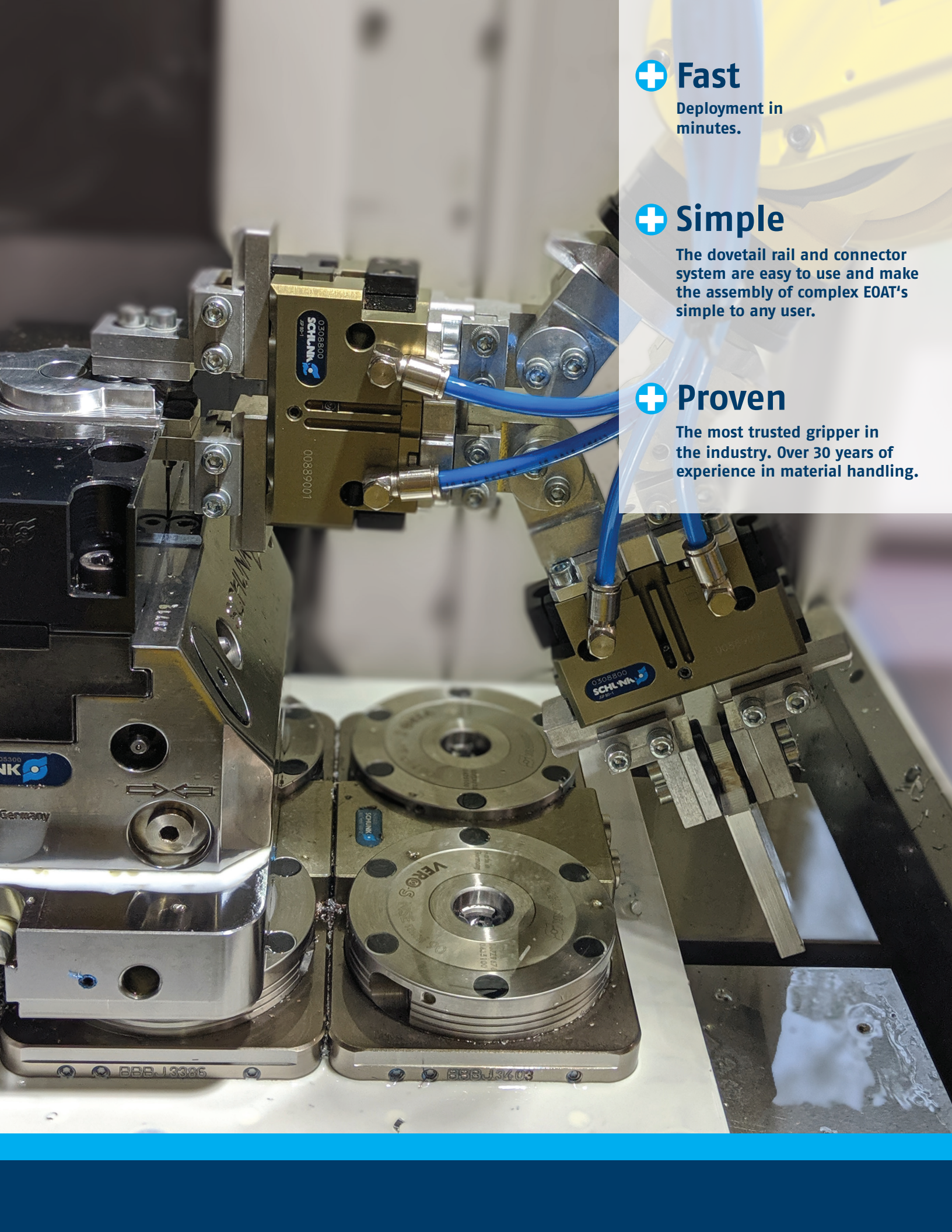


Superior Clamping and Gripping



## Flex Grip Tools

A Modular End-of-Arm Tool  
for Lightweight Robot Arms.



## + Fast

Deployment in minutes.

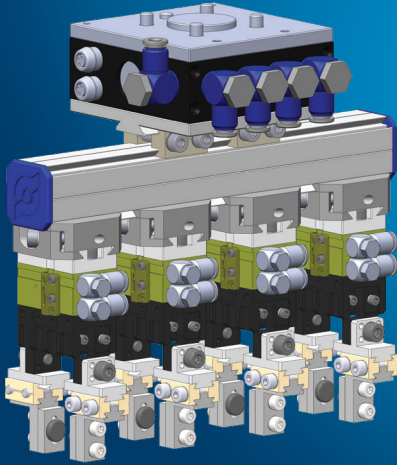
## + Simple

The dovetail rail and connector system are easy to use and make the assembly of complex EOAT's simple to any user.

