

## SCHUNK Grippers

### The world's most proven Grippers on the Market.

SCHUNK offers the world's most comprehensive portfolio of grippers. Standard grippers, ready-to-install gripping system assembly groups and an extremely wide range of customized gripping system solutions for your handling and assembly, automation and robot end-of-arm solution. We always meet the most complicated gripping requirements, and we solve them. The result: robust and durable gripping systems which ensure maximum reliability in systems and machines all over the world for 30 years.

Equipped  
by



Over **2,500** standard grippers

Over **300** mechatronic grippers

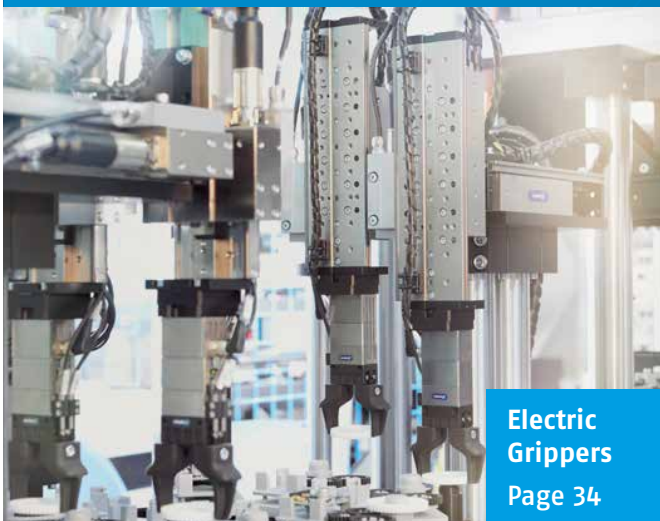
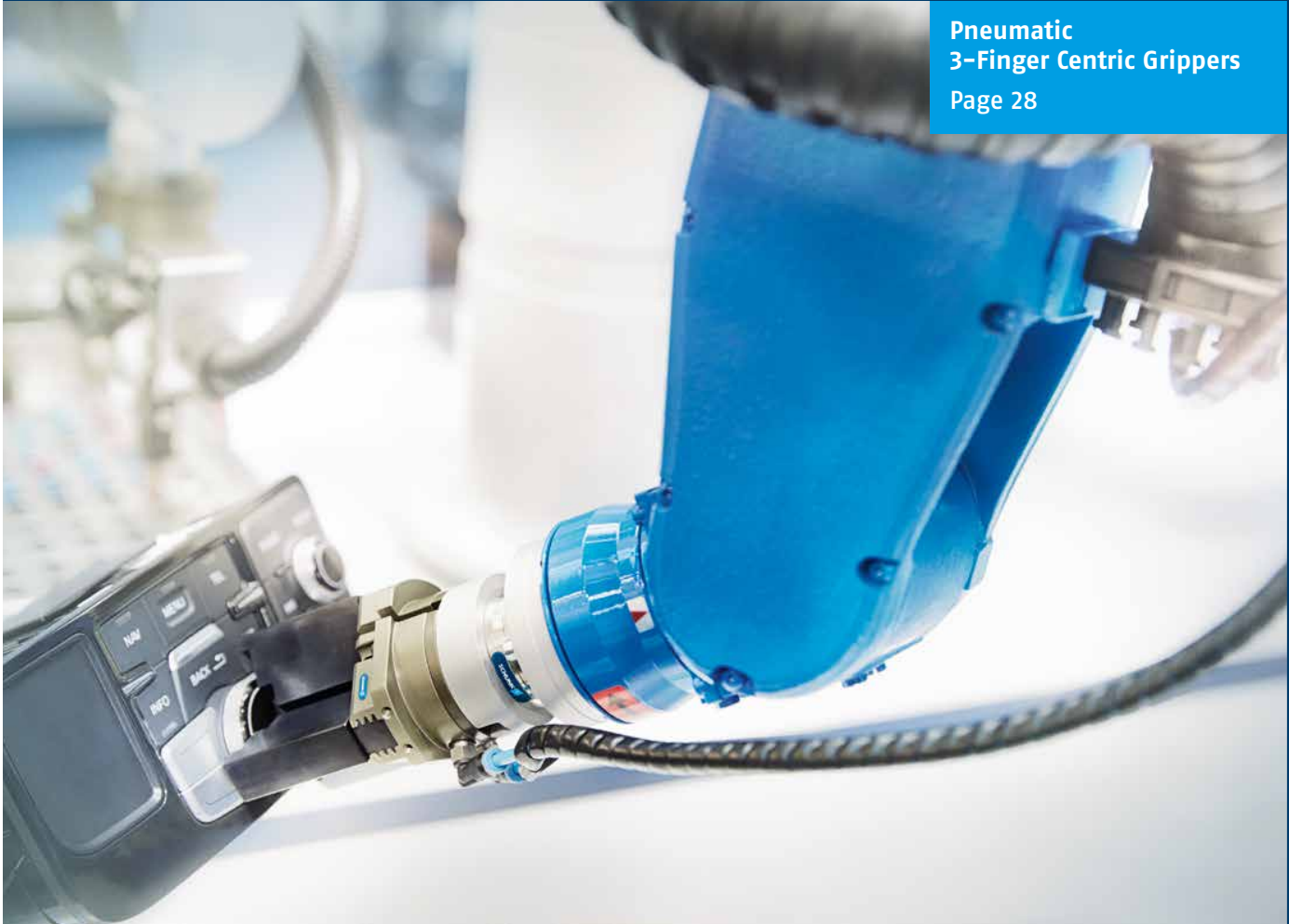
More than **12,000** implemented gripping system solutions

More than **1,000,000** products in use worldwide



Pneumatic  
2-Finger Parallel Gripper  
Page 22

## Pneumatic 3-Finger Centric Grippers Page 28



## Electric Grippers Page 34



## Special Grippers and Gripping Hands Page 38



# The new SCHUNK Universal Grippers

## PGN-plus-P and PGN-plus-E

### In a Class of its Own!



#### + NEW: Up to 50% longer Gripper Fingers

The higher maximum moments of the perfected SCHUNK multi-tooth guidance enable use of longer gripper fingers.

#### + Diverse Accessories

with range of high-quality accessory components and matching sensor systems.



#### + Four-stage adjustable Gripping Force

for simple adaption to sensitive workpieces.

#### + 24 V Drive and Control on Option via digital I/O or IO-Link Class B Connection

for easy commissioning and quick integration into existing systems.

#### + NEW: Up to 50% higher Gripping Force

with the enlarged surface of the drive piston.

#### + NEW: Lifelong Maintenance-free\*

The perfected SCHUNK multi-tooth guidance with continuous lubricant pockets ensures even and permanent lubrication.

