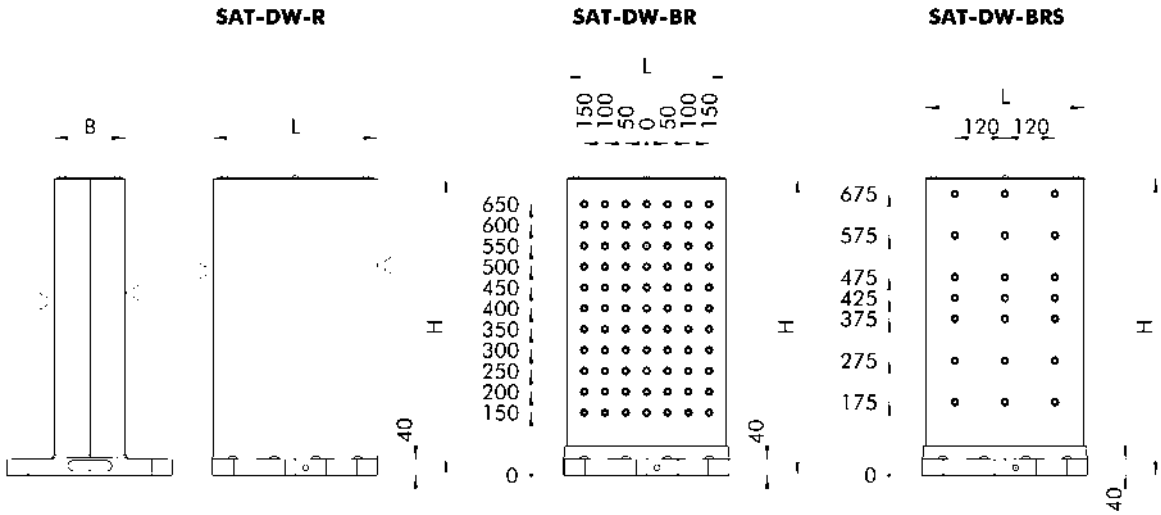
Technical data

Description	ID	Pallet size	H	Weight
		mm	mm	kg
SAT-AE-R 400-710	0431167	400 x 400 mm	710	195
SAT-AE-R 500-710	0431168	500 x 500 mm	710	220
SAT-AE-R 500-1000	0431171	500 x 500 mm	1000	379
SAT-AE-BR4 500-1000	0431169	500 x 500 mm	1000	295
SAT-AE-BR8 500-1000	0431170	500 x 500 mm	1000	294
SAT-AE-BRS4 400-710	0431163	400 x 400 mm	710	170
SAT-AE-BRS4 500-710	0431164	500 x 500 mm	710	195
SAT-AE-BRS8 400-710	0431165	400 x 400 mm	710	150
SAT-AE-BRS8 500-710	0431166	500 x 500 mm	710	175



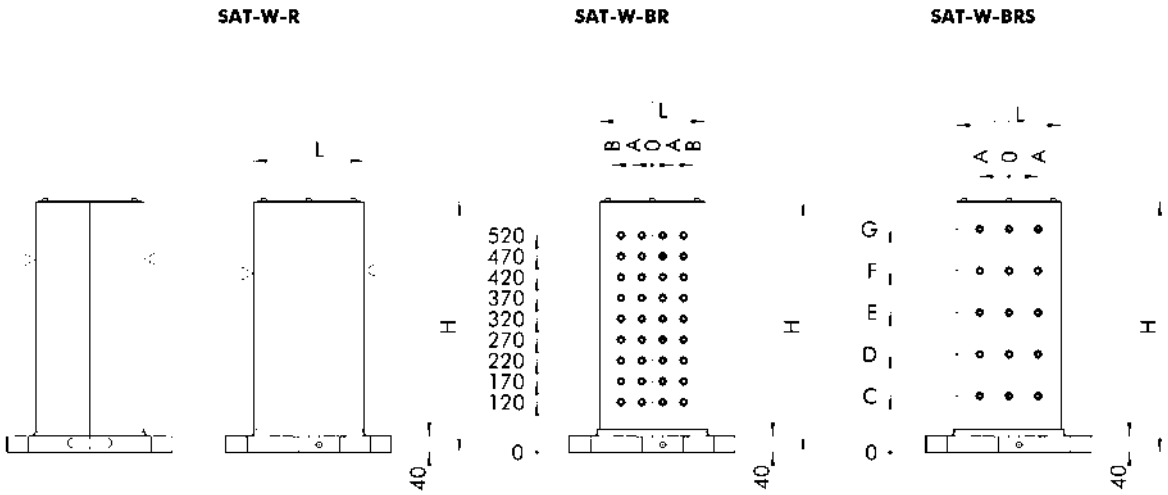
Technical data

Description	ID	Pallet size	H	Number of grid rows	Weight
		mm	mm		kg
SAT-DR-R 400-710	0431137	400 x 400 mm	710		195
SAT-DR-R 500-710	0431138	500 x 500 mm	710		220
SAT-DR-R 500-1000	0431148	500 x 500 mm	1000		278
SAT-DR-BR 400-710	0431133	400 x 400 mm	710	10	170
SAT-DR-BR 500-710	0431134	500 x 500 mm	710	10	205
SAT-DR-BR 500-1000	0431147	500 x 500 mm	1000	16	242
SAT-DR-BRS 400-710	0431135	400 x 400 mm	710		172
SAT-DR-BRS 500-710	0431136	500 x 500 mm	710		197



Technical data

Description	ID	Pallet size	B	H	L	Number of grid rows	Weight
		mm	mm	mm	mm		kg
SAT-DW-R 400-710	0431107	400 x 400 mm	170	710	710		221
SAT-DW-R 500-710	0431108	500 x 500 mm	170	710	710		244
SAT-DW-R 500-1000	0431110	500 x 500 mm	230	1000	710		355
SAT-DW-BR 400-710	0431103	400 x 400 mm	160	710	710	10	190
SAT-DW-BR 500-710	0431104	500 x 500 mm	160	710	710	10	215
SAT-DW-BRS 400-710	0431105	400 x 400 mm	160	710	710		192
SAT-DW-BR 500-1000	0431109	500 x 500 mm	220	1000	480	16	350
SAT-DW-BRS 500-710	0431106	500 x 500 mm	160	710	710		217



Technical data

Description	ID	Pallet size	A	B	C	D	E	F	G	H	L	Number of grid rows	Weight
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
SAT-W-R 400-600	0431151	400 x 400 mm								600	260		180
SAT-W-R 500-800	0431153	500 x 500 mm								800	330		320
SAT-W-R 500-1000	0431152	500 x 500 mm								1000	330		385
SAT-W-BR 400-600	0431146	400 x 400 mm	25	75						600	250	9	155
SAT-W-BR 500-800	0431143	500 x 500 mm	50	100						800	320	12	276
SAT-W-BR 500-1000	0431149	500 x 500 mm	50	100						1000	320	16	327
SAT-W-BRS 400-600	0431144	400 x 400 mm	70		135	235	335	435	535	600	250	5	157
SAT-W-BRS 500-800	0431145	500 x 500 mm	80		150	250	350	450	550	800	320	6	279
SAT-W-BRS 500-1000	0431150	500 x 500 mm	80		150	250	350	450	550	1000	320	8	331



Powerful. Compact. Versatile. Clamping pillars for rotary tables SAT

SCHUNK clamping pillars are fully configured clamping solutions, specially designed with an interface for all conventional rotary tables. For multiple clamping in particular, solutions are available with the proven SCHUNK double vise KONTEC KSC-D or the clamping rails KONTEC KSM2.

Functions & highlights

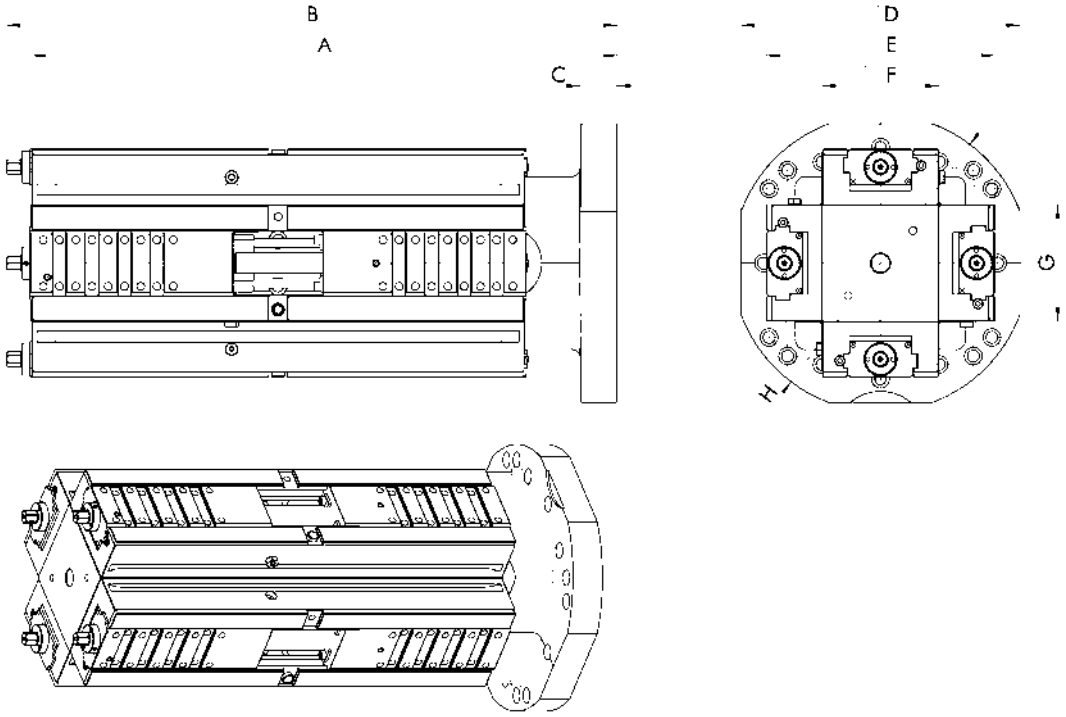
- **Preconfigured clamping pillars**
  Ready for immediate use
- **Stable hollow body design**
  High rigidity and excellent vibration damping
- **Perpendicularity to base plate of 0.01 mm over 200 mm**
  High basic accuracy, no additional surface grinding of tombstone necessary



Field of application

SAT

SCHUNK clamping pillars can be used on all common rotary tables. Equipped with multiple vises, the tombstones can significantly increase machine running times and thus boost production efficiency. The vises also offer optimal accessibility and maximum user-friendliness.

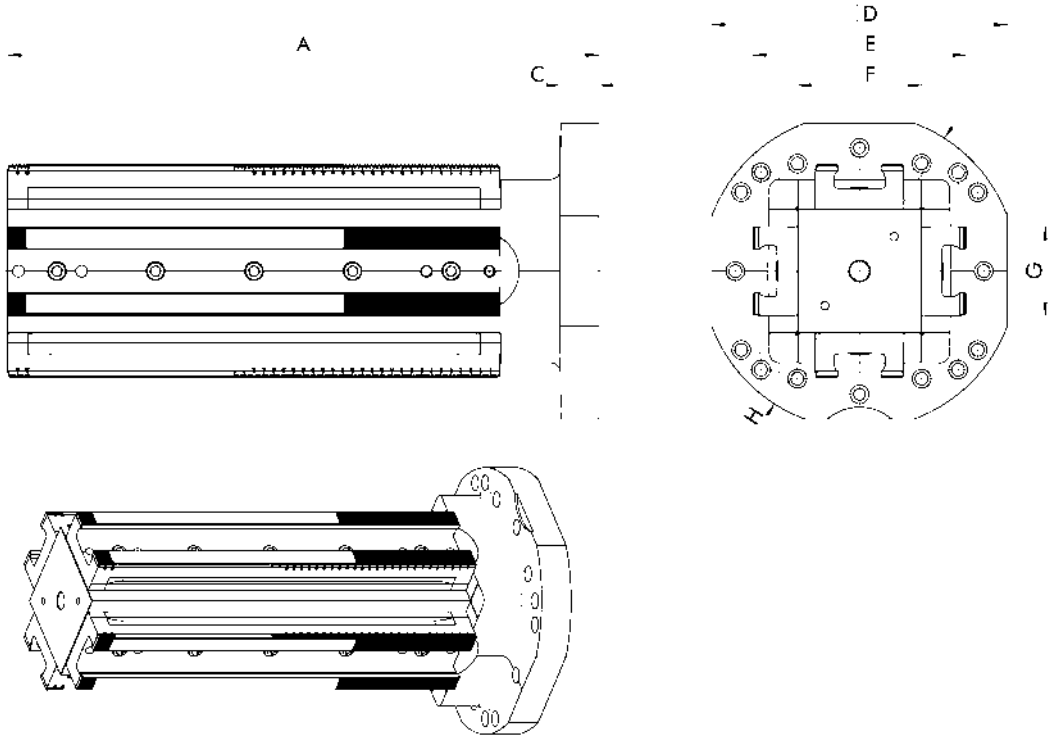


Dimensions

ID	A	B	C	D	E	F	G	H
	mm	mm	mm	mm	mm	mm	mm	mm
1352146	390		35	240	201	91	80	260
1352147	390		35	240	201	91	80	260
1352173	630	657	40	300	246	126	125	320
1352174	630	657	40	300	246	126	125	320

Technical data

Description	ID	Max. clamping force	Max. torque	Weight
		kN	Nm	kg
SAT-KSC-D 80-300 4V Ø260	1352146	25	90	68
SAT-KSC-D 80-300 4V Ø260-B	1352147	25	90	68
SAT-KSC-D 125-530 4V Ø320	1352173	40	100	190
SAT-KSC-D 125-530 4V Ø320-B	1352174	40	100	190

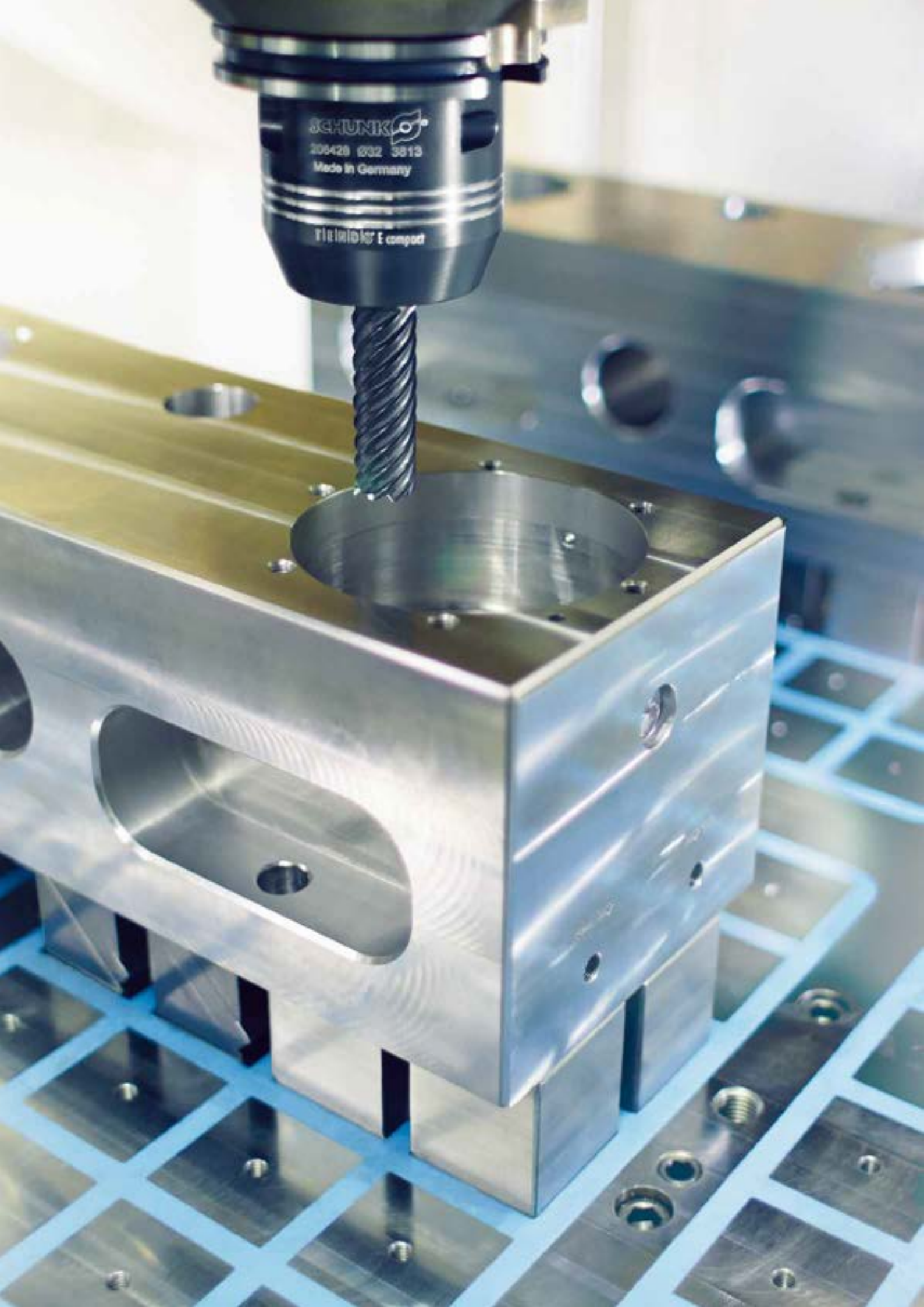


Dimensions

ID	A	C	D	E	F	G	H
	mm	mm	mm	mm	mm	mm	mm
0490743	430	30	265	190	100	90	280
0490744	680	30	265	190	100	90	280
1346918	600	40	300	216	126	90	320
1346917	600	40	300	216	126	90	320

Technical data

Description	ID	Max. clamping force	Max. torque	Weight
		kN	Nm	kg
SAT-KSM2 90-400 4V Ø280	0490743	30	50	73
SAT-KSM2 90-650 4V Ø280	0490744	30	50	110
SAT-KSM2 90-500 4V Ø320	1346918	30	50	132
SAT-KSM2 90-500 4V Ø320-B	1346917	30	50	132


SCHUNK
Made in Germany
E compact

Overview magnetic clamping technology



MAGNOS App Page 556



Square pole technology for milling applications MFRS2 Page 558



Pole quick-change system QCS Page 570



Double magnets for XXL applications MFRS-DM Page 574



Parallel pole technology for milling applications MFPS Page 578



Control unit KEH plus Page 584



Radial pole technology for turning applications on vertical lathes MGT Page 590



Parallel pole technology for grinding applications MSC Page 596



EDM applications Page 604



Lifting magnets Page 608



MAGNOS square pole plates

allow complete machining in just two set-ups. All five sides of the workpiece are freely accessible. Process stability has increased significantly with SCHUNK MAGNOS. The dimensional accuracy of the parts is achieved right away.



Device for machining precision frames, equipped with twelve SCHUNK MAGNOS square pole plates. Instead of extensive shimming and aligning of the frames, the flexible pole extensions automatically adapt to the workpiece. This way, a workpiece length of six meters can be reliably achieved with a flatness of 0.15 mm.



SCHUNK MAGNOS enables 5-sided complete machining in one set-up of steel profiles.



As a peak value, the clamping solution achieves clamping forces of over 97 tones. Parts up to eight meters long can be clamped with the help of SCHUNK MAGNOS square pole plates on a rigid bed of a milling and drilling center designed for five-sided machining.



MAGNOS MFRS magnetic chucks

Size 1000 x 500 mm. Mounted on a gantry milling machine. Therefore, a low-tension set-up of long welding assemblies is possible, ensuring impeccable process quality. The pole extensions ensure automatic adaptation of the magnetic chuck's contact surfaces to the workpiece.

magnossimulator.com



Fast. Secure. Convenient. MAGNOS App

The MAGNOS app makes it quick and easy to find out whether a workpiece can be securely clamped on the magnetic chuck with the given parameters.

Functions & highlights

- **Simple calculation of holding forces**
  Possible both on the PC (web-based version) and via the app
- **Optimization of the production process**
  Through prior assessment of the processing data
- **Can be used for many MAGNOS magnetic chucks**
  Can be used for SCHUNK MFPS, MFRS, MGT and MTR magnetic chucks



Field of application

MAGNOS App

The MAGNOS app can be used to calculate in next to no time whether a workpiece can be securely clamped on the magnetic chucks. This ensures maximum safety when working with magnetic chucks and prevents incorrect use.

schunk.com/mfrs2



Electric. Accessible. Reliable. Square pole technology for milling applications MFRS2

Based on their square pole technology, MAGNOS MFRS magnetic chucks feature a deeply penetrating magnetic field. Thanks to the uniform, permanent magnetic clamping force over the entire workpiece, it can be clamped with little deformation and low vibration. Only a short electrical pulse is required for clamping, which reverses the polarity of the AlNiCo magnets.

Functions & highlights

- **Deformation-free clamping**
  No deformation or internal forces in the workpiece due to the clamping force
- **State-of-the-art electropermanent technology for one-time energy supply for MAG/DEMAG process**
  Energy-efficient and reliable clamping of the workpieces
- **Status display for "MAG ON" and "MAG OFF"**
  The integrated status display provides reliable information about the current status of the magnetic chuck



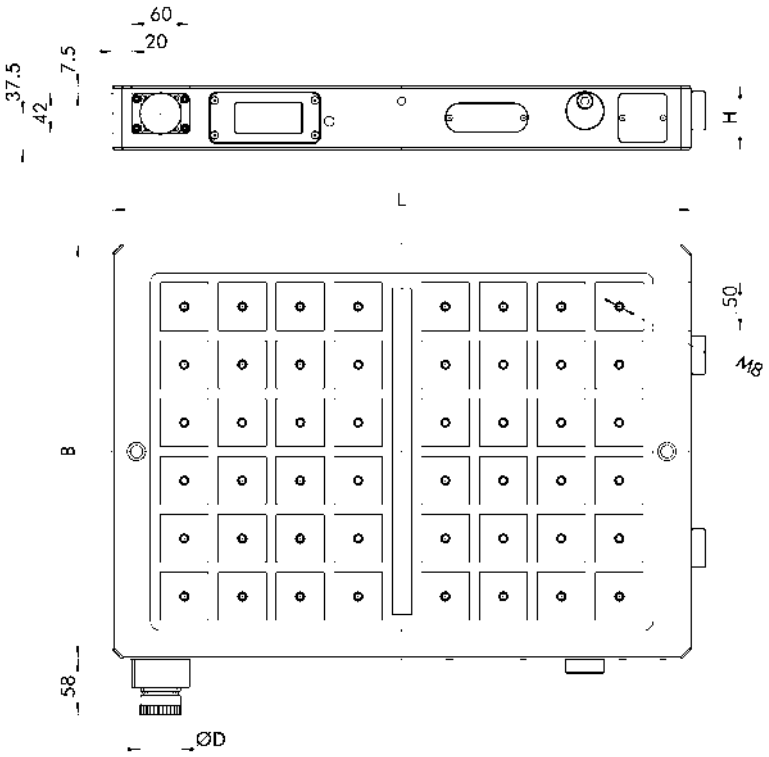
Field of application

MFRS2

The magnetic chucks are available in two different square pole dimensions. This offers the possibility of individually adjusting the magnetic chuck to its specific clamping task within a larger range of clamping tasks. A patented status display ensures that it is always clear whether the workpiece is reliably clamped.

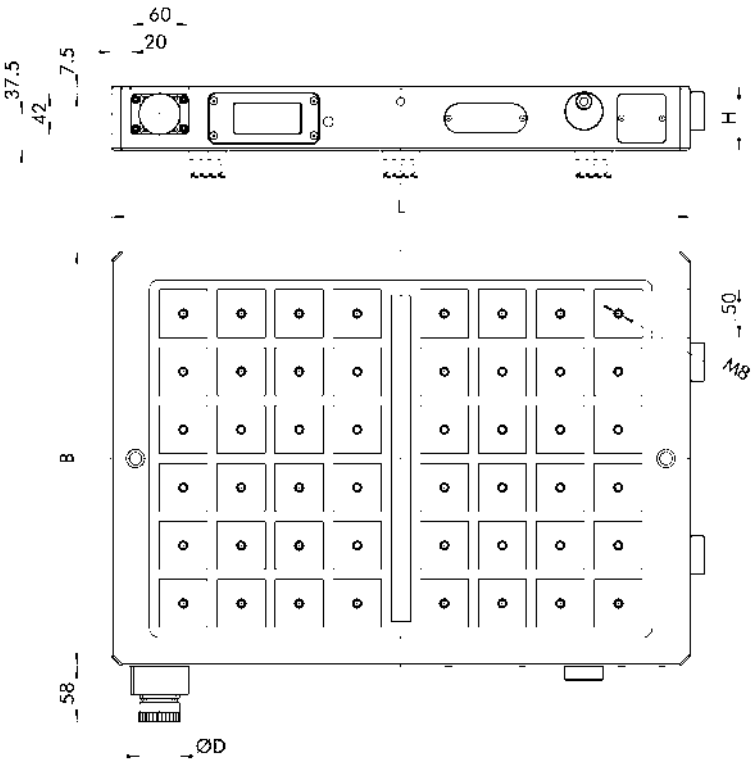


1. Stable base body
2. Mounting groove
3. Mounting hole
4. Invertible AlNiCo-magnets
5. Coil body, insulated version
6. Steel pole
7. Synthetic resin casting
8. Neodymium magnets
9. Connection housing
10. Status display
11. Fixed pole extensions
12. Flexible pole extensions



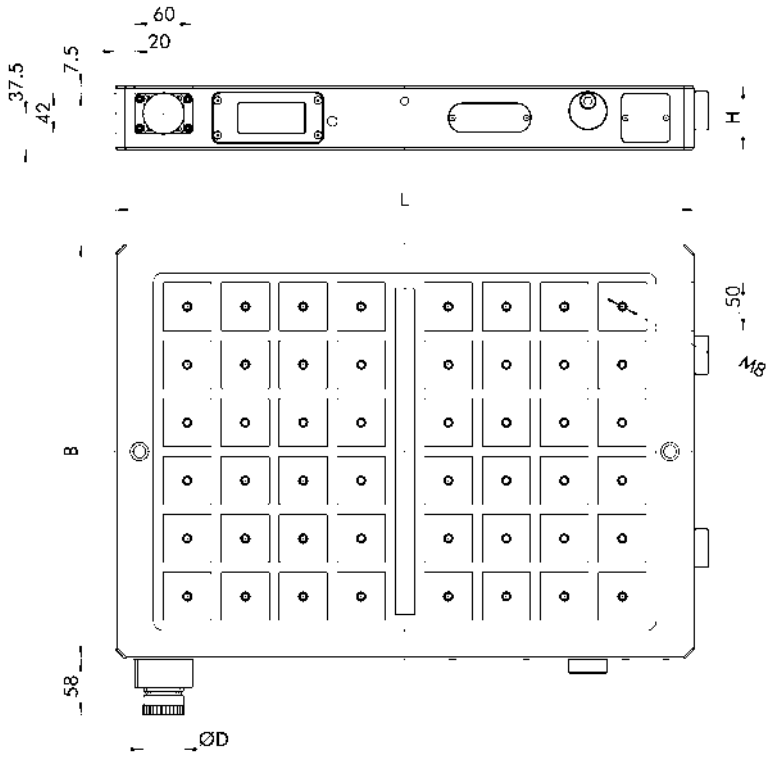
Technical data

Description	ID	Length L	Width B	Height H	ØD	Max. clamping force	Number of poles	Connection	Number of channels	Weight
		mm	mm	mm	mm	kN				kg
MFRS2-A1-050 315 x 315	1594943	315	315	66	43	63	16	4-PIN	1	50
MFRS2-A1-050 430 x 315	1594944	430	315	66	43	94	24	4-PIN	1	65
MFRS2-A1-050 500 x 315	1594946	500	315	66	43	94	24	4-PIN	1	75
MFRS2-A1-050 600 x 315	1594947	600	315	66	43	126	32	4-PIN	1	95
MFRS2-A1-050 430 x 430	1594948	430	430	66	43	141	36	4-PIN	1	85
MFRS2-A1-050 600 x 430	1594949	600	430	66	43	188	48	4-PIN	1	120
MFRS2-A1-050 800 x 430	1594950	800	430	66	43	236	60	4-PIN	1	160
MFRS2-A1-050 500 x 500	1594951	500	500	66	43	165	42	4-PIN	1	115
MFRS2-A1-050 600 x 500	1594952	600	500	66	43	220	56	4-PIN	1	145
MFRS2-A1-050 800 x 500	1594953	800	500	66	43	275	70	4-PIN	1	180
MFRS2-A1-050 1000 x 500	1594954	1000	500	66	43	330	84	4-PIN	1	230
MFRS2-A1-050 600 x 600	1594955	600	600	66	43	251	64	4-PIN	1	165
MFRS2-A1-050 800 x 600	1594956	800	600	66	43	314	80	4-PIN	1	220
MFRS2-A1-050 1000 x 600	1594957	1000	600	66	43	377	96	4-PIN	1	270



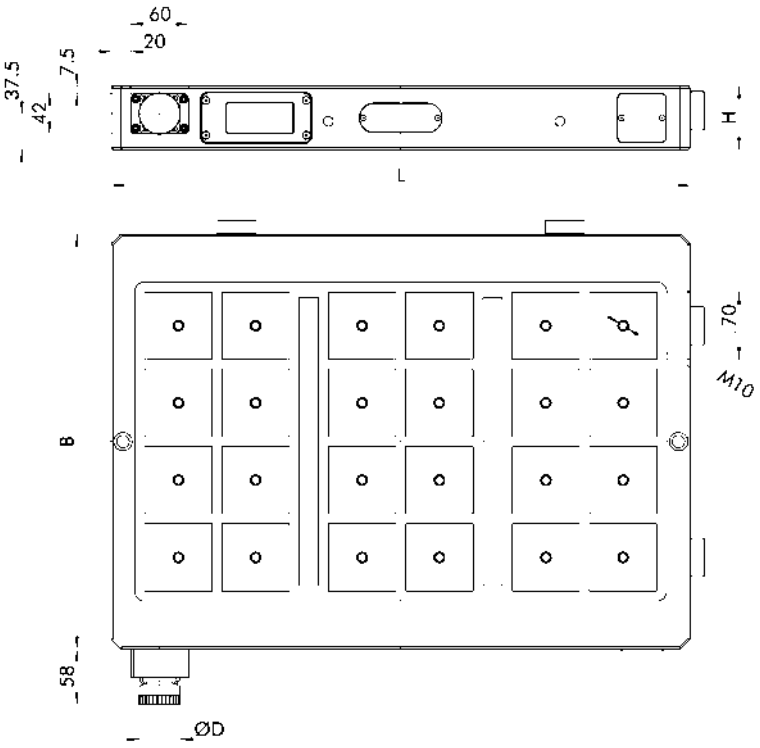
Technical data

Description	ID	Length L	Width B	Height H	ØD	Max. clamping force	Number of poles	Connection	Number of channels	Suitable for	Weight
		mm	mm	mm	mm	kN					kg
MFRS2-V-A1-050 315 x 315	1594958	315	315	66	43	63	16	4-PIN	1	NSL3 200	50
MFRS2-V-A1-050 430 x 315	1594959	430	315	66	43	94	24	4-PIN	1	NSL3 200	65
MFRS2-V-A1-050 430 x 430	1594960	430	430	66	43	141	36	4-PIN	1	NSL3 400	85
MFRS2-V-A1-050 600 x 430	1594961	600	430	66	43	188	48	4-PIN	1	NSL3 600	120
MFRS2-V-A1-050 800 x 600	1594962	800	600	66	43	314	80	4-PIN	1	NSL3 600	220



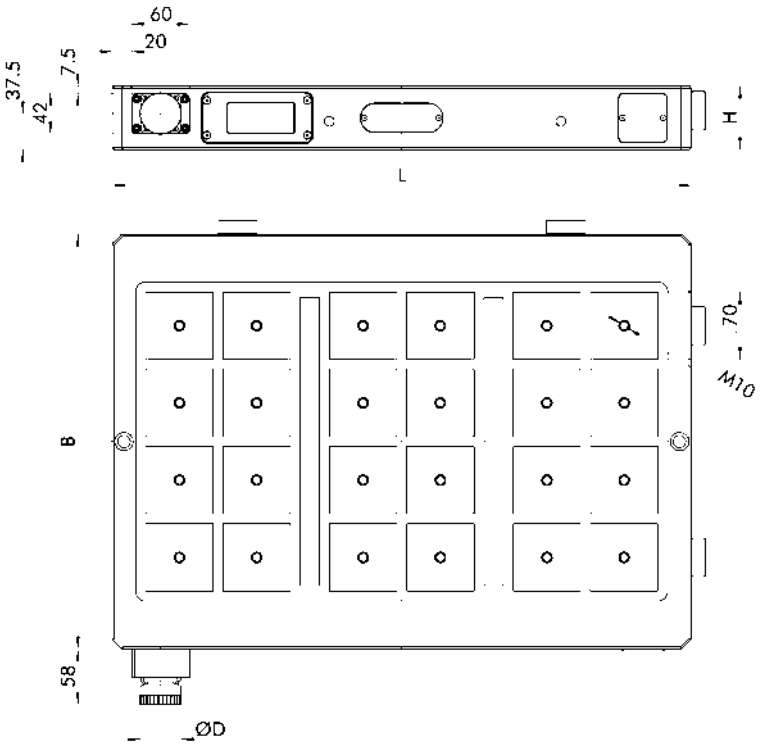
Technical data

Description	ID	Length L	Width B	Height H	ØD	Max. clamping force	Number of poles	Connection	Number of channels	Weight
		mm	mm	mm	mm	kN				kg
MFRS2-A2-050 315 x 315	1594975	315	315	86	43	63	16	4-PIN	1	65
MFRS2-A2-050 430 x 315	1594976	430	315	86	43	94	24	4-PIN	1	90
MFRS2-A2-050 500 x 315	1594977	500	315	86	43	94	24	4-PIN	1	100
MFRS2-A2-050 600 x 315	1594978	600	315	86	43	126	32	4-PIN	1	120
MFRS2-A2-050 430 x 430	1594990	430	430	86	43	141	36	4-PIN	1	115
MFRS2-A2-050 600 x 430	1594991	600	430	86	43	188	48	4-PIN	1	155
MFRS2-A2-050 800 x 430	1594992	800	430	86	46	236	60	7-PIN	2	205
MFRS2-A2-050 500 x 500	1594993	500	500	86	43	165	42	4-PIN	1	150
MFRS2-A2-050 600 x 500	1594994	600	500	86	43	220	56	4-PIN	1	180
MFRS2-A2-050 800 x 500	1594995	800	500	86	46	275	70	7-PIN	2	235
MFRS2-A2-050 1000 x 500	1594996	1000	500	86	46	330	84	7-PIN	2	295
MFRS2-A2-050 600 x 600	1594997	600	600	86	46	251	64	7-PIN	2	215
MFRS2-A2-050 800 x 600	1594999	800	600	86	46	314	80	7-PIN	2	280
MFRS2-A2-050 1000 x 600	1595000	1000	600	86	46	377	96	7-PIN	2	350



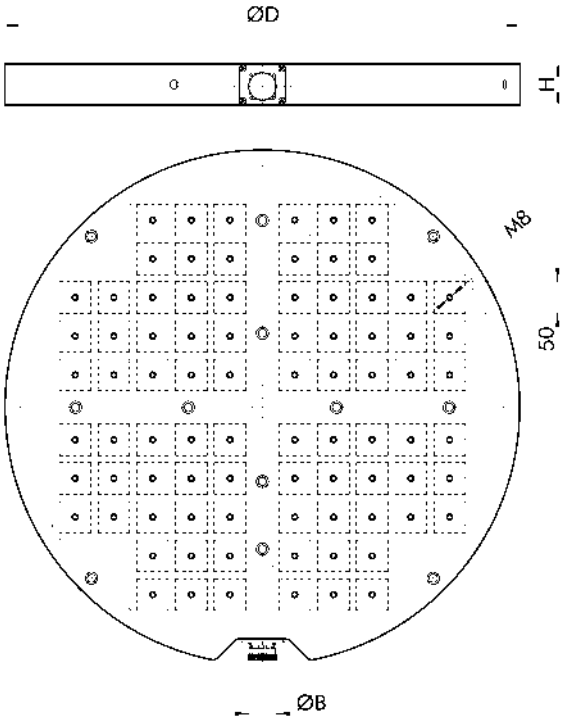
Technical data

Description	ID	Length L	Width B	Height H	ØD	Max. clamping force	Number of poles	Connection	Number of channels	Weight
		mm	mm	mm	mm	kN				kg
MFRS2-A1-070 600 x 315	1595001	600	315	66	43	139	18	4-PIN	1	86
MFRS2-A1-070 800 x 315	1595002	800	315	66	43	185	24	4-PIN	1	120
MFRS2-A1-070 430 x 430	1595015	430	430	66	43	123	16	4-PIN	1	85
MFRS2-A1-070 600 x 430	1595016	600	430	66	43	185	24	4-PIN	1	120
MFRS2-A1-070 800 x 430	1595017	800	430	66	43	246	32	4-PIN	1	160
MFRS2-A1-070 500 x 500	1595018	500	500	66	43	193	25	4-PIN	1	115
MFRS2-A1-070 800 x 500	1595020	800	500	66	43	308	40	4-PIN	1	180
MFRS2-A1-070 1000 x 500	1595021	1000	500	66	43	385	50	4-PIN	1	230
MFRS2-A1-070 600 x 600	1595022	600	600	66	43	277	36	4-PIN	1	165
MFRS2-A1-070 800 x 600	1595023	800	600	66	43	370	48	4-PIN	1	220
MFRS2-A1-070 1000 x 600	1595024	1000	600	66	43	462	60	4-PIN	1	277
MFRS2-A1-070 1200 x 600	1595025	1200	600	66	43	554	72	4-PIN	1	330



Technical data

Description	ID	Length L	Width B	Height H	ØD	Max. clamping force	Number of poles	Connection	Number of channels	Weight
		mm	mm	mm	mm	kN				kg
MFRS2-A2-070 600 x 315	1595026	600	315	86	43	139	18	4-PIN	1	115
MFRS2-A2-070 800 x 315	1595027	800	315	86	43	185	24	4-PIN	1	150
MFRS2-A2-070 430 x 430	1595029	430	430	86	43	123	16	4-PIN	1	110
MFRS2-A2-070 600 x 430	1595030	600	430	86	43	185	24	4-PIN	1	155
MFRS2-A2-070 800 x 430	1595031	800	430	86	43	246	32	4-PIN	1	207
MFRS2-A2-070 500 x 500	1595032	500	500	86	43	193	25	4-PIN	1	147
MFRS2-A2-070 800 x 500	1595033	800	500	86	43	308	40	4-PIN	1	240
MFRS2-A2-070 1000 x 500	1595034	1000	500	86	46	385	50	7-PIN	2	305
MFRS2-A2-070 600 x 600	1595035	600	600	86	43	277	36	4-PIN	1	216
MFRS2-A2-070 800 x 600	1595036	800	600	86	46	370	48	7-PIN	2	290



Technical data

Description	ID	ØD	Height H	ØB	Max. clamping force	Number of poles	Connection	Number of channels	Weight
		mm	mm	mm	kN				kg
MFRR-A1-050 Ø300	0420620	300	66	43	39	10	4-PIN	1	35
MFRR-A1-050 Ø420	0420621	420	66	43	86	22	4-PIN	1	65
MFRR-A1-050 Ø500	0420622	500	66	43	125	32	4-PIN	1	90
MFRR-A1-050 Ø600	0420623	600	66	43	205	52	4-PIN	1	130
MFRR-A1-050 Ø800	0420624	800	66	43	329	84	4-PIN	1	235
MFRR-A1-050 Ø1000	0420625	1000	66	46	470	120	7-PIN	2	365
MFRR-A1-050 Ø1200	0420626	1200	66	46	755	192	7-PIN	2	525
MFRR-A1-050 Ø1500	0420627	1500	66	46	1162	296	7-PIN	4	850

Clamping pins

Standard clamping pins

Standard clamping pins for positive locking of workpieces or devices with the NSE3 clamping modules.
With shortened fastening screw.



Description	Version	M10 kN	ID
SPA 40-K	Centering pins	35	0432369
SPB 40-K	Positioning pin	35	0432370
SPC 40-K	Clamping pin	35	1327450

Accessories

Workpiece stop

For pre-positioning workpieces on magnetic chucks.



Suitable for	Description	ID
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A2-050 MFRS2-A1-070 MFRS2-A2-070	WSA-MFRS 150	1315230

ASM 14 set of set-up screws

For fastening of MFRS magnetic chucks on the machine table.
Set consisting of 10 x screws M12 and 10 x T-nuts for T-slot 14 mm.



Suitable for	Description	ID
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A1-070 MFRR-A1-050	ASM 14-66	1322774
MFRS2-A2-050 MFRS2-A2-070	ASM 14-86	1322775

ASM 18 set of set-up screws

For fastening of MFRS magnetic chucks on the machine table.
Set consisting of 10 x screws M12 and 10 x T-nuts for T-slot 18 mm.



Suitable for	Description	ID
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A1-070 MFRR-A1-050	ASM 18-66	1322781
MFRS2-A2-050 MFRS2-A2-070	ASM 18-86	1322782

ASM 22 set of set-up screws

For fastening of MFRS magnetic chucks on the machine table.
Set consisting of 10 x screws M12 and 10 x T-nuts for T-slot 22 mm.



Suitable for	Description	ID
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A1-070 MFRR-A1-050	ASM 22-66	1322787
MFRS2-A2-050 MFRS2-A2-070	ASM 22-86	1322788

ASM 28 set of set-up screws

For fastening of MFRS magnetic chucks on the machine table.
Set consisting of 10 x screws M12 and 10 x T-nuts for T-slot 28 mm.



Suitable for	Description	ID
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A2-070 MFRR-A1-050	ASM 28-66	1322793
MFRS2-A2-050 MFRS2-A2-070	ASM 28-86	1322794

Clamping claw SPR MFRS type A

For fastening of MFRS magnetic chucks of pole sizes 50 and 70.



Suitable for	Description	ID
T-Nut 14 mm	SPR MFRS 14-50/70	1322645
T-Nut 18 mm	SPR MFRS 18-50/70	1322885
T-Nut 22 mm	SPR MFRS 22-50/70	1322886
T-Nut 28 mm	SPR MFRS 28-50/70	1322887

Pole extensions

Fixed pole extensions PVF 50
With through-bore and M8 screw.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A2-050 MFRR-A1-050	PVF 50-20	45	45	20	0420090
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A2-050 MFRR-A1-050	PVF 50-32	50	50	32	0422391
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A2-050 MFRR-A1-050	PVF 50-54	45	45	54	0420091

Flexible pole extensions PVB 50
With through-bore and M8 screw.
Compensation stroke 5 mm.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A2-050 MFRR-A1-050	PVB 50-32	47.5	45	32	0422392

Flexible pole extension EASYTURN PVB 50
With through-bore and M8 screw.
Compensation stroke 7 mm.
For vertical or horizontal use.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A2-050 MFRR-A1-050	PVB 50-54	47	45	54	0420092

Fixed pole extensions PVF 70
With through-bore and M10 screw.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFRS2-A1-070 MFRS2-A2-070	PVF 70-30	70	70	30	0422993
MFRS2-A1-070 MFRS2-A2-070	PVF 70-47	70	70	47	0422995
MFRS2-A1-070 MFRS2-A2-070	PVF 70-70	70	70	70	0422997

Flexible pole extensions PVB 70
With through-bore and M10 screw.
Compensation stroke 7 mm.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFRS2-A1-070 MFRS2-A2-070	PVB 70-47	75	70	47	0422994

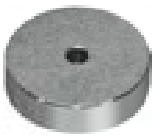
Flexible pole extension EASYTURN PVB 70
With through-bore and M10 screw.
Compensation stroke 7 mm.
For vertical or horizontal use.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFRS2-A1-070 MFRS2-A2-070	PVB 70-70	69	70	70	0422996

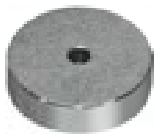
Round pole extensions

Fixed pole extensions round PVFR 50
With through-bore and M8 screw.



Suitable for	Description	Diameter mm	Height mm	ID
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A2-050 MFRR-A1-050	PVFR 50-15	55	15	0420093

Fixed pole extensions round PVFR 70
With through-bore and M10 screw.



Suitable for	Description	Diameter mm	Height mm	ID
MFRS2-A1-070 MFRS2-A2-070	PVFR 70-15	80	15	0422992

Pole blocks

2-way pole block
For milling contours and special forms.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A2-050 MFRR-A1-050	PEB 50-34-2	110	50	34	1311952
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A2-050 MFRR-A1-050	PEB 50-57-2	110	50	57	1311956

3-way pole block
For milling contours and special forms.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A2-050 MFRR-A1-050	PEB 50-57-3	170	50	57	1315228

4-way pole block
For milling contours and special forms.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A2-050 MFRR-A1-050	PEB 50-34-4	110	110	34	1311953
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A2-050 MFRR-A1-050	PEB 50-57-4	230	50	57	1311957

6-way pole block
For milling contours and special forms.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A2-050 MFRR-A1-050	PEB 50-34-6	170	110	34	1311954
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A2-050 MFRR-A1-050	PEB 50-57-6	350	50	57	1315229

8-way pole block
For milling contours and special forms.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A2-050 MFRR-A1-050	PEB 50-34-8	230	110	34	1311955

12-way pole block
For milling contours and special forms.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A2-050 MFRR-A1-050	PEB 50-34-12	350	110	34	1315226

16-way pole block
For milling contours and special forms.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFRS2-A1-050 MFRS2-V-A1-050 MFRS2-A2-050 MFRR-A1-050	PEB 50-34-16	230	230	34	1315227

Pole plates

24-way pole plate
For milling contours and special forms.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFRS2-A1-050 MFRS2-A2-050	PVP 50-22 430 x 315	430	315	22	0422490

48-way pole plate
For milling contours and special forms.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFRS2-A1-050 MFRS2-A2-050	PVP 50-22 600 x 430	600	430	22	0422491

MAGNOS

schunk.com/qcs

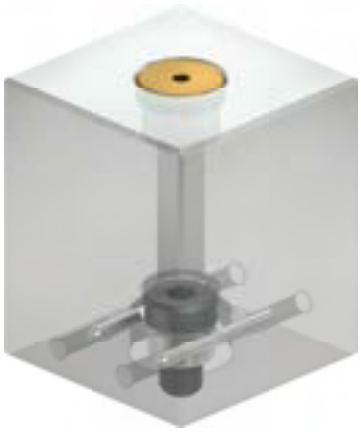


Quick. Simple. Convenient. Pole quick-change system QCS

With the pole extension quick-change QCS, pole extensions can be exchanged quickly and easily without any tools. To do this, the retrofit kit is mounted once on the magnetic chuck and the clamping plates are aligned. The QCS pole extensions can then be fixed to the clamping plate by simply screwing them in. The pole extension quick-change can be retrofitted to all magnetic chucks with pole size 50 x 50 mm.

Functions & highlights

- **Up to 3 times faster than conventional pole changes**
  Shortest set-up times for maximum efficiency
- **100% compatible with all MAGNOS square pole magnetic chucks**
  Can be retrofitted on all existing square pole magnetic chucks with a pole size of 50 x 50 mm
- **Tool-free positioning of the pole extensions by rotational movement**
  Significantly reduces set-up time



Field of application

QCS

The magnetic chucks can be adapted to new clamping tasks with the aid of the pole extension quick change system within a very short time. The pole change with the QCS can be up to 3 times faster than by conventional pole changes. This results in shorter set-up times and an increase in productivity.

Pole extension quick change application:





Technical data

Description	ID	Description	Dimensions	Weight kg
PVB 50-54 QCS	1497899	Flexible pole extension EASYTURN PVB 50	47 x 45 x 54 mm	0.77
PVF 50-32 QCS	1497903	Fixed pole extensions PVF 50	50 x 50 x 32 mm	0.624
PVF 50-54 QCS	1497902	Fixed pole extensions PVF 50	45 x 45 x 54 mm	0.855
GMS QCS	1497904	Mounting aid for pole extension quick change		0.3
NRS QCS	1497908	Retrofit kit for pole extension quick change		0.5



Magnetic. Strong. Flexible.
Double magnets for XXL applications
MFRS-DM

Flexible double magnets for large machines with built-in rollers on the machine table side for easy positioning on the machine table.

Functions & highlights

- **5-sided workpiece machining in one set-up on large machines**
  Higher accuracy through one-time set-up and best accessibility of the machine spindle
- **Consistent permanent magnetic clamping force across the entire workpiece**
  Low-deformation and low-vibration clamping of the workpieces
- **Easy positioning without a crane due to integrated rollers on the machine table side**
  Shortens set-up time for workpieces of different sizes



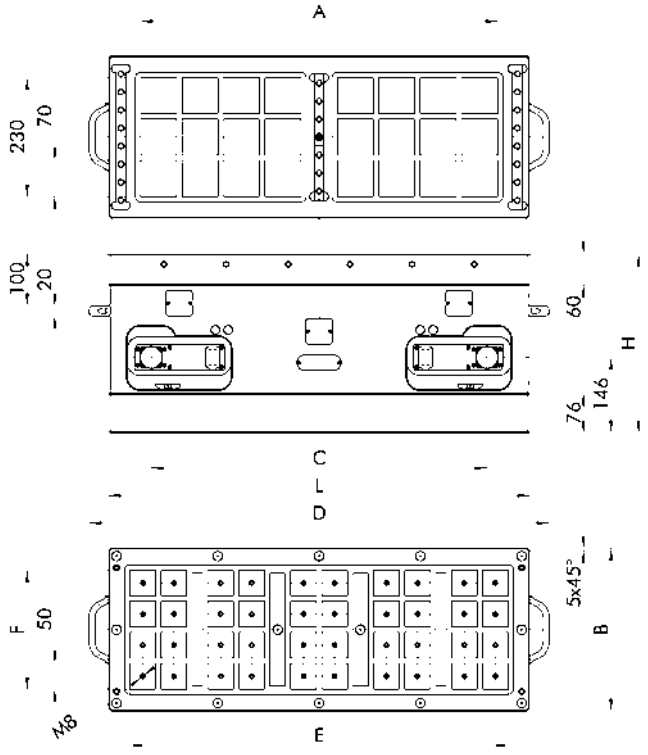
Field of application

MFRS-DM

The double-magnet system from SCHUNK is the perfect solution for any machine type. No matter which machine it is, medium or large-sized machines, gantry machines or traveling columns – the double magnets flexibly adapt to each requirement. The system offers complete flexibility and enables effortless machining of heavy workpieces. Due to the simple handling and the modular design, tooling becomes more efficient and the working processes even more effective.



1. **Magnetic chuck for workpiece clamping**
2. **Mounting thread**
3. **Magnetic chuck for set-up against the machine table**
4. **Integrated ball rollers on machine table side**
5. **Cover caps**
6. **Patented status display**
7. **Quick release fastener**
8. **Lateral threaded holes**
9. **Handle**



Dimensions

Description	ID	Length L	Width B	Height H	A	C	D	E	F
		mm	mm	mm	mm	mm	mm	mm	mm
MFRS-DM-A1-050 430 x 315 x 346	1546522	430	315	346	310	295	505	351	230
MFRS-DM-A1-050 630 x 315 x 346	1546528	630	315	346	531	465	705	511	230
MFRS-DM-A1-050 815 x 315 x 346	1546542	815	315	346	691	650	890	732	231
MFRS-DM-A1-050 1030 x 315 x 346	1546544	1030	315	346	912	865	1105	937	230

Technical data

Description	ID	Max. clamping force	Number of poles	Connection	Number of channels	Weight
		kN				kg
MFRS-DM-A1-050 430 x 315 x 346	1546522	94	24	4-PIN	1	225
MFRS-DM-A1-050 630 x 315 x 346	1546528	125	32	4-PIN	1	370
MFRS-DM-A1-050 815 x 315 x 346	1546542	157	40	4-PIN	1	450
MFRS-DM-A1-050 1030 x 315 x 346	1546544	188	48	4-PIN	1	600

Pole extensions

Fixed pole extensions PVF 50
With through-bore and M8 screw.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFRS-DM-A1-050	PVF 50-20	45	45	20	0420090
MFRS-DM-A1-050	PVF 50-32	50	50	32	0422391
MFRS-DM-A1-050	PVF 50-54	45	45	54	0420091

Flexible pole extensions PVB 50
With through-bore and M8 screw.
Compensation stroke 5 mm.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFRS-DM-A1-050	PVB 50-32	47.5	45	32	0422392

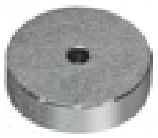
Flexible pole extension EASYTURN PVB 50
With through-bore and M8 screw.
Compensation stroke 7 mm.
For vertical or horizontal use.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFRS-DM-A1-050	PVB 50-54	47	45	54	0420092

Round pole extensions

Fixed pole extensions round PVFR 50
With through-bore and M8 screw.



Suitable for	Description	Diameter mm	Height mm	ID
MFRS-DM-A1-050	PVFR 50-15	55	15	0420093

MAGNOS

schunk.com/mfps

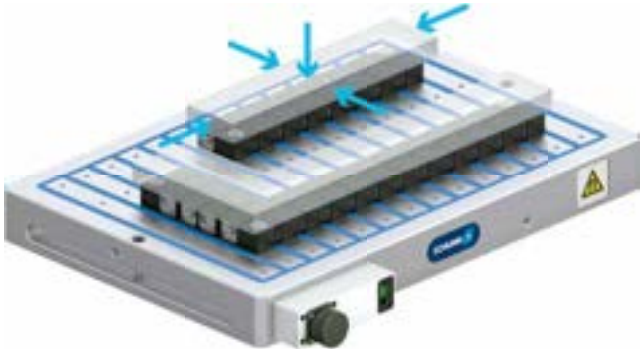


Compact. High-performance. Reliable. Parallel pole technology for milling applications MFPS

The magnetic chucks MFPS use parallel pole technology, which results in high lateral holding forces. Clamping is activated via a short electrical pulse, which reverses the polarity of the AlNiCo magnets and generates a permanent holding force. A patented status display ensures that it is always clear whether the workpiece is safely clamped.

Functions & highlights

- **Deformation-free clamping**
  No deformation and internal forces in the workpiece due to the clamping force
- **State-of-the-art electropermanent technology for one-time energy supply for MAG/DEMAG process**
  Energy-efficient and reliable clamping of the workpieces
- **Status display for "MAG ON" and "MAG OFF"**
  The integrated status display provides reliable information about the current status of the magnetic chuck



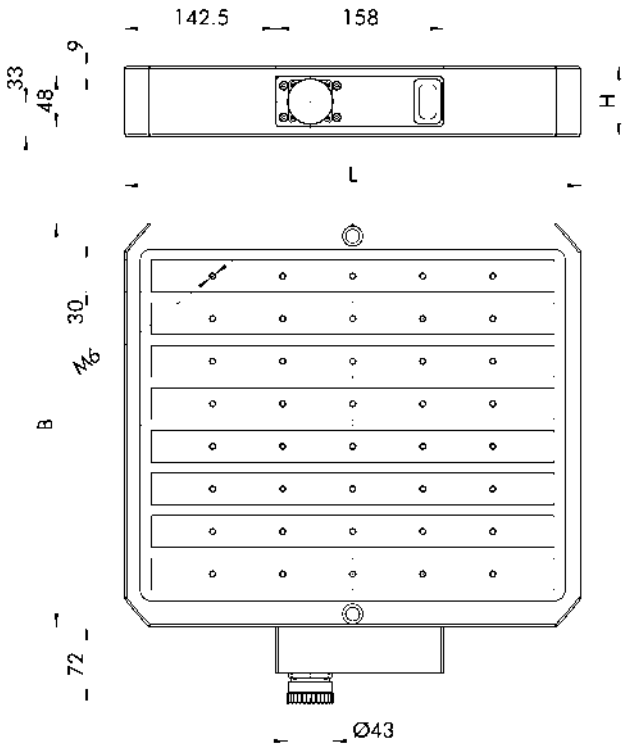
Field of application

MFPS

The MFPS magnetic chucks are particularly suitable for clamping slim and elongated workpieces that cannot be clamped using square pole technology. The magnetic chucks offer the possibility of 5-sided workpiece machining in just one set-up, resulting in very high precision accuracies.

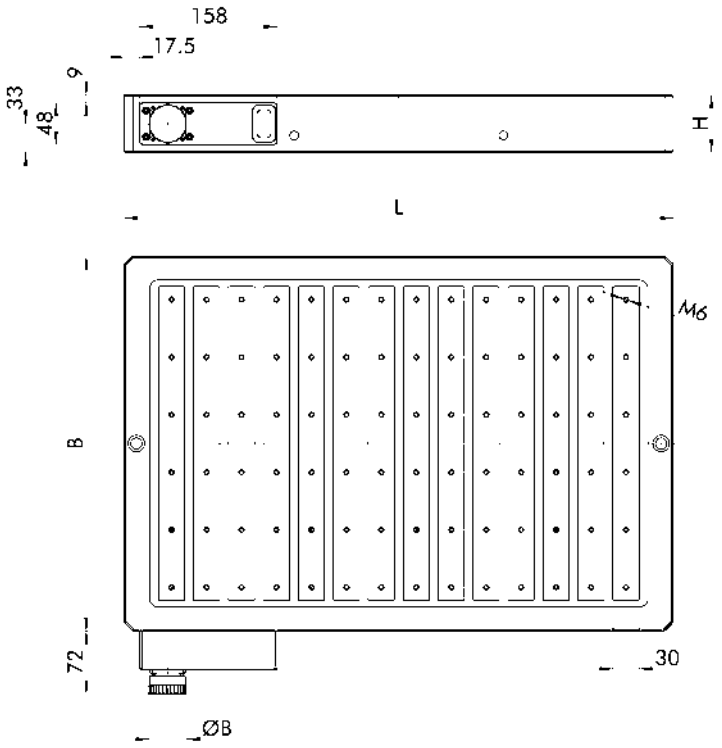


1. **Stable base body**
2. **Mounting groove**
3. **Mounting hole**
4. **Invertible AlNiCo-magnets**
5. **Coil body, insulated version**
6. **Steel pole**
7. **Synthetic resin casting**
8. **Neodymium magnets**
9. **Connection housing with status display**



Technical data

Description	ID	Length L	Width B	Height H	Max. clamping force	Number of poles	Connection	Number of channels	Weight
		mm	mm	mm	N/cm²				kg
MFPS-P-A1-L30 315 x 300	1358558	315	300	66	160	6	4-PIN	1	45
MFPS-P-A1-L30 430 x 380	1358559	430	380	66	160	8	4-PIN	1	75
MFPS-P-A1-L30 525 x 500	1358560	525	500	66	160	10	4-PIN	1	100



Technical data

Description	ID	Length L	Width B	Height H	Max. clamping force	Number of poles	Connection	Number of channels	Weight
		mm	mm	mm	N/cm²				kg
MFPS-A1-L30 630 x 315	1358578	630	315	66	160	14	4-PIN	1	90
MFPS-A1-L30 630 x 430	1358579	630	430	66	160	14	4-PIN	1	120
MFPS-A1-L30 820 x 430	1358580	820	430	66	160	18	4-PIN	1	160
MFPS-A1-L30 1000 x 500	1358581	1000	500	66	160	22	7-PIN	2	225

Pole extensions

Versatile, sturdy double pole extension
With through-bore and M6 screw.
Compensation stroke 4 mm.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFPS-P-A1-L30 MFPS-A1-L30	PVF-2-L30-30 60x30	60	30	30	1358599

Versatile double pole extension
With through-bore and M6 screw.
Compensation stroke 4 mm.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFPS-P-A1-L30 MFPS-A1-L30	PVB-2-L30-30 60x30	60	30	30	1424093

Fixed pole extension
With through-bore and M6 screw.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFPS-P-A1-L30 MFPS-A1-L30	PVF-L30-30 65x30	65	30	30	1393195
MFPS-P-A1-L30 MFPS-A1-L30	PVF-L30-30 130x30	130	30	30	1393196

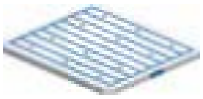
Pole plates

6-way pole plate
For milling contours and special forms.



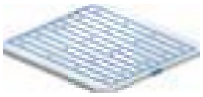
Suitable for	Description	Length mm	Width mm	Height mm	ID
MFPS-P-A1-L30 315 x 300	PVP-L30-22 315x300	315	300	22	1358587

8-way pole plate
For milling contours and special forms.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFPS-P-A1-L30 430 x 380	PVP-L30-22 430x380	430	380	22	1358588

10-way pole plate
For milling contours and special forms.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFPS-P-A1-L30 525 x 500	PVP-L30-22 525x500	525	500	22	1358589

14-way pole plate
For milling contours and special forms.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFPS-A1-L30 630 x 315	PVP-L30-22 630x315	630	315	22	1358590
MFPS-A1-L30 630 x 430	PVP-L30-22 630x430	630	430	22	1358596

18-way pole plate
For milling contours and special forms.
Consisting of two individual pole plates.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFPS-A1-L30 820 x 430	PVP-L30-22 820x430	820	430	22	1358597

22-way pole plate
For milling contours and special forms.
Consisting of two individual pole plates.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFPS-A1-L30 1000 x 500	PVP-L30-22 1000x500	1000	500	22	1358598

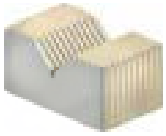
Laminated blocks

Laminated block
Short version.
For milling contours and special forms.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFPS-P-A1-L30 MFPS-A1-L30	MSC-BL10 80x50	80	50	40	0422098
MFPS-P-A1-L30 MFPS-A1-L30	MSC-BL10 100x50	100	50	40	0422099

Laminated block
For round workpieces with milled V-contour with a depth of 16 mm and a 90° angle



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFPS-P-A1-L30 MFPS-A1-L30	MSC-BL20 80x50	80	50	40	0422100
MFPS-P-A1-L30 MFPS-A1-L30	MSC-BL20 100x50	100	50	40	0422101

Laminated block
Long version.
For milling contours and special forms.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFPS-P-A1-L30 MFPS-A1-L30	MSC-BL30 250x85	250	85	50	0422090
MFPS-P-A1-L30 MFPS-A1-L30	MSC-BL30 500x85	500	85	50	0422091

Laminated plates

Laminated plate
For milling contours and special forms.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MFPS-P-A1-L30 MFPS-A1-L30	MSC-PS10 200x100	200	100	21	0422092
MFPS-P-A1-L30 MFPS-A1-L30	MSC-PS10 250x130	250	130	21	0422093
MFPS-P-A1-L30 MFPS-A1-L30	MSC-PS10 300x150	300	150	21	0422094
MFPS-P-A1-L30 MFPS-A1-L30	MSC-PS10 350x150	350	150	21	0422095
MFPS-P-A1-L30 MFPS-A1-L30	MSC-PS10 400x200	400	200	21	0422096
MFPS-P-A1-L30 MFPS-A1-L30	MSC-PS10 500x200	500	200	21	0422097

MAGNOS

schunk.com/keh-plus



Flexible. Easy. Modular.
Control unit KEH plus

The modular KEH plus control units are suitable for all magnetic chucks for milling applications from SCHUNK. Different basic versions for controlling one, two, four or eight magnetic chucks – for milling applications – and a wide range of different cable and handheld remote controls are sufficient to cover all demands.

Functions & highlights

- **Various standard versions depending on the case of application**
  One each control unit for magnetic chucks for milling applications with and without status display from SCHUNK
- **Display of clamping status via LED**
  Increased safety by knowing whether the workpiece is clamped or released
- **16-stage holding force adjustment**
  Allows clamping of thin workpieces and simplifies the alignment of heavier workpieces



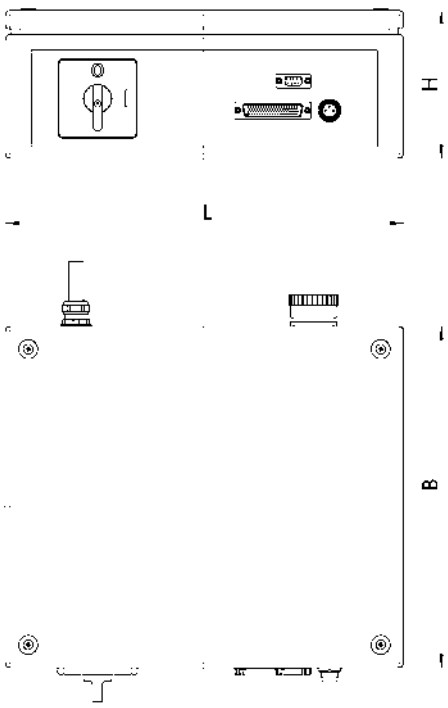
Field of application

KEH plus

The KEH plus control unit enables simple control of up to eight magnetic chucks. The magnetic chucks can be selected individually using the handheld remote control. The 16-stage holding force adjustment allows even thin-walled workpieces to be clamped and heavy workpieces to be aligned more easily.



1. **Main switch**
2. **Power supply display**
3. **Alarm display**
4. **MAG OFF button**
5. **MAG ON button**
6. **9-PIN connection**
7. **78-PIN PLC connection for high-end automation**
8. **3-PIN PLC Easy connection**



Technical data

Description	ID	Length L	Width B	Height H	Connection	Number of channels	Magnetic chuck control	Weight
		mm	mm	mm				kg
KEH plus 01 400V/50Hz	0420650	350	300	130	1x 4-PIN	1	Up to 1	9.5
KEH plus 01 460V/60Hz	0420660	350	300	130	1x 4-PIN	1	Up to 1	9.5
KEH plus 02 400V/50Hz	0420651	350	300	130	1x ILME	2	Up to 2	10
KEH plus 02 460V/60Hz	0420661	350	300	130	1x ILME	2	Up to 2	10
KEH plus 04 400V/50Hz	0420652	350	300	130	1x ILME	4	Up to 4	10
KEH plus 04 460V/60Hz	0420662	350	300	130	1x ILME	4	Up to 4	10
KEH plus 08 400V/50Hz	0420653	530	300	130	2x ILME	8	Up to 8	13.5
KEH plus 08 460V/60Hz	0420663	530	300	130	2x ILME	8	Up to 8	13.5

Accessories

Connection cable 1x 4-PIN for max. one magnetic chuck

KEH plus connection = 1 x 4-PIN.
Magnetic chuck connection = 1 x 4-PIN/1CH.



Suitable for	Description	ID
KEH plus	VBK-5 1x4P-1x4P	0420680
KEH plus	VBK-10 1x4P-1x4P	0420690

Connection cable 1x 4-PIN for max. one magnetic chuck

KEH plus connection = 1 x ILME.
Magnetic chuck connection = 1 x 4-PIN/1CH.



Suitable for	Description	ID
KEH plus	VBK-5 1xIL-1x4P	1314094
KEH plus	VBK-10 1xIL-1x4P	1314588

Connection cable 1x 7-PIN for max. one magnetic chuck

KEH plus connection = 1 x ILME.
Magnetic chuck connection = 1 x 7-PIN/2CH.



Suitable for	Description	ID
KEH plus	VBK-5 1xIL-1x7P	0420684
KEH plus	VBK-10 1xIL-1x7P	0420694

Connection cable 2 x 4-PIN for max. two magnetic chucks

KEH plus connection = 1 x ILME.
Magnetic chuck connection = 2 x 4-PIN/1CH.



Suitable for	Description	ID
KEH plus	VBK-5 1xIL-2x4P	0420681
KEH plus	VBK-10 1xIL-2x4P	0420691

Connection cable 2 x 7-PIN for max. two magnetic chucks

KEH plus connection = 1 x ILME.
Magnetic chuck connection = 2 x 7-PIN/2CH.



Suitable for	Description	ID
KEH plus	VBK-5 1xIL-2x7P	0420687
KEH plus	VBK-10 1xIL-2x7P	0420697

Connection cable 3 x 4-PIN for max. three magnetic chucks

KEH plus connection = 1 x ILME.
Magnetic chuck connection = 3 x 4-PIN/1CH.



Suitable for	Description	ID
KEH plus	VBK-5 1xIL-3x4P	0420682
KEH plus	VBK-10 1xIL-3x4P	0420692

Connection cable 4 x 4-PIN for max. four magnetic chucks

KEH plus connection = 1 x ILME.
Magnetic chuck connection = 4 x 4-PIN/1CH.



Suitable for	Description	ID
KEH plus	VBK-5 1xIL-4x4P	0420683
KEH plus	VBK-10 1xIL-4x4P	0420693

Connection cable to the connection box or magnetic chuck

KEH plus connection = 1 x ILME.
Magnetic chuck connection = 1 x ILME.



Suitable for	Description	ID
KEH plus	VBK-5 1xIL-1xIL	0420688
KEH plus	VBK-10 1xIL-1xIL	0420689

Connection box 2 x 4-PIN for max. two magnetic chucks

KEH plus connection = 1 x ILME.
Magnetic chuck connection = 2 x 4-PIN/1CH.



Suitable for	Description	ID
KEH plus	VBB-5 1xIL-2x4P	0420698

Connection box 2 x 7-PIN for max. two magnetic chucks

KEH plus connection = 1 x ILME.
Magnetic chuck connection = 2 x 7-PIN/2CH.



Suitable for	Description	ID
KEH plus	VBB-5 1xIL-2x7P	0420701

Connection box 3 x 4-PIN for max. three magnetic chucks

KEH plus connection = 1 x ILME.
Magnetic chuck connection = 3 x 4-PIN/1CH.



Suitable for	Description	ID
KEH plus	VBB-5 1xIL-3x4P	0420699

Connection box 4 x 4-PIN for max. four magnetic chucks

KEH plus connection = 1 x ILME.
Magnetic chuck connection = 4 x 4-PIN/1CH.



Suitable for	Description	ID
KEH plus	VBB-5 1xIL-4x4P	0420700

Handheld remote control

Standard handheld remote control

HABE KEH plus 01 = without holding force control.



Suitable for	Description	Length m	ID
KEH plus	HABE KEH plus 01	5	0420180

Handheld remote control for max. one magnetic chuck

HABE KEH plus 01-HKR = with holding force control.



Suitable for	Description	Length m	ID
KEH plus	HABE KEH plus 01-HKR	5	0420665

Handheld remote control for max. two magnetic chucks

HABE KEH plus 02 = without holding force control.
HABE KEH plus 02-HKR = with holding force control.



Suitable for	Description	Length m	ID
KEH plus	HABE KEH plus 02	5	0420666
KEH plus	HABE KEH plus 02-HKR	5	0420667

Handheld remote control for max. four magnetic chucks

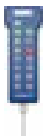
HABE KEH plus 04 = without holding force control.
HABE KEH plus 04-HKR = with holding force control.



Suitable for	Description	Length m	ID
KEH plus	HABE KEH plus 04	5	0420668
KEH plus	HABE KEH plus 04-HKR	5	0420669

Handheld remote control for max. eight magnetic chucks

HABE KEH plus 08 = without holding force control.
HABE KEH plus 08-HKR = with holding force control.



Suitable for	Description	Length m	ID
KEH plus	HABE KEH plus 08	5	0420672
KEH plus	HABE KEH plus 08-HKR	5	0420673

Automation components

PLC box 78-PIN for automation

For installation between KEH plus control unit and PLC machine.



Suitable for	Description	ID
KEH plus	PLC-B 78PIN	0420704

PLC cable

For connection between control unit KEH plus and PLC box via a 78-PIN connector.



Suitable for	Description	Length m	ID
KEH plus	PLC-K-1 1x78P	1	0420705
KEH plus	PLC-K-3 1x78P	3	0420706
KEH plus	PLC-K-5 1x78P	5	0420707

PLC Easy cable

For connection between control unit KEH plus and PLC box via a 3-PIN connector.



Suitable for	Description	Length m	ID
KEH plus	PLC-EK-5 1x3P	5	0420708

MAGNOS

schunk.com/mgt



Efficient. Reliable. Powerful. Radial pole technology for turning applications on vertical lathes MGT

The MGT magnetic chucks generate a consistent, permanent magnetic clamping force over the entire workpiece, allowing it to be clamped with little deformation and low vibration. The magnetic chucks have a special demagnetization cycle with which the residual magnetism can be reduced at the end of the machining process.

Functions & highlights

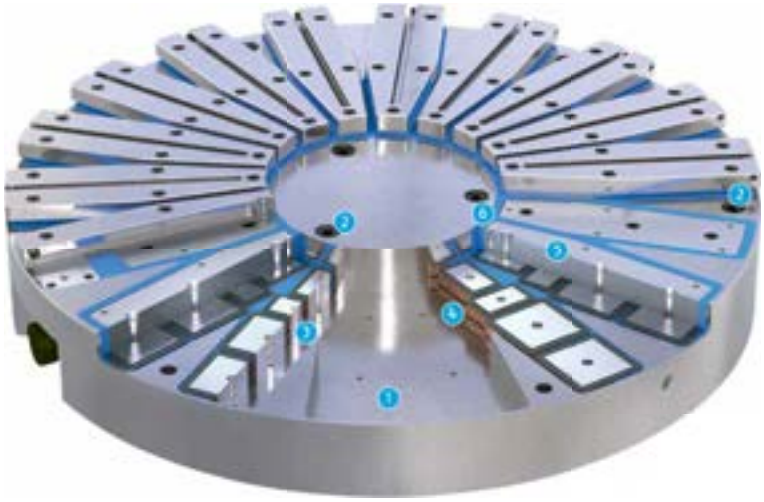
- **Low-deformation clamping**
  No deformation and internal forces in the workpiece due to the clamping force
- **State-of-the-art electropermanent technology for one-time energy supply for MAG/DEMAG process**
  Energy-efficient and reliable clamping of the workpieces
- **Clamping within a few seconds**
  Shortest possible setup times and, therefore, an increase in productivity



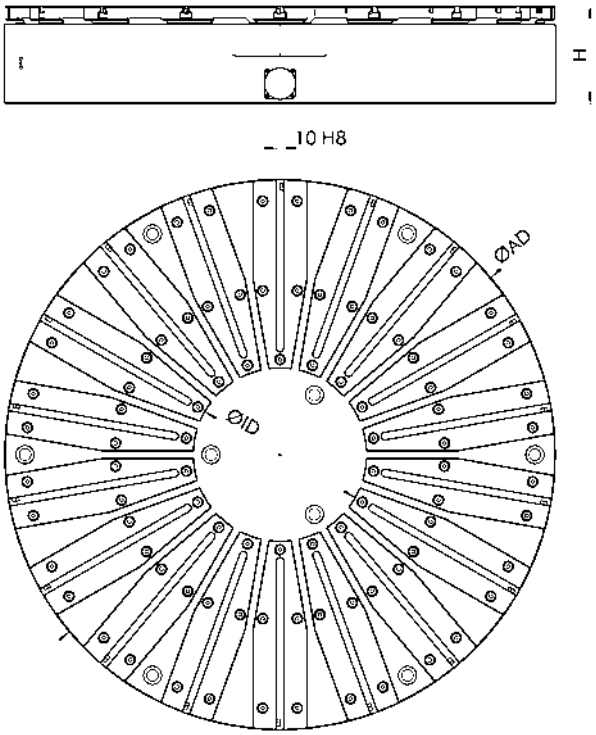
Field of application

MGT

MAGNOS electropermanent magnetic chucks with radial pole pitch are designed for turning and grinding of rings and washers on lathes and grinding machines. The workpieces are clamped in a way that deformation and vibration is low because of the consistent permanent magnetic clamping force, resulting in improved surfaces and significantly increased precision.



1. **Stable base body**
2. **Mounting hole**
3. **Invertible AlNiCo-magnets**
4. **Coil body, insulated version**
5. **Steel pole**
6. **Synthetic resin casting**



Technical data

Description	ID	ØAD	ØID	Height H	ØD	Max. clamping force	Number of poles	Connection	Number of channels	Max. rotational speed	Weight
		mm	mm	mm	mm	N/cm²				RPM	kg
MGT-IC Ø600	1311855	600	140	158	600	160	12	7-PIN	1	650	290
MGT-IC Ø800	1311856	800	250	142	800	160	18	7-PIN	3	500	460
MGT-IC Ø1000	1311857	1000	250	142	1000	160	18	7-PIN	3	400	720
MGT-IC Ø1250	1311858	1250	400	142	1250	160	24	13-PIN	6	300	1120
MGT-IC Ø1500	1311859	1500	600	142	1500	160	32	13-PIN	6	240	1700

Accessories

Docking station
Bracket for connection cable with a check whether the cable has been removed from the magnetic chuck.



Suitable for	Description	ID
7-pin connector CIR24	DKS.C1 CIR24 7-PIN	1469395
13-pin connector CIR32B	DKS.C5 CIR 13-PIN	1470019

Connection cable 1x 13-PIN for a max. of one magnetic chuck
KEH plus connection = 1 x ILME.
Magnetic chuck connection = 1x 13-PIN/6CH.



Suitable for	Description	ID
KEH-MGT plus 06	VBK-R-5 1xIL-1x13P	1471522
KEH-MGT plus 06	VBK-R-10 1xIL-1x13P	1471523

Connection cable 1x 7-PIN for max. one magnetic chuck
KEH plus connection = 1 x ILME.
Magnetic chuck connection = 1x 7-PIN/4CH.



Suitable for	Description	ID
KEH-MGT plus 01 KEH-MGT plus 03	VBK-R-5 1xIL-1x7P	0420686
KEH-MGT plus 01 KEH-MGT plus 03	VBK-R-10 1xIL-1x7P	0420696

Control units

Control unit 400 V/50 Hz
For magnetizing or demagnetizing MGT magnetic chucks.



Suitable for	Description	Channels	ID
MGT-IC	KEH-MGT plus 01 400V/50Hz	1	1472405
MGT-IC	KEH-MGT plus 03 400V/50Hz	3	1472406
MGT-IC	KEH-MGT plus 06 400V/50Hz	6	1472407

Control unit 460 V/60 Hz
For magnetizing or demagnetizing MGT magnetic chucks.



Suitable for	Description	Channels	ID
MGT-IC	KEH-MGT plus 01 460V/60Hz	1	1472408
MGT-IC	KEH-MGT plus 03 460V/60Hz	3	1472409
MGT-IC	KEH-MGT plus 06 460V/60Hz	6	1472410

Pole extensions

Fixed pole extension
With through-hole, fixing screw M6 and T-nut for guide 10 mm.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MGT-IC	RVF 30-54	90	30	54	0422620
MGT-IC	RVF 50-54	110	50	54	0422621
MGT-IC	RVF 70-54	150	70	54	0422622

Flexible pole extensions
With through-hole, fixing screw M6 and T-nut for guidance 10 mm.
Compensation stroke 7 mm.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MGT-IC	RVB 30-54	90	30	54	0422623
MGT-IC	RVB 50-54	110	50	54	0422624
MGT-IC	RVB 70-54	150	70	54	0422625

Handheld remote control

Handheld remote control for max. one magnetic chuck
HABE KEH plus 01-HKR = with holding force control.



Suitable for	Description	Length m	ID
KEH-MGT plus 01 400V/50Hz KEH-MGT plus 01 460V/60Hz KEH-MGT plus 03 400V/50Hz KEH-MGT plus 03 460V/60Hz KEH-MGT plus 06 400V/50Hz KEH-MGT plus 06 460V/60Hz	HABE KEH plus 01-HKR	5	0420665

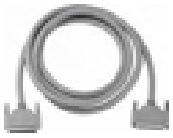
Automation components

PLC box 78-PIN for automation
For installation between KEH plus control unit and PLC machine.



Suitable for	Description	ID
KEH-MGT plus 01 400V/50Hz KEH-MGT plus 01 460V/60Hz KEH-MGT plus 03 400V/50Hz KEH-MGT plus 03 460V/60Hz KEH-MGT plus 06 400V/50Hz KEH-MGT plus 06 460V/60Hz	PLC-B 78PIN	0420704

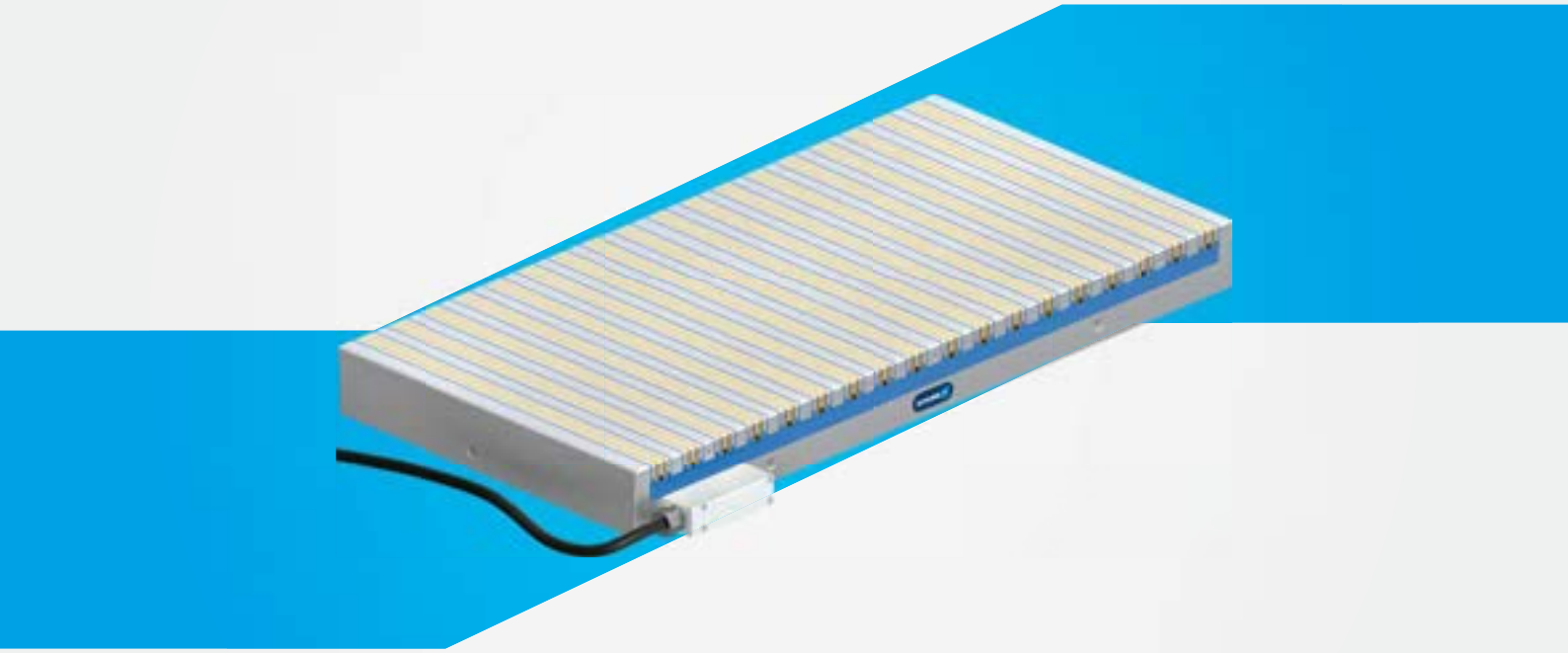
PLC cable
For connection between control unit KEH plus and PLC box via a 78-PIN connector.



Suitable for	Description	Length m	ID
KEH-MGT plus 01 400V/50Hz KEH-MGT plus 01 460V/60Hz KEH-MGT plus 03 400V/50Hz KEH-MGT plus 03 460V/60Hz KEH-MGT plus 06 400V/50Hz KEH-MGT plus 06 460V/60Hz	PLC-K-5 1x78P	5	0420707

MAGNOS

schunk.com/msc



Robust. Powerful. Easy. Parallel pole technology for grinding applications MSC

MAGNOS MSC magnetic chucks are polarized in the longitudinal or transverse direction. Thanks to the electropermanent magnet technology, only a short electrical pulse is required to reverse the polarity of the AlNiCo magnets. The clamping force is thus completely maintained after this pulse, even without electrical supply.

Functions & highlights

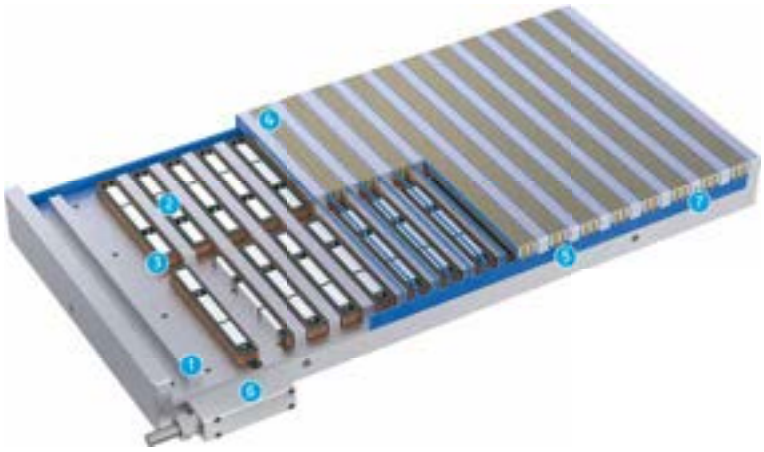
- **Deformation-free clamping**
  No deformation and internal forces in the workpiece due to the clamping force
- **Low-vibration clamping**
  Improved surfaces and significantly increased precision.
- **Clamping within a few seconds**
  Shortest possible set-up times and a resulting increase in productivity



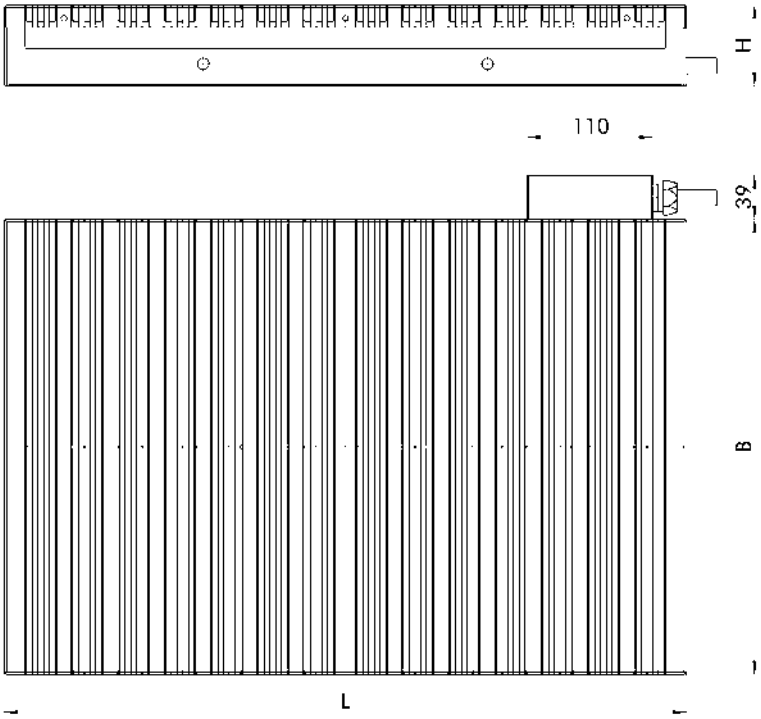
Field of application

MSC

Due to the combination of permanent magnets and electric coils, the MSC magnetic chucks are ideally suited for use during grinding. Due to their low overall height, low dead weight, and the resulting low table load, the plates with parallel pole technology are universally applicable. The different variants facilitate diverse machining jobs and provide for an optimal magnetic flux concentration in the workpiece.

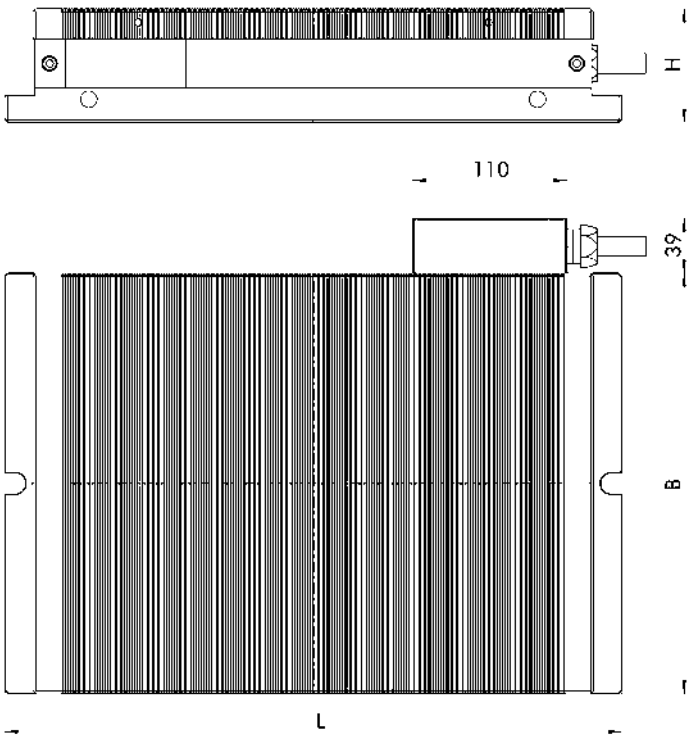


1. **Stable base body**
2. **Invertible AlNiCo-magnets**
3. **Coil body, insulated version**
4. **Support segments**
5. **Synthetic resin casting**
6. **Connection housing**
7. **Thread for stops**



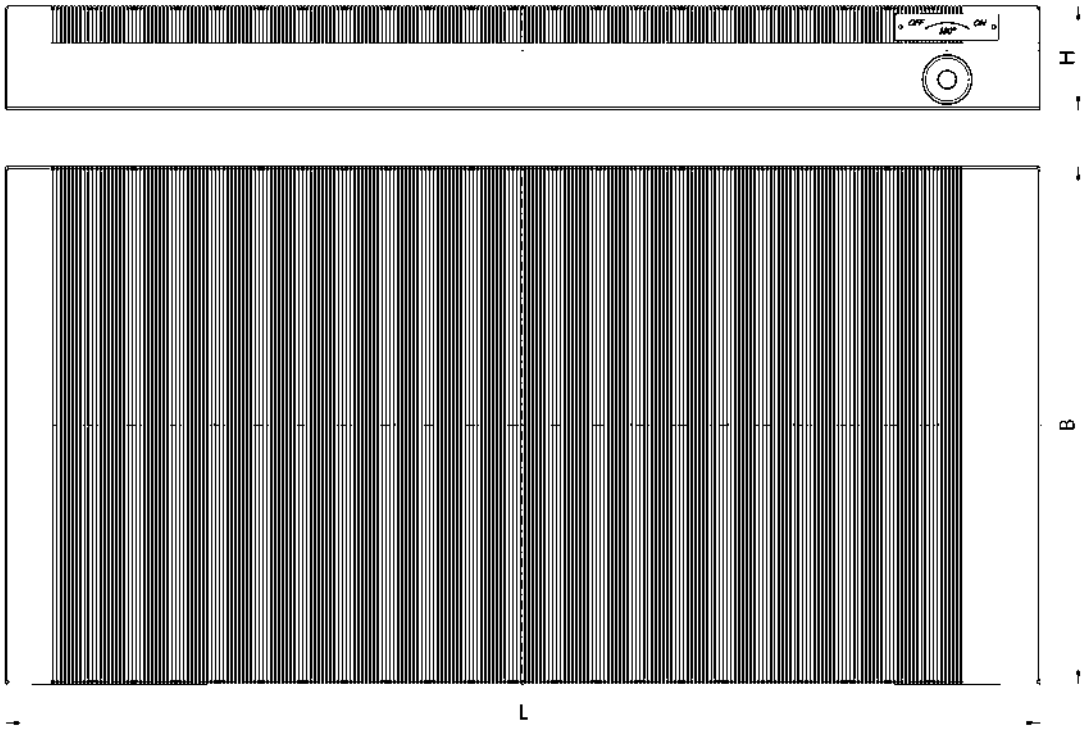
Technical data

Description	ID	Length L	Width B	Height H	Max. clamping force	Connection	Number of channels	Weight
		mm	mm	mm	N/cm²			kg
MSC-PM60D 300 x 150	0422003	300	150	71	75	4-PIN	1	32
MSC-PM60D 450 x 160	0422007	450	160	71	75	4-PIN	1	35
MSC-PM60D 400 x 200	0422011	400	200	71	75	4-PIN	1	33
MSC-PM60D 600 x 200	0422019	600	200	71	75	4-PIN	1	57
MSC-PM60D 500 x 300	0422027	500	300	71	75	4-PIN	1	60
MSC-PM60D 600 x 300	0422031	600	300	71	75	4-PIN	1	85
MSC-PM60D 800 x 300	0422035	800	300	71	75	4-PIN	1	118
MSC-PM60D 1000 x 300	0422039	1000	300	71	75	4-PIN	1	155
MSC-PM60D 600 x 400	0422043	600	400	71	75	4-PIN	1	120
MSC-PM60D 700 x 400	0422047	700	400	71	75	4-PIN	1	138
MSC-PM60D 800 x 400	0422051	800	400	71	75	4-PIN	1	160
MSC-PM60D 1000 x 400	0422055	1000	400	71	75	4-PIN	1	205
MSC-PM60D 1200 x 400	0422059	1200	400	71	75	4-PIN	1	245
MSC-PM60D 800 x 500	0422063	800	500	71	75	4-PIN	1	195
MSC-PM60D 1000 x 500	0422067	1000	500	71	75	4-PIN	1	255
MSC-PM60D 1200 x 500	0422071	1200	500	71	75	4-PIN	1	304



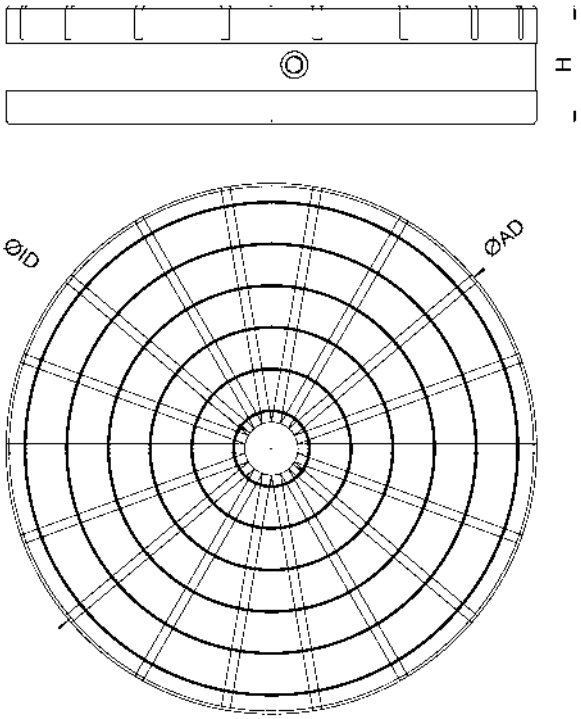
Technical data

Description	ID	Length L	Width B	Height H	Max. clamping force	Connection	Number of channels	Weight
		mm	mm	mm	N/cm²			kg
MSC-PM62F 200 x 100	0422076	200	100	81	75	4-PIN	1	15
MSC-PM62F 300 x 150	0422077	300	150	81	75	4-PIN	1	34
MSC-PM62F 400 x 200	0422078	400	200	81	75	4-PIN	1	35
MSC-PM62F 500 x 200	0422079	500	200	81	75	4-PIN	1	51
MSC-PM62F 600 x 200	0422080	600	200	81	75	4-PIN	1	61
MSC-PM62F 400 x 300	0422081	400	300	81	75	4-PIN	1	52
MSC-PM62F 500 x 300	0422082	500	300	81	75	4-PIN	1	64
MSC-PM62F 600 x 300	0422083	600	300	81	75	4-PIN	1	91



Technical data

Description	ID	Length L	Width B	Height H	Max. clamping force	Weight
		mm	mm	mm	N/cm²	kg
MSC-PM15 180 x 100	0422171	180	100	52	80	7
MSC-PM15 250 x 130	0422172	250	130	60	80	16
MSC-PM15 250 x 150	0422173	250	150	60	80	18
MSC-PM15 300 x 150	0422174	300	150	60	80	22
MSC-PM15 350 x 150	0422175	350	150	60	80	25
MSC-PM15 450 x 150	0422177	450	150	60	80	32
MSC-PM15 320 x 200	0422178	320	200	60	80	31
MSC-PM15 400 x 200	0422180	400	200	60	80	38
MSC-PM15 500 x 300	0422186	500	300	60	80	72
MSC-PM15 600 x 300	0422187	600	300	60	80	86



Technical data

Description	ID	ØAD	ØID	Height H	Max. clamping force	Number of poles	Weight
		mm	mm	mm	N/cm²		kg
MSC-PM35 Ø150	0422283	150	24	68	80	10	8
MSC-PM35 Ø200	0422285	200	30	68	80	14	15
MSC-PM35 Ø250	0422286	250	50	68	80	14	25
MSC-PM35 Ø300	0422287	300	58	78	80	18	37
MSC-PM35 Ø350	0422288	350	58	78	80	18	53
MSC-PM35 Ø400	0422289	400	58	78	80	18	69
MSC-PM35 Ø500	0422290	500	58	78	80	18	108

Accessories

Control unit 400 V/50 Hz

Matching handheld remote control HABE SC (ID 0422263).
Fits on DIN rail in machine cabinet.