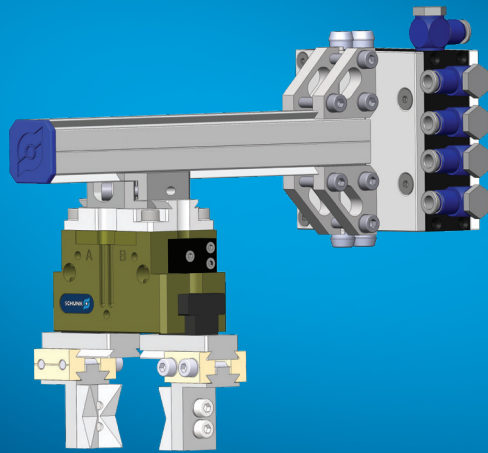
## + Proven

The most trusted gripper in the industry. Over 30 years of experience in material handling.

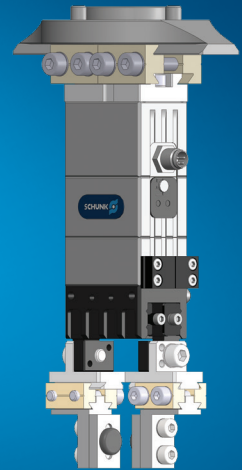
# SCHUNK Flex Grip Tools



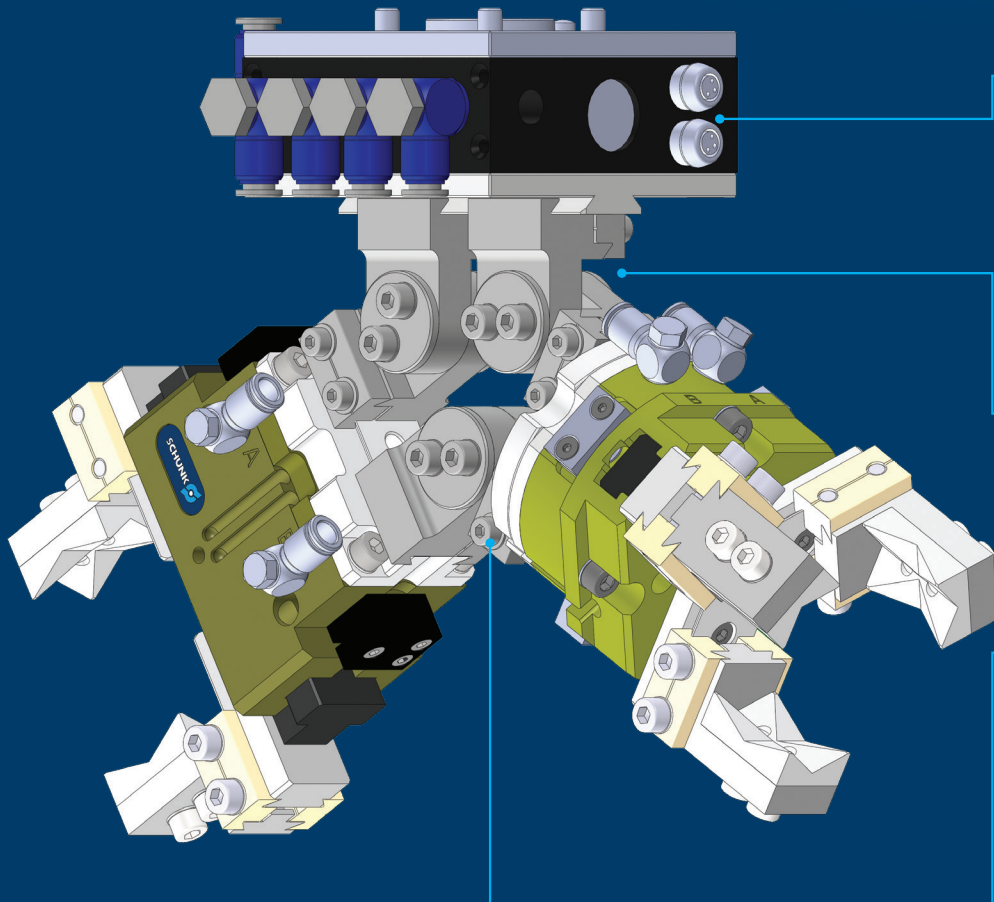
**FGA MPG+ Kit :**  
Multiple 2 jaw parallel grippers for fast pick and place applications of multiple parts.



