New SCHUNK Products and Innovations
Gripping Systems
Equipped by SCHUNK

**Unique component selection**
for equipping your robots and machines with gripping and clamping technology.
Your benefit: 11,000 standard components. Everything from one source.

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The Powerhouse

The new SCHUNK Co-act EGL-C is the world’s first certified long-stroke gripper for collaborative operation with a stroke of 42.5 mm per finger, and a gripping force of up to 450 N.

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Smart Factory

In touch with big data. Today, intelligent and interconnectable SCHUNK components form the basis of the Smart Factory with Industry 4.0 with its communication interface between workpiece and machine.
Digital Services for your SCHUNK Components.

SCHUNK components and services play a key role when it comes to digitalization in the field of production. Digital services & tools make use of SCHUNK components much easier and more efficient. They support the user of SCHUNK products with design, the ordering process, commissioning, and also during the ongoing operation.

Calculation and Design Tool
Web-based tool for calculating and designing SCHUNK grippers by entering a few application-specific parameters.

SCHUNK 3D Online Configurators
For three-dimensional configuration of gripper/swivel units or Pick & Place design variants for assembly automation.

MCAD data CADENAS
In the PARTcommunity you will find the SCHUNK CAD models in all common 2D and 3D formats for individual use in various CAD systems.

ECAD data ePLAN
In the data portal of ePLAN you will find SCHUNK circuit diagrams (macros), and further product information for creating wiring diagrams.

eGRIP
Online configurator with integrated web shop for automated creation and 3D printing of gripper fingers including gripping contour.

3D Printing Service
Online tool for ordering self-designed components with integrated printability analysis.

EGL Commissioning Assistant
The SCHUNK online commissioning assistant is an interactive tool for simple and fast commissioning of the intelligent SCHUNK gripper EGL 90.

GRIPconnect – the new SCHUNK App
Technology carrier for data evaluation and status display for the electric SCHUNK gripper EGL 90.

schunk.com/digital-services
The new SCHUNK Co–act EGL–C Gripper

The world’s first certified long–stroke gripper for collaborative operation.

Integrated status display
Visual response on the condition of the application.

Plug & Work
Pre–assembled gripping unit with robot interface for quick and easy assembly.

Compact design
Fully integrated 24 V I/O Control.

High Handling Weight
In collaborative operations, workpieces with a weight up to 2.25 kg can be friction gripped and up to 8 kg can be capture gripped.

schunk.com/egl–c
### Gripper Specifications

<table>
<thead>
<tr>
<th>Size</th>
<th>Weight</th>
<th>Gripping force</th>
<th>Stroke per finger</th>
<th>Workpiece weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td>2.2 kg</td>
<td>450* N</td>
<td>42.5 mm</td>
<td>up to 2.25 kg</td>
</tr>
</tbody>
</table>

* Maximum force at a workpiece distance of < 4 mm

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### Sectional Diagram

1. **Force-measuring jaw**
   - for monitoring the gripping force
2. **Collision protection cover**
3. **LED light band**
   - for status display
4. **Flange**
   - with integrated electronics and wiring
5. **Path-measuring system**
   - for monitoring the gripping position
6. **Drive**
   - with gear
7. **Electronics**

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Technical advice and sales: Tel. +49-7133-103-3444
The world's first certified industrial gripper for collaborative operation.

**Plug & Work**
Pre-assembled gripping unit with robot interface for quick and easy assembly. Directly compatible with the cobots from Universal Robots, KUKA, and FANUC.

**Integrated status display**
Visual indication of the gripper jaw position.

**Accessories**
Attachment finger set with 3 different options for variable gripping processes.

**DGUV-certified gripping unit**
in accordance with ISO/TS 15066 for simple integration into collaborative systems.

**SCHUNK Digital Services**
ECAD data ePLAN

schunk.com/egp-c
Sizes 25 .. 64
Weight 0.36 .. 1.38 kg
Gripping force 20 .. 230 N
Stroke per finger 3 .. 10 mm
Workpiece weight 0.2 .. 1.15 kg

Sectional Diagram

1 Collision protection cover
2 Gripper for small components EGP
3 Flange with integrated electronics and wiring
4 LED light band for the status display
5 Sensor system for sensor adjustment
6 Access panel for gripping force adjustment
7 Access panel for sensor adjustment

Technical advice and sales: Tel. +49-7133-103-3444
New: Dust-tight version SD
For use in dirty environments. Absolutely dust-proof with increased protection against the ingress of materials like splash water and dirt.

New: Portfolio expansion
New sizes PGN-plus-P 160, 300, and 380.

Variety in accessories
A broad range of high-quality accessory components and suitable sensor systems.