Suitable for	Description	ID
MSC-PM60D MSC-PM62F	KEH P01 400V/50Hz	0422349
MSC-PM60D MSC-PM62F	KEH P02 400V/50Hz	0422350

Control unit 460 V/60 Hz

Matching handheld remote control HABE SC (ID 0422263).
Fits on DIN rail in machine cabinet.



Suitable for	Description	ID
MSC-PM60D MSC-PM62F	KEH P01 460V/60Hz	0422353
MSC-PM60D MSC-PM62F	KEH P02 460V/60Hz	0422354

Manual gaussmeter

For determining the residual magnetism in the workpiece after machining.



Suitable for	Description	ID
MSC-PM60D MSC-PM62F MSC-PM15 MSC-PM35	MG10	0422950

Laminated plates

Laminated plate

For milling contours and special forms.



Suitable for	Description	Length mm	Width mm	Height mm	ID
MSC-PM60D MSC-PM62F MSC-PM15	MSC-PS10 200x100	200	100	21	0422092
MSC-PM60D MSC-PM62F MSC-PM15	MSC-PS10 250x130	250	130	21	0422093
MSC-PM60D MSC-PM62F MSC-PM15	MSC-PS10 300x150	300	150	21	0422094
MSC-PM60D MSC-PM62F MSC-PM15	MSC-PS10 350x150	350	150	21	0422095
MSC-PM60D MSC-PM62F MSC-PM15	MSC-PS10 400x200	400	200	21	0422096
MSC-PM60D MSC-PM62F MSC-PM15	MSC-PS10 500x200	500	200	21	0422097

MAGNOS

schunk.com/mef



Robust. Easy. Reliable. Parallel pole technology for EDM applications – MEF

The MEF magnetic modules are self-sufficient and require only a short pulse for the MAG/DEMAG process due to innovative electropermanent technology. Specially prepared positioning holes allow quick and easy mounting on EDM machines without the need to drill separate holes beforehand.

Functions & highlights

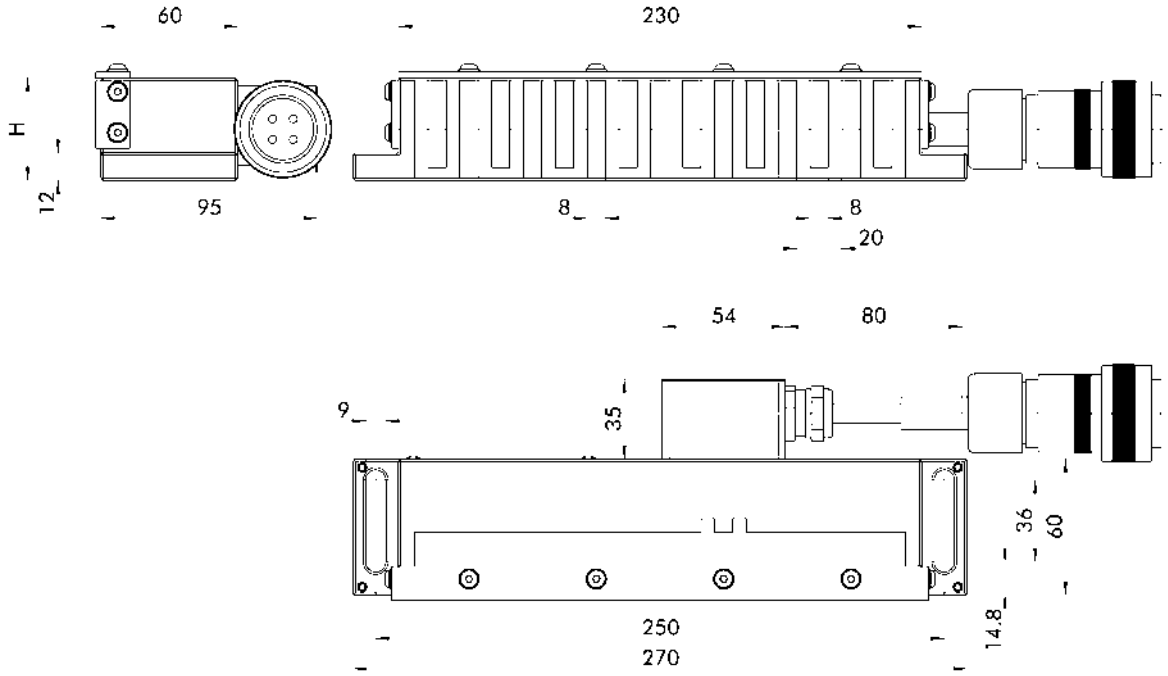
- **Consistent permanent magnetic clamping force across the entire workpiece**
  Low-deformation and low-vibration clamping of the workpieces
- **State-of-the-art electropermanent technology for one-time energy supply for MAG/DEMAG process**
  Energy-efficient and reliable clamping of the workpieces
- **Mounting holes especially for EDM machines**
  The magnetic modules can be mounted directly on the machine table



Field of application

MEF

MAGNOS MEF magnetic modules are specially designed for EDM applications. An innovative "fine" and "active" pole pitch allows very small workpieces to be clamped while maintaining the holding force required for machining. Due to the unfavorable influences during eroding processes – caused by the chemical liquids and contact with air – the magnetic modules are made of special stainless steel. This prevents oxidation as well as expensive cleaning work on the modules.



Technical data

Description	ID	Length L	Width B	Height H	Max. clamping force	Connection	Number of channels	Weight
		mm	mm	mm	N/cm²			kg
MEF-F-A1-100 270x45	1393252	270	60	45	75	4-PIN	1	6
MEF-F-A1-100 270x90	1393250	270	60	90	75	4-PIN	1	10

Accessories

Manual gaussmeter
For determining the residual magnetism in the workpiece after machining.



Suitable for	Description	ID
MEF-F-A1-100	MG10	0422950

Control units

Control unit 220V/50Hz
For magnetizing or demagnetizing magnetic chucks.



Suitable for	Description	Channels	ID
MEF-F-A1-100	KEH plus 01 220V/50Hz	1	0420655

Handheld remote control

Handheld remote control for max. one magnetic chuck
HABE KEH plus 01-HKR = with holding force control.



Suitable for	Description	Length m	ID
KEH plus 01 220V/50Hz	HABE KEH plus 01-HKR	5	0420665

MAGNOS

schunk.com/mhm-it2



Powerful. Compact. Versatile.
Magnetic lifting technologys for lifting applications

MAGNOS magnetic lifting technology from SCHUNK is the perfect option for high lifting and safe holding capacies without the need for external energy supply. With its wide range from simple lifting magnets to high-performance lifting devices, MAGNOS provides for easy handling of ferromagnetic workpieces up to two tons. Within seconds, reliably, and without deformations.

Functions & highlights

- **Turbo integrated by default**
  Clamping force increase of up to 250% for optimal utilization of the machine's performance, hence an increase in efficiency
- **SCHUNK modular system**
  Benefit from the largest modular system with over 1,000 variants of workpiece clamping for your individual application
- **Form-fit, self-retained locking**
  Full pull-down force is maintained even in the event of a pressure drop

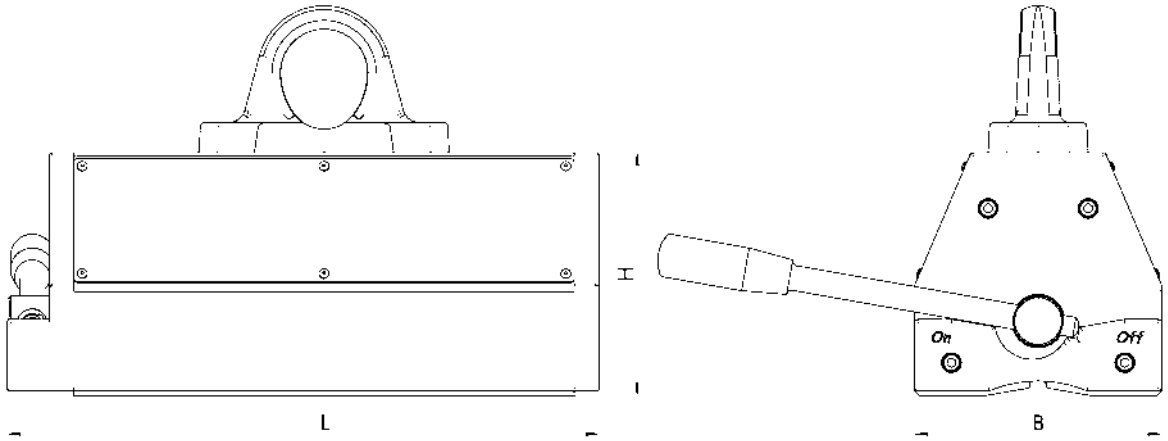


Field of application

Magnetic lifting technology

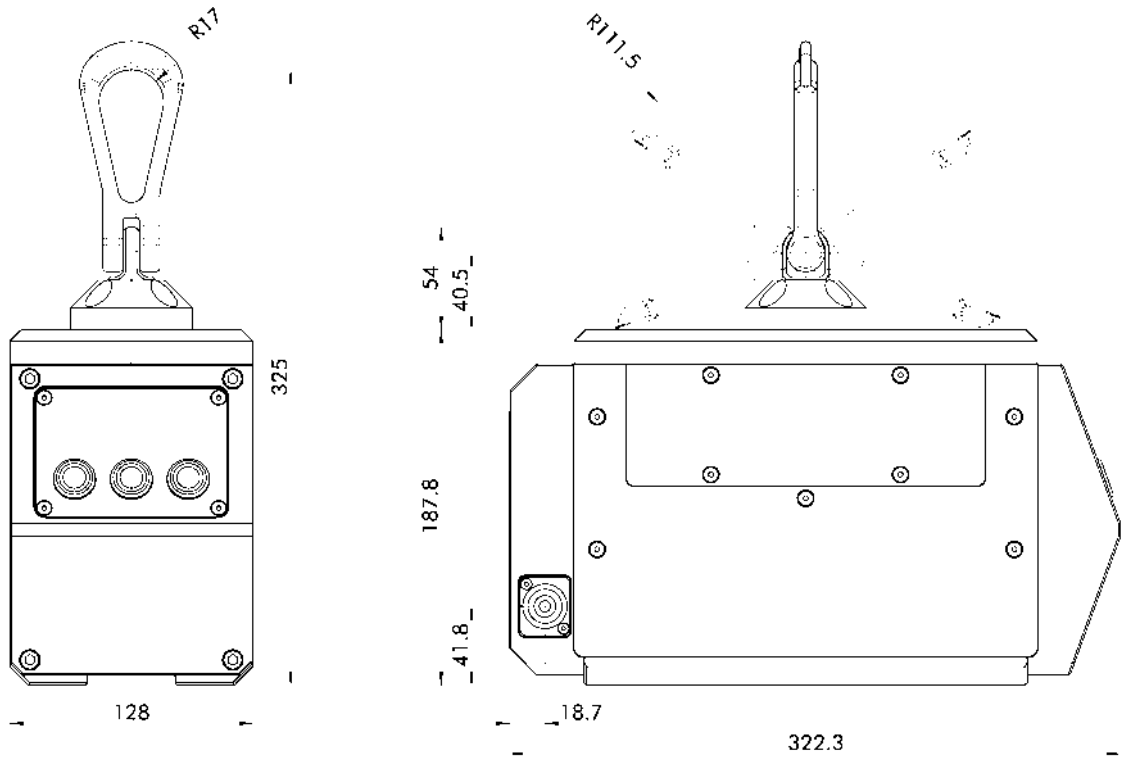
With the comprehensive range from simple lifting magnets to powerful lifting devices, MAGNOS provides for easy handling of ferromagnetic workpieces up to 2 tons. As an alternative, we offer the battery-operated magnetic lifting technology (SPEEDY BAT). Operation is done conveniently by remote control or directly on the magnet.





Technical data

Description	ID	Length L	Width B	Height H	Holding force flat	Holding force round	Min. workpiece diameter	Max. workpiece diameter	Max. workpiece length	Weight
		mm	mm	mm	kg	kg	mm	mm	mm	kg
MHM-IT2 125	1495616	160	80	82	125	60	40	185	2000	7
MHM-IT2 250	1495617	215	91	95	250	125	40	185	2000	11
MHM-IT2 500	1495620	296	120	115	500	250	40	235	2500	26
MHM-IT2 1000	1495618	355	148	146	1000	500	60	370	3000	48
MHM-IT2 2000	1495619	470	177	190	2000	1000	60	350	3000	102



Technical data

Description	ID	Holding force flat kg	Weight kg
SPEEDY BAT	1456150	500	31.5


TRUMPF

Overview vacuum clamping technology



Matrix plates SMPL Page 614



Vacuum blocks SCMB-HD Page 620



Vacuum units SVAGG Page 624

PLANOS

schunk.com/smpl



Quick. Precise. Expandable. Matrix plates SMPL

PLANOS SMPL matrix plates offer short set-up times, high holding forces and maximum precision without deforming the workpiece. The matrix plates are optionally available with friction islands, which increase the horizontal holding forces by up to 30%. For maximum convenience, the matrix plates feature a connection kit with manual slide valve and a pressure gauge as standard.

Functions & highlights

- **High-strength aluminum base body**
  Distortion-free clamping of flat and thin components
- **Mechanical back stops attached at the side**
  Simple positioning of the workpiece and additional absorption of lateral forces
- **VERO-S interface**
  Versatile range of combinations thanks to the VERO-S modular system for even shorter set-up times



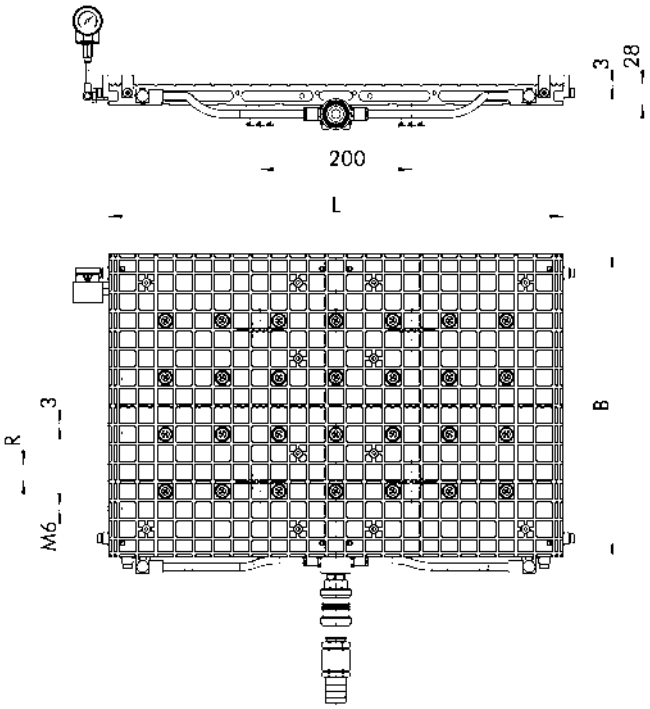
Field of application

SMPL

The SMPL matrix plates are ideal for clamping flat workpieces and workpieces that are flat at the bottom. Workpieces that are difficult to clamp mechanically, can be clamped particularly easily and securely using the matrix plates. For 5-sided machining, the plates can be combined with a support plate and suction cups to allow better accessibility. Several matrix plates can also be joined together to increase the clamping range.



1. **SAPL support plate**
2. **Suction cups**
3. **Production of cut-outs**
4. **Face edge machining**



Technical data

Description	ID	Length L mm	Width B mm	Height H mm	Grid spacing R	Slot width/slot depth	Friction islands	Weight kg
SMPL 300x200x28 12,5x12,5 3x3	1487754	300	200	28	12.5 x 12.5 mm	3 x 3 mm	no	4
SMPL 400x300x28 25x25 3x3 RI	1487755	400	300	28	25 x 25 mm	3 x 3 mm	yes	8
SMPL 400x300x28 12,5x12,5 3x3	1487756	400	300	28	12.5 x 12.5 mm	3 x 3 mm	no	8
SMPL 600x400x28 25x25 3x3 RI	1487757	600	400	28	25 x 25 mm	3 x 3 mm	yes	16
SMPL 600x400x28 25/12,5 3x3	1487758	600	400	28	25 x 12.5 mm	3 x 3 mm	no	16

Accessories

Suction cup
Low design.
Suction surface = 80 x 80 mm.



Suitable for	Description	ID
ISST-SMPL	ISBL 80x80x38	0425136
ISST-SMPL	ISBL 80x40x38	0425137
ISST-SMPL	ISBL 80x28x38	0425138

FlexMat
Specially developed for production of cut-outs and complex parts.



Suitable for	Description	ID
ISST-SMPL	SFM 298.5 x 198.5	1378520

Pressure gauge set
For continuous vacuum monitoring on the workpiece.



Suitable for	Description	ID
SMPL 300x200 SMPL 400x300 SMPL 600x400	VAM-SMPL 4/2	1487803

Steel-plate for suction cups
Intermediate plate for machining workpieces with suction cups.
Magnetic plug included.



Suitable for	Description	ID
SMPL 300x200	ISST-SMPL 300x200x3	1487787
SMPL 400x300	ISST-SMPL 400x300x3	1487783
SMPL 600x400	ISST-SMPL 600x400x3	1487784

Hose clamp
Used to fasten the vacuum hoses to the hose nozzles.



Suitable for	Description	ID
SVSL 33-25 PVC-DS	SSB 20-32 ST-VZ	0425110

Vacuum connection set
Connection set with manual slide valve for optimal vacuum supply.



Suitable for	Description	ID
SMPL 300x200	VAS VC-SMPL G1/4-IG	1487791
SMPL 400x300 SMPL 600x400	VAS VC-SMPL G1/2-IG	1487790

Steel-Plate for FlexMat
Intermediate plate for machining workpieces with the FlexMat.
Without magnetic plug.



Suitable for	Description	ID
SMPL 300x200	ISST-SMPL 300x200x3 SFM	1487785
SMPL 400x300	ISST-SMPL 400x300x3 SFM	1487786
SMPL 600x400	ISST-SMPL 600x400x3 SFM	1487789

Vacuum hose
Connecting hose from the connection sets to the matrix plates.

Suitable for	Description	ID
SMPL 300x200 SMPL 400x300 SMPL 600x400	SVSL 10-7 PU	1446204

Vacuum hose
Connecting hose from the matrix plates to the pressure gauge.



Suitable for	Description	ID
SMPL 300x200 SMPL 400x300 SMPL 600x400	SVSL 4-2 PU	1487804

Vacuum hose
Connecting hose from the matrix plates to the vacuum units SVAGG-10 and SVAGG-21.



Suitable for	Description	ID
SMPL 300x200 SMPL 400x300 SMPL 600x400	SVSL 21-12 PVC-G	1487805

Vacuum hose

Connecting hose from the matrix plates to the vacuum units SVAGG-40 and SVAGG-63.



Suitable for	Description	ID
SMPL 400x300 SMPL 600x400	SVSL 33-25 PVC-DS	1487806

Caulking strip Ø 3.5 mm

For sealing the clamping surface for workpieces that are clamped directly on the matrix plate.



Suitable for	Description	ID
SMPL 300x200 SMPL 400x300 SMPL 600x400	DI-SCHN 3.5 MOS CR-20	0425101

Back stop

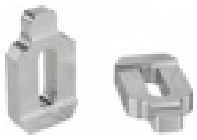
Stop with set-screw and knurled nut.



Suitable for	Description	ID
SMPL 300x200 SMPL 400x300 SMPL 600x400	ANSG-SMPL 8x15x30	1487810

Clamping claws

Clamping claws for quick and easy mounting of SCHUNK matrix plates on the machine table.



Suitable for	Description	ID
SMPL 300x200 SMPL 400x300 SMPL 600x400	SPAN-PRA-M12-SMPL	0425104

Friction island

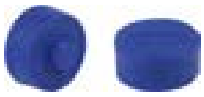
For increase of lateral force absorption up to 30%.
Suitable only for matrix plates already prepared for friction islands.



Suitable for	Description	ID
SMPL 400x300 SMPL 600x400	REIB-INS 18x18 SMPL	0425106

Closing magnets

For sealing unused connection bore holes of the support plates in combination with suction cups.



Suitable for	Description	ID
ISST-SMPL	ISMST 19-7	1487813

schunk.com/scmb-hd



Fast. Versatile. Easy.
Vacuum blocks SCMB-HD

The suction blocks SCMB-HD offer the ideal entry-level solution for vacuum clamping technology. Thanks to their simple design and the mounting option using the VERO-S quick-change pallet modules, the vacuum blocks are particularly impressive due to their short set-up times. A special friction lining ensures high holding forces and high-quality machining results.

Functions & highlights

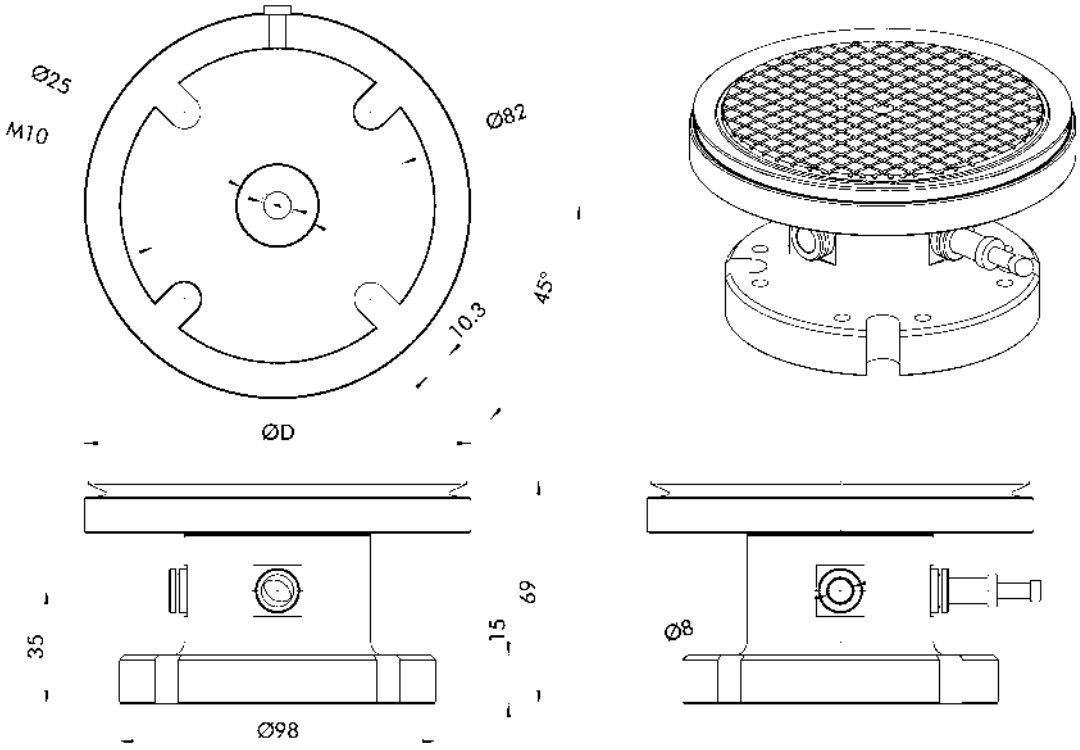
- **Few interfering contours**
  Ideally suited for 5-sided machining
- **VERO-S interface**
  Versatile range of combinations thanks to the VERO-S modular system for even shorter set-up times
- **Low investment costs**
  Attractive entry-level solution for clamping with vacuum



Field of application

SCMB-HD

The vacuum blocks are suitable for clamping workpieces that are flat at the bottom. Vacuum blocks are a good alternative, especially if the parts cannot be clamped mechanically or magnetically. Its excellent accessibility enables use in 5-sided machining. Removable lateral stops allow the workpieces to be clamped quickly and with good repeat accuracy.



Technical data

Description	ID	Diameter D	Height	Diameter of connecting hose	Weight
		mm	mm		kg
SCMB-HD D80x69 RB	1543224	80	69	8 mm	0.75
SCMB-HD D120x69 RB	1543222	120	69	8 mm	1
SCMB-HD D140x69 RB	1543223	140	69	8 mm	1.15

Accessories

Workpiece stop
Workpiece stop for attachment to the vacuum block with removable stop pin.



Suitable for	Description	ID
SCMB-HD D80x69 RB SCMB-HD D120x69 RB SCMB-HD D140x69 RB	ANSG 90x40x13	1543225

Plug connector
Angular plug connector



Suitable for	Description	ID
SCMB-HD D80x69 RB SCMB-HD D120x69 RB SCMB-HD D140x69 RB	STV-W G1/4-AG-8	1543254

Vacuum hose
Vacuum hose for connecting the vacuum blocks

Suitable for	Description	ID
SCMB-HD D80x69 RB SCMB-HD D120x69 RB SCMB-HD D140x69 RB	VSL 8-6 PU MI-TR	1543276

Spare parts package
Spare parts kit for workpiece stops.



Suitable for	Description	ID
SCMB-HD D80x69 RB SCMB-HD D120x69 RB SCMB-HD D140x69 RB	ERS-SCMB-HD	1543226

Vacuum distributors
Vacuum distributor with push-in fittings



Suitable for	Description	ID
SCMB-HD D80x69 RB SCMB-HD D120x69 RB SCMB-HD D140x69 RB	VTR-STV 8/6	1543277

Hose bracket
Magnetic hose holders for safe guidance of hoses.
1 set = 2 pieces



Suitable for	Description	ID
SCMB-HD D80x69 RB SCMB-HD D120x69 RB SCMB-HD D140x69 RB	HTR-SL-8	1543252

Manual slide valve
Replacement valve for the vacuum connection sets.



Suitable for	Description	ID
VAS VC-SMPL G1/2-IG	HSV-12-3/2	1487798

Closing screw
For screwing or blanking unused push-in fittings on the vacuum connection set.



Suitable for	Description	ID
VAS VC-SMPL G1/4-IG	VRS-SB-G1/4-AG-ISKT	1487801

Blind plugs
For screwing or blanking unused push-in fittings on the vacuum connection set.



Suitable for	Description	ID
SCMB-HD D80x69 RB SCMB-HD D120x69 RB SCMB-HD D140x69 RB	VRS-STEC 8x18.5	1543278

Sealing frame
V-rings for sealing between vacuum block and workpiece



Suitable for	Description	ID
SCMB-HD D80x69 RB	V-RING 63x11 V-070 NBR	1543257
SCMB-HD D120x69 RB	V-RING 90x6 V-90 A NBR	1543256
SCMB-HD D140x69 RB	V-RING 108x7 V-108-A NBR	1543255

schunk.com/svagg



Efficient. Powerful. Convenient. Vacuum units SVAGG

For vacuum generation, SCHUNK offers special vacuum units that ensure maximum flexibility and process reliability. Various components for monitoring the system and interfaces for integration into the machine control system ensure maximum reliability.

Functions & highlights

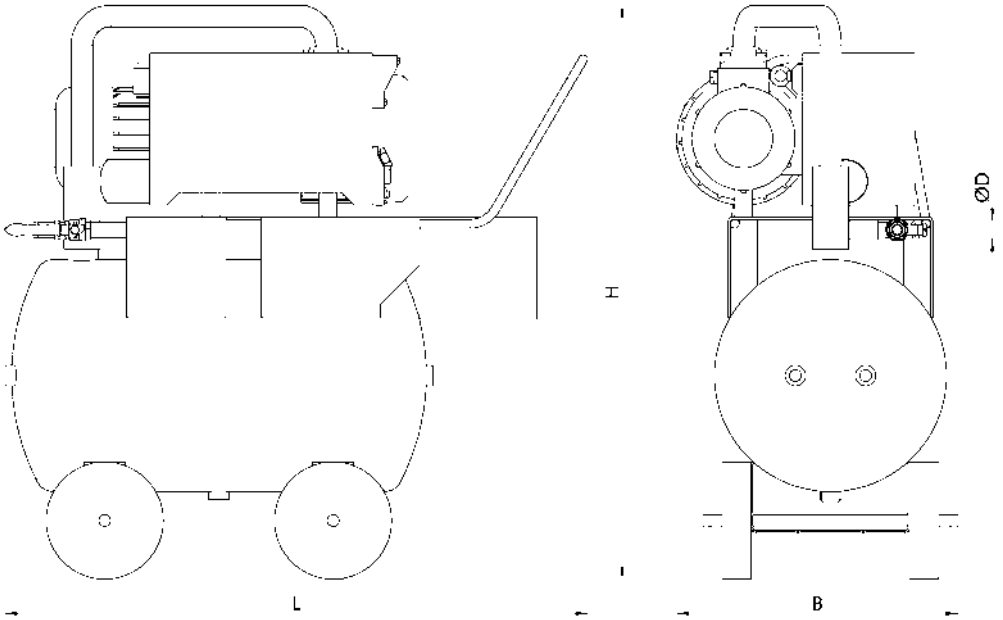
- **Automatic EMERGENCY-OFF function (coupled to the machine)**
  Protects against critical vacuum levels and critical fill levels in the tank
- **Visual and audible monitoring of the operating vacuum and the fill level**
  For maximized process reliability
- **Powerful vacuum pump with over 90% vacuum**
  Resulting in the highest clamping force



Field of application

SVAGG

Vacuum generation significantly contributes to process reliability when clamping workpieces with SCHUNK SMPL matrix plates and SCMB-HD vacuum blocks. The matrix plates and vacuum blocks can be used in both dry and wet machining. The vacuum units are available in different versions for different clamping requirements.



Technical data

Description	ID	Length L mm	Width B mm	Height H mm	Connection Ø D mm	Max. vacuum mbar	IP protection class	Weight kg
SVAGG 10-AC3-30-MD	1563466	746	360	733	12	930	54	55
SVAGG 21-AC3-30-MD	1563467	746	360	733	12	930	54	60
SVAGG 40-AC3-80-MD	1563468	944	435	926	25	930	54	100
SVAGG 63-AC3-80-MD	1563469	944	435	926	25	930	54	110

Further technical data

Vacuum unit	Max. clamping surface cm²	Max. suction capacity m³/h	Storage volume l	Sound level dB(A)
SVAGG 10-AC3-30-MD	1200	10	30	58.5
SVAGG 21-AC3-30-MD	5000	21	30	64
SVAGG 40-AC3-80-MD	10000	40	80	63
SVAGG 63-AC3-80-MD	20000	63	80	64



Overview toolholding systems

Toolholders

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Overview by suitability

Toolholders	Page	General milling	Drilling/ chamfering	Reaming	Thread cutting	Roughing	Finishing
TENDO Silver	624	◑	●	◑	◑		●
TENDO E compact	626	●	●	◑	●	●	●
TENDO Slim 4ax	628	◑	●	◑	◑		●
TENDO Platinum	630	◑	●	◑	◑		●
TENDO Zero	632	◑	●	●	◑		
TENDO ES	634	◑	●	◑	◑		●
TENDO LSS	636	○	●	◑			◑
TENDO RLA	638	◑	●	◑	◑		●
TENDO Turn	640	◑	◑	◑			
iTENDO^2	642						
TRIBOS-R	654	●	●	◑	◑	●	◑
TRIBOS-S	656	◑	●	◑		○	●
TRIBOS-RM	658	●	●	◑	◑	●	●
TRIBOS-Mini	660		●	◑			◑
SINO-R	662	◑	◑		●	●	
CELSIO	664	◑	●	◑	○	◑	◑
ER collet chucks	666	◑	○	○	◑		○
ER collet chuck Mini	666	◑	○	○	◑		○
ER precision collet chuck	666	◑	●	◑	◑	○	◑
WELDON	667	◑			○	◑	
WELDON Slim	667	◑			○	◑	
Whistle Notch mountings	667	◑			○	◑	
Face mill arbors	668	◑				●	○
Combination shell and end mill adapters	668	◑				●	○
CNC short drill chucks	668		◑				

Turning	Run-out accuracy	Damping	Radial rigidity	Torque	Repeat accuracy	Flexibility & variability Ø	Handling & set-up time optimization	Machining with optimized interfering contours	Direct clamping of the tool
	●	●	◑	◑	●	●	●	◑	●
	●	●	●	●	●	●	●	○	◑
	●	●	○	◑	●	●	●	●	●
	●	●	◑	◑	●	●	●	◑	●
	●	●	◑	◑	●	●	●	◑	●
	●	●	●	◑	●	●	●	●	○
	◑	●	○	◑	●	●	●	●	●
	●	●	◑	◑	●	●	●	◑	●
●		●	◑	◑	●	●	●	◑	●
	●	●	●	◑	●	●	◑	○	●
	●	◑	○	◑	●	●	◑	●	●
	●	●	●	◑	●	○	◑	◑	●
	●	◑	○	◑	●		◑	●	●
	◑	●	●	●	◑	●	○	○	◑
	◑	○	◑	●	○		○	●	●
	○	◑	◑	◑	○	●	○	◑	○
	○	◑	◑	◑	○	●	○	◑	○
	●	◑	●	●	◑	●	○	○	○
	○	○	●	●	○		○	○	●
	○	○	●	●	○		○	○	●
	○	○	◑	●	○		●	○	●
			●				○		○
			●				○		○
		○		○		●	◑	○	●

schunk.com/easytoolholder



Individual. Digital. Fast. Toolholder configurator easyToolholder

Customized toolholders – quickly configurable using a license-free, browser-based web tool. You will receive a visual 3D image of your current configuration.

Customized expansion technology

- **Flexible configuration**
  Individual adaption to geometries, selection of the clamping diameter, machine interface, with or without data carrier chip and peripheral cooling
- **3D data in real time**
  View and download the configuration in different formats in real time
- **Simple inquiry and order process 24/7**
  Inquiries and orders are processed via the configurator, prices and delivery times are instantly calculated



Customized special designs

easyToolholder

With easyToolholder, available toolholders can be configured quickly to suit individual customers. They can be flexibly adapted in terms of their geometries, interface and clamping diameter. The ordering process takes place 24/7 in real time and is transparent in all respects.

Four simple steps to order a customized toolholder

Step 1:
Selecting the clamping technology, the series, the machine interface and the clamping diameter

Step 2:
Flexible adjustment of various parameters, e.g. projecting length, body diameter and clamping length
Selection of further options such as chip drilling, data carrier chip, zero (run-out adjustment), cool flow (cooling of the tool cutting edge) and others

Step 3:
3D view of the configured toolholder in real time
Complete the configuration and continue to the contact details

Step 4:
Log in with SCHUNK Shop user access or as a guest
Option to download the CAD data

schunk.com/tendo-silver



Flexible. Fast. Economical. Hydraulic expansion toolholder TENDO Silver

TENDO Silver provides a budget-friendly entry into the world of hydraulic expansion technology, offering the best price/performance ratio in direct clamping. Nine interfaces make the TENDO Silver a process-reliable and precise clamping device with standardized outside contour according to DIN 69882-7.

Functions & highlights

- **High level of flexibility**
  Clamping of different diameters, flexible by means of direct clamping Ø6 – Ø32 or the combined use of slotted or coolant-proof intermediate sleeves
- **Micron-precise tool change within seconds without peripheral equipment**
  Time saving through reduction of set-up time and no investment and energy costs due to additional clamping devices
- **Excellent vibration damping**
  Micro-blowouts are prevented, optimal workpiece surfaces, machine spindle protection, increased tool service life resulting in a reduction of costs



Field of application

TENDO Silver

Optionally suitable for HSC machining, as well as drilling, reaming, milling, and thread machining



1. Clamping screw
2. Clamping piston
3. Sealing element
4. Expansion sleeve
5. Oil chamber
6. Base body
7. Tool

schunk.com/tendo-ec



Compact. Powerful. All-rounder. Hydraulic expansion toolholder TENDO E compact

The TENDO E compact hydraulic expansion toolholder convinces when milling, drilling, reaming, thread machining and in HPC applications. And all that with an up to 300% longer tool service life. The Dual Contact variant with simultaneous taper and flat work surface closes the interface-related gap between tool flange and the front of the machine spindle with the interface of the flat work surface.

Functions & highlights

- **High torque for maximum volume machining**
  Its compact design ensures high holding forces and thus a high torque transmission
- **High radial rigidity**
  No lateral deflection during the metal cutting process and high shape accuracy of the workpiece combined with optimal removal rates
- **High level of flexibility**
  Clamping of different diameters due to the use of slotted or coolant-proof intermediate sleeves



Field of application

TENDO E compact

For volume cutting, milling, drilling, reaming, thread cutting and HPC applications



1. Clamping screw
2. Clamping piston
3. Expansion sleeve and oil chamber
4. Base body
5. Length-setting screw
6. Tool
7. Dirt groove

schunk.com/tendo-slim4ax



One of a kind. Flexible. Efficient. Hydraulic expansion toolholder TENDO Slim 4ax

The SCHUNK TENDO Slim 4ax is a toolholder for axial machining and radial fine machining. It is the only one in its class to meet all requirements: Heat-shrinking contour according to DIN 69882-8, easy handling, short set-up times, long tool service life, high flexibility, as well as Plug&Work; and the applicability even with minimal quantity lubrication. The TENDO Slim 4ax Cool Flow variant enables peripheral cooling through cooling channels in the wall. The coolant is fed directly to the cutting edge of the tool.

Functions & highlights

- **Plug&Work**
  Can be used in existing processes without reprogramming
- **Perfect cooling**
  The TENDO Slim 4ax Cool Flow enables peripheral cooling using cooling channels in the wall. The coolant is fed directly to the cutting edge of the tool, and chips are safely removed from the workpiece
- **Fine-balanced by default**
  Suitable for high speeds and HSC machining with a balancing grade of G2.5 at 25,000 RPM



Field of application

TENDO Slim 4ax

For milling, reaming, drilling, counterbore/chamfering and tapping



1. **Oil chamber**
2. **Expansion sleeve**
3. **Base body**
4. **Length-setting screw**
5. **Dirt groove**

TENDO® Platinum

schunk.com/tendo-p



Original. Fast. Economical. Hydraulic expansion toolholder TENDO Platinum

TENDO "The original" is the hydraulic expansion toolholder from SCHUNK. The extensive range of 29 interfaces makes the TENDO toolholder a precision all-rounder that is compatible with all standard machine tool spindles. With standardized outside contour according to DIN 69882-7.

Functions & highlights

- **High level of flexibility**
  Clamping of different diameters, flexible by means of direct clamping Ø6 – Ø32 or the combined use of slotted or coolant-proof intermediate sleeves
- **Micron-precise tool change within seconds without peripheral equipment**
  Time saving through reduction of set-up time and no investment and energy costs due to additional clamping devices
- **Excellent vibration damping**
  Micro-blowouts are prevented, optimal workpiece surfaces, machine spindle protection, increased tool service life resulting in a reduction of costs



Field of application

TENDO Platinum

Optionally suitable for HSC machining, as well as drilling, reaming, milling, and thread machining



1. Clamping screw
2. Clamping piston
3. Sealing element
4. Expansion sleeve
5. Oil chamber
6. Base body
7. Tool

schunk.com/tendo-zero



Process-reliable. Efficient. Precise. Hydraulic expansion toolholder TENDO Zero

The TENDO Zero hydraulic expansion toolholder is the pro for tight tolerances when reaming, fine-drilling and finish boring – or wherever perfect run-out accuracy is essential. This enables even minimal run-out errors with tools, mountings, and the machine spindles to be individually compensated.

Functions & highlights

- **Adjustable run-out accuracy of 0 µm possible**
  Run-out errors of toolholders and tools can be compensated by using four lateral set-screws
- **Low maintenance**
  The completely closed system ensures a long service life
- **Dirt grooves for reliable torque transmission**
  The enormous clamping pressure of the TENDO Zero hydraulic expansion toolholder presses any oil, grease, or lubricant residues into the groove, whereby the clamping surfaces stay dry



Field of application

TENDO Zero

For reaming and exact drilling



1. **Adjusting screw**
2. **Clamping screw**
3. **Length-setting screw**
4. **Base body**
5. **Expansion sleeve and oil chamber**
6. **Dirt groove**

schunk.com/tendo-es



Versatile. Robust. Flexible. Hydraulic expansion toolholder TENDO ES

TENDO ES with zero interfering contour is used when every millimeter in the machine room counts. The extremely short hydraulic expansion toolholder from SCHUNK is perfectly suitable for machining large workpieces – even in confined spaces in the machine room – and deep-hole drillings.

Functions & highlights

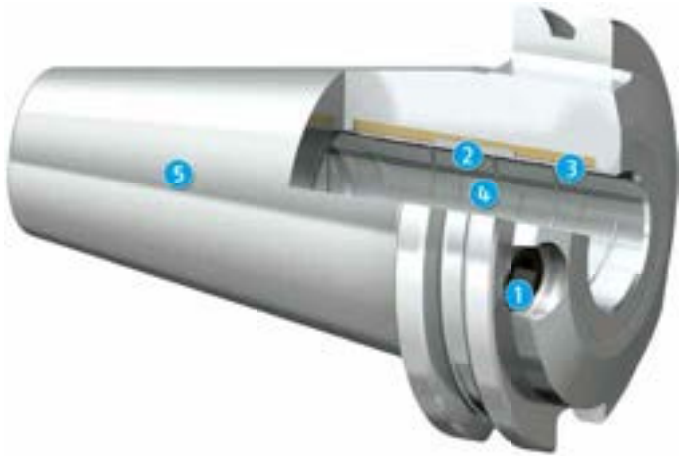
- **No interfering contour**
  Optimal freedom of movement where working space is limited
- **High level of flexibility**
  Clamping of different diameters due to the use of slotted or coolant-proof intermediate sleeves
- **Fine-balanced by default**
  Suitable for high speeds with a balancing grade of G2.5 at 25,000 RPM



Field of application

TENDO ES

For powerful volume machining and in smallest machining areas



1. Clamping screw
2. Expansion sleeve
3. Oil chamber
4. Dirt groove
5. Base body

schunk.com/tendo-lss



Slim. Exact. Vibration damping. Hydraulic expansion toolholder TENDO LSS

TENDO LSS negotiates the obstacles posed even by trickiest of tasks, when machining at the narrowest of angles and where workpieces are hard to reach. Thanks to the high stability and the radial stiffness offered, the super-slim toolholder is ideally suited for boring, countersinking, chamfering, and for finish milling operations.

Functions & highlights

- **Long and slim – optimized interfering contours**
  Excellent workpiece accessibility
- **Exact axial length pre-setting**
  Length adjustment in the range of 0.01 mm accuracy, with adjustment travel of 10 mm
- **Excellent vibration damping**
  Micro-blowouts are prevented, optimal workpiece surfaces, machine spindle protection, increased tool service life resulting in a reduction of costs



Field of application

TENDO LSS

Ideally suited for the precision machining of hard-to-reach areas. For example, when milling difficult, deep contours in the mold making industry. It can also be used for drilling and reaming.



1. **Clamping screw**
2. **Clamping piston**
3. **Expansion sleeve and oil chamber**
4. **Base body**
5. **Length-setting screw**
6. **Dirt groove**

TENDO® RLA

schunk.com/tendo-rla



Compact. Robust. Durable.
Hydraulic expansion toolholder TENDO RLA

When the sensitive set of gears is oriented, this set-up time minimizer gives you micron-precise positioning of the tool length. The length adjustment screw is equipped with a front and back stop.

Functions & highlights

- **Compact adjustment gears**
  This ensures micron-precise length adjustment of the metal-cutting tool
- **No change of the position**
  Due to the self-locking adjusting screw
- **No radial change of the adjustment screw**
  The balancing grade is not affected



Field of application

TENDO RLA

For milling centers, multiple/twin spindle machines for drilling, reaming, milling, thread tapping/thread milling and forming



1. **Drive worm (set screw)**
2. **Clamping screw**
3. **Drive worm (adjustment screw)**

schunk.com/tendo-turn



Quick. Low-maintenance. Flexible. Hydraulic expansion toolholder TENDO Turn

In addition to the highlights such as the versatile clamping range due to the use of intermediate sleeves, the run-out and repeat accuracy smaller than 0.003 mm (DSE double clamping insert) and easy handling, TENDO Turn particularly convinces by its unique vibration damping. This helps you to achieve excellent workpiece surfaces.

Functions & highlights

- **Micron-precise tool change within seconds without peripheral equipment**
  Time saving through reduction of set-up time and no investment and energy costs due to additional clamping devices
- **Low-maintenance**
  The completely closed system ensures a long service life
- **High level of flexibility**
  Clamping of different diameters due to the use of slotted or coolant-proof intermediate sleeves



Product variants

TENDO Turn

TENDO Turn is available in three versions: TENDO Turn VDI, designed for direct mounting in the lathe turret, offers accessibility as well as internal coolant supply and is available in interface sizes VDI 25, VDI 30 and VDI 40 with additional adjustment screws. TENDO Turn DKE increases productivity thanks to its vibration-damping properties and fits into all standard VDI boring bar holders without the need for a specific interface. The modular TENDO Turn DSE for driven tools optimizes performance through outstanding run-out quality and vibration damping. Its uniform I.D./O.D. clamping ensures maximum holding forces.



1. **Clamping screw**
2. **Clamping piston**
3. **Expansion sleeve and oil chamber**
4. **Base body**
5. **Length-setting screw**
6. **Dirt groove**

schunk.com/itendo2



Smart. Intelligent. Simple. Hydraulic expansion toolholder iTENDO²

The iTENDO² is an intelligent toolholder, available in three variants, which uses an acceleration sensor close to the workpiece to provide precise stability for process optimization. The basic version of iTENDO² Pad sends data wirelessly to a tablet PC. iTENDO² easy connect enables integration into the machine with data transmission to a process monitoring system via an analog interface. The version iTENDO² easy monitor offers a software extension for easy process monitoring with machine integration.

Functions & highlights

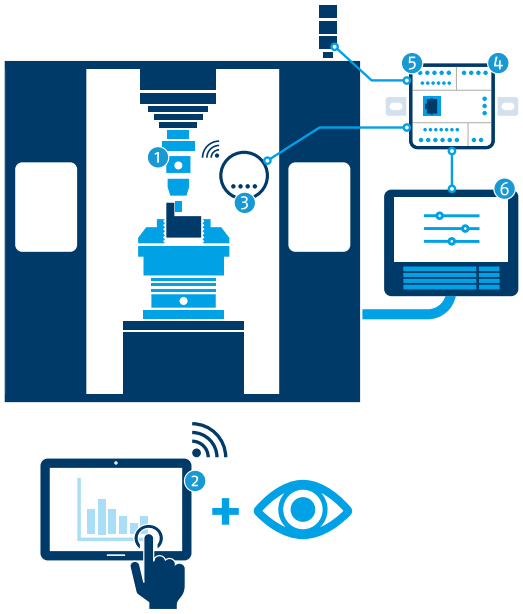
- **Intelligent real-time sensor system**
  Easy process monitoring and maximized tool service lives
- **Speeds of rotation of up to 30,000 RPM**
  Wide range of uses in many applications
- **100% compatibility**
  1:1 exchange with SCHUNK standard toolholders without time-consuming reprogramming of your system

iTENDO² pad
Optimization of processes

iTENDO² easy connect
The simple connection of smart toolholder technology to your process monitoring system

iTENDO² easy monitor
The easy-to-use, universally applicable monitoring for your process





1. iTENDO²
2. iTENDO² pad + easy monitor software extension
3. Wireless receiver
4. Connect Box
5. Monitoring trend limits and alarms
6. Integration into the machine control system

schunk.com/tribos-r



Large. Powerful. Robust. Polygonal toolholders TRIBOS-R

With its unique polygonal honeycomb structure and increased outer diameter, TRIBOS-R offers an optimum ratio between radial rigidity and dampening and provides the best dynamic run-out properties.

Functions & highlights

- **Maximum radial rigidity**
  Optimal running smoothness and excellent shape and positional tolerances on the workpiece
- **Excellent vibration damping**
  No lateral deflection during the metal cutting process and stabilization of the entire system: spindle – toolholder – cutting tool
- **Comprehensive compatibility**
  Can be ideally combined with TENDO SVL and TRIBOS SVL extensions



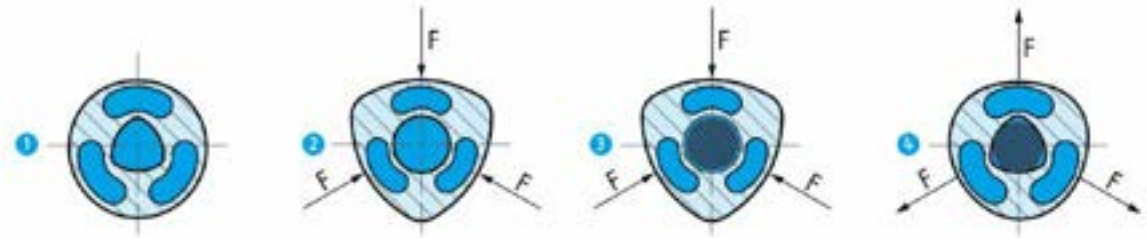
Field of application

TRIBOS-R

Suitable for volume cutting, drilling, reaming, milling, threading and countersinking/chamfering



1. **Integrated copper insert**
2. **Vibration-damping O-ring**
3. **Epoxy resin**
4. **Base body**



Clamping diameter polygonal | **Clamping diameter becomes round** | **Inserting the tool shank** | **Tool clamped**

schunk.com/tribos-s

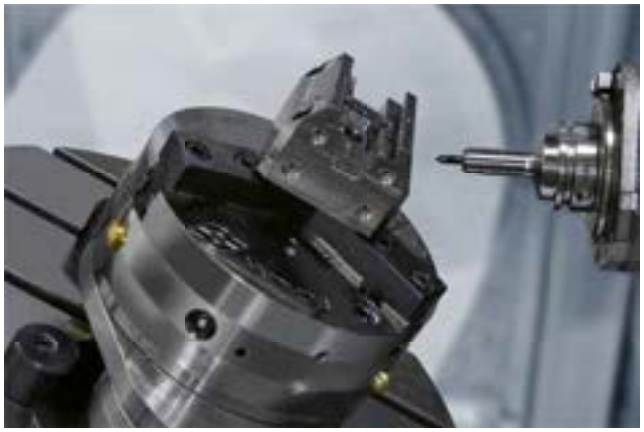


Slim. Precise. Fast.
Polygonal toolholder TRIBOS-S

Extremely slim design! Precise in the tightest machining conditions. If workpiece areas are hard to reach and conventional clamping systems have reached their limits, TRIBOS-S polygonal toolholders with their extremely slim design are the best choice.
The highest permanent run-out and repeat accuracy smaller than 0.003 mm ensures a more even cutting action, thereby improving the tool service life by four times over.

Functions & highlights

- **Rotationally symmetrical design**
  The rotationally symmetrical design minimizes the interfering contour and ensures high speed of rotation
- **Extremely slim design**
  Precise metal cutting applications, even in hard-to-reach workpiece areas
- **Lightweight design**
  High feed rate and a speed range of up to 85,000 RPM (HSC machining)



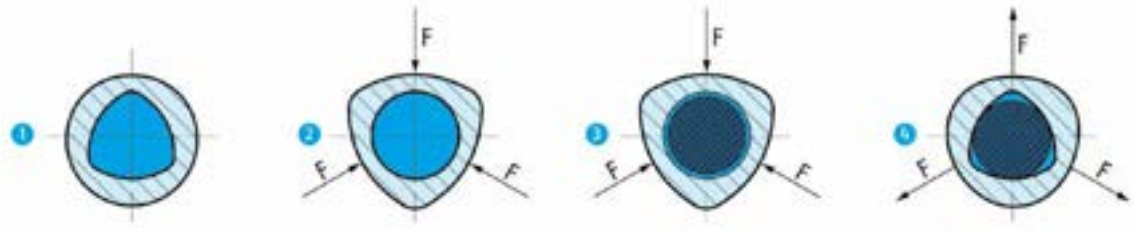
Field of application

TRIBOS-S

Ideally suited for machining workpieces that are difficult to access due to minimal interfering contour, especially at high rotation speeds



1. Length-setting screw
2. Base body



Clamping diameter polygonal

Clamping diameter becomes round

Inserting the tool shank

Tool clamped

TRIBOS-RM

schunk.com/tribos-rm



Compact. Powerful. Fast. Polygonal toolholder TRIBOS-RM

TRIBOS-RM is suitable for powerful HSC machining in micro-cutting up to 85,000 RPM and higher. The excellent run-out accuracy smaller than 0.003 mm as well as a stability gained from the anchor structure form the basis of the extremely compact toolholder mountings and in so doing ensures precise and process-reliable metal cutting. The different sizes are perfectly suitable for small, highly dynamic machining centers.

Functions & highlights

- **High radial rigidity**
  Stability at high cutting forces, good metal cutting performance, and therefore faster machining time and higher productivity
- **Small and compact design**
  Precise and reliable metal cutting
- **Excellent vibration damping**
  Micro-blowouts are prevented, optimal workpiece surfaces, machine spindle protection, increased tool service life resulting in a reduction of costs



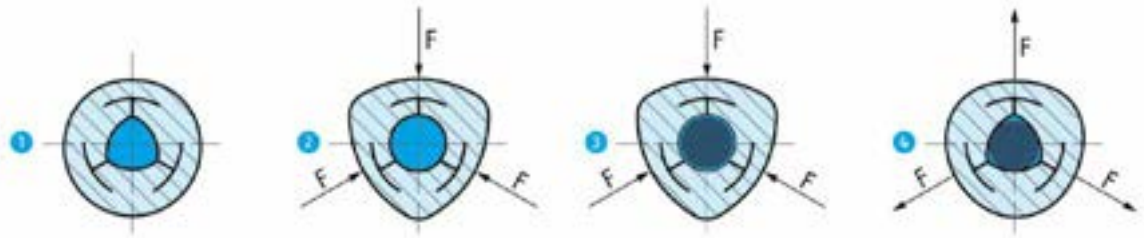
Field of application

TRIBOS-RM

For maximum performance in micro-cutting, whether drilling, reaming or milling



1. **Anchor structure**
2. **Base body**
3. **Compact design**



Clamping diameter polygonal

Clamping diameter becomes round

Inserting the tool shank

Tool clamped

schunk.com/tribos-m



Mini. Precise. Fast.
Polygonal toolholder TRIBOS-Mini

TRIBOS-Mini is setting standards in micro-cutting. This polygonal clamping system is used in filigree machining operations for housings, molds, electrodes, and engravings in medical and electrical engineering, as well as in the watch and clock making industry, or in the precision die and mold making industry. TRIBOS-Mini can be used to clamp extremely small shanks, starting at Ø 0.3 mm, which means the time-consuming and cost-intensive manufacturing of special tools is no longer needed.

Functions & highlights

- **For the smallest diameters starting from 0.3 mm**
  Economical for filigree machining operations without special tools
- **Rotationally symmetrical design**
  The rotationally symmetrical design minimizes the interfering contour and ensures high speed of rotation
- **Excellent vibration damping**
  Micro-blowouts are prevented, optimal workpiece surfaces, machine spindle protection, increased tool service life resulting in a reduction of costs



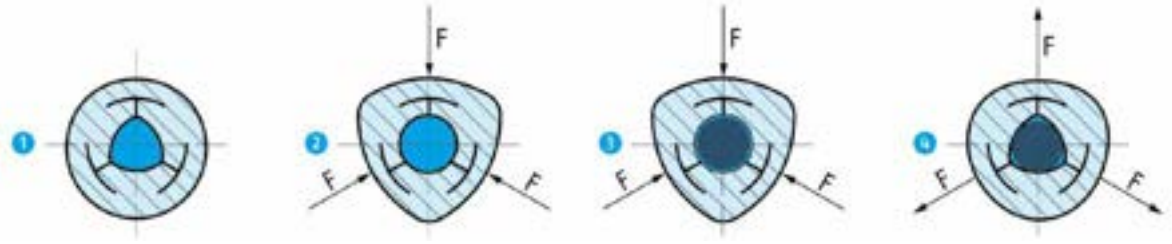
Field of application

TRIBOS-Mini

Ideal for HSC machining of difficult workpieces in micro-cutting



1. Anchor structure
2. Base body



Clamping diameter polygonal

Clamping diameter becomes round

Inserting the tool shank

Tool clamped

schunk.com/sino-r



Robust. High-quality. Productive. Expansion toolholder SINO-R

With SINO-R, SCHUNK is offering an expansion toolholder based on expansion technology. Three characteristics make the SINO-R range unbeatable in terms of quality and productivity when it comes to thread milling: The high radial rigidity, which prevents deflection of the tool, the higher torque transmission for full utilization of tool performance and the excellent vibration damping that produces the best thread surfaces without chatter marks.

Functions & highlights

- **Monoblock design of the base body**
  For increased stability and rigidity, the base body is made of one steel block from the toolholder mounting right up to the machine mounting
- **Reinforced expansion sleeve for increased radial rigidity**
  Very difficult metal cutting tasks with the highest radial forces
- **Optimal ratio between clamping force, rigidity, and damping**
  Reduced tool costs, more efficient production, and high torques up to 800 Nm in clamped condition



Field of application

SINO-R

Universal! For thread milling and for volume machining with torques of up to 800 Nm



1. **Base body with machine interface**
2. **Thread for the axial length presetting**
3. **Expansion chamber with clamping sleeve and high-end elastomer**
4. **Reinforced expansion sleeve**
5. **Cover sleeve**
6. **Retention bore**

schunk.com/celsio



Efficient. Radially rigid. Slim. Heat shrinking toolholder CELSIO

CELSIO is a heat-shrinking system that is suitable for different shrinking devices. It uses induction heat from eddy currents to the heat shrinking toolholder, which clamps the tool shank firmly. The unit of toolholder and tool forms an almost homogeneous connection. The Cool Flow variant of the CELSIO toolholder has integrated cooling channels that can be closed with M3 screws to direct the coolant directly to the cutting edge of the tool. The Dual Contact version offers both taper and flat work surface for machines with a corresponding interface, closing the gap between the tool flange and the spindle face.

Functions & highlights

- **High clamping forces**
  Secure and friction-locked clamping for transmission of high torques
- **Good ratio between radial rigidity and interfering contour**
  High machine-cutting performance, faster machining times and increased productivity
- **Toolholder for powerful metal cutting**
  High-speed machining at machine speeds of up to 50,000 RPM and for use of HSS and HM tools



Field of application

CELSIO

For milling, drilling and high-speed cutting



1. Tool
2. Eddy currents
3. Heated clamping diameter via induction coil
4. Thread for balancing screw
5. Base body



Flexible. Universal. Modular.
ER collet chucks

The ER collet chuck is suitable for clamping tools with cylindrical shanks in collets in accordance with DIN ISO 15488-B. Due to the large and flexible clamping range of the collets, various shank tolerances can be clamped. The clamping nut is included in the scope of delivery. The Dual Contact ER collet chucks variant with simultaneous taper and flat work surface closes the interface-related gap between tool flange and the end face of the machine spindle in machines with a flat work surface interface.



Flexible. Modular. Slim.
ER collet chuck Mini

The ER collet chuck Mini s suitable for clamping tools with cylindrical shanks in collets in accordance with DIN ISO 15488-B. Due to the large clamping range of the collets, various shank tolerances can be clamped. The ER collet chuck Mini also has an optimized interfering contour as well as providing excellent workpiece accessibility. The clamping nut is included in the scope of delivery.



Precise. Compact. Simple.
ER precision collet chuck

The ER precision collet chuck is suitable for clamping tools with cylindrical shanks in collets in accordance with DIN ISO 15488-B. Due to the large clamping range of the collets, various shank tolerances can be clamped. Using a precision collet, highest run-out accuracies of 3 microns can be attained. The clamping nut is included in the scope of delivery.



Reliable. Anti-twist. Simple.
WELDON

The WELDON end mill holder enables secure clamping of tools with a cylindrical shank and lateral clamping surface and prevents twisting and pulling out thanks to a clamping screw and is compatible with DIN 1835B and DIN 6535HB. The clamping screw is also supplied. The Cool Flow version offers peripheral cooling through cooling channels, which can be closed with M3 screws and guide the coolant directly to the cutting edge of the tool. The Dual Contact design with simultaneous taper and flat work surface ensures that the gap between the tool flange and the spindle face is closed with corresponding machine interfaces.



Slim. Reliable. Anti-twist.
WELDON Slim

WELDON Slim end mill holders can be used to reliably clamp tools with a lateral clamping face on the cylindrical shank. Due to the toolholder's clamping screw, the tool cannot be turned or pulled out. The mounting is suitable for clamping tools with cylindrical shanks in accordance with DIN 1835B and DIN 6535HB. Clamping screw with ball head and length adjustment screw are included in the scope of delivery. The WELDON Slim Cool Flow variant enables peripheral cooling by means of cooling channels in the wall, which can be optionally closed/sealed again with two M3 screws. The coolant is fed directly to the cutting edge of the tool.



Anti-twist. Pull-out proof. Simple.
Whistle Notch mountings

Whistle Notch mountings can be used to reliably clamp tools with a lateral clamping surface on the cylindrical shank. Due to the clamping screw of the mounting, the tool cannot twist or pull out. The mounting is suitable for clamping tools with cylindrical shanks in accordance with DIN 1835E and DIN 6535E. The clamping screw and length adjustment screw are included in the scope of delivery.



Robust. Fast. Proven.
Face mill arbors

Face mill arbors are suitable for clamping end face mills and face mills, with crosswise slot in accordance with DIN 1880, from clamping diameter 40 mm in accordance with DIN 2079 (four threaded holes). Due to the enlarged contact surface, milling cutters with a crosswise slot can be clamped quickly. The clamping screw and driving keys are included in the scope of delivery. Face mill arbors with front side coolant supply are suitable for clamping end face mills and face mills with internal cooling. Face mill arbors with simultaneous taper and flat work surface close the interface-related gap between tool flange and the front of the machine spindle in machines with a flat work surface interface.



Quick. Solid. Safe.
Combination shell and end mill adapters

The combination shell end mill adapter is a mechanical stationary toolholder for rapid clamping of milling cutters with a longitudinal or crosswise slot. Clamping screw and driving keys are included in the scope of delivery.



Flexible. Fast. Compact.
CNC short drill chucks

CNC short drill chucks are suitable for clamping tools with cylindrical shank in machining centers or CNC machines. In the machine, it is possible to have seamless and quick tool changes for tools with 1 mm to 16 mm shank diameters – even with internal coolant supply. The spanner wrench is included in the scope of delivery.



Flexible. Individual. Project-related. SCHUNK Engineering

Here you will find individual solutions for precise and efficient expansion technology. Whether it's customized special designs or advanced simulations of your production requirements: Optimize your production processes with SCHUNK clamping technology developed especially for you.

Customized expansion technology

- The highest possible run-out and repeat accuracy of up to 0.003 mm
- High transmittable torques due to optimal surface clamping
- Vibration-damping characteristics



Customized special designs

SCHUNK Engineering

From the initial discussion through to integration of the finished clamping element, you benefit from our customer-orientation and development expertise. Thanks to an individual design, we ensure optimal adaptation of the clamping device to workpiece and machine – regardless of whether you want an adaptation to a standard product or require a new complex clamping solution. More than 85,000 successfully implemented customized projects for extreme requirements have proven: SCHUNK offers perfectly made-to-measure precision clamping technology.

Simulation services for your customized solution



To optimize your machining process, we can simulate your workpiece clamping task.
For example, the following evaluations are possible:

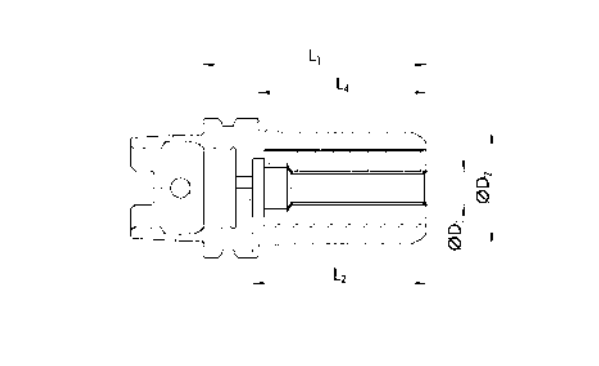
- Determination of workpiece deformation
- Load on the clamping device
- Calculation of clamping forces and maximum torque
- Investigation of critical speed ranges (vibrations)

Your contact to the specialist department:
sonderdehnspanntechik@de.schunk.com
or give us a call: +49 7133 103 2555

Overview by interface

Toolholders	HSK-A 25	HSK-A 32	HSK-A 40	HSK-A 50	HSK-A 63	HSK-A 80	HSK-A 100	HSK-C 32	HSK-C 40	HSK-C 50	HSK-C 63	HSK-E 20	HSK-E 25	HSK-E 32	HSK-E 40
TENDO Silver					694		722								
TENDO E compact				687	695		723								
TENDO Slim 4ax					696		724								
TENDO Platinum			679	688	697	717	725	739	740	741	742				752
TENDO Zero					699		726								
TENDO ES															
TENDO LSS					700										
TENDO RLA				689	701		727								
TENDO Turn															
iTENDO²					702		728								
TRIBOS-R					703										
TRIBOS-S		676	680		704								744	747	753
TRIBOS-RM	674	677	681										745	748	754
TRIBOS-Mini	675	678	682									743	746	749	755
SINO-R					705		729								
CELSIO			683	690	706	718	730							750	756
ER collet chucks			684	691	708	719	732							751	758
ER collet chuck Mini					709										
ER precision collet chuck					710		733								759
WELDON			685	692	711	720	734								
WELDON Slim					712										
Whistle Notch mountings					713		735								
Face mill arbors			686	693	714	721	736								
Combination shell and end mill adapters					715		737								
CNC short drill chucks					716		738								

HSK-E 63	HSK-F 63	SK 30	SK 40	SK 50	JIS-BT 30	JIS-BT 40	JIS-BT 50	BT-DC 30	BT-DC 40	BT-DC 50	CAT 40	CAT 50	CAT-DC 40	SCHUNK CAPTO C4	SCHUNK CAPTO C5	SCHUNK CAPTO C6	SCHUNK CAPTO C8	DKE	DSE	VDI
			774	794	810	821	839				859	871								
	766		775	795	811	822	840	849	853	858			877	878	886	892				
			776	796	812	823					860					893				
765		770	777	797	813	824	841				861	872		879	887	894				
			778	798	814	825					863					895				
			779	799		826					864									
			780																	
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	767	771	782		816	828					866									
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			783	801		829					867	874								
	768		784	802	818	830	842	850	854		868	875		882	888	897	905			
	769		786	804	819	832	844	851	855		869	876		883	889	899	906			
			787			833										900				
			788	805	820	834	845				870					901				
			789	806		835	846		856					884	890	902	907			
			790																	
																903				
			791	807		836	847	852	857					885	891	904	908			
			792	808		837														
			793	809		838	848													





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Extra radial rigidity

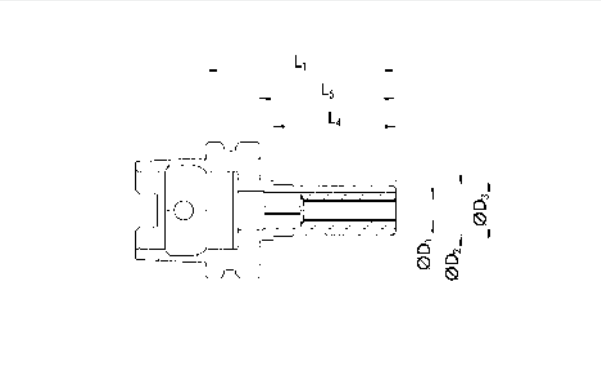
Micro Maching

HSC
HSC

Technical data

ID	D1 mm	D2 mm	L1 mm	L2 mm	L4 mm	Mmin Nm	Weight kg	
0226030	3	20	40	31	30	3	0.12	0201892
0226031	4	20	40	31	30	4	0.12	0201892
0226032	6	20	40	31	30	10	0.12	0201892
0226033	8	20	40	31	30	15	0.12	0201892

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Micro Maching

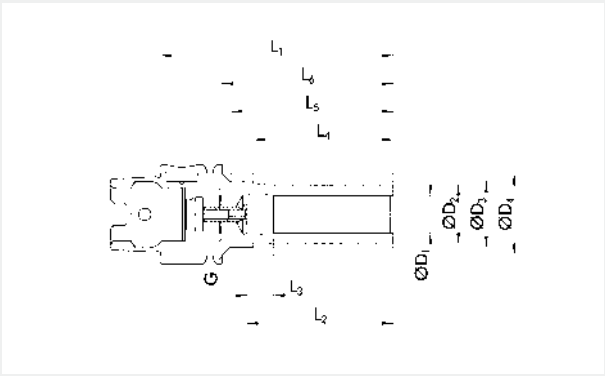
HSC

Optimized interfering contours

Technical data

ID	D1	D2	D3	L1	L4	L5	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	Nm	kg	
0226020	1	9	11	35	22.5	25		0.05	0201971
0226021	1.5	9	11	35	22.5	25		0.05	0201971
0226022	2	9	11	35	22.5	25	1	0.05	0201971
0226023	3	9	11	35	22.5	25	1.5	0.05	0201971
0226024	4	9	11	35	22.5	25	2.5	0.05	0201971
0226025	6	9	11	35	22.5	25	4.5	0.05	0201971
0226026	1/8"	9	11	35	22.5	25	1.5	0.05	0201971

ⓘ *Run-out accuracy at 2.5 x D; run-out for Ø 6 mm: ≤ 0.005 mm at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

HSC
HSC

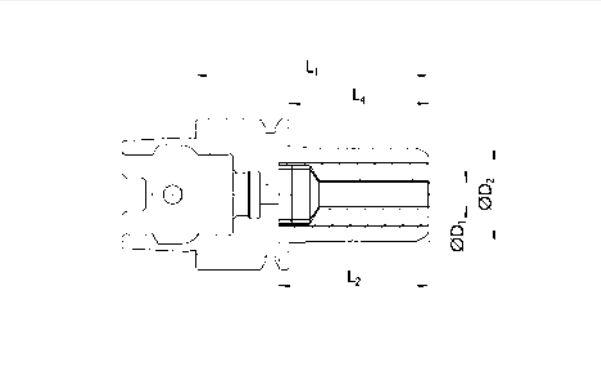
Optimized interfering contours

Data carrier bore as an option

Technical data

ID	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	L6 mm	G	Mmin Nm	Weight kg	
0205608	6	9.9	13.1	65	37	10	35	38.2	45	M5	5	0.19	0201972
0205609	8	13	15.1	65	37	10	35	39.2	45	M5	12	0.2	0201973
0205610	10	16	18.1	70	42	10	40	45.7	50	M5	20	0.22	0201974
0205611	12	19	21.1	75	47	10	45	52.2	55	M5	30	0.24	0201975

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Extra radial rigidity

Micro Maching

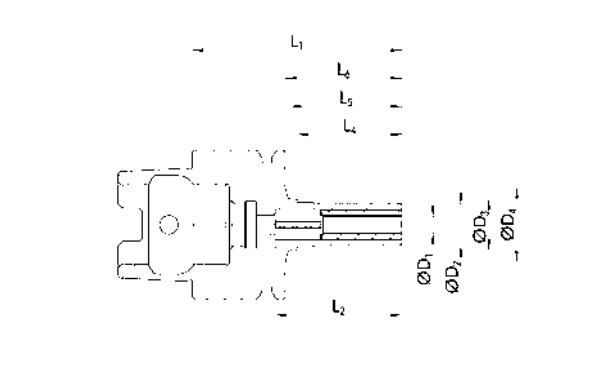
HSC

Data carrier bore as an option

Technical data

ID	D1 mm/Inch	D2 mm	L1 mm	L2 mm	L4 mm	Mmin Nm	Weight kg	
0225881	3	20	50	32	30	3	0.25	0201892
0225882	4	20	50	32	30	4	0.25	0201892
0225883	5	20	50	32	30	5	0.25	0201892
0225884	6	20	50	32	30	10	0.25	0201892
0225885	8	20	50	32	30	15	0.25	0201892
0225886	10	20	50	32	30	20	0.25	0201892
0225887	12	20	50	32	30	20	0.25	0201892
0225888	1/8"	20	50	32	30	3	0.25	0201892

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Micro Maching

HSC

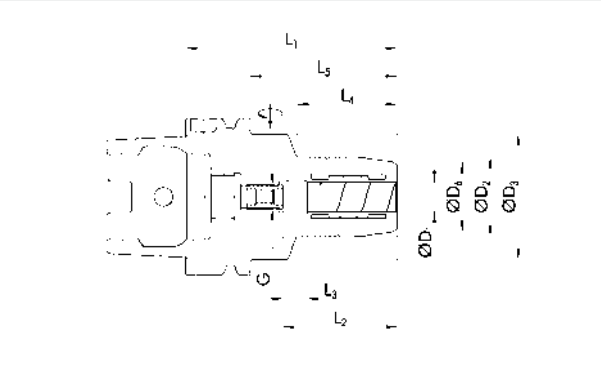
Optimized interfering contours

Data carrier bore as an option

Technical data

ID	D1	D2	D3	D4	L1	L2	L4	L5	L6	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm	Nm	kg	
0225911	1	9	11	18.8	45	17.8	22.5	23.4	25		0.13	0201971
0225912	1.5	9	11	18.8	45	17.8	22.5	23.4	25		0.13	0201971
0225913	2	9	11	18.8	45	17.8	22.5	23.4	25	1	0.13	0201971
0225915	3	9	11	18.8	45	17.8	22.5	23.4	25	1.5	0.13	0201971
0225916	4	9	11	18.8	45	27.2	22.5	23.4	25	2.5	0.13	0201971
0225917	6	9	11	18.8	45	27.2	22.5	23.4	25	4.5	0.13	0201971
0225918	1/8"	9	11	18.8	45	17.8	22.5	23.4	25	1.5	0.13	0201971

ⓘ *Run-out accuracy at 2.5 x D; run-out for Ø 6 mm: ≤ 0.005 mm at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Data carrier bore as an option

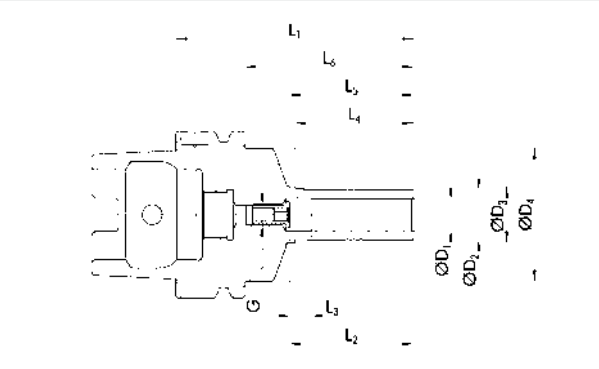
Internal cooling
up to 80 bar

Coolant type
Design suitable for MQL operations available on request

Technical data

ID	D1 mm	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
0204241	6	26	33.5	22	70	37	10	36	50	M5	16	0.4	9205640
0204242	8	28	33.5	24	70	37	10	36	50	M6	23	0.5	9205640
0204243	10	30	33.5	26	75	41	10	42	55	M6	45	0.5	9205640
0204244	12	32	33.5	28	80	46	10	48	60	M6	90	0.5	9205640
0206205	16	38	53	33.5	90	49	10	37	70	M8x1	185	0.8	9205650
0206217	20	42	53	37.5	100	51	10	47	80	M8x1	330	1	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

HSC
HSC

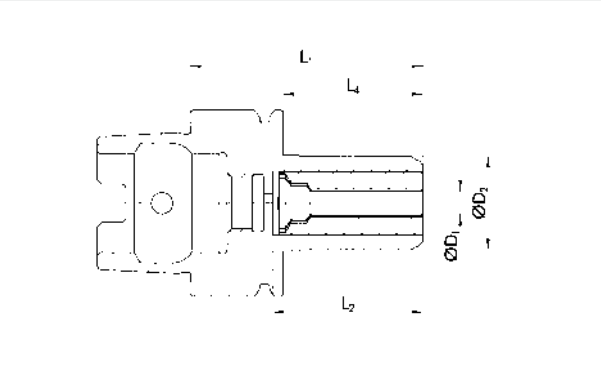
Optimized interfering contours

Data carrier bore as an option

Technical data

ID	D1 mm	D2 mm	D3 mm	D4 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	L6 mm	G	Mmin Nm	Weight kg	
0205101	6	9.9	13.1	32	70	37	10	35	37.2	50	M5	5	0.35	0201972
0205102	8	13	15.1	32	70	37	10	35	37.2	50	M6	12	0.4	0201973
0205103	10	16	18.1	32	80	42	10	40	42.2	60	M8x1	20	0.4	0201974
0205104	12	19	21.1	32	85	47	10	45	47.2	65	M8x1	30	0.45	0201975
0205106	20	30	32.1		90	52	10	45	70		M8x1	150	0.5	0201981

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Extra radial rigidity

Micro Maching

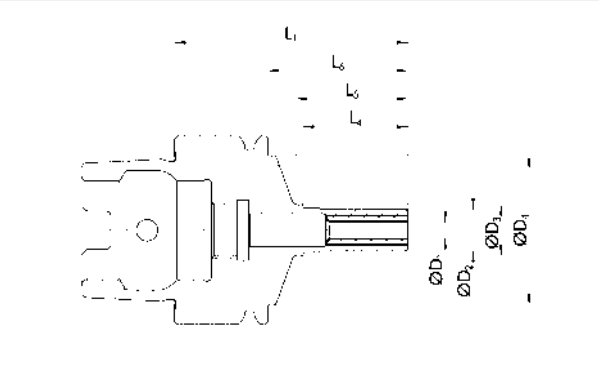
HSC

Data carrier bore as an option

Technical data

ID	D1	D2	L1	L2	L4	Mmin	Weight	
	mm	mm	mm	mm	mm	Nm	kg	
0225971	3	20	50		30	3	0.41	0201892
0225972	4	20	50	32	30	4	0.41	0201892
0225974	6	20	50	32	30	10	0.41	0201892
0225975	8	20	50	32	30	15	0.41	0201892
0225976	10	20	50	32	30	20	0.41	0201892
0225977	12	20	50	32	30	20	0.41	0201892

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Micro Maching

HSC

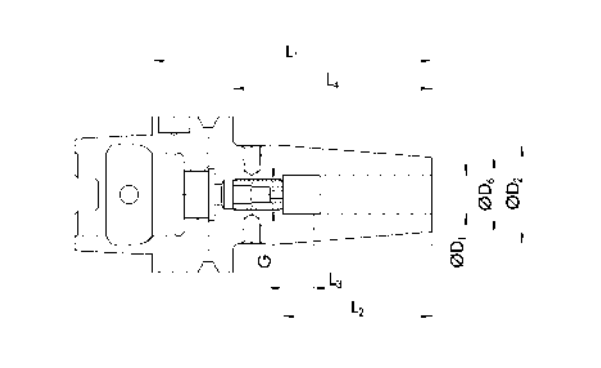
Optimized interfering contours

Data carrier bore as an option

Technical data

ID	D1 mm/Inch	D2 mm	D3 mm	D4 mm	L1 mm	L4 mm	L5 mm	L6 mm	Mmin Nm	Weight kg	
0225921	1	9	11	32	50	22.5	23.4	30		0.23	0201971
0225922	1.5	9	11	32	50	22.5	23.4	30		0.23	0201971
0225923	2	9	11	32	50	22.5	23.4	30	1	0.23	0201971
0225925	3	9	11	32	50	22.5	23.4	30	1.5	0.23	0201971
0225926	4	9	11	32	50	22.5	23.4	30	2.5	0.23	0201971
0225927	6	9	11	32	50	22.5	23.4	30	4.5	0.23	0201971
0225928	1/8"	9	11	32	50	22.5	23.4	30	1.5	0.23	0201971

ⓘ *Run-out accuracy at 2.5 x D; run-out for Ø 6 mm: ≤ 0.005 mm at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

Data carrier bore as an option

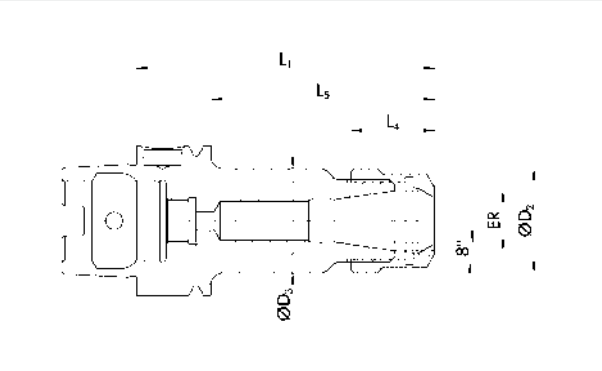
Internal cooling
up to 80 bar

Coolant type
Design suitable for MQL operations available on request

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
1458784	4.5°	3	17	12	60	13		40		4	0.2
1458785	4.5°	4	17	12	60	15		40		6	0.2
1458786	4.5°	5	17	12	60	15.5		40		8	0.2
0208100	4.5°	6	27	21	80	37	10	60	M5	20	0.4
0208101	4.5°	8	27	21	80	37	10	60	M6	50	0.4
0208102	4.5°	10	32	24	80	42	10	60	M8x1	70	0.4
0208103	4.5°	12	32	24	90	48	10	70	M10x1	150	0.5
0208104	4.5°	14	34	27	90	48	10	70	M10x1	180	0.5
0208105	4.5°	16	34	27	90	51	10	70	M12x1	300	0.5

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

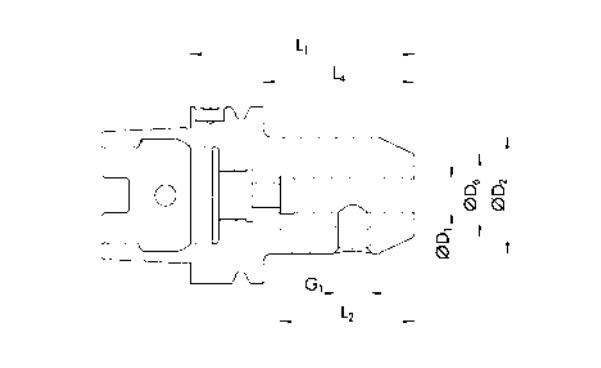
Balancing grade
G2.5 at 25,000 RPM*

Data carrier bore as an option

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
	mm		mm	mm	mm	mm	mm		kg
23001950	1 – 10	ER 16	28	28	60	17.5	40		0.5
23001951	1 – 16	ER 25	42	42	70	20	50		0.44
23000732	2 – 20	ER 32	50	50	70	23	50		0.49
23005052	1 – 7	ER 11	19	19	80	11.3	60	M8x1	0.3
0263350	1 – 10	ER 16	28	28	80	17.5	60	M11x1	0.41
0263351	1 – 16	ER 25	42	42	80	20	60	M18x1.5	0.51
0263352	2 – 20	ER 32	50	50	100	23	80	M24x1.5	0.54

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

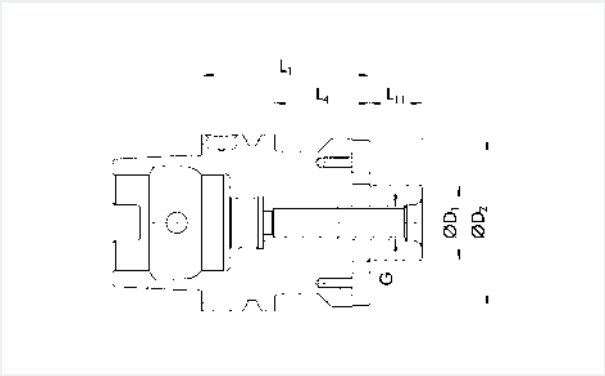
Short set-up time

Data carrier bore as an option

Technical data

ID	D1	D2	D6	L1	L2	L4	G1	Weight
	mm	mm	mm	mm	mm	mm		kg
0263500	6	25	14.5	60	35	40	M6	0.34
0263501	8	28	19.5	60	35	40	M8	0.37
0263502	10	35	24.5	60	41	40	M10	0.44
0263503	12	42	29.5	70	48	50	M12	0.4
0263504	14	42	31.5	75	48	55	M12	0.4
0263505	16	48	35.5	75	51	55	M14	0.74

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.006 mm*

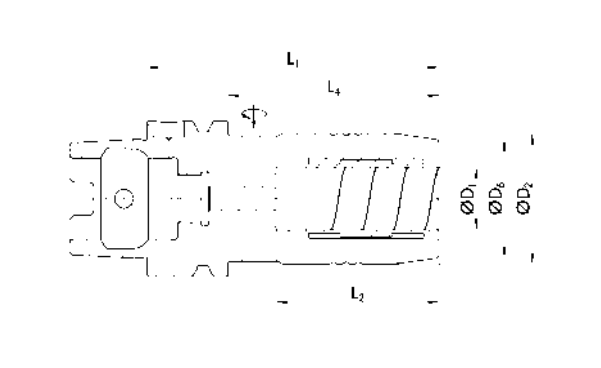
Balancing grade
G2.5 at 25,000 RPM*

Data carrier bore as an option

Technical data

ID	D1	G	D2	L1	L4	L11	Weight
	mm		mm	mm	mm	mm	kg
23000670	16	M8	38	50	30	17	0.49
23000618	22	M10	48	60	40	19	0.76

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Extra radial rigidity

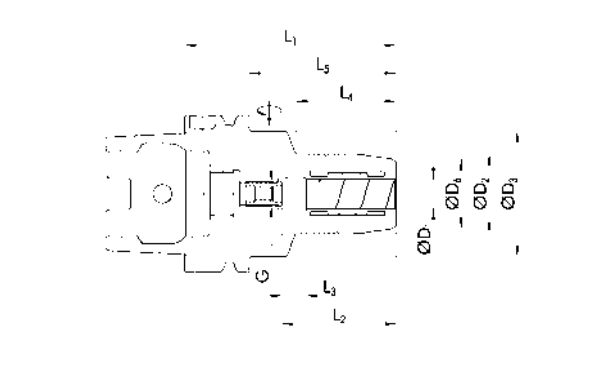
HPC

Data carrier bore as an option

Technical data

ID	D1	D2	D6	L1	L2	L4	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	Nm	kg	
20055171	20	42	38	94	52.5	68	520	1.32	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Data carrier bore as an option

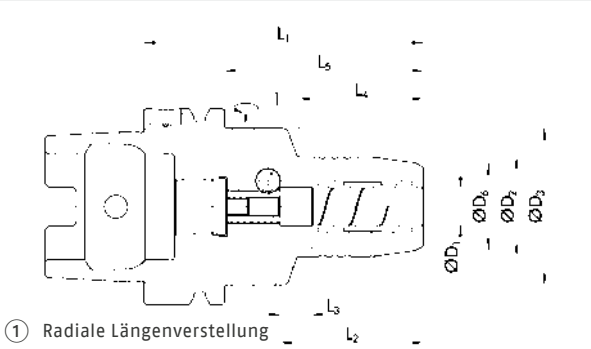
Internal cooling
up to 80 bar

Coolant type
Design suitable for MQL operations available on request

Technical data

ID	D1 mm	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
0204041	6	26	40	22	70	37	10	28	44	M5	16	0.7	9205640
0204042	8	28	40	24	70	37	10	28	44	M6	23	0.7	9205640
0204043	10	30	40	26	75	41	10	34	49	M8x1	45	0.7	9205640
0204044	12	32	40	28	85	46	10	44	59	M10x1	90	0.8	9205640
0204049	14	34	40	30	85	46	10	44	59	M10x1	110	0.8	9205640
0204045	16	38	53	34	90	49	10	30	64	M10x1	185	1.1	9205650
0204040	18	40	57	36	90	49	10	30	64	M10x1	240	1.1	9205650
0204046	20	42	60	38	90	51	10	29	64	M10x1	330	1.1	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves



① Radiale Längenverstellung



Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

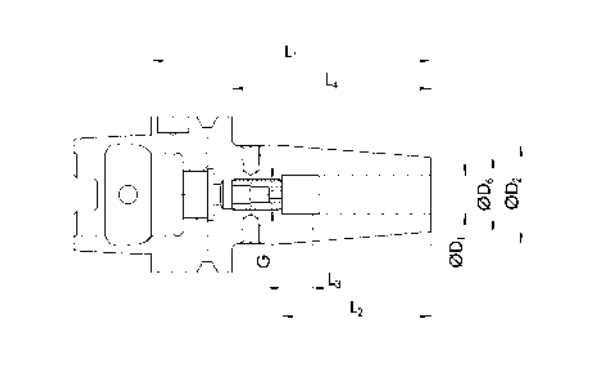
Data carrier bore as an option

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm	kg	
0208401	6	26	40	22	80	37.2	10	35	54	16	0.8	9205640
0208402	8	28	40	24	80	37.2	10	36	54	23	0.8	9205640
0208403	10	30	40	26	85	41	10	38	59	45	0.8	9205640
0208404	12	32	40	28	90	46	10	40	64	90	0.8	9205640
0208405	16	38	53	34	95	48.7	10	36.5	69	185	1.2	9205650
0208406	20	42	60	38	100	51	10	39	74	330	1.2	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

Data carrier bore as an option

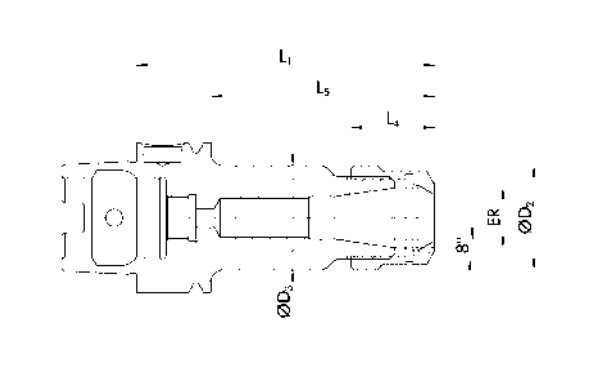
Internal cooling
up to 80 bar

Coolant type
Design suitable for MQL operations available on request

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
1458793	4.5°	3	17	12	60	13		34		4	0.4
1458794	4.5°	4	17	12	60	15		34		6	0.4
1458795	4.5°	5	17	12	60	15.5		34		8	0.4
0208110	4.5°	6	27	21	80	37	10	54	M5	20	0.7
0208111	4.5°	8	27	21	80	37	10	54	M6	52	0.7
0208112	4.5°	10	32	24	85	42	10	59	M8x1	70	0.8
0208113	4.5°	12	32	24	90	48	10	64	M10x1	150	0.8
0208114	4.5°	14	34	27	90	48	10	64	M10x1	180	0.9
0208115	4.5°	16	34	27	95	51	10	69	M12x1	300	0.9
0208116	4.5°	18	42	33	95	51	10	69	M12x1	370	1
0208117	4.5°	20	42	33	100	53	10	74	M16x1	450	1

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

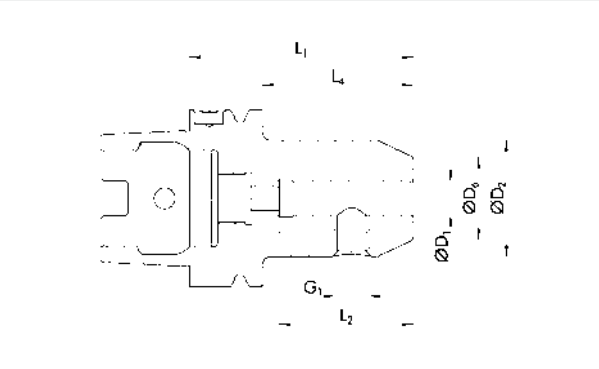
Balancing grade
G2.5 at 25,000 RPM*

Data carrier bore as an option

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
	mm		mm	mm	mm	mm	mm		kg
23001961	1 – 10	ER 16	28	28	60	17.5	34		0.5
23001962	1 – 16	ER 25	42	42	70	20	44		0.62
23001963	2 – 20	ER 32	50	50	80	23	54		0.64
0263355	1 – 10	ER 16	28	28	100	17.5	74	M8x1	0.63
0263356	1 – 16	ER 25	42	42	100	20	74	M11x1	0.7
0263357	2 – 20	ER 32	50	50	100	23	74	M24x1.5	0.96

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

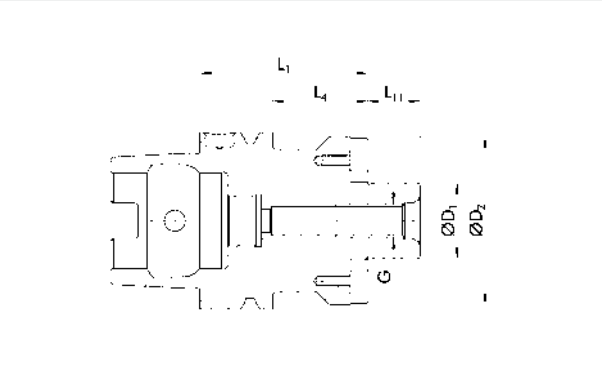
Short set-up time

Data carrier bore as an option

Technical data

ID	D1	D2	D6	L1	L2	L4	G1	Weight
	mm	mm	mm	mm	mm	mm		kg
0263510	6	25	14.5	65	35	39	M6	0.5
0263511	8	28	19.5	65	35	39	M8	0.58
0263512	10	35	24.5	65	41	39	M10	0.65
0263513	12	42	29.5	80	48	54	M12	0.9
0263514	16	48	35.5	80	51	54	M14	0.97
0263515	20	52	39.5	80	53	54	M16	1.6

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.006 mm*

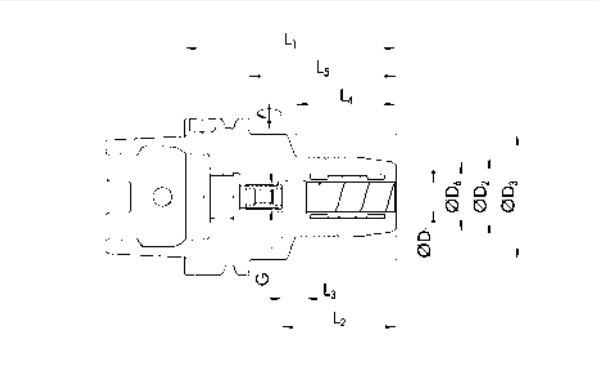
Balancing grade
G2.5 at 25,000 RPM*

Data carrier bore as an option

Technical data

ID	D1	G	D2	L1	L4	L11	Weight
	mm		mm	mm	mm	mm	kg
23000671	16	M8	38	50	24	17	0.68
23000266	22	M10	48	60	34	19	1.2
23000672	27	M12	60	60	34	21	1.09

