

Second half of 2023



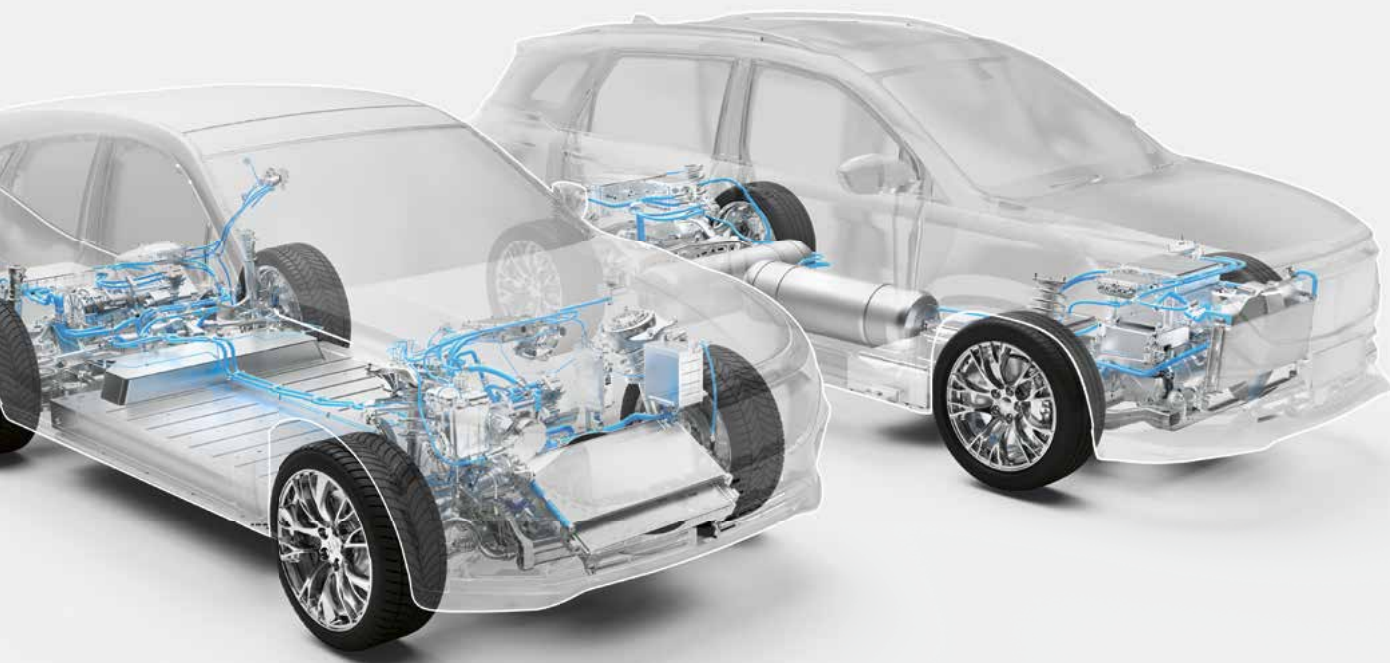
New products and innovations

Toolholding and Workholding
Gripping Technology
Automation Technology
Depaneling Technology

Hand in hand for tomorrow



E-Mobility



Driving your change

Shape your transition to electromobility with us. Use the clever combination of our standard components, we always find an individually suitable solution for you.

You will benefit from our many years of engineering know-how in the industry. SCHUNK products are already known by all well-known automotive manufacturers and their suppliers. This accelerates integration into new process chains enormously and keeps you in the fast lane from the very beginning when switching to e-mobility.



[schunk.com/
e-mobility](https://www.schunk.com/e-mobility)



Hydraulic expansion arbor

Clamping of stators via special hydraulic expansion technology for outside machining



Gripping module for battery packs

Electric long-stroke gripper with compensation unit for high workpiece weights



Quick-change pallet system

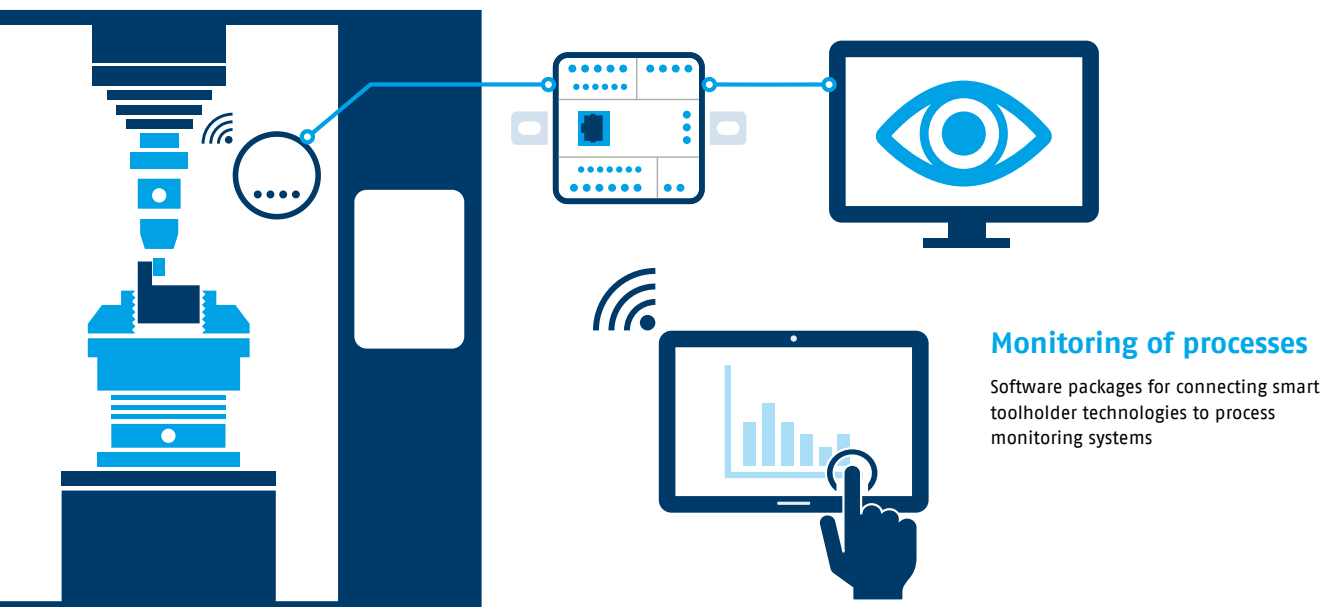
For fixing fuel cell stacks on the test bench

Connectivity

Networking machines intelligently

Networked production already starts on a small scale, with the component. Smart manufacturing components make a significant contribution to efficient, more sustainable and transparent processes.

At SCHUNK you will receive a variety of actuator and sensory clamping systems, flexible grippers with intelligent connection, and smart automation components. Just contact us. We are happy to help you to make your production fit for the future.



Mechanically gripping

Gripper with flexible and easy connection with robot and machine control units



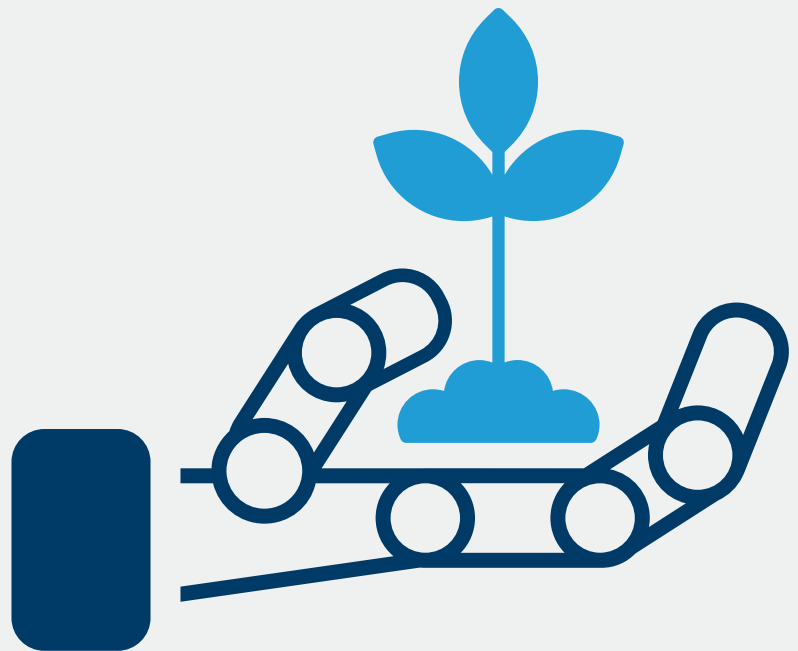
Quick-change pallet system

with integrated sensor system for reliable automation



Clamping force block

with integrated sensor system for process monitoring



Sustainability

Reduce consumption and save costs

Energy and resource-saving processes are a prerequisite for sustainable production. The key is reducing consumption. SCHUNK offers suitable components for this that can be used for managing production tasks more environmentally friendly.

