Superior Clamping and Gripping

Product Overview
Gripping Systems 2012
Top Performance in the Team

SCHUNK is the world’s No. 1 for clamping technology and gripping systems – from the smallest parallel gripper to the largest chuck jaw program.

As a competence leader, we recognize and develop standards with a large potential for the future, which will drive the rapid progress in many industries.

Our customers profit from the expert knowledge, the experience and the team spirit of more than 1800 employees of our innovative family-owned company.

The Schunk family wishes you improved end results with our quality products.
Pneumatic Gripping Modules

2-Finger Parallel Grippers

Miniature Parallel Gripper MPG and MPG-plus
- Gripping force from 9 N to 540 N
- Stroke per finger from 1 to 14 mm
- 10 sizes from 10 to 80
- For small and medium-sized components for assembly automation

Gripper for small components KGG
- Gripping force from 45 N to 540 N
- Stroke per finger from 10 mm to 60 mm
- 7 sizes from 60 to 280
- Thin gripper with robust T-slot guidance

Universal Gripper PGN-plus
- Large gripping force from 123 N to 21800 N
- Stroke per finger from 2.5 mm to 45 mm
- 11 sizes from 40 to 380
- Robust multi-tooth guidance with high maximum moments possible for applications with long gripper fingers

Universal Gripper JGP
- Gripping force from 123 N to 7400 N
- Stroke per finger from 2.5 mm to 35 mm
- 10 sizes from 40 to 300
- Gripper of the compact class with T-slot guidance and best cost-performance ratio

Universal Gripper PGF
- Gripping force from 240 N to 1970 N
- Stroke per finger from 7.5 mm to 31.5 mm
- 5 sizes from 50 to 125
- Very good guidance characteristics

Sealed Gripper DPG-plus
- High gripping forces from 110 N to 11700 N
- Stroke per finger from 2.5 mm to 35 mm
- 11 sizes from 40 to 380
- Robust multi-tooth guidance with high maximum moments

Long-stroke Gripper PFH
- Gripping forces from 510 N to 2650 N
- Stroke per finger from 30 mm to 300 mm
- 6 sizes from 30 to 300
- For large workpieces (i.e. wheel rims) and a broad range of parts

Long-stroke Gripper PSH
- Gripping force from 320 N to 1760 N
- Stroke per finger from 14 mm to 100 mm
- 4 sizes from 22 to 52
- Sealed round guides for applications in slightly contaminated environments

3-Finger Centric Grippers

Gripper for small components MPZ
- Gripping force from 20 N to 310 N
- Stroke per finger from 1 mm to 5 mm
- 6 sizes from 16 to 45
- For small and medium-sized components for assembly automation

Universal Gripper PZN-plus
- Large gripping forces from 255 N to 59500 N
- Stroke per finger from 2.5 mm to 40 mm
- 11 sizes from 40 to 380
- Robust multi-tooth guidance with high maximum moments for the use of long gripper fingers

Universal Gripper JGZ
- Highest gripping forces from 255 N to 7990 N
- Stroke per finger from 2.5 mm to 16 mm
- 7 sizes from 40 to 160
- Gripper of the compact class with T-slot guidance and best cost-performance ratio

Sealed Gripper DPZ-plus
- High gripping forces from 230 N to 16800 N
- Stroke per finger from 2.5 mm to 25 mm
- 8 sizes from 40 to 200
- Robust multi-tooth guidance with high maximum moments

Multi-Finger Grippers

Assembly Gripper ORG
- For O-rings from Ø 5 mm to Ø 150 mm
- Adjustable opening strokes
- Size 85
- Process reliable for O.D. and I.D. assembly with just one gripper

Angular Grippers

Gripper for small components SWG
- Gripping moment from 0.01 Nm to 2.8 Nm
- Opening angle per finger 15°
- 8 sizes from 10 to 50
- Thin and compact design
**Pneumatic Gripping Modules**

**Angular Grippers**

**Universal Gripper PWG-plus**
- Gripping moment from 3.5 Nm to 143 Nm
- Opening angle per finger min. 3°
- 3 sizes from 50 to 160
- Maximum transfer of force and low wear due to robust dog bone drive

**Universal Gripper PWG**
- Gripping moment from 6 Nm to 934 Nm
- Opening angle per finger 20°
- 4 sizes from 65 to 230
- Robust gripper with spring-loaded gripping force maintenance

**Radial Gripper PRG**
- Gripping moment from 2 Nm to 295 Nm
- Opening angle 30°/60°/90°
- 8 sizes from 26 to 125
- For applications with extremely short motion sequences

**Sealed Gripper DRG**
- Gripping moments from 8 Nm to 143 Nm
- Adjustable opening angle from 10° to 180°
- 5 sizes from 44 to 100
- Completely sealed mechanics

**Grippers with Shank Interface**

**Vacuum Gripper GSW-V**
- For automatic loading and unloading of machine centers

**Cleaning Unit RGG**
- Protection against dirt and chips

**Gripper with Shank Interface GSW**
- Stroke per finger 4 to 10 mm

**Gripper Swivel Modules**

**Swivel Module with Parallel Gripper GSM-P**
- Gripping force from 25 N to 270 N
- Compact module for assembly automation

