



Superior Clamping and Gripping



New SCHUNK Products and Innovations

Gripping Systems
Depaneling Technology
Clamping Technology

New SCHUNK Products and Innovations

Highlights at a Glance

Plug & Work Components for any Case of Application

Resulting from many years of expertise, we have put together a bundled Plug & Work portfolio that is perfectly adapted to your applications and robots in various fields of application. Be inspired by the simplicity and variety of applications.



Machine loading



Assembly



Quality inspection



Handling





SCHUNK is your Life Science Partner with Application Know-how

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



Ready for new tasks? So are we.

With the new SCHUNK tools for machining with a robot, nothing stands in your way to automate your manual machining processes. The extensive product range allows for a simple and user-friendly way of achieving a wide variety of deburring, grinding and polishing tasks. Let us work together to find the ideal solution for your machining task.

New SCHUNK Products and Innovations

Highlights at a Glance

eJAW



Individualized chuck jaws delivered in two weeks

With the eJAW chuck jaw configurator, SCHUNK is individualizing its standard clamping jaw program. From selected standard variants, geometries can be adapted to customer-specific and application-specific uses.



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.



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i...T|E|N|D|O²



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

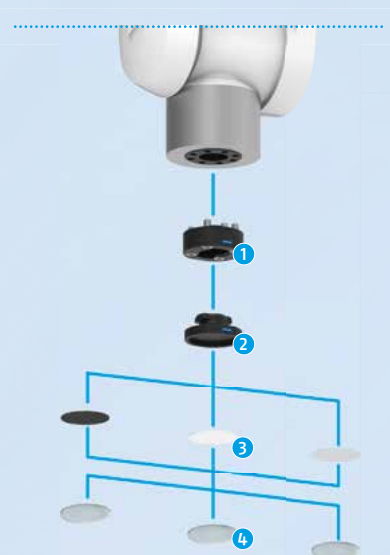
With our new iTENDO² we have taken the idea of intelligent toolholders to the next level. Speeds of rotation of up to 30,000 RPM and an interfering contour that corresponds 1:1 to that of a SCHUNK standard toolholder make it destined for use in a wide range of tasks without any of the time-consuming adjustment work. This also makes it a straightforward option for monitoring machining processes in real time.



ADHESIO

Adhesive Grippers

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



- 1 Robot adapter**
individually adaptable to different robots
- 2 Pad Backplate Adapter**
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



More at:
schunk.com/adhesio

Technical data

Size	Pad diameter [mm]	Weight [g]	Max. workpiece weight [kg]	Change interval for pads
3	24	22	3	1.01 .. 1.5
5	32	30	5	1.01 .. 1.5
10	44	42	10	1.01 .. 1.5
16	56	55	16	1.01 .. 1.5

Collaborating Gripper for Small Components

The world's first certified industrial gripper for collaborative operations



New:
Now also available
for YASKAWA and
Mitsubishi cobots



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



Sizes
25 .. 64



Weight
0.36 .. 1.38 kg



Gripping force
40 .. 230 N



Stroke per jaw
3 .. 10 mm



Workpiece weight
0.2 .. 1.15 kg



More at:
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]
25	3	20	40	0.2	32	0.36 .. 0.63
40	6	35	140	0.7	50	0.59 .. 0.9
50	8	54	215	1.05	64	0.86 .. 1.22
64	10	65	230	1.15	80	1.11 .. 1.38

EGI Universal Gripper

The electric gripper with simple commissioning and most reliable gripping force maintenance on the market



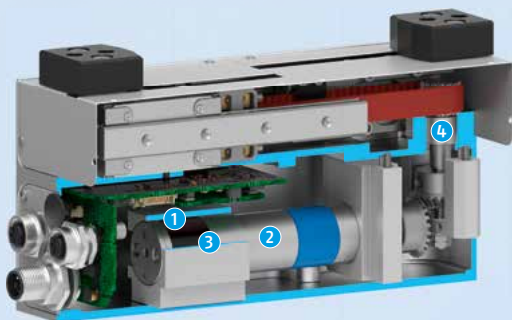
New: Available in new size 40 and with EtherNet/IP and EtherCAT interfaces



Gripping force control for delicate gripping of sensitive workpieces



Long and freely programmable stroke for flexible workpiece handling



1 Encoder

for position evaluation and gripper positioning

2 Drive

DC servomotor with planetary gears

3 Brake

for maintaining the gripping force and position in the event of standstill and power failure

4 Kinematics

Power transmission from the servomotor via bevel gear and synchronization via toothed belt



Sizes
40 .. 80



Weight
1.02 .. 1.55 kg



Gripping force
70 .. 100 N



Stroke per jaw
40 .. 57.5 mm



Workpiece weight
0.35 .. 0.5 kg



More at:
schunk.com/egi

Technical data

Size	Communication interface	Stroke per jaw [mm]	Min. gripping force [N]	Max. gripping force [N]	Max. permissible finger length [mm]	Recommended workpiece weight [kg]	Weight [kg]
40	PROFINET, EtherNet/IP, EtherCAT	40	25	70	150	0.35	1.02
80	PROFINET, EtherNet/IP, EtherCAT	57.5	25	100	200	0.5	1.55

MPG-plus with Protective Cover Gripper for Small Components

The most powerful pneumatic miniature parallel gripper on the market



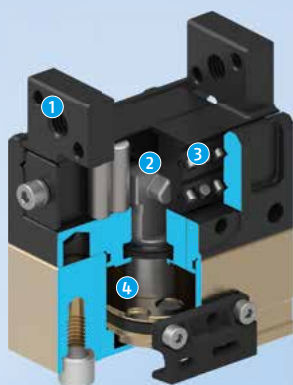
New: Now also available with protective cover for sizes 25, 32 and 40



Cross roller guide for precise gripping due to 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



More at:
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

JGP-P Universal Gripper

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



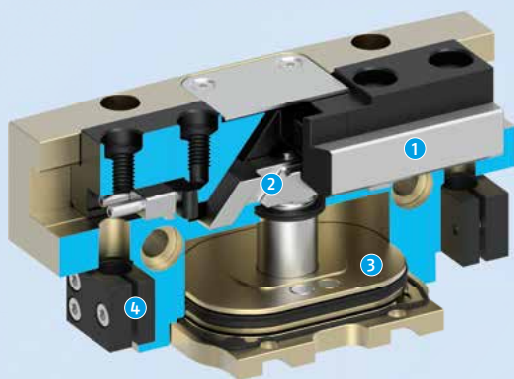
A firm focus on the essentials for maximum efficiency



