

SCHUNK
Grippers
proven
since 1983



Superior Clamping and Gripping



Gripping Meets Robotics

The SCHUNK End-of-Arm Expertise:
From the Component to the Gripping System



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

J. Lehmann
Jens Lehmann





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.

In order to boost efficiency, SCHUNK customers have bought more than 2,000,000 precision toolholders, 1,000,000 gripping modules, and 100,000 lathe chucks and stationary workholding systems so far.

This makes us proud and motivates us to attain new top performances.

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 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

SCHUNK Gripping Technology Milestones

Due to our 30 years of expertise, we now offer our customers the world's largest range of standardized gripping modules.

PPG

First pneumatic SCHUNK standard gripper. 100% constant gripping center due to integrated synchronization.



1983

PGN-plus

The only 2-finger parallel gripper with multi-tooth guidance. 100% functional precision.



2000

SDH

First SCHUNK 3-finger gripping hand with tactile sensors. With 76 measuring points per sensor field. **MECHATRONIK³**



2006

MPG-plus

The most powerful miniature pneumatic gripper on the market. 25% higher gripping force at the same module size.



2010

Awards!

With a pioneering spirit and perfection we create the developments in clamping technology and gripping systems. Highly recognized and coveted awards, and prizes honor the excellent performance of our company, as well as our SCHUNK team.

We are pleased that we can set benchmarks with our full commitment. We want to take this opportunity of saying thank you for the multiple recognitions – at national and international level.



iF product design award

- 1999 TRIBOS
- 2004 ROTA THW plus
- 2004 SRU
- 2005 TANDEM PZS
- 2009 ZENTRICO THL plus
- 2011 PHL
- 2012 ROTA NCL

Junior Chamber Prize

- 2005 Junior Chamber Prize
- 2008 Junior Chamber Prize

Technology Award "Tech-Stars"

- 2006 3-Finger Dextrous Gripper Hand



Dr. Rudolf Eberle Prize

- 1986 Gripping Systems

EuroMold Award

- 1998 TRIBOS
- 2002 SINO-T

Advertising Excellence Award

- 2002 SCHUNK "Power"-Advertising



Enterprise Medal of the State of Baden Württemberg

- 2006 Heinz-Dieter Schunk

A & D Best Product Award

- 2007 System GEMOTEC



PRL

Integration of gripper arm modules PRL in Care-0-Bot®. Up to 216 Nm continuous torque.



2008

Powerball Lightweight Arm LWA 4P with WSG Gripper

The lightweight arm with the world's best compact performance, used on mobile platforms. Up to 6 degrees of freedom.



2010

SVH 5-Finger Hand

First ready for series 5-finger hand with 9 motors



2012 / 2013

EGN / EZN

First servo-electric SCHUNK safety gripping systems



2014



Industry award

- 2008 Machine building: Gripper with spindle interface
- 2008 SWS-I-011
- 2010 PPU-E
- 2012 EGP 40 (BEST OF 2012)
- 2013 VERO-S NSR (BEST OF 2013)



Engelberger Robotics Award

- 2010 Heinz-Dieter Schunk



Bosch Global Supplier Award

- 2011 / 2012 SCHUNK GmbH & Co. KG



MM Award to the AUTOMATICA

- 2008 Dextrous Hand SDH-2
- 2010 MPG-plus
- 2012 Powerball Lightweight Arm LWA 4P



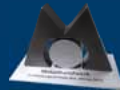
Preferred Supplier of the Bosch Group

- 2012 SCHUNK GmbH & Co. KG
- 2013 SCHUNK GmbH & Co. KG



German Machine Tool Industry Award

- 2008 Heinz-Dieter Schunk



Training Company of the Year Federal Metal Association

- 2011 SCHUNK GmbH & Co. KG



red dot award

- 2013 Powerball Lightweight Arm LWA 4P



Process Innovation Award

- 2009 UNIPLACE



Founder's Prize of Baden Wurttemberg Savings Bank Finance Group

- 2013 Heinz-Dieter Schunk

KE Konstruktion & Engineering

- 2009 PPU (November 2009)
- 2010 CFK (August 2010)

SCHUNK Gripping Technology

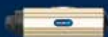
More than 30 years of gripping expertise is the basis for the world's largest standardized gripping technology product range with more than 4000 components and for an average of 2000 standard and customer-specific gripping systems per year.

Components

Standard Components



Gripper Modules



Rotary Modules



Linear Modules



Robot Accessories



Pick & Place Units



Gripping Hands

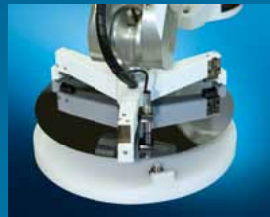


Lightweight Arms

Customer-Specific Components

From standard components further developed in accordance with customer requirements to exclusive customer-specific new developments.

Examples:



Wafer Grippers

made of laser-forming material with LGP gripper module



Compact Vises

for sheet metal machining, pneumatically actuated



Packaging Grippers

High-speed grippers according to legal, hygienic, and production specifications

Gripping Systems

Standard Gripping Systems



Modular Assembly Automation



Line and Room Gantries



Solution composed of several SCHUNK standard components for robots and gantries

Customer-Specific Gripping Systems

Solution composed of several SCHUNK components, of which at least one is further developed or newly developed specifically for the customer.

Examples:



Connecting Rod Handling



Aluminum Foil Handling



Modular and Mobile Gripping Systems

Contents

	Page
Gripping Meets Robotics	8
SCHUNK Standard Components and Standard Gripping Systems	8
SCHUNK Customer-specific Components and Gripping Systems	14
Safety Gripping Systems	16
AUTOMATICA 2014	18
New Products	19
Gripper Modules	20
Rotary Modules	32
Linear Modules	36
Robot Accessories	42
Modular Assembly Automation	48
Modular and Mobile Gripping Systems	50
Accessories	52
SCHUNK No. 1 Products for	62
Your Automated Machine Loading	71
Your Automated Handling System	77
Your Automated Assembly	81
Your Service Robotics Application	85
Your Lathe	91
Your Machining Center	97
SCHUNK Service / Contact	104

Gripping Meets Robotics

**Discover SCHUNK End-of-Arm Expertise!
For every Robot, every Industry,
every Handling Task.**

SCHUNK gripping technology, with its components and gripping systems, has been setting the standard in automation in every industry worldwide.

Our robot accessories include a uniquely extensive standard range of modules for the mechanical, sensoric and power connection of handling devices and robots. The comprehensive range of robust and durable gripping modules for small components and universal gripping modules features high product quality, precision, and numerous sensing options.

Benefit from the SCHUNK Modular System with over 4000 standard Components.

MPG-plus
Pneumatic Gripper for
Small Components



PGN-plus Universal
Gripper with Multi-tooth
Guidance



EGP
Electric Gripper
for Small
Components



SLG
Heavy-Load Gripper



Gripping

Feed-throughs

Monitoring

Changing

Compensating



DDF 2 Rotary
Feed-Through



OPR Collision and
Overload Sensor



DDF-I Rotary
Feed-through



OPS Collision and
Overload Sensor

HWS Manual
Change System



SWS Robot
Quick-Change
System



AGE-S
Compensation
Unit

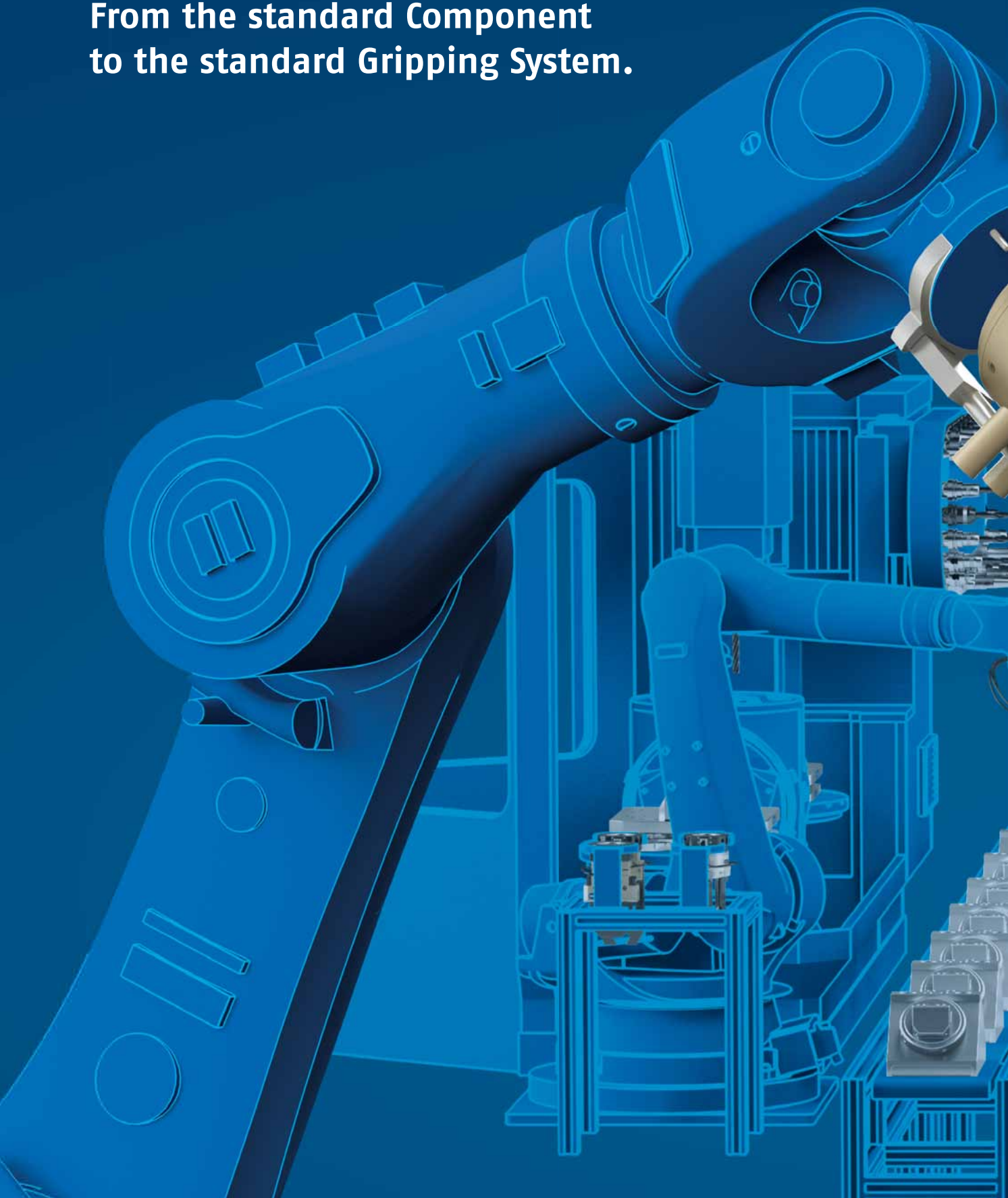


AGE-F
Compensation
Unit



The SCHUNK End-of-Arm E

From the standard Component
to the standard Gripping System.



xpertise ...

... for your articulated-arm robot

Feed-throughs

SCHUNK DDF 2 Rotary Feed-through [Page 42](#)

Connecting

SCHUNK Adapter Plate [Page 82](#)

Monitoring

SCHUNK OPR Collision and Overload Sensor [Page 79](#)

Joining and Compensating

SCHUNK TCU Compensation Unit [Page 82](#)

Changing

SCHUNK SWS

Quick-Change System

Consisting of SWK (Quick-Change Head) and SWA (Quick-Change Adapter) [Page 78](#)

Gripping

SCHUNK Gripper Module

2-Finger Universal Gripper with Multi-tooth Guidance

[Page 78](#)

Find out more about SCHUNK customer-specific components and gripping systems on [Pages 14 to 15](#)

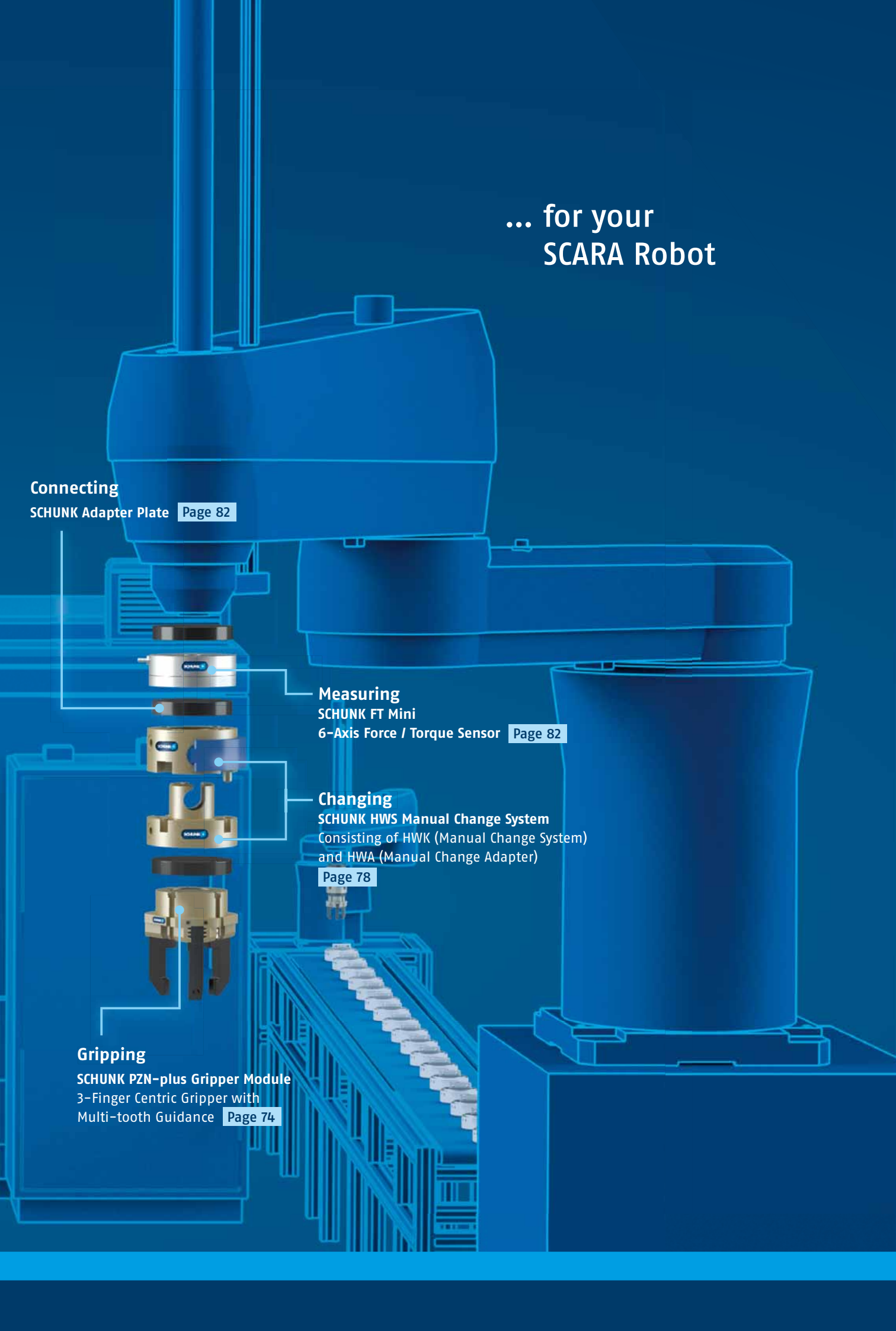
... for your
SCARA Robot

Connecting
SCHUNK Adapter Plate [Page 82](#)

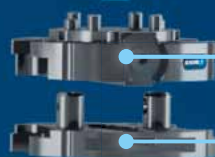
Measuring
SCHUNK FT Mini
6-Axis Force / Torque Sensor [Page 82](#)

Changing
SCHUNK HWS Manual Change System
Consisting of HWK (Manual Change System)
and HWA (Manual Change Adapter)
[Page 78](#)

Gripping
SCHUNK PZN-plus Gripper Module
3-Finger Centric Gripper with
Multi-tooth Guidance [Page 74](#)



... for your
Delta Robot



Changing
SCHUNK SWS Quick-Change System
Page 44

Connecting
SCHUNK Adapter Plate
Page 82

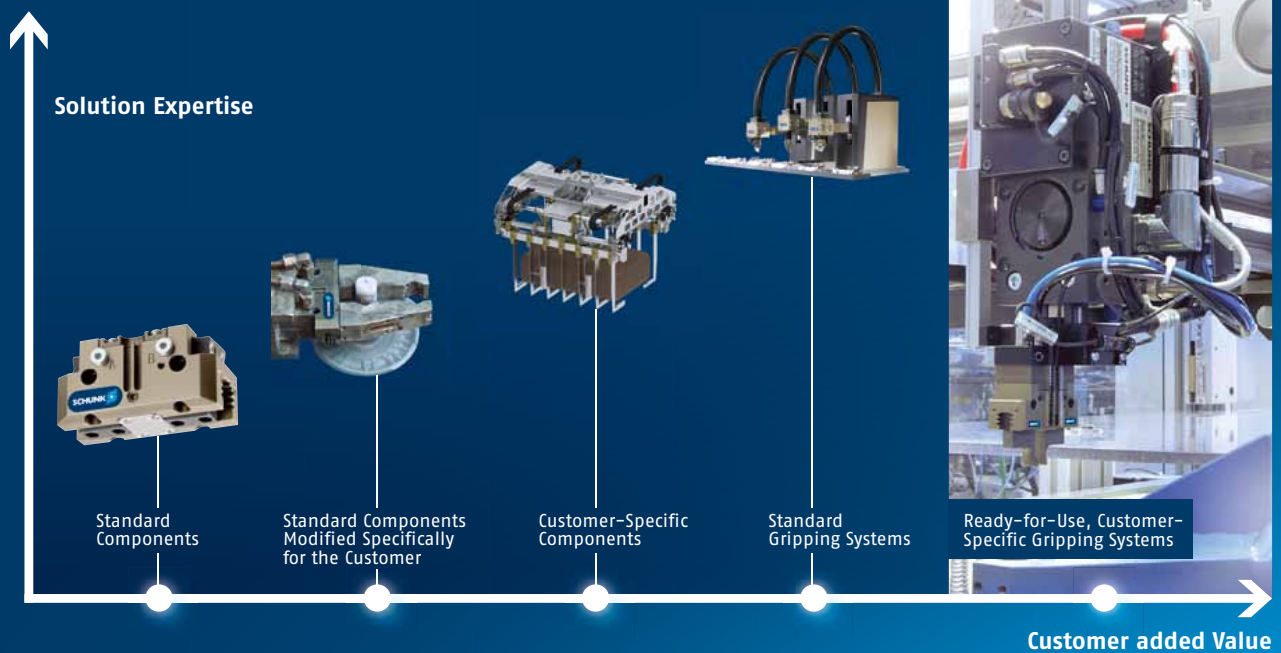


Gripping
SCHUNK Gripper Module MPG-plus
2-Finger Miniature Parallel Gripper
Page 83



Customer-Specific Components and Gripping Systems

From the Standard Component to the Customer-Specific Gripping System



Just 1 Expert Contact Person for a Solution from a Single Source

For smooth communications, a personal contact person is available to you from the start of the project until completion. Your contact person is the interface between you and the individuals involved in the project and ensures that information is exchanged smoothly.

From planning to continued support after the conclusion of the project, SCHUNK guarantees that your project will be handled cooperatively and efficiently.

Find out more about SCHUNK standard components and standard gripping systems on [Pages 8 to 13](#)

Your Advantage

- Over 30 years of experience in gripping technology
- Over 10,000 implemented gripping systems for a wide range of industries
- Modular design with perfectly coordinated standard components
- Complete accuracy of fit due to standardized interfaces
- Shorter project lead times due to standardized systems
- Reliable implementation processes and planning security without extra project costs
- Functional assemblies fitted on request or ready for use
- Time savings due to the perfect solution from a single source

Examples of ...

Robots



Task

Loading rough aluminum parts into and unloading finished aluminum parts from machine tools.

SCHUNK Solution

The aluminum blanks of the aluminum rims are finish-machined in several steps. The blanks are gripped from the conveyor belt and inserted into the machine tool by modified SCHUNK PFH 2-finger long-stroke grippers. After the first machining process, the finished part is removed and the next rough part is immediately inserted. The grippers also have special plastic inserts on the gripper fingers.

SCHUNK Products



PFH
2-Finger Long-Stroke Gripper

Axis Systems



Task

A loading gantry is needed for a machine tool.

SCHUNK Solution

Rough parts are loaded into the machine and finished parts are removed from the machine by a pneumatic SCHUNK rotary actuator with double gripper. This significantly reduces the cycle time.

SCHUNK Products



X-Axis (Horizontal) D240-ZSS
Toothed Belt Drive
Linear Module



Z-Axis (Vertical) D240-SSS
Spindle Axis
Linear Module



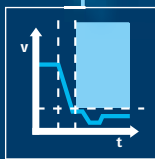
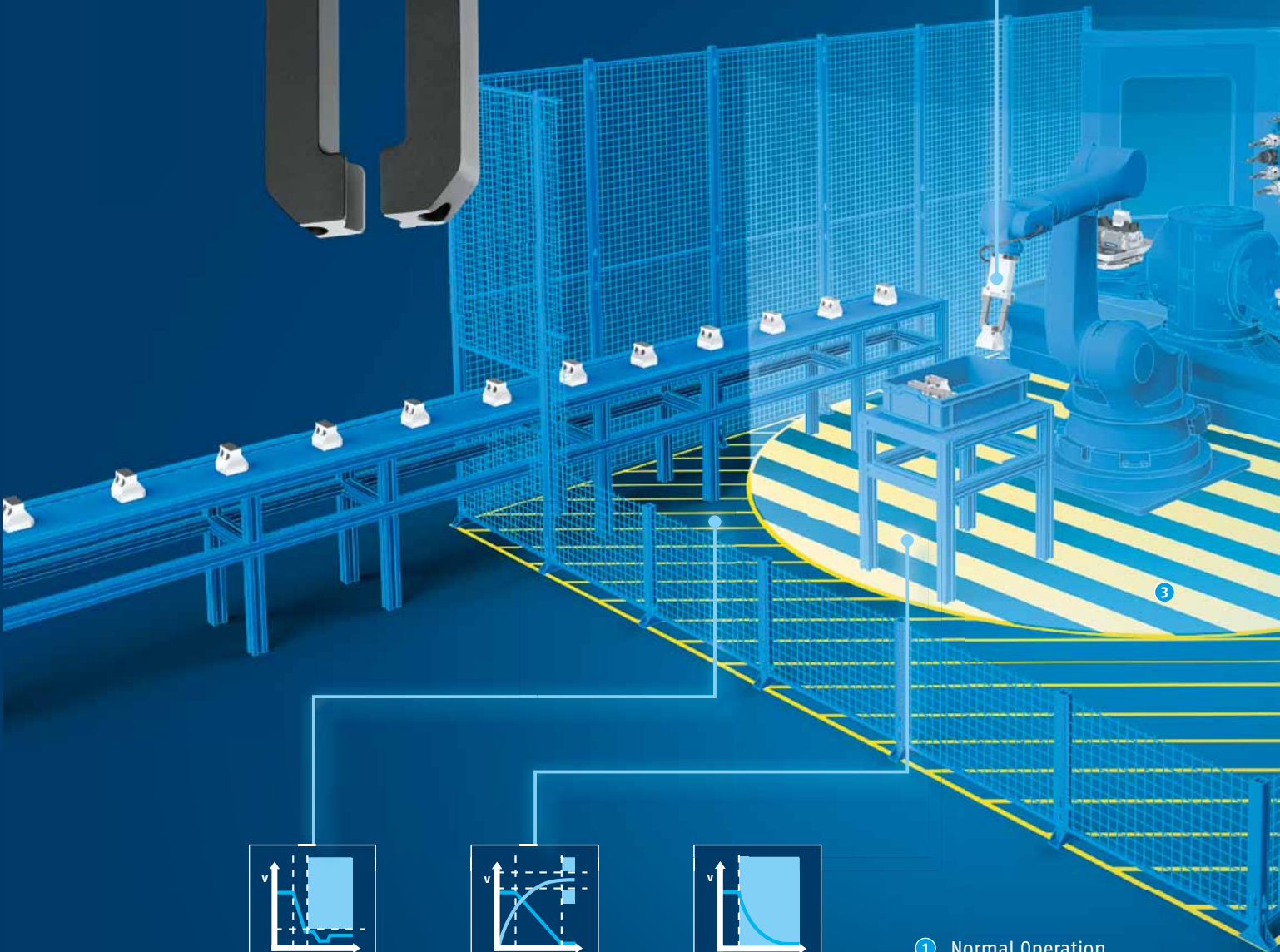
SRU-plus
Rotary Actuator



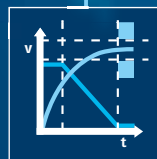
PGN-plus
Universal Gripper



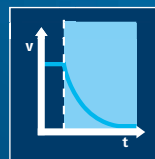
SCHUNK
EGN Safety Gripping System



SLS
Safely
Limited Speed



SOS
Safe
Operating Stop



STO
Safe
Torque Off

- ① Normal Operation
- ② Protection Zone 1
- ③ Protection Zone 2

Global Innovation! Certified SCHUNK Safety Gripping System.

