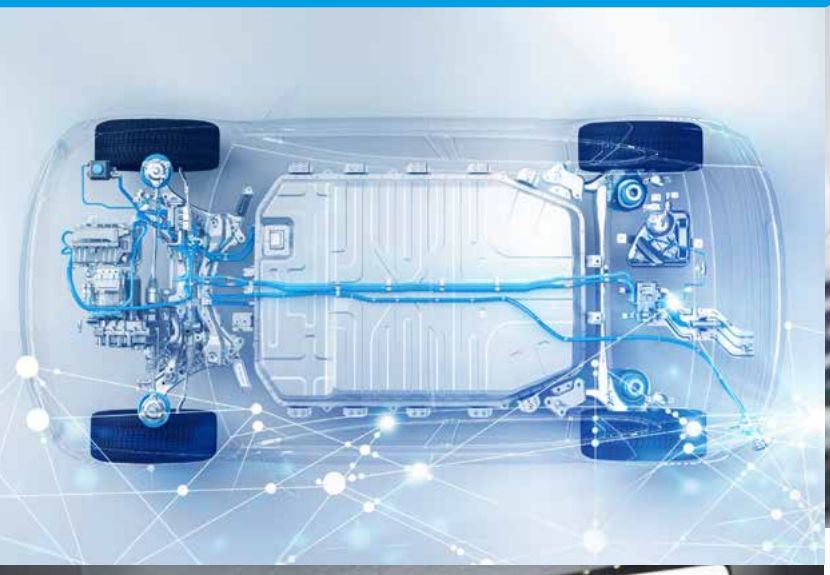
New SCHUNK products and innovations

Toolholding and workholding
Gripping technology and automation technology
Depaneling technology

Hand in hand for tomorrow

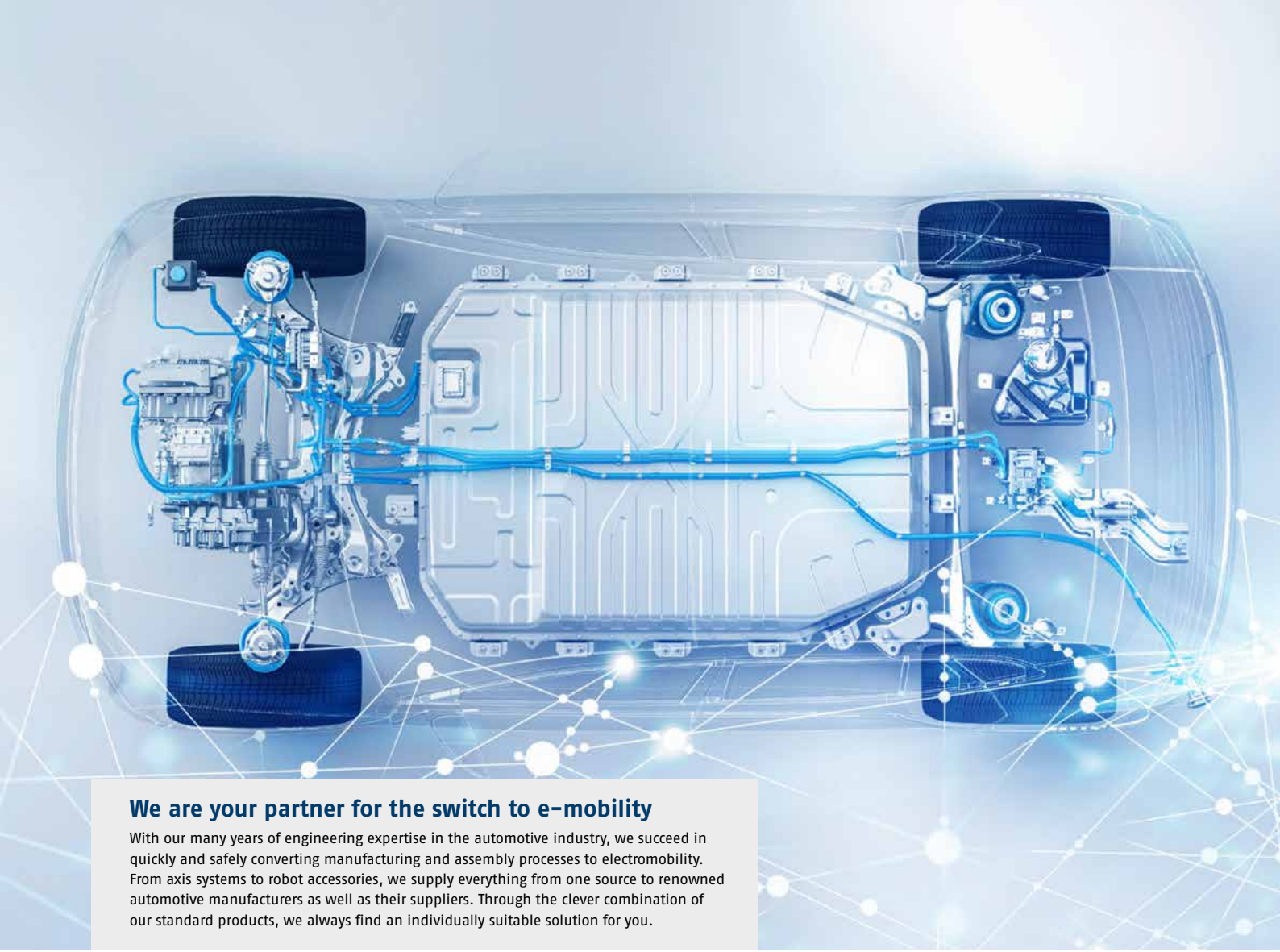


New products and innovations that bring you forward

easyJAW

Individualized chuck jaws delivered within a very short time

With the easyJAW chuck jaw configurator, we are adding the component "individuality" to our standard chuck jaw program. From selected standard variants, geometries can be adapted to customer-specific and application-specific uses.



We are your partner for the switch to e-mobility

With our many years of engineering expertise in the automotive industry, we succeed in quickly and safely converting manufacturing and assembly processes to electromobility. From axis systems to robot accessories, we supply everything from one source to renowned automotive manufacturers as well as their suppliers. Through the clever combination of our standard products, we always find an individually suitable solution for you.

SCHUNK is your life-science partner with application know-how

In the "Science of Life" – the life science – the biotechnology, medical technology and pharmaceutical industry work together. 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.

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 – secure gripping of workpieces every time.

Content

Compact powerhouses

3-jaw clamping force blocks

The TANDEM3 modular system is growing. Whether pneumatic, hydraulic, spring-actuated or electric: the new 3-jaw clamping force blocks transfer the advantages of 2-jaw clamping force blocks to the realm of cylindrical workpiece clamping – without special chuck jaws, with low deformation and even better force distribution.
The enormous range of variants in the standard range and the extensive range of jaws also cover a wide variety of applications.

The new generation

Centric clamping vise KONTEC KSC3

The new KONTEC KSC3 centric clamping vise is just as impressive as its predecessors due to its as high precision with high clamping force and extremely flat design. An absolute highlight is the nickel-plated base body, which offers optimal protection for the clamping vise against corrosion and significantly expands the range of applications. In addition, the closed system with optimized chip drainage ensures maximum process reliability. Existing KSC clamping vises can be replaced 1:1 by the new generation.

iTENDO²
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 reprogramming of your system

Technical data

Series	Process transparency	Process optimization	Simple data interface	Wireless receiver	Process monitoring	Quality monitoring	Cloud functions	Adaptive control
iTENDO² pad	●	●						

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

2 iTENDO² pad
Direct connection to the tablet PC without machine connection and simple process optimization.

Battery service life
10 h

Acceleration sensor
100 G

Speed of rotation
30,000 RPM

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

External cooling/ internal cooling
up to 80 bar

schunk.com/itendo2

TENDO® Cool Flow
Hydraulic expansion toolholder with peripheral cooling

Coolant is fed via four coolant channels 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. **Length-setting screw**

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

Technical data

Baureihe	Run-out accuracy	Balance grade	Tool shank quality	Axial length adjustment
TENDO Slim 4ax	≤ 0.006 mm at 2.5 x D	G2.5 at 25,000 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 25,000 RPM or U_{max} < 1 gmm	h6	With set-screw for axial length adjustment

TENDO® Slim 4ax
Hydraulic expansion toolholder

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

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

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

1. **Chamber system**
2. **Expansion sleeve**
3. **Base body**
4. **Length-setting screw**