In addition to innovative gripping technology without external energy supply, toolholders with modern hydraulic expansion technology also help to meet savings targets. Moreover, our advanced lathe chucks impress with long maintenance intervals and low lubricant consumption.



Innovative gripping technology

Energy-efficient gripping without additional energy supply due to adhesive forces inspired by nature



Modern tool clamping

Tool clamping without energy consumption using hydraulic expansion technology



Advanced lathe chucks

Resource-saving clamping of work pieces by reducing weight, lower set-up times and minimal maintenance effort

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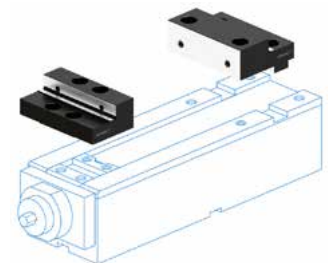
Discover our top novelties:



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Hydraulic expansion toolholder

For a price-attractive entry into hydraulic expansion technology



1 Clamping screw

The clamping screw is used to actuate the clamping piston

2 Clamping piston

The clamping piston compresses the hydraulic medium into the chamber system

3 Sealing element

Special sealing for leakage-free clamping

4 Expansion sleeve

The expansion sleeve evenly expands against the tool shank

5 Chamber system

It has a damping effect on the clamped tool

6 Base body

With machine interface

7 Tool

Maximum run-out and repeat accuracy
< 0.003 mm

+ All commercially available tool shank types can be clamped

Form A: with smooth cylindrical shank, shank form A in accordance with DIN 1835 and DIN 6585 HA Form AB: with flat face and cylindrical shank with pulling face, Shank Form B in accordance with DIN 1835 and DIN 6535 HB Form B: with lateral pulling faces, Shank Form B in accordance with DIN 1835 Form E: with inclined clamping face, Shank Form E in accordance with DIN 1835 and DIN 6535

+ Fine-balanced by default

Suitable for high speeds with a balancing grade of G2.5 at 25,000 RPM

+ 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



Interfaces

CAT 40
CAT 50
HSK-A 63
HSK-A 100
SK 40
SK 50
JIS-BT 30
JIS-BT 40
JIS-BT 50



Run-out accuracy
≤ 3 μ



Min. torque
16 .. 650 Nm



Max. speed of rotation
25000 .. 50000 RPM



Diameter
6 .. 32 mm
1/4 .. 1 1/4 "

schunk.com/tendosilver

Technical data

Series	Clamping diameter [mm/inch]	Run-out accuracy	Min. torque [Nm]	Bore hole for data carriers
TENDO Silver CAT 40	6 .. 20 / 1/4" .. 3/4"	< 0.003 mm at 2.5 x D	16 .. 330	Standard
TENDO Silver CAT 40 L1=4"	6 .. 32 / 1/4" .. 1 1/4"	< 0.003 mm at 2.5 x D	16 .. 650	Standard
TENDO Silver CAT 50	12 .. 32 / 1 1/4"	< 0.003 mm at 2.5 x D	90 .. 650	Standard
TENDO Silver HSK-A 63	6 .. 32	< 0.003 mm at 2.5 x D	16 .. 650	in accordance with DIN 69873
TENDO Silver HSK-A 100	6 .. 32	< 0.003 mm at 2.5 x D	16 .. 650	in accordance with DIN 69873
TENDO Silver SK 40	6 .. 32	< 0.003 mm at 2.5 x D	23 .. 650	Optional
TENDO Silver SK 50	12 .. 32	< 0.003 mm at 2.5 x D	90 .. 650	Optional
TENDO Silver JIS-BT 30	6 .. 20	< 0.003 mm at 2.5 x D	16 .. 330	Optional
TENDO Silver JIS-BT 40	6 .. 32	< 0.003 mm at 2.5 x D	16 .. 650	Optional
TENDO Silver JIS-BT 50	12 .. 32	< 0.003 mm at 2.5 x D	90 .. 650	Optional

Configurator for toolholders

Fast, online and customized



+ Flexible configuration

Individual adaption to geometries, selection of the clamping diameter, machine interface, with or without data carrier chip and peripheral cooling

+ 3D data in real time

View and download the configuration in different formats in real time

+ Simple inquiry and order process 24/7

Inquiries and orders directly via the configurator. Price and delivery time are calculated directly



Available interfaces

HSK-A 40
HSK-A 50
HSK-A 63
HSK-A 100
HSK-C 40
HSK-C 50
HSK-A 63



Diameter

6 .. 32 mm
1/4 .. 1 1/4 "



Component lengths

HSK 40: L1 max. 120
HSK 50: L1 max. 150
HSK 63: L1 max. 200
HSK 100: L1 max. 250



Delivery time
Depending on configuration as of 30 days

1 Machine interface

Flexible configuration for most common interfaces

2 Option Zero

For optimally adjustable run-out accuracy

3 Clamping diameter

Individual selection of the clamping diameter for various clamping tasks

4 Data carrier chip

For direct, clear assignment of tool and process data, available in 4 versions

5 Peripheral cooling

For optimized coolant emission

6 Various lengths

For interfering contour optimized processes



schunk.com/easytoolholder

Technical data

Series	Clamping diameter [mm/inch]	Maximum projecting length (L1) [mm]	Long slim toolholder Ø [mm] *	Max. clamping depth [mm] *	Bore hole for data carriers	Option Zero (adjustment of the run-out accuracy) possible for	Option Cool-Flow
HSK-A 40	6 .. 20	120	up to 121	up to 115	in accordance with DIN 69873	Clamping Ø 8 - 20	configurable
HSK-A 50	6 .. 20	150	up to 119	up to 115	in accordance with DIN 69873	Clamping Ø 8 - 18	configurable
HSK-A 63	6 .. 32 / 1/4" .. 1 1/4"	200	up to 141	up to 160	in accordance with DIN 69873	Clamping Ø 8 - 32 and Ø 3/8" - 1 1/4"	configurable
HSK-A 100	6 .. 32 / 1 1/4"	250	up to 143	up to 160	in accordance with DIN 69873	Clamping Ø 8 - 32 and Ø 1 1/4"	configurable
HSK-C 40	6 .. 12	120	up to 119	up to 115	Optional	Clamping Ø 8 - 12	configurable
HSK-C 50	6 .. 20	150	up to 117	up to 115	Optional	Clamping Ø 8 - 20	configurable
HSK-C 63	6 .. 32	200	up to 117	up to 160	Optional	Clamping Ø 8 - 32	configurable

*depending on the selected clamping Ø

Hydraulic expansion toolholder

The intelligent way to the optimum process



+ Intelligent real-time sensor system

Easy process monitoring and maximum service lives

+ Speeds of rotation of up to 30,000 RPM

Wide range of uses in many applications

+ 100% compatible

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 offer 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



iTENDO² packages

Package	Process transparency	Process optimization	Simple data interface	Wireless receiver	Process monitoring	Quality monitoring
iTENDO ² pad	•	•				
iTENDO ² easy connect	•	•	•	•		
iTENDO ² easy monitor	•	•	•	•	•	•