For a universal Actuator Concept for safe Human/Machine Collaborations.



SCHUNK closes a gap in the safety concept of your complete system with a unique, standardized safety component.

In contrast to other solutions on the market, the DGUV-certified SCHUNK EGN and EZN safety gripping systems continue to be powered even during emergency-stop operation and safely and actively maintain their gripping force. The workpiece continues to be securely held.

The incredible advantages for you:

- Safety according to **EN ISO 13849**
- Definition of **graduated protection zones**
- **Prevents** complete **emergency shut-off** of the production process
- Safely **limited speed** and **safe operating stop**
- Gripper switches back to the regular operating mode **without delay** after protection zone release
- **No restarting** of the system is required
- **Performance Level d / SIL 3** in combination with the SCHUNK ECM controller and the SCHUNK safety module
- Safety functionality can be **retrofitted** in existing EGN and EZN applications

Find out more about the SCHUNK EGN and EZN safety gripping systems on [Pages 22 to 25](#)

"Gripping Meets Robotics"

Experience the SCHUNK No. 1 Products in Robot Applications live at AUTOMATICA 2014 or online.



Simply use the QR code, and you will experience the world of the most modern front-end solutions in action in seven practical applications.



www.gb.schunk.com/gripping-competence/automatica

- ① Certified SCHUNK safety gripping systems EGN / EZN
- ② Cutting of metal products – automated workpiece change
- ③ SCHUNK LWA 4P lightweight arm and SCHUNK SVH 5-finger hand
- ④ Bin picking with SCHUNK LWA 4P lightweight arm
- ⑤ Automotive – force-sensitive testing of interior components
- ⑥ Electronics – assembly and mounting of circuit boards
- ⑦ Body construction – fully automated electrode holder change
- ⑧ Assembly and handling – assembling assembly groups
- ⑨ Medical equipment – handling of screws
- ⑩ Food and packaging – handling with high-speed delta robot



New Products

	Page
Gripping Modules	20
EGP and EGP 25-Speed Electric 2-Finger Gripper for Small Components	20
EGN Electric 2-Finger Parallel Safety Gripper	22
EGN Electric 3-Finger Centric Safety Gripper	24
WSG 25 Electric 2-Finger Parallel Gripper	26
EGA Electric 2-Finger Long-Stroke Gripper	28
EGM Electric Magnetic Gripper	30
Rotary Modules	32
SRU-Mini Speed Pneumatic Rotary Actuator	32
PR 2, PDU 2, and PSM 2 Electric High-Performance Rotary Modules	34
Linear Modules	36
ELB Linear Motor Axis	36
Gamma 90 Linear Module	38
Delta 145C Linear Module	40
Robot Accessories	42
DDF 2 Rotary Feed-Through	42
SWS Quick-Change System	44
AGE-Z 2 Compensation Unit	46
Modular Assembly Automation	48
RVK Collection Gripper	48
Modular and Mobile Gripping Systems	50
SVH Servo-Electric 5-Finger Gripping Hand	50
Accessories	52
ECM Controller	52
MMS-A Magnetic Switch	54
SDV-P-E Pressure Maintenance Valve	56
PPU-E Motor Hybrid Cable	58
MV 10 Micro Valve	60

EGP 25-Speed Electric 2-Finger Gripper for Small Components. The most compact and fastest electric Gripper for Small Components on the Market.

Excellent stroke to closing time ratio

The SCHUNK EGP in size 25 is already the smallest electric gripper for small components on the market today. The SCHUNK EGP 25 once again sets a record in speed. With a rapid 0.03 s closing time it is the fastest in its weight class and has opened up unexpected potential in high-speed Pick & Place systems. This speedy little powerhouse weighs 100 g, features a stroke of 3 mm and a gripping force up to 7 N. This makes it suitable for the handling of workpieces up to 35 g in friction-fit clamping.

In addition, SCHUNK has also completed the standard series of the EGP up to size 50. The gripper for challenging handling applications achieves gripping forces of up to 215 N with a fast closing time of only 200 ms.

Ideal for quickly handling small parts

The SCHUNK EGP is based on the platform of the tried and tested pneumatic SCHUNK MPG-plus gripper for small components. In many cases, users can transfer the sensor systems used in the SCHUNK MPG-plus to the SCHUNK EGP and easily convert existing systems from pneumatic to electrical operation. Control of the SCHUNK MPG-plus can be digitally direct, or via a sensor distributor. The Pick & Place expert fulfills protection class IP30 and fits seamlessly in the program for modular high performance assembly from SCHUNK.



With maximum dynamics!
For demanding Pick & Place applications.

EGP 25-Speed: Available starting June 2014 | EGP 50: Available starting June 2014

				
Sizes 25-Speed 25 .. 50	Weight 0.1 kg 0.11 .. 0.51 kg	Gripping force 7 N 40 .. 215 N	Stroke per finger 3 mm 3 .. 8 mm	Workpiece weight 0.035 kg 0.2 .. 1.05 kg

Product features

- Compact dimensions and low weight for space-critical and highly dynamic applications
- Short closing times for high cycles
- Simple controlling via two digital inputs (opening and closing)
- Electronics installed internally to save space
- Wear-resistant servo motor

Your advantage

- More flexible system designs, due to side and bottom mounting options for bolting through and on
- The sensor system of the SCHUNK MPG-plus can be used in many cases for the SCHUNK EGP, too
- Increased system productivity due to reduced wear-related downtimes

Function cross section

- 1 Base jaw
- 2 Cross roller guidance
- 3 Gears
- 4 Drive
- 5 Control electronics



EGN Electric 2-Finger Parallel Gripper. The first certified Safety Gripping System.

Continuously powered

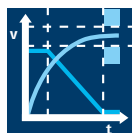
With the SLS, SOS, and STO functionalities, the SCHUNK EGN gripping system certified in accordance with DIN EN ISO 13849 enables safe human/machine collaboration. If the production process is interrupted by an emergency shut-off, the SCHUNK EGN goes into either a safely limited speed mode or a safe stop mode depending on the activated protection zone. In contrast to other solutions available on the market, the SCHUNK safety gripping system is continuously powered even in the safe operating stop so that the gripped parts are reliably held even without mechanical maintenance of gripping force. As soon as the protection zone is released, the gripper immediately switches back to the regular operating mode without the system having to be restarted.

Safety functionality can be retrofitted at any time

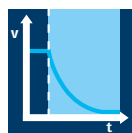
The EGN 2-finger parallel gripper is modularly designed and covers a wide range of applications. The gripping force, speed, and finger position can be flexibly controlled during the handling process. All sizes have the multi-tooth guidance patented by SCHUNK. The SCHUNK EGN is controlled by the SCHUNK ECM controller equipped with standard connector technology either via Profibus (up to 12 Mbit/s) or CAN bus (up to 1 Mbit/s). To use the certified SLS, SOS, and STO functionalities, the SCHUNK safety module is added to the gripper and the controller. Due to the modular design, existing EGN applications can be retrofitted with the safety functionality at any time.



Safely Limited Speed (SLS)



Safe Operating Stop (SOS)



Safe Torque Off (STO)

World premiere!

Certified safety gripping system. Can also be retrofitted!



Superior Precision!

Multi-tooth Guidance

Immediately available



Sizes
80 .. 160



Weight
0.84 kg .. 3.0 kg



Gripping force
400 N .. 1,000 N



Stroke per finger
8 mm .. 16 mm



Workpiece weight
2.1 kg .. 5.4 kg

Product features

- Modular gripper concept
- Certified SLS, SOS, and STO functionalities
- Performance Level d / SIL 3 in combination with SCHUNK ECM controller and the SCHUNK safety module
- Brushless servo motor
- Different lengths of cable sets for use in cable chains or with robots
- Optionally for dusty, humid, or corrosive environments

Your advantage

- Safety according to EN ISO 13849
- High gripping speed along with high force
- Simple commissioning and parameterization via PC, USB stick, or rotary encoding switch
- Safe holding of the workpiece even when the process is interrupted by an emergency shut-off
- Immediate return to the regular operating mode avoids restarting of the system

Function cross section

- 1 Wedge-hook design
- 2 Multi-tooth guidance
- 3 Housing
- 4 Spindle nut
- 5 Drive



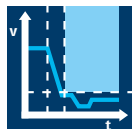
EZN Electric Safety Gripping System. Now also available as a certified Safety Gripping System.

Safe stop mode – fast restarting

Like the SCHUNK EGN safety gripping system, the SCHUNK EZN gripping system certified in accordance with DIN EN ISO 13849 enables safe human/machine collaboration. If the production process is interrupted by an emergency shut-off, the SCHUNK EZN goes into either a safely limited speed or a safe torque off depending on the activated protection zone. In contrast to other solutions available on the market, the SCHUNK safety gripping system is continuously powered even in the safe operating stop so that the gripped parts are reliably held even without mechanical maintenance of gripping force. As soon as the protection zone is released again, the gripper immediately switches back to the regular operating mode without the system having to be restarted.

Simple digital control

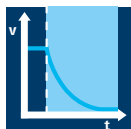
The EZN 3-finger centric gripper is completely modularly designed and covers a wide range of applications. The gripping force, speed, and finger position can be flexibly controlled during the handling process. All sizes have the multi-tooth guidance patented by SCHUNK. The SCHUNK EZN is controlled by the SCHUNK ECM controller equipped with standard connector technology either via Profibus (up to 12 Mbit/s) or CAN bus (up to 1 Mbit/s). To use the certified SLS, SOS, and STO functionalities, the SCHUNK safety module is added to the gripper and the controller. Due to the modular design, existing EZN applications can be retrofitted with the safety functionality at any time.



Safely Limited Speed (SLS)



Safe Operating Stop (SOS)



Safe Torque Off (STO)

World premiere!

Certified safety gripping system. Can also be retrofitted!

Superior Precision!

Multi-tooth Guidance

Immediately available



Sizes
64 .. 100



Weight
0.98 kg .. 2.3 kg



Gripping force
500 N .. 800 N



Stroke per finger
6 mm .. 10 mm



Workpiece weight
2.5 kg .. 4.0 kg

Product features

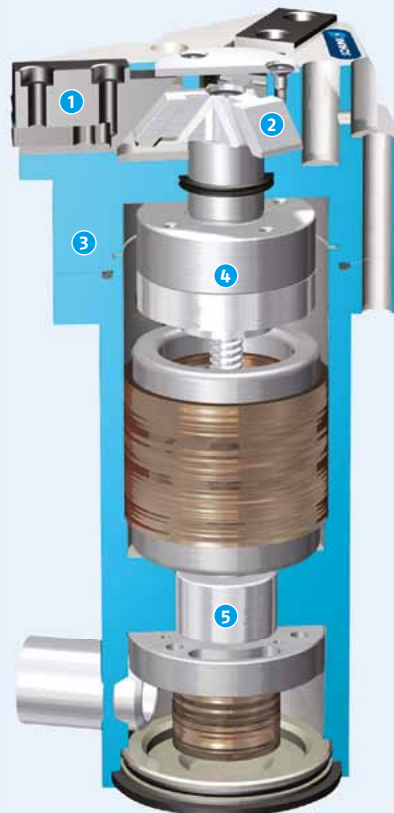
- Modular gripper concept
- Certified SLS, SOS, and STO functionalities
- Performance Level d / SIL 3 in combination with SCHUNK ECM controller and the SCHUNK safety module
- Brushless servo motor
- Different lengths of cable sets for use in cable chains or with robots
- Optionally for dusty, humid, or corrosive environments

Your advantage

- Safety according to EN ISO 13849
- High gripping speed along with high force
- Simple commissioning and parameterization via PC, USB stick, or rotary encoding switch
- Safe holding of the workpiece even when the process is interrupted by an emergency shut-off
- Immediate return to the regular operating mode avoids restarting of the system

Function cross section

- 1 Base jaw
- 2 Wedge-hook design
- 3 Housing
- 4 Kinematics
- 5 Drive



WSG 25 Electric 2-Finger Parallel Gripper. The smallest intelligent Gripper on the Market with Control via Ethernet TCP / IP.

Compact gripper with grips and sensitivity

The new WSG 25 gripper for small components is the smallest intelligent gripper on the market that can be controlled via Ethernet TCP / IP. The WSG 25 was designed especially for use on small robots and in compact gantry systems. Both the finger position and the gripping force can be individually adapted in each stroke and continuously monitored. In this way, even fragile small components can be handled with process stability. Like all gripper modules of the WSG series, the WSG 25 can be put into operation quickly and simply via an intuitive configuration interface and, without installing additional software, via Ethernet TCP / IP by using any common web browser.

For this purpose, the WSG 25 is equipped with an industrial M8 plug connector. The web server is already integrated into the gripper as standard. The web server can also be used for remote diagnostics and for sending status emails.

Complete series – intuitive, integrated, intelligent






The intelligent mechatronic grippers of the WSG series are available in four variants: The WSG 50 can be controlled via Ethernet TCP / IP, Profibus, CAN bus, or eight virtual digital I/Os. In addition to the basic version WSG 050-110 with a 55 mm stroke per finger, there is the long stroke version WSG 050-210 with a stroke of 110 mm per finger. The WSG 32 is much more compact and was designed especially for handling small and medium-sized components.



Extremely compact!

Optimal for use with small robots or gantries.

Size 25: Available starting August 2014 | Sizes 50 – 210: Immediately available

				
Sizes	Weight	Gripping force	Stroke per finger	Workpiece weight
25	0.32 kg	5 N .. 20 N	32 mm	0.1 kg
32	0.55 kg	5 N .. 50 N	34 mm	0.25 kg
50	1.2 kg .. 1.6 kg	5 N .. 80 N	55 mm .. 105 mm	0.4 kg

Product features

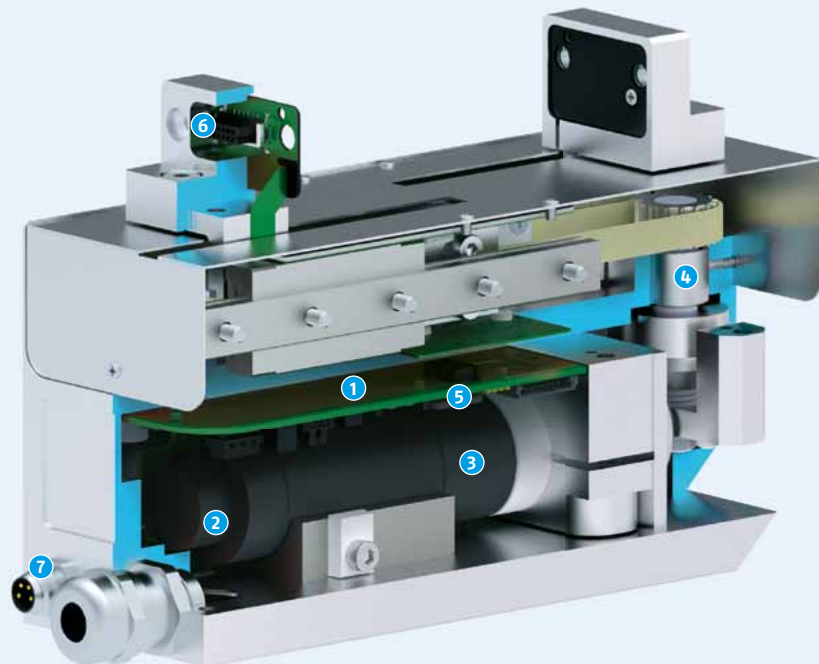
- Optionally with Profinet, CAN bus, or Ethernet interface
- Integrated gripping control with web server and in some cases Micro SD card
- Integrated sensor ports in the jaws for optional force-measuring jaws for sizes 32 and 50
- Gripped part monitoring already integrated

Your advantage

- Interface flexibility also when integrating into future systems
- Convenient configuration and diagnostics without software installation directly via Ethernet
- Direct gripping force feedback without interfering sensor system cables
- Implementation of safe processes without additional programming effort

Function cross section

- 1 Electronic control unit
- 2 Encoder
- 3 Drive
- 4 Toothed belt drive
- 5 Micro SD card
- 6 Sensor port
- 7 Electrical connection



EGA Electric 2-Finger Long-Stroke Gripper. Adaptable, robust, compact.

Integration in robots and gantries

With capability of adaptation for all standard servo motors, the electric long-stroke gripper SCHUNK EGA is the most flexible standard long-stroke gripper on the market. Due to the easy integration of the system's control unit, all the features with respect to programs, safety, and field-busses can be transferred from the current system onto the module, and offers the advantage of a direct interpolation of the other application axes. In other words easy control as an additional axis with the identical command set is ensured.

Time-tested technology

The robust SCHUNK EGA long-stroke gripper is based on the proven PHL, which is extremely flat and has a compact design with minimal interfering contours. The guide carriages of its base jaws are bearing mounted, which minimizes friction, and optimally distributes the force. For robot or gantry applications, the motor can be mounted either parallel or at right angles to the direction of motion. In view to dynamics and energy efficiency the whole system profits from the weight-optimized design of the gripper.



Adaptable!

All standard industrial servo motors can be used.

Immediately available



Sizes
25 .. 40



Weight
2.1 .. 9 kg



Gripping force
650 N .. 1,300 N



Stroke per finger
30 .. 100 mm



Workpiece weight
3.25 kg .. 6,5 kg

Product features

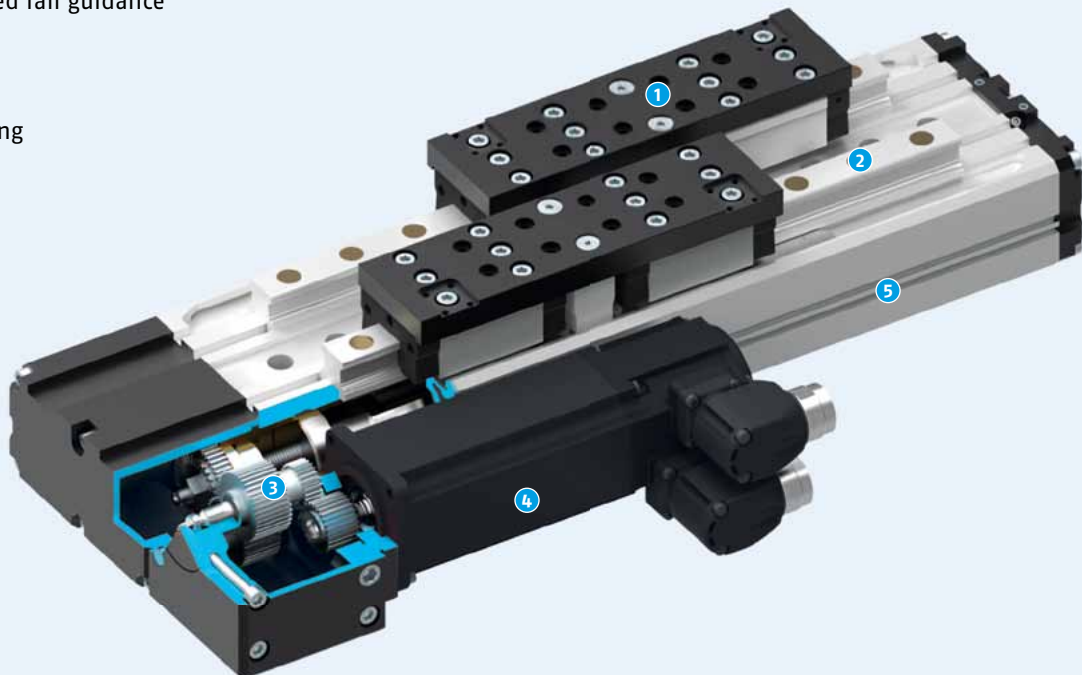
- Easy integration into existing control or feedback control electronics
- Flange-mounted servo motor
- Two versions with different motor positions for robot and gantry applications

Your advantage

- Higher dynamics and energy efficiency due to weight-optimized design
- Use of fieldbus and safety technology, as well as existing control and programming know-how

Function cross section

- 1 Base jaw
- 2 Profiled rail guidance
- 3 Gears
- 4 Drive
- 5 Housing



EGM Electric Magnetic Gripper. Maximum holding Force in minimum Space.

Electricity instead of air

The SCHUNK EGM magnetic gripper is the powerhouse for flexible handling of ferromagnetic workpieces without interfering contours. The SCHUNK EGM is not pneumatically actuated but rather electrically in a fraction of a second. Therefore the SCHUNK EGM is particularly energy-efficient and process reliable. For actuation and deactivation just a short electric pulse is necessary, and the workpiece can be securely held in a emergency stop situations, too.

Flexible workpiece handling

With minimal set-up time and without the interfering contours of gripper fingers, the SCHUNK EGM can handle very different workpieces in alternation. Five sides of the workpiece are available for machining. Due to the variable number of magnet pole pairs, and adaption options to every common robot, optimum adaption to the individual applications is ensured.



Energy-efficient!

Electric actuation via electric pulse in no time at all.

Immediately available



Sizes

M-L-08, 15, 30
M-Q-30, 50, 70
B-Q-50, 70



Weight

1 kg .. 3 kg
1.3 kg .. 7 kg
5.5 kg .. 15 kg



Max. weight of workpiece

25 kg
80 kg
140 kg



Maximum magnetic surface

37 cm²
98 cm²
224 cm²

Product features

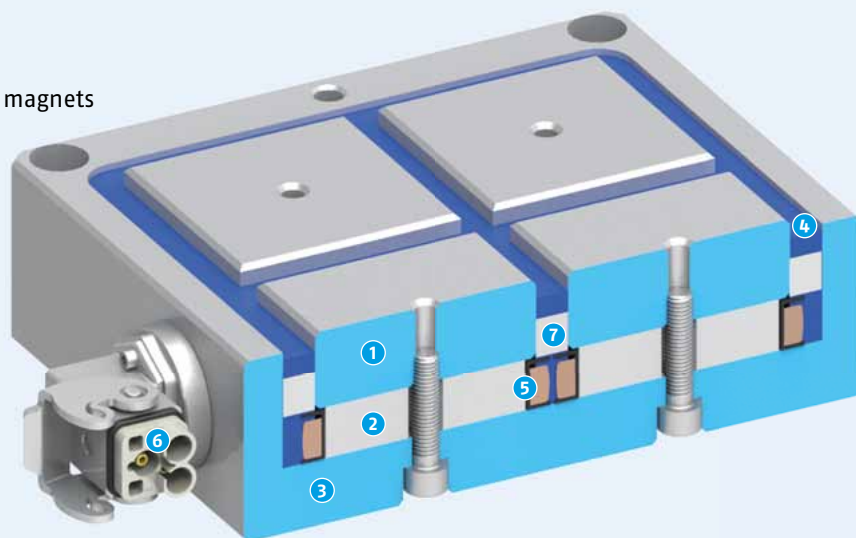
- Electro permanent magnet technology
- Simple digital actuation
- Standard pole extensions for simple adaptation to different geometries
- High holding forces in minimum space

Your advantage

- More flexibility and diversity due to access to workpiece with no interfering contours
- Cost effective due to minimal energy requirements
- Optimal adaptation due to variable number of magnetic poles

Function cross section

- 1 Magnetic poles made of steel
- 2 AlNiCo magnets (pole-reversible)
- 3 Base body made of steel
- 4 Potting compound
- 5 Coil
- 6 Cable connector
- 7 Neodymium permanent magnets (not pole-reversible)



SRU-Mini Speed Pneumatic Rotary Actuator. The new Benchmark for Cycle Times and Frequency.