New interfaces
HSK-A 100
SK 50
JIS-BT 30
SCHUNK CAPTO C6

Run-out accuracy
≤ 0.003 mm
at 2.5 x D

Min. torque
16 .. 330 Nm

Max. speed of rotation
30,000 ..
50,000 RPM

Diameter
6 .. 20 mm

schunk.com/tendo-slim-4ax

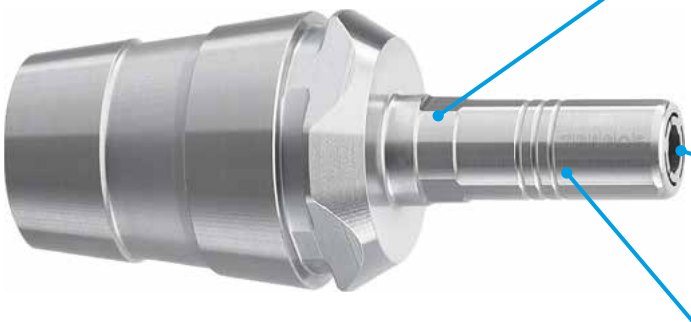
Technical data

Series	Clamping diameter [mm]	Run-out accuracy	Min. torque [Nm]	Max. speed of rotation [RPM]	Perm. radial force [N]	MQL (Minimum Quantity Lubrication)	Bore hole for data carriers
HSK-A 63	Ø 6 - Ø 20	≤ 0.003 mm at 2.5 x D	16-330	30.000-50.000	113-1490	Yes	Standard
HSK-A 100	Ø 6 - Ø 20	≤ 0.003 mm at 2.5 x D	16-330	30.000-50.000	113-1490	Yes	Standard
SK 40	Ø 6 - Ø 20	≤ 0.003 mm at 2.5 x D	16-330	30.000-50.000	113-1490		Optional
SK 50	Ø 6 - Ø 20	≤ 0.003 mm at 2.5 x D	16-330	30.000-50.000	113-1490		Optional
JIS-BT 30	Ø 6 - Ø 20	≤ 0.003 mm at 2.5 x D	16-330	30.000-50.000	113-1490		Optional
JIS-BT 40	Ø 6 - Ø 20	≤ 0.003 mm at 2.5 x D	16-330	30.000-50.000	113-1490		Optional
SCHUNK CAPTO C6	Ø 6 - Ø 20	≤ 0.003 mm at 2.5 x D	16-330	30.000-50.000	113-1490		Optional
CAT 40	Ø 6 - Ø 20	≤ 0.003 mm at 2.5 x D	16-330	30.000-50.000	113-1490		Optional

TRIBOS®

Polygonal toolholder

Coolant-tight variants and variants with depth stop



Coolant seal

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

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

Sizes
ER 11
ER 16
ER 20
ER 25
ER 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

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

Technical data

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

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 chucks

High clamping force

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

Sizes
ER 16
ER 25
ER 32
ER 40

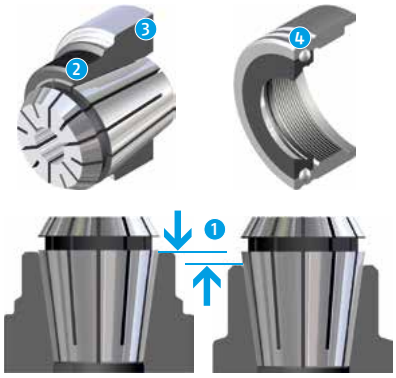
Scope of delivery
Including clamping nut

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



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**

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
L1 ≤ 100 mm	●	●	●	●	●	●	●	●		●
L1 = 100 mm	●	●		●	●		●	●	●	●
L1 = 130 mm	●	●		●	●		●	●		
L1 = 160 mm	●	●		●	●		●	●		
Version Mini	●			●			●			

TANDEM® KSE3-IOL

Clamping force blocks

Electromechanical clamping force blocks with integrated electronics and IO-Link interface

Actuators and electronics integrated in the vise

Signal processing occurs exclusively in the clamping device

Pre-positioning of the jaws

for inserting an extremely wide range of workpieces

Control via IO-Link

for simple integration in commonly used fieldbus systems

Sizes
100 .. 160 mm

Supply voltage
24 V

Clamping force
8 .. 45 kN

Repeat accuracy
< 0.01 mm

schunk.com/kse3

1. **Bottom-sided connection**
   with IO-Link control
2. **Integrated electronics**
   for transmitting power and control signals
3. **Motor gearbox combination**
   a high reduction ratio for high clamping forces
4. **Wedge-hook drive**
   offers constantly high clamping forces in operation

Technical data

Sizes	Clamping force [kN]	Jaw stroke [mm]	Interface	Repeat accuracy [mm]
KSE3 100-IOL	18	2	IO-Link	< 0.01
KSE3 140-IOL	30	3	IO-Link	< 0.01
KSE3 160-IOL	45	3	IO-Link	< 0.01
KSE3-LH 100-IOL	8	6	IO-Link	< 0.01
KSE3-LH 140-IOL	15	7	IO-Link	< 0.01
KSE3-LH 160-IOL	20	8	IO-Link	< 0.01

TANDEM® KRE3-IOL

Clamping force blocks

Electromechanical 3-jaw clamping force blocks for even more flexibility in production

3-jaw clamping force blocks for cylindrical workpieces

this results in low-deformation clamping, especially with regard to rings

Actuators and electronics integrated in the vise

Signal processing occurs exclusively in the clamping device

Control via IO-Link

for simple integration in commonly used fieldbus systems

Sizes
100 .. 160 mm

Supply voltage
24 V

Clamping force
8 .. 45 kN

Repeat accuracy
< 0.01 mm

schunk.com/kre3

1. **Bottom-sided connection**
with IO-Link control

2. **Motor gearbox combination**
a high reduction ratio for high clamping forces

3. **Integrated electronics**
for transmitting power and control signals

4. **Wedge-hook drive**
offers constantly high clamping forces in operation

Technical data

Sizes	Clamping force [kN]	Jaw stroke [mm]	Interface	Repeat accuracy [mm]
KRE3 100-IOL	18	2	IO-Link	< 0.01
KRE3 160-IOL	45	3	IO-Link	< 0.01
KRE3-LH 100-IOL	8	6	IO-Link	< 0.01
KRE3-LH 160-IOL	20	8	IO-Link	< 0.01

TANDEM® 3

Clamping force blocks

The art of engineering from SCHUNK. Extension of the modular system by 3-jaw clamping force blocks

3-jaw clamping force blocks for cylindrical workpieces

this results in low-deformation clamping, especially with regard to rings

Workpiece presence control through the base jaw

enables automated loading of the clamping force block

Patented monitoring of the base jaw position via dynamic pressure

to know whether the vise is open or clamped

Sizes
100 .. 250 mm

Number of new variants
124

Clamping force
3 .. 70 kN

Stroke per jaw
2 .. 15 mm

schunk.com/tandem3

1. **100% compatible with TANDEM3 2-jaw clamping force blocks (except PM variants)**
   Clamping force blocks are 1:1 interchangeable
2. **Wedge-hook drive**
   offers constantly high clamping forces in operation
3. **Actuation of the vise**
   from the side or bottom as desired
4. **Same equipment variants as for the 2-jaw version possible**
   large range of variants

Technical data

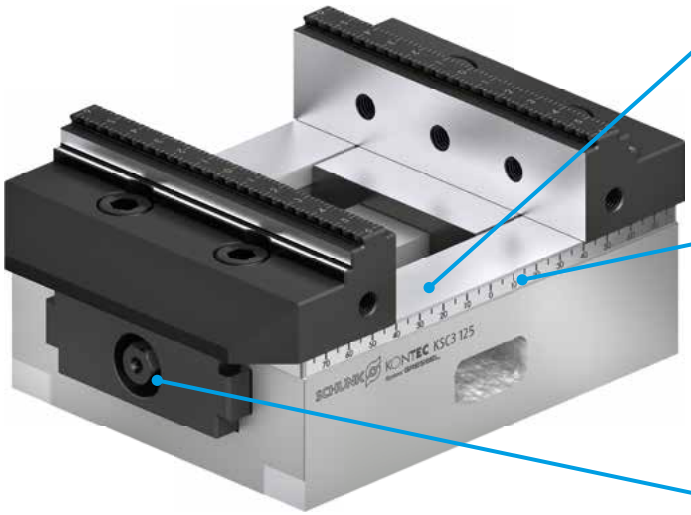
Series	Actuation	Number of versions	Clamping force amplification for O.D. clamping, optional	Workpiece presence control/ air purge	Inductive jaw monitoring
KRP3	Pneumatic	64	Yes	Yes	Yes
KRH3	Hydraulic	28	No	Yes	Yes
KRF3	Spring-loaded	32	No	Yes	Yes

The TANDEM3 modular system, unique in its range of variants, is growing even more. In step one of the new genera-tion, the 2-jaw clamping fore blocks were replaced and equipped with even more technical refinements: an absolutely fresh SCHUNK innovation being added – the TANDEM3 modular system has been extended by 3-jaw clamping force blocks.