**FGA JGP 64-1 Kit:**  
Single 2 jaw gripper with offset and 90 degree clocking to extension to create interference avoidance.



**FGA EGP 40 Kit :**  
Single electric 2 jaw gripper for assembly applications.



## + Integrated Valves and Sensor IO Block

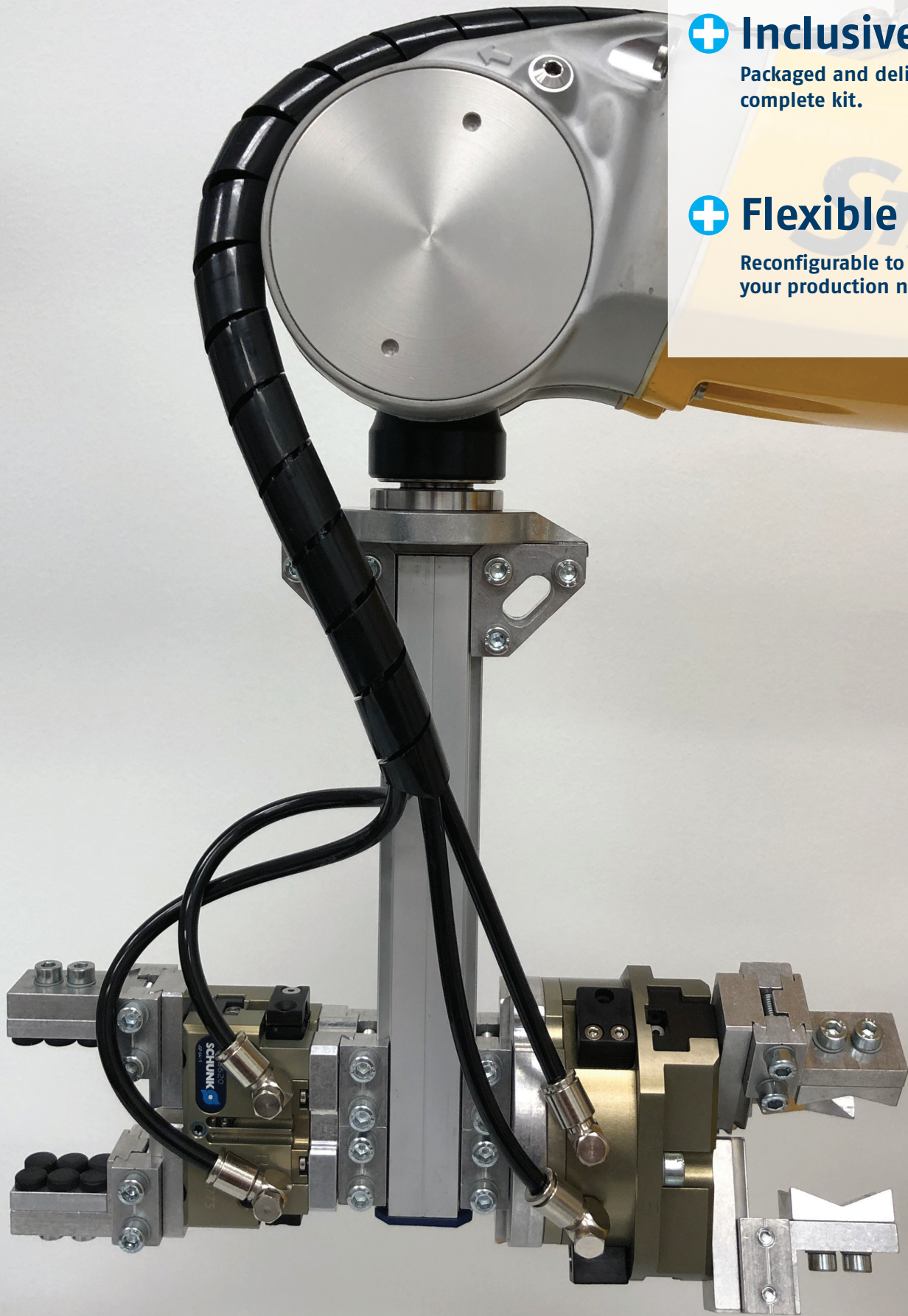
Optimize production by having the valves as close to the EOAT as possible. Sensor IO Block integrated into valve body for easy cable management.

## + Variable Angle

Connectors can be adjusted to meet various angles needed during setup.