Shortest cycle times at maximum frequency

The SCHUNK SRU-mini-Speed rotary actuator sets the standard in high-performance assembly in regard to cycle time and frequency. Compared with conventionally damped rotary actuators, the high-speed rotary actuator is able to double the number of cycles. In the new size 12, it enables swivelling times from 0.16 s and up to 4200 cycles per hour. In size 14, swivelling times from 0.21 s and up to 4200 cycles per hour are possible, and in size 10, swivelling times from 0.16 s and up to 3700 cycles per hour are possible. The secret for such high process-stable performance lies in a patented damping mechanism in which an elastomer is combined with an oil-damped damper. The unique damping mechanism is already used successfully in the larger rotary modules of the SRU-plus series.

Quick to change

The SCHUNK SRU-Mini Speed is based on the compact and light weight SCHUNK SRU-mini flat swivel unit, which has proven its worth for a long time in assembly and packaging applications. Existing modules can be replaced 1:1 because the dimensions and connections match with those of the hard or soft damped SCHUNK SRU-mini. For system integrators this means a high degree of flexibility.



Rapid!

More cycles per hour at the same load capacity.

Immediately available



Size
12



Weight
0.4 kg



Axial force
330 N



Torque
0.75 Nm



Swivelling times
from 0.16 s



Number of cycles
up to 4,200 cycles/hour

Product features

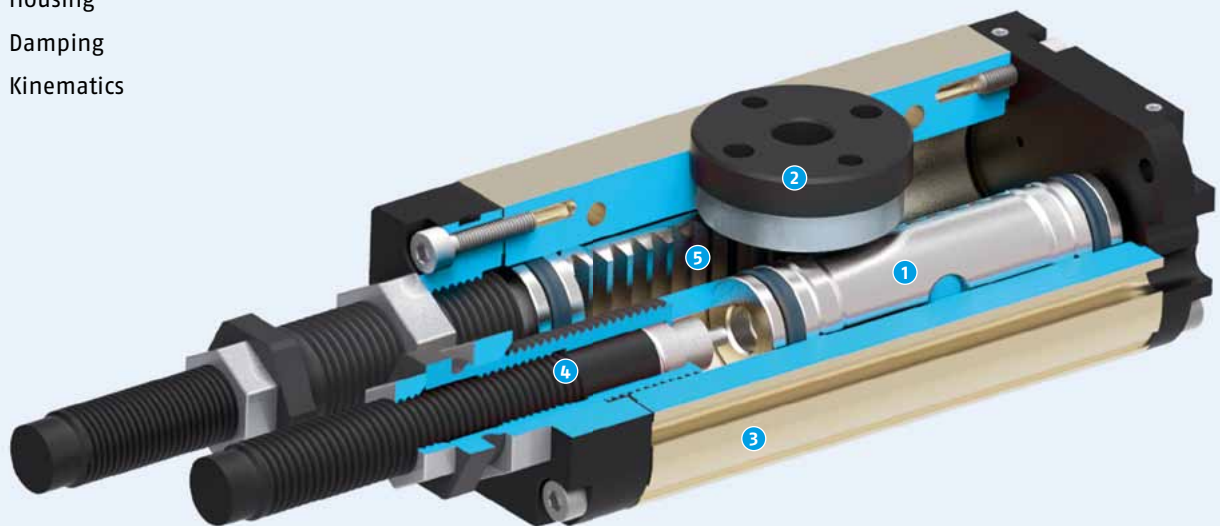
- High compact performance
- Proven hydraulic high-performance shock absorbers combined with elastomers
- Consistent modularity

Your advantage

- Higher loads in the same space due to the compact system design
- Higher energy absorption through patented elastomer shock absorber
- Greater system productivity reduces cycle times and increases cycles per hour

Function cross section

- 1 Drive
- 2 Pinion
- 3 Housing
- 4 Damping
- 5 Kinematics



PR 2, PDU 2, and PSM 2 Electric High-Performance Rotary Modules. Compact Powerhouses with integrated Intelligence.

The next generation of PowerCubes

On the basis of our experience with the first PowerCube generation, which has been successfully used in laboratory, research and industry applications, SCHUNK has further developed the modules of the second PowerCube generation, placing focus on heavy-duty use in industry. The SCHUNK PR 2, PDU 2, and PSM 2 high-performance rotary modules add three especially compact and powerful drives to the SCHUNK mechatronic product range. All regulating and power electronics have also been fully integrated into the new modules. This saves the need for an external controller, minimizes the cabling, and reduces susceptibility to errors.

Fast and simple commissioning

Equipped with standardized plug connections, the modules can be quickly and easily connected. Control can be provided via Profibus (up to 12 Mbit/s) or CAN bus (up to 1 Mbit/s). The modules have a USB connection for commissioning and parameterization via PC with the SCHUNK Motion Tool. They can be manually addressed by means of a rotary encoding switch that is easy to adjust. Initial module movements can be realized manually via a DIP switch. The status of each module can be seen on an LED display. Initial module movements can be realized quickly via a DIP switch. The 4 LED statuses give direct feedback on the current status of the module, for example, during commissioning or operation.



PDU 2



PR 2






PSM 2

Extreme compact performance!

Maximum performance in minimal space.



Immediately available

				
	Sizes	Weight	Torque	Speed
PR 2	70 / 90 / 110	2.0 .. 5.9 kg	16 .. 184 Nm	25 .. 78 rpm
PDU 2	70 / 90 / 110	1.9 .. 5.8 kg	16 .. 184 Nm	25 .. 78 rpm
PSM 2	70 / 90 / 110	1.8 .. 4.2 kg	0.45 .. 1.8 Nm	1,570 .. 4,320 rpm

Product features

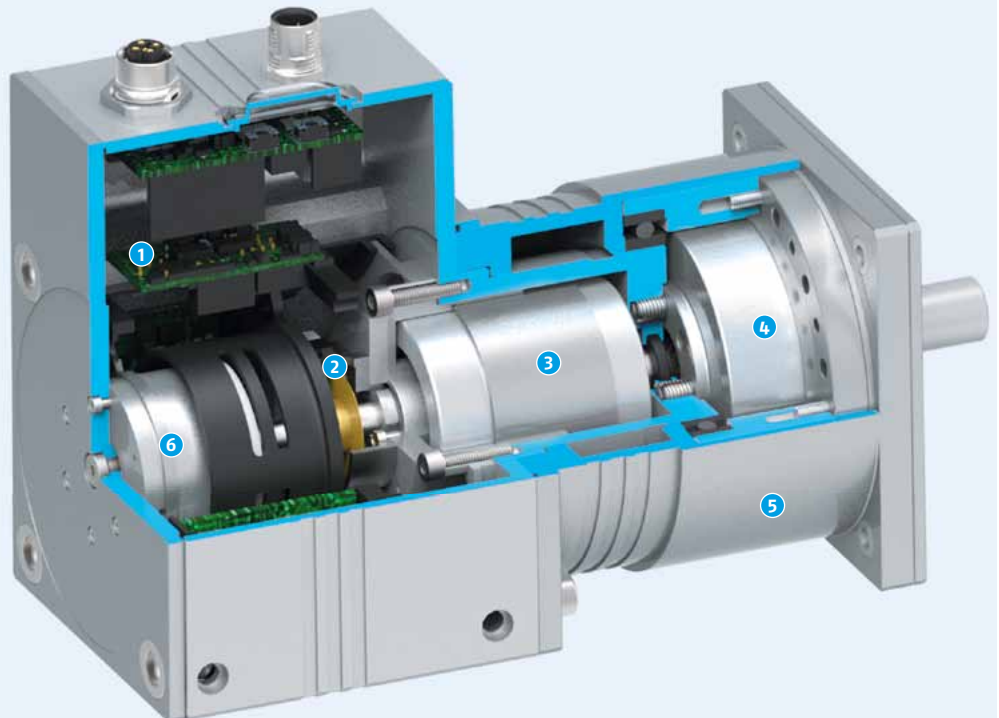
- Standard connecting elements and integrated control concept
- Service interface: USB host, USB device
- Fieldbus: Profibus or CAN bus
- Harmonic Drive® gears with three reduction levels per size (PR 2 / PDU 2)
- 4 LED status displays
- Brushless DC servo motor
- Integrated holding brake
- 2 digital inputs

Your advantage

- Any applications can be implemented with standard components
- Convenient firmware updates via USB stick
- Rotary encoding switch for simple and manual address setting directly on the module
- Rotating angle > 360° for a variety of applications
- The integration of the regulating and power electronics saves the need for additional external controllers and additional cabling
- Simple and integrated monitoring by sensor signals

Function cross section PDU 2

- 1 Electronic control unit
- 2 Encoder
- 3 Brushless DC servo motor
- 4 Harmonic Drive® gear
- 5 Heat sink
- 6 Brake



ELB Linear Motor Axis. The compact Short-stroke Axis for dynamic Assembly applications.

Precise and quick

The SCHUNK linear motor axis ELB has been especially designed for precise and dynamic strokes. The combination of a powerful linear motor drive with a particularly smooth running, pre-loaded junction roller guide, makes the module extremely compact, rigid and dynamic. The SCHUNK ELB positions relatively high loads with a continuous excellent repeat accuracy of 0.01 mm. The maximum acceleration amounts to 100 ms^{-2} and the maximum speed 4 ms^{-1} . For demanding joining and placing processes, users benefit from enormous precision, extremely short cycle times, as well as a high level of productivity and process stability.

Save costs and time

The precision module is available in three stroke variants of 50 mm, 75 mm, and 125 mm. It can be optionally equipped with an incremental stroke measuring system (sine or cosine interface) or with an absolute stroke measuring system (Hiperface or SSI interface). The absolute-value transducer eliminates the need for expensive homing when the system boots and after emergency stops. In addition, the module needs neither end nor reference sensors, reducing the investment costs, programming effort, and number of cables in the cable set.



Extremely compact!

Precise strokes in the smallest space.

Immediately available



Size
70



Strokes
50 / 75 / 125 mm



Driving force
Max. 150 N



Repeat accuracy
0.01 mm



Maximum speed
4 m/s

Product features

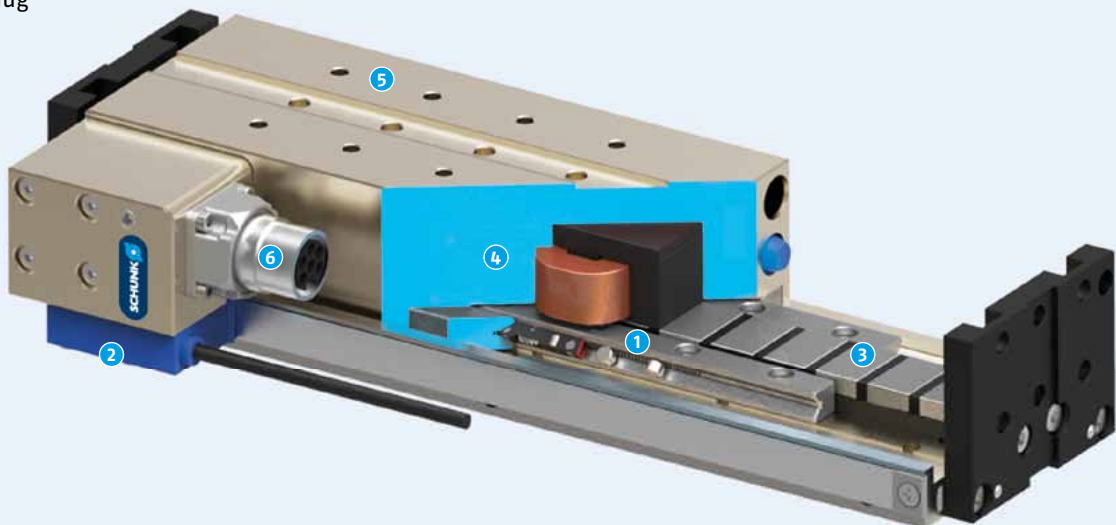
- Very compact unit due to use of junction roller guides
- Very smooth running guides
- Stroke measuring system is incremental or absolute
- Optional load compensation
- Optional holding brake available for applications as a Z-axis
- As standard, can be controlled via Bosch-Rexroth IndraDrive or Siemens Sinamics controller, more on request
- The controllers are available with standard interfaces such as Sercos III, Profinet IO, Ethernet / IP, EtherCat, Profibus, Sercos 2

Your advantage

- Long service lives and no maintenance costs, no wearing parts
- Can be combined with numerous modules from the world's largest system program for modular high performance assembly from SCHUNK
- Less programming effort and saves time when commissioning due to an absolute-value transducer

Function cross section

- 1 Junction roller guide
- 2 Stroke measuring system
- 3 Secondary part
- 4 Primary part
- 5 Modular design hole pattern
- 6 Motor plug



Gamma 90 Linear Module. Compact Portal Module for high Load Capacity.

Extremely high load bearing capacity

With the linear module SCHUNK Gamma 90, SCHUNK adds to the lower part of its successful gantry series, which is designed for high load capacities. The closed and thus particularly rigid basic profiles guarantee an extremely high load rating in conjunction with durable profiled rail guides and without additional support. The sturdy, self-supporting axes are specifically designed for loading and linking machine tools, as well as laser cutting and processing machines.

Optimal adaptation






The modular build allows the 90 mm wide module to be both customized and economical at the same time. It can be equipped with a rack and pinion drive for high loads or with a toothed belt drive for high process speeds. Two or more slides can be controlled independently of each other with the gear rack drive. Two slides can move independently of each other with a toothed belt drive. A rail clamping element is also available for vertical applications, preventing uncontrolled sinking during an emergency stop or power failure.



Rigid!

Double profiled rail guide for high load rating.

Immediately available

				
Sizes 90 90 .. 280	Maximum stroke 7,650 mm 11,380 mm	Repeat accuracy ± 0.05 m ± 0.05 m	Maximum speed up to 5 m/s up to m/s	Moment load 1,800 Nm 1,800 .. 16,000 Nm

Product features

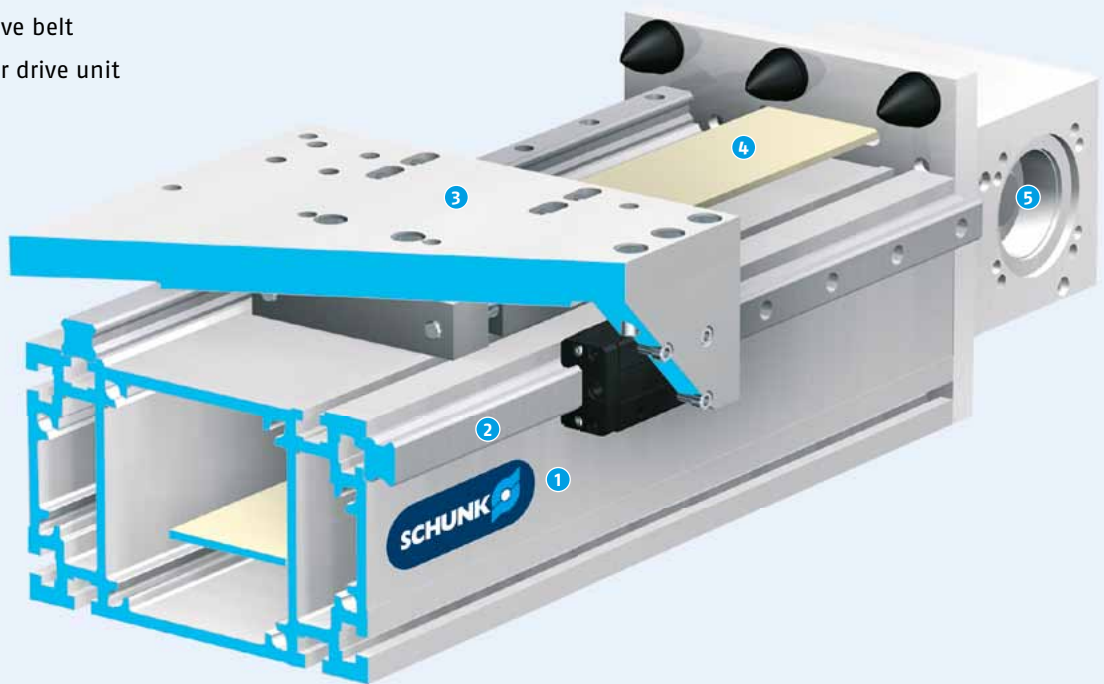
- Closed basic profile, thus high load capacities in self-supporting engineering designs
- Rail clamping element for rod lock available
- Double profiled rail guide
- Available in many variations:
 - toothed belt drive with a slide
 - toothed belt drive with two independently movable slides
 - rack and pinion axis horizontal
 - rack and pinion axis stroke version

Your advantage

- Additional support designs not required
- The rail clamping provides more process reliability and protection of the automated system
- High load rating and precision due to double profiled rail guide
- The optimal solution for your application

Function cross section

- 1 Axis body as carrier profile
- 2 Profiled rail guide
- 3 Motion slides
- 4 Toothed drive belt
- 5 Interface for drive unit



Delta 145C Linear Module. Powerhouse shoulders high Loads.

Compact and powerful

The SCHUNK linear modules from the Delta series are able to take on extreme loads and are considered to be the specialists for demanding linear movements with high moment loads.

The SCHUNK Delta 145C is a particularly compact module that allows powerful strokes up to 7700 mm. Its internal, double profiled rail guide guarantees maximum rigidity and precision, and can therefore take on high loads with confidence. To increase the reliability and life span of the module, a specially mounted plastic cover tape protects the guides and drive elements from dirt.

Versatile integration






The module is optionally available with a spindle drive for continuous high forces and a high level of precision, or with a cost-attractive, large toothed belt drive for particularly high accelerations and process speeds. They can be flexibly integrated into the automated systems using T-nuts or mounting strips.



Long travelling distance!

Optimized profile for realizing long strokes.

Immediately available

				
Sizes 145C 110 .. 240C	Driving force 4,000 N 12,000 N	Maximum stroke 7,700 mm 7,720 mm	Repeat accuracy ±0.03 mm ±0.03 mm	Maximum speed 5 m/s 5 m/s

Product features

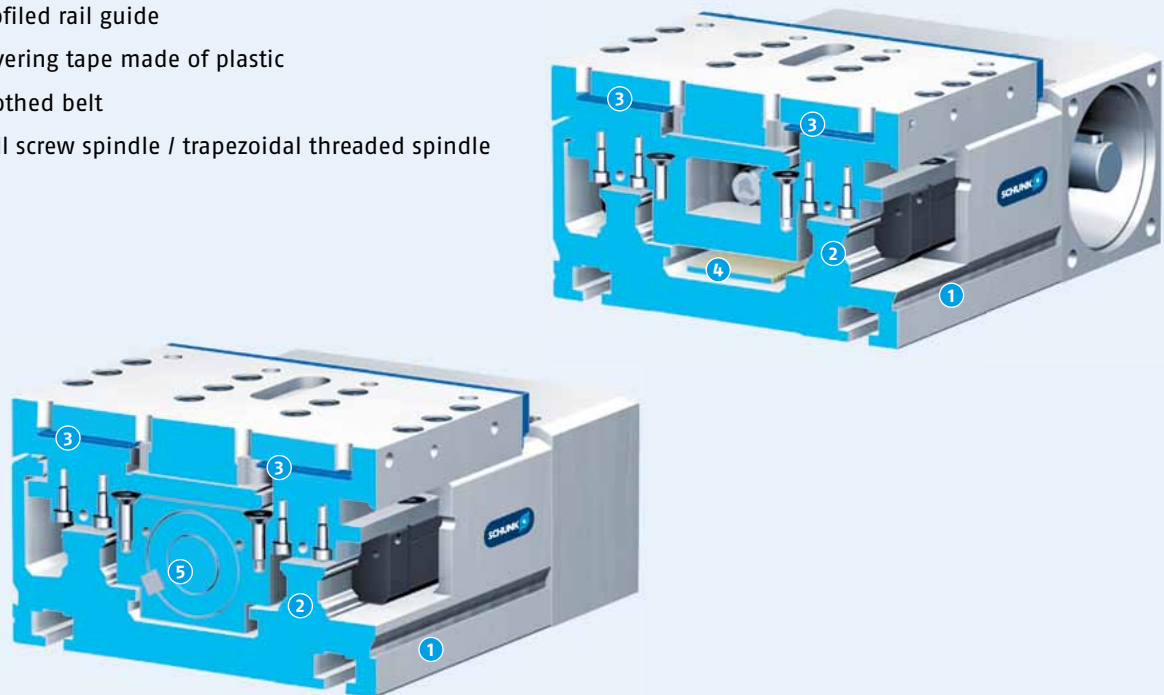
- Sturdy design
- Double profiled rail guide
- Choice of toothed belt or spindle drive
- Optimal size-performance ratio

Your advantage

- Reliable use even in dirty environments
- Maximum rigidity and precision
- Flexible connection due to T-nuts or mounting strips

Function cross section

- 1 Aluminum profile
- 2 Profiled rail guide
- 3 Covering tape made of plastic
- 4 Toothed belt
- 5 Ball screw spindle / trapezoidal threaded spindle



DDF 2 Rotary Feed-Through. More powerful. More versatile. More energy-efficient.

Turn on full performance.

SCHUNK DDF 2 is the newest and most powerful rotary feed-through unit for modern robot and assembly applications. It ensures maximum process reliability with 360° continuous rotation. We offer the SCHUNK DDF 2 in three variations: for the feed-through of pneumatic or electrical signals or for the combined version. More versatile than ever before, and extremely adaptable to process demands. A significantly increased load allows the use of a steel shaft for transmitting dynamic forces and moments. The SCHUNK DDF 2 achieves optimal dynamics and its specially-developed seal ensures long service life and energy efficiency through use of smaller drives.

The next generation

A unique feature is the large number of electrical and pneumatic transmissions. For example, depending on its size, the SCHUNK DDF 2 normally has two to four pneumatic feed-throughs and four to ten electrical feed-throughs. Profibus transmission is also possible. The DDF 2 is based on an advance in SCHUNK's proven SCHUNK DDF series and is fully 1:1 compatible. This makes replacement easy. It ensures the rotary feed-through unit can be changed quickly and rapidly.



State of the art!

The latest standard for modern robots.

Immediately available



Sizes
31 .. 160



Weight
0.5 .. 14 kg



Speed
70 .. 120 rpm



Air feed-throughs
2 .. 4



Electrical feed-throughs
4 .. 10

Product features

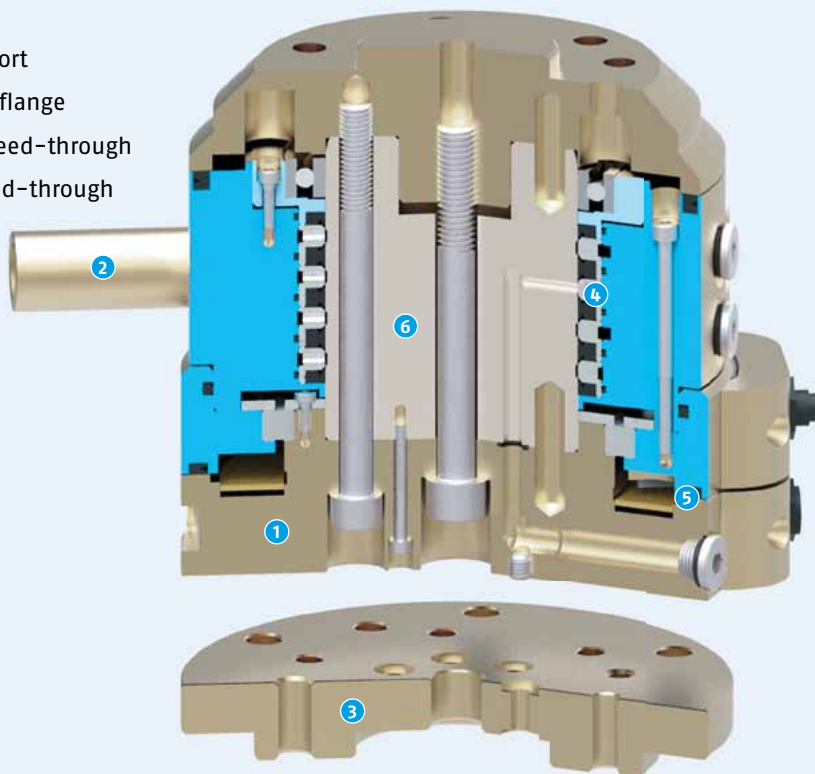
- 40% lower torque losses for the same size due to newly developed seals
- 85% longer lifespan due to newly developed seals
- 50% greater moment load through transmission of dynamic forces and moments via a steel shaft
- 20% more load capacity possible
- Allows for 360° continuous rotation

Your advantage

- Allows for use of smaller and more efficient drives due to lower starting torque and continuous torque
- More compact system designs due to compact design
- Versatile range of applications due to combined energy transmission
- Electrical connector contacts allow for easy replacement of broken cables on robot arm or gripper

Function cross section

- 1 Housing
- 2 Torque support
- 3 ISO screwed flange
- 4 Pneumatic feed-through
- 5 Electrical feed-through
- 6 Shaft



SWS-001 Quick-Change System. The smallest automatic Robot Changing System.