KONTEC KSC3

Centric clamping vises

Proven maximum precision with even higher process reliability due to nickel-plated base body



Nickel-plated base body

for optimal corrosion protection and an even wider range of applications

Laser-etched ruler

for fast positioning of the system jaws and the workpiece

Recessed hexagonal connection

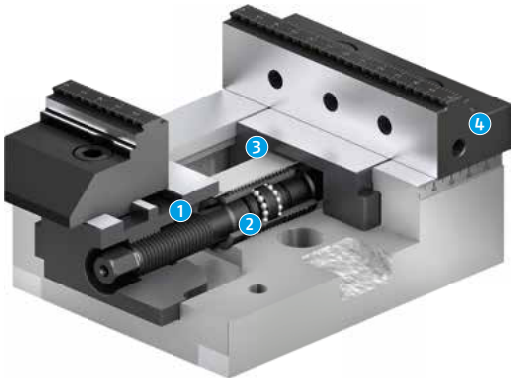
for reduced interfering contours

Sizes
80 .. 160 mm

Component lengths
130 .. 480 mm

Max. clamping force
25 .. 50 kN

Max. torque
90 .. 175 Nm



1. **Closed system**
   offers optimal protection against coolant and chips
2. **Ball bearing mounted, clearance-free spindle**
   for an extremely high repeat accuracy
3. **Visual marking of the end position**
   for quick detection of the maximum jaw position
4. **System jaw with grip step and smooth clamping surface**
   enables first and second-side machining with only one jaw

schunk.com/ksc3

Technical data

Size	Width of the clamping vise [mm]	Vise length [mm]	Max. clamping force [kN]	Max. torque [Nm]
KSC3 80-130	80	130	25	90
KSC3 80-190	80	190	25	90
KSC3 125-160	125	160	35	100
KSC3 125-235	125	235	35	100
KSC3 125-300	125	300	35	100
KSC3 160-280	160	280	50	175
KSC3 160-480	160	480	50	175

VERO-S NSE-PH 138-IOL
Quick-change pallet systems

Electromechanical quick-change pallet system with unbeatable power density

Unbeatable performance

identical technological characteristics as fluid-driven quick-change pallet modules – in the same installation space

Monitoring of the clamping slide position, pallet presence and the pull-down force

for reliable automation

Control via IO-Link

for simple integration in commonly used fieldbus systems

Sizes
138 mm

Pull-down force
28 kN

Holding force clamping pin
35 .. 75 kN

Supply voltage
24 V

Repeat accuracy
< 0.005 mm

schunk.com/vero-s

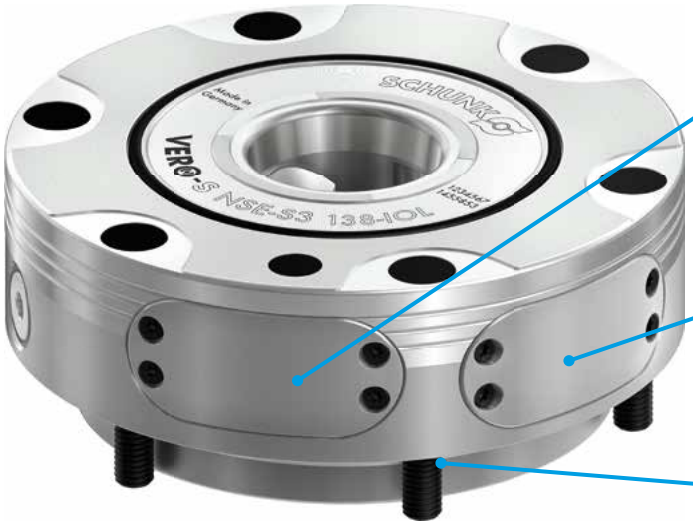
1. **IO-Link interface**
   for simple integration in commonly used fieldbus systems
2. **Bottom-sided connection**
   for easy connection of the clamping module
3. **Integrated electronics**
   Signal processing occurs in the clamping device
4. **Drive via piezoelectric force transducer**
   Guaranteed high pull-down forces in a small installation space

Technical data

Size	Pull -down force [kN]	Supply voltage [V]	Interface	Repeat accuracy [mm]
NSE-PH 138-IOL	28	24	IO-Link	< 0.005
NSE-PH 138-V1-IOL	28	24	IO-Link	< 0.005

VERO-S NSE-S3 138-IOL
Quick-change pallet systems

Integrated sensor system for detecting pallet presence and clamping position



Sensor system integrated in the quick-change pallet system

no additional interfering contour

Monitoring of the clamping slide position and of pallet presence

for reliable automation

Signal transmission via IO-Link

for simple integration in commonly used fieldbus systems

Sizes
138 mm

Pull-down force
8 .. 28 kN

Holding force clamping pin
15 .. 75 kN

Supply voltage
24 V

Repeat accuracy
< 0.005 mm

schunk.com/vero-s

1. **Integrated electronics and bottom-sided connection**
   with IO-Link signal transmission
2. **Monitoring of pallet presence**
   for detecting pallet presence
3. **Monitoring of the clamping slide position**
   for detecting the “module clamped” or “module opened” conditions
4. **Pressure sensor**
   to detect whether the turbo function is active

Technical data

Size	Pull-down force [kN]	Pull-down force with turbo [kN]	Unlocking pressure [bar]	Supply voltage [V]	Repeat accuracy [mm]
NSE-S3 138-IOL	8	28	6	24	< 0.005
NSE-S3 138-V1-IOL	8	28	6	24	< 0.005

VERO-S NSE-S mini 90-25-IOL
Quick-change pallet systems

Compact clamping module with integrated sensor system

Sensor system integrated in the quick-change pallet system

no additional interfering contour

Monitoring of the clamping slide position and of pallet presence

for reliable automation

Signal transmission via IO-Link

for simple integration in commonly used fieldbus systems

Sizes
90-25 mm

Pull-down force
1,5 .. 6 kN

Supply voltage
24 V

Repeat accuracy
< 0.005 mm

schunk.com/vero-s

1. **Integrated electronics**
with IO-Link signal transmission
2. **Monitoring of pallet presence**
for detecting pallet presence
3. **Monitoring of the clamping slide position**
for detecting the “module clamped” or “module opened” conditions
4. **Pressure sensor**
to detect whether the turbo function is active

Technical data

Size	Pull-down force [kN]	Pull-down force with turbo [kN]	Unlocking pressure [bar]	Supply voltage [V]	Repeat accuracy [mm]
NSE-S mini 90-25-IOL	1.5	6	6	24	< 0.005
NSE-S mini 90-25-V1-IOL	1.5	6	6	24	< 0.005

VERO-S NSE-E mini 90-25-IOL
Quick-change pallet systems

Electromechanical quick-change pallet system with high pull-down forces in a small space

Dimensions above screw-on surface identical to NSE mini 90-25

Maximum power density

Monitoring of clamping slide position and of pallet presence

for reliable automation

Control via IO-Link

for simple integration in commonly used fieldbus systems

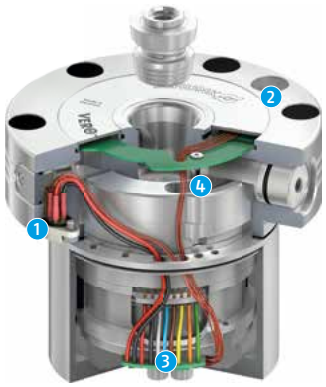
Sizes
90-25 mm

Pull-down force
6 kN

Supply voltage
24 V

Repeat accuracy
< 0.005 mm

schunk.com/vero-s



1. **Bottom-sided connection**
   with IO-Link control
2. **Presence sensor**
   For monitoring pallet presence
3. **Integrated electronics**
   for processing the signals
4. **Patented dual stroke system**
   For best transmission ratios and high pull-down forces

Technical data

Size	Pull-down force [kN]	Supply voltage [V]	Repeat accuracy [mm]
NSE-E mini 90-25-IOL	6	24	< 0.005

VERO-S NSR 138
Robot module standard

Very high pull-down forces and enormous strength for safe pallet handling

Actuation with 6 bar

additional pressure intensifiers are not required

Form-fit, self-retained locking

the full pull-down force is maintained even in the event of a pressure drop

Slim design

Loading is possible extremely close to the machine table.

Sizes
138 mm

Pull-down force
8 .. 28 kN

Repeat accuracy
< 0.02 mm

schunk.com/vero-s

1. **Higher strength**
   for reliable pallet handling even with high weights
2. **Monitoring of the clamping slide position**
   possible via AFS3
3. **Patented dual stroke system**
   high pull-down forces are ensured between the piston and the clamping slide
4. **Air purge**
   for quickly cleaning the module's clamping pin interface

Technical data

Size	Pull-down force [kN]	Pull-down force with turbo [kN]	Max. moment M_{xy} [Nm]	Max. moment M_z [Nm]	Repeat accuracy [mm]
NSR 138	8	28	1500	1600	< 0.02

IFT SST
Clamping force tester

Universally applicable clamping force tester for stationary clamping devices

Universally applicable

Manufacturer-independent for 2-jaw clamping force blocks or vises

Wireless data transfer via App to an industrial tablet PC and export to other end devices

Quick and easy data evaluation without troublesome cables

Long battery life and short charging time of the measuring head

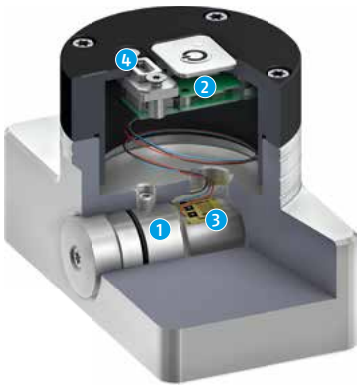
Quickly ready for use even after a longer period of non-use

Max. clamping force
120 kN

Max. clamping range
55 mm

Battery service life
1.5 h

schunk.com/ift



1. **Force transducer**
   for absorption of mechanical forces from the clamping device
2. **Integrated electronics**
   for amplification, evaluation and transfer of electric signals
3. **High-resolution strain gauge**
   for converting the mechanical force into an electric signal
4. **Mini USB connection**
   for quick and simple loading of the measuring head in less than three minutes