New interfaces
 HSK-A63 Ø 20x90
 HSK-A63 Ø 32x125
 HSK-A100 Ø 32x115
 BT30 Ø 20x90
 BT40 Ø 20x110
 SK40 Ø 20x110
 SK50 Ø 32x103.2
 CAT40 Ø 3/4x4"
 CAPTO C6 Ø 32x110



Battery service life
 10 h



Acceleration sensor
 100 G



Speed of rotation
 30000 RPM



Balancing grade
 G2.5 at 25000 RPM
 or $U_{max} < 1 \text{ gmm}$



External cooling/ internal cooling
 up to 80 bar

schunk.com/itendo2



i...T|E|N|D|O® easy connect Machine integration package

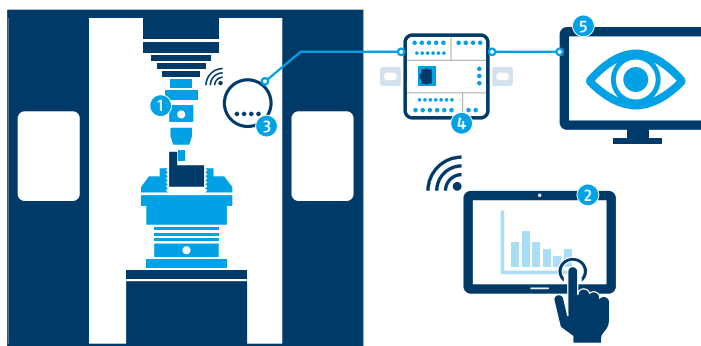
The easy connection of smart toolholder technology to your process monitoring system



- + Easy connection**
of the smart toolholder iTENDO² to the machine
- + Advanced data collection**
"closest to the part" for your existing system
- + High data quality**
by direct recording of process data on the last non-earable part

- 1 iTENDO²
- 2 iTENDO² pad
- 3 Wireless receiver
- 4 Connect Box
- 5 Connection to the existing process monitoring system

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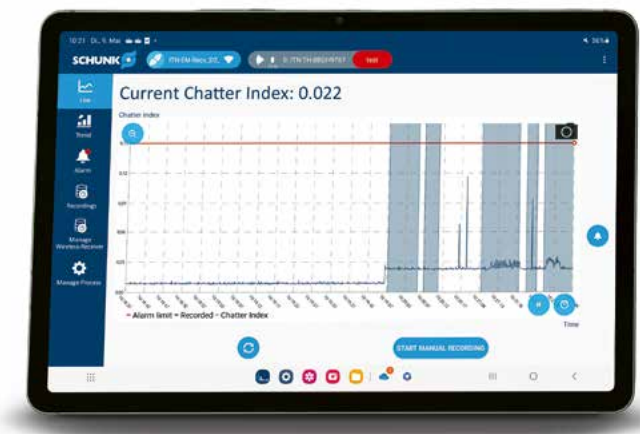
Technical data

Series	Analog output [V]	Data rate [Hz]	Memory locations	Digital outputs	Digital inputs
iTENDO² easy connect	0 – 10	100	64 (iTENDO² preselection)	1) System ready 2) iTENDO² connected 3) iTENDO² battery status	1) Memory selection 2) connect iTENDO²

iTENDO² easy monitor

Software extension

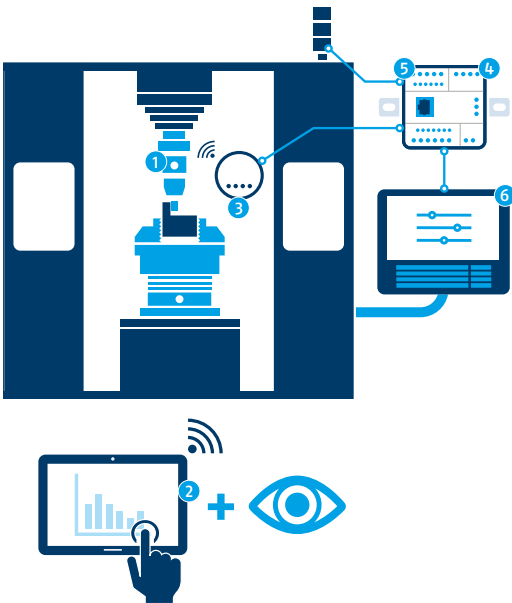
The simple, versatile monitoring for your process



- + Easy expansion**
for iTENDO² easy connect
- + High data quality**
by direct recording of process data on the last non-wearable part
- + Intuitive operability**
through a convenient user interface

- 1 iTENDO²
- 2 iTENDO² pad + easy monitor software extension
- 3 Wireless receiver
- 4 Connect Box
- 5 Monitoring trend limits and alarms
- 6 Integration into the machine control system

schunk.com/itendo2



Technical data

Series	Analog output [V]	Data rate [Hz]	Memory locations	Digital outputs	Digital inputs
iTENDO ² easy monitor	0 -10	100	64 (iTENDO ² preselection and setting the limits)	1) System ready 2) iTENDO ² connected 3) iTENDO ² battery status 4) Alarm limit 5) Upper trend limit 6) Lower trend limit	1) Memory selection 2) connect iTENDO ² 3) start process

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 within seconds without peripheral equipment

Time saving through set-up time reduction and no investment and 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
JIS-BT 30
SCHUNK CAPTO C6
SK 50

Run-out accuracy
 ≤ 0.003 mm at
 $2.5 \times D$

Min. torque
16 .. 330 Nm

Max. speed of rotation
30000 .. 50000 RPM

Diameter
6 .. 20 mm

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

Technical data

Series	Clamping diameter [mm]	Run-out accuracy	Min. torque [Nm]	Max. speed of rotation [RPM]	Admiss. radial force [N]	MQL (Minimal Quantity Lubrication)	Hole for Data carrier
HSK-A 63	$\emptyset 6 - \emptyset 20$	≤ 0.003 mm at $2.5 \times D$	16 - 330	30000 - 50000	113-1490	Yes	Standard
HSK-A 100	$\emptyset 6 - \emptyset 20$	≤ 0.003 mm at $2.5 \times D$	16-330	30000 - 50000	113 - 1490	Yes	Standard
SK 40	$\emptyset 6 - \emptyset 20$	≤ 0.003 mm at $2.5 \times D$	16 - 330	30000 - 50000	113 - 1490		Optional
SK 50	$\emptyset 6 - \emptyset 20$	≤ 0.003 mm at $2.5 \times D$	16 - 330	30000 - 50000	113 -		Optional
JIS-BT 30	$\emptyset 6 - \emptyset 20$	≤ 0.003 mm at $2.5 \times D$	16 - 330	30000 - 50000	113 - 1490		Optional
JIS-BT 40	$\emptyset 6 - \emptyset 20$	≤ 0.003 mm at $2.5 \times D$	16 - 330	30000 - 50000	113 - 1490		Optional
SCHUNK CAPTO C6	$\emptyset 6 - \emptyset 20$	≤ 0.003 mm at $2.5 \times D$	16 - 330	30000 - 50000	113 - 1490		Optional
CAT 40*	$\emptyset 6 - \emptyset 20$	≤ 0.003 mm at $2.5 \times D$	16 - 330	30000 - 50000	113 - 1490		Optional

*CAT 40 version is also available with inch clamping diameter $1/4'' - 3/4''$

TRIBOS® – Mini SVL coolant-proof Polygonal extension

Optimized interfering contours and super-slim tool extension



+ Optimized interfering contour

ideal for bores on low-lying areas, such as in fixture construction

+ Coolant-proof

for use of tools with internal coolant supply with a pressure of up to 120 bar

+ Compatible with all conventional clamping systems

no matter whether in hydraulic expansion, heat shrinking, power or polygonal toolholders