\* Under normal, clean operating conditions



## Content

	Page
Pneumatic 2-Finger Parallel Gripper	22
Pneumatic 3-Finger Centric Grippers	28
Pneumatic Angular Grippers	32
Electric Grippers	34
Special Grippers	38

## 2-Finger Parallel Gripper

Pneumatic

### The new SCHUNK Gripper PGN-plus-P

**The world's most proven gripper on the market – Now NEW with permanent lubrication in the multi-tooth guidance. Lifelong maintenance free.\* Guaranteed!**

With the new SCHUNK gripper PGN-plus-P, SCHUNK is raising the bar even further for pneumatically actuated universal grippers. By consistently optimizing the multi-tooth guidance, it is setting a new benchmark for the market. At the same time the PGN-plus-P benefits from the unique SCHUNK accessory program for the nearly complete spectrum of feasible automation applications.

#### Your benefits:

- **NEW: Up to 50% longer gripper fingers**  
due to higher maximum moments
- **NEW: Up to 50% higher gripping force**  
due to the increased surface of the drive piston
- **NEW: Lifelong maintenance-free \***  
due to the perfected SCHUNK multi-tooth guidance with consistent lubrication pockets
- **NEW: Maximum process reliability**  
with up to 60% larger diagonal pull area and therefore lower surface pressure
- **Diversity with the accessories**  
wide range of high-quality accessory components and corresponding sensor systems.



\* Under normal, clean operating conditions

[schunk.com/pgn-plus-p](http://schunk.com/pgn-plus-p)



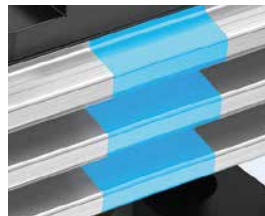
#### Up to 50% longer gripper fingers – due to higher maximum moments

The improved multi-tooth guidance enables the use of even longer gripper fingers for the same gripper size due to higher maximum moments, without overloading the guidance. Interfering contour-optimized gripping with confined handling tasks therefore become even easier.



#### Up to 50% higher gripping force

The larger surface of the drive piston in the available, and at the same time compact assembly space increases the gripping force with the PGN-plus-P. In relation to the gripper size, higher work-piece weights can be handled.



#### Maximum service life due to the perfected SCHUNK multi-tooth guidance with consistent lubrication pockets

Permanent lubrication pockets ensure a continuous grease supply. At the same time, it ensures that an even lubricant film is created rapidly, even with short strokes.






#### Maximum process reliability with up to 60% larger diagonal pull area

A larger diagonal pull surface and therefore lower surface pressure, for process reliability and low-wear transmission of power to the base jaw.




## 2-Finger Parallel Gripper

Pneumatic

	2-Finger Parallel Gripper			
	MPG-plus	MPG	KTG	
				
<b>Technical data</b>				
Number of sizes	7	9	1	
Gripping force [N]	29 .. 370	7 – 270	13	
Stroke per jaw [mm]	1.5 – 10	1 .. 14	4.5	
Weight [kg]	0.022 – 0.63	0.01 .. 1.35	0.08	
Recommended workpiece weight [kg]	0 .. 1.25	0 .. 1.9	0.07	
Closing/opening time [s]	0.011 .. 0.08/0.011 .. 0.08	0.01 .. 0.085/0.01 .. 0.085	0.05/0.05	
Max. permissible finger length [mm]	80	80	50	
Repeat accuracy [mm]	0.02	0.02	0.02	
Protection class IP	30	30	20	
Cleanroom class ISO 14644-1	5	5		
Sensor systems	++	++	+	
Wide variety	++	++	+	
Description	The most powerful pneumatic miniature parallel gripper on the market with a unique combination of oval piston drive and cross roller guide	2-finger parallel gripper with smooth roller guides of the base jaws	2-finger parallel gripper with center bore	
<b>Field of application</b>				
	<ul style="list-style-type: none"> <li>Gripping and moving</li> <li>For small to medium-sized workpieces</li> <li>In the field of assembly, testing, laboratory, pharmacies</li> </ul>	<ul style="list-style-type: none"> <li>Gripping and moving</li> <li>For small to medium-sized workpieces</li> <li>In the field of assembly, testing, laboratory, pharmacies</li> </ul>	<ul style="list-style-type: none"> <li>Gripping and moving</li> <li>For small to medium-sized workpieces</li> <li>Equipped with a continuous center bore for workpiece supply, sensor or actuator systems</li> </ul>	
<b>Ambient conditions</b>				
Clean	●	●	●	
Contaminated/coarse dust	○	○	○	
Contaminated/fine dust and liquids				
Contaminated/aggressive liquids				
High temperature range > 90° C			●	
Cleanroom	○	○	○	

● = very highly suitable    ● = highly suitable    ○ = suitable in customized version  
 + = medium-sized selection    ++ = wide selection    +++ = very wide selection

KGG	RH	PGN-plus-P	PGN-plus	JGP	
					
7	10	5	11	10	
45 .. 540	13 .. 460	220 .. 4200	123 .. 21150	123 .. 7400	
10 .. 60	2.5 .. 40	2 .. 13	2 .. 45	2 .. 35	
0.09 .. 4.2	0.04 .. 1.1	0.17 .. 1.9	0.08 .. 39.5	0.08 .. 17.5	
0 .. 2.7	0 .. 2.3	0 .. 15	0 .. 80.5	0 .. 30	
0.03 .. 0.29/0.03 .. 0.25	0.17 .. 0.5/0.17 .. 0.5	0.02 .. 0.12/0.02 .. 0.12	0.02 .. 0.8/0.02 .. 0.8	0.02 .. 0.7/0.02 .. 0.7	
160	100	200	400	300	
up to 0.02	up to 0.01	0.01	up to 0.01	up to 0.01	
40	30	40	40/64	40	
			5		
+	+	+++	+++	++	
++	+	+++	+++	+	
Narrow 2-finger parallel gripper with large stroke	The RH series is an attractively priced gripping system, which is particularly suitable for light applications	Universal 2-finger parallel gripper with a high gripping force and high maximum moments due to the multi-tooth guidance	Universal 2-finger parallel gripper with a high gripping force and high maximum moments due to the multi-tooth guidance	Universal 2-finger parallel gripper of the compact class with T-slot guidance and good cost-performance ratio	
<ul style="list-style-type: none"> <li>• Universal use</li> <li>• For light to medium-sized workpiece weights</li> <li>• With a large range of stroke</li> </ul>	<ul style="list-style-type: none"> <li>• With low process forces</li> </ul>	<ul style="list-style-type: none"> <li>• Optimum standard solution for many fields of application</li> <li>• Universal use</li> </ul>	<ul style="list-style-type: none"> <li>• Optimum standard solution for many fields of application</li> <li>• Universal use</li> </ul>	<ul style="list-style-type: none"> <li>• Optimum standard solution for many fields of application</li> <li>• Universal use</li> <li>• In the areas of machine and plant construction, assembly and handling as well as the automotive industry</li> </ul>	
●	●	●	●	●	
○		●	●	○	
		○	○		
		○	○		
●		●	●		
○		○	○		