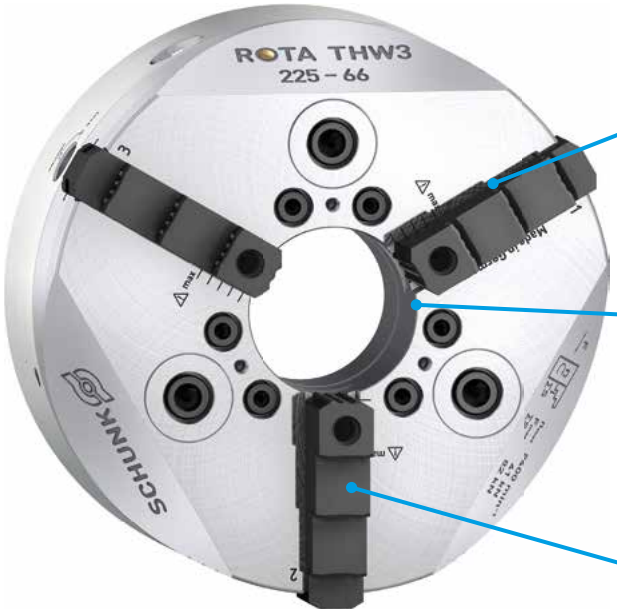
Technical data

Size	Max. total clamping force [kN]	Max. clamping force per jaw [kN]	IP protection class	Max. clamping range [mm]	Battery service life [h]
IFT SST	120	60	IP67	55	1.5

ROTA THW3
Jaw quick-change chuck

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

DESIGN AWARD 2022



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

Sizes
200 .. 630 mm

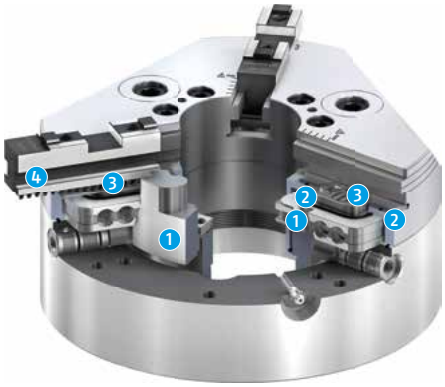
Max. clamping force
64 .. 240 kN

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



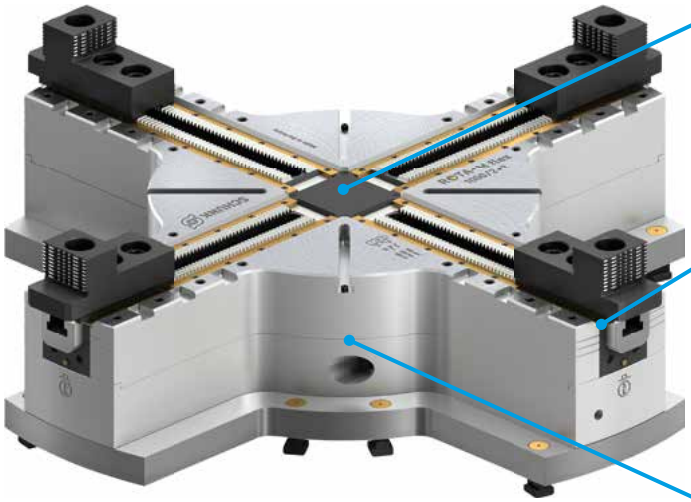
1. **Wedge hook drive in ring piston design**
   offers high run-out accuracy covering the entire range of speed
2. **Patented sealing system**
   for consistently high clamping forces
3. **Jaw quick-change system**
   shortest set-up time due to individual unlocking of jaws
4. **Base jaws with straight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

Technical data

Size	Max. speed of rotation [min⁻¹]	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 chuck

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



Flexible clamping system

for clamping round, cubic or geometrically bulky workpieces

Sealed manual lathe chuck

for optimal protection of the internal chuck kinematics

Highly weight-reduced design from size Ø 630 mm

for a maximum additional payload of workpiece weight

Sizes
260 .. 1,200 mm

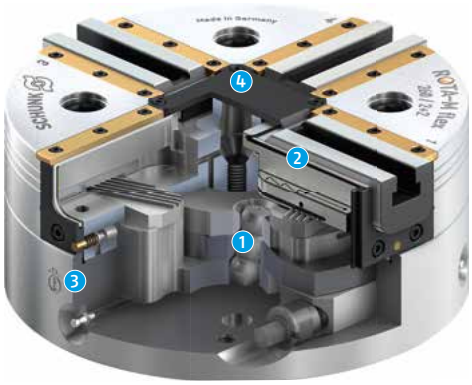
Max. clamping force
100 .. 180 kN

Stroke per jaw
9.5 .. 17.8 mm

Compensating stroke per jaw
5.1 .. 10 mm

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

schunk.com/rota-thw3



1. **Drive ring system**
as a basis for centrically compensating workpiece clamping
2. **Sealed design**
to protect the chuck kinematics
3. **Visual indicator pin**
for safe workpiece clamping
4. **Use as a centric clamping vise**
optionally by simply exchanging the center cover

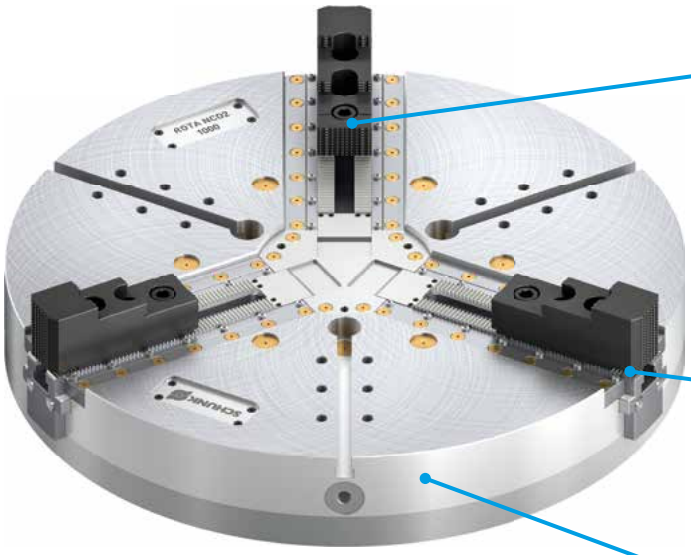
Technical data

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

ROTA NCO2

Power lathe chucks without through-hole

Large, weight-optimized 3-jaw power lathe chuck with improved sealing and long jaw stroke



Longest jaw stroke at high jaw clamping force

reliable and variable clamping of workpieces over interfering contours

Optionally available with centrifugal force compensation or individual jaw adjustment

for the best possible adaptation to the individual clamping task

Weight-optimized body

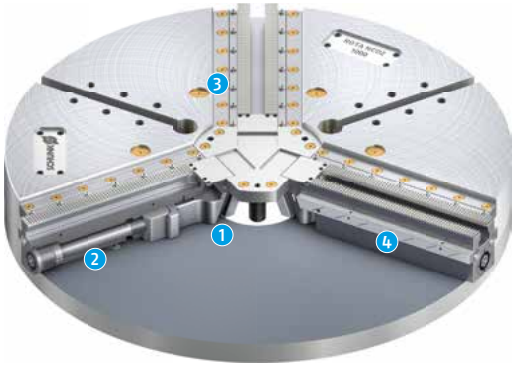
reduced energy consumption and higher workpiece weights possible

Sizes
800 .. 1,400 mm

Max. clamping force
300 kN

Stroke per jaw
23 mm

Max. speed of rotation
500 .. 900 RPM



1. **Wedge-hook drive**
offers constantly high clamping forces in operation

2. **Individual jaw adjustment as option**
Workpieces can be optionally aligned to the rotation center

3. **Combined sealing strips**
seal the base jaw guidances and offer good protection against coolant and chips

4. **Optimized lubrication system**
for consistently high clamping forces

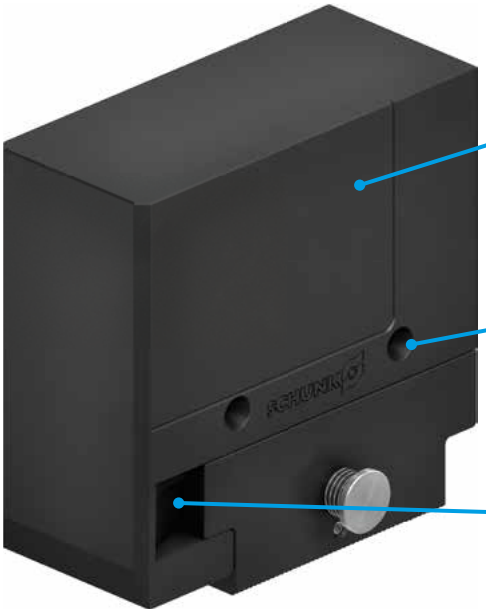
schunk.com/rota-nco2

Technical data

Size	Max. speed of rotation [RPM]	Max. clamping force [kN]	Max. actuating force [kN]	Stroke/jaw [mm]	Piston stroke [mm]
ROTA NCO2 800	900	300	170	23	57
ROTA NCO2 1000	700	300	170	23	57
ROTA NCO2 1200	600	300	170	23	57
ROTA NCO2 1400	500	300	170	23	57

RAPIDO
Jaw quick-change system

Completely tool-free jaw quick-change system



Significantly reduced set-up time

Tool-free change of three chuck jaws in less than 60 seconds

Easily retrofitted

compatible with all commercially available lathe chucks

High repeat accuracy

<0.02 mm when changing the clamping inserts

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

1. **Supporting jaw**
With double jaw mounting for O.D. and I.D. clamping

2. **Interchangeable insert**
Individual clamping contours available at short notice due to an extensive blank concept