* Under normal, clean operating conditions

SCHUNK Gripper PGN-plus-P
The world’s most proven gripper on the market. Lifelong maintenance-free.*
1 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

2 Base jaws
with standardized screw connection diagram for the adaption of workpiece-specific gripper fingers

3 Sensor systems
Brackets for proximity switches and adjustable control cams in the housing

4 Housing
Weight-optimized due to the use of high-strength aluminum allow

5 Centering and mounting option
for universal assembly of the gripper

6 Wedge-hook design
for high power transmission and minimum wear due to optimized bearing surfaces

7 Piston
Maximum force through maximum surface of drive piston

Technical advice and sales: Tel. +49-7133-103-2503
The new SCHUNK Gripper EGI

Electric gripper for small components with simple commissioning and reliable gripping force maintenance.

**24 V technology**
Fully integrated control electronics. Fully compatible within the SCHUNK 24 V technology portfolio.

**PROFINET interface**
PROFINET-certified, ensured compatibility with industrial standards.

**Convenient commissioning**
due to the integrated web server with commissioning aid and possible operation monitoring.

**Active gripping force maintenance**
Specifically developed brake ensures that the gripping force will be almost completely maintained in the event of pressure drop or an emergency-stop situation of the system.

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**SCHUNK Digital Services**

Design/selection tool
ECAD data
ePLAN

schunk.com/egi
### Sizes
- 80
- New: 40

### Weight
- 1 .. 1.6 kg

### Gripping force
- 25 .. 100 N

### Stroke per finger
- 40 .. 57.5 mm

### Workpiece weight
- up to 0.5 kg

---

**Sectional Diagram**

1. **Integrated electronics**
   - Integrated logic and power electronics for decentralized control of the servomotor

2. **Encoder**
   - for position evaluation and positioning of the gripper

3. **Drive**
   - DC servomotor with planetary gear

4. **Brake**
   - for maintenance of the gripping force and position in the event of a standstill or power drop

5. **Kinematics**
   - Force transmission from the servomotor via bevel gear and synchronization via toothed belt drive

6. **Finger connection**
   - for adaption of workpiece-specific gripper fingers

7. **Electric connection**
   - for connecting the power supply and communication

---

Technical advice and sales: Tel. +49-7133-103-2503
The world’s first easy electric gripper with multi-tooth guidance and IO-Link technology.

24 V drive and control on option, via digital I/O or I/O-Link class B connection for easy commissioning and quick integration into existing systems.

Four-stage adjustable gripping force for easy adaption to sensitive workpieces.

New: Dust-proof version SD For the use in dirty environments.

Up to 50% longer gripper fingers The higher maximum moments of the perfected SCHUNK multi-tooth guidance enable use of longer gripper fingers.

SCHUNK Digital Services
Design/selection tool
ECAD data ePLAN

schunk.com/pgn-plus-e
### Sectional Diagram

1. **Multi-tooth guidance**  
   Highest service life due to lubricant pockets in the robust multi-tooth guidance

2. **Base jaw**  
   with standardized screw connection diagram for adaption of the workpiece-specific gripper fingers

3. **Sensor system**  
   Integrated proximity switch and adjustable control cams in the housing

4. **Housing**  
   made of high-strength aluminum alloy

5. **Centering and mounting possibilities**

6. **Wedge-hook principle**
   For transmission of the rotation movement into an axial movement of the wedge hook

7. **Spindle nut**
   Brushless DC servomotor

8. **Drive**

9. **Control electronics**

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Technical advice and sales: Tel. +49-7133-103-2503

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### Specifications

- **Sizes**: 80 .. 100
- **Weight**: 1.01 .. 1.73 kg
- **Gripping force**: 110 .. 810 N
- **Stroke per finger**: 8 .. 10 mm
- **Workpiece weight**: 2.85 .. 4.05 kg
SCHUNK Gripper for Small Components EGP now with IO–LINK

Electric gripper for small components with the highest performance density in assembly automation. New also equipped with IO–Link technology!

- **Flexible gripping force adjustment**: Software control for flexible adjustment of the gripping force for various workpieces.
- **Maintenance and diagnostic message**: Timely information on defined maintenance intervals or error message via the machine control.
- **Integrated sensor system**: for position monitoring of the gripper fingers within the entire stroke range.
- **Variable position adjustment**: The gripping positions can be variably adjusted and the gripper fingers can be pre-positioned via IO–Link technology.

**SCHUNK Digital Services**

- Design/selection tool
- ECAD data
  - ePLAN

[Schunk.com/egp](http://schunk.com/egp)
Sectional Diagram

1. **Base jaw**
   for adaption of the workpiece-specific gripper fingers

2. **Cross roller guide**
   Precise gripping due to backlash-free base jaw guidance

3. **Gear**
   Rack-and-pinion principle for centric gripping

4. **Drive**
   Brushless DC servomotor

5. **Control electronics**
   Integrated power and control electronics for decentralized control via IO-Link

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Technical advice and sales: Tel. +49-7133-103-2503
The first compact electric permanent-magnetic gripper with integrated electronics.

Compact design
The integrated electronics reduces the interfering contour. No external controllers required.