Run-out accuracy
≤ 0.003 mm at 2.5 x D



Min. torque
1.5 .. 4.5 Nm



Max. speed of rotation
52000 RPM



Diameter
3 .. 6 mm 1/8"

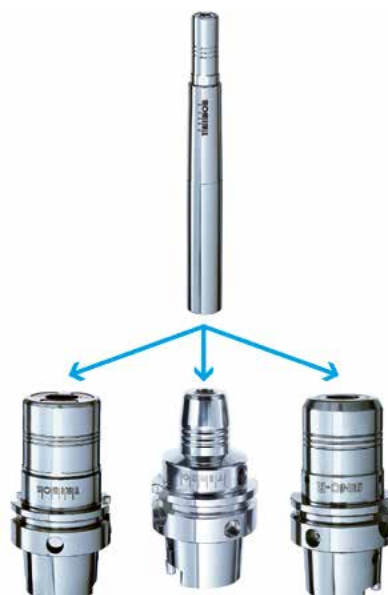
schunk.com/tribos-svl



+ Clamping diameter from 0.5 mm to 6 mm

+ For peripheral cooling or, new, as a coolant-proof version

+ Completely rotationally symmetric



Technical data

Series	Clamping diameter [mm or inch]	Run-out accuracy	Min. torque [Nm]	Max. speed of rotation [RPM]
TRIBOS-Mini SVL-12 Ø3x100 KD	3 mm	≤ 0.003 mm at 2.5 x D	1.5	52000
TRIBOS-Mini SVL-12 Ø4x100 KD	4 mm	≤ 0.003 mm at 2.5 x D	2.5	52000
TRIBOS-Mini SVL-12 Ø5x100 KD	5 mm	≤ 0.003 mm at 2.5 x D	3.5	52000
TRIBOS-Mini SVL-12 Ø6x100 KD	6 mm	≤ 0.005 mm at 2.5 x D	4.5	52000
TRIBOS-Mini SVL-12 Ø3.175x100 KD	1/8"	≤ 0.003 mm at 2.5 x D	1.5	52000

TRIBOS® -Mini & RM SVP Manual clamping devices

Clamping device for a faster, easy tool change for reduced set-up times in no time at all



+ No energy consumption

with integrated hydraulic system

+ Easy handling

by preset pressure

+ Ready for immediate use

no additional SREs are required

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



Run-out accuracy
≤ 0.003 mm at
2.5 x D



Min. torque
16 .. 330 Nm



Max. speed of rotation
30000 .. 50000
RPM



Diameter
6 .. 20 mm

+ Cost-effective entry into the TRIBOS system

+ Space-saving on or in the workbench

+ Actuation by screws on dead stop



[schunk.com/
tribos-svp](http://schunk.com/tribos-svp)



Technical data

Series	Weight [kg]
TRIBOS-Mini SVP Ø6.65	0.7
TRIBOS-Mini SVP Ø9	0.7
TRIBOS-RM SVP Ø14	5.6
TRIBOS-RM SVP Ø18	5.6
TRIBOS-RM SVP Ø20	5.6

VERO-S NSA3

Quick-change pallet systems

NEW GENERATION

Enhancing the tried-and-tested: Optimized for the modern requirements in pallet handling



+ Integrated monitoring and lifting function
Maximum process safety even with rough machining

+ Extremely flat design
For maximum utilization of the machine room

+ The modules are corrosion-free and completely sealed
Long service life and maximum process safety

Sizes
120 mm

Pull-down force
10 kN

Repeat accuracy
<0.005 mm

schunk.com/nsa3

- 1 Integrated cleaning function**
For cleaning the cone and contact surfaces of the clamping slide
- 2 Contact monitoring**
For monitoring the presence of the pallet and for cleaning the flat work surfaces
- 3 Completely sealed system**
Therefore absolutely maintenance-free
- 4 Turbo function**
To increase the pull-down forces



Technical data

Size	Pull-down force [kN]	Pull-down force with turbo [kN]	Repeat accuracy [mm]
NSA3 120	3	10	< 0.005

VERO-S NSR3 138

Standard robot module

Very high transferable moments for reliable pallet handling or the use as a quick-change unit for your robot



+ Form-fit self-retained locking

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

+ Sensor monitoring (optional)

Monitoring option for the clamping slide position and pallet-presence via AFS3-R IOL 138

+ Maintenance-free

Robust and sealed housing made of stainless steel



Sizes
138 mm



Pull-down force
8 .. 28 kN



Repeat accuracy
< 0.02 mm

schunk.com/nsr3



1 High strength

For reliable pallet handling even with high weights

2 Monitoring of the clamping slide position

Via AFS3-R possible

3 Patented dual stroke system

Between piston and clamping slide ensures for high pull-down forces

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

VERO-S NSE3 176

Quick-change pallet systems

Quick-change pallet system for general milling applications and heavy-duty machining with an even higher rigidity and higher pull-down forces



+ SCHUNK modular system

Innumerable combinations of standard clamping devices suitable for different types of machines

+ Optional sensor monitoring

For monitoring of the slider positions

+ Optional cone seal

For protecting the change interface from coolant, dust, and chips


Sizes
176 mm


Pull-down force
40 kN


Repeat accuracy
<0.005 mm

schunk.com/nse3



1 Patented dual stroke system

A patented dual stroke system between piston and clamping slide ensures maximum pull-down forces.

2 Completely sealed system

Therefore absolutely maintenance-free

3 Large flat surface

For best support and highest rigidity

4 Turbo function

To increase the pull-down forces



Technical data

Size	Pull-down force [kN]	Pull-down force with turbo [kN]	Repeat accuracy [mm]
NSE3 176	9	40	< 0.005

VERO-S AFS3 IOL / AFS3-R IOL

Monitoring segments



For optimal monitoring of the quick-change pallet systems:
Electric monitoring (opened, closed and pallet presence)



+ Adaptable to VERO-S NSE3 quick-change pallet systems

for NSE3 99, NSE3 138, NSE3 176, NSE3 100-75 and NSR3 138

+ Monitoring of the clamping slide position and pallet presence

for reliable automation

+ Signal transmission via IO-Link

easy integration in commonly used fieldbus systems



Series
NSE3 99
NSE3 100-75
NSE3 138
NSE3 176
NSR3 138

schunk.com/afs3



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



Technical data

Size	Pallet presence	Clamping slide position	Interface	Adaptable to	Pallet detection
AFS3 IOL 99	yes	yes	IO-Link	Module Ø 99	Steel, aluminum
AFS3 IOL 100-75	yes	yes	IO-Link	Module 100-75	Steel, aluminum
AFS3 IOL 138	yes	yes	IO-Link	Module Ø 138	Steel, aluminum
AFS3 IOL 176	yes	yes	IO-Link	Module Ø 176	Steel, aluminum
AFS3-R IOL 138	yes	yes	IO-Link	NSR3 138	Steel, aluminum

VERO-S Sensory clamping modules

Quick-change pallet systems



Integrated sensor system for detecting pallet presence and clamping position without additional interfering contour



+ Sensor system integrated in the quick-change pallet system

no additional interfering contour

+ For monitoring the clamping slide position and pallet presence

for reliable automation

+ Signal transmission via IO-Link

for easy integration in commonly used fieldbus systems



Sizes
90 .. 138 mm



Pull-down force
4 .. 28 kN



Supply voltage
24 V



Repeat accuracy
<0.005 mm

- 1 Integrated electronics and bottom-sided connection**
with IO-Link signal transmission
- 2 Monitoring 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	Actuation	Pull-down force [kN]	Pull-down force with turbo [kN]	Unlocking pressure [bar]	Integrated monitoring
NSE-E mini 90-25 IOL	Electromechanical	4			Clamping slide position, pallet presence
NSE-S3 138 IOL	Pneumatic	8	28	6	Turbo function, clamping slide position, pallet presence
NSE-S mini 90-25-IOL	Pneumatic	1.5	6	6	Turbo function, clamping slide position, pallet presence

