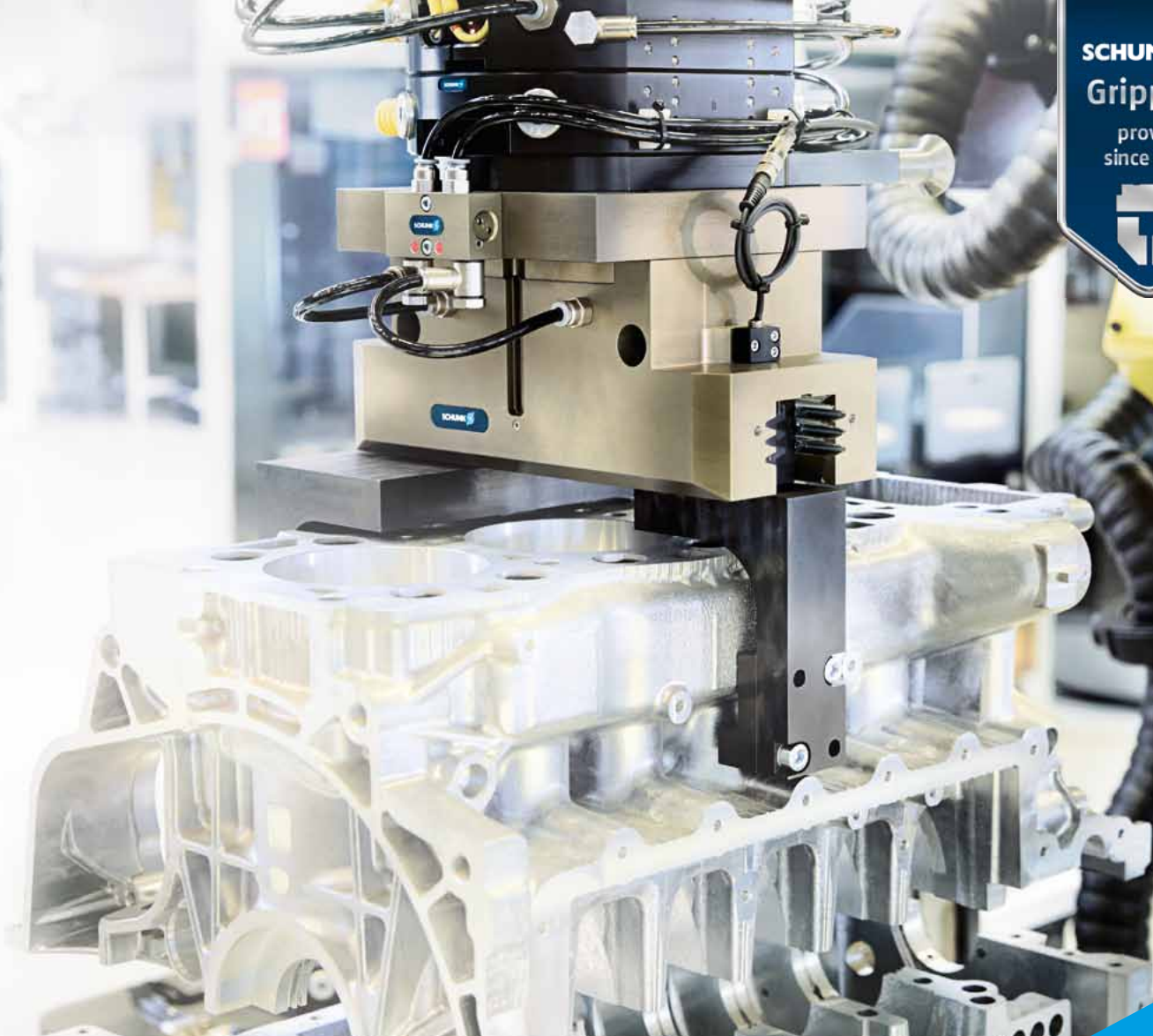




Superior Clamping and Gripping



The SCHUNK PGN-plus Gripper

The most proven Gripper on the Market.



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

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



Heinz-Dieter Schunk



Henrik A. Schunk



Kristina I. Schunk

Superior Clamping and Gripping

It's time to use your machine's

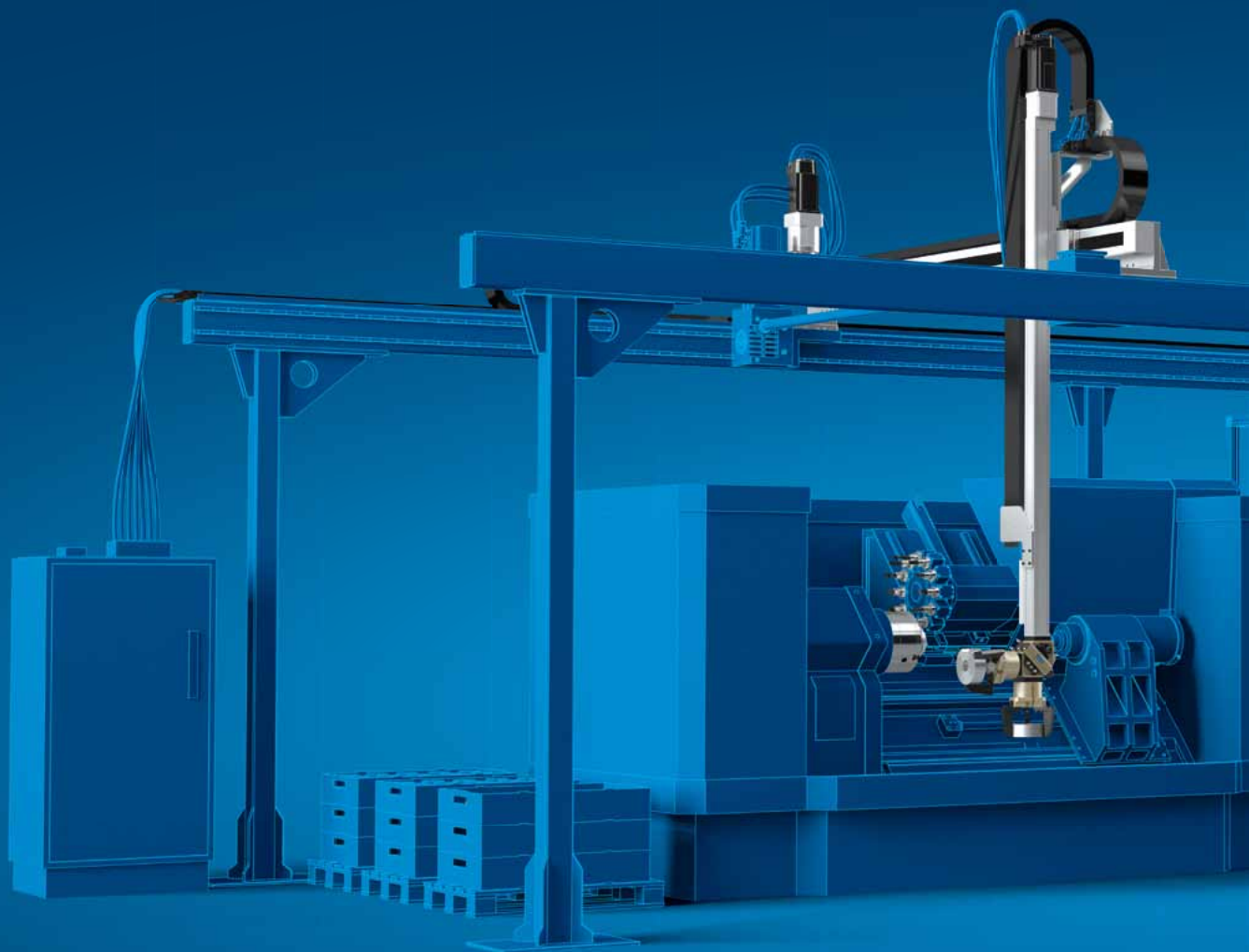
With superior components, we find potentials in your machine where you would never expect to find them.

