



1945 - 2015

70  
Years

Superior Clamping and Gripping



## Product Overview

Gripping Systems

# Superior Clamping and Gripping



Henrik A. Schunk Kristina I. Schunk, brand ambassador Jens Lehmann, and Heinz-Dieter Schunk

## 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 2,300 employees in our innovative family-owned company.

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

Heinz-Dieter Schunk

Henrik A. Schunk

Kristina I. Schunk

## Superior Clamping and Gripping

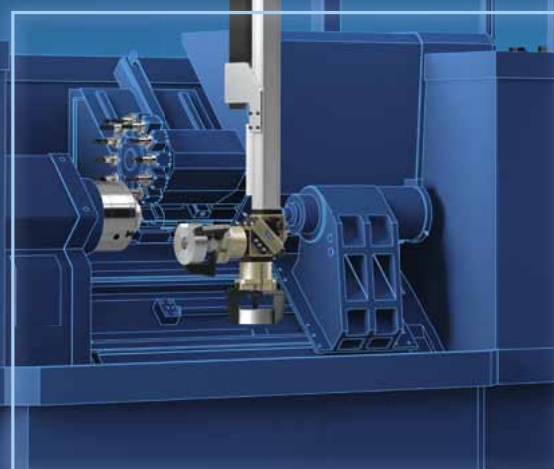
Jens Lehmann stands for precise gripping, and safe holding. As a brand ambassador of the SCHUNK team, the No. 1 goalkeeper represents our global competence leadership for clamping technology and gripping systems. The top performance of SCHUNK and Jens Lehmann are characterized by dynamics, precision, and reliability.

For more information visit our website:  
[www.gb.schunk.com/Lehmann](http://www.gb.schunk.com/Lehmann)

Jens Lehmann



... in your Lathe



# Pneumatic Grippers

## 2-Finger Parallel Grippers

### Miniature-Parallel Gripper MPG-plus

- Gripping force from 25 N to 350 N
- Stroke per finger from 1.5 mm to 10 mm
- 7 sizes from 16 to 64
- 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

- Highest gripping force from 123 N to 21,800 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 7,400 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 1,970 N
- Stroke per finger from 7.5 mm to 31.5 mm
- 5 sizes 50 to 125
- Very good guidance characteristics



### Sealed Gripper DPG-plus IP67

- High gripping forces from 110 N to 11,700 N
- Stroke per finger from 2.5 mm to 35 mm
- 10 sizes from 40 to 300
- Robust multi-tooth guidance with high maximum moments



### Long-stroke Gripper PSH

- Gripping force from 320 N to 1,760 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



### Long-stroke Gripper PHL

- Gripping force from 390 N to 3,250 N
- Stroke per finger 30 mm to 160 mm
- 5 sizes from 25 to 63
- The viton version allows applications in contaminated environments



# Pneumatic Grippers

## 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

- Highest gripping forces from 255 N to 59,500 N
- Stroke per finger 2.5 mm to 40 mm
- 11 sizes 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 7,990 N
- Stroke per finger 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 IP67

- High gripping forces from 230 N to 16,800 N
- Stroke per finger 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  $\varnothing$  5 mm to  $\varnothing$  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



### Universal PWG-plus

- Gripping moment from 3.5 Nm to 617 Nm
- Opening angle per finger 15°
- 8 sizes from 50 to 240
- Robust gripper with spring-supported gripping force maintenance



# Pneumatic Grippers

## Angular Grippers

### Radial Gripper PRG

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



### Sealed Gripper DRG IP67

- 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 from 4 to 10 mm

### Magnetic Gripper GSW-M

- Magnetic gripper for handling of sheet metals or workpieces with a complex outside contour

### Flexible Compensation Unit GSW-B-AGE

- Flexible compensation unit
- Compensation of tolerances and position inaccuracies



## Gripper Swivel Modules

### Swivel Module with Parallel Gripper GSM-P

- Gripping force from 25 N bis 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 sheet balls

### Swivel Module Angular Gripper GSM-W/GSM-R

- Gripping moment from 0.45 Nm to 15 Nm
- Compact design



# Electric Grippers

## 2-Finger Parallel Grippers

### Gripper for small components EGP

- Gripping force up to 215 N
- Four step adjustable gripping force
- Stroke per finger 3 mm to 8 mm
- Sizes 25 to 50



# Electric Grippers

## 2-Finger Parallel Grippers

### Universal Gripper EGN

- Gripping force from 170 N to 1,000 N
- Stroke per finger 8 mm to 16 mm
- 3 sizes from 80 to 160
- Gripper with servo motor
- Pre-positioning capability to reduce cycle times



### Long-stroke Gripper LEG

- Gripping force 300 N to 1,500 N
- Stroke per finger 0 mm to 250 mm
- 3 sizes 400 to 760
- Modular drive concept



### Intelligent Gripper PG

- With sensitive 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 1,800 N
- Stroke per finger 60 mm to 100 mm
- 3 sizes 30 to 50
- Fully integrated control and power electronics incl. different interfaces



### Gripper with adaptable drive EGA

- Gripping force up to 1,300 N
- Stroke per finger 30 mm to 100 mm
- 2 sizes from 25 and 40
- Compatible with common servo motors like e.g. SEW, Siemens, Bosch, ...



