

Superior Clamping and Gripping



New SCHUNK Products and Innovations

Gripping Systems
Depaneling Technology
Clamping Technology

New SCHUNK Products and Innovations

Highlights at a Glance



The easy way to automate – MTB application kits

Diverse automation scenarios can now be implemented in no time and with minimal effort. With its MTB application kits, SCHUNK offers easy-to-integrate packages for automated gripping, clamping and changing of workpieces. Components that are well matched to one another down to the very last detail merge seamlessly into the machine environment. The kits are equally suitable for automation beginners and professionals.



+ Super magnetic! The invisible force in workpiece handling

Straightforward, easy-to-handle and really strong! As if by superpower, our magnetic grippers move ferromagnetic components in all positions and sizes. No matter where or how – safe gripping of workpieces every time.



+ SCHUNK is your Life-Science Partner with Application Know-how

In the "Science of Life" – biotechnology, medical technology and pharmaceuticals all work together in this field. The aim of this multi-discipline collaboration is to work towards a future with more focus on health and safety, while producing new medical technology products, treatment methods and medicines.



New SCHUNK Products and Innovations

Highlights at a Glance

i...T|E|N|D|O²

Next level generation: the first intelligent toolholder on the market

With the new iTENDO², we are taking our portfolio of toolholders to the next level: With intelligent real-time sensors for simple process monitoring and maximum possible service life. With speeds of rotation of up to 30,000 RPM and an interfering contour that corresponds 1:1 to that of a SCHUNK standard toolholder, it is predestined for use in a wide range of tasks without any time-consuming adjustments.

Speeds of rotation of up to
+ 30,000 RPM
make a wide range of applications
possible

Intelligent
real-time
sensor system
for easy process monitoring
and maximum tool service life
+

+ 3 customized
product packages
offer a suitable solution for any
task or complexity level



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TANDEM[®] 3

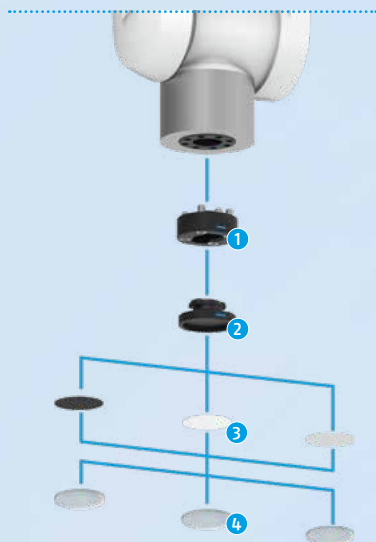


Enormous diversity of variants

With TANDEM3, SCHUNK has not only succeeded in expanding the existing modular system by adding further technical refinements – these further developments also already provide the basis for the modular systems of tomorrow. And because of SCHUNK's decades of know-how in developing clamping force blocks, there are virtually no limits here.



The new gripping technology is bionically inspired and ensures energy-efficient gripping without residues



- 1** Robot adapter
individually adaptable to different robots
- 2** Pad bracket
available in four standard sizes
- 3** Foam
in different degrees of hardness to compensate for irregularities
- 4** Pad
in different structure sizes for a wide range of applications



Sizes
3 .. 16



Weight
22 .. 55 g



Workpiece weight
3 .. 16 kg



Diameter
24 .. 56 mm

schunk.com/adheso

Technical data

Size	Pad diameter [mm]	Weight [g]	Max. workpiece weight [kg]	Change interval for pads [million cycles]
3	24	22	3	1.5
5	32	30	5	1.5
10	44	42	10	1.5
16	56	55	16	1.5

Collaborative Gripper for Small Components

The world's first certified industrial gripper for collaborative operations



New: Now also available for ABB GoFa



Certified gripping unit saves time and effort when carrying out the safety assessment of the overall application



Plug & Work for a variety of different cobots



- ① Collision protection cover
- ② Gripper for small components EGP
- ③ LED light band for status display
- ④ Integrated sensor system to monitor the jaw position



Sizes
40 .. 64



Weight
0.59 .. 1.38 kg



Gripping force
140 .. 230 N



Stroke per jaw
6 .. 10 mm



Workpiece weight
0.7 .. 1.15 kg

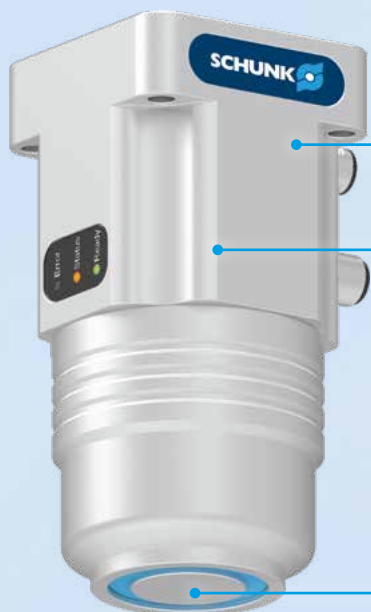
schunk.com/egp-c

Technical data

Size	Stroke per jaw [mm]	Min. gripping force [N]	Max. gripping force [N]	Recommended workpiece weight [kg]	Max. permissible finger length [mm]	Weight [kg]
40	6	35	140	0.7	50	0.59 .. 0.9
64	10	65	230	1.15	80	1.11 .. 1.38

EMH Magnetic Grippers

The first compact electropermanent magnetic gripper with integrated electronics.



New: Sizes EMH-MP for special requirements like metal sheet handling and EMH-DP for bin picking



Integrated electronics
Compact design, as no additional controller is required



High holding forces at small spaces
for reliable part handling in compact machines



① **Control electronics**
integrated control and power electronics

② **Copper coil**
for pole reversal of the AlNiCo-magnets

③ **Polarity reversible AlNiCo-magnet**
surrounded by an electromagnetic coil

④ **Non-pole reversing neodymium permanent magnets**
lead the magnetic flux via the workpiece



Sizes
6



Weight
1 .. 8 kg



Max. workpiece weight
70 kg



Max. magnetic surface
81.97 cm²

schunk.com/emh

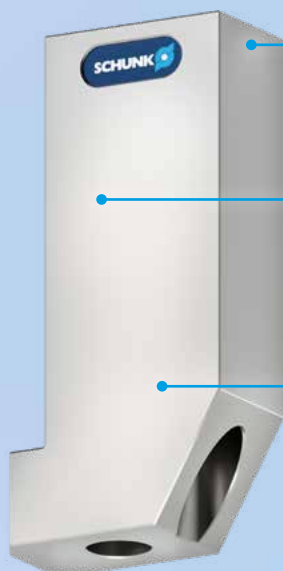
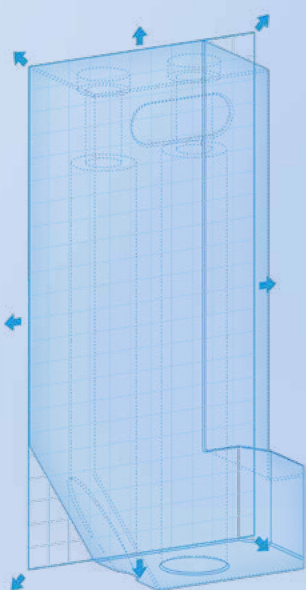
Technical data

Size	Weight [kg]	Payload for horizontal magnetic surface [kg]	Activation time [ms]	Nominal voltage [V]
DP 080	3	19	500	24
MP 060	2	14	200	24
RP 036	1	8.5	300	24
RP 045	1.5	22.5	300	24
RP 084	6.5	89	500	24
RP 114	8	175	700	24

FGR

Customizable Gripper Fingers

Four steps to the individual gripper finger



Short delivery time
fast availability, without
tying up your own resources



Attractive price
eliminates the need for
in-house design and produc-
tion of gripper fingers



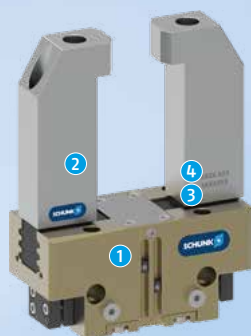
**Immediate display of
price and delivery time**
enables shortest request and
order processes



Matching Series

PGN-plus-P
JGP-P
PGB
PZN-plus
JGZ
PZV
PZB-plus
PGN-plus-E
EGI
EGN
EZN

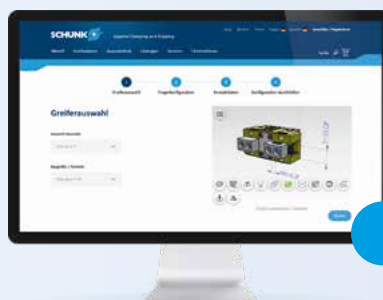
schunk.com/fgr



- ① SCHUNK gripper PGN-plus-P
- ② FGR individually configured gripper finger
- ③ SCHUNK ID
for ordering the gripper finger
- ④ Optional customer material number
for internal materials management

Configure Individual gripper fingers quickly

- Step 1:** Gripper selection
- Step 2:** Finger configuration
- Step 3:** Contact details
- Step 4:** Complete configuration