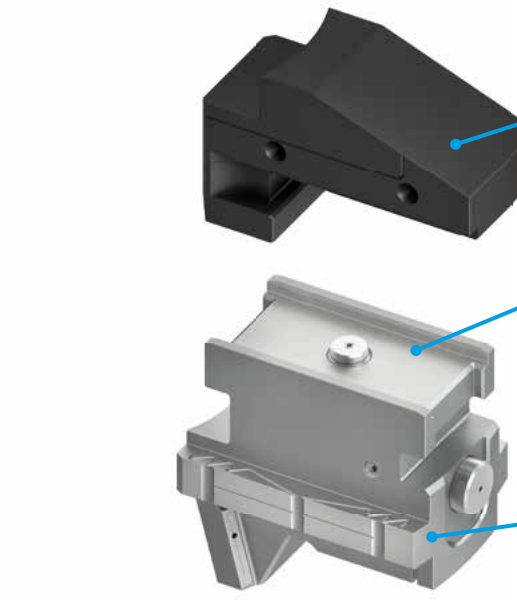
3. **Actuating pin**
Tool-free change of the clamping inserts by pressing in the actuating pin

Technical data

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

RAPIDO-A2
Jaw quick-change system

Fully automatable, tool-free jaw quick change



Fully automatable

with RAPIDO-A2
jaw quick-change system

Easy handling

Four standardized bore holes in the changing inserts ensure process reliable form-fit clamping

Maximum process reliability

Gripping unit with optical sensor for monitoring the top jaw and the push button

Sizes
210 .. 400 mm

Max. clamping force
85 .. 187.5 k

Max. speed of rotation
1,700 .. 4,000 RPM

schunk.com/rapido

1. **SCHUNK lathe chuck**
   equipped with RAPIDO interface
2. **RAPIDO-A2 base jaw for manual or fully automated jaw change**
   directly integrated in the base body
3. **RAPIDO changing jaw**
   are placed on the base jaw
4. **RAPIDO-A2 gripping unit**
   Gripper for automated jaw change

Technical data

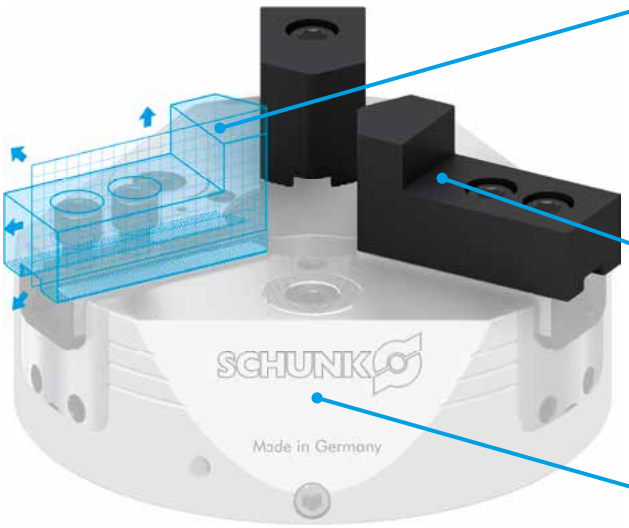
Size	ID	Max. speed of rotation [RPM]	Max. clamping force [kN]	Max. actuating force [kN]	Max. clamping range (outside)* [mm]	Max. clamping range (inside)* [mm]	Piston stroke [mm]
ROTA NCF plus 2 215	1520664	4000	85	35.5	60 - 200	110 - 220	20
ROTA NCF plus 2 260	1520665	3500	110	47	70 - 240	130 - 270	20
ROTA NCF plus 2 315	1520666	3000	130	58	80 - 285	170 - 330	20
ROTA NCF plus 2 400	1520667	2500	187.5	77	130 - 380	200 - 420	30
ROTA NCO 210	1520668	3000	85	37.5	60 - 200	110 - 220	27
ROTA NCO 260	1520669	2800	110	45	70 - 240	130 - 270	30
ROTA NCO 315	1520670	2300	130	62	80 - 285	170 - 330	40
ROTA NCO 400	1520671	1700	185	83	130 - 380	200 - 420	45

*with standard blanks

easyJAW

Chuck jaw configuration

Individual chuck jaws delivered in 1 to max. 3 weeks



Flexible configuration

of more than 500 standard variants using the easyJaw online configurator

Geometries of the chuck jaws can be individually adjusted

Derived from the respective standard variant, freely configurable

Easiest request and ordering process

Use our online configuration tool or send your request/order to easyJaw@de.schunk.com

Sizes
160 .. 1,000

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

Delivery time
depending on jaw type
1 – max. 3 weeks

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

schunk.com/easy-jaw

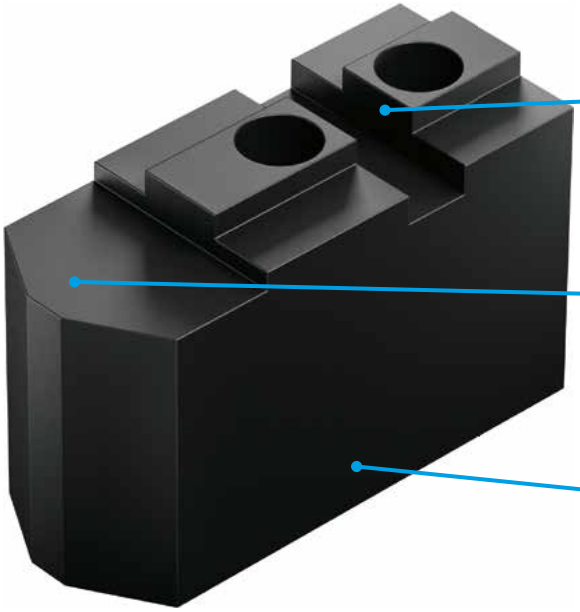
1. **Interface**
   Flexible configuration for fine serration and tongue and groove
2. **Material**
   For soft jaws – steel or aluminum on customer request
3. **Clamping contour**
   Customized clamping surface and clamping range
4. **Chuck jaw geometry**
   Height, width, and length freely configurable

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

SRKL und SRKL-AL
Soft jaws

with chamfer for clamping smallest workpiece diameters



Finely milled tongue and groove

ensures high repeat accuracy and above-average service life

Extended top jaw

enables workpiece diameters from 4 mm to be clamped

In steel and aluminum

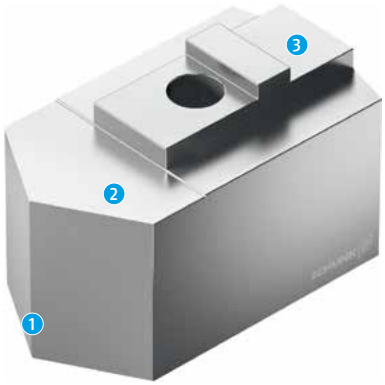
The weight-reduced aluminum version ensures lower centrifugal forces

Sizes
130 .. 165

Jaw interface
Tongue and groove

Material
Steel
Aluminum

schunk.com/srkl



1. **Chamfer 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 could be done flexibly and at short notice

Technical data

Description	ID	Serration	Width W [mm]	Height H [mm]	Height H2 [mm]	Length L [mm]	Bundle	Material	m/set [kg]	Min. workpiece diameter [mm]	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

EGU
Universal gripper

The most robust electric universal gripper on the market

Robust and reliable

In sealed design and with proven sliding guidance especially suitable for the harsh ambient conditions of machine loading

Minimal integration effort

due to a wide range of communication interfaces, and PLC function blocks, robot plug-ins are compatible to the leading manufactures on the market

Versatile and productive

due to the large and freely programmable jaw stroke with continuous gripping force adjustment for flexible workpiece handling

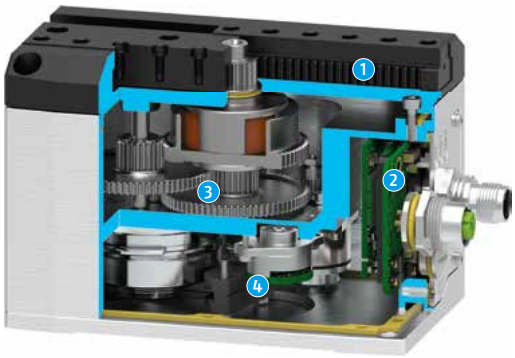
Sizes
50 .. 80

Weight
1.49 .. 7.72 kg

Gripping force
150 .. 3,000 N

Stroke per jaw
51 .. 80 mm

schunk.com/egu



1. **Sturdy and resistant T-slot guidance**
for long finger lengths, external forces and moments. Optionally available as a dust-tight version

2. **Fully integrated and sealed control and power electronics**
with status LEDs and connection for voltage supply and communication

3. **High-resolution, output-side absolute encoder**
for precise positioning of the gripper jaws with permanent absolute position feedback

4. **Sealed drive train with BLDC flat motor, spur gear and pinion/rack principle**
for a constantly acting gripping force over the entire finger length, without a minimum approach distance, with an additional mechanism for gripping force and position maintenance

Technical data

Size	Stroke per jaw [mm]	Min. gripping force [N]	Max. gripping force [N]	Max. permissible finger length [mm]	Weight [kg]
50	51	150	450	80	1.49
60	60	325	975	125	2.90
70	70	650	1950	160	4.52
80	80	1000	3000	200	7.72

