



PRODUCT OVERVIEW

AUTOMATION

2010

Partner with Systematic Solutions

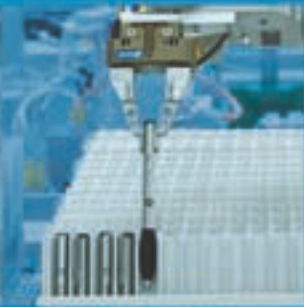
SCHUNK Synergy

Toolholding, Workholding and Automation

Three core competences from one source. As an experienced supplier of high-quality components, we know the demands and requirements of the complex world of clamping and automation. We know the demands and requirements as well as the difficulties of interfacing all three areas. SCHUNK offers advanced technology world-wide, based on years of experience and knowledge that grows daily, giving us the know-how for automated solutions – from the spindle to robotics. We call this "SCHUNK SYNERGY". Get to know us as your involved "all-in-one" partner ...



Industries. Processes. Solutions.



With a comprehensive program of gripping- and rotary modules, swivel units, linear modules and robot accessories SCHUNK is one of the market-leaders in automation.

Our product range also gives you the guarantee to find the right solution for special tasks. SCHUNK strives to maintain the closest relationships with industry and customers by delivering the needed cutting edge solutions.

Our industry solutions are based on these high-quality standard components and modules. According to the customer's and production requirements, they guarantee proximity to practice and latest technology in individual design.

From semi-standards to individual solutions, SCHUNK offers the whole range of cost- and benefit optimized automation solutions.

Industry Solutions



Machine- and Plant Engineering



Assembly and Handling



Automotive



Electronics



Food



Packaging



Pharmaceuticals



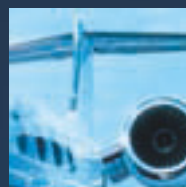
Welding Technology



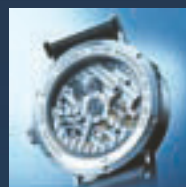
Foundry and Metallurgy



Energy



Aerospace



Clocks, Watches and Jewellery

Pneumatic Gripping Modules

2-Finger Parallel Grippers



Gripper for small components MPG

- Gripping force from 7 N to 540 N
- Stroke per finger 1 mm 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 guide



Universal Gripper PGN-plus

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



Universal Gripper JGP

- Gripping force from 123 N to 13000 N
- Stroke per finger 2.5 mm to 45 mm
- 11 sizes from 40 to 380
- 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

IP67



Sealed Gripper DPG-plus

- 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 multiple-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 dirty environments

Pneumatic Gripping Modules

3-Finger Centric Grippers



Grippers 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 automated assembly



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 multiple-tooth guidance with high maximum moments for the use of long gripper fingers



Universal Gripper JGZ

- Gripping force from 255 N to 38000 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

IP67



Sealed Gripper DPZ-plus

- Large gripping forces from 230 N to 16800 N
- Stroke per finger 2.5 mm to 25 mm
- 8 sizes from 40 to 200
- Robust multiple-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 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 safety device

Pneumatic Gripping Modules

Angular Grippers



Radial Gripper PRG

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

IP67



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

Lean Grippers



Gripper LGP/ LGZ/ LGW/LGR

- Parallel and Centric Grippers with strokes per finger from 2 mm to 13 mm and a gripping force from 26 N to 1140 N
- Angular and Radial Grippers with gripping moments from 0.22 Nm to 12.0 Nm
- 19 sizes that are economical

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
- Stroke per finger 2 mm to 10 mm
- 4 sizes from 32 to 64
- Compact module for automated assembly



Swivel Module with Centric Gripper GSM-Z

- Gripping force from 55 N to 310 N
- Stroke per finger from 3 mm to 5 mm
- 3 sizes from 30 to 45
- Flexible adjustment of the swivel angle via steel balls



Swivel Module with Angular Gripper GSM-W

- Gripping moment 0.45 Nm to 5.6 Nm
- Opening angle per finger 20°
- 5 sizes from 16 to 40
- Compact module for assembly automation

Pneumatic Gripping Modules

Gripper Swivel Modules



Swivel Module with Radial Gripper GSM-R

- Gripping moment 0.45 Nm to 7.5 Nm
- Opening angle per finger 90°
- 5 sizes from 16 to 40
- Flexible adjustment of the angle of rotation via steel balls

