

Superior Clamping and Gripping



Product Overview

Gripping Systems

2013

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.

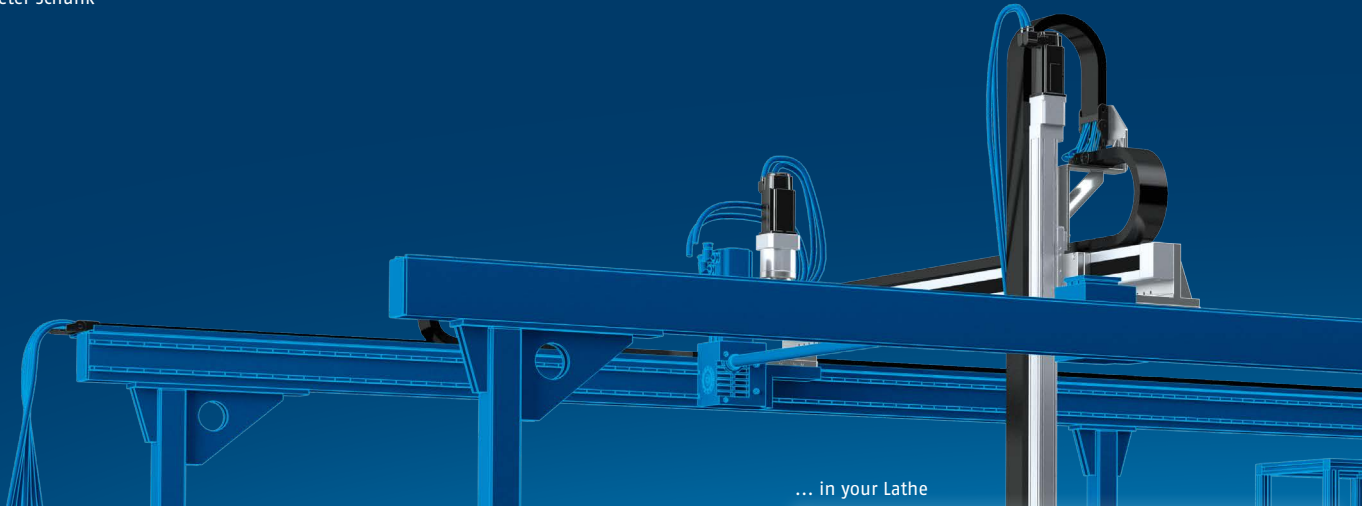
Our customers profit from the expert knowledge, the experience and the team spirit of more than 2,000 employees of our innovative family-owned company.

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

Heinz-Dieter Schunk

Henrik A. Schunk

Kristina I. Schunk

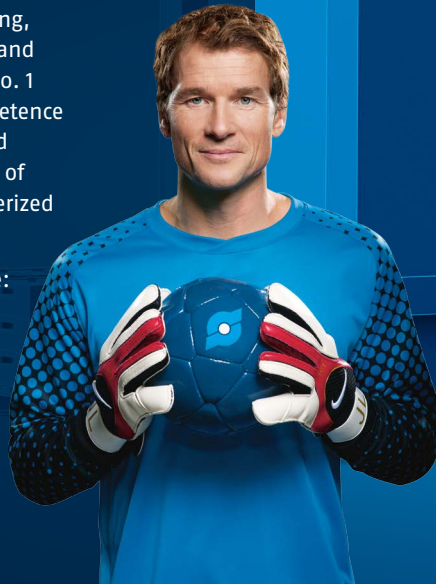


... in your Lathe

Superior Clamping and Gripping

Jens Lehmann stands for precise gripping, and concentrated 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



Jens Lehmann



30 Years

SCHUNK

Grippers
1983 – 2013



It is time to take advantage of potentials!

We uncover hidden potentials with superior components, where nobody expects them. In your machine. SCHUNK Synergy – the perfectly matching interplay of clamping technology and gripping systems make our customers productivity champions.