EGK
Gripper for small components

Electric gripper for small components for maximum process reliability

Reliable and sensitive

Particularly suitable for the requirements of laboratory automation and electronics production due to the sealed design and smooth-running profiled rail guide

Minimal integration effort

due to a wide range of communication interfaces, and PLC function blocks, robot plug-ins are compatible to the leading manufactures on the market

Versatile and productive

due to the large and freely programmable jaw stroke with continuous gripping force adjustment for flexible workpiece handling

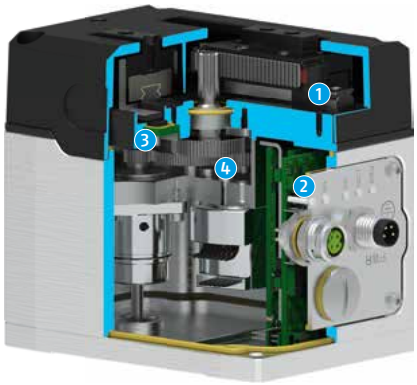
Sizes
25 .. 50

Weight
0.62 .. 1.63 kg

Gripping force
20 .. 300 N

Stroke per jaw
26.5 .. 51.5 mm

schunk.com/egk



1. **Smooth profiled rail guidance**
with stainless steel face seal and food-compliant lubrication

2. **Fully integrated and sealed control and power electronics**
with status LEDs and connection for voltage supply and communication

3. **High-resolution, output-side absolute encoder**
for precise positioning of the gripper jaws with permanent absolute position feedback

4. **Sealed drive train with BLDC flat motor, spur gear and pinion/rack principle**
for a constantly acting gripping force over the entire finger length, without a minimum approach distance, with an additional mechanism for gripping force and position maintenance

Technical data

Size	Stroke per jaw [mm]	Min. gripping force [N]	Max. gripping force [N]	Max. permissible finger length [mm]	Weight [kg]
25	26.5	20	50	70	0.62
40	41.,5	50	150	100	1.02
50	51.5	150	300	130	1.63

PGL-plus-P
Universal gripper

The world's first pneumatic gripper with secure and certified gripping force maintenance.

Secure, certified gripping force maintenance, GripGuard

holds the gripped workpiece safely and also ensures a permanent gripping force of min. 80% in case of pressure drop. It also ensures that no dangerous, spontaneous jaw movements can occur in the event of a pressure drop

Integrated sensor system

for precise and process-reliable monitoring of the complete gripper stroke via IO-Link

Long jaw stroke

enables flexible handling of a wide range of parts

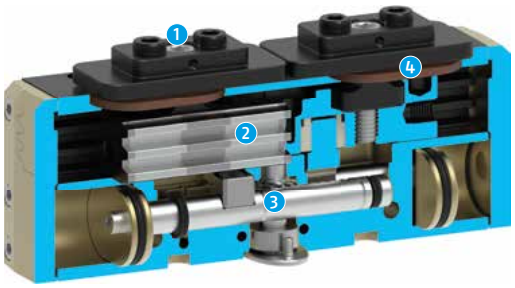
Sizes
10 .. 25

Weight
0.46 .. 5.1 kg

Gripping force
220 .. 1,300 N

Stroke per jaw
10 .. 25 mm

Workpiece weight
1.1 .. 6.5 kg



1. **Base jaw**
with standardized screw connection diagram for the adaptation of the workpiece-specific gripper fingers. The centering sleeves are attached so that they cannot be lost when exchanging fingers

schunk.com/pgl-plus-p

2. **Multi-tooth guidance**
Maximum service life due to lubricant pockets in the robust multi-tooth guidance, and absorption of high forces and torques by means of the large guidance support

3. **Pneumatical drive piston and kinematics**
Maximum power generation through two oval pneumatic pistons. The gear rack-and-pinion kinematics ensure synchronization of the base jaws and centric clamping

4. **Dust cover**
The entire circumference of the gripper is encapsulated with metal and additionally sealed with a lip seal at the base jaws so that it is suitable for universal use, even in dirty environments.

Technical data

Size	Stroke per jaw [mm]	Closing force [N]	Opening force [N]	Recommended workpiece weight [kg]	Weight [kg]	Max. permissible finger length [mm]
10	10	220	220	1.1	0.46	100
13	13	350	350	1.8	0.8	130
16	16	550	550	2.8	1.4	160
20	20	870	870	4.4	2.7	210
25	25	1300	1300	6.5	5.1	260

MPG-plus with protective cover
Gripper for small components

The most powerful pneumatic miniature parallel gripper on the market

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

Cross roller guide

for precise gripping due to a clearance-free base jaw guidance

Base jaws guided on double roller bearings

ensuring low friction and smoothly running

Sizes
25 .. 40

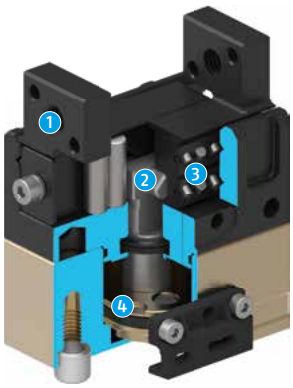
Weight
0.06 .. 0.33 kg

Gripping force
38 .. 170 N

Stroke per jaw
3 .. 6 mm

Workpiece weight
0.19 .. 0.7 kg

schunk.com/mpg-plus



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 guide**
Precise gripping due to clearance-free base jaw guidance

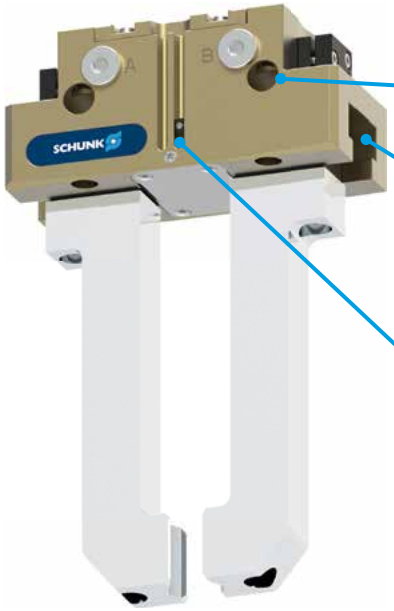
4. **Oval piston drive**
for power generation

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 – also inductive



A firm focus on the essentials

for maximum profitability

Sturdy T-slot guidance

for precise handling of different workpieces

Comprehensive sensor accessory program

for versatile querying possibilities and stroke position monitoring

Sizes
40 .. 300

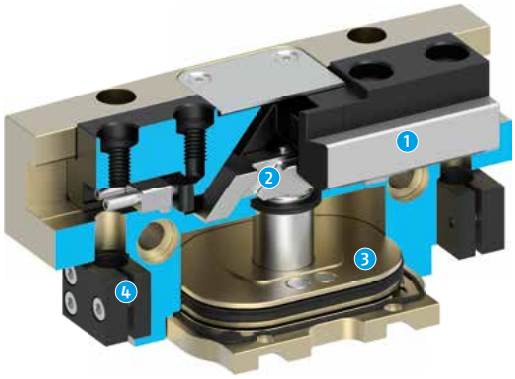
Weight
0.08 .. 17.2 kg

Gripping force
180 .. 8,200 N

Stroke per jaw
2.5 .. 35 mm

Workpiece weight
0.9 .. 33 kg

schunk.com/jgp-p



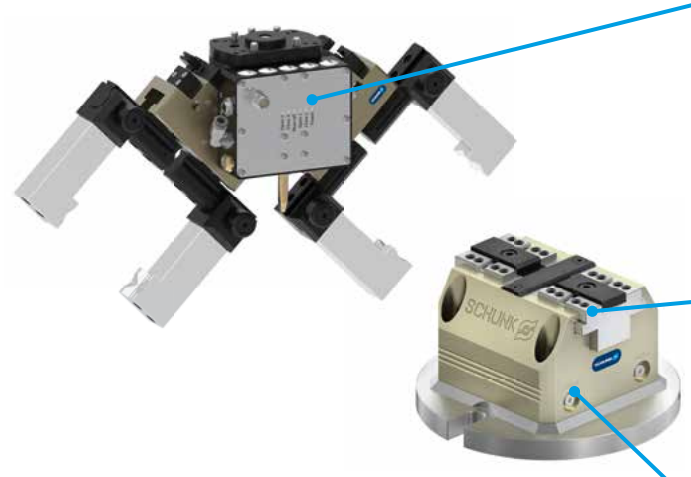
1. **T-slot guidance**
   Loadable, robust base jaw guidance for long gripper finger lengths
2. **Wedge-hook design**
   for high power transmission and minimal wear as a result of larger diagonal pull surfaces
3. **Piston**
   Maximum force through maximum surface of drive piston
4. **Bracket for sensor system**
   Brackets for proximity switches and adjustable control cams in the housing

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

MTB
Application kit

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.