Sturdy T-slot guidance for 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



More at:
schunk.com/jgp-p

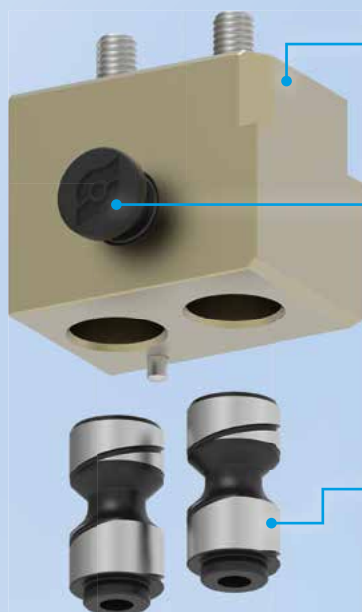
Technical data

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	5600 .. 8300	26.5	8.7 .. 11.8	280 .. 320
300	35	6600 .. 8200	6800 .. 8400	33	13.7 .. 17.2	300 .. 350

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
easy and fast for high gripper flexibility



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



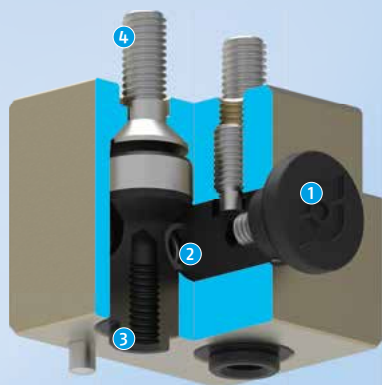
Sizes
50 .. 200



Weight
0.02 .. 0.85 kg



More at:
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 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

AOV Orbital Sander Tool

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



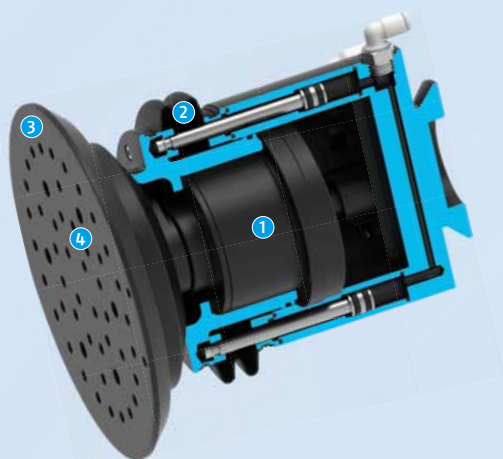
Compensation can be adjusted by means of a double-acting pneumatic cylinder for constant contact force independent of the orientation of the tool



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 high torque and 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



Sizes
10



Max. speed
10,000 RPM



Max. extension
compensation
force
66.7 N



Max. retraction
compensation
force
33.3 N



Compensation
path Z
12.7 mm



More at:
schunk.com/aov

Technical data

Size	Grinding disk size	Compensation 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

CRT File Tool

Flexible, pneumatic deburring tool for narrow and tight workpiece geometries



Flexible use
on robot arms or as a
stationary unit



**The compensation
force can be adjusted
using compressed air**
for high-quality deburring
results in any installation
position



Use of proven files
for simplifying automation of
manual deburring processes



Sizes
12



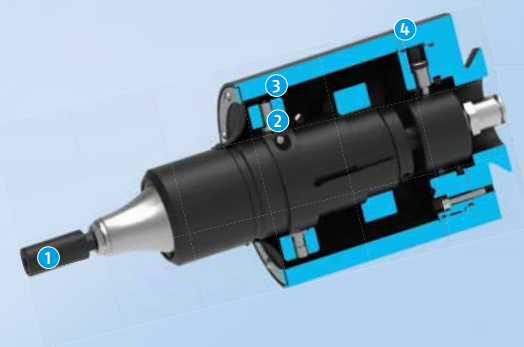
File stroke
5 mm



**Number of idle
running strokes**
12,000 RPM



**Compensation
angle, radial**
±1.8°



1 Toolholder
for files

2 Gimbal 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 compensation force



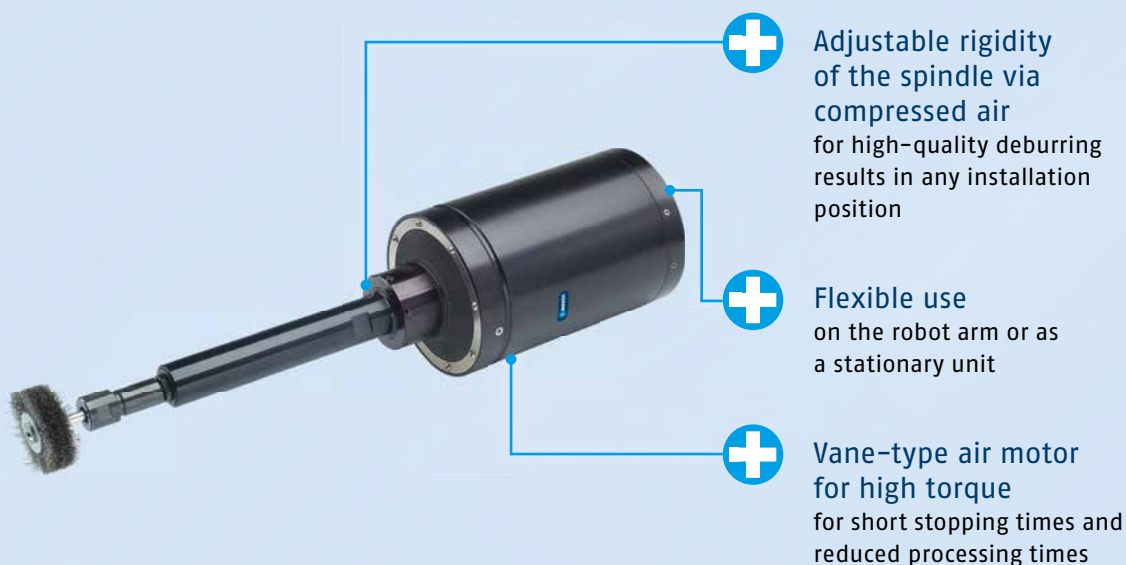
More at:
schunk.com/crt

Technical data

Size	Max. com- pensation path X [mm]	Max. com- pensation path Y [mm]	Min. radial compensation force [N]	Max. radial compensation force [N]	File stroke [mm]	Idle speed [RPM]	Weight [kg]
12	8	8	18	62	5	12000	3.08