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

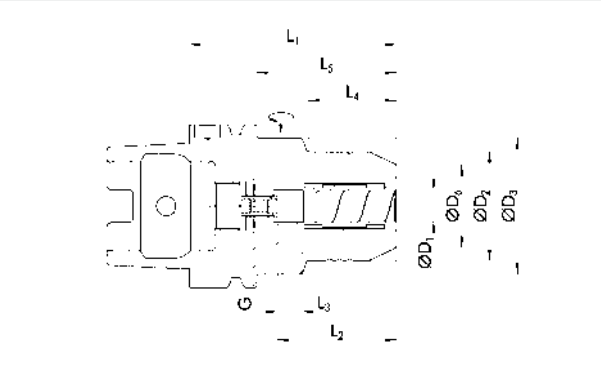
Data carrier bore as an option

Internal cooling
up to 80 bar

Technical data

ID	D1 mm	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
1360923	6	26	50	22	70	37	10	24	44	M5	16	1	9205650
1360924	8	28	50	24	70	37	10	25	44	M6	23	1	9205650
1360925	10	30	50	26	80	41	10	35	54	M8x1	45	1	9205650
1360926	12	32	50	28	85	46	10	40	59	M10x1	90	1	9205650
1360927	14	34	50	30	85	46	10	40	59	M10x1	110	1.1	9205650
1360928	16	38	50	34	90	49	10	46	64	M12x1	185	1.2	9205650
1360929	18	40	50	36	90	49	10	47	64	M12x1	240	1.2	9205650
1360930	20	42	50	38	90	51	10	48	64	M16x1	330	1.2	9205650
1360931	25	57		53	120	57	10	94		M16x1	400	2.1	9205660
1360932	32	62		58	125	61	10	99		M16x1	650	2.3	9205660

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Extra radial rigidity

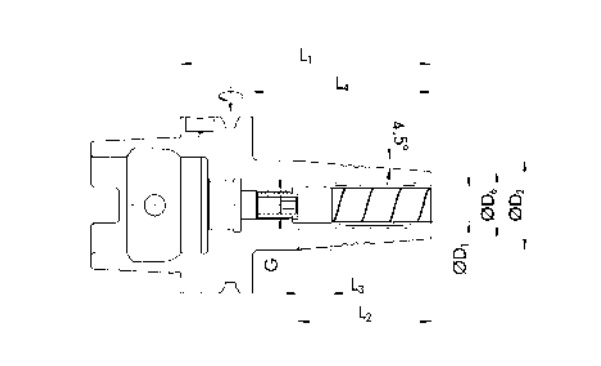
HPC

Data carrier bore as an option

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0206404	12	42	52.5	32	80	46	10	34	54	M8x1	110	1.25	9205650
0206405	16	52.5		38	80	51	10	54		M8x1	350	1.3	9205650
0206406	20	52.5		38	80	51	10	54		M8x1	520	1.32	9205650
0206456	3/4"	52.5		38	80	51	10	54		M8x1	520	1.3	9205650
1323447	32	62.5		58.5	120	61	10	94		M8x1	800	2	9205650
20064356	12	42	44.5	32	130	46	10	32	104	M8x1	110	1.73	9205650
1431660	16	42	44.5	38	130	51	10	50	104	M8x1	350	1.8	9205650
20064357	20	42	44.5	38	130	51	10	50	104	M8x1	400	1.68	9205650
1000071	3/4"	42	44.5	38	130	51	10	50	104	M8x1	400	1.9	9205650

ⓘ *Run-out accuracy: at 2.5 x D; run-out at L1 = 130 mm: ≤ 0.005 mm at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Optimized interfering contours

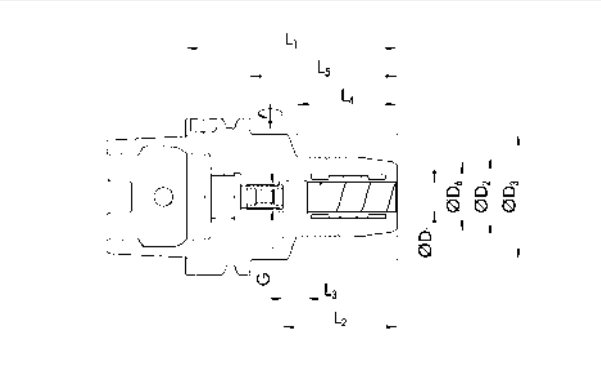
Internal cooling
up to 80 bar

Coolant type
MQL suitable version

Technical data

ID	D1 mm	D2 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	G	Mmin Nm	Weight kg	
0206341	6	27	21	80	38.2	10	54	M10x1	16	0.9	9205650
0206342	8	27	21	80	38.2	10	54	M10x1	23	0.9	9205650
0206343	10	32	24	85	42.7	10	59	M10x1	45	0.9	9205650
0206344	12	32	24	90	47.7	10	64	M10x1	90	0.9	9205650
0206349	14	34	27	90	48.7	10	64	M10x1	110	1	9205650
0206345	16	34	27	95	53.2	10	69	M12x1	185	1	9205650
0206346	20	42	33	100	55.7	10	74	M16x1	330	1.2	9205650
0206351	6	27	21	120	38.2	10	94	M5x0.8	16	1	9205650
0206352	8	27	21	120	38.2	10	94	M7x1	23	1	9205650
0206353	10	32	24	120	43.2	10	94	M8x1	45	1.1	9205650
0206354	12	32	24	120	47.7	10	94	M10x1	90	1.1	9205650
0206359	14	34	27	120	48.7	10	94	M10x1	110	1.2	9205650
0206355	16	34	27	120	53.2	10	94	M12x1	185	1.2	9205650
0206356	20	42	33	120	55.7	10	94	M16x1	330	1.4	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Data carrier bore as an option

Internal cooling
up to 80 bar

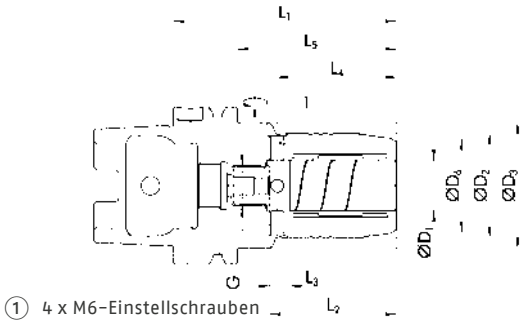
Coolant type
Design suitable for MQL operations available on request

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0204051	6	26	50	22	70	37	10	24	44	M5	16	1	9205650
0204052	8	28	50	24	70	37	10	25	44	M6	23	1	9205650
0204053	10	30	50	26	80	41	10	35	54	M8x1	45	1.1	9205650
0204054	12	32	50	28	85	46	10	40	59	M10x1	90	1.1	9205650
0204059	14	34	50	30	85	46	10	40	59	M10x1	110	1.1	9205650
0204055	16	38	50	34	90	49	10	46	64	M12x1	185	1.2	9205650
0204050	18	40	50	36	90	49	10	47	64	M12x1	240	1.3	9205650
0204056	20	42	50	38	90	51	10	48	64	M16x1	330	1.3	9205650
0204057	25	57		53	120	57	10	94		M16x1	400	2.16	9205660
0204058	32	62		58	125	61	10	99		M16x1	650	2.7	9205660
0204300	1/4"	26	50	21.5	70	37	10	24	44	M5	17	1	9205650
0204301	3/8"	30	50	25.5	80	41	10	35	54	M6	45	1	9205650
0204302	1/2"	32	50	27.5	85	46	10	40	59	M10x1	95	1	9205650
0204304	3/4"	42	50	37.5	90	51	10	48	64	M16x1	310	1.2	9205650
0204305	1"	57	63	52.6	120	57	10	59	94	M16x1	400	2.2	9205660
0204306	1 1/4"	64	75	59.6	125	61	10	63	99	M16x1	650	2.7	9205660
0204771	6	26	50	22	150	37	10	103	124	M5	16	1.4	9205650
0204772	8	28	50	24	150	37	10	104	124	M6	23	1.4	9205650
0204773	10	30	50	26	150	41	10	104	124	M8x1	45	1.5	9205650
0204774	12	32	50	28	150	46	10	105	124	M10x1	90	1.5	9205650
0204779	14	34	50	30	150	46	10	105	124	M10x1	110	1.6	9205650
0204775	16	38	50	34	150	49	10	106	124	M12x1	185	1.8	9205650
0204770	18	40	50	36	150	49	10	107	124	M12x1	240	1.8	9205650
0204776	20	42	50	38	150	51	10	108	124	M16x1	330	1.9	9205650
0204781	6	26	50	22	200	37	10	153	174	M5	16	1.6	9205650

ID	D1 mm/Inch	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
0204782	8	28	50	24	200	37	10	154	174	M6	23	1.6	9205650
0204783	10	30	50	26	200	41	10	154	174	M8x1	45	1.7	9205650
0204784	12	32	50	28	200	46	10	155	174	M10x1	90	1.8	9205650
0204789	14	34	50	30	200	46	10	155	174	M10x1	110	1.9	9205650
0204785	16	38	50	34	200	49	10	156	174	M12x1	185	2.2	9205650
0204780	18	40	50	36	200	49	10	157	174	M12x1	240	2.3	9205650
0204786	20	42	50	38	200	51	10	158	174	M16x1	330	2.4	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves



① 4 x M6-Einstellschrauben



Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

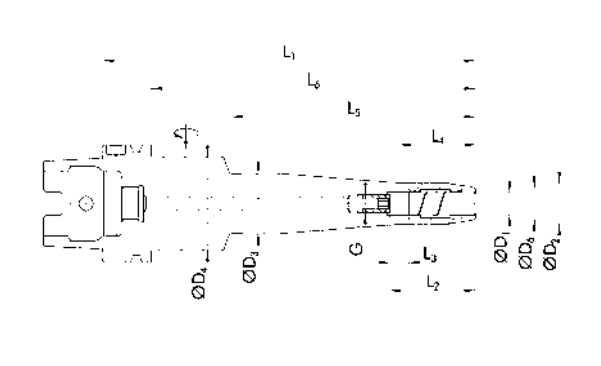
Data carrier bore as an option

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0204054Z	12	32	50	28	85	46	10	40	59	M10x1	90	1.1	9205650
0204059Z	14	34	50	30	85	46	10	40	59	M10x1	110	1.1	9205650
0204055Z	16	38	50	34	90	49	10	46	64	M12x1	185	1.2	9205650
0204056Z	20	42	50	38	90	51	10	48	64	M16x1	330	1.3	9205650
0204057Z	25	57		53	120	57	10	94		M16x1	400	2.2	9205660
0204058Z	32	62		58	125	61	10	99		M16x1	650	2.7	9205660

ⓘ *Run-out accuracy: at 2.5 x D; run-out accuracy of 0 microns, adjustable
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.006 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Optimized interfering contours

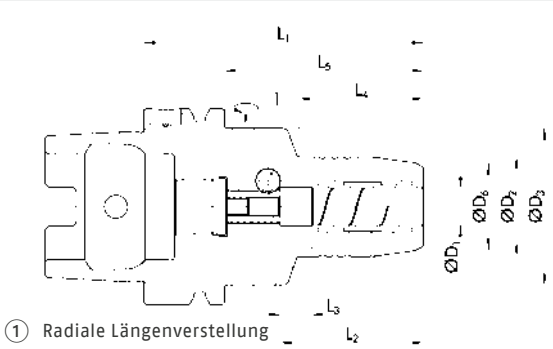
Data carrier bore as an option

Internal cooling
up to 80 bar

Technical data

ID	D1 mm	D2 mm	D3 mm	D4 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	L6 mm	G	Mmin Nm	Weight kg	
0204531	6	16	26.2	50.25	12	200	37	10	40.5	129	174	M5	10	1.5	9205650
0204532	8	18	28.2	50.25	14	200	37	10	40.5	130	174	M6	17	1.5	9205650
0204533	10	20	30.2	50.25	16	200	41	10	40.5	130	174	M8x1	35	1.6	9205650
0204534	12	22	32.2	50.25	18	200	46	10	40.5	130	174	M10x1	55	1.7	9205650
0204535	16	26	36.2	50.25	22	200	49	10	40.5	131	174	M12x1	120	1.8	9205650
0204536	20	30	40.2	50.25	26	200	51	10	40.5	132	174	M16x1	180	2	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves



① Radiale Längenverstellung



Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

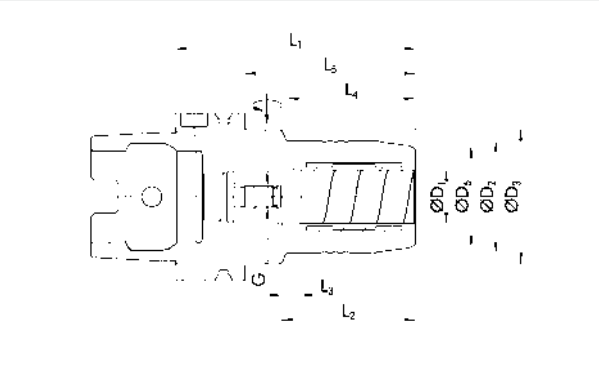
Data carrier bore as an option

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm	Nm	kg	
0205281	6	26	50	22	80	37	10	33	54	16	1.1	9205650
0205282	8	28	50	24	80	37	10	33	54	23	1.1	9205650
0205283	10	30	50	26	85	41	10	38	59	45	1.1	9205650
0205284	12	32	50	28	90	46	10	40	64	90	1.2	9205650
0205289	14	34	50	30	90	46	10	46	64	110	1.2	9205650
0205285	16	38	50	34	95	49	10	51	69	185	1.3	9205650
0205280	18	40	50	36	95	49	10	52	69	240	1.3	9205650
0205286	20	42	50	38	100	51	10	51	74	330	1.4	9205650
0205287	25	57	63	53	120	57	10	54.5	94	400	2.2	9205660
0205288	32	64	75	60	125	61	10	57.5	99	650	2.7	9205660
0205064	3/4"	42	50	38	100	51	10	51	74	330	1.4	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

External cooling/ internal cooling
up to 80 bar

Battery service life

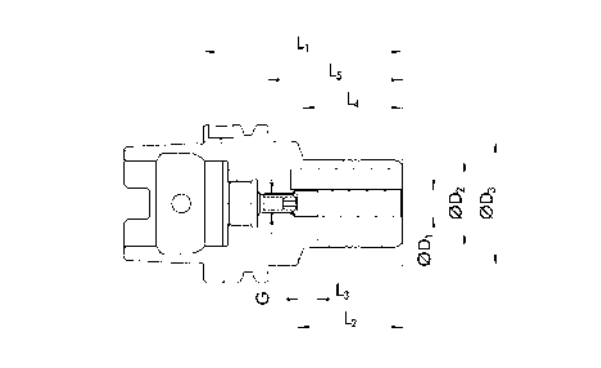
Acceleration sensor

Speed of rotation

Technical data

Description	ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	Max. rotational speed
		mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	RPM
iTENDO² HSK-A 63 Ø20x90	1484050	20	42	50	38	90			48	64		330	1.2	30000
iTENDO² HSK-A 63 Ø32x125	1519203	32	62		58	125	61	8	99		M16x1	650	2.4	25000
iTENDO² Slim 4ax HSK-A 63 Ø12x120	1517499	12	32		24	120	47.7	10	94		M10x1	90	1.1	30000

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Extra radial rigidity

HSC

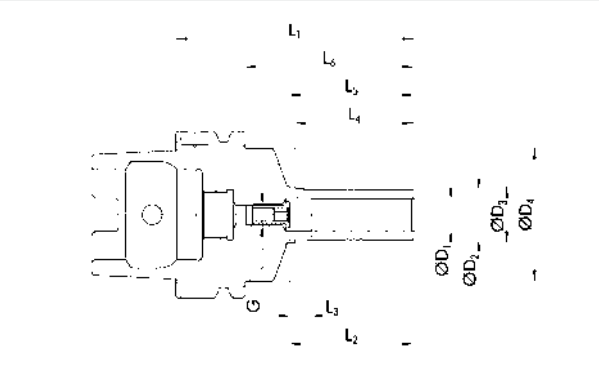
HPC

Data carrier hole optionally possible

Technical data

ID	D1 mm	D2 mm	D3 mm	D4 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	L6 mm	G	Mmin Nm	Weight kg	
0233331	6	25	50		70	37	10	35	44		M5	8	0.8	0201978
0233332	8	28	50		70	37	10	35	44		M6	14	0.835	0201980
0233333	10	35	50		80	42	10	40	54		M8x1	24	1	0201982
0233334	12	42	50		85	47	10	45	59		M8x1	40	1.2	0201983
0233339	14	48	50		85	47	10	45	59		M10x1	80	0.9	0201984
0233335	16	48	50		90	48	10	45	64		M10x1	120	1.25	0201984
0233330	18	48	50		90	48	10	45	64		M10x1	180	1.25	0201984
0233336	20	48	50		90	52	10	45	64		M10x1	240	1.25	0201984
0233337	25	60	63.5		105	57	10	45	79		M10x1	270	1.38	0201921
0233338	32	67	70.5		110	61	10	45	84		M10x1	350	1.52	0201922
0253331	6	25	30	50	150	37	10	35	85	124	M5	8	1.4	0201978
0253332	8	28	30	50	150	37	10	35	85	124	M6	14	1.4	0201980
0253333	10	35	37	50	150	42	10	40	90	124	M8x1	24	1.6	0201982
0253334	12	42	44	50	150	47	10	45	95	124	M8x1	40	1.8	0201983
0253339	14	48	50		150	47	10	45	124		M10x1	80	1.8	0201984
0253335	16	48	50		150	48	10	45	124		M10x1	120	2.1	0201984
0253330	18	48	50		150	48	10	45	124		M10x1	180	2.1	0201984
0253336	20	48	50		150	52	10	45	124		M10x1	240	2.2	0201984
0253337	25	60	63.5		150	57	10	45	124		M10x1	270	2.6	0201921
0253338	32	67	70.5		150	61	10	45	124		M10x1	350	3	0201922

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

HSC
HSC

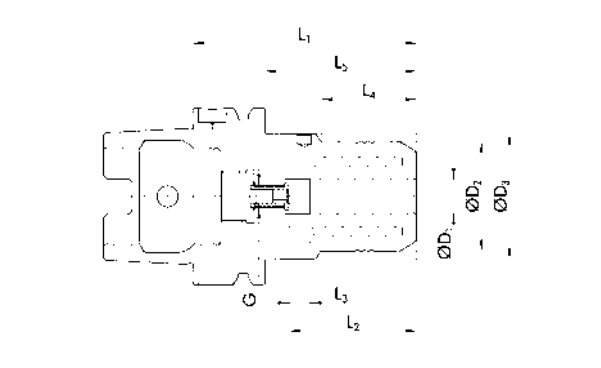
Optimized interfering contours

Data carrier bore as an option

Technical data

ID	D1 mm/Inch	D2 mm	D3 mm	D4 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	L6 mm	G	Mmin Nm	Weight kg	
0203351	6	9.9	13.1	50	80	37	10	35	37.2	54	M5	5	0.7	0201972
0203352	8	13	15.1	50	80	37	10	35	37.2	54	M6	12	0.7	0201973
0203353	10	16	18.1	50	85	42	10	40	42.2	59	M8x1	20	0.75	0201974
0203354	12	19	21.1	50	90	47	10	45	47.2	64	M8x1	30	0.8	0201975
0203359	14	22	24.1	50	90	47	10	45	47.2	64	M10x1	50	0.85	0201976
0203355	16	25	27.1	50	95	48	10	45	47.2	69	M10x1	70	0.85	0201977
0203350	18	28	30.1	50	95	48	10	45	47.2	69	M10x1	100	1.05	0201979
0203356	20	30	32.1	50	100	52	10	45	47.2	74	M10x1	150	1.05	0201981
0203357	25	36	38.1	50	95	57	10	45	52	69	M10x1	200	1.1	0201987
0203358	32	45	47.1	50	100	61	10	45	57	74	M10x1	280	1.15	0201998
0203370	1/4"	10.3	13.1	50	80	37	10	35	37	54	M5	6	0.7	0201988
0203372	3/8"	15	17.1	50	85	42	10	40	42	59	M6	20	0.75	0201989
0203373	1/2"	20	22.1	50	90	47	10	45	47	64	M8x1	40	0.8	0201991
0203375	3/4"	29	31.1	50	95	52	10	45	47	69	M10x1	120	1.05	0201992

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.005 mm*

Balancing grade
G6.3 at 15,000 RPM*

Short set-up time

Extra radial rigidity

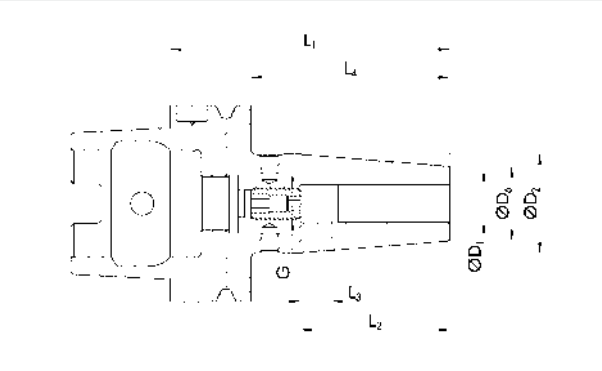
HPC

Data carrier bore as an option

Technical data

ID	D1	D2	D3	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0209533	12	39	44.45	80	46	10	34	54	M8x1	120	1.15	0208877
0209535	16	48.5	49.72	85	49	10	42	59	M8x1	380	1.25	0208877
0209537	20	48.5	49.72	85	51	10	42	59	M8x1	450	1.35	0208877
0209538	25	48.5	49.72	85	57	10	36	59	M8x1	500	1.45	0208877
0209539	32	65	69.85	116	61	10	47	90	M10x1	800	1.6	0208879
0209541	1/2"	39	44.45	80	46	10	34	54	M8x1	150	1.15	0208877
0209540	3/4"	48.5	49.72	85	51	10	42	59	M8x1	450	1.35	0208877

ⓘ *Run-out accuracy: measured in the clamping bore
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

Data carrier bore as an option

Internal cooling
up to 80 bar

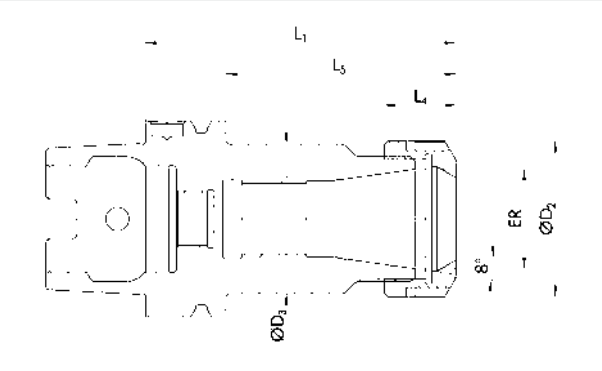
Coolant type
Design suitable for MQL operations available on request

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
1458801	4.5°	3	17	12	80	13		54		4	0.7
1458802	4.5°	4	17	12	80	15		54		6	0.7
1458803	4.5°	5	17	12	80	15.5		54		8	0.7
0208120	4.5°	6	27	21	80	37	10	54	M5	20	1
0208121	4.5°	8	27	21	80	37	10	54	M6	50	0.9
0208122	4.5°	10	32	24	85	42	10	59	M8x1	70	0.9
0208123	4.5°	12	32	24	90	48	10	64	M10x1	150	1
0208124	4.5°	14	34	27	90	48	10	64	M10x1	180	1
0208125	4.5°	16	34	27	95	51	10	69	M12x1	300	0.9
0208126	4.5°	18	42	33	95	51	10	69	M12x1	370	1.1
0208127	4.5°	20	42	33	100	53	10	74	M16x1	450	1.1
0208128	4.5°	25	53	44	115	59	10	89	M16x1	680	1.3
0208159	4.5°	32	53	44	120	63	10	94	M16x1	750	1.6
26001791	4.5°	3	17	12	120			94			0.9
26001792	4.5°	4	17	12	120			94			0.9
26000234	4.5°	5	17	12	120			94			0.9
28000022	4.5°	6	27	21	120	37	10	94	M5	20	1
28000023	4.5°	8	27	21	120	37	10	94	M6	50	1.1
28000024	4.5°	10	32	24	120	42	10	94	M8x1	70	1.1
28000025	4.5°	12	32	24	120	48	10	94	M10x1	150	1.2
28000026	4.5°	14	34	27	120	48	10	94	M10x1	180	1.2
28000027	4.5°	16	34	27	120	51	10	94	M12x1	300	1.3
28000028	4.5°	18	42	33	120	51	10	94	M12x1	370	1.3
28000029	4.5°	20	42	33	120	53	10	94	M16x1	450	1.4
1472661	4.5°	25	53	44	120	59	10	94	M16x1	680	1.8
23005013	Slim	6	30	15	120	37	10	94	M5		0.95
23005014	Slim	8	30	15	120	37	10	94	M6		0.95
23005015	Slim	10	33	18	120	42	10	94	M8x1		1.01
23005016	Slim	12	33	18	120	48	10	94	M10x1		1.1
26002761	4.5°	3	17	12	130			104		4	0.82
26002762	4.5°	4	17	12	130			104		6	0.83
26002763	4.5°	5	17	12	130			104		8	0.83
0208130	4.5°	6	27	21	130	37	10	104	M5	20	1
0208131	4.5°	8	27	21	130	37	10	104	M6	50	1
0208132	4.5°	10	32	24	130	42	10	104	M8x1	70	1.2

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
0208133	4.5°	12	32	24	130	48	10	104	M10x1	150	1.1
0208134	4.5°	14	34	27	130	48	10	104	M10x1	180	1.2
0208135	4.5°	16	34	27	130	51	10	104	M12x1	300	1.2
0208136	4.5°	18	42	33	130	51	10	104	M12x1	370	1.5
0208137	4.5°	20	42	33	130	53	10	104	M16x1	450	1.4
0208138	4.5°	25	53	44	130	59	10	104	M16x1	680	2
1454450	4.5°	32	53	44	130	63	10	104	M16x1	750	1.85
26000038	4.5°	3	21	12	160	13		134		4	0.7
26000039	4.5°	4	21	12	160	15		134		6	0.7
26000040	4.5°	5	21	12	160	15.5		134		8	0.7
0208140	4.5°	6	27	21	160	37	10	134	M5	20	1.4
0208141	4.5°	8	27	21	160	37	10	134	M6	50	1.3
0208142	4.5°	10	32	24	160	42	10	134	M8x1	70	1.5
0208143	4.5°	12	32	24	160	48	10	134	M10x1	150	1.5
0208144	4.5°	14	34	27	160	48	10	134	M10x1	180	1.6
0208145	4.5°	16	34	27	160	51	10	134	M12x1	300	1.7
0208146	4.5°	18	42	33	160	51	10	134	M12x1	370	1.8
0208147	4.5°	20	42	33	160	53	10	134	M16x1	450	1.8
0208148	4.5°	25	53	44	160	59	10	134	M16x1	680	1.9
0208149	4.5°	32	53	44	160	63	10	134	M16x1	750	1.8
0208150	4.5°	6	27	21	200	37	10	174	M5	20	1.6
0208151	4.5°	8	27	21	200	37	10	174	M6	50	1.6
0208152	4.5°	10	32	24	200	42	10	174	M8x1	70	1.7
0208153	4.5°	12	32	24	200	48	10	174	M10x1	150	1.7
0208154	4.5°	14	34	27	200	48	10	174	M10x1	180	1.8
0208155	4.5°	16	34	27	200	51	10	174	M12x1	300	1.9
0208156	4.5°	18	42	33	200	51	10	174	M12x1	370	1.9
0208157	4.5°	20	42	33	200	53	10	174	M16x1	450	2
0208158	4.5°	25	53	44	200	59	10	174	M16x1	680	2.2
1313709	3°	3	14	9	80	13.5		54			0.71
1313713	3°	4	15	10	80	16		54			0.72
1313714	3°	5	16	11	80	16		54			0.72
26001894	3°	6	18	12	80	23		54			0.73
26001895	3°	8	20	14	80	37		54			0.74
26001896	3°	10	22	16	80	42		54			0.76
26001897	3°	12	24	18	80	48		54			0.77
1313715	3°	3	18	9	120	13.5		94			0.79
1313716	3°	4	19	10	120	16		94			0.81
1313717	3°	5	20	11	120	16		94			0.81
26001003	3°	6	22	12	120	23		94			0.83
26001004	3°	8	24	14	120	37		94			0.86
26001005	3°	10	26	16	120	42		94			0.9
26001006	3°	12	28	18	120	48		94			0.93

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

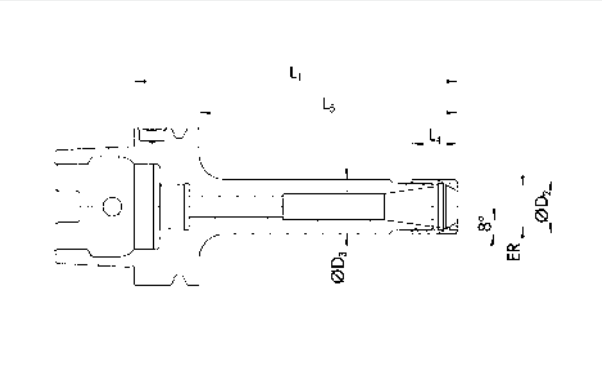
Balancing grade
G2.5 at 25,000 RPM*

Data carrier bore as an option

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
	mm		mm	mm	mm	mm	mm		kg
0263358	1 – 7	ER 11	19	19	75	11.3	49		0.77
0263359	1 – 10	ER 16	28	28	75	17.5	49		0.82
0263362	1 – 16	ER 25	42	42	75	20	49		0.98
0263365	2 – 20	ER 32	50	50	75	23	49		1.05
0263368	4 – 26	ER 40	63	63	85	26	59		1.31
0263360	1 – 10	ER 16	28	28	100	17.5	74	M11x1	0.97
1454439	1 – 13	ER 20	34	34	100	19	74	M14x1	0.98
0263363	1 – 16	ER 25	42	42	100	20	74	M18x1.5	1.27
0263366	2 – 20	ER 32	50	50	100	23	74	M24x1.5	1.37
0263369	4 – 26	ER 40	63	63	120	26	94	M28x1.5	1.82
1325552	1 – 10	ER 16	28	28	130	17.5	104	M11x1	1.035
1325553	1 – 16	ER 25	42	42	130	20	104	M18x1.5	1.425
1338093	2 – 20	ER 32	50	50	130	23	104	M24x1.5	1.58
1338098	4 – 26	ER 40	63	63	130	26	104	M28x1.5	1.535
0263361	1 – 10	ER 16	28	28	160	17.5	134	M11x1	1.3
0263364	1 – 16	ER 25	42	42	160	20	134	M18x1.5	1.91
0263367	2 – 20	ER 32	50	50	160	23	134	M24x1.5	2.24
0263370	4 – 26	ER 40	63	63	160	26	134	M28x1.5	2.45
1308084	1 – 10	ER 16	28	28	200	17.5	174	M11x1	1.415
1313291	1 – 16	ER 25	42	42	200	20	174	M18x1.5	2.2
1313292	2 – 20	ER 32	50	50	200	23	174	M24x1.5	2.575

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.008 mm*

Balancing grade
G2.5 at 25,000 RPM*

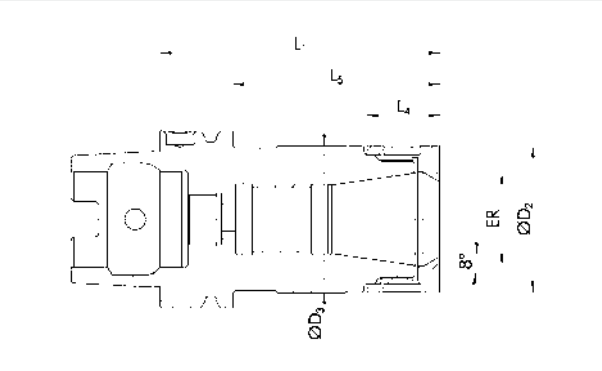
Optimized interfering contours

Data carrier bore as an option

Technical data

ID	Variant	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
		mm		mm	mm	mm	mm	mm		kg
1367338	ER Mini	1 – 7	ER 11	16	16	70	12	44	M8x1	1
1367340	ER Mini	1 – 10	ER 16	22	22	70	18	44	M11x1	1
23002735	ER Mini	1 – 7	ER 11	16	16	100	12	74	M8x1	0.83
23003947	ER Mini	1 – 10	ER 16	22	22	100	18	74	M11x1	0.83
1313294	ER Mini	1 – 13	ER 20	28	28	100	19.5	74	M14x1	0.895
23003948	ER Mini	1 – 16	ER 25	35	35	100	20.5	74	M18x1.5	1.27
1313315	ER Mini	1 – 7	ER 11	16	16	130	12	104	M8x1	0.815
1313317	ER Mini	1 – 10	ER 16	22	22	130	18	104	M11x1	0.905
1313318	ER Mini	1 – 13	ER 20	28	28	130	19.5	104	M14x1	1.04
1313321	ER Mini	1 – 16	ER 25	35	35	130	20.5	104	M18x1.5	1.23
23002986	ER Mini	1 – 7	ER 11	16	16	160	12	134	M8x1	0.855
23003949	ER Mini	1 – 10	ER 16	22	22	160	18	134	M11x1	1.05
1313295	ER Mini	1 – 13	ER 20	28	28	160	19.5	134	M14x1	1.205
23003952	ER Mini	1 – 16	ER 25	35	35	160	20.5	134	M18x1.5	1.91

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

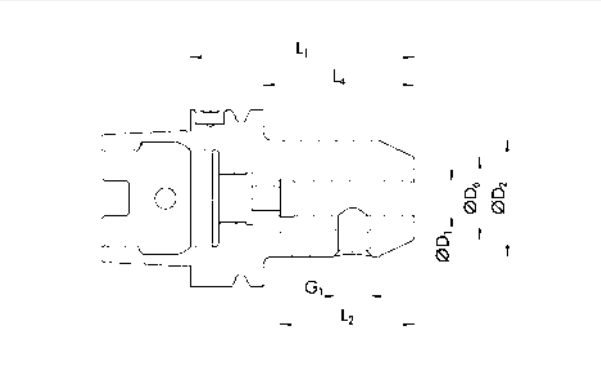
Extra radial rigidity

Data carrier bore as an option

Technical data

ID	Variant	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
		mm		mm	mm	mm	mm	mm		kg
1349164		1 - 10	ER 16	34	28	75	20.6	49		0.875
1349165		1 - 16	ER 25	44	42	75	24	49		0.975
1349166		2 - 20	ER 32	52	50	75	26	49		1.04
1349167		4 - 26	ER 40	62	51	85	29	49		1.23
1349225		1 - 10	ER 16	34	28	100	20.6	74	M11x1	1.06
1349226		1 - 16	ER 25	44	42	100	24	74	M18x1.5	1.235
1349227		2 - 20	ER 32	52	50	100	26	74	M24x1.5	1.39
1349228		4 - 26	ER 40	62	51	120	29	94	M28x1.5	2.025
1471580		1 - 10	ER 16	34		130	20.6	104	M11x1	1.26
1471581		1 - 16	ER 25	44		130	24	104	M18x1.5	1.59
1471589		2 - 20	ER 32	52		130	26	104	M24x1.5	1.86
1472589		1 - 10	ER 16	34		160	20.6	134	M11x1	1.46
1472590		1 - 16	ER 25	44		160	24	134	M18x1.5	1.94
1472591		2 - 20	ER 32	52		160	26	134	M24x1.5	2.35
1472601	ER Mini	1 - 10	ER 16	24		100	20.6	74	M11x1	0.85

ⓘ *Run-out accuracy: at 2.5 x D using the ER precision collets and a defined tightening torque
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

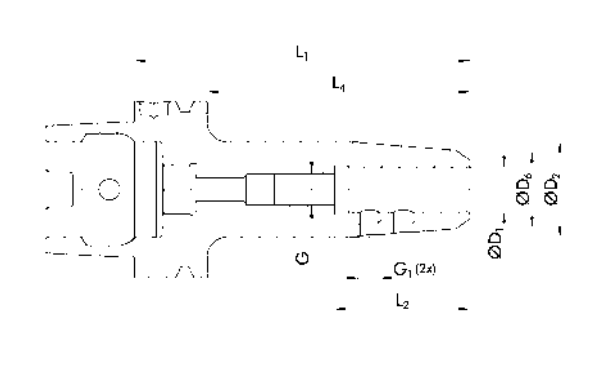
Short set-up time

Data carrier bore as an option

Technical data

ID	D1	D2	D6	L1	L2	L4	G1	Weight
	mm	mm	mm	mm	mm	mm		kg
0263520	6	25	14.5	65	35	39	M6	0.8
0263523	8	28	19.5	65	35	39	M8	0.83
0263526	10	35	24.5	65	41	39	M10	0.91
0263529	12	42	29.5	80	48	54	M12	1.17
0263531	14	42	31.5	80	48	54	M12	1.21
0263533	16	48	35.5	80	51	54	M14	1.29
0263535	18	50	37.5	80	51	54	M14	1.33
0263537	20	52	39.5	80	53	54	M16	1.37
0263539	25	65	44.5	110	60	84	M18x2	2.27
0263541	32	72	55.5	110	64	84	M20x2	2.6
1313326	40	74	59.5	125	80	99	M20x2	3.29
0263521	6	25	14.5	120	35	94	M6	0.995
0263524	8	28	19.5	120	35	94	M8	1.08
0263527	10	35	24.5	120	41	94	M10	1.305
23002802	12	42	29.5	120	48	94	M12	1.575
23003824	14	42	31.5	120	48	94	M12	1.65
23002953	16	48	35.5	120	51	94	M14	1.835
23002888	18	50	37.5	120	51	94	M14	1.915
23002954	20	52	39.5	120	53	94	M16	2
0263522	6	25	14.5	160	35	134	M6	1.2
0263525	8	28	19.5	160	35	134	M8	1.36
0263528	10	35	24.5	160	41	134	M10	1.71
0263530	12	42	29.5	160	48	134	M12	2.01
0263532	14	42	31.5	160	48	134	M12	2.15
0263534	16	48	35.5	160	51	134	M14	2.43
0263536	18	50	37.5	160	51	134	M14	2.57
0263538	20	52	39.5	160	53	134	M16	2.71
0263540	25	65	44.5	160	60	134	M18x2	3.53
23000500	32	72	55.5	160	64	134	M20x2	4.2

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G6.3 at 8,000 RPM*

Short set-up time

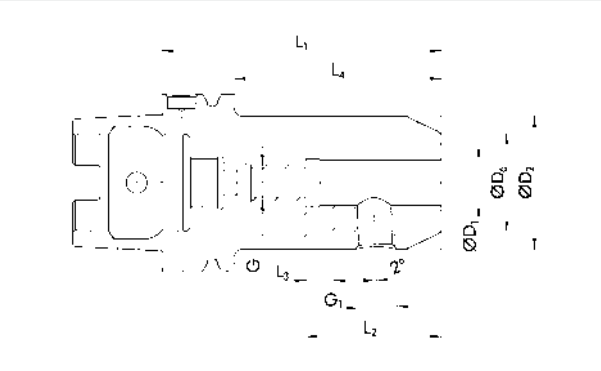
Optimized interfering contours

Data carrier bore as an option

Technical data

ID	D1	D2	D6	L1	L2	L4	G	G1	Weight
	mm	mm	mm	mm	mm	mm			kg
23000633	6	24	20	100	36.5	74	M6	M6	0.895
23000634	8	26	22	100	36.5	74	M6	M6	0.935
23000635	10	28	23	100	40.5	74	M8x1	M6	0.965
23005000	12	29		100	45.5	94	M10x1	M6	1.055

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G6.3 at 8,000 RPM*

Short set-up time

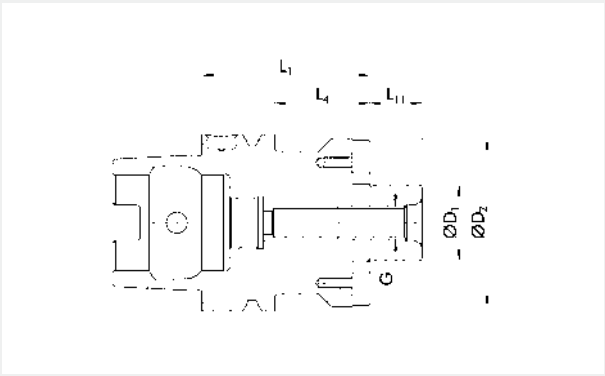
Data carrier bore as an option

Technical data

ID	D1	D2	D6	L1	L2	L3	L4	G	G1	Weight
	mm	mm	mm	mm	mm	mm	mm			kg
23000288	6	25	14.5	80	36.5	10	54	M5	M6	0.88
23000334	8	28	19.5	80	36.5	10	54	M6	M8	0.93
23001975	10	35	24.5	80	40.5	10	54	M8	M10	1.04
23001976	12	42	29.5	90	45.5	10	64	M10	M12	1.29
23001977	14	42	31.5	90	45.5	10	64	M10	M12	1.33
23001978	16	48	35.5	100	48.5	10	74	M12	M14	1.58
23001979	18	48	37.5	100	48.5	10	74	M12	M14	1.65
23001980	20	52	39.5	100	50.5	10	74	M16	M16	1.69
23001981	25	65	44.5	110	56.5	10	84	M20	M18x2	2.29
23001982	32	72	55.5	110	60.5	10	84	M20	M20x2	2.61

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request

MES HSK-A 63 | DIN ISO 12164-1
Face mill arbors





Run-out accuracy
≤ 0.006 mm*

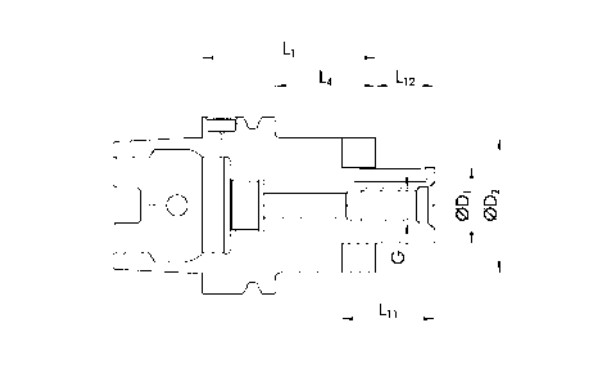
Balancing grade
G2.5 at 25,000 RPM*

Data carrier bore as an option

Technical data

ID	D1	G	D2	L1	L4	L11	Weight
	mm		mm	mm	mm	mm	kg
0263640	16	M8	38	50	24	17	0.94
0263641	22	M10	48	50	24	19	1.11
0263642	27	M12	60	60	34	21	1.45
0263643	32	M16	78	60	34	24	1.85
0263644	40	M20	89	60	34	27	2.14
23000833	16	M8	38	100	74	17	1.35
23000341	22	M10	48	100	74	19	1.87
23000063	27	M12	60	100	74	21	2.32
23000343	32	M16	78	100	74	24	3.32
23000684	40	M20	89	100	74	27	3.94
23003151	16	M8	38	160	134	17	1.89
23000691	22	M10	48	160	134	19	2.8
23000692	27	M12	60	160	134	21	3.64
23000694	32	M16	78	160	134	24	5.56

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.006 mm*

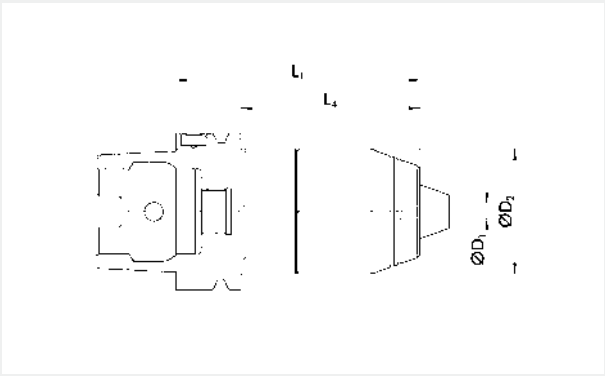
Balancing grade
G2.5 at 25,000 RPM*

Data carrier bore as an option

Technical data

ID	D1	G	D2	L1	L4	L11	L12	Weight
	mm		mm	mm	mm	mm	mm	kg
0263610	16	M8	32	60	34	27	17	0.93
0263611	22	M10	40	60	34	31	19	1.07
0263612	27	M12	48	60	34	33	21	1.26
0263613	32	M16	58	60	34	38	24	1.5
0263614	40	M20	70	70	44	41	27	2.13
23000077	16	M8	32	100	74	27	17	1.17
23000078	22	M10	40	100	74	31	19	1.45
23000079	27	M12	48	100	74	33	21	1.81
23000080	32	M16	58	100	74	38	24	2
23000082	16	M8	32	160	134	27	17	1.61
23000730	22	M10	40	160	134	31	19	2
23000731	27	M12	48	160	134	33	21	2.67
23000083	32	M16	58	160	134	38	24	3.13
23000084	40	M20	70	160	134	41	27	4.84

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Balancing grade
G6.3 at 18,000 RPM*

Short set-up time

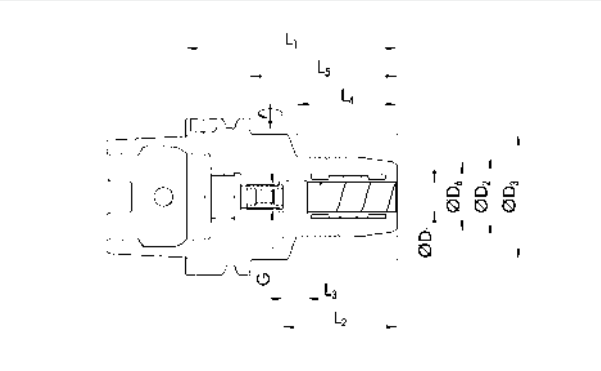
Data carrier bore as an option

Internal cooling

Technical data

ID	Clamping range D1	D2	L1	L4	Weight
	mm	mm	mm	mm	kg
0204469	1 – 16	50	98	72	1.46

ⓘ *Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Data carrier bore as an option

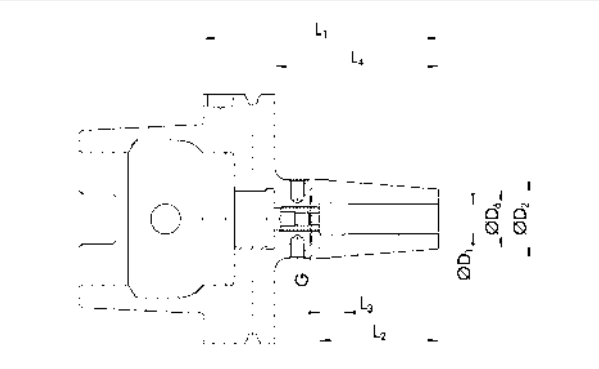
Internal cooling
up to 80 bar

Coolant type
Design suitable for MQL operations available on request

Technical data

ID	D1 mm	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
0204491	6	26	50	22	70	37	10	24	44	M5	16	1.5	9205650
0204492	8	28	50	24	70	37	10	24	44	M6	23	1.5	9205650
0204493	10	30	50	26	80	41	10	35	54	M8x1	45	1.5	9205650
0204494	12	32	50	28	85	46	10	40	59	M10x1	90	1.6	9205650
0204499	14	34	50	30	85	46	10	40	59	M10x1	110	1.6	9205650
0204495	16	38	50	34	95	49	10	51	69	M12x1	185	1.7	9205650
0204490	18	40	50	36	95	49	10	51	69	M12x1	240	1.8	9205650
0204496	20	42	50	38	95	51	10	52	69	M16x1	330	1.8	9205650
0204497	25	57	63	53	110	57	10	65	84	M16x1	400	2.6	9205660
0204498	32	64	75	60	125	61	10	63	99	M16x1	650	3.3	9205660

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

Data carrier bore as an option

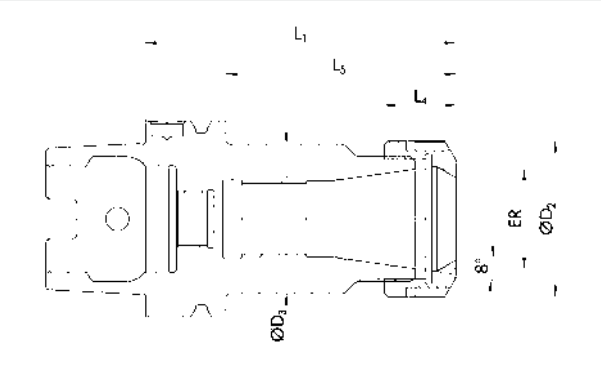
Internal cooling
up to 80 bar

Coolant type
Design suitable for MQL operations available on request

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
0208160	4.5°	6	27	21	85	37	10	59	M5	20	1.2
0208161	4.5°	8	27	21	85	37	10	59	M6	52	1.2
0208162	4.5°	10	32	24	90	42	10	64	M8x1	70	1.3
0208163	4.5°	12	32	24	95	48	10	69	M10x1	150	1.3
0208164	4.5°	14	34	27	95	48	10	69	M10x1	180	1.4
0208165	4.5°	16	34	27	100	51	10	74	M12x1	300	1.5
0208166	4.5°	18	42	33	100	51	10	74	M12x1	370	1.5
0208167	4.5°	20	42	33	105	53	10	79	M16x1	450	1.6
0208168	4.5°	25	53	44	115	59	10	89	M16x1	680	1.7
0208169	4.5°	32	53	44	120	63	10	94	M16x1	750	1.6
0208180	4.5°	6	27	21	160	37	10	134	M5	20	1.8
0208181	4.5°	8	27	21	160	37	10	134	M6	52	1.8
0208182	4.5°	10	32	24	160	42	10	134	M8x1	70	2
0208183	4.5°	12	32	24	160	48	10	134	M10x1	150	1.95
0208185	4.5°	16	34	27	160	51	10	134	M12x1	300	2.1
0208187	4.5°	20	42	33	160	53	10	134	M16x1	450	2.3
0208178	4.5°	25	53	44	160	59	10	134	M16x1	680	2.9

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

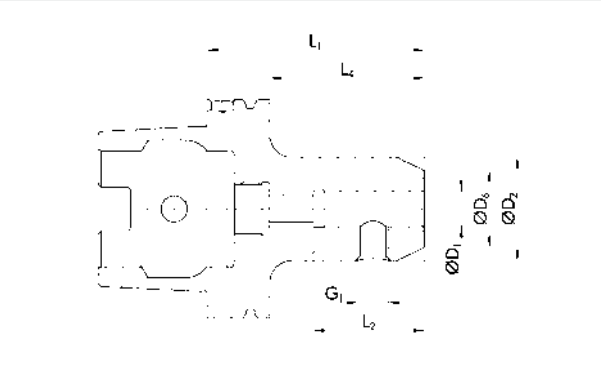
Balancing grade
G2.5 at 25,000 RPM*

Data carrier bore as an option

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
	mm		mm	mm	mm	mm	mm		kg
23000409	1 – 10	ER 16	28	28	100	17.5	74	M11x1	1.5
23000410	1 – 16	ER 25	42	42	100	20	74	M18x1.5	1.77
23000411	2 – 20	ER 32	50	50	100	23	74	M24x1.5	1.89
23000413	1 – 10	ER 16	28	28	160	17.5	134	M11x1	1.76
23000414	1 – 16	ER 25	42	42	160	20	134	M18x1.5	2.22
23000415	2 – 20	ER 32	50	50	160	23	134	M24x1.5	2.54

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

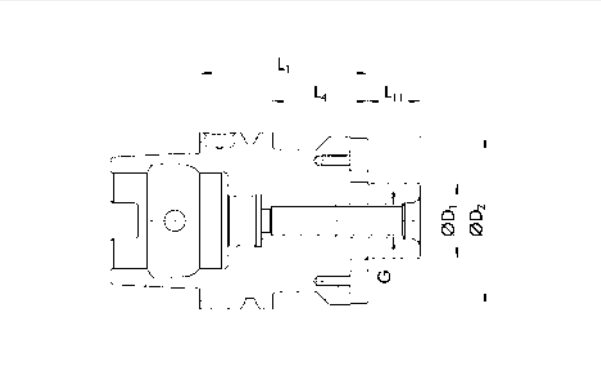
Short set-up time

Data carrier bore as an option

Technical data

ID	D1	D2	D6	L1	L2	L4	G1	Weight
	mm	mm	mm	mm	mm	mm		kg
23000477	6	25	14.5	80	35	54	M6	1.41
23000478	8	28	19.5	80	35	54	M8	1.38
23000479	10	35	24.5	80	41	54	M10	1.56
23000480	12	42	29.5	80	48	54	M12	1.64
23000482	16	48	35.5	100	51	74	M14	2.08
23000484	20	52	39.5	100	53	74	M16	2.19
23000485	25	65	44.5	100	60	74	M18x2	2.71
23004066	32	72	55.5	110	64	84	M20x2	3.2

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.006 mm*

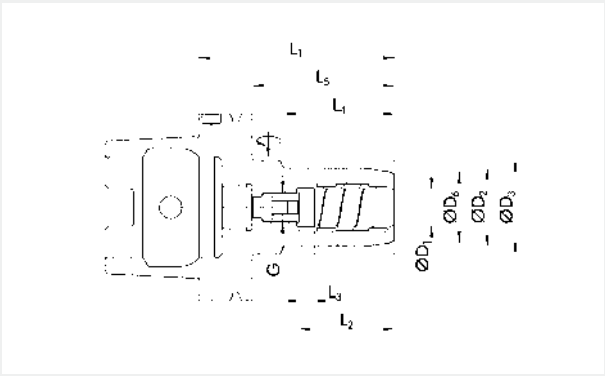
Balancing grade
G2.5 at 25,000 RPM*

Data carrier bore as an option

Technical data

ID	D1	G	D2	L1	L4	L11	Weight
	mm		mm	mm	mm	mm	kg
23002040	22	M8	48	50	24	19	1.495
23002041	27	M10	60	50	24	21	1.765
23002042	32	M12	78	60	34	24	2.455
23002043	40	M16	89	60	34	27	2.5

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

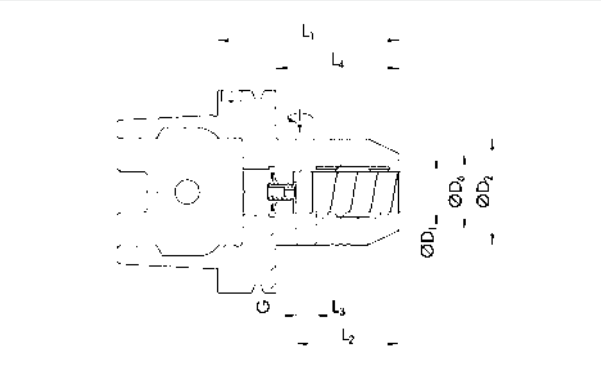
Data carrier bore as an option

Internal cooling
up to 80 bar

Technical data

ID	D1 mm	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
1434533	6	26	50	22	75	37	10	26	46	M5	16	2.3	9205650
1434534	8	28	50	24	75	37	10	26	46	M6	23	2.3	9205650
1434535	10	30	50	26	90	41	10	42	61	M8x1	45	2.4	9205650
1434536	12	32	50	28	95	46	10	47	66	M10x1	90	2.4	9205650
1434538	14	34	50	30	95	46	10	47	66	M10x1	110	2.4	9205650
1434545	16	38	50	34	100	49	10	53	71	M12x1	185	2.5	9205650
1434546	18	40	50	36	100	49	10	53	71	M12x1	240	2.6	9205650
1434547	20	42	50	38	105	51	10	59	76	M16x1	330	2.6	9205650
1434548	25	57	63	53	110	57	10	62	81	M16x1	400	3.3	9205660
1434549	32	64	75	60	110	61	10	62	81	M16x1	650	3.6	9205660

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Extra radial rigidity

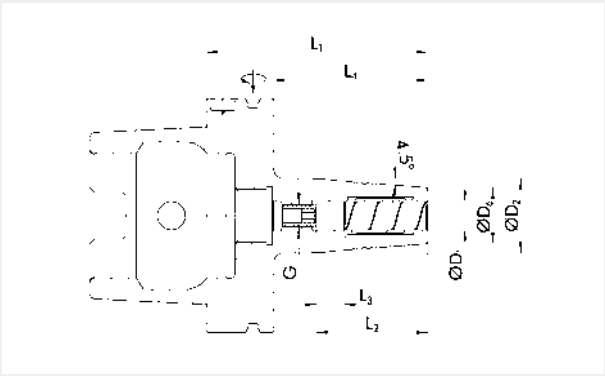
HPC

Data carrier bore as an option

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
1368215	16	52.5		38	90	51	10	61		M8x1	350	2.8	9205650
0206566	20	52.5		38	90	51	10	61		M8x1	520	2.8	9205650
0206568	32	72		58.5	100	61	10	71		M8x1	900	3.8	9205660
1319625	1 1/4"	72		58.5	100	61	10	71		M8x1	900	3.8	9205660
1420672	20	42	44.5	38	130	51	10	50	101	M8x1	400	3.1	9205650
1420673	32	62.5		58.5	130	61	10	101		M8x1	900	3.3	9205660

ⓘ *Run-out accuracy: at 2.5 x D; run-out at L1 = 130 mm: ≤ 0.005 mm at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Optimized interfering contours

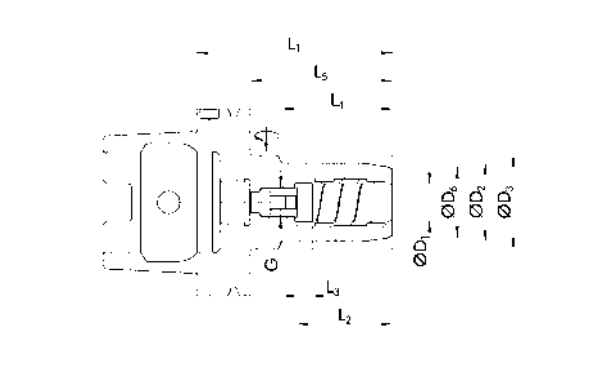
Internal cooling
up to 80 bar

Coolant type
MQL suitable version

Technical data

ID	D1 mm	D2 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	G	Mmin Nm	Weight kg	
1451098	6	27	21	85	36.7	10	56.05	M10x1	16	2.2	9205650
1451099	8	27	21	85	36.7	10	56.05	M10x1	23	2.2	9205650
1451100	10	32	24	90	42.7	10	61.05	M10x1	45	2.2	9205650
1451101	12	32	24	95	47.7	10	66.05	M10x1	90	2.2	9205650
1451120	16	34	27	100	53.2	10	71.05	M12x1	185	2.3	9205650
1451121	20	42	33	105	55.7	10	76.05	M16x1	330	2.5	9205650
1451139	6	27	21	120	38.2	10	91.05	M5x0.8	16	2.3	9205650
1451150	8	27	21	120	38.7	10	91.05	M7x1	23	2.3	9205650
1451151	10	32	24	120	43.2	10	91.05	M8x1	45	2.4	9205650
1451152	12	32	24	120	47.7	10	91.05	M10x1	90	2.4	9205650
1451153	16	34	27	120	53.2	10	91.05	M12x1	185	2.4	9205650
1451154	20	42	33	120	55.7	10	91.05	M16x1	330	2.6	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Data carrier bore as an option

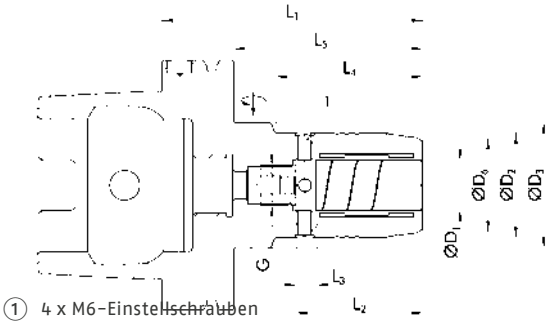
Internal cooling
up to 80 bar

Coolant type
Design suitable for MQL operations available on request

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0204061	6	26	50	22	75	37	10	26	46	M5	16	2.5	9205650
0204062	8	28	50	24	75	37	10	26	46	M6	23	2.5	9205650
0204063	10	30	50	26	90	41	10	42	61	M8x1	45	2.5	9205650
0204064	12	32	50	28	95	46	10	47	66	M10x1	90	2.6	9205650
0204069	14	34	50	30	95	46	10	47	66	M10x1	110	2.6	9205650
0204065	16	38	50	34	100	49	10	53	71	M12x1	185	2.7	9205650
0204060	18	40	50	36	100	49	10	53	71	M12x1	240	2.8	9205650
0204066	20	42	50	38	105	51	10	59	76	M16x1	330	2.8	9205650
0204067	25	57	63	53	110	57	10	62	81	M16x1	400	3.7	9205660
0204068	32	64	75	60	110	61	10	62	81	M16x1	650	3.8	9205660
0204316	1 1/4"	64	75	59.6	110	61	10	62	81	M16x1	650	3.7	9205660

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves



① 4 x M6-Einstellschrauben



Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

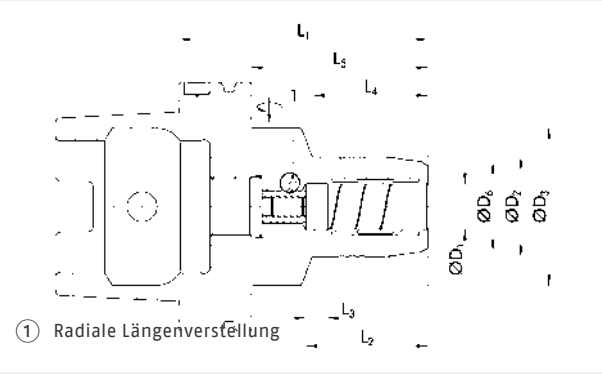
Data carrier bore as an option

Internal cooling
up to 80 bar

Technical data

ID	D1 mm	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
0204064Z	12	32	50	28	95	46	10	47	66	M10x1	90	2.6	9205650
0204066Z	20	42	50	38	105	51	10	59	76	M16x1	330	2.8	9205650
0204067Z	25	57	63	53	110	57	10	62	81	M16x1	400	2.8	9205660
0204068Z	32	64	75	60	110	61	10	62	81	M16x1	650	3.8	9205660

ⓘ *Run-out accuracy: at 2.5 x D; run-out accuracy of 0 microns, adjustable
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves



① Radiale Längenverstellung



Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

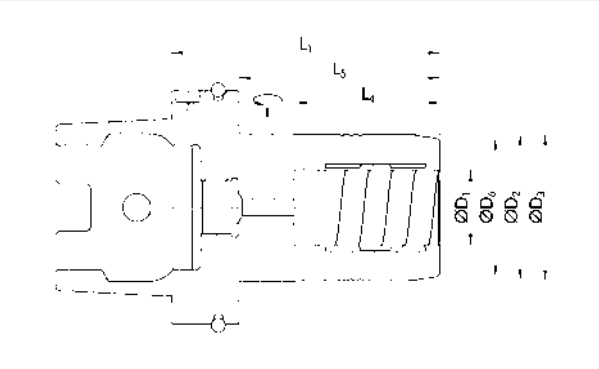
Data carrier bore as an option

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm	kg	
0207061	6	26	63	22	85	37	10	33	56	16	2.7	9205650
0207062	8	28	63	24	85	37	10	33	56	23	2.7	9205650
0207063	10	30	63	26	90	41	10	36	61	45	2.8	9205650
0207064	12	32	63	28	95	46	10	40	66	90	2.8	9205650
0207065	16	38	63	34	100	49	10	46	71	185	2.9	9205650
0207066	20	42	75	38	105	51	10	51	76	330	3.2	9205650
0207067	25	57	75	53	115	57.3	10	55.5	86	400	3.9	9205660
0207068	32	64	75	60	120	61	10	63.5	91	650	4.1	9205660

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

External cooling/ internal cooling
up to 80 bar

Battery service life

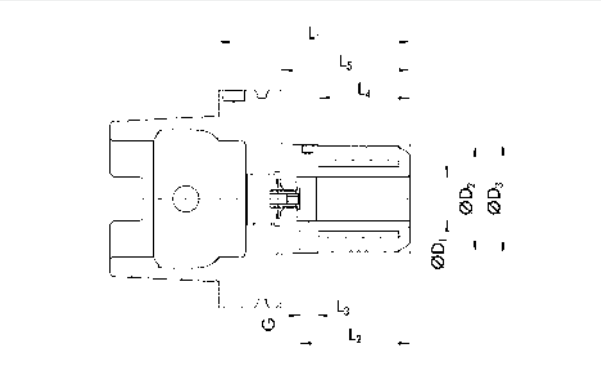
Acceleration sensor

Speed of rotation

Technical data

Description	ID	D1	D2	D3	D6	L1	L4	L5	Mmin	Weight	Max. rotational speed
		mm	mm	mm	mm	mm	mm	mm	Nm	kg	RPM
iTENDO² HSK-A 100 Ø32x115	1509955	32	62.5	63	59	115	61.5	86.05	650	3.5	25000

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.005 mm*

Balancing grade
G6.3 at 15,000 RPM*

Short set-up time

Extra radial rigidity

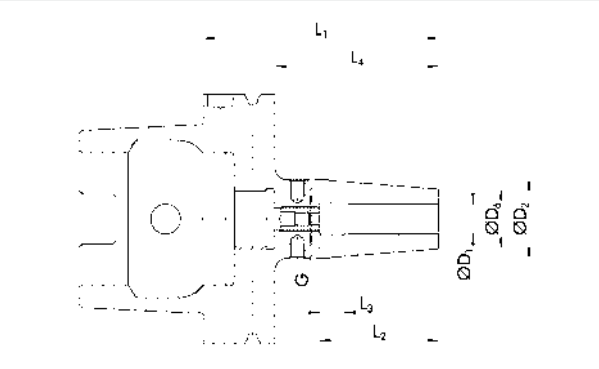
HPC

Data carrier bore as an option

Technical data

ID	D1	D2	D3	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0209567	20	48.5	49.72	88	51	10	42	59	M8x1	450	2.75	0208877
0209670	25	48.5	49.72	95	57	10	36	66	M8x1	500	2.75	0208877
0209569	32	65	69.85	100	61	10	47	71	M10x1	800	3.5	0208879

ⓘ *Run-out accuracy: measured in the clamping bore
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

Data carrier bore as an option

Internal cooling
up to 80 bar

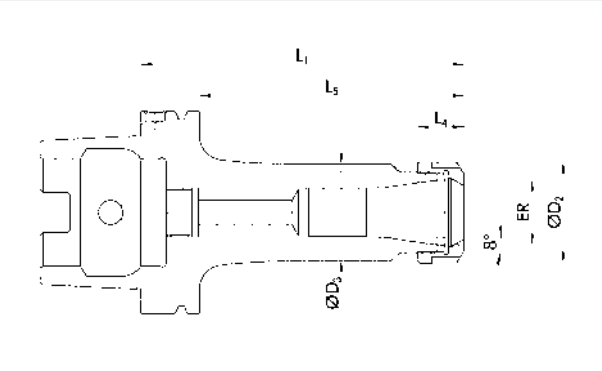
Coolant type
Design suitable for MQL operations available on request

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
0208200	4.5°	6	27	21	85	36	10	56	M5	20	2.1
0208201	4.5°	8	27	21	85	36	10	56	M6	50	2.1
0208202	4.5°	10	32	24	90	42	10	61	M8x1	70	2.2
0208203	4.5°	12	32	24	95	47	10	66	M10x1	150	2.2
0208204	4.5°	14	34	27	95	47	10	66	M10x1	180	2.3
0208205	4.5°	16	34	27	100	50	10	71	M12x1	300	2.3
0208206	4.5°	18	42	33	100	50	10	71	M12x1	370	2.5
0208207	4.5°	20	42	33	105	52	10	76	M16x1	450	2.5
0208208	4.5°	25	53	44	115	58	10	86	M16x1	680	3.1
0208209	4.5°	32	53	44	120	62	10	91	M16x1	750	3.3
0208210	4.5°	6	27	21	130	36	10	101	M5	20	2.5
0208211	4.5°	8	27	21	130	36	10	101	M6	50	2.5
0208212	4.5°	10	32	24	130	42	10	101	M8x1	70	2.5
0208213	4.5°	12	32	24	130	47	10	101	M10x1	150	2.5
0208214	4.5°	14	34	27	130	47	10	101	M10x1	180	2.6
0208215	4.5°	16	34	27	130	50	10	101	M12x1	300	2.6
0208216	4.5°	18	42	33	130	50	10	101	M12x1	370	2.7
0208217	4.5°	20	42	33	130	52	10	101	M16x1	450	3
26002389	4.5°	25	53	44	130	58	10	101	M16x1	680	3.3
1454827	4.5°	32	53	44	130	58	10	101	M16x1	680	3.3
0208220	4.5°	6	27	21	160	36	10	131	M5	20	2.5
0208221	4.5°	8	27	21	160	36	10	131	M6	50	2.5
0208222	4.5°	10	32	24	160	42	10	131	M8x1	70	2.9
0208223	4.5°	12	32	24	160	47	10	131	M10x1	150	2.8
0208224	4.5°	14	34	27	160	47	10	131	M10x1	180	3
0208225	4.5°	16	34	27	160	50	10	131	M12x1	300	3
0208226	4.5°	18	42	33	160	50	10	131	M12x1	370	3
0208227	4.5°	20	42	33	160	52	10	131	M16x1	450	3.3
0208228	4.5°	25	53	44	160	58	10	131	M16x1	680	3.6
0208229	4.5°	32	53	44	160	62	10	131	M16x1	750	3.3
0208230	4.5°	6	27	21	200	36	10	171	M5	20	2.9
0208231	4.5°	8	27	21	200	36	10	171	M6	50	2.9
0208232	4.5°	10	32	24	200	42	10	171	M8x1	70	3.1
0208233	4.5°	12	32	24	200	47	10	171	M10x1	150	3.1
0208234	4.5°	14	34	27	200	47	10	171	M10x1	180	3.2

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
0208235	4.5°	16	34	27	200	50	10	171	M12x1	300	3.3
0208236	4.5°	18	42	33	200	50	10	171	M12x1	370	3.4
0208237	4.5°	20	42	33	200	52	10	171	M16x1	450	3.4
0208238	4.5°	25	53	44	200	58	10	171	M16x1	680	4.5
0208239	4.5°	32	53	44	200	62	10	171	M16x1	750	4.7

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

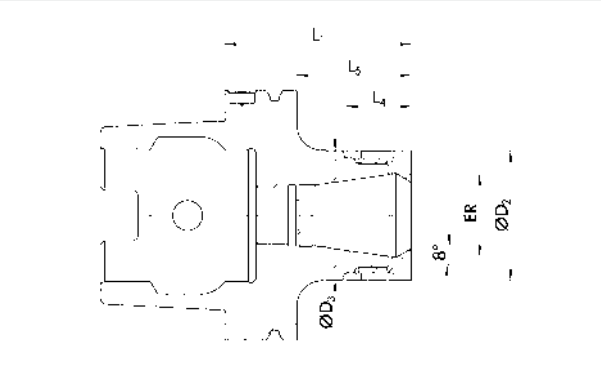
Balancing grade
G2.5 at 25,000 RPM*

Data carrier bore as an option

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
	mm		mm	mm	mm	mm	mm		kg
23000401	1 – 10	ER 16	28	28	100	17.5	71	M11x1	2.42
23000402	1 – 16	ER 25	42	42	100	20	71	M18x1.5	2.69
23000403	2 – 20	ER 32	50	50	100	23	71	M24x1.5	2.79
23000404	4 – 26	ER 40	63	63	120	26	91	M28x1.5	3.54
1357864	1 – 10	ER 16	28	28	130	17.5	101	M11x1	2.45
1357867	1 – 16	ER 25	42	42	130	20	101	M18x1.5	2.835
1357869	2 – 20	ER 32	50	50	130	23	101	M24x1.5	3
1357870	4 – 26	ER 40	63	63	130	26	101	M28x1.5	3.48
23000405	1 – 10	ER 16	28	28	160	17.5	131	M11x1	2.83
23000406	1 – 16	ER 25	42	42	160	20	131	M18x1.5	3.39
23000407	2 – 20	ER 32	50	50	160	23	131	M24x1.5	3.71
23000408	4 – 26	ER 40	63	63	160	26	131	M28x1.5	4.53
23002354	1 – 10	ER 16	28	28	200	17.5	171	M11x1	2.87
23005042	1 – 16	ER 25	42	42	200	20	171	M18x1.5	3.625
23005043	2 – 20	ER 32	50	50	200	23	171	M24x1.5	4.01
23002862	4 – 26	ER 40	63	63	200	26	171	M28x1.5	5.16

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

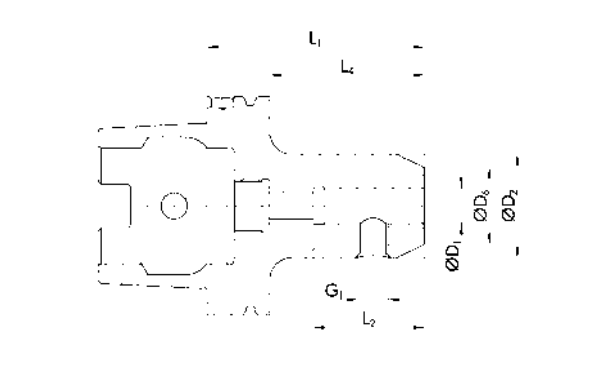
Extra radial rigidity

Data carrier bore as an option

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
	mm		mm	mm	mm	mm	mm		kg
1454815	1 – 10	ER 16	34	28	75	20.6	46		2.3
1349140	1 – 16	ER 25	44	42	75	24	44		2.39
1349141	2 – 20	ER 32	52	50	75	26	44		2.5
1349142	4 – 26	ER 40	62	63	85	29	54		2.72
1454816	1 – 10	ER 16	34	28	100	20.6	71	M11x1	2.35
1349157	1 – 16	ER 25	44	42	100	24	71	M18x1.5	2.67
1349158	2 – 20	ER 32	52	50	100	26	71	M24x1.5	2.9
1349159	4 – 26	ER 40	62	63	100	29	71	M28x1.5	2.99
1472616	1 – 10	ER 16	34		130	20.6	101	M11x1	2.8
1472617	1 – 16	ER 25	44		130	24	101	M18x1.5	2.9
1472618	2 – 20	ER 32	52		130	26	101	M24x1.5	3.1
1472619	4 – 26	ER 40	62		130	29	101	M28x1.5	3.3
1473970	1 – 10	ER 16	34		160	20.6	131	M11x1	3.07
1473971	1 – 16	ER 25	44		160	24	131	M18x1.5	3.39
1473972	2 – 20	ER 32	32		160	26	131	M24x1.5	3.71
1473973	4 – 26	ER 40	62		160	29	131	M28x1.5	4.53

ⓘ *Run-out accuracy: at 2.5 x D using the ER precision collets and a defined tightening torque
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

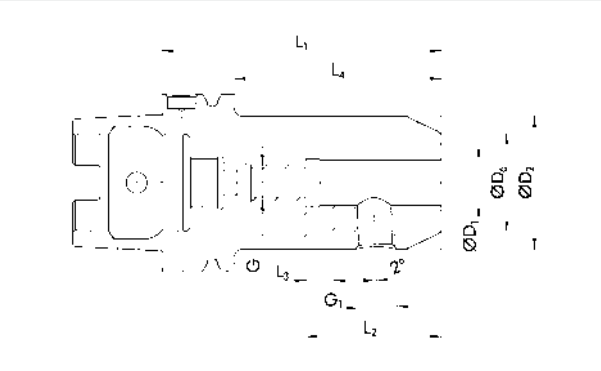
Short set-up time

Data carrier bore as an option

Technical data

ID	D1	D2	D6	L1	L2	L4	G1	Weight
	mm	mm	mm	mm	mm	mm		kg
23000193	6	25	14.5	80	35	51	M6	2.32
23000194	8	28	19.5	80	35	51	M8	2.37
23000195	10	35	24.5	80	41	51	M10	2.5
23000196	12	42	29.5	80	48	51	M12	2.58
23000197	14	42	31.5	80	48	51	M12	2.61
23000198	16	48	35.5	100	51	71	M14	2.97
23000748	18	48	37.5	100	51	71	M14	3.03
23000749	20	52	39.5	100	53	71	M16	3.06
23000750	25	65	44.5	100	60	71	M18x2	3.56
23000201	32	72	55.5	100	64	71	M20x2	3.82
23002898	40	80	59.5	120	74	91	M20x2	4.73
23000202	6	25	14.5	160	35	131	M6	2.67
23000203	8	28	19.5	160	35	131	M8	2.6
23000204	10	35	24.5	160	41	131	M10	3.13
23000205	12	42	29.5	160	48	131	M12	3.48
23000751	14	42	31.5	160	48	131	M12	3.6
23000752	16	48	35.5	160	51	131	M14	3.92
23000753	18	48	37.5	160	51	131	M14	4.05
23000199	20	52	39.5	160	53	131	M16	4
23000200	25	65	44.5	160	60	131	M18x2	5.1
23000754	32	72	55.5	160	64	131	M20x2	5.71

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G6.3 at 8,000 RPM*

Short set-up time

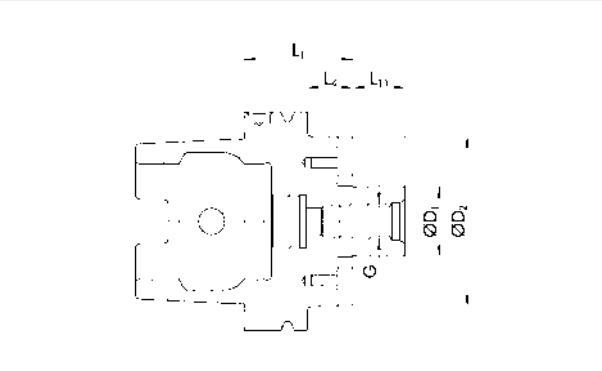
Data carrier bore as an option

Technical data

ID	D1	D2	D6	L1	L2	L3	L4	G	G1	Weight
	mm	mm	mm	mm	mm	mm	mm			kg
23001868	6	25	14.5	90	36.5	10	61	M5	M6	2.369
23001869	8	28	19.5	90	36.5	10	61	M6	M8	2.43
23001870	10	35	24.5	90	40.5	10	61	M8	M10	2.58
23001871	12	42	29.5	100	45.5	10	71	M10	M12	2.79
23001872	14	42	31.5	100	45.5	10	71	M10	M12	2.84
23001873	16	48	35.5	100	48.5	10	71	M12	M14	2.98
23001874	18	48	37.5	100	48.5	10	71	M12	M14	3.04
23001875	20	52	39.5	110	50.5	10	81	M16	M16	3.23
23001876	25	65	44.5	120	56.5	10	91	M20	M18x2	4.08
23001877	32	72	55.5	120	60.5	10	91	M20	M20x2	4.45

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request

MES HSK-A 100 | DIN ISO 12164-1
Face mill arbors





Run-out accuracy
≤ 0.006 mm*

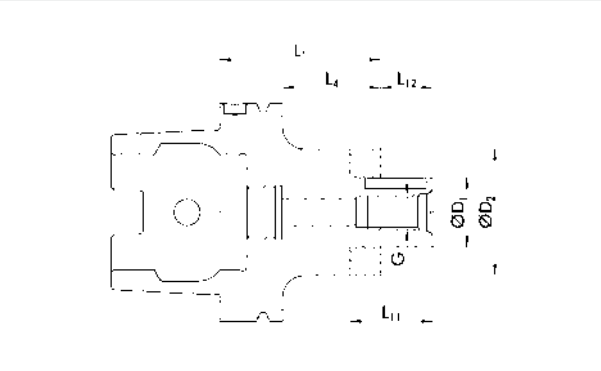
Balancing grade
G2.5 at 25,000 RPM*

Data carrier bore as an option

Technical data

ID	D1	G	D2	L1	L4	L11	Weight
	mm		mm	mm	mm	mm	kg
23001901	16	M8	38	50	21	17	2.32
23001902	22	M10	48	50	21	19	2.48
23001903	27	M12	60	50	21	21	2.67
23001904	32	M16	78	50	21	24	3.07
23001905	40	M20	89	60	31	27	3.73
23002895	60	M32	140	70	41	40	7.46
23001907	16	M8	38	100	71	17	2.88
23001908	22	M10	48	100	71	19	3.3
23001909	27	M12	60	100	71	21	3.79
23001910	32	M16	78	100	71	24	4.6
23001911	40	M20	89	100	71	27	5.56
23001913	16	M8	38	160	131	17	3.52
23001914	22	M10	48	160	131	19	4.28
23001915	27	M12	60	160	131	21	5.12
23001916	32	M16	78	160	131	24	7.15
23001917	40	M20	89	160	131	27	8.34

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.006 mm*

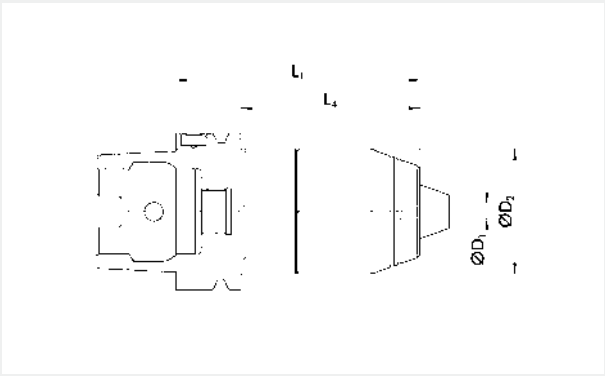
Balancing grade
G2.5 at 25,000 RPM*

Data carrier bore as an option

Technical data

ID	D1	G	D2	L1	L4	L11	L12	Weight
	mm		mm	mm	mm	mm	mm	kg
23001892	16	M8	32	60	31	27	17	2.32
23001893	22	M10	40	60	31	31	19	2.45
23000208	27	M12	48	60	31	33	21	2.62
23000209	32	M16	58	60	31	38	24	2.9
23000210	40	M20	70	70	41	41	27	3.61
23000256	16	M8	32	100	71	27	17	2.6
23000812	22	M10	40	100	71	31	19	2.86
23000813	27	M12	48	100	71	33	21	3.18
23001894	32	M16	58	100	71	38	24	3.7
23001895	40	M20	70	100	71	41	27	4.5
23001896	16	M8	32	160	131	27	17	3.03
23001897	22	M10	40	160	131	31	19	3.53
23001898	27	M12	48	160	131	33	21	4.13
23001899	32	M16	58	160	131	38	24	5.06
23001900	40	M20	70	160	131	41	27	6.31

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Balancing grade
G6.3 at 18,000 RPM*

Short set-up time

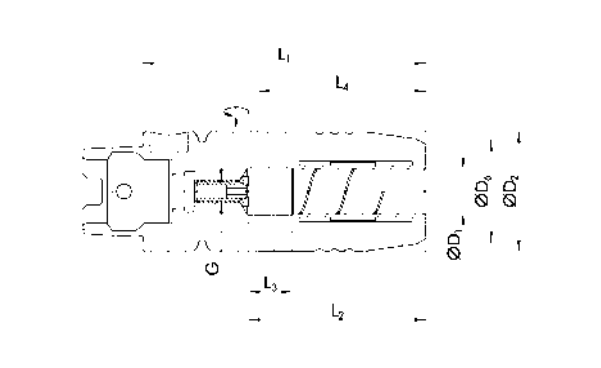
Data carrier bore as an option

Internal cooling

Technical data

ID	Clamping range D1	D2	L1	L4	Weight
	mm	mm	mm	mm	kg
23002709	1 – 16	56	104	75	2.84

ⓘ *Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

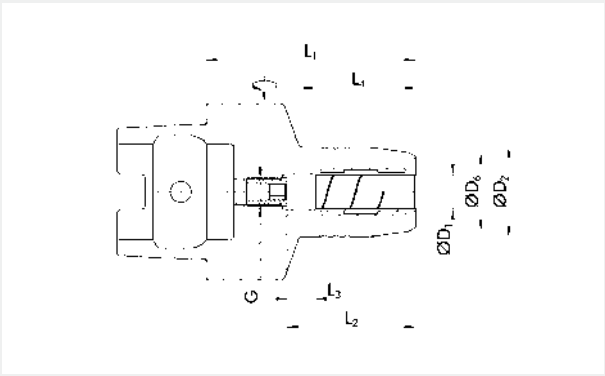
Data carrier bore as an option

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0204476	6	26	22	65	37.5	10	33	M5	16	0.3	9205640
0204477	8	28	24	67	37.5	10	34	M6	23	0.4	9205640
0204478	10	30	26	72.7	42.5	10	39	M6	45	0.4	9205640
0204479	12	32	28	76	47.5	10	45	M6	90	0.4	9205640

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

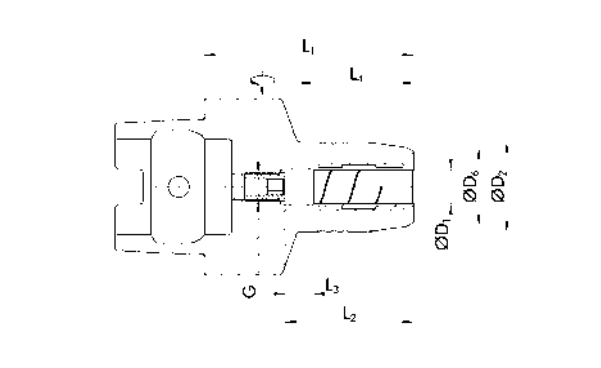
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1 mm	D2 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	G	Mmin Nm	Weight kg	
0204001	6	26	22	60	37	10	35	M5	16	0.4	9205640
0204002	8	28	24	60	37	10	36	M6	23	0.4	9205640
0204003	10	30	26	65	41	10	41	M6	45	0.5	9205640
0204004	12	32	28	70	46	10	47	M6	90	0.5	9205640

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

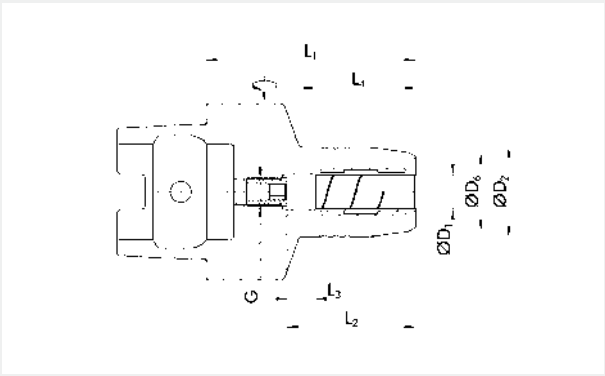
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0204011	6	26	22	60	37	10	30	M5	16	0.6	9205650
0204012	8	28	24	60	37	10	30	M6	23	0.6	9205650
0204013	10	30	26	65	41	10	35	M8x1	45	0.7	9205650
0204014	12	32	28	75	46	10	44	M10x1	90	0.7	9205650
0204019	14	34	30	75	46	10	46	M10x1	110	0.7	9205650
0204015	16	38	34	80	49	10	51	M12x1	185	0.8	9205650
0204010	18	40	36	80	49	10	51	M12x1	240	0.9	9205650
0204016	20	42	38	80	51	10	52	M16x1	330	0.9	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

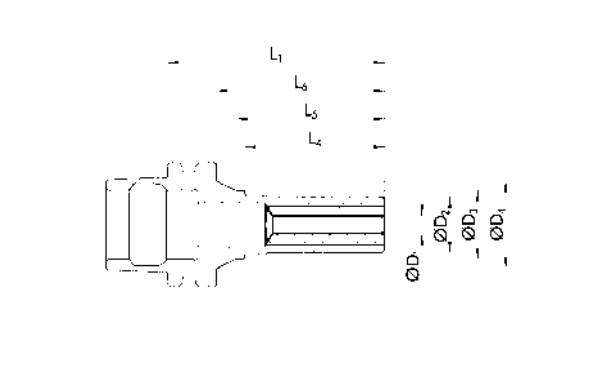
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1 mm	D2 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	G	Mmin Nm	Weight kg	
0204021	6	26	22	60	37	10	25	M5	16	0.9	9205650
0204022	8	28	24	60	37	10	25	M6	23	0.9	9205650
0204023	10	30	26	65	41	10	31	M8x1	45	1	9205650
0204024	12	32	28	75	46	10	41	M10x1	90	1	9205650
0204025	16	38	34	80	49	10	48	M12x1	185	1.1	9205650
0204026	20	42	38	80	51	10	49	M16x1	330	1.2	9205650
0204027	25	57	53	95	57	10	63	M16x1	400	1.8	9205660
0204028	32	63	59	100	61	10	60.5	M12x1	650	2	9205660

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Micro Maching

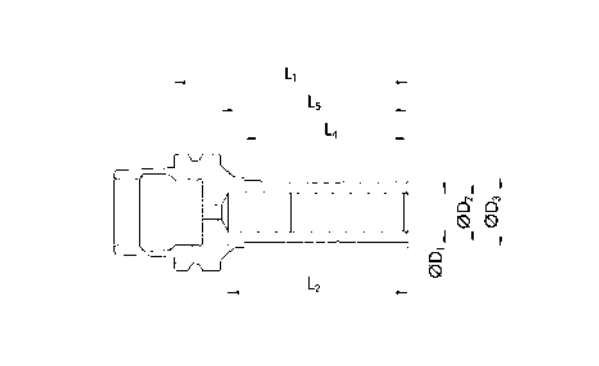
HSC

Optimized interfering contours

Technical data

ID	D1	D2	D3	D4	L1	L4	L5	L6	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	Nm	kg	
0204727	1	9	11	14	35	22.5	23.8	27		0.03	0201971
0204728	1.5	9	11	14	35	22.5	23.8	27		0.03	0201971
0204729	2	9	11	14	35	22.5	23.8	27	1	0.03	0201971
0204730	3	9	11	14	35	22.5	23.8	27	1.5	0.03	0201971
0204731	4	9	11	14	35	22.5	23.8	27	2.5	0.03	0201971
0204732	6	9	11	14	35	22.5	23.8	27	4.5	0.03	0201971
0204733	1/8"	9	11	14	35	22.5	23.8	27	1.5	0.03	0201971

ⓘ *Run-out accuracy at 2.5 x D; run-out for Ø 6 mm: ≤ 0.005 mm at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

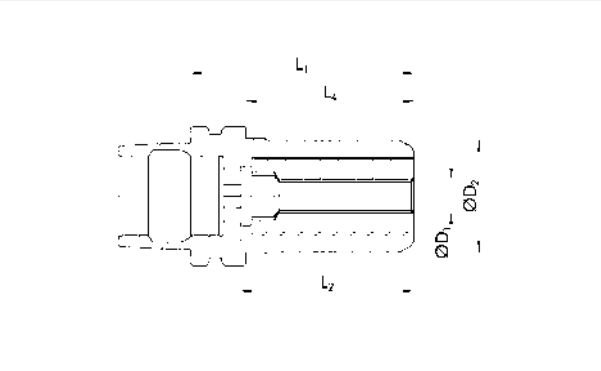
HSC

Optimized interfering contours

Technical data

ID	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	L4 mm	L5 mm	L6 mm	Mmin Nm	Weight kg	
0205251	6	9.9	13.1	50	38.5	35	35.6	40	5	0.15	0201972
0205252	8	13	15.1	50	38.5	35	36.8	40	12	0.15	0201973
0205253	10	16	18.1	55	43.5	40	43.6	45	20	0.16	0201974

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Extra radial rigidity

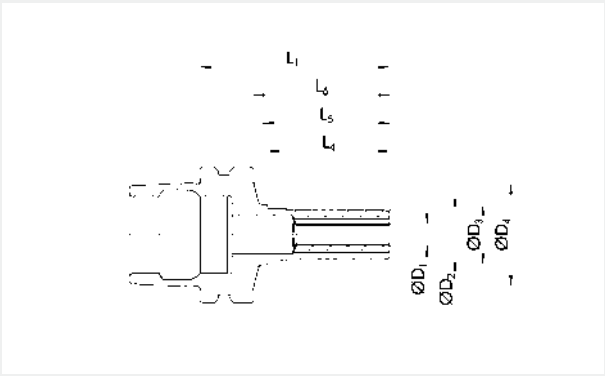
Micro Maching

HSC

Technical data

ID	D1 mm/Inch	D2 mm	L1 mm	L2 mm	L4 mm	Mmin Nm	Weight kg	
0205082	3	20	40	31	30	3	0.12	0201892
0205083	4	20	40	31	30	4	0.12	0201892
0205084	5	20	40	31	30	6	0.12	0201892
0205085	6	20	40	31	30	10	0.12	0201892
0205086	8	20	40	31	30	15	0.12	0201892
0205087	10	20	40	31	30	20	0.12	0201892
0215000	1/8"	20	40	31	30	3	0.12	0201892

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Micro Maching

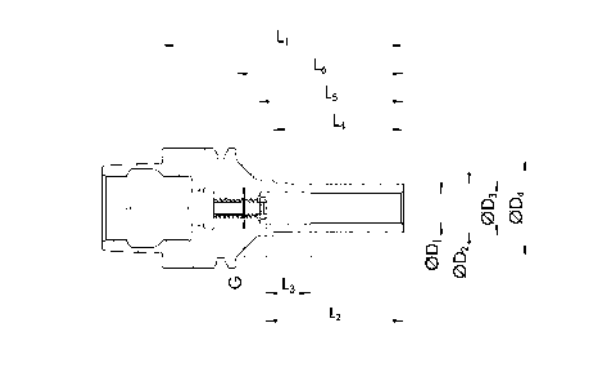
HSC

Optimized interfering contours

Technical data

ID	D1	D2	D3	D4	L1	L4	L5	L6	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	Nm	kg	
0225605	0.5	9	11	18.8	35	22.5	23.4	25		0.05	0201971
0225610	1	9	11	18.8	35	22.5	23.4	25		0.05	0201971
0225615	1.5	9	11	18.8	35	22.5	23.4	25		0.05	0201971
0225620	2	9	11	18.8	35	22.5	23.4	25	1	0.05	0201971
0225625	2.5	9	11	18.8	35	22.5	23.4	25	1.25	0.05	0201971
0205250	3	9	11	18.8	35	22.5	23.4	25	1.5	0.05	0201971
0225635	3.5	9	11	18.8	35	22.5	23.4	25	2	0.05	0201971
0205256	4	9	11	18.8	35	22.5	23.4	25	2.5	0.05	0201971
0225645	4.5	9	11	18.8	35	22.5	23.4	25	3	0.05	0201971
0205258	5	9	11	18.8	35	22.5	23.4	25	3.5	0.05	0201971
0205267	6	9	11	18.8	35	22.5	23.4	25	4.5	0.05	0201971
0225661	1/8"	9	11	18.8	35	22.5	23.4	25	1.5	0.05	0201971

ⓘ *Run-out accuracy at 2.5 x D; run-out for Ø 6 mm: ≤ 0.005 mm at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