**Swivel Module with Centric Gripper GSM-Z**
- Gripping force from 55 N to 310 N
- Flexible adjustment of the swivel angle via steel balls

**Swivel Module with Angular Gripper GSM-W / GSM-R**
- Gripping moment from 0.45 Nm to 15 Nm
- Compact design

**Electric Gripping Modules**

**2-Finger Parallel Grippers**

**Intelligent Gripper EGP**
- Gripping force up to 135 N
- Stroke per finger 6 mm
- Size 40
- Drive concept electrically, gripping force is adjustable in up to four steps

**Intelligent Gripper EGN**
- Gripping force from 170 N to 1000 N
- Stroke per finger from 8 mm to 16 mm
- 3 sizes from 80 to 160
- Gripper with servo motor
- Pre-positioning capability to reduce cycle times

**Intelligent Gripper EVG**
- Very sensitive gripper from 3 N to 57 N gripping force
- Stroke per finger from 20 mm to 50 mm
- Size 55-40/100
- Easy stroke adjustment possible
- Compact and light

**Intelligent Gripper PG**
- With highly precise gripping force control from 30 N to 200 N
- Stroke per finger 34 mm
- Size 70
- Fully integrated control and power electronics incl. different interfaces

**Intelligent Gripper PEH**
- Gripping force control from 150 N to 1800 N
- Stroke per finger from 60 mm to 100 mm
- 3 sizes from 30 to 50
- Fully integrated control and power electronics incl. different interfaces

**Intelligent Gripper WSG 50**
- Gripping force up to 120 N
- Stroke per finger up to 55 mm
- Size 50
- Electronics are integrated in the gripper fingers, using a sensor for direct force measurement

**Intelligent Gripper EZN**
- Gripping force from 500 N to 800 N
- Stroke per finger from 6 mm to 10 mm
- 2 sizes from 64 to 100
- Gripper with servo-motor
- Pre-positioning capability to reduce cycle times
### Pneumatic Rotary Modules

**Swivel Units**

<table>
<thead>
<tr>
<th>Swivel Module SFL</th>
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<tbody>
<tr>
<td>• Axial force from 10 N to 50 N</td>
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<tr>
<td>• High torque from 0.1 Nm to 3.6 Nm</td>
</tr>
<tr>
<td>• 3 sizes from 25 to 64</td>
</tr>
<tr>
<td>• Compact module for easy swiveling tasks up to 180°</td>
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</tbody>
</table>

**Universal Swivel Unit SRU-plus**

| • Axial force from 255 N to 11000 N |
| • High torque from 0.2 Nm to 115 Nm |
| • 11 sizes from 8 to 63 |
| • Swivel angle 90° or 180° on option |
| • Locked middle position possible |

**Swivel Heads**

<table>
<thead>
<tr>
<th>Swivel Head SRH-plus</th>
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<tbody>
<tr>
<td>• Torque from 3 Nm to 69.9 Nm</td>
</tr>
<tr>
<td>• Integrated media supply and possibility to transmit digital signals</td>
</tr>
<tr>
<td>• 7 sizes from 20 to 60 with swivel angle 180°</td>
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<tr>
<td>• Modular design with many options</td>
</tr>
</tbody>
</table>

### Electric Rotary Modules

**Swivel Tilting Unit PW**

| • Axial force from 80 N to 200 N |
| • Torque up to 23 Nm |
| • 2 independent axes in one module |
| • 2 sizes 70 and 90 |
| • Fully integrated control and power electronics incl. different interfaces |

**Rotary Module ERS**

| • High torques from 2.5 Nm to 10 Nm |
| • High axial forces from 2500 N to 10000 N |
| • 3 sizes from 135 to 210 |
| • 2 control versions – SCHUNK MCS 12 controller (48 V) or standard control systems (560 V, Bosch or Siemens) |

**Swivel Modules**

| • Torque from 3 Nm to 69.9 Nm |
| • Integrated media supply and possibility to transmit digital signals |
| • 7 sizes from 20 to 60 with swivel angle 180° |
| • Modular design with many options |

### Ring Indexing Tables

**Ring Indexing Table RST-P**

| • Angle adjustment 4, 6, 8, 12 |
| • 2 sizes 60 and 87 |
| • Max. mass moment of inertia 0.08 kgm² |
| • Cycles to the right, to the left or oscillates. Cycle change via control unit. |

### Swivel Fingers

<table>
<thead>
<tr>
<th>Swivel Finger GFS</th>
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<tbody>
<tr>
<td>• Axial force from 330 N to 3300 N</td>
</tr>
<tr>
<td>• Torque from 0.64 Nm to 10 Nm</td>
</tr>
<tr>
<td>• 4 sizes from 16 to 40</td>
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<tr>
<td>• For turning of workpieces</td>
</tr>
</tbody>
</table>

### Linear Modules

**Pick & Place Unit**

**Pick & Place Unit with PPU-E direct drive**

| • 2 sizes from payload 3 kg to 5 kg |
| • Horizontal stroke max. 280 mm, vertical stroke max. 150 mm |
| • No moving motor cable |
| • For highly dynamic Pick & Place applications at high repeat accuracies |