Feedback signal
On the magnetic state and workpiece presence.

24 V voltage supply
Simple wiring and digital actuation via digital I/O.

Short cycle time
Magnetization in just 300 ms for more gripping cycles in less time.

schunk.com/emh
### Gripper

<table>
<thead>
<tr>
<th>Sizes</th>
<th>Weight</th>
<th>Workpiece weight</th>
<th>Cycle time</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 .. 114</td>
<td>1 .. 8 kg</td>
<td>3.5 .. 70 kg</td>
<td>300 .. 700 ms</td>
</tr>
</tbody>
</table>

**Application Example**

1. Magnetic gripper EMH
2. Compensation unit AGE-Z

Technical advice and sales: Tel. +49-7133-103-2503
The new SCHUNK Long-stroke Gripper EGL for Universal Robots

The most robust servo–electric long-stroke gripper for Universal Robots on the market!

**Plug & Work**
The complete package for fast commissioning with Universal Robots (adapter plate, connection cable, USB-stick with URCap).

**Fully compatible**
with every robot of Universal Robots CB- and e-series.

**Long stroke**
Up to 42.5 mm per gripper jaw and a high gripping force up to 600 N.

**Industry tested and proven**
Robust, with a sensitive gripping force adjustment and a long stroke.

**Starter kit**
On request, it is available with gripper fingers and different clamping inserts for a high level of flexibility.

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**SCHUNK Digital Services**

- Design/selection tool
- ECAD data ePLAN
- 3D online configurator

schunk.com/egl-ur
The SCHUNK product line for Universal Robots allows the individual and fast automation of handling and assembly tasks – exclusively for Universal Robots. Beside the electric and pneumatic grippers for conventional automation, grippers for collaborative operation are also available. For detailed information go to schunk.com/plug-and-work-portfolio

**Sectional Diagram**

1. **Adapter plate**
   for connection of the gripper onto the robot

2. **Electric long-stroke gripper EGL**
   for flexible gripping of light to heavy components

3. **Power and communication cable**
   Pre-assembled, for direct connection to the robot control

4. **Attachment fingers**
   Available for a fast production start

5. **Finger inserts**
   for gripping of various workpieces

6. **UR Plug-in**
   for intuitive and fast control of the gripper via the robot control

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Technical advice and sales: Tel. +49-7133-103-2503
The new SCHUNK Swivel Module SRM

The most robust and high-performance, pneumatic swivel module on the market.

- **Highest compact performance**
  Compact housing, high torque and moments of inertia, and at the same time shorter swivel times.

- **Large center hole**
  for feeding supply lines and cables. Can be also used for media freed-through.

- **The adjustment of the flow control valves**
  is sufficient for many applications, since the stroke of the shock absorber is pre-adjusted. Low maintenance effort due to the modular design.

- **Long-lasting and modular**
  Backlash-free bearing, high-quality piston seal made of polyurethane and viton. Available with air feed-through (MDF) or electric feed-through (EDF).

**SCHUNK Digital Services**

3D online configurator

schunk.com/srm
Technical advice and sales: Tel. +49-7133-103-2503

Sectional Diagram

1 Housing
   Weight-optimized due to the use of hard-anodized aluminum alloy

2 Pinion
   Stable pinion for converting the piston movement into a rotating movement

3 Adjustment of the swivel angle
   for fast, simple, and intuitive adjustment of the end position

4 Damping
   Hydraulic shock absorber for high moments of inertia

5 Drive
   Pneumatic, powerful double piston drive

6 Bearing
   Backlash-free, pre-clamped bearing
The new electric SCHUNK Swivel Module ERP

No other electric swivel module on the market is as easy to adjust.

**Unique auto-learn function with permanent memory**
Automatic speed adjustment for commissioning and storage of the motion profile for a trouble-free operation.

**24 V drive and control via digital I/O**
Simple actuation and integration into existing control concepts. Fully compatible in the SCHUNK 24 V technical portfolio.

**Direct drive**
Maximum reliability and speed, also very quiet-running with max. 68 dB(A).

**Fine adjustment of speed**
Sensitive adjustment of rotation by using manual rotary switch.

**SCHUNK Digital Services**
ECAD data
ePLAN

schunk.com/erp
### Sectional Diagram

1. **Drive**
   Rotational direct drive

2. **Control electronics**
   Integrated logic and power electronics for decentralized control of the module

3. **End position adjustment**
   Mechanical adjustment of end positions via stop screws

4. **Sensor system**
   C-slot for the use of magnetic sensors for end position monitoring

5. **Connecting plug**
   Standard plugs for easy connection to sensor and power distributors

6. **Drive flange**
   for mounting the swiveling assembly

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Technical advice and sales: Tel. +49-7133-103-2503
The world's first angular compensation unit for use on robots for simultaneous rotational and angular compensation.