HSC
HSC

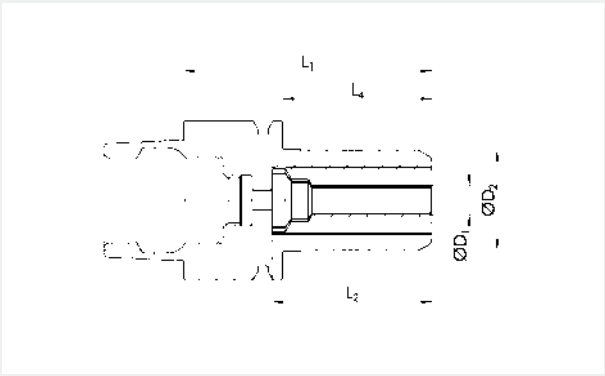
Optimized interfering contours

Data carrier hole optionally possible

Technical data

ID	D1	D2	D3	D4	L1	L2	L3	L4	L5	L6	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0205261	6	9.9	13.1	26	65	37	10	35	38.2	45	M5	5	0.25	0201972
0205262	8	13	15.1	26	65	37	10	35	39.2	45	M5	12	0.25	0201973
0205263	10	16	18.1	26	70	42	10	40	45.7	50	M5	20	0.25	0201974
0205264	12	19	21.1	26	75	47	10	45	52.2	55	M5	30	0.25	0201975
0205265	16	25	26.2		80	45	10	45	60		M10x1	70	0.25	0201977

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Extra radial rigidity

Micro Maching

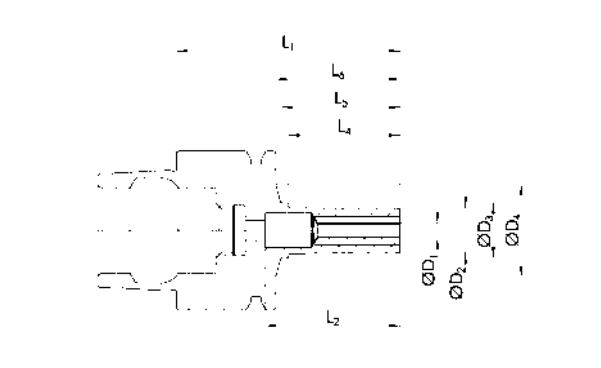
HSC

Data carrier hole optionally possible

Technical data

ID	D1	D2	D3	L1	L2	L4	L5	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	Nm	kg	
0226000	3	20		50	32	30		3	0.25	0201892
0226001	4	20		50	32	30		4	0.25	0201892
0226002	5	20		50	32	30		6	0.25	0201892
0226003	6	20		50	32	30		10	0.25	0201892
0226004	8	20		50	32	30		15	0.25	0201892
0226005	10	20		50	32	30		20	0.25	0201892
0226006	12	20		50	32	30		20	0.25	0201892
0215015	1/8"	20		50	32	30		3	0.25	0201892
0226007	12	20	21.5	78	60.2	30	58	20	0.35	0201892

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Micro Maching

HSC

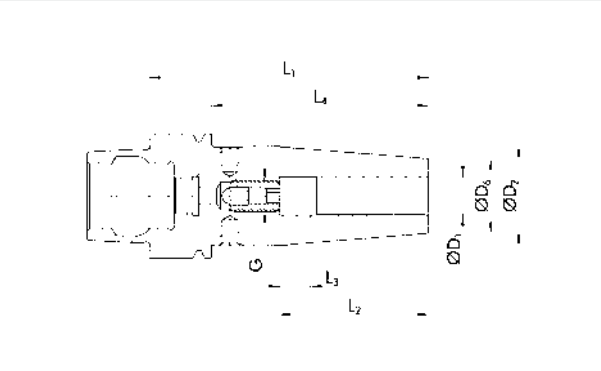
Optimized interfering contours

Data carrier bore as an option

Technical data

ID	D1	D2	D3	D4	L1	L2	L4	L5	L6	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm	Nm	kg	
0225705	0.5	9	11	18.8	45	27.2	22.5	23.4	25		0.13	0201971
0225760	1	9	11	18.8	45	27.2	22.5	23.4	25		0.13	0201971
0225715	1.5	9	11	18.8	45	27.2	22.5	23.4	25		0.13	0201971
0225761	2	9	11	18.8	45	27.2	22.5	23.4	25	1	0.13	0201971
0225725	2.5	9	11	18.8	45	27.2	22.5	23.4	25	1.25	0.13	0201971
0225762	3	9	11	18.8	45	27.2	22.5	23.4	25	1.5	0.13	0201971
0225735	3.5	9	11	18.8	45	27.2	22.5	23.4	25	2	0.13	0201971
0225763	4	9	11	18.8	45	27.2	22.5	23.4	25	2.5	0.13	0201971
0225745	4.5	9	11	18.8	45	27.2	22.5	23.4	25	3	0.13	0201971
0225764	5	9	11	18.8	45	27.2	22.5	23.4	25	3.5	0.13	0201971
0225765	6	9	11	18.8	45	27.2	22.5	23.4	25	4.5	0.13	0201971
0225766	1/8"	9	11	18.8	45	27.2	22.5	23.4	25	1.5	0.13	0201971

ⓘ *Run-out accuracy at 2.5 x D; run-out for Ø 6 mm: ≤ 0.005 mm at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

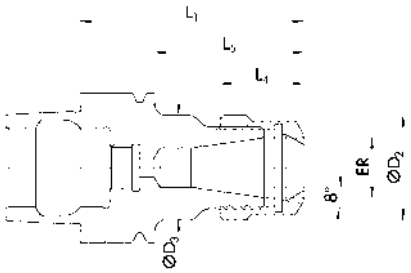
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
0210140	4.5°	3	17	12	60			40		4	0.1
0210141	4.5°	4	17	12	60			40		6	0.1
0210142	4.5°	5	17	12	60			40		8	0.1
0208290	4.5°	6	27	21	70	37	10	50	M5	20	0.3
0208291	4.5°	8	27	21	70	37	10	50	M6	52	0.3
0208292	4.5°	10	32	24	80	42	10	60	M8x1	70	0.4

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

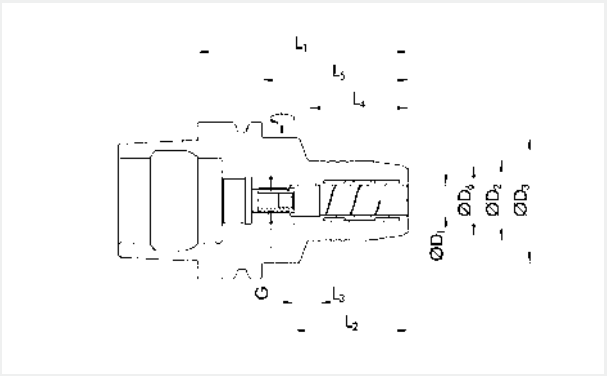
Balancing grade
G2.5 at 25,000 RPM*

Data carrier hole optionally possible

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
	mm		mm	mm	mm	mm	mm		kg
1357874	1 – 10	ER 16	28	28	80	17.5	60	M11x1	0.34
1357876	1 – 16	ER 25	42	42	80	20	60	M18x1.5	0.36
1357877	1 – 10	ER 16	28	28	100	17.5	80	M11x1	0.395

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Data carrier hole optionally possible

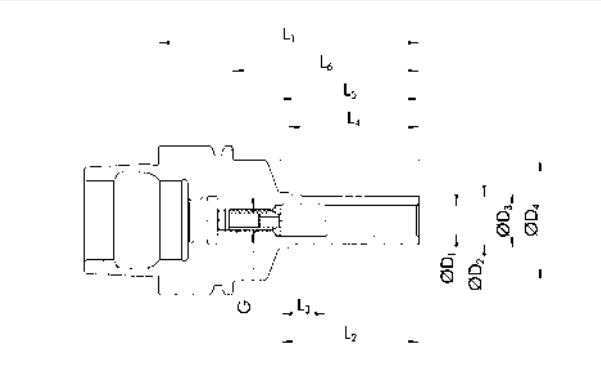
Internal cooling
up to 80 bar

Coolant type
Design suitable for MQL operations available on request

Technical data

ID	D1 mm	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
0204611	6	26	33.5	22	70	37	10	36	50	M5	16	0.5	9205640
0204612	8	28	33.5	24	70	37	10	36	50	M6	23	0.5	9205640
0204613	10	30	33.5	26	75	41	10	42	55	M6	45	0.5	9205640
0204614	12	32	33.5	28	80	46	10	48	60	M6	90	0.6	9205640

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

HSC
HSC

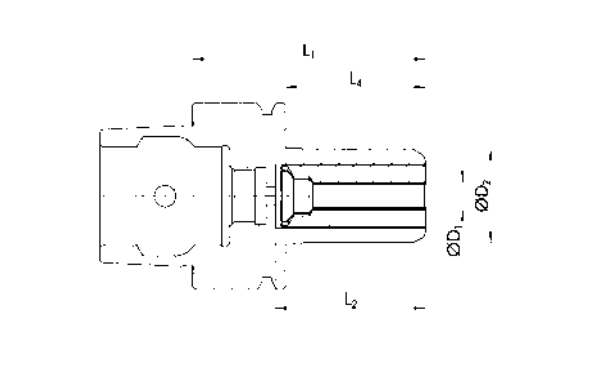
Optimized interfering contours

Data carrier hole optionally possible

Technical data

ID	D1	D2	D3	D4	L1	L2	L3	L4	L5	L6	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0205151	6	9.9	13.1	32	70	37	10	35	37.2	50	M5	5	0.3	0201972
0205152	8	13	15.1	32	70	37	10	35	37.2	50	M6	12	0.3	0201973
0205153	10	16	18.1	32	80	42	10	40	42.2	60	M8x1	20	0.35	0201974
0205154	12	19	21.1	32	85	47	10	45	47.2	65	M8x1	30	0.4	0201975
0205159	14	22	24.1	32	85	47	10	45	47.2	65	M8x1	50	0.4	0201976
0205155	16	25	27.1	32	85	48	10	45	47.2	65	M8x1	70	0.45	0201977
0205156	20	30	32.1		90	52	10	45	70		M8x1	150	0.49	0201981
0205157	1/2"	20	22.1	32	85	47	10	45	47.2	65	M8x1	30	0.35	0201991

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Extra radial rigidity

Micro Maching

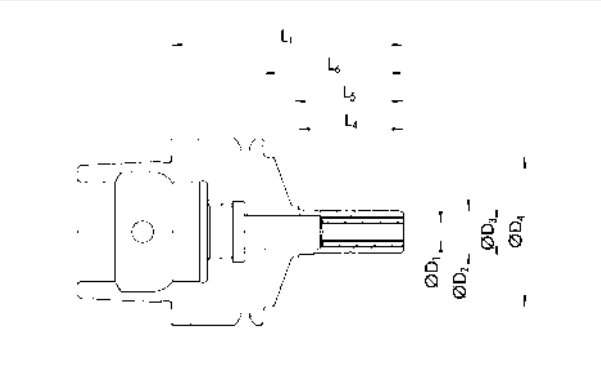
HSC

Data carrier hole optionally possible

Technical data

ID	D1	D2	D3	L1	L2	L4	L5	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	Nm	kg	
0225770	3	20		50	32	30		3	0.41	0201892
0225771	4	20		50	32	30		4	0.41	0201892
0225772	5	20		50	32	30		6	0.41	0201892
0225773	6	20		50	32	30		10	0.41	0201892
0225774	8	20		50	32	30		15	0.41	0201892
0225775	10	20		50	32	30		20	0.41	0201892
0225776	12	20		50	32	30		20	0.41	0201892
0215025	1/8"	20		50	32	30		3	0.41	0201892
0225777	12	20	21.5	78	60.2	30	58	20	0.65	0201892

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Micro Maching

HSC

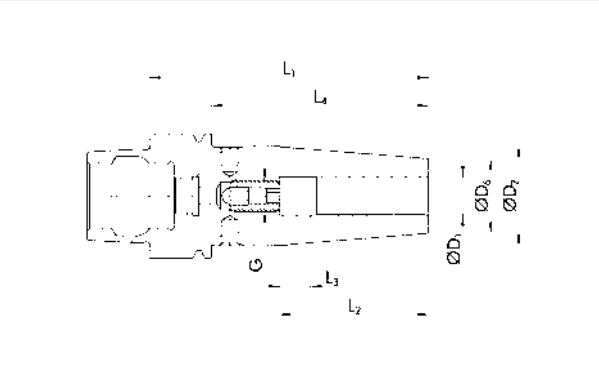
Optimized interfering contours

Data carrier bore as an option

Technical data

ID	D1	D2	D3	D4	L1	L4	L5	L6	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	Nm	kg	
0225805	0.5	9	11	32	50	22.5	23.4	30		0.23	0201971
0225810	1	9	11	32	50	22.5	23.4	30		0.23	0201971
0225815	1.5	9	11	32	50	22.5	23.4	30		0.23	0201971
0225820	2	9	11	32	50	22.5	23.4	30	1	0.23	0201971
0225825	2.5	9	11	32	50	22.5	23.4	30	1.25	0.23	0201971
0205450	3	9	11	32	50	22.5	23.4	30	1.5	0.23	0201971
0225835	3.5	9	11	32	50	22.5	23.4	30	2	0.23	0201971
0205456	4	9	11	32	50	22.5	23.4	30	2.5	0.23	0201971
0225845	4.5	9	11	32	50	22.5	23.4	30	3	0.23	0201971
0205458	5	9	11	32	50	22.5	23.4	30	3.5	0.23	0201971
0205459	6	9	11	32	50	22.5	23.4	30	4.5	0.23	0201971
0225850	1/8"	9	11	32	50	22.5	23.4	30	1.5	0.23	0201971

ⓘ *Run-out accuracy at 2.5 x D; run-out for Ø 6 mm: ≤ 0.005 mm at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

Data carrier hole optionally possible

Internal cooling
up to 80 bar

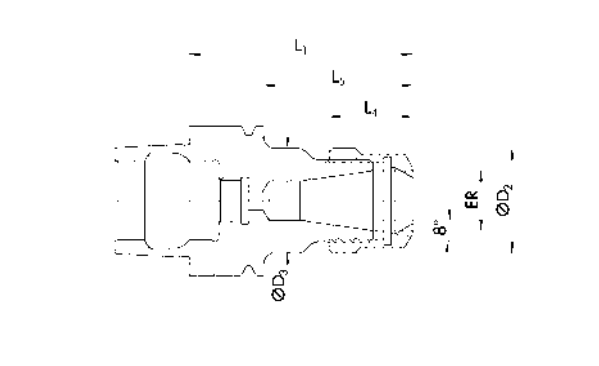
Coolant type
Design suitable for MQL operations available on request

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
26001165	4.5°	6	27	21	60	36		40			0.37
26001166	4.5°	8	27	21	60	36		40			0.37
26001167	4.5°	10	32	24	60	42		40			0.41
26001168	4.5°	12	32	24	60	47		40			0.4
26001170	4.5°	16	34	27	60	50		40			0.4
1458806	4.5°	3	17	12	60			40		4	0.2
1458807	4.5°	4	17	12	60			40		6	0.2
1458808	4.5°	5	17	12	60			40		8	0.2
0208300	4.5°	6	27	21	80	37	10	60	M5	20	0.4
0208301	4.5°	8	27	21	80	37	10	60	M6	52	0.4
0208302	4.5°	10	32	24	80	42	10	60	M8x1	70	0.4
0208303	4.5°	12	32	24	90	48	10	70	M10x1	150	0.5
0208304	4.5°	14	34	27	90	48	10	70	M10x1	180	0.5
0208305	4.5°	16	34	27	90	51	10	70	M12x1	300	0.5
1328691	Slim	3	10	6	60	13.5		40			0.23
1328692	Slim	4	11	7	60	16		40			0.23
1328693	Slim	5	12	8	60	16		40			0.23
1328694	Slim	6	13	9	60	37		40			0.24
1328695	Slim	8	15	11	60	37		40			0.24
1328696	Slim	10	17	13	60	42		40			0.25
1328697	Slim	12	19	15	60	42		40			0.25
26000917	3°	3		9	60	13.5		40			0.25
26000918	3°	4		10	60	16		40			0.2
26000919	3°	5		11	60	16		40			0.25
26000463	3°	6		12	60	22		40			0.26
26000464	3°	8		14	60	37		40			0.26
26000920	3°	10		16	60	42		40			0.27
26000921	3°	12		18	60	42		40			0.28
26000922	3°	3		9	70	13.5		50			0.2
26000923	3°	4		10	70	16		50			0.26
26000924	3°	5		11	70	16		50			0.27
26000916	3°	6		12	70	37		50			0.27
26000925	3°	8		14	70	37		50			0.29
26000926	3°	10		16	70	42		50			0.29
26000927	3°	12		18	70	42		50			0.3

ID	Variant	D1 mm	D2 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	G	Mmin Nm	Weight kg
26000928	3°	3		9	80	13.5		60			0.27
26000929	3°	4		10	80	16		60			0.28
26000930	3°	5		11	80	16		60			0.28
26000931	3°	6		12	80	37		60			0.29
26000932	3°	8		14	80	37		60			0.32
26000933	3°	10		16	80	42		60			0.32
26001204	3°	12		18	80	42		60			0.3

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

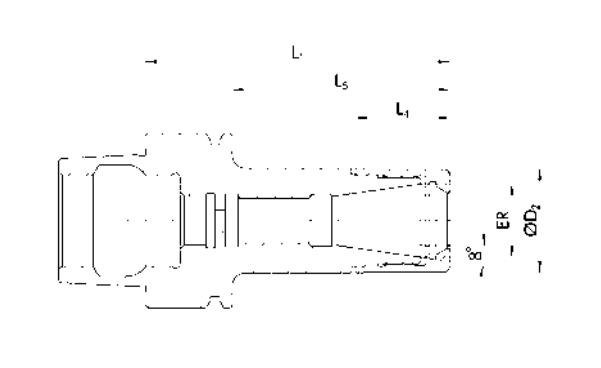
Balancing grade
G2.5 at 25,000 RPM*

Data carrier hole optionally possible

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
	mm		mm	mm	mm	mm	mm		kg
23002078	1 – 7	ER 11	19	19	60	11.3	40		0.28
23002079	1 – 10	ER 16	28	28	60	17.5	40		0.34
23002080	1 – 16	ER 25	42	42	70	20	50		0.46
23000805	1 – 10	ER 16	28	28	80	17.5	60	M11x1	0.43
23000614	1 – 16	ER 25	42	42	80	20	60	M18x1.5	0.52

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

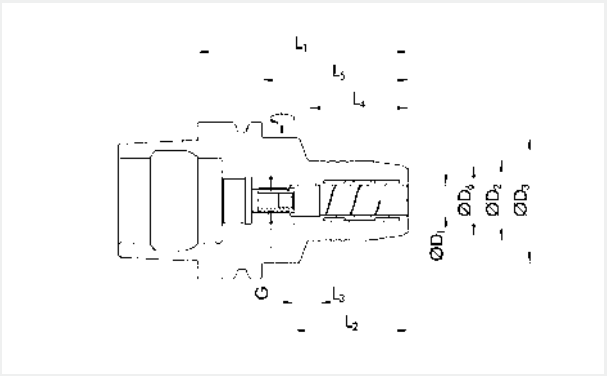
Extra radial rigidity

Data carrier hole optionally possible

Technical data

ID	Variant	Clamping range D1	ER	D2	L1	L4	L5	Weight
		mm		mm	mm	mm	mm	kg
1472497		1 – 10	ER 16	34	60	20.6	40	0.6
1472498		1 – 16	ER 25	44	65	24	40	0.7
1472343	ER Mini	1 – 10	ER 16	44	70	20.6	50	0.7

ⓘ *Run-out accuracy: at 2.5 x D using the ER precision collets and a defined tightening torque
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Data carrier hole optionally possible

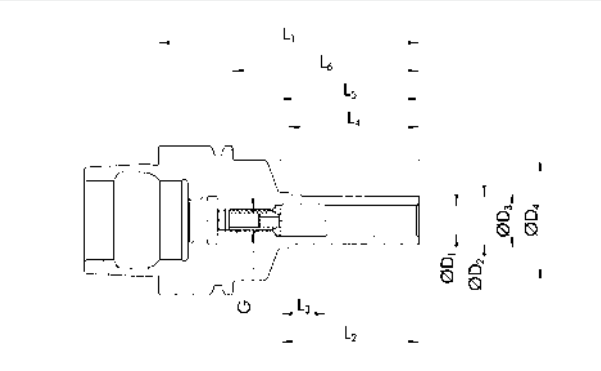
Internal cooling
up to 80 bar

Coolant type
Design suitable for MQL operations available on request

Technical data

ID	D1 mm	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
0204470	6	26	40	22	70	37	10	28	44	M5	16	0.7	9205640
0204471	8	28	40	24	70	37	10	28	44	M6	23	0.7	9205640
0204472	10	30	40	26	75	41	10	34	49	M8x1	45	0.7	9205640
0204473	12	32	40	28	85	46	10	44	59	M10x1	90	0.8	9205640
0204474	16	38	53	34	90	49	10	30	64	M10x1	185	1	9205650
0204475	20	42	60	38	90	51	10	29	64	M10x1	330	1.1	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

HSC
HSC

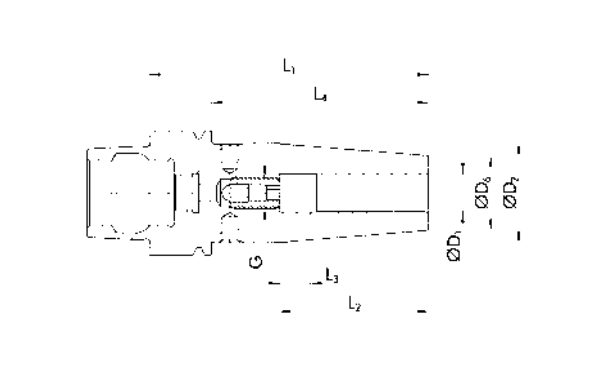
Optimized interfering contours

Data carrier hole optionally possible

Technical data

ID	D1	D2	D3	D4	L1	L2	L3	L4	L5	L6	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0205161	6	10	13.1	40	75	37	10	35	37.2	49	M5	5	0.5	0201972
0205162	8	13	15.1	40	75	37	10	35	37.2	49	M6	12	0.5	0201973
0205163	10	16	18.1	40	80	42	10	40	42.2	54	M8x1	20	0.5	0201974
0205164	12	19	21.1	40	85	47	10	45	47.2	59	M8x1	30	0.55	0201975
0205169	14	22	24.1	40	85	47	10	45	47.2	59	M10x1	50	0.6	0201976
0205165	16	25	27.1	40	85	48	10	45	47.2	59	M10x1	70	0.65	0201977
0205160	18	28	30.1	40	85	48	11	45	47.2	59	M10x1	100	0.65	0201979
0205166	20	30	32.1	40	90	52	10	45	47.2	64	M10x1	150	0.7	0201981
0205167	25	36	38.1	40	95	57	10	45	52	69	M10x1	200	1.2	0201987

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

Data carrier hole optionally possible

Internal cooling
up to 80 bar

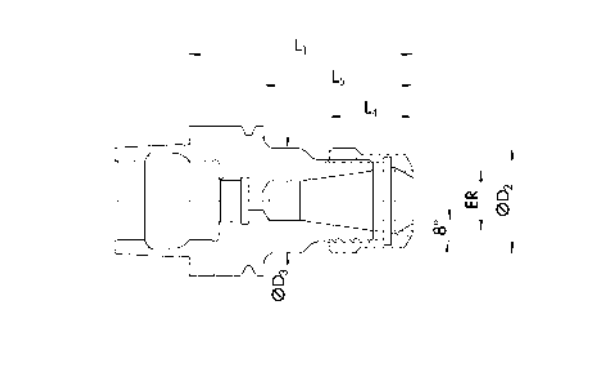
Coolant type
Design suitable for MQL operations available on request

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
1458810	4.5°	3	17	12	60			34		4	0.4
1458811	4.5°	4	17	12	60			34		6	0.4
1458812	4.5°	5	17	12	60			34		8	0.4
0208310	4.5°	6	27	21	80	37	10	54	M5	20	0.7
0208311	4.5°	8	27	21	80	37	10	54	M6	52	0.7
0208312	4.5°	10	32	24	85	42	10	59	M8x1	70	0.8
0208313	4.5°	12	32	24	90	48	10	64	M10x1	150	0.8
0208314	4.5°	14	34	27	90	48	10	64	M10x1	180	0.9
0208315	4.5°	16	34	27	95	51	10	69	M12x1	300	0.9
26001248	3°	3	14	9	70	13.5		44			0.46
26001249	3°	4	15	10	70	16		44			0.46
26001250	3°	5	16	11	70	16		44			0.47
26002177	3°	6	17	12	70	23		44			0.47
26001252	3°	8	19	14	70	37		44			0.48
26001253	3°	10	21	16	70	42		44			0.49
26001254	3°	12	23	18	70	48		44			0.49
26001262	3°	3	15	9	80	13.5		54			0.5
26001263	3°	4	16	10	80	16		54			0.48
26001264	3°	5	17	11	80	16		54			0.48
26001265	3°	6	18	12	80	23		54			0.48
26001266	3°	8	20	14	80	37		54			0.5
26001267	3°	10	22	16	80	42		54			0.51
26001268	3°	12	24	18	80	48		54			0.52
26001276	3°	3	17	9	100	13.5		74			0.5
26000936	3°	4	18	10	100	16		74			0.51

ID	Variant	D1 mm	D2 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	G	Mmin Nm	Weight kg
26001278	3°	5	17	11	100	16		74			0.52
1300128	3°	6	20	12	100	23		74			0.53
1300129	3°	8	22	14	100	37		74			0.55
1300134	3°	10	24	16	100	42		74			0.57
1300139	3°	12	26	18	100	48		74			0.6

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

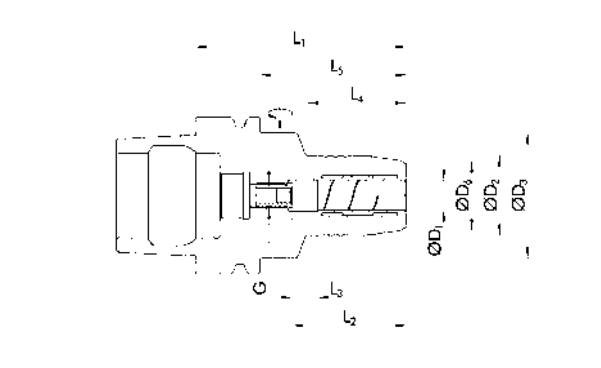
Balancing grade
G2.5 at 25,000 RPM*

Data carrier hole optionally possible

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
	mm		mm	mm	mm	mm	mm		kg
23003523	1 – 10	ER 16	28	28	60	17.5	34		0.51
23003052	1 – 16	ER 25	42	42	70	20	44		0.5
23002105	2 – 20	ER 32	50	50	80	23	54		0.79
23002102	1 – 10	ER 16	28	28	100	17.5	74	M11x1	0.72
23002096	1 – 16	ER 25	42	42	100	20	74	M18x1.5	0.83
23000737	2 – 20	ER 32	50	50	100	23	74	M24x1.5	0.98

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Data carrier hole optionally possible

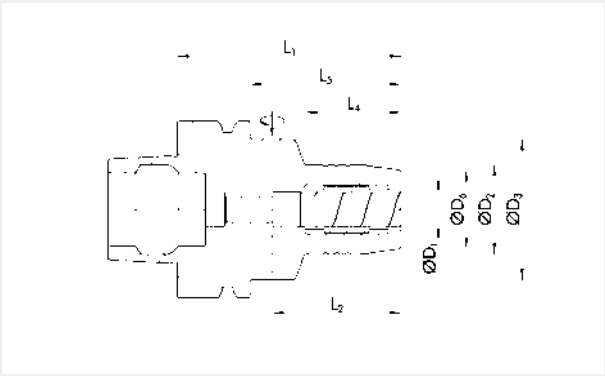
Internal cooling
up to 80 bar

Coolant type
Design suitable for MQL operations available on request

Technical data

ID	D1 mm	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
0204926	20	42	50	38	90	51	10	48	64	M16x1	330	1.3	9205650
0204928	32	64	75	60	125	61	10	63	99	M16x1	650	2.8	9205660

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Extra radial rigidity

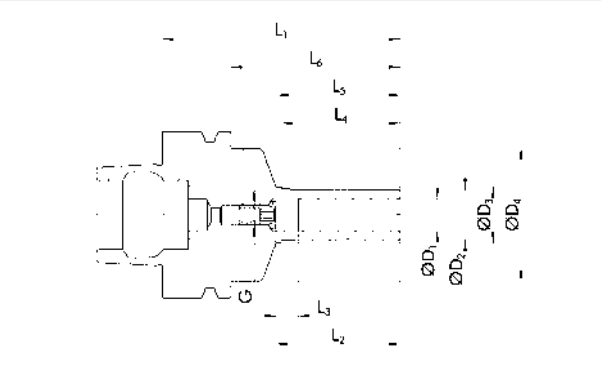
HPC

Data carrier bore as an option*

Technical data

ID	D1	D2	D3	D6	L1	L2	L4	L5	Weight	
	mm	mm	mm	mm	mm	mm	mm	mm	kg	
0206573	10	30	50	26	80	42.5	34	54	1.1	9205650
0206574	12	32	50	28	80	46	34	54	1.1	9205650
0206575	16	38	50	34	80	49	34	54	1.1	9205650
0206576	20	52.5		48	80	51	54		1.4	9205650
0206577	25	52.5		48	90	57	64		1.4	9205660

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
*Data carrier hole: Hole for data carrier according to DIN 69893-6
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

HSC

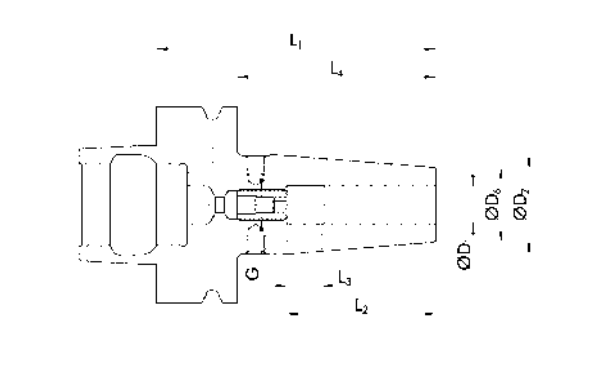
Optimized interfering contours

Data carrier bore as an option

Technical data

ID	D1 mm	D2 mm	D3 mm	D4 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	L6 mm	G	Mmin Nm	Weight kg	
0202373	12	19	21.1		75	48.5		45	49			25	0.65	0201975
0202374	16	25	27.1		75	49		45	49			60	0.7	0201977
0202375	20	30	32.1		75	53		45	49			130	0.7	0201981
0202376	25	35	38.1		75	55		40	49			170	0.75	0206089
0203341	6	9.9	13.1	50	80	37	10	35	37.2	54	M5	5	0.65	0201972
0203342	8	13	15.1	50	80	37	10	35	37.2	54	M6	12	0.65	0201973
0203343	10	16	18.1	50	85	42	10	40	42.2	59	M8x1	20	0.7	0201974
0203344	12	19	21.1	50	90	47	10	45	47.2	64	M8x1	30	0.75	0201975
0203345	16	25	27.1	50	95	48	10	45	47.2	69	M10x1	70	0.8	0201977
0203346	20	30	32.1	50	100	52	10	45	47.2	74	M10x1	150	1	0201981
0203347	25	36	38.1	50	95	57	10	45	52	69	M10x1	200	1	0201987

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

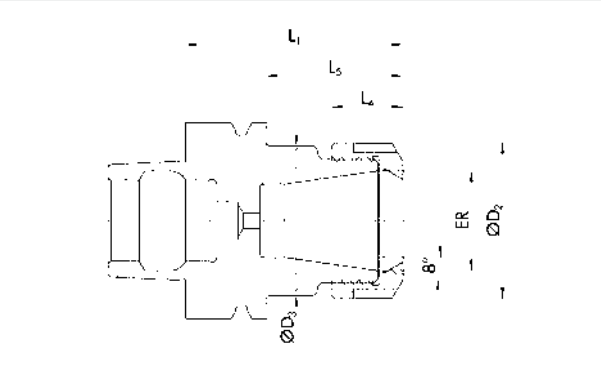
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
26000560	4.5°	3	17	12	80			54		4	0.4
26000769	4.5°	4	17	12	80			54		6	0.4
26000770	4.5°	5	17	12	80			54		8	0.4
26000771	4.5°	6	27	21	80	37	10	54	M5	20	0.7
26000772	4.5°	8	27	21	80	37	10	54	M6	50	0.7
26000773	4.5°	10	32	24	85	42	10	59	M8x1	70	0.8
26000774	4.5°	12	32	24	90	48	10	64	M10x1	150	0.8
26000775	4.5°	16	34	27	95	51	10	69	M12x1	300	0.9
26000776	4.5°	20	42	33	100	53	10	74	M16x1	450	0.9
26000623	4.5°	25	53	44	115	59	10	89	M16x1	680	0.9
26000777	4.5°	6	27	21	130	37	10	104	M5	20	0.7
26000580	4.5°	8	27	21	130	37	10	104	M6	50	0.7
26000581	4.5°	10	32	24	130	42	10	104	M8x1	70	0.8
26000778	4.5°	12	32	24	130	48	10	104	M10x1	150	0.8
26000779	4.5°	16	34	27	130	51	10	104	M12x1	300	0.9
26000780	4.5°	20	42	33	130	53	10	104	M16x1	450	0.9
26000650	4.5°	25	53	44	130	59	10	104	M16x1	680	0.9

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

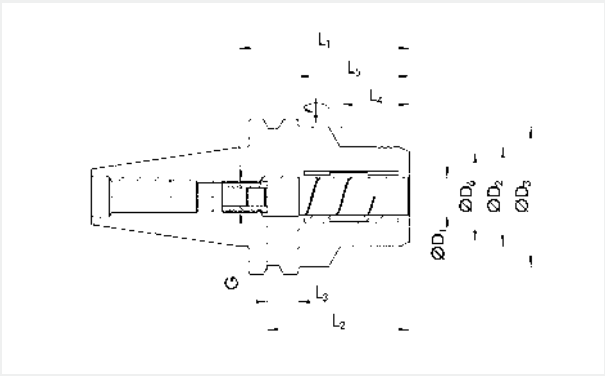
Balancing grade
G2.5 at 25,000 RPM*

Data carrier hole optionally possible

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
	mm		mm	mm	mm	mm	mm		kg
1357889	1 – 7	ER 11	19	19	75	11.3	49		0.715
1357891	1 – 10	ER 16	28	28	75	17.5	49		0.785
1357892	1 – 13	ER 20	34	34	75	19	49		0.865
1357893	1 – 16	ER 25	42	42	75	20	49		0.945
1357894	2 – 20	ER 32	50	50	75	23	49		1.02
1357895	4 – 26	ER 40	63	63	75	26	49		1.52
0263375	2 – 20	ER 32	50	50	70	23	44		1.45
0263376	4 – 26	ER 40	63	63	76	26	50		1.55
1357897	1 – 7	ER 11	19	19	100	11.3	74	M8x1	0.83
1357898	1 – 10	ER 16	28	28	100	17.5	74	M11x1	0.91
1357904	1 – 13	ER 20	34	34	100	19	74	M14x1	1.06
1357906	1 – 16	ER 25	42	42	100	20	74	M18x1.5	1.21
1357913	2 – 20	ER 32	50	50	100	23	74	M24x1.5	1.31
1357914	4 – 26	ER 40	63	63	120	26	94	M28x1.5	1.76

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

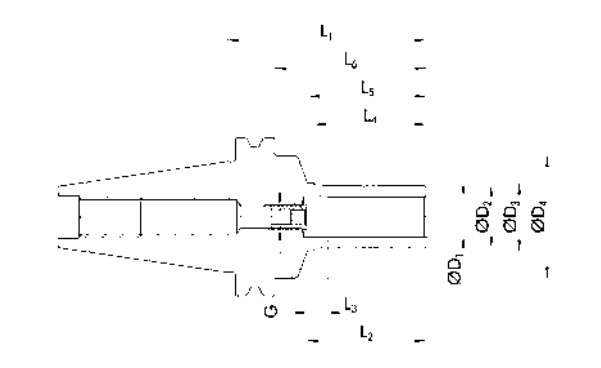
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1 mm	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
0204931	6	26	45	23	55	37	10	20	35.9	M5	16	0.6	9205640
0204932	8	28	45	25	55	37	10	20	35.9	M6	23	0.6	9205640
0204933	10	30	45	27	55	41	10	21	35.9	M8x1	45	0.6	9205640
0204934	12	32	45	29	55	46	10	22	35.9	M10x1	90	0.6	9205640
0204935	16	38	45	34	90	49	10	50	70.9	M6	185	0.6	9205650
0204936	20	42	45	38	90	51	10	50	70.9	M6	330	0.6	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

HSC
HSC

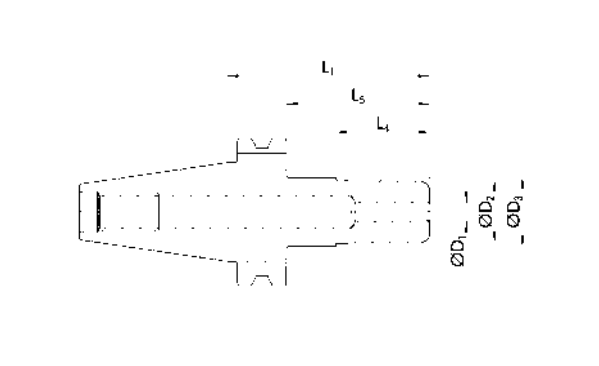
Optimized interfering contours

Data carrier hole optionally possible

Technical data

ID	D1	D2	D3	D4	L1	L2	L3	L4	L5	L6	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0203766	12	19	21	42	80	47	10	45	47.2	61	M8x1	30	0.62	0201975
0203767	16	25	27	42	80	48	10	45	47.2	61	M10x1	70	0.75	0201977
0203768	20	30	32	42	80	52	10	45	47.2	61	M10x1	150	0.78	0201981
0203769	25	35	37	42	80	55	10	40	42.2	61	M10x1	200	0.78	0206089

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Extra radial rigidity

Micro Maching

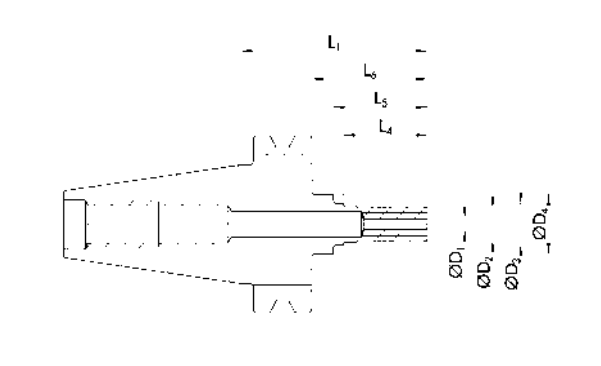
HSC

Data carrier hole optionally possible

Technical data

ID	D1 mm	D2 mm	D3 mm	L1 mm	L4 mm	L5 mm	Mmin Nm	Weight kg	
0225790	6	20	22	65	30	45.9	10	0.35	0201892
0225791	8	20	22	65	30	45.9	13	0.35	0201892
0225792	10	20	22	65	30	45.9	17	0.35	0201892
0225793	12	20	22	65	30	45.9	20	0.35	0201892

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Micro Maching

HSC

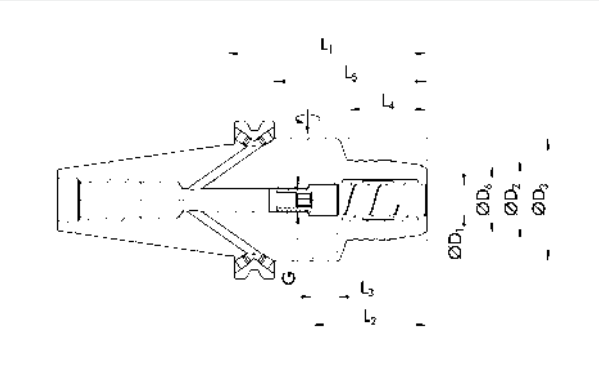
Optimized interfering contours

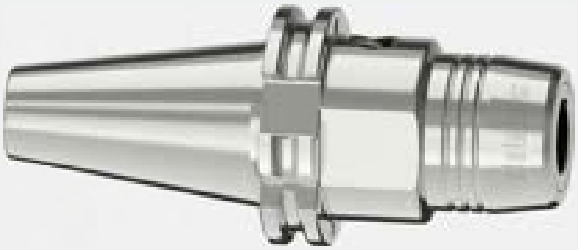
Data carrier bore as an option

Technical data

ID	D1	D2	D3	D4	L1	L4	L5	L6	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	Nm	kg	
0225780	1	9	11	16	50	22.5	25.2	30.9		0.25	0201971
0225781	1.5	9	11	16	50	22.5	25.2	30.9		0.25	0201971
0225782	2	9	11	16	50	22.5	25.2	30.9	1	0.25	0201971
0225783	3	9	11	16	50	22.5	25.2	30.9	1.5	0.25	0201971
0225784	4	9	11	16	50	22.5	25.2	30.9	2.5	0.25	0201971
0225785	6	9	11	16	50	22.5	25.2	30.9	4.5	0.25	0201971
0225786	1/8"	9	11	16	50	22.5	25.2	30.9	1.5	0.25	0201971

ⓘ *Run-out accuracy at 2.5 x D; run-out for Ø 6 mm: ≤ 0.005 mm at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

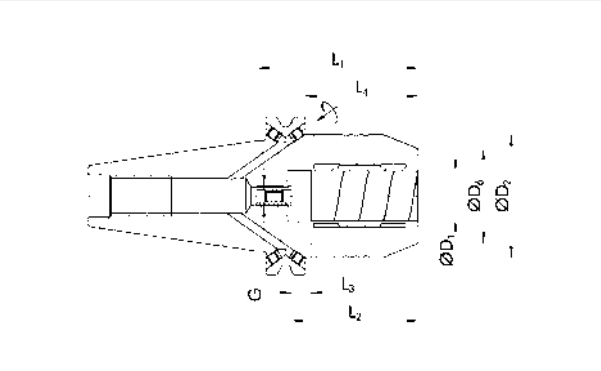
Data carrier bore as an option

Internal cooling
up to 80 bar

Technical data

ID	D1 mm	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
1462652	6	26	49.25	22	80.5	37	10	29.5	61.4	M5	26	1.3	9205650
1462653	8	28	49.25	24	80.5	37	10	30	61.4	M6	23	1.3	9205650
1462654	10	30	49.25	26	80.5	41	10	31	61.4	M8x1	45	1.3	9205650
1462655	12	32	49.25	28	80.5	46	10	31.5	61.4	M10x1	90	1.3	9205650
1462656	16	38	49.25	34	80.5	49	10	33	61.4	M12x1	185	1.4	9205650
1467135	18	40	49.25	36	80.5	49	10	33	61.4	M12x1	240	1.4	9205650
1462657	20	42	49.25	38	80.5	51	10	34	61.4	M16x1	330	1.4	9205650
1467969	25	55	65.95	53	80.5	57	10	22	61.4	M16x1	400	1.8	9205660
1462658	32	63	72.95	60	80.5	61	10	25.5	61.4	M16x1	650	1.8	9205660

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Extra radial rigidity

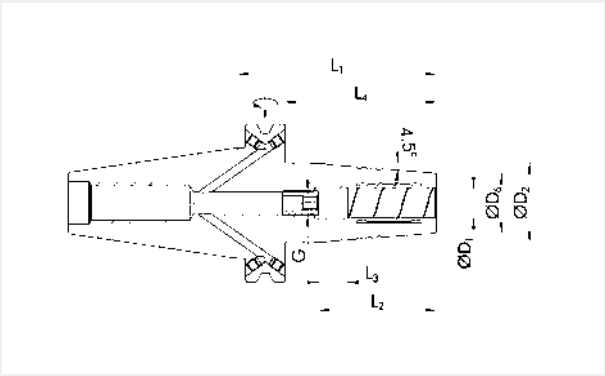
HPC
HPC

Data carrier hole optionally possible

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0206414	12	42		32	50	46	10	30.9		M8x1	110	1.1	9205650
0206415	16	49.25		38	64.5	51	10	45.4		M8x1	350	1.2	9205650
0206416	20	49.25		38	64.5	51	10	45.4		M8x1	520	1.3	9205650
1340921	32	62.5		58.5	115	61	10	95.95		M8x1	800	2.6	9205660
20064358	12	42	44.5	32	130	46	10	32	110.9	M8x1	110	1.7	9205650
1439112	16	42	44.5	38	130	51	10	50	110.9	M8x1	400	1.7	9205650
20064359	20	42	44.5	38	130	51	10	50	110.9	M8x1	400	1.7	9205650

ⓘ *Run-out accuracy: at 2.5 x D; run-out at L1 = 130 mm: ≤ 0.005 mm at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

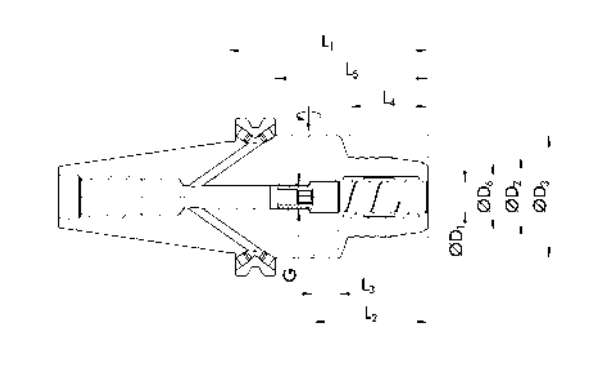
Optimized interfering contours

Internal cooling
up to 80 bar

Technical data

ID	D1 mm	D2 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	G	Mmin Nm	Weight kg	
1319638	6	27	21	80	36	10	60.9	M5	16	1	9205650
1319639	8	27	21	80	36	10	60.9	M6	23	1	9205650
1319640	10	32	24	80	42	10	60.9	M8x1	45	1	9205650
1319641	12	32	24	80	47	10	60.9	M10x1	90	1	9205650
1319643	16	34	27	80	50	10	60.9	M12x1	185	1.1	9205650
1319645	20	42	33	80	52	10	60.9	M16x1	330	1.2	9205650
1319655	6	27	21	120	36	10	100.9	M5	16	1.2	9205650
1319656	8	27	21	120	36	10	100.9	M6	23	1.2	9205650
1319657	10	32	24	120	42	10	100.9	M8x1	45	1.3	9205650
1319658	12	32	24	120	47	10	100.9	M10x1	90	1.31	9205650
1319660	16	34	27	120	50	10	100.9	M12x1	185	1.4	9205650
1319662	20	42	33	120	52	10	100.9	M16x1	330	1.6	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

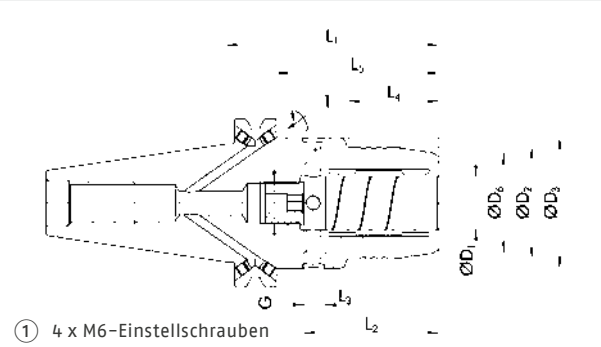
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0204261	6	26	49.5	22	80.5	37	10	29.5	61.4	M5	16	1.4	9205650
0204262	8	28	49.5	24	80.5	37	10	30	61.4	M6	23	1.4	9205650
0204263	10	30	49.5	26	80.5	41	10	31	61.4	M8x1	45	1.4	9205650
0204264	12	32	49.5	28	80.5	46	10	31.5	61.4	M10x1	90	1.4	9205650
0204265	16	38	49.5	34	80.5	49	10	33	61.4	M12x1	185	1.4	9205650
20023215	18	42	49	38.25	80.5	52.5	10	34.2	61.4	M12x1	240	1.4	9205650
0204266	20	42	49.5	38	80.5	51	10	34	61.4	M16x1	330	1.4	9205650
0201740	25	55	66	53	80.5	57	10	22	61.4	M16x1	400	1.8	9205660
0204267	32	63	80	60	80.5	61	10	25.5	61.4	M16x1	650	2	9205660
0204271	6	26	49.5	22	110	37	10	29.5	90.9	M5	16	1.8	9205650
0204272	8	28	49.5	24	110	37	10	30	90.9	M6	23	1.9	9205650
0204273	10	30	49.5	26	110	41	10	31	90.9	M8x1	45	1.9	9205650
0204274	12	32	49.5	28	110	47	10	31.5	90.9	M10x1	90	1.8	9205650
0204275	16	38	49.5	34	110	49	10	33	90.9	M12x1	185	1.9	9205650
0204276	20	42	49.5	38	110	51	10	34	90.9	M16x1	330	1.9	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves



① 4 x M6-Einstellschrauben



Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

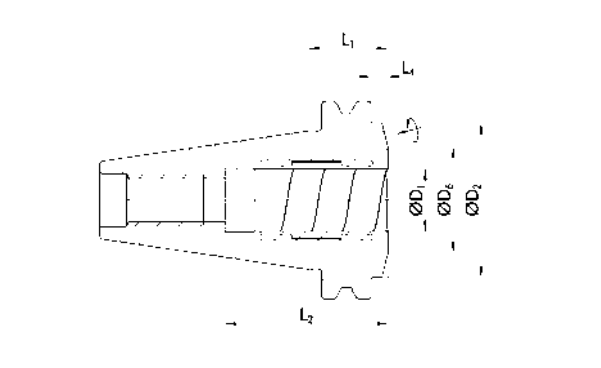
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1 mm	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
0204264Z	12	32	49.5	28	80.5	46	10	31.5	61.5	M10x1	90	1.4	9205650
0204265Z	16	38	49.5	34	80.5	49	10	33	61.5	M12x1	185	1.4	9205650
0204266Z	20	42	49.5	38	80.5	51	10	34	61.5	M16x1	330	1.4	9205650
0204267Z	32	63	80	60	80.5	61	10	25.5	61.5	M16x1	650	2	9205660

ⓘ *Run-out accuracy: at 2.5 x D; run-out accuracy of 0 microns, adjustable
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Extra radial rigidity

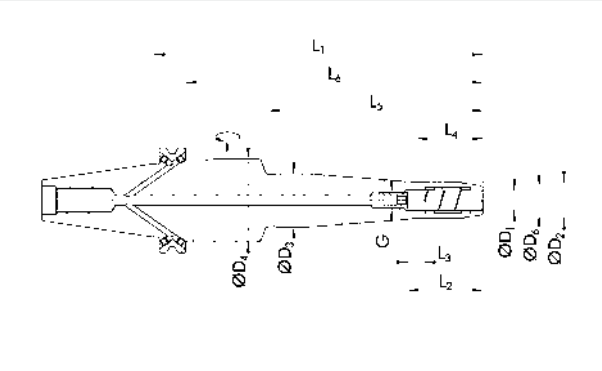
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D6	L1	L2	L4	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	Nm	kg	
0204216	20	49.5	34	24.6	52.5	5.5	330	0.7	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.006 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Optimized interfering contours

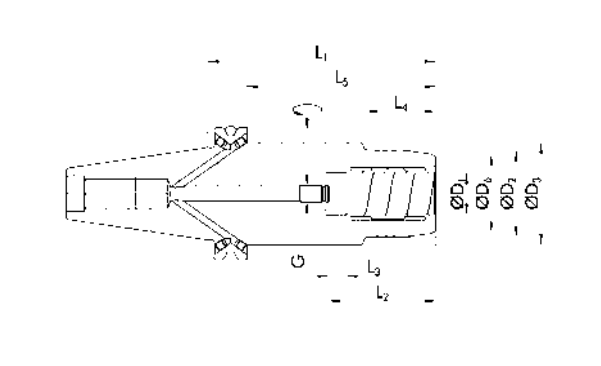
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1 mm	D2 mm	D3 mm	D4 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	L6 mm	G	Mmin Nm	Weight kg	
0205581	6	16	26.2	50.25	12	200	37	10	40.5	129	180.9	M5	10	1.8	9205650
0205582	8	18	28.2	50.25	14	200	37	10	40.5	130	180.9	M6	17	1.8	9205650
0205583	10	20	30.2	50.25	16	200	41	10	40.5	130	180.9	M8x1	35	1.8	9205650
0205584	12	22	32.2	50.25	18	200	46	10	40.5	130	180.9	M10x1	55	1.8	9205650
0205585	16	26	36.2	50.25	22	200	49	10	40.5	131	180.9	M12x1	120	1.8	9205650
0205586	20	30	40.2	50.25	26	200	51	10	40.5	132	180.9	M16x1	180	1.8	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

External cooling/ internal cooling
up to 80 bar

Battery service life

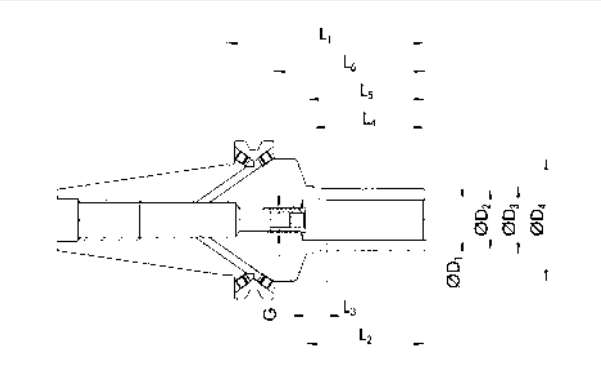
Acceleration sensor

Speed of rotation

Technical data

Description	ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	Max. rotational speed
		mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	RPM
iTENDO² SK 40 Ø20x110	1484710	20	42.05	49.25	37.65	110	51	8	33.5	91	M8x1	330	1.85	30000

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

HSC
HSC

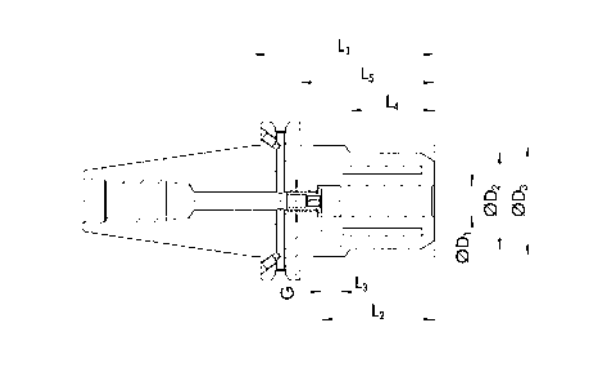
Optimized interfering contours

Data carrier hole optionally possible

Technical data

ID	D1 mm	D2 mm	D3 mm	D4 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	L6 mm	G	Mmin Nm	Weight kg	
0205131	6	9.9	13.1	49	80	37	10	35	37.2	60.9	M5	5	0.9	0201972
0205132	8	13	15.1	49	80	37	10	35	37.2	60.9	M6	12	0.95	0201973
0205133	10	16	18.1	49	80	42	10	40	42.2	60.9	M8x1	20	0.95	0201974
0205134	12	19	21.1	49	80	47	10	45	47.2	60.9	M8x1	30	1	0201975
0205139	14	22	24.1	49	80	47	10	45	47.2	60.9	M10x1	50	1	0201976
0205135	16	25	27.1	49	80	48	10	45	47.2	60.9	M10x1	70	1	0201977
0205130	18	28	30.1	49	80	48	10	45	47.2	60.9	M10x1	100	1.05	0201979
0205136	20	30	32.1	49	80	52	10	45	47.2	60.9	M10x1	150	1.05	0201981
0205137	25	36	38.1	49	80	57	10	45	48	60.9	M10x1	200	1.2	0201987
0205138	32	45	47.1	49	80	61	10	45	48	60.9	M10x1	280	1.22	0201998

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.005 mm*

Balancing grade
G6.3 at 15,000 RPM*

Short set-up time

Extra radial rigidity

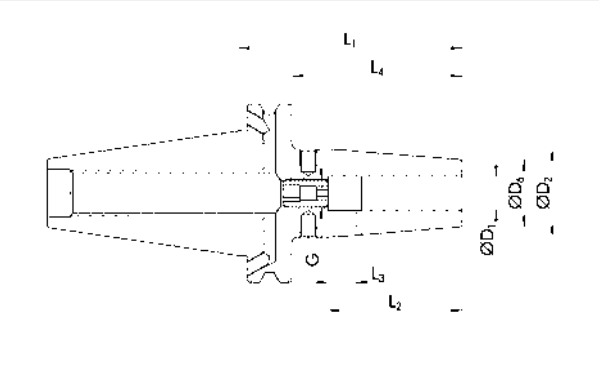
HPC

Data carrier hole optionally possible

Technical data

ID	D1	D2	D3	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0209603	12	39	44.45	73	46	10	34	53.9	M8x1	120	1.3	0208877
0209577	20	48.5	49.72	78	51	10	42	58.9	M8x1	450	1.5	0208877
0209550	32	65	69.85	109	61	10	47	89.9	M10x1	800	1.5	0208879

ⓘ *Run-out accuracy: measured in the clamping bore
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

Data carrier bore as an option

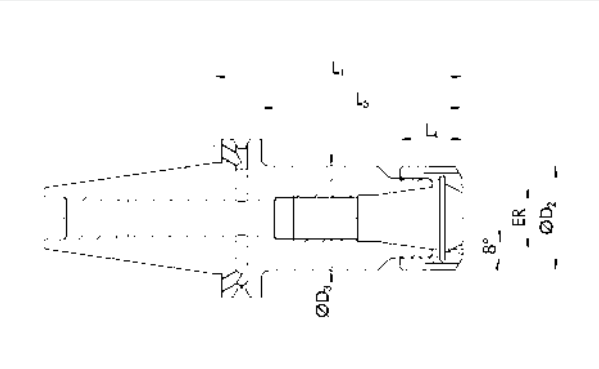
Internal cooling
up to 80 bar

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
1458815	4.5°	3	17	12	80	13		60.9		4	0.9
1458816	4.5°	4	17	12	80	15		60.9		6	0.9
1458817	4.5°	5	17	12	80	15.5		60.9		8	0.9
0208340	4.5°	6	27	21	80	37	10	61	M5	20	1
0208341	4.5°	8	27	21	80	37	10	61	M6	50	1
0208342	4.5°	10	32	24	80	42	10	61	M8x1	70	1
0208343	4.5°	12	32	24	80	48	10	61	M10x1	150	1
0208344	4.5°	14	34	27	80	48	10	61	M10x1	180	1.1
0208345	4.5°	16	34	27	80	51	10	61	M12x1	300	1
0208346	4.5°	18	41	33	80	51	10	61	M12x1	370	1.2
0208347	4.5°	20	41	33	80	53	10	61	M16x1	450	1.2
0208348	4.5°	25	53	44	100	59	10	81	M16x1	680	1.6
0208349	4.5°	32	53	44	100	63	10	81	M16x1	750	1.5
26001865	Slim	3	25	9	120			100.9			0.9
26001866	Slim	4	25	9	120			100.9			1.01
26001867	Slim	5	25	9	120			100.9			1.01
26001868	Slim	6	30	15	120	37	10	100.9	M5		1.1
26001869	Slim	8	30	15	120	37	10	100.9	M6		1.2
26001870	Slim	10	32	18	120	42	10	100.9	M8x1		1.2
26001871	Slim	12	32	18	120	48	10	100.9	M10x1		1.2
26000906	4.5°	3	17	12	130			110.9		4	1
26000907	4.5°	4	17	12	130			110.9		6	1
26002788	4.5°	5	17	12	130			110.9		8	1
0208350	4.5°	6	27	21	130	37	10	110.9	M5	20	1.2
0208351	4.5°	8	27	21	130	37	10	110.9	M6	50	1.2
0208352	4.5°	10	32	24	130	42	10	110.9	M8x1	70	1.3
0208353	4.5°	12	32	24	130	48	10	110.9	M10x1	150	1.3
0208354	4.5°	14	34	27	130	48	10	110.9	M10x1	180	1.4
0208355	4.5°	16	34	27	130	51	10	110.9	M12x1	300	1.4
0208356	4.5°	18	42	33	130	51	10	110.9	M12x1	370	1.5
0208357	4.5°	20	42	33	130	53	10	110.9	M16x1	450	1.5
0208358	4.5°	25	53	44	130	59	10	110.9	M16x1	680	1.8
26000634	4.5°	32	53	44	130	63	10	110.9	M16x1	750	1.8
0208360	4.5°	6	27	21	160	37	10	141	M5	20	1.4
0208361	4.5°	8	27	21	160	37	10	141	M6	50	1.4

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
0208362	4.5°	10	32	24	160	42	10	141	M8x1	70	1.6
0208363	4.5°	12	32	24	160	48	10	141	M10x1	150	1.6
0208364	4.5°	14	34	27	160	48	10	141	M10x1	180	1.6
0208365	4.5°	16	34	27	160	51	10	141	M12x1	300	1.6
0208366	4.5°	18	42	33	160	51	10	141	M12x1	370	1.7
0208367	4.5°	20	42	33	160	53	10	141	M16x1	450	1.9
0208368	4.5°	25	53	44	160	59	10	141	M16x1	680	2.5
0208370	4.5°	6	27	21	200	37	10	181	M5	20	1.5
0208371	4.5°	8	27	21	200	37	10	181	M6	50	1.6
0208372	4.5°	10	32	24	200	42	10	181	M8x1	70	1.7
0208373	4.5°	12	32	24	200	48	10	181	M10x1	150	1.7
0208374	4.5°	14	34	27	200	48	10	181	M10x1	180	1.8
0208375	4.5°	16	34	27	200	51	10	181	M12x1	300	1.8
0208376	4.5°	18	42	33	200	51	10	181	M12x1	370	1.8
0208377	4.5°	20	42	33	200	53	10	181	M16x1	450	1.9
0208378	4.5°	25	53	44	200	59	10	181	M16x1	680	2.4
1324339	3°	3	14	9	80	13.5		60.9			0.9
1324340	3°	4	15	10	80	16		60.9			0.9
1324341	3°	5	16	11	80	16		60.9			0.9
26002496	3°	6	19	12	80	23		60.9			0.8
26002497	3°	8	21	14	80	27		60.9			0.9
26002498	3°	10	23	16	80	32		60.9			0.9
26002499	3°	12	25	18	80	37		60.9			0.9
1324642	3°	3	18	9	120	13.5		100.9			1.01
1324643	3°	4	19	10	120	16		100.9			1.01
1324644	3°	5	20	11	120	16		100.9			1.01
26002500	3°	6	23	12	120	23		100.9			0.9
26002501	3°	8	25	14	120	27		100.9			0.9
26002502	3°	10	27	16	120	32		100.9			0.9
26002503	3°	12	29	18	120	37		100.9			1.01

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

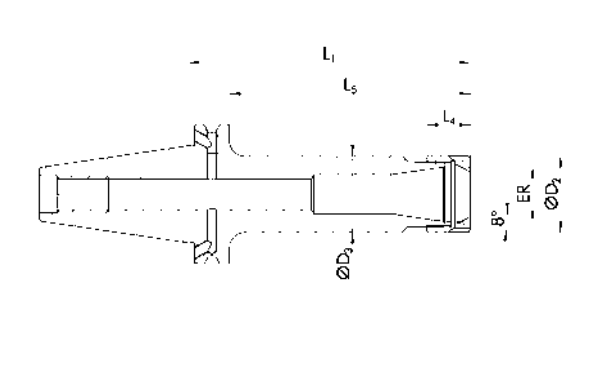
Balancing grade
G2.5 at 25,000 RPM*

Data carrier bore as an option

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
	mm		mm	mm	mm	mm	mm		kg
0263390	1 – 10	ER 16	28	28	70	17.5	50.9	M11x1	1.01
0263393	1 – 13	ER 20	34	34	70	19	50.9	M14x1	1.01
0263395	1 – 16	ER 25	42	42	70	20	50.9	M18x1.5	1.15
0263398	2 – 20	ER 32	50	50	70	23	50.9	M24x1.5	1.2
0263401	4 – 26	ER 40	63	63	70	26	50.9	M28x1.5	1.26
0263391	1 – 10	ER 16	28	28	100	17.5	80.9	M11x1	1.12
0263394	1 – 13	ER 20	34	34	100	19	80.9	M14x1	1.1
0263396	1 – 16	ER 25	42	42	100	20	80.9	M18x1.5	1.45
0263399	2 – 20	ER 32	50	50	100	23	80.9	M24x1.5	1.59
0263402	4 – 26	ER 40	63	63	100	26	80.9	M28x1.5	1.68
0263392	1 – 10	ER 16	28	28	160	17.5	140.9	M11x1	1.3
0263397	1 – 16	ER 25	42	42	160	20	140.9	M18x1.5	2
0263400	2 – 20	ER 32	50	50	160	23	140.9	M24x1.5	2.35
0263403	4 – 26	ER 40	63	63	160	26	140.9	M28x1.5	2.55
23000386	1 – 10	ER 16	28	28	200	17.5	180.9	M11x1	1.57
23000388	1 – 16	ER 25	42	42	200	20	180.9	M18x1.5	2.47
23000387	2 – 20	ER 32	50	50	200	23	180.9	M24x1.5	2.93

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.008 mm*

Balancing grade
G2.5 at 25,000 RPM*

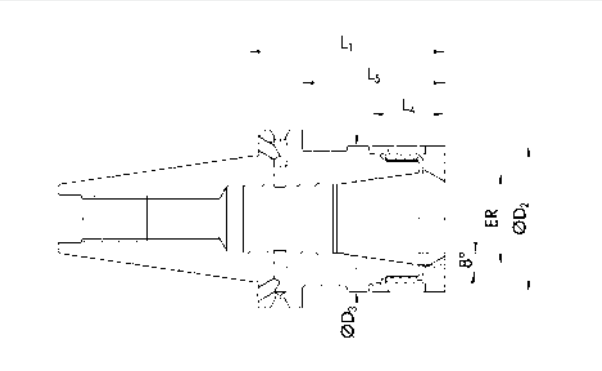
Optimized interfering contours

Data carrier bore as an option

Technical data

ID	Variant	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
		mm		mm	mm	mm	mm	mm		kg
1367372	ER Mini	1 – 7	ER 11	16	16	70	12	50.9	M8x1	1
1367374	ER Mini	1 – 10	ER 16	22	22	70	18	50.9	M11x1	1
23002276	ER Mini	1 – 7	ER 11	16	16	100	12	80.9	M8x1	0.935
23005054	ER Mini	1 – 10	ER 16	22	22	100	18	80.9	M11x1	0.995
1314964	ER Mini	1 – 13	ER 20	28	28	100	19.5	80.9	M14x1	1.075
23005055	ER Mini	1 – 16	ER 25	35	35	100	20.5	80.9	M18x1.5	1.205
1314967	ER Mini	1 – 7	ER 11	16	16	130	12	110.9	M8x1	1.01
1314969	ER Mini	1 – 10	ER 16	22	22	130	18	110.9	M11x1	1.08
1314971	ER Mini	1 – 13	ER 20	28	28	130	19.5	110.9	M14x1	1.2
1314974	ER Mini	1 – 16	ER 25	35	35	130	20.5	110.9	M18x1.5	1.41
23003365	ER Mini	1 – 7	ER 11	16	16	160	12	140.9	M8x1	1.03
23005056	ER Mini	1 – 10	ER 16	22	22	160	18	140.9	M11x1	1.24
1314975	ER Mini	1 – 13	ER 20	28	28	160	19.5	140.9	M14x1	1.36
23005057	ER Mini	1 – 16	ER 25	35	35	160	20.5	140.9	M18x1.5	1.68

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

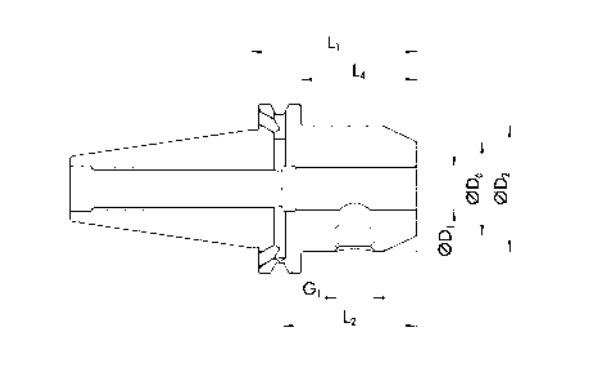
Extra radial rigidity

Data carrier bore as an option

Technical data

ID	Variant	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
		mm		mm	mm	mm	mm	mm		kg
1349340		1 - 10	ER 16	34	34	70	20.6	50.9	M11x1	1.065
1349341		1 - 16	ER 25	44	44.4	70	24	50.9	M18x1.5	1.135
1349342		2 - 20	ER 32	52	52	70	26	50.9	M24x1.5	1.08
1349343		4 - 26	ER 40	62	62	70	29	50.9	M28x1.5	1.045
1349383		1 - 10	ER 16	34	34	100	20.6	80.9	M11x1	1.22
1349384		1 - 16	ER 25	44	44.4	100	24	80.9	M18x1.5	1.5
1349385		2 - 20	ER 32	52	52	100	26	80.9	M24x1.5	1.68
1349386		4 - 26	ER 40	62	62	100	29	80.9	M28x1.5	1.8
1474017		1 - 10	ER 16	34		130	20.6	110.9	M11x1	1.4
1474018		1 - 16	ER 25	44		130	24	110.9	M18x1.5	1.6
1474019		2 - 20	ER 32	52		130	26	110.9	M24x1.5	1.8
1474024		1 - 10	ER 16	34		160	20.6	140.9	M11x1	2
1474025		1 - 16	ER 25	44		160	24	140.9	M18x1.5	2.3
1474026		2 - 20	ER 32	52		160	26	140.9	M24x1.5	2.6
1474028	ER Mini	0.5 - 10	ER 16	24		100	20.6	80.9	M11x1	1

ⓘ *Run-out accuracy: at 2.5 x D using the ER precision collets and a defined tightening torque
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

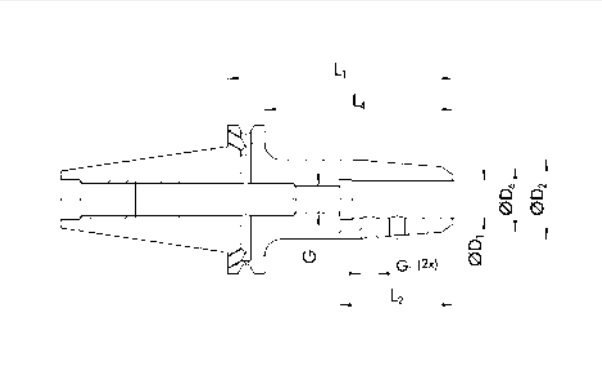
Short set-up time

Data carrier bore as an option

Technical data

ID	D1	D2	D6	L1	L2	L4	G1	Weight
	mm	mm	mm	mm	mm	mm		kg
0263550	6	25	14.5	50	35	30.9	M6	0.91
0263552	8	28	19.5	50	35	30.9	M8	0.93
0263554	10	35	24.5	50	41	30.9	M10	0.98
0263556	12	42	29.5	50	48	30.9	M12	1.06
0263558	14	42	31.5	50	48	30.9	M12	1.05
0263560	16	48	35.5	63	51	3.9	M14	1.29
23003623	18	48	37.5	63	51	43.9	M14	1.27
0263562	20	52	39.5	63	53	43.9	M16	1.29
0263551	6	25	14.5	100	35	80.9	M6	1.07
0263553	8	28	19.5	100	35	80.9	M8	1.14
0263555	10	35	24.5	100	41	80.9	M10	1.33
0263557	12	42	29.5	100	48	80.9	M12	1.58
0263559	14	42	31.5	100	48	80.9	M12	1.56
0263561	16	48	35.5	100	51	80.9	M14	1.79
0263563	20	52	39.5	100	53	80.9	M16	1.88
0263564	25	65	44.5	100	60	80.9	M18x2	2.34
0263565	32	72	55.5	100	64	80.9	M20x2	2.58
23000653	6	25	14.5	160	35	140.9	M6	1.35
23000768	8	28	19.5	160	35	140.9	M8	1.44
23000769	10	35	24.5	160	41	140.9	M10	1.81
23000770	12	42	29.5	160	48	140.9	M12	2.18
23000771	14	42	31.5	160	48	140.9	M12	2.16
23000772	16	48	35.5	160	51	140.9	M14	2.59
23000149	20	52	39.5	160	53	140.9	M16	2.83

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G6.3 at 8,000 RPM*

Short set-up time

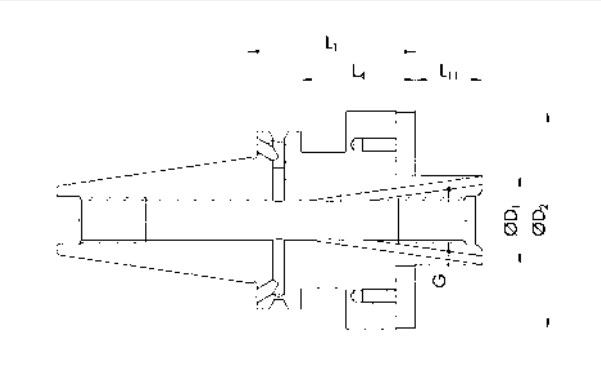
Optimized interfering contours

Data carrier bore as an option

Technical data

ID	D1	D2	D6	L1	L2	L4	G	G1	Weight
	mm	mm	mm	mm	mm	mm			kg
23005058	6	24	13	100	36.5	80.9	M6	M6	1.075
23005059	8	26	15	100	36.5	80.9	M6	M6	1.115
23005060	10	28	16	100	40.5	80.9	M8x1	M6	1.14
23004020	12	29	17	100	45.5	80.9	M10x1	M6	1.155

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.006 mm*

Balancing grade
G2.5 at 25,000 RPM*

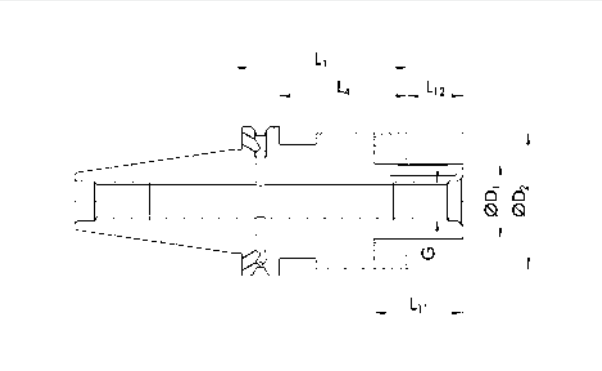
Data carrier bore as an option

Technical data

ID	D1	G	D2	L1	L4	L11	Weight
	mm		mm	mm	mm	mm	kg
23000663	16	M8	38	35	15.9	17	0.99
0263660	22	M10	48	35	15.9	19	1.13
0263661	27	M12	50	35	15.9	21	1.18
0263662	32	M16	78	50	30.9	24	1.82
1324586	16	M8	38	60	40.9	17	1.195
1324293	22	M10	48	60	40.9	19	1.5
1324745	27	M12	50	60	40.9	21	1.55
1324746	32	M16	78	60	50.9	24	2.535
1324747	40	M20	89	70	50.9	27	2.99
23002488	16	M8	38	100	80.9	17	1.59
23002336	22	M10	48	100	80.9	19	2
23000879	27	M12	50	100	80.9	21	2.58
23000942	32	M16	78	100	80.9	24	3.67
23000944	22	M10	48	160	140.9	19	2.81
23000945	27	M12	50	160	140.9	21	3.84
23000946	32	M16	78	160	140.9	24	5.97

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request

KOM SK 40 | DIN ISO 7388-1 AD/AF
Combination shell and end mill adapters





Run-out accuracy
≤ 0.006 mm*

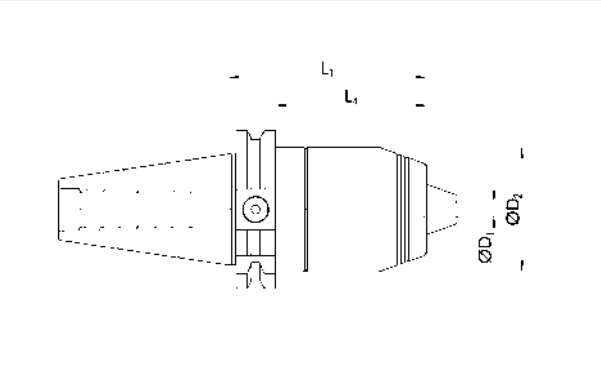
Balancing grade
G2.5 at 25,000 RPM*

Data carrier bore as an option

Technical data

ID	D1	G	D2	L1	L4	L11	L12	Weight
	mm		mm	mm	mm	mm	mm	kg
0263620	16	M8	32	55	35.9	27	17	1.09
0263622	22	M10	40	55	35.9	31	19	1.25
0263624	27	M12	48	55	35.9	33	21	1.44
0263626	32	M16	58	60	40.9	38	24	1.75
0263621	16	M8	32	100	80.9	27	17	1.35
0263623	22	M10	40	100	80.9	31	19	1.66
0263625	27	M12	48	100	80.9	33	21	2.05
0263627	32	M16	58	100	80.9	38	24	2.55
23000922	16	M8	32	160	140.9	27	17	1.73
23000923	22	M10	40	160	140.9	31	19	2.2
23000924	27	M12	48	160	140.9	33	21	2.85
23000925	32	M16	58	160	140.9	38	24	3.3

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Balancing grade
G6.3 at 18,000 RPM*

Short set-up time

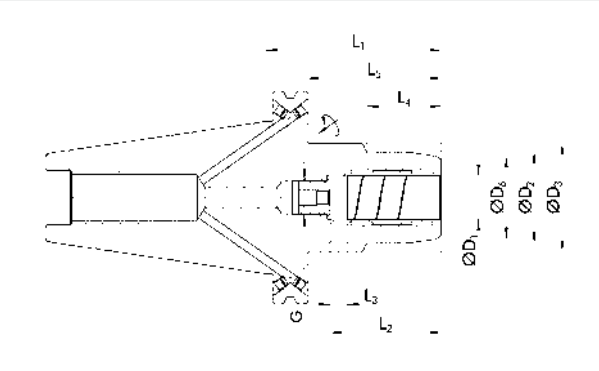
Data carrier bore as an option

Internal cooling

Technical data

ID	Clamping range D1	D2	L1	L4	Weight
	mm	mm	mm	mm	kg
0204467	1 – 16	56	80	60.9	1.46

ⓘ *Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

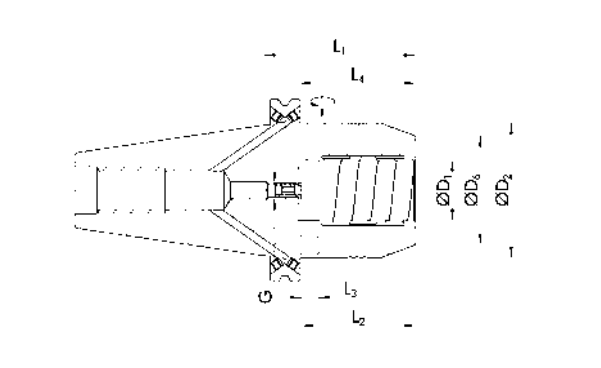
Data carrier bore as an option

Internal cooling
up to 80 bar

Technical data

ID	D1 mm	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
1462671	12	32	49.25	28	80.5	46	10	31.5	61.45	M10x1	90	3.2	9205650
1462672	16	38	49.25	34	80.5	49	10	33	61.45	M12x1	185	3.2	9205650
1462673	20	42	49.25	38	80.5	51	10	34	61.45	M16x1	330	3.2	9205650
1462674	32	64	70.25	60	103.2	61	10	62.5	84.15	M16x1	650	4.3	9205660

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Extra radial rigidity

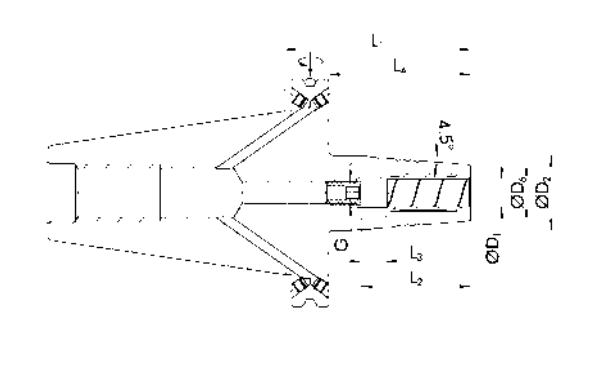
HPC

Data carrier hole optionally possible

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0206424	12	42		32	50	46	10	30.9		M8x1	110	2.8	9205650
0206426	20	49.25		38	64.5	51	10	45.4		M8x1	520	3.1	9205650
0206428	32	72		58.5	81	61	10	61.9		M8x1	900	4.1	9205660
1420630	20	42	44.5	38	130	51	10	50	111	M8x1	400	3.6	9205650
1420631	32	62.5		58.5	130	61	10	111		M8x1	900	4.9	9205660

ⓘ *Run-out accuracy: at 2.5 x D; run-out at L1 = 130 mm: ≤ 0.005 mm at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

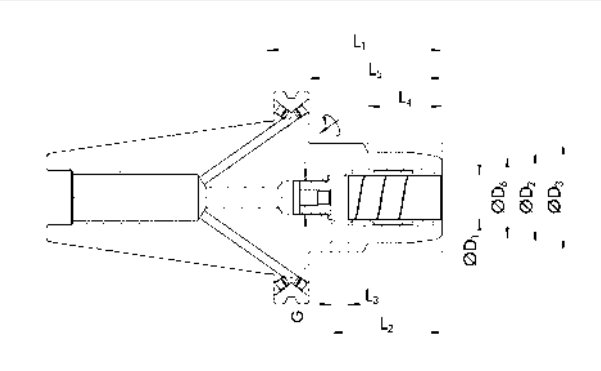
Optimized interfering contours

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
1467911	6	27	21	80	36	10	60.9	M5	16	2.8	9205650
1467912	8	27	21	80	36	10	60.9	M6	23	2.8	9205650
1467913	10	32	24	80	43.2	10	60.9	M8x1	45	2.9	9205650
1467914	12	32	24	80	47	10	60.9	M10x1	90	2.9	9205650
1467915	16	34	27	80	50	10	60.9	M12x1	185	2.9	9205650
1467916	20	42	33	80	52	10	60.9	M16x1	330	3	9205650
1467923	6	27	21	120	36	10	100.9	M5	16	3	9205650
1467924	8	27	21	120	36	10	100.9	M6	23	3	9205650
1467925	10	32	24	120	43.2	10	100.9	M8x1	45	3.1	9205650
1467926	12	32	24	120	47	10	100.9	M10x1	90	3.1	9205650
1467927	16	34	27	120	50	10	100.9	M12x1	185	3.1	9205650
1467928	20	42	33	120	52	10	100.9	M16x1	330	3.4	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

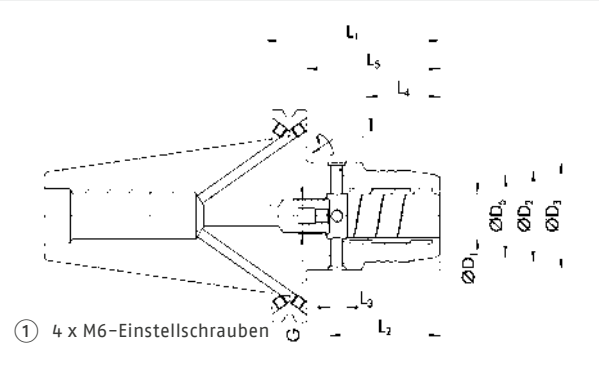
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0204246	20	42	49.5	38	80.5	51	10	34	61.4	M16x1	330	3.3	9205650
0204247	32	64	70	60	103.2	61	10	62.5	84.1	M16x1	650	4.4	9205660
0204256	20	42	49.5	38	110	51	10	34	90.9	M16x1	330	3.7	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves



① 4 x M6-Einstellschrauben



Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

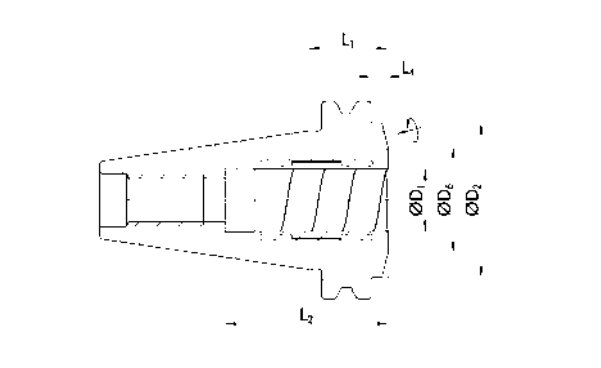
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1 mm	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
0204246Z	20	42	49.5	38	80.5	51	10	34	61.4	M16x1	330	3.3	9205650
0204247Z	32	64	70	60	103.2	61	10	62.5	84.1	M16x1	650	4.4	9205660

ⓘ *Run-out accuracy: at 2.5 x D; run-out accuracy of 0 microns, adjustable
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Extra radial rigidity

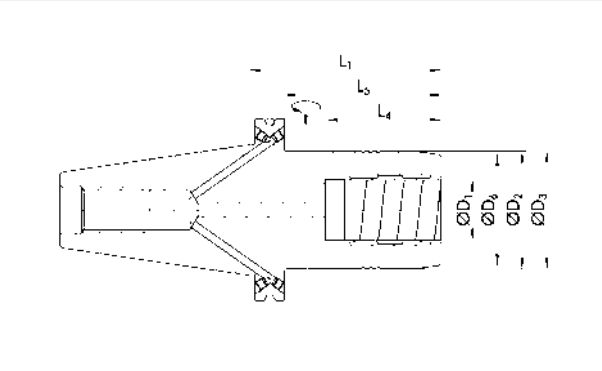
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D6	L1	L2	L4	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	Nm	kg	
0204217	32	70.5	44.5	30.9	62.5	11.85	650	2.5	9205662

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

External cooling/ internal cooling
up to 80 bar

Battery service life

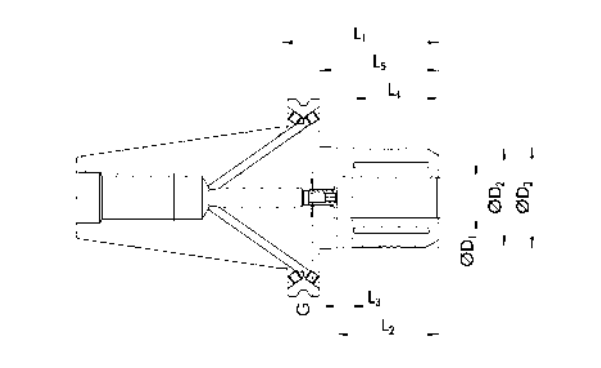
Acceleration sensor

Speed of rotation

Technical data

Description	ID	D1	D2	D3	D6	L1	L4	L5	Mmin	Weight	Max. rotational speed
		mm	mm	mm	mm	mm	mm	mm	Nm	kg	RPM
iTENDO² SK 50 Ø32x103.2	1509960	32	62.5	63	59	103.2	61.5	84.15	650	4.5	25000

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.005 mm*

Balancing grade
G6.3 at 15,000 RPM*

Short set-up time

Extra radial rigidity

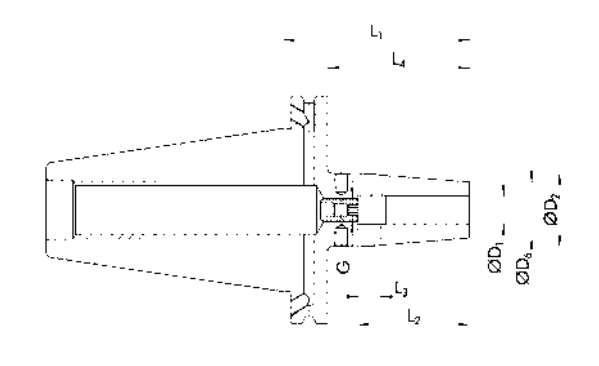
HPC

Data carrier hole optionally possible

Technical data

ID	D1	D2	D3	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0209687	20	48.5	49.72	78	51	10	42	58.9	M8x1	450	3.4	0208877
0209689	32	65	69.85	90	61	10	47	70.9	M10x1	800	4.2	0208879

ⓘ *Run-out accuracy: measured in the clamping bore
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

Data carrier bore as an option

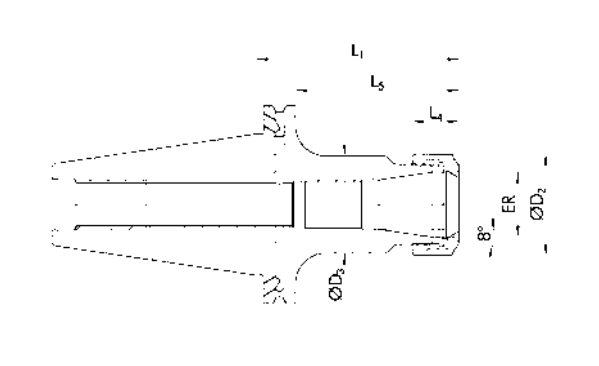
Internal cooling
up to 80 bar

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
0208240	4.5°	6	27	21	80	36	10	61	M5	20	2.9
0208241	4.5°	8	27	21	80	36	10	61	M6	52	2.9
0208242	4.5°	10	32	24	80	42	10	61	M8x1	70	2.9
0208243	4.5°	12	32	24	80	47	10	61	M10x1	150	2.9
0208244	4.5°	14	34	27	80	47	10	61	M10x1	180	3
0208245	4.5°	16	34	27	80	50	10	61	M12x1	300	2.9
0208246	4.5°	18	41	33	80	50	10	61	M12x1	370	3
0208247	4.5°	20	41	33	80	52	10	61	M16x1	450	2.9
0208248	4.5°	25	53	44	100	58	10	81	M16x1	680	3.5
0208249	4.5°	32	53	44	100	62	10	81	M16x1	750	3.4
0208250	4.5°	6	27	21	130	36	10	111	M5	20	3
0208251	4.5°	8	27	21	130	36	10	111	M6	52	3
0208252	4.5°	10	32	24	130	42	10	111	M8x1	70	3.1
0208253	4.5°	12	32	24	130	47	10	111	M10x1	150	3.1
0208254	4.5°	14	34	27	130	47	10	111	M10x1	180	3.2
0208255	4.5°	16	34	27	130	50	10	111	M12x1	300	3.1
0208256	4.5°	18	42	33	130	50	10	111	M12x1	370	3.5
0208257	4.5°	20	42	33	130	52	10	111	M16x1	450	3.5
0208258	4.5°	25	53	44	130	58	10	111	M16x1	680	4.5
0208259	4.5°	32	53	44	130	62	10	111	M16x1	750	3.9
0208260	4.5°	6	27	21	160	36	10	141	M5	20	3.2
0208261	4.5°	8	27	21	160	36	10	141	M6	52	3.2
0208262	4.5°	10	32	24	160	42	10	141	M8x1	70	3.5
0208263	4.5°	12	32	24	160	47	10	141	M10x1	150	3.5
0208264	4.5°	14	34	27	160	47	10	141	M10x1	180	3.5
0208265	4.5°	16	34	27	160	50	10	141	M12x1	300	3.6
0208266	4.5°	18	42	33	160	50	10	141	M12x1	370	3.9
0208267	4.5°	20	42	33	160	52	10	141	M16x1	450	4
0208268	4.5°	25	53	44	160	58	10	141	M16x1	680	4.1
0208269	4.5°	32	53	44	160	62	10	141	M16x1	750	4.4
0208270	4.5°	6	27	21	200	36	10	181	M5	20	3.7
0208271	4.5°	8	27	21	200	36	10	181	M6	52	3.9
0208272	4.5°	10	32	24	200	42	10	181	M8x1	70	3.8
0208273	4.5°	12	32	24	200	47	10	181	M10x1	150	3.9
0208274	4.5°	14	34	27	200	47	10	181	M10x1	180	3.9

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
0208275	4.5°	16	34	27	200	50	10	181	M12x1	300	4
0208276	4.5°	18	42	33	200	50	10	181	M12x1	370	4.1
0208277	4.5°	20	42	33	200	52	10	181	M16x1	450	4.1
0208278	4.5°	25	53	44	200	58	10	181	M16x1	680	4.5
0208279	4.5°	32	53	44	200	62	10	181	M16x1	750	5

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

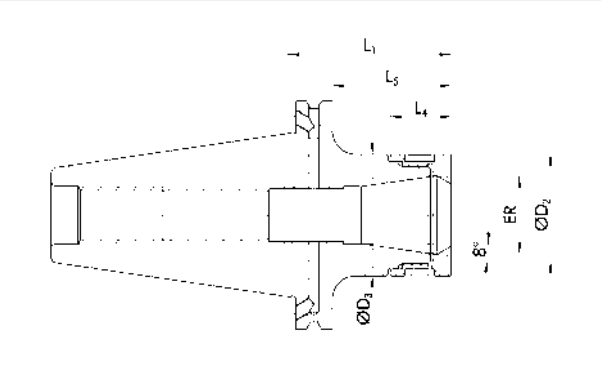
Balancing grade
G2.5 at 25,000 RPM*

Data carrier bore as an option

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
	mm		mm	mm	mm	mm	mm		kg
23000417	1 – 10	ER 16	28	28	70	17.5	50.9	M11x1	2.93
23000418	1 – 16	ER 25	42	42	70	20	50.9	M18x1.5	3.08
0263414	2 – 20	ER 32	50	50	70	23	50.9	M24x1.5	3.14
0263417	4 – 26	ER 40	63	63	70	26	50.9	M28x1.5	3.24
0263410	1 – 10	ER 16	28	28	100	17.5	80.9	M11x1	3.09
0263412	1 – 16	ER 25	42	42	100	20	80.9	M18x1.5	3.44
0263415	2 – 20	ER 32	50	50	100	23	80.9	M24x1.5	3.59
0263418	4 – 26	ER 40	63	63	100	26	80.9	M28x1.5	4.01
0263411	1 – 10	ER 16	28	28	160	17.5	140.9	M11x1	3.51
0263413	1 – 16	ER 25	42	42	160	20	140.9	M18x1.5	4.13
0263416	2 – 20	ER 32	50	50	160	23	140.9	M24x1.5	4.48
0263419	4 – 26	ER 40	63	63	160	26	140.9	M28x1.5	5.58

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

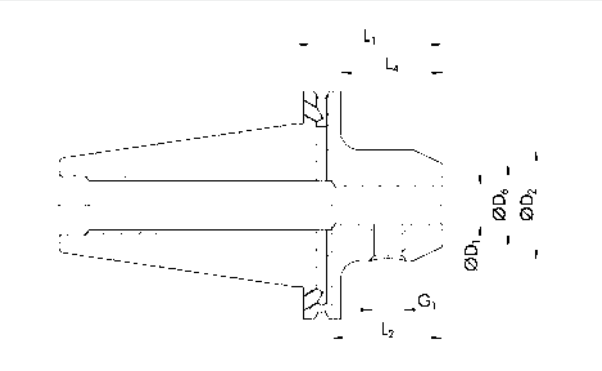
Extra radial rigidity

Data carrier bore as an option

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
	mm		mm	mm	mm	mm	mm		kg
1349312	1 – 16	ER 25	44	44	70	24	50.9	M18x1.5	3.01
1349313	2 – 20	ER 32	52	52	70	26	50.9	M24x1.5	3.065
1349314	4 – 26	ER 40	62	62	70	29	50.9	M28x1.5	3.08
1349328	1 – 16	ER 25	44	44	100	24	80.9	M18x1.5	3.365
1349329	2 – 20	ER 32	52	52	100	26	80.9	M24x1.5	3.585
1349330	4 – 26	ER 40	62	62	100	29	80.9	M28x1.5	3.8
1474217	1 – 16	ER 25	44		130	24	110.9	M18x1.5	3.6
1474218	2 – 20	ER 32	52		130	26	110.9	M24x1.5	3.9
1474219	4 – 26	ER 40	62		130	29	110.9	M28x1.5	4.2
1474226	1 – 16	ER 25	44		160	24	140.9	M18x1.5	3.9
1474227	2 – 20	ER 32	52		160	26	140.9	M24x1.5	4.2
1474228	4 – 26	ER 40	62		160	29	140.9	M28x1.5	4.5