PGF	PGB	DPG-plus	PHL	
				
5	4	11	5	
240 .. 1900	90 .. 610	110 .. 11250	390 .. 4630	
7.5 .. 31.5	4 .. 10	2 .. 45	30 .. 160	
0.3 .. 5.3	0.28 .. 1.32	0.12 .. 52	1.38 .. 24.18	
0 .. 7.1	0 .. 3.3	0 .. 46.35	0 .. 15.5	
0.03 .. 0.4/0.03 .. 0.4	0.02 .. 0.08/0.02 .. 0.08	0.03 .. 1.1/0.03 .. 1.1	0.12 .. 1.82/0.12 .. 2.91	
125	125	380	800	
up to 0.02	0.01	up to 0.01	0.02	
40	40	67	41	
		5		
+	++	+	++	
+	+	+	++	
Universal parallel gripper with surface-guided base jaws	Universal 2-finger parallel gripper with a high gripping force and high moment capacity due to the multi-tooth guideway as well as the center bore	Despite the high moment load of the base jaws, this sealed 2-finger parallel gripper meets the IP67 requirements and does not permit any substances from the working environment to penetrate the interior of the unit	2-finger parallel gripper with long jaw stroke for large parts and/or a broad range of parts	
<ul style="list-style-type: none"> <li>For high part diversities due to its long jaw stroke and high gripping forces</li> </ul>	<ul style="list-style-type: none"> <li>Universal use</li> <li>Suitable for applications that require a center bore, e.g. for workpiece feeding, special sensor systems or optical recognition systems</li> </ul>	<ul style="list-style-type: none"> <li>Ideally suitable for handling of rough or dirty workpieces</li> <li>Its field of application extends from the loading and unloading of machines, such as in the case of sanitary blocks, grinding machines, lathes or milling machines, to handling tasks in painting plants, in powder-processing or underwater</li> </ul>	<ul style="list-style-type: none"> <li>Optimum standard solution for many fields of application</li> <li>Universal use</li> <li>In the areas of machine and plant design, assembly and handling as well as the automotive industry</li> </ul>	
●	●	●	●	
○	○	●	○	
		●	○	
		○		
●	●			
○	○	○		



## 2-Finger Parallel Gripper

Pneumatic

PFH-mini	PFH	PSH	SPG
			
3	4	4	1
630 .. 2950	2200	320 .. 1760	10000
30 .. 100	150 .. 300	14 .. 100	100
2.65 .. 12.6	18.9 .. 33.6	0.77 .. 8.05	35
0 .. 13	0 .. 14.7	0 .. 8.8	50
0.3 .. 1.0/0.3 .. 1.2	0.7 .. 1.25/0.7 .. 1.25	0.12 .. 0.4/0.12 .. 0.4	1.5/1.5
250	900	300	500
0.05	0.02	up to 0.05	0.1
41	30	67	30
++	++	+	+
++	+	+	+
Gripper with long jaw stroke for large parts and a broad range of parts	2-finger parallel gripper with long jaw stroke for large parts and/or a broad range of parts	2-finger parallel gripper with long jaw stroke and dirt-resistant round guides	Sturdy 2-finger parallel gripper for heavy components and a broad part range, equipped with robust guides and therefore it is suitable for high gripping forces and maximum moment loads.
• For precise handling of a wide variety of workpieces	• Particularly suitable for handling vehicle wheel rims	• For a wide range of parts	• Covering a wide range of parts with a long jaw stroke • High gripping force for high workpiece weights
●	●	●	●
○	○	●	○
○	○	●	
		●	
●	●	●	
		○	

## SCHUNK Gripper MPG-plus

**The most powerful pneumatic miniature parallel gripper on the market.**

Highly efficient small parts handling in the most compact space. With its power density, the MPG-plus sets the new standard for handling small parts. The unique combination of oval piston and cross roller guide of the MPG-plus ensures higher efficiency because of higher force and load capacity.

### Your benefits:

- **25% higher gripping forces** with identical size
- **25% longer gripper fingers** with identical gripper size
- **30% higher basic load rating** by improved guidance (cross roller guide)
- **10% less weight** for higher dynamics
- **20% improved closing time** for shorter cycle times

comparison with the SCHUNK MPG gripper, which until now defined the benchmark in small parts handling.



MPG-plus: award-winning at the AUTOMATICA show

[schunk.com/mpg-plus](http://schunk.com/mpg-plus)



### Larger piston surface – more precise guidance

The larger oval piston surface and increase in the number of cross rollers ensure significantly improved efficiency. The improved cross roller guide with an increased number of junction rollers permits higher gripping forces.



### Variable mounting options – maximum flexibility

Diverse mounting options ensure quick, easy gripper assembly and exchange. The gripper can be easily positioned using the centering sleeves and can be screwed through and fixed either laterally or at the bottom.



### From a single source – Pick & Place with MPG-plus

Combine the MPG-plus miniature parallel gripper with the PPU-P from SCHUNK, the fastest pneumatic pick & place unit on the market. Benefit from high-speed pick & place with 95 cycles per minute.



### Add-on valve ABV – shorter hosing, improved cycle time





The electrically controlled 3/2 pneumatic micro valves ABV are screwed onto the gripper. This hose-free direct assembly minimizes the hosing effort and reduces cycle times.

## 3-Finger Centric Gripper

Pneumatic

	3-Finger Centric Gripper		
	MPZ	PZN-plus	
			
<b>Technical data</b>			
Number of sizes	6	11	
Gripping force [N]	20 .. 310	255 .. 57300	
Stroke per jaw [mm]	1 – 5	2 .. 45	
Weight [kg]	0.01 .. 0.29	0.13 .. 80	
Recommended workpiece weight [kg]	0 .. 1.15	0 .. 227	
Closing/opening time [s]	0.02 .. 0.06/0.02 .. 0.06	0.02 .. 4.6/0.02 .. 3	
Max. permissible finger length [mm]	45	250	
Repeat accuracy [mm]	0.01	up to 0.01	
Protection class IP	40	40/64	
Cleanroom class ISO 14644-1	5	5	
Comprehensive ranges	+	+++	
Variety of sensor systems	+	+++	
Description	Small 3-finger centric gripper with base jaws guided on T-slots	Universal centric gripper with high gripping force and maximum moments due to multi-tooth guidance	
<b>Field of application</b>			
	<ul style="list-style-type: none"> <li>• Universal use</li> <li>• Particularly suitable for gripping small workpieces</li> </ul>	<ul style="list-style-type: none"> <li>• Universal use due to numerous product variants; also in areas where there are special demands on the gripper (temperature, chemical durability, contamination, and much more)</li> </ul>	
<b>Ambient conditions</b>			
Clean	●	●	
Contaminated/coarse dust	●	●	
Contaminated/fine dust and liquids		●	
Contaminated/aggressive liquids		●	
High temperature range > 90 °C		●	
Cleanroom	○	●	