Fast tool change for small robot types

SCHUNK has expanded its standard range of robot accessories to include smaller accessories so that users can fully utilize the potential of small robots. The extremely flat SCHUNK SWS-001 quick-change system, which features a slim interfering contour, is now the smallest automatic robot changing system on the market. With a handling weight of up to 1 kg, it is ideal for small types of robots in which grippers and tools must be changed automatically in seconds.

Reliable power supply

Four integrated air feed-throughs and up to eight integrated electrical feed-throughs ensure a reliable supply of power to the connected modules. A patented, self-locking system ensures that robots and effectors remain connected in the event of a sudden power failure. Due to its ISO flange pattern, it can be quickly and easily connected to various robots without an adapter.



Extremely thin!

Designed with minimal interfering contour.

Immediately available



Size
001



Workpiece weight
1 kg



Moment loads M_{xy}
0.35 Nm



Air feed-throughs
4



Electrical feed-throughs
8

Product features

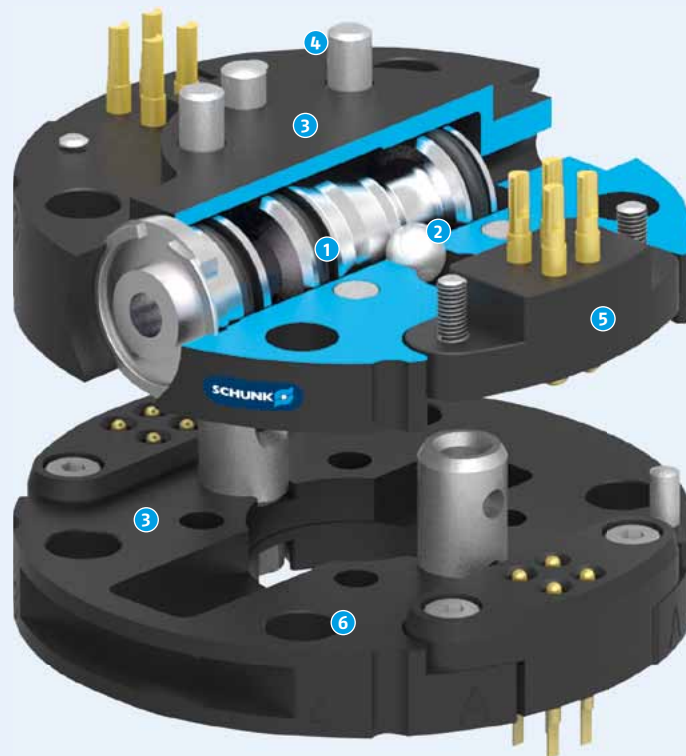
- Patented self-locking locking system
- Integrated air feed-throughs
- Integrated electrical feed-throughs
- Integrated drive in housing
- ISO flange pattern

Your advantage

- Secure connection between quick-change head and quick-change adapter due to self-locking locking system
- Flexibility for processes with frequent tool changes

Function cross section

- 1 Drive
- 2 Mechanical locking system
- 3 Housing
- 4 Centering and mounting option
- 5 Electrical feed-through
- 6 Pneumatic feed-through



AGE-Z 2 Compensation Unit. Z-compensation in confined Spaces.

More compact and stronger

The compact SCHUNK AGE-Z 2 compensation unit ensures reliable Z-compensation in a small space for the assembly, palletizing, or insertion of workpieces. Because of an optimized design and guidance with minimal play, significantly heavier payloads are possible than with traditional compensation modules. Alternatively, smaller sizes can be used. In order to match the compliance of the unit to the particular process, the user can choose from two different spring strengths for each size.

Direct mounting on the robot

For direct mounting on the robot, the SCHUNK AGE-Z 2 has a flange pattern standardized in accordance with DIN EN ISO 9409-1. The Z-deflection can be monitored by means of magnetic proximity switches. The unit can be pneumatically locked in a defined retracted or extended end position so that tools or grippers do not vibrate when the robot arm is moving.



More compact!

Compliance can be selected in two spring strengths.

Available starting August 2014

				
Sizes	Weight	Handling weight vertical application	Handling weight horizontal application	Compensation path Z
050 .. 080	0.35 kg .. 1.1 kg	4 kg .. 8 kg	2 kg .. 6 kg	8 mm .. 10 mm

Product features

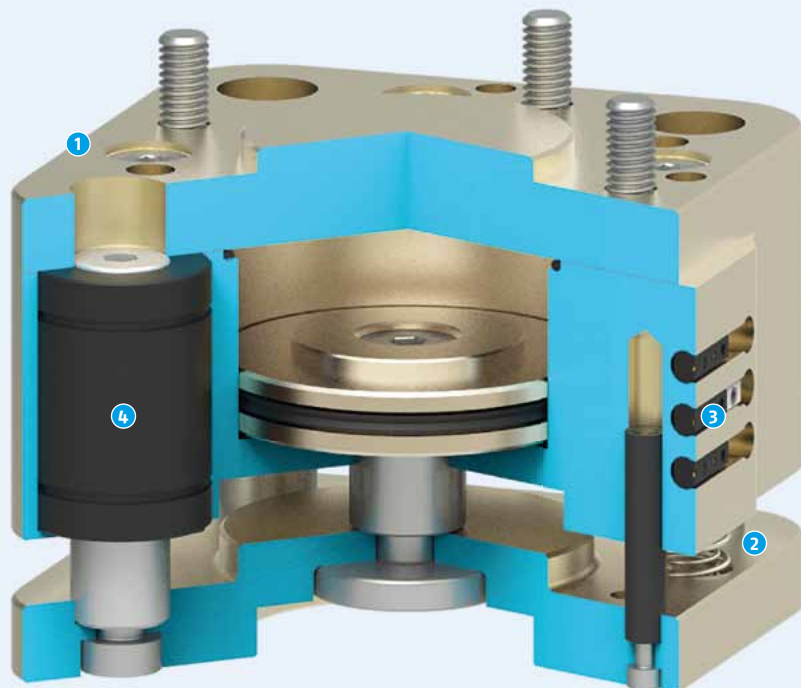
- Compact design
- Flexible use
- ISO flange pattern

Your advantage

- Z-deflection can be controlled by means of magnetic proximity switches
- Compliance in Z-direction can be defined by means of different spring strengths
- Significantly heavier payloads possible

Function cross section

- 1 Housing
- 2 Compression springs
- 3 Monitoring groove
- 4 Ball guides, free from play



RVK Collection Gripper. Highly productive with Collect & Place Applications.

Efficient high performance assembly

The all-purpose collection gripper SCHUNK RVK significantly increases the productivity of Pick & Place applications. Instead of picking up, moving, and positioning components one at a time – as is usual in high performance assembly – the Collect & Place principle of the SCHUNK RVK first collects several parts back-to-back. Only then are they brought to the assembly location and then set down back-to-back there. In this way, traverse paths are significantly reduced and up to six different parts are handled in the same cycle.

One cycle, six parts

The SCHUNK RVK collection gripper can be equipped with up to six standard grippers from SCHUNK's gripping system series, which is the most comprehensive of its kind in the world. With the aid of the integrated valve technology and also a pre-integrated electric pneumatic rotary feed-through, one gripper can be actuated while the others remain under pressure in the gripping position. All grippers can be monitored at any time independently of each other.



Highly productive!

The Collect & Place principle increases automated system productivity by minimizing cycle times and travelling distance.

Immediately available



Size
100



Number of grippers
4 or 6



Weight
1.7 – 2.0 kg



Air feed-through
2 x

Product features

- Compact design
- Adjustable to 4 or 6 grippers
- Pneumatic and electrical feed-throughs
- Attachable as standard to the SCHUNK ERS 135 and 170 rotary modules, to the SCHUNK RST-D 087 rotary indexing table, or directly to robots with a center bore
- All grippers permanently monitored
- Integrated valve technology

Your advantage

- Allows a particularly compact system design
- Can replace gripper stations and quick-change systems in space-limited applications
- After an emergency stop the reliably gripped components can be removed individually all grippers are monitored and therefore process reliable

Function cross section

- 1 Active gripper position
- 2 Piston activation
- 3 Passive gripper position
- 4 Versatile gripper connection
- 5 Electrical feed-through
- 6 Storage



SVH Servo-Electric 5-Finger Gripping Hand. The first ready for series 5-Finger Hand.

Integrated control unit in the wrist

The series production version of the anthropomorphic SCHUNK 5-finger hand grips nearly as perfectly as the human hand. The electronics are completely integrated into the wrist, which allows the 5-finger hand to simulate nearly all human hand movements. Due to the moving parts with a total of nine drives, various gripping operations can be executed with high sensitivity.

Reliable holding

Elastic gripping surfaces ensure a reliable grip on objects. Due to its compact dimensions, the SCHUNK SVH is suitable for gripping and manipulation tasks, and especially for human/robot communication by means of gestures.



Integrated electronics in the wrist

Visionary!

A vision becomes reality.



Left and right gripping hand



Gripping hand



Key grip



Precision grip



Power grip

Immediately available



Size
1



Weight
1,3 kg

Product features

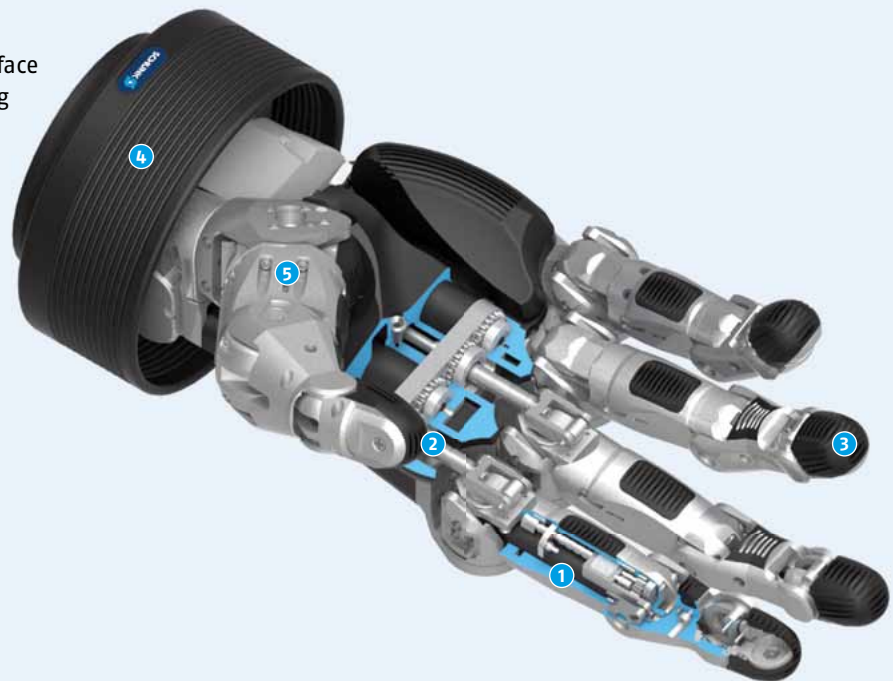
- Available in left- or right-hand versions
- Low energy consumption at 24 V DC
- Complete integration of control, regulator and power electronics in wrist

Your advantage

- Suitable for mobile fields of application
- Gripping hand key grip, precision grip, power grip
- Easy connection with market-standard industrial and lightweight robots via defined interfaces

Function cross section

- 1 Distal index finger drive for controlling two axes
- 2 Proximal index finger drive is DC motor with spindle drive
- 3 Slip-resistant elastic gripping surface made of rubber for secure holding
- 4 Integrated electronics for direct mounting on the robot arm
- 5 Thumb with two degrees of freedom for bending and pivoting the thumb



ECM Controller. Modular 24/48 V Controller for SCHUNK Modules.

Fast and simple commissioning

The modular controller ECM has been developed specifically for electrically driven gripping and rotary modules with an input voltage of 24 V or 48 V. Equipped with standardized plug connections, it can be quickly and easily connected. Control can be provided via Profibus (up to 12 Mbit/s) or CAN bus (up to 1 Mbit/s). From the 4th quarter of 2014, a Profinet interface will be available as an additional option. For commissioning and parameterization via PC with the SCHUNK Motion Tool, the ECM has a USB device connection. Alternatively it can also be put into operation in seconds without connecting a programming device. To do this, a USB stick can be parameterized and addressing is done manually via an easily configurable rotary encoding switch.

Everything in view and under control

Initial module movements can be realized via a DIP switch. The ECM is also equipped with an LED and 7-segment display for status display and error analysis. It is also available with four digital inputs and outputs. It is suitable for evaluating resolvers, encoders with an index, differential encoders and absolute-value transducers (SSI, EnDat), and in particular, enables the control of SCHUNK EGN and EVG grippers as well as the SCHUNK ERS rotary module.



Convenient!

Parameterization via USB stick.

Immediately available



Feed line current
max. 15 A



Transmission rate
Profibus max. 12 Mbit/s
CAN-Bus max. 1 Mbit/s

Product features

- Service interface USB host and two rotary encoding switches
- Standardized plug connections for communication and cage clamp terminals for power
- DIP switches with first test and commissioning functions
- Clear information on current controller status via 7-segment display and 4 LEDs
- Toolfree connection of cables with spring clips and plug connectors

Your advantage

- Fast and convenient manual commissioning
- Substantially simplified assembly
- Maximum interface flexibility due to Profibus, CAN bus, 4 digital I/Os and Profinet (2014)

Function cross section

- 1 Status display
- 2 Service Interfaces
- 3 Rotary encoding switch
- 4 DIP switch
- 5 M12 plug connection for communication
- 6 Cage clamp terminals and plug connector



MMS-A Magnetic Switch. The first and smallest, teachable analog Sensor for the C-slot.

First teachable displacement sensor for C-slot

The SCHUNK MMS-A analog magnetic switch is the first teachable displacement sensor that can be directly integrated in the gripping modules C-slot without interfering contours. It detects the size of the gripped parts with precision in the ongoing handling process and as an analog voltage value. Output options 0 - 5 V DC or 0 - 10 V DC are available. What previously required several magnetic switches can now be sufficiently done with the extremely compact MMS-A which has a diameter of 4 mm. The required electronics are already fully integrated. In conjunction with the SCHUNK FPS-F5 force / torque sensor system controller control, the displacement sensor becomes a simple teachable multi area sensor, which can detect up to five user-defined teachable conditions and output them as digital signals.

High repeat accuracy

The output signal is sent via a stroke measuring area of max 40 mm with a resolution of up to 0.1 mm. Using an intuitive teaching function and two LEDs, different magnetic fields can be quickly and easily linearized. In order to ensure a high degree of repeatability, the analog magnetic switch is specifically tailored to the relevant modules from SCHUNK's comprehensive standard program.



Free of interfering contours!

Integration directly into the C-slot.

Immediately available



Size
22



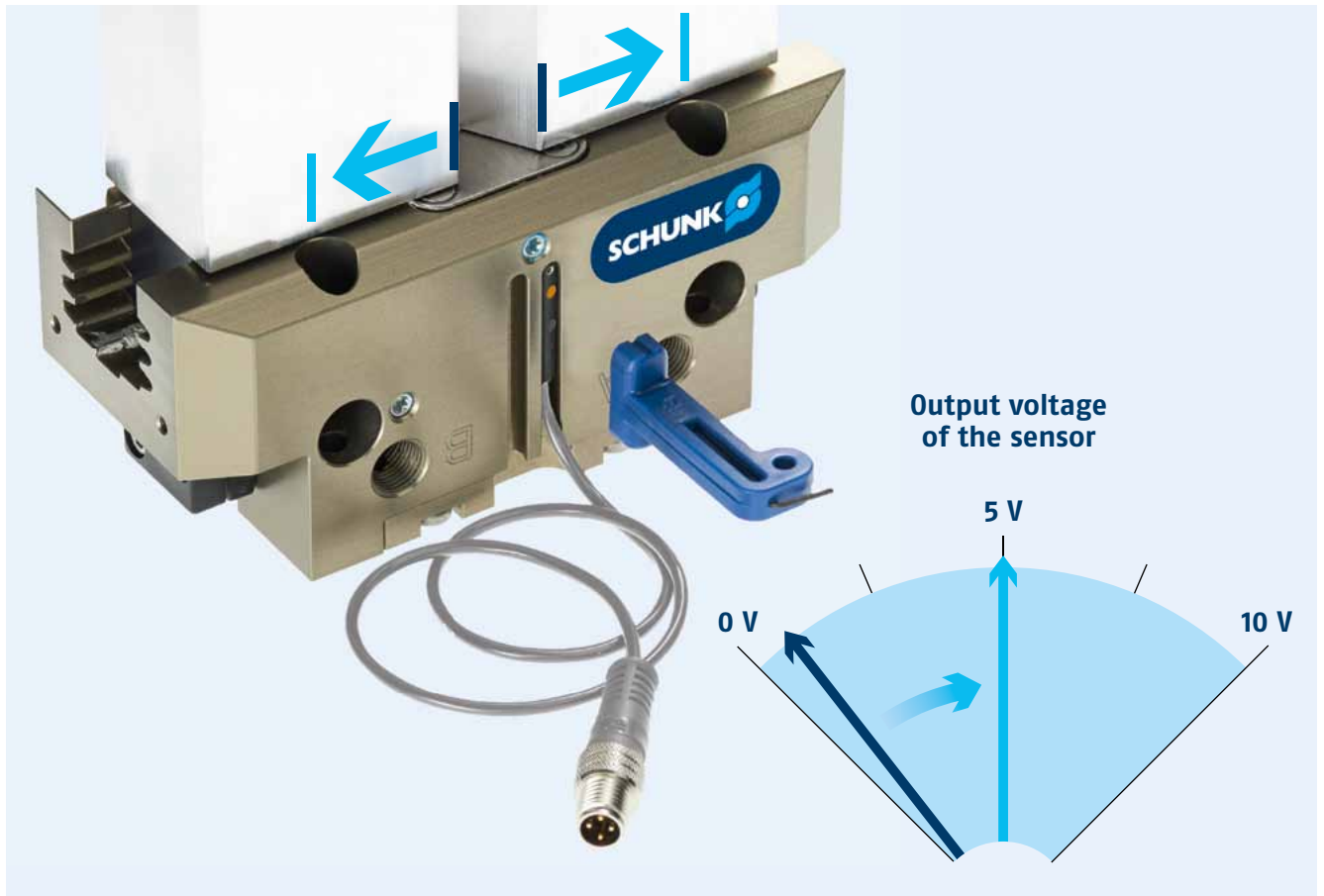
Output voltage
0 .. 5 V / 0 .. 10 V

Product features

- Magnetic switch for C-slot
- Analog signal for the entire jaw stroke
- Simple teaching in seconds for quick commissioning
- 2 LED status indicator during teaching and operation

Your advantage

- Installation of the sensor without interfering contour
- Instead of several switches, one sensor to detect different workpieces



SDV-P-E Pressure Maintenance Valve. The first Pressure Maintenance Valve with manual Air Bleed.

With integrated quick air bleed

The pressure maintenance valves of the SCHUNK SDV-P series guarantee that in emergency-off situations, the pressure in the piston chamber of pneumatic gripping, rotary, linear, and quick-change modules is temporarily maintained. With the SDV-P-E, SCHUNK offers for the first time a pressure maintenance valve, in which both air ducts are equipped with an integrated quick air bleed. This allows pneumatic actuators to be manually isolated quickly and easily after an emergency stop. The compact SDV-P-E is equipped with standard threaded connections and can be used on pneumatic actuators from all manufacturers. It is especially suitable for grippers that do not have a mechanical maintenance of gripping force maintenance via springs.

Holds securely

To reset the automated system, the fixed modules can be manually isolated via the ventilation buttons with the aid of the pressure maintenance valve in the defined end position, without having to remove the pneumatic hoses under pressure. It is possible to directly read on the module which channel is under pressure by means of a mechanical display that is integrated in the button.

The corrosion free module is available in two sizes for flow quantities of 200 l/min and 300 l/min. It ensures a maximum drop in pressure of 0.1 bar/h at a reference volume of 30 cm³ for size 04, and 100 cm³ for size 07 and covers a pressure range from 0.5 bar to 10 bar.



Manually fast!

Bleed without removing the compressed air hose under pressure.

Immediately available



Sizes
04 .. 07



Max. flow
200 l/min .. 300 l/min



Air connection
G1/8 .. G1/4



Max. operating pressure
10 bar

Product features

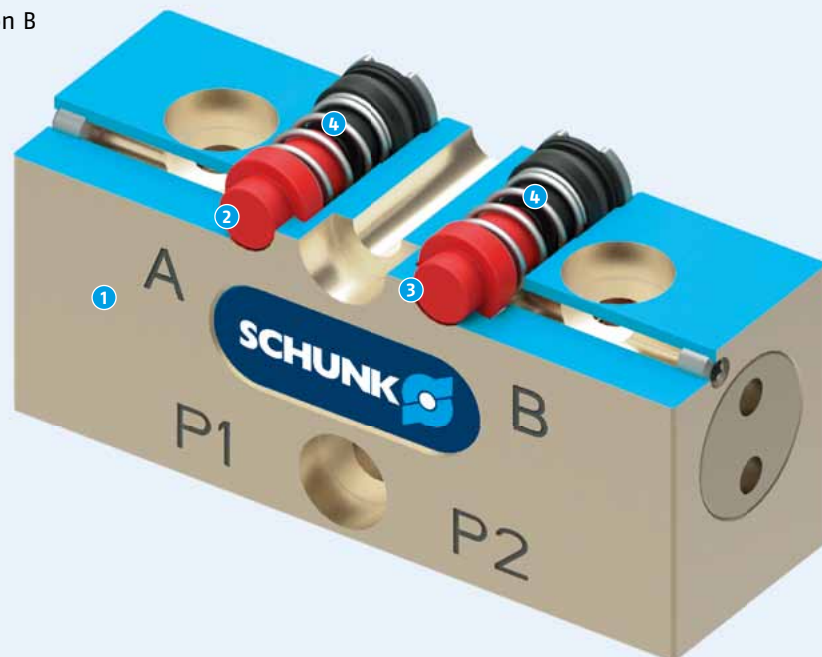
- Integrated manual air bleed
- Compact design
- Retrofitting in existing SDV-P possible
- Display of the channels under pressure

Your advantage

- No loss of clamping force in case of a drop in pressure
- Additional hoses is not required
- Flexible, as it can be used on all pneumatic actuators from all manufacturers

Function cross section

- 1 Housing
- 2 Venting button for connection A
- 3 Venting button for connection B
- 4 Return springs



Motor Hybrid Cable for PPU-E. Now available as an option for all sizes of the PPU-E.

Perfect accessory for pick & place high-speed assembly

The patented SCHUNK motor hybrid cable further expands the system product range of the pick & place units of the SCHUNK PPU-E series, which are linearly directly driven and thus are driven with a gear ratio of 1:1. The especially dimensionally stable and dirt-resistant motor hybrid cable is available as an option for all sizes. It makes it possible to construct low-maintenance, purely electric pick & place units with a C-axis and gripper. The low-wear SCHUNK motor hybrid cable supplies the electric actuators. The motor and transducer cables are completely integrated.