### Intelligent Gripper WSG

- Sensitive gripper – 5 N to 120 N gripping force
- Stroke per finger up to 105 mm
- 3 gripper sizes: 25, 32, and 50
- Option available with gripper fingers with integrated electronics for direct gripping force measurement



## 3-Finger Centric Grippers

### Universal Gripper EZN

- Gripping force from 500 N to 800 N
- Stroke per finger 6 mm to 10 mm
- 2 sizes from 64 and 100
- Gripper with servo motor
- Pre-positioning capability to reduce cycle times



## Magnetic Gripper

### Magnetic Gripper EGM

- Highest holding force in confined spaces
- After actuation, the workpiece is securely held



## Pneumatic Rotary Modules

### Swivel Units

#### Vane Swivel Unit SFL

- Axial force from 10 N to 50 N
- High torque from 0.1 Nm to 3.6 Nm
- 3 sizes from 25 bis 64
- Compact module for easy swiveling tasks up to 180°



#### Universal Swivel Unit SRU-plus

- Axial force from 255 N to 11,000 N
- High torque from 0.2 Nm to 115 Nm
- 11 sizes from 8 to 63
- Swivel angle 90° or 180°
- Locked middle position possible



### Swivel Heads

#### Swivel Head SRH-plus

- 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



### Rotary Indexing Tables

#### Rotary Indexing Table RST-D

- Pitch 4, 6, 8, 12, 16
- 3 sizes: 60, 87, and 134
- Max. mass moment of inertia 0.6 kgm²
- Cycles to the right, to the left or oscillates. Cycle change via control unit



### Swivel Fingers

#### Swivel Finger GFS

- Axial force from 330 N to 3,300 N
- Torque from 0.64 Nm to 10 Nm
- 4 sizes from 16 to 40
- For turning of workpieces



## Electric Rotary Modules

### Rotary Modules

#### Miniature Rotary PRH

- Torque from 1.5 Nm to 6.8 Nm
- Infinitely rotating
- 6 sizes
- Integrated electronics with SCHUNK Motion Protocol (SMP)



#### Universal Swivel Unit PR

- Axial force from 345 N to 895 N
- High torque from 3.6 Nm to 142 Nm
- 3 sizes from 70 to 110
- Fully integrated control and power electronics incl. different interfaces



## Electric Rotary Modules

### Rotary Modules

#### Pan-Tilt 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 2,500 N to 10,000 N
- 3 sizes from 135 to 210
- 2 control versions – SCHUNK MCS12-Controller (48 V) or standard control systems (560 V, Bosch or Siemens)



#### Miniature Rotary Module ERD

- Torque from 0.4 Nm to 1.2 Nm
- Integrated air and electronic feed through
- 3 sizes 4, 8, and 12
- SIL-2 certificated absolut encoder measurement system



#### Heavy-duty Rotary Module ERM

- Up to 75 Nm torque
- 1 size 160
- Modular drive concept due to adaptable servo motors
- 8 integrated air feed-throughs



## Linear Modules

### Stroke Modules

#### Stroke Module HLM

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



### Pick & Place Units

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

- 3 sizes, payload 1.5 kg, 3 kg, or 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 pneumatic drive PPU-P

- 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

### Pick & Place Units

#### Rotary Lift Unit DRL

- For highly dynamic, yet smooth Pick & Place operations
- Up to 90 cycles per minute
- 2 sizes 20 and 25
- Rotation angle adjustable at 90° or 180°



### Linear Axes

#### Linear Axes with direct drive LDx

- Six different types
- Useful strokes up to 3,800 mm
- Drive force up to 1,200 N
- Optional with absolut encoder measurement system
- For highly dynamic applications with a high repeat accuracy



#### Linear Axes with spindle/belt/rack drive

- Useful strokes up to 7,640 mm
- Drive force up to 18,000 N
- Moment load of up to 12,000 Nm
- Modular system with manifold guidance and actuation versions



#### Linear Module with pneumatic drive LM

- 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 Gantries LPP/LPE/RPE

More than 500 desired gantry solutions from the SCHUNK standard gantry program



- LPP Line Gantry pneumatic: payload max. 5 kg
- LPE Line Gantry electric: payload from 10 kg to 20 kg
- RPE-Gantry electric: payload from 10 kg to 20 kg
- LPE and RPE with servo drives