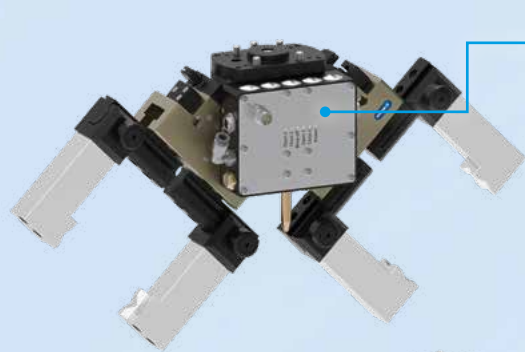
Configure
online now:

schunk.com/fgr



MTB Application Kits

The right kits for a quick entry into the world of automated machine loading and unloading



Perfect match

Due to the high application specialization of the application kits, you do not have to search long for a suitable solution. Use your time for more important things



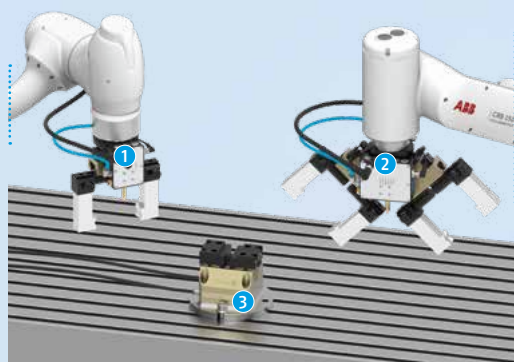
Increased productivity

You don't have an employee available for a third shift? Let the robot work for you



Reducing employee's workload

Protect your employees from dirty, dangerous and tedious tasks such as manual loading and unloading and cleaning operations



1 Single gripper

Perfect for use in confined spaces

2 Double gripper

Increased machine productivity due to loading and unloading in just one cycle

3 Clamping force block

Reliable holding of the workpiece during machining



Variants

5



Supported robots

Universal Robots e-Series

FANUC CRX

ABB GoFA

Doosan Robotics A-SERIES M-SERIES H-SERIES

Techman Robot

OMRON TM

schunk.com/mtb



Technical data

Designation	Stroke per jaw [mm]	Weight [kg]	Closing force [N]	Opening force [N]	Recommended workpiece weight [kg]
Single gripper JGP-P 80	8	0.99	550	610	2.75
Single gripper JGP-P 100	10	1.38	870	930	4.35
Double gripper JGP-P 64	6	1.62	350	375	1.75
Double gripper JGP-P 80	8	2.1	550	610	2.75
Vise PGS3 100	2	5			

JGP-P Universal Gripper

The high-performance gripper with diverse monitoring options – including inductive



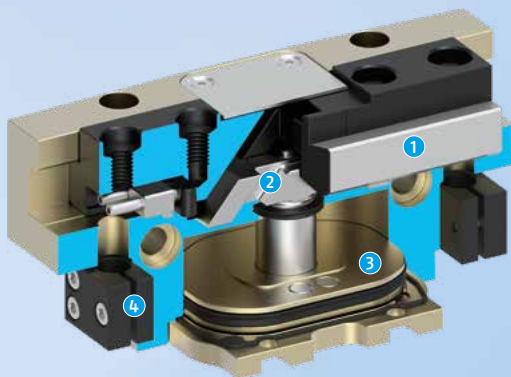
A firm focus on the essentials for maximum profitability



Sturdy T-slot guidance for the precise handling of different workpieces



Comprehensive sensor accessory program for versatile position identification possibilities and stroke position monitoring



① T-slot guidance

loadable, robust base jaw guidance for extremely long gripper fingers

② Wedge-hook design

for high power transmission and minimal wear as a result of larger diagonal pull surfaces

③ Piston

Maximum force through maximum surface of drive piston

④ Bracket for sensor system

Brackets for proximity switches and adjustable control cams in the housing



Sizes
40 .. 300



Weight
0.08 .. 17.2 kg



Gripping force
180 .. 8.200 N



Stroke per jaw
2.5 .. 35 mm



Workpiece weight
0.9 .. 33 kg

schunk.com/jgp-p



Technical data

Size	Stroke per jaw [mm]	Closing force [N]	Opening force [N]	Recommended workpiece weight [kg]	Weight [kg]	Max. permissible finger length [mm]
40	2.5	180 .. 235	200 .. 260	0.9	0.08 .. 0.1	55 .. 60
50	2 .. 4	220 .. 490	235 .. 520	1.1 .. 1.9	0.17 .. 0.2	66 .. 75
64	3 .. 6	350 .. 920	375 .. 1050	1.75 .. 3.6	0.27 .. 0.35	80 .. 90
80	4 .. 8	550 .. 1500	610 .. 1600	2.75 .. 5.5	0.51 .. 0.63	100 .. 110
100	5 .. 10	870 .. 2200	930 .. 2400	4.35 .. 8.75	0.9 .. 1.1	125 .. 145
125	6 .. 13	1400 .. 4200	1520 .. 4450	7 .. 15	1.4 .. 1.9	160 .. 180
160	8 .. 16	2500 .. 6300	2800 .. 6900	12.5 .. 24.5	3 .. 3.8	200 .. 220
200	25	3800 .. 5050	4050 .. 5500	19	5.4 .. 7	240 .. 280
240	30	5300 .. 7800	600 .. 8300	26.5	8.7 .. 11.8	280 .. 320
300	35	6600 .. 8200	6800 .. 8400	33	13.7 .. 17.2	300 .. 350

MPG-plus with Protective Cover Gripper for Small Components

The most powerful pneumatic miniature parallel gripper on the market



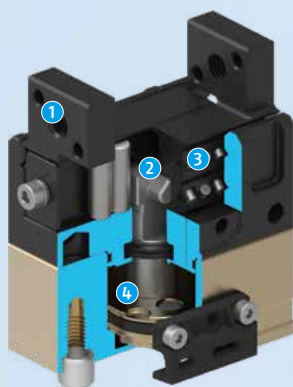
New: Now also available with protective cover for sizes 25, 32 and 40



Cross roller guide for precise gripping due to a backlash-free base jaw guidance



Base jaws guided on double roller bearings ensuring low friction and smooth running



- 1 Base jaw for the connection of workpiece-specific gripper fingers
- 2 Wedge-hook design for high force transmission and centric gripping
- 3 Cross roller guidance precise gripping through base jaw guidance with minimum play
- 4 Oval piston drive for power generation



Sizes
25 .. 40



Weight
0.06 .. 0.33 kg



Gripping force
38 .. 170 N



Stroke per jaw
3 .. 6 mm



Workpiece weight
0.19 .. 0.7 kg

schunk.com/mpg-plus



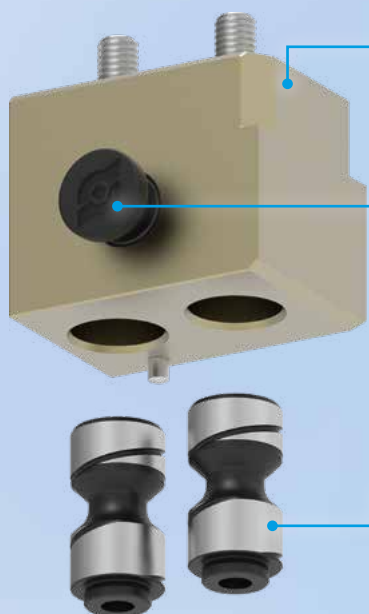
Technical data

Size	Stroke per jaw [mm]	Closing force [N]	Opening force [N]	Recommended workpiece weight [kg]	Weight [kg]	Max. permissible finger length [mm]
25	3	38 .. 48	32 .. 41	0.19	0.06 .. 0.11	32
32	4	80 .. 105	70 .. 90	0.43	0.1 .. 0.19	40
40	6	135 .. 170	110 .. 135	0.7	0.18 .. 0.33	50

BSWS-M

Jaw Quick-change System

The first jaw quick-change system with tool-free actuation on the market



Universal application possibilities
using the BSWS-M means that just one gripper can be applied universally for various applications



Tool-free jaw change via the unlocking button
Quick and easy for highly flexible grippers



Saving time when converting applications
Different workpieces can be handled by exchanging the gripper fingers

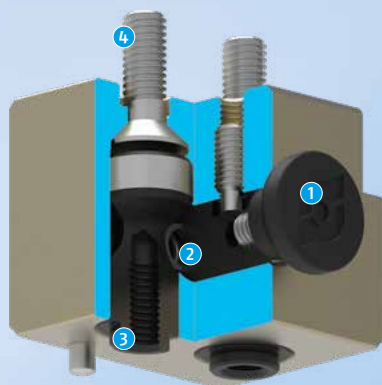


Sizes
50 .. 200



Weight
0.02 .. 0.85 kg

schunk.com/bsws-m



- ① Unlocking button
- ② Spring preloaded locking pin
- ③ Adapter pin BSWS-A
for fastening the gripper finger to be exchanged
- ④ Screw connection
for mounting on the gripper