● = very highly suitable   ● = highly suitable   ○ = suitable in customized version  
 + = medium-sized selection   ++ = wide selection   +++ = very wide selection

JGZ	PZH-plus	PZB-plus	DPZ-plus	
				
7	4	9	8	
225 .. 7990	375 .. 4200	340 .. 27400	230 .. 16500	
2 .. 16	20 .. 75	2 .. 35	2 .. 25	
0.12 .. 8	1.5 .. 33	0.26 .. 53	0.2 .. 20.1	
0 .. 30	0 .. 22	0 .. 100	0 .. 60	
0.02 .. 0.8/0.02 .. 0.8	0.25 .. 1.05/0.2 .. 0.85	0.02 .. 2.5/0.02 .. 2.5	0.03 .. 1.8/0.03 .. 1.8	
200	400	250	160	
up to 0.01	up to 0.02	up to 0.01	up to 0.01	
40	40	40	67	
5	5		5	
+	+	+	+	
++	+	++	+	
Universal 3-finger centric gripper of the compact class with T-slot guidance and best cost-performance ratio	Universal centric gripper with high gripping force and maximum moments due to multi-tooth guidance	Universal 3-finger centric gripper with large gripping force and high maximum moments per finger, plus center bore	Despite the high moment load of the base jaws, this sealed 3-finger centric gripper meets the requirements of IP67 and does not permit any substances from the working environment to penetrate the interior of the component	
<ul style="list-style-type: none"> <li>• Optimum standard solution for many fields of application</li> <li>• Universal use</li> <li>• In the areas of machine and plant design, assembly and handling as well as the automotive industry</li> </ul>	<ul style="list-style-type: none"> <li>• Universal use due to numerous product variants; also in areas where there are special demands on the gripper (temperature, chemical durability, contamination, and much more)</li> </ul>	<ul style="list-style-type: none"> <li>• Universal use</li> <li>• Suitable for fields of application that require a center bore, e.g. for workpiece feeding, special sensor systems or optical recognition systems</li> </ul>	<ul style="list-style-type: none"> <li>• Ideally suitable for handling of rough or dirty workpieces</li> <li>• Its field of application extends from the loading and unloading of machines, such as in the case of sanitary blocks, grinding machines, lathes or milling machines, to handling tasks in painting plants, in powder-processing or underwater</li> </ul>	
●	●	●	●	
○	○	○	●	
	○	○	●	
	○	○	○	
	○	●	○	
			○	

PZH-SF-mini		PZH-SF	Multi-finger Centric Gripper PZV
			
1	1	5	
		570 .. 6900	
		4 .. 16	
3.3	20	0.5 .. 10	
0 .. 9.8	0 .. 8	0 .. 34.5	
0.5/0.5	0.5/0.5	0.02 .. 0.15/0.02 .. 0.15	
80	140	140	
0.05		up to 0.01	
64	40	40	
+	+	+	
+	+	+++	
Universal 3-finger centric gripper with a large, rotating jaw stroke capable of handling a broad range of workpiece sizes and a round guidance which is protected against dirt		Universal 3-finger centric gripper with a large, rotary jaw stroke capable of handling a broad range of workpiece sizes and a round guidance which is protected against dirt	The multi-finger gripper for applications in which two or three fingers are insufficient
<ul style="list-style-type: none"><li>• Long stroke for a large range of parts or for undercut sections</li><li>• Optimum for rotationally symmetric parts</li></ul>		<ul style="list-style-type: none"><li>• Particularly suitable for handling vehicle wheel rims</li></ul>	<ul style="list-style-type: none"><li>• 4-finger centric grippers have advantages over the usual 3-finger centric grippers, for example when cylindrical workpieces are being magazined in tablets</li><li>• The PZV process-reliably handles the workpieces despite the interfering contours</li></ul>
●		●	●
①		①	①
①		①	
			①



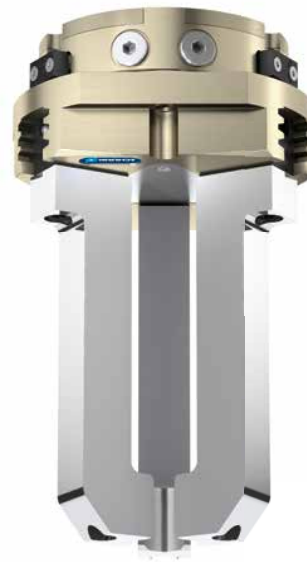
## The new SCHUNK PZN-plus-P

**Now NEW with permanent lubrication in the multi-tooth guidance. Lifelong maintenance-free.\***

The new SCHUNK PZN-plus-P gripper is now equipped with a permanent lubrication in the multi-tooth guidance which, under normal, clean operating conditions, guarantees lifelong maintenance-free operation. With short strokes in particular, the continuous lubrication pockets produce a particularly fast and even distribution of lubricant along the entire multi-tooth guidance contour. Compared with conventional T-slot-guided 3-finger centric grippers, the new SCHUNK PZN-plus enables up to 50% longer gripper fingers and a finger load up to 120% higher.

### Your benefits:

- **NEW: Up to 50% longer gripper fingers**  
due to higher maximum moments
- **NEW: Up to 50% higher gripping force**  
due to the increased surface of the drive piston
- **NEW: Lifelong maintenance-free\*** due to the perfected SCHUNK multi-tooth guidance with consistent lubrication pockets
- **Up to 120% higher finger load**  
The improved multi-tooth guidance facilitates higher maximum moments due to the enlarged guiding areas.
- **Rapid and even lubricant distribution**  
even with short strokes
- **Continuously reliable and robust**



[schunk.com/pzn-plus-p](http://schunk.com/pzn-plus-p)

\* Under normal, clean operating conditions

## SCHUNK Miniature Gripper MPZ

### Powerful handling of small parts

The powerful 3-finger miniature centric gripper can be used in small parts handling systems, e.g. for handling and mounting products such as needles, microprocessors or small electric components. A characteristic feature of the MPZ is the tried-and-tested, accurate T-slot guidance with hardened, ground steel base jaws. This ensures reliability and high performance. The gripping force maintenance device that can be integrated as an option is protected by very small springs during opening and closing. For example, this prevents loss of components in the event of a sudden drop of the pneumatic pressure.