**Compensation**
in X-, Y-, and Z-axis with angular and rotational compensation.

**Spring supported reset**
The optimal deflection can be additionally adjusted via compressed air.

**Efficient**
Compensates inaccuracies to component position with no programming required. Ideal for tasks such as “bin picking.”

schunk.com/age-u
Sectional Diagram

1. Housing
   made of anodized aluminum for weight reduction despite its robust design

2. Locking piston
   Pneumatically driven locking mechanism in centric position

3. Integrated monitoring of the piston stroke
   Stroke monitoring of the locking piston via magnetic switches

4. Spring for pre-clamping
   for easy reset

Technical advice and sales: Tel. +49-7133-103-2503
The new SCHUNK Deburring Tool CDB

The world's first deburring tool with cutting edges for automated robot machining.

- **Short set-up time**
  Fast change from conventional deburring tools due to uniform tool mounting.

- **Process reliable**
  Compared with manual deburring processes, the robot deburring tools achieve a high and consistent quality.

- **Compliant**
  Robot deburring tool for workpieces made of various materials.

- **Low programming effort on the robot**
  Workpiece and positional tolerances are radially and axially compensated.

schunk.com/cdb
**Sectional Diagram**

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

2. **Tool mounting**
   for easy exchange of deburring tools

3. **Locking function for Y-axis**
   for locking the movement of one axis

4. **Air connection**
   for actuating and controlling the reset force with compressed air

5. **Reset mechanism**
   for centering the spindle

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Technical advice and sales: Tel. +49-7133-103-2503
The new SCHUNK FT-AXIA Force/Torque Sensor

The first compact force/torque sensor with two calibrations.

Compact design
due to the completely integrated electronics and status display via LEDs.

Easy configuration
Programmed with two calibration configurations controllable via web interface.

Robust and long-lasting
Even in case of a brief overload, the sensor is protected against damage.

Plug & Work
for KUKA and Universal Robots directly compatible via installation module.

schunk.com/ft-axia
Sectional Diagram

1. **Electronics**
   - No interfering contour due to compact integration into the housing

2. **Strain gauge**
   - Made of silicon for achieving a strong signal

Technical advice and sales: Tel. +49-7133-103-2503
Mechatronic Concept Designer MCD

Your rapid entry into virtual engineering.

Everything from one source:
Software, Digital Twin, support, and hardware.

SCHUNK Basic Starter Kit for virtual Engineering
consisting of the Siemens MCD simulation software including support, as well as a component library with selected SCHUNK components.

schunk.com/mcd
**Virtual engineering and simulation in the engineering process**

With the aid of the Mechatronics Concept Designer from Siemens PLM Software and the Digital Twins from SCHUNK, designers and system planners are able to virtually depict the entire engineering process from the concept to mechanics, electronics, and software, right up to full commissioning.

**Free-of-charge test license available**
the full version of the simulation software can be tested free of charge for six months.

**Everything from one source**
From design with the digital tools, to the implementation of the complete system with components, up to service, SCHUNK is a reliable partner for the complete cooperation.

**Complete, digital system planning**
based on the proven simulation software Siemens Mechatronics Conncet Desginer MCD.

**Up to 30% time saving**
due to the virtual commissioning in the Mechatronics Concept Designer Program MCD.

**Realistic simulation**
The intelligent 3-D modell can be created with the Siemens software MCD, and allows computer-aided simulation in real time for calculating cycle times and for synchronization of the work processes.

**Plug & Work capable**
The complete system operation can be tested with the Siemens Mechatronics Concept Designer via a real PLC control, enabling an easy implementation into the real operation.

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Technical advice and sales: Tel. +49-7133-103-2992
The world’s most precise stand-alone depaneling machines with the widest range of workpiece holder solutions

**Workpiece holder solutions and depaneling machines from one source**
Save set-up time and disconnect sensitive depaneling machines without any stress.

**Maximum milling accuracy**
due to the use of highly precise workpiece carriers and linear motor axes ±100 µm.

**Over 98% technical availability**
for absolute process stability.

**Large milling range**
from 500 mm x 600 mm for separation of large standard or longboards.

schunk.com/depaneling-machines
Application Example

SAR-1700 – The first collaborative loading for depaneling machines

1. SCHUNK Co-act EGP-C gripper for collaborative operations
2. SCHUNK MAGNOPLATE universal workpiece carrier replaces custom-made products and saves enormous costs
3. Highly dynamic linear motor axes for 35% shorter cycle times
4. Milling head can optionally be upgraded with a vision system or scanner
5. Circuit board storage rack

Technical advice and sales: Tel. +49-7725-9166-0
SCHUNK-Newsletter

We let you know first!

Current
Information on SCHUNK and product news

Exclusive
Offers and price advantages

Innovative
Insights into trends and developments of the industry

Attractive
News on shows and events

schunk.com/newsletter
Jens Lehmann, German goalkeeper legend, SCHUNK brand ambassador since 2012 for safe, precise gripping and holding.