MFT-R Deburring Spindle

The most robust polishing spindle with radial compensation on the market



Size
490



Max. speed
5,600 RPM



Power
390 W



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



- 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



More at:
schunk.com/mft-r

Technical data

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

PCFC Compensation Unit

Universally applicable compensation unit with integrated path measuring system for a constant contact 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



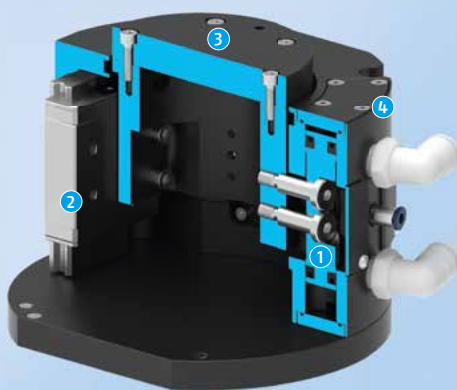
Max. extension
compensation
force
85 .. 240 N



Max. retraction
compensation
force
18 .. 49 N



More at:
schunk.com/pcfc



1 Piston

2 Linear guidance

3 Fastening
for tool provided by customer

4 Integrated path measuring system

Technical data

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

CDB Deburring Tool

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



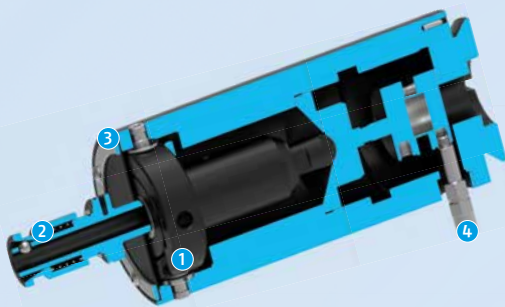
Adjustable rigidity of the tool via compressed air for flexible use and ideal results with different materials



Optional tool change system for automatic exchange of different deburring tools



Use of proven deburring tools for simplifying automation of manual deburring processes



- 1 Gimballed system for robust and flexible absorption of forces and torques
- 2 Tool holder for simple and fast exchange of deburring tools
- 3 Locking function for y-axis for an oscillating compensation in the x-axis
- 4 Air connection for adjusting the contact pressure to the workpiece



Size
8



Max. radial compensation force
76 N



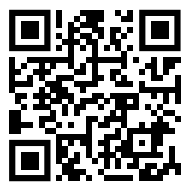
Max. axial compensation force
67 N



Compensation path Z
8 mm



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



More at:
schunk.com/cdb

Technical data

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

RCV Deburring Spindle

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



Flexible use
on robot arms or as a
stationary unit



**The compensation
force can be adjusted**
using compressed air
for high-quality deburring
results in any installation
position



**Rotating piston air
engine with high torque**
for high feed rates and
a reduced machining time



Sizes
250 .. 490



Max. Speed
30,000 .. 40,000
RPM



Power
250 .. 490 W



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



1 Vane-type air motor
for a high torque and
a short stopping time

2 Gimbal system
for a robust compensation function

3 Air connection
for adjusting the compliance force

4 Tool holder
for ER-11 collets



More at:
schunk.com/rcv

Technical data

Size	Power	Idle speed	Max. compensation X	Max. compensation Y	Min. radial compensation force	Max. radial compensation force	Toolholder taper	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

Plug & Work Portfolio for Techman Robot

The Portfolio with the fastest Integration
into any Cobot Application



Comprehensive portfolio
consisting of various
components and
grippers for different
applications
for a fast and easy entry into
automation



Plug & Work
with the interfaces suitable
for all Techman Robots



Installation modules
for robot control system
are included in the
scope of delivery
for fast and easy
commissioning



m

Weight
0.14 .. 2 kg

F

Gripping force
100 .. 870 N

S

Stroke per jaw
6 .. 40 mm

m

**Workpiece
weight**
0.5 .. 11 kg



- 1 Co-act grippers
for implementing collaborative
applications
- 2 Electric grippers
for flexible handling of workpieces
- 3 Pneumatic grippers
For conventional, robust handling of
workpieces
- 4 Change systems
for manual exchange of different grippers
and actuators



More at:
[schunk.com/
techman-portfolio](https://schunk.com/techman-portfolio)

Technical data

Description	Stroke per jaw [mm]	Max. gripping force [N]	Weight [kg]	Recommended workpiece weight [kg]
Co-act gripper	6 .. 10	140 .. 230	0.6 .. 1.38	0.7 .. 1.15
Electric grippers	6 .. 40	100 .. 140	0.8 .. 1.06	0.5 .. 0.7
Pneumatic grippers	6 .. 40	175 .. 870	1.37 .. 2	0.9 .. 4.35
Change systems			0.14 .. 0.5	11

Plug & Work Portfolio for Doosan Robotics

The Portfolio with the fastest Integration
into any Cobot Application

+ Comprehensive portfolio
consisting of various
components and
grippers for different
applications
for fast and easy entry into
automation

+ Plug & Work
with the interfaces
suitable for all robots
from Doosan Robotics

+ Installation modules
for robot control system
are included in the
scope of delivery
for fast and easy
commissioning



m

Weight
0.14 .. 1.84 kg

F

Gripping force
140 .. 870 N

S

Stroke per jaw
6 .. 40 mm

m

**Workpiece
weight**
0.7 .. 11 kg



- 1 Co-act grippers
for implementing
collaborative applications
- 2 Electric grippers
for flexible handling of workpieces
- 3 Pneumatic grippers
For conventional, robust handling
of workpieces
- 4 Change systems
for manual exchange of different
grippers and actuators



More at:
[schunk.com/
doosan-portfolio](https://schunk.com/doosan-portfolio)

Technical data

Description	Stroke per jaw [mm]	Max. gripping force [N]	Weight [kg]	Recommended workpiece weight [kg]
Co-act gripper	6 .. 10	140 .. 230	0.6 .. 1.11	0.7 .. 1.15
Electric grippers	6	140	0.8	0.7
Pneumatic grippers	6 .. 40	175 .. 870	1.22 .. 1.84	0.9 .. 4.35
Change systems			0.14 .. 0.35	11