Gripping Modules

Gripping precisely! At a gripping range 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

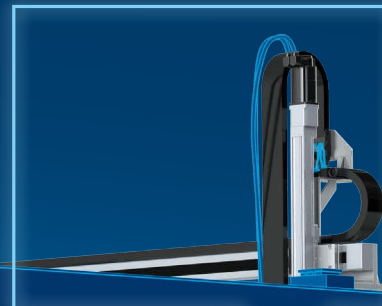
Controlled rotation!
Limited or endlessly –
free or cycled.



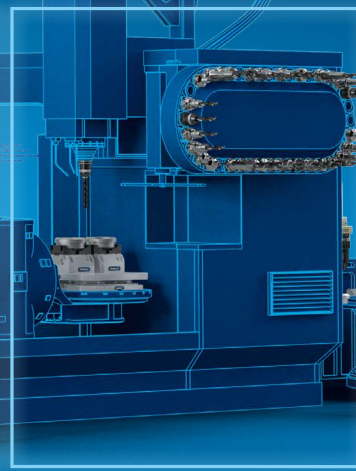
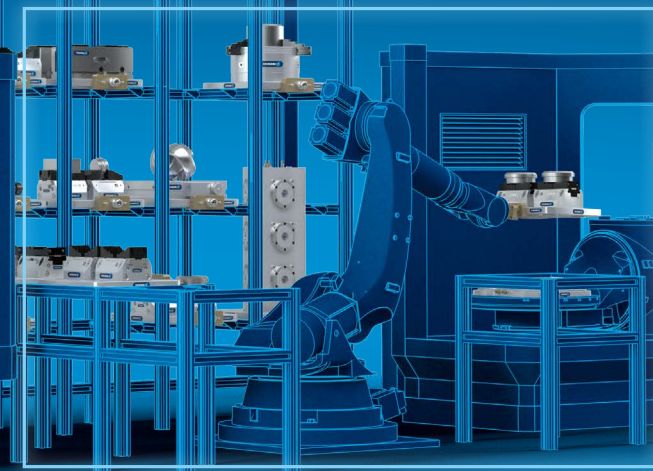
Mobile Gripping Systems

Handling technologies
for the future.

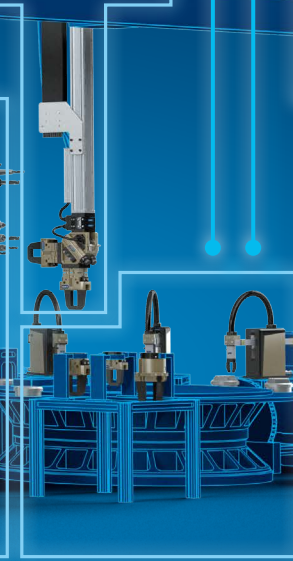
... in your Automated Handling System



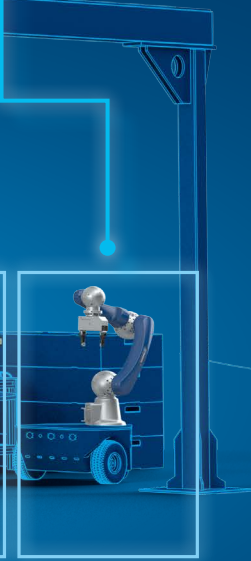
... for your Automated Machine Loading



... in your Machining Center



... for your Automated Assembly



... in your Service
Robotics Application

Pneumatic Gripping Modules

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 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 50 to 125
- Very good guidance characteristics



Sealed Gripper DPG-plus IP67

- High gripping forces from 110 N to 11700 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 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



Long-stroke Gripper PHL

- Gripping force from 390 N to 3250 N
- Stroke per finger 30 mm to 160 mm
- 5 sizes from 25 to 63
- The viton version allows applications in contaminated environments