Enormous productivity guaranteed

The motor hybrid cable supplements the existing pneumatic hybrid cables. With both cable variants, electric and pneumatic rotary drives can now be operated with full utilization of the pick & place unit. The unique cable design enables up to 120 cycles per minute and thus enormous productivity. It also guarantees a significantly longer service life than conventional cable solutions, so maintenance costs and unplanned system downtime are minimized.



Extremely low-wear!

Up to 120 cycles per minute possible.

Immediately available



Sizes
15 .. 50

Product features

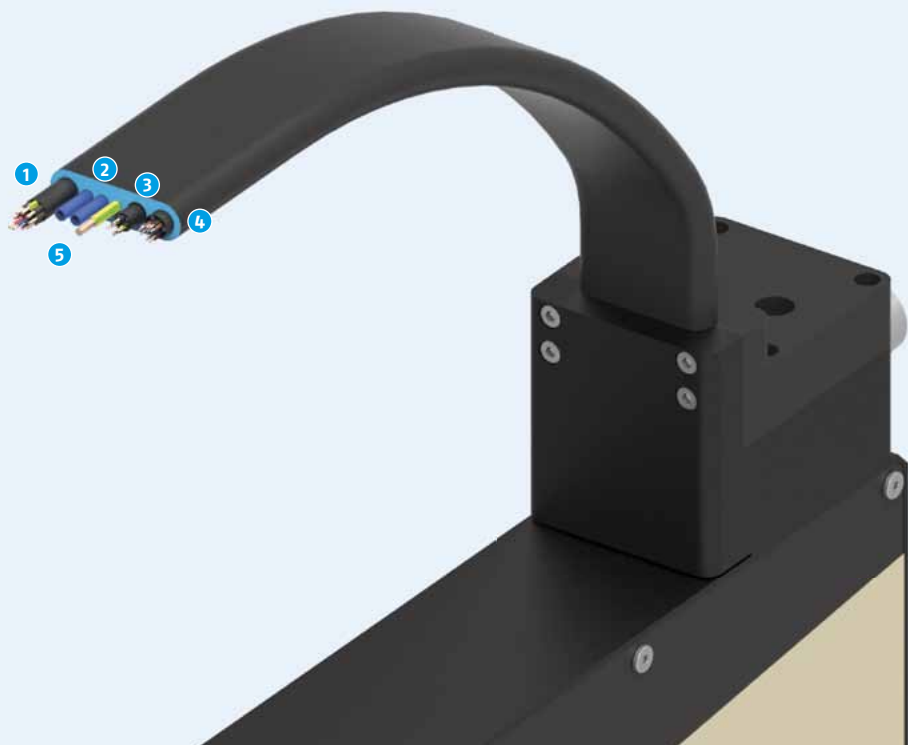
- Unique cable design
- Completely integrated motor and transducer cables

Product features

- Construction of a purely electric pick & place unit with C-axis and gripper
- Higher operating speed for reduced cycle times

Function cross section

- 1 Power cable
- 2 Pneumatic hose
- 3 Sensor cable
- 4 Transducer cable
- 5 Central protective conductor



MV 10 Micro Valve. Efficiency Booster for Small Part Handling.

Specially designed for small actuators

With the micro valve MV 10 you can easily boost the productivity and energy efficiency of pick & place applications for small parts. This efficiency booster is so small, with a maximum interfering contour of only 9 mm, that it can be integrated directly in grippers or other pneumatic actuators. Instead of refilling the long supply lines between the valve block and the gripper for each pressure change, the compressed air consumption with the MV 10 is reduced to the volume of the piston chamber in the actuator. This makes it possible to save up to 90% on the compressed air. The response behavior is also improved, which reduces the cycle time.

Optimal flow rates

With an outer diameter of 9 mm and a nominal diameter of 1 mm, the micro valve enables a flow rate of up to 30 NI/min, which is substantially higher than any comparable solution on the market. It can be plugged or screwed into the actuator.



Lasts forever!

More than 400 million switching cycles.

Immediately available



Size
10

Product features

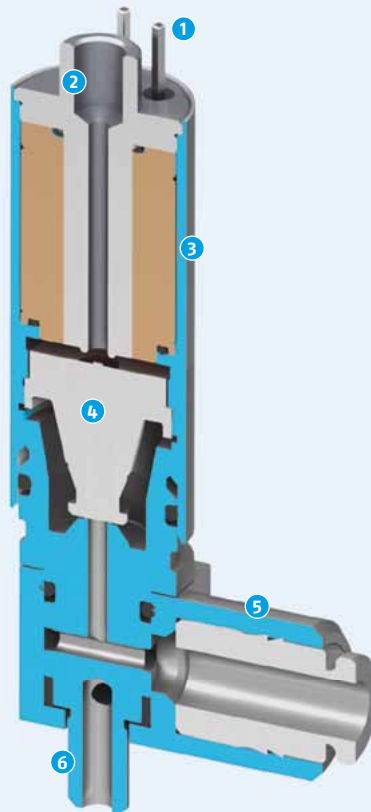
- High flow rate in a compact design
- Flow rate and switching time are configurable to customer requirements
- Variable mounting concepts: plug-in or screw-in
- Switching time < 3 ms

Your advantage

- Suitable for non-aggressive gases and liquids, thanks to complete media separation
- Fast movement of grippers due to short switching times
- Direct mounting on actuator saves air and reduces cycle times

Function cross section

- 1 Electrical connection
- 2 Pneumatic connection R
- 3 Valve body
- 4 Valve piston
- 5 Pneumatic connection P
- 6 Pneumatic connection A



Superior Clamping and Gripping

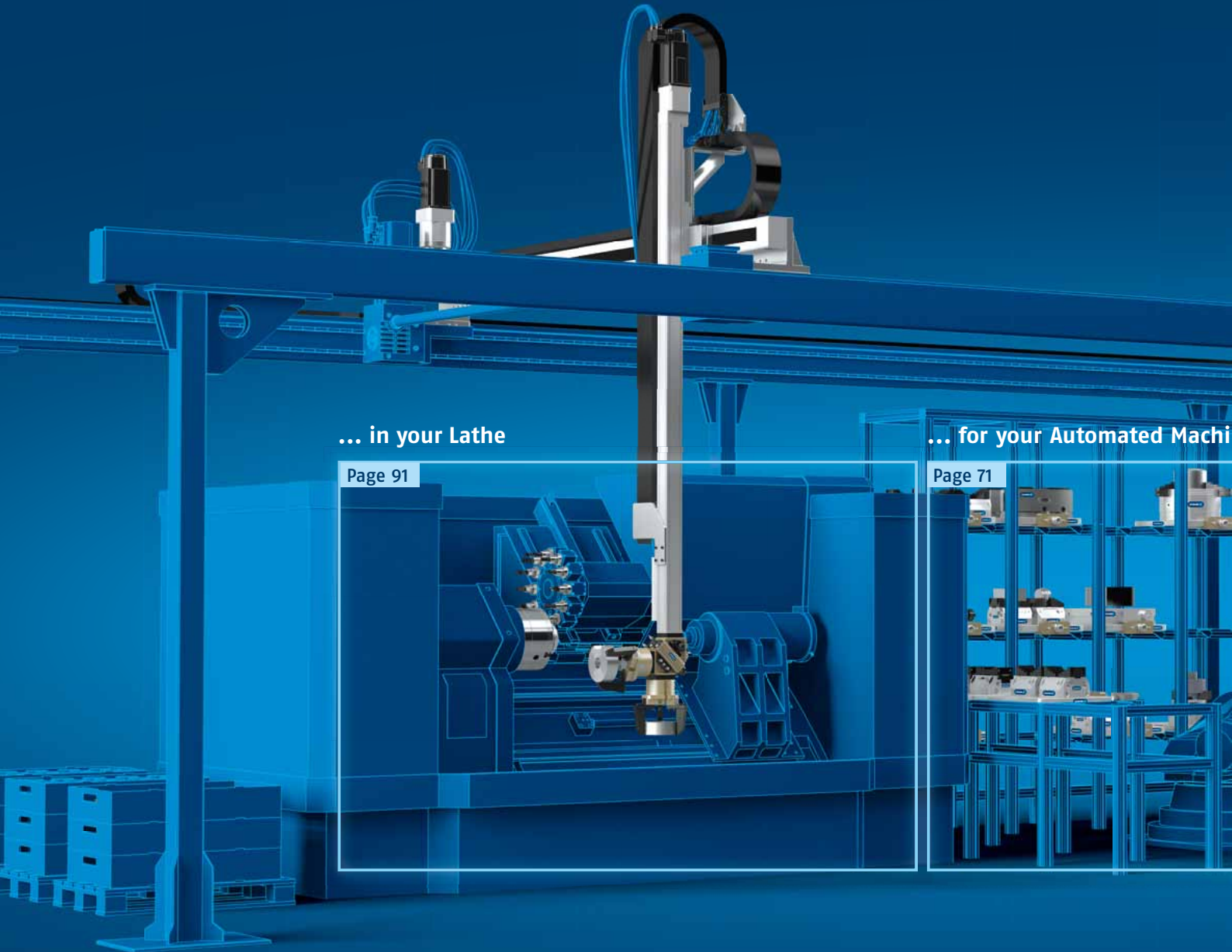
SCHUNK No. 1 Products for hig

... in your Lathe

Page 91

... for your Automated Machi

Page 71



her Productivity ...

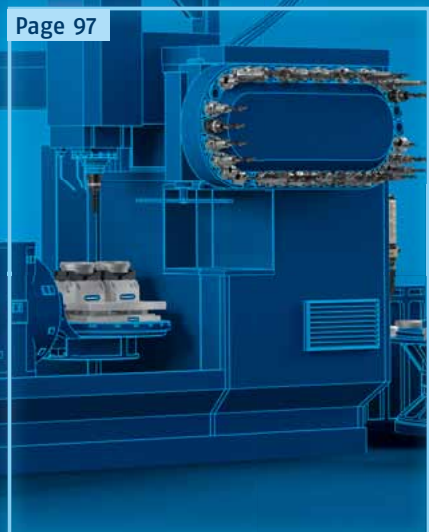
... in your Automated Handling System

Page 77



... in your Machining Center

Page 97



Page 81

... for your
Automated
Assembly

Page 85

... in your
Service Robotics
Application

Superior Clamping and Gripping

It's time to use your machine's

With superior components, find potentials where you would never expect to find them. In your machine.

**Make full use of your machine's potential -
with the extensive product portfolio from SCHUNK.**

SCHUNK, the competence leader for clamping technology and gripping systems, can now open up the full potential of your processing machines and production processes. Reduce costs by combining accurate, flexible workpiece machining with dynamic production automation.

SCHUNK Synergy – when everything fits together.

With SCHUNK Synergy, you benefit from superior components from our innovative family-owned company and the result of a perfectly harmonized interplay of clamping technology and gripping systems. The more SCHUNK, the more efficient.

full potential!



“Clamping technology and gripping systems – the perfectly adjusted interplay makes SCHUNK a champion in terms of productivity. We call it the SCHUNK Synergy.

Let's see where the potentials in your machine are hidden. ”

J. Lehmann

Jens Lehmann

SCHUNK No. 1 Products for higher Productivity ...



Discover new potential now:

www.gb.schunk.com/machine-potential

And order the SCHUNK Synergy poster by telephone +49-7133-103-2256

... in your Automated Handling System



up to **20 tons** load handling

MAGNOS Magnetic lifting technology

... in your Lathe

... in your Lathe

60 seconds jaw change

Lathe chucks **ROTA-S plus 2.0** and **ROTA THW plus**



300% better surface quality

TLEINIDOTURN – innovative hydraulic expansion toolholders, for lathes and turning / milling centers



1,200 standard chuck jaws

The world's largest chuck jaw program for every chuck type



... in your Automated Handling System



No. 1 unique
PGN-plus, the only gripper with
multi-tooth guidance



more **500** standard
combinations
for line and room gantries from
the modular system

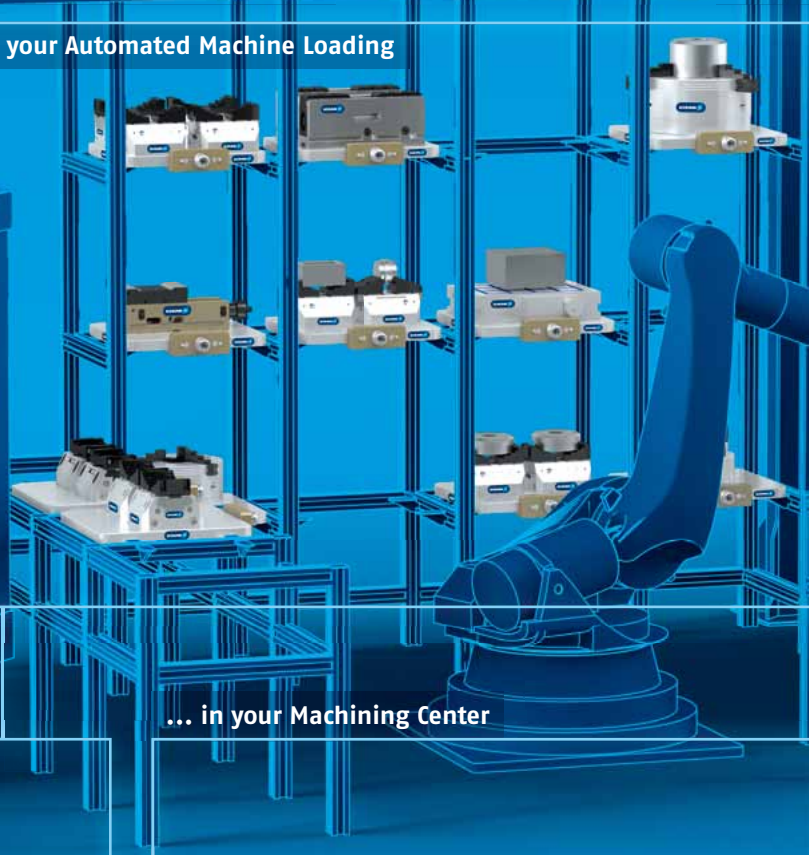
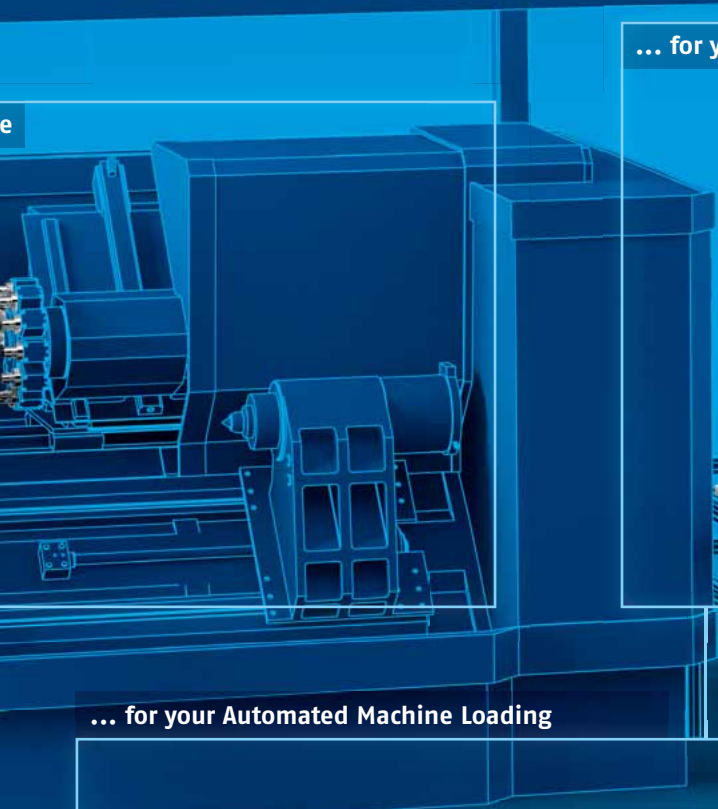
100% cycle increase
Universal rotary module SRU-plus 20-S,
the new benchmark in top performance



90% faster gripper
change
SWS Quick-change system – fully
automatic gripper change within seconds



... for your Automated Machine Loading



... for your Automated Machine Loading



300 kg load capacity
VERO-S NSR Robot coupling for pallet
handling – space-saving and extremely
flexible

100% control
TANDEM KSP plus Clamping force
block with jaw monitoring



30% more productivity
Automated machine loading with PGN-plus
grippers with GSW Spindle interface

... in your Machining Center



90% less set-up
costs
with VERO-S, due to set-up
during processing time

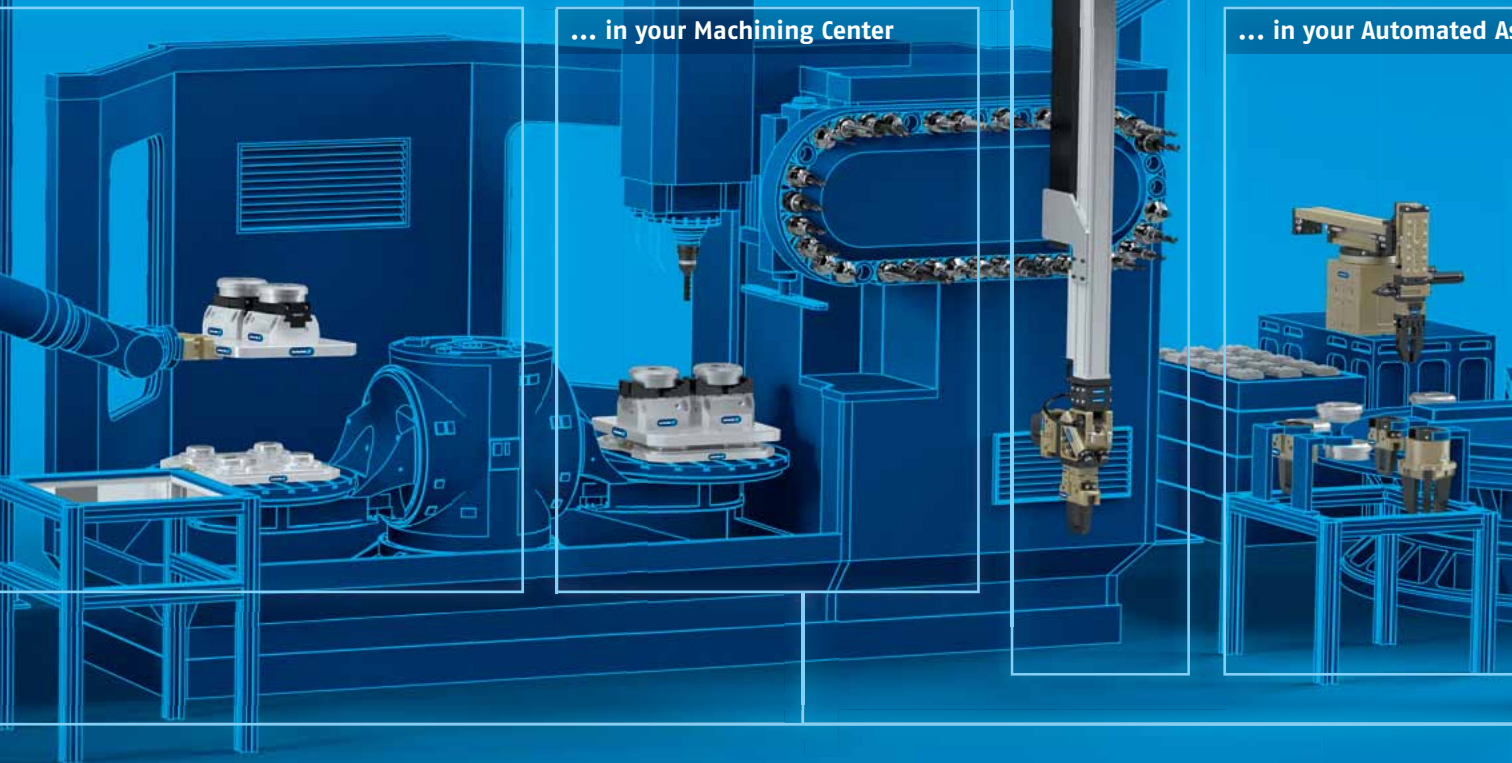


20 mm height
VERO-S NSE mini – the pneumatic
quick-change pallet system in a very flat design

... in your Automated Handling System



... in your Machining Center



... in your Automated A



75,000 customer-specific solutions

Hydraulic expansion technology for tool or workpiece clamping



0.3 mm shank diameter

TIRIBOLS mini sets a benchmark in micro machining

100% encapsulated

KONTEC KSK Centric clamping vise fully functional in harsh environments



less than **3** μ run-out accuracy

TIRIBOLS-SVL Super-slim tool extension optimized interfering contours



5-sided workpiece machining

in one set-up – MAGNOS Magnetic clamping technology



up to **85,000** rpm

TIRIBOLS-S predestined for high-speed cutting

... in your Automated Assembly

∞ combination options
SCHUNK Modular assembly system



180% better gripping force – mass ratio
EGP – The powerful electronic gripper for small components with integrated electronics



25% greater gripping force
MPG-plus – The most powerful pneumatic miniature gripper in the market

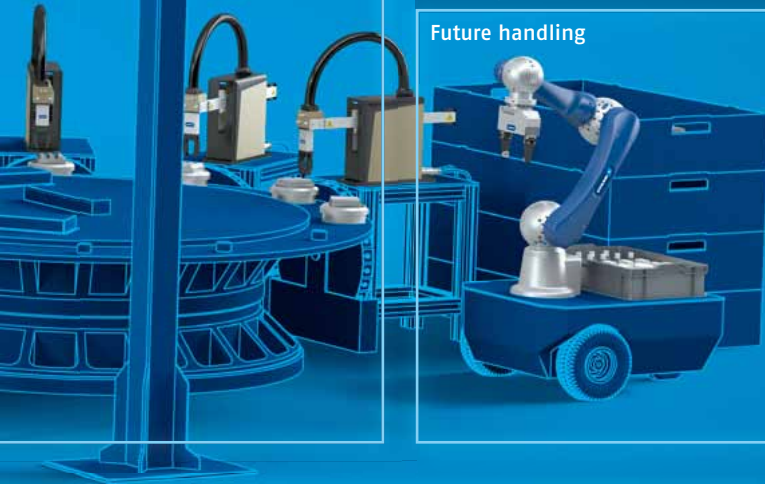


110 picks per minute
PPU-E – The fastest pick & place unit in the market, PPU-P with 90 picks/min

assembly

... in your Service Robotics Application

Future handling



6 degrees of freedom
Powerball lightweight arm LWA 4P
The lightweight arm with the world's most compact performance. Used on mobile platforms.

less than **3** μ run-out accuracy
TILENDBIOS-R with unique patented polygonal clamping technology



100% suitable for all SCHUNK toolholders
TILENDBIO-SVL Tool extension – optimized interfering contours and super-slim



up to **80** bar coolant-proof or to peripheral coolant
Versatile clamping range with GZB-S Intermediate sleeves



more than **35** years of experience in
TILENDBIO Hydraulic expansion technology. TILENDBIO, the original. With 29 interfaces, versatile, with 3 μ run-out accuracy



2,000 Nm torque with \varnothing 32 mm
TILENDBIO E compact for large volume cutting, boring, reaming, and threads



0 μ permanent run-out accuracy
TILENDBIO zero, perfect vibration damping, resulting in up to 50% longer service life





Your Automated Machine Loading





SCHUNK No. 1 Products for higher Productivity for **your Automated Machine Loading.**

Maximize your plant's productivity by using our modules, since loading and changing processes are getting faster. The systematic, and combined use of SCHUNK single modules pay off if they are used as single components and much more in combination with other modules.

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

30% more productivity

100 kN holding force

20 tons of load handling

SCHUNK No. 1 Products for higher Productivity for your Automated Machine Loading.



Automated loading of a milling machining center with the clamping pallet prepared on the set-up table. After the introduction of the clamping pin, the quick-change pallet module positions and clamps the pallet in seconds.