Electric Gripping Modules

2-Finger Parallel Grippers



Gripper for small components MEG

- Gripping force from 60 N to 175 N
- Stroke per finger from 6 mm to 10 mm
- 3 sizes from 40 to 64
- Drive design of step motor maximum flexible force, stroke or speed



Universal 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



Universal Gripper EVG

- Very sensitive gripper from 3 N to 57 N gripping force
- Stroke per finger 20 mm to 50 mm
- Size 55-40/100
- The stroke can be adjusted easily
- Compact and light

POWER CUBE



Universal 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



Long-stroke 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

3-Finger Centric Grippers



Universal 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



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 to 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° on option

Swivel Heads



Swivel Head SRH

- Torque from 3 Nm to 69.9 Nm
- Integrated media supply and transmission from BUS and digital signals
- 6 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 to 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

Electro-pneumatic Rotary Modules

Swivel Units



Masterdrive SRU-MD

- Peak drive torque of 13 Nm
- Responding behaviour below 20 ms until start
- Size 40
- Up to 3 intermediate positions can be approached
- Control via digital inputs

Electric Rotary Modules

Swivel Units



Miniature Rotary Module PRH

- Torque 1.5 to 6.8 Nm
- Infinitely rotating
- 6 sizes
- Integrated electronics with SMP



Universal Swivel Unit PR

- Axial force from 345 N to 895 N
- High torque from 7.5 Nm to 142 Nm
- 3 sizes from 70 to 110
- Fully integrated control and power electronics incl. different interfaces



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 from 70 to 90
- Fully integrated control and power electronics incl. different interfaces



Torque Motor STM

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

Actuation



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



Milan SCHUNK Motor MSM

- Nominal torque from 1.5 Nm to 4.0 Nm
- 3 sizes from 35 to 63
- 230 V power supply
- Complete integration of the control and power electronics

Linear Modules

Stroke Modules



Stroke Module PHE

- Stroke from 20 mm to 120 mm
- Actuation force from 130 N to 430 N
- 3 sizes from 64 to 100
- Double bearing guidance

Linear Modules

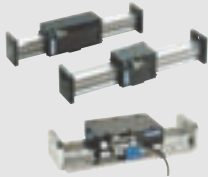
Pick & Place Units



Pick & Place Unit with PPU-E direct drive

- Payload of up to 3 kg
- Horizontal stroke maximum 270 mm, vertical stroke maximum 100 mm
- No moving motor cable
- For highly dynamic Pick & Place applications at high repeat accuracies

Linear Axes



Linear Axes with direct linear motor drive MLD

- Modular system with a stroke capacity up to 3800 mm
- Actuation force up to 1200 N
- Moment capacity up to 900 Nm
- For high dynamic applications with a high repeat accuracy



Linear Axes System HSB

- Stroke capacity up to 7640 mm
- Actuation force up to 18000 N
- Moment capacity of up to 12000 Nm
- Modular system with manifold guidance and actuation versions



Linear Axes with servo drive PLS

- Stroke from 60 mm to 1200 mm
- Actuation force from 180 N to 3990 N
- Moment capacities up to 2280 Nm
- 3 sizes from 70 to 110
- High dynamic servo drive with different interfaces

Robot Accessories

Exchanging



Tool Quick-Changing System SWS

- Handling weight of up to 1200 kg
- 14 sizes from 005 to 1210
- Manifold electric energy and liquid transmission options
- Easy assembly via ISO-flange



Manual Gripper-Changing-System HWS

- Handling weight of up to 54 kg
- 6 sizes from 040 to 125
- Manifold electrical and pneumatic options
- Easy assembly via ISO-flange

Feed through



Rotary Distributor DDF

- 14 sizes from 031 to 160
- From 2 to 4 feed-throughs
- Up to 10 electric feed-throughs
- Easy assembly via ISO flange

Robot Accessories

Machining



Flexible Deburring Spindle FDB

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

Protection



Anti-Collision and Overload Protection Device OPS

- 6 sizes from 063 to 201
- With manual reset
- Tripping energy and moment via operating pressure adjustable
- Anti-collision control via integrated sensors