VERO-S NSE3-PH 138 IOL

Quick-change pallet systems

NEW PRODUCT

Electromechanical quick-change pallet system with an unbeatable power density, installation-compatible with standard modules



+ Electric drive integrated in the module

Signal processing takes place exclusively in the quick-change pallet module

+ Monitoring of the clamping-slide position and pallet presence

for reliable automation

+ Control via IO-Link

for easy integration in commonly used fieldbus systems



Sizes
138 mm



Pull-down force
8 .. 20 kN



Holding force
clamping pin
35 .. 75 kN



Supply voltage
24 V



Repeat accuracy
< 0.005 mm

1 IO-Link interface

for simple integration in commonly used field bus 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 actuator

Ensured high pull-down forces in a small installation space



Technical data

Size	Pull-down force [kN]	Supply voltage [V]	Interface	Repeat accuracy [mm]	Suitable for clamping pins
NSE3-PH 138 IOL	8 .. 20	24	IO-Link (class B)	< 0.005	Size 40
NSE3-PH 138-V1 IOL	8 .. 20	24	IO-Link (class B)	< 0.005	Size 40

TANDEM® KSE3 IOL / KRE3 IOL

Clamping force blocks

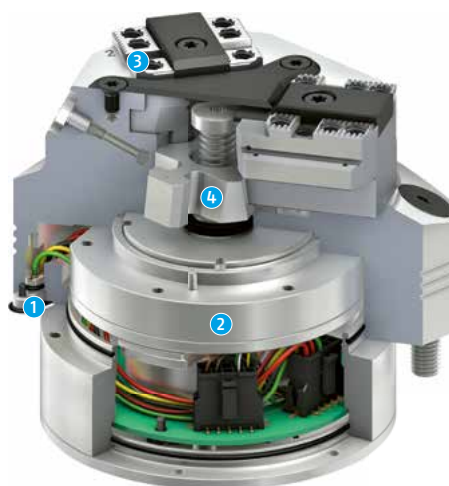


Electromechanical clamping force blocks with integrated electronics and IO-Link interface



- + Electric drive is 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 easy integration in commonly used fieldbus systems

- 1 Bottom-sided connection**
with IO-Link control
- 2 Motor gearbox combination**
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



Sizes
100 .. 160 mm

Power supply
24 V

Repeat accuracy
<0.01 mm

Stroke per jaw
2 .. 8 mm

Clamping force
8 .. 45 kN

Technical data

Series	Actuation method	Number of jaws	Sizes	Interface	Repeat accuracy [mm]
KSE3-IOL	Electromechanical	2	100, 140, 160	IO-Link	< 0.01
KRE3-IOL	Electromechanical	3	100, 160	IO-Link	< 0.01

TANDEM® KSP-S3 IOL / KSH-S3 IOL

Clamping force blocks



Clamping force blocks with integrated sensor system for process monitoring



- + Monitoring of the jaw position**
for optimized automation of processes
- + Pressure sensor for actuating pressure**
for monitoring the open or clamped statuses
- + Control via IO-Link**
for easy integration into conventional fieldbus systems

Sizes
100 .. 315 mm

F
Clamping force
8 .. 95 kN

S
Stroke per jaw
2 .. 18 mm

- 1 Bottom-sided connection**
with IO-Link control
- 2 Integrated pressure sensor**
for measuring the opening and closing pressure
- 3 Integrated path measuring**
for detecting the piston or jaw stroke
- 4 Modular system TANDEM3**
identical interfering contour over machine table



Technical data

Series	Actuation	Sizes	Pressure sensor for actuating pressure	Monitoring of the jaw position	Interface
KSP-S3 IOL	Pneumatic	100, 140, 160, 200, 250, 315	yes	yes	IO-Link
KSH-S3 IOL	Hydraulically	100, 140, 160, 200, 250, 315	yes	yes	IO-Link

TANDEM® KSP3-BWA / KSH3-BWA

Clamping force blocks

NEW PRODUCT

Clamping force blocks with jaw quick-change system for manual or automated jaw change



+ Jaw quick-change system

for faster and easy jaw change both manual and automated

+ Workpiece system control in the top jaw

enables automated loading of the clamping force block

+ Patented monitoring of the base jaw position via dynamic pressure

good to know, if the vise is opened or closed


Sizes
100 .. 250 mm


Number of versions
100


Clamping force
8 .. 75 kN


Stroke per jaw
2 .. 15 mm

[schunk.com/
tandem3-bwa](https://schunk.com/tandem3-bwa)

- 1 **Teach marking**
for teaching the robot and positioning of the jaw
- 2 **Lateral sealing**
for protection of the changing interface
- 3 **Wide stop face**
for optimal power transmission to the jaw
- 4 **Centering**
for the best repeat accuracy during jaw change



Technical data

Series	Actuation	Sizes	Clamping force amplification for O.D. clamping, optional	Workpiece presence control/air purge	Inductive jaw monitoring (optional)
KSP3-BWA	Pneumatic	100, 140, 160, 250	yes	yes	yes
KSH3-BWA	Hydraulically	100, 140, 160, 250	yes	yes	yes
KRP3-BWA	Pneumatic	160, 250	yes	yes	no
KRH3-BWA	Hydraulically	160, 250	yes	yes	no

MAGNOS QCS

Pole extension quick change

NEW PRODUCT

Pole extension quick change for increased flexibility in production



+ 100% compatible with all MAGNOS square pole plates

can be retrofitted on all magnetic chucks with pole size 50 x 50 mm



schunk.com/qcs

+ Tool-free positioning of the pole extensions by rotational movement

for significantly reduced set-up times

+ Convertibility of existing pole extensions

existing pole extensions can be converted to the quick-change system

1 Pole extension with quick-change system

for easy and fast change of the pole extension

2 Mounting screw

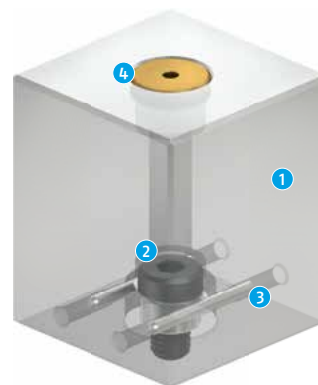
for screwing into the magnetic chuck

3 Cylindrical pins

for clamping the pole extension

4 Cover plate (optional)

for easy cleaning

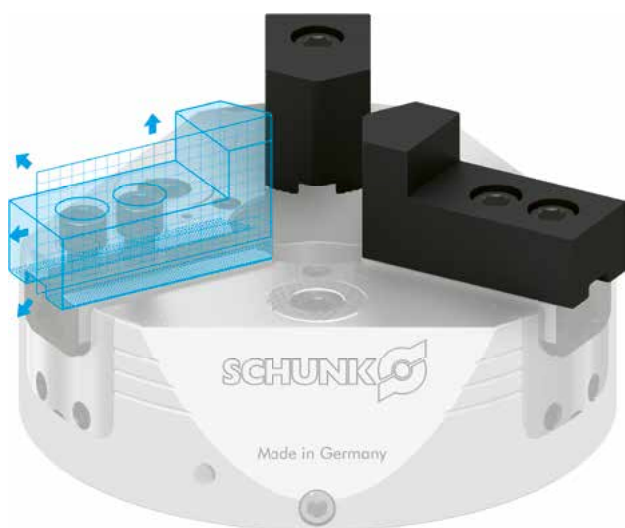


Technical data

Series	Type of pole	Quick-change system	Dimensions [mm]	For pole size [mm]
PVF 50-54 QCS	fixed	yes	45 x 45 x 54	50 x 50
PVF 50-32 QCS	fixed	yes	50 x 50 x 32	50 x 50
PVB 50-54 QCS	movable	yes	47 x 45 x 54	50 x 50

easyJAW Chuck jaw configuration

Individual chuck jaws delivered
in 1 to max. 3 weeks



- 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



+ Flexible configuration
Of more than 500 standard versions using the easyJaw online configurator