## Robot Accessories

### Changing

#### Manual Gripper Change System HWS

- Handling weight of up to 54 kg
- Integrated air feed-through
- Manifold electrical and pneumatic options
- Easy assembly via ISO flange (HWS)
- Direct assembly to PGN-plus and JPG interface (CWS)



#### Tool Quick-Change System SWS

- Handling weight of up to 4,080 kg
- 20 sizes 1 to 1,510
- Manifold electric energy and liquid transmission options
- Easy assembly via ISO flange or adapter plate



## Robot Accessories

### Changing

#### Quick-Change Module NSR-A 100

- Handling weight 75 kg
- Manifold electric energy and liquid transmission options
- Very compact design for loading very close to the machine table and in confined spaces



### Feeding through

#### Rotary Feed-through DDF 2

- 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 65,000 rpm
- Power consumption from 150 W to 660 W
- Flexible and robot-controlled deburring of workpieces



### Monitoring

#### Anti-Collision and Overload Protection Sensor OPS and OPR

- OPS with manual, OPR with automatic reset
- Triggering force and moment via operating pressure adjustable
- Anti-collision control via integrated sensor system



### Compensating

#### Compensation Unit AGE

- Variety in sizes for compensation in Z-, XY- or XYZ-direction
- Compensation distance XY up to  $\pm 14$  mm, compensation distance Z up to  $\pm 14$  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-Moment-Sensor FT

- 16 sizes
- Measuring range: Moments up to  $\pm 6,000$  Nm
- Measuring range: Forces up to  $\pm 40,000$  N
- Communication: Ethernet, EtherCAT, Wireless, Ethernet / IP, ProfiNet, CAN, DAQ or RS232
- IP protection class: IP60, IP65 and IP68



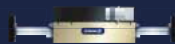
## It is time to use your machine's full potential!

With superior components, we find potentials in your machine, where you would never expect to find them. SCHUNK Synergy – the perfectly matching interplay of clamping technology and gripping systems turns our customers to productivity champions.



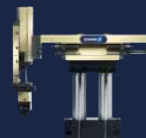
### SCHUNK Grippers

Gripping precisely!  
 From some grams to  
 more than a ton.



### Linear Modules

Exactly moved!  
 With high speed  
 in all axes.



### Modular Assembly

A unique individuality!  
 Flexibility due to the use  
 of a modular system.



### Robot Accessories

Perfectly combined!  
 The interplay of robot  
 and tool.



### Rotary Modules

Controlled rotation!  
 Limited or endlessly –  
 free or cycled.



### Mobile Gripping Systems

Handling technologies  
 for the future.

... in your Automated Handling System

... for your Automated Machine Loading

... in your Machining Center

... for your Automated Assembly

... in your Service  
 Robotics Application

## Greifsysteme | Gripping Systems



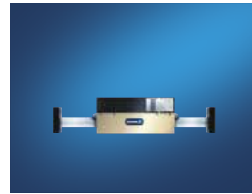
☐ Gesamtprogramm Greifsysteme  
Complete Program Gripping Systems



☐ Greifer  
Grippers



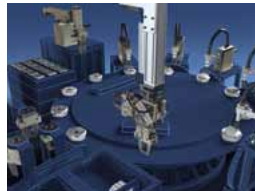
☐ Drehmodule  
Rotary Modules



☐ Linearmodule  
Linear Modules



☐ Roboterzubehör  
Robot Accessories



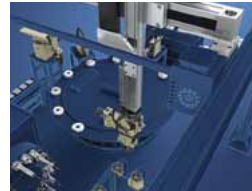
☐ Produktübersicht  
Product Overview



☐ Highlights  
Neuheiten | New Products



☐ Mechatronik  
Mechatronics



☐ Produktübersicht Linear-  
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Linear Modules



☐ Produktübersicht Roboter-  
zubehör | Product Overview  
Robot Accessories

## Spanntechnik | Clamping Technology



☐ Gesamtprogramm Spanntechnik  
Complete Program Clamping Technology



☐ Werkzeughalter  
Toolholders



☐ Stationäre Spanntechnik  
Stationary Workholding



☐ Drehfutter  
Lathe Chucks



☐ Spannbacken  
Chuck Jaws



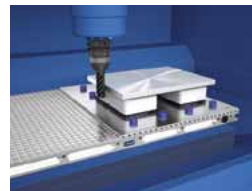
☐ Magnetspanntechnik  
Magnetic Clamping Technology



☐ Produktübersicht  
Product Overview



☐ Kundenspezifische Lösungen  
Hydro-Dehnspanntechnik  
Hydraulic Expansion Technology Special Solutions



☐ Vakuumsanntechnik  
Vacuum Clamping Technology



☐ Highlights  
Neuheiten | New Products

Firma   Company	Name   Name	Abteilung   Department
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