Stress relief for employees

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

Variants
5

Supported robots

Universal Robots
e-Series

FANUC CRX

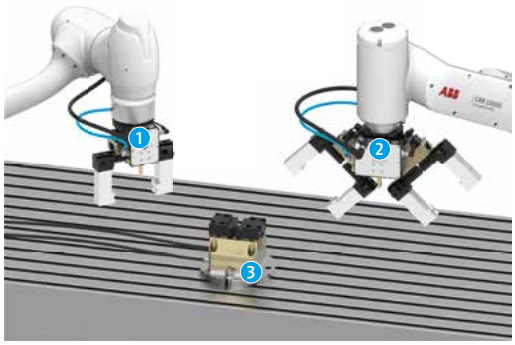
ABB GoFA

Doosan Robotics
A-SERIES
M-SERIES
H-SERIES

Techman Robot

OMRON TM

schunk.com/mtb



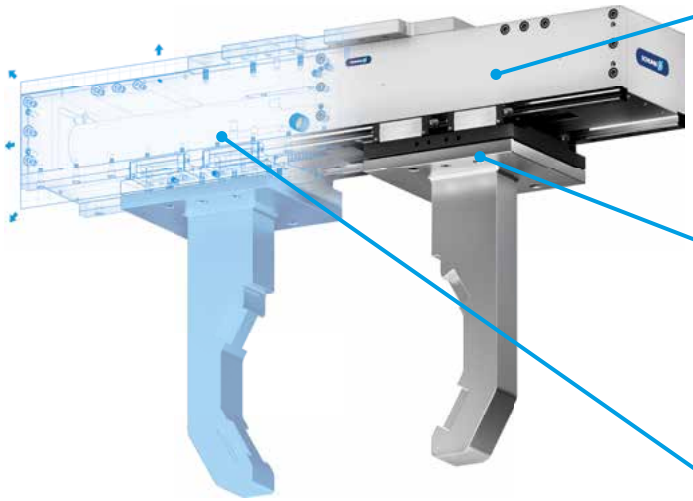
1. **Single gripper**
   Perfect for use in confined spaces
2. **Double gripper**
   Increased machine productivity due to loading and unloading in just one cycle
3. **Clamping force block**
   Reliable holding of the workpiece during machining

Technical data

Description	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
Clamping force block PGS3 100	2	5			

PLG
Customized and configurable long-stroke gripper

The pneumatic gripper for large workpieces with configurable stroke accurate to the millimeter



Reduced design effort

Simple and fast construction of individual long-stroke grippers via the web tool

High level of flexibility

due to long jaw stroke and high gripping force

Application specific standard gripper

through diverse variants and options and individual configuration

Sizes
20 .. 120

Weight
19.03 .. 137.7 kg

Gripping force
1,650 .. 11,650 N

Stroke min.
100 mm

Stroke max.
400 mm

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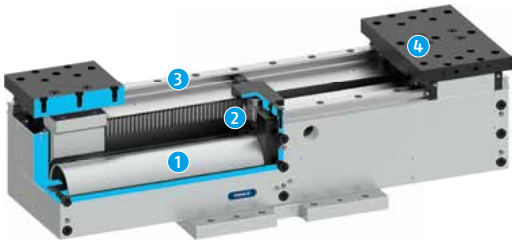


1. **Drive**
   Two double-actuated pneumatic cylinders
2. **Kinematics**
   Pinion and rack principle for centric clamping, even at large strokes
3. **Profiled rail guide**
   Highly loadable, nearly backlash-free base jaw guidance for long finger lenght
4. **Base jaw**
   for the connection of workpiece-specific gripper fingers

Technical data

Size	Stroke min. [mm]	Stroke max. [mm]	Closing force [N]	Opening force [N]	Recommended workpiece weight [kg]	Weight [kg]	Max. permissible finger length [mm]
20	100	400	1650	2000	8.25	19.03 .. 26.63	330 .. 800
30	100	400	3000	3350	15	27.46 .. 40.58	350 .. 800
50	100	400	4750	5100	23.75	42.22 .. 61.1	365 .. 800
75	100	400	7500	8000	37.5	62 .. 88.75	240 .. 800
120	100	400	11650	12500	58.25	94.6 .. 137.7	280 .. 800

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 production of gripper fingers

Immediate display of price and delivery time

enables shortest request and order processes

Suitable series

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

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

Now with online and easily:

schunk.com/fgr

ADHESO
Adhesive gripper

The new gripping technology inspired by nature and ensures energy-efficient gripping without residues

Der Innovationspreis für Klima und Umwelt 2022
Preisträger

Energy-efficient gripping

without additional hoses and wiring

Residue-free gripping

without residue on the gripping object

Customized gripping unit

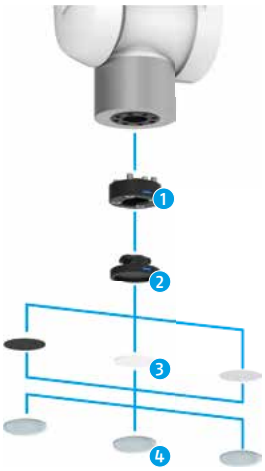
can be customized for any customer application on request

Sizes
G-3 .. G-16

Weight
20.5 .. 54.6 g

Workpiece weight
3 .. 16 kg

Diameter
24 .. 56 mm



1. **Robot adapter**
individually adaptable to different robots flanges
2. **Pad bracket**
available in four standard sizes
3. **Foam**
in various degrees of hardness to compensate for unevenness, thereby increasing the contact surface
4. **Adhesive structure**
can be customized for any customer application on request

schunk.com/adheso

Technical data

Size	Pad diameter [mm]	Weight [g]	Max. workpiece weight [kg]	Change interval for pads [million cycles]
G-3	24	20.5	3	1.5
G-5	32	28.4	5	1.5
G-10	44	39.5	10	1.5
G-16	56	54.6	16	1.5

EMH
Magnetic gripper

The first compact electro-permanent magnetic gripper with integrated electronics

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

Integrated electronics

Compact design, as no additional controller is required

High holding forces at lowest space

for reliable part handling in compact machines

Sizes
6

Weight
1 .. 8 kg

Max. workpiece weight
70 kg

Max. magnetic surface
81.97 cm²

1. **Electronic control unit**
   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

schunk.com/emh

Technical data

Size	Weight [kg]	Payload for horizontal magnet 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

Co-act EGP-C

Collaborative gripper for small components

The world's first certified industrial gripper for collaborative operations

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

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

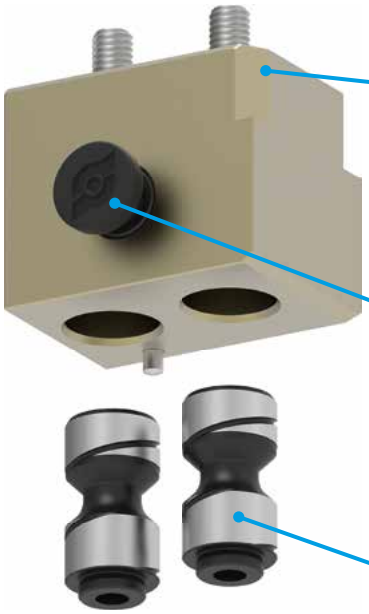
1. **Collision protective cover**
2. **Gripper for small components EGP**
3. **LED light band**
   for status display
4. **Integrated sensor system**
   to monitor the jaw position

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

BSWS-M
Jaw quick-change system

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



Universal application possibilities

By using the BSWS-M, just one single gripper is necessary for various applications

Tool-free jaw change via the unlocking button

Quick and easy for highly flexible grippers

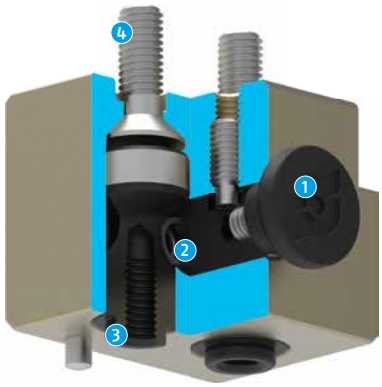
Saving time when converting applications

Different workpieces can be handled by exchanging the gripper fingers

Sizes
50 .. 200

Weight
0.002 .. 1.67 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. **Fastened with screws**
   for fastening to 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

FT-AXIA
Force/torque sensor

Attractively priced, compact force/torque sensor with integrated electronics

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

F

Force measurement range
±1,000 .. ±6,000 N

M

Moment measurement range
±50 .. ±300 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

		FT-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]	±1000/±2000	±2000/±4000	±4000/±6000
Range of measurement M_x, M_y/M_z	[Nm]	±50/±50	±125/±125	±300/±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 Ø D x 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.