Technical data

Base BSWS-BM	Weight [kg]	Adapter pin BSWS-A	Number of pins per ID
BSWS-BM 50	0.02	BSWS-A 50	2
BSWS-BM 64	0.04	BSWS-A 64	2
BSWS-BM 80	0.07	BSWS-A 80	2
BSWS-BM 100	0.13	BSWS-A 100	2
BSWS-BM 125	0.2	BSWS-A 125	2
BSWS-BM 160	0.42	BSWS-A 160	2
BSWS-BM 200	0.85	BSWS-A 200	2

R-EMENDO AOV Orbital Sander Tool

The easiest to use orbital sander tool
for robotic use on the market



Compensation can be adjusted by means of a double-acting pneumatic cylinder for a constant contact force independent of the orientation of the tool



Optional media change system for automated exchange of grinding or polishing wheels



Optional connection for suction for reduced contamination and susceptibility to faults



- ① Vane-type air motor for a high torque and a short stopping time
- ② Dust cover protects the bearing against contamination
- ③ Backer pad for adhesive grinding or polishing wheels
- ④ Bore holes for extraction of grinding and polishing dust



Size
10



Max. speed of rotation
10,000 RPM



Max. extension compensation force
66.7 N



Max. retraction compensation force
33.3 N



Compensation path Z
12.7 mm

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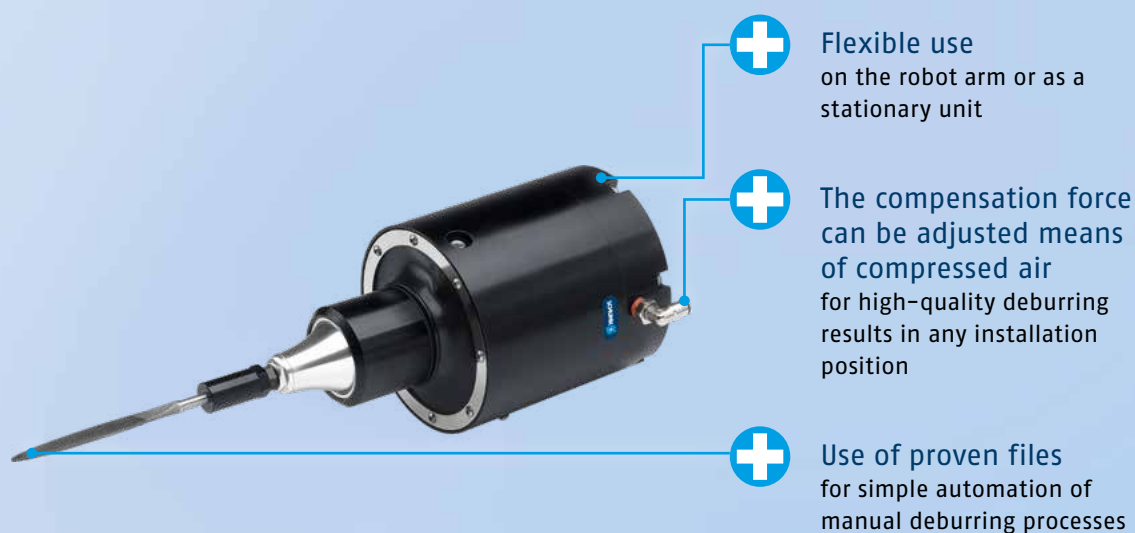


Technical data

Size	Grinding disk size	Compensation path Z [mm]	Min. extension compensation force [N]	Max. extension compensation force [N]	Idle speed [RPM]	Weight [kg]
10	125 mm (5") .. 150 mm (6")	12.7	13.3	66.7	10000	2.68

R-EMENDO CRT File Tool

Flexible, pneumatic deburring tool for narrow and tight workpiece geometries



Size
12



File stroke
5 mm



Empty running-
stroke
12,000 RPM



Compensation
angle, radial
 $\pm 1.8^\circ$



- ① Toolholder for files
- ② Gimballed system for a robust compensation function
- ③ Locking function for y-axis for an oscillating compensation in the x-axis
- ④ Air connection for adjusting the compliance force

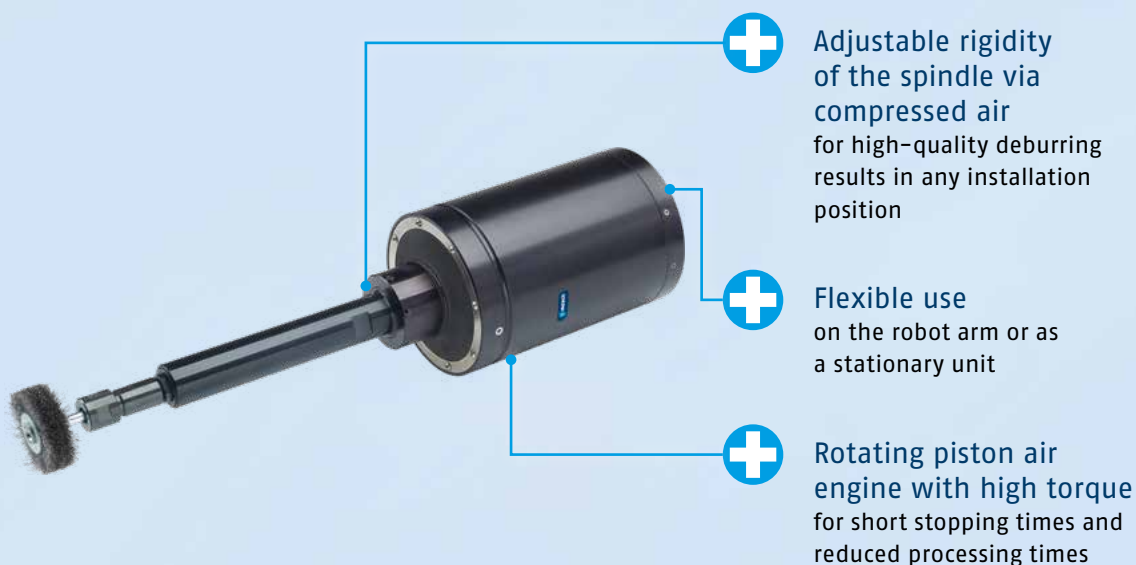
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Technical data

Size	Max. compensation X [mm]	Max. compensation Y [mm]	Min. radial compensation force [N]	Max. radial compensation force [N]	File stroke [mm]	Number of idle running strokes [RPM]	Weight [kg]
12	8	8	18	62	5	12000	3.08

R-EMENDO MFT-R Deburring Spindle

The most robust polishing spindle with radial compensation on the market



Size
490



Max. speed of rotation
5,600 RPM



Power
390 W



Compensation angle, radial
 $\pm 1.6^\circ$

schunk.com/mft-r



- 1 Vane-type air motor for a high torque and a short stopping time
- 2 Gimballed system for a robust compensation function
- 3 Air connection for adjusting the compliance force
- 4 Tool holder for DA collet chucks

Technical data

Size	Power	Idle speed	Max. compensation path X	Max. compensation path Y	Min. radial compensation force	Max. radial compensation force	Toolholder mounting	Weight
	[W]	[RPM]	[mm]	[mm]	[N]	[N]		[kg]
490	390	5600	7.1	7.1	9.4	70	Collet chuck DA 6 mm and 8 mm	4.42

R-EMENDO PCFC Compensation Unit

Universally applicable compensation unit with integrated stroke measuring system for a constant compensation force in any position.



Adjustable compensation by means of a double-acting pneumatic cylinder for a constant contact force



Integrated path measuring system for monitoring and control of the process



Integrated weight force compensation for constant contact forces independent of tool orientation, especially in robot-guided applications



Size
12



Compensation
path Z
12 mm

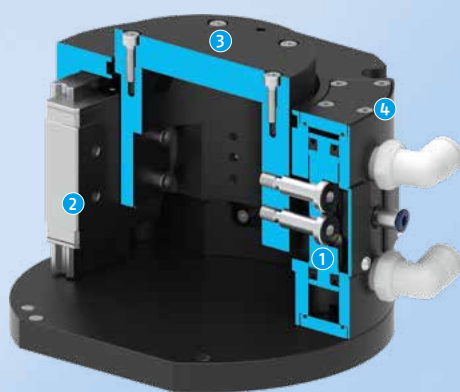


Max. extension
compensation
force
85 .. 240 N



Max. retraction
compensation
force
18 .. 49 N

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① Piston

② Linear guide

③ Mounting
for tool provided by customer

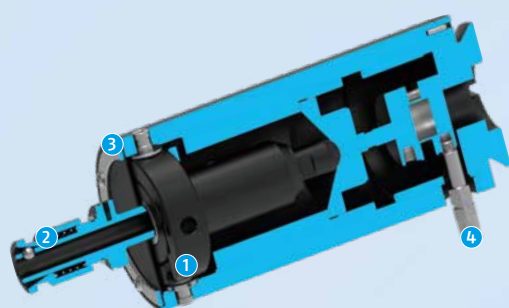
④ Integrated stroke measuring system

Technical data

Size	Compensation path Z [mm]	Min. compensation force [N]	Max. compensation force [N]	Weight [kg]
12	12	18 .. 49	85 .. 240	3,54 .. 3,63

R-EMENDO CDB Deburring Tool

The world's only compliant tool for robot-guided deburring with conventional deburring tools