Make use of your machine's full 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 you use of SCHUNK, the more efficient your machine is.



full potential!



SCHUNK Gripper Modules

Precise grip!
From a few grams to over a ton.



Linear Modules

Moves precisely!
High speed in all axes.



Modular Assembly Automation

Uniquely individual!
Due to the flexibility of the modular system.



Robot Accessories

Perfectly connected!
The interaction between robot and tool.



Rotary Modules

They master it!
Limited or endless – free or clocked.



Mobile Gripping Systems

Technologies for handling the future.

Your Automated Handling System



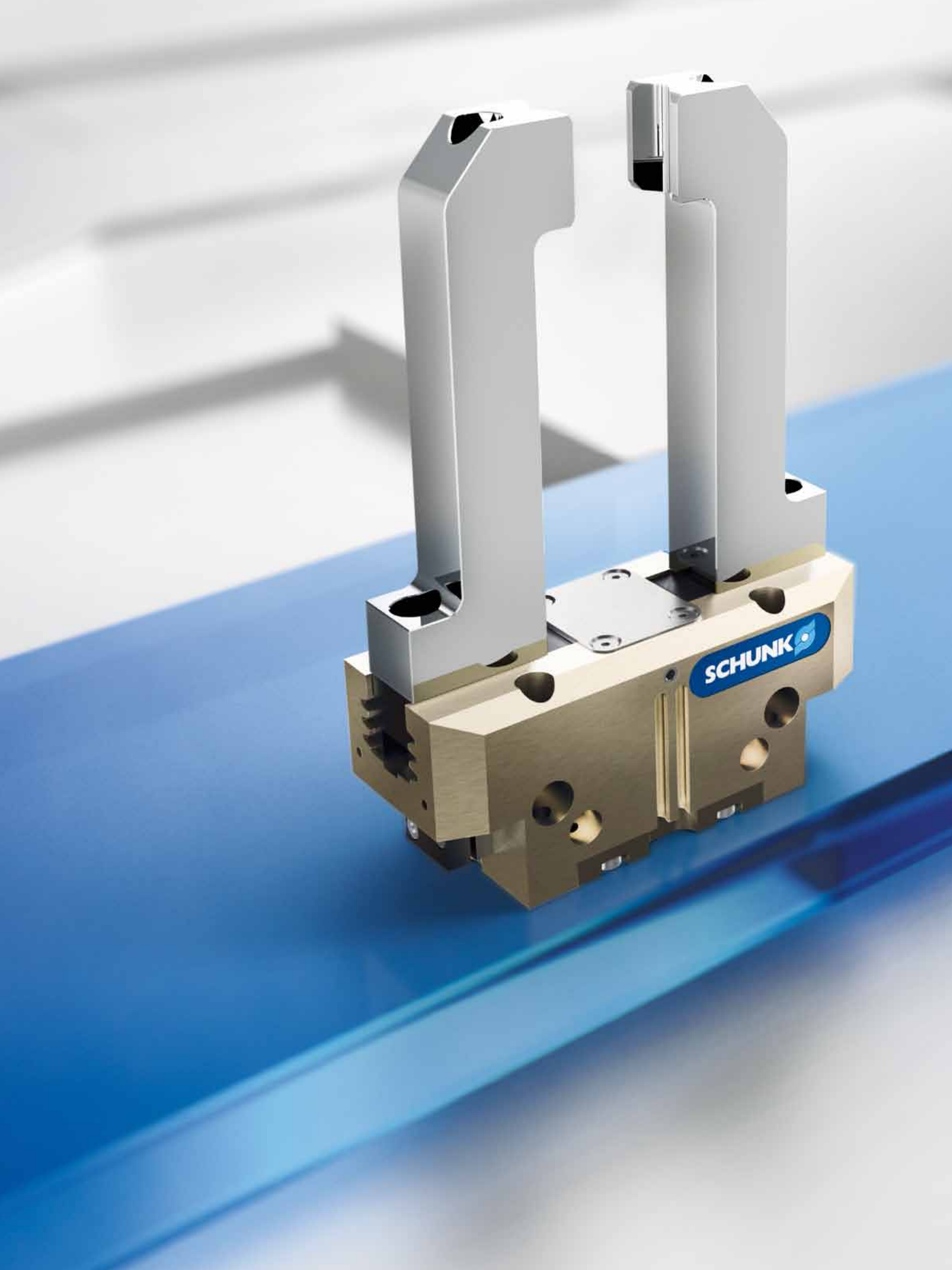
Your Machining Center



Your Automated Assembly



Your Service Robotics Application





In a Class of its Own. The SCHUNK PGN-plus Gripper.