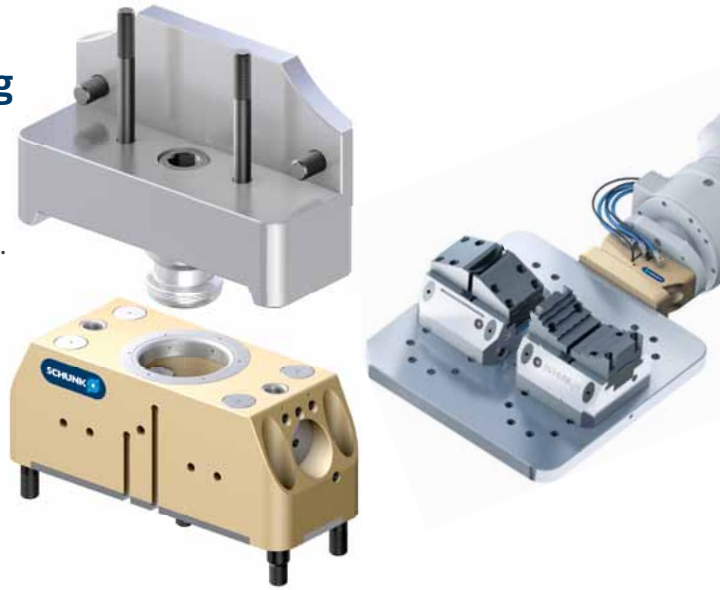
300 kg loading capacity

VERO-S NSR Robot Coupling for Pallet Handling

Process reliable, precise, and space-saving

Automated pallet loading redefined. The slim SCHUNK VERO-S NSR lightweight coupling with minimized interfering contours works extremely close to the machine table. Low designs consisting of a module for stationary use and clamping pallet are easy to implement. This leaves a lot of space in the machine room for the workpiece and axis movements.

- Highest pull-in forces of up to 15,000 N
- Lightweight of 1.6 kg
- Transmittable torques of up to 600 Nm
- Integrated slide monitoring and pallet presence monitoring



100% control

KSP plus Clamping Force Block with Jaw Monitoring



Know whether it's open or clamped

More process reliability with less investment. The compact solution for conceivably simple machine integration. Can be used versatily both for O.D. and I.D. clamping.

100 kN holding force

VERO-S NSA plus Automated Palletizing System



Highly efficient automation

Positioned within seconds with a repeat accuracy of < 0.005 mm, SCHUNK NSA plus is the precision module for automated machine loading. Built very low, it leaves ample space in the machine room.

90% less set-up costs due to setting up during machining

Tombstones with VERO-S Quick-Change Pallet Module

Fundamental high performers

Three tombstone shapes. Extremely compact design. Ideally suited to the selected SCHUNK clamping device. Activate the full power potential of your horizontal machining centers.





30% more productivity due to automated machine loading

PZN-plus Gripper with GSW-B Spindle Interface

The clever productivity booster

Cuts set-up times and saves complex and expensive automated solutions. The SCHUNK gripper sits in a toolholder like a tool and can easily be changed into the spindle due to the standard interface. The result: fully automatic workpiece change only with the help of the axis movements of the machine tool.

- Air actuation using machine coolant or actuation using compressed air
- Fits in many toolholders
- Low cost solution for fully automated workpiece change

6-axis compensation

Flexible Compensation Unit GSW-B-AGE

Before it breaks

Excessive forces during automatic machine loading? The SCHUNK GSW-B-AGE yields, compensation for tolerances and inaccuracies in six degrees of freedom is the answer.



30 seconds, and the machine room is clean.

RGG Cleaning Unit

Sparkling clean machine table

Can be used for workpiece and machine room. Fits on almost any conventional toolholder mountings with a diameter of 20 mm. Cleans using air or coolant. Simply put into the machine and reduce idle times.



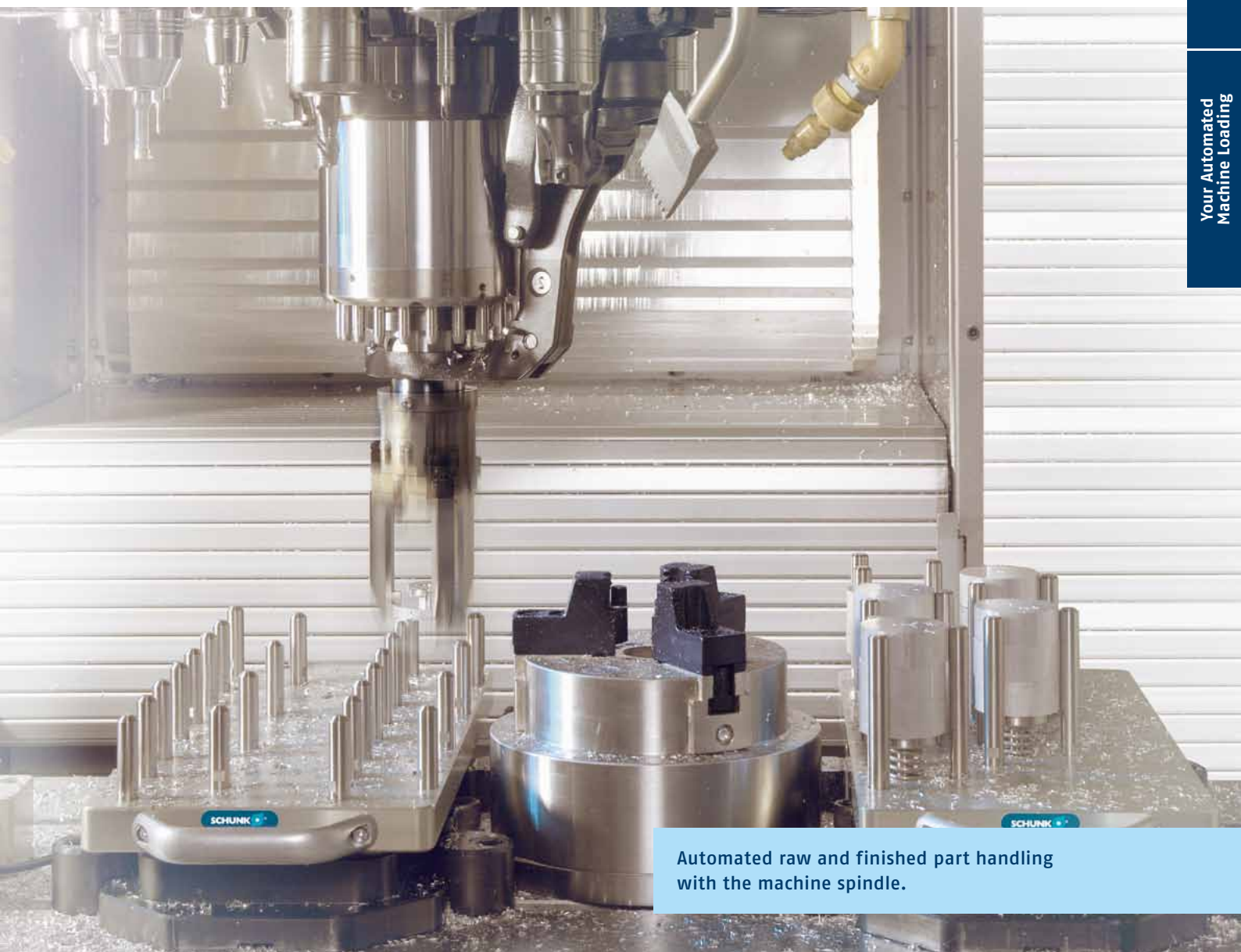
4.9 kg maximum workpiece weight

Vacuum Gripper GSW-V

Making machine tools more productive

Universal, maintenance-free tool for handling a large variety of flat components. Due to the integrated Venturi nozzle, this SCHUNK gripper doesn't need additional parts to generate a vacuum.





Automated raw and finished part handling with the machine spindle.

0% electricity requirement

Magnetic Gripper GSW-M

Attracting pole position

Maximum system productivity due to lean automation. Whether it's metal sheets, bearing rings or workpieces with complex contours – the SCHUNK magnetic gripper handles anything ferromagnetic without making adjustments or the need to change fingers, and efficiently based on the machine's own axis without electricity.



Up to 20 tons load handling

MAGNOS Magnetic Lifting Technology

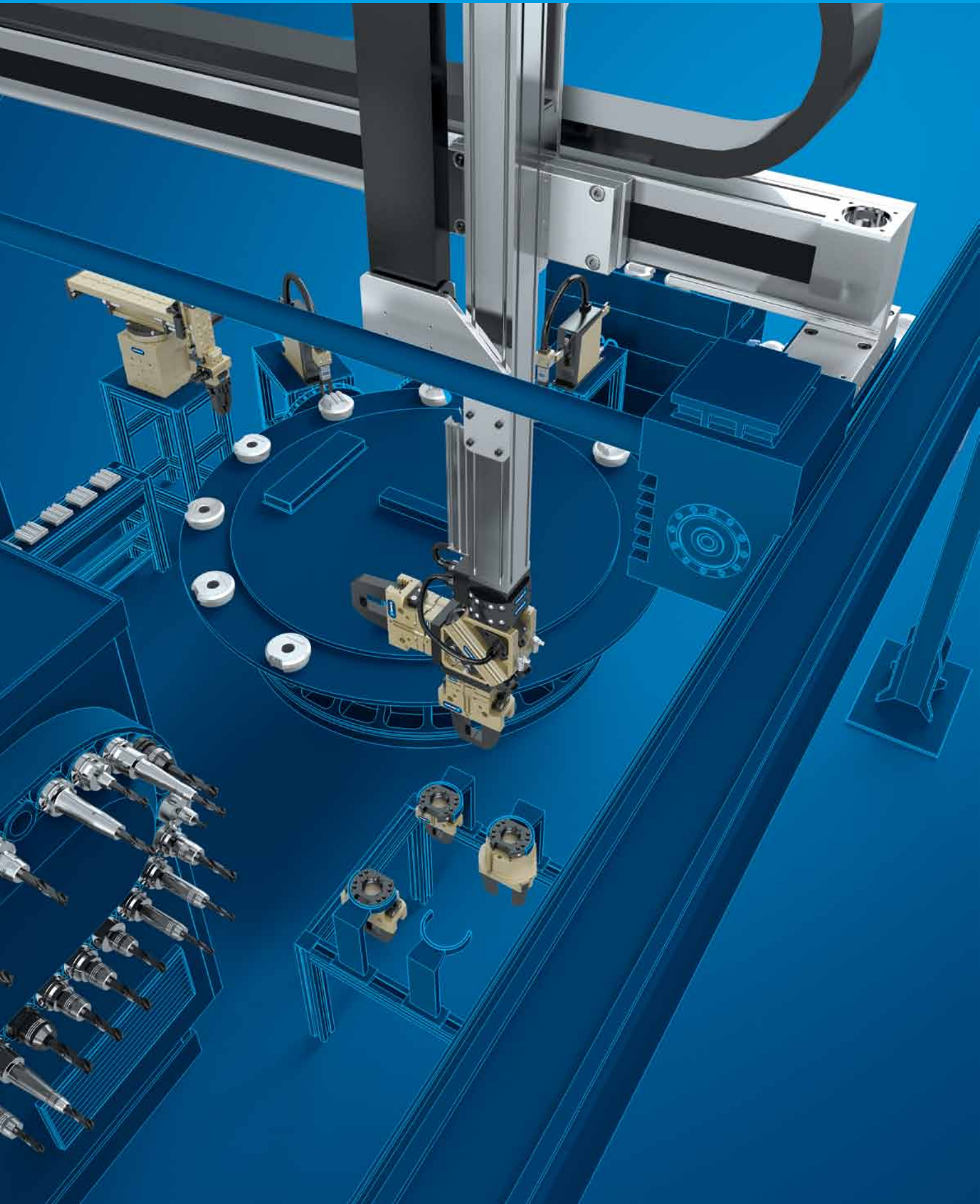
Highly effective load handling

High lifting and safe holding capacity. SCHUNK MAGNOS ensures easy handling of ferromagnetic workpieces, from simple lifting magnets to high-performance lifting devices.





Your Automated Handling System





SCHUNK No. 1 Products for higher Productivity in **your Automated Handling System.**

SCHUNK offers the world's largest program of gripping modules, rotary and swivel modules, linear modules, and robot accessories. Handling and assembly processes in the field of automation require diversity in variations of modules, particularly if the standard components are combined with each other. Discover the unforeseen possibilities.

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

More than **500** standard combinations for line and room gantries

90% faster gripper change

100% cycle increase

More than 500 standard combinations

Line and Room Gantries LPP / LPE / RPE

Standard gantries from a modular system

Pre-assembled for immediate start-up. Pneumatic or electric. These standardized configurations can be combined into customized gantries, saving up to 50% in investment, project planning, assembly and installation.

- 5 kg, 10 kg and 20 kg payload
- 300 mm in to 1,500 mm X-stroke / Y-stroke
- 25 mm in to 500 mm Z-stroke



360° endlessly turning

Electric Rotary Module ERM

Extremely adaptable – integrates perfectly

The drive can be freely adjusted in 90° steps. In this way, the interfering contour of the SCHUNK rotary module can be optimally adjusted to the gantries or robots. Depending on the engine, the endlessly turning module has torques of up to max. 75 Nm. It can attain any intermediate positions and is designed for a maximum speed of up to 62.5 rpm.



The No. 1 in gripping

2-Finger Parallel Gripper PGN-plus

The unique gripper with multi-tooth guidance

Highly precise handling, higher payload, higher gripping forces. Various options for special application cases and perfectly graduated sizes make it an ideal solution for all areas of application.



The world's first rotary feed-through with integrated bus technology

Rotary Feed-through DDF-I

Process stable control for the highest demands

Up to 26 electrical signals can be transmitted simultaneously, and 13 of them can be used to control valves. Air and vacuum reach the actuators via an air feed-through. Due to its ISO flange pattern, it can be connected to various robots without an adapter.



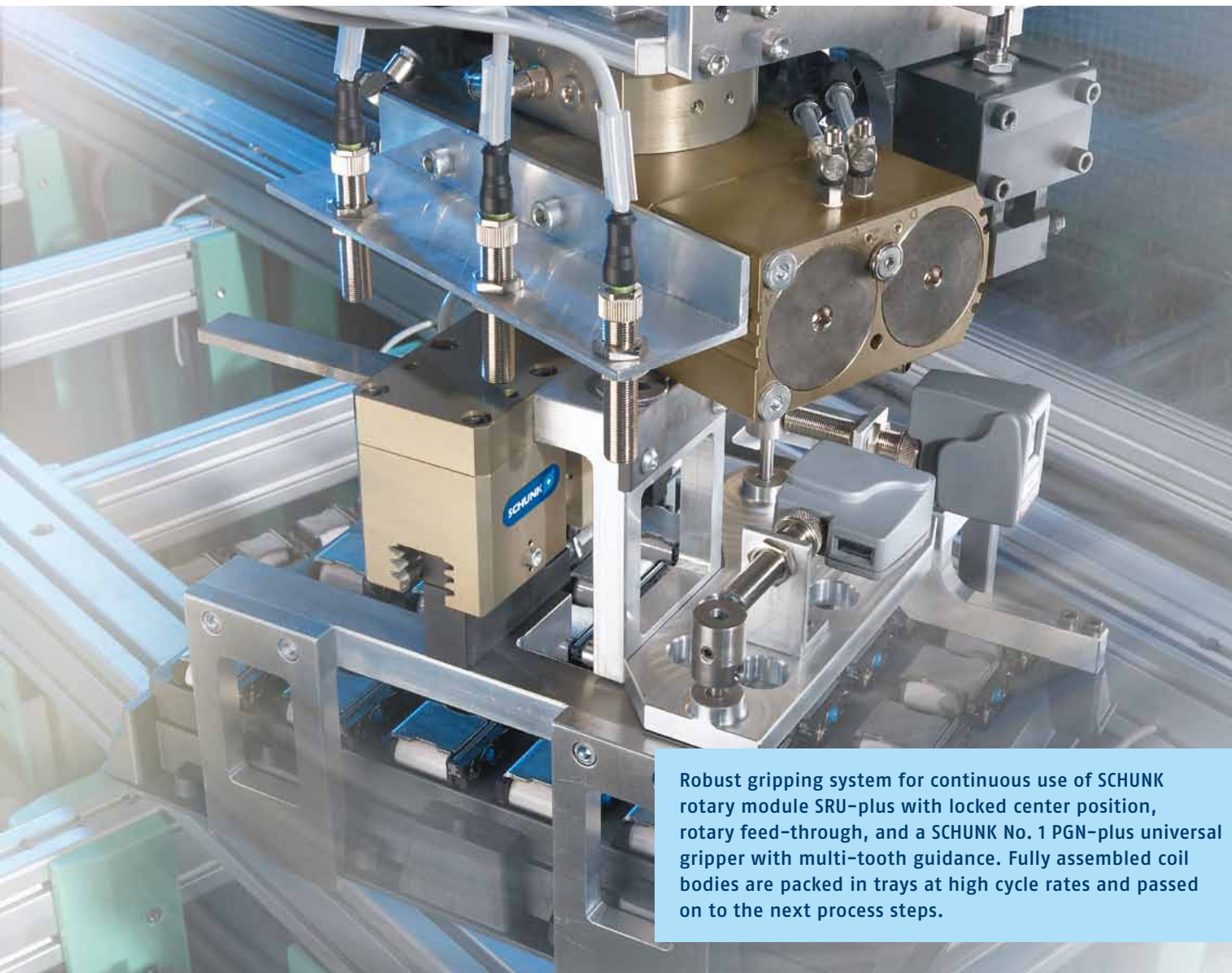
90% faster gripper change

SWS Quick-Change System

One system, two components.

The standardized SCHUNK quick-change system SWS establishes the connection between the gripping system and robots or gantries. For manual change, SCHUNK offers the HWS manual change system.





Robust gripping system for continuous use of SCHUNK rotary module SRU-plus with locked center position, rotary feed-through, and a SCHUNK No. 1 PGN-plus universal gripper with multi-tooth guidance. Fully assembled coil bodies are packed in trays at high cycle rates and passed on to the next process steps.

100% cycle increase

Universal Rotary Actuator SRU-plus 20-S

The new benchmark

Increase cycle numbers by up to 100% compared to state-of-the-art rotary actuators of the same size. The SCHUNK high-speed module allows for swivelling times from 0.3 s and cycle numbers of up to 3700 cycles per hour.



IP65 protection class

OPR Collision and Overload Protection

Rapid reaction

Particularly designed for the use on small robots. Due to the minimum reaction time, the SCHUNK OPR reliably prevents damages due to collisions or overloads.





Your Automated Assembly





SCHUNK No. 1 Products for higher Productivity for **your Automated Assembly.**

Wherever pick & place and assembly tasks place the highest demands on precision and economy, SCHUNK is the solution provider for perfect implementation.

No matter whether partially or fully automatic. No matter which drive medium. The innovative SCHUNK components always get that little bit of extra power out of your processes.

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

180% better
gripping force – mass ratio

110 picks per minute

∞ combination options

SCHUNK No. 1 Products for higher Productivity for your Automated Assembly.



Gentle force-adjusting gripping system with a WSG gripper used in an inline router. Small electrical printed circuit boards are milled from a carrier, removed, and are prepared for the following process.

6 degrees of freedom

FT 6-Axis-Force-Moment Sensors

The largest diversity of variations on the market
SCHUNK 6-axis-force-moment sensors measure forces and moments of 6 components during applications such as polishing, deburring, and difficult milling operations.



250 rpm endless turning

Electric Rotary Module ERS with DDF

Compact and extremely modular
Compact electric rotary module with integrated pneumatic and electric feed-through.



100 % precision fitting

SCHUNK Adapter Plates

The individual connection
SCHUNK adapter plates ensure a high fitting accuracy in the interaction of robot accessory modules and ISO flange interfaces.



Compensation in 3 directions

TCU Compensation Unit

Optimal mounting or joining position
For automated joining or gripping of precise components. The SCHUNK TCU compensation unit compensates in X, Y, and Z-direction, corrects angle errors, and achieves rotational compensation.



110 picks per minute

PPU-P and PPU-E Pick & Place Units

The fastest in their class

With 110 picks per minute, the servo-electric SCHUNK PPU-E is the fastest pick & place unit in the market. SCHUNK PPU-P keeps up a brisk pace pneumatically with 90 picks per minute. Both are the ultimate in high-speed assembly work.

- 2 kg - 5 kg payload
- 10 μ repeat accuracy
- Plug & Work makes start-up as easy as can be



∞ combination possibilities

SCHUNK Modular Assembly System

More individuality and economy
Comprehensive, top class modular system for individual solutions. Benefit from the variety of components for automated assembly that have been tried and tested 100,000 times.



Up to 75 cycles per minute

DRL Rotary Pick & Place Unit

High-speed assembly with integrated rotary motion

Highly dynamic yet steady pick & place operations with rotating angles of 90° or 180°. The DRL is a specialized trend-setter for modular high-performance assembly in the SCHUNK program.



25% greater gripping force

MPG-plus Miniature Parallel Gripper

The benchmark

The most powerful pneumatic miniature gripper in the market. Used all over the world when it comes to handling small parts reliably and fast. 25% more power, up to 10% less weight. A concept proven 100,000 times.



180% better gripping force - mass ratio

EPG Electrical Gripper for Small Components

The perfect alternative

The most powerful electronic gripper for small components with integrated electronics. It makes changing from comparable pneumatic to mechatronic gripper modules without loss of gripping force easy.





Your Service Robotics Application





SCHUNK No. 1 Products for higher Productivity in your Service Robotics Application.

Inspection systems, applications on mobile platforms, human to machine and human to human interaction. On the economic side of things, service robotics is becoming increasingly dynamic. Our mechatronic products are setting new standards even today, in both professional and private spheres. SCHUNK is pushing development forward.

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

> 7 degrees of freedom

100% flexibility

340° rotation range

Sydney Harbour Bridge



SCHUNK Mobile Gripping Systems for higher Productivity in your Service Robotics Application.

SCHUNK is working intensively on numerous service robot projects worldwide. Due to the battery operation, our revolutionary developments are predestined for mobile platforms and independent. Their progress is documented by field-tested applications and projects in the research and testing phase.





Renovation Work

Sandblasting robots take over the dangerous and harmful maintenance of the Sydney Harbour Bridge. The core of the robots are SCHUNK LWA 4 lightweight arms in pressurized protective casings.



Quality Assurance

The LWA 4P is a highly flexible handling device for a fully automated laboratory system at ThyssenKrupp AG. The 6-axis Powerball lightweight arm from SCHUNK is equipped with a mechatronic PG070 gripper, and handles sensitive cement samples.



Laboratory Use

SCHUNK mobile gripping system components are used for new automation solutions in laboratory environments of the pharmaceutical and chemical industry.



Microchip Production

By using SCHUNK lightweight robots, our customized solutions provide flexible linking in industrial production. This example shows a mobile robot, carrying out transportation tasks such as loading and unloading in cleanroom conditions.



Exploration

The remote-controlled EOD robot developed by the Harris company makes it possible to safely remove explosive weapons. As a manipulator, SCHUNK integrated a modular lightweight arm with 6 degrees of freedom based on PRL rotary modules and PG grippers.



Research

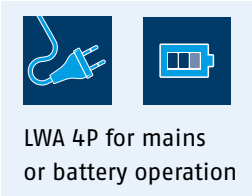
A high-performance lightweight arm from SCHUNK, consisting of PRL modules and a SCHUNK SDH-2 gripping hand with tactile sensors. It ensures in the flagship project Care-0-Bot® 3 of the Fraunhofer Institute for Production Engineering and Automation IPA for mobile handling.



Rehab and Care Robot

The battery-powered SCHUNK LWA 4D lightweight arm has 7 degrees of freedom. Service robots developed by researches at the University of Bremen, help people with disabilities to achieve more independence.

SCHUNK Nr. 1 Products for higher Productivity in your Service Robotics Application.



6 degrees of freedom

Powerball Lightweight Arm LWA 4P

A lightweight arm with the world's best compact performance

The arm has three ideally integrated Powerball modules, offering 6 degrees of freedom. Integrated intelligence makes powerful, mobile handling possible as never before, especially in terms of human-robot cooperation.

- Weight / load capacity ratio of 2:1
- Gripping radius of over 700 mm
- Excellent repeat accuracy of 60 µm
- 24 V DC supply for mobile applications
- For every mobile platform – independent of the manufacturer



340° rotation range

Powerball ERB

Well-rounded and intelligent

The unique SCHUNK rotary module with swivelling / tilting function combines high torque and precision in the smallest of spaces. With up to 34 Nm and a weight of 3 kg, the SCHUNK ERB sets benchmarks in mechatronic integration.