Size
8



Max. radial
compensation
force
76 N



Max. axial
compensation
force
67 N



Compensation
path Z
8 mm



Compensation
angle, radial
 $\pm 5.5^\circ$

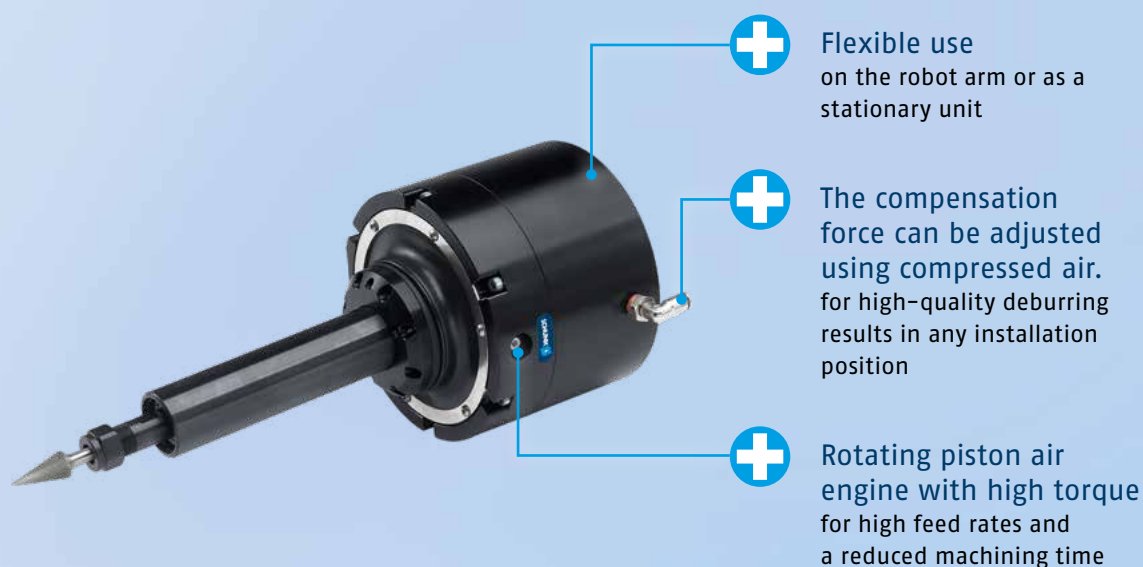
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Technical data

Size	Max. compensation angle X/Y [°]	Compensation path Z [mm]	Weight [kg]	Max. radial compensation force [N]	Max. axial compensation force [N]
8	5.5	8	1.04 .. 1.09	76	67

R-EMENDO RCV Deburring Spindle

The most robust and quickest to maintain deburring spindle on the market.



Sizes
250 .. 490



Max. speed of
rotation
30,000 .. 40,000
RPM



Power
250 .. 490 W



Compensation
angle, radial
 $\pm 3^\circ$

schunk.com/rcv

Technical data

Size	Power	Idle speed	Max. compensation X	Max. compensation Y	Min. radial compensation force	Max. radial compensation force	Tool holder	Weight
	[W]	[RPM]	[mm]	[mm]	[N]	[N]		[kg]
250	250	40000	7.1	7.1	9	54	Collet chuck ER-11 6 mm and 8 mm	1.71
490	490	30000	8.3	8.3	7	53	Collet chuck ER-11 6 mm and 8 mm	3.36

FT-AXIA

Force/Torque Sensor

Attractively priced, compact force/torque sensor with integrated electronics.



New: FT-AXIA 90 and FT-AXIA 130 open up new possibilities for new entrants to automation



Compact design due to space-saving set-up with integrated electronics



Sizes
90 .. 130

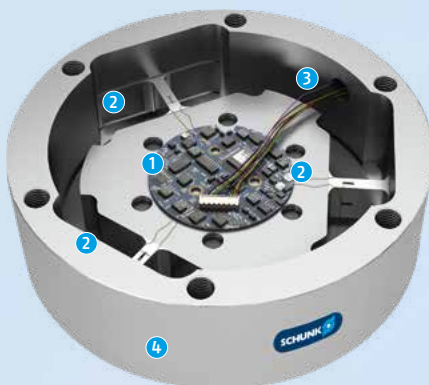


Force measurement range
 $\pm 1000 \dots \pm 6,000 \text{ N}$



Moment measurement range
 $\pm 50 \dots \pm 300 \text{ Nm}$

schunk.com/ft-axia



1 Electronics

no interfering contour, as integrated in the housing

2 Strain gauges

Silicon gauges provide a signal 75 times stronger than conventional foil gages. This signal is amplified resulting in near-zero noise distortion.

3 Interfaces

Data evaluation via Ethernet, EtherCAT, RS-422 or RS-485

4 Protection class IP

Sizes FT-AXIA 90 and FT-AXIA 130 with IP67

Technical data

	FTx-AXIA90 SI-1000-50	FT-AXIA130 SI-2000-125	FT-AXIA130 SI-4000-300
Evaluation via	EtherNet, EtherCAT, RS-422, RS-485	EtherNet, EtherCAT, RS-422, RS-485	EtherNet, EtherCAT, RS-422, RS-485
Weight [kg]	0.744	0.86	1.88
Calibration	SI-1000-50	SI-2000-125	SI-4000-300
Range of measurement $F_x, F_y/F_z$ [N]	$\pm 1000/\pm 2000$	$\pm 2000/\pm 4000$	$\pm 4000/\pm 6000$
Range of measurement $M_x, M_y/M_z$ [Nm]	$\pm 50/\pm 50$	$\pm 125/\pm 125$	$\pm 300/\pm 300$
Resonant frequency F_x, F_y, M_z [Hz]	2300	2500	2450
Resonant frequency F_z, M_x, M_y [Hz]	2900	4000	2900
Resolution $F_x, F_y/F_z$ [N]	0.4/0.4	0.625/0.625	1.67/1.67
Resolution $M_x, M_y/M_z$ [Nm]	0.01/0.01	0.025/0.025	0.07/0.07
Protection class IP	67	67	67
Dimensions $\varnothing D \times Z$ [mm]	89.9 x 26.9	130 x 39.2	130 x 39.2



Depending on the workpieces and processes, various testing and measuring procedures can be automated. Quality inspection and quality assurance serve to ensure product quality during production. Handling and sensor components enable automated quality inspection and support documentation of measuring and inspection values.

ILR-Compact Inline Paneling Machine

The economical depaneling machine with high productivity



Economical and efficient
due to low investment and high productivity



Versatile and productive
due to the modular design and standard accessories



Robust, reliable and precise
in large-scale production due to high milling accuracy and availability



Speed of axes
up to
2,000 mm/s



Milling area
460 x 350 mm



Repeat and positioning accuracy
 ± 0.02 mm



Milling accuracy
 ± 0.01 mm

[schunk.com/
Depaneling machine](http://schunk.com/Depaneling-machine)

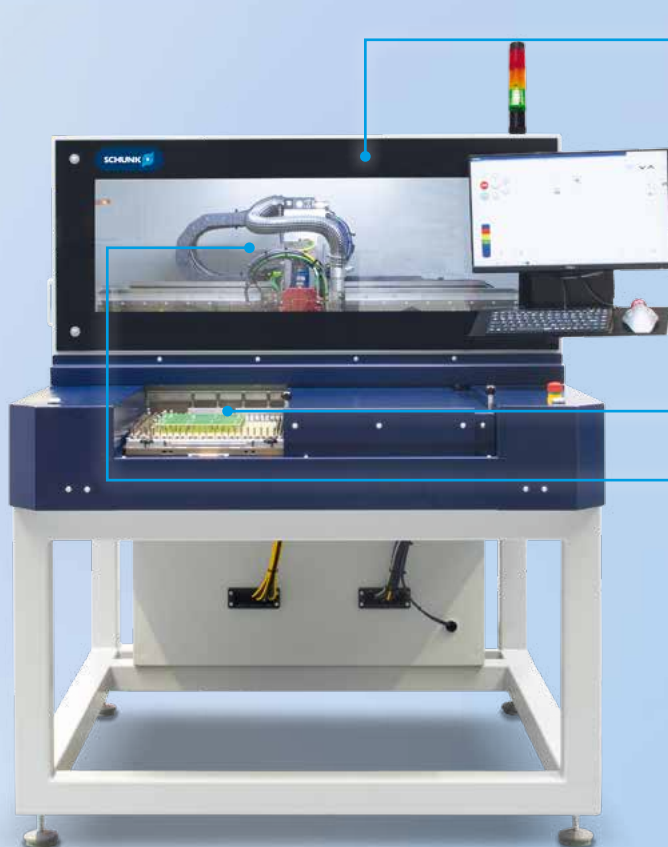


Technical data

Length/width/height	Depaneling in-height	X-, Y-linear motor axes	Z-axis linear motor axis	Repeat accuracy/ Positioning accuracy	Milling accuracy without vision system	Milling accuracy with vision system	Max. panel size X- and Y-direction
[mm]	[mm]	[mm/s]	[mm/s]	[mm]	[mm]	[mm]	[mm]
1900/2115/2285	950	2000	1000	$\pm 0.02/\pm 0.02$	± 0.13	± 0.08	460 x 350