Anti-Collision and Overload Protection Device OPR

- 6 sizes from 061 to 221
- With automatic reset
- Very high tripping forces and moments 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 050 to 200
- Direct mounting to a PGN-plus and PZN-plus
- Rotary compensation and laterally around all axes
- With centric locking and monitoring

Measuring



Rigid Force-Moment-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

Machine Vision

Vision-Sensors



Image-processing Sensor SVS-VC

- Resolution 750 x 480 pixels (WVGA)
- Sensor 1/3" Wide VGA, CMOS; S/W; global shutter
- Frame rate 60 fps
- Operating distance 150, 300 or 450 mm
- Very simple installation and commissioning, no peripherals needed

Automation product range

Gripping Modules

SCHUNK currently has the most comprehensive range of universal grippers and gripper modules for small components. Pneumatic or electric. 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 handling in any industry, in 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



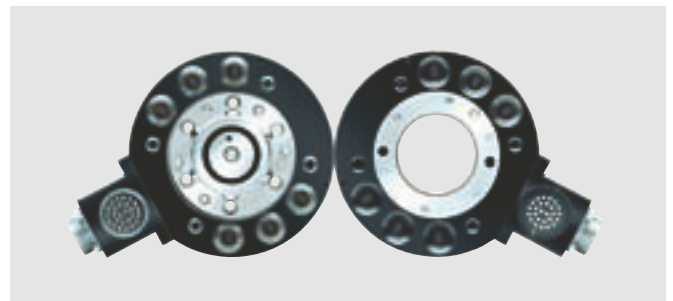
Linear Modules

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.



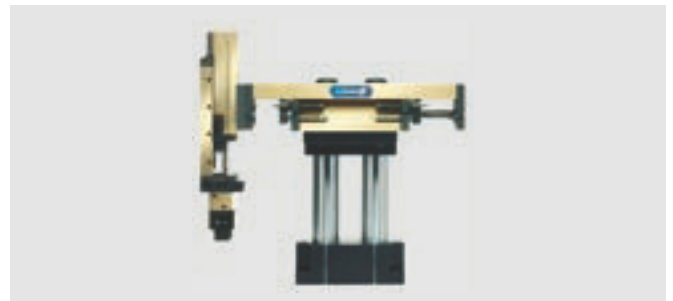
Robot Accessories

Robot accessories from SCHUNK – the complete range of modules for perfect interplay between the robot arm and the tool. Suitable for all types of robot, it is also an ideal enhancement to flexible robot applications.



Modular Assembly Automation

Flexible – fast – future-secure. This is the system GEMOTEC from SCHUNK. 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 system GEMOTEC is already assembled. Fast and straightforward.



Machine Vision

In automated assembly, image processing modules from SCHUNK represent the flexible solution for manifold sensor applications. All high-quality components are perfectly phased to each other. The necessary software for object and position detection stands for 100% process reliability.



Catalog Order

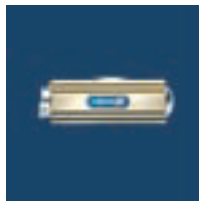
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Automation



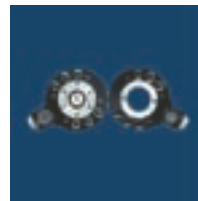
Gripping Modules



Rotary Modules



Linear Modules



Robot Accessories



Modular Assembly Technology



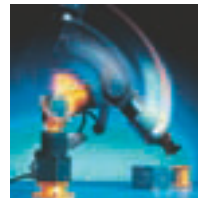
Machine Vision



Automation Product Overview



Modular Assembly Technology Product Overview



Modular Robotics



Industry Solutions



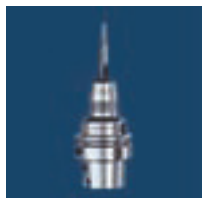
Highlights New Products



Universal Rotary Actuator SRU-plus

Complete program Automation

Toolholding and Workholding



Toolholding Systems



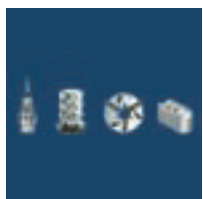
Stationary Workholding



Lathe Chucks



Chuck Jaws



Product Overview



Hydraulic Expansion Technology Special Solutions



Magnetic Clamping Technology



Highlights New Products

Complete program Toolholding and Workholding

Company _____

Name _____

Department _____

Street _____

ZIP _____ City _____

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