## + Dual EOAT

Dual EOAT grippers are ideal for machine tending. Increasing through put by picking a finished part and loading a raw part.



## + Inclusive

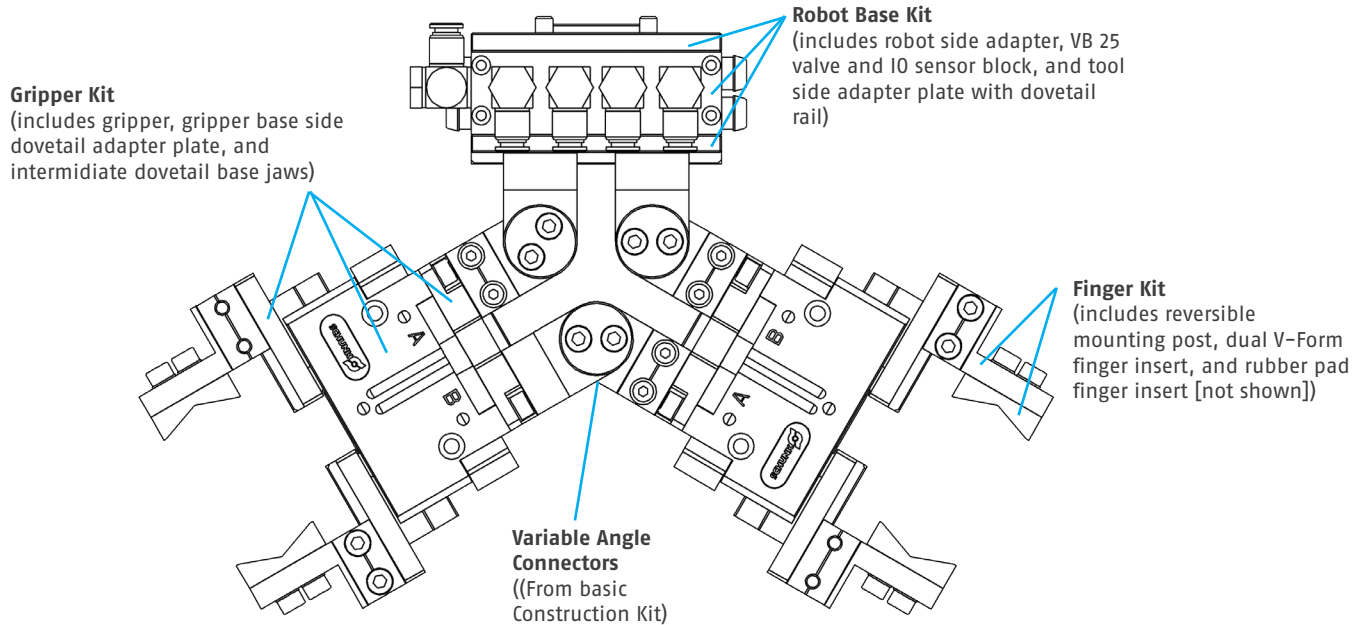
Packaged and delivered as a complete kit.

## + Flexible

Reconfigurable to meet all of your production needs.

# SCHUNK Flex Grip Tools

Build Your Robot Tool Step-by-Step



## Step 1: Robot Base Kit

Specify the robot base kit for the robot you are using. Options are available for most robots either including pneumatic control valves and sensor I/O or simply a standard mounting plate.

## Step 2: Gripper

Identify the gripper or grippers best for your process based on grip force, finger travel and other technical specifications.

## Step 3: Finger Kit

Standard finger kits are offered using flat rubber and dual V-form contact tooling. The finger kit includes everything you need to start gripping!

## Step 4: Basic Construction Kit

The basic construction kit is used to create custom end-effector configurations such as dual, triple, quadruple, or more grippers. Construction kits also allow to position grippers offset from the center of the robot wrist.

## Step 5: Sensors and Accessories

Sensors ensure that the robot knows when the gripper has a workpiece gripped. Choose a sensor recommended for your gripper.

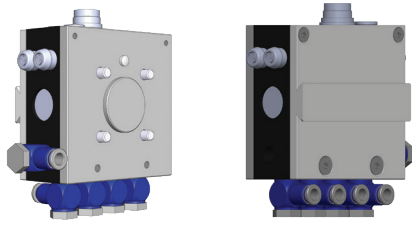
## Step 6: Bill of Materials & Accessories

Our bill of materials provides an example of how a final order may look after you follow this step-by-step guide. SCHUNK accessories are available to enhance your Flex Grip Tools purchase.