R·E MENDO AOV
Orbital sander tool

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

Compensation can be adjusted by means of a double-action pneumatic cylinder

for a constant contact pressure 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

Size
10

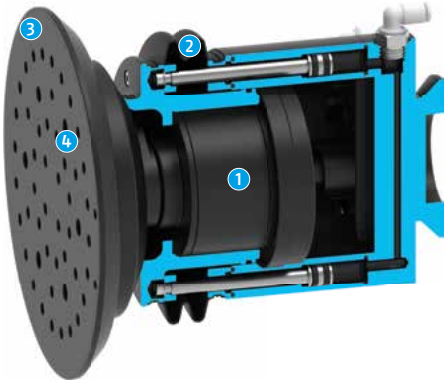
Speed max.
10,000 RPM

Max. extension compensation force
66.7 N

Max. retraction compensation force
33.3 N

Compensation path Z
12.7 mm

schunk.com/aov



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

Technical data

Size	Grinding disk size	Compensation path Z [mm]	Min. extension compensation force [N]	Max. extension compensation force [N]	Idle speed [min⁻¹]	Weight [kg]
10	125 mm (5'') .. 150 mm (6'')	12.7	13.3	66.7	10000	2.68

R·E MENDO CRT
File tool

Flexible, pneumatic deburring tool for narrow and tight workpiece geometries

Flexible use

on the robot arm or as a stationary unit

The compensation force can be adjusted by means of compressed air

for high-quality deburring results in any installation position

Use of proven files

for simple automation of manual deburring processes

Size
12

File stroke
5 mm

Number of idle running strokes
12,000 RPM

Compensation angle, radial
±1.8°

schunk.com/crt

1. **Tool holder**
   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

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·E MENDO MFT-R
Deburring spindle

The most robust polishing spindle with radial compensation on the market

Adjustable rigidity of the spindle via compressed air

for high-quality deburring results in any installation position

Flexible use

on the robot arm or as a stationary unit

Rotating piston air engine with high torque

for short stopping times and reduced processing times

Size
490

Speed max.
5,600 RPM

Power
390 W

Compensation angle, radial
±1.6°

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 collets

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]	Tool holder	Weight [kg]
490	390	5600	7.1	7.1	9.4	70	Collet DA 6 mm and 8 mm	4.42

R·E MENDO PCFC
Compensation unit

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

Compensation can be adjusted 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 pressure forces independent of the orientation of the tool, especially in robot-guided applications

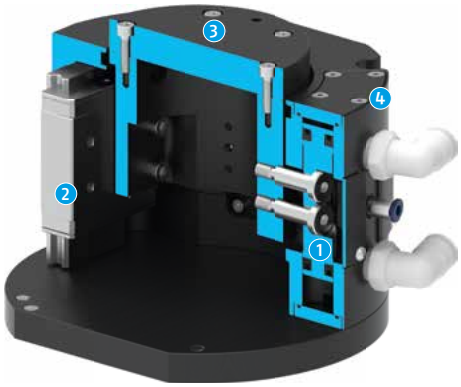
Size
12

Compensation path Z
12 mm

Max. extension compensation force
85 .. 240 N

Max. retraction compensation force
18 .. 49 N

schunk.com/pcfc



1. **Piston**
2. **Linear guidance**
3. **Mounting**
   for tool provided by customer
4. **Integrated path 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·E MENDO 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 the automatic exchange of different deburring tools

Use of proven deburring tools

for simple automation of manual deburring processes

Size
8

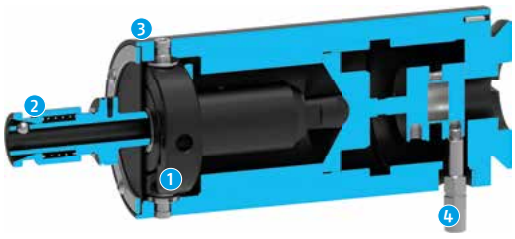
Max. radial compensation force
76 N

Max. axial compensation force
67 N

Compensation path Z
8 mm

Compensation angle, radial
±5.5°

schunk.com/cdb



1. **Gimballed system**
for robust and flexible absorption of forces and moments

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

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·E MENDO RCV
Deburring spindle

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

Flexible use

on the robot arm or as a stationary unit

The compensation force can be adjusted means of compressed air

for high-quality deburring results in any installation position

Vane-type air motor with high torque

for high feed rates and a reduced machining time

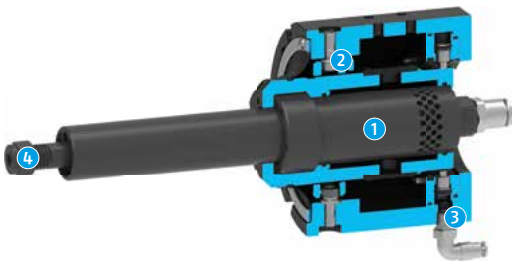
Sizes
250 .. 490

Speed max.
30,000 .. 40,000 RPM

Power
250 .. 490 W

Compensation angle, radial
±3°

schunk.com/rcv



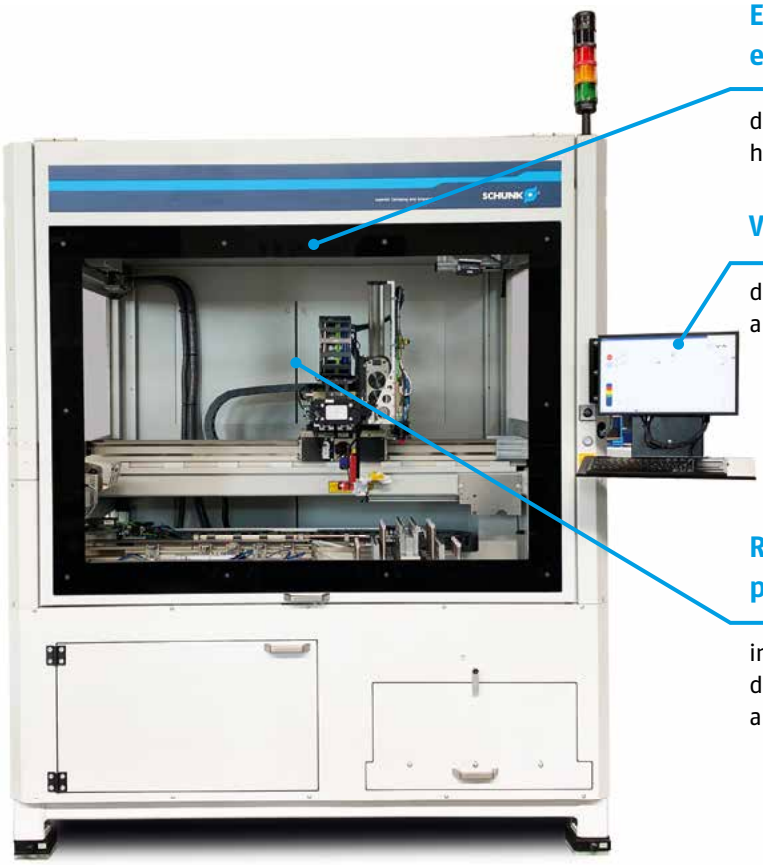
1. **Vane-type air motor**
   for a high torque and a short stopping time
2. **Gimballed system**
   for a robust compensation function
3. **Air connection**
   for adjusting the compliance force
4. **Tool holder**
   for ER-11 collets

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]	Tool holder	Weight [kg]
250	250	40000	7.1	7.1	9	54	Collet ER-11 6 mm and 8 mm	1.71
490	490	30000	8.3	8.3	7	53	Collet ER-11 6 mm and 8 mm	3.36

ILR-Compact
Inline depaneling machines

The economical, high-productivity depaneling machine



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-series 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

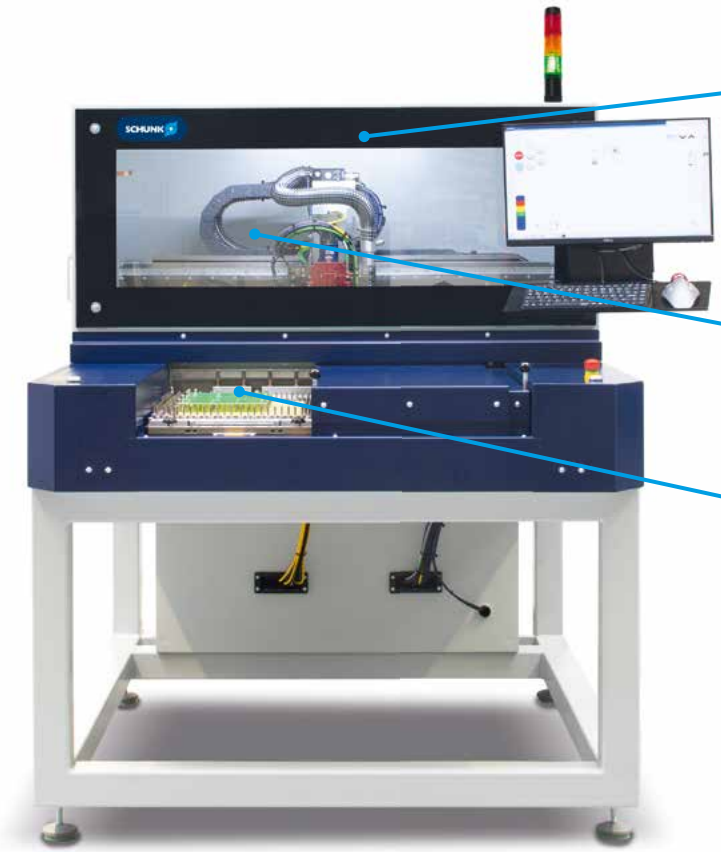
schunk.com/depaneling-machine

Technical data

Length/width/height [mm]	Depaneling in-height [mm]	X-, Y- linear motor axes [mm/s]	Z-axis Linear motor axis [mm/s]	Repeat accuracy/ 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	±0.02/±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

Robust, reliable and precise

due to high milling accuracy and availability

Versatile and productive

due to modular design, flexible workpiece carriers and connectivity to MES systems

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

Technical data

Length/width/height [mm]	Operator height [mm]	X-, Y- linear motor axes [mm/s]	Z-axis Linear motor axis [mm/s]	Repeat accuracy/ 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	±0.02/±0.02	±0.15	±0.10	430 x 350

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