SAR-Compact Stand-alone Depaneling Machine

The economical depaneling machine
with simple operation



Economical and efficient
due to low investment, high productivity and small footprint



Versatile and productive
modular design,
flexible workpiece carriers
and connectivity to MES
systems



Robust, reliable and precise
high milling accuracy and
availability



Speed of axes
up to
1,000 mm/s



Milling area
430 x 350 mm



**Repeat and
positioning
accuracy**
±0.02 mm



Milling accuracy
±0.01 mm

[schunk.com/
Depaneling machine](https://schunk.com/Depaneling-machine)

Technical data

Length/width/height	Operator height	X-, Y- linear motor axis	Z-axis linear motor axis	Repeat accuracy/ Positioning accuracy	Milling accuracy without vision system	Milling accuracy with vision system	Max. panel size X- and Y-direction
[mm]	[mm]	[mm/s]	[mm/s]	[mm]	[mm]	[mm]	[mm]
1300/1607/1642	894	1000	1000	±0.02/±0.02	±0.15	±0.10	430 x 350

ROTA THW3

Jaw Quick-change Chuck

Completely sealed jaw quick-change chuck with permanent lubrication for constantly high clamping forces



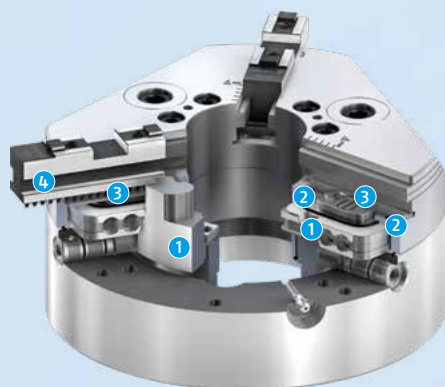
Jaw quick-change system
for jaw change in less than 60 seconds



Sealed power lathe chuck
for up to 20 times longer maintenance intervals and optimal protection of the chuck kinematics



Consistently high clamping forces
through permanent grease lubrication



- 1 Wedge hook drive in ring piston design
offers high run-out accuracy across the entire speed range
- 2 Patented sealing system
for consistently high clamping forces
- 3 Jaw quick-change system
shortest conversion times due to individual unlocking of jaws
- 4 Base jaw with straight serration (GBK)
compatible with ROTA THW plus, ROTA THW, ROTA-G and the "R" (Reishauer) system



Sizes
200 .. 630 mm



Max. clamping force
64 .. 240 kN



Stroke per jaw
6.7 .. 10.5 mm



Max. speed of rotation
1,700 .. 6,000 RPM



Through-hole
52 .. 165 mm

schunk.com/rota-thw3

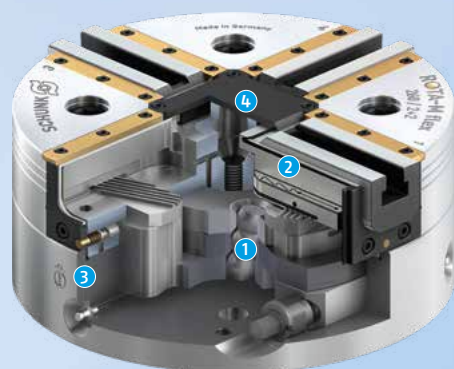
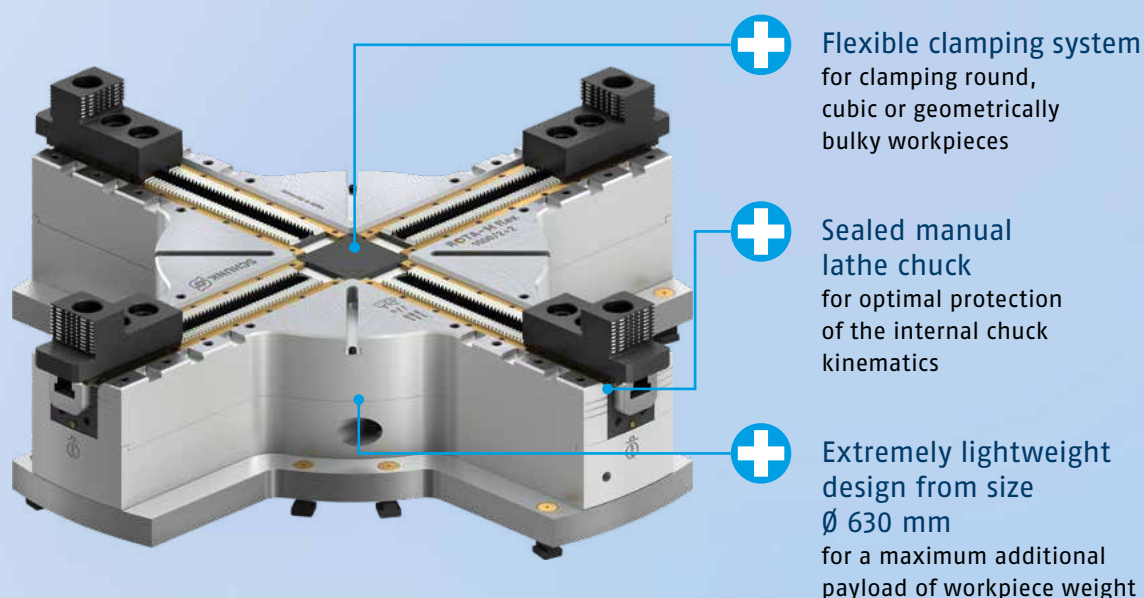


Technical data

Size	Max. speed of rotation [RPM]	Max. clamping force [kN]	Max. actuating force [kN]	Stroke/jaw [mm]	Piston stroke [mm]	Through-hole [mm]
ROTA THW3 200-52	6000	64	38	6.7	17.5	52
ROTA THW3 225-66	5400	82	41	7.4	21	66
ROTA THW3 265-81	4000	115	59	8.2	24	81
ROTA THW3 315-104	3600	150	80	8.6	25	104
ROTA THW3 400-128	3000	240	128	8.6	25	128
ROTA THW3 500-165	2200	240	128	10.5	30	165
ROTA THW3 630-165	1700	240	128	10.5	30	165

ROTA-M flex 2+2 Compensation Chucks

Sealed 2+2 jaw chuck with large compensation stroke allows maximum flexibility on mill/turn machines



Sizes
260 .. 1.200 mm

F
Max. clamping force
100 .. 180 kN

S
Stroke per jaw
9.5 .. 17.8 mm

±
Compensating stroke per jaw
5.1 .. 10 mm

n
Max. speed of rotation
600 .. 2,700 RPM

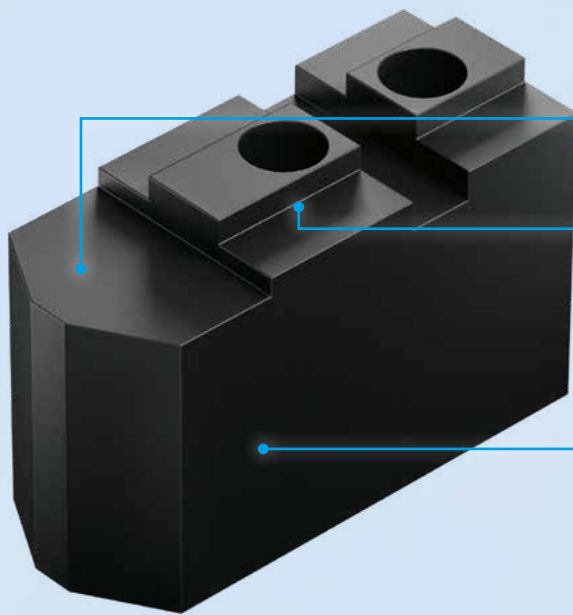
schunk.com/rota-m-flex-2+2

Technical data

Size	Max. speed of rotation [RPM]	Max. clamping force [kN]	Max. torque [Nm]	Stroke/jaw [mm]	Compensation stroke/jaw [mm]
ROTA-M flex 2+2 260	2700	100	120	9.5	5.1
ROTA-M flex 2+2 315	2200	100	120	9.5	5.1
ROTA-M flex 2+2 400	1500	150	200	14.5	7.9
ROTA-M flex 2+2 500	1100	180	250	17.8	10
ROTA-ML flex 2+2 630	900	150	200	14.5	7.9
ROTA-ML flex 2+2 800	800	180	250	17.8	10
ROTA-ML flex 2+2 1000	700	180	250	17.8	10
ROTA-ML flex 2+2 1200	600	180	250	17.8	10

SRKL and SRKL-AL Soft Jaws

with chamfering for clamping
smallest workpiece diameters



Extended top jaw
enables workpiece
diameters from 4 mm
to be clamped



**Finely milled tongue
and groove**
ensures high repeat accuracy
and above-average service
life



In steel and aluminum
The weight-reduced
aluminum version ensures
lower centrifugal forces