Plug & Work Portfolio FANUC

The Portfolio with the fastest Integration into any Cobot Application



Different grippers for different applications for fast and easy entry into automation



Plug & Work with interfaces suitable for certain robots from FANUC



Installation modules for robot control system are included in the scope of delivery for fast and easy commissioning



m

Weight

0.59 .. 1.38 kg



Gripping force

40 .. 230 N



Stroke per jaw

3 .. 40 mm



Workpiece weight

0.2 .. 1.15 kg



① Co-act grippers
for implementing
collaborative applications

② Electric grippers
for flexible handling of workpieces



More at:
[schunk.com/
fanuc-portfolio](https://schunk.com/fanuc-portfolio)

Technical data

Description	Stroke per jaw [mm]	Max. gripping force [N]	Weight [kg]	Recommended workpiece weight [kg]
Co-act gripper	3 .. 10	40 .. 230	0.59 .. 1.38	0.2 .. 1.15
Electric grippers	40	100	0.95	0.5

Plug & Work Portfolio OMRON

The Portfolio with the fastest Integration into any Cobot Application



Comprehensive portfolio
consisting of various
components and
grippers for different
applications
for fast and easy entry into
automation



Plug & Work
with interfaces suitable
for TM robots from OMRON



Installation modules
for robot control system
are included in the
scope of delivery
for fast and easy
commissioning



m

Weight
0.14 .. 2 kg



Gripping force
100 .. 870 N



Stroke per jaw
6 .. 40 mm



Workpiece
weight
0.5 .. 11 kg



- 1 Co-act grippers
for implementing
collaborative applications
- 2 Electric grippers
for flexible handling of workpieces
- 3 Pneumatic grippers
For conventional, robust handling
of workpieces
- 4 Change systems
for manual exchange of
different grippers and actuators



More at:
[schunk.com/
omron-portfolio](https://schunk.com/omron-portfolio)

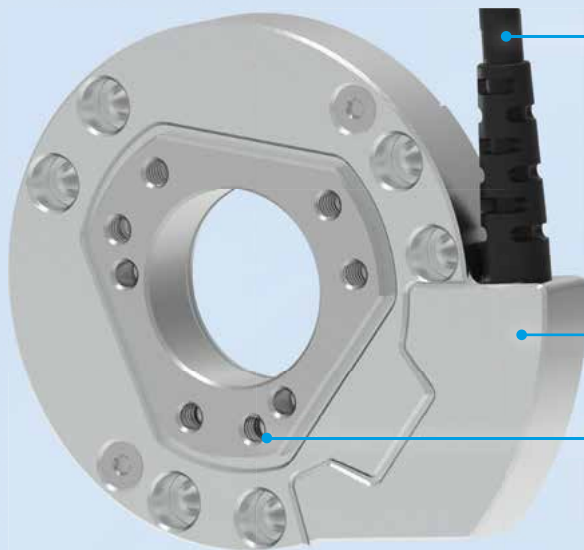
Technical data

Description	Stroke per jaw [mm]	Max. gripping force [N]	Weight [kg]	Recommended workpiece weight [kg]
Co-act gripper	6 .. 10	140 .. 230	0.59 .. 1.38	0.7 .. 1.15
Electric grippers	6 .. 40	100 .. 140	0.8 .. 1.06	0.5 .. 0.7
Pneumatic grippers	6 .. 40	175 .. 870	1.37 .. 2	0.9 .. 4.35
Change systems			0.14 .. 0.5	11

FT

Force/Torque Sensor

The widest range of options on the market for the high-precision detection of forces and moments in all six degrees of freedom



New: FT-Mini43LP lowest interfering contours due to particularly flat design and large center hole



Many sizes with different ranges of measurement



The sensor measures in all six degrees of freedom forces as well as moments



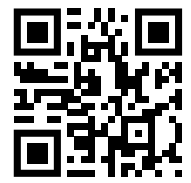
Sizes
17



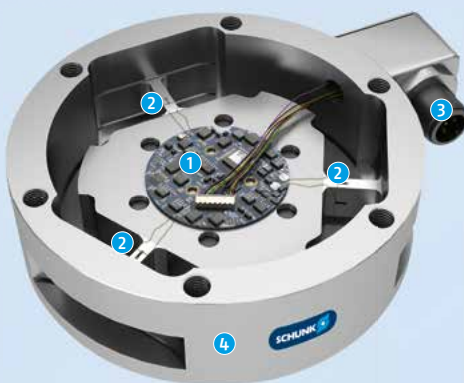
Force
measurement
range
 $\pm 8 \dots 88,000 \text{ N}$



Moment
measurement
range
 $\pm 0.05 \dots 6,000 \text{ Nm}$



More at:
schunk.com/ft



1 Electronics

integration into housing means no interfering contours (from size gamma)

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

Evaluation of the data via EtherNet/IP, DeviceNet, CAN, PROFINET, EtherCAT, DAQ, RS232 or equivalent

4 Protection class IP

IP60, 65, 68 optionally available for selected sizes

Technical data

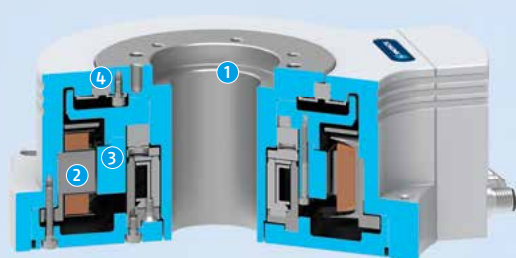
Size	Measuring range F_x, F_y [N]	Measuring range F_z [N]	Measuring range M_x, M_y [Nm]	Measuring range M_z [Nm]	Weight [kg]	Diameter [mm]	Height [mm]
Nano17	12 .. 50	70	0.12 .. 0.5	0.12 .. 0.5	0.0091	17	14.5
Nano17-Titan	8 .. 32	56.4	0.05 .. 0.2	0.05 .. 0.2	0.01	17	14.5
Nano25	125 .. 250	1000	3 .. 6	3 .. 3.4	0.063	25	21.6
Nano43	9 .. 36	36	0.13 .. 0.5	0.13 .. 0.5	0.039	43	11.5
Mini40	20 .. 80	240	1 .. 4	1 .. 4	0.049	40	14
Mini43LP	62 .. 250	250	0.75 .. 3	1.25 .. 5	0.05	43	7.9
Mini45	145 .. 580	1160	5 .. 20	5 .. 20	0.091	45	15.7
Mini58	700 .. 2800	6800	30 .. 120	30 .. 120	0.345	58	30
Mini85	475 .. 1900	3800	20 .. 80	20 .. 80	0.635	85	29.8
Gamma	32 .. 130	400	2.5 .. 10	2.5 .. 10	0.255	75.4	33.3
Delta	165 .. 660	1980	15 .. 60	15 .. 60	0.913	94.5	33.3
Theta	1000 .. 2500	6250	120 .. 400	120 .. 400	4.99	155	61.1
Omega85	475 .. 1900	3800	20 .. 80	20 .. 80	0.658	85	33.4
Omega160	1000 .. 2500	6250	120 .. 400	120 .. 400	2.72	156.5	55.9
Omega191	1800 .. 7200	18000	350 .. 1400	350 .. 1400	9.41	190	64
Omega250	4000 .. 16000	32000	500 .. 2000	500 .. 2000	31.8	295	94.9
Omega331	10000 .. 40000	88000	1500 .. 6000	1500 .. 6000	47	330	107