ⓘ *Run-out accuracy: at 2.5 x D using the ER precision collets and a defined tightening torque
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

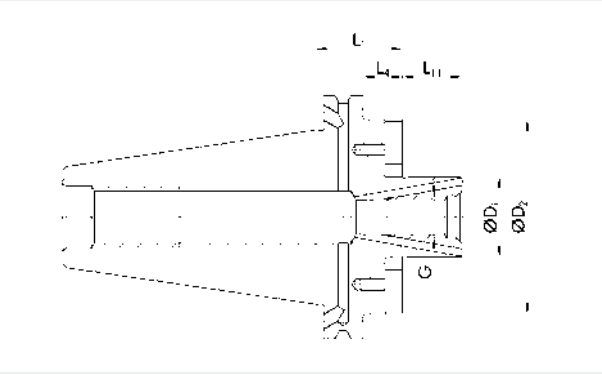
Short set-up time

Data carrier bore as an option

Technical data

ID	D1	D2	D6	L1	L2	L4	G1	Weight
	mm	mm	mm	mm	mm	mm		kg
0263580	6	25	14.5	63	35	43.9	M6	2.87
0263582	8	28	19.5	63	35	43.9	M8	2.9
0263584	10	35	24.5	63	41	43.9	M10	3
0263586	12	42	29.5	63	48	43.9	M12	3.12
0263588	14	42	31.5	63	48	43.9	M12	3.1
0263590	16	48	35.5	63	51	43.9	M14	3.22
0263592	20	52	39.5	63	53	43.9	M16	3.26
23002156	25	65	44.5	80	60	60.9	M18x2	3.94
0263581	6	25	14.5	100	35	80.9	M6	3.01
0263583	8	28	19.5	100	35	80.9	M8	3.08
0263585	10	35	24.5	100	41	80.9	M10	3.28
0263587	12	42	29.5	100	48	80.9	M12	3.54
0263589	14	42	31.5	100	48	80.9	M12	3.53
0263591	16	48	35.5	100	51	80.9	M14	3.76
0263593	20	52	39.5	100	53	80.9	M16	3.87
0263594	25	65	44.5	100	60	80.9	M18x2	4.45
0263595	32	72	55.5	100	64	80.9	M20x2	4.74
23000532	6	25	14.5	160	35	140.9	M6	3.36
23000533	8	28	19.5	160	35	140.9	M8	3.51
23000534	10	35	24.5	160	41	140.9	M10	3.9
23000535	12	42	29.5	160	48	140.9	M12	4.22
23000536	14	42	31.5	160	48	140.9	M12	4.21
23000537	16	48	35.5	160	51	140.9	M14	4.66
23000539	20	52	39.5	160	53	140.9	M16	4.93
23000540	25	65	44.5	160	60	140.9	M18x2	6.12
23000541	32	72	55.5	160	64	140.9	M20x2	6.61

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.006 mm*

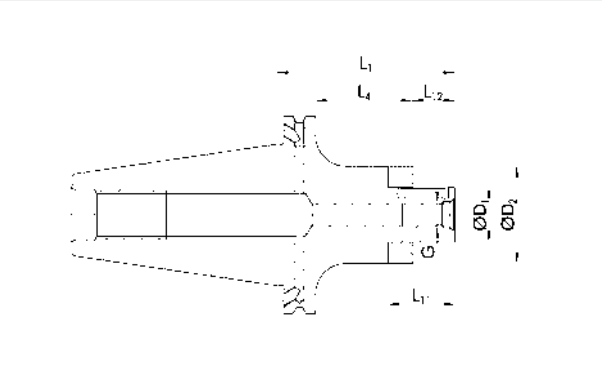
Balancing grade
G2.5 at 25,000 RPM*

Data carrier bore as an option

Technical data

ID	D1	G	D2	L1	L4	L11	Weight
	mm		mm	mm	mm	mm	kg
23000512	22	M10	48	35	15.9	19	3.08
23000513	27	M12	60	35	15.9	21	3.26
23000514	32	M16	78	35	15.9	24	3.55
23000649	40	M20	89	50	30.9	27	4.37
23000554	22	M10	48	100	80.9	19	4.02
23000555	27	M12	60	100	80.9	21	4.62
23000556	32	M16	78	100	80.9	24	5.94
23004129	40	M20	89	100	80.9	27	6.76
23002948	22	M10	48	160	140.9	19	4.9
23002949	27	M12	60	160	140.9	21	6.08
23004115	32	M16	78	160	140.9	24	8.16
23004131	40	M20	89	160	140.9	27	9.65

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.006 mm*

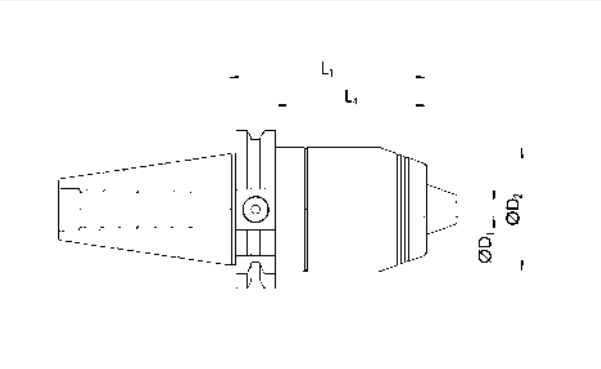
Balancing grade
G2.5 at 25,000 RPM*

Data carrier bore as an option

Technical data

ID	D1	G	D2	L1	L4	L11	L12	Weight
	mm		mm	mm	mm	mm	mm	kg
23000595	22	M10	40	55	35.9	31	19	3.18
23000596	27	M12	48	55	35.9	33	21	3.38
23000597	32	M16	58	55	35.9	38	24	3.68
23001235	40	M20	70	55	35.9	41	27	4.18
23000686	22	M10	40	100	80.9	31	19	3.67
23000687	27	M12	48	100	80.9	33	21	4.03
23000688	32	M16	58	100	80.9	38	24	4.61
23001241	40	M20	70	100	80.9	41	27	5.51
23001244	22	M10	40	160	140.9	31	19	4.24
23001245	27	M12	48	160	140.9	33	21	4.92
23001246	32	M16	58	160	140.9	38	24	5.82
23001247	40	M20	70	160	140.9	41	27	7.28

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Balancing grade
G6.3 at 18,000 RPM*

Short set-up time

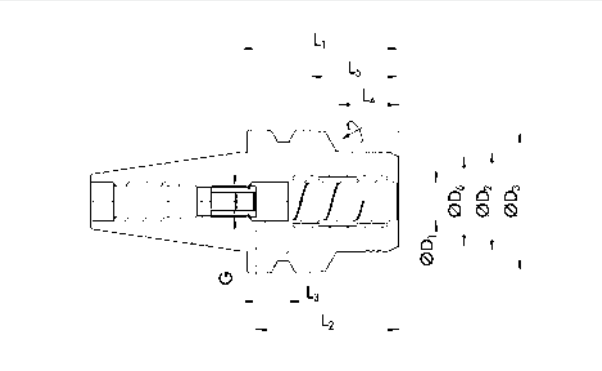
Data carrier bore as an option

Internal cooling

Technical data

ID	Clamping range D1	D2	L1	L4	Weight
	mm	mm	mm	mm	kg
0204581	1 – 16	56	80	60.9	3.23

ⓘ *Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

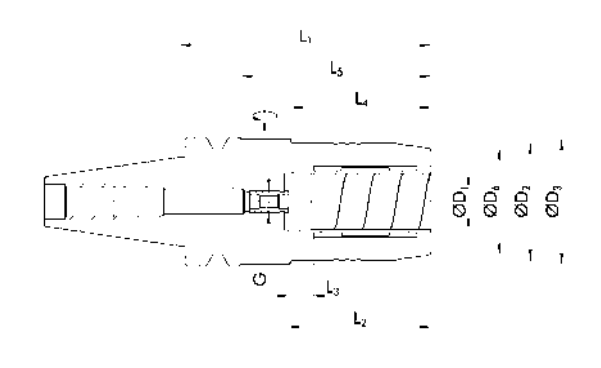
Data carrier bore as an option

Internal cooling
up to 80 bar

Technical data

ID	D1 mm	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
1429241	6	26	46	22.8	55	37	10	17.8		M5	16	0.6	9205640
1429242	8	28	46	24.8	55	37	10	18.4		M6	23	0.6	9205640
1429243	10	30	46	26.8	55	41	10	19		M8x1	45	0.6	9205640
1429244	12	32	46	28.8	55	46	10	19.5		M10x1	90	0.6	9205640
1429245	16	38	45	34.7	90	49	10	50	68	M12x1	185	0.9	9205650
1429246	20	42	45	37.7	90	51	10	50	68	M8x1	330	0.9	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Extra radial rigidity

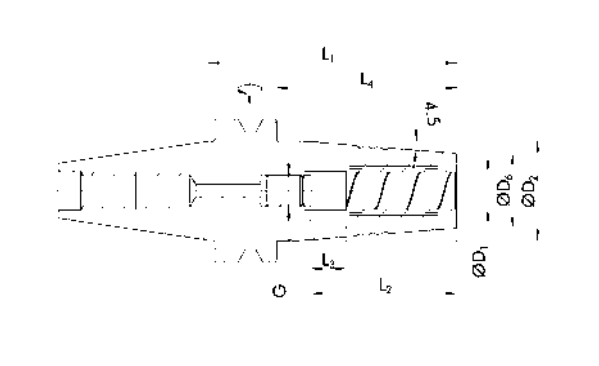
HPC

Data carrier hole optionally possible

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0206554	12	42	44.5	32	69	46	10	32	47	M8x1	110	0.6	9205650
20066124	16	42	44.5	38	90	51	10	50	68	M8x1	350	0.6	9205650
0206556	20	42	44.5	38	90	51	10	50	68	M8x1	400	0.9	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

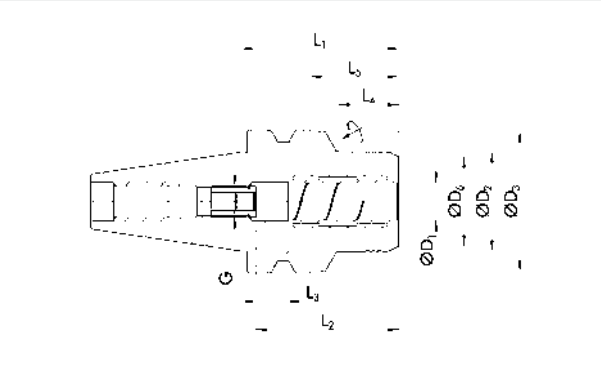
Optimized interfering contours

Internal cooling
up to 80 bar

Technical data

ID	D1 mm	D2 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	G	Mmin Nm	Weight kg	
1442015	6	27	21	80	36	10	58	M5	16	0.6	9205650
1442016	8	27	21	80	36	10	58	M6	23	0.6	9205650
1442017	10	32	24	80	42	10	58	M8x1	45	0.6	9205650
1442018	12	32	24	80	47	10	58	M10x1	90	0.6	9205650
1442019	16	34	27	80	50	10	58	M12x1	185	0.6	9205650
1442020	20	42	33	90	52	10	68	M16x1	330	0.8	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

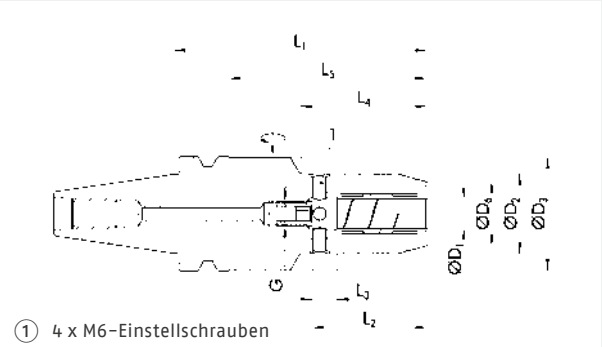
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0205631	6	26		22.7	50.8	37	10	17.8		M5	16	0.6	9205640
0205632	8	28		24.7	50.8	37	10	18.4		M6	23	0.6	9205640
0205633	10	30		26.7	50.8	41	10	19		M8x1	45	0.6	9205640
0205634	12	32		28.7	50.8	46	10	19.5		M10x1	90	0.6	9205640
28003673	20	60		46.14	50.8	51	10	21.5		M10x1	330	0.5	9205650
0205641	1/4"	26		22.7	50.8	37	10	17.8		M5	17	0.5	9205640
0205643	3/8"	30		26.7	50.8	41	10	19		M6x1	45	0.5	9205640
0205644	1/2"	32		28.7	50.8	46	10	19.5		M10x1	95	0.5	9205640
28003669	3/4"	60		46.14	50.8	51	10	21.5		M10x1	310	0.5	9205650
0205635	16	38	45	34	90	49	10	50	68	M10x1	185	0.9	9205650
0205636	20	42	45	37.5	90	51	10	50	68	M6	330	0.9	9205650
28003251	3/4"	42	44.5	37.7	90	51	10	50	68	M10x1	310	0.8	9205650
0205651	6	26	45	22.2	101.6	37	10	54.5	79.6	M5	16	2	9205650
0205652	8	26	45	22.2	101.6	37	10	54.5	79.6	M6	23	2	9205650
0205653	10	30	45	26	101.6	42	10	55.7	79.6	M6x1	45	2	9205650
0205654	12	32	45	26	101.6	46	10	56.2	79.6	M10x1	90	2	9205650
0205656	20	42	45	36	101.6	51	10	59.5	79.6	M10x1	330	2	9205650
0205661	1/4"	26	45	22.2	101.6	37	10	55	80.2	M5	17	2	9205650
0205663	3/8"	30	45	26	101.6	42	10	56.2	79.7	M6x1	45	2	9205650
0205664	1/2"	32	45	26	101.6	46	10	56.2	79.7	M10x1	95	2	9205650
0205666	3/4"	42	45	36	101.6	51	10	59.7	79.7	M10x1	310	2	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves



① 4 x M6-Einstellschrauben



Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

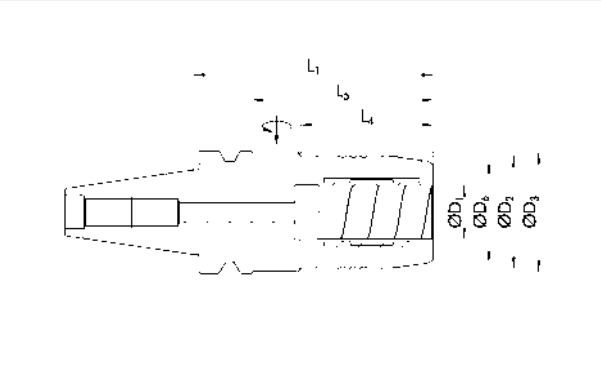
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0205635Z	16	38	44.5	34	90	49	10	50	68	M12x1	185	1.5	9205650
0205636Z	20	42	44.5	38	90	51	10	50	68	M16x1	330	1.5	9205650
0205654Z	12	32	45	26	101.6	46	10	56.2	79.6	M10x1	90	2	9205650
0205656Z	20	42	45	36	101.6	51	10	59.5	79.6	M10x1	330	2	9205650
0205666Z	3/4"	42	45	36	101.6	51	10	59.5	79.6	M10x1	310	2	9205650

ⓘ *Run-out accuracy: at 2.5 x D; run-out accuracy of 0 microns, adjustable
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

External cooling/ internal cooling
up to 80 bar

Battery service life

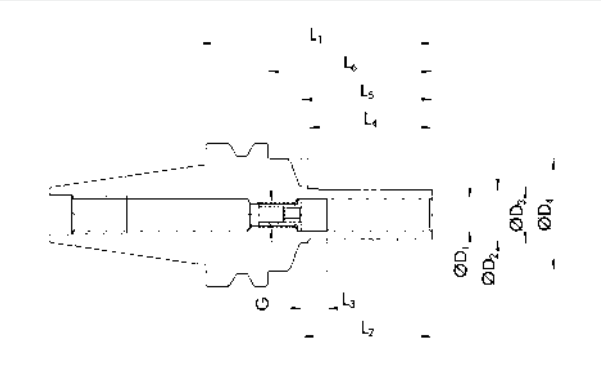
Acceleration sensor

Speed of rotation

Technical data

Description	ID	D1	D2	D3	D6	L1	L4	L5	Mmin	Weight	Max. rotational speed
		mm	mm	mm	mm	mm	mm	mm	Nm	kg	RPM
iTENDO² JIS-BT 30 Ø20x90	1495389	20	42.05	44.5	37.65	90	49.7	68	330	0.95	30000

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

HSC
HSC

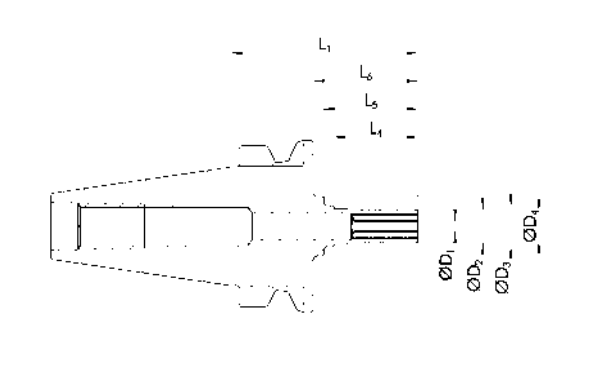
Optimized interfering contours

Data carrier hole optionally possible

Technical data

ID	D1 mm	D2 mm	D3 mm	D4 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	L6 mm	G	Mmin Nm	Weight kg	
0205471	6	9.9	13.1	36	75	37	10	35	37.2	53	M5	5	0.75	0201972
0205472	8	13	15.1	36	75	37	10	35	37.2	53	M6	12	0.77	0201973
0205473	10	16	18.1	36	75	42	10	40	42.2	53	M8x1	20	0.79	0201974
0205474	12	19	21.1	36	80	47	10	45	47.2	58	M8x1	30	0.81	0201975
0205479	14	22	24.1	36	80	47	10	45	47.2	58	M8x1	30	0.83	0201976
0205475	16	25	27.1	36	80	48	10	45	47.2	58	M10x1	70	0.85	0201977
0205476	20	30	32.1	36	80	52	10	45	47.2	58	M10x1	150	0.88	0201981

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Micro Maching

HSC

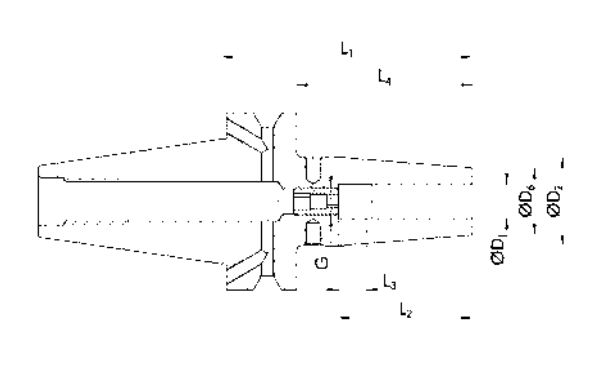
Optimized interfering contours

Data carrier bore as an option

Technical data

ID	D1 mm	D2 mm	D3 mm	D4 mm	L1 mm	L4 mm	L5 mm	L6 mm	Mmin Nm	Weight kg	
0225665	1	9	11	16	52	22.5	25.2	30		0.25	0201971
0225666	1.5	9	11	16	52	22.5	25.2	30		0.25	0201971
0225667	2	9	11	16	52	22.5	25.2	30	1	0.25	0201971
0225668	3	9	11	16	52	22.5	25.2	30	1.5	0.25	0201971
0225669	4	9	11	16	52	22.5	25.2	30	2.5	0.25	0201971
0225670	6	9	11	16	52	22.5	25.2	30	4.5	0.25	0201971

ⓘ *Run-out accuracy at 2.5 x D; run-out for Ø 6 mm: ≤ 0.005 mm at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

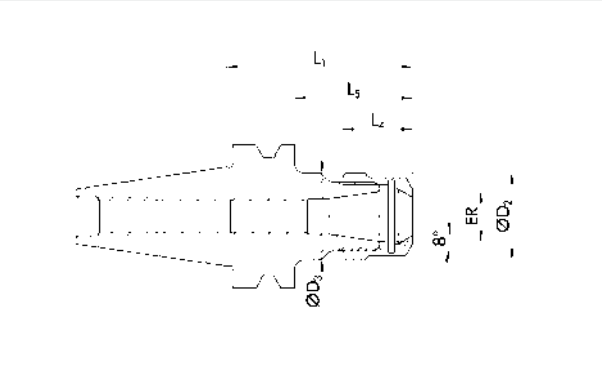
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
26000713	4.5°	3	17	12	80			58		4	0.44
26000714	4.5°	4	17	12	80			58		6	0.44
26000715	4.5°	5	17	12	80			58		8	0.48
26000716	4.5°	6	27	21	80	37	10	58	M5	20	0.57
26000717	4.5°	8	27	21	80	37	10	58	M6	50	5.8
26000718	4.5°	10	32	24	80	42	10	58	M8x1	70	0.66
26000719	4.5°	12	32	24	80	48	10	58	M10x1	150	0.66
26000720	4.5°	14	34	27	80	48	10	58	M10x1	180	0.66
26000721	4.5°	16	34	27	80	51	10	58	M12x1	300	0.66
26000015	4.5°	18	42	33	90	51	10	68	M12x1	370	0.66
26000723	4.5°	20	42	33	90	53	10	68	M16x1	450	0.84

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

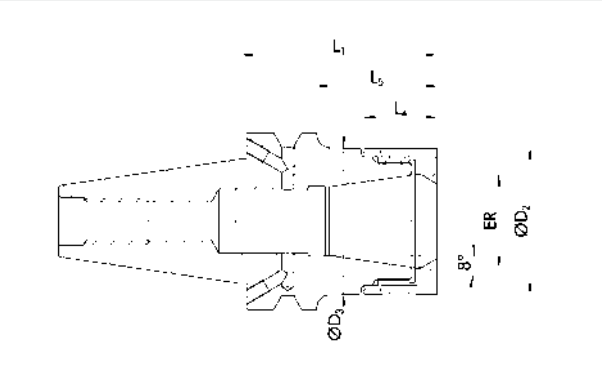
Balancing grade
G2.5 at 25,000 RPM*

Data carrier hole optionally possible

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
	mm		mm	mm	mm	mm	mm		kg
0263430	1 – 7	ER 11	19	19	60	11.3	38	M8x1	0.41
0263432	1 – 10	ER 16	28	28	60	17.5	38	M11x1	0.44
0263434	1 – 13	ER 20	34	34	60	19	38	M14x1	0.44
0263436	1 – 16	ER 25	42	42	60	20	38	M18x1.5	0.52
23004375	1 – 10	ER 16	28	28	80	17.5	58	M11x1	0.5
23004376	1 – 13	ER 20	34	34	80	19	58	M14x1	0.5
23004377	1 – 16	ER 25	42	42	80	20	58	M18x1.5	0.5
0263431	1 – 7	ER 11	19	19	100	11.3	78	M8x1	0.49
0263433	1 – 10	ER 16	28	28	100	17.5	78	M11x1	0.61
0263435	1 – 13	ER 20	34	34	100	19	78	M14x1	0.69
0263437	1 – 16	ER 25	42	42	100	20	78	M18x1.5	0.96

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

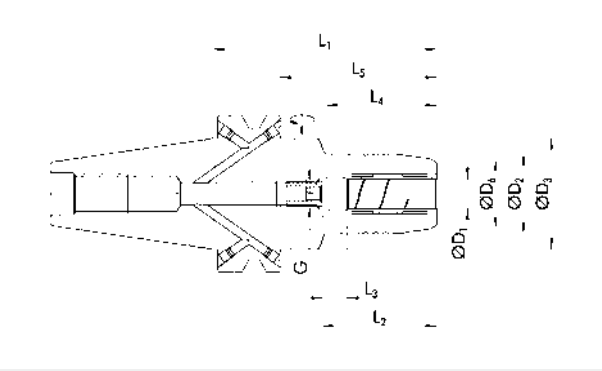
Extra radial rigidity

Data carrier hole optionally possible

Technical data

ID	Variant	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
		mm		mm	mm	mm	mm	mm		kg
1455267		1 - 10	ER 16	34	34	60	20.6	38	M11x1	0.52
1455268		1 - 16	ER 25	44	44	60	24	38	M18x1.5	0.54
1474232	ER Mini	0.5 - 10	ER 16	44		70	20.6	48	M11x1	0.75

ⓘ *Run-out accuracy: at 2.5 x D using the ER precision collets and a defined tightening torque
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

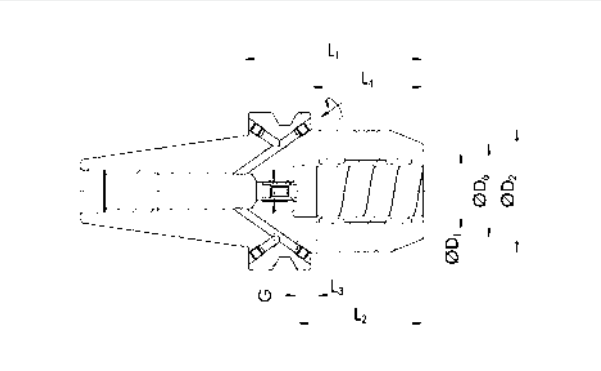
Data carrier bore as an option

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
1417054	6	26	44.5	22	90	37	10	43	63	M5	16	1.3	9205650
1417055	8	28	44.5	24	90	37	10	44.5	63	M6	23	1.4	9205650
1417056	10	30	44.5	26	90	41	10	44.5	63	M8x1	45	1.4	9205650
1417057	12	32	44.5	28	90	46	10	44.5	63	M10x1	90	1.4	9205650
1417058	16	38	44.5	34	90	49	10	47.5	63	M12x1	185	1.4	9205650
1417060	20	42	44.5	38	90	51	10	47.5	63	M16x1	330	1.5	9205650
1417062	32	62		59	100	61	10	73		M16x1	650	2.2	9205660

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Extra radial rigidity

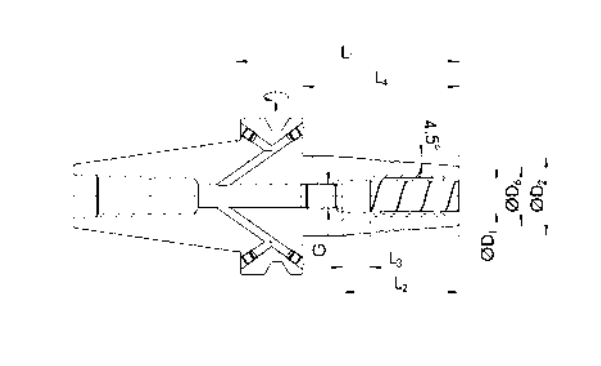
HPC

Data carrier hole optionally possible

Technical data

ID	D1 mm	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
0206434	12	42		32	58	46	10	31		M8x1	110	1.2	9205650
0206435	16	49.25		38	72.5	51	10	45.5		M8x1	350	1.3	9205650
0206436	20	49.25		38	72.5	51	10	45.5		M8x1	520	1.4	9205650
1340112	32	62.5		58.5	120	61	10	93		M8x1	900	1.5	9205660
1420629	12	42	44.5	32	130	46	10	32	103	M8x1	110	2.1	9205650
1431659	16	42	44.5	38	130	51	10	50	103	M8x1	350	2.2	9205650
20064499	20	42	44.5	38	130	51	10	50	103	M8x1	400	1.8	9205650

ⓘ *Run-out accuracy: at 2.5 x D; run-out at L1 = 130 mm: ≤ 0.005 mm at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

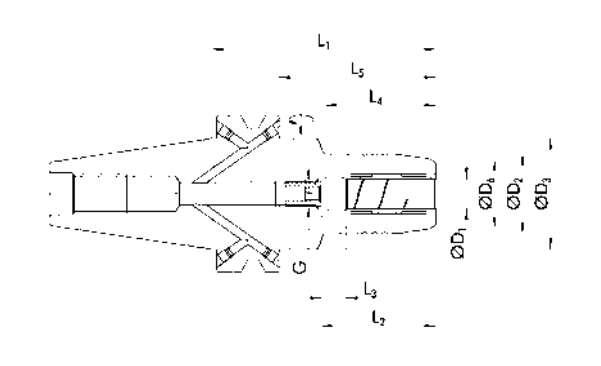
Optimized interfering contours

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
1423076	6	27	21	90	36	10	63	M5	16	1.2	9205650
1423077	8	27	21	90	36	10	63	M6	23	1.2	9205650
1423078	10	32	24	90	42	10	63	M8x1	45	1.2	9205650
1423079	12	32	24	90	47	10	63	M10x1	90	1.2	9205650
1423080	16	34	27	90	50	10	63	M12x1	185	1.2	9205650
1423081	20	42	33	90	52	10	63	M16x1	330	1.3	9205650
1423225	6	27	21	120	36	10	93	M5	16	1.3	9205650
1423226	8	27	21	120	36	10	93	M6	23	1.3	9205650
1423227	10	32	24	120	42	10	93	M8x1	45	1.4	9205650
1423228	12	32	24	120	47	10	93	M10x1	90	1.4	9205650
1423229	16	34	27	120	50	10	93	M12x1	185	1.4	9205650
1423230	20	42	33	120	52	10	93	M16x1	330	1.6	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

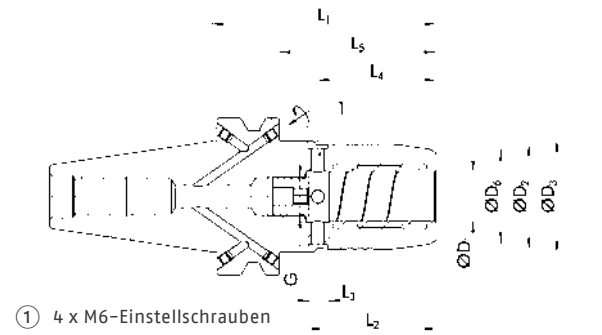
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0204440	6	26	44.5	22	90	37	10	43	63	M5	16	1.4	9205650
0204441	8	28	44.5	24	90	37	10	44.5	63	M6	23	1.4	9205650
0204442	10	30	44.5	26	90	41	10	44.5	63	M8x1	45	1.4	9205650
0204443	12	32	44.5	28	90	46	10	44.5	63	M10x1	90	1.4	9205650
0204444	16	38	44.5	34	90	49	10	47.5	63	M12x1	185	1.5	9205650
0204445	20	42	44.5	38	90	51	10	47.5	63	M16x1	330	1.5	9205650
0204465	32	63	80	60	83	61	10	25.5	56	M16x1	650	2.1	9205660
0205140	1/4"	26	44.5	21.5	90	37	10	43	63	M5	17	1.4	9205650
0205142	3/8"	30	44.5	27.5	90	41	10	44.5	63	M6x1	45	1.4	9205650
0205143	1/2"	32	44.5	27.5	90	46	10	44.5	63	M10x1	95	1.4	9205650
0205144	5/8"	38	44.5	33.5	90	49	10	47.5	63	M10x1	185	1.4	9205650
0205145	3/4"	42	44.5	37.5	90	51	10	47.5	63	M10x1	310	1.4	9205650
0204446	6	26	44.5	22	140	37	10	43	113	M5	16	2	9205650
0204447	8	28	44.5	24	140	37	10	44.5	113	M6	23	2	9205650
0204448	10	30	44.5	26	140	41	10	44.5	113	M8x1	45	2	9205650
0204449	12	32	44.5	28	140	46	10	44.5	113	M10x1	90	2	9205650
0204450	16	38	44.5	34	140	49	10	47.5	113	M12x1	185	2.1	9205650
0204451	20	42	44.5	38	140	51	10	47.5	113	M16x1	330	2.1	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves



① 4 x M6-Einstellschrauben



Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

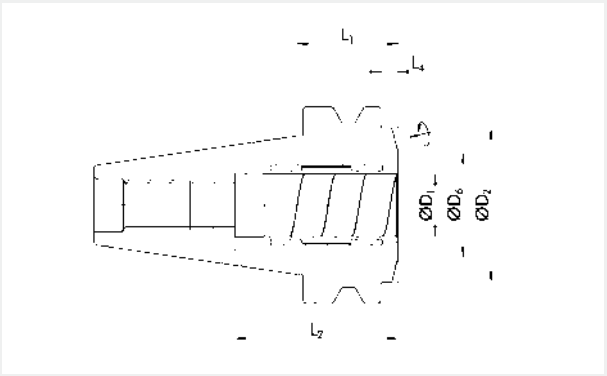
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0204443Z	12	32	44.5	28	90	46	10	44.5	63	M10x1	90	1.4	9205650
0204445Z	20	42	44.5	38	90	51	10	47.5	63	M16x1	330	1.5	9205650

ⓘ *Run-out accuracy: at 2.5 x D; run-out accuracy of 0 microns, adjustable
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Extra radial rigidity

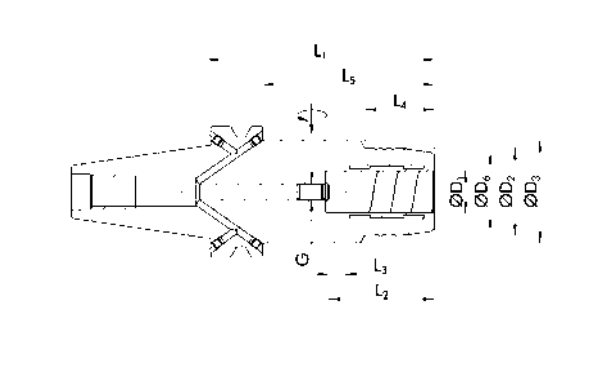
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1 mm	D2 mm	D6 mm	L1 mm	L2 mm	L4 mm	Mmin Nm	Weight kg	
0204296	20	49.5	34	32.5	52.5	5.5	330	0.94	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

External cooling/ internal cooling
up to 80 bar

Battery service life

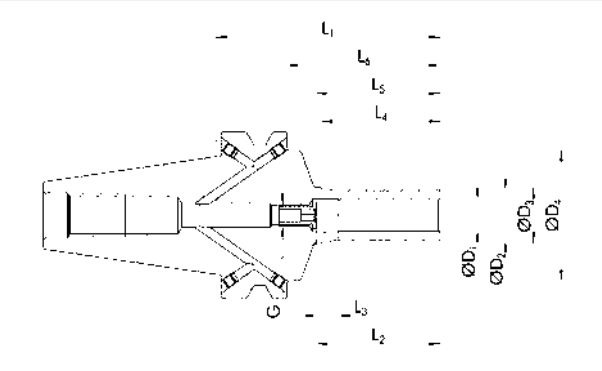
Acceleration sensor

Speed of rotation

Technical data

Description	ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	Max. rotational speed
		mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	RPM
iTENDO² JIS-BT 40 Ø20x110	1509899	20	42.05	49.25	37.65	110	51	8	34	83	M8x1	330	1.85	30000

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

HSC
HSC

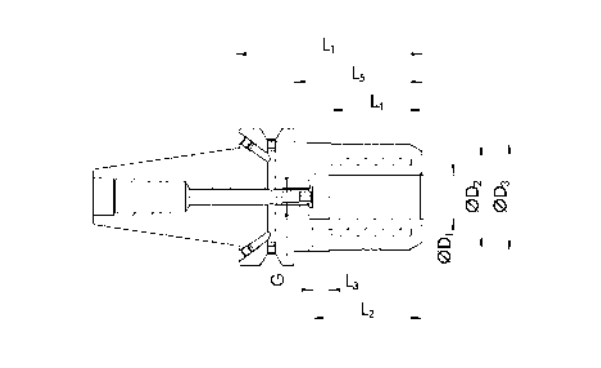
Optimized interfering contours

Data carrier hole optionally possible

Technical data

ID	D1 mm	D2 mm	D3 mm	D4 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	L6 mm	G	Mmin Nm	Weight kg	
0205271	6	9.9	13.1	49	80	37	10	35	37.2	53	M5	5	0.9	0201972
0205272	8	13	15.1	49	80	37	10	35	37.2	53	M6	12	1.2	0201973
0205273	10	16	18.1	49	80	42	10	40	42.2	53	M8x1	20	1.15	0201974
0205274	12	19	21.1	49	85	47	10	45	47.2	58	M8x1	30	1	0201975
0205279	14	22	24.1	49	85	47	10	45	47.2	58	M10x1	50	1	0201976
0205275	16	25	27.1	49	85	48	10	45	47.2	58	M10x1	70	1	0201977
0205270	18	28	30.1	49	85	48	10	45	47.2	58	M10x1	100	1.05	0201979
0205276	20	30	32.1	49	85	52	10	45	47.2	58	M10x1	150	1.05	0201981
0205277	25	36	38.1	49	85	57	10	45	47.2	58	M10x1	200	1.27	0201987

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.005 mm*

Balancing grade
G6.3 at 15,000 RPM*

Short set-up time

Extra radial rigidity

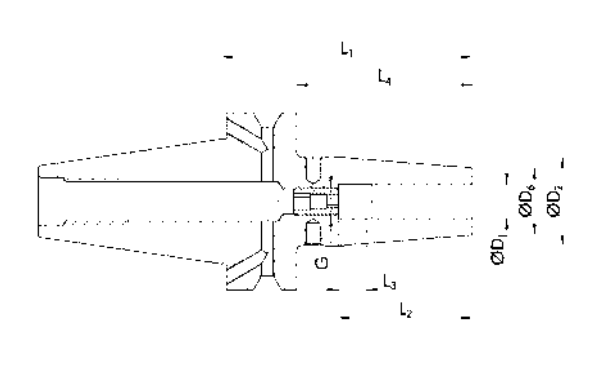
HPC
HPC

Data carrier hole optionally possible

Technical data

ID	D1	D2	D3	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0209602	12	39	44.45	81	46	10	34	54	M8x1	120	1.45	0208877
0209604	20	48.5	49.72	86	51	10	42	59	M8x1	450	1.65	0208877
0209605	32	65	69.85	98	61	10	47	71	M10x1	800	2.3	0208879

ⓘ *Run-out accuracy: measured in the clamping bore
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

Data carrier hole optionally possible

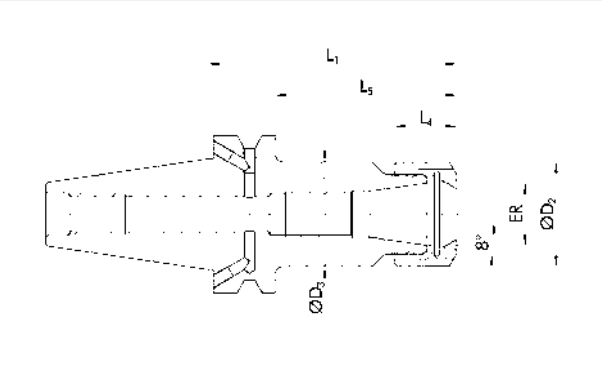
Internal cooling
up to 80 bar

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
1458826	4.5°	3	17	12	90			63		4	1.1
1458827	4.5°	4	17	12	90			63		6	1.1
1458828	4.5°	5	17	12	90			63		8	1.1
0208500	4.5°	6	27	21	90	37	10	63	M5	20	1.1
0208501	4.5°	8	27	21	90	37	10	63	M6	50	1.1
0208502	4.5°	10	32	24	90	42	10	63	M8x1	70	1.2
0208503	4.5°	12	32	24	90	48	10	63	M10x1	150	1.2
0208504	4.5°	14	34	27	90	48	10	63	M10x1	180	1.2
0208505	4.5°	16	34	27	90	51	10	63	M12x1	300	1.2
0208506	4.5°	18	42	33	90	51	10	63	M12x1	370	1.3
0208507	4.5°	20	42	33	90	53	10	63	M16x1	450	1.5
0208508	4.5°	25	53	44	100	59	10	73	M16x1	680	1.8
1324749	4.5°	3	17	12	130			103		4	2
1324751	4.5°	4	17	12	130			103		6	2
1324752	4.5°	5	17	12	130			103		8	2
0208510	4.5°	6	27	21	130	37	10	103	M5	20	1.5
0208511	4.5°	8	27	21	130	37	10	103	M6	50	1.5
0208512	4.5°	10	32	24	130	42	10	103	M8x1	70	1.6
0208513	4.5°	12	32	24	130	48	10	103	M10x1	150	1.7
0208514	4.5°	14	34	27	130	48	10	103	M10x1	180	1.7
0208515	4.5°	16	34	27	130	51	10	103	M12x1	300	1.8
0208516	4.5°	18	42	33	130	51	10	103	M12x1	370	1.8
0208517	4.5°	20	42	33	130	53	10	103	M16x1	450	1.9
0208518	4.5°	25	53	44	130	59	10	103	M16x1	680	2
0208520	4.5°	6	27	21	160	37	10	133	M5	20	1.5
0208521	4.5°	8	27	21	160	37	10	133	M6	50	1.6
0208522	4.5°	10	32	24	160	42	10	133	M8x1	70	1.6
0208523	4.5°	12	32	24	160	48	10	133	M10x1	150	1.6
0208524	4.5°	14	34	27	160	48	10	133	M10x1	180	1.8
0208525	4.5°	16	34	27	160	51	10	133	M12x1	300	1.8
0208526	4.5°	18	42	33	160	51	10	133	M12x1	370	2
0208527	4.5°	20	42	33	160	53	10	133	M16x1	450	2
0208528	4.5°	25	53	44	160	59	10	133	M16x1	680	2.8
0208530	4.5°	6	27	21	200	37	10	173	M5	20	2
0208531	4.5°	8	27	21	200	37	10	173	M6	50	2.2

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
0208532	4.5°	10	32	24	200	42	10	173	M8x1	70	1.7
0208533	4.5°	12	32	24	200	48	10	173	M10x1	150	2.3
0208534	4.5°	14	34	27	200	48	10	173	M10x1	180	2.4
0208535	4.5°	16	34	27	200	51	10	173	M12x1	300	2.4
0208536	4.5°	18	42	33	200	51	10	173	M12x1	370	2.5
0208537	4.5°	20	42	33	200	53	10	173	M16x1	450	2.6
0208538	4.5°	25	53	44	200	59	10	173	M16x1	680	3

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

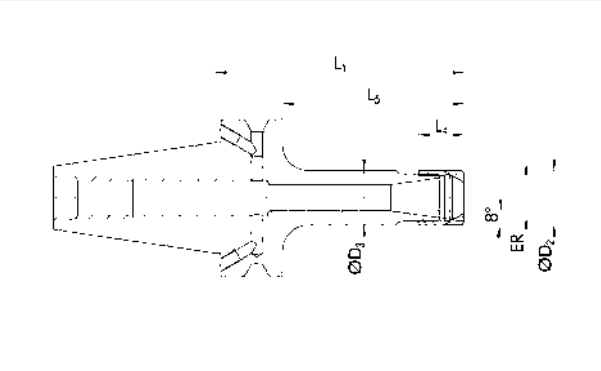
Balancing grade
G2.5 at 25,000 RPM*

Data carrier hole optionally possible

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
	mm		mm	mm	mm	mm	mm		kg
0263440	1 – 10	ER 16	28	28	70	17.5	43	M11x1	1.13
0263445	1 – 16	ER 25	42	42	70	20	43	M18x1.5	1.24
0263448	2 – 20	ER 32	50	50	70	23	43	M24x1.5	1.26
0263451	4 – 26	ER 40	63	63	70	26	43	M28x1.5	1.34
0263441	1 – 10	ER 16	28	28	100	17.5	73	M11x1	1.25
0263446	1 – 16	ER 25	42	42	100	20	73	M18x1.5	1.54
0263449	2 – 20	ER 32	50	50	100	23	73	M24x1.5	1.65
0263442	1 – 10	ER 16	28	28	160	17.5	133	M11x1	1.4
0263447	1 – 16	ER 25	42	42	160	20	133	M18x1.5	2.14
0263450	2 – 20	ER 32	50	50	160	23	133	M24x1.5	2.46

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.008 mm*

Balancing grade
G2.5 at 25,000 RPM*

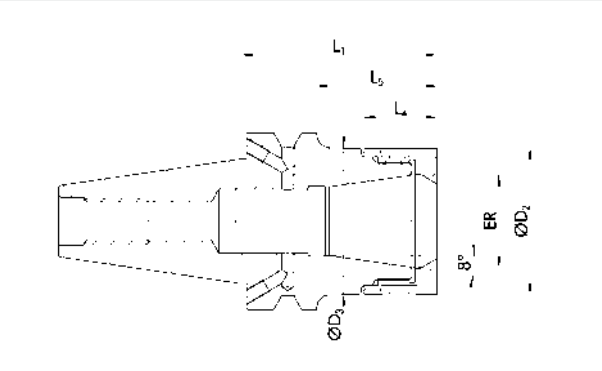
Optimized interfering contours

Data carrier hole optionally possible

Technical data

ID	Variant	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
		mm		mm	mm	mm	mm	mm		kg
23003626	ER Mini	1 - 7	ER 11	16	16	100	12	73	M8x1	1.09
23003627	ER Mini	1 - 10	ER 16	22	22	100	18	73	M11x1	1.14
23003628	ER Mini	1 - 16	ER 25	35	35	100	20.5	73	M18x1.5	1.32
23003629	ER Mini	1 - 7	ER 11	16	16	160	12	133	M8x1	1.16
23003630	ER Mini	1 - 10	ER 16	22	22	160	18	133	M11x1	1.355
23003631	ER Mini	1 - 16	ER 25	35	35	160	20.5	133	M18x1.5	1.765

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

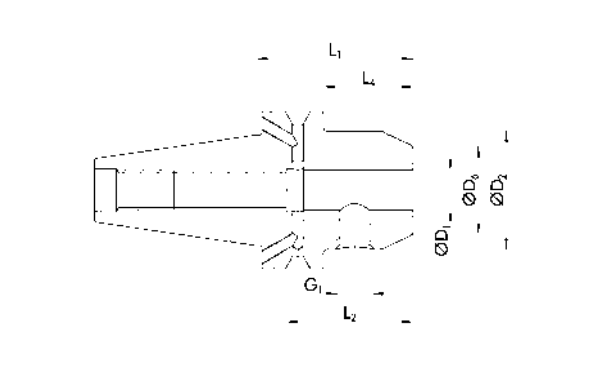
Extra radial rigidity

Data carrier hole optionally possible

Technical data

ID	Variant	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
		mm		mm	mm	mm	mm	mm		kg
1349298		1 - 10	ER 16	34	34	70	20.6	43	M11x1	1.185
1349299		1 - 16	ER 25	44	44	70	24	43	M18x1.5	1.215
1349300		2 - 20	ER 32	52	52	70	26	43	M24x1.5	1.21
1349301		4 - 26	ER 40	62	62	70	29	43	M28x1.5	1.31
1349306		1 - 10	ER 16	34	34	100	20.6	73	M11x1	1.4
1349307		1 - 16	ER 25	44	44	100	24	73	M18x1.5	1.62
1349308		2 - 20	ER 32	52	52	100	26	73	M24x1.5	1.7
1349309		4 - 26	ER 40	62	62	100	29	73	M28x1.5	2.01
1474374		1 - 10	ER 16	34		130	20.6	103	M11x1	1.6
1474375		1 - 16	ER 25	44		130	24	103	M18x1.5	1.85
1474376		2 - 20	ER 32	52		130	26	103	M24x1.5	1.95
1474379		1 - 10	ER 16	34		160	20.6	133	M11x1	1.8
1474380		1 - 16	ER 25	44		160	24	133	M18x1.5	2.05
1474381		2 - 20	ER 32	52		160	26	133	M24x1.5	2.2
1474389	ER Mini	0.5 - 10	ER 16	24		100	20.6	73	M11x1	1

ⓘ *Run-out accuracy: at 2.5 x D using the ER precision collets and a defined tightening torque
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

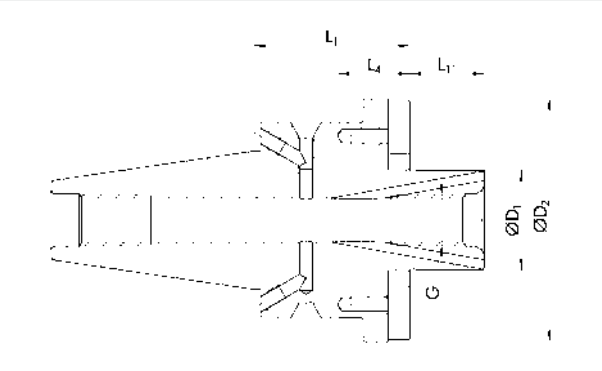
Short set-up time

Data carrier hole optionally possible

Technical data

ID	D1	D2	D6	L1	L2	L4	G1	Weight
	mm	mm	mm	mm	mm	mm		kg
0263600	6	25	14.5	50	35	33	M6	1.05
0263601	8	28	19.5	50	35	33	M8	1.06
0263602	10	35	24.5	63	41	46	M10	1.19
0263603	12	42	29.5	63	48	46	M12	1.28
23000721	14	42	31.5	63	48	46	M12	1.3
0263604	16	48	35.5	63	51	46	M14	1.35
23000723	18	48	37.5	63	51	46	M14	1.37
0263605	20	52	39.5	63	53	46	M16	1.37
23000725	25	65	44.5	90	60	63	M18x2	2.25
0263606	32	72	55.5	100	64	73	M20x2	2.73
23003485	6	25	14.5	100	35	73	M6	1.21
23003486	8	28	19.5	100	35	73	M8	1.27
23003487	10	35	24.5	100	41	73	M10	1.44
23003488	12	42	29.5	100	48	73	M12	1.66
23003489	16	48	35.5	100	51	73	M14	1.85
23003490	20	52	39.5	100	53	73	M16	1.96

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.006 mm*

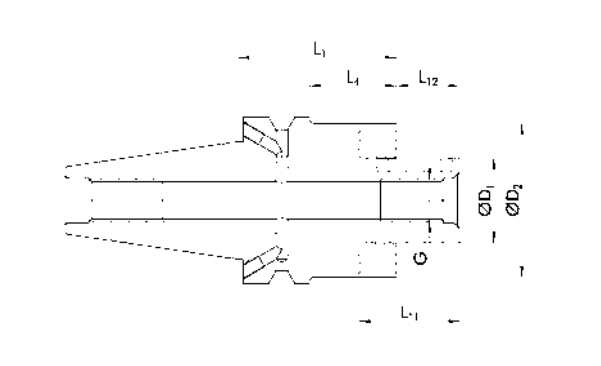
Balancing grade
G2.5 at 25,000 RPM*

Data carrier hole optionally possible

Technical data

ID	D1	G	D2	L1	L4	L11	Weight
	mm		mm	mm	mm	mm	kg
23004360	16	M8	38	35	8	17	1.1
23004361	22	M10	48	35	8	19	1.17
23004362	27	M12	60	35	8	21	1.29
23004363	32	M16	78	50	23	24	1.98
23004364	40	M20	89	50	23	27	2.01
23004365	16	M8	38	100	73	17	1.7
23004366	22	M10	48	100	73	19	2
23004367	27	M12	60	100	73	21	2.5
23004368	32	M16	78	100	73	24	3.85

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.006 mm*

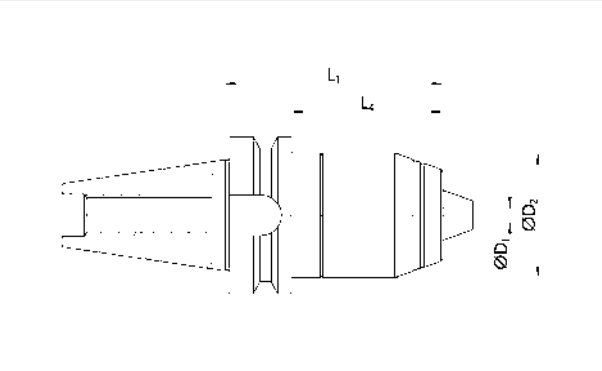
Balancing grade
G2.5 at 25,000 RPM*

Data carrier hole optionally possible

Technical data

ID	D1	G	D2	L1	L4	L11	L12	Weight
	mm		mm	mm	mm	mm	mm	kg
0263630	16	M8	32	55	28	27	17	1.22
0263631	22	M10	40	55	28	31	19	1.34
0263632	27	M12	48	55	28	33	21	1.5
0263633	32	M16	58	60	33	38	24	1.48

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Balancing grade
G6.3 at 18,000 RPM*

Short set-up time

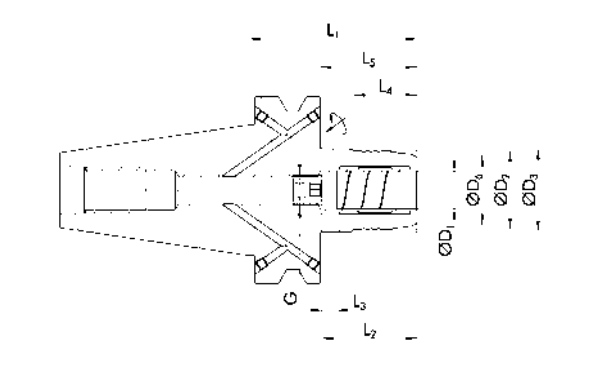
Data carrier hole optionally possible

Internal cooling

Technical data

ID	Clamping range D1	D2	L1	L4	Weight
	mm	mm	mm	mm	kg
0204584	1 – 16	56	88	61	1.62

ⓘ *Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

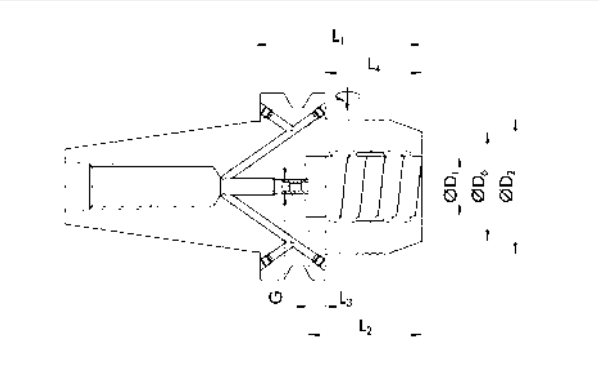
Data carrier bore as an option

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
1503296	12	32	49.25	28	90	46	10	31.5	52	M10x1	90	4	9205650
1503297	20	42	49.25	38	90	51	10	34	52	M16x1	330	4	9205650
1503299	32	64	70.25	60	120	61	10	62.5	82	M16x1	650	5.1	9205660

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Extra radial rigidity

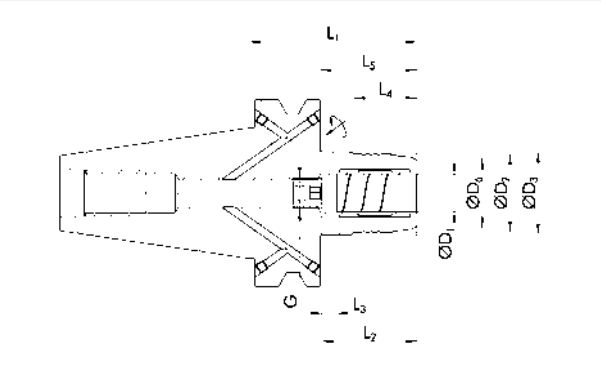
HPC

Data carrier hole optionally possible

Technical data

ID	D1 mm	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
0206444	12	42		32	69	46	10	31		M8x1	110	3.9	9205650
0206446	20	49.25		38	83.5	51	10	45.5		M8x1	520	4.1	9205650
0206448	32	72		58.5	90	61	10	52		M8x1	900	4.6	9205660
1420632	20	42	44.5	38	130	51	10	50	92	M8x1	400	4.4	9205650
1420633	32	62.5		58.5	130	61	10	92		M8x1	900	5.5	9205660

ⓘ *Run-out accuracy: at 2.5 x D; run-out at L1 = 130 mm: ≤ 0.005 mm at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

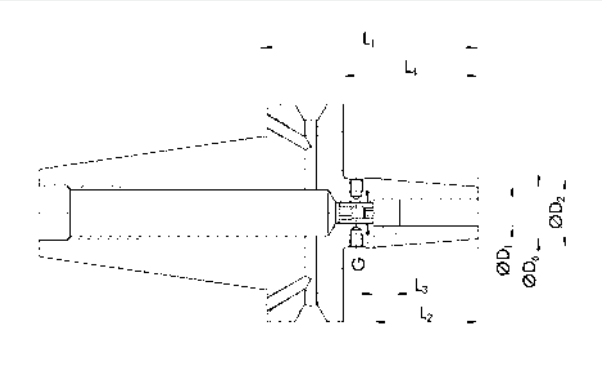
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0204455	12	32	44.5	28	90	46	10	34	52	M10x1	90	4	9205650
0204457	20	42	44.5	38	90	51	10	34	52	M16x1	330	4	9205650
0204458	32	64	70.25	60	120	61	10	62.5	82	M16x1	650	5.3	9205660
0205183	1/2"	32	44.5	27.5	90	46	10	34	52	M10x1	95	4	9205650
0205185	3/4"	42	44.5	37.5	90	51	10	34	52	M16x1	310	4	9205650
0204461	12	32	44.5	28	140	46	10	34	102	M10x1	90	4.6	9205650
0204463	20	42	44.5	38	140	51	10	34	102	M16x1	330	4.7	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

Data carrier hole optionally possible

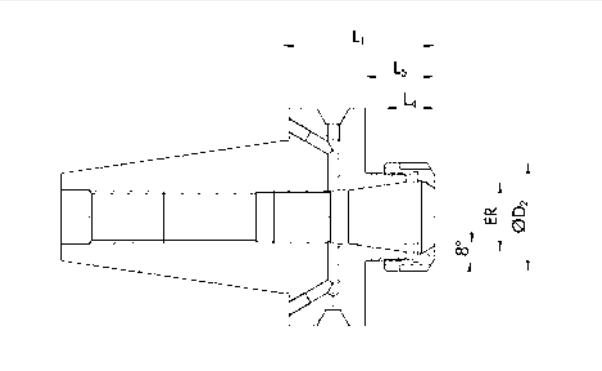
Internal cooling
up to 80 bar

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
0208540	4.5°	6	27	21	100	36	10	62	M5	20	2.5
0208541	4.5°	8	27	21	100	36	10	62	M6	50	2.5
0208542	4.5°	10	32	24	100	42	10	62	M8x1	70	2.7
0208543	4.5°	12	32	24	100	47	10	62	M10x1	150	2.7
0208544	4.5°	14	34	27	100	47	10	62	M10x1	180	2.9
0208545	4.5°	16	34	27	100	50	10	62	M12x1	300	2.9
0208546	4.5°	18	42	33	100	50	10	62	M12x1	370	3
0208547	4.5°	20	42	33	100	52	10	62	M16x1	450	3.1
0208548	4.5°	25	53	44	100	58	10	62	M16x1	680	3.5
0208549	4.5°	32	53	44	100	62	10	62	M16x1	750	3.9
0208550	4.5°	6	27	21	130	37	10	92	M5	20	2.8
0208551	4.5°	8	27	21	130	37	10	92	M6	50	2.9
0208552	4.5°	10	32	24	130	42	10	92	M8x1	70	2.9
0208553	4.5°	12	32	24	130	48	10	92	M10x1	150	3
0208554	4.5°	14	34	27	130	48	10	92	M10x1	180	3.1
0208555	4.5°	16	34	27	130	51	10	92	M12x1	300	3.1
0208556	4.5°	18	42	33	130	51	10	92	M12x1	370	3.2
0208557	4.5°	20	42	33	130	53	10	92	M16x1	450	3.3
0208558	4.5°	25	53	44	130	59	10	92	M16x1	680	3.7
0208559	4.5°	32	53	44	130	63	10	92	M16x1	750	4.1
0208560	4.5°	6	27	21	160	37	10	122	M5	20	3.2
0208561	4.5°	8	27	21	160	37	10	122	M6	50	3.2
0208562	4.5°	10	32	24	160	42	10	122	M8x1	70	3.3
0208563	4.5°	12	32	24	160	48	10	122	M10x1	150	3.4
0208564	4.5°	14	34	27	160	48	10	122	M10x1	180	3.4
0208565	4.5°	16	34	27	160	51	10	122	M12x1	300	3.5
0208566	4.5°	18	42	33	160	51	10	122	M12x1	370	3.6
0208567	4.5°	20	42	33	160	53	10	122	M16x1	450	3.6
0208568	4.5°	25	53	44	160	59	10	122	M16x1	680	4
0208569	4.5°	32	53	44	160	63	10	122	M16x1	750	4.4
0208570	4.5°	6	27	21	200	37	10	162	M5	20	3.7
0208571	4.5°	8	27	21	200	37	10	162	M6	50	3.9
0208572	4.5°	10	32	24	200	42	10	162	M8x1	70	3.8
0208573	4.5°	12	32	24	200	48	10	162	M12x1	150	3.9
0208574	4.5°	14	34	27	200	48	10	162	M10x1	180	3.9

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
0208575	4.5°	16	34	27	200	51	10	162	M12x1	300	4
0208576	4.5°	18	42	33	200	51	10	162	M12x1	370	4.1
0208577	4.5°	20	42	33	200	53	10	162	M16x1	450	4.1
0208578	4.5°	25	53	44	200	59	10	162	M16x1	680	4.5
0208579	4.5°	32	53	44	200	63	10	162	M16x1	750	5

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

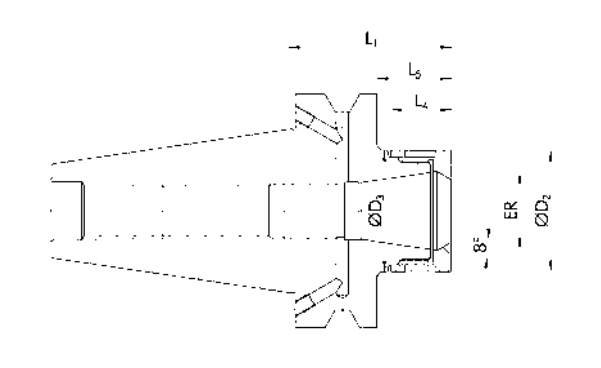
Balancing grade
G2.5 at 25,000 RPM*

Data carrier hole optionally possible

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	Weight
	mm		mm	mm	mm	mm	mm	kg
23001318	1 – 10	ER 16	28	28	70	17.5	32	3.85
23001319	1 – 16	ER 25	42	42	70	20	32	3.99
23001320	2 – 20	ER 32	50	50	70	23	32	3.89
23001321	4 – 26	ER 40	63	63	80	26	42	4.1
23001322	1 – 10	ER 16	28	28	100	17.5	62	4.02
23001323	1 – 16	ER 25	42	42	100	20	62	4.26
23001324	2 – 20	ER 32	50	50	100	23	62	4.34
23001325	4 – 26	ER 40	63	63	100	26	62	4.57
23000842	1 – 10	ER 16	28	28	160	17.5	122	4.44
23000843	1 – 16	ER 25	42	42	160	20	122	4.94
23000844	2 – 20	ER 32	50	50	160	23	122	5.24
23000845	4 – 26	ER 40	63	63	160	26	122	6.14

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

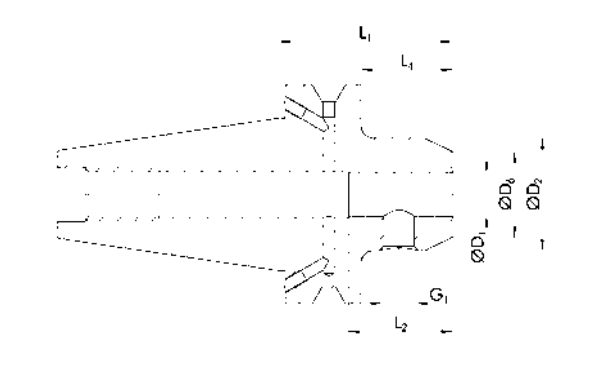
Extra radial rigidity

Data carrier hole optionally possible

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
	mm		mm	mm	mm	mm	mm		kg
1349240	1 – 16	ER 25	44	44	70	24	32	M18x1.5	3.795
1349243	2 – 20	ER 32	52	52	70	26	32	M24x1.5	3.97
1349244	4 – 26	ER 40	62	62	70	29	32	M28x1.5	3.96
1349246	1 – 16	ER 25	44	44	100	24	62	M18x1.5	4.105
1349247	2 – 20	ER 32	52	52	100	26	62	M24x1.5	4.3
1349248	4 – 26	ER 40	62	62	100	29	62	M28x1.5	4.43
1474410	1 – 16	ER 25	44		130	24	92	M18x1.5	4.4
1474411	2 – 20	ER 32	52		130	26	92	M24x1.5	4.7
1474412	4 – 26	ER 40	62		130	29	92	M28x1.5	4.9
1474413	1 – 16	ER 25	44		160	24	122	M18x1.5	4.94
1474414	2 – 20	ER 32	52		160	26	122	M24x1.5	5.24
1474415	4 – 26	ER 40	62		160	29	122	M28x1.5	6.14

ⓘ *Run-out accuracy: at 2.5 x D using the ER precision collets and a defined tightening torque
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

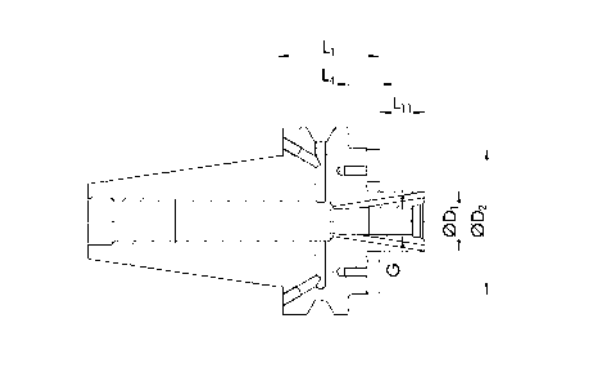
Short set-up time

Data carrier hole optionally possible

Technical data

ID	D1	D2	D6	L1	L2	L4	G1	Weight
	mm	mm	mm	mm	mm	mm		kg
23001296	6	25	14.5	63	35	25	M6	3.81
23001297	8	28	19.5	63	35	25	M8	3.83
23001298	10	35	24.5	70	41	32	M10	3.91
23001299	12	42	29.5	80	48	42	M12	4.11
23001300	16	48	35.5	80	51	42	M14	4.2
23001301	20	52	39.5	80	53	42	M16	4.23
23001302	25	65	44.5	100	60	62	M18x2	4.98
23001303	32	72	55.5	105	64	67	M20x2	5.31

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.006 mm*

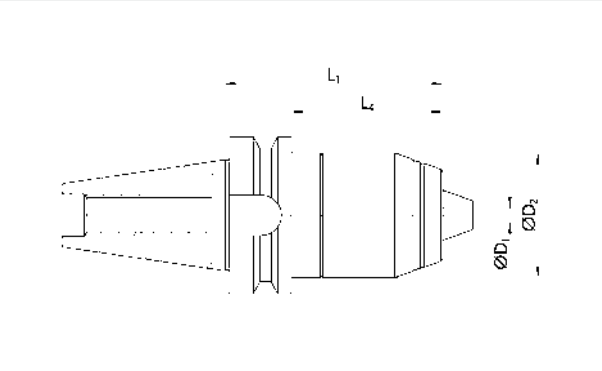
Balancing grade
G2.5 at 25,000 RPM*

Data carrier hole optionally possible

Technical data

ID	D1	G	D2	L1	L4	L11	Weight
	mm		mm	mm	mm	mm	kg
23004378	22	M8	48	55	17	19	4.19
23004379	27	M10	60	55	17	21	4.41
23004380	32	M12	78	55	17	24	4.85
23004381	40	M16	89	55	17	27	5.22
23004382	22	M8	48	100	62	19	4.86
23004383	27	M10	60	100	62	21	5.38
23004384	32	M12	78	100	62	24	6.5

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Balancing grade
G6.3 at 18,000 RPM*

Short set-up time

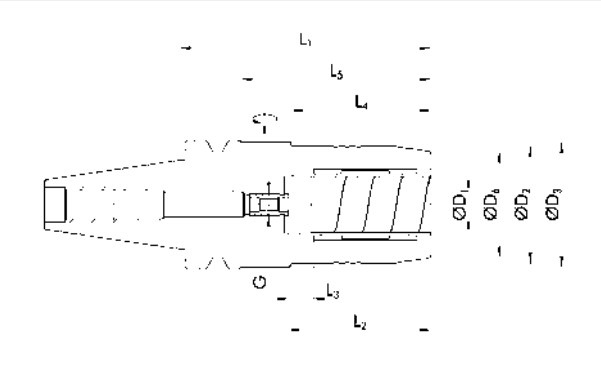
Data carrier hole optionally possible

Internal cooling

Technical data

ID	Clamping range D1	D2	L1	L4	Weight
	mm	mm	mm	mm	kg
23002469	1 – 16	50	99	61	4.28

ⓘ *Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Extra radial rigidity

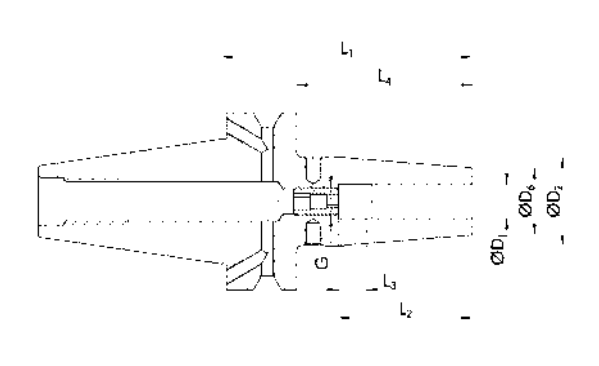
HPC

Data carrier hole optionally possible

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0206584	12	42	44.5	32	69	46	10	32	47	M8x1	110	0.6	9205650
0206586	20	42	44.5	38	90	51	10	50	68	M8x1	400	0.9	9205650
1324754	1/2"	42	44.5	32	69	46	10	32	47	M8x1	120	0.6	9205650
1324755	3/4"	42	44.5	38	90	51	10	50	68	M8x1	400	0.9	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

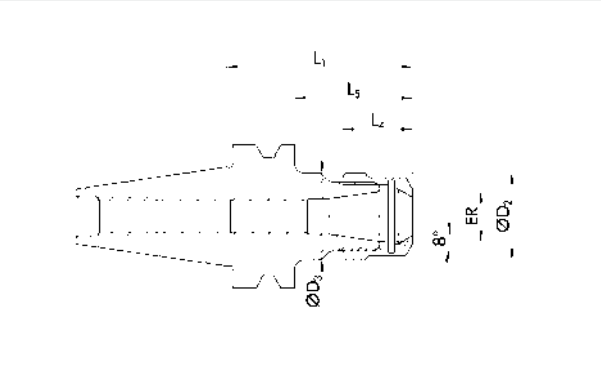
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
1428070	4.5°	3	17	12	80			58		4	1
1428081	4.5°	4	17	12	80			58		6	1
1428087	4.5°	5	17	12	80			58		8	1
1428003	4.5°	6	27	21	80	37	10	58	M5	20	1
1428005	4.5°	8	27	21	80	37	10	58	M6	50	1
1428006	4.5°	10	32	24	80	42	10	58	M8x1	70	1
1428007	4.5°	12	32	24	80	48	10	58	M10x1	150	1
1428008	4.5°	16	34	27	80	51	10	58	M12x1	300	1
1428013	4.5°	20	42	33	90	53	10	68	M16x1	450	1

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

Balancing grade
G2.5 at 25,000 RPM*

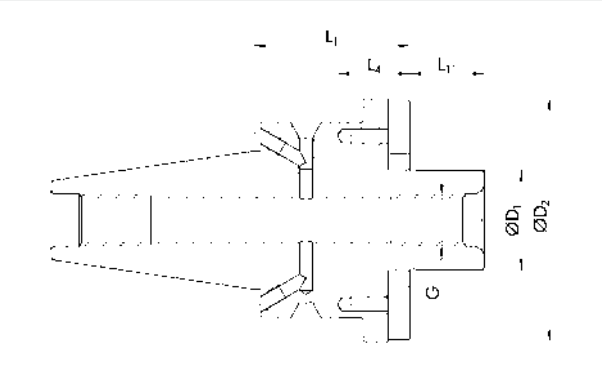
Data carrier hole optionally possible

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
	mm		mm	mm	mm	mm	mm		kg
1415580	1 – 7	ER 16	28	28	60	17.5	38	M8x1	0.41
1415435	1 – 10	ER 20	34	34	60	19	38	M11x1	0.44
1415365	1 – 13	ER 25	42	42	60	20	38	M14x1	0.44
1415366	2 – 20	ER 32	50	50	60	23	38	M18x1.5	0.52
1419318	1 – 7	ER 16	28	28	100	17.5	78	M8x1	0.49
1428056	1 – 10	ER 20	34	34	100	19	78	M11x1	0.61
1428063	1 – 13	ER 25	42	42	100	20	78	M14x1	0.69
1428065	2 – 20	ER 32	50	50	100	23	78	M18x1.5	0.96

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm

MES BT-DC 30
Face mill arbors





Run-out accuracy
≤ 0.006 mm*

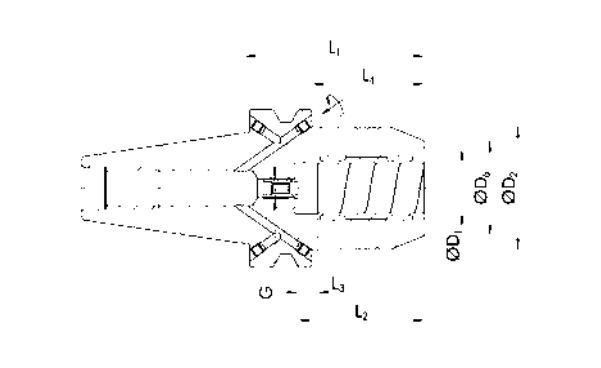
Balancing grade
G2.5 at 25,000 RPM*

Data carrier hole optionally possible

Technical data

ID	D1	G	D2	L1	L4	L11	Weight
	mm		mm	mm	mm	mm	kg
1428093	22	M10	48	35	13	19	1
1428100	27	M12	60	35	13	21	1

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Extra radial rigidity

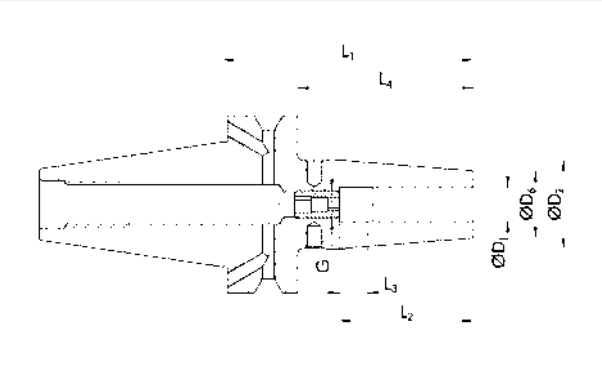
HPC

Data carrier hole optionally possible

Technical data

ID	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm		Nm	kg	
0206594	12	42	32	58	46	10	31	M8x1	110	1.2	9205650
0206596	20	49.25	38	72.5	51	10	45.5	M8x1	520	1.4	9205650
1324761	1/2"	42	32	58	46	10	31	M8x1	120	1.2	9205650
1324762	3/4"	49.25	38	72.5	51	10	45.5	M8x1	440	1.4	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

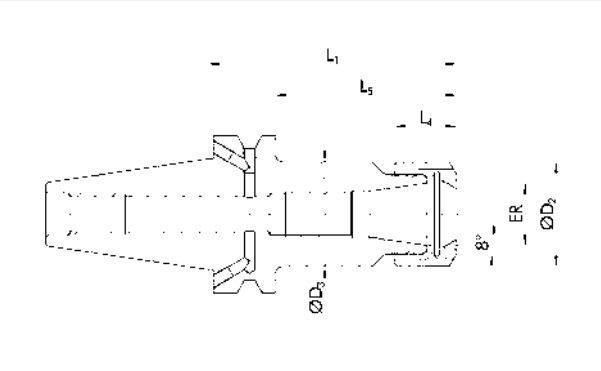
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
1428304	4.5°	3	17	12	90			63		4	1.1
1428306	4.5°	4	17	12	90			63		6	1.1
1428307	4.5°	5	17	12	90			63		8	1.1
1428555	4.5°	6	27	21	90	37	10	63	M5	20	1.1
1428560	4.5°	8	27	21	90	37	10	63	M6	50	1.1
1428561	4.5°	10	32	24	90	42	10	63	M8x1	70	1.2
1428563	4.5°	12	32	24	90	48	10	63	M10x1	150	1.2
1428564	4.5°	16	34	27	90	51	10	63	M12x1	300	1.2
1428565	4.5°	20	42	33	90	53	10	63	M16x1	450	1.5
1421577	4.5°	25	53	44	100	59	10	73	M16x1	680	1.8

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

Balancing grade
G2.5 at 25,000 RPM*

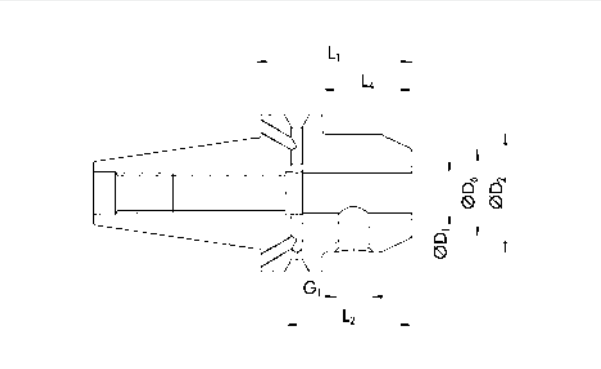
Data carrier hole optionally possible

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
	mm		mm	mm	mm	mm	mm		kg
1406014	1 – 10	ER 16	28	28	70	17.5	43	M11x1	1.13
1428117	1 – 16	ER 20	34	34	70	19	43	M18x1.5	1.24
1410330	2 – 20	ER 25	42	42	70	20	43	M24x1.5	1.26
1406018	2 – 20	ER 32	50	50	70	23	43	M28x1.5	1.34
1406011	1 – 10	ER 16	28	28	100	17.5	73	M11x1	1.25
1428119	1 – 16	ER 20	34	34	100	19	73	M18x1.5	1.4
1428120	2 – 20	ER 25	42	42	100	20	73	M24x1.5	1.54
1415439	2 – 20	ER 32	50	50	100	23	73	M28x1.5	1.64

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm

WEL BT-DC 40
WELDON





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

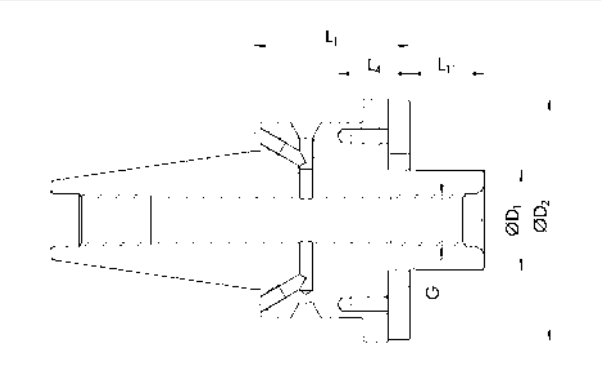
Short set-up time

Data carrier hole optionally possible

Technical data

ID	D1	D2	D6	L1	L2	L4	G1	Weight
	mm	mm	mm	mm	mm	mm		kg
1428128	6	25	14.5	50	35	23	M6	1.05
1428130	8	28	19.5	50	35	23	M8	1.06
1415495	10	35	24.5	63	41	36	M10	1.19
1415496	12	42	29.5	63	48	36	M12	1.28
1415497	16	48	35.5	63	51	36	M14	1.35
1409441	20	52	39.5	63	53	36	M16	1.37
1409443	25	65	44.5	90	60	63	M18x2	2.25
1410328	32	72	55.5	100	64	73	M20x2	2.73

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.006 mm*

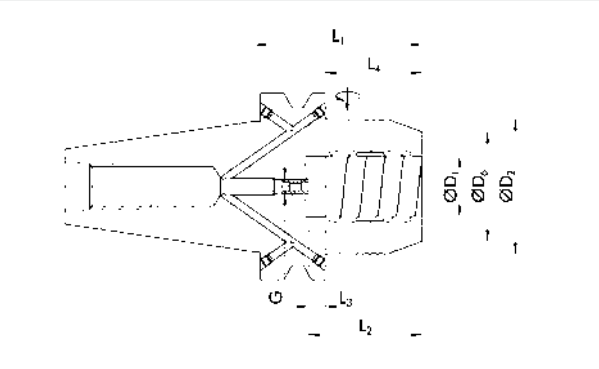
Balancing grade
G2.5 at 25,000 RPM*

Data carrier hole optionally possible

Technical data

ID	D1	G	D2	L1	L4	L11	Weight
	mm		mm	mm	mm	mm	kg
1410341	22	M10	48	35	8	19	1
1410354	27	M12	60	35	8	21	1
1410359	32	M16	78	50	23	24	1

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Extra radial rigidity

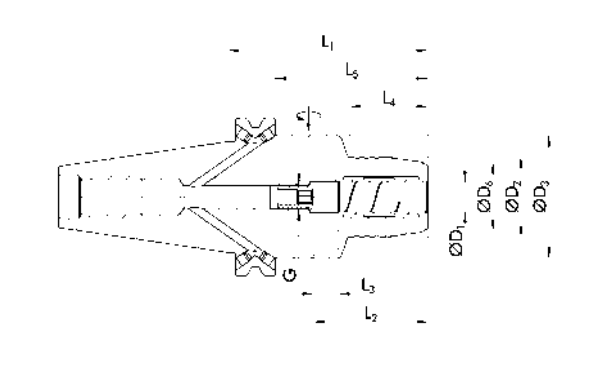
HPC

Data carrier hole optionally possible

Technical data

ID	D1 mm	D2 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	G	Mmin Nm	Weight kg	
1349428	20	49.25	38	83.5	51	10	45.5	M8x1	520	4.1	9205650
1349429	32	72	58.5	90	61	10	52	M8x1	900	4.6	9205660

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

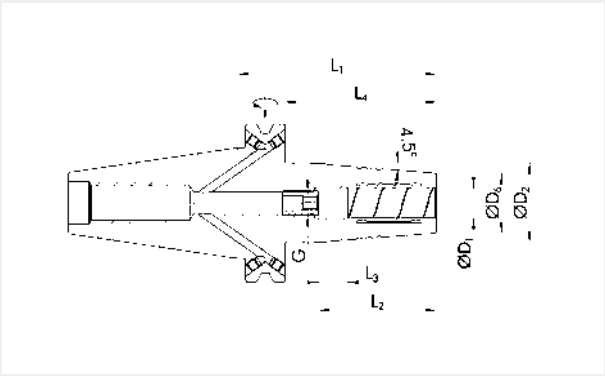
Data carrier bore as an option

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
1479973	6	26	44.45	23	63.5	37	10	24	44.45	M5	16	1.1	9205650
1479975	8	28	49	25.3	63.5	37	10	25	44.45	M5	23	1.1	9205650
1479977	10	30	49	26.7	63.5	41	10	27	44.45	M5	45	1.1	9205650
1479978	12	32	49	28.9	63.5	46	10	26	44.45	M10x1	90	1.1	9205650
1479979	14	34	49	30.6	63.5	46	10	26	44.45	M10x1	110	1.1	9205650
1479980	16	38	49	34.9	63.5	49	10	27	44.45	M10x1	185	1.2	9205650
1479981	20	49.25		38	64.5	51	10	45.45		M10x1	520	1.3	9205650
1436816	1/4"	26	44.45	23	63.5	37	10	24.56	44.45	M5	17	1.1	9205650
1436817	3/8"	30	49	26.7	63.5	41	10	27	44.45	M5	45	1.1	9205650
1436818	1/2"	32	49	29.55	63.5	46	10	24	44.45	M10x1	95	1.1	9205650
1436819	5/8"	38	49	34.9	63.5	49	10	27	44.45	M10x1	185	1.2	9205650
1436820	3/4"	49.25		38	64.5	51	10	45.45		M10x1	520	1.3	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

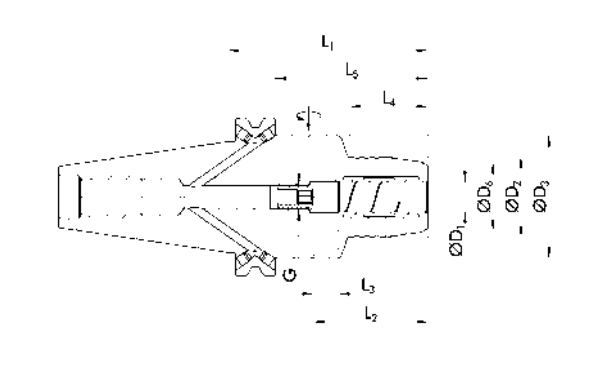
Optimized interfering contours

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm		Nm	kg	
1414691	6	27	21	80	36	10	60.95	M10x1	16	0.9	9205650
1414692	8	27	21	80	36	10	60.95	M10x1	23	0.9	9205650
1414693	10	32	24	80	42	10	60.95	M10x1	45	0.9	9205650
1414694	12	32	24	80	47	10	60.95	M10x1	90	0.9	9205650
1414695	16	34	27	80	50	10	60.95	M12x1	185	1	9205650
1414697	20	42	33	80	52	10	60.95	M16x1	330	1.2	9205650
1414702	6	27	21	120	36.5	10	100.95	M10x1	16	0.9	9205650
1414703	8	27	21	120	36.5	10	100.95	M10x1	23	0.9	9205650
1414704	10	32	24	120	42.5	10	100.95	M10x1	45	0.9	9205650
1414705	12	32	24	120	47	10	100.95	M10x1	90	0.9	9205650
1414706	16	34	27	120	50	10	100.95	M12x1	185	1	9205650
1414710	20	42	33	120	52	10	100.95	M16x1	330	1.2	9205650
1407720	1/4"	21.08	26.92	80.01	36.07	10	60.96	M5	17	0.9	9205650
1407721	3/8"	23.88	32	80.01	41.91	10	60.96	M8x1	45	1.05	9205650
1407722	1/2"	23.88	32	80.01	46.99	10	60.96	M10x1	95	1.2	9205650
1407723	5/8"	26.92	34.04	80.01	50.38	10	60.96	M12x1	185	1.3	9205650
1407724	3/4"	33.02	41.91	80.01	52.07	10	60.96	M16x1	310	1.4	9205650
1407729	1/4"	26.92	21.08	119.89	36.07	10	100.84	M5	17	1.3	9205650
1407730	3/8"	32	23.88	119.89	41.91	10	100.84	M8x1	45	1.5	9205650
1407731	1/2"	32	23.88	119.89	46.99	10	100.84	M10x1	95	1.6	9205650
1407732	5/8"	34.04	26.92	119.89	50.38	10	100.84	M12x1	185	1.7	9205650
1407733	3/4"	41.91	33.02	119.89	52.07	10	100.84	M16x1	310	1.8	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Data carrier bore as an option

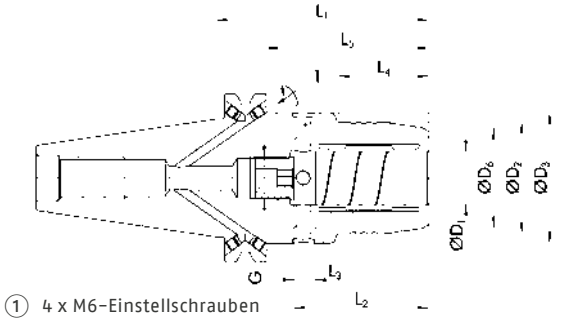
Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
1447887	6	26	49	19.8	63.5	37	10	24	44.45	M5	16	1.2	9205650
1447888	8	28	49	23.6	63.5	37	10	25	44.45	M5	23	1.2	9205650
1447889	10	30	49	24	63.5	41	10	27	44.45	M5	45	1.1	9205650
1447890	12	32	49	27.1	63.5	46	10	26	44.45	M10x1	90	1.1	9205650
1447891	14	34	49	28.8	63.5	46	10	26	44.45	M10x1	110	1.2	9205650
1447892	16	38	52	33.1	63.5	49	10	27	44.45	M10x1	185	1.2	9205650
1447893	20	42	55	37.6	63.5	51	10	25	44.45	M10x1	330	1.3	9205650
1447880	1/4"	26	44.45	19.8	63.5	37	10	22.64	44.45	M5	17	1.1	9205650
1447882	3/8"	30	49	25	63.5	41	10	22.54	44.45	M5	45	1.2	9205650
1447883	1/2"	32	49	27	63.5	46	10	24.5	44.45	M10x1	95	1.2	9205650
1447884	5/8"	38.05	60	34.5	63.5	49	10	22	44.45	M10x1	185	1.3	9205650
1447885	3/4"	44.45	60	38	63.5	51	10	23.17	44.45	M10x1	310	1.4	9205650
1447895	1"	55	62.5	48	81	57	10	40	61.95	M10x1	400	1.7	9205660
1447905	6	26	49	19.8	101.6	37	10	24	82.55	M5	16	1.7	9205650
1447906	8	28	49	23.6	101.6	37	10	25	82.55	M5	23	1.7	9205650
1447907	10	30	49	23.8	101.6	41	10	35	82.55	M5	45	1.6	9205650
1447908	12	32	49	25.5	101.6	46	10	40	82.55	M10x1	90	1.6	9205650
1447909	14	34	49	27.8	101.6	46	10	40	82.55	M10x1	110	1.6	9205650
1447910	16	38	49	31.5	101.6	49	10	46	82.55	M10x1	185	1.6	9205650
1447911	20	42	49	35.5	101.6	51	10	48	82.55	M10x1	330	1.6	9205650
1447912	25	48	57	41.5	101.6	57	10	56	82.55	M10x1	400	1.8	9205660
1447913	32	62		55.4	101.6	61	10		82.55	M10x1	650	2.1	9205660
1447896	1/4"	26	44.45	19.8	101.6	37	10	28.64	82.55	M5	17	1.5	9205650
1447898	3/8"	30	44.45	24	101.6	41	10	35.37	82.55	M5	45	1.4	9205650
1447899	1/2"	32	44.45	25.8	101.6	46	10	31.5	82.55	M10x1	95	1.5	9205650
1447900	5/8"	38.05	49	31.8	101.6	49	10	33	82.55	M10x1	185	1.7	9205650
1447901	3/4"	44.45	49	35.02	101.6	51	10	43.17	82.55	M10x1	310	1.7	9205650
1447903	1"	55	62	48	101.6	57	10	40	82.55	M10x1	400	2.2	9205660
1447904	1 1/4"	62		55.62	101.6	61	10		82.55	M10x1	650	2.3	9205660
1447922	6	26	49	19.8	152.4	37	10	24	133.35	M5	16	2.5	9205650
1447923	8	28	49	23.6	152.4	37	10	25	133.35	M5	23	2.5	9205650
1447924	10	30	49	23.8	152.4	41	10	35	133.35	M5	45	2.4	9205650
1447925	12	32	49	25.5	152.4	46	10	40	133.35	M10x1	90	2.3	9205650
1447926	14	34	49	27.8	152.4	46	10	40	133.35	M10x1	110	2.3	9205650
1447927	16	38	49	31.5	152.4	49	10	46	133.35	M10x1	185	2.3	9205650

ID	D1 mm/Inch	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
1447928	20	42	49	35.5	152.4	51	10	48	133.35	M10x1	330	2.4	9205650
1447929	25	48	57	41.5	152.4	57	10	56	133.35	M10x1	400	2.8	9205660
1447914	1/4"	26	44.45	19.8	152.4	37	10	28.64	133.35	M5	17	2.2	9205650
1447916	3/8"	30	44.45	24	152.4	41	10	35.37	133.35	M5	45	2.1	9205650
1447917	1/2"	32	44.45	25.8	152.4	46	10	31.5	133.35	M10x1	95	2.1	9205650
1447918	5/8"	38.05	49	31.8	152.4	49	10	33	133.35	M10x1	185	2.4	9205650
1447919	3/4"	44.45	49	35.02	152.4	51	10	43.17	133.35	M10x1	310	2.4	9205650
1447921	1"	55	58	48	152.4	57	10	40	133.35	M10x1	400	3.1	9205660
1447931	20	42	49	35.5	203.2	51	10	48	184.15	M10x1	310	3.1	9205650
1447930	3/4"	44.45	49	35	203.2	51	10	43.17	184.15	M10x1	310	3.2	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves



① 4 x M6-Einstellschrauben



Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

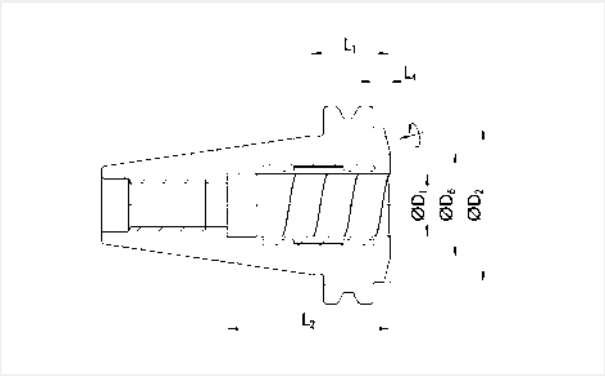
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0203664Z	12	32	44.45	27.5	101.6	46	10	42	82.55	M10x1	90	2	9205650
0203666Z	20	42	44.45	37.5	101.6	51	10	50	82.55	M16x1	330	2.2	9205650
0203653Z	1/2"	32	44.45	27.5	101.6	46	10	42	82.55	M10x1	95	2	9205650
0203655Z	3/4"	42	44.45	37.5	101.6	51	10	50	82.55	M10x1	310	2.2	9205650

ⓘ *Run-out accuracy: at 2.5 x D; run-out accuracy of 0 microns, adjustable
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Extra radial rigidity

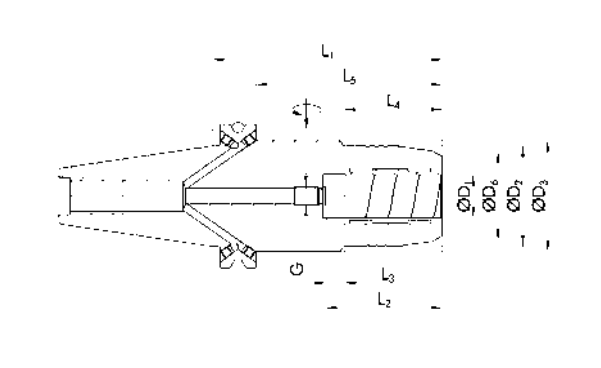
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1 mm/Inch	D2 mm	D6 mm	L1 mm	L2 mm	L4 mm	Mmin Nm	Weight kg	
0204298	20	44.45	34	24.6	48.05	5.55	330	0.8	9205650
0204297	3/4"	44.45	34	24.6	48.05	5.55	310	0.8	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