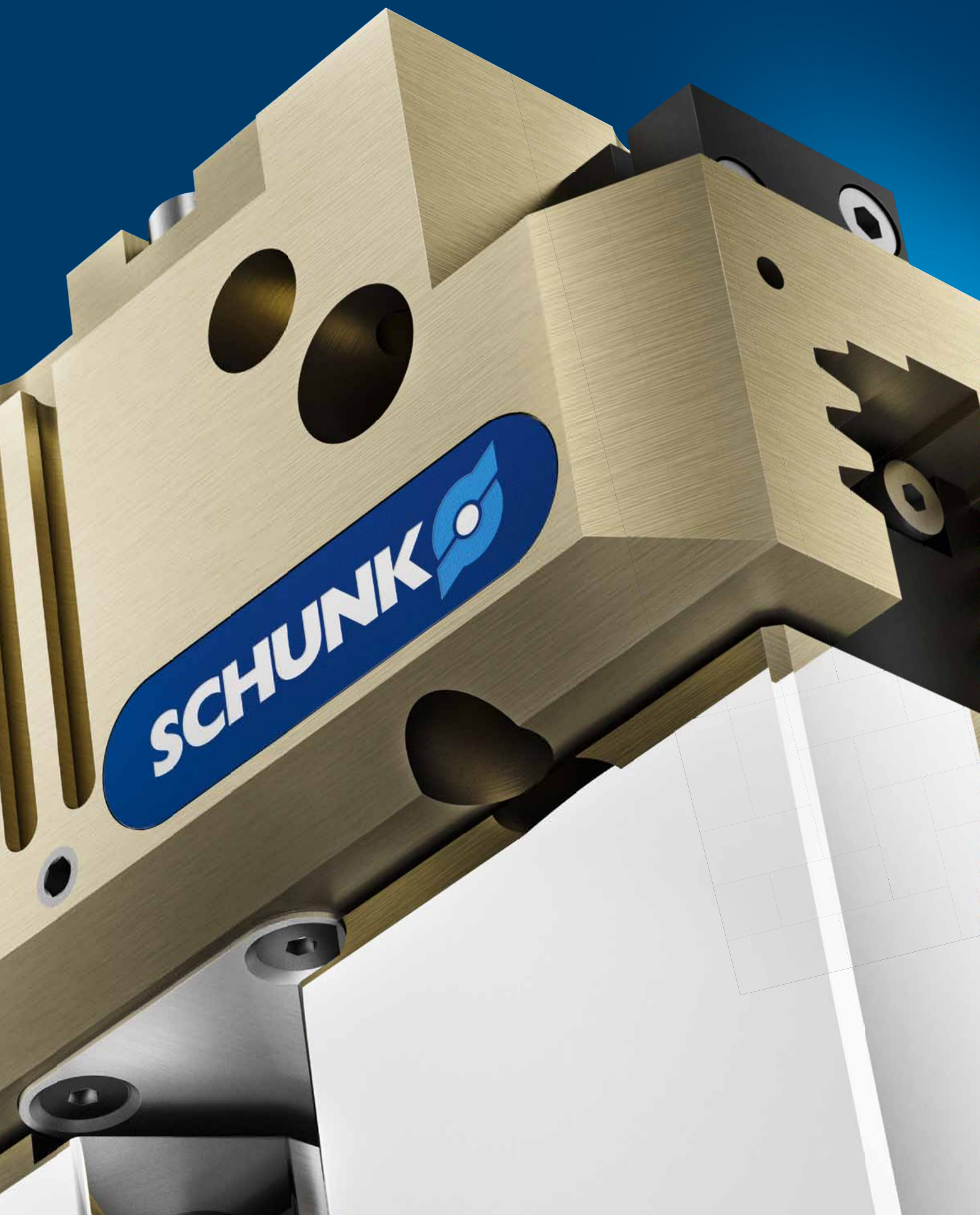
With technological perfection, unique precision due to multi-tooth guidance and universal application capabilities, the SCHUNK 2-finger parallel gripper PGN-plus is in a class of its own. Worldwide it is a synonym for reliable, high-precision gripping in customized automation processes. Its diverse options for special applications, its optimally graduated sizes and high gripping forces make it the ideal solution for all applications.

The SCHUNK PGN-plus is the result of 30 years of SCHUNK competence in gripping systems. We are proud of that.

21,800 N gripping force

11 sizes

45 mm stroke per jaw



For maximum Precision! The SCHUNK PGN-plus Gripper, unique with multi-tooth Guidance.

Highest gripping force. Best stability. Long gripper fingers. Never was a gripper more precise than with the superior SCHUNK multi-tooth guidance. This system redefines precision and durability among grippers. Forces and torques are distributed onto the guiding surfaces of several parallel prismatic guideways. This allows a higher load on the guideways for significantly higher stability. With the same gripper size, you can use longer gripper fingers without overloading the guideway. The extra guiding surface reduces the surface pressure and therefore minimizes wear. Multi-tooth guidance ensures precision and a long life.

- Maximum gripping forces up to 21,800 N
- Precise repeat accuracy of 0.01 mm
- Large stroke up to 45 mm per gripper finger
- High torque and force absorption
- Use of long gripper fingers is unproblematic
- Longest service life



Patentierte Präzision!

Patented Precision!

Vielzahnführung
Multi-tooth guidance

The SCHUNK PGN-plus Gripper. The **Plus** is in the Details, where Precision meets Power.