Pneumatic Gripping Modules

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 59500 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 7990 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 16800 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 Gripping Modules

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 Gripping Modules

2-Finger Parallel Grippers

Intelligent Gripper EGP

- Gripping force up to 140 N
- Stroke per finger 3 mm to 6 mm
- Sizes 25 to 40
- Drive concept electrically, gripping force is adjustable in up to four steps



Electric Gripping Modules

2-Finger Parallel Grippers

Intelligent Gripper EGN

- Gripping force from 170 N to 1000 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



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

POWER CUBE



Intelligent Gripper PEH

- Gripping force control from 150 N to 1800 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 4000 N
- Stroke per finger 30 mm to 160 mm
- Sizes from 25 to 63
- Compatible with common servo motors like e.g. SEW, Siemens, Bosch, Fanuc, ...



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



3-Finger Centric Grippers

Intelligent Gripper EZN

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



Magnetic Gripper

Magnetic Gripper EGM

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



Pneumatic Rotary Modules

Swivel Module Unit

Swivel Module 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 11000 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



Ring Indexing Tables

Ring Indexing Table RST-P

- Pitch 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

Swivel Finger GFS

- Axial force from 330 N to 3300 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

Swivel-Tifting 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 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



Drives

Servo Motor PSM/PDU

- Nominal torque from 0.19 Nm to 142 Nm
- 3 sizes from 70 to 110
- PDU with integrated precision gear
- Fully integrated control and power electronics incl. different interfaces



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 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

Pick & Place Units

Rotary Lift Unit DRL

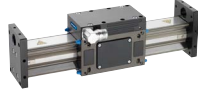
- For highly dynamic, yet smooth Pick & Place operations
- Up to 90 cycles per minute
- Rotation angle adjustable at 90° or 180°



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 absolut 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

- 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

Exchanging

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-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

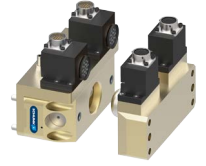


Robot Accessories

Exchanging

Quick-Change Module NSR-A 160

- Handling weight 350 kg
- Manifold electrical and pneumatic options
- Very compact design for loading very close to the machine table and in confined spaces



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 W to 660 W
- Flexible and robot-controlled deburring of workpieces



Protection

Anti-Collision and Overload Protection Sensor OPS and OPR

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



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-Moment-Sensor FT

- 16 sizes
- Measuring range: Moments up to ± 6000 Nm
- Measuring range: Forces up to ± 40000 N
- Communication: Ethernet, Ethernet/IP, Can, DAQ or RS232
- IP protection class: IP60, IP65 and IP 68



Catalog Order

Copy, complete, fax to +49-7133-103-2779

Gripping Systems



Complete program Gripping Systems



Gripping Modules



Rotary Modules



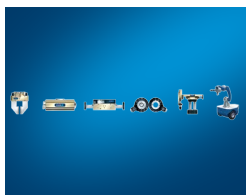
Linear Modules



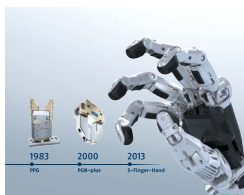
Robot Accessories



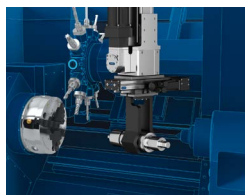
Modular Assembly Technology



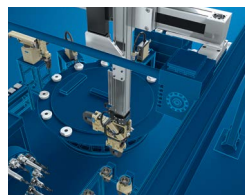
Product Overview



New Products



Mechatronics



Product Overview Linear Modules

Toolholding and Workholding



Complete program Toolholding and Workholding



Toolholding Systems



Stationary Workholding



Lathe Chucks



Chuck Jaws



Magnetic Clamping Technology



Product Overview



Hydraulic Expansion Technology Special Solutions



New Products

Company	Name	Department
Street	ZIP	City
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Spann- und Greiftechnik

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