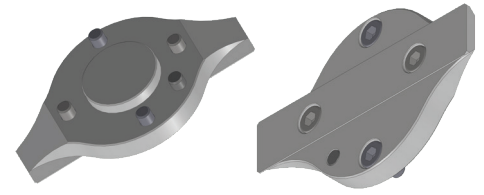
# Step 1

## Robot Base Kits

### Pneumatic Valve Block Base Kit



### Standard P22 Adapter Plate No Valves



### VB 25 ISO Base Adapters

Available in standard ISO pattern sizes of 31.5, 40, 50, and 63. This robot base kit has valves and a sensor I/O block. It can be used to actuate up to 2 double acting or 4 single acting pneumatic grippers. It is a great option when a compact valve solution is needed.

### Scope of Delivery

Robot side adapter plate, dowel pin, parallel connectors for dovetail adapter, tool side dovetail adapter plate, (1) 5 m cable for M16 12 pin plug socket, screws and connection material and fittings.

### Standard Base Adapters

Come in standard ISO pattern sizes of 31.5, 40, 50, 63, and special adapters for Yaskawa GP 7, 8, and 12. Standard Base Adapter Kits can be used when using an electric gripper or when valves are already available for use in the application.

### Scope of Delivery

Robot side adapter plate includes connection material and dowel pin. P22 dovetail rail utilized on the tool side for clamping on FGA Gripper Kits.

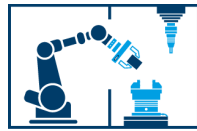
Robot Base Kits Description	Pneumatic Valve Block Base Kits					Standard P22 Adapter Plate No Valves					
	ISO 31.5	ISO 40	ISO 50	ISO 50 w/ offset	ISO 63	ISO 31.5	ISO 31.5 YAS	ISO 40	ISO 50	ISO 56	ISO 63
Robot Base Kit ID#	1407984	1407985	1407986	1431778	1407987	1406047	1414735	1406051	1406054	1414736	1406064
IRB 1100	•					•					
IRB 120	•					•					
IRB 1200	•					•					
IRB 140		•						•			
IRB 1600		•						•			
IRB 2400			•						•		
IRB 2600			•						•		
IRB 4600-20/2.50			•						•		
i3			•						•		
i5			•						•		
i10			•						•		
VP Series	•					•					
VS-050	•					•					
VS-060	•					•					
VS-068	•					•					
VS-087	•					•					
VS-6556	•					•					
VS-6577	•										
VM-6083		•						•			
VM-6081		•						•			
M0609			•						•		
M1509			•						•		
M1013			•						•		
M0617			•						•		
LR Mate Series	•					•					
CR-4IA	•					•					
CR-7IA	•					•					
CRX-10IA & 10IA/L Series			•						•		
M-10IA & 20IA Series										•	



Robot Base Kits Description	Pneumatic Valve Block Base Kits					Standard P22 Adapter Plate No Valves					
	ISO 31.5	ISO 40	ISO 50	ISO 50 w/offset	ISO 63	ISO 31.5	ISO 31.5 YAS	ISO 40	ISO 50	ISO 56	ISO 63
Robot Base Kit ID#	1407984	1407985	1407986	1431778	1407987	1406047	1414735	1406051	1406054	1414736	1406064
<b>KAWASAKI</b> Robotics											
RS003N	•					•					
RS005N	•					•					
RS005L	•					•					
RS007N		•				•					
RS007L		•				•					
RS006L								•			
RS010N								•			
RS010L						•					•
RS015X						•					•
RS020N						•					•
<b>KUKA</b>											
KR Agilus Series	•					•					
KR Cybertech Nano Series	•					•					
KR Cybertech Series			•						•		
<b>MITSUBISHI</b> ELECTRIC											
RV-2FR	•					•					
RV-4FR	•					•					
RV-7FR	•					•					
RV-8CRL	•					•					
RV-2F/L	•					•					
RV-4F	•					•					
RV-7F	•					•					
RV-13FR		•						•			
RV-20FR		•						•			
RV-13F/20F		•						•			
<b>NACHI</b>											
MC10L		•						•			
MC12S		•						•			
MC10L		•						•			
MC20		•						•			
MR20L		•						•			
<b>OMRON</b> ROBOT											
Viper 650	•					•					
Viper 850	•					•					
TM5				•					•		
TM12				•					•		
TM14				•					•		
<b>PRECISE</b> AUTOMATION											
PF3400 SCARA	•					•					
PP100	•					•					
PAVP6	•					•					
PAVS6	•					•					
<b>STÄUBLI</b>											
TX2-40	•					•					
TX2-60	•					•					
TX2-90			•						•		
<b>UNIVERSAL</b> ROBOTS											
UR 3e & CB			•						•		
UR 5e & CB			•						•		
UR 10e & CB			•						•		
UR 16e & CB			•						•		
<b>YASKAWA</b>											
MH3BM	•					•					
MPP3H	•					•					
MPP3S	•					•					
GP 7							•				
GP 8							•				
MH55 II / MH5LS II							•				
GP 12										•	
MH12										•	
GP 20HL										•	
MH24 / MH24-10										•	