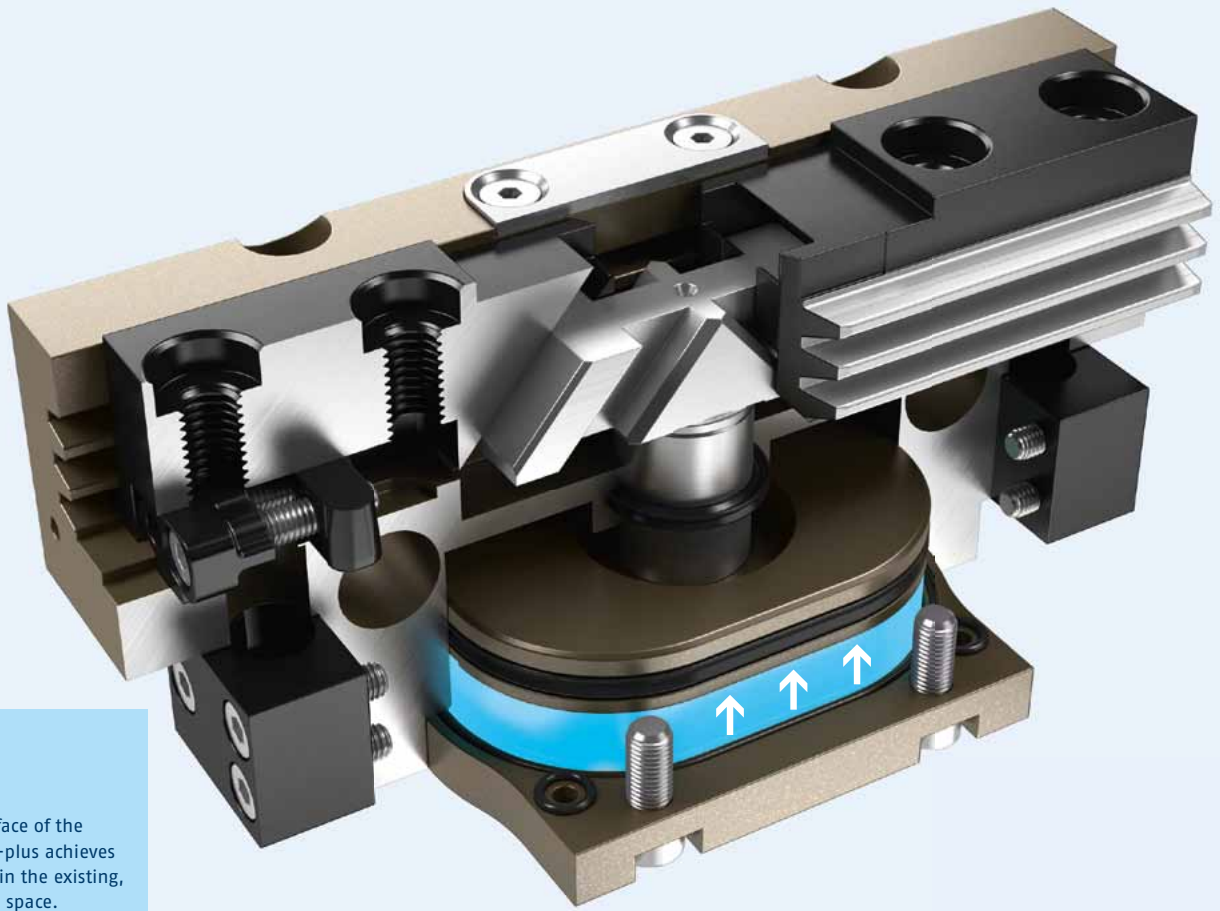
The patented SCHUNK multi-tooth guidance enables maximum gripping forces for high torque and force absorption, as well as precise and controlled handling.



Plus 1:

**Longer gripper fingers –
due to higher torque absorption**

Multi-tooth guidance allows the use of longer gripper fingers for the same gripper size, without overloading the guidance.



Plus 2:

Maximum force

Due to the large surface of the oval piston the PGN-plus achieves the maximum force in the existing, compact installation space.

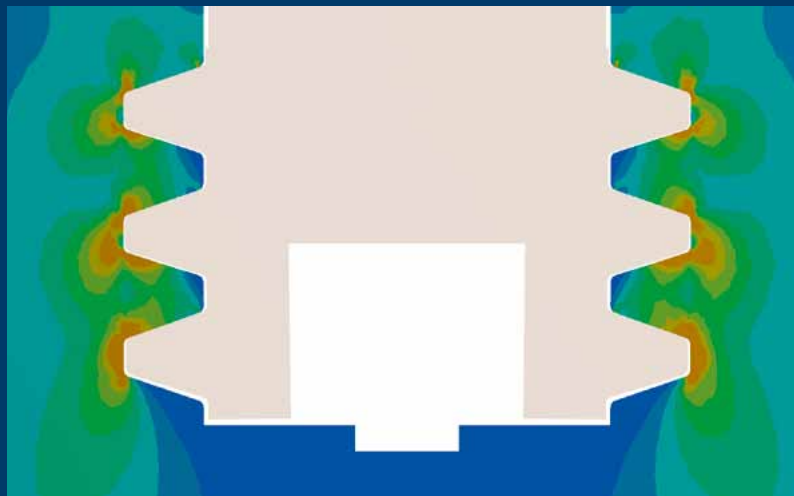
In proportion to the gripper size, this allows optimal utilization of the force.



Plus 3:

Maximum controlled production

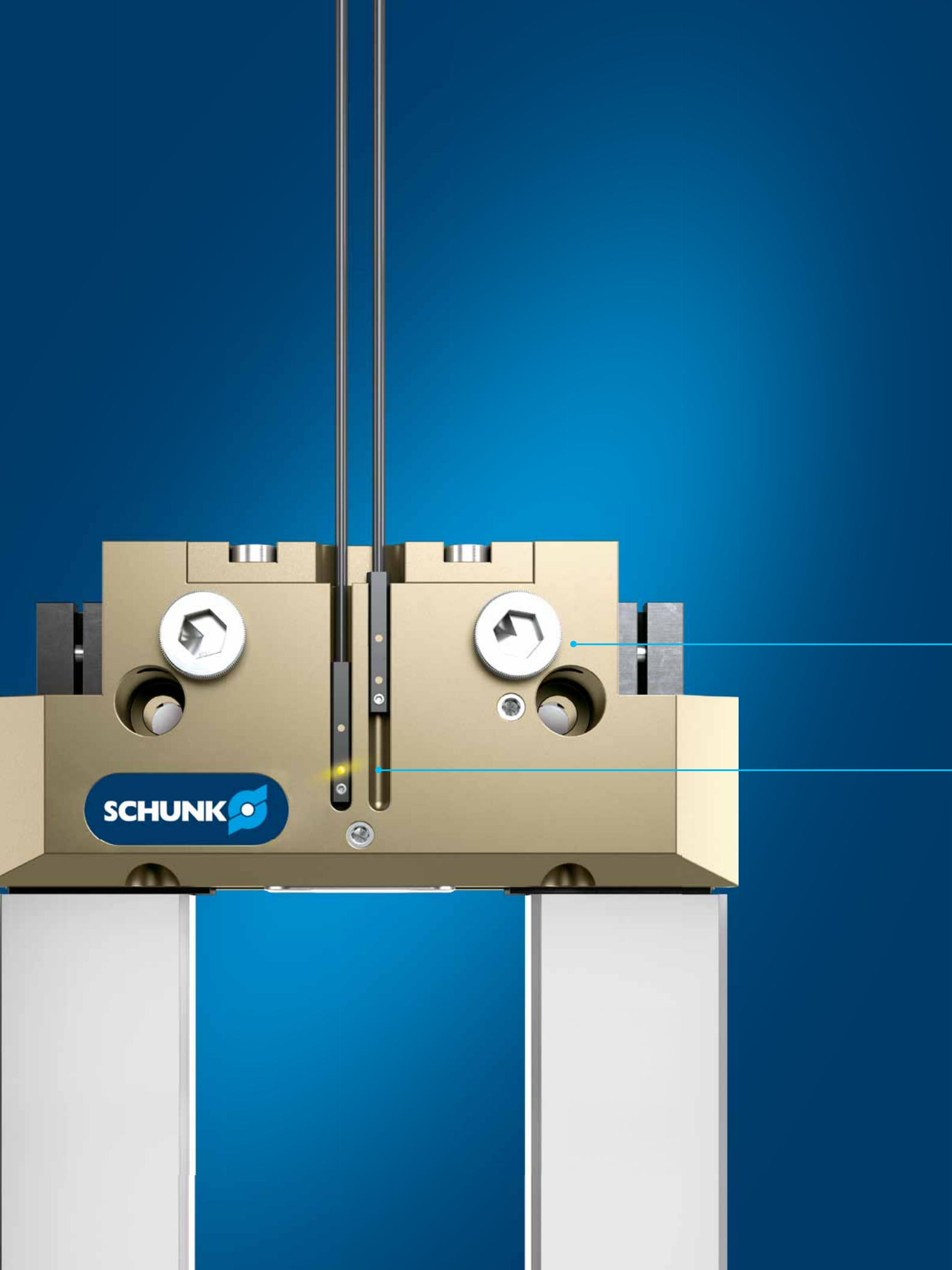
Multi-tooth guidance allows a larger angled surface and therefore reduced surface pressure for the reliable and controlled transfer of force to the base jaw, with minimum wear.