852 minutes without a goal against him in the Champions League

681 minutes without a goal against him on the national team

2 intercepted penalties in the 2006 World Cup

1 headed goal as a goalie

0 defeats English Soccer Champion

More than 2,000,000 sold precision toolholders

About 1,000,000 delivered SCHUNK grippers

More than 100,000 lathe chucks and stationary workholding systems are in use worldwide

More than 16,000,000 sold standard chuck jaws

More than 75,000 implement hydraulic expansion customer-specific solutions

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schunk.com

Follow us

Jens Lehmann, German goalkeeper legend, SCHUNK brand ambassador since 2012 for safe, precise gripping and holding. schunk.com/lehmann
New SCHUNK Products and Innovations
Clamping Technology
For safe workpiece machining within unmanned, automated production processes, components “closest-to-the-part” have to be intelligent. The answer from SCHUNK: The new iTENDO – the first intelligent toolholder on the market. Due to its real-time capable data communication, it can be used for process control in real time, and therefore ensures production at optimized parameters.

VERO-S NSE-A3
Heat-resistant for additive manufacturing
The working environment of additive manufacturing places high demands on process components. The new pneumatic VERO-S NSE-AM quick-change pallet module is specifically designed for such fields of application. It is heat-resistant up to 200 °C, and the seal protects against the fine metal dust.

Equipped by SCHUNK
Unique component selection for equipping your robots and machines with gripping and clamping technology. Your benefit: 11,000 standard components. Everything from one source.

Smart Factory
In touch with big data. Today, intelligent and interconnectable SCHUNK components form the basis for the Smart Factory with Industry 4.0 with its communication interface between workpiece and machine.
Digital Services for your SCHUNK Components.

SCHUNK components and services are playing a key role when it comes to digitalization in the field of production. Digital services & tools make the use of SCHUNK components much easier and more efficient. They support the user of SCHUNK products, facilitate design, ordering process, commissioning, and also render support during the ongoing operation.

Toolholder Quickfinder
The SCHUNK product finder enables customers in finding products quickly and easily, and show them clearly structured. Moreover, integrated product recommendations help to select the ideal SCHUNK product.

Chuck Jaw Quickfinder
The fastest and easiest way to find the proper chuck jaw. At schunk.com/chuck-jaw-quickfinder, you can quickly see an overview for all possible chuck jaw solutions, including the accessory products, such as T-nuts for all conventional lathe chuck manufacturers.

DIN 4000
Drawings for SCHUNK toolholders in DXF/DWG formats according to BMG 3.0 are available worldwide in the SCHUNK PARTCommunity. Layer assignment and structure of model and drawing comply with DIN 4000.

3D Print Service
Online tool for ordering self-designed components. The first 3D print service with integrated printability analysis: schunk.com/3d-print-service.

schunk.com/digital-services
The first intelligent toolholder for real-time process control on the market.

**Autonomous process optimization**

enables real-time data communication, process analysis, and parameter optimization.

**Proven toolholder technology**

No change of the outer contour, no restrictions for the use of cooling lubricants apply, high rigidity.

**Process transparency**

due to intuitive user interface and process-specific apps.

**Data security**

The process data remains within the closed control loop of the machine.

schunk.com/itendo
iTENDO Dashboard

Functions

Watch
The watch app allows monitoring of the ongoing process in real time

Alarm
If vibrations should exceed the previously defined limit values, the user receives a message from the alarm app

Analyze
Documentation and analysis of past processes

Technical advice and sales: Tel. +49-7133-103-3308
Patented TRIBOS polygonal clamping technology for your lathe.

- **Reduction in set-up time**
  due to tool clamping during processing time outside the machine.

- **Slim design interfering contour**
  for machining in areas which are difficult to access.

- **Rotationally symmetric design**
  for highest rotational speeds and exact dimensional and geometrical tolerances during filigree machining operations.

- **Highest stability**
  for high tool life of the turning tools.

schunk.com/tribos-er
Sizes | Clamping diameters | Available from stock
---|---|---
ER 11 | TRIBOS Mini 1–4 mm | –
ER 16 | 1–6 mm | –
ER 20 | 1–6 mm | 3–8* mm
ER 25 | 1–6 mm | 3–12* mm
ER 32 | 1–6 mm | 3–12* mm

Sectional Diagram

1. **ER interface**  
   for the use in all conventional ER collet chucks

2. **Stability**  
   through high radial rigidity

3. **Tool**

---

Technical advice and sales: Tel. +49-7133-103-2750
Patented TRIBOS polygonal clamping technology for your grinding machine.

Change of mounted points in a matter of seconds
Quick and simply mounted point change reduces set-up times in no time at all.

Process-reliable mounted point clamping
Even with the smallest of shank diameters.

Rotationally symmetrical design
for maximum speeds and precise shape and position tolerances for filigree machining operations.