External cooling/ internal cooling
up to 80 bar

Battery service life

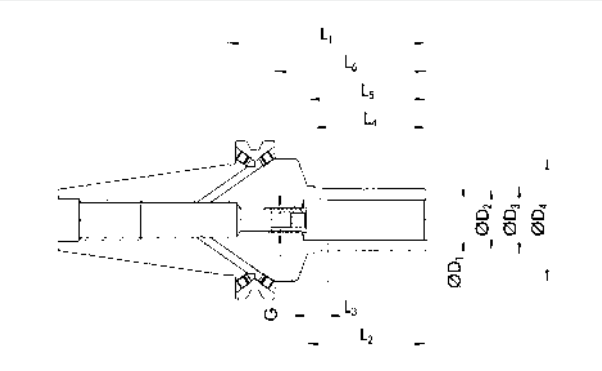
Acceleration sensor

Speed of rotation

Technical data

Description	ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	Max. rotational speed
		Inch	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	RPM
iTENDO² CAT 40 Ø3/4x4"	1495390	3/4"	44.45	49	38.9	101.6	51	8	43.4	82.5	M8x1	310	1.7	30000

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

HSC

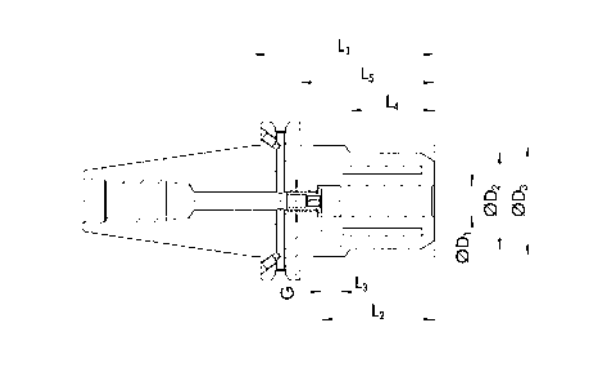
Optimized interfering contours

Data carrier hole optionally possible

Technical data

ID	D1	D2	D3	D4	L1	L2	L3	L4	L5	L6	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0215911	6	10	13.1	44.45	90	37	10	35	37.2	70.95	M5	5	0.9	0201972
0215914	12	19	21.1	44.45	90	47	10	45	47.2	70.95	M8x1	30	1	0201975
0215916	20	30	32.1	44.45	90	52	10	45	47.2	70.95	M10x1	150	1.05	0201981
0215917	25	36	38.1	44.45	90	57	10	45	47.2	70.95	M10x1	200	1.1	0201987
0215918	32	45	47.1	44.45	90	61	10	45	55	70.95	M10x1	280	1.12	0201998
0205360	1/4"	10.3	13.1	44.45	90	37	10	35	37.2	70.95	M5	6	0.9	0201988
0205363	1/2"	20	22.1	44.45	90	47	10	45	47.2	70.95	M8x1	40	1	0201991
0205365	3/4"	29	31.1	44.45	90	52	10	45	47.2	70.95	M10x1	120	1.05	0201992

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.005 mm*

Balancing grade
G6.3 at 15,000 RPM*

Short set-up time

Extra radial rigidity

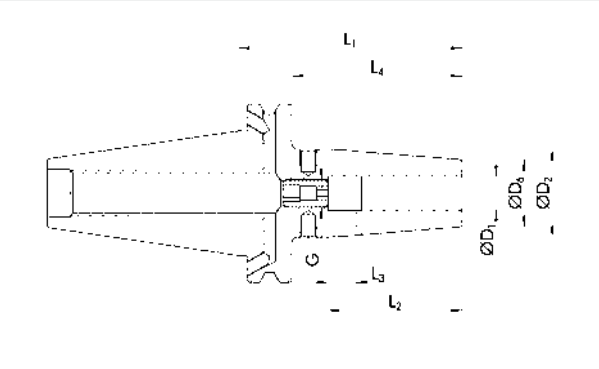
HPC

Data carrier hole optionally possible

Technical data

ID	D1	D2	D3	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0209623	12	39	44.45	73	46	10	34	53.95	M8x1	150	1.2	0208877
0209627	20	48.5	49.72	78	51	10	24	58.95	M8x1	450	1.5	0208877
0209612	1/2"	39	44.45	73	46	10	34	53.95	M8x1	150	1.25	0208877
0209614	3/4"	48.5	49.72	78	51	10	24	58.95	M8x1	450	1.5	0208877
0209613	1"	48.5	50	100	57	10	36	80.95	M10x1	550	1.5	0208877
0209615	1 1/4"	65	70	115	61	10	47	95.95	M10x1	800	1.5	0208879

ⓘ *Run-out accuracy: measured in the clamping bore
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

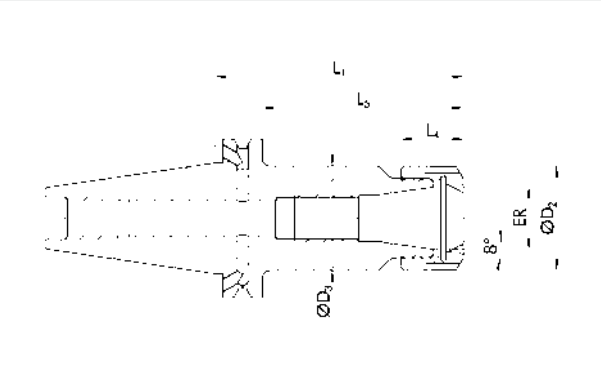
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm/Inch	mm	mm	mm	mm	mm	mm		Nm	kg
1485928	4.5°	6	27	21	80	36	10	61	M5	20	1
26002051	4.5°	8	27	21	80	36	10	61	M6	52	1
26002042	4.5°	10	32	24	80	42	10	61	M8x1	70	1
26002041	4.5°	12	32	24	80	47	10	61	M10x1	150	1
26002045	4.5°	16	34	27	80	50	10	61	M12x1	300	1
26002555	4.5°	20	42	33	80	52	10	61	M16x1	420	1.2
26002043	4.5°	25	53	44	100	58	10	81	M16x1	550	1.6
1485941	4.5°	32	53	44	100	58	10	81	M16x1	600	1.5
1485904	4.5°	1/4"	27	21	80	36	10	61	M5	20	1
1485896	4.5°	3/8"	32	24	80	42	10	61	M8x1	70	1
1485910	4.5°	1/2"	32	24	80	47	10	61	M10x1	150	1
1485916	4.5°	5/8"	34	27	80	50	10	61	M12x1	300	1
1485917	4.5°	3/4"	42	33	80	52	10	61	M16x1	420	1.2
1485918	4.5°	1"	53	44	100	58	10	81	M16x1	550	1.6
1485919	4.5°	1 1/4"	53	44	100	58	10	81	M16x1	600	1.5

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

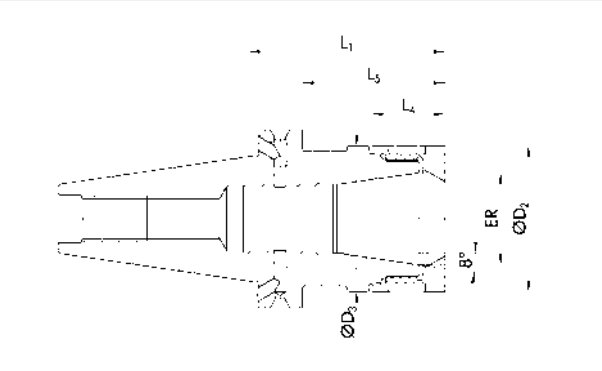
Balancing grade
G2.5 at 25,000 RPM*

Data carrier hole optionally possible

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	Weight
	mm		mm	mm	mm	mm	mm	kg
1388977	1 – 10	ER 16	28	28	63.5	17.5	44.45	1.01
1388990	1 – 13	ER 20	34	34	63.5	19	44.45	1.01
1388992	1 – 16	ER 25	42	42	63.5	20	44.45	1.15
1388994	2 – 20	ER 32	50	50	63.5	23	44.45	1.2
1389047	1 – 7	ER 11	19	19	101.6	11.3	82.55	0.935
1389018	1 – 10	ER 16	28	28	101.6	17.5	82.55	1.01
1389019	1 – 13	ER 20	34	34	101.6	19	82.55	1.01
1389020	1 – 16	ER 25	42	42	101.6	20	82.55	1.15
1389021	2 – 20	ER 32	50	50	101.6	23	82.55	1.2
1389037	1 – 10	ER 16	28	28	152.4	17.5	133.35	1.01
1389041	1 – 13	ER 20	34	34	152.4	19	133.35	1.01
1389043	1 – 16	ER 25	42	42	152.4	20	133.35	1.15
1389044	2 – 20	ER 32	50	50	152.4	23	133.35	1.2

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

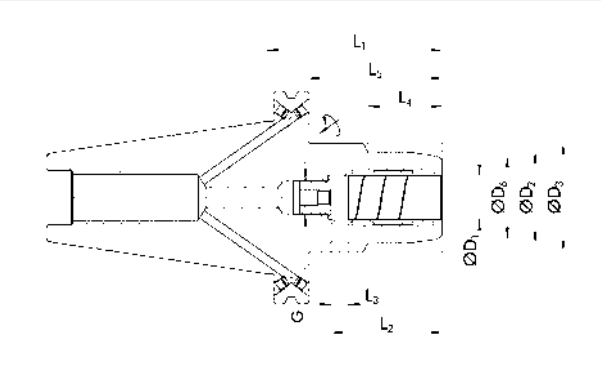
Extra radial rigidity

Data carrier hole optionally possible

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	Weight
	mm		mm	mm	mm	mm	mm	kg
1342361	1 – 16	ER 25	44	44	50.8	24	31.7	1.03
1342369	2 – 20	ER 32	52	52	63.5	26	44.4	1.14
1349018	1 – 16	ER 25	44	44	101.6	24	82.5	1.59
1349019	2 – 20	ER 32	52	52	101.6	26	82.5	1.68

ⓘ *Run-out accuracy: at 2.5 x D using the ER precision collets and a defined tightening torque
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

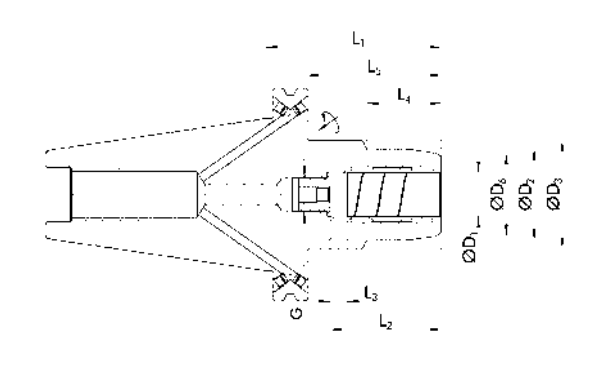
Data carrier bore as an option

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
1503305	12	32	49	27.3	81	46	10	40	61.95	M10x1	90	3.1	9205650
1503313	20	42	51	37.3	81	51	10	46	61.95	M10x1	330	3.2	9205650
1503314	25	48	63.5	43.3	81	57	10	38.5	61.95	M10x1	400	3.4	9205660
1503315	32	72		58.5	81	61	10		61.95	M10x1	900	3.9	9205660
1593814	1/2"	32	44.45	27.7	81	46	10	31.5	61.95	M10x1	95	3.1	9205650
1593815	3/4"	44.45	49	38.9	81	51	10	43.17	61.95	M10x1	310	3.2	9205650
1593817	1"	48	63.5	43.3	81	57	10	38.5	61.95	M10x1	400	3.4	9205660
1503316	1 1/4"	72		58.5	81	61	10		61.95	M10x1	900	3.9	9205660

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Data carrier bore as an option

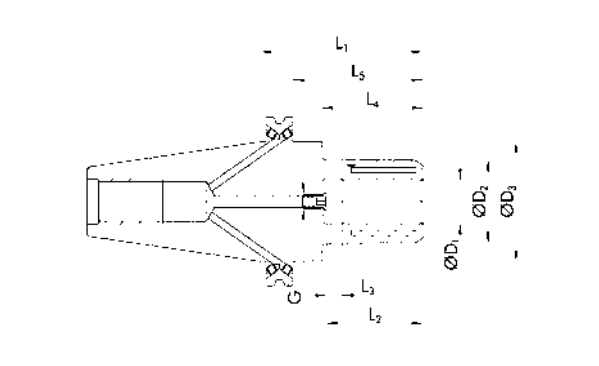
Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
1447941	6	26	49	19.8	81	37	10	24	61.95	M5	16	3.3	9205650
1447942	10	30	49	23.8	81	41	10	35	61.95	M5	45	3.2	9205650
1447943	12	32	49	25.5	81	46	10	40	61.95	M10x1	90	3	9205650
1447944	14	34	49	27.8	81	46	10	40	61.95	M10x1	110	3.1	9205650
1447945	16	38	49	31.5	81	49	10	45	61.95	M10x1	185	3.1	9205650
1447946	20	42	51	35.5	81	51	10	46	61.95	M10x1	330	3.1	9205650
1447947	25	48	68	41.5	81	57	10	35.4	61.95	M10x1	400	3.4	9205660
1447948	32	62	75	55.5	81	61	10	40	61.95	M10x1	650	3.7	9205660
1447932	1/4"	26	44.45	19.8	81	37	10	22.6	61.95	M5	17	3.1	9205650
1447934	3/8"	30	44.45	24	81	41	10	35.37	61.95	M5	45	3	9205650
1447935	1/2"	32	44.45	25.8	81	46	10	31.5	61.95	M10x1	95	3.1	9205650
1447936	5/8"	38.05	49	31.8	81	49	10	33	61.95	M10x1	185	3.2	9205650
1447937	3/4"	44.45	49	35.02	81	51	10	43.17	61.95	M10x1	310	3.2	9205650
1447939	1"	55	63.5	48	81	57	10	38.45	61.95	M10x1	400	3.4	9205660
1447940	1 1/4"	62	80	55.5	81	61	10	38	61.95	M10x1	650	3.9	9205660
1447958	6	26	49	19.8	101.6	37	10	24	82.55	M5	16	3.5	9205650
1447959	8	28	49	23.5	101.6	37	10	25	82.55	M5	23	3.5	9205650
1447960	10	30	49	23.8	101.6	41	10	35	82.55	M5	45	3.4	9205650
1447961	12	32	49	25.5	101.6	46	10	40	82.55	M10x1	90	3.3	9205650
1447962	14	34	49	27.8	101.6	46	10	40	82.55	M10x1	110	3.4	9205650
1447963	16	38	49	31.5	101.6	49	10	46	82.55	M10x1	185	3.4	9205650
1447964	20	42	49	35.5	101.6	51	10	48	82.55	M10x1	330	3.4	9205650
1447965	25	48	57	41.5	101.6	57	10	56	82.55	M10x1	400	3.6	9205660
1447966	32	62		55.5	101.6	61	10		82.55	M10x1	650	4	9205660
1447949	1/4"	26	44.45	19.8	101.6	37	10	22.6	82.55	M5	17	3.4	9205650
1447951	3/8"	30	44.45	24	101.6	41	10	35.37	82.55	M5	45	3.3	9205650
1447952	1/2"	32	44.45	25.8	101.6	46	10	31.5	82.55	M10x1	95	3.3	9205650
1447953	5/8"	38.05	49	31.8	101.6	49	10	33	82.55	M10x1	185	3.5	9205650
1447954	3/4"	44.45	49	35.02	101.6	51	10	43.17	82.55	M10x1	310	3.5	9205650
1447956	1"	55	63.5	48	101.6	57	10	38.45	82.55	M10x1	400	4.1	9205660
1447957	1 1/4"	62	80	55.5	101.6	61	10	38	82.55	M10x1	650	4.7	9205660
1447976	6	26	49	19.8	152.4	37	10	24	133.35	M5	16	4.3	9205650
1447977	10	30	49	23.8	152.4	41	10	35	133.35	M5	45	4.1	9205650
1447978	12	32	49	25.5	152.4	46	10	40	133.35	M10x1	90	4.1	9205650
1447979	14	34	49	27.8	152.4	46	10	40	133.35	M10x1	110	4.1	9205650

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
1447980	16	38	49	31.5	152.4	49	10	46	133.35	M10x1	185	4.1	9205650
1447981	20	42	49	35.5	152.4	51	10	48	133.35	M10x1	330	4.1	9205650
1447982	25	48	57	41.5	152.4	57	10	56	133.35	M10x1	400	4.6	9205660
1447983	32	62		55.5	152.4	61	10		133.35	M10x1	650	5.2	9205660
1447967	1/4"	26	44.45	19.8	152.4	37	10	22.6	133.35	M5	17	4	9205650
1447969	3/8"	30	44.45	24	152.4	41	10	35.37	133.35	M5	45	3.9	9205650
1447970	1/2"	32	44.45	25.8	152.4	46	10	31.5	133.35	M10x1	95	3.9	9205650
1447971	5/8"	38.05	49	31.8	152.4	49	10	33	133.35	M10x1	185	4.2	9205650
1447972	3/4"	44.45	49	35.02	152.4	51	10	43.17	133.35	M10x1	310	4.2	9205650
1447974	1"	55	63.5	48	152.4	57	10	38.45	133.35	M10x1	400	5.3	9205660
1447975	1 1/4"	62	80	55.5	152.4	61	10	38	133.35	M10x1	650	6.7	9205660
1447984	1 1/4"	62	80	55.5	203.2	61	10	38	184.15	M10x1		8.6	9205660

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.005 mm*

Balancing grade
G6.3 at 15,000 RPM*

Short set-up time

Extra radial rigidity

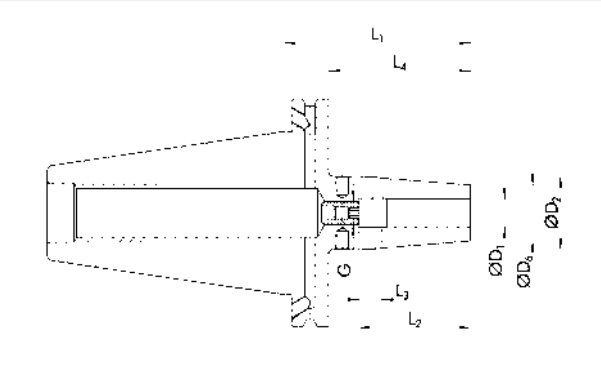
HPC

Data carrier hole optionally possible

Technical data

ID	D1	D2	D3	L1	L2	L3	L4	L5	G	Mmin	Weight	
	Inch	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0209634	3/4"	48.5	49.72	95	51	10	42	59	M8x1	450	3.4	0208877
0209635	1"	48.5	49.72	95	57	10	36	59	M8x1	700	3.7	0208877
0209636	1 1/4"	65	69.85	90	61	10	47	70.95	M10x1	850	3.9	0208879

ⓘ *Run-out accuracy: measured in the clamping bore
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

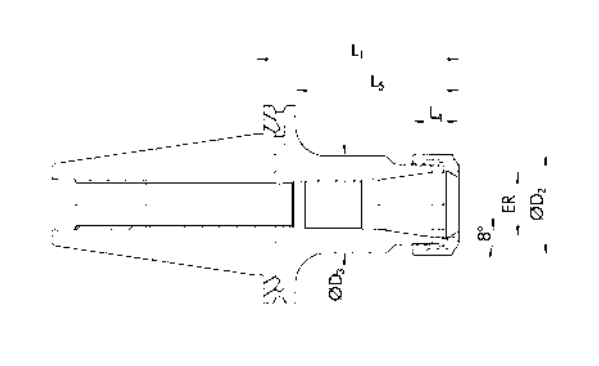
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm/Inch	mm	mm	mm	mm	mm	mm		Nm	kg
1486401	4.5°	6	27	21	80	36	10	61	M5	20	2.9
26002053	4.5°	8	27	21	80	36	10	61	M6	52	2.9
1486403	4.5°	10	32	24	80	42	10	61	M8x1	70	2.9
26002052	4.5°	12	32	24	80	47	10	61	M10x1	150	2.9
26002085	4.5°	16	34	27	80	50	10	61	M12x1	300	2.9
26002086	4.5°	20	42	33	80	52	10	61	M16x1	420	2.9
1486404	4.5°	25	53	44	100	58	10	81	M16x1	550	3.5
1430373	4.5°	32	53	44	100	58	10	81	M16x1	600	3.4
1485943	4.5°	1/4"	27	21	80	36	10	61	M5	20	2.9
1485944	4.5°	3/8"	32	24	80	42	10	61	M8x1	70	2.9
1485946	4.5°	1/2"	32	24	80	47	10	61	M10x1	150	2.9
1485948	4.5°	5/8"	34	27	80	50	10	61	M12x1	300	2.9
1485949	4.5°	3/4"	42	33	80	52	10	61	M16x1	420	2.9
1485950	4.5°	1"	53	44	100	58	10	81	M16x1	550	3.5
1485951	4.5°	1 1/4"	53	44	100	58	10	81	M16x1	600	3.4

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

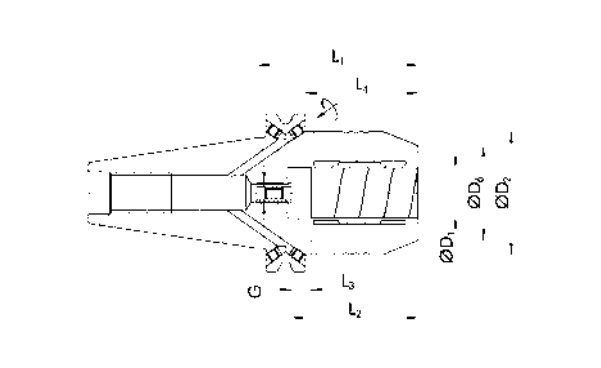
Balancing grade
G2.5 at 25,000 RPM*

Data carrier hole optionally possible

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	Weight
	mm		mm	mm	mm	mm	mm	kg
1389138	1 – 10	ER 16	28	28	63.5	17.5	44.45	1.01
1389139	1 – 13	ER 20	34	34	63.5	19	44.45	1.01
1389141	1 – 16	ER 25	42	42	63.5	20	44.45	1.15
1389143	2 – 20	ER 32	50	50	63.5	23	44.45	1.2
1389157	1 – 10	ER 16	28	28	101.6	17.5	82.55	1.26
1389161	1 – 13	ER 20	34	34	101.6	19	82.55	1.01
1389162	1 – 16	ER 25	42	42	101.6	20	82.55	1.01
1389165	2 – 20	ER 32	50	50	101.6	23	82.55	1.2
1389200	1 – 10	ER 16	28	28	152.4	17.5	133.35	1.01
1389201	1 – 13	ER 20	34	34	152.4	19	133.35	1.01
1389202	1 – 16	ER 25	42	42	152.4	20	133.35	1.15
1389204	2 – 20	ER 32	50	50	152.4	23	133.35	1.2

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Extra radial rigidity

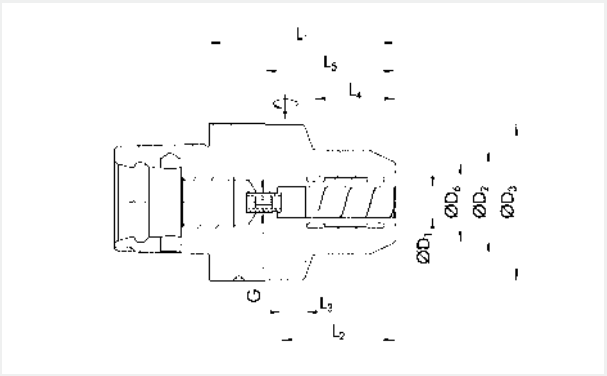
HPC

Data carrier hole optionally possible

Technical data

ID	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm		Nm	kg	
1324767	20	49	38	64.5	51	10	45.45	M8x1	520	1.3	9205650
1324768	3/4"	49	38	64.5	51	10	45.45	M8x1	520	1.3	9205650
1324776	3/4"	49	38	101.6	51	10	82.55	M8x1	520	1.8	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Extra radial rigidity

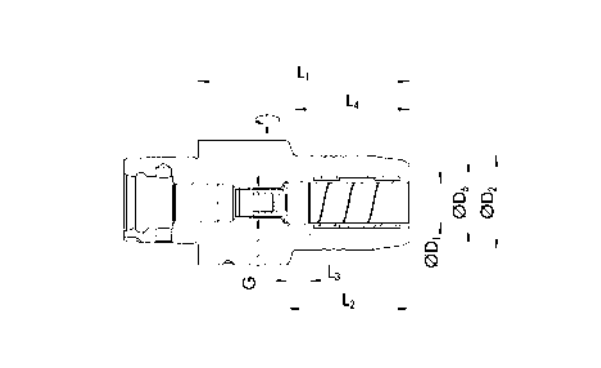
HPC

Data carrier hole optionally possible

Technical data

ID	D1 mm	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
0206804	12	39.5		32	65	46	10	44		M8x1	110	0.65	9205650
0206806	20	45.5	46	38	83	51	10	42.4	62	M8x1	440	0.85	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

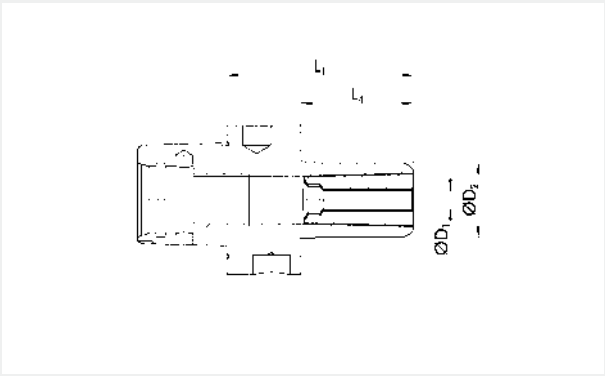
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1 mm	D2 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	G	Mmin Nm	Weight kg	
0201831	6	26	22	66	37	10	35	M5	16	0.5	9205640
0201832	8	28	24	66	37	10	36	M6	23	0.5	9205640
0201833	10	30	26	76	41	10	41	M8x1	45	0.6	9205640
0201834	12	32	28	81	46	10	47	M8x1	90	0.7	9205640

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Extra radial rigidity

Micro Maching

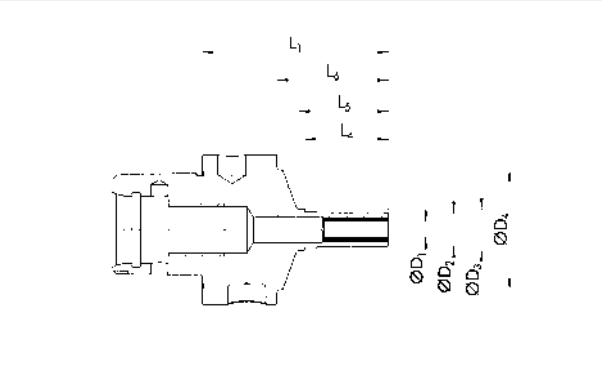
HSC

Data carrier bore as an option

Technical data

ID	D1 mm/Inch	D2 mm	L1 mm	L4 mm	Mmin Nm	Weight kg	
25005556	3	20	50	30	3	0.41	0201892
25005558	4	20	50	30	4	0.41	0201892
25005559	5	20	50	30	8.5	0.41	0201892
25005560	6	20	50	30	10	0.41	0201892
25005561	8	20	50	30	15	0.41	0201892
25005562	10	20	50	30	20	0.41	0201892
25005563	12	20	50	30	20	0.41	0201892
25005557	1/8"	20	50	30	3	0.41	0201892

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Micro Maching

HSC

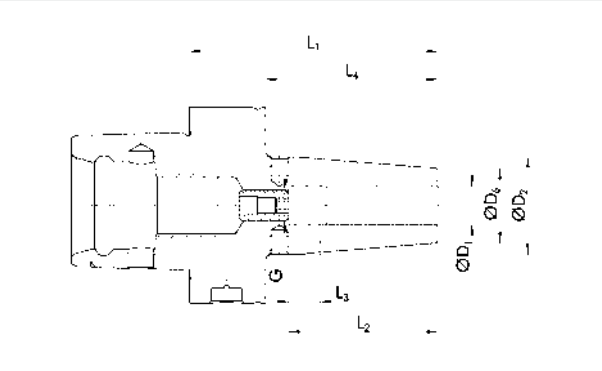
Optimized interfering contours

Data carrier bore as an option

Technical data

ID	D1	D2	D3	D4	L1	L4	L5	L6	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	Nm	kg	
25005564	1	9	11	32	50	22.5	24	30		0.23	0201971
25005565	1.5	9	11	32	50	22.5	24	30		0.23	0201971
25005566	2	9	11	32	50	22.5	24	30	1	0.23	0201971
25005567	3	9	11	32	50	22.5	24	30	1.5	0.23	0201971
25005569	4	9	11	32	50	22.5	24	30	2.5	0.23	0201971
25005570	5	9	11	32	50	22.5	24	30	3.5	0.23	0201971
25005571	6	9	11	32	50	22.5	24	30	4.5	0.23	0201971
25005568	1/8"	9	11	32	50	22.5	24	30	1.5	0.23	0201971

ⓘ *Run-out accuracy at 2.5 x D; run-out for Ø 6 mm: ≤ 0.005 mm at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

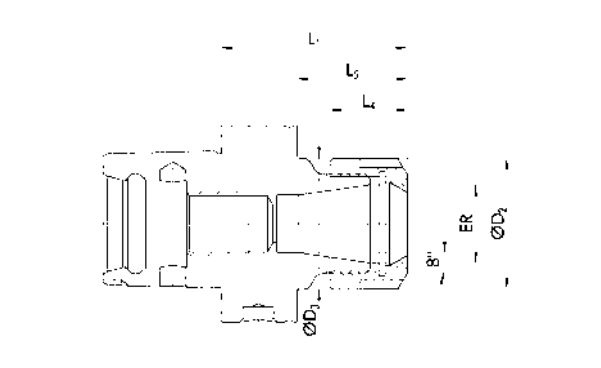
Data carrier bore as an option

Internal cooling
up to 80 bar

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
26002698	4.5°	6	27	21	75	26	10	52.5	M5	20	0.6
26002836	4.5°	8	27	21	75	26	10	52.5	M6	50	0.6
26002837	4.5°	10	31.4	24	75	42	10	52.5	M8x1	70	0.7
26002838	4.5°	12	31.4	24	75	47	10	52.5	M10x1	150	0.7
26002839	4.5°	14	34	27	80	47	10	57.5	M10x1	180	0.7
26002840	4.5°	16	34	27	80	50	10	57.5	M12x1	300	0.7
26002841	4.5°	18	41.4	33	80	50	10	57.5	M12x1	370	0.8
26002842	4.5°	20	41.4	33	85	52	10	62.5	M16x1	450	0.9

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

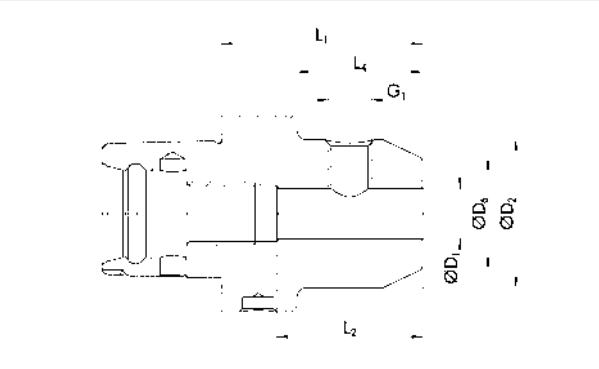
Balancing grade
G2.5 at 25,000 RPM*

Data carrier hole available

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	Weight
	mm		mm	mm	mm	mm	mm	kg
23004385	1 – 10	ER 16	28	28	70	17.5	47.5	0.4
23004386	1 – 16	ER 25	42	42	55	20	32.5	0.315
23004387	2 – 20	ER 32	50	50	55	23	32.5	0.31

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

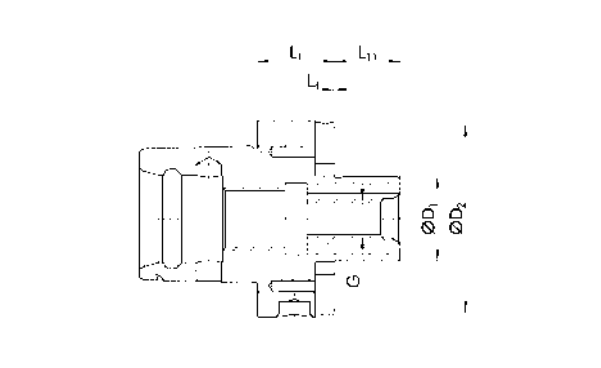
Short set-up time

Data carrier hole available

Technical data

ID	D1	D2	D6	L1	L2	L4	G1	Weight
	mm	mm	mm	mm	mm	mm		kg
23004395	6	25	14.5	50	35	27.5	M6	0.4
23004396	8	28	19.5	50	35	27.5	M8	0.4
23004397	10	35	24.5	50	41	27.5	M10	0.4
23004398	12	42	29.5	55	48	32.5	M12	0.5
23004399	14	44	31.5	55	48	32.5	M12	0.56
23004400	16	48	35.5	55	51	32.5	M14	0.61

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.006 mm*

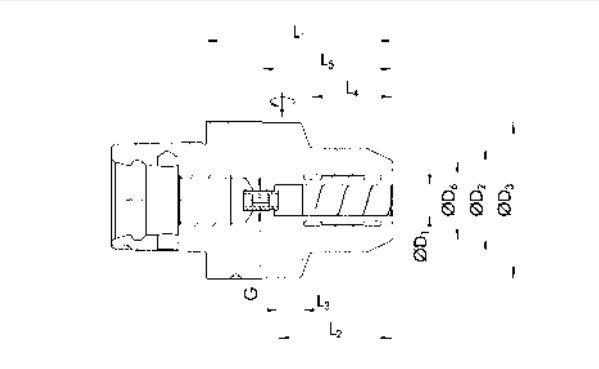
Balancing grade
G2.5 at 25,000 RPM*

Data carrier hole available

Technical data

ID	D1	G	D2	L1	L4	L11	Weight
	mm		mm	mm	mm	mm	kg
23004437	16	M8	38	32	9.5	17	0.395
23004438	22	M10	48	25	12.5	19	0.325

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Extra radial rigidity

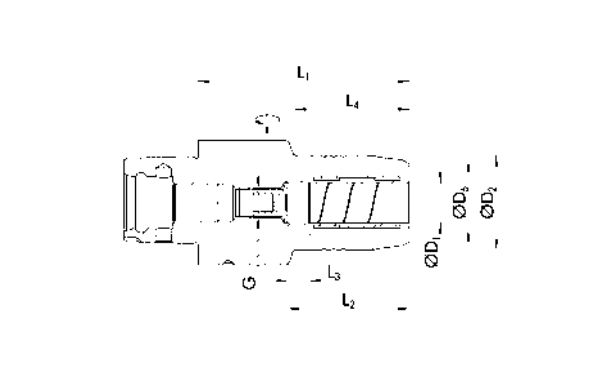
HPC

Data carrier hole optionally possible

Technical data

ID	D1 mm	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
0206814	12	42	49.5	32	70	46	10	33	49	M8x1	110	0.9	9205650
0206816	20	49.5		38	75	51	10	54		M8x1	440	1	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

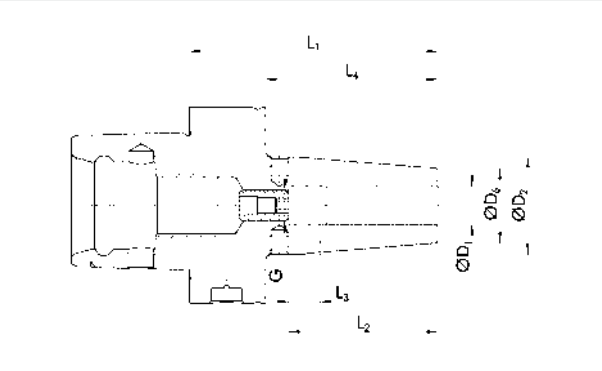
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0201841	6	26	22	70	37	10	30	M5	16	0.8	9205650
0201842	8	28	24	70	37	10	30	M6	23	0.8	9205650
0201843	10	30	26	80	41	10	35	M8x1	45	0.95	9205650
0201844	12	32	28	85	46	10	44	M10x1	90	0.9	9205650
0201849	14	34	30	85	46	10	46	M10x1	110	1.05	9205650
0201845	16	38	34	90	49	10	51	M12x1	185	1.05	9205650
0201840	18	40	36	90	49	10	51	M12x1	240	1.05	9205650
0201846	20	42	38	90	51	10	52	M16x1	330	1.05	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

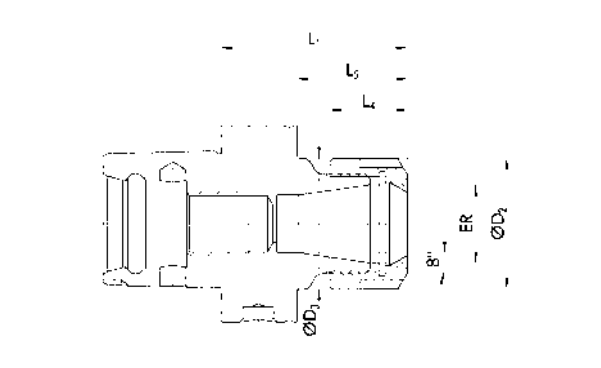
Data carrier bore as an option

Internal cooling
up to 80 bar

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
26002843	4.5°	6	27	21	75	36	10	52.5	M5	20	0.6
26002844	4.5°	8	27	21	75	36	10	52.5	M6	50	0.6
26002845	4.5°	10	31.4	24	75	42	10	52.5	M8x1	70	0.7
26002846	4.5°	12	31.4	24	75	47	10	52.5	M10x1	150	0.7
26002847	4.5°	14	34	27	80	47	10	57.5	M10x1	180	0.7
26002848	4.5°	16	34	27	80	50	10	57.5	M12x1	300	0.7
26002849	4.5°	18	41.4	33	80	50	10	57.5	M12x1	370	0.8
26002850	4.5°	20	41.4	33	85	52	10	62.5	M16x1	450	0.9
26002851	4.5°	25	52.4	44	90	58	10	67.5	M16x1	680	1.2

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

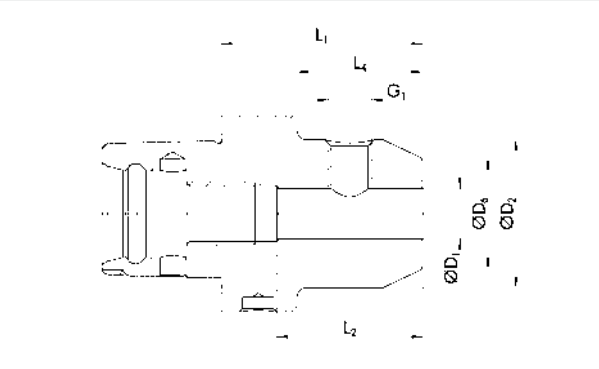
Balancing grade
G2.5 at 25,000 RPM*

Data carrier hole available

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	Weight
	mm		mm	mm	mm	mm	mm	kg
23004388	1 – 10	ER 16	28	28	55	17.5	32.5	0.5
23004389	1 – 16	ER 25	42	42	55	20	32.5	0.51
23004390	2 – 20	ER 32	50	50	60	23	37.5	0.54

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

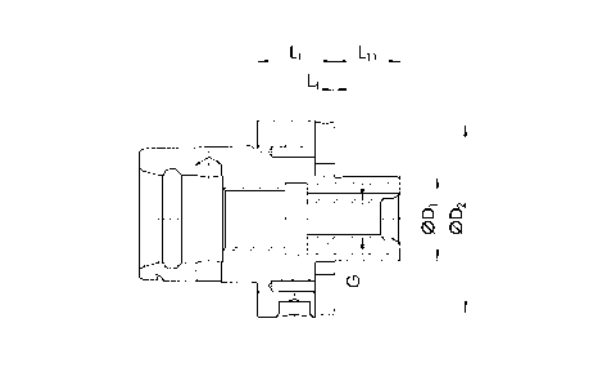
Short set-up time

Data carrier hole available

Technical data

ID	D1	D2	D6	L1	L2	L4	G1	Weight
	mm	mm	mm	mm	mm	mm		kg
23004419	6	24.5	14.5	50	25	27.5	M6	0.6
23004420	8	24.5	14.5	50	25	27.5	M8	0.57
23004421	10	34.5	24.5	55	41	32.5	M10	0.7
23004422	12	41.5	29.5	60	48	37.5	M12	0.8
23004423	14	43.5	31.5	60	48	37.5	M12	0.8
23004424	16	47.5	35.5	60	51	37.5	M14	0.865
23004425	18	49.5	37.5	60	51	37.5	M14	0.88
23004426	20	51.5	39.5	60	53	37.5	M16	0.9
23004319	25	64.5	44.5	80	60	57.5	M18x2	1.6

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.006 mm*

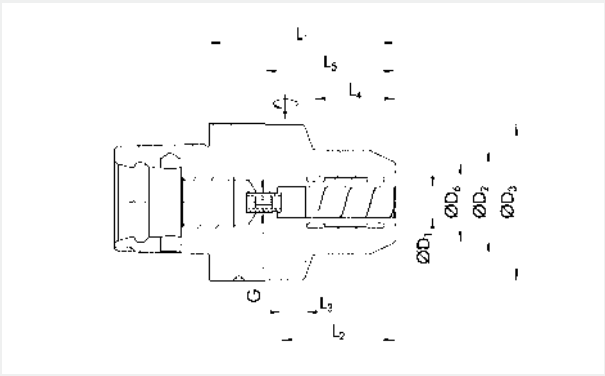
Balancing grade
G2.5 at 25,000 RPM*

Data carrier hole available

Technical data

ID	D1	G	D2	L1	L4	L11	Weight
	mm		mm	mm	mm	mm	kg
23004450	16	M8	38	35	12.5	17	0.605
23004451	22	M10	48	25	2.5	19	0.57
23004452	27	M12	60	25	2.5	21	0.545
23004453	32	M16	63	40	17.5	24	0.935

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

Extra radial rigidity

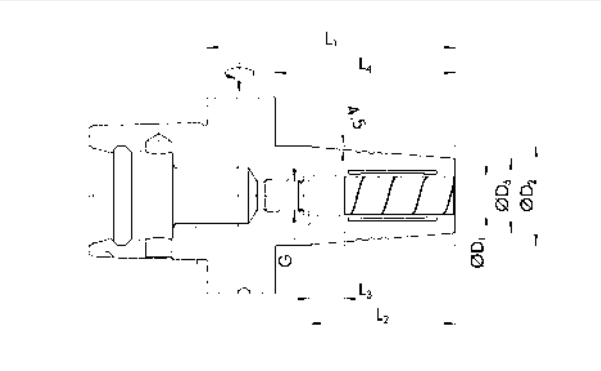
HPC

Data carrier hole optionally possible

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0206824	12	42	62.5	32	75	46	10	33	52	M8x1	110	1.5	9205650
0206826	20	52.5	62.5	38	80	51	10	41	57	M8x1	440	1.6	9205650
0206828	32	62.5		58.5	90	61	10	67		M8x1	800	1.95	9205660
0206856	3/4"	52.5	62.5	38	80	51	10	41	57	M8x1	440	1.6	9205650
0206858	1 1/4"	62.5		58.5	90	61	10	67		M8x1	800	1.95	9205660
1320356	12	42	62.5	32	120	46	10	33	97	M8x1	110	2.5	9205650
1320357	20	52.5	62.5	38	120	51	10	41	97	M8x1	440	2.6	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

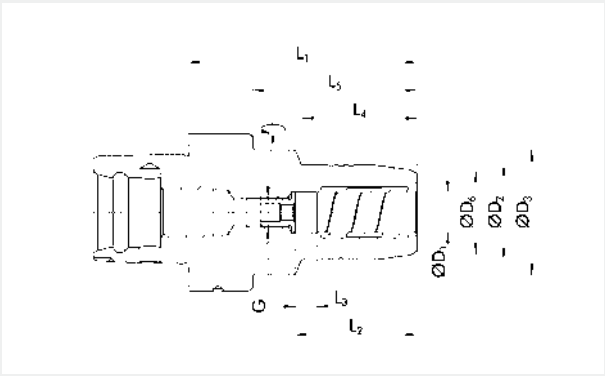
Optimized interfering contours

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
1480912	6	27	21	80	36	10	58	M5	16	1	9205650
1480907	8	27	21	80	36	10	58	M6	23	1	9205650
1480908	10	32	24	80	42	10	58	M8x1	45	1	9205650
1480909	12	32	24	80	47	10	58	M10x1	90	1	9205650
1480910	16	34	27	85	50	10	63	M12x1	185	1.1	9205650
1480911	20	42	33	85	52	10	63	M16x1	330	1.2	9205650
1480913	6	27	21	120	36	10	98	M5	16	1.2	9205650
1480914	8	27	21	120	36	10	98	M6	23	1.2	9205650
1480915	10	32	24	120	42	10	98	M8x1	45	1.3	9205650
1480916	12	32	24	120	47	10	98	M10x1	90	1.2	9205650
1480917	16	34	27	120	50	10	98	M12x1	185	1.3	9205650
1480918	20	42	33	120	52	10	98	M16x1	330	1.5	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

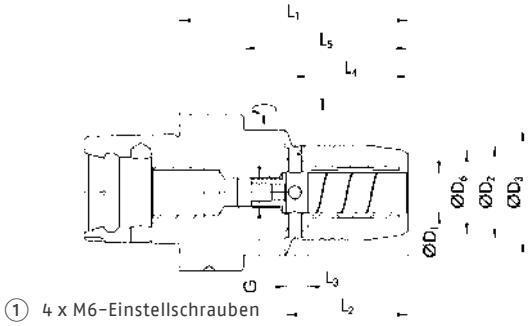
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1 mm	D2 mm	D3 mm	D6 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	G	Mmin Nm	Weight kg	
0201851	6	26	50	22	72	37	10	25	46	M5	16	1.3	9205650
0201852	8	28	50	24	72	37	10	25	46	M6	23	1.3	9205650
0201853	10	30	50	26	82	41	10	36	56	M8x1	45	1.3	9205650
0201854	12	32	50	28	87	46	10	39	61	M10x1	90	1.3	9205650
0201859	14	34	50	30	87	46	10	41	61	M10x1	110	1.3	9205650
0201855	16	38	50	34	92	49	10	46	66	M12x1	185	1.5	9205650
0201850	18	40	50	36	92	49	10	46	66	M12x1	240	1.5	9205650
0201856	20	42		38	97	51	10	55		M16x1	330	1.6	9205650
0201857	25	57		53	102	57	10	61		M16x1	400	2.4	9205660
0201858	32	62.5		59	110	61	10	62		M16x1	650	2.8	9205660

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request
Additional shank diameters can be clamped using intermediate sleeves



① 4 x M6-Einstellschrauben



Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

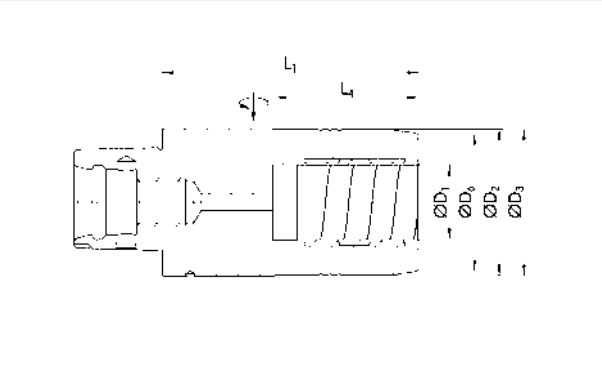
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight	
	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0201854Z	12	32	50	28	87	46	10	39	61	M10x1	90	1.3	9205650
0201856Z	20	42		38	97	51	10	55		M16x1	330	1.6	9205650
0201858Z	32	62.5		59	110	61	10	62		M16x1	650	2.8	9205660

ⓘ *Run-out accuracy: at 2.5 x D; run-out accuracy of 0 microns, adjustable
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

External cooling/ internal cooling
up to 80 bar

Battery service life

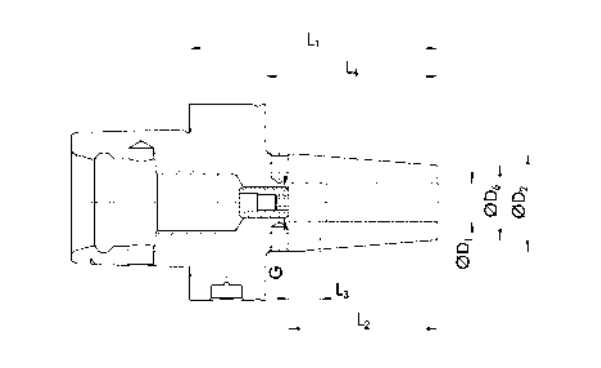
Acceleration sensor

Speed of rotation

Technical data

Description	ID	D1	D2	D3	D6	L1	L4	Mmin	Weight	Max. rotational speed
		mm	mm	mm	mm	mm	mm	Nm	kg	RPM
iTENDO² SCHUNK CAPTO C6 Ø32x110	1509962	32	62.5	63	59	110	61.5	650	2.4	25000

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

Data carrier bore as an option

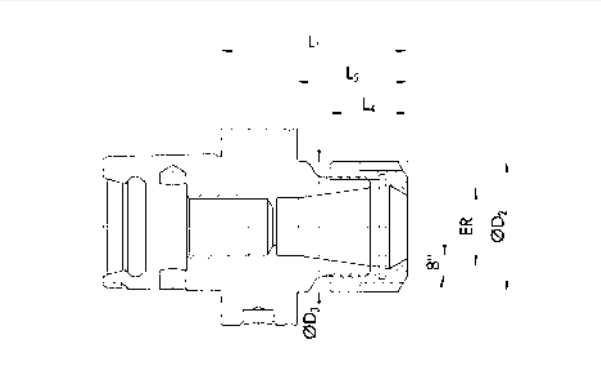
Internal cooling
up to 80 bar

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
26002319	4.5°	3	17	12	80			55.5		4	0.9
26001855	4.5°	4	17	12	80			55.5		6	0.9
26002458	4.5°	5	17	12	80			55.5		8	0.9
0243430	4.5°	6	27	21	80	36	10	55.5	M5	20	1
0243431	4.5°	8	27	21	80	36	10	55.5	M6	50	1
0243432	4.5°	10	32	24	80	42	10	55.5	M8x1	70	1
0243433	4.5°	12	32	24	80	47	10	55.5	M10x1	150	1
0243434	4.5°	14	34	27	85	47	10	60.5	M10x1	180	1.1
0243435	4.5°	16	34	27	85	50	10	60.5	M12x1	300	1.1
0243436	4.5°	18	44	33	85	50	10	60.5	M12x1	370	1.3
0243437	4.5°	20	44	33	85	52	10	60.5	M16x1	450	1.3
0243438	4.5°	25	53	44	90	58	10	65.5	M16x1	680	1.5
0243439	4.5°	32	53	44	95	58	10	70.5	M16x1	750	1.5
0243440	4.5°	6	27	21	120	36	10	95.5	M5	20	1.3
0243441	4.5°	8	27	21	120	36	10	95.5	M6	50	1.3
0243442	4.5°	10	32	24	120	42	10	95.5	M8x1	70	1.4
0243443	4.5°	12	32	24	120	47.5	10	95.5	M10x1	150	1.5
0243444	4.5°	14	34	27	120	47.5	10	95.5	M10x1	180	1.5
0243445	4.5°	16	34	27	120	50	10	95.5	M12x1	300	1.6
0243446	4.5°	18	42	33	120	50.5	10	95.5	M12x1	370	1.6
0243447	4.5°	20	44	33	120	52	10	95.5	M16x1	450	1.8
0243448	4.5°	25	53	44	120	59.5	10	95.5	M16x1	680	2
0243449	4.5°	32	53	44	120	64.5	10	95.5	M16x1	750	2.2
0243450	4.5°	6	27	21	160	36	10	135.5	M5	20	1.6
0243451	4.5°	8	27	21	160	36	10	135.5	M6	50	1.6

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
0243452	4.5°	10	32	24	160	42	10	135.5	M8x1	70	1.8
0243453	4.5°	12	32	24	160	47	10	135.5	M10x1	150	1.9
0243454	4.5°	14	34	27	160	47	10	135.5	M10x1	180	1.9
0243455	4.5°	16	34	27	160	50	10	135.5	M12x1	300	1.9
0243456	4.5°	18	44	33	160	50	10	135.5	M12x1	370	2
0243457	4.5°	20	44	33	160	52	10	135.5	M16x1	450	2.2
0243458	4.5°	25	53	44	160	58	10	135.5	M16x1	680	2.4
0243459	4.5°	32	53	44	160	58	10	135.5	M16x1	750	2.8

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

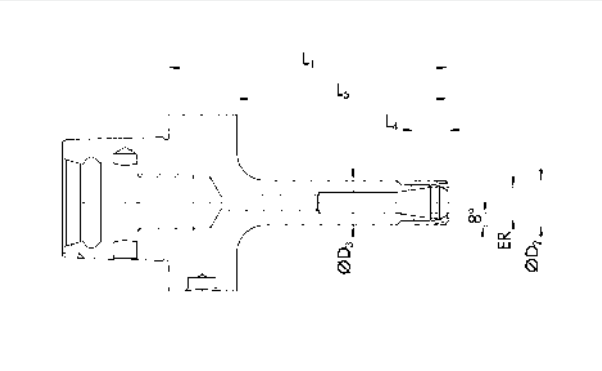
Balancing grade
G2.5 at 25,000 RPM*

Data carrier hole available

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
	mm		mm	mm	mm	mm	mm		kg
0243400	1 – 10	ER 16	28	28	60	17.5	35.5		0.83
0243401	1 – 16	ER 25	42	42	60	20	35.5		0.87
0243402	2 – 20	ER 32	50	50	60	23	35.5		0.86
0243403	4 – 26	ER 40	63	63	65	26	40.5		0.9
0243404	1 – 10	ER 16	28	28	100	17.5	75.5	M11x1	1.04
0243405	1 – 16	ER 25	42	42	100	20	75.5	M18x1.5	1.3
0243406	2 – 20	ER 32	50	50	100	23	75.5	M24x1.5	1.4
0243407	4 – 26	ER 40	63	63	100	26	75.5	M28x1.5	1.42
23005115	1 – 16	ER 25	42	42	130	20	105.5		1.61
23003144	2 – 20	ER 32	50	50	130	23	105.5		1.82
23003567	1 – 10	ER 16	28	28	160	17.5	135.5		1.34
23005116	1 – 16	ER 25	42	42	160	20	135.5		1.92
23005117	2 – 20	ER 32	50	50	160	23	135.5		2.23

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.008 mm*

Balancing grade
G2.5 at 25,000 RPM*

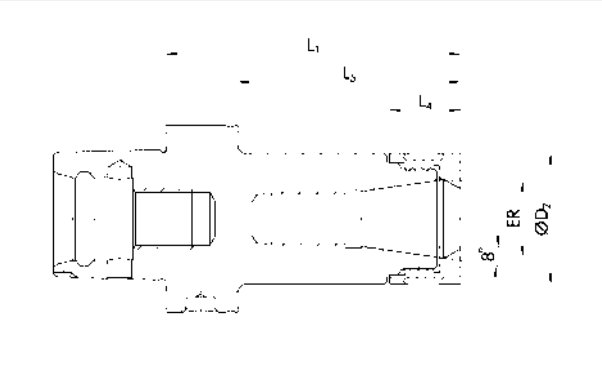
Optimized interfering contours

Data carrier bore as an option

Technical data

ID	Variant	Clamping range D1	ER	D2	D3	L1	L4	L5	G	Weight
		mm		mm	mm	mm	mm	mm		kg
23005118	ER Mini	1 - 7	ER 11	16	16	100	12	75.5	M8x1	0.94
23003122	ER Mini	1 - 10	ER 16	22	22	100	18	75.5	M11x1	1
23005119	ER Mini	1 - 7	ER 11	16	16	160	12	135.5	M8x1	1
23005120	ER Mini	1 - 10	ER 16	22	22	160	18	135.5	M11x1	1.195

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

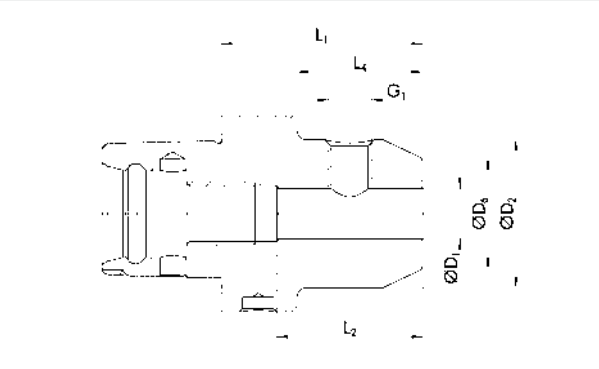
Extra radial rigidity

Data carrier bore as an option

Technical data

ID	Clamping range D1	ER	D2	L1	L4	L5	G	Weight
	mm		mm	mm	mm	mm		kg
1474529	1 – 10	ER 16	34	100	20.6	75.5	M11x1	1.18
1474530	1 – 16	ER 25	44	100	24	75.5	M18x1.5	1.38
1474531	2 – 20	ER 32	52	100	26	75.5	M24x1.5	1.5

ⓘ *Run-out accuracy: at 2.5 x D using the ER precision collets and a defined tightening torque
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

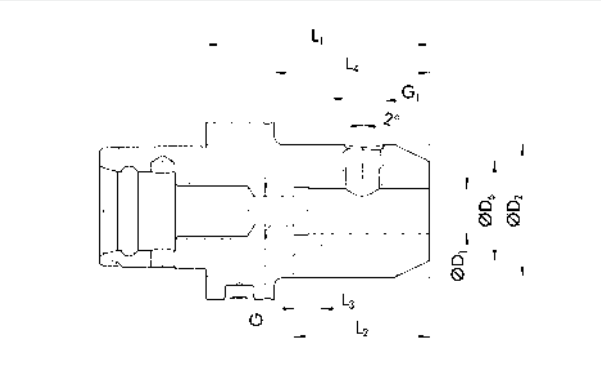
Short set-up time

Data carrier bore as an option

Technical data

ID	D1	D2	D6	L1	L2	L4	G1	Weight
	mm	mm	mm	mm	mm	mm		kg
0243410	6	25	14.5	55	35	30.5	M6	0.86
0243411	8	28	19.5	55	35	30.5	M8	0.88
0243412	10	35	24.5	60	41	35.5	M10	0.99
0243413	12	42	29.5	60	48	35.5	M12	1.08
0243414	14	44	31.5	60	48	35.5	M12	1.1
0243415	16	48	35.5	65	51	40.5	M14	1.23
0243416	18	50	37.5	65	51	40.5	M14	1.26
0243417	20	52	39.5	65	53	40.5	M16	1.28
0243418	25	65	44.5	80	60	55.5	M18x2	1.85
0243419	32	72	55.5	90	64	65.5	M20x2	2.36
0243420	6	25	14.5	100	35	75.5	M6	1.1
0243421	8	28	19.5	100	35	75.5	M8	1.155
0243422	10	35	24.5	100	41	75.5	M10	1.32
0243423	12	42	29.5	100	48	75.5	M12	1.535
0243424	14	44	31.5	100	48	75.5	M12	1.59
0243425	16	48	35.5	100	51	75.5	M14	1.735
0243426	18	50	37.5	100	51	75.5	M14	1.795
0243427	20	52	39.5	100	53	75.5	M16	1.855
1348412	6	25	14.5	130	35	105.5	M6	1.185
1348418	8	28	19.5	130	35	105.5	M8	1.28
1348420	10	35	24.5	130	41	105.5	M10	1.515
1348421	12	42	29.5	130	48	105.5	M12	1.815
1348422	16	48	35.5	130	51	105.5	M14	2.115
1348424	20	52	39.5	130	53	105.5	M16	2.255

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G6.3 at 8,000 RPM*

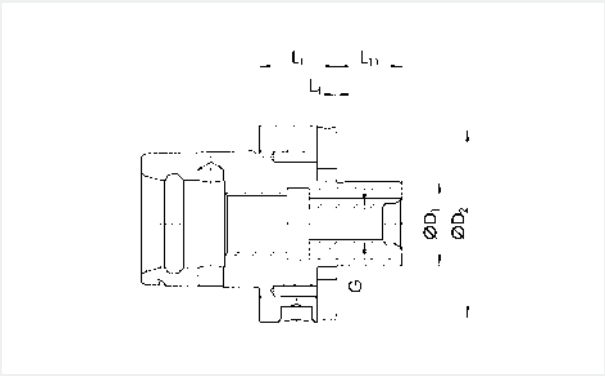
Short set-up time

Data carrier bore as an option

Technical data

ID	D1	D2	D6	L1	L2	L3	L4	G	G1	Weight
	mm	mm	mm	mm	mm	mm	mm			kg
23003881	6	25	14.5	75	36.5	10	50.5	M5	M6	0.995
23003882	8	28	19.5	75	36.5	10	50.5	M6	M8	1.04
23003883	10	35	24.5	75	40.5	10	50.5	M8	M10	1.145
23003884	12	42	29.5	80	45.5	10	55.5	M10	M12	1.3
23003885	14	44	31.5	80	45.5	10	55.5	M10	M12	1.385
23003886	16	49	35.5	80	48.5	10	55.5	M12	M14	1.485
23003887	18	50	37.5	80	48.5	10	55.5	M12	M14	1.505
23003888	20	52	39.5	85	50.5	10	60.5	M16	M16	1.64
23003889	25	65	44.5	90	56.5	10	65.5	M20	M18x2	2.15
23003060	32	72	55.5	95	60.5	10	70.5	M20	M20x2	2.59

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.006 mm*

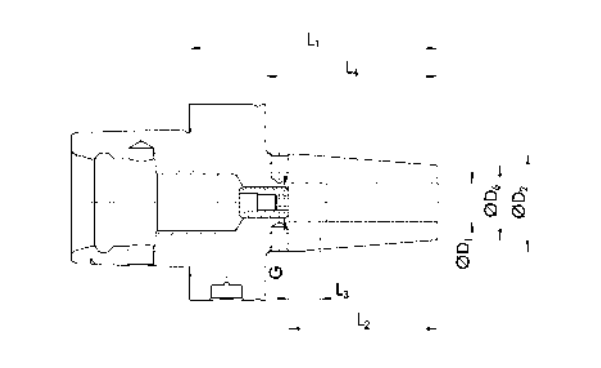
Balancing grade
G2.5 at 25,000 RPM*

Data carrier bore as an option

Technical data

ID	D1	G	D2	L1	L4	L11	Weight
	mm		mm	mm	mm	mm	kg
23004454	16	M8	38	40	15.5	17	0.9
23004455	22	M10	48	25	0.5	19	0.83
23004456	27	M12	60	25	0.5	21	0.87
23004457	32	M16	63	25	0.5	24	0.91
23004458	16	M8	38	65	40.5	17	1.215
23004459	22	M10	48	65	40.5	19	1.475
23004460	27	M12	60	65	40.5	21	1.835
23004461	32	M16	63	65	40.5	24	1.99

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Optimized interfering contours

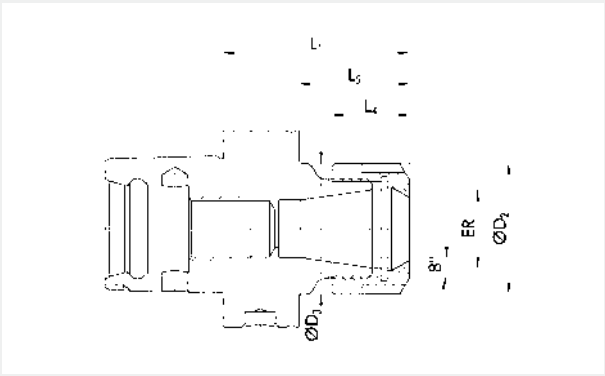
Data carrier bore as an option

Internal cooling
up to 80 bar

Technical data

ID	Variant	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight
		mm	mm	mm	mm	mm	mm	mm		Nm	kg
26002852	4.5°	6	27	21	80	36	10	50	M5	20	1
26002853	4.5°	8	27	21	80	36	10	50	M6	50	1
26002854	4.5°	10	32	24	80	42	10	50	M8x1	70	1
26002855	4.5°	12	32	24	80	47	10	50	M10x1	150	1
26002856	4.5°	14	34	27	85	47	10	55	M10x1	180	1.1
26002857	4.5°	16	34	27	85	50	10	55	M12x1	300	1.1
26002858	4.5°	18	40	33	85	50	10	55	M12x1	370	1.3
26002859	4.5°	20	40	33	85	52	10	55	M16x1	450	1.3
26002860	4.5°	25	53	44	90	58	10	60	M16x1	680	1.5
26002861	4.5°	32	53	44	95	58	10	65	M16x1	750	1.5

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.008 mm*

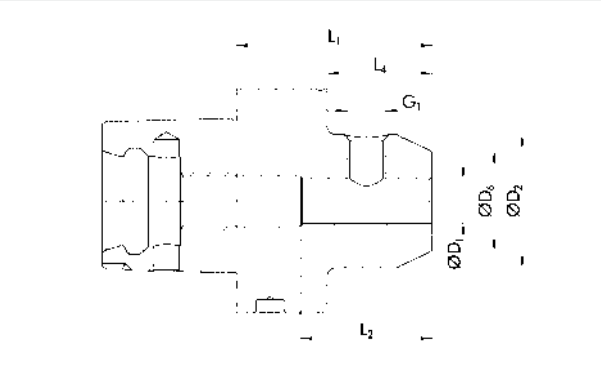
Balancing grade
G2.5 at 25,000 RPM*

Data carrier bore as an option

Technical data

ID	Clamping range D1	ER	D2	D3	L1	L4	L5	Weight
	mm		mm	mm	mm	mm	mm	kg
23004391	1 – 10	ER 16	28	28	65	17.5	32.5	1.935
23004392	1 – 16	ER 25	42	42	70	20	37.5	1.99
23004393	2 – 20	ER 32	50	50	70	23	37.5	1.95
23004394	4 – 26	ER 40	63	63	70	26	37.5	1.935

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm





Run-out accuracy
≤ 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

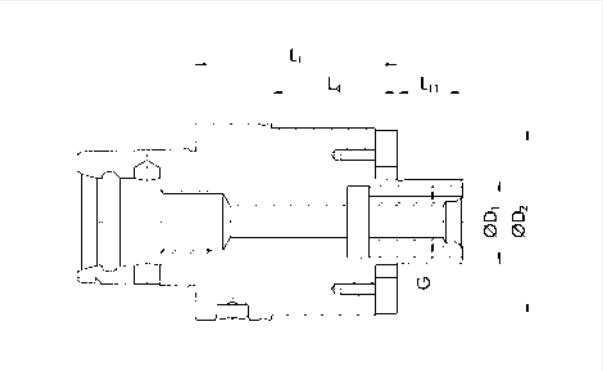
Short set-up time

Data carrier bore as an option

Technical data

ID	D1	D2	D6	L1	L2	L4	G1	Weight
	mm	mm	mm	mm	mm	mm		kg
23004427	6	25	14.5	70	35	37.5	M6	2
23004428	8	28	19.5	70	35	37.5	M8	2.03
23004429	10	35	24.5	70	41	37.5	M10	2.105
23004430	12	42	29.5	70	48	37.5	M12	2.215
23004431	14	44	31.5	70	48	37.5	M12	2.21
23004432	16	48	35.5	70	51	7.5	M14	2.27
23004433	18	50	37.5	70	51	37.5	M14	2.29
23004434	20	52	39.5	70	53	37.5	M16	2.305
23004435	25	65	44.5	80	60	47.5	M18x2	2.735
23004436	32	72	55.5	80	64	47.5	M20x2	2.865

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Cool Flow available on request





Run-out accuracy
≤ 0.006 mm*

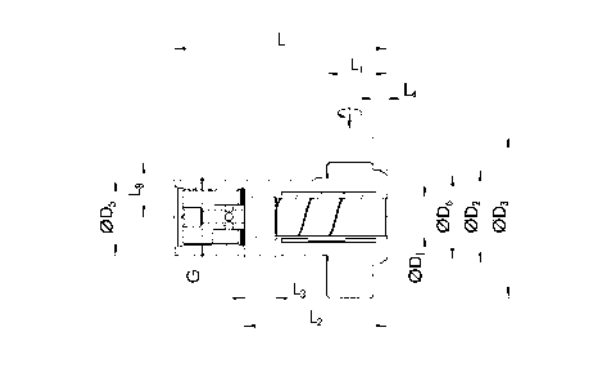
Balancing grade
G2.5 at 25,000 RPM*

Data carrier hole available

Technical data

ID	D1	G	D2	L1	L4	L11	Weight
	mm		mm	mm	mm	mm	kg
23004462	16	M8	38	50	17.5	17	2.065
23004463	22	M10	48	50	17.5	19	2.19
23004464	27	M12	60	50	17.5	21	2.39
23004465	32	M16	63	60	27.5	24	3.095
1422522	40	M20	89	60	27.5	27	3.095

ⓘ *Run-out accuracy: measured from the taper to D1
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Short set-up time

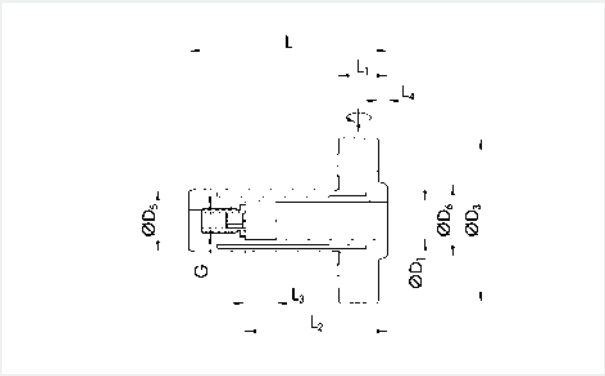
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D5	D6	L	L1	L2	L3	L4	L8	G	Mmin	Weight	
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0216353	12	30	52	25	27.1	68.5	19.5	46	10	4.5	17.5	M18x1	75	0.38	9205650
0216355	16	34	56	25	31.7	75.5	19.5	50.5	10	4.5	17.5	M8x1	185	0.38	9205650
0216406	20	42	60	32	39.1	78.5	19.5	51	10	5.5	21.5	M18x1	280	0.7	9205650
28003530	1/2"	30	52	25.4	27.1	68.5	19.5	46	10	4.5	17.5	M22x1	75	0.35	9205640
28003531	3/4"	42	60	31.75	39.1	78.5	19.5	51	10	4.5	21.5	M22x1	280	0.55	9205640
28003532	3/4"	42	60	38.1	39.1	78.5	19.5	51	10	4.5	21.5	M22x1	280	0.7	9205640

ⓘ Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

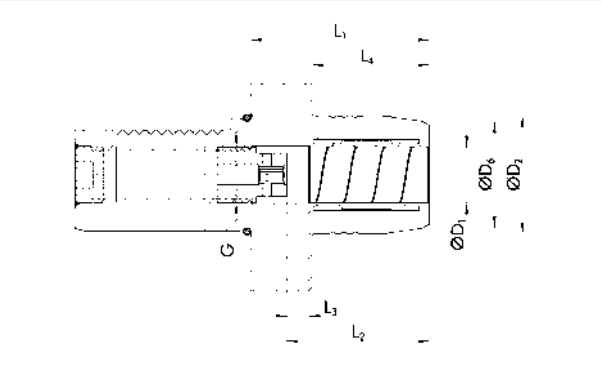
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1 mm	D3 mm	D5 mm	D6 mm	L mm	L1 mm	L2 mm	L3 mm	L4 mm	G	Mmin Nm	Weight kg	
0216504	12	53	20	23.4	64	16	46	10	3.5	M8x1	65	0.4	9205650
0216503	12	53	20	23.4	64	16	46	10	3.5	M8x1	65	0.4	9205650
0216560	20	56	25	32.3	68	18	51	10	3.5	M10x1	220	0.6	9205650
0216557	20	56	25	32.3	68	18	51	10	3.5	M10x1	220	0.6	9205650

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves





Short set-up time

Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	Interface	D1	D2	D6	L1	L2	L3	L4	G	Mmin	Weight	
		mm	mm	mm	mm	mm	mm	mm		Nm	kg	
0216103	VDI 25	12	32	27.5	55	46	10	37	M10x1	90	0.65	9205640
0216156	VDI 30	20	42	37.5	64	51	10	42	M16x1	330	1.1	9205650
0216206	VDI 40	20	42	37.5	64	51	10	42	M20x1.5	330	1.9	9205650
0216207	VDI 40	20	42	37.5	64	112		42		330	1.9	9205650
0216209	VDI 30	32	64	59.6	86	70		64		650	2.1	9205660
0216208	VDI 40	32	64	59.6	86	71.5		64		650	2.8	9205660

ⓘ Additional sizes and customized designs are available upon request
Additional shank diameters can be clamped using intermediate sleeves

TENDO WZS

schunk.com/tendo-wzs



Precise. Economical. Flexible. Hydraulic expansion toolholder TENDO WZS

Hydraulic expansion toolholder with manual actuation and closed clamping system for high-precision and economical tool grinding.

Functions & highlights

- **Optimized interfering contour**
  A 30 to 40% slimmer interfering contour compared to the previous hydraulic toolholders, for significantly improved interference between the grinding wheel and toolholder
- **Extremely large clamping depth**
  Special tools with large shank lengths can be clamped up to 95 mm deep
- **High level of flexibility**
  Clamping of different diameters due to the use of slotted or coolant-proof intermediate sleeves



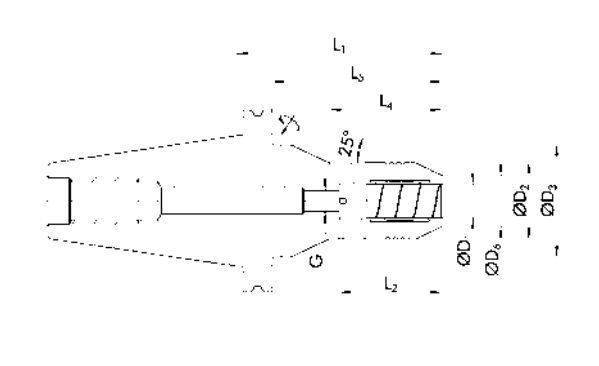
Field of application

TENDO WZS

For tool-sharpening and grinding machines



1. Clamping screw
2. Clamping piston
3. Sealing element
4. Expansion sleeve
5. Oil chamber
6. Base body
7. Tool





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

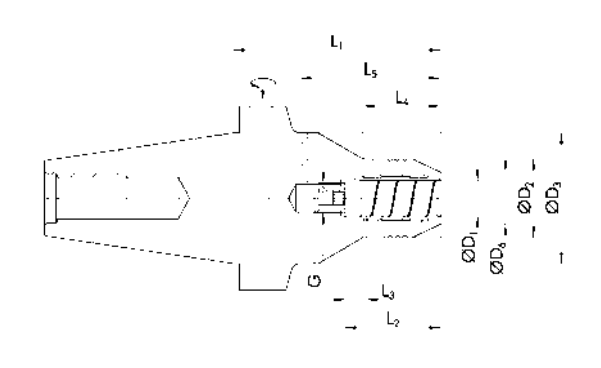
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L4	L5	G	Mmin	Weight
	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg
0219221	6	32	60	15	110	43	55	90.9	M5	4	3.6
0219222	8	33.5	60	17	110	43	55	90.9	M6	7	3.6
0219223	10	35	60	19	110	43	55	90.9	M8x1	14	3.7
0219224	12	36.5	60	21.5	110	50	55	90.9	M8x1	22	3.7
0219229	14	38	60	23.5	110	50	60	90.9	M10x1	35	3.7
0219225	16	39.5	60	25.5	110	53	60	90.9	M12x1	50	3.8
0219220	18	41	60	27.5	110	53	60	90.9	M12x1	70	3.8
0219226	20	42	70	28	110	95	47	90.9	M16x1	90	3.9
0219227	22	44	70	30	110	95	49	90.9	M16x1	100	3.9
0219228	32	54	70	40	110	95	62.5	90.9	M16x1	250	4

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

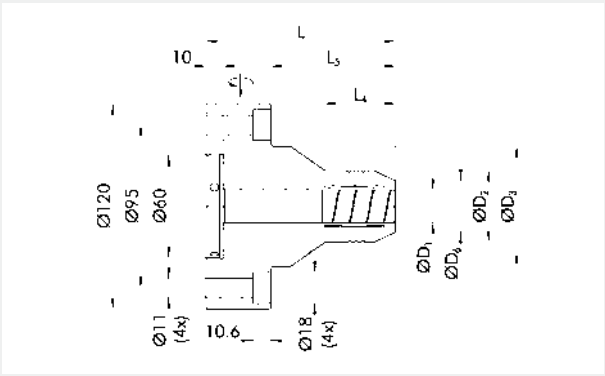
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L1	L2	L3	L4	L5	G	Mmin	Weight
	Inch	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg
28000629	3/8"	30.5	69.85	16	111	44.8	10	35	79	M6	11	2.7
28000630	1/2"	36	69.85	20	111	46	10	37	79	M10x1	30	2.7
28000631	5/8"	36.8	69.85	22	111	47.5	10	39	79	M10x1	50	2.7
28000632	3/4"	42	69.85	28	111	52	10	41	79	M16x1	80	2.8
28000633	7/8"	45.2	69.85	31	111	52	10	41	79	M16x1	100	2.8
28000634	1"	48	69.85	34	111	63	10	52	79	M16x1	180	2.8
28000635	1 1/4"	54	69.85	40	111	63	10	55.5	79	M16x1	250	4.4

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

Balancing grade
G2.5 at 25,000 RPM*

Short set-up time

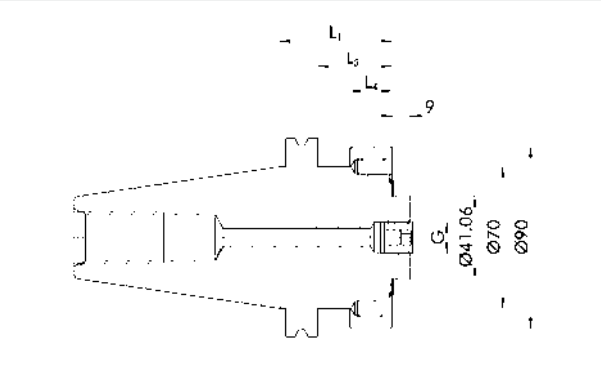
Data carrier hole optionally possible

Internal cooling
up to 80 bar

Technical data

ID	D1	D2	D3	D6	L	L2	L4	L5	Mmin	Weight
	mm/Inch	mm	mm	mm	mm	mm	mm	mm	Nm	kg
28000061	20	54		40.7	72	72	44		90	1.9
28000062	32	54		52.2	82	82	54		250	1.9
28003756	12	36.5	70	21.5	111		41	73	22	3
28003757	20	42	70	28	111		47.4	73	90	3
28003758	32	54	70	40	111		55	73	250	3
28000056	3/4"	54		40.7	72	72	44		80	1.9
28000057	1"	54		46.7	75	75	47		180	1.9
28000059	1 1/4"	54		52.2	82	82	54		250	1.9
28003746	1/2"	36	70	20	111		37	73	30	3
28003747	3/4"	42	70	28	111		41	73	80	3
28003748	1 1/4"	54	70	40	111		55	73	250	3

ⓘ *Run-out accuracy: at 2.5 x D
*Balancing grade: or Umax < 1 gmm
Additional sizes and customized designs are available upon request





Short set-up time

Data carrier hole optionally possible

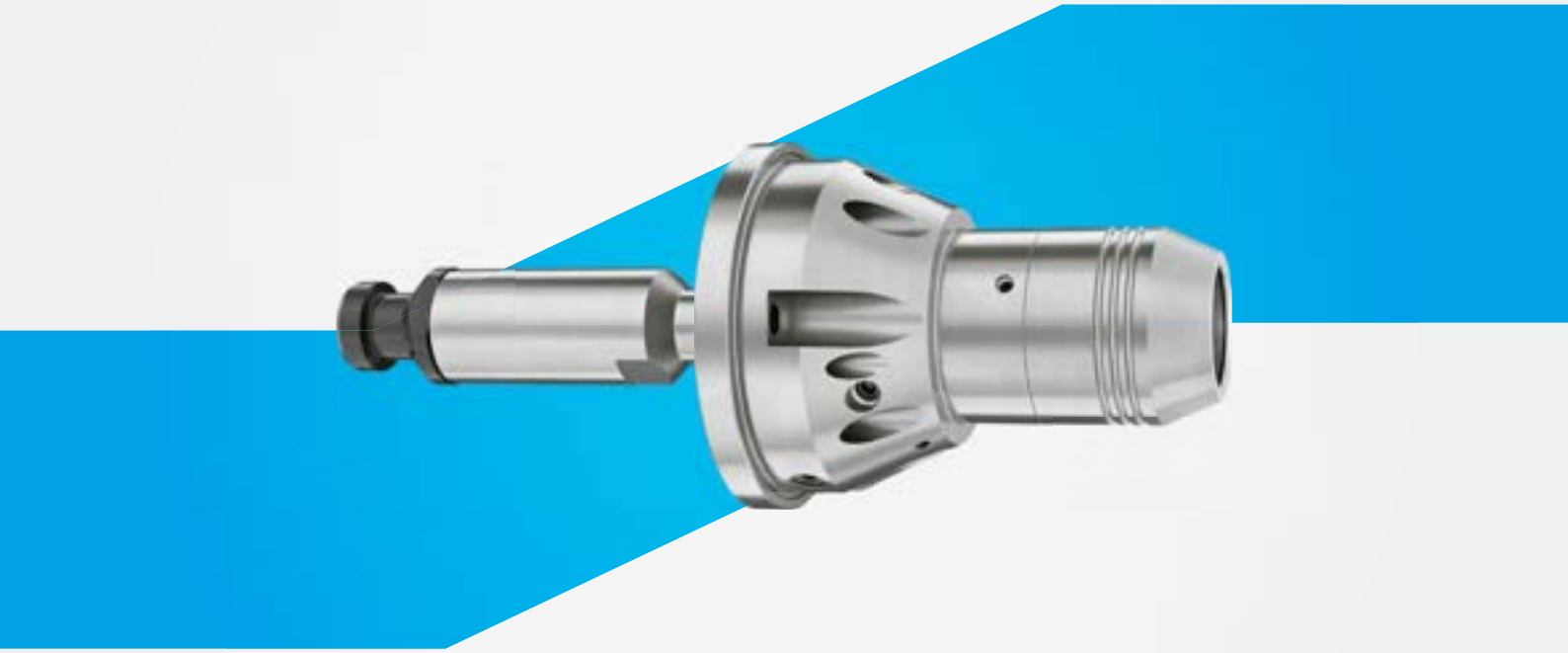
Internal cooling
up to 80 bar

Technical data

ID	Interface	L1	L4	L5	G	Weight
		mm	mm	mm		kg
28000184	CAT 40	54	19	35	M16x1	2.021
28000185	CAT 50	56	21	37	M16x1	4.166

ⓘ Additional sizes and customized designs are available upon request

schunk.com/wzs



Process-reliable. Flexible. Precise. Hydraulic expansion toolholders Tool grinding toolholder

In tool production and in the context of re-sharpening, a few thousandths of millimeters determine the quality of the finished cutting edge. SCHUNK precision toolholders are responsible for the most important process leading to optimal results. Only precise clamping allows for exact cutting geometries and surfaces.

Functions & highlights

- **Repeat accuracy < 0.003 mm, measured on the tool shank**
  Process reliability as well as best surface quality and shape accuracy due to uniform cutting edge action
- **Optimized interfering contour**
  A 30 to 40% slimmer interfering contour compared to the previous hydraulic toolholders, for significantly improved interference between the grinding wheel and toolholder
- **High clamping forces**
  Secure tool clamping even with short clamping depths or high interference between grinding wheel and toolholder is ensured



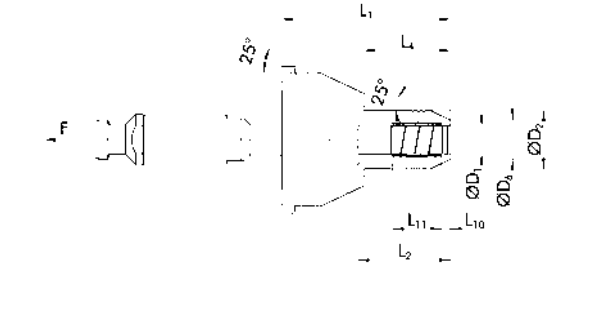
Field of application

Tool grinding toolholder

Fast and reliable exchange of workpieces through pulling or compression force actuation, through manual actuation of the clamping screw or other peripheral equipment.



1. **Clamping piston**
2. **Sealing element**
3. **Base body**
4. **Expansion chamber**
5. **Groove for dirt removal**
6. **Pressurized air hole**





Run-out accuracy
< 0.003 mm*

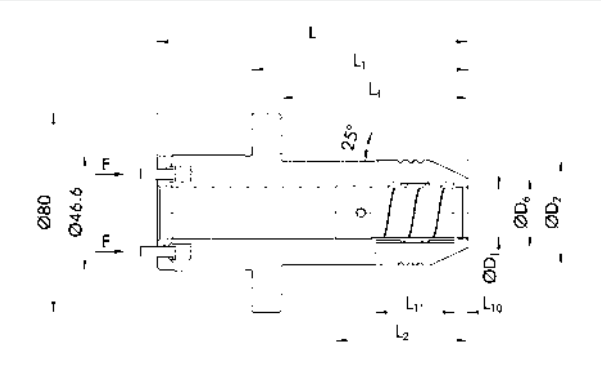
Short set-up time

Optimized interfering contours

Technical data

ID	D1	D2	D6	L1	L2	L4	L10	L11	Weight
	mm	mm	mm	mm	mm	mm	mm	mm	kg
0206746	12	36.5	21.5	111	50	52	5.5	32.1	3.3
0206747	20	42	28	121	60	62	5.5	31.5	3.4
0206748	22	44	30	126	60	62	5.5	35.5	3.5
0206749	32	54	40	131	70	72	6	42.5	3.8

ⓘ *Run-out accuracy: at 2.5 x D
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

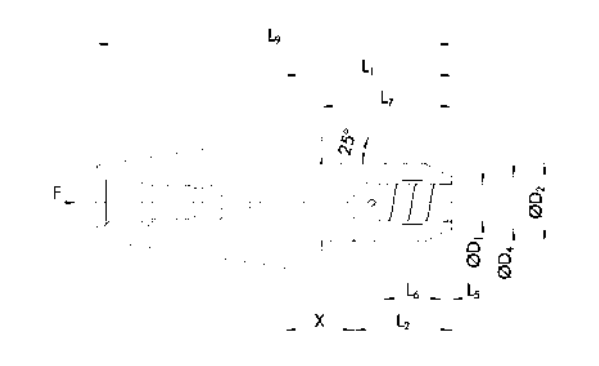
Short set-up time

Optimized interfering contours

Technical data

ID	D1	D2	D6	L	L1	L2	L4	L10	L11	Weight
	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
0206766	12	36.5	21.5	125	87		75	5.5	32.1	1.3
0206767	20	42	28	125	87		75	5.5	31.5	1.4
0206768	22	44	30	125	87	61	75	5.5	35.5	1.5
0206769	32	54	40	125	87	61	75	6	42.5	1.6

ⓘ *Run-out accuracy: at 2.5 x D
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

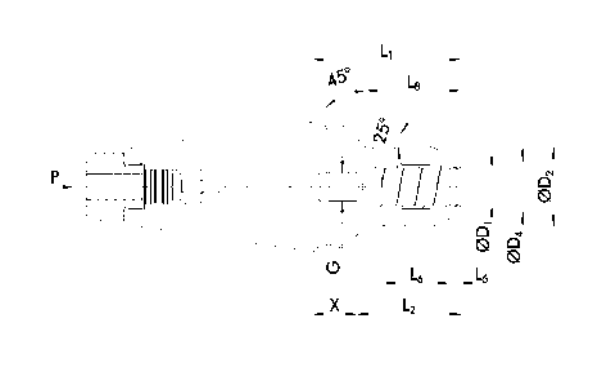
Short set-up time

Optimized interfering contours

Technical data

ID	D1	D2	D4	L1	L2	L5	L6	L7	L9	X	Weight
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
0206676	12	36.5	21.5	90	52.5	5.5	32.1	70	191.6	37.5	2.7
0206677	20	42	28	90	52.5	5.5	31.5	70	191.6	37.5	2.9
0206678	22	44	30	90	55	5.5	35.5	70	191.6	37.5	3
0206679	32	54	40	100	65	6	42.5	80	201.6	35	3.1

ⓘ *Run-out accuracy: at 2.5 x D
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

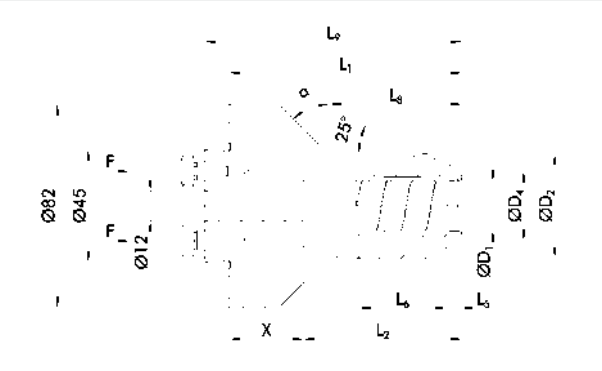
Short set-up time

Optimized interfering contours

Technical data

ID	D1	D2	D4	L1	L2	L5	L6	L8	X	G	Weight
	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
0206626	12	36.5	21.5	80	54	5.5	25.6	53	26	M8x1	2.9
0206627	20	42	28	80	56.5	5.5	31.5	56.5	23.5	M10x1	3.1
0206628	22	44	30	80	54	5.5	35.5	56.5	26	M10x1	3.2
0206629	32	54	40	80.5	69.5	6	42.5	62.5	24	M10x1	3.3

ⓘ *Run-out accuracy: at 2.5 x D
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

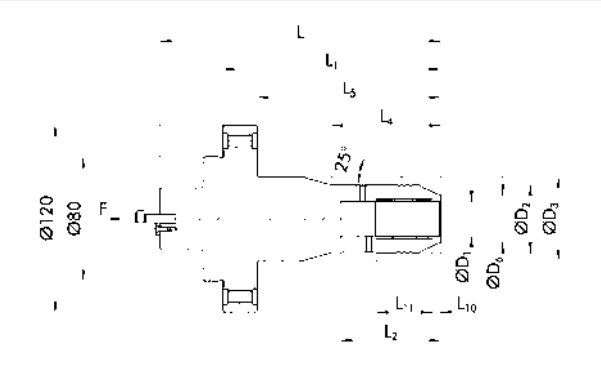
Short set-up time

Optimized interfering contours

Technical data

ID	D1	D2	D4	L1	L2	L5	L6	L8	L9	X	α	Weight
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	°	kg
0206776	12	36.5	21.5	94	62	5.5	32.1	45	104	32	45	1.7
0206777	20	42	38	94	62	5.5	31.5	47	104	32	45	1.8
0206778	22	44	30	94	62	5.5	35.5	47	104	32	45	1.9
0206779	32	54	40	94	62	6	42.5	69	104	32	90	2

ⓘ *Run-out accuracy: at 2.5 x D
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

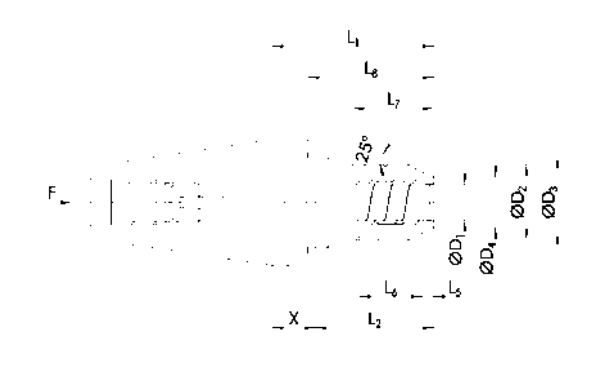
Short set-up time

Optimized interfering contours

Technical data

ID	D1	D2	D3	D6	L	L1	L2	L4	L5	L10	L11	Weight
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
0206671	12	36.5	54	21.5	130.6	90	64	47	68	5.5	32.1	3.12
0206660	12	36.5	54	21.5	180.6	140	64	70	118	5.5	32.1	3.7
0206672	20	42	54	28	130.6	90	64	53	68	5.5	31.5	3.12
0206661	20	42	54	28	180.6	140	64	70	118	5.5	31.5	3.85
0206673	22	44	54	30	130.6	90	64	53	68	5.5	35.5	3.15
0206662	22	44	54	30	180.6	140	64	70	118	5.5	35.5	3.9
0206674	32	54		40	130.6	90	70		68	6	42.5	3.22
0206663	32	54		40	180.6	140	70		118	6	42.5	4.1

ⓘ *Run-out accuracy: at 2.5 x D
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

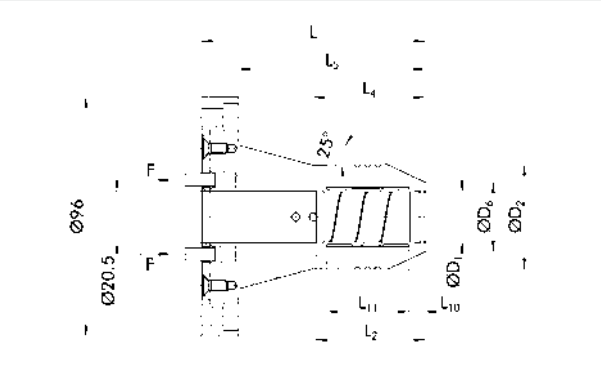
Short set-up time

Optimized interfering contours

Technical data

ID	D1	D2	D3	D4	L1	L2	L5	L6	L7	L8	X	Weight
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
0206616	12	36.5	54	21.5	140	50	5.5	32.1	70	120	90	3.4
0206606	12	36.5		21.5	90	50	5.5	32.1		70	40	2.7
0206617	20	42	54	28	140	64	5.5	31.5	70	120	76	3.6
0206607	20	42		28	90	64	5.5	31.5		70	26	2.9
0206618	22	44	54	30	140	64	5.5	35.5	70	120	76	3.7
0206608	22	44		30	90	64	5.5	35.5		70	26	3
0206619	32	54		40	140	70	6	42.5		120	70	3.8
0206609	32	54		40	90	70	6	42.5		70	20	3.1

ⓘ *Run-out accuracy: at 2.5 x D
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

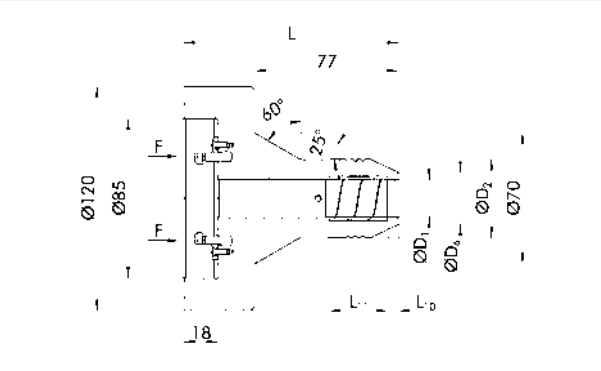
Short set-up time

Optimized interfering contours

Technical data

ID	D1	D2	D6	L	L2	L4	L5	L10	L11	Weight
	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
0206686	12	36.5	21.5	90		39	75	5.5	32.1	1.3
0206687	20	42	28	90		45	73	5.5	31.5	1.4
0206688	22	44	30	90	70	45	75	5.5	35.5	1.5
0206689	32	54	40	90	70	58	75	6	42.5	1.6

ⓘ *Run-out accuracy: at 2.5 x D
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

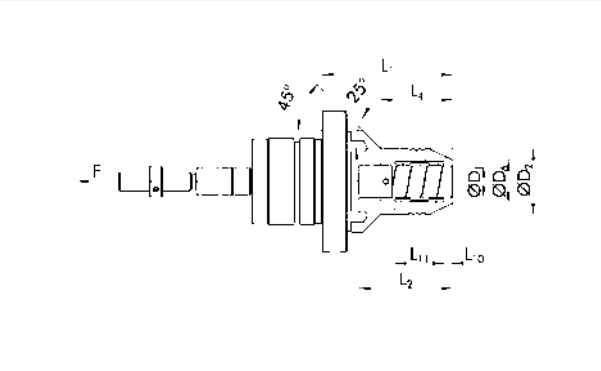
Short set-up time

Optimized interfering contours

Technical data

ID	D1	D2	D6	L	L10	L11	Weight
	mm	mm	mm	mm	mm	mm	kg
0206696	12	36.5	21.5	115	5.5	32.1	3.2
0206697	20	42	28	115	5.5	31.5	3.3
0206698	22	44	30	115	5.5	35.5	3.4
0206699	32	54	40	115	6	42.5	3.5

ⓘ *Run-out accuracy: at 2.5 x D
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

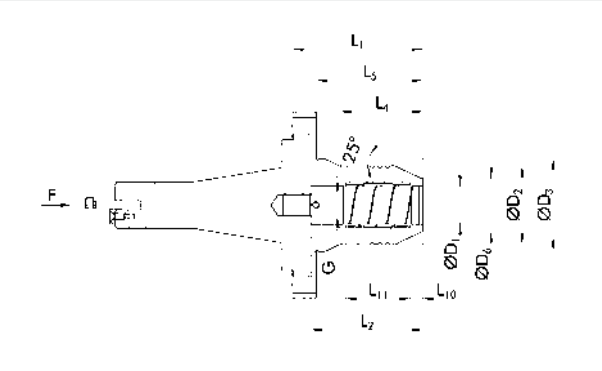
Short set-up time

Optimized interfering contours

Technical data

ID	D1	D2	D6	L1	L2	L4	L10	L11	Weight
	mm	mm	mm	mm	mm	mm	mm	mm	kg
20059729	12	36.5	21.5	84	60	43	5.5	31.1	2.3
20056776	20	42	28	84	60	46	5.5	31.5	2.3
20060231	25	47	33	84	60	48.5	5.5	35	2.3
20063191	32	54	40	90	70	56	5.5	42	2.4

ⓘ *Run-out accuracy: at 2.5 x D
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

Short set-up time

Optimized interfering contours

Technical data

ID	D1	D2	D3	D6	L1	L2	L4	L5	L10	L11	G	Weight
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
0206645	12	36.5	45	21.5	59	50	33	46	5.5	25.6	M8x1	1.6
0206646	20	42	49.5	28	70	60	44	57	5.5	31.5	M12x1	1.8
0206647	22	44	53	30	77	70	45	64	5.5	35.5	M12x1	1.9
0206648	32	54	57	40	82	75	59	69	6	42.5	M12x1	2.1

ⓘ *Run-out accuracy: at 2.5 x D
Additional sizes and customized designs are available upon request
Actuation adapter for a power operated tool grinding toolholder is available as an accessory (ID 206640)

schunk.com/svl



Long. Slim. Process-reliable. Extensions SVL

The innovative SVL tool extensions from SCHUNK are designed and are ideal for precise machining of hard-to-reach areas. They set benchmarks with regard to set-up times and costs. In no time, the extensions can be clamped in almost every precision toolholder.