+ Geometries of the jaws can be individually adapted
Derived from the respective standard variant, freely configurable

+ The simplest inquiry and ordering process
Use our online configuration tool or send your request/order to easyJaw@de.schunk.com

Sizes
160 .. 1000

New jaw types
RAPIDO
Intermediate jaws
Claw jaws

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

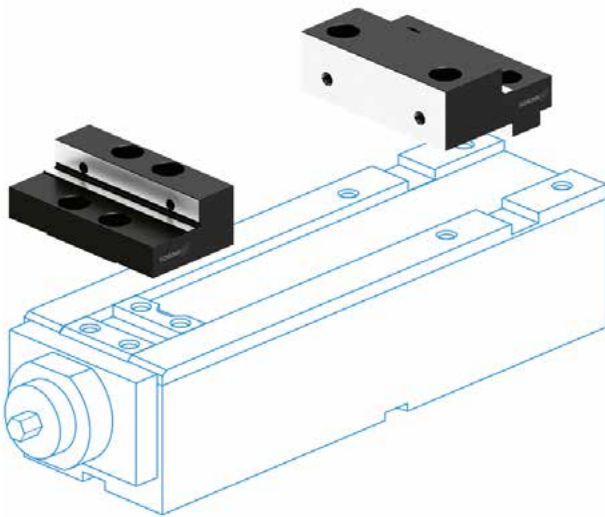
schunk.com/easyJaw

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
Intermediate jaws		modifiable	modifiable			
Full grip jaws	modifiable	modifiable	modifiable	modifiable		modifiable
Monoblock jaws			modifiable			modifiable
Claw jaws			modifiable		modifiable	modifiable
RAPIDO			modifiable			modifiable

Adapter jaws for machine vises

For the use of the SCHUNK top jaw portfolio on third-party vises



+ More flexibility
More diverse clamping options through access to the broadest standard portfolio

+ High savings potential
Attractively priced top jaw portfolio ensures fast amortization and reduces costs

+ Optimize set-up time
The quick-change function of SCHUNK top jaws speeds up the set-up process

Size
125

Number of versions
6

Supported systems
Allmatic
Atorn
Garant
Kesel
Roemheld
Röhm

schunk.com/adapterjaws



- 1 Plug & Work**
1:1 interchangeable with existing system jaws
- 2 SCHUNK jaw mounting**
For 32 appropriate SCHUNK top jaw types
- 3 Interface to third-party vise**
Compatible with machine vises of Allmatic, Atorn, Garant, Kesel, Röhm or Roemheld with a jaw width of 125 mm



Technical data

Description	ID	Jaw width [mm]	Type	Suitable for
SGAB-F 125-A	1511698	125	fixed	Allmatic NC8 125M/L
SGAB-B 125-A	1511699	125	movable	Garant Hipo Clamp 125 / LC 125, Kesel NCA 125
SGAB-F 125-B	1522411	125	fixed	Röhm RKE 125
SGAB-B 125-B	1522412	125	movable	Röhm RKE 125
SGAB-F 125-C	1541878	125	fixed	Roemheld Hilma KNC 125
SGAB-B 125-C	1541879	125	movable	Roemheld Hilma KNC 125

PGL-plus-P Universal gripper

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



1 Base jaw

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

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 pistons 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

+ 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 .. 7.9 kg



Gripping force
145 .. 1900 N

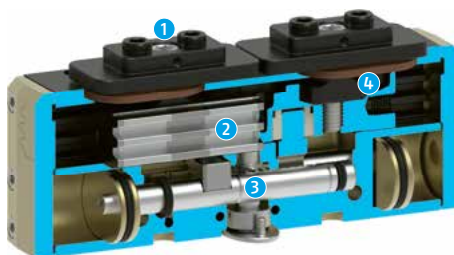


Stroke per jaw
10 .. 25 mm



Workpiece weight
0.72 .. 7 kg

[schunk.com/
pgl-plus-p](https://schunk.com/pgl-plus-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]
10	10	145 .. 295	145 .. 295	0.72 .. 1.1	0.46 .. 0.75	100
13	13	230 .. 475	230 .. 480	1.2 .. 1.8	0.8 .. 1.3	130
16	16	365 .. 750	365 .. 740	1.8 .. 2.8	1.4 .. 2.2	160
20	20	585 .. 1170	585 .. 1170	2.9 .. 4.4	2.7 .. 4.2	210
25	25	930 .. 1900	930 .. 1900	7	5.1 .. 7.9	260

PPD

Pneumatic positioning device

Positioning device for flexible control of pneumatic grippers



- + Free positioning of a pneumatic gripper**
enables cycle time optimization or collision avoidance by pre-positioning the gripper finger
- + Gripping force adjustability by adjusting the output pressure**
for gripping workpieces of different sensitivity
- + Adjustability of the gripper jaw speed**
for workpiece-friendly gripping due to the reduction of the gripping impulse

- 1 Pneumatic positioning device**
PPD
- 2 Pneumatic gripper**
PGL-plus-P-IOL
- 3 Position sensor**



Pneumatic positioning device

The pneumatic positioning device is an accessory for pneumatic grippers. Together with a position sensor, any positions of the gripper fingers can be approached in addition to the end positions (gripper open and gripper closed). Four integrated high-speed 2/2 valves together with the integrated electronics ensure a closed control loop. Communication takes place via IO-Link.

EGU Universal gripper

The robust electric universal gripper



+ Robust and reliable

with sealed design and proven guidance particularly suitable for the harsh ambient conditions of machine loading

+ Minimal integration effort

due to a wide range of communication interfaces, as well as PLC function blocks and robot plug-ins compatible with the leading manufacturers 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

m
Weight
1.49 .. 7.72 kg

F
Gripping force
150 .. 3000 N

S
Stroke per jaw
41 .. 80 mm

schunk.com/egu

1 Sturdy and resistant T-slot guidance

for large finger lengths, external forces and moments. Optionally available as dustproof version

2 Fully integrated and sealed control and power electronics

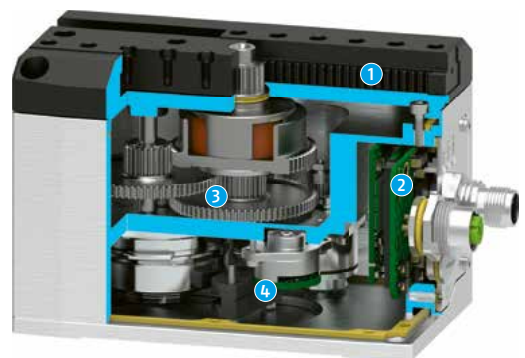
with status LEDs and M12 plug connectors for connecting the voltage supply and communication

3 High-resolution output-side absolute encoder

for precise positioning of the gripper jaws with permanent absolute position feedback

4 Sealed drive train with flat BLDC 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. admissible finger length [mm]	Weight [kg]
50	51	150	450	80	1.49
60	60	325	975	125	2.9
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 lab 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, as well as PLC function blocks and robot plug-ins compatible with the leading manufacturers on the market

+ Versatile and productive

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



Sizes
25 .. 50

m

Weight
0.62 .. 1.63 kg



Gripping force
20 .. 300 N

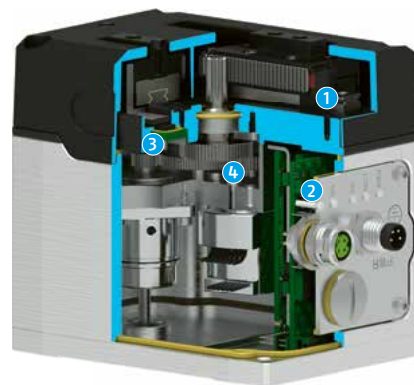


Stroke per jaw
26.5 .. 51.5 mm

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 connections for power 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 flat BLDC 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. admissible finger length [mm]	Weight [kg]
25	26.5	20	50	70	0.62
40	41.5	55	150	100	1.02
50	51.5	150	300	130	1.63