Sizes
130 .. 165 mm

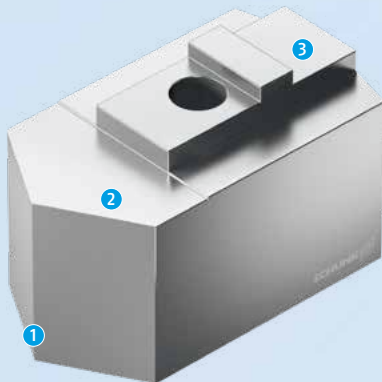


Jaw interface
Tongue and
groove



Material
Steel
Aluminum

schunk.com/srkl



1 Chamfering of the clamping surface
for the smallest workpiece diameter

2 For universal use
Soft top jaws can be flexibly turned to the
desired clamping diameter

3 Individually modifiable
Specific modifications are possible flexibly
and at short notice

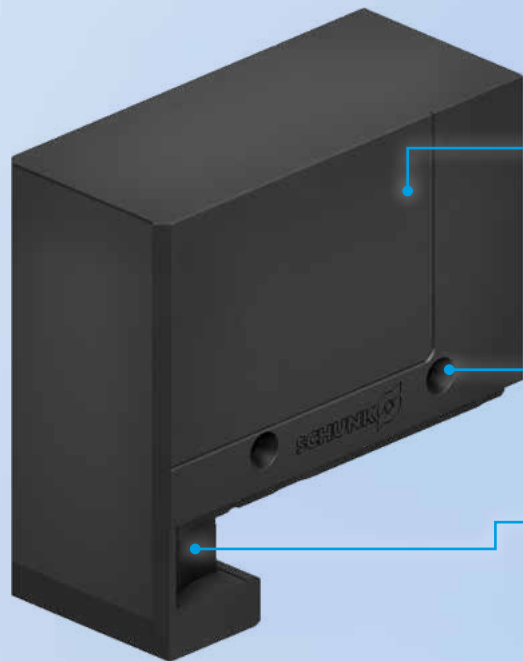
Technical data

Designation	ID	Serration	Width B [mm]	Height H [mm]	Height H2 [mm]	Length L [mm]	Bundle	material	m/set [kg]	Min. workpiece diameter [mm]	The suitable chuck size
SRKL 112	1496961	Tongue and groove	25	30	26	61.5	Set	Steel	0.75	4	130
SRKL 160	1496965	Tongue and groove	40	60	54	88	Set	Steel	3.5	5	165
SRKL-AL 112	1496963	Tongue and groove	25	30	26	61.5	Set	Aluminum	0.27	4	130
SRKL-AL 160	1496969	Tongue and groove	40	60	54	88	Set	Aluminum	1.3	5	165

RAPIDO

Jaw Quick-change System

Tool-free jaw quick change from the modular system that can be fully automated



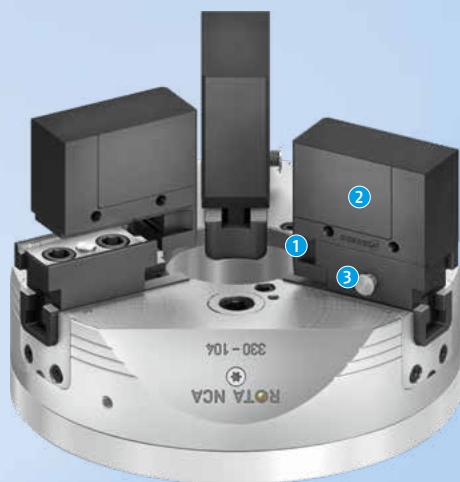
Significantly reduced set-up time
due to tool-free change of three chuck jaws in less than 60 seconds



Fully automatable
Jaw change can be fully automated by robot



Double locking
for maximum security even in an unclamped condition



- 1 **Supporting jaw**
available in inch and metric fine serration
- 2 **Clamping insert**
Individual clamping contours available at short notice due to an extensive blank concept
- 3 **Lock bolts**
tool-free change, put on chuck jaw, push backwards, done



Sizes
210 .. 400



Jaw interface
1.5 mm x 60°
1/16" x 90°
3/32" x 90°



Max. speed of rotation
1,700 .. 3,200 RPM



Max. clamping force
80 .. 185 kN

schunk.com/rapido

Technical data

Supporting jaws	Jaw interface	Clamping insert, low, induction hardened	Clamping insert, high, induction hardened	Clamping insert, low, tempered	Clamping insert, high, tempered
TRR-M 210, 1452176	1.5 mm x 60°	RSE-I 210, 1499871		RSE-V 210, 1499859	
TRR-M 260, 1449746	1.5 mm x 60°	RSE-IN 260, 1499866	RSE-IH 260, 1499873	RSE-VN 260, 1499853	RSE-VH 260, 1499862
TRR-M 315, 1452178	1.5 mm x 60°	RSE-IN 315, 1499867	RSE-IH 315, 1499874	RSE-VN 315, 1499854	RSE-VH 315, 1499863
TRR-M 400, 1452181	1.5 mm x 60°	RSE-IN 400, 1499868	RSE-IH 400, 1499875	RSE-VN 400, 1499856	RSE-VH 400, 1499864
TRR-Z 210, 1445381	1/16" x 90°	RSE-I 210, 1499871		RSE-V 210, 1499859	
TRR-Z 260, 1435822	1/16" x 90°	RSE-IN 260, 1499866	RSE-IH 260, 1499873	RSE-VN 260, 1499853	RSE-VH 260, 1499862
TRR-Z 315, 1452177	1/16" x 90°	RSE-IN 315, 1499867	RSE-IH 315, 1499874	RSE-VN 315, 1499854	RSE-VH 315, 1499863
TRR-Z 400, 1448483	3/32" x 90°	RSE-IN 400, 1499868	RSE-IH 400, 1499875	RSE-VN 400, 1499856	RSE-VH 400, 1499864

The art of engineering from SCHUNK.
Expansion of the modular system and new sizes



New: Sizes 200 and 315
the right-sized vise for
every clamping task available
as standard



Patented monitoring of
the base jaw position
via dynamic pressure
Know whether the vise is
open or clamped



Workpiece presence
control through the
base jaw
enables automated loading
of the clamping force block



Sizes
64 .. 315 mm



Number of
new variants
64



Clamping force
2.3 .. 116.5 kN



Stroke per jaw
2 .. 18 mm



① Wedge-hook drive
depending on stroke version for standard
stroke, long stroke or fixed jaw

② Ideal external contour
for best accessibility and optimal chip fall

③ Control of the clamping modules
from the side or bottom as desired

④ Lubrication channels in the
cover plate
allow bottom lubrication

schunk.com/tandem3



Technical data

Series	Actuation	Sizes	Clamping force amplification for O.D. clamping	Workpiece presence control/air purge	Inductive jaw monitoring	Jaw quick-change system
KSP3	Pneumatic	64, 100, 140, 160, 200, 250, 315	Yes	Yes	Yes	Yes
KSH3	Hydraulic	64, 100, 140, 160, 200, 250, 315	No	Yes	Yes	Yes
KSF3	Spring-loaded	64, 100, 140, 160, 200, 250, 315	No	Yes	No	Yes

TANDEM® PGS3 Lean Clamping Force Blocks


Perfection and reliability for a start in simple, automated machine loading




- +** Base body made of light aluminum
highly combinable with easy machining and simple automation
- +** Ready for immediate use
due to lateral air connections on the clamping force block
- +** Integrated console plate
Direct mounting on T-slot tables as well as VERO-S clamping modules with torque pin




- 1** Wedge-hook drive
depending on stroke version for standard stroke or long stroke
- 2** Integrated console plate
for quick mounting on T-slot tables or VERO-S clamping modules
- 3** Jaw interface with tongue and groove
for using standard chuck jaws from SCHUNK
- 4** Simple lateral control
for quick and easy commissioning


Sizes
100 .. 140 mm


Number of versions
4


Clamping force
4.5 .. 17 kN


Stroke per jaw
2 .. 7 mm

schunk.com/pgs3

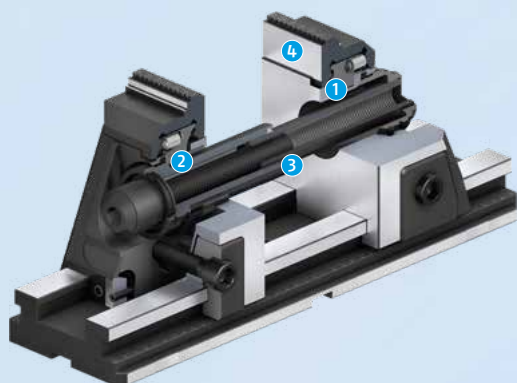
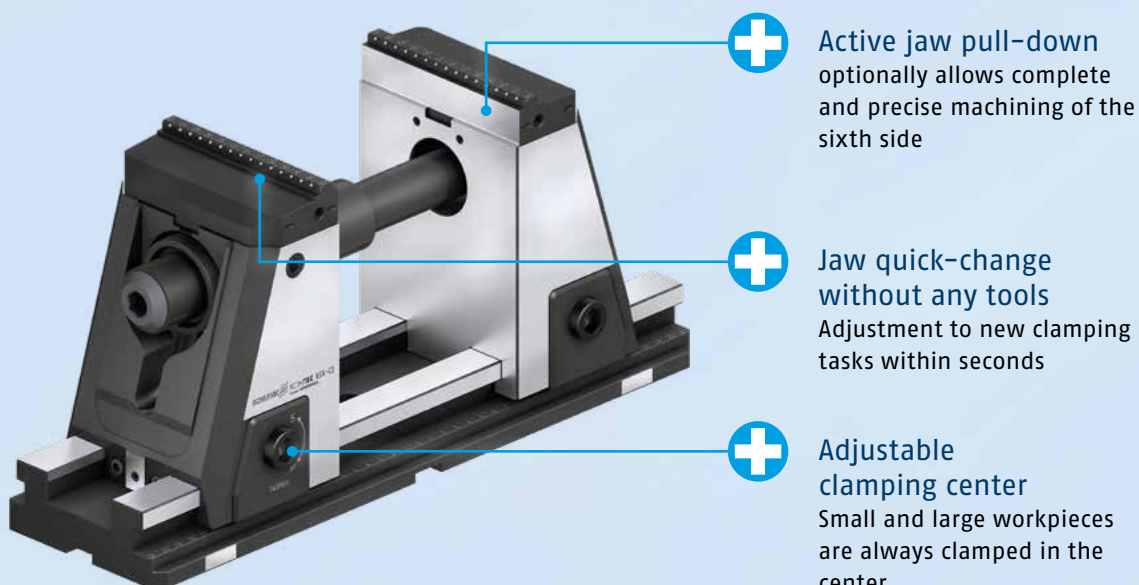
Technical data