Functions & highlights

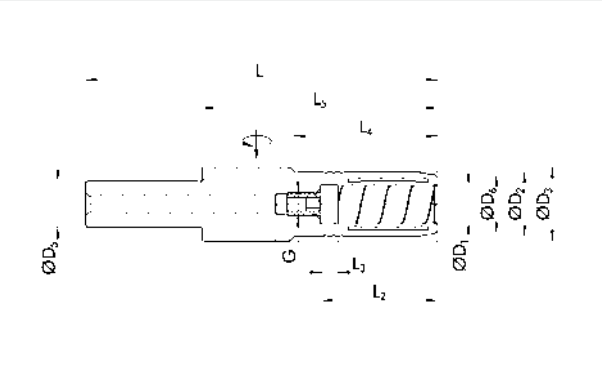
- **SVL extensions are suitable for all standard toolholders**
- **All commercially available tool shank types can be clamped**
- **Optimized interfering contour**
  Ideal for bores on low-lying areas, such as in fixture construction



Field of application

SVL

The tool extensions enable precise machining in hard-to-reach areas with minimal interfering contours. These can be ideally combined with vibration-damping toolholding systems to reduce and minimize vibrations. The use of extensions makes it possible to use standard machining tools instead of expensive special tools. The extensions provide a high run-out accuracy and a slimmer interfering contour that can be combined with a variety of toolholders.





Run-out accuracy
< 0.006 mm*

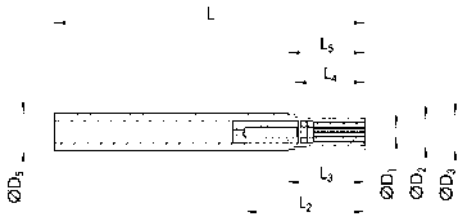
Short set-up time

Optimized interfering contours

Technical data

ID	D1	D2	D3	D5	D6	L	L2	L3	L4	L5	G	Mmin	Weight	
	mm/Inch	mm	mm	mm/Inch	mm	mm	mm	mm	mm	mm		Nm	kg	
0206301	6	16	25	20	14	150	37	10	52.3	100	M5	16	0.45	9205650
0206302	8	18	25	20	16	150	37	10	52.3	100	M5	23	0.45	9205650
0206303	10	20	25	20	17	150	41	10	52.3	100	M6	45	0.45	9205650
0206304	12	25	25	20	21	150	46	10	100		M6	90	0.45	9205650
0206305	16	27.5	31.5	20	25	150	49	10	59.1	100	M10x1	165	0.45	9205650
0206306	20	31.5	31.5	20	29	150	51	10	100		M10x1	300	0.55	9205650
0206316	20	31.5	31.5	32	29	150	51	10	90		M10x1	300	0.8	9205650
0206326	20	31.5	31.5	32	29	200	51	10	140		M10x1	300	1.1	9205650
0206310	1/2"	25	25	3/4"	21	150	46	10	100		M10x1	95	0.45	9205650
0206311	3/4"	31.5	31.5	3/4"	29	150	51	10	100		M10x1	300	0.55	9205650
28003239	3/4"	31.5	31.5	1 1/4"	29	150	51	10	90		M10x1	300	0.8	9205650
28003240	3/4"	31.5	31.5	1 1/4"	29	200	51	10	140		M10x1	300	1.1	9205650

ⓘ *Run-out accuracy: at 2.5 x D
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

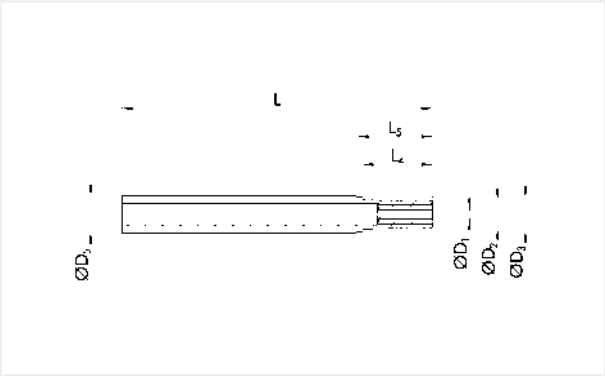
Short set-up time

Optimized interfering contours

Technical data

ID	D1 mm/Inch	D2 mm	D3 mm	D5 mm	L mm	L2 mm	L3 mm	L4 mm	L5 mm	Mmin Nm	Weight kg	Max. speed limit RPM	
1516599	3	9	11	12	100	38.5	25	22.5	24	1.5	0.09	52000	0201971
1516594	4	9	11	12	100	38	25	22.5	24	2.5	0.09	52000	0201971
1516544	5	9	11	12	100	37	25	22.5	24	3.5	0.09	52000	0201971
1539016	6	9	11	12	100	37.5	35	22.5	24	4.5	0.09	52000	0201971
1519657	1/8"	9	11	12	100	38.5	25	22.5	24	1.5	0.09	52000	0201971

ⓘ *Run-out accuracy at 2.5 x D; run-out for Ø 6 mm: ≤ 0.005 mm at 2.5 x D
Additional sizes and customized designs are available upon request
Coolant-proof up to 120 bar





Run-out accuracy
< 0.003 mm*

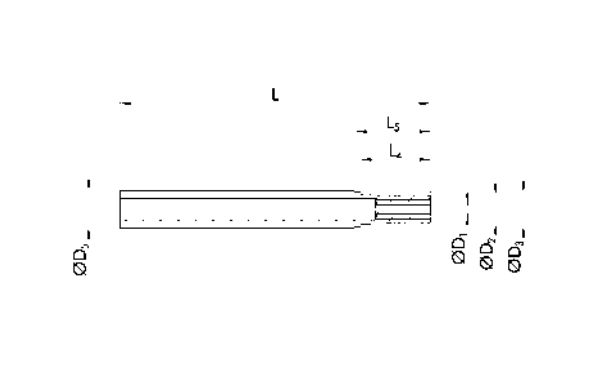
Short set-up time

Optimized interfering contours

Technical data

ID	D1	D2	D3	D5	L	L4	L5	Mmin	Weight	Max. speed limit	
	mm/Inch	mm	mm	mm	mm	mm	mm	Nm	kg	RPM	
0215700	0.5	9	11	12	100	22.5	24		0.08	52000	0201971
0215701	1	9	11	12	100	22.5	24		0.08	52000	0201971
0215702	1.5	9	11	12	100	22.5	24		0.08	52000	0201971
0215703	2	9	11	12	100	22.5	24	1	0.08	52000	0201971
0215704	2.5	9	11	12	100	22.5	24	1.5	0.08	52000	0201971
0215705	3	9	11	12	100	22.5	24	1.5	0.08	52000	0201971
0215706	3.5	9	11	12	100	22.5	24	2	0.08	52000	0201971
0215707	4	9	11	12	100	22.5	24	2.5	0.08	52000	0201971
0215708	4.5	9	11	12	100	22.5	24	3	0.08	52000	0201971
0215709	5	9	11	12	100	22.5	24	3.5	0.08	52000	0201971
0215711	6	9	11	12	100	22.5	24	4.5	0.08	52000	0201971
0215710	1/8"	9	11	12	100	22.5	24	1.5	0.08	52000	0201971

ⓘ *Run-out accuracy: at 2.5 x D
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

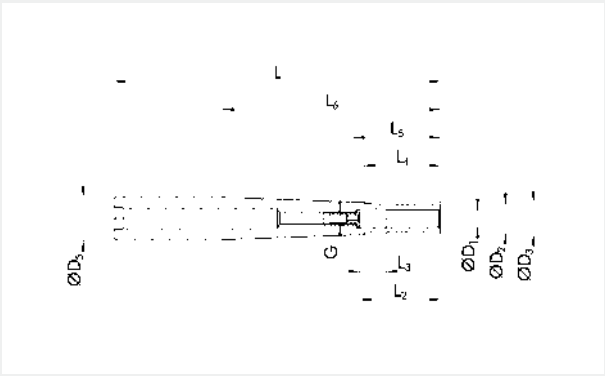
Short set-up time

Optimized interfering contours

Technical data

ID	D1 Inch	D2 mm	D3 mm	D5 Inch	L Inch	L4 mm	L5 mm	Mmin Nm	Weight kg	Max. speed limit RPM	
25001518	1/8"	9	10	1/2"	4"	22.5	29.5	1.5	0.08	52000	0201971
25001296	3/16"	9	10	1/2"	4"	22.5	29.5	3	0.08	52000	0201971

ⓘ *Run-out accuracy: at 2.5 x D
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

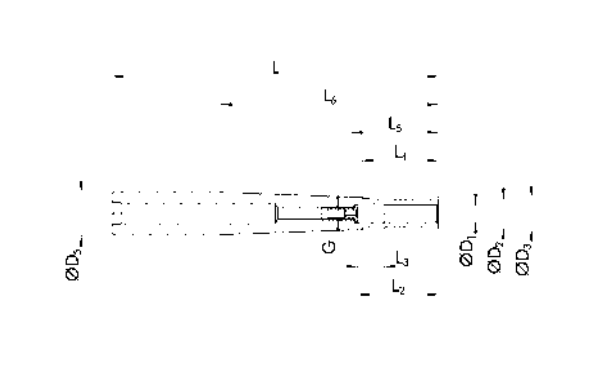
Short set-up time

Optimized interfering contours

Technical data

ID	D1	D2	D3	D5	L	L2	L3	L4	L5	L6	G	Mmin	Weight	Max. speed limit	
	Inch	mm	mm	Inch	Inch	mm	mm	mm	mm	mm		Nm	kg	RPM	
0205990	1/4"	10.3	13.1	3/4"	4"	37	10	35	40	49.1	M5	6	0.18	41000	0201988
0205991	5/16"	13	15.1	3/4"	4"	37	10	35	40	49.1	M6	12	0.19	41000	0201973
0205992	3/8"	15	17.1	3/4"	4"	42	10	40	45	49.1	M6	20	0.19	41000	0201989
0205994	1/2"	20	22.1	3/4"	4"	47	10	45	49.1		M8x1	40	0.19	41000	0201991

ⓘ *Run-out accuracy: at 2.5 x D
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

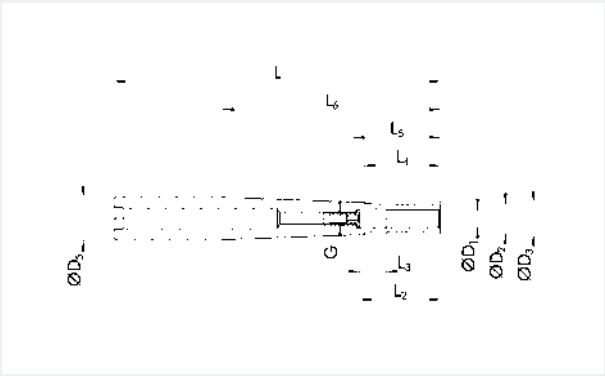
Short set-up time

Optimized interfering contours

Technical data

ID	D1	D2	D3	D5	L	L2	L3	L4	L5	L6	G	Mmin	Weight	Max. speed limit	
	Inch	mm	mm	Inch	Inch	mm	mm	mm	mm	mm		Nm	kg	RPM	
0205940	1/4"	10.3	13.1	3/4"	6"	37	10	35	40	100	M5	6	0.26	41000	0201988
0205941	5/16"	13	15.1	3/4"	6"	37	10	35	40	100	M6	12	0.27	41000	0201973
0205942	3/8"	15	17.1	3/4"	6"	42	10	40	45	100	M6	20	0.29	41000	0201989
0205944	1/2"	20	22.1	3/4"	6"	47	10	45	99.9		M8x1	40	0.31	41000	0201991
0205995	5/8"	25	27.1	3/4"	6"	48	10	45	99.9		M10x1	70	0.33	41000	0201977
0205996	3/4"	29	31.1	3/4"	6"	52	10	45	99.9		M10x1	120	0.35	41000	0201992

ⓘ *Run-out accuracy: at 2.5 x D
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

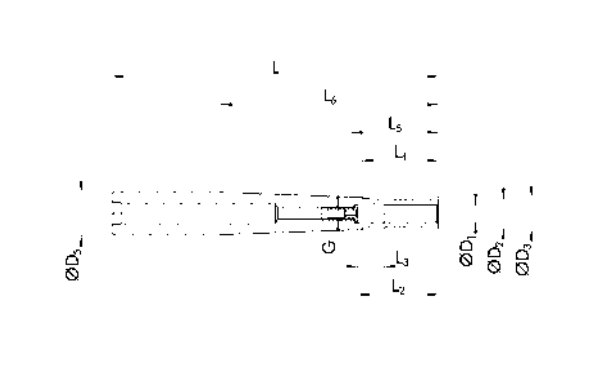
Short set-up time

Optimized interfering contours

Technical data

ID	D1 mm	D2 mm	D3 mm	D5 mm	L mm	L2 mm	L3 mm	L4 mm	L5 mm	L6 mm	G	Mmin Nm	Weight kg	Max. speed limit RPM	
0205600	6	9.9	13.1	20	100	37	10	35	40	50	M5	5	0.186	43000	0201972
0205601	8	13	15.1	20	100	37	10	35	40	50	M6	12	0.195	43000	0201973
0205602	10	16	18.1	20	100	42	10	40	45	50	M8x1	20	0.198	43000	0201974
0205603	12	19	19.9	20	100	47	10	45	50		M8x1	30	0.2	43000	0201975

ⓘ *Run-out accuracy: at 2.5 x D
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

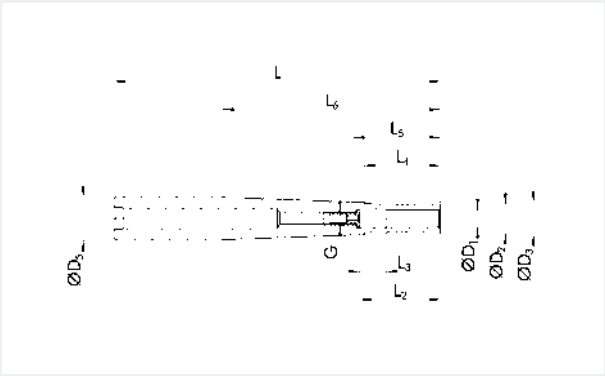
Short set-up time

Optimized interfering contours

Technical data

ID	D1 mm	D2 mm	D3 mm	D5 mm	L mm	L2 mm	L3 mm	L4 mm	L5 mm	L6 mm	G	Mmin Nm	Weight kg	Max. speed limit RPM	
0205604	6	9.9	13.1	20	150	37	10	35	40	100	M5	5	0.266	24000	0201972
0205605	8	13	15.1	20	150	37	10	35	40	100	M6	12	0.278	24000	0201973
0205606	10	16	18.1	20	150	42	10	40	45	100	M8x1	20	0.292	24000	0201974
0205607	12	19	19.9	20	150	47	10	45	100		M8x1	30	0.318	24000	0201975

ⓘ *Run-out accuracy: at 2.5 x D
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.01 mm*

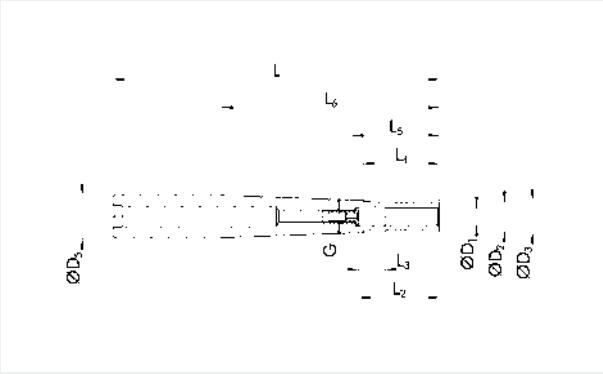
Short set-up time

Optimized interfering contours

Technical data

ID	D1 mm	D2 mm	D3 mm	D5 mm	L mm	L2 mm	L3 mm	L4 mm	L5 mm	L6 mm	G	Mmin Nm	Weight kg	Max. speed limit RPM	
0205645	6	9.9	13.1	20	250	37	10	35	40	50	M5	5	0.36	6000	0201972
0205646	8	13	15.1	20	250	37	10	35	40	50	M6	12	0.39	6000	0201973
0205647	10	16	18.1	20	250	42	10	40	45	50	M8x1	20	0.4	6000	0201974
0205648	12	19		20	250	47	10	45			M8x1	30	0.41	6000	0201975

ⓘ *Run-out accuracy: at 2.5 x D
Additional sizes and customized designs are available upon request





Run-out accuracy
< 0.003 mm*

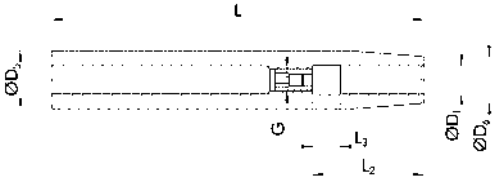
Short set-up time

Optimized interfering contours

Technical data

ID	D1	D2	D3	D5	L	L2	L3	L4	L5	L6	G	Mmin	Weight	Max. speed limit	
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kg	RPM	
0205612	14	22	24.1	32	150	47	10	45	50	85	M10x1	50	0.6	41000	0201976
0205613	16	25	27.1	32	150	48	10	45	50	85	M10x1	70	0.65	41000	0201977
0205614	18	28	30.1	32	150	48	10	45	50	85	M10x1	100	0.65	41000	0201979
0205619	20	30		32	150	52	10	45			M10x1	150	0.7	41000	0201981

ⓘ *Run-out accuracy: at 2.5 x D
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

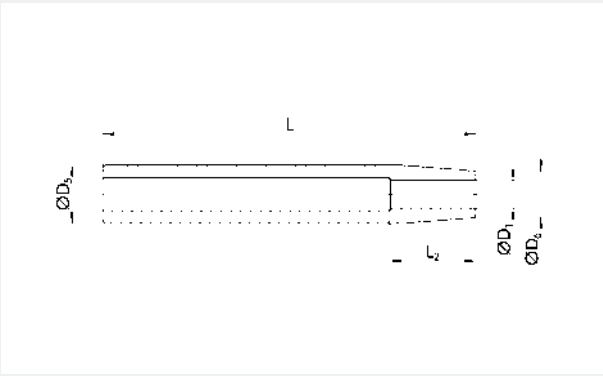
Optimized interfering contours

Coolant supply

Technical data

ID	D1	D5	D6	L	L2	L3	G	Mmin	Weight
	mm	mm	mm	mm	mm	mm		Nm	kg
0210121	6	16	10	160	28	10	M5	20	0.25
0210123	6	20	14	160	28	10	M5	20	0.35
0210124	8	20	14	160	34	10	M6	52	0.35
0210125	8	25	19	160	34	10	M6	52	0.55
0210126	10	25	20	160	42	10	M8x1	70	0.55
0210127	12	25	20	160	47	10	M10x1	150	0.55
0210128	14	25	20	160	47	10	M10x1	180	0.45
0210129	16	25	22	160	50	10	M12x1	200	0.45
0210130	10	32	24	160	42	10	M8x1	70	0.95
0210131	12	32	24	160	47	10	M10x1	150	0.95
0210132	14	32	27	160	47	10	M10x1	180	0.95
0210133	16	32	27	160	50	10	M12x1	200	0.95
23005128	18	32	27	160	51	10	M12x1	250	0.95
0210134	20	32	27	160	52	10	M16x1	300	0.95

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.003 mm*

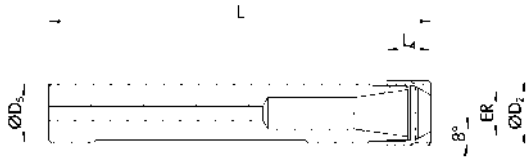
Optimized interfering contours

Coolant supply

Technical data

ID	D1	D5	D6	L	L2	Mmin	Weight
	mm	mm	mm	mm	mm	Nm	kg
0208933	3	12	8	160	9	8	0.15
0208934	4	12	8	160	12	10	0.1
0208953	3	16	10	160	9	8	0.25
0208954	4	16	10	160	12	10	0.25
0208955	5	16	10	160	15	12	0.25
0208950	6	16	10	160	22	20	0.25
1455911	8	16	14	160	26	52	0.25
0208975	5	20	14	160	15	12	0.4
0208970	6	20	14	160	22	20	0.35
0208971	8	20	14	160	26	52	0.35
0208981	8	25	19	160	26	52	0.55
0208982	10	25	20	160	31	70	0.55
0208983	12	25	20	160	36	150	0.55
0208984	14	25	20	160	36	180	0.45
0208985	16	25	22	160	39	300	0.45
0208992	10	32	24	160	31	70	0.95
0208993	12	32	24	160	36	150	0.95
0208994	14	32	27	160	36	180	0.9
0208995	16	32	27	160	39	200	0.9
0208997	20	32	27	160	47	300	0.85

ⓘ *Run-out accuracy: measured in the clamping bore (according to DIN 69882-8)
Additional sizes and customized designs are available upon request





Run-out accuracy
≤ 0.005 mm*

Optimized interfering contours

Technical data

ID	ER	D2	D5	L	L4	Weight
		mm	mm	mm	mm	kg
23003892	ER 11	16	16	169	12	0.22
23003894	ER 16	22	20	163	18	0.32
23005121	ER 20	28	25	164	19.5	0.52

ⓘ *Run-out accuracy: measured from the internal taper to the shank
Additional sizes and customized designs are available upon request

schunk.com/gzb-s



Universal. Economical. Individual. Intermediate sleeves GZB-S

SCHUNK intermediate sleeves allow clamping of several different shank diameters with just one toolholder. The universal intermediate sleeves GZB-S are available in two versions: proven coolant-proof and with innovative peripheral coolant channels. Both can be used in the SCHUNK toolholding systems TENDO, TRIBOS, and SINO-R, as well as in all commercial hydraulic expansion toolholders.

Functions & highlights

- **Maximum versatility with optimal cost control**
  The application of slotted or coolant-proof intermediate sleeves enables clamping of different tool diameters using the same toolholder
- **Two versions**
  Coolant-proof up to 80 bar or with peripheral cooling, the special nozzle geometry in the case of peripheral cooling ensures an optimal and targeted coolant supply or the lubrication of the cutting edge of the tool
- **Individual**
  Additional sizes and customized designs are available upon request



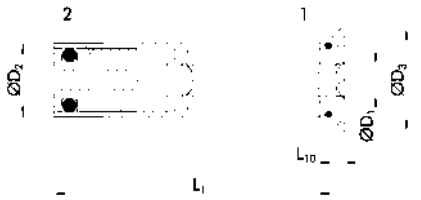
Field of application

GZB-S

The application of slotted or coolant-proof intermediate sleeves enables clamping of different tool diameters using the same toolholder. This is why a toolholder can be used flexibly within the clamping range. The run-out accuracy of the intermediate sleeve is ≤ 0.003 mm.



1. **Clamping screw**
2. **Clamping piston**
3. **Sealing element**
4. **Expansion sleeve**
5. **Oil chamber**
6. **Base body**
7. **Length-setting screw**
8. **Intermediate sleeve**



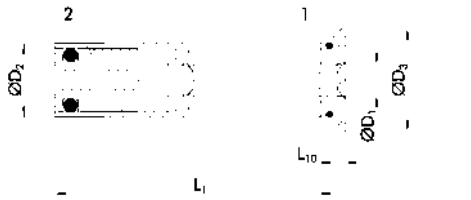
① O-ring sealing
② Adjustable stop/length adjustment



Technical data

ID	D1	D2	D3	L1	L10	Weight
	mm/Inch	mm	mm	mm	mm	kg
0207910	3	12	16.5	45	2	0.1
0207911	4	12	16.5	45	2	0.1
0207912	5	12	16.5	45	2	0.1
0207913	6	12	16.5	45	2	0.1
20024051	7	12	16.5	45	2	0.1
0207915	8	12	16.5	45	2	0.1
20019450	9	12	16.5	45	2	0.1
0207917	10	12	16.5	45	2	0.1
0224429	1/8"	12	16.5	45	2	0.1
0224430	3/16"	12	16.5	45	2	0.1
0224431	1/4"	12	16.5	45	2	0.1
0224432	5/16"	12	16.5	45	2	0.1
0224433	3/8"	12	16.5	45	2	0.1

ⓘ Additional sizes and customized designs are available upon request
Version coolant-proof up to max. 80 bar – for internal coolant supply
Run-out accuracy: ≤ 0.003 mm



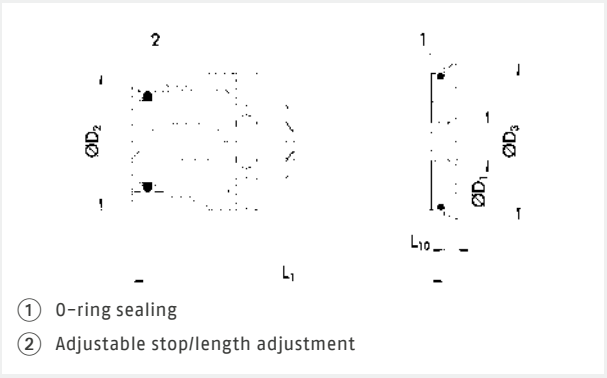
① O-ring sealing
② Adjustable stop/length adjustment



Technical data

ID	D1	D2	D3	L1	L10	Weight
	mm/Inch	mm	mm	mm	mm	kg
0207920	3	20	24	50.5	2	0.1
0207921	4	20	24	50.5	2	0.1
0207922	5	20	24	50.5	2	0.1
0207923	6	20	24	50.5	2	0.1
0207924	7	20	24	50.5	2	0.1
0207925	8	20	24	50.5	2	0.1
0207926	9	20	24	50.5	2	0.1
0207927	10	20	24	50.5	2	0.1
0207928	11	20	24	50.5	2	0.1
0207929	12	20	24	50.5	2	0.1
0207930	13	20	24	50.5	2	0.1
0207931	14	20	24	50.5	2	0.1
0207932	15	20	24	50.5	2	0.1
0207933	16	20	24	50.5	2	0.1
20051938	17	20	24	50.5	2	0.1
20034637	18	20	24	50.5	2	0.1
0224434	1/8"	20	24	50.5	2	0.1
0224435	3/16"	20	24	50.5	2	0.1
0224436	1/4"	20	24	50.5	2	0.1
0224437	5/16"	20	24	50.5	2	0.1
0224438	3/8"	20	24	50.5	2	0.1
0224439	7/16"	20	24	50.5	2	0.1
0224440	1/2"	20	24	50.5	2	0.1
0224441	9/16"	20	24	50.5	2	0.1
0224442	5/8"	20	24	50.5	2	0.1

ⓘ Additional sizes and customized designs are available upon request
Version coolant-proof up to max. 80 bar – for internal coolant supply
Run-out accuracy: ≤ 0.003 mm



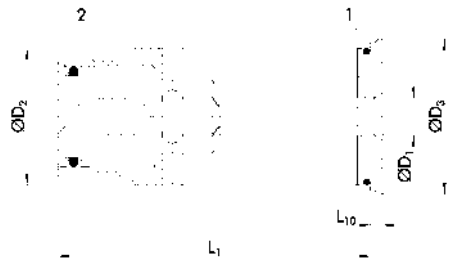
① O-ring sealing
② Adjustable stop/length adjustment



Technical data

ID	D1	D2	D3	L1	L10	Weight
	mm	mm	mm	mm	mm	kg
0207892	6	22	25	50.5	2	0.2
0207893	8	22	25	50.5	2	0.2
0207894	10	22	25	50.5	2	0.2
0207895	12	22	25	50.5	2	0.2
0207896	14	22	25	50.5	2	0.2
0207897	16	22	25	50.5	2	0.2

ⓘ Additional sizes and customized designs are available upon request
Version coolant-proof up to max. 80 bar – for internal coolant supply
Run-out accuracy: ≤ 0.003 mm



① O-ring sealing
② Adjustable stop/length adjustment

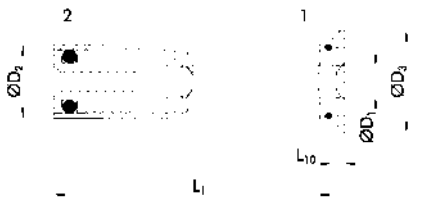


Technical data

ID	D1	D2	D3	L1	L10	Weight
	mm	mm	mm	mm	mm	kg
0207865	6	25	29	54.5	2	0.1
0207866	8	25	29	54.5	2	0.1
0207867	10	25	29	54.5	2	0.1
0207868	12	25	29	54.5	2	0.1
0207869	14	25	29	54.5	2	0.1
0207870	16	25	29	54.5	2	0.1
0207871	18	25	29	54.5	2	0.1
0207872	20	25	29	54.5	2	0.1

ⓘ Additional sizes and customized designs are available upon request
Version coolant-proof up to max. 80 bar – for internal coolant supply
Run-out accuracy: ≤ 0.003 mm

GZB-S Ø 32 KD
Intermediate sleeves



① O-ring sealing
② Adjustable stop/length adjustment

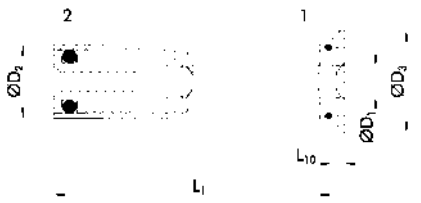


Technical data

ID	D1	D2	D3	L1	L10	Weight
	mm/Inch	mm	mm	mm	mm	kg
20038806	3	32	35.5	60.5	2	0.3
20027707	4	32	35.5	60.5	2	0.3
20027602	5	32	35.5	60.5	2	0.3
0207940	6	32	35.5	60.5	2	0.3
20027601	7	32	35.5	60.5	2	0.3
0207941	8	32	35.5	60.5	2	0.3
20019807	9	32	35.5	60.5	2	0.3
0207942	10	32	35.5	60.5	2	0.3
20019481	11	32	35.5	60.5	2	0.3
0207943	12	32	35.5	60.5	2	0.3
20027597	13	32	35.5	60.5	2	0.3
0207944	14	32	35.5	60.5	2	0.3
20030304	15	32	35.5	60.5	2	0.3
0207945	16	32	35.5	60.5	2	0.3
20027594	17	32	35.5	60.5	2	0.3
0207946	18	32	35.5	60.5	2	0.3
20012603	19	32	35.5	60.5	2	0.3
0207947	20	32	35.5	60.5	2	0.3
20012604	21	32	35.5	60.5	2	0.3
20011792	22	32	35.5	60.5	2	0.3
20011793	23	32	35.5	60.5	2	0.3
20012646	24	32	35.5	60.5	2	0.3
0207948	25	32	35.5	60.5	2	0.3
20020442	26	32	35.5	60.5	2	0.3
20021164	28	32	35.5	60.5	2	0.3
20031546	30	32	35.5	60.5	2	0.3
0224445	1/4"	32	35.5	60.5	2	0.3
0224446	5/16"	32	35.5	60.5	2	0.3
0224447	3/8"	32	35.5	60.5	2	0.3
0224448	7/16"	32	35.5	60.5	2	0.3
0224449	1/2"	32	35.5	60.5	2	0.3
0224450	9/16"	32	35.5	60.5	2	0.3

ID	D1	D2	D3	L1	L10	Weight
	mm/Inch	mm	mm	mm	mm	kg
0224451	5/8"	32	35.5	60.5	2	0.3
0224452	11/16"	32	35.5	60.5	2	0.3
0224453	3/4"	32	35.5	60.5	2	0.3
0224454	13/16"	32	35.5	60.5	2	0.3
0224455	7/8"	32	35.5	60.5	2	0.3
0224456	15/16"	32	35.5	60.5	2	0.3
0224457	1"	32	35.5	60.5	2	0.3

ⓘ Additional sizes and customized designs are available upon request
Version coolant-proof up to max. 80 bar – for internal coolant supply
Run-out accuracy: ≤ 0.003 mm



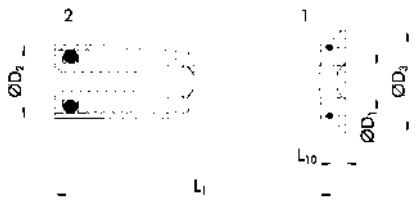
① O-ring sealing
② Adjustable stop/length adjustment



Technical data

ID	D1 mm/Inch	D2 Inch	D3 mm	L1 mm	L10 mm	Weight kg
0224381	3	1/2"	16.5	45	2	0.1
0224382	4	1/2"	16.5	45	2	0.1
0224383	5	1/2"	16.5	45	2	0.1
0224384	6	1/2"	16.5	45	2	0.1
0224385	8	1/2"	16.5	45	2	0.1
0224376	1/8"	1/2"	16.5	45	2	0.1
0224377	3/16"	1/2"	16.5	45	2	0.1
0224378	1/4"	1/2"	16.5	45	2	0.1
0224379	5/16"	1/2"	16.5	45	2	0.1
0224380	3/8"	1/2"	16.5	45	2	0.1

ⓘ Additional sizes and customized designs are available upon request
Version coolant-proof up to max. 80 bar – for internal coolant supply
Run-out accuracy: ≤ 0.003 mm



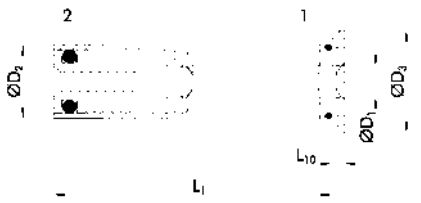
① O-ring sealing
② Adjustable stop/length adjustment



Technical data

ID	D1	D2	D3	L1	L10	Weight
	mm/Inch	Inch	mm	mm	mm	kg
0224395	3	3/4"	24	50.5	2	0.1
0224396	4	3/4"	24	50.5	2	0.1
0224397	5	3/4"	24	50.5	2	0.1
0224398	6	3/4"	24	50.5	2	0.1
0224399	8	3/4"	24	50.5	2	0.1
0224400	10	3/4"	24	50.5	2	0.1
0224401	12	3/4"	24	50.5	2	0.1
0224402	14	3/4"	24	50.5	2	0.1
20023434	16	3/4"	24	50.5	2	0.1
0224386	1/8"	3/4"	24	50.5	2	0.1
0224387	3/16"	3/4"	24	50.5	2	0.1
0224388	1/4"	3/4"	24	50.5	2	0.1
0224389	5/16"	3/4"	24	50.5	2	0.1
0224390	3/8"	3/4"	24	50.5	2	0.1
0224391	7/16"	3/4"	24	50.5	2	0.1
0224392	1/2"	3/4"	24	50.5	2	0.1
0224393	9/16"	3/4"	24	50.5	2	0.1
0224394	5/8"	3/4"	24	50.5	2	0.1

ⓘ Additional sizes and customized designs are available upon request
Version coolant-proof up to max. 80 bar – for internal coolant supply
Run-out accuracy: ≤ 0.003 mm



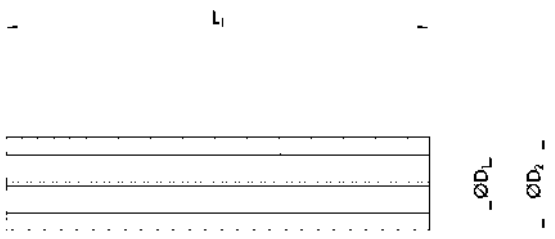
① O-ring sealing
② Adjustable stop/length adjustment



Technical data

ID	D1	D2	D3	L1	L10	Weight
	mm/Inch	Inch	mm	mm	mm	kg
0224421	8	1 1/4"	35.5	60.5	2	0.3
0224422	10	1 1/4"	35.5	60.5	2	0.3
0224423	12	1 1/4"	35.5	60.5	2	0.3
0224424	14	1 1/4"	35.5	60.5	2	0.3
0224425	16	1 1/4"	35.5	60.5	2	0.3
0224426	18	1 1/4"	35.5	60.5	2	0.3
0224427	20	1 1/4"	35.5	60.5	2	0.3
0224428	25	1 1/4"	35.5	60.5	2	0.3
0224404	1/4"	1 1/4"	35.5	60.5	2	0.3
0224405	5/16"	1 1/4"	35.5	60.5	2	0.3
0224406	3/8"	1 1/4"	35.5	60.5	2	0.3
0224407	7/16"	1 1/4"	35.5	60.5	2	0.3
0224408	1/2"	1 1/4"	35.5	60.5	2	0.3
0224409	9/16"	1 1/4"	35.5	60.5	2	0.3
0224410	5/8"	1 1/4"	35.5	60.5	2	0.3
0224411	11/16"	1 1/4"	35.5	60.5	2	0.3
0224412	3/4"	1 1/4"	35.5	60.5	2	0.3
0224413	13/16"	1 1/4"	35.5	60.5	2	0.3
0224414	7/8"	1 1/4"	35.5	60.5	2	0.3
0224415	15/16"	1 1/4"	35.5	60.5	2	0.3
0224416	1"	1 1/4"	35.5	60.5	2	0.3

ⓘ Additional sizes and customized designs are available upon request
Version coolant-proof up to max. 80 bar – for internal coolant supply
Run-out accuracy: ≤ 0.003 mm

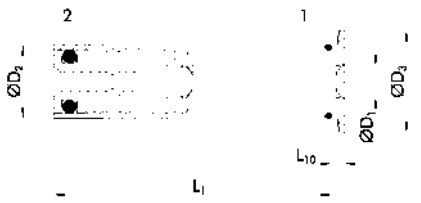




Technical data

ID	D1 mm/Inch	D2 mm	L1 mm	Weight kg
0206237	1	8	37	0.1
0206242	1.5	8	37	0.1
0206247	2	8	37	0.1
0206252	2.5	8	37	0.1
0206257	3	8	37	0.1
0206262	3.5	8	37	0.1
0206267	4	8	37	0.1
0206272	4.5	8	37	0.1
0206277	5	8	37	0.1
0206282	5.5	8	37	0.1
0206287	6	8	37	0.1
0217955	1/8"	8	37	0.1

ⓘ Additional sizes and customized designs are available upon request
Periphery-cooled version – not coolant-proof
Run-out accuracy: ≤ 0.003 mm



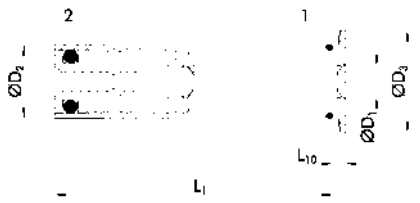
① O-ring sealing
② Adjustable stop/length adjustment



Technical data

ID	D1	D2	D3	L1	L10	Weight
	mm/Inch	mm	mm	mm	mm	kg
0217910	3	12	16.5	45	2	0.1
0217911	4	12	16.5	45	2	0.1
0217912	5	12	16.5	45	2	0.1
0217913	6	12	16.5	45	2	0.1
0217915	8	12	16.5	45	2	0.1
0217900	1/8"	12	16.5	45	2	0.1
0217901	3/16"	12	16.5	45	2	0.1
0217902	1/4"	12	16.5	45	2	0.1
0217903	5/16"	12	16.5	45	2	0.1
0217904	3/8"	12	16.5	45	2	0.1

ⓘ Additional sizes and customized designs are available upon request
Periphery-cooled version – not coolant-proof
Run-out accuracy: ≤ 0.003 mm



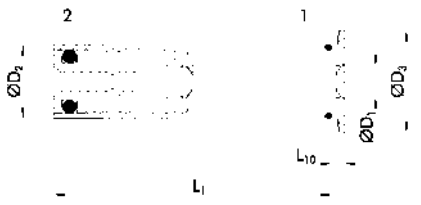
① O-ring sealing
② Adjustable stop/length adjustment



Technical data

ID	D1	D2	D3	L1	L10	Weight
	mm/Inch	mm	mm	mm	mm	kg
0217920	3	20	24	50.5	2	0.1
0217921	4	20	24	50.5	2	0.1
0217922	5	20	24	50.5	2	0.1
0217923	6	20	24	50.5	2	0.1
0217924	7	20	24	50.5	2	0.1
0217925	8	20	24	50.5	2	0.1
0217926	9	20	24	50.5	2	0.1
0217927	10	20	24	50.5	2	0.1
0217928	11	20	24	50.5	2	0.1
0217929	12	20	24	50.5	2	0.1
0217930	13	20	24	50.5	2	0.1
0217931	14	20	24	50.5	2	0.1
0217932	15	20	24	50.5	2	0.1
0217933	16	20	24	50.5	2	0.1
0217880	1/8"	20	24	50.5	2	0.1
0217881	3/16"	20	24	50.5	2	0.1
0217882	1/4"	20	24	50.5	2	0.1
0217883	5/16"	20	24	50.5	2	0.1
0217884	3/8"	20	24	50.5	2	0.1
0217885	7/16"	20	24	50.5	2	0.1
0217886	1/2"	20	24	50.5	2	0.1
0217887	9/16"	20	24	50.5	2	0.1
0217888	5/8"	20	24	50.5	2	0.1

ⓘ Additional sizes and customized designs are available upon request
Periphery-cooled version – not coolant-proof
Run-out accuracy: ≤ 0.003 mm



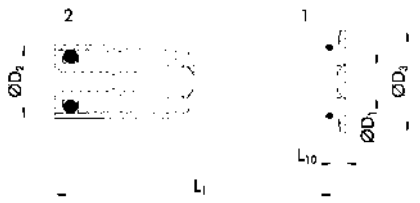
① O-ring sealing
② Adjustable stop/length adjustment



Technical data

ID	D1	D2	D3	L1	L10	Weight
	mm/Inch	mm	mm	mm	mm	kg
0217940	6	32	35.5	60.5	2	0.3
0217941	8	32	35.5	60.5	2	0.3
0217942	10	32	35.5	60.5	2	0.3
0217943	12	32	35.5	60.5	2	0.3
0217944	14	32	35.5	60.5	2	0.3
0217945	16	32	35.5	60.5	2	0.3
0217946	18	32	35.5	60.5	2	0.3
0217947	20	32	35.5	60.5	2	0.3
0217948	25	32	35.5	60.5	2	0.3
0217804	1/2"	32	35.5	60.5	2	0.3
0217806	5/8"	32	35.5	60.5	2	0.3
0217808	3/4"	32	35.5	60.5	2	0.3
0217810	7/8"	32	35.5	60.5	2	0.3
0217812	1"	32	35.5	60.5	2	0.3

ⓘ Additional sizes and customized designs are available upon request
Periphery-cooled version – not coolant-proof
Run-out accuracy: ≤ 0.003 mm



① O-ring sealing
② Adjustable stop/length adjustment

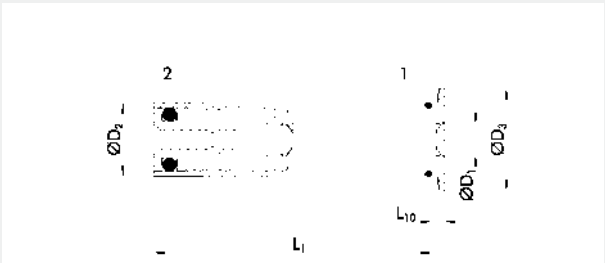


Technical data

ID	D1	D2	D3	L1	L10	Weight
	mm/Inch	Inch	mm	mm	mm	kg
0217383	5	1/2"	16.5	45	2	0.1
0217384	6	1/2"	16.5	45	2	0.1
0217376	1/8"	1/2"	16.5	45	2	0.1
0217377	3/16"	1/2"	16.5	45	2	0.1
0217378	1/4"	1/2"	16.5	45	2	0.1
0217379	5/16"	1/2"	16.5	45	2	0.1
0217380	3/8"	1/2"	16.5	45	2	0.1

ⓘ Additional sizes and customized designs are available upon request
Periphery-cooled version – not coolant-proof
Run-out accuracy: ≤ 0.003 mm

GZB-S Ø 3/4" PK
Intermediate sleeves



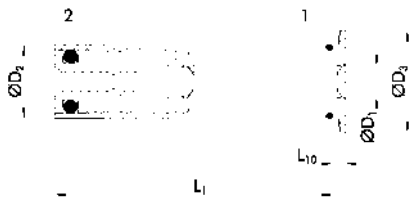
① O-ring sealing
② Adjustable stop/length adjustment



Technical data

ID	D1	D2	D3	L1	L10	Weight
	mm/Inch	Inch	mm	mm	mm	kg
0217969	3	3/4"	24	50.5	2	0.1
0217970	4	3/4"	24	50.5	2	0.1
0217972	6	3/4"	24	50.5	2	0.1
0217973	8	3/4"	24	50.5	2	0.1
0217974	10	3/4"	24	50.5	2	0.1
0217975	12	3/4"	24	50.5	2	0.1
0217976	14	3/4"	24	50.5	2	0.1
0217960	1/8"	3/4"	24	50.5	2	0.1
0217961	3/16"	3/4"	24	50.5	2	0.1
0217962	1/4"	3/4"	24	50.5	2	0.1
0217963	5/16"	3/4"	24	50.5	2	0.1
0217964	3/8"	3/4"	24	50.5	2	0.1
0217965	7/16"	3/4"	24	50.5	2	0.1
0217966	1/2"	3/4"	24	50.5	2	0.1
0217967	9/16"	3/4"	24	50.5	2	0.1
0217968	5/8"	3/4"	24	50.5	2	0.1

ⓘ Additional sizes and customized designs are available upon request
Periphery-cooled version – not coolant-proof
Run-out accuracy: ≤ 0.003 mm



① O-ring sealing
② Adjustable stop/length adjustment



Technical data

ID	D1	D2	D3	L1	L10	Weight
	mm/Inch	Inch	mm	mm	mm	kg
0218010	20	1 1/4"	39	60.5	2	0.3
0218011	25	1 1/4"	39	60.5	2	0.3
0217980	1/4"	1 1/4"	39	60.5	2	0.3
0217981	5/16"	1 1/4"	39	60.5	2	0.3
0217982	3/8"	1 1/4"	39	60.5	2	0.3
0217984	1/2"	1 1/4"	39	60.5	2	0.3
0217985	9/16"	1 1/4"	39	60.5	2	0.3
0217986	5/8"	1 1/4"	39	60.5	2	0.3
0217987	11/16"	1 1/4"	39	60.5	2	0.3
0217988	3/4"	1 1/4"	39	60.5	2	0.3
0217990	7/8"	1 1/4"	39	60.5	2	0.3
0217992	1"	1 1/4"	39	60.5	2	0.3

ⓘ Additional sizes and customized designs are available upon request
Periphery-cooled version – not coolant-proof
Run-out accuracy: ≤ 0.003 mm

schunk.com/wzs-gzb-s



Simple. Effective. Versatile. Intermediate sleeves WZS GZB-S

Intermediate bushes for tool grinding toolholders from SCHUNK are an effective solution to increase the flexibility and versatility of tool grinding machines. SCHUNK offers the GZB-S universal intermediate sleeve in two versions: the coolant-proof version (GZB-S KD) and a version with peripheral cooling (GZB-S PK). Special intermediate sleeves with radial locking (GZB-S RS) and bayonet locking (GZB-S BJ) are also available.

Functions & highlights

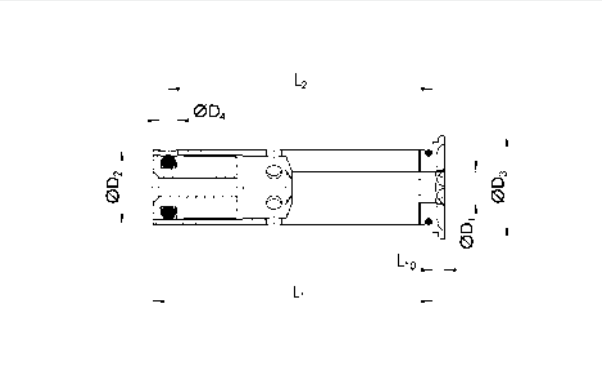
- **Clamping several shank diameters with just one toolholder**
- **Flexibility in the adaptation of intermediate bushes in semi-automatic and fully automatic work processes**



Field of application

WZS GZB-S

Intermediate sleeves for tool grinding toolholders make it possible to precisely clamp different tool diameters, regardless of the type of actuation – whether manual, semi-automated, fully automated or for unattended 24/7 operation – while ensuring a run-out accuracy of less than 5 µm.

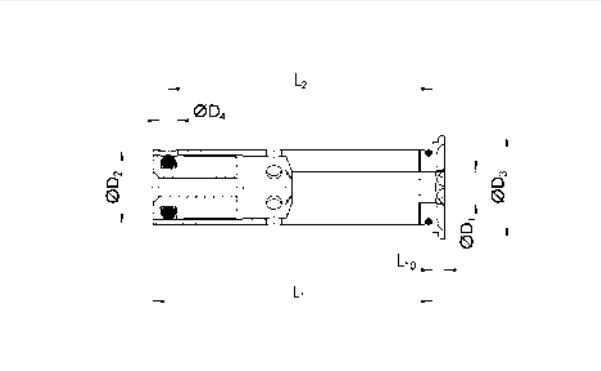




Technical data

ID	D1	D2	D3	D4	L1	L2	L10	Weight
	mm	mm	mm	mm	mm	mm	mm	kg
0207955	3	12	16.5	3.5	45	42.5	2	0.1
0207956	4	12	16.5	3.5	45	42.5	2	0.1
0207957	5	12	16.5	3.5	45	42.5	2	0.1
0207958	6	12	16.5	3.5	45	42.5	2	0.1
0207959	8	12	16.5	3.5	45	42.5	2	0.1

ⓘ Additional sizes and customized designs are available upon request
Design with radial safety bore – for internal coolant supply/coolant-proof up to max. 80 bar
Run-out accuracy: ≤ 0.003 mm

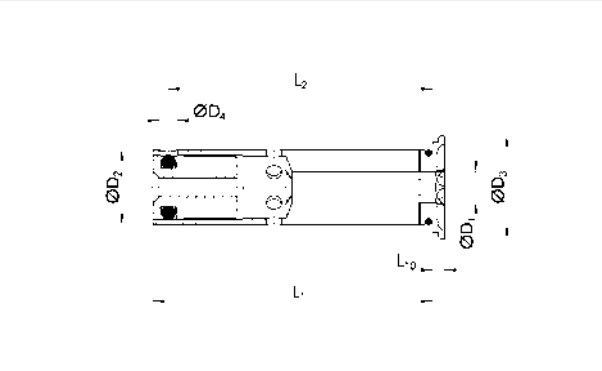




Technical data

ID	D1	D2	D3	D4	L1	L2	L10	Weight
	mm	mm	mm	mm	mm	mm	mm	kg
0207965	3	20	24	4	50.5	43	2	0.1
0207966	4	20	24	4	50.5	43	2	0.1
0207967	5	20	24	4	50.5	43	2	0.1
0207968	6	20	24	4	50.5	43	2	0.1
0207969	7	20	24	4	50.5	43	2	0.1
0207970	8	20	24	4	50.5	43	2	0.1
0207971	9	20	24	4	50.5	43	2	0.1
0207972	10	20	24	4	50.5	43	2	0.1
0207973	11	20	24	4	50.5	43	2	0.1
0207974	12	20	24	4	50.5	43	2	0.1
0207975	13	20	24	4	50.5	43	2	0.1
0207976	14	20	24	4	50.5	43	2	0.1
0207977	15	20	24	4	50.5	43	2	0.1
0207978	16	20	24	4	50.5	43	2	0.1

ⓘ Additional sizes and customized designs are available upon request
Design with radial safety bore – for internal coolant supply/coolant-proof up to max. 80 bar
Run-out accuracy: ≤ 0.003 mm

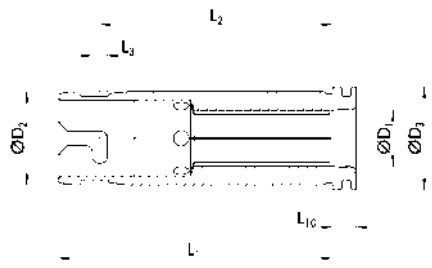


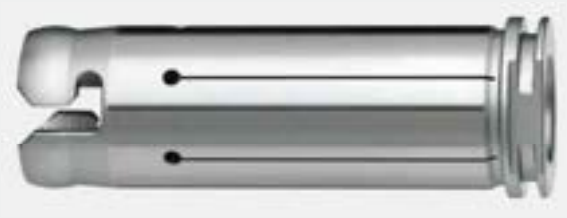


Technical data

ID	D1	D2	D3	D4	L1	L2	L10	Weight
	mm	mm	mm	mm	mm	mm	mm	kg
0207985	6	32	35.5	4	60.5	53.5	2	0.3
0207986	8	32	35.5	4	60.5	53.5	2	0.3
0207987	10	32	35.5	4	60.5	53.5	2	0.3
0207988	12	32	35.5	4	60.5	53.5	2	0.3
0207989	14	32	35.5	4	60.5	53.5	2	0.3
0207990	16	32	35.5	4	60.5	53.5	2	0.3
0207991	18	32	35.5	4	60.5	53.5	2	0.3
0207992	20	32	35.5	4	60.5	53.5	2	0.3
0207993	25	32	35.5	4	60.5	53.5	2	0.3

ⓘ Additional sizes and customized designs are available upon request
Design with radial safety bore – for internal coolant supply/coolant-proof up to max. 80 bar
Run-out accuracy: ≤ 0.003 mm



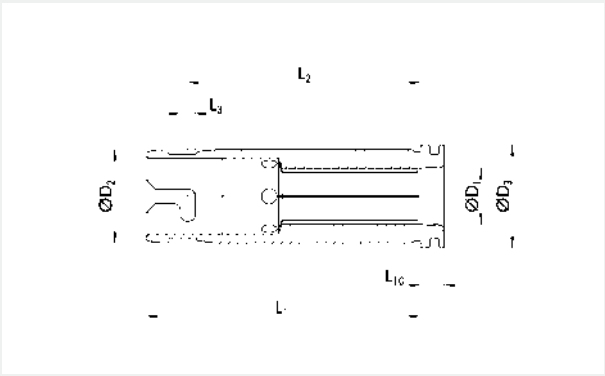


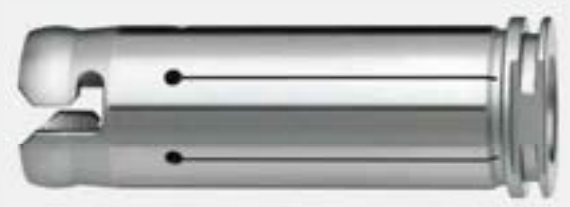
Technical data

ID	D1	D2	D3	L1	L2	L3	L10	Weight
	mm	mm	mm	mm	mm	mm	mm	kg
0207585	3	20	22	59	50	3	5	0.1
0207586	4	20	22	59	50	3	5	0.1
0207587	5	20	22	59	50	3	5	0.1
0207588	6	20	22	59	50	3	5	0.1
0207589	7	20	22	59	50	3	5	0.1
0207590	8	20	22	59	50	3	5	0.1
0207591	9	20	22	59	50	3	5	0.1
0207592	10	20	22	59	50	3	5	0.1
0207593	11	20	22	59	50	3	5	0.1
0207594	12	20	22	59	50	3	5	0.1
0207595	13	20	22	59	50	3	5	0.1
0207596	14	20	22	59	50	3	5	0.1
0207597	15	20	22	59	50	3	5	0.1
0207598	16	20	22	59	50	3	5	0.1
0207599	17	20	22	59	50	3	5	0.1

ⓘ Additional sizes and customized designs are available upon request
Design with bayonet locking

WZS GZB-S Ø 32 bayonet
Intermediate sleeves





Technical data

ID	D1	D2	D3	L1	L2	L3	L10	Weight
	mm	mm	mm	mm	mm	mm	mm	kg
0207605	6	32	34	69	61.5	4	5	0.3
0207606	8	32	34	69	61.5	4	5	0.3
0207607	10	32	34	69	61.5	4	5	0.3
0207608	12	32	34	69	61.5	4	5	0.3
0207609	14	32	34	69	61.5	4	5	0.3
0207610	16	32	34	69	61.5	4	5	0.3
0207611	18	32	34	69	61.5	4	5	0.3
0207612	20	32	34	69	61.5	4	5	0.3
0207613	25	32	34	69	61.5	4	5	0.3

ⓘ Additional sizes and customized designs are available upon request
Design with bayonet locking

Overview accessories

General accessories

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TOOLFIX Mono WMS-M	976
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Key for coolant tubes	981
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Retention knob JIS-BT	986
Retention knob CAT	989
Conversion kit DIN 2080	990
Clamping force tester	991
Data carriers	992
Cylindrical brush	993
TK-Cleaner	994
Cone wiper HSK	995
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RGG	997

Accessories TENDO

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TRIBOS SVP-2D	1007
TRIBOS SVP Scanner	1008
TRIBOS SVP-M	1009
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TRIBOS-RM/-Mini SVP assembly device	1011
TRIBOS-R SRE	1012
TRIBOS-RM SRE	1013
TRIBOS-S SRE	1014
TRIBOS-Mini SRE	1015
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Accessories CELSIO

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Length adjustment screw for CELSIO and WELDON slim	1022

Accessories for ER collet chucks

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ER precision collet chucks	1029
ER set of collets	1033
ER clamping nut	1034
ER clamping nut Mini	1035
ER precision clamping nut	1036
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Spanner wrench for ER Mini collet chuck	1039
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Torque wrench for ER precision collet chuck	1041

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Accessories end mill adapters

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Drive ring for combination shell and end mill adapter	1049
Key for combination shell and end mill adapter	1050

TOOLFIX Mono WMS-M

TOOLFIX Mono WMS-M is an assembly system for all standard machine interfaces. The toolholder is automatically secured when it is inserted into the adapter. Locking bolts and automatic snap-in can be used to find the ideal set-up position for ergonomic operation.



1. Locking bolt
2. Toolholders
3. Anti-rotation protection
4. Tool mounting head
5. Release button (swiveling)
6. Assembly block

Technical data

Description	ID	For interface	Weight kg
WMS-M VDI 25	0201927	VDI 25	7.7
WMS-M VDI 30	0201928	VDI 30	7.7
WMS-M VDI 40	0201929	VDI 40	8.6
WMS-M ISO 30	0201934	SK 30 / BT 30 / BT-DC 30 / CAT 30	7.8
WMS-M ISO 40	0201935	SK 40 / BT 40 / BT-DC 40 / CAT 40 / CAT-DC 40	7.9
WMS-M ISO 50	0201936	SK 50 / BT 50 / BT-DC 50 / CAT 50	10
WMS-M HSK-A 32	0201937	HSK-A 32	3.5
WMS-M HSK-A 40	0201938	HSK-A 40	8.2
WMS-M HSK-A 50	0201939	HSK-A 50	8.8
WMS-M HSK-A 63	0201940	HSK-A 63	9.7
WMS-M HSK-A 80	0201941	HSK-A 80	10.2
WMS-M HSK-A 100	0201942	HSK-A 100	11.8
WMS-M HSK-E 32	0201943	HSK-E 32	8.2
WMS-M HSK-E 40	0201944	HSK-E 40	8.2
WMS-M HSK-E 50	0201945	HSK-E 50	8.7
WMS-M HSK-E 63	0201946	HSK-E 63	9.5
WMS-M HSK-F 63	0201611	HSK-F 63	9.6
WMS-M CAPTO C4	0201911	SCHUNK CAPTO C4	7.6
WMS-M CAPTO C5	0201913	SCHUNK CAPTO C5	7.6
WMS-M CAPTO C6	0201914	SCHUNK CAPTO C6	8.5
WMS-M CAPTO C8	1312493	SCHUNK CAPTO C8	3.5

ⓘ Additional sizes and customized designs are available upon request

TOOLFIX Vario WMS-V

TOOLFIX Vario WMS-V is an assembly system for all standard machine interfaces. It has a quick-change lock for exchanging different tool adapters, allowing the user to use different types of adapters on a base body. Locking bolts and automatic engagement can be used to find the ideal set-up position for ergonomic operation.



1. **Exchangeable tool mounting head**
2. **Interface**
3. **Release button (changing)**
4. **Release button (swiveling)**

Technical data

Description	ID	For interface	Weight kg
WMS-VB	0201947		5.5
WMS-V VDI 25	0201966	VDI 25	3.5
WMS-V VDI 30	0201967	VDI 30	3.5
WMS-V VDI 40	0201968	VDI 40	3.5
WMS-V ISO 30	0201948	SK 30 / BT 30 / BT-DC 30 / CAT 30	3.5
WMS-V ISO 40	0201949	SK 40 / BT 40 / BT-DC 40 / CAT 40 / CAT-DC 40	3.5
WMS-V ISO 50	0201950	SK 50 / BT 50 / BT-DC 50 / CAT 50	5.3
WMS-V HSK-A 32	0201951	HSK-A 32	3.5
WMS-V HSK-A 40	0201952	HSK-A 40	3.5
WMS-V HSK-A 50	0201953	HSK-A 50	3.5
WMS-V HSK-A 63	0201954	HSK-A 63	4.8
WMS-V HSK-A 80	0201955	HSK-A 80	3.5
WMS-V HSK-A 100	0201933	HSK-A 100	2.2
WMS-V HSK-E 32	0201956	HSK-E 32	3.5
WMS-V HSK-E 40	0201957	HSK-E 40	3.5
WMS-V HSK-E 50	0201958	HSK-E 50	3.5
WMS-V HSK-E 63	0201959	HSK-E 63	3.5
WMS-V HSK-F 63	0201609	HSK-F 63	1.1
WMS-V CAPTO C3	0201916	SCHUNK CAPTO C3	3.5
WMS-V CAPTO C4	0201917	SCHUNK CAPTO C4	3.5
WMS-V CAPTO C5	0201918	SCHUNK CAPTO C5	2.5
WMS-V CAPTO C6	0201919	SCHUNK CAPTO C6	3.1
WMS-V CAPTO C8	0201920	SCHUNK CAPTO C8	3.5

ⓘ Additional sizes and customized designs are available upon request

WZW-725

Tool cart as rollable organizer for all tools which are not currently in use



Technical data

Description	ID	Length L	Width B	Height H	Possible number of toolholder spaces	Weight
		mm	mm	mm		kg
WZW-725 BT 30 48	1154313	725	800	1370	48	72
WZW-725 BT 30 64	1154314	725	800	1370	64	72
WZW-725 BT 30 96	1154315	725	800	1370	96	72
WZW-725 BT 40 36	1154289	725	800	1370	36	72
WZW-725 BT 40 48	1154291	725	800	1370	48	72
WZW-725 BT 40 72	1154292	725	800	1370	72	72
WZW-725 BT 50 24	1154303	725	800	1370	24	72
WZW-725 BT 50 32	1154304	725	800	1370	32	72
WZW-725 BT 50 48	1154305	725	800	1370	48	72
WZW-725 SK 40/CAT 40 36	1154279	725	800	1370	36	72
WZW-725 SK 40/CAT 40 48	1154281	725	800	1370	48	72
WZW-725 SK 40/CAT 40 72	1154283	725	800	1370	72	72
WZW-725 SK 50/CAT 50 24	1154299	725	800	1370	24	72
WZW-725 SK 50/CAT 50 32	1154300	725	800	1370	32	72
WZW-725 SK 50/CAT 50 48	1154301	725	800	1370	48	72
WZW-725 CAPTO C6 36	1154285	725	800	1370	36	72
WZW-725 CAPTO C6 48	1154286	725	800	1370	48	72
WZW-725 CAPTO C6 72	1154287	725	800	1370	72	72
WZW-725 CAPTO C6 48	1465902	725	800	1370	48	72
WZW-725 HSK-A 40 48	1154309	725	800	1370	48	72
WZW-725 HSK-A 40 64	1154310	725	800	1370	64	72
WZW-725 HSK-A 40 96	1154311	725	800	1370	96	72
WZW-725 HSK-A 50 48	1465901	725	800	1370	48	72
WZW-725 HSK-A 63 36	1154274	725	800	1370	36	72
WZW-725 HSK-A 63 48	1154275	725	800	1370	48	72
WZW-725 HSK-A 63 72	1154276	725	800	1370	72	72
WZW-725 HSK-A 80 30	1341137	725	800	1370	30	72
WZW-725 HSK-A 80 40	1341138	725	800	1370	40	72
WZW-725 HSK-A 80 60	1341139	725	800	1370	60	72
WZW-725 HSK-A 100 24	1154295	725	800	1370	24	72
WZW-725 HSK-A 100 32	1154296	725	800	1370	32	72
WZW-725 HSK-A 100 48	1154297	725	800	1370	48	72
VDI 40 30	1471607	725	800	1370	30	58
VDI 40 40	1471608	725	800	1370	40	60
VDI 40 60	1471609	725	800	1370	60	62

WZW-1025

Tool cart as rollable organizer for all tools which are not currently in use

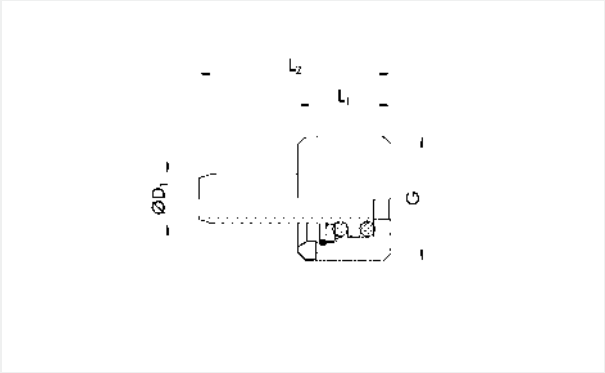


Technical data

Description	ID	Length L	Width B	Height H	Possible number of toolholder spaces	Weight
		mm	mm	mm		kg
WZW-1025 BT 30 144	1154316	1025	800	1370	144	84
WZW-1025 BT 40 120	1154293	1025	800	1370	120	84
WZW-1025 BT 50 72	1154306	1025	800	1370	72	84
WZW-1025 SK 40/CAT 40 120	1154284	1025	800	1370	120	84
WZW-1025 SK 50/CAT 50 72	1154302	1025	800	1370	72	84
WZW-1025 CAPTO C6 120	1154288	1025	800	1370	120	84
WZW-1025 HSK-A 40 156	1154312	1025	800	1370	156	84
WZW-1025 HSK-A 63 120	1154277	1025	800	1370	120	84
WZW-1025 HSK-A 80 96	1341140	1025	800	1370	96	84
WZW-1025 HSK-A 100 72	1154298	1025	800	1370	72	84

Coolant tube

The coolant tubes KMR from SCHUNK prevent contamination of the machine spindle and protect the sealing system. They are used for transferring the coolant and/or optimizing the internal coolant supply of HSK clamping devices. The coolant tubes allow for minimal, smooth-running angular movements of the coolant tube ±1°.





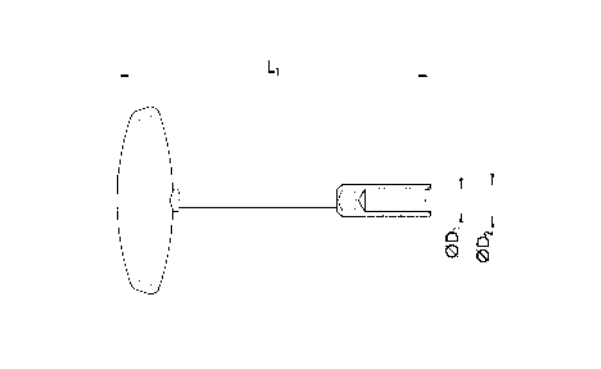
Technical data

Description	ID	For interface	D1	L1	L2	G	Weight
			mm	mm	mm		kg
KMR HSK 25	9799132	HSK 25	5	4.5	24	M8x1	0.002
KMR HSK 32	9799136	HSK 32	6	5.5	26	M10x1	0.006
KMR HSK 40	9799137	HSK 40	8	7.5	29	M12x1	0.009
KMR HSK 50	9799138	HSK 50	10	9.5	33	M16x1	0.018
KMR HSK 63	9799133	HSK 63	12	11.5	36.5	M18x1	0.025
KMR HSK 80	9799135	HSK 80	14	13.5	39.5	M20x1.5	0.032
KMR HSK 100	9799134	HSK 100	16	15	43.5	M24x1.5	0.047
KMR SCHUNK CAPTO C4	1429632	SCHUNK CAPTO C4	6	12	25.2	M14x1.5	0.09
KMR SCHUNK CAPTO C5	1422529	SCHUNK CAPTO C5	7	14	28.3	M16x1.5	0.09
KMR SCHUNK CAPTO C6	1423744	SCHUNK CAPTO C6	8	15	31	M20x2	0.09
KMR SCHUNK CAPTO C8	1422540	SCHUNK CAPTO C8	10	15	31.5	M20x2	0.09

ⓘ HSK design with two O-rings – axially sealed – according to DIN 69895

Key for coolant tube

KMRS socket wrench for assembly/disassembly of coolant tubes.



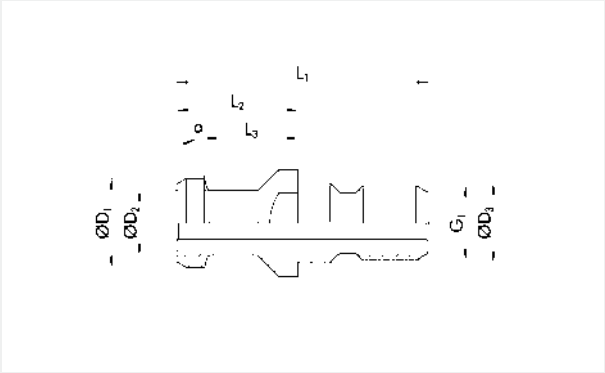


Technical data

Description	ID	For interface	D1 mm	D2 mm	L1 mm	Weight kg
KMRS HSK 25	9799149	HSK 25	5	7	105	0.15
KMRS HSK 32	9799150	HSK 32	6	9	107	0.045
KMRS HSK 40	9799151	HSK 40	8	11	111	0.05
KMRS HSK 50	9799152	HSK 50	10	15	120	0.058
KMRS HSK 63	9799153	HSK 63	12	17	122	0.068
KMRS HSK 80	9799154	HSK 80	14	18.5	126	0.143
KMRS HSK 100	9799155	HSK 100	16	22	141	0.167
KMRS SCAPTO C4	1429643	SCHUNK CAPTO C4	6	11	111	0.182
KMRS SCAPTO C5	1422543	SCHUNK CAPTO C5	7	15	120	0.15
KMRS SCAPTO C6	1423748	SCHUNK CAPTO C6	8	17	122	0.15
KMRS SCAPTO C8	1422546	SCHUNK CAPTO C8	10	18.5	126	0.15

Retention knob with through-hole DIN ISO 7388-3 form AD

Retention knob for steep taper mountings SK, as an important connecting element between machine and tool.



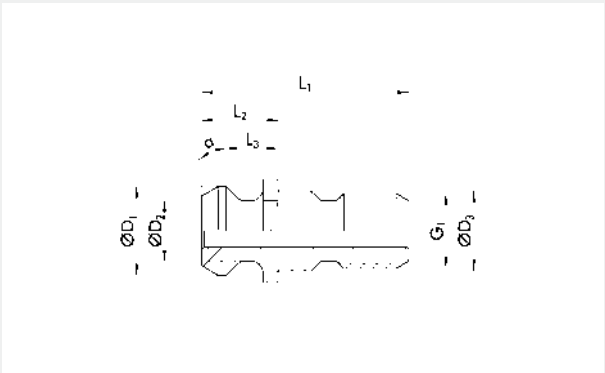


Technical data

Description	ID	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	L3 mm	a °	G1	Weight kg
AZB SK 40 15° ISO 7388-3 AD	9938210	19	14	17	54	26	20	15	M16	0.079
AZB SK 50 15° ISO 7388-3 AD	9938211	28	21	25	74	34	25	15	M24	0.227

Retention knob with through-hole DIN ISO 7388-3 form UD

Retention knob for steep taper mountings SK, as an important connecting element between machine and tool.



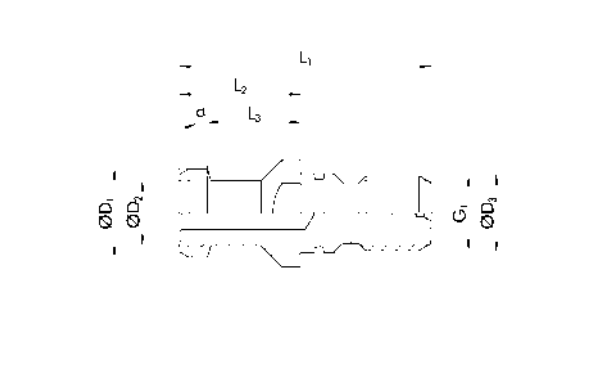


Technical data

Description	ID	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	L3 mm	a °	G1	Weight kg
AZB SK 40 45° ISO 7388-3 UD	9938218	18.95	12.95	17	44.5	16.4	11.5	45	M16	0.238
AZB SK 50 45° ISO 7388-3 UD	9938219	29.1	19.6	25	65.5	25.55	17.95	45	M24	0.099

Retention knob without through-hole DIN ISO 7388-3 form AF

Retention knob for steep taper mountings SK, as an important connecting element between machine and tool.



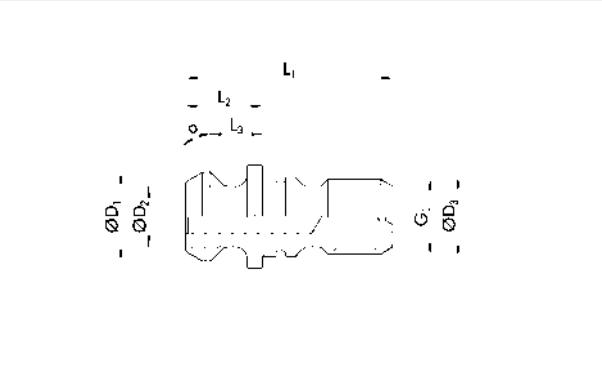


Technical data

Description	ID	D1	D2	D3	L1	L2	L3	a	G1	Weight
		mm	mm	mm	mm	mm	mm	°		kg
AZB SK 30 15° ISO 7388-3 AF	9150106	13	9	13	44	24	19	15	M12	0.158
AZB SK 40 15° ISO 7388-3 AF	9150117	19	14	17	54	26	20	15	M16	0.122
AZB SK 50 15° ISO 7388-3 AF	9150119	28	21	25	74	34	25	15	M24	0.24

Retention knob without through-hole DIN ISO 7388-3 form UF

Retention knob for steep taper mountings SK, as an important connecting element between machine and tool.



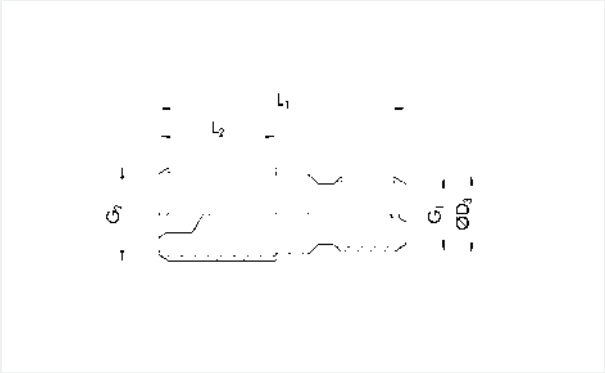


Technical data

Description	ID	D1	D2	D3	L1	L2	L3	a	G1	Weight
		mm	mm	mm	mm	mm	mm	°		kg
AZB SK 40 45° ISO 7388-3 UF	9938220	18.95	12.95	17	44.5	16.4	11.5	45	M16	0.067
AZB SK 50 45° ISO 7388-3 UF	9938221	29.1	19.6	25	65.5	25.55	17.95	45	M24	0.08

Retention knob with buttress thread, S20x2 DIN 514

Retention knob for steep taper mountings SK, as an important connecting element between machine and tool.



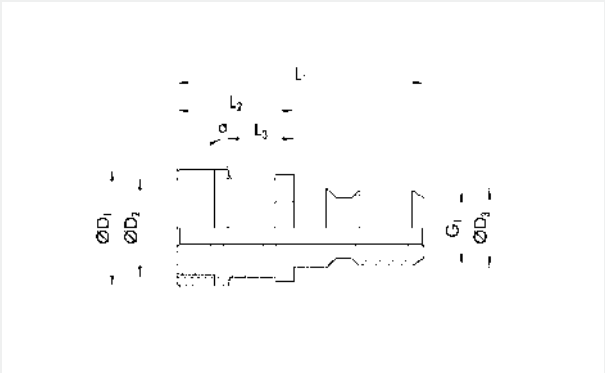


Technical data

Description	ID	D3 mm	L1 mm	L2 mm	G1	G2	Weight kg
AZB S20x2 SK 40 DIN 514	9938225	17	53	25	M16	S20x2	0.037

Retention knob, Ott-ring groove with through-hole

Retention knob for steep taper mountings SK, as an important connecting element between machine and tool.



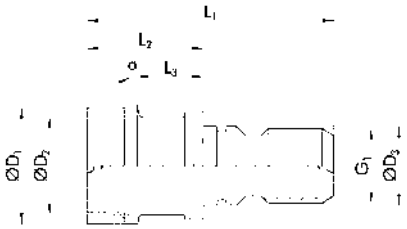


Technical data

Description	ID	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	L3 mm	G1	Weight kg
AZB OTT SK 40 with through-hole	9938212	25	21.1	17	53	25	13.6	M16	0.071
AZB OTT SK 50 with through-hole	9938213	39.3	32	25	65	25	13.35	M24	0.053

Retention knob, Ott-ring groove without through-hole

Retention knob for steep taper mountings SK, as an important connecting element between machine and tool.



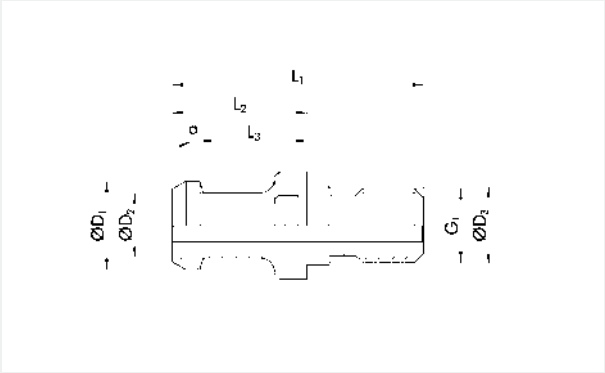


Technical data

Description	ID	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	L3 mm	G1	Weight kg
AZB OTT SK 40 without through-hole	9938214	25	21.1	17	53	25	13.6	M16	0.213
AZB OTT SK 50 without through-hole	9938215	39.3	32	25	65	25	13.35	M24	0.167

Retention knob with through-hole JIS-BT 6339 15°

Retention knob for steep taper mountings JIS-BT, as an important connecting element between machine and tool.



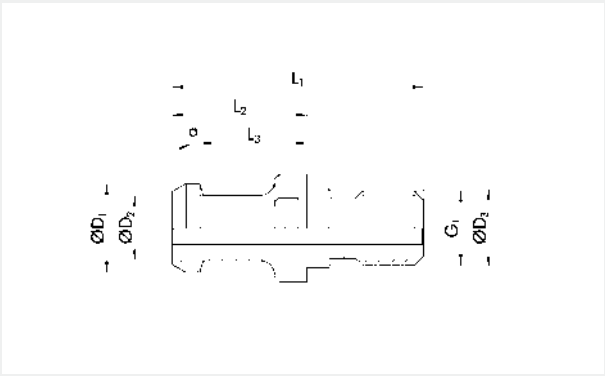


Technical data

Description	ID	D1	D2	D3	L1	L2	L3	a	G1	Weight
		mm	mm	mm	mm	mm	mm	°		kg
AZB JIS-BT 40 15° JIS-BT 6339	9150116	19	14	17	54	29	23	15	M16	0.032
AZB JIS-BT 50 15° JIS-BT 6339	9150118	28	21	25	74	34	25	15	M24	0.263

Retention knob with through-hole JIS-BT 6339 45°

Retention knob for steep taper mountings JIS-BT, as an important connecting element between machine and tool.



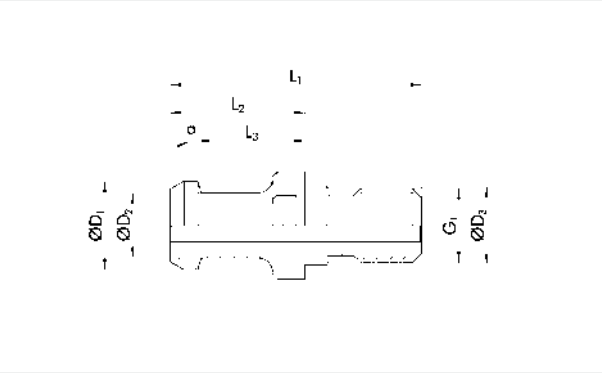


Technical data

Description	ID	D1	D2	D3	L1	L2	L3	a	G1	Weight
		mm	mm	mm	mm	mm	mm	°		kg
AZB JIS-BT 30 45° JIS-BT 6339	20043221	11	8	12.5	43	23	18	45	M12	0.027
AZB JIS-BT 40 45° JIS-BT 6339	23003032	15	10	17	60	35	28	45	M16	0.2

Retention knob with through-hole DIN ISO 7388-3 form JD

Retention knob for steep taper mountings JIS-BT, as an important connecting element between machine and tool.



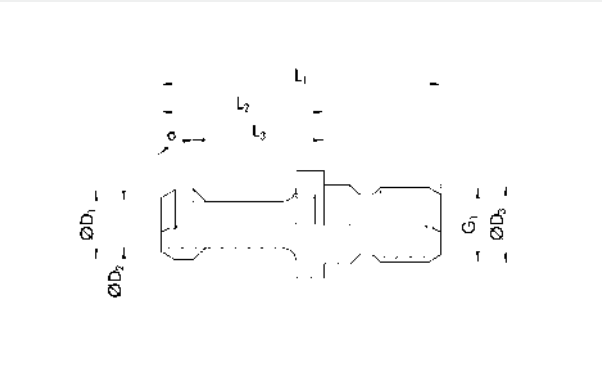


Technical data

Description	ID	D1	D2	D3	L1	L2	L3	a	G1	Weight
		mm	mm	mm	mm	mm	mm	°		kg
AZB JIS-BT 30 30° MAS 403	23003012	11	7	12.5	43	23	18	30	M12	0.053

Retention knob DIN ISO 7388-3 form JF

Retention knob for steep taper mountings JIS-BT, as an important connecting element between machine and tool.



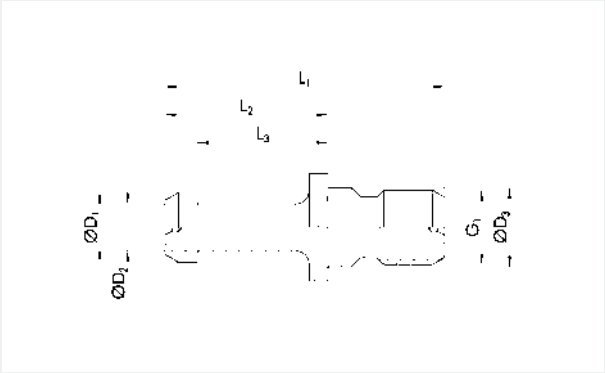


Technical data

Description	ID	D1	D2	D3	L1	L2	L3	a	G1	Weight
		mm	mm	mm	mm	mm	mm	°		kg
AZB JIS-BT 30 30° MAS 403	9938228	11	7	12.5	43	23	18	30	M12	0.069
AZB JIS-BT 30 45° MAS 403	23003307	11	7	12.5	43	23	18	45	M12	0.068
AZB JIS-BT 40 30° MAS 403	9938229	15	10	17	60	35	28	30	M16	0.03
AZB JIS-BT 40 45° MAS 403	9150122	15	10	17	60	35	28	45	M16	0.076
AZB JIS-BT 50 30° MAS 403	9938230	23	17	25	85	45	35	30	M24	0.075
AZB JIS-BT 50 45° MAS 403	9938226	23	17	25	85	45	35	45	M24	0.53

Retention knob Mori-Seiki MAS 90°

Retention knob for steep taper mountings JIS-BT, as an important connecting element between machine and tool.



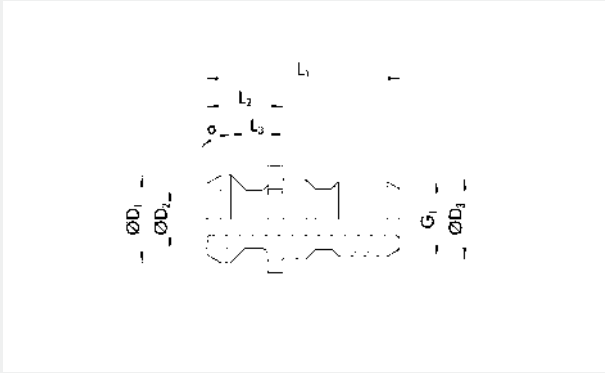


Technical data

Description	ID	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	L3 mm	G1	Weight kg
AZB JIS-BT 40 Mori-Seiki MAS 90°	9938208	15	10	17	60	35	28	M16	0.028
AZB JIS-BT 50 Mori-Seiki MAS 90°	9938209	23	17	25	85	45	35	M24	0.278

Retention knob for MAZAK ANSI-CAT 40

Retention knob for steep taper mountings CAT (MAZAK) as an important connecting element between machine and tool.



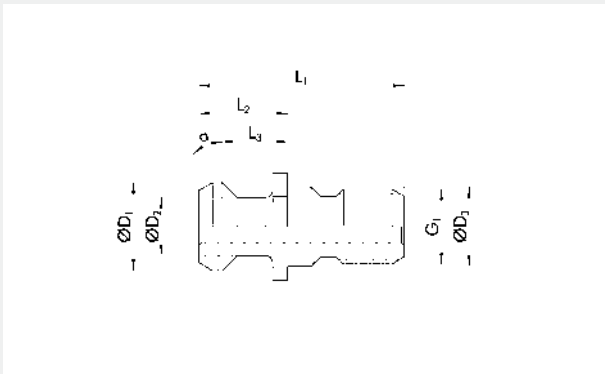


Technical data

Description	ID	D1	D2	D3	L1	L2	L3	a	G1	Weight
		mm	mm	mm	mm	mm	mm	°		kg
AZB MAZAK CAT 40 45° 5/8"-11 UNC L1=41,26	1491329	18.796	12.446	17	41.3	16.3	11.2	45	M5/8"	0.052
AZB MAZAK CAT 40 45° L1=41,3	9938222	18.796	12.446	17	41.3	16.3	11.2	45	M16	0.052
AZB MAZAK CAT 40 45° L1=44,1	9938224	18.796	12.446	17	44.1	19.3	14.03	45	M16	0.05

Retention knob for MAZAK ANSI-CAT 50

Retention knob for steep taper mountings CAT (MAZAK) as an important connecting element between machine and tool.



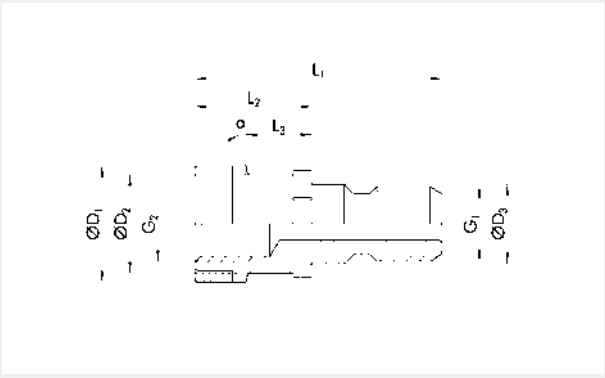


Technical data

Description	ID	D1	D2	D3	L1	L2	L3	a	G1	Weight
		mm	mm	mm	mm	mm	mm	°		kg
AZB MAZAK CAT 50 45°	9938223	28.95	20.82	25	65.4	25.4	17.78	45	M24	0.188

Retention knob, Ott-ring groove with internal thread

DIN 2080 conversion kit consisting of a special form C DIN 2079 T-nut, and an Ott ring groove retention knob. The conversion kit is used for converting spindles according to DIN 2080 to toolholder tapers according to DIN 69871.



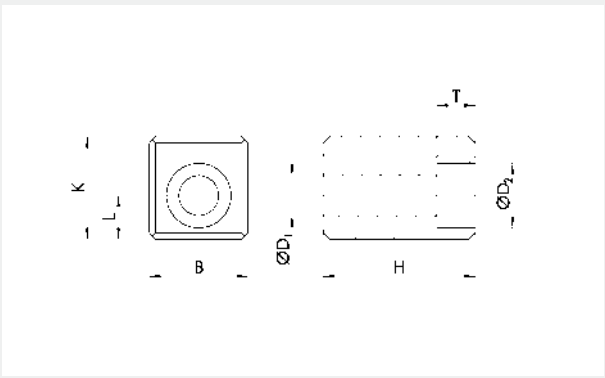


Technical data

Description	ID	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	L3 mm	G1	G2	Weight kg
AZB OTT SK 40 with internal thread	9150101	25	21.1	17	53	25	13.6	M16	M16	0.079
AZB OTT SK 50 with internal thread	9150102	39.3	32	25	65	25	13.35	M24	M24	0.195

Special T-nut

DIN 2080 conversion kit consisting of a special form C DIN 2079 T-nut, and an Ott ring groove retention knob. The conversion kit is used for converting spindles according to DIN 2080 to toolholder tapers according to DIN 69871.



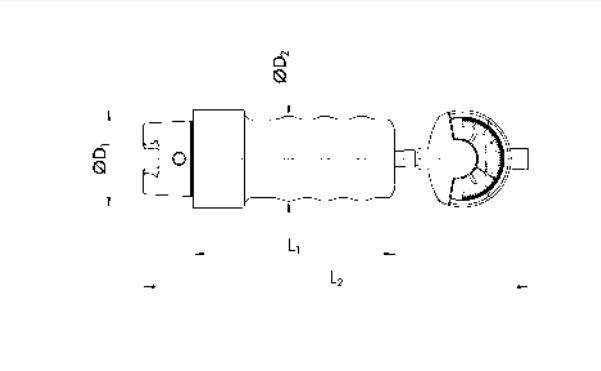


Technical data

Description	ID	For clamping diameter	D1 mm	D2 mm	K mm	L mm	B mm	H mm	T mm	Weight kg
SNS 40	9150103	SK 40	6.4	10.4	16.5	7	15.9	24.5	6.2	0.038
SNS 50	9150104	SK 50	13	19	24	11	25.4	29	12.3	0.09

Clamping force tester

To ensure operational safety, it is recommended to check the clamping force regularly. SCHUNK offers fully mechanical clamping force testers for the most common interfaces. The operation is based on components which are linear adjustable in length and are positioned proportionally to the force. A force is associated with the alteration in length, it is displayed on a dial indicator.