**Pick & Place Unit with PPU-P pneumatic drive**

| • 2 sizes from payload 1 kg to 3 kg |
| • Horizontal stroke maximum 210 mm, vertical stroke maximum 60 mm |
| • Repeat accuracy per axis ± 0.01 mm |
| • Full compatibility to the modular assembly system |
Linear Modules

Stroke Modules

Stroke Module HLM
- Stroke from 0 to 150 mm continuously adjustable
- Driving force maximum 482 N
- 4 sizes from 25 to 200
- Retracted and extended stroke in each case up to 25 mm adjustable

Linear Axes

Linear Axes with direct drive LDx
- Six different types
- Useful strokes up to 3800 mm
- Drive force up to 1200 N
- Optional with absolute encoder measurement system
- For highly dynamic applications with a high repeat accuracy

Linear Axes with spindle/belt/rack drive
- Useful strokes up to 7640 mm
- Drive force up to 18000 N
- Moment load of up to 12000 Nm
- Modular system with manifold guidance and actuation versions

Linear Module with pneumatic drive LM and CLM
- Stroke from 25 mm to 450 mm
- Drive force from 50 N to 753 N
- 5 sizes from 25 to 300
- Optimum standard solution for high-precision applications

Standard Systems

Line and Room Gantry LPP / LPE / RPE
More than 500 desired gantry solutions from the SCHUNK Standard Gantry Program
- LPP Line Gantry pneumatic: payload maximum 5 kg
- LPE Line Gantry electric: payload from 10 to 20 kg
- RPE Room Gantry electric: payload from 10 to 20 kg
- LPE and RPE with servo drives

Robot Accessories

Exchanging

Tool Quick-Changing System SWS
- Handling weight of up to 1350 kg
- 16 sizes from 5 to 1210
- Manifold electric energy and liquid transmission options
- Easy assembly via ISO flange or adapter plate

Manual Gripper Change System HWS
- Handling weight of up to 54 kg
- 6 sizes from 40 to 125
- Manifold electrical and pneumatic options
- Easy assembly via ISO flange

Robot Accessories

Changing

Manual Change System CWS
- 4 integrated air feed-throughs
- 5 sizes from 50 to 125
- Compact Manual Change System with direct interface to PGN-plus and JGP

Feed through

Rotary Feed-through DDF
- 14 sizes from 31 to 160
- From 2 to 4 feed-throughs
- Up to 10 electric feed-throughs
- Easy assembly via ISO flange

Machining

Flexible deburring Spindle FDB
- 4 sizes from 150 to 660
- Speed up to 65000 rpm
- Power consumption from 150 to 660 W
- Flexible and robot-controlled deburring of workpieces

Protection

Anti-Collision and Overload Protection Sensor OPS and OPR
- OPS-série with manual reset
- OPR-série with automatic reset
- Tripping energy and moment via operating pressure adjustable
- Anti-collision control via integrated sensors

Compensation

Compensation Unit AGE
- Variety in sizes for compensation in Z-, XY- or XYZ direction
- Compensation distance XY up to ± 14 mm
- Compensation distance Z up to ± 12 mm
- With centric locking and position storage
- Easy assembly via ISO flange

Tolerance Compensation Unit TCU
- 7 sizes from 50 to 200
- Direct mounting to a PGN-plus and PZN-plus
- Rotary and lateral compensation tolerance around all axes
- With centric locking and monitoring

Measuring

Rigid Force-Torque-Sensor FT
- 11 sizes
- Measuring range: Moments up to ± 6000 Nm
- Measuring range: Forces up to ± 40000 N
- Communication: Ethernet, Ethernet/IP, Can, DAQ or RS232
- For measuring forces and moments in production, quality management, product design or research
SCHUNK Product Range Gripping Systems

Gripping Modules
SCHUNK currently has the most comprehensive pneumatic and electric range of universal grippers and gripping modules for system applications. Offering all features from state-of-the-art materials and coatings employed as standard to internal media feed-through. With our high level of technical expertise, SCHUNK sets the trend for cost-efficient systems in any industry, any field.

Rotary Modules
Technology and functionality in the most compact form. SCHUNK’s range of rotary modules represents the entire spectrum of compact turning and rotary units, swivel heads, and rotary fingers. In other words, it's the ideal solution for handling tasks.

Linear Modules
Precision mini-slides, pneumatic linear modules, rigid gantry axes, and axes with servo-electric linear drive—the SCHUNK product range offers linear technology for high-speed automated assembly. Compact and designed as a modular system.

Robot Accessories
Robot accessories from SCHUNK—the complete range of modules for perfect integration between the robot arm and the tooling. Suitable for all types of robots, it is also an ideal enhancement for flexible robot applications.

Modular Assembly Automation
Flexible—Fast—Modern. The comprehensive program of pneumatic and electric modules opens an unforeseen variety of combination possibilities. All actuators are compatible with each other. Where other companies still have to conduct design work, the modular system from SCHUNK is already assembled. Fast and straightforward.
Catalog Order
Copy, complete, fax to +1-919-572-2818

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Company

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