Plus 4:

Higher load capacity – due to multiple guiding surfaces

The principle of the patented SCHUNK multi-tooth guidance reduces the surface pressure by distributing the load onto several parallel prismatic guidances.



Our Answer to Flexibility: Diversity of Accessories.

The SCHUNK PGN-plus gripper stands for diversity. You benefit from unprecedented flexibility. Choose from a large range of high-quality accessory components provided by SCHUNK for its grippers with multi-tooth guidance. They are the perfect way to equip your PGN-plus for your individual application. Combine different options with no opt for the reliable special version, if special environmental conditions should require it.

Of course, our performance spectrum also includes the matching sensor systems, as well as efficient micro valve technology for shorter cycle times and low power consumption.



Valves

Micro valve MV

The two SCHUNK micro valves with a cylindrical design can be mounted directly on the gripper. This reduces cycle times, wiring and compressed air costs.



Sensor system

MMS 22-PI magnetic switch

The SCHUNK MMS 22-PI sensors allow programming of up to two switching points, depending on the version.



Variants

Multi-tooth is part of our philosophy

Discover the diversity of SCHUNK grippers with multi-tooth guidance. Whether 3- or 4-finger centric, in a sealed version or with a center hole. Take advantage of the reliable performance for your special handling task.

Our Diversity. Your Individuality.

The SCHUNK PGN-plus gripper line with multi-tooth guidance, and a standardized screw pattern offers diverse versions and a superior line of accessories to give you everything you need for flexible use in your special automation application. For every type of application and handling requirement – even for extreme conditions.



Variants		PGN-plus 2-finger parallel gripper
Gripping force maintenance version AS / IS		•
Dust-protected version SD		•
Corrosion-protected version K		•
High-temperature version V		•
Power booster version KVZ		•
Precision version P		•
Explosion-proof version EX		•
Compatible accessories*		
Protective cover HUE Permanent protection of the gripper against liquids and dust.		•
Quick change jaw system BSWS Minimizes setup times due to quick changing of the gripper fingers.		•
Top jaw blank ABR/SBR Blanks made of aluminum or steel for application-specific finish machining.		•
Laser-formed gripper fingers Customized gripper fingers made of polyamide by means of laser forming; available within a few days.		•
Micro valves ABV Shorter cycle times with reduced pneumatic power consumption.		•
Pressure maintenance valve SDV-P Guarantees maintenance of gripping force in case of a power failure.		•
Sensor systems* Position monitoring		
Magnetic switch MMS Features one switching point. No interfering contour.		•
Inductive proximity switch IN For monitoring the current condition of automation components.		•
Sensor systems* Multi position monitoring		
Flexible position sensor FPS For monitoring of up to 5 teachable switching points with digital output.		•
MMS 22-PI magnetic switch With adjustable hysteresis. Optionally with two programmable switching points.		•
Magnetic sensor MMS-A Smallest teachable analog sensor for the C-slot. No interfering contour.		•
Analog position sensor APS System consisting of sensor and electronics for precise monitoring of any number of gripper jaw positions.		•
Wireless sensor system*		
Wireless monitoring system RSS Wireless sensor system for signal and condition monitoring of sensors and processes.		•

• Available as standard

▲ On request: Technical hotline for gripper systems +49-7133-103-2696

* More accessories and sensors at www.de.schunk.com

SCHUNK Grippers: All with Multi-Tooth – all for your Application!

					
Handling of round workpieces.	Use in water and contaminated environments.		Center bore for workpiece feeding, sensors or optical detection.		Handling of cylindrical workpieces during magazining and palletizing
PZN-plus 3-finger centric gripper	DPG-plus 2-finger parallel gripper Sealed version	DPZ-plus 3-finger centric gripper Sealed version	PGB-plus 2-finger parallel gripper with center bore	PZB-plus 3-finger centric gripper with center bore	PZV-plus 4-finger centric gripper
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Robust workhorse in
harsh environments.

You have your Requirement. We have the PGN-plus!

PGN-plus stands for efficiency and precision in handling applications.

More than 500,000 solutions implemented in diverse industries speak for themselves. The PGN-plus is the perfect gripper for every type of application with special environmental conditions such as temperature, contamination or aggressive media, as well as in cleanroom conditions or explosive environments. PGN-plus – you decide where to use it.

Dust-protected version

For use in dusty environments. Fully dust-proof versions with increased degree of protection against penetrating materials, for absolute reliability.



Cleanroom

PGN-plus in the standard version is certified according to EN ISO 14644 cleanroom class ISO 5, with protective cover HUE also for standard use in cleanroom class ISO 2.



**High-precision specialist
for sensitive areas.**



Automotive industry



Machining industry



Electrical industry



Drive technology



Medical technology

Explosion-proof version EX

All premium products from SCHUNK are also delivered with an ATEX certificate as standard.



Customized protective covers

For use in high-temperature areas, such as for welding.



The PGN-plus – ready for every Application. For every Task. For every Industry.