# Steps 2 & 3

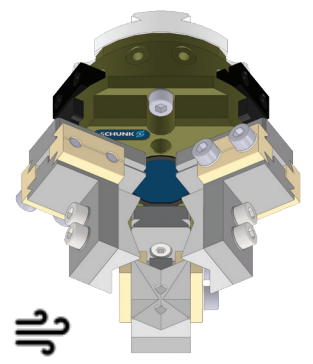
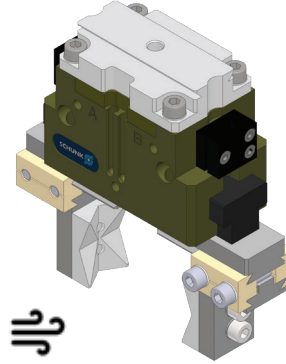
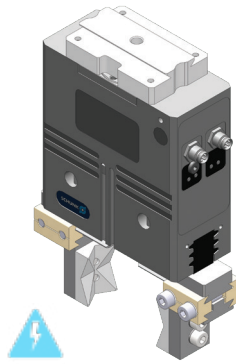
## Gripper Kits & Finger Kits



### Optimal grippers for machine tending operations

## Gripper Kits

One part number, one flexible gripper, everything you need to get started. Each gripper kit comes with dovetail adapters which work with the connectors from the basic construction kit. Start automating your application today with Flex Grip Tools.

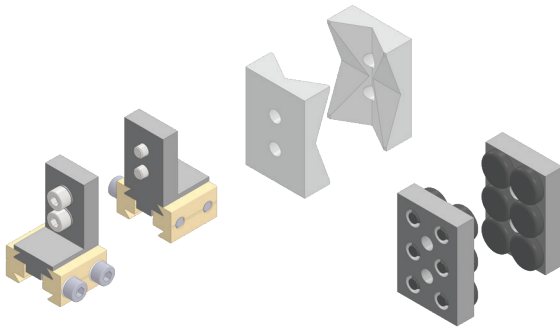


Technical Data for Grip Kits	PGN+E 80	PGN+E 100	JGP 64	JGP 80	JGP 100	JGP 125	JGZ 64	JGZ 80	JGZ 100
Part Number	1407493	1407494	1407468	1407469	1407471	1407472	1407473	1407474	1407475
Recommended Workpiece Weight with Metal Fingers [kg]	2.85	4.05	1.25	2.10	3.30	5.40	2.90	5	9
Recommended Workpiece Weight with Rubber Finger Inserts [kg]	5.30	8.10	2.50	4.15	6.60	10.80	5.80	10	18
Gripping Force [N]	530	810	250	415	660	1080	580	1000	1800
Stroke per Jaw [mm]	8	10	6	8	10	13	6	8	10
Weight [kg]	1.18	2.01	0.40	0.67	1.09	1.75	0.60	1.10	1.88
Finger Kit Workpiece Range: Using Flat metal finger [mm]	0 ... 101	0 ... 132	0 ... 73	0 ... 101	0 ... 132	0 ... 175	26 ... 64	26 ... 80	26 ... 100

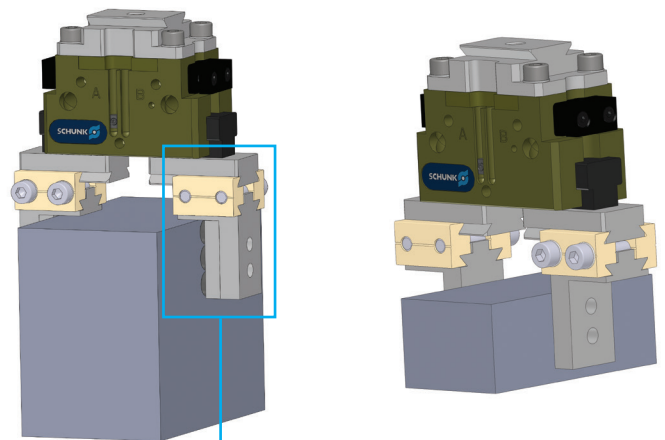
\*NOTE: Workpiece weight calculated using rubber fingers from finger kit using a coefficient of static friction of 0.3, a safety factor of 2, with gravity and an estimated robot acceleration of 5 m/s<sup>2</sup>