One-piece design
No moving parts, making it a low-maintenance system.

schunk.com/mounted-point-holder
<table>
<thead>
<tr>
<th>Sizes</th>
<th>Clamping diameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>HJND 50 TRIBOS Mini</td>
<td>Ø 3 .. 4 mm</td>
</tr>
<tr>
<td>HJND 50 TRIBOS RM</td>
<td>Ø 6 .. 8 mm</td>
</tr>
<tr>
<td>HJND 21 TRIBOS RM</td>
<td>Ø 7 .. 12 mm</td>
</tr>
<tr>
<td>HJND 28 TRIBOS Mini</td>
<td>Ø 5 .. 8 mm</td>
</tr>
<tr>
<td>HJND 28 TRIBOS RM</td>
<td>Ø 9 .. 12 mm</td>
</tr>
</tbody>
</table>

**Sectional Diagram**

1. **Thread**
   - for the connection to the grinding machine

2. **Compact design**
   - for the highest requirements

3. **Mounted point**

Technical advice and sales: Tel. +49-7133-103-2750
Available starting at diameter 3 due to the additive manufacturing processes.

Targeted cooling even at high speeds.

Plug & Work
1:1 interchangeable. Insert a hydraulic expansion toolholder - replace a heat shrinking toolholder.

Tool change in a few seconds micron-precise without peripheral equipment. Simply turn the actuation screw to dead stop.

schunk.com/tendo-slim-4ax-coolflow
Sectional Diagram

1 Chamber system
The chamber system is filled with a hydraulic medium and has a damping effect on the clamped tool.

2 Expansion sleeve
The expansion sleeve evenly expands against the tool shank. This clamping process first centers the tool shank before fully clamping it over the whole surface.

3 Base body
The machine-side interface is located on the base body.

4 Length adjustment screw
For fast and simple tool pre-adjustment

5 Cool flow coolant channels

Technical advice and sales: Tel. +49-7133-103-2750
Powerful hydraulic pallet-change module with high lifting forces.

**Compact design**
Can be also used for thin change pallets.

**High lifting forces**
For process-reliable lifting of change pallets.

**Full monitoring functions**
For a seamless process.

**Extremely high pull-down forces**
For safe clamping of the change pallet.

schunk.com/vero-s-nsp
**Size**
140

**Pull-down forces**
- 7 kN (without turbo)
- 45 kN (with turbo)

**Lifting force**
15 kN

**Repeat accuracy**
< 0.005 mm

**Hydraulic pressure**
25 bar

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**Sectional Diagram**

1. **High-precision short taper centering**
   - ensures micron-precise connections

2. **Patented dual stroke system**
   - between piston and clamping slide ensures extremely high pull-down forces

3. **Turbo function**
   - for amplifying the pull-down force

4. **Large surfaces**
   - for transmitting pull-down and holding forces

5. **Completely sealed system**
   - absolutely maintenance-free

6. **Stepped flat surfaces**
   - for best support and highest rigidity

7. **Lifting function for opening the module**
   - ensures simple removal of the clamping pallet without jamming

8. **Presence control**
   - for monitoring pallet presence and for cleaning the contact surfaces

9. **Insertion radii on the module**
   - for fast and safe joining

10. **Hydraulic system**
    - Actuation with 25 bar

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Technical advice and sales: Tel. +49-7572-7614-1301
**VERO®-S NSE-A3 138-V4-P Automation Module**

Fully equipped automation module with anti-twist protection and integrated media transfers.

- **Comprehensive monitoring options** via dynamic pressure. Ideally for automating.
- **Cone seal integrated by default** for complete protection of the clamping pin interface.
- **Stepped flat surfaces with integrated cleaning function** for simple cleaning of the contact surfaces.
- **Integrated media transfers** in the "P-version" for fluid transfer up to 300 bar.

[Visit website](schunk.com/vero-s-nse-a3)
**Sectional Diagram**

1. **Cone seal integrated in the standard version**
   - for a fully protected clamping pin interface

2. **Anti-twist protection V4**
   - for high-precision positioning of single clamping pallets

3. **Patented dual-stroke system**
   - between piston and clamping slide ensures maximum pull-down forces

4. **Turbo function**
   - for reinforcing the pull-down forces

5. **Completely sealed system**
   - therefore absolutely maintenance-free

6. **Monitoring of the clamping slide positions**
   - “open condition” and “locked condition” possible by means of dynamic pressure

7. **Stepped flat surfaces**
   - with integrated cleaning function

8. **Integrated media transfer**
   - for transfer of fluids of up to 300 bar

Technical advice and sales: Tel. +49-7572-7614-1301
VERO-S NSE-AM mini 78-20
Quick-change Pallet Module

Pneumatic quick-change pallet system for additive manufacturing up to 200 °C.