Series	Actuation	Number of versions	Clamping force amplification for O.D. clamping	Workpiece presence control/air purge	Inductive jaw monitoring	Jaw quick-change system
PGS3	Pneumatic	4	No	No	No	No

KONTEC KSX-C2

5-axis Vise

5-axis vise with jaw quick-change and active jaw pull-down for precise machining of the sixth side



- 1** Jaw quick-change system
System jaws can be exchanged in seconds, completely without tools
- 2** Jaw pull-down mechanism
for the most accurate clamping of pre-machined workpieces
- 3** Completely encapsulated spindle
offers optimal protection against coolant and chips
- 4** Two heights are available
214 mm as well as 175 mm (including jaws) for optimal accessibility of the machine spindle



Size
125 mm



Component lengths
330 .. 800 mm



Max. clamping force
40 kN



Max. torque
120 Nm

schunk.com/ksx-c2

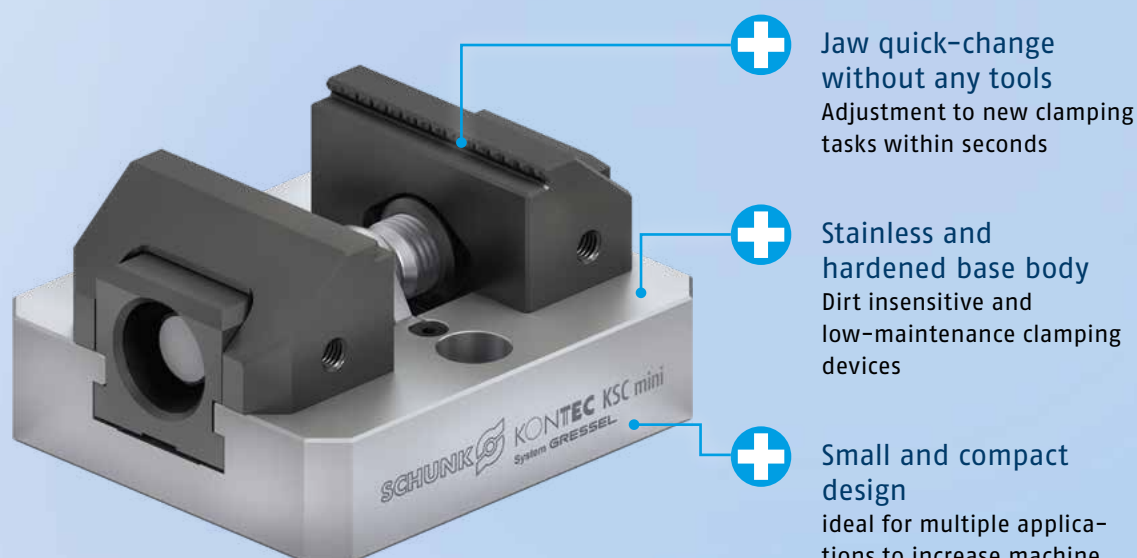


Technical data

Size	Width of the clamping vise [mm]	Vise length [mm]	Max. clamping force [kN]	Max. torque [Nm]	Basic clamping stroke [mm]	Clamping range [mm]
KSX-C2 125-330	125	330	40	120	130	4 - 217
KSX-C2 125-430	125	430	40	120	130	4 - 317
KSX-C2 125-500	125	500	40	120	130	4 - 387
KSX-C2 125-630	125	630	40	120	130	4 - 517
KSX-C2 125-800	125	800	40	120	130	4 - 687

KONTEC KSC mini Small Parts Vice

Precise small parts vise with a high clamping force



- 1 Jaw quick-change system
system jaws can be exchanged in seconds, completely without tools
- 2 Spindle drive
for maximum clamping forces
- 3 Quick-change jaws
in jaw widths 45 and 70 mm, which can be used on all sizes
- 4 Diverse applications
for first and second-side machining



Size
70 mm



Component lengths
80 .. 100 mm



Max. clamping force
16 kN



Max. torque
50 Nm

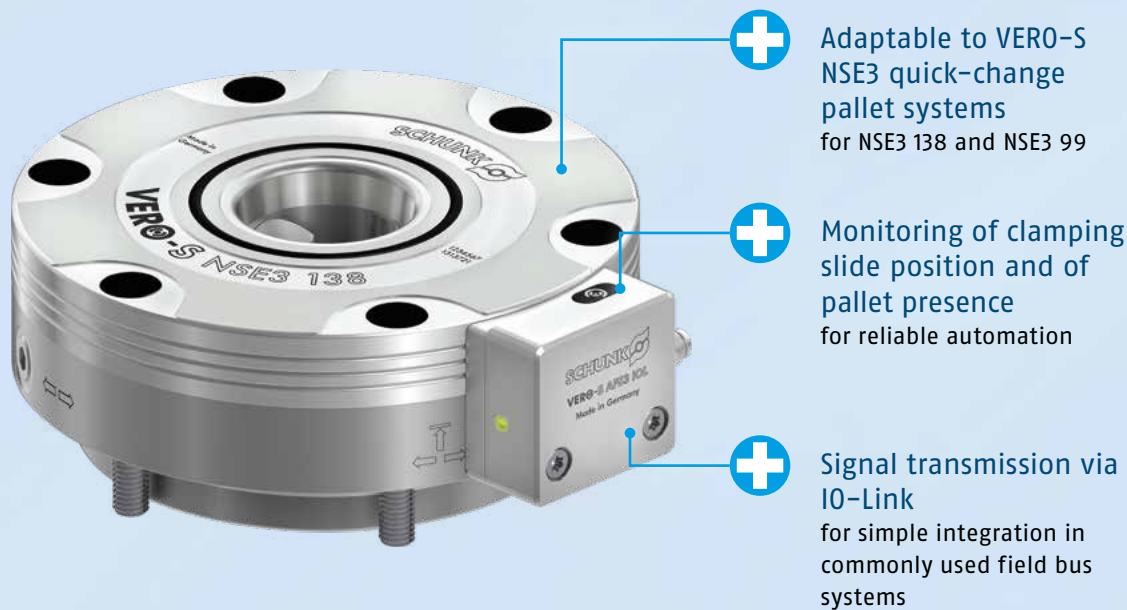
schunk.com/ksc-mini

Technical data

Size	Width of the clamping vise [mm]	Vise length [mm]	Max. clamping force [kN]	Max. torque [Nm]	Clamping range [mm]
KSC mini 70-80	70	80	16	50	7 - 57
KSC mini 70-100	70	100	16	50	7 - 77

VERO-S AFS3 IOL Monitoring Box

Condition monitoring for VERO-S
quick-change pallet systems



Series
NSE3 138
NSE3 99

schunk.com/vero-s



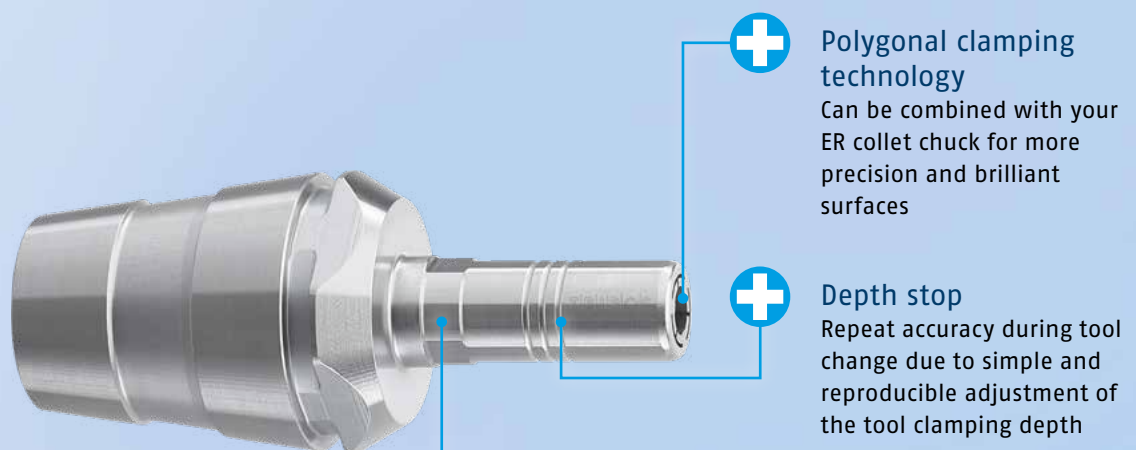
- 1** Sensor for monitoring of pallet presence
- 2** LED for status display of correct clamping
- 3** Interface Plug connection M8 (4-pin)
- 4** Sensor for monitoring of clamping slide position