## Finger Kits

One part number, mounting posts, dual v-jaw finger inserts, EDPM rubber finger inserts. A standard finger option that can slide along the intermediate dovetail base jaw and allow for both ID and OD gripping.

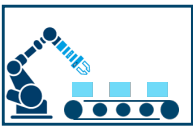


Part Number	1407988	1407989	1407990
Compatible Grippers / Finger Kit			
PGN+ E 80, 100	•		
JGP 64, 80, 100, 125	•		
JGZ 64, 80, 100		•	
KG 80-30, 80-60			•
MPG+ 32, 40, 50, 64			•
EGP 25, 40, 50, 64			•



Payloads are maximized using the rubber inserts!

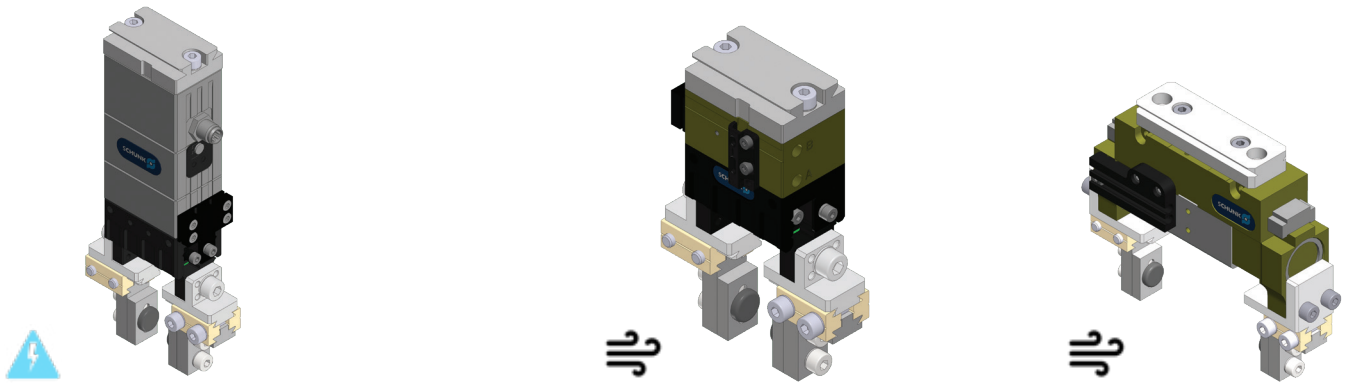




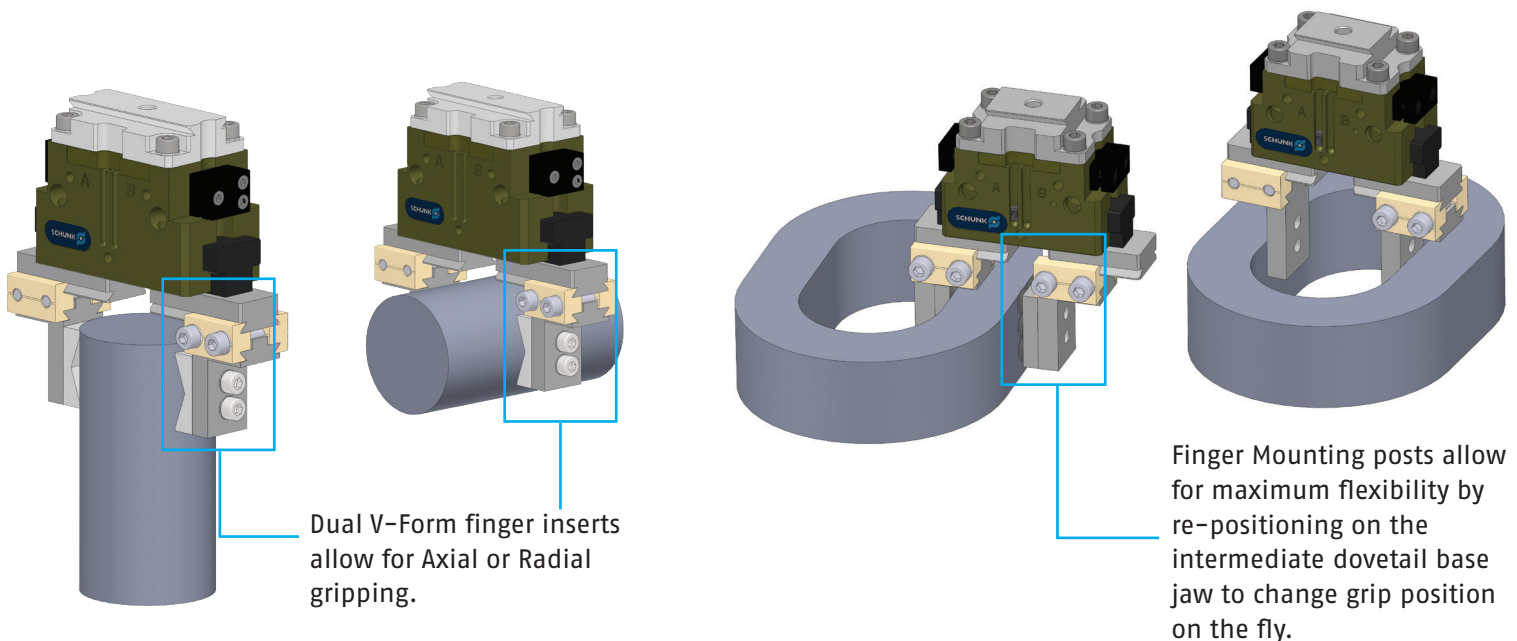