- High heat resistance: components heat resistant up to 200 °C.
- High-precision short taper centering ensures micron precise connection.
- Low clearance extends the machine workspace.
- Sealed against fine metal powder for process-reliable clamping in the additive work area.

schunk.com/vero-s-nse-am
Sectional Diagram

1. **High-precision short taper centering**
   - Ensures a micron precise connection
2. **Wedge-hook design**
   - Between piston and slide provides for extremely high pull-down forces
3. **Turbo function**
   - To increase the pull-down force
4. **Large surfaces**
   - For transmitting the pull-down and holding forces
5. ** Completely sealed system**
   - An appropriate protection of the clamping module against extremely fine metal powder
6. **Large flat surfaces**
   - For excellent support and maximum rigidity
7. **Locking screw**
   - Used for completely closing the bore hole of the clamping slide
8. **Cover caps for mounting screws**
   - Avoid an accumulation of fine metal powder

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Technical advice and sales: Tel. +49-7572-7614-1301
Manual version for fast and easy actuation with just 15 Nm.

5-axis stabilizers for reducing vibrations of tall workpieces.

Flexibly adjustable clamping pillars for fast adaption to new clamping tasks.

Optimum accessibility of the machine spindle due to flexibly adjustable clamping pillars.

VEROS WDM-5X Modular System for Direct Workpiece Clamping

The high-performance, manual modular system for direct workpiece clamping.

schunk.com/vero-s-wdm
Pillar diameter Ø 80 mm
Pull-down force 25 kN
Actuating moment 15 Nm
Repeat accuracy < 0.005 mm

Sectional Diagram

1. **Mounting options**
   - on T-slot tables via T-nuts or on grid plates
2. **Base module**
   - with base plate or available as a double clamping module
3. **Stacking module**
   - for adjustment of the clamping pillar heights to the corresponding clamping task
4. **Clamping pins**
   - Wide range of various clamping pins
5. **Reduction and height adjustment adapter**
   - for maximum accessibility of the tool to the workpiece and fine adjustment of the clamping pillar height

Technical advice and sales: Tel. +49-7572-7614-1301
KONTEC KSX-C 125
5-axis Power Vise

Power-amplified 5-axis power vise with adjustable clamping center.

Quick lever clamping
for fast clamping of workpieces by tension.

Optimal accessibility
of the machine spindle due to two standardized heights.

Individual adjustment
of the clamping center
for use on 5-axis machines.

Continuous clamping force adjustment
Simple and fast from 5–40 kN.

schunk.com/kontec-ksx-c
Sectional Diagram

1. **Actuation via hexagon connection**
   - therefore easy to operate

2. **Completely encapsulated spindle**
   - Provides optimal protection against coolant and chips

3. **Long jaw guidance**
   - offers maximum support

4. **Jaw clamping via hexagon connection**
   - for individual adjustment of the clamping center

5. **Continuous clamping force adjustment**
   - Simple and fast adjustment of the clamping force from 4–40 kN

6. **Mechanical force transmission**
   - for self-locking and vibration-resistant clamping

7. **Laser-etched ruler**
   - for quick positioning of the chuck jaws

8. **Standard chuck jaw interface**
   - for using standard chuck jaws from SCHUNK

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Technical advice and sales: Tel. +49-7572-7614-1301
Electropermanent magnetic chucks for milling applications of small and thin workpieces.

- Uniform permanent magnetic clamping force over the entire workpiece.
- High lateral holding forces on narrow workpieces for milling applications due to parallel pole technology.
- 5-sided machining in one set-up by using pole extensions.
- Low deformation and vibration clamping for improved surface finishes and significantly increased precision.

[www.schunk.com/magnos](http://www.schunk.com/magnos)
<table>
<thead>
<tr>
<th>Pole pitch</th>
<th>Max. clamping force</th>
<th>Number of poles</th>
<th>Connection</th>
<th>Mains voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 + 10 mm</td>
<td>160 N/cm²</td>
<td>6 ... 22</td>
<td>4-pin</td>
<td>400 V/460 V</td>
</tr>
</tbody>
</table>

Sectional Diagram

1. **Invertible AlNiCo magnets**
   Embedded in the coil – for activating or deactivating of the magnetic chuck

2. **Steel pole**
   For transferring the magnetic field to the workpiece and for mounting the pole extensions

3. **Synthetic resin**
   For sealing the magnetic chuck and sealing cavities

4. **Neodymium magnets**
   Non-pole reversing or amplifying the magnetic field

5. **Connection housing with status display**
   For display of the clamping state and connection with the control unit KEH plus

6. **Pole extensions**
   Ensure the adjustment of the magnetic chucks contact surfaces to the workpiece

Technical advice and sales: Tel. +49-7572-7614-1301
Permanent grease lubrication
for constantly high clamping forces.

Completely sealed design
for up to 20 times longer maintenance intervals.

Large through-hole
for machining of all conventional bar diameters.

Weight-optimized design
for significantly reduced acceleration and braking times.