120 N gripping force

2-Finger Parallel Gripper WSG

Configured in 2 minutes

Sensitive handling. This sensitive gripper communicates via Profibus DP, CAN or Ethernet TCP / IP. Due to an integrated web server and tactile sensors, handling tasks of the future are simple.



100% flexibility

3-Finger Industrial Hand SDH-2

Using people as its model

The SCHUNK 3-finger industrial hand features maximum flexibility when it comes to the shape, size, and above all, position of the gripped parts. Form-fit and force-fit gripping with integrated tactile sensors make it a sensitive helper.



216 Nm continuous torque

Turning Unit PRL

Endless power

The highly integrated servo unit has an output of up to 216 Nm continuous torque with a weight of 3.6 kg. With connection parts freely and flexibly fitted to the individual lightweight arm, it was designed for use in industrial automation and service robotics.





FRIEND is a service robot developed by researchers from the University of Bremen for people with paraplegia. With its help, it should be possible in the future to give people with severe disabilities more independence and to help them to work again.



10 degrees of freedom

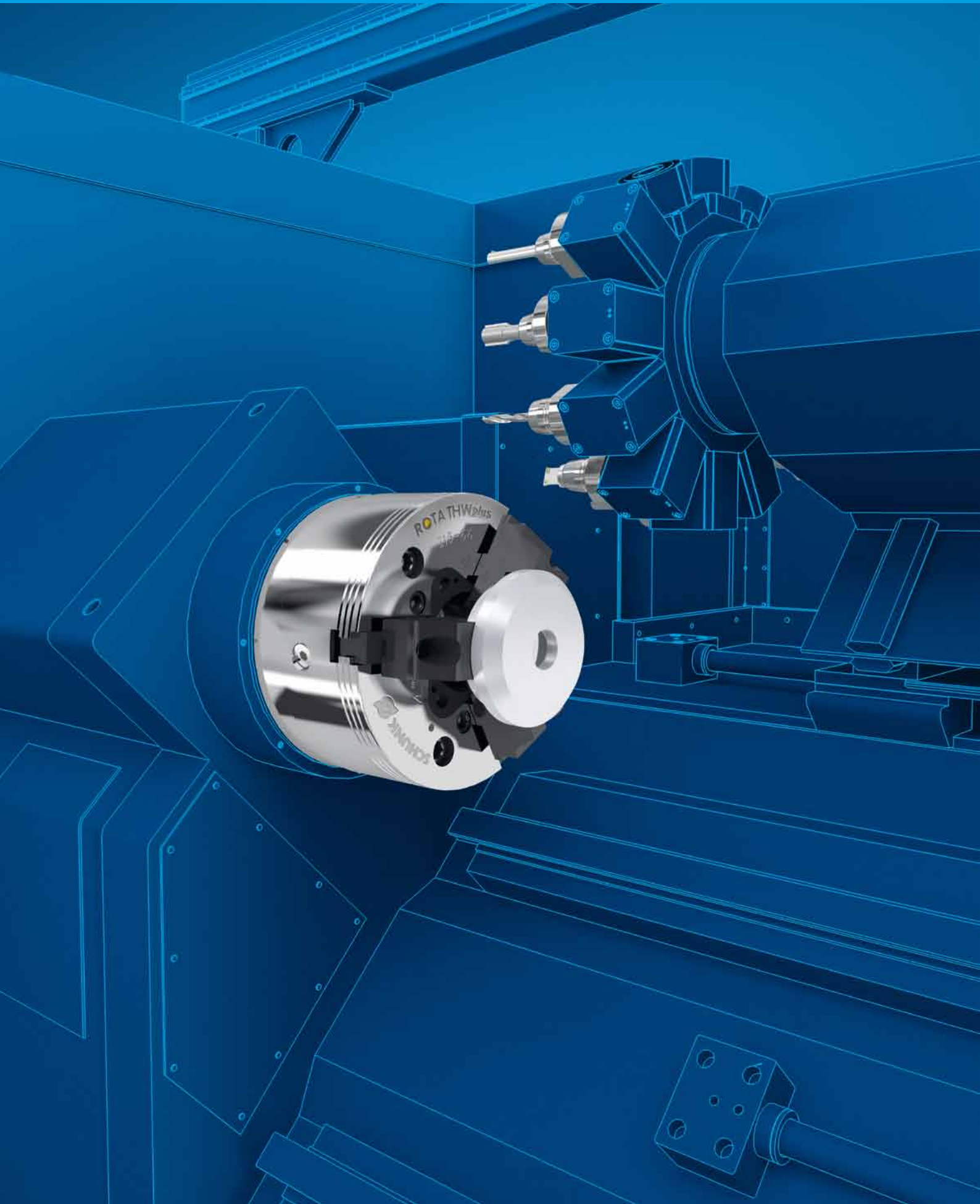
Dextrous Lightweight Arm LWA 4D

From mine detectors to the latest in rehabilitation systems. The SCHUNK lightweight arm LWA 4D sets standards and can be found on service robots all over the world – often combined with our sensitive gripping systems.





Your Lathe





SCHUNK No. 1 Products for higher Productivity in **your Lathe.**

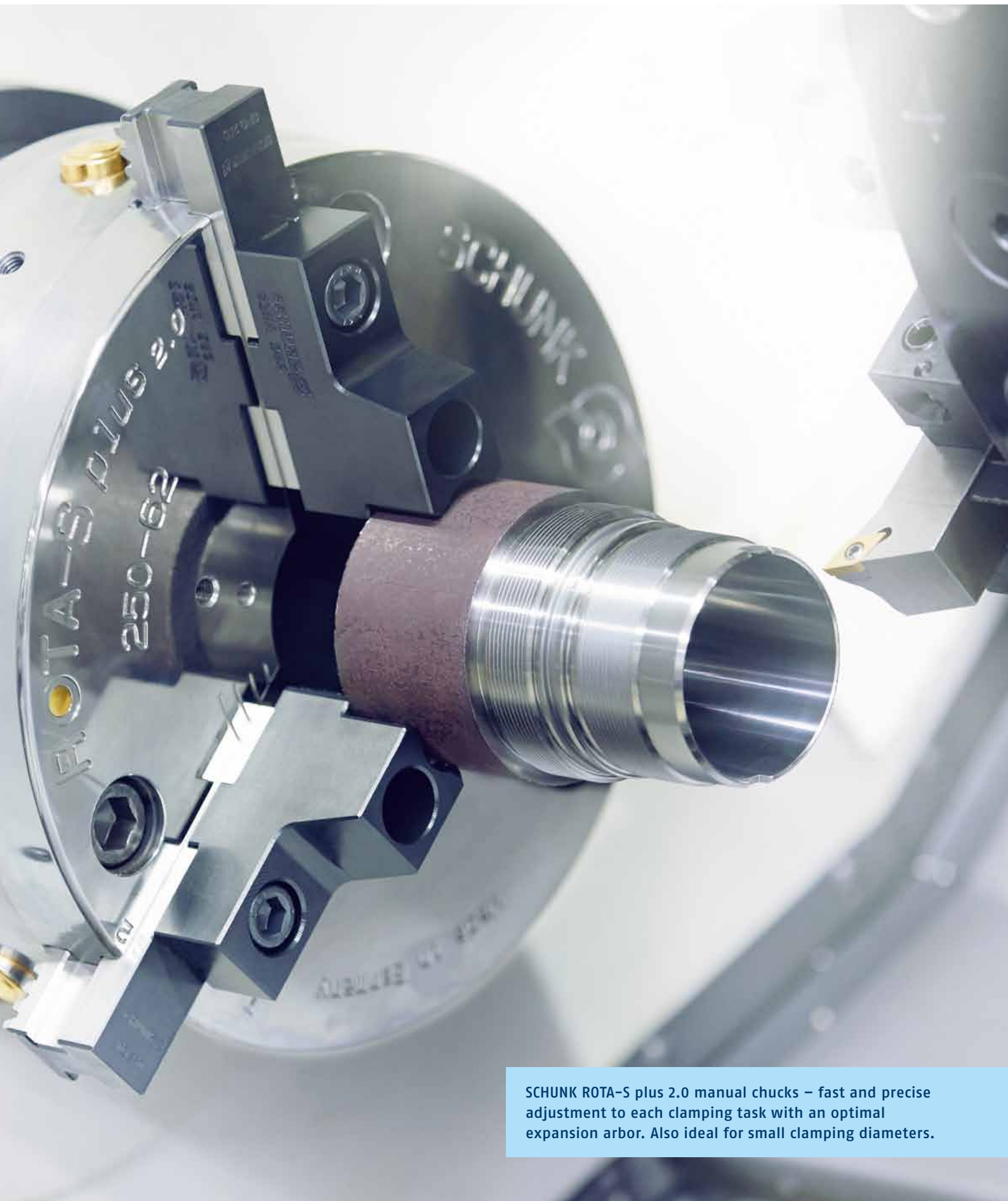
From powerful chucks, precision toolholders and the world's largest standard chuck jaw program up to special jaw and hydraulic expansion toolholder solutions. SCHUNK always offers you the appropriate product with the optimal performance features for your application.

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

< 60 seconds
quick jaw change

50% larger clamping range

0.01 mm repeat accuracy



SCHUNK ROTA-S plus 2.0 manual chucks – fast and precise adjustment to each clamping task with an optimal expansion arbor. Also ideal for small clamping diameters.

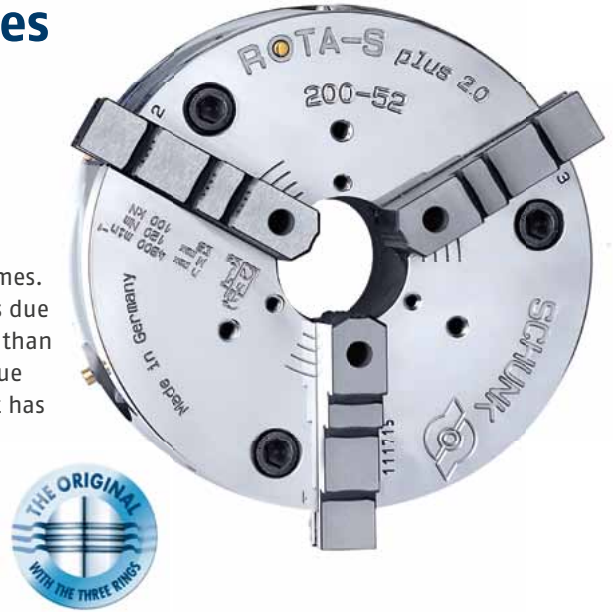
Sold more than **10,000** times

ROTA-S *plus* 2.0 Manual Chuck

The new generation

Its predecessor ROTA-S plus has already been sold by SCHUNK 10,000 times. The new generation ranks high due to: Higher rpm and cutting speeds due to permanently high clamping forces. Convenient jaw change in less than a minute due to optimized jaw quick change system. Faster to use due to maximum operator safety. The ten-thousand-fold proven concept has now been perfected. It sets the standard.

- High jaw change repeat accuracy
- 3-fold base jaw securing
- More convenience through sensible accessories such as expansion arbor and changeable protection sleeves



60 seconds quick jaw change

ROTA THW *plus* Power Chuck

Quick to adapt

The set-up time killer as of batch size 1. Quickly adaptable to a whole variety of clamping jobs due to jaw change in less than a minute.



410 kN clamping force

ROTA NCO Power Chuck

Bursting with power

The specialist for rough machining with a large jaw stroke and long life span. Does the job that others give up on. Up to 410 kN clamping force.



0.01 mm repeat accuracy

VERO-S NSL turn Quick-Change Pallet System

Set-up timer killer for mill / turn centers

Safe clamping even below a speed of 2,000 rpm. Very simple connecting interface with a repeat accuracy of 0.01 mm turns the module for stationary use into a turbo productivity station.



Clamping range **4 – 460** mm

ZENTRICO THL plus Steady Rests

Highly precise with a long service life

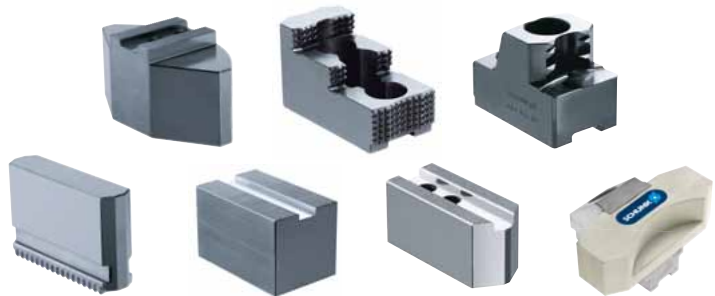
A plus for any lathe in shaft machining. Excellent centering and repeat accuracy combined with maximum clamping forces. Integrated hydraulic cylinder with a large clamping range. For all around precision.





16,000,000 chuck jaws sold world-wide

With more than 1200 different types, this is the world's largest standard program of chuck jaws for any lathe chuck application. More than 16 million standard chuck jaws have been delivered by SCHUNK since 1966 and are in use all over the world.



50% larger clamping range

SCHUNK Claw Jaw

Even more bite!

Unbeatable when it comes to transmitting high torques. The sharp serrations quickly claw into the workpiece surface and clamp them safely in one go. The possible combinations of basic, intermediate and top jaws expand the standard components' range of application by up to 50%.



3° maximum deflection possible

Pendulum Jaws

Intelligent yielding

As strong as necessary, as flexible as possible. Thin-walled workpieces can be clamped safely, without being deformed and at low-cost with standardized SCHUNK pendulum jaws with 6- or 12-point clamping. Within very little time conventional 3-jaw chucks can be re-equipped, to allow for 6-point clamping.



60,000 customized chuck jaw solutions

SCHUNK Chuck Jaws in special design

For complex clamping tasks

Modified SCHUNK standard jaw or complex special design. Perfectly customized, ideal solutions. As individual as necessary. As economical as possible.



30 - 40% less wear

Universal Base Jaw for Wedge Bar Chuck

Honing for precision

Exclusive at SCHUNK: Base jaws – hardened and precision ground. Frequent top jaw changes easily cause wear on both components if the locating surface is not ground. SCHUNK base jaws stand for maximum repeat accuracy, perfect power transmission and longevity.





SCHUNK TEND|O|TURN DSE on a driven toolholder with NC-drilling tool in vertical machining centers.

Up to **300%** improved surface finish

T|E|N|D|O^{TURN} Hydraulic Expansion Toolholder

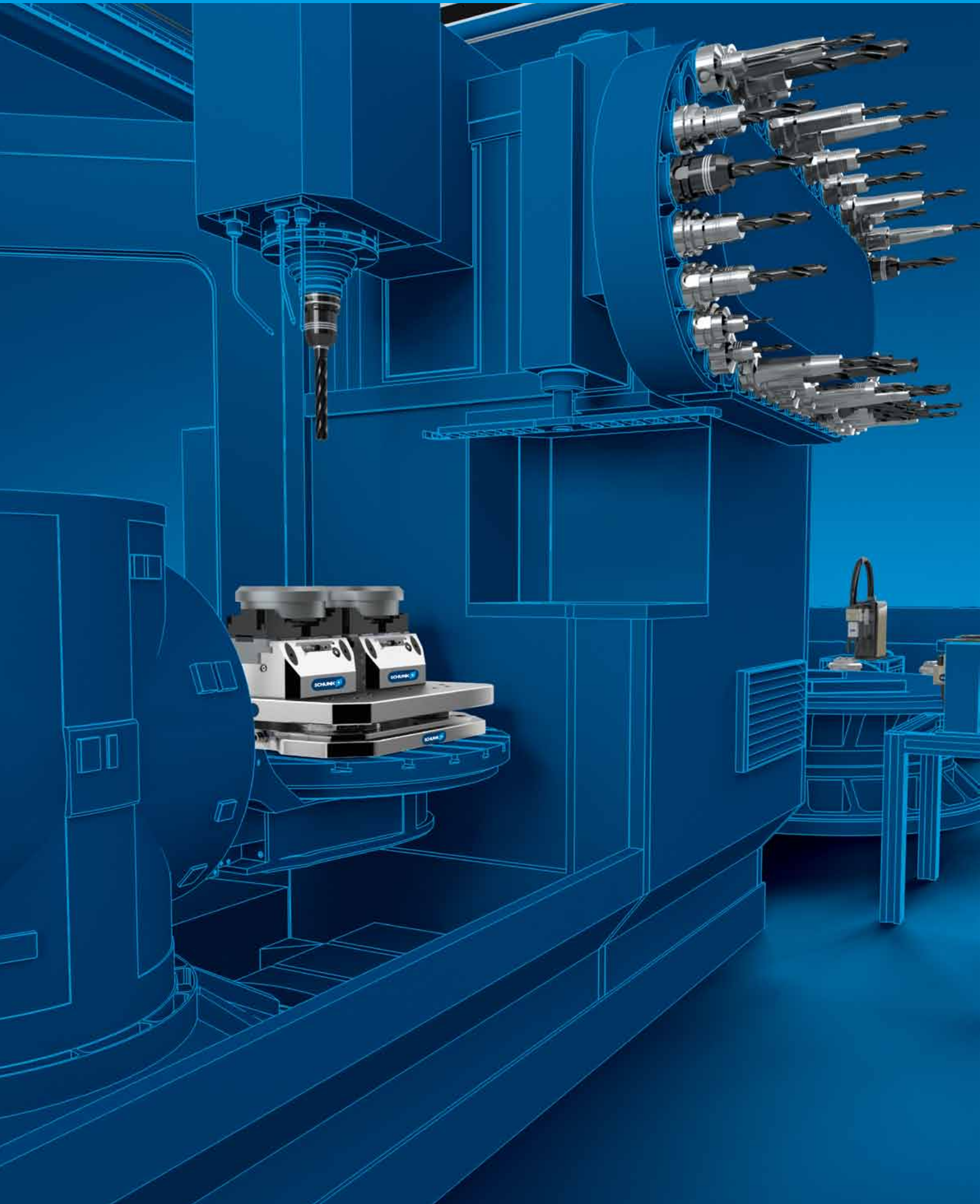
Including vibration damping!

The only modular SCHUNK hydraulic expansion toolholder that requires no manufacturer-specific interface. Unique vibration damping for excellent workpiece surfaces. Two inserts: DSE double vise for true run-out and repeat accuracy of < 0.003 mm. DKE lathe clamping insert for increased productivity with the equipment at hand.





Your Machining Center





SCHUNK No. 1 Products for higher Productivity in your Machining Center.

Innovative and highly precise toolholding systems in the SCHUNK Total Tooling program featuring the largest modular system of stationary clamping technology cover a unique range of machining requirements.

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

0 interfering contour

0 μ permanent run-out accuracy

0.3 mm shank diameter



SCHUNK TENDO E compact toolholder, SCHUNK ROTA-S plus 2.0 manual chuck, and SCHUNK stepped top jaws – three power-houses for highly accurate and fast machining. Easy on spindles and tools while providing maximum repeat accuracy.

Coolant-proof up to **80** bar or peripheral coolant

GZB-S Universal Intermediate Sleeve

Systematic cooling

Versatile application with SCHUNK TENDO, SCHUNK TRIBOS and SCHUNK SINO-R in the clamping range of 3 to 25 mm. Six coolant slots make the difference. SCHUNK intermediate sleeves with their innovative peripheral coolant allow you to keep cool when it comes to high-precision machining.



Up to 2,000 Nm torque

T | E | N | D | O[®] E compact Hydraulic Expansion Toolholder

Full power

The ultimate for large volume cutting. Convincingly priced, it makes it easy for you to change from mechanical and thermal toolholders to the more precise SCHUNK TENDO quality.

- Highest torques up to 2,000 Nm (with a diameter of 32)
- Run-out accuracy and repeat accuracy < 0.003 mm
- Up to 40% raised tool life



100% suitable

T | E | N | D | O[®] SVL Tool Extension

Long and super-slim

The innovative, SCHUNK TENDO SVL tool extension with optimized interference contours from SCHUNK sets new standards in regard to set-up time and costs. The extension is clamped into any SCHUNK toolholder within seconds. The SCHUNK TENDO SVL has been designed for and is suitable for the precise machining of hard-to-reach areas.



0 μ permanent run-out accuracy

T | E | N | D | O[®] zero Hydraulic Expansion Toolholder

Down to 0.000 mm in next to no time
Your pro for tight tolerances during drilling, reaming and drill-finishing. Perfect whenever you require the ultimate in run-out accuracy. For even cutting action and minimum tool costs. Perfect vibration damping for up to 50% longer tool service lives. Minimum set-up costs due to fast, safe tool changes.



More than 35 years of experience

T | E | N | D | O[®] Hydraulic Expansion Toolholders

The hydraulic expansion toolholder for all shank types

The original made by SCHUNK. Technological leader, economical and absolutely precise. And universally applicable in highly precise boring, milling, thread milling and reaming. Process reliable clamping without expensive peripheral equipment.



0 Interfering contour

T | E | N | D | O[®] ES Hydraulic Expansion Toolholder

The powerhouse with zero interfering contour

First choice when power and every centimeter of machining area counts. Tool clamping is done directly in the mounting taper. The result: maximum holding forces, run-out accuracy < 0.003 mm, and additional space in the machine room.





0.3 mm shank diameter

TRIBOS[®]-Mini Polygonal Clamping Technology

The smallest, exchangeable precision toolholder

Used in the medical, dental, electrical engineering, watch and jewelry, countersunk electrodes, and mold making industries. SCHUNK TRIBOS-Mini sets the standards where miniaturization needs to be implemented economically. This tiny one for minimal shank diameters of 0.3 mm is the benchmark in micro machining. This tool allows for extremely precise applications.

- Run-out accuracy of < 0.003 at 2.5 x D
- Balancing grade G 2.5 at 25,000 rpm or Rev._{max} < 1 gmm
- Quick and easy tool changes

3 μ run-out accuracy

TRIBOS[®]-R Polygonal Clamping Technology

Stable and precise

Ideal for volume machining through selectively optimized radial stiffness and clamping force and a run-out accuracy of < 0.003 mm. A special chamber system dampens vibrations and allows for a better surface and longer tool life.



85,000 rpm

TRIBOS[®]-s Polygonal Clamping Technology

Extremely slim design

Designed slimmer than any other known toolholder system on the market. Predestined for precise machining tasks in difficult to reach workpiece areas due to its run-out accuracy of < 0.003 mm.



85,000 rpm

TRIBOS[®]-RM Polygonal Clamping Technology

The small one for high-speed cutting

High radial stiffness due to small compact design and excellent run-out accuracy of < 0.003 mm. SCHUNK TRIBOS-RM is the compact precision champion when it comes to high speed ranges of up to 85,000 revolutions of tools as of 3 mm.



3 μ run-out accuracy

TRIBOS[®]-SVL Tool Extension

Better price due to standardization

Super-slim tool extension, made for highly precise machining of difficult to reach areas. Flexibly combined with standard toolholders and tools, an SCHUNK SVL saves you from buying expensive special tools.



5-sided workpiece machining in one set-up

MAGNOS

Square Pole Technology

Economy cubed

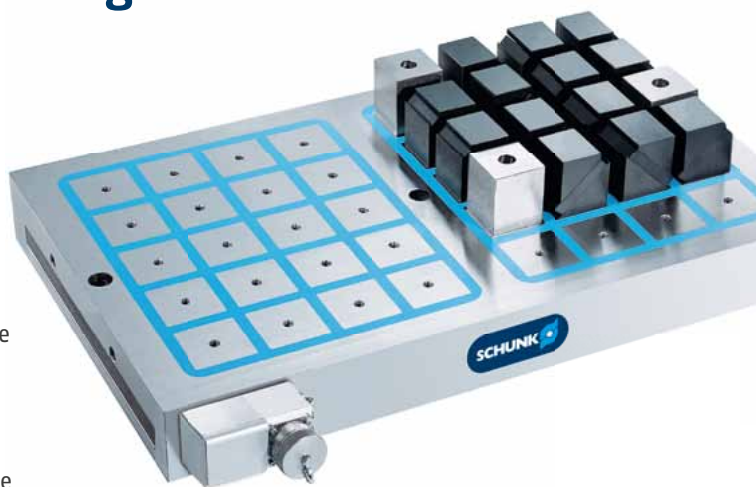
Due to the level positioning of the workpieces on the SCHUNK MAGNOS magnetic chuck, all of the five workpiece sides are easily accessible and can be machined from all sides in one set-up.