ELG

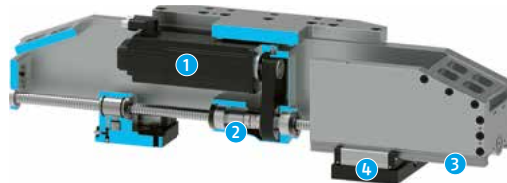
Customized and configurable long-stroke gripper

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



- + High level of flexibility**
due to long jaw stroke and high gripping force
- + Adaptable drive motor**
for versatile approach and easy integration into existing control concepts
- + Position and torque-controlled movement of the gripper**
for highly flexible gripping of various geometries and types of components

- 1 Drive**
servomotors from numerous manufacturers can be adapted
- 2 Kinematics**
high bearing load capacity and accuracy due to proven combination of ball screw and toothed belt
- 3 Profiled rail guide**
highly loadable, nearly backlash-free base jaw guidance for long finger lengths
- 4 Base jaw**
for the connection of workpiece-specific gripper fingers



Sizes
10 .. 120

m
Weight
8.03 .. 56.5 kg

F
Gripping force
1000 .. 12000 N

S
Min. stroke
100 mm

S
Max. stroke
300 .. 400 mm



Configure it
online now:

schunk.com/elg

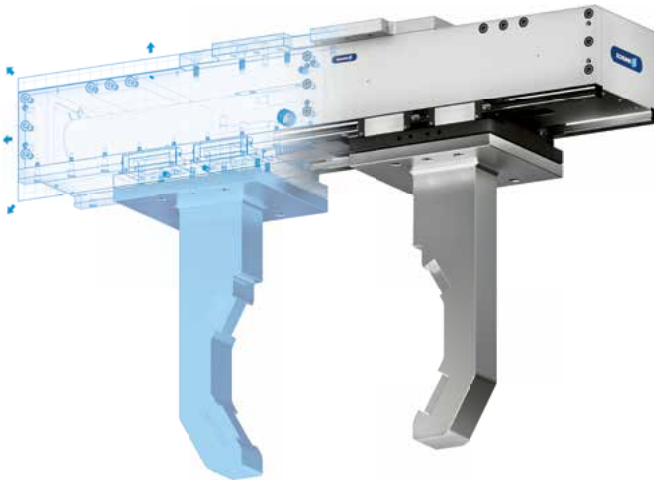
Technical data

Size	Min. stroke [mm]	Max. stroke [mm]	Gripping force [N]	Recommended workpiece weight [kg]	Weight [kg]	Max. permissible finger length [mm]
10	100	300	1000	5	8.03 .. 10.25	400 .. 800
30	100	400	3000	15	14.7 .. 20	400 .. 800
75	100	400	7500	37.5	24.5 .. 32.9	240 .. 800
120	100	400	12000	60	42 .. 56.5	300 .. 800

PLG

Customized and configurable long-stroke gripper

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



+ High level of flexibility
due to long jaw stroke and high gripping force

+ Application specific standard gripper
through diverse versions and options and individual configuration

+ Reduced design effort
simple and fast design of individual long-stroke grippers via the web tool

- 1 Drive**
two double-actuated pneumatic cylinders
- 2 Kinematics**
pinion and rack principle for centric clamping, even at long strokes
- 3 Profiled rail guide**
highly loadable, nearly backlash-free base jaw guidance for long finger lengths
- 4 Base jaw**
for adaption of workpiece-specific gripper fingers



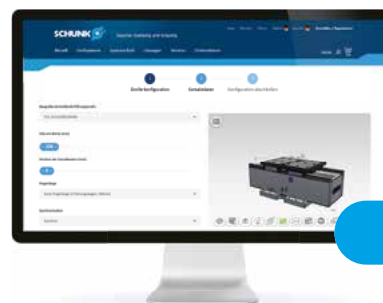
Sizes
20 .. 120

m
Weight
19.03 .. 137.7 kg

F
Gripping force
1650 .. 11650 N

S
Min. stroke
100 mm

S
Max. stroke
400 mm



Configure it
online now:

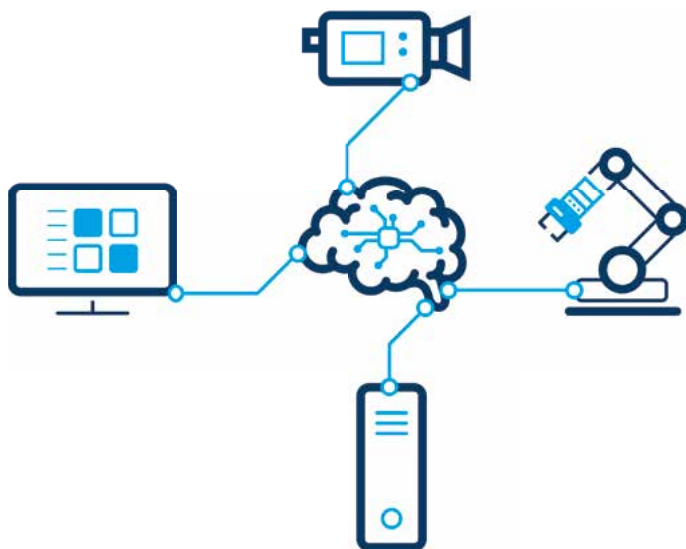
schunk.com/plg

Technical data

Size	Min. stroke [mm]	Max. stroke [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

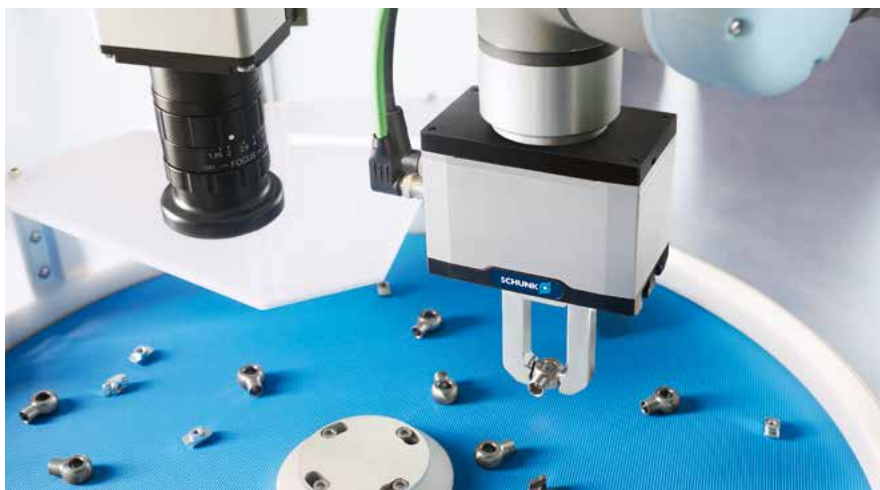
2D Grasping Kit Application kit

Intelligent application kit for vision-based gripping



- + Complete, perfectly attuned kit consisting of hardware, software, and service**
for minimum commissioning and configuration effort
- + Intelligent software**
software adapts itself and works even under "less than optimal" ambient conditions
- + Intuitive user interface of the software**
for easy configuration of the application without prior knowledge

schunk.com/vision

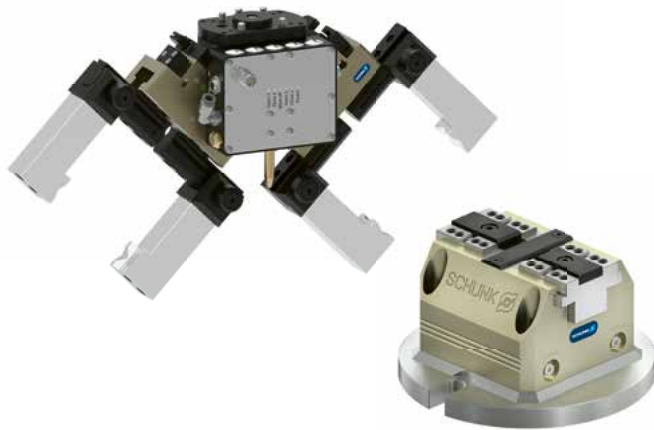


2D Grasping Kit

With the 2D Grasping Kit, users from many industries realize pick & place applications of randomly arranged parts on a single level – for example from a vibrating table, assembly line or load carrier. The metalworking industry, the automotive sector, companies in production engineering and logistics as well as from the life-science sector gain reliability, process precision and benefit from increasing their output using the kit – manual, error-prone handling thus becomes a thing of the past.