### Your benefits:

- **Proven T-slot guidance**
- **Wedge-hook principle** for high force transmission and synchronized gripping
- **Gripping force maintenance device optional**



[schunk.com/mpz](http://schunk.com/mpz)

# Angular Gripper



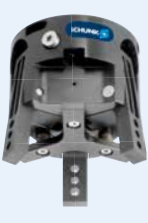
Pneumatic

	2-Finger Angular Gripper			2-Finger Radial Gripper
	SGB	SWG	PWG-plus	PRG
				
<b>Technical data</b>				
Number of sizes	3	8	8	8
Gripping moment [Nm]	0.9 .. 4.95	0.01 – 2.8	3.32 .. 1025	2 .. 295
Opening angle per jaw [°]	8	15	15	30 .. 90
Weight [kg]	0.04 .. 0.06	0.0025 – 0.213	0.13 .. 13.6	0.13 .. 6.72
Recommended workpiece weight [kg]	0 .. 0.8	0 .. 0.46	0 .. 23.13	0 .. 6.96
Closing/ opening time [s]	0.06 .. 0.08/ 0.04 .. 0.05	0.015 .. 0.03/ 0.02 .. 0.06	0.06 .. 0.32/ 0.01 .. 0.46	0.06 .. 0.75/ 0.06 .. 0.92
Max. permissible finger length [mm]	50	42	300	240
Repeat accuracy [mm]	0.1	0.05	0.02	up to 0.05
Protection class IP	20	30	30	20
Cleanroom class ISO 14644-1				
Sensor systems	+	+	++	++
Comprehensive ranges	+	+	++	++
Description	Small, simple actuated plastic angular gripper with spring reset	Narrow double-acting 2-finger angular gripper	Robust 2-finger angular gripper with oval piston and bone drive	180° radial gripper with powerful 1-shift slotted link gear and oval piston
<b>Field of application</b>				
	<ul style="list-style-type: none"> <li>• Universal use</li> <li>• With special requirements on corrosion resistance and anti-static properties of the gripping unit</li> </ul>	<ul style="list-style-type: none"> <li>• Universal use</li> <li>• Suitable for applications which require a stacked, space-optimized gripper arrangement</li> </ul>	<ul style="list-style-type: none"> <li>• Universal use</li> </ul>	<ul style="list-style-type: none"> <li>• For areas of application which, in addition to a large gripping force, require the shortest possible motion sequences through the radial design of the jaw stroke</li> </ul>
<b>Ambient conditions</b>				
Clean	●	●	●	●
Contaminated/coarse dust	○	○	●	○
Contaminated/fine dust and liquids			○	
Contaminated/aggressive liquids			○	
High temperature range > 90 °C		●	●	●
Cleanroom	○	○	○	○

● = very highly suitable    ● = highly suitable    ○ = suitable in customized version

\* The GAP is an angular parallel gripper, which means the values must be understood as forces [N].

+ = medium-sized selection    ++ = wide selection    +++ = very wide selection

DRG	GAP	3-Finger Angular Gripper SGW
		
5	3	3
8.2 .. 143	92 .. 430*	1.35 .. 7.45
10 .. 90	30 .. 90	8
0.5 .. 4.46	0.3 .. 1.33	0.05 .. 0.17
0 .. 7.2	0 .. 125	0 .. 13
0.4 .. 0.3/ 0.5 .. 0.6	0.09 .. 0.35/ 0.09 .. 0.35	0.02 .. 0.02/ 0.03 .. 0.03
125	65	50
0.1	0.05	0.1
67	40	20
++	+	+
++	++	+
Sealed 180° angular gripper for use in dirty environments	2-finger angular parallel gripper with gripper finger actuation of up to 90 degrees per jaw	Small, simple actuated plastic angular gripper with spring return
<ul style="list-style-type: none"> <li>For applications requiring a large opening range</li> <li>Particularly suitable for the use in dirty environments</li> </ul>	<ul style="list-style-type: none"> <li>Gripping and moving</li> <li>For small to medium-sized workpieces</li> </ul>	<ul style="list-style-type: none"> <li>Universal use</li> <li>With special requirements on corrosion resistance and anti-static properties of the gripping unit</li> </ul>
●	●	●
●	○	○
●		
○		
●		
○	○	○

## SCHUNK Gripper PWG-plus

### Compact powerhouse

The double oval piston drive, the one-piece, high-strength aluminum housing and the practically wear-free bone drive make the PWG-plus 2-finger angular gripper a compact and robust powerhouse. Depending on the application it can be equipped with or without a mechanical gripping force maintenance device.

In addition, extensive accessories are available, including inductive sensors and magnetic switches.







[schunk.com/pwg](http://schunk.com/pwg)

### Your benefits:




- **Workpiece weights between 0.5 kg and 7.3 kg**
- **Gripping moments** amount **between 3.5 Nm and 143 Nm**
- **Stroke per finger 15°**
- **Overgrip angle per jaw at least 3°**
- **Maximum force transmission** and **low wear** due to robust bone drive
- **High power density** due to oval piston drive
- **Flexible design of workpiece supports** because of connection threads and centering possibilities

# SCHUNK Grippers

Electric

	2-Finger Parallel Gripper			
	Alternative		Adaptable	
	EGP	PGN-plus-E	LEG	EGA
				
<b>Technical Data</b>				
Number of sizes	4	1	3	2
Gripping force [N]	12 .. 300	110 – 570	300 ... 1050	150 .. 1300
Stroke per jaw [mm]	3 .. 10	8	101 .. 281	30 .. 100
Weight [kg]	0.11 .. 0.8	1.01	5.4 .. 7.9	2.2 .. 9
Recommended workpiece weight [kg]	0 .. 125	0 .. 2.85	0 .. 7.5	0 .. 6.5
Closing/opening time [s]	0.03 .. 0.49	0.26		
Max. permissible finger length [mm]	80	125	600	500
Repeat accuracy [mm]	0.02	0.01	0.05	0.05
Nominal voltage [V]	24 DC	24 DC	Motor-dependent	Motor-dependent
Nominal current [A]	0.14 .. 0.3	0.6	Motor-dependent	Motor-dependent
Protection class IP	30	40	20	40
Type of measuring system			Motor-dependent	Motor-dependent
Great variety	++	+	++	++
Description	Electric 2-finger parallel gripper with smooth-running roller bearing guide in the base jaw	Electric 2-finger parallel gripper with integrated motor and electronics as well as reliable multi-tooth guidance	Light long-stroke gripper for flexible and highly dynamic handling of different components	Electric 2-finger parallel gripper with adaptable servomotor
<b>Motor &amp; Controller</b>				
Motor	Integrated	Integrated	Adaptable	Adaptable
Controller	Integrated	Integrated	External	External
Controller type			Motor-dependent	Motor-dependent
<b>Field of application</b>				
	<ul style="list-style-type: none"> <li>Gripping and moving</li> <li>For small to medium-sized workpieces with flexible force and high speed</li> <li>In the areas of assembly, testing, laboratory, pharmacies</li> </ul>	<ul style="list-style-type: none"> <li>Optimum standard solution for many fields of application</li> <li>Universal use</li> </ul>	<ul style="list-style-type: none"> <li>For very flexible gripping of various geometries and types of components</li> <li>Due to the servo-electric drives, the gripping position and the gripping force can be exactly determined</li> </ul>	<ul style="list-style-type: none"> <li>Gripping and moving</li> <li>For medium-sized workpieces with flexible force and high speed</li> </ul>
<b>Ambient conditions</b>				
Clean	●	●	●	●
Contaminated/coarse dust	○	●	○	●
Contaminated/fine dust and liquids		○		○
Contaminated/aggressive liquids				
High temperature range > 90 °C				
Cleanroom	○			