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 the documentation of measuring and inspection values.

ERT Universal Rotary Unit

The flattest rotary unit with absolute encoder and electric brake on the market



- ① Rotor with large center bore for feeding through supply lines and media
- ② Torque motor with high torque, flexible RPM, and position control
- ③ Electric holding brake for maintaining position in downtime
- ④ Bearing very robust, for high payloads



Sizes
12 .. 300



Weight
2.4 .. 25.2 kg



Torque
1.4 .. 32 Nm



Repeat accuracy
 $\pm 0.01^\circ$



Angle of rotation
> 360°



More at:
schunk.com/ert

Technical data

Size	Repeat torque [Nm]	Peak torque [Nm]	Max. permissible mass moment of inertia [kgm²]	Repeat accuracy [°]	Weight [kg]
12	1.4 .. 1.52	4.17	0.07	0.01	2.4 .. 2.85
50	7.04 .. 7.8	20.1	0.39	0.01	5.74 .. 6.84
300	31 .. 32	76	5.53	0.01	19.5 .. 25.2

SRH-plus-D Universal Swivel Head

The only swivel head with integrated electric rotary feed-through for automated machine loading



Complete module with integrated fluid and electric feed-through eliminating unnecessary interfering contours



High damping performance due to the use of hydraulic shock absorbers resulting in a significant reduction of wear and shorter loading times



Pre-assembled mounting kit for direct mounting of the inductive proximity switches



- 1 Output side for fastening end actuators such as grippers
- 2 MDF media feed-through guided up to the screw-on surfaces of the swivel head
- 3 EDF electrical feed-through completely integrated for sensor, actuator signal, and energy transmission
- 4 Rack and pinion drive for powerful swiveling and a robust and reliable module



Sizes
20 .. 60

m

Weight
2.2 .. 21.2 kg



Torque
3 .. 69.9 Nm



Repeat accuracy
0.05°



Angle of rotation
180°



More at:
schunk.com/srh-plus-d

Technical data

Size	Angle of rotation [°]	Torque [Nm]	Weight [kg]	Repeat accuracy [°]
20	180	3	2.2	0.05
25	180	4.6	2.6	0.05
30	180	9.5	4.5	0.05
35	180	13.3	4.3	0.05
40	180	19.1	6.9	0.05
50	180	50.2	17.6	0.05
60	180	69.9	21.2	0.05

ILR-compact Inline Depaneling Machines

The economical Depaneling Machine
with high Productivity



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



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



More at: schunk.com/nutzentrenner

Technical data

Length/width/height [mm]	Panel infeed height [mm]	X-, Y-linear motor axes [mm/s]	Z-axis linear motor axis [mm/s]	Repeatability/ positioning accuracy [mm]	Milling accuracy without vision system [mm]	Milling accuracy with vision system [mm]	Max. panel size X- and Y-direction [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
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



More at: schunk.com/nutzentrenner

Technical data

Length/width/height [mm]	Operator height [mm]	X-, Y-linear motor axes [mm/s]	Z-axis linear motor axis [mm/s]	Repeatability/ positioning accuracy [mm]	Milling accuracy without vision system [mm]	Milling accuracy with vision system [mm]	Max. panel size X- and Y-direction [mm]
1300/1607/1642	894	1000	1000	$\pm 0.02/\pm 0.02$	± 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 a 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 force
due to permanent grease lubrication



- 1 Wedge hook drive in ring piston design offers high run-out accuracy over the entire speed range
- 2 Patented sealing system for constantly 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



More at:
schunk.com/rota-thw3



Sizes
200 .. 630 mm



Max. clamping force
64 .. 240 kN



Stroke per jaw
6.7 .. 10.5 mm



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



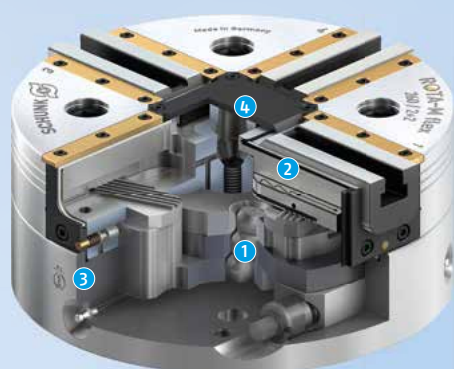
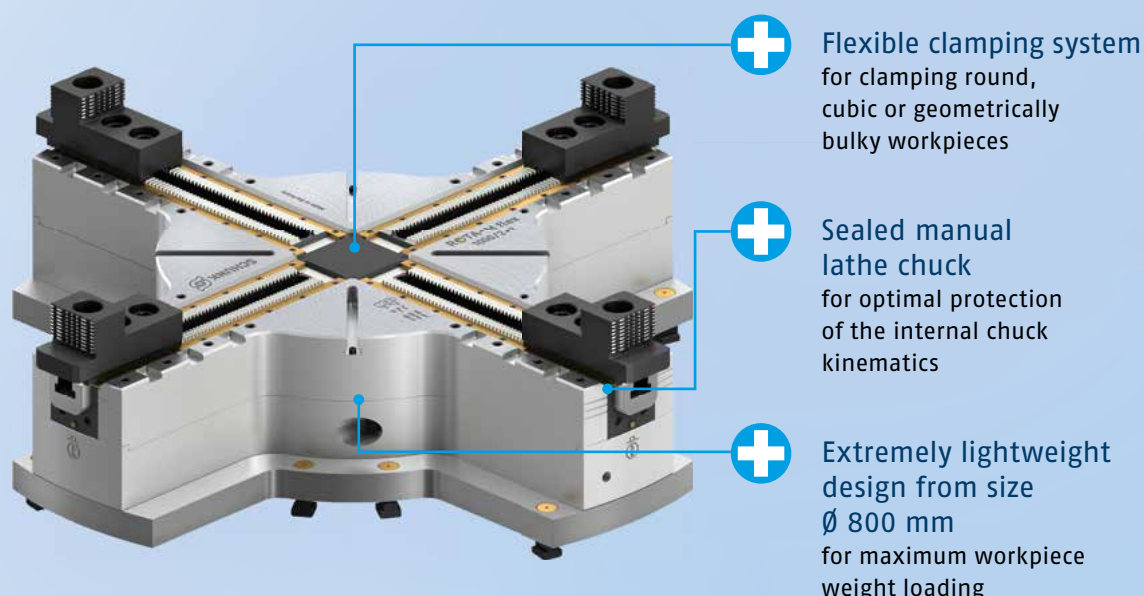
Through-hole
52 .. 165 mm