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

+ Relieve 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

schunk.com/mtb-kit

1 Single gripper

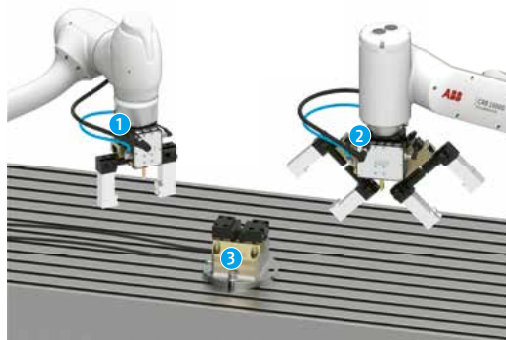
Perfect for use in confined spaces

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			

SLD

Linear direct axis

NEW PRODUCT

The dynamic axis all-rounder – perfectly tailored to your application.



+ Almost no wear parts

for long service life and reliability of the system

+ No mechanical play between the drive components,

for fast response behavior and high positioning accuracy

+ High basic load ratings

for high bearing load capacity and service life



Sizes
1 – 2



Max. stroke
5190 .. 5500
mm



Max. driving
force
300 .. 2400 N



Repeat accuracy
0.01 mm



Max. speed
5 m/s

- 1 **Extruded aluminum profile**
flat and weight-reduced
- 2 **Pre-loaded profiled rail guide with recirculating ball carriage**
for optimal guidance properties and speeds
- 3 **Integrated secondary parts**
with high power magnets
- 4 **Compact primary part slide**
with mounting surfaces, guidance adjusted without play and integrated measuring system



schunk.com/sld



Technical data

Size	Drive concept	Max. nominal stroke H [mm]	Max. driving force [N]	Max. speed [m/s]	Max. acceleration [m/s ²]
1	Linear direct drive	5190 .. 5500	300 .. 1200	5	100
2	Linear direct drive	5190 .. 5470	600 .. 2400	5	100

R-EMENDO RCE

Deburring spindle

Adjustable electric deburring spindle with wide speed range and radial compensation



+ Brushless electric motor

for high efficiency, long service life and adjustable speed of rotation for more flexibility

+ Variable speed control

for the flexible machining of different workpieces with different tools and only one electric deburring spindle

+ Adjustable rigidity of the tool via compressed air

for high-quality deburring results in any installation position



Sizes
230 .. 710



Max. speed
13000 .. 50000
RPM



Power
230 .. 710 W



Compensation
angle, radial
±1.8 .. 3°

schunk.com/rce



- 1 **Brushless electric motor**
with adjustable speed of rotation for versatile use and a long service life
- 2 **Gimballed system**
for a robust compensation function
- 3 **Tool holder**
for ER-11 collects
- 4 **Air connection**
for cooling the motor



Technical data

Size	Power [W]	Min. rotational speed [RPM]	Max. rotational speed [RPM]	Max. compensation X/Y [mm]	Max. compensation angle X/Y [°]	Min. radial compensation force [N]	Max. radial compensation force [N]	Tool holder	Weight [kg]
230	230	5000	50000	7.1	3	1.8	8.5	Collet ER-11 6 mm	1.7
710	710	1000	13000	4.6	1.8	24.5	80	Collet ER-11 6 mm and 8 mm	5.35

SWM-B Storage system

NEW PRODUCT

Compact design for minimal interfering contours
on storage station and tool

Standardized adapter plates
available for all suitable SWS sizes



Variants without locking
for simple, cost-sensitive applications



Variant with self-retained locking
for maximum safety and flexibility in the orientation and
position of the storage rack

- 1 **Locking**
via pistons with patented dual stroke system
- 2 **Piston drive via spring and pneumatics**
opening by pneumatic, closing by spring – for secure
locking, even in the event of a pressure drop
- 3 **Monitoring of tool presence**
optional, for higher process reliability
- 4 **Monitoring of locking status**
optional, for the positions "storage module open"
and "storage module locked"



schunk.com/swm-b



Technical data

Description	Version	Recommended SWS size	Installation position	Moment load Mx [Nm]	Tool presence monitoring	Monitoring locking
SWM-B 050	passive	005, 007, 011	horizontal	12	optional	
SWM-B 050-V	active	005, 007, 011	any	18	optional	optional
SWM-B 085	passive	020, 021, 022, 029, 040Q, 041, 046, 060, 071, 076	horizontal	100	optional	yes
SWM-B 085-V	active	020, 021, 022, 029, 040Q, 041, 046, 060, 071, 076	any	100	optional	optional

CMS

Manual change system

NEW PRODUCT

User-friendly manual change system with extensive complementary portfolio



+ Increased process reliability

by means of integrated locking and tool presence monitoring in all sizes (sensors optional)

+ Integrated air feed-throughs

all feed-throughs can be used radially and axially for pneumatics and vacuum
Basic variant available without integrated feed-through

+ Direct screw mounting of electrical, pneumatic and fluid modules

enables versatile energy transmission for controlling a wide range of tools


Number of sizes
6


Handlingweight
9 .. 58 kg

1 Locking lever

proven technology for manual actuation without additional tools

2 ISO flange pattern

master and adapter side, for easy assembly to most types of robots without needing additional adapter plates

3 Integrated locking and tool presence monitoring

optional, for process-reliable monitoring of the locking condition and tool presence

4 Integrated air feed-through

via sealing pin with cylinder seals for minimum effort during locking



Technical data

Size	Recommended handling weight [kg]	Pneumatic feed-through air connection thread (radial)	Coupling flange (robot & tool-side)	Dimensions (coupled) [mm]
040	9	4 x M5	ISO 9409-1-40-4-M6	50 x 55 x 39
050	11	6 x M5	ISO 9409-1-50-4-M6	63 x 63 x 42.5
063	18	6 x G1/8"	ISO 9409-1-63-4-M6	80 x 88 x 46.5
080	36	9 x G1/8"	ISO 9409-1-80-6-M8	100 x 108 x 48
100	43	12 x G1/8"	ISO 9409-1-100-6-M8	125 x 125 x 66
125	58	12 x G1/4"	ISO 9409-1-125-6-M10	160 x 160 x 78

ILR-Compact Inline depaneling machine

The economical high-productivity
depaneling machine



+ Economical and efficient
due to low investment and high productivity

+ Versatile and productive
due to modular assembly and standard accessory

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



Axis speed
up to
2000 mm/s



Milling area
460 x 350 mm



Repeat and positioning accuracy
 ± 0.02 mm



Milling accuracy
 ± 0.08 mm

schunk.com/nutzentrenner



Technical data

Length/width/height [mm]	Depaneling in-height [mm]	X, Y linear motor axes [mm/s]	Z 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	$\pm 0.02/\pm 0.02$	± 0.13	± 0.08	460 x 350

SAR-Compact

Stand-alone depaneling machines

The economical depaneling machine with easy operation



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

+ Robust, reliable and precise
due to a high milling accuracy and availability

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



Axis speed
up to
1000 mm/s



Milling area
430 x 350 mm



Repeat and
positioning
accuracy
 ± 0.02 mm



Milling accuracy
 ± 0.01 mm

[schunk.com/
nutzentrenner](http://schunk.com/nutzentrenner)



Technical data

Length/width /height [mm]	Operator height [mm]	X, Y linear motor axes [mm/s]	Z 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	$\pm 0.02/\pm 0.02$	± 0.15	± 0.10	430 x 350



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