● = very highly suitable    ● = highly suitable    ○ = suitable in customized version  
 + = medium-sized selection    ++ = wide selection    +++ = very wide selection

Intelligent						
MEG	PG	EGL	WSG	PEH		
						
3	1	1	3	3		
35 .. 140	30 .. 200	50 .. 600	5 .. 80	150 .. 1800		
6 .. 10	34	42.5	32 .. 105	60 .. 100		
0.47 .. 1.42	1.4	1.8	0.32 .. 1.6	5.4 .. 16.8		
0 .. 0.7	1	0 – 3	0 .. 0.4	0 .. 9		
0.3 .. 0.62	0 .. 1	0.7	0.5 .. 1.0	1 .. 1.5		
64	140	165	170	270		
0.02	0.05	0.05	±0.03	±0.05		
24 DC	24 DC	24 DC	24 DC	24 DC		
0.6 .. 1.3	1.4	2.5	0.3 .. 0.9	2.4 .. 10		
30	20	46	40	41		
	Incremental	Incremental	Incremental	Incremental		
+	+	+	++	+		
Electric 2-finger parallel gripper with smooth-running roller bearing guide in the base jaw	Servo-electric 2-finger parallel gripper with sensitive gripping force control and long stroke	Servo-electric 2-finger parallel gripper with sensitive gripping force control and long stroke	Servo-electric 2-finger parallel gripper with sensitive gripping force control and long stroke	Servo-electric 2-finger parallel gripper with large jaw stroke for large parts and/or diverse parts spectrum		
Integrated	Integrated	Integrated	Integrated	Integrated		
External	Integrated	Integrated	Integrated	Integrated		
MEG-C						
<ul style="list-style-type: none"> <li>Gripping and moving</li> <li>For small to medium-sized workpieces with flexible force, stroke or speed</li> </ul>	<ul style="list-style-type: none"> <li>Universally applicable, highly flexible gripper</li> <li>For a wide range of parts and sensitive components</li> </ul>	<ul style="list-style-type: none"> <li>Various workpieces can be gripped either sensitively or with a high force</li> <li>Flexible workpiece handling possible even in a contaminated environment</li> </ul>	<ul style="list-style-type: none"> <li>Universally applicable, highly flexible gripper</li> <li>For a wide range of parts and sensitive components</li> </ul>	<ul style="list-style-type: none"> <li>Universally applicable, highly flexible gripper</li> <li>With a wide variety of parts</li> </ul>		
●	●	●	●	●		
○		●		○		
		●				
		○				
○	○		○			



		3-Finger Centric Gripper	Electromagnetic Grippers	
			Alternative	
EGN	EZN	EGM-M	EGM-B	
				
3	2	6	8	
170 .. 1000	140 .. 800	780 .. 11700	1800 .. 20370	
8 .. 16	6 .. 10			
0.84 .. 3.4	0.98 .. 2.3	1 .. 7	5.5 .. 25	
0 – 5	0 .. 4	0 .. 75	0 .. 118	
0.35 .. 0.5	0.25 .. 0.4	0.3	0.3	
200	125			
±0.01	±0.01			
24 DC	24 DC	400 AC	400 AC	
1 .. 2.6	2 .. 3	2.2 .. 3.7	2.9 .. 12.3	
41	41	54	54	
Resolver	Resolver			
++	++	+++	+++	
Servo-electric 2-finger parallel gripper with high gripping force and moment loads due to the multi-tooth guidance	Servo-electric 3-finger centric gripper with high gripping force and high maximum moment due to the multi-tooth guidance	Electric permanent magnetic gripper for energy-efficient handling of ferromagnetic workpieces	Electric permanent magnetic gripper for energy-efficient handling of ferromagnetic workpieces	
Integrated	Integrated			
External	External	External	External	
ECM	ECM	ECG	ECG	
• Optimum standard solution for many fields of application • Flexible use due to controllable gripping force, position, and speed	• Optimum standard solution for many areas of application; flexible use due to controllable gripping force, position, and speed	• Universally applicable, compact gripper, with large diversity of parts	• Universally applicable, compact gripper, with large diversity of parts	
●	●	●	●	
●	●	●	●	
○	○	○	○	
○	○			
○	○	○	○	

## The new SCHUNK Gripper PGN-plus-E

**The first electric gripper with reliable multi-tooth guidance. Multi-tooth guidance, digital actuation and 24 V drive with permanent lubrication.**

The new electric SCHUNK PGN-plus-E gripper transfers the proven high performance features of the new PGN-plus-P pneumatic gripper directly to the area of mechatronic handling. The first electric gripper with proven multi-tooth guidance with permanent lubrication, digital actuation, and 24 V drive makes the changeover from pneumatic to electric components particularly easy. Its actuation via digital I/O simplifies commissioning, enabling rapid integration in existing systems.

### Your benefits:

- **NEW: Up to 50% longer gripper fingers**  
due to higher maximum moments
- **Four-stage gripping force**  
for simple adaptation to sensitive workpieces
- **NEW: Lifelong maintenance-free**  
The SCHUNK multi-tooth guide with continuous lubrication pockets ensures even lubrication.
- **NEW: 24 V drive and actuation via either digital I/O or IO-Link Class B connection**  
for a simplified commissioning and fast integration into existing systems
- **Integrated sensor system**



[schunk.com/pgn-plus-e](http://schunk.com/pgn-plus-e)



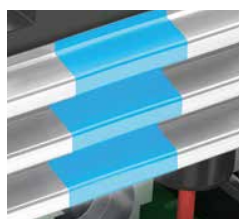
#### Up to 50% longer gripper fingers

The improved multi-tooth guidance enables the use of even longer gripper fingers for the same gripper size due to higher maximum moments, without overloading the guidance.



#### Gripping force adjustable to four stages

The gripping force of the new SCHUNK gripper PGN-plus-E can be quickly, safely and manually adjusted in four stages.