Removal of pistons

Casting industry

The PGN-plus in combination with an OPR collision sensor. Imaging software is used to determine possible gripping points for removal of components.



Loading and unloading of a machining center

Metal-cutting industry

Robots with the SCHUNK SWS quick-change system load SCHUNK TANDEM-plus clamping force blocks outside of the machining center and change them into the vertical machining center entirely with a 2-way gripper unit.



Collection & placing of small components

Assembly automation

Universal SCHUNK RVK collection gripper equipped with 6 PGN-plus parallel grippers. Components are successively gripped, collected and conveyed to the assembly or storage area and then set down individually.



Palletizing of pre-machined parts

Assembly automation

Pre-machined parts are removed from the machining process with a PGN-plus and stored on a pallet for further processing.



Loading and unloading of a machining center

Machining industry

I.D. clamping of a pre-machined part with a ROTA NCK-S plus hydraulic power chuck and claw jaws. Loading and unloading is performed automatically by a PGN-plus.



Handling of ground parts

Metal-cutting industry

Six-way robot uses a PGN-plus to remove a machined part from the chuck. The finished parts are placed on a pallet; rough parts are gripped from a pallet.

Standardization for maximum Flexibility. The PGN-plus and End-of-Arm Expertise from SCHUNK

More capabilities, more functionality, higher process reliability and maximum modularity. SCHUNK robot accessories include a comprehensive portfolio of modules for mechanical, sensor and power connections between the effector and the robot. A broad range of quick-change systems, rotary feed-throughs, anti-collision and overload devices, force sensors, compensation units and insertion units ensure optimal interplay between the robot arm and end-of-arm effectors, such as the SCHUNK PGN-plus gripper.



High-speed for Handling and Assembly.

The PGN-plus and Axis System Handling Solutions from SCHUNK

When precision is required for positioning, loading, and unloading, assembly or transport, the interplay of PGN-plus and pneumatic and electric linear modules from SCHUNK provide the perfect solution. With the performance range of linear modules in combination with rotary modules, rotary units, gripping modules, quick-change systems, rotary transfer units and sensors, SCHUNK opens up new perspectives for optimally priced and value-added automation solutions.

Gripping

SCHUNK PGN-plus gripper
2-finger universal gripper with multi-tooth guidance



Joining and compensating
SCHUNK TCU
compensation unit



Moving

SCHUNK linear modules
X axis (horizontal)
Beta toothed belt axis
Z axis (vertical)
Beta spindle axis



Connecting

SCHUNK adapter plate



Turning

SCHUNK SRH-plus
rotary unit



Connecting

SCHUNK adapter plate

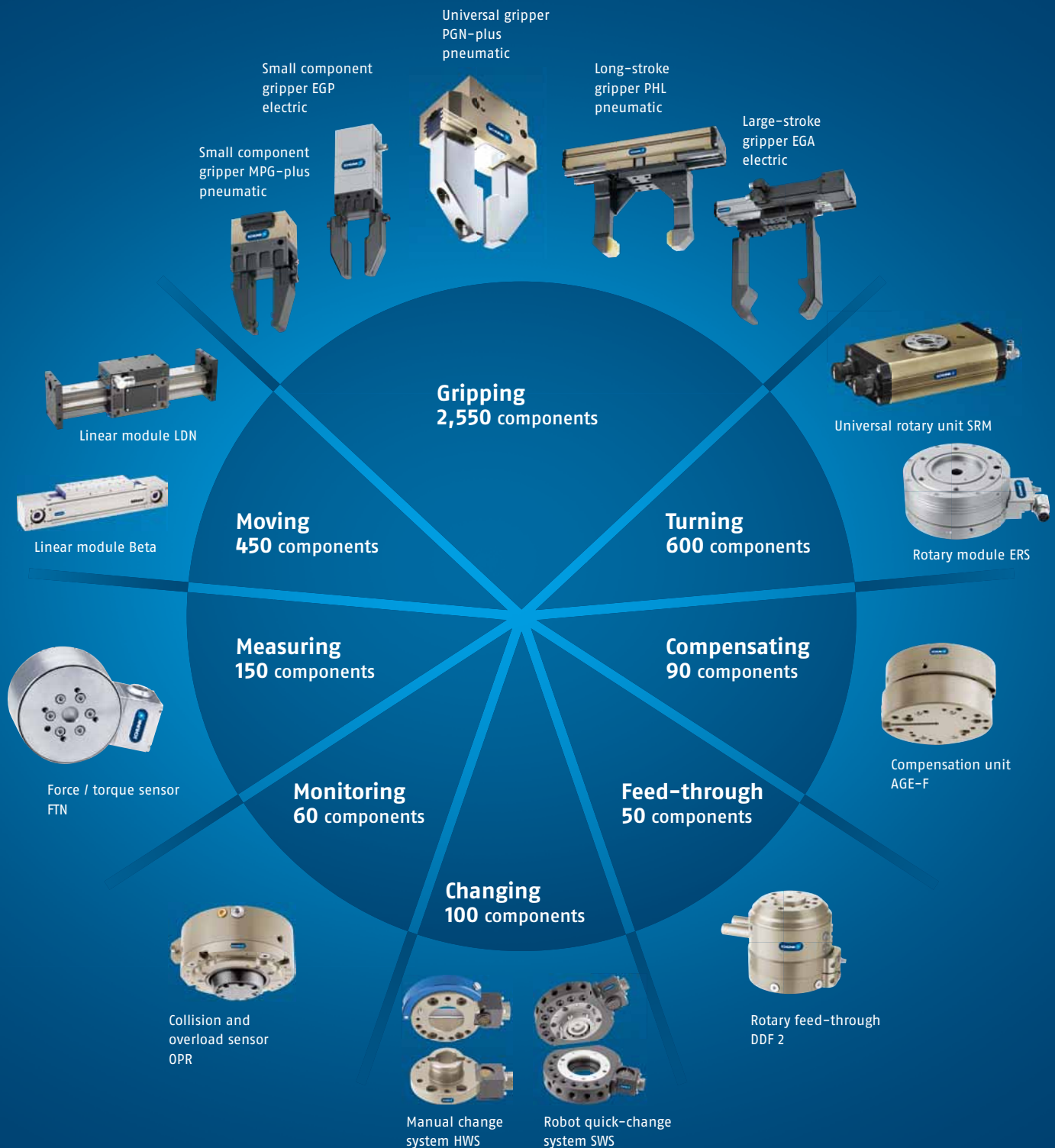


Gripping

SCHUNK PGN-plus gripper
2-finger universal gripper with multi-tooth guidance

With more than 4,000 standard components
SCHUNK offers the most comprehensive product
portfolio of gripper systems worldwide.