Technical data

Size	Pallet presence	Clamping slide position	Interface	Adaptable to	pallet detection
AFS3 IOL	Yes	Yes	IO-Link	NSE3 138, NSE3 99	Steel, aluminum

TRIBOS®-RM/-Mini ER Polygonal Toolholder

Coolant-proof variants and
variants with depth stop



Sizes
11 .. 32



Run-out accuracy
≤ 0.01 mm at
2.5 x D



Max. torque
0.5 .. 30 Nm



Max. speed of rotation
40,000 RPM



Max. operating pressure of the coolant
100 bar

[schunk.com/
TRIBOS-Mini-er](https://schunk.com/TRIBOS-Mini-er)

Technical data

Series	TRIBOS-Mini clamping diameter Ø [mm]	TRIBOS-Mini KD clamping diameter Ø [mm]	TRIBOS-RM clamping diameter Ø [mm]	TRIBOS-RM KD clamping diameter Ø [mm]
ER 11	1 - 4			
ER 16	1 - 6	3 - 5		
ER 20	1 - 6	3 - 5	3 - 8	3 - 8
ER 25	1 - 6	3 - 5	3 - 12	3 - 12
ER 32	1 - 6	3 - 5	3 - 12	3 - 12

Hydraulic Expansion Toolholder

The intelligent way to
the optimal process



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 applications



100% compatibility

1:1 exchange with SCHUNK
standard toolholders without
time-consuming reprogram-
ming of your system



1 Case

This means that all components can be protected during storage and offers highly flexible transportation to the machine also in case of temporary process monitoring.

2 Tablet PC

Direct connection to the tablet without machine connection

3 iTENDO² easy connect

Use of iTENDO² data for other systems and easy monitoring.

4 iTENDO² pro

Full machine integration and application software for different applications (under development)



**Battery service
life**
10 h



**Acceleration
sensor**
100 G



**Speed of
rotation**
30,000 RPM



**Balance
quality**
G2.5 at
25,000 RPM
or U_{max}
< 1 gmm



**External/
internal
cooling**
up to 80 bar

schunk.com/itendo2



Technical data

Series	Process transparency	Process optimization	Simple data interface	Wireless receiver	Process monitoring	Quality monitoring	Cloud functions	Adaptive control
iTENDO ² pad	X	X						
iTENDO ² easy connect	X	X	X	X				
iTENDO ² pro	X	X	X	X	X	X	X	X

ER Precision Collet Chucks

Highest run-out accuracy
of up to 3 µm



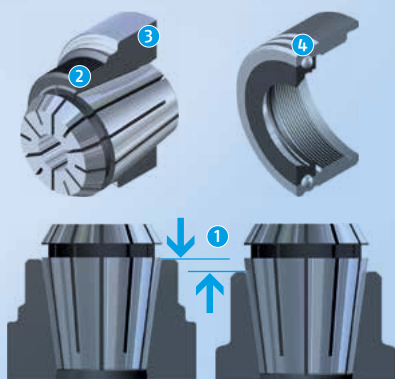
High radial rigidity
Complex design enables
higher radial stability as
compared to conventional
ER collet chucks



**Precise run-out
accuracy**
≤ 0.003 mm in combination
with ER precision collet chuck



High clamping force
Twice as high tool clamping
force as compared to
conventional ER collet chucks



1 Lower seat of the collet
Maximum guidance of the collet in the
chuck body

2 Fine thread
For consistently high clamping forces

3 Reinforced chuck body
Better stability and
higher radial rigidity

4 Ball-bearing mounted clamping nut



Sizes
ER16 .. ER40



**Scope of
Delivery**
Including
clamping nut



**Run-out
accuracy**
≤ 0.003 mm
at 2.5 x D



**Max. speed of
rotation**
40,000 RPM



**Number of
versions**
103

schunk.com/er-p

Technical data

Series	HSK-A 63	HSK-A 100	HSK-E 40	SK 40	SK 50	JIS-BT 30	JIS-BT 40	JIS-BT 50	SCHUNK CAPTO C6	CAT 40
L ₁ ≤ 100 mm	X	X	X	X	X	X	X	X		X
L ₁ = 100 mm	X	X		X	X		X	X	X	X
L ₁ = 130 mm	X	X		X	X		X	X		
L ₁ = 160 mm	X	X		X	X		X	X		
Version Mini	X			X			X			

TENDO® Slim 4ax Hydraulic Expansion Toolholder

The world's first hydraulic expansion toolholder in standardized heat shrinking contour



Plug & Work

Can be used in existing processes without reprogramming



Micron precise tool change in seconds without peripheral equipment

Time saving due to reduction of set-up time and no investment or energy costs due to additional clamping devices



Permanent run-out and repeat accuracy ≤ 0.003 mm

Even cutting action, increased tool service life, and reduced costs for regrinding or buying new tools



1 Chamber system

2 Expansion sleeve

3 Base body

4 Length adjustment screw

[schunk.com/
tendo-slim-4ax](http://schunk.com/tendo-slim-4ax)



New interfaces

HSK-A 100

SK 50

JIS-BT 30

SCHUNK CAPTO C6



Run-out accuracy

≤ 0.003 mm
at $2.5 \times D$



Min. torque

16 .. 330 Nm



Max. speed of rotation

30,000 ..
50,000 RPM



Diameter

6 .. 20 mm

Technical data

Series	Clamping diameter \varnothing	Run-out accuracy	Min. torque	Max. speed of rotation	Perm. radial force	MQL applications (Minimum Quantity Lubrication)	Bore hole for data carriers
	[mm]		[Nm]	[RPM]	[N]		
HSK-A 63	6 - 20	≤ 0.003 mm at $2.5 \times D$	16 - 330	30000 - 50000	113 - 1490	Optional	Standard
HSK-A 100	6 - 20	≤ 0.003 mm at $2.5 \times D$	16 - 330	30000 - 50000	113 - 1490	Optional	Standard
SK 40	6 - 20	≤ 0.003 mm at $2.5 \times D$	16 - 330	30000 - 50000	113 - 1490		Optional
SK 50	6 - 20	≤ 0.003 mm at $2.5 \times D$	16 - 330	30000 - 50000	113 - 1490		Optional
JIS-BT 30	6 - 20	≤ 0.003 mm at $2.5 \times D$	16 - 330	30000 - 50000	113 - 1490		Optional
JIS-BT 40	6 - 20	≤ 0.003 mm at $2.5 \times D$	16 - 330	30000 - 50000	113 - 1490		Optional
SCHUNK CAPTO C6	6 - 20	≤ 0.003 mm at $2.5 \times D$	16 - 330	30000 - 50000	113 - 1490		Optional
CAT 40	6 - 20	≤ 0.003 mm at $2.5 \times D$	16 - 330	30000 - 50000	113 - 1490		Optional

TENDO® Cool Flow Hydraulic Expansion Toolholder with Peripheral Cooling

Coolant is fed through two coolant bores directly to the cutting edge of the tool



Optimized coolant supply
Targeted cooling through beam guidance to the cutting edge of the tool



Best workpiece surface quality
Micro-blowouts are prevented, machine spindle is protected from wear and the tool service life is increased



Precision and process safety
Optimal chip removal due to the 4 x 90° cooling slot fitted directly in the clamping diameter



- ① Chamber system
- ② Expansion sleeve
- ③ Base body
- ④ Coolant channel



TENDO Slim 4ax
– Number of interfaces
8



TENDO Platinum
– Number of interfaces
26



TENDO Slim 4ax
– Diameter
6 .. 20 mm



TENDO Platinum
– Diameter
6 .. 32 mm



Number of variants with Cool Flow
approx. 400

[schunk.com/ tendo-p](https://schunk.com/tendo-p)

Technical data

Series	Run-out accuracy	Balance quality	Tool shank quality	Axial length adjustment
TENDO Slim 4ax	≤ 0.006 mm at 2.5 x D	G2.5 at 25000 RPM or $U_{max} < 1$ gmm	h6	With set-screw for axial length adjustment
TENDO Platinum	≤ 0.006 mm at 2.5 x D	G2.5 at 25000 RPM or $U_{max} < 1$ gmm	h6	With set-screw for axial length adjustment

SCHUNK

360° Service



blue>>>Media
The SCHUNK Media Center

Quickfinder

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Design Tools**

CAD Data

**Digital Commissioning
Assistants**

Digital Twin

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your application solution**

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