Sealed power lathe chuck for significantly longer maintenance intervals.
**Sectional Diagram**

1. **High efficiency wedge-hook system**
   - reliably clamping due to high clamping forces

2. **Hardened and extremely rigid base body**
   - allowing longer service life with maximum precision, even at maximum clamping forces

3. **Large through-hole**
   - for machining all conventional raw material diameters

4. **Fastening thread**
   - for workpiece stops

5. **Base jaw serration**
   - freely selectable between inch or metric sizes

6. **Sealing of the lathe chuck**
   - for up to 20 times longer maintenance intervals

7. **Weight-optimized design**
   - for great economy in daily use

---

Technical advice and sales: Tel. +49-7572-7614-1302
Compensating 6-point clamping
for low-deformation clamping or thin-walled workpieces.

Sealed design
for up to 3 times longer maintenance and lubricating intervals.

Integrated pendulum mechanism
clamps workpiece in its relaxed state for deformation-sensitive workpieces.

High-low clamping
Suitable for machining workpieces with different clamping forces.

Sealed 6-jaw power lathe chuck for significantly longer maintenance intervals.

schunk.com/rota-ncr-a
Sectional Diagram

1. **Angle lever drive**
   - Offers consistently high clamping forces in operation

2. **Hardened and extremely rigid base body**
   - Allowing longer service life at highest precision. Even with maximum clamping force

3. **Optimized lubrication system**
   - For high efficiency

4. **Standard chuck jaw interface**
   - With tongue and groove (up to Ø 225 mm), inch or metric (starting from Ø 250 mm)

5. **Centrifugal force compensation as an option**
   - For consistent clamping force even at highest speeds

6. **Long jaw guidance**
   - Offers optimum support for OD and ID clamping

7. **Sealing of the chuck**
   - For up to 3 times longer maintenance and lubricating intervals

8. **Central media feed-through**
   - For central lubrication, air control, or coolant as an option

---

Technical advice and sales: Tel. +49-7572-7614-1302
Pull-down Jaw

Avoids lifting of the workpiece.

Flat workpiece support for highest accuracy.

High stability due to active pull-down during workpiece machining.

Repeatable zero point by preventing the workpiece from lifting up.

schunk.com/pull-down-jaw
Sizes for all common lathe chucks

Comparison:
Compared to conventional chuck jaws, the new pull-down jaws avoid the lifting of the workpiece on the chuck during machining.

Two steps to receive pull-down jaws:
Step 1: Select type of claw jaw
Step 2: Request the standard jaw with pull-down option at special-jaws@de.schunk.com. You will receive a quotation shortly.

Technical advice and sales: Tel. +49-7133-103-2750
SCHUNK Chuck Jaw Configuration – Individual Chuck Jaws delivered within 2 Working Weeks

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

Geometries of the chuck jaw can be individually adapted derived from the respective standard variant

Standard jaw, maximum

Easiest request and ordering process in three steps
1. Send your inquiry to Sonderbacken@de.schunk.com
2. Quotation with approval drawing on request
3. Manufacturing and delivery

schunk.com/ ejaw
The suitable solution for any clamping task –
with chuck jaws from SCHUNK

The standard chuck jaw program from SCHUNK comprises 1,200 jaw types. Raw parts are being safely clamped by SCHUNK chuck jaws during the machining process. Finished parts are clamped firmly and reliably, and without causing deformation or marks.

Application

SCHUNK Chuck Jaws

With 1,200 various types the world’s largest chuck jaw program for every chuck type.

Technical advice and sales: Tel. +49-7133-103-2750
RAPIDO

Fully automatable, tool free jaw quick-change.

Individual clamping contours
due to a vast blank concept available on short notice.

Considerably shortened set-up time
due to tool free change of three chuck jaws in less than 60 seconds.

High change repeat accuracy
of 0.02 mm in concentricity due to ground change interface

Double locking
for highest safety even in unclamped state.

schunk.com/rapido
Flexibility:
Various top jaws are available: Soft jaw blanks, hard claw jaws (optionally with RFID chip, QR code, marking etc.)

Application

Tool free exchange in three stops
1. Put chuck jaw on top,
2. push it backward,
3. done!

Technical advice and sales: Tel. +49-7133-103-2750
SCHUNK Newsletter

We let you know first!

Current
Information on SCHUNK and product news

Exclusive
Offers and price advantages

Innovative
Insights into trends and developments of the industry

Attractive
News on shows and events

schunk.com/newsletter
No. 1
for safe, precise gripping and holding.

852 minutes without a goal against him in the Champions League

681 minutes without a goal against him on the national team

2 intercepted penalties in the 2006 World Cup

1 headed goal as a goalie

0 defeats English Soccer Champion

and

More than 2,000,000 sold precision toolholders

About 1,000,000 delivered SCHUNK grippers

More than 100,000 lathe chucks and stationary workholding systems are in use worldwide

More than 16,000,000 sold standard chuck jaws

More than 75,000 implement hydraulic expansion customer-specific solutions

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schunk.com/lehmann

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