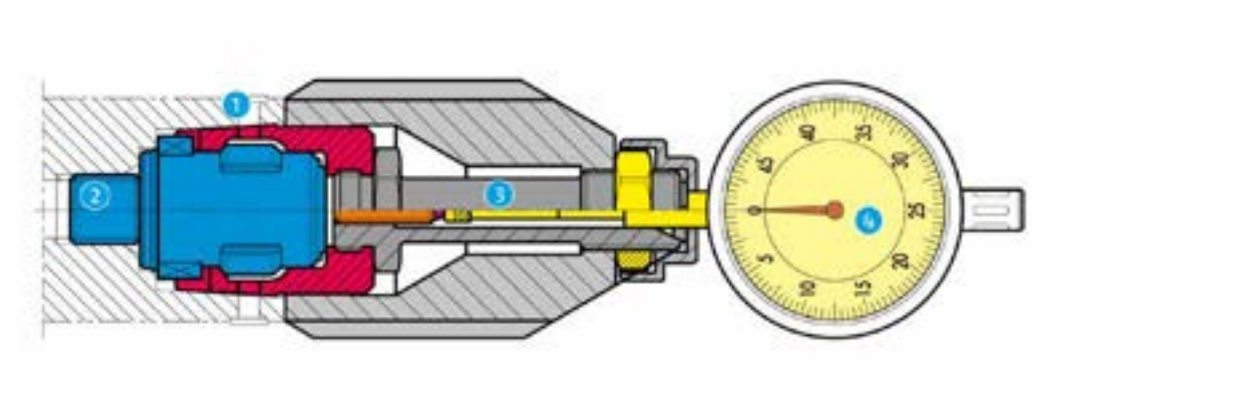




Technical data

Description	ID	For interface	D1	D2	L1	L2	Weight
			mm	mm	mm	mm	kg
SKP HSK 20	1545627	HSK 20	20	29	98	196	0.8
SKP HSK 25	0205960	HSK 25	29	29	98	200	0.8
SKP HSK 32	0205961	HSK 32	32	36.5	102	205	1
SKP HSK 40	0205962	HSK 40	40	45	101	209	1.31
SKP HSK 50	0205963	HSK 50	50	54.5	104	216	1.74
SKP HSK 63	0205964	HSK 63	63	54.5	130	248	2.6
SKP HSK 80	0205965	HSK 80	80	54.5	135	263	3.48
SKP HSK 100	0205966	HSK 100	100	68	137	273	5.54
SKP SK 30/CAT 30	1336529	SK 30/CAT 30	31.75	18	112.2	223	1.05
SKP SK 40/CAT 40	20041741	SK 40/CAT 40	44.45	24	141.6	255	1.88
SKP SK 50/CAT 50	20043854	SK 50/CAT 50	69.85	39	155.25	292	3.46
SKP BT 30/BT-DC 30	20057197	BT 30/BT-DC 30	31.75	18	112.2	223	1.05
SKP BT 40/BT-DC 40	1319084	BT 40/BT-DC 40	44.45	24	141.6	255	1.88
SKP SCHUNK CAPTO C5	20050084	SCHUNK Capto C5	50	54.5	109	226	2.06
SKP SCHUNK CAPTO C6	20057025	SCHUNK Capto C6	63	67.5	119	244	3.16

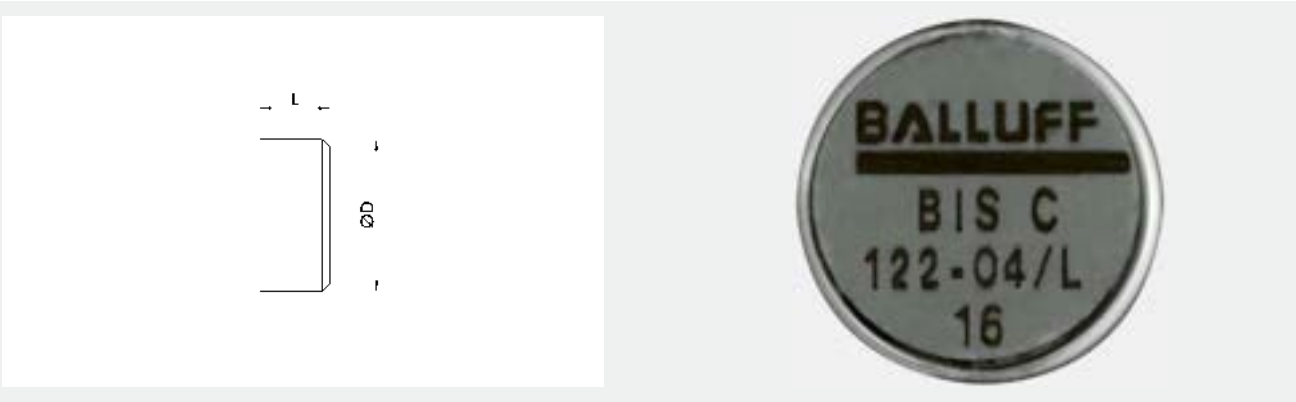
Operating principle



1. HSK measuring shank
2. Controlled 4-point clamping system
3. Drawbar
4. Dial indicator

Data carriers

The data carrier can be installed on all SCHUNK toolholders with SK, BT, HSK, and SCHUNK CAPTO mountings. It is used for data collection and clear classification of toolholders in a toolholder identification system. Energy and data that the data carrier requires are inductively coupled by the reading and writing head. The security of the data transmission is ensured by a plausibility test.



Technical data

Description	ID	Diameter D mm	Length L mm	Storing capacity	Protection class IP	Min./max. ambient temperature °C	Min./max. storage temperature °C	Housing material
BIS-C-105-05-A	23002188	10	4.5	1023 Byte	68	0 – 70	-30 – 85	Epoxy resin fiber optic
BIS-C-122-04-L	9905355	10	4.5	511 Byte	68	0 – 70	-30 – 85	Epoxy resin fiber optic
BIS-C-122-05-L	1497154	10	4.5	1023 Byte	68	0 – 70	-30 – 85	Epoxy resin fiber optic
BIS-C-122-11-L	23002833	10	4.5	2047 Byte	68	0 – 70	-30 – 85	Epoxy resin fiber optic
BIS-M-122-02/A	23002987	10	4.5	2000 Byte	67	-25 – 70	-25 – 85	PA 12, PU seal

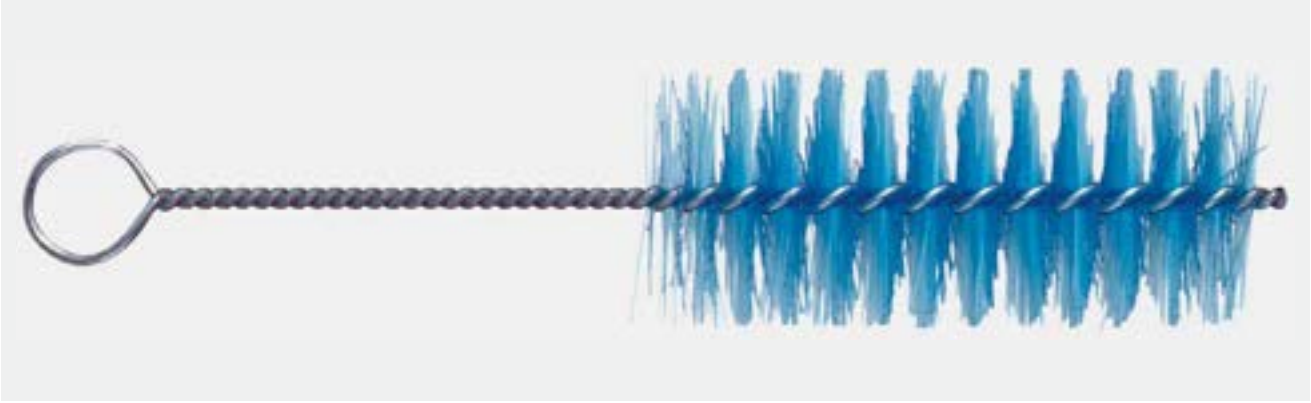
Operating principle



The reading cycles of the data carriers are unlimited. The maximum read/write distance is 2.5 mm. The maximum number of programming cycles at a maximum ambient temperature of 70 °C is 500,000 cycles. The maximum number of programming cycles at a maximum ambient temperature of 30 °C is 1,000,000 cycles.
The following read/write heads can be used for this: BIS-C 300/302/305/306/325.

Cylindrical brush

Cleaning brush for cleaning the clamping diameters from Ø 6 mm to Ø 32 mm.



Technical data

Description	ID	For clamping diameter	Weight kg
Cleaning brush 6	9102002	6 mm	0.03
Cleaning brush 8	9102003	8 mm	0.03
Cleaning brush 10	9102004	10 mm	0.03
Cleaning brush 12	9102005	12 mm	0.03
Cleaning brush 16	9102017	16 mm	0.04
Cleaning brush 20	9102007	20 mm	0.04
Cleaning brush 25	9102009	25 mm	0.04
Cleaning brush 32	9102016	32 mm	0.04

TK-Cleaner

Cleaning brush TK Cleaner for cleaning the clamping diameter.



Technical data

Description	ID	For clamping diameter	Weight kg
TK-Cleaner TKC 6	0280010	6 mm	0.045
TK-Cleaner TKC 8	0280011	8 mm	0.045
TK-Cleaner TKC 10	0280012	10 mm	0.045
TK-Cleaner TKC 12	0280013	12 mm	0.044
TK-Cleaner TKC 14	0280014	14 mm	0.044

TK-Cleaner

Cleaning brush TK Cleaner for cleaning the clamping diameter.



Technical data

Description	ID	For clamping diameter	Weight kg
TK-Cleaner TKC 16	0280015	16 mm	0.042
TK-Cleaner TKC 18	0280016	18 mm	0.044
TK-Cleaner TKC 20	0280017	20 mm	0.052
TK-Cleaner TKC 25	0280018	25 mm	0.052
TK-Cleaner TKC 32	0280019	32 mm	0.089
TK-Cleaner TKC 40	27000350	40 mm	0.09
TK-Cleaner TKC 42	27000351	42 mm	0.095

Cone wiper for HSK interfaces

The HSK cone wiper is used for cleaning the front side of the HSK spindle.



Technical data

Description	ID	For interface	Weight kg
Cone wiper HSK 32	23005129	HSK 32	0.02
Cone wiper HSK 40	23005130	HSK 40	0.04
Cone wiper HSK 50	23005131	HSK 50	0.045
Cone wiper HSK 63	23002483	HSK 63	0.05
Cone wiper HSK 80	23005132	HSK 80	0.55
Cone wiper HSK 100	23005133	HSK 100	0.6

Tapered cleaner for SK/BT/CAT interfaces

The SK/BT/CAT tapered cleaner is used to clean the machine spindle.

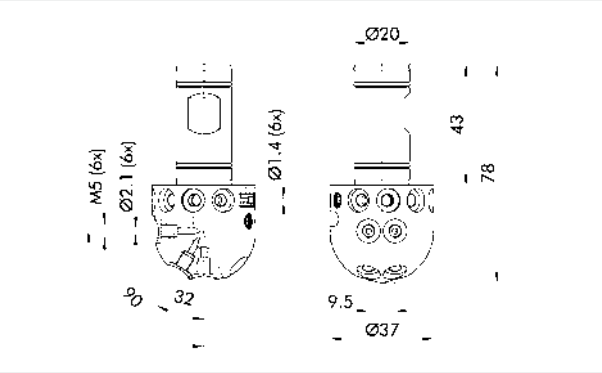


Technical data

Description	ID	For interface	Weight kg
Tapered cleaner SK/BT/CAT 30	0212211	SK 30/BT 30/CAT 30	0.03
Tapered cleaner SK/BT/CAT 40	27001419	SK 40/BT 40/CAT 40	0.063
Tapered cleaner SK/BT/CAT 50	27001086	SK 50/BT 50/CAT 50	0.08

Cleaning unit RGG

For cleaning of clamping devices and automation of machine tools. The cleaning unit can be used in any machine, which provides compressed air or coolant supply via the tool mounting.





Technical data

Description	ID	Weight	Min./max. ambient temperature	Max. permissible RPM	Max. operating pressure	Dimensions Ø D x Z
		kg	°C	RPM	bar	mm
RGG 20	0308590	0.1	-10 - 90	100	80	37/78

ⓘ Please note that applications under extreme conditions (e.g. coolant, casting or abrasive dust) will reduce the service life of this product considerably.
Please note that the product is not suitable for heat shrinking toolholders.

TENDO GZB-S sleeve remover

TENDO GZB-S sleeve remover for intermediate sleeves GZB-S Ø 12 to GZB-S Ø 32. For safe and easy removal of intermediate sleeves GZB-S from TENDO hydraulic expansion toolholders.



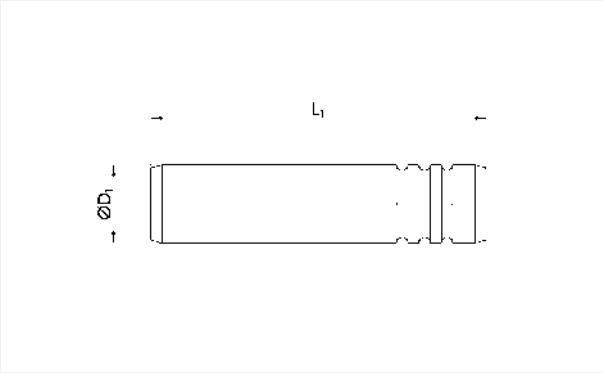


Technical data

Description	ID	Weight kg
TENDO GZB-S sleeve remover	9937987	0.118

TENDO clamping force test piece

With the clamping force test piece, the clamping function of the hydraulic expansion toolholders TENDO Silver, TENDO Platinum, TENDO Slim 4ax, TENDO Zero, TENDO ES, TENDO RLA, TENDO LSS and TENDO E compact can be tested quickly and easily. The clamping force test piece is inserted into the toolholder at least up to the minimum clamping depth and the clamping screw is turned until dead stop. The clamping force is no longer sufficient if the test shaft can be pulled out of the TENDO hydraulic expansion toolholder with little effort using two fingers.





Technical data

Description	ID	D1 mm/Inch	L1 mm	Weight kg
TENDO SPW Ø6	0200020	6	50	0.028
TENDO SPW Ø8	0200021	8	50	0.034
TENDO SPW Ø10	0200022	10	80	0.049
TENDO SPW Ø12	0200023	12	80	0.07
TENDO SPW Ø14	0200024	14	80	0.092
TENDO SPW Ø16	0200025	16	70	0.119
TENDO SPW Ø18	0200026	18	70	0.148
TENDO SPW Ø20	0200027	20	80	0.182
TENDO SPW Ø25	0200028	25	80	0.2
TENDO SPW Ø32	0200029	32	80	0.23
TENDO SPW Ø1/4"	9646210	1/4"	55	0.028
TENDO SPW Ø3/8"	9646211	3/8"	60	0.035
TENDO SPW Ø1/2"	9646212	1/2"	65	0.05
TENDO SPW Ø5/8"	9646213	5/8"	68	0.107
TENDO SPW Ø3/4"	9646214	3/4"	70	0.161
TENDO SPW Ø7/8"	9646215	7/8"	70	0.213
TENDO SPW Ø1"	9646216	1"	80	0.327
TENDO SPW Ø1 1/4"	9646217	1 1/4"	93	0.534

ⓘ On request, you can order a clamping force test shaft for TENDO E compact Ø 16, TENDO E compact HSK-F63, TENDO P HSK-F63 and TENDO WZS

TENDO test shaft storage box

TENDO test shaft storage box for safe and clean storage of TENDO clamping force test shafts from Ø 6 mm to Ø 32 mm as well as Ø 1/4" to Ø 1 1/4"



Technical data

Description	ID	Weight kg
TENDO storage box	0200030	1

TENDO hexagon socket wrench

Hexagon socket wrench with cross handle for clamping and unclamping tool shanks in TENDO hydraulic expansion toolholders.



Technical data

Description	ID	Weight kg
Hexagon socket wrench SW 4x100	9205640	0.064
Hexagon socket wrench SW 5x100	9205650	0.06
Hexagon socket wrench SW 6x100	9205660	0.07
Hexagon socket wrench SW 5x200	9949977	0.064
Hexagon socket wrench SW 6x200	9205662	0.091

TENDO RLA hexagon socket wrench

Allen key with cross handle for micron-precise, radial presetting of the tool lengths for hydraulic expansion toolholders TENDO RLA.



Technical data

Description	ID	Weight kg
Hexagon socket wrench SW 2.5x60	9936185	0.2

TENDO Zero TORX PLUS

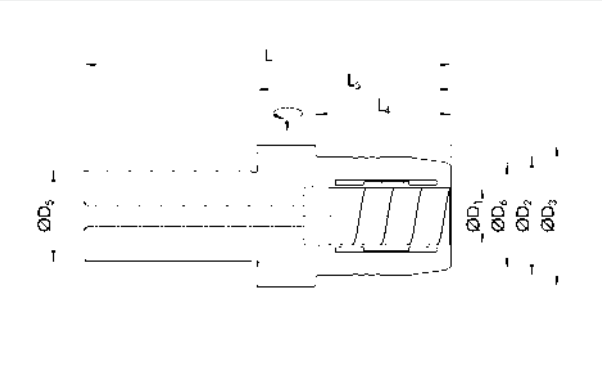
Allen key with cross handle for manual fine adjustment of the run-out for hydraulic expansion toolholders TENDO Zero.



Technical data

Description	ID	Weight kg
TORX PLUS 15x80	9955034	0.01

iTENDO² adapter Ø 32 – Ø 20



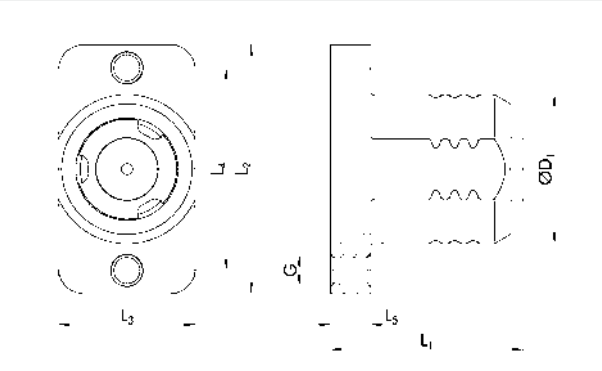


Technical data

Description	ID	D1	D2	D3	D5	D6	L	L4	L5	Mmin	Weight	Max. rotational speed
		mm	mm	mm	mm	mm	mm	mm	mm	Nm	kg	RPM
iTENDO² adapter Ø32–Ø20x69	1484703	20	42.05	50.15	32	37.65	130	48	69	330	0.95	30000

iTENDO² magnetic holder

Magnetic holder with iTENDO² technology for simple use in tests and process optimizations. Can be very easily attached magnetically or with screws to static parts in the workspace.



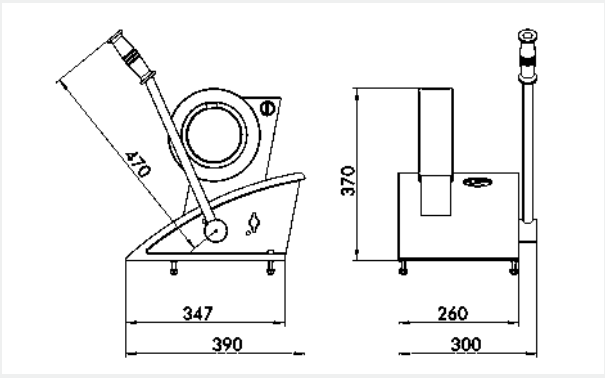


Technical data

Description	ID	D1	L1	L2	L3	L4	L5	G	Weight	max. coolant pressure
		mm	mm	mm	mm	mm	mm		kg	bar
iTENDO² magnetic holder	1511806	24	31.07	40	22	32.6	6.5	M5	0.094	20

TRIBOS SVP-2 clamping device

The clamping device TRIBOS SVP-2 from SCHUNK can be used to clamp tools quickly and evenly by manual actuation. The desired clamping pressure can be build up precisely with the manual pump and the standard pressure indicator.





Technical data

Description	ID	Weight kg
TRIBOS SVP-2	0211760	39

ⓘ Order reduction inserts separately

Operating principle

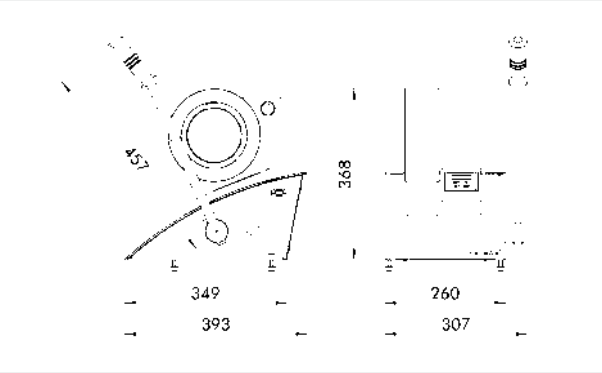


1. **Mount for length measuring system to pre-set the tool**
2. **Pressure indicator for monitoring of the actuating pressure**
3. **Drain valve for releasing**
4. **Manual pump for quick and exact setting of the actuation pressure (clamping)**
5. **Design combines outstanding ergonomics with a modern look**

Instructions for clamping/unclamping TRIBOS toolholders in SVP-2:
- Insert the toolholder with reduction insert in the clamping device
- Valve to be closed at the fixture housing
- Generate the necessary clamping pressure with the handle (see marking on toolholder)
- The tool can be inserted or removed

TRIBOS SVP-2D clamping device

The clamping device TRIBOS SVP-2D from SCHUNK can be used to clamp tools quickly and evenly with adjustable pressure limitation. By using the appropriate reduction insert SRE, all TRIBOS systems can be clamped with the appropriate diameter.





Technical data

Description	ID	Weight kg
TRIBOS SVP-2D	0211762	41.5

ⓘ Order reduction inserts separately
On request, we offer country-specific mains cable and adapter.

Example of application SRE in SVP



1. **Changeable reduction insert Type SRE**
2. **Cutting tool**
3. **TRIBOS toolholders**

TRIBOS SVP Scanner

The TRIBOS SVP Scanner and TRIBOS SVP Fixscanner are used for reading the clamping pressures via a data matrix code on the TRIBOS toolholder or on reduction insert TRIBOS SRE. They can be retrofitted both for the clamping device TRIBOS SVP-2D as well as SVP-2D/H.



Technical data

Description	ID	Weight kg
TRIBOS SVP-2D/2D-H Scanner	0201756	0.6

TRIBOS SVP Fixscanner

The TRIBOS SVP Scanner and TRIBOS SVP Fixscanner are used for reading the clamping pressures via a data matrix code on the TRIBOS toolholder or on reduction insert TRIBOS SRE. They can be retrofitted both for the clamping device TRIBOS SVP-2D as well as SVP-2D/H.



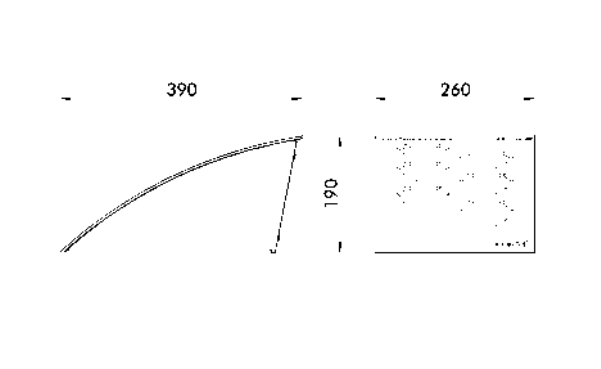
Technical data

Description	ID	Weight kg
TRIBOS SVP-2D/2D-H Fixscanner I	0201754	0.4
TRIBOS SVP-2D/2D-H Fixscanner II	0201755	0.025

ⓘ TRIBOS SVP-2D/2D-H Fixscanner I (ID 0201754) for TRIBOS SVP clamping devices without mounting hole; TRIBOS SVP-2D/2D-H Fixscanner II (ID 0201755) for TRIBOS SVP clamping devices with mounting hole

TRIBOS SVP-M storage rack

Storage rack TRIBOS SVP-M for the orderly and safe storage of reduction inserts SRE.



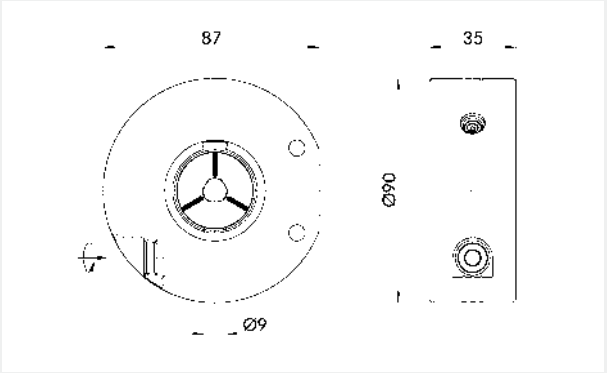


Technical data

Description	ID	Width B mm	Height H mm	Depth T mm	Weight kg
TRIBOS SVP-M	0211768	260	190	390	8.9

TRIBOS-Mini SVP

The newly developed clamping devices TRIBOS-Mini SVP and TRIBOS-RM SVP allow tool change in a matter of seconds. Attach the clamping device to TRIBOS-Mini or TRIBOS-RM, insert the tool, clamp to dead stop – finished! Due to the preset pressure, the tool is clamped quickly and process-reliably. This saves time and significantly reduces set-up costs.



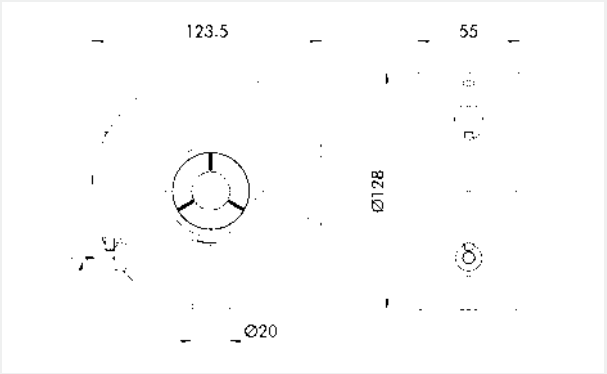


Technical data

Description	ID	Weight kg
TRIBOS-Mini SVP Ø6.65	1357071	0.7
TRIBOS-Mini SVP Ø9	0211763	0.7

TRIBOS-RM SVP

The newly developed clamping devices TRIBOS-Mini SVP and TRIBOS-RM SVP allow tool change in a matter of seconds. Attach the clamping device to TRIBOS-Mini or TRIBOS-RM, insert the tool, clamp to dead stop – finished! Due to the preset pressure, the tool is clamped quickly and process-reliably. This saves time and significantly reduces set-up costs.



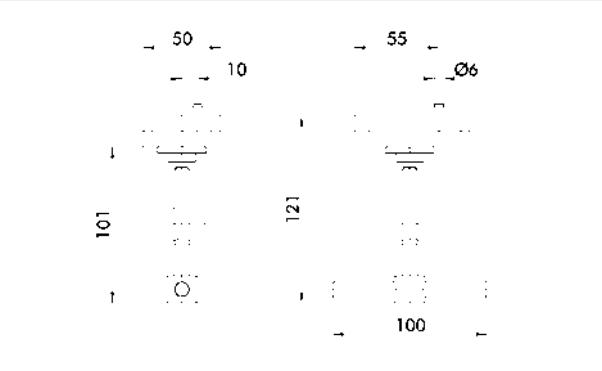


Technical data

Description	ID	Weight kg
TRIBOS-RM SVP Ø14	1346220	1.95
TRIBOS-RM SVP Ø18	1357074	1.95
TRIBOS-RM SVP Ø20	0211764	5.6

TRIBOS-RM/-Mini SVP assembly device

The assembly device TRIBOS-RM/-Mini SVP is used for mounting the manual clamping devices TRIBOS-RM SVP and TRIBOS-Mini SVP at your workplace. This ensures quick and easy clamping.



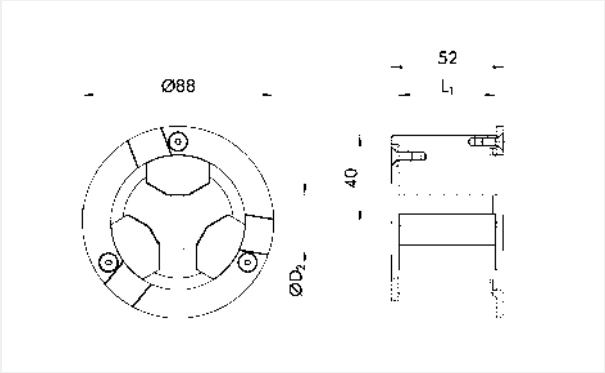


Technical data

Description	ID	Weight kg
TRIBOS-RM/-Mini SVP assembly device	9954724	0.829

TRIBOS-R SRE reduction insert

A TRIBOS SRE reduction insert is an adapter for clamping SCHUNK polygonal toolholders TRIBOS-R. When exchanging tools, the operator combines the precision mounting with the appropriate TRIBOS SRE and inserts them together into the intended opening of the clamping device TRIBOS SVP.



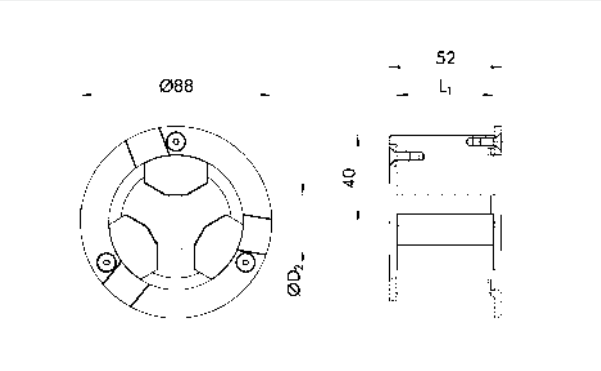


Technical data

Description	ID	For clamping diameter	D2	L1	Weight	Spare ring, small	Spare ring, big
			mm	mm	kg		
TRIBOS-R SRE 25	0201978	Ø6	25	35	0.735	9936839	9936840
TRIBOS-R SRE 28	0201980	Ø8, Ø1/4"	28	35	0.699	9936839	9936840
TRIBOS-R SRE 35	0201982	Ø10, Ø3/8"	35	40	0.641	9936839	9936840
TRIBOS-R SRE 42	0201983	Ø12	42	45	0.555	9936839	9936840
TRIBOS-R SRE 48	0201984	Ø14-Ø20, Ø1/2", Ø5/8", Ø3/4"	48	45	0.658	9936839	9936840
TRIBOS-R SRE 60	0201921	Ø25, Ø1"	60	45	0.319	9942628	7008661
TRIBOS-R SRE 67	0201922	Ø32, Ø1 1/4"	67	45	0.212	9942628	7008661

TRIBOS-RM SRE reduction insert

A TRIBOS SRE reduction insert is an adapter for clamping SCHUNK polygonal toolholders TRIBOS-RM. When exchanging tools, the operator combines the precision mounting with the appropriate TRIBOS SRE and inserts them together into the intended opening of the clamping device TRIBOS SVP.





Technical data

Description	ID	For clamping diameter	D2	L1	Weight	Spare ring, small	Spare ring, big
			mm	mm	kg		
TRIBOS-RM SRE 20	0201892	Ø3-Ø12	20	27.2	0.871	9936839	9936840
TRIBOS-RM SRE 25	0201893	Ø3-Ø6	25	35	0.5	9936839	9936840

ⓘ The maximum clamping pressure for TRIBOS-RM is 180 bar

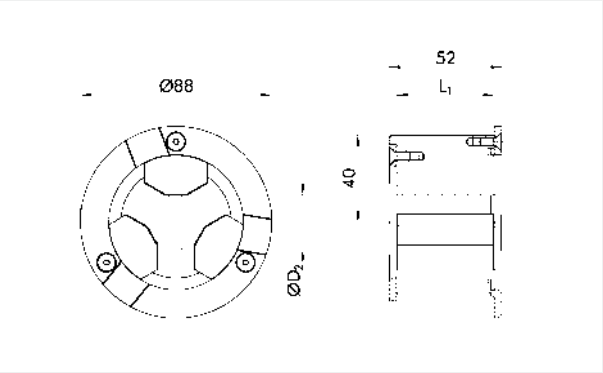
Example of application SRE in SVP



1. Changeable reduction insert Type SRE
2. Cutting tool
3. TRIBOS toolholders

TRIBOS-S SRE reduction insert

A TRIBOS-S SRE reduction insert is an adapter for clamping SCHUNK polygonal toolholders TRIBOS-S, as well as SCHUNK polygonal extensions TRIBOS SVL. When exchanging tools, the operator combines the precision mounting with the appropriate TRIBOS SRE and inserts them together into the intended opening of the clamping device TRIBOS SVP.



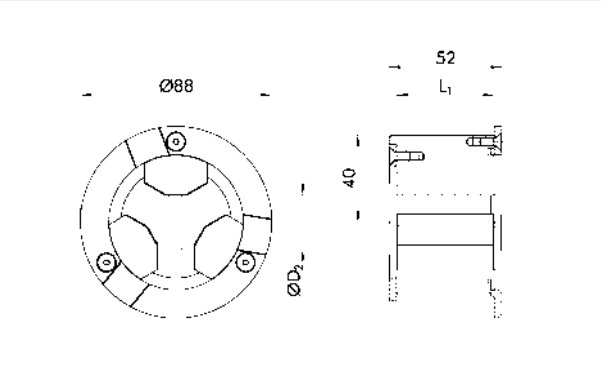


Technical data

Description	ID	For clamping diameter	D2	L1	Weight	Spare ring, small	Spare ring, big
			mm	mm	kg		
TRIBOS-S SRE 10	0201972	Ø6	10	35	0.915	9936839	9936840
TRIBOS-S SRE 10.3	0201988	Ø1/4"	10.3	35	0.5	9936839	9936840
TRIBOS-S SRE 13	0201973	Ø8, Ø5/16"	13	35	0.878	9936839	9936840
TRIBOS-S SRE 15	0201989	Ø3/8"	15	45	0.45	9936839	9936840
TRIBOS-S SRE 16	0201974	Ø10	16	40	0.895	9936839	9936840
TRIBOS-S SRE 17.8	0201990	Ø7/16"	17.8	45	0.4	9936839	9936840
TRIBOS-S SRE 19	0201975	Ø12	19	45	0.91	9936839	9936840
TRIBOS-S SRE 20	0201991	Ø1/2"	20	45	0.4	9936839	9936840
TRIBOS-S SRE 22	0201976	Ø14	22	45	0.86	9936839	9936840
TRIBOS-S SRE 25	0201977	Ø16, Ø5/8"	25	45	0.815	9936839	9936840
TRIBOS-S SRE 28	0201979	Ø18	28	45	0.769	9936839	9936840
TRIBOS-S SRE 29	0201992	Ø3/4"	29	45	0.35	9936839	9936840
TRIBOS-S SRE 30	0201981	Ø20	30	45	0.737	9936839	9936840
TRIBOS-S SRE 36	0201987	Ø25	36	45	0.645	9936839	9936840
TRIBOS-S SRE 36.5	0201993	Ø1"	36.5	45	0.35	9936839	9936840
TRIBOS-S SRE 45	0201998	Ø32, Ø1 1/4"	45	45	0.506	9936839	9936840

TRIBOS-Mini SRE reduction insert

A TRIBOS SRE reduction insert is an adapter for clamping SCHUNK polygonal toolholders TRIBOS-Mini, as well as SCHUNK polygonal extensions TRIBOS-Mini SVL. When exchanging tools, the operator combines the precision mounting with the appropriate TRIBOS SRE and inserts them together into the intended opening of the clamping device TRIBOS SVP.





Technical data

Description	ID	For clamping diameter	D2 mm	L1 mm	Weight kg	Spare ring, small	Spare ring, big
TRIBOS-Mini SRE 6.65	25005968	Ø1-Ø4, Ø1/8", Ø3/16"	6.65	17.5	0.8	9936839	9936840
TRIBOS-Mini SRE 9	0201971	Ø0.3-Ø6, Ø1/8", Ø3/16"	9	22.5	0.743	9936839	9936840

ⓘ The maximum clamping pressure for TRIBOS-Mini and TRIBOS-Mini SVL is 85 bar

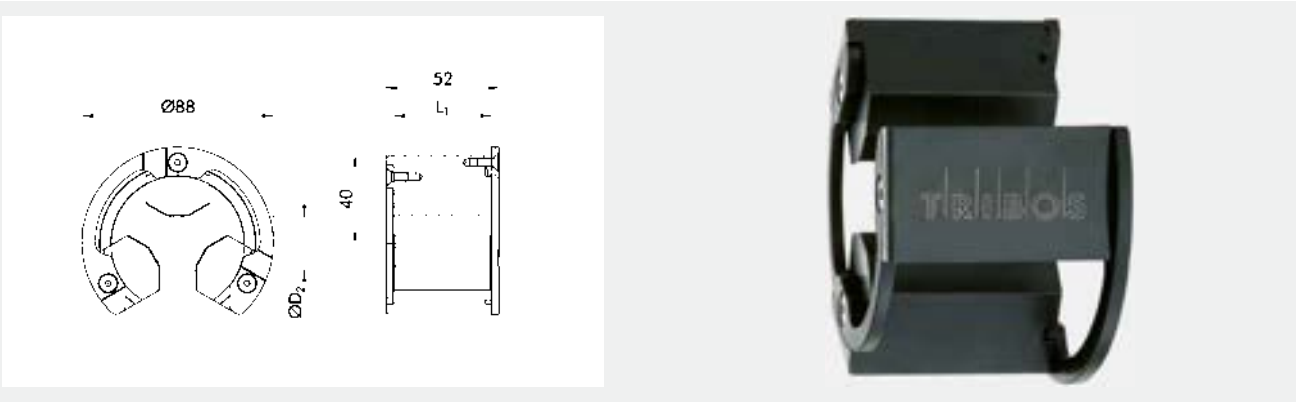
Example of application SRE in SVP



1 **Changeable reduction insert Type SRE**
2 **Cutting tool**
3 **TRIBOS toolholders**

TRIBOS-R SRE SO reduction insert

A reduction insert TRIBOS SRE SO is a laterally open adapter for clamping SCHUNK polygonal toolholders TRIBOS-R. When exchanging tools, the operator combines the precision mounting with the appropriate TRIBOS SRE and inserts them together into the intended opening of the clamping device TRIBOS SVP. The TRIBOS SRE with side opening serves as an alternative for lateral insertion.



Technical data

Description	ID	For clamping diameter	D2 mm	L1 mm	Weight kg	Spare ring, small	Spare ring, big
TRIBOS-R SRE SO 25	25000593	Ø6	25	45	0.5	9938251	9938252
TRIBOS-R SRE SO 28	25000594	Ø8, Ø1/4"	28	45	0.45	9938251	9938252
TRIBOS-R SRE SO 48	25000596	Ø14-Ø20, Ø1/2", Ø5/8", Ø3/4"	48	45	0.3	9938251	9938252

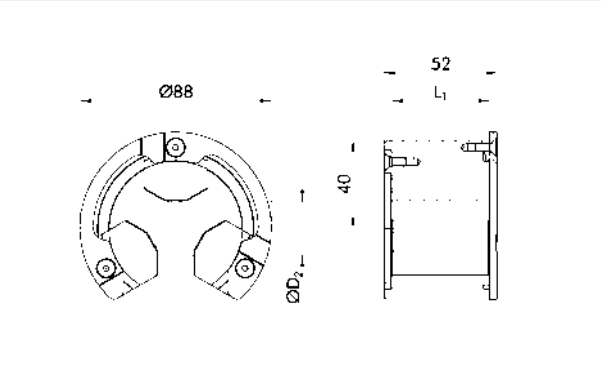
Application SRE – opened sidewise



A laterally open TRIBOS SRE reduction insert is used for joining tools with a circumference larger than the outer diameter of the toolholder mounting. When exchanging tools, the operator combines the toolholder mounting with the appropriate TRIBOS SRE and inserts them together into the intended opening of the clamping device TRIBOS SVP. Then the toolholder mounting with clamped tool is pulled out of the TRIBOS SRE reduction insert. If this is not possible due to the circumference of the tool, a laterally open SRE can be used to clamp the tool.
This is suitable, for example, for the clamping of angular milling cutters, prismatic milling cutters, finishing cutters, or similar.

TRIBOS-S SRE SO reduction insert

A TRIBOS SRE SO reduction insert is a laterally open adapter for clamping SCHUNK polygonal TRIBOS-S toolholders. When exchanging tools, the operator combines the precision mounting with the appropriate TRIBOS SRE and inserts them together into the intended opening of the clamping device TRIBOS SVP. The TRIBOS SRE with side opening serves as an alternative for lateral insertion.





Technical data

Description	ID	For clamping diameter	D2	L1	Weight	Spare ring, small	Spare ring, big
			mm	mm	kg		
TRIBOS-S SRE SO 10	0206081	Ø6	10	35	0.65	9938251	9938252
TRIBOS-S SRE SO 10.3	25001067	Ø1/4"	10.3	45	0.5	9938251	9938252
TRIBOS-S SRE SO 13	0206082	Ø8, Ø5/16"	13	35	0.35	9938251	9938252
TRIBOS-S SRE SO 15	25000996	Ø3/8"	15	45	0.3	9938251	9938252
TRIBOS-S SRE SO 16	0206083	Ø10	16	40	0.35	9938251	9938252
TRIBOS-S SRE SO 19	0206084	Ø12	19	45	0.4	9938251	9938252
TRIBOS-S SRE SO 20	25000910	Ø1/2"	20	45	0.3	9938251	9938252
TRIBOS-S SRE SO 22	0206085	Ø14	22	45	0.35	9938251	9938252
TRIBOS-S SRE SO 25	0206086	Ø16, Ø5/8"	25	45	0.3	9938251	9938252
TRIBOS-S SRE SO 28	0206087	Ø18	28	45	0.35	9938251	9938252
TRIBOS-S SRE SO 29	25001026	Ø3/4"	29	45	0.3	9938251	9938252
TRIBOS-S SRE SO 30	0206088	Ø20	30	45	0.35	9938251	9938252
TRIBOS-S SRE SO 35	0206089	Ø25	35	45	0.4	9938251	9938252
TRIBOS-S SRE SO 36	0206090	Ø25	36	45	0.32	9938251	9938252
TRIBOS-S SRE SO 36.5	25001684	Ø1"	36.5	45	0.8	9938251	9938252
TRIBOS-S SRE SO 45	0206091	Ø32, Ø1 1/4"	45	45	0.32	9938251	9938252

TRIBOS LMG-M

Length measuring system TRIBOS LMG-M for TRIBOS SVP.

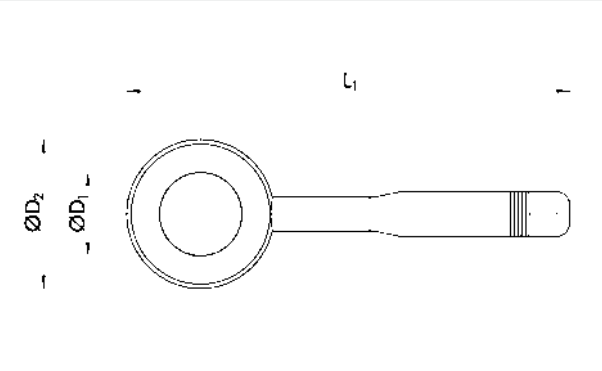


Technical data

Description	ID	Weight kg
TRIBOS LMG-M	0201961	1.24

SINOclamp ring-shaped clamping key

The SINOclamp ring-shaped clamping key with freewheel technology is used for quick and safe clamping of all SINO-R expansion toolholders. The easy tool change minimizes set-up times and machine downtimes.



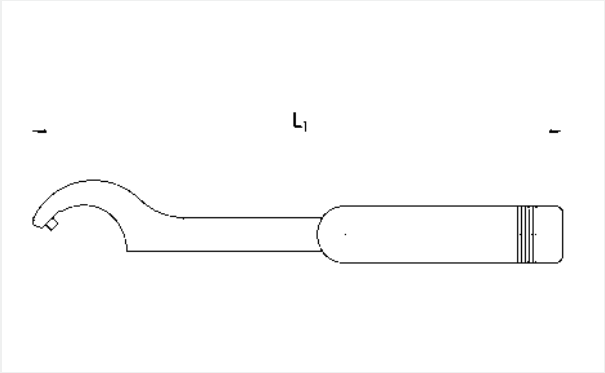


Technical data

Description	ID	For clamping diameter	D1	D2	L1	Weight
			mm	mm	mm	kg
SINOclamp D12	0210640	Ø12, Ø1/2"	44.45	80	261	0.96
SINOclamp D16-25	0210641	Ø16-Ø25, Ø3/4", Ø1"	49.72	84	265	0.97
SINOclamp D32	0210642	Ø32, Ø1 1/4"	69.85	108	371	1.19

SINO spanner wrench

Suitable for clamping all SINO-R expansion toolholders.



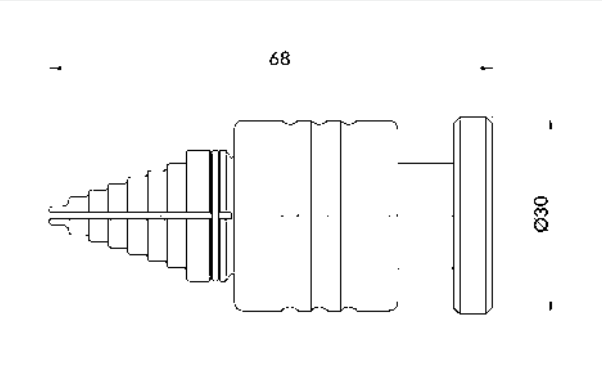


Technical data

Description	ID	For clamping diameter	L1 mm	Weight kg
SINO spanner wrench D12-25	0208877	Ø12-Ø25, Ø1/2"-Ø1"	367	0.428
SINO spanner wrench D32	0208879	Ø32, Ø1 1/4"	403	0.338

SINOmax sleeve remover

Sleeve remover SINOmax for easy removal of the intermediate sleeves from the expansion toolholder. It is versatile in use and can also be used for hydraulic expansion toolholders.





Technical data

Description	ID	Weight kg
SINOmax	0208840	0.14

Length adjustment screw for CELSIO and WELDON slim

Length adjustment screw for CELSIO heat shrinking toolholders and extended slim WELDON end mill holders, including through-hole for internal cooling.

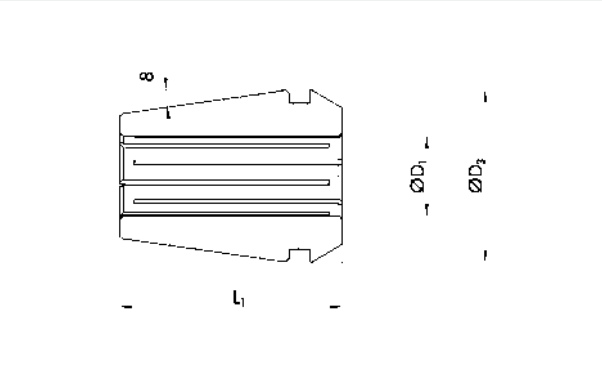


Technical data

Description	ID	For clamping diameter	G	Weight kg
CELSIO/WEL S length adjustment screw M5	0207160	Ø6	M5	0.001
CELSIO/WEL S length adjustment screw M6	0207161	Ø8	M6	0.002
CELSIO/WEL S length adjustment screw M8x1	0207162	Ø10	M8x1	0.003
CELSIO/WEL S length adjustment screw M10x1	0207163	Ø12, Ø14	M10x1	0.005
CELSIO/WEL S length adjustment screw M12x1	0207165	Ø16, Ø18	M12x1	0.007
CELSIO/WEL S length adjustment screw M16x1	0207167	Ø20, Ø25, Ø32	M16x1	0.015

Collets ER 11

ER collets according to DIN ISO 15488-B (ER/ESX) for clamping tools with a cylindrical shank. Suitable for all ER collet chucks. The run-out and repeat accuracy is 5 µm.



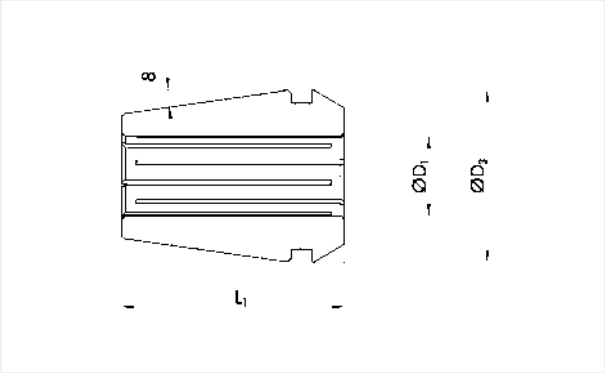


Technical data

Description	ID	For	For clamping diameter D1	D2	D3	L1	Weight
				mm	mm	mm	kg
CC ER 11 Ø0.5-1	0280100	ER 11	Ø0.5 - 1	11	11.5	18	0.034
CC ER 11 Ø1-1.5	0280101	ER 11	Ø1 - 1.5	11	11.5	18	0.034
CC ER 11 Ø1.5-2	0280102	ER 11	Ø1.5 - 2	11	11.5	18	0.034
CC ER 11 Ø2-2.5	0280103	ER 11	Ø2 - 2.5	11	11.5	18	0.034
CC ER 11 Ø2.5-3	0280104	ER 11	Ø2.5 - 3	11	11.5	18	0.034
CC ER 11 Ø3-3.5	0280105	ER 11	Ø3 - 3.5	11	11.5	18	0.034
CC ER 11 Ø3.5-4	0280106	ER 11	Ø3.5 - 4	11	11.5	18	0.034
CC ER 11 Ø4-4.5	0280107	ER 11	Ø4 - 4.5	11	11.5	18	0.034
CC ER 11 Ø4.5-5	0280108	ER 11	Ø4.5 - 5	11	11.5	18	0.034
CC ER 11 Ø5-5.5	0280109	ER 11	Ø5 - 5.5	11	11.5	18	0.034
CC ER 11 Ø5.5-6	0280110	ER 11	Ø5.5 - 6	11	11.5	18	0.034
CC ER 11 Ø6-6.5	0280111	ER 11	Ø6 - 6.5	11	11.5	18	0.034
CC ER 11 Ø6.5-7	0280112	ER 11	Ø6.5 - 7	11	11.5	18	0.034
CC ER 11 Ø1/16"	1403937	ER 11	Ø1/16"	11	11.5	18	0.008
CC ER 11 Ø3/32"	1403938	ER 11	Ø3/32"	11	11.5	18	0.008
CC ER 11 Ø1/8"	1403939	ER 11	Ø1/8"	11	11.5	18	0.006
CC ER 11 Ø5/32"	1403940	ER 11	Ø5/32"	11	11.5	18	0.007
CC ER 11 Ø3/16"	1403942	ER 11	Ø3/16"	11	11.5	18	0.006
CC ER 11 Ø7/32"	1403943	ER 11	Ø7/32"	11	11.5	18	0.005
CC ER 11 Ø1/4"	1403944	ER 11	Ø1/4"	11	11.5	18	0.006

Collets ER 16

ER collets according to DIN ISO 15488-B (ER/ESX) for clamping tools with a cylindrical shank. Suitable for all ER collet chucks. The run-out and repeat accuracy is 5 µm.



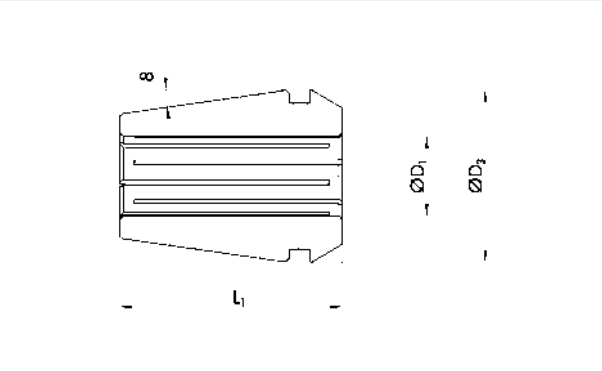


Technical data

Description	ID	For	For clamping diameter D1	D2	D3	L1	Weight
				mm	mm	mm	kg
CC ER 16 Ø0.5-1	0280115	ER 16	Ø0.5 - 1	16	17	27.5	0.034
CC ER 16 Ø1-1.5	0280116	ER 16	Ø1 - 1.5	16	17	27.5	0.034
CC ER 16 Ø1.5-2	0280117	ER 16	Ø1.5 - 2	16	17	27.5	0.034
CC ER 16 Ø1.5-2.5	0280118	ER 16	Ø1.5 - 2.5	16	17	27.5	0.034
CC ER 16 Ø2-3	0280119	ER 16	Ø2 - 3	16	17	27.5	0.034
CC ER 16 Ø3-4	0280120	ER 16	Ø3 - 4	16	17	27.5	0.034
CC ER 16 Ø4-5	0280121	ER 16	Ø4 - 5	16	17	27.5	0.034
CC ER 16 Ø5-6	0280122	ER 16	Ø5 - 6	16	17	27.5	0.034
CC ER 16 Ø6-7	0280123	ER 16	Ø6 - 7	16	17	27.5	0.034
CC ER 16 Ø7-8	0280124	ER 16	Ø7 - 8	16	17	27.5	0.034
CC ER 16 Ø8-9	0280125	ER 16	Ø8 - 9	16	17	27.5	0.034
CC ER 16 Ø9-10	0280126	ER 16	Ø9 - 10	16	17	27.5	0.034
CC ER 16 Ø1/16"	1403945	ER 16	Ø1/16"	16	17	27.5	0.025
CC ER 16 Ø3/32"	1403946	ER 16	Ø3/32"	16	17	27.5	0.026
CC ER 16 Ø1/8"	1403947	ER 16	Ø1/8"	16	17	27.5	0.026
CC ER 16 Ø5/32"	1403948	ER 16	Ø5/32"	16	17	27.5	0.025
CC ER 16 Ø3/16"	1403949	ER 16	Ø3/16"	16	17	27.5	0.025
CC ER 16 Ø7/32"	1403950	ER 16	Ø7/32"	16	17	27.5	0.023
CC ER 16 Ø1/4"	1403951	ER 16	Ø1/4"	16	17	27.5	0.022
CC ER 16 Ø9/32"	1403952	ER 16	Ø9/32"	16	17	27.5	0.021
CC ER 16 Ø5/16"	1403953	ER 16	Ø5/16"	16	17	27.5	0.019
CC ER 16 Ø11/32"	1403954	ER 16	Ø11/32"	16	17	27.5	0.019
CC ER 16 Ø3/8"	1403955	ER 16	Ø3/8"	16	17	27.5	0.017
CC ER 16 Ø13/32"	1403956	ER 16	Ø13/32"	16	17	27.5	0.017

Collets ER 20

ER collets according to DIN ISO 15488-B (ER/ESX) for clamping tools with a cylindrical shank. Suitable for all ER collet chucks. The run-out and repeat accuracy is 5 µm.



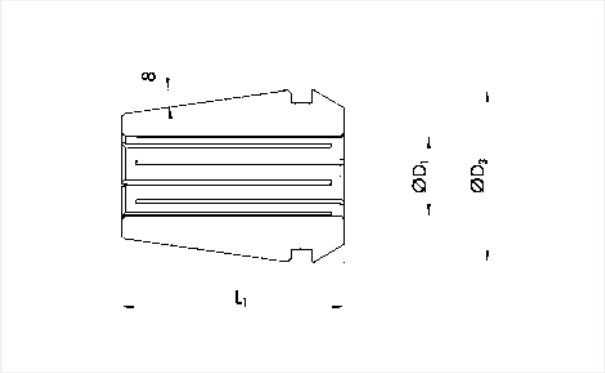


Technical data

Description	ID	For	For clamping diameter D1	D2	D3	L1	Weight
				mm	mm	mm	kg
CC ER 20 Ø1.5-2	0280130	ER 20	Ø1.5 - 2	20	21	31.5	0.034
CC ER 20 Ø2-3	0280131	ER 20	Ø2 - 3	20	21	31.5	0.034
CC ER 20 Ø3-4	0280132	ER 20	Ø3 - 4	20	21	31.5	0.034
CC ER 20 Ø4-5	0280133	ER 20	Ø4 - 5	20	21	31.5	0.034
CC ER 20 Ø5-6	0280134	ER 20	Ø5 - 6	20	21	31.5	0.034
CC ER 20 Ø6-7	0280135	ER 20	Ø6 - 7	20	21	31.5	0.034
CC ER 20 Ø7-8	0280136	ER 20	Ø7 - 8	20	21	31.5	0.034
CC ER 20 Ø8-9	0280137	ER 20	Ø8 - 9	20	21	31.5	0.034
CC ER 20 Ø9-10	0280138	ER 20	Ø9 - 10	20	21	31.5	0.034
CC ER 20 Ø10-11	0280139	ER 20	Ø10 - 11	20	21	31.5	0.034
CC ER 20 Ø11-12	0280140	ER 20	Ø11 - 12	20	21	31.5	0.034
CC ER 20 Ø12-13	0280141	ER 20	Ø12 - 13	20	21	31.5	0.034
CC ER 20 Ø1/8"	1403957	ER 20	Ø1/8"	20	21	31.5	0.048
CC ER 20 Ø3/16"	1403958	ER 20	Ø3/16"	20	21	31.5	0.043
CC ER 20 Ø1/4"	1403959	ER 20	Ø1/4"	20	21	31.5	0.043
CC ER 20 Ø5/16"	1403960	ER 20	Ø5/16"	20	21	31.5	0.04
CC ER 20 Ø3/8	1403961	ER 20	Ø3/8"	20	21	31.5	0.038
CC ER 20 Ø7/16"	1403962	ER 20	Ø7/16"	20	21	31.5	0.033
CC ER 20 Ø1/2"	1403963	ER 20	Ø1/2"	20	21	31.5	0.026

Collets ER 25

ER collets according to DIN ISO 15488-B (ER/ESX) for clamping tools with a cylindrical shank. Suitable for all ER collet chucks. The run-out and repeat accuracy is 5 µm.



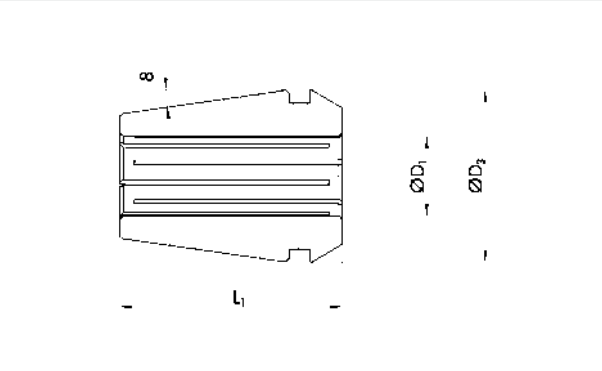


Technical data

Description	ID	For	For clamping diameter D1	D2	D3	L1	Weight
				mm	mm	mm	kg
CC ER 25 Ø1-1.5	0280145	ER 25	Ø1 - 1.5	25	26	34	0.034
CC ER 25 Ø1.5-2	0280146	ER 25	Ø1.5 - 2	25	26	34	0.034
CC ER 25 Ø1.5-2.5	0280147	ER 25	Ø1.5 - 2.5	25	26	34	0.034
CC ER 25 Ø2-3	0280148	ER 25	Ø2 - 3	25	26	34	0.034
CC ER 25 Ø3-4	0280149	ER 25	Ø3 - 4	25	26	34	0.034
CC ER 25 Ø4-5	0280150	ER 25	Ø4 - 5	25	26	34	0.034
CC ER 25 Ø5-6	0280151	ER 25	Ø5 - 6	25	26	34	0.034
CC ER 25 Ø6-7	0280152	ER 25	Ø6 - 7	25	26	34	0.034
CC ER 25 Ø7-8	0280153	ER 25	Ø7 - 8	25	26	34	0.034
CC ER 25 Ø8-9	0280154	ER 25	Ø8 - 9	25	26	34	0.034
CC ER 25 Ø9-10	0280155	ER 25	Ø9 - 10	25	26	34	0.034
CC ER 25 Ø10-11	0280156	ER 25	Ø10 - 11	25	26	34	0.034
CC ER 25 Ø11-12	0280157	ER 25	Ø11 - 12	25	26	34	0.034
CC ER 25 Ø12-13	0280158	ER 25	Ø12 - 13	25	26	34	0.034
CC ER 25 Ø13-14	0280159	ER 25	Ø13 - 14	25	26	34	0.034
CC ER 25 Ø14-15	0280160	ER 25	Ø14 - 15	25	26	34	0.034
CC ER 25 Ø15-16	0280161	ER 25	Ø15 - 16	25	26	34	0.034
CC ER 25 Ø1/8"	1403964	ER 25	Ø1/8"	25	26	34	0.079
CC ER 25 Ø3/16"	1403965	ER 25	Ø3/16"	25	26	34	0.08
CC ER 25 Ø1/4"	1403966	ER 25	Ø1/4"	25	26	34	0.078
CC ER 25 Ø5/16"	1403967	ER 25	Ø5/16"	25	26	34	0.076
CC ER 25 Ø3/8"	1403968	ER 25	Ø3/8"	25	26	34	0.073
CC ER 25 Ø7/16"	1403969	ER 25	Ø7/16"	25	26	34	0.068
CC ER 25 Ø1/2"	1403970	ER 25	Ø1/2"	25	26	34	0.064
CC ER 25 Ø9/16"	1403971	ER 25	Ø9/16"	25	26	34	0.056
CC ER 25 Ø5/8"	1403972	ER 25	Ø5/8"	25	26	34	0.05

Collets ER 32

ER collets according to DIN ISO 15488-B (ER/ESX) for clamping tools with a cylindrical shank. Suitable for all ER collet chucks. The run-out and repeat accuracy is 5 µm.



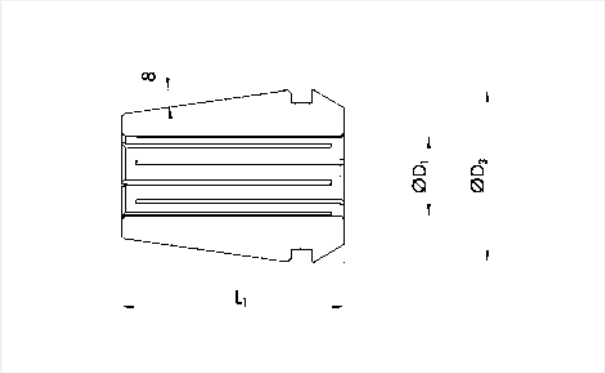


Technical data

Description	ID	For	For clamping diameter D1	D2	D3	L1	Weight
				mm	mm	mm	kg
CC ER 32 Ø1.5-2	0280165	ER 32	Ø1.5 - 2	32	33	40	0.167
CC ER 32 Ø1.5-2.5	0280166	ER 32	Ø1.5 - 2.5	32	33	40	0.167
CC ER 32 Ø2-3	0280167	ER 32	Ø2 - 3	32	33	40	0.167
CC ER 32 Ø3-4	0280168	ER 32	Ø3 - 4	32	33	40	0.162
CC ER 32 Ø4-5	0280169	ER 32	Ø4 - 5	32	33	40	0.16
CC ER 32 Ø5-6	0280170	ER 32	Ø5 - 6	32	33	40	0.159
CC ER 32 Ø6-7	0280171	ER 32	Ø6 - 7	32	33	40	0.159
CC ER 32 Ø7-8	0280172	ER 32	Ø7 - 8	32	33	40	0.159
CC ER 32 Ø8-9	0280173	ER 32	Ø8 - 9	32	33	40	0.159
CC ER 32 Ø9-10	0280174	ER 32	Ø9 - 10	32	33	40	0.159
CC ER 32 Ø10-11	0280175	ER 32	Ø10 - 11	32	33	40	0.155
CC ER 32 Ø11-12	0280176	ER 32	Ø11 - 12	32	33	40	0.151
CC ER 32 Ø12-13	0280177	ER 32	Ø12 - 13	32	33	40	0.148
CC ER 32 Ø13-14	0280178	ER 32	Ø13 - 14	32	33	40	0.141
CC ER 32 Ø14-15	0280179	ER 32	Ø14 - 15	32	33	40	0.136
CC ER 32 Ø15-16	0280180	ER 32	Ø15 - 16	32	33	40	0.131
CC ER 32 Ø16-17	0280181	ER 32	Ø16 - 17	32	33	40	0.125
CC ER 32 Ø17-18	0280182	ER 32	Ø17 - 18	32	33	40	0.117
CC ER 32 Ø18-19	0280183	ER 32	Ø18 - 19	32	33	40	0.11
CC ER 32 Ø19-20	0280184	ER 32	Ø19 - 20	32	33	40	0.101
CC ER 32 Ø1/8"	1403973	ER 32	Ø1/8"	32	33	40	0.167
CC ER 32 Ø3/16"	1403974	ER 32	Ø3/16"	32	33	40	0.16
CC ER 32 Ø1/4"	1403975	ER 32	Ø1/4"	32	33	40	0.159
CC ER 32 Ø5/16"	1403976	ER 32	Ø5/16"	32	33	40	0.159
CC ER 32 Ø3/8"	1403977	ER 32	Ø3/8"	32	33	40	0.16
CC ER 32 Ø7/16"	1403978	ER 32	Ø7/16"	32	33	40	0.155
CC ER 32 Ø1/2"	1403979	ER 32	Ø1/2"	32	33	40	0.148
CC ER 32 Ø9/16"	1403981	ER 32	Ø9/16"	32	33	40	0.139
CC ER 32 Ø5/8"	1403982	ER 32	Ø5/8"	32	33	40	0.131
CC ER 32 Ø11/16"	1403983	ER 32	Ø11/16"	32	33	40	0.121
CC ER 32 Ø3/4"	1403984	ER 32	Ø3/4"	32	33	40	0.11
CC ER 32 Ø13/16"	1403985	ER 32	Ø13/16"	32	33	40	0.099

Collets ER 40

ER collets according to DIN ISO 15488-B (ER/ESX) for clamping tools with a cylindrical shank. Suitable for all ER collet chucks. The run-out and repeat accuracy is 5 µm.



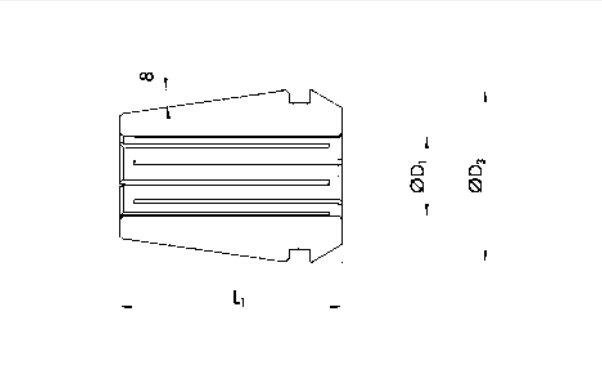


Technical data

Description	ID	For	For clamping diameter D1	D2	D3	L1	Weight
				mm	mm	mm	kg
CC ER 40 Ø2-3	0280190	ER 40	Ø2 - 3	40	41	46	0.317
CC ER 40 Ø3-4	0280191	ER 40	Ø3 - 4	40	41	46	0.317
CC ER 40 Ø4-5	0280192	ER 40	Ø4 - 5	40	41	46	0.318
CC ER 40 Ø5-6	0280193	ER 40	Ø5 - 6	40	41	46	0.316
CC ER 40 Ø6-7	0280194	ER 40	Ø6 - 7	40	41	46	0.316
CC ER 40 Ø7-8	0280195	ER 40	Ø7 - 8	40	41	46	0.314
CC ER 40 Ø8-9	0280196	ER 40	Ø8 - 9	40	41	46	0.312
CC ER 40 Ø9-10	0280197	ER 40	Ø9 - 10	40	41	46	0.306
CC ER 40 Ø10-11	0280198	ER 40	Ø10 - 11	40	41	46	0.298
CC ER 40 Ø11-12	0280199	ER 40	Ø11 - 12	40	41	46	0.299
CC ER 40 Ø12-13	0280200	ER 40	Ø12 - 13	40	41	46	0.29
CC ER 40 Ø13-14	0280201	ER 40	Ø13 - 14	40	41	46	0.289
CC ER 40 Ø14-15	0280202	ER 40	Ø14 - 15	40	41	46	0.277
CC ER 40 Ø15-16	0280203	ER 40	Ø15 - 16	40	41	46	0.267
CC ER 40 Ø16-17	0280204	ER 40	Ø16 - 17	40	41	46	0.268
CC ER 40 Ø17-18	0280205	ER 40	Ø17 - 18	40	41	46	0.25
CC ER 40 Ø18-19	0280206	ER 40	Ø18 - 19	40	41	46	0.251
CC ER 40 Ø19-20	0280207	ER 40	Ø19 - 20	40	41	46	0.242
CC ER 40 Ø20-21	0280208	ER 40	Ø20 - 21	40	41	46	0.224
CC ER 40 Ø21-22	0280209	ER 40	Ø21 - 22	40	41	46	0.222
CC ER 40 Ø22-23	0280210	ER 40	Ø22 - 23	40	41	46	0.21
CC ER 40 Ø23-24	0280211	ER 40	Ø23 - 24	40	41	46	0.199
CC ER 40 Ø24-25	0280212	ER 40	Ø24 - 25	40	41	46	0.184
CC ER 40 Ø25-26	0280213	ER 40	Ø25 - 26	40	41	46	0.171
CC ER 40 Ø1/8"	1403986	ER 40	Ø1/8"	40	41	46	0.3
CC ER 40 Ø3/16"	1403987	ER 40	Ø3/16"	40	41	46	0.303
CC ER 40 Ø1/4"	1403988	ER 40	Ø1/4"	40	41	46	0.319
CC ER 40 Ø5/16"	1403989	ER 40	Ø5/16"	40	41	46	0.315
CC ER 40 Ø3/8"	1403990	ER 40	Ø3/8"	40	41	46	0.299
CC ER 40 Ø7/16"	1403991	ER 40	Ø7/16"	40	41	46	0.294
CC ER 40 Ø1/2"	1403992	ER 40	Ø1/2"	40	41	46	0.299
CC ER 40 Ø9/16"	1403993	ER 40	Ø9/16"	40	41	46	0.278
CC ER 40 Ø5/8"	1403994	ER 40	Ø5/8"	40	41	46	0.277
CC ER 40 Ø11/16"	1403995	ER 40	Ø11/16"	40	41	46	0.26
CC ER 40 Ø3/4"	1403996	ER 40	Ø3/4"	40	41	46	0.26
CC ER 40 Ø13/16"	1403997	ER 40	Ø13/16"	40	41	46	0.232
CC ER 40 Ø7/8"	1403998	ER 40	Ø7/8"	40	41	46	0.215
CC ER 40 Ø1"	1403999	ER 40	Ø1"	40	41	46	0.18

Precision collets ER 16

ER precision collets according to DIN ISO 15488-B (ER/ESX) for clamping tools with a cylindrical shank. Suitable for all ER precision collet chucks. The run-out and repeat accuracy is 2 µm.



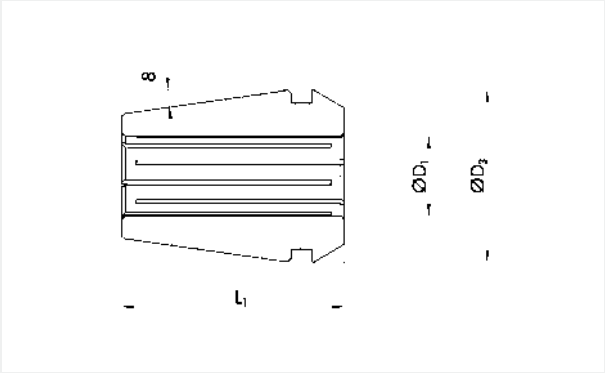


Technical data

Description	ID	For	For clamping diameter D1	D2	D3	L1	Weight
				mm	mm	mm	kg
CC ER 16 P Ø0.5-1	23003585	ER 16	Ø1	16	17	27.5	0.025
CC ER 16 P Ø1-1.5	23003586	ER 16	Ø1.5	16	17	27.5	0.025
CC ER 16 P Ø1.5-2	23003587	ER 16	Ø2	16	17	27.5	0.025
CC ER 16 P Ø2-2.5	23003588	ER 16	Ø2.5	16	17	27.5	0.025
CC ER 16 P Ø2.5-3	23003589	ER 16	Ø3	16	17	27.5	0.025
CC ER 16 P Ø3-3.5	1380818	ER 16	Ø3.5	16	17	27.5	0.025
CC ER 16 P Ø3.5-4	23003590	ER 16	Ø4	16	17	27.5	0.025
CC ER 16 P Ø4.5-5	23003591	ER 16	Ø5	16	17	27.5	0.025
CC ER 16 P Ø5.5-6	23003592	ER 16	Ø6	16	17	27.5	0.025
CC ER 16 P Ø6.5-7	23003593	ER 16	Ø7	16	17	27.5	0.025
CC ER 16 P Ø7.5-8	23003594	ER 16	Ø8	16	17	27.5	0.022
CC ER 16 P Ø8.5-9	23003595	ER 16	Ø9	16	17	27.5	0.022
CC ER 16 P Ø9.5-10	23003596	ER 16	Ø10	16	17	27.5	0.019
CC ER 16 P Ø1/16"	1403885	ER 16	Ø1/16"	16	17	27.5	0.025
CC ER 16 P Ø3/32"	1403887	ER 16	Ø3/32"	16	17	27.5	0.026
CC ER 16 P Ø1/8"	1403889	ER 16	Ø1/8"	16	17	27.5	0.026
CC ER 16 P Ø5/32"	1403890	ER 16	Ø5/32"	16	17	27.5	0.025
CC ER 16 P Ø3/16"	1403891	ER 16	Ø3/16"	16	17	27.5	0.025
CC ER 16 P Ø7/32"	1403892	ER 16	Ø7/32"	16	17	27.5	0.023
CC ER 16 P Ø1/4"	1403894	ER 16	Ø1/4"	16	17	27.5	0.022
CC ER 16 P Ø9/32"	1403895	ER 16	Ø9/32"	16	17	27.5	0.022
CC ER 16 P Ø5/16"	1403896	ER 16	Ø5/16"	16	17	27.5	0.021
CC ER 16 P Ø11/32"	1403898	ER 16	Ø11/32"	16	17	27.5	0.019
CC ER 16 P Ø3/8"	1403899	ER 16	Ø3/8"	16	17	27.5	0.017

Precision collets ER 25

ER precision collets according to DIN ISO 15488-B (ER/ESX) for clamping tools with a cylindrical shank. Suitable for all ER precision collet chucks. The run-out and repeat accuracy is 2 µm.



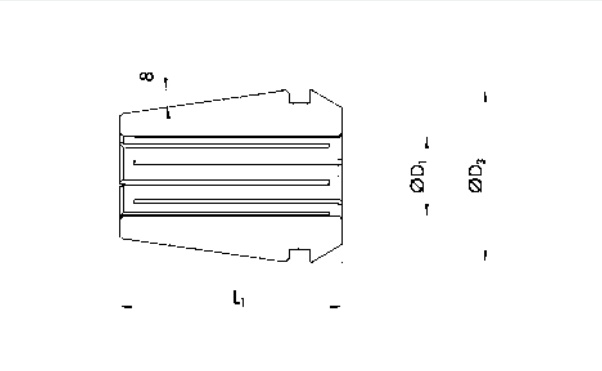


Technical data

Description	ID	For	For clamping diameter D1	D2	D3	L1	Weight
				mm	mm	mm	kg
CC ER 25 P Ø1-1.5	1380876	ER 25	Ø1.5	25	26	34	0.079
CC ER 25 P Ø1.5-2	23003597	ER 25	Ø2	25	26	34	0.079
CC ER 25 P Ø2-2.5	1380892	ER 25	Ø2.5	25	26	34	0.079
CC ER 25 P Ø2.5-3	23003598	ER 25	Ø3	25	26	34	0.079
CC ER 25 P Ø3.5-4	23003599	ER 25	Ø4	25	26	34	0.075
CC ER 25 P Ø4.5-5	23003600	ER 25	Ø5	25	26	34	0.079
CC ER 25 P Ø5.5-6	23003601	ER 25	Ø6	25	26	34	0.079
CC ER 25 P Ø6.5-7	23003602	ER 25	Ø7	25	26	34	0.081
CC ER 25 P Ø7.5-8	23003603	ER 25	Ø8	25	26	34	0.079
CC ER 25 P Ø8.5-9	23003604	ER 25	Ø9	25	26	34	0.076
CC ER 25 P Ø9.5-10	23003605	ER 25	Ø10	25	26	34	0.073
CC ER 25 P Ø10.5-11	1380900	ER 25	Ø11	25	26	34	0.071
CC ER 25 P Ø11.5-12	23003606	ER 25	Ø12	25	26	34	0.067
CC ER 25 P Ø12.5-13	1380903	ER 25	Ø13	25	26	34	0.063
CC ER 25 P Ø13.5-14	23003607	ER 25	Ø14	25	26	34	0.059
CC ER 25 P Ø14.5-15	1380905	ER 25	Ø15	25	26	34	0.054
CC ER 25 P Ø15.5-16	23003608	ER 25	Ø16	25	26	34	0.049
CC ER 25 P Ø1/8"	1403900	ER 25	Ø1/8"	25	26	34	0.081
CC ER 25 P Ø3/16"	1403902	ER 25	Ø3/16"	25	26	34	0.079
CC ER 25 P Ø1/4"	1403903	ER 25	Ø1/4"	25	26	34	0.074
CC ER 25 P Ø5/16"	1403904	ER 25	Ø5/16"	25	26	34	0.077
CC ER 25 P Ø3/8"	1403906	ER 25	Ø3/8"	25	26	34	0.072
CC ER 25 P Ø7/16"	1403907	ER 25	Ø7/16"	25	26	34	0.067
CC ER 25 P Ø1/2"	1403908	ER 25	Ø1/2"	25	26	34	0.062
CC ER 25 P Ø9/16"	1403910	ER 25	Ø9/16"	25	26	34	0.055
CC ER 25 P Ø5/8"	1403911	ER 25	Ø5/8"	25	26	34	0.051

Precision collets ER 32

ER precision collets according to DIN ISO 15488-B (ER/ESX) for clamping tools with a cylindrical shank. Suitable for all ER precision collet chucks. The run-out and repeat accuracy is 2 µm.



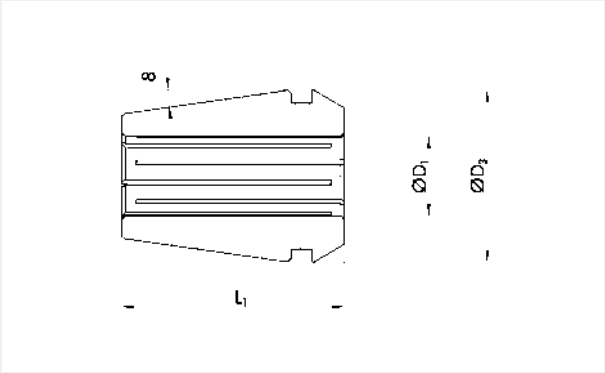


Technical data

Description	ID	For	For clamping diameter D1	D2	D3	L1	Weight
				mm	mm	mm	kg
CC ER 32 P Ø1.5-2	1380914	ER 32	Ø2	32	33	40	0.167
CC ER 32 P Ø2-2,5	1380915	ER 32	Ø2.5	32	33	40	0.167
CC ER 32 P Ø2.5-3	1380918	ER 32	Ø3	32	33	40	0.167
CC ER 32 P Ø3.5-4	1380921	ER 32	Ø4	32	33	40	0.162
CC ER 32 P Ø4.5-5	1380922	ER 32	Ø5	32	33	40	0.16
CC ER 32 P Ø5.5-6	1380923	ER 32	Ø6	32	33	40	0.159
CC ER 32 P Ø6.5-7	1380926	ER 32	Ø7	32	33	40	0.159
CC ER 32 P Ø7.5-8	1380927	ER 32	Ø8	32	33	40	0.165
CC ER 32 P Ø8.5-9	1380928	ER 32	Ø9	32	33	40	0.162
CC ER 32 P Ø9.5-10	1380929	ER 32	Ø10	32	33	40	0.159
CC ER 32 P Ø10.5-11	1380931	ER 32	Ø11	32	33	40	0.155
CC ER 32 P Ø11.5-12	1304938	ER 32	Ø12	32	33	40	0.151
CC ER 32 P Ø12.5-13	1380932	ER 32	Ø13	32	33	40	0.148
CC ER 32 P Ø13.5-14	1380934	ER 32	Ø14	32	33	40	0.141
CC ER 32 P Ø14.5-15	1380935	ER 32	Ø15	32	33	40	0.139
CC ER 32 P Ø15.5-16	1380936	ER 32	Ø16	32	33	40	0.129
CC ER 32 P Ø16.5-17	1380937	ER 32	Ø17	32	33	40	0.125
CC ER 32 P Ø17.5-18	1380938	ER 32	Ø18	32	33	40	0.117
CC ER 32 P Ø18.5-19	1380939	ER 32	Ø19	32	33	40	0.11
CC ER 32 P Ø19.5-20	1361059	ER 32	Ø20	32	33	40	0.101
CC ER 32 P Ø1/8"	1403912	ER 32	Ø1/8"	32	33	40	0.167
CC ER 32 P Ø3/16"	1403913	ER 32	Ø3/16"	32	33	40	0.16
CC ER 32 P Ø1/4"	1403914	ER 32	Ø1/4"	32	33	40	0.159
CC ER 32 P Ø5/16"	1403915	ER 32	Ø5/16"	32	33	40	0.159
CC ER 32 P Ø3/8"	1403916	ER 32	Ø3/8"	32	33	40	0.159
CC ER 32 P Ø7/16"	1403917	ER 32	Ø7/16"	32	33	40	0.155
CC ER 32 P Ø1/2"	1403918	ER 32	Ø1/2"	32	33	40	0.148
CC ER 32 P Ø9/16"	1403919	ER 32	Ø9/16"	32	33	40	0.139
CC ER 32 P Ø5/8"	1403920	ER 32	Ø5/8"	32	33	40	0.131
CC ER 32 P Ø11/16"	1403921	ER 32	Ø11/16"	32	33	40	0.122
CC ER 32 P Ø3/4"	1403922	ER 32	Ø3/4"	32	33	40	0.11

Precision collets ER 40

ER precision collets according to DIN ISO 15488-B (ER/ESX) for clamping tools with a cylindrical shank. Suitable for all ER precision collet chucks. The run-out and repeat accuracy is 2 µm.





Technical data

Description	ID	For	For clamping diameter D1	D2	D3	L1	Weight
				mm	mm	mm	kg
CC ER 40 P Ø2.5-3	1381015	ER 40	Ø3	40	41	46	0.317
CC ER 40 P Ø3.5-4	1381016	ER 40	Ø4	40	41	46	0.317
CC ER 40 P Ø4.5-5	1381017	ER 40	Ø5	40	41	46	0.317
CC ER 40 P Ø5.5-6	1381018	ER 40	Ø6	40	41	46	0.317
CC ER 40 P Ø6.5-7	1381019	ER 40	Ø7	40	41	46	0.308
CC ER 40 P Ø7.5-8	1381020	ER 40	Ø8	40	41	46	0.308
CC ER 40 P Ø8.5-9	1381021	ER 40	Ø9	40	41	46	0.312
CC ER 40 P Ø9.5-10	1381023	ER 40	Ø10	40	41	46	0.306
CC ER 40 P Ø10.5-11	1381024	ER 40	Ø11	40	41	46	0.298
CC ER 40 P Ø11.5-12	1361102	ER 40	Ø12	40	41	46	0.299
CC ER 40 P Ø12.5-13	1381025	ER 40	Ø13	40	41	46	0.29
CC ER 40 P Ø13.5-14	1381026	ER 40	Ø14	40	41	46	0.289
CC ER 40 P Ø14.5-15	1381030	ER 40	Ø15	40	41	46	0.277
CC ER 40 P Ø15.5-16	1381031	ER 40	Ø16	40	41	46	0.267
CC ER 40 P Ø16.5-17	1381032	ER 40	Ø17	40	41	46	0.268
CC ER 40 P Ø17.5-18	1381033	ER 40	Ø18	40	41	46	0.25
CC ER 40 P Ø18.5-19	1381034	ER 40	Ø19	40	41	46	0.251
CC ER 40 P Ø19.5-20	1361103	ER 40	Ø20	40	41	46	0.242
CC ER 40 P Ø20.5-21	1381035	ER 40	Ø21	40	41	46	0.224
CC ER 40 P Ø21.5-22	1381037	ER 40	Ø22	40	41	46	0.222
CC ER 40 P Ø22.5-23	1381038	ER 40	Ø23	40	41	46	0.21
CC ER 40 P Ø23.5-24	1381039	ER 40	Ø24	40	41	46	0.199
CC ER 40 P Ø24.5-25	1381040	ER 40	Ø25	40	41	46	0.184
CC ER 40 P Ø25.5-26	1381041	ER 40	Ø26	40	41	46	0.171
CC ER 40 P Ø1/8"	1403923	ER 40	Ø1/8"	40	41	46	0.3
CC ER 40 P Ø3/16"	1403924	ER 40	Ø3/16"	40	41	46	0.304
CC ER 40 P Ø1/4"	1403925	ER 40	Ø1/4"	40	41	46	0.32
CC ER 40 P Ø5/16"	1403926	ER 40	Ø5/16"	40	41	46	0.316
CC ER 40 P Ø3/8"	1403927	ER 40	Ø3/8"	40	41	46	0.299
CC ER 40 P Ø7/16"	1403928	ER 40	Ø7/16"	40	41	46	0.295
CC ER 40 P Ø1/2"	1403929	ER 40	Ø1/2"	40	41	46	0.277
CC ER 40 P Ø9/16"	1403930	ER 40	Ø9/16"	40	41	46	0.279
CC ER 40 P Ø5/8"	1403931	ER 40	Ø5/8"	40	41	46	0.26
CC ER 40 P Ø11/16"	1403932	ER 40	Ø11/16"	40	41	46	0.26
CC ER 40 P Ø3/4"	1403933	ER 40	Ø3/4"	40	41	46	0.25
CC ER 40 P Ø13/16"	1403934	ER 40	Ø13/16"	40	41	46	0.023
CC ER 40 P Ø7/8"	1403935	ER 40	Ø7/8"	40	41	46	0.021
CC ER 40 P Ø1"	1403936	ER 40	Ø1"	40	41	46	0.18

ER set of collets

The ER collets for ER collet chucks are packed as a set in a wooden box.



Technical data

Description	ID	For	For clamping diameter	Weight kg	Number of ER collets
CC Set ER 11	0280220	ER 11	Ø1 – 7	0.263	13
CC Set ER 16	0280221	ER 16	Ø1 – 10	0.1	10
CC Set ER 20	0280222	ER 20	Ø2 – 13	0.775	12
CC Set ER 25	0280223	ER 25	Ø2 – 16	1.43	15
CC Set ER 32	0280224	ER 32	Ø3 – 20	3	18
CC Set ER 40	0280225	ER 40	Ø4 – 26	6.88	23

Clamping nut for ER 11 – ER 20 collet chucks

ER clamping nut in accordance with DIN ISO 15488 (ER/ESX) for all ER collet chucks



Technical data

Description	ID	For	Weight kg
ER 11 clamping nut	0280300	ER 11	0.01
ER 16 clamping nut	0280301	ER 16	0.03
ER 20 clamping nut	0280302	ER 20	0.055

Clamping nut for ER 25 – ER 40 collet chucks

ER clamping nut in accordance with DIN ISO 15488 (ER/ESX) for all ER collet chucks



Technical data

Description	ID	For	Weight kg
ER 25 clamping nut	0280303	ER 25	0.09
ER 32 clamping nut	0280304	ER 32	0.135
ER 40 clamping nut	0280305	ER 40	0.25

ER clamping nut Mini

ER clamping nut for all ER mini collet chucks and ER mini extensions.



Technical data

Description	ID	For	Weight kg
ER 11 Mini clamping nut	23003638	ER 11	0.007
ER 16 Mini clamping nut	23003575	ER 16	0.016
ER 20 Mini clamping nut	23005136	ER 20	0.031
ER 25 Mini clamping nut	23005137	ER 25	0.054

ER precision clamping nut

ER precision clamping nut with ball-bearing mounted pressure ring with sliding layer for all SCHUNK ER precision collet chucks.



Technical data

Description	ID	For	Weight kg
ER 16 P Mini clamping nut	1475270	ER 16	0.075
ER 16 P clamping nut	1376507	ER 16	0.075
ER 25 P clamping nut	1376508	ER 25	0.11
ER 32 P clamping nut	1376509	ER 32	0.175
ER 40 P clamping nut	1376510	ER 40	0.26

Spanner wrench for ER 11 – ER 20 collet chuck

Wrench for tightening the ER clamping nut of ER collet chucks, available for ER 11, ER 16, ER 20.



Technical data

Description	ID	For	Wrench size A/F	Weight kg
ER 11 spanner wrench	0280307	ER 11	17	0.065
ER 16 spanner wrench	0280308	ER 16	25	0.165
ER 20 spanner wrench	0280309	ER 20	30	0.29

Spanner wrench for ER 25 – ER 40 collet chucks

Spanner wrench for tightening ER clamping nuts on ER collet chucks, available for ER 25, ER 32, ER 40.



Technical data

Description	ID	For	Weight kg
ER 25 spanner wrench	0280310	ER 25	0.295
ER 32 spanner wrench	0280311	ER 32	0.395
ER 40 spanner wrench	0280312	ER 40	0.67

Spanner wrench for ER Mini collet chuck

Spanner wrench for tightening ER Mini clamping nuts on ER Mini collet chucks and ER Mini extensions.



Technical data

Description	ID	For	Weight kg
ER 11 Mini spanner wrench	23003645	ER 11	0.02
ER 16 Mini spanner wrench	23003424	ER 16	0.055
ER 20 Mini spanner wrench	23005134	ER 20	0.08
ER 25 Mini spanner wrench	23005135	ER 25	0.125

Roller wrench for ER precision collet chucks

Spanner wrench for tightening ER precision clamping nuts on ER precision collet chucks.



Technical data

Description	ID	For	Weight kg
ER 16 P Mini roller wrench	1477484	ER 16	1.25
ER 16 P roller wrench	1410587	ER 16	1.25
ER 25 P roller wrench	1410588	ER 25	1.3
ER 32 P roller wrench	1410589	ER 32	1.4
ER 40 P roller wrench	1410590	ER 40	1.5

Torque wrench for ER precision collet chuck

A torque wrench and attachment for tightening ER precision clamping nuts on ER precision collet chucks to a specified torque.



Technical data

Description	ID	For	Weight kg	
ER P 9 x 12 torque wrench	1449655		0.82	With square mount 9 x 12 mm
ER P 14 x 18 torque wrench	1449656		1.05	With square mount 14 x 18 mm
ER 16 P Mini adapter for torque wrench	1477501	ER 16	0.25	Suitable square: 9 x 12
ER 16 P adapter for torque wrench	1410591	ER 16	0.25	Suitable square: 9 x 12
ER 25 P adapter for torque wrench	1410592	ER 25	0.3	Suitable square: 14 x 18
ER 32 P adapter for torque wrench	1410594	ER 32	0.32	Suitable square: 14 x 18
ER 40 P adapter for torque wrench	1410595	ER 40	0.35	Suitable square: 14 x 18

Clamping screw for WELDON

Clamping screw for WELDON end mill holders and Whistle Notch mountings for clamping cylindrical shanks according to DIN 1835 B.



Technical data

Description	ID	For clamping diameter	G	Weight kg
WEL clamping screw Ø 6	0280336	Ø6	M6	0.001
WEL clamping screw Ø 8	0280337	Ø8	M8	0.003
WEL clamping screw Ø 10	0280338	Ø10	M10	0.005
WEL clamping screw Ø 12, Ø 14	0280339	Ø12, Ø14	M12	0.009
WEL clamping screw Ø 16, Ø 18	0280340	Ø16, Ø18	M14	0.013
WEL clamping screw Ø 20	0280341	Ø20	M16	0.015
WEL clamping screw Ø 25	0280342	Ø25	M18x2	0.023
WEL clamping screw Ø 32	0280343	Ø32	M20x2	0.031

Clamping screw for WELDON slim

Clamping screw with ball head for extended slim WELDON end mill holder.



Technical data

Description	ID	For clamping diameter	G	Weight kg
WEL S clamping screw Ø 6 – Ø 12	23005138	Ø6–Ø12	M6	0.001
WEL S clamping screw Ø 14 – Ø 20	23005139	Ø14–Ø20	M8	0.002

Length adjustment screw for Whistle Notch mounting

Length adjustment screw with through-hole for Whistle Notch mountings.



Technical data

Description	ID	For clamping diameter	G	Weight kg
WHI length adjustment screw Ø 6	23005141	Ø6	M5	0.001
WHI length adjustment screw Ø 8	23005142	Ø8	M6	0.002
WHI length adjustment screw Ø 10	23005143	Ø10	M8	0.003
WHI length adjustment screw Ø 12	23005144	Ø12	M10	0.005
WHI length adjustment screw Ø 14	23005145	Ø14	M10	0.007
WHI length adjustment screw Ø 16	23005146	Ø16	M12	0.01
WHI length adjustment screw Ø 18	23005147	Ø18	M12	0.009
WHI length adjustment screw Ø 20	23005148	Ø20	M16	0.019
WHI length adjustment screw Ø 25, Ø 32	1339961	Ø25, Ø32	M20	0.03

MES/KOM spanner wrench

DIN 6368 nose wrench for face mill arbors and combination shell and end mill adapters for diameters from 16 mm to 60 mm.



Technical data

Description	ID	For clamping diameter	Weight kg
MES/KOM spanner wrench Ø 16	0280315	Ø16	0.105
MES/KOM spanner wrench Ø 22	0280316	Ø22	0.205
MES/KOM spanner wrench Ø 27	0280317	Ø27	0.405
MES/KOM spanner wrench Ø 32	0280318	Ø32	0.585
MES/KOM spanner wrench Ø 40	0280319	Ø40	0.825
MES/KOM spanner wrench Ø 50	23002348	Ø50	0.95
MES/KOM spanner wrench Ø 60	23002349	Ø60	1

MES/KOM tightening bolt

DIN 6367 tightening bolt for face mill arbors and combination shell and end mill adapters.



Technical data

Description	ID	G	Weight kg
MES/KOM tightening bolt M8	0280320	M8	0.015
MES/KOM tightening bolt M10	0280321	M10	0.03
MES/KOM tightening bolt M12	0280322	M12	0.055
MES/KOM tightening bolt M16	0280323	M16	0.105
MES/KOM tightening bolt M20	0280324	M20	0.185
MES/KOM tightening bolt M24	23001845	M24	0.325
MES/KOM tightening bolt M30	23001846	M30	0.565

MES T-nut

T-nut for face mill arbors.



Technical data

Description	ID	For clamping diameter	Weight kg
MES T-nut Ø 16	23005150	Ø16	0.005
MES T-nut Ø 22	23005151	Ø22	0.007
MES T-nut Ø 27	23005152	Ø27	0.014
MES T-nut Ø 32	23005153	Ø32	0.026
MES T-nut Ø 40	23005154	Ø40	0.035

MES screw for T-nut

Screw for fastening T-nuts.



Technical data

Description	ID	For clamping diameter	Weight kg
MES screw for T-nut Ø 16	23005157	Ø16	0.001
MES screw for T-nut Ø 22	23005158	Ø22	0.002
MES screw for T-nut Ø 27	23005159	Ø27	0.002
MES screw for T-nut Ø 32	23005160	Ø32	0.004

KOM drive ring

DIN 6366/1 drive ring for combination shell and end mill adapters.



Technical data

Description	ID	For clamping diameter	Weight kg
KOM drive ring Ø 16	0280325	Ø16	0.05
KOM drive ring Ø 22	0280326	Ø22	0.09
KOM drive ring Ø 27	0280327	Ø27	0.125
KOM drive ring Ø 32	0280328	Ø32	0.22
KOM drive ring Ø 40	0280329	Ø40	0.32

KOM feather key

DIN 6885 feather key with ejector screw for combination shell and end mill adapters.



Technical data

Description	ID	For clamping diameter	Weight kg
KOM feather key Ø 16	0280330	Ø16	0.002
KOM feather key Ø 22	0280331	Ø22	0.006
KOM feather key Ø 27	0280332	Ø27	0.008
KOM feather key Ø 32	0280333	Ø32	0.01
KOM feather key Ø 40	0280334	Ø40	0.015

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