Increased tool life and process reliability

Consistently permanent magnetic holding force across the entire workpiece effectively minimizes vibrations and leads to improved surfaces and clearly greater precision.

Minimum set-up times and increased productivity

The workpiece is clamped in seconds. Fine adjustment of the clamping elements or re-clamping the workpiece in the machining process are no longer required, nor are time-consuming set-up times and machine shutdown times.



100% encapsulated

KONTEC KSK Centric Clamping Vise

When the going gets rough

100% encapsulated. Fully functional in rough environments. Nothing keeps the sealed SCHUNK centric clamping vise from doing its job. No soiling. No jammed chips.



0.02 mm clamping precision

TANDEM Clamping Force Blocks

Enormous power with highest precision

There is room for power in the smallest machining area. In confined spaces these compact versions with high clamping forces and a maximum repeat clamping accuracy of 0.02 mm ensure precise results.



More than 75,000 implemented customer-specific solutions

Customer-specific Hydraulic Expansion

For tool or workpiece clamping. SCHUNK offers customized hydraulic expansion tool-holders when standard solutions have reached their limits. Also for extreme requirements.



±0.02 mm height tolerance

PLANOS Vacuum Clamping Technology

Minimal set-up times

For fast and process-reliable clamping of flat-surface workpieces with an even underside. Even mechanically difficult to clamp components are clamped perfectly easy and deformation-free.





90% less set-up costs

VERO-S

Quick-Change Pallet System

The thriving one in the SCHUNK system

The set-up time killer for higher machine running times and a more rational production with batch sizes starting at one. Discover the ideal clamping solution for your machine.

- 90% less set-up costs
- With maximum pull-in forces of up to 40,000 N
- Repeat accuracy of < 0.005 mm



2-fold clamping station
VERO-S NSL plus 200 incl.
2 NSE plus 138 quick-change
pallet modules



6-fold clamping station
VERO-S NSL plus 600 incl.
6 NSE plus 138 quick-change
pallet modules



4-fold clamping station
VERO-S NSL plus 400 incl.
4 NSE plus 138 quick-change
pallet modules



8-fold clamping station
VERO-S NSL plus 800 incl.
8 NSE plus 138 quick-change
pallet modules

Well over **500** variations
for workpiece clamping

VERO-S

Quick-Change Pallet System

The largest modular system for individualists

SCHUNK VERO-S clamps workpieces, pallets, clamping stations, and tombstones via one or more clamping pins. It offers the best clamping solution for every machine. Raised modules offer additional flexibility. With SCHUNK almost everything can be clamped – precise down to the micron and according to your individual needs.



Combination with
SCHUNK TANDEM system



Combination with
SCHUNK KONTEC system



Combination with SCHUNK
MAGNOS magnetic clamping technology



Combination with
SCHUNK ROTA chuck



Combination
with SCHUNK tombstones



The VERO-S quick-change pallet system makes fast workpiece and pallet loading possible. The clamping pins are ideal for easy loading and unloading processes.

Height **20 mm**

VERO-S NSE mini Quick-Change Pallet System

Super-thin design

At a height of 20 mm, the SCHUNK quick-change pallet system VERO-S NSE *mini* is extremely thin. It is an expert in direct workpiece and pallet clamping, and in assembly. Ideal for smaller machines and simpler machining jobs.



2-fold, 4-fold or X-fold

VERO-S NSL mini Quick-Change Pallet System

Variability due to the modular system

Whether as a 2-fold, 4-fold or multiple clamping station – SCHUNK VERO-S NSL *mini* can be adapted to any individual requirement. For any application. On all conventional machine tables.





Germany – Head Office

SCHUNK GmbH & Co. KG
Spann- und Greiftechnik
Bahnhofstr. 106 – 134
74348 Lauffen/Neckar
Tel. +49-7133-103-0
Fax +49-7133-103-2399
info@de.schunk.com
www.schunk.com



Austria

SCHUNK Intec GmbH
Friedrich-Schunk-Straße 1
4511 Allhaming
Tel. +43-7227 223 99 – 0
Fax +43-7227 210 99
info@at.schunk.com
www.at.schunk.com



Belgium, Luxembourg

SCHUNK Intec N.V./S.A.
Industrielaan 4 | Zuid III
9320 Aalst-Erembodegem
Tel. +32-53-853504
Fax +32-53-836351
info@be.schunk.com
www.be.schunk.com



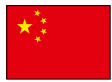
Brazil

SCHUNK Intec-BR
Av. Santos Dumont, 733
BR 09015-330 Santo André – SP
Tel. +55-11-4468-6888
Fax +55-11-4468-6883
info@br.schunk.com
www.schunk.com



Canada

SCHUNK Intec Corp.
370 Britannia Road E, Units 3
Mississauga, ON L4Z 1X9
Tel. +1-905-712-2200
Fax +1-905-712-2210
info@ca.schunk.com
www.ca.schunk.com



China

SCHUNK Intec Precision Machinery Trading
(Shanghai) Co., Ltd.
Xinzhuan Industrial Park,
479 Chundong Road
Minhang District | Shanghai 201108
Tel. +86-21-51760266
Fax +86-21-51760267
info@cn.schunk.com
www.cn.schunk.com



Czech Republic

SCHUNK Intec s.r.o.
Drážní 7b | 627 00 Brno-Slatina
Tel. +420-531-022066
Fax +420-531-022065
info@cz.schunk.com
www.cz.schunk.com



Denmark

SCHUNK Intec A/S
Flegmade 11L | 7100 Vejle
Tel. +45-43601339
Fax +45-43601492
info@dk.schunk.com
www.dk.schunk.com



Finland

SCHUNK Intec Oy
Hatanpään valittatie 34 A/B
33100 Tampere
Tel. +358-9-23-193861
Fax +358-9-23-193862
info@fi.schunk.com
www.fi.schunk.com



France

SCHUNK Intec SARL
Parc d'Activités des Trois Noyers
15, Avenue James de Rothschild
Ferrières-en-Brie
77614 Marne-la-Vallée, Cedex 3
Tel. +33-1-64663824
Fax +33-1-64663823
info@fr.schunk.com
www.fr.schunk.com



Great Britain, Ireland

SCHUNK Intec Ltd.
Cromwell Business Centre
10 Howard Way
Interchange Park
Newport Pagnell MK16 9QS
Tel. +44-1908-611127
Fax +44-1908-615525
info@gb.schunk.com
www.gb.schunk.com



Hungary

SCHUNK Intec Kft.
Széchenyi út. 70. | 3530 Miskolc
Tel. +36-46-50900-7
Fax +36-46-50900-6
info@hu.schunk.com
www.hu.schunk.com



India

SCHUNK Intec India Private Ltd.
80 B, Yeshwanthpur, Industrial Suburbs
Bangalore 560022
Tel. +91-80-40538999
Fax +91-80-40538998
info@in.schunk.com
www.in.schunk.com



Italy

SCHUNK Intec S.r.l.
Via Barozzo | 22075 Lurate Caccivio (CO)
Tel. +39-031-4951311
Fax +39-031-4951301
info@it.schunk.com
www.it.schunk.com



Japan

SCHUNK Intec K.K.
45-28 3-Chome Sanno
Ohta-Ku Tokyo 143-0023
Tel. +81-3-37743731
Fax +81-3-37766500
info@jp.schunk.com
www.jp.schunk.com



Mexico, Venezuela

SCHUNK Intec S.A. de C.V.
Calle Pirineos # 513 Nave 6
Zona Industrial Benito Juárez
Querétaro, Qro. 76120
Tel. +52-442-211-7800
Fax +52-442-211-7829
info@mx.schunk.com
www.mx.schunk.com



Netherlands

SCHUNK Intec B.V.
Speldenmakerstraat 3d
5232 BH 's-Hertogenbosch
Tel. +31-73-6441779
Fax +31-73-6448025
info@nl.schunk.com
www.nl.schunk.com



Norway

SCHUNK Intec AS
Kjellstadsveien 5 | 3400 Lier
Tel. +47-210-33106
Fax +47-210-33107
info@no.schunk.com
www.no.schunk.com



Poland

SCHUNK Intec Sp. z o.o.
ul. Puławska 40A
05-500 Piaseczno
Tel. +48-22-7262500
Fax +48-22-7262525
info@pl.schunk.com
www.pl.schunk.com



Russia

SCHUNK Intec 000
ul. Samojlovoj, 5, lit. C
St. Petersburg 192102
Tel. +7-812-326-78-35
Fax +7-812-326-78-38
info@ru.schunk.com
www.ru.schunk.com



Singapore

SCHUNK Intec Pte. Ltd.
25 International Business Park
#03-51/52 German Centre
Singapore 609916
Tel. +65-6240-6851
Fax +65-6240-6852
info@sg.schunk.com
www.sg.schunk.com



Slovakia

SCHUNK Intec s.r.o.
Levická 7 | SK-949 01 Nitra
Tel. +421-37-3260610
Fax +421-37-3260699
info@sk.schunk.com
www.sk.schunk.com



South Korea

SCHUNK Intec Korea Ltd
#1207 ACE HIGH-END Tower 11th,
883 Gwangyang-dong | Dongan-gu,
Anyang-si, Gyeonggi-do 431-804 | Korea
Tel. +82-1661-0091
Fax +82-31-3826142
info@kr.schunk.com
www.kr.schunk.com



Spain, Portugal

SCHUNK Intec S.L.U.
Foneria, 27 | 08304 Mataró (Barcelona)
Tel. +34-937 556 020
Fax +34-937 908 692
info@es.schunk.com
www.es.schunk.com



Sweden

SCHUNK Intec AB
Morabergsvägen 28
152 42 Södertälje
Tel. +46-8 554 421 00
Fax +46-8 554 421 01
info@se.schunk.com
www.se.schunk.com



Switzerland, Liechtenstein

SCHUNK Intec AG
Im Ifang 12 | 8307 Effretikon
Tel. +41-52-35431-31
Fax +41-52-35431-30
info@ch.schunk.com
www.ch.schunk.com



Turkey

SCHUNK Intec Bağlama Sistemleri ve
Otomasyon San. ve Tic. Ltd. Şti.
Küçükyalı İş Merkezi, Girne Mahallesi
Irmak Sokak, A Blok, No: 9
34852 Maltepe | Istanbul
Tel. +90-216-366-2111
Fax +90-216-366-2277
info@tr.schunk.com
www.tr.schunk.com



USA

SCHUNK Intec Inc.
211 Kitty Hawk Drive
Morrisville, NC 27560
Tel. +1-919-572-2705
Fax +1-919-572-2818
info@us.schunk.com
www.us.schunk.com



Argentina
Ruben Costantini S.A.
Luis Angel Huergo 1320,
Parque Industrial | San Francisco
2400 San Francisco-Córdoba
Tel. +54-3564-421033
Fax +54-3564-428877
alejandro.costantini@costantini-sa.com
www.costantini-sa.com



Australia
Romheld Automation PTY. LTD.
Unit 30 | 115 Woodpark Road
Smithfield NSW 2164
Tel. +61-2-97211799
Fax +61-2-97211766
sales@romheld.com.au
www.romheld.com.au



Chile
Comercial Araneda y CIA. LTDA.
Quinta Normal
Vargas Fontecilla # 4550 | Santiago
Tel. +56-2-7248123
Fax +56-2-7102036
caraneda@rotar.cl | www.rotar.cl



Colombia
Cav -
Control y Automatización Virtual Ltda.
43 Oficina 101 Avenida Esperanza N. 278
Bogotá D.C.
Tel. +57-1-6608719
Fax +57-1-4109846
info@cavingenieros.com
www.cavingenieros.com

MIKRA CAD CAM CAE, LTDA
AC-3 # 310-87, Bogotá
Tel. +571-201-6379



Costa Rica
RECTIFICACION ALAJUELENSE, S.A.
100m al Oeste y 75m al Sur del
Cementerio Central de Alajuela,
Alajuela
Tel. +506-2430-5111



Croatia
Bibus Zagreb d.o.o.
Anina 91 | 10000 Zagreb
Tel. +385-138-18004
Fax +385-138-18005
info@bibus.hr | www.bibus.hr

Okret d.o.o.
Majurina 16 | 21215 Kastel Luksic
Tel. +385-21-228449
Fax +385-21-228464
okret@okret.hr



Czech Republic
Bibus s.r.o.
Videňská 125 | 63927 Brno
Tel. +420-5-45233707
Fax +420-5-45221444
adam@bibus.cz | www.bibus.cz



Ecuador
ELIMED CIA. LTDA.
Calle El Progreso 0E1-111 y Manglaralto
Quito
Tel. +59-39-7784740



Estonia
Dv-Tools OÜ
Peterburi tee 34/4 | 11415, Tallinn
Mobile Phone +372-56-655954
Fax +372-6030508
info@dv-tools.ee



Finland
Nurminen Tools Oy
Rautakatu 4 | 21110 NAANTALI, FINLAND
Tel. +358-2-4389668
Fax +358-2-4389669
sales@nurminentools.fi
www.nurminentools.fi



Greece
Georg Gousoulis Co. O.E.
27, Riga Ferou Str.
14452 Metamorfofi-Athens
Tel. +30-210-2846771
Fax +30-210-2824568
mail@gousoulis.gr | www.gousoulis.gr



Iceland
Formula 1 ehf
Breidamörk 25 | P.O. Box 1 61
810 Hveragerði
Tel. +354-5172200 | Fax +354-5172201
formula1@formula1.is



Indonesia
PT. Metaltech Indonesia
Komplek Puri Niaga 1 Blok K7/1T
Puri Kencana | Jakarta Barat
Tel. +62-21-58350434
Fax +62-21-5918553
info@metaltechindonesia.com



Iran
Iran I.P. Procurement of Industries Co.
(I.P.I.)
No. 10, First alley, Golshan St.,
Khoramshahr Ave. | Tehran, 1554814771
Tel. +98-21-88750965
Fax +98-21-88750966
info@ipico.com



Israel
Ilan and Gavish Automation Service
Ltd.
26, Shenkar St. | Qiryat-Arie 49513
P.O. Box 10118 | Petach-Tikva 49001
Tel. +972-3-9221824
Fax +972-3-9240761
nava@ilan-gavish.com
www.ilan-gavish.co.il

M. K. Sales
Arimon 41 St. | Mosave Gealya 76885
Tel. +972-52-8283391
Fax +972-8-9366026
moti@mk-sales.com
www.mk-sales.com



Latvia
Sia Instro
Lacplesa 87 | Riga, 1011
Tel. +371-67-288546
Fax +371-67-287787
maris@instro.lv | www.instro.lv



Malaysia
Precisetech Sdn. Bhd
Plant 1, 15 Lorong Perusahaan Maju 11
13600 Perai | Prai Penang
Tel. +604-5080288
Fax +604-5080988
sales@precisetech.com.my
www.precisetech.com.my

SK-TEC
Automation & Engineering Sdn. Bhd
No. 54-A, Jalan PU7/3,
Taman Puchong Utama
47100 Puchong
Selangor Darul Ehsan
Tel. +603-8060-8771
Fax +603-8060-8772
jeffery.koo@sk-tec.com.my
www.sk-tec.com.my



Peru
ANDES TECHNOLOGY S.A.C.
Avenida Flora Tristan 765
Lima
Tel. +51-1-3487611

MAQUINAS CNC, S.A.C.
Los Jazmines #143, Lima
Tel. +51-1-2750649



Philippines
Bon Industrial Sales
35 Macopa St. | Sta. Mesa Heights
Quezon City
Tel. +63-2-7342740
Fax +63-2-7124771
bonind@skynet.net



Poland
Bibus Menos Sp. z o.o.
ul. Spadochroniarzy 18
80-298 Gdansk
Tel. +48-58-6609570
Fax +48-58-6617132
info@bibusmenos.pl
www.bibusmenos.pl



Romania
S.C. Inmaacro S.R.L.
Industrial Machines and Accessories
Romania
Avram Iancu Nr. 86
505600 Sacele-Brasov
Tel. +40-368-443500
Fax +40-368-443501
info@inmaacro.com
www.inmaacro.com



Russia
Haltec Ltd.
Federazia St. 8
432063 Ulyanovsk
Tel. +7-8422-31-07-38
Fax +7-8422-31-06-01
info@haltec.ru
www.haltec.ru



Saudi Arabia
Alruqee Machine Tools Co. Ltd.
Head Office
P.O. Box 36 57 | Alkhobar 31952
Tel. +966-3-8470449
Fax +966-3-8474992
mailbox2@alruqee.com
www.alruqee.net



Singapore
BALLUFF ASIA PTE LTD
18 Sin Ming Lane
#06-41 Midview City
Singapore 573960
Tel. +65-625-24384
Fax +65-625-29060
balluff@balluff.com.sg
www.balluff.com.sg

Eureka Tools Pte Ltd.
194 Pandan Loop, # 04-10 Pantech,
Industrial Complex | Singapore 128383
Tel. +65-687-45781
Fax +65-687-45782
eureka@eureka.com.sg
www.eureka.com.sg



Slovakia
Bibus SK, s.r.o.
Priemyselná 4 | 94901 Nitra
Tel. +421-37-742525
Fax +421-37-6516701
sale@bibus.sk | www.bibus.sk



Slovenia
MB-Naklo Trgovsko Podjetje D.O.O.
Toma Zupana 16 | 04202 Naklo
Tel. +386-42-771700
Fax +386-42-771717
mb-naklo@mb-naklo.si
www.mb-naklo.si



South Africa
Agm Maschinenbau (Pty) Ltd.
P.O. Box 4246 - Germiston South, 1411
Tel. +27-11-825-4246
Fax +27-11-872-0690
agrau@iafrica.com
www.agm-maschinenbau.co.za



South Korea
Mapal Hiteco Co., Ltd.
1NA-502, Shihwa Ind. Complex 1254-10,
Jungwang-dong, Shihung-city
Kyunggi-do, 429-450
Tel. +82-1661-0091
Fax +82-31-3190-861
hiteco@kornet.net | www.hiteco.co.kr



Taiwan
Accudyna Engineering Co., Ltd.
2 F, No. 885, Youn-Chun East 1st. Rd
40877 Taichung City
Tel. +886-4-23801788
Fax +886-4-23805511
sales@accudyna.com.tw
www.accudyna.com.tw

Yonchin Enterprises, Inc.
5F, No. 100, Hsing Der Rd.
San Chung City 241, Taiwan
Tel. +886-2-2278-9320
Fax +886-2-2278-9320
yon.chin@msa.hinet.net
www.yonchin.com



Thailand
Brainworks Co., Ltd.
18/6, Soi Ram-intra 65, Tha-Rang
Bangkhen, Bangkok 10220
Tel. +66-2-5105908
Fax +66-2-5105903
chatchai@brainworks.co.th
www.brainworks.co.th



Ukraine
Center of Technical Support „Mem“ LLC
Malyshva str., 11/25
Dniproptetrovsk 49026
Tel. | Fax. +38-056-378-4905
maxim.bayer@gmail.com
www.ctp-mem.com.ua



Venezuela
Alpin de Venezuela, C.A.
Calle G - Residencias Rosita
Local No. 6-P.B.-El Paraiso
Sector El Pinar-Caracas 1020
Tel. +58-212-4510484
Fax +58-212-4515886
alpen@cantv.net



Lauffen/Neckar

SCHUNK GmbH & Co. KG | Spann- und Greiftechnik
Bahnhofstr. 106 - 134 | 74348 Lauffen/Neckar
Tel. +49-7133-103-0
Fax +49-7133-103-2399
info@de.schunk.com | www.schunk.com



Brackenheim-Hausen

SCHUNK GmbH & Co. KG | Spann- und Greiftechnik
Wilhelm-Maybach-Str. 3 | 74336 Brackenheim-Hausen
Hotline Verkauf/Technical Sales +49-7133-103-2503
Hotline Technik/Technical Support +49-7133-103-2696
Fax +49-7133-103-2189
automation@de.schunk.com | www.schunk.com



Huglfing

SCHUNK Montageautomation GmbH
Auwiese 16 | 82386 Huglfing
Member of SCHUNK Lauffen
Tel. +49-8802-9070-30
Fax +49-8802-9070-340
info@de.schunk.com | www.schunk.com



Mengen

H.-D. SCHUNK GmbH & Co. Spanntechnik KG
Lothringer Str. 23 | 88512 Mengen
Tel. +49-7572-7614-0
Fax +49-7572-7614-1099
futter@de.schunk.com | www.schunk.com



St. Georgen

SCHUNK Electronic Solutions GmbH
Am Tannwald 17 | 78112 St. Georgen
Tel. +49-7725-9166-0
Fax +49-7725-9166-5055
electronic-solutions@de.schunk.com | www.schunk.com

Ihr Fachberater vor Ort | *Your local technical consultant*
www.schunk.com/services/ansprechpartner/aussendienst



International | International



Morrisville/North Carolina, USA

SCHUNK Intec Inc.
211 Kitty Hawk Drive | Morrisville, NC 27560
Tel. +1-919-572-2705
Fax +1-919-572-2818
info@us.schunk.com | www.us.schunk.com

Copyright

Das Copyright für Text, grafische Gestaltung sowie bildliche Darstellung der Produkte liegt ausschließlich bei SCHUNK GmbH & Co. KG

Technische Änderungen

Die Angaben und Abbildungen in diesem Katalog sind unverbindlich und stellen nur eine annähernde Beschreibung dar. Wir behalten uns Änderungen des Liefergegenstandes gegenüber den Angaben und Abbildungen in diesem Katalog, z. B. im Hinblick auf technische Daten, Konstruktion, Ausstattung, Material und äußerem Erscheinungsbild vor.

Copyright

All text drawings and product illustrations are subject to copyright and are the property of SCHUNK GmbH & Co. KG

Technical Changes

The data and illustrations in this catalogue are not binding and only provide an approximate description. We reserve the right to make changes to the product delivered compared with the data and illustrations in this catalogue, e.g. in respect of technical data, design, fittings, material and external appearance.

Greifsysteme | Gripping Systems



Gesamtprogramm Greifsysteme
Complete program Gripping Systems



Greifer-Module
Gripping Modules



Drehmodule
Rotary Modules



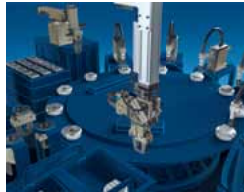
Linearmodule
Linear Modules



Roboterzubehör
Robot Accessories



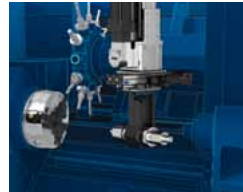
Modulare Montagetechnik
Modular Assembly Technology



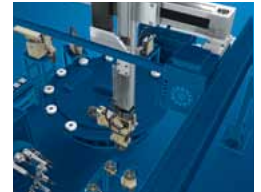
Produktübersicht
Product Overview



Highlights
Neuheiten | New Products



Mechatronik
Mechatronics



Produktübersicht Linearmodule
Product Overview Linear Modules

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



Highlights
Neuheiten | New Products

Firma | Company

Name | Name

Abteilung | Department

Straße | Street

PLZ | ZIP

Ort | City

Tel.

Fax

Email



Reg. No. 003496 QM08

No. 1

Concentrated, safe holding
on the front line.



J. Lehmann

Jens Lehmann, German goalkeeper legend,
brand ambassador of SCHUNK, the family-owned company, since 2012
www.gb.schunk.com/Lehmann

852 minutes without a
goal against him in the
Champions League

681 minutes without a goal
against him in 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 gripping modules

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**
implemented hydraulic expansion
customer-specific solutions

SCHUNK GmbH & Co. KG
Spann- und Greiftechnik

Bahnhofstr. 106 - 134
D-74348 Lauffen/Neckar
Tel. +49-7133-103-2503
Fax +49-7133-103-2189
grippingsystems@de.schunk.com
www.schunk.com



www.youtube.com/SCHUNKHQ



www.twitter.com/SCHUNK_HQ



www.facebook.com/SCHUNK.HQ