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



More at:
schunk.com/rota-m-flex-2+2

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
600 .. 2,700 RPM

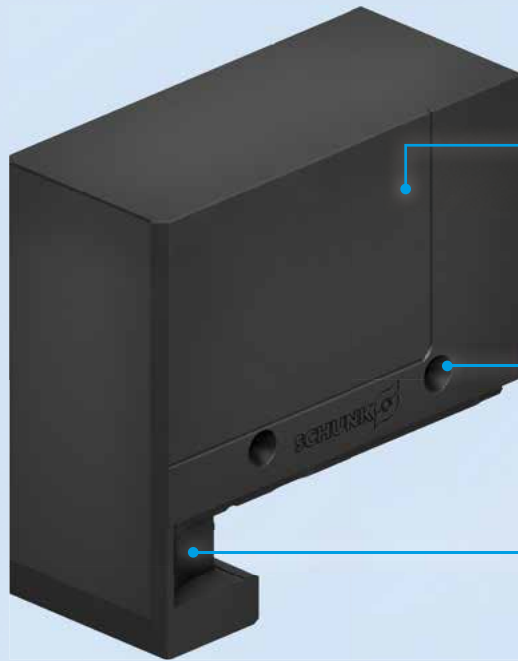
Technical data

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

RAPIDO

Jaw Quick-change System

Tool-free Jaw Quick-change from the Modular System that can be fully automated



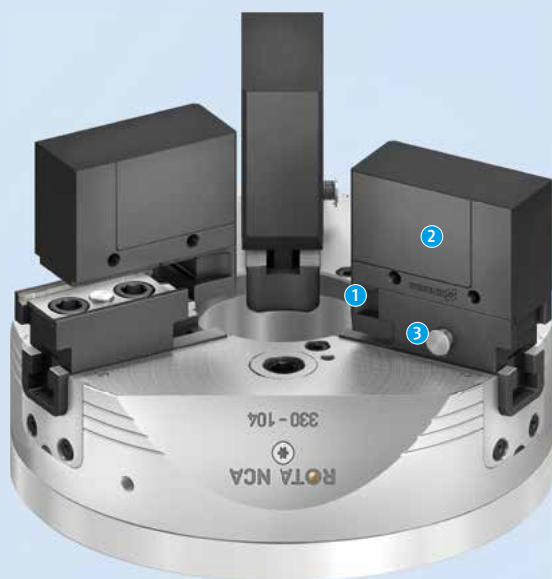
Significantly reduced set-up time
due to tool-free change of three chuck jaws in less than 60 seconds



Fully automatable
Jaw change can be fully automated by robot



Double locking
for maximum security even in 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 jaw blank concept
- 3 **Lock bolts**
tool-free change, put on chuck jaw, push backwards, done



Sizes
210 .. 400



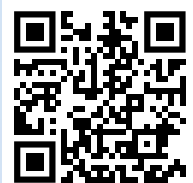
Jaw interface
1.5 mm x 60°
1/16" x 90°
3/32" x 90°



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



Max. clamping force
80 .. 185 kN



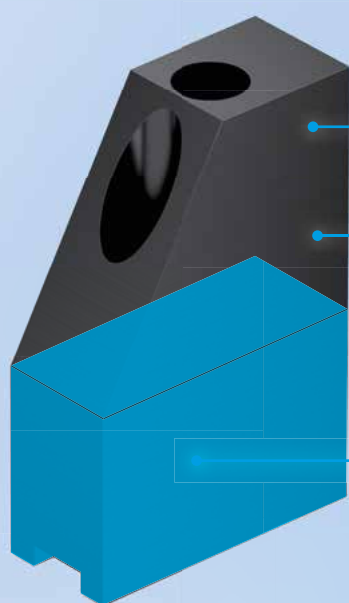
More at:
schunk.com/rapido

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, 1451029		RSE-V 210, 1455558	
TRR-M 260, 1449746	1.5 mm x 60°	RSE-IN 260, 1455549	RSE-IH 260, 1455566	RSE-VN 260, 1449747	RSE-VH 260, 1455560
TRR-M 315, 1452178	1.5 mm x 60°	RSE-IN 315, 1455552	RSE-IH 315, 1447309	RSE-VN 315, 1455568	RSE-VH 315, 1455562
TRR-M 400, 1452181	1.5 mm x 60°	RSE-IN 400, 1455556	RSE-IH 400, 1450984	RSE-VN 400, 1455570	RSE-VH 400, 1455564
TRR-Z 210, 1445381	1/16" x 90°	RSE-I 210, 1451029		RSE-V 210, 1455558	
TRR-Z 260, 1435822	1/16" x 90°	RSE-IN 260, 1455549	RSE-IH 260, 1455566	RSE-VN 260, 1449747	RSE-VH 260, 1455560
TRR-Z 315, 1452177	1/16" x 90°	RSE-IN 315, 1455552	RSE-IH 315, 1447309	RSE-VN 315, 1455568	RSE-VH 315, 1455562
TRR-Z 400, 1448483	3/32" x 90°	RSE-IN 400, 1455556	RSE-IH 400, 1450984	RSE-VN 400, 1455570	RSE-VH 400, 1455564

eJAW Chuck Jaw Configuration

Individual Chuck Jaws
delivered in two Weeks



Contour standard chuck jaws



Flexible configuration
of soft top jaws, monoblock
jaws, full grip jaws and claw
jaws