#### Maximum life span due to lubrication pockets in the robust multi-tooth guidance

Permanent lubrication pockets ensure a continuous grease supply. At the same time, it ensures that an even lubricant film is created rapidly, even with short strokes.



#### Maximum process safety

The multi-tooth guidance enables a greater diagonal pull surface, and therefore a lower surface pressure, for process-reliable and low-wear transmission of power to the base jaw.






#### Integrated sensor system

The control and power electronics are already completely integrated so that no space is taken up in the control cabinet. The 24 V gripper is actuated via digital I/O inputs. Up to 2 gripper positions can be queried via one M8 connection.

# Special Gripper

Pneumatic

	Universal Gripper with Shank Interface GSW-B	Universal Gripper with Shank Interface and Compensation Unit GSW-B with AGE	Vacuum Gripper with Shank Interface GSW-V	
				
Comprehensive ranges	++	++	+	
Variety of sensor systems	+	+		
Description	Universal gripper with shank interface for toolholder	Universal gripper with shank interface for toolholder and compensation unit	Vacuum gripper with shank interface for machine self-operation	
Field of application				
	• For fully automated loading and unloading of machining centers	• For fully automated loading and unloading of clamping devices such as vises	• For fully automated loading and unloading of flat workpieces	
ambient conditions				
Clean	●	●	●	
Contaminated/coarse dust	●	○	○	
Contaminated/fine dust and liquids	○	○	○	
Contaminated/aggressive liquids	○	○		
High temperature range > 90 °C	●	●		
Cleanroom	○	○		

● = very highly suitable    ○ = highly suitable    ○ = suitable in customized version  
 + = medium-sized selection    ++ = wide selection    +++ = wide large selection

## SCHUNK PZN-plus with Shank Interface GSW-B


The SCHUNK GWS gripper with shank interface loads and unloads machining centers fully automatically using the machine's own axis. It is inserted in a toolholder like a tool and can be swapped lightning fast out of the tool rack, and loaded from the tool changer into the machine spindle directly by the machine without requiring a robot or gantry.

The result: fully automatic workpiece change only with the help of the machine axis. Operation via the coolant supply.



### Your benefits:

- **30% higher productivity due to automated machine loading**
- **No additional energy supply** required in the machine

Magnetic Gripper with Shank Interface GSW-M	Cleaning Device with Shank Interface RGG	Internal Hole Gripper LOG	O-Ring Gripper ORG
			
+	+	+++	+
Magnetic gripper with shank interface for toolholder	Cleaning device with shank interface for toolholder	Lightweight gripper made from a chemical resistant polyamide with a closed membrane system.	6-finger gripper reliable internal and external assembly of O-rings
<ul style="list-style-type: none"> <li>For fully automated loading and unloading of ferromagnetic workpieces</li> </ul>	<ul style="list-style-type: none"> <li>For cleaning of clamping devices and for automating cleaning of machine tools</li> </ul>	<ul style="list-style-type: none"> <li>Particularly suitable for highly dynamic applications with light workpieces</li> <li>For handling of small parts and plastic parts, as well as sand core handling</li> </ul>	<ul style="list-style-type: none"> <li>For automated assembly of O-rings</li> </ul>
●	●	●	●
○	●	●	
○	●	●	
	●		
	●		
		○	○

## SCHUNK ORG

### Special Gripper for O-ring Assembly

The SCHUNK O-ring gripper must be positioned with custom fingers can be used to mount, O-rings and other sealing rings, both on shafts (external assembly) and in bores (internal assembly).

#### Your benefits:

- **Up to 30% time saving** as the external and internal assembly can be done with one gripper