The SCHUNK PGN-plus gripper exemplifies our philosophy:
Diversity of variants in the standard version plus diverse possible options.



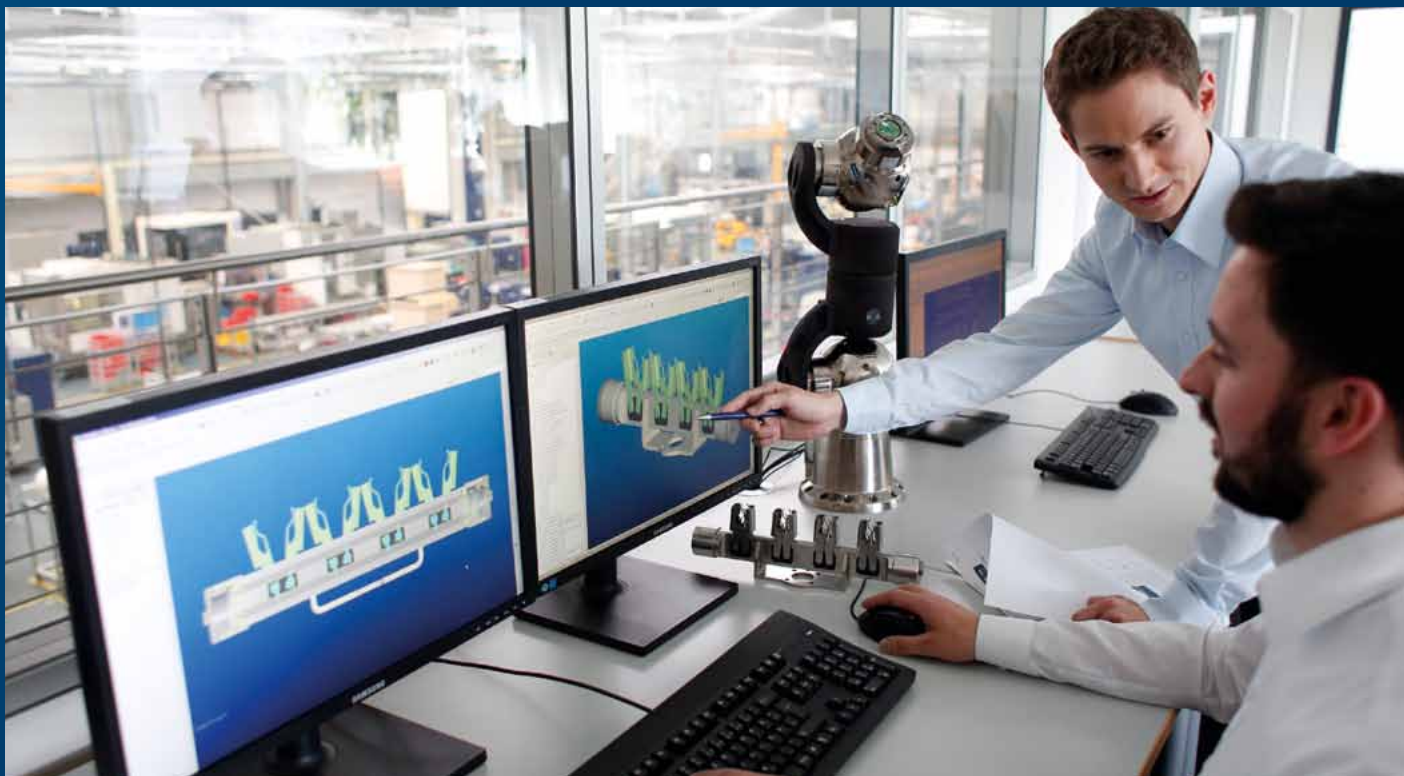
All inclusive! SCHUNK customized Gripping Systems. Take Advantage of our Experience.

More than 10,000 implemented solutions speak for themselves.

Consistent and comprehensive project management is an important part of the SCHUNK philosophy. Our approach is systematic and individually adapted to your project; each step is traceable and documented.

The analysis of complex processes and the comprehensive analysis of components and products of our customers leads SCHUNK to develop effective and customized gripping systems.

The visualization of automated processes requires maximum precision – we use state-of-the-art technology for 2D and 3D visualizations and 3D simulations. Our components and configurations contain decisive performance potential for the cost effectiveness of your process chain. We exhaust this potential. Entirely for your benefit.



SCHUNK Gripping Systems.

Customized Components and Gripping Systems

More than 30 years of gripping competence form the basis for the world's most extensive standardized gripping technology portfolio with more than 4,000 components and for an average of 2,000 standard and customized gripping systems per year.

Components

Standard components



SCHUNK grippers



Rotary modules



Linear modules



Robot accessories



Pick & place units



Gripping hands

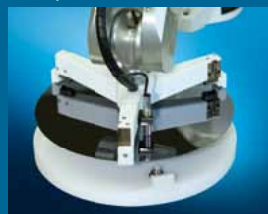


Lightweight arms

Customized components

From standard components adapted to meet individual requirements to exclusive new customized developments.

Examples:



Wafer grippers
of laser-formed material
with SCHUNK LGP gripper



Compact clamp
for sheet metalworking,
pneumatically operated



Packaging grippers
High-speed grippers in accordance with legal, hygienic, and production specifications

Gripping systems

Standard gripping systems



Modular assembly automation



Linear and 3D gantries



Solution from several SCHUNK
standard components for
robots and gantries

Customized gripping systems

Solution from several SCHUNK components, including at least one custom development.