**Geometries of the chuck
jaws can be individually
adjusted**
derived from the respective
standard variant



**The simplest inquiry
and ordering process**
Receive a quotation within 24h.
Send your inquiry to
sonderbacken@de.schunk.com



Sizes
160 .. 1000



Chuck jaw type
Soft top jaws
Full grip jaws
Monoblock
jaws
Claw jaws
RAPIDO



Delivery time
Within
2 weeks



Jaw interface
1/16" x 90°
1.5 mm x 60°
Tongue and
groove
Module 2



1 Interface

Flexible configuration for fine serration
and tongue and groove

2 Material

For soft jaws – steel or aluminum
on customer request

3 Clamping contour

Customized clamping surface
and clamping range

4 Chuck jaw geometry

Height, width, and length freely
configurable

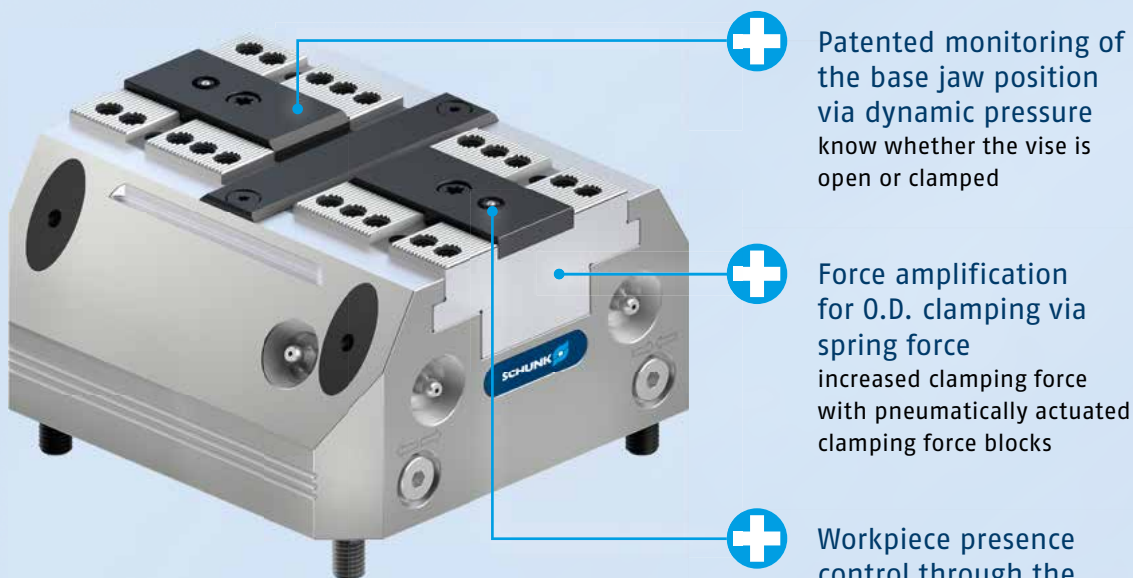


More at:
[schunk.com/
backenquickfinder](http://schunk.com/backenquickfinder)

Technical data

Series	Material	Interface	Geometry (L, W, H)	Drilling pattern	Clamping range / clamping depth	Customized label
Soft top jaws	Modifiable	Modifiable	Modifiable	Modifiable		Modifiable
Full grip Jaws	Modifiable	Modifiable	Modifiable	Modifiable		Modifiable
Monoblock jaws			Modifiable			Modifiable
Claw jaws			Modifiable		Modifiable	Modifiable
RAPIDO			Modifiable			Modifiable

The art of engineering from SCHUNK. No one offers more solutions and higher performance for standard versions



Sizes
64 .. 315 mm



Number of versions
312



Clamping force
2.3 .. 70 kN



Stroke per jaw
2 .. 15 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 optimum 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



More at:
schunk.com/tandem3

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
KSP3	Pneumatic	200	Yes	Yes	Yes	Yes
KSH3	Hydraulic	76	No	Yes	Yes	Yes
KSF3	Spring-loaded	36	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



Sizes
100 .. 140 mm



Number of versions
4



Clamping force
4.5 .. 17 kN



Stroke per jaw
2 .. 7 mm



More at:
schunk.com/pgs3



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

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



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



Adjustable clamping center small and large workpieces are always clamped centrally



Size
125 mm



Component
lengths
330 .. 800 mm



Max. clamping
force
40 kN



Max. torque
120 Nm

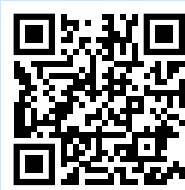


① Jaw quick-change system
system jaws can be exchanged in seconds,
completely without tools

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



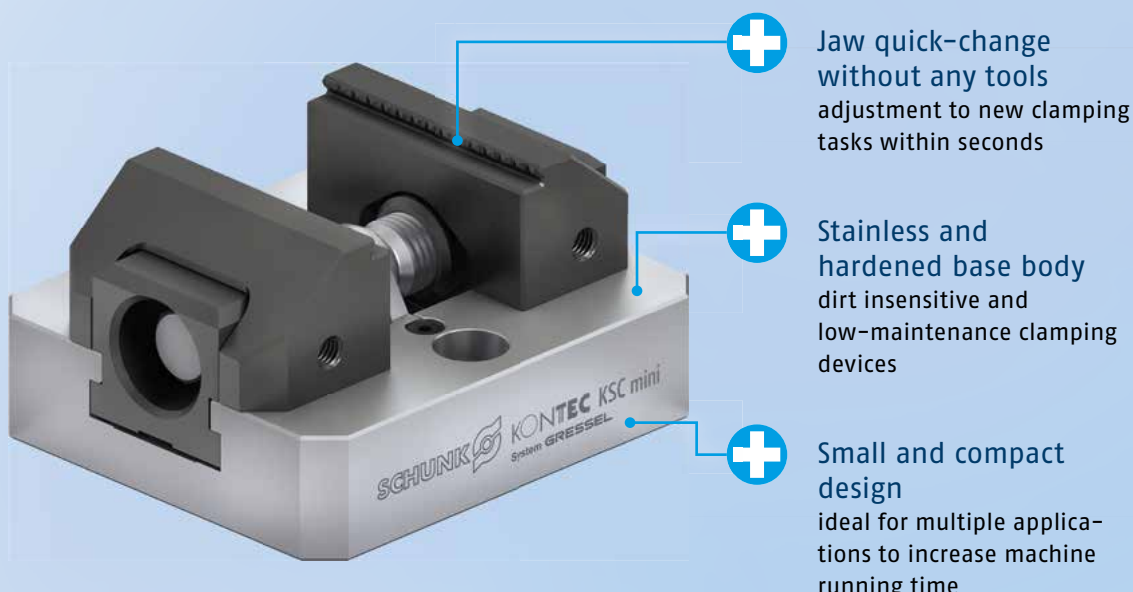
More at:
schunk.com/ksx-c2

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



Size
70 mm



Component
lengths
80 .. 100 mm



Max. clamping
force
16 kN



Max. torque
50 Nm



- 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



More at:
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 NSE-HT mini Quick-change Pallet Systems