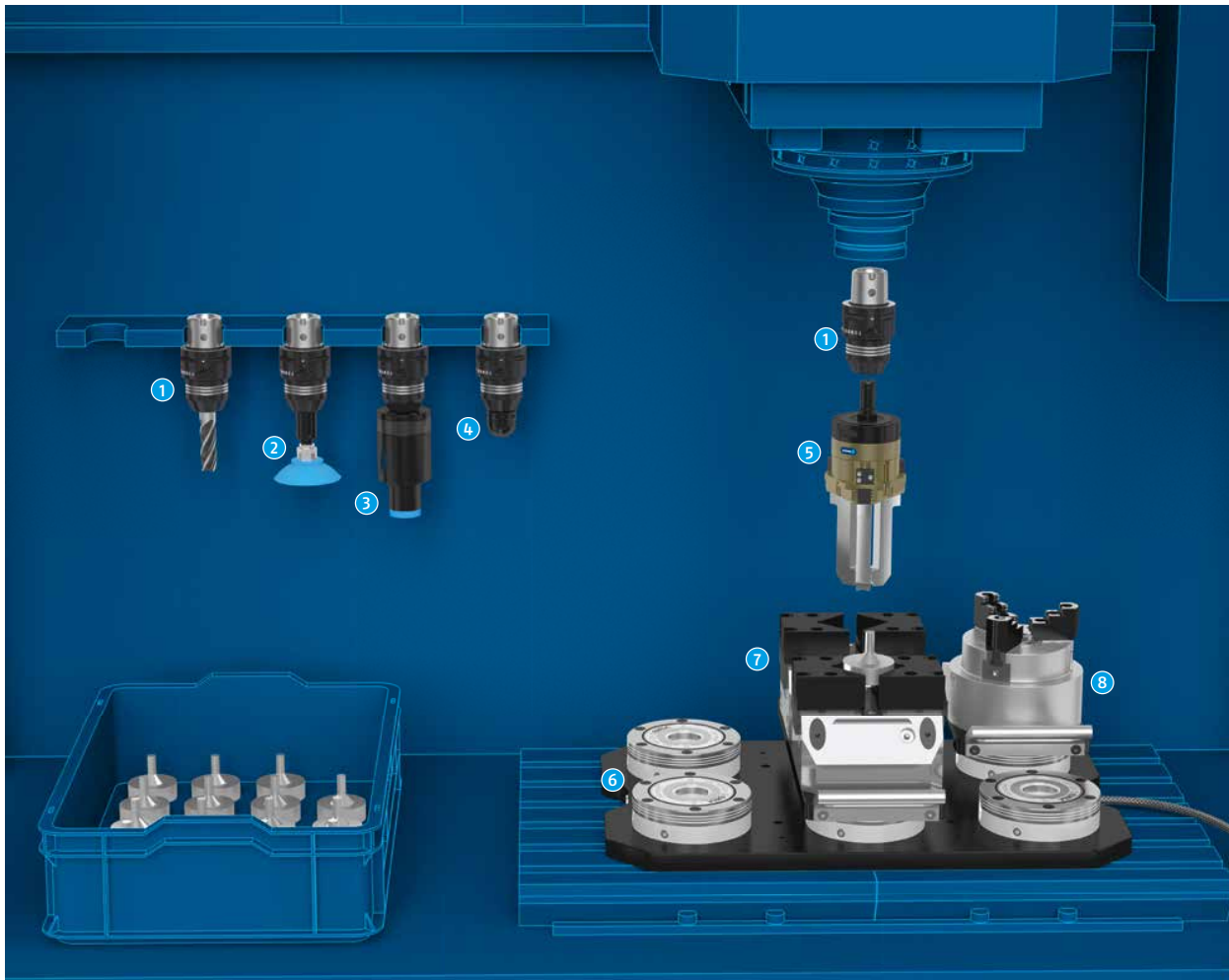


	Gripping Hands	
	Intelligent	
	Servo-electric 5-Finger Gripping Hand SVH	Servo-electric 3-Finger Gripping Hand SDH
	 <p>First DGVV certified 5-finger hand</p>	 <p>2014</p>
<b>Technical data</b>		
Overall length [mm]	242.5	248.8
Total width [mm]	92	120.2
Max. finger width [mm]	19.6	46.4
Finger length [mm]	102.7	155
Finger spacing [mm]	25	66
Ratio to human hand	1:1	1.4:1
Number of drives	9	7
Number of fingers	5	3
Degrees of freedom	20	7
Weight [kg]	1.3	1.95
IP class	20	50
Power supply [V DC]	24	24
Nominal current [A]	0.16	2
Max. current [A]	3.5	5
CAN		•
RS232		•
RS485	•	
Ethernet TCP/IP		•
<b>Environment</b>		
Clean environment	•	•
Easily contaminated environments		•
<b>Tactile sensor systems</b>		
Tactile sensor systems		•



## SCHUNK Lean Automation: Gripping Systems and Clamping Technology for the Automation of your Machine Tool

When it comes to precision, when seconds are decisive, set-up times are too long and costs too high, there is no room for compromise. And this is precisely where SCHUNK's lean automation range comes in. Because your machine can do more than you think. With efficient and suitable solutions for loading, changing, and cleaning. And of course with optimum tool and workpiece clamping.



- 1 TENDO E compact Hydraulic Expansion Toolholder**  
The ultimate tool for every cutting tool, for every application
- 2 Vacuum Gripper GSW-V**  
for handling workpieces with a flat surface
- 3 Magnetic Gripper GSW-M**  
for handling ferromagnetic workpieces
- 4 Cleaning Unit RGG**  
for cleaning the machine room in a matter of seconds
- 5 SCHUNK Universal Gripper PZN-plus with shank interface**  
for automatic loading and unloading of your tooling machine
- 6 VERO-S Quick-change Pallet System**  
Positioning and clamping in a single operation
- 7 TANDEM Clamping Force Blocks**  
for workpiece clamping in confined spaces
- 8 ROTA Lathe Chuck**  
for precise clamping of round workpieces

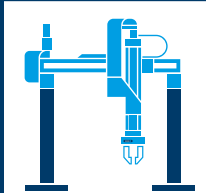
## Handling and Assembly – SCHUNK has the perfect Solution for every Requirement.

With our wide range of pneumatically and electrically driven linear, rotary and gripper standard components and many products for robots, SCHUNK offers perfect prerequisites for individual handling solutions. An enormous variety of automated solutions can be implemented by using just a few standard components – fast, simple, and professional.

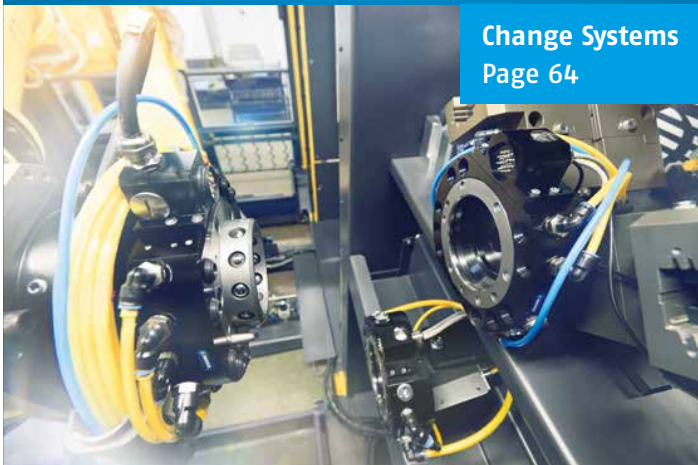
Application-specific automation systems provide high dynamics during short cycle times – from small parts assembly in the production of electronics to the loading and unloading of machine tools to the handling of food products, pharmaceuticals or medical devices.

Equipped  
by

SCHUNK



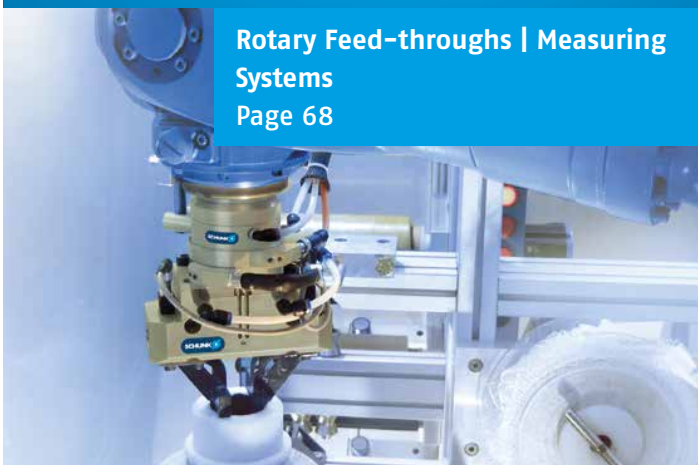
Over **4,000** standard components  
in the most comprehensive selection of  
modules for handling and assembly



**Change Systems**  
Page 64



**Compensation Units**  
Page 66



**Rotary Feed-throughs | Measuring  
Systems**  
Page 68



**Monitoring Sensors  
Machining Tools**  
Page 72

# No. 1

for safe, precise gripping  
and holding.



*J. Lehmann*

Jens Lehmann, German goalkeeper legend,  
SCHUNK brand ambassador since 2012  
for safe, precise gripping and holding.  
[schunk.com/lehmann](http://schunk.com/lehmann)

**852** minutes without a  
goal against him in the  
Champions League

**681** minutes without a goal  
against him on 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 SCHUNK grippers

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**  
implement hydraulic expansion  
customized 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  
[cmg@de.schunk.com](mailto:cmg@de.schunk.com)

 [schunk.com](http://schunk.com)

 [youtube.com/schunkhq](https://youtube.com/schunkhq)

 [twitter.com/schunk\\_hq](https://twitter.com/schunk_hq)

 [facebook.com/schunk.hq](https://facebook.com/schunk.hq)