Examples:



Connecting rod handling



Aluminum foil handling



Modular and Mobile
Gripping Systems

From standard Components to customized Gripping Systems

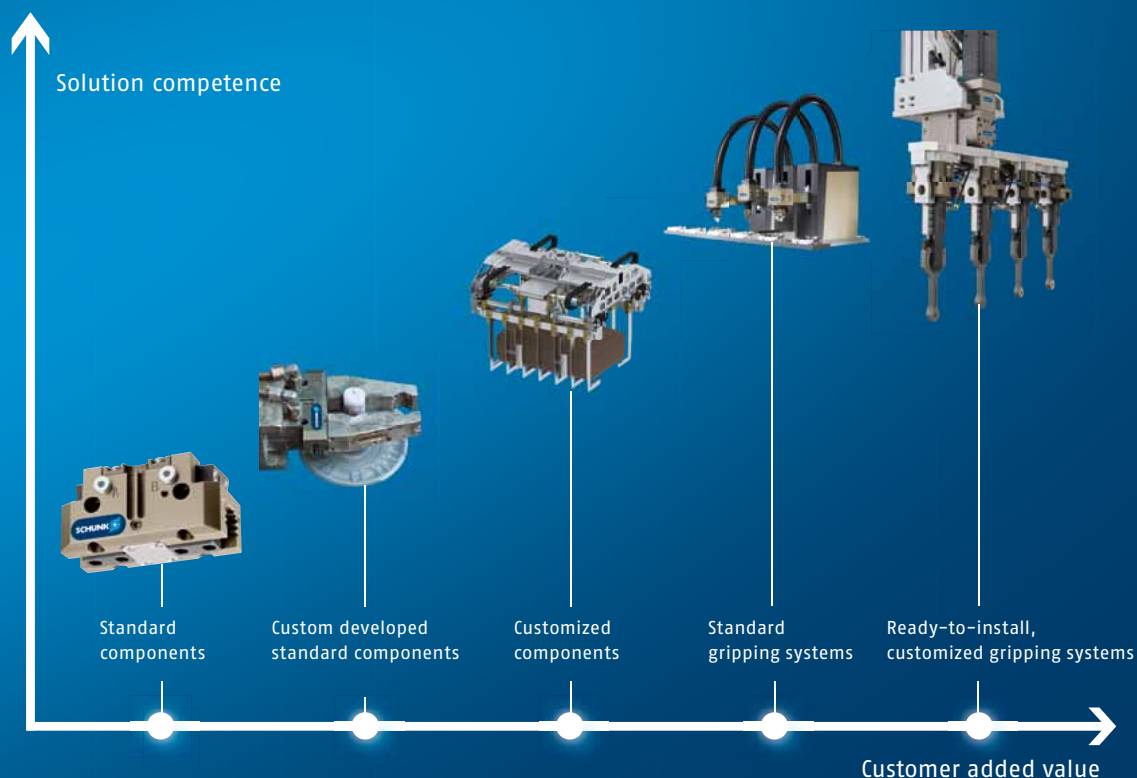
A competent contact person for your solution from a single source

For smooth communication a personal contact person is available to you throughout the entire project. As the interface between you and the people involved in the project, this contact ensures the effective exchange of information.

From planning through continued support after completion of the project – SCHUNK guarantees a cooperative and efficient project flow.

Your advantage

- More than **30 years of experience** in gripping technology
- More than **10,000 gripping systems** implemented for diverse industries
- **Modular system** with perfectly compatible standard components
- **An absolutely exact fit** due to standard interfaces
- **Shorter project cycle times** due to standardized systems
- Reliable implementation and **planning security** without additional project costs
- **Functional assemblies** mounted or **ready for use on request**
- **Time savings** due to a perfect solution from a single source



SCHUNK Service



Competent and skilled personnel ensure optimal availability of your SCHUNK products, and make sure that their value will be maintained.

Your advantage:

- Fast supply of original spare parts
- Reduction of down-times
- The complete spectrum of components from one source
- Quality and availability that can only be guaranteed by the original manufacturer
- 12-month warranty



Commissioning

- Professional assembly
- Fast and trouble-free



Inspection

- Inspection is carried out by skilled service engineers
- Avoiding unplanned failures of workholding and toolholding equipment



Maintenance

- Regular maintenance carried out by skilled service engineers
- Increasing and ensuring the availability of your workholding and toolholding equipment



Repairs

- Short down-times due to fast intervention of the SCHUNK service engineers
- Spare parts and accessories

Training

- Fast and practical training
- Efficient use of your SCHUNK products by training of the operating personnel
- The basis for proper machining of workpieces
- Ensures longevity of your SCHUNK products

Individual service – for better results

- Hotline to our inside technical consultants weekdays from 7 a.m. to 6 p.m.
- Project-oriented and on-site technical advice at your location
- Training on innovations and SCHUNK products – across the world in our local subsidiaries

Online service – for a fast overview

All information in digital form, clearly structured and up-to-date on our website at www.schunk.com

- List of contact persons
- Online product search based on product descriptions
- Product news and trends
- Data sheets
- Order forms for easy and convenient ordering
- Free download area for pages from our product catalogs and technical data, for software and calculation programs for your gripping and rotary modules
- Free 2-D/3-D CAD design models, provided in a wide range of different CAD formats – for easy integration into your design!





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



International | International



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Greifsysteme | Gripping Systems



☐ Gesamtprogramm Greifsysteme
Complete Program Gripping Systems



☐ Greifer
Grippers



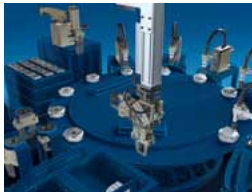
☐ Drehmodule
Rotary Modules



☐ Linearmodule
Linear Modules



☐ Roboterzubehör
Robot Accessories



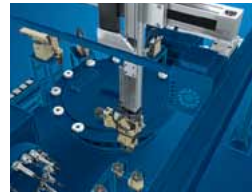
☐ Produktübersicht
Product Overview



☐ Highlights
Neuheiten | New Products



☐ Mechatronik
Mechatronics



☐ Produktübersicht Linear-
module | Product Overview
Linear Modules



☐ Produktübersicht Roboter-
zubehör | Product Overview
Robot Accessories

Spanntechnik | Clamping Technology



☐ Gesamtprogramm Spanntechnik
Complete Program Clamping Technology



☐ Werkzeughalter
Toolholders



☐ Stationäre Spanntechnik
Stationary Workholding



☐ Drehfutter
Lathe Chucks



☐ Spannbacken
Chuck Jaws



☐ Magnetspanntechnik
Magnetic Clamping Technology



☐ Produktübersicht
Product Overview



☐ Kundenspezifische Lösungen
Hydro-Dehnspanntechnik
Hydraulic Expansion Technology Special Solutions



☐ Vakuumsanntechnik
Vacuum Clamping Technology



☐ Highlights
Neuheiten | New Products

Firma | Company

Name | Name

Abteilung | Department

Straße | Street

PLZ | ZIP

Ort | City

Tel.

Fax

E-Mail | Email



Reg. No. 003496 QM08

No. 1

for precise gripping and
concentrated, safe holding.



J. Lehmann

Jens Lehmann, German Goalkeeper legend, brand ambassador of SCHUNK, the family-owned company since 2012, represents precise gripping and concentrated, safe holding.
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

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