Precise clamping technology optimized
for maximum temperatures



Heat resistant
up to +200 °C
No cooling necessary for
unlocking



**Excellent thermal
conductivity**
low loss in temperature from
the heater plate to the
workpiece, to the device or
to the substrate plate



**Suitable for operation
with inert gas**
Inert gas supply of AM
machines can be used



① **High-precision short taper centering**
ensures micrometer-precise connections

② **Wedge-hook drive**
high pull-down forces are ensured between
the piston and the clamping slide

③ **Completely sealed system**
for adequate protection of the clamping
module against extremely fine metal powders
with SLM applications

④ **Locking screw**
is used for complete closure of the clamping
slide bore hole



Size
88 mm



Pull down force
500 .. 2,500 N



**Holding force
clamping pin**
15 .. 25 kN



**Max. actuation
temperature**
200 °C



Repeat accuracy
< 0.005 mm



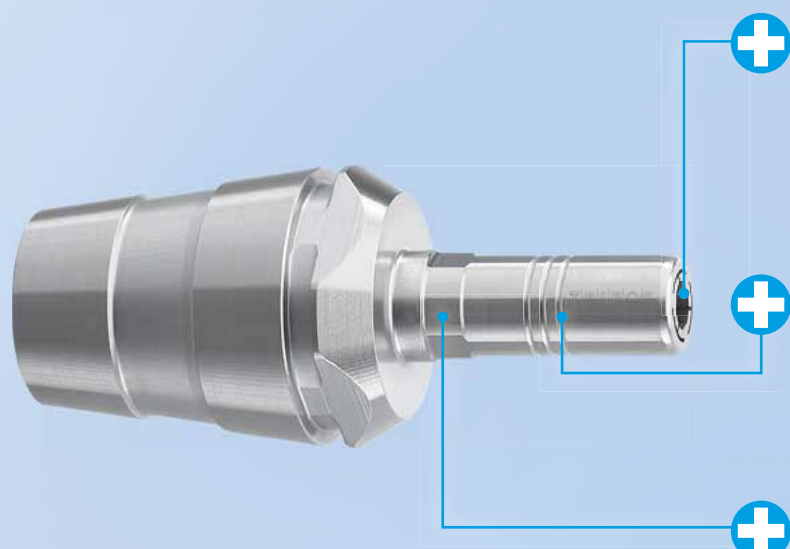
More at:
schunk.com/vero-s-nse-ht

Technical data

Size	Pull down force	Pull down force with Turbo	Unlocking pressure	Max. actuation temperature	Repeat accuracy
	[N]	[N]	[bar]	[°C]	[mm]
NSE-HT mini 88-20	500	2500	6	200	0.005
NSE-HT mini 88-20-V1	500	2500	6	200	0.005

TRIBOS®-RM/-Mini ER Polygonal Toolholder

Coolant-tight variants and
variants with depth stop



Polygonal clamping technology

Can be combined with your ER collet chuck for more precision and brilliant surfaces



Depth stop

Repeat accuracy during tool change due to simple and reproducible adjustment of the tool clamping depth



Coolant seal

Process-safe transmission of the cooling medium through the tool shank



- ① Depth stop
Retrofittable accessories,
also for coolant-proof variants
- ② Anchor structure
The anchor structure ensures
high stability
- ③ ER cone
Specially developed for lathes



More at:
schunk.com/tribos-mini-er



Sizes
11 .. 32



Run-out
accuracy
 $\leq 0.01 \text{ mm}$
at $2.5 \times D$



Max. torque
0.5 .. 30 Nm



Max. speed
40,000 RPM



Max. operating
pressure of
the coolant
100 bar

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 life



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 reprogramming 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 PC without machine connection



Battery service life
10 h



Acceleration sensor
100 G



Speed of rotation
30,000 RPM



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



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



More at:
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



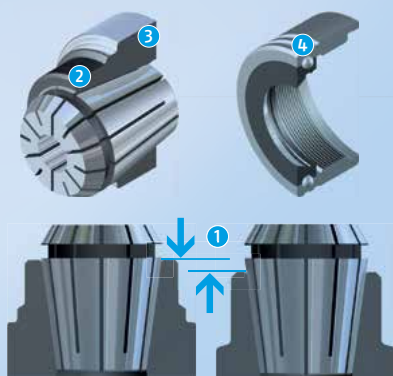
High radial rigidity
Complex design enables
higher radial stability as
compared to conventional
ER collet chucks



**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
40,000 RPM



**Number
of versions**
103



More at:
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 shrink contour



Plug & Work

Can be used in existing processes without reprogramming



Micron precise tool change in seconds without peripheral equipment

Time saving through reduction of set-up time and no investment and 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



More at:
schunk.com/tendo-slim-4ax



New interfaces

HSK-A 100

SK 50

JIS-BT 30

SCHUNK CAPTO C6



Run-out accuracy

≤ 0.003 mm
to $2.5 \times D$



Min. torque

16 .. 330 Nm



Max. speed of rotation

30,000 ..
50,000 RPM



Diameter

6 .. 20 mm

Technical data

Series	Clamping diameter $\varnothing$ [mm]	Run-out accuracy	Min. torque [Nm]	Max. speed of rotation [RPM]	Perm. radial force [N]	MQL applications (Minimum Quantity Lubrication)	Bore hole for data carriers
HSK-A 63	6 - 20	≤ 0.003 mm at $2.5 \times D$	16 - 330	30000 - 50.000	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



More at:
schunk.com/tendo-p



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

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

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