# Steps 2 & 3

## Gripper Kits & Finger Kits

Optimal grippers for pick and place and assembly operation of light parts



EGP 25	EGP 40	EGP 50	EGP 64	MPG+ 32	MPG+ 40	MPG+ 50	MPG+ 64	KGG 80-30	KGG 80-60
1407488	1407489	1407490	1407492	1407480	1407481	1407485	1407487	1407476	1407477
0.20	0.70	1.05	1.25	0.43	0.70	1.05	1.25	0.66	0.66
0.40	1.40	2.15	3.00	0.80	1.35	2.15	3.00	1.30	1.30
40	140	215	300	80	135	215	300	130	130
3	6	8	10	4	6	8	10	15	30
0.14	0.37	0.59	0.92	0.15	0.23	0.39	0.65	0.33	0.41
0 ... 39	0 ... 55	0 ... 59	0 ... 63	0 ... 51	0 ... 55	0 ... 59	0 ... 63	25 ... 103	41 ... 163



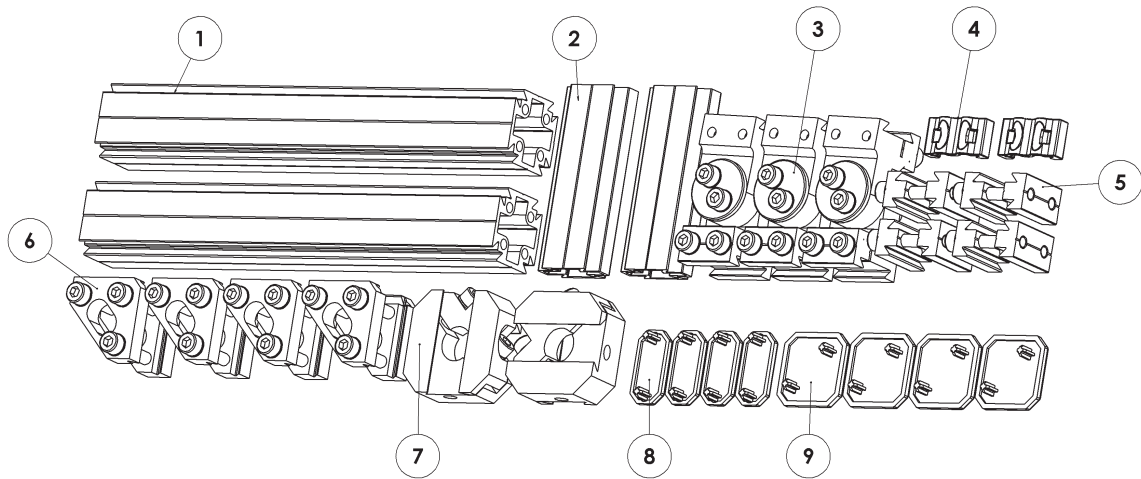
# Step 4 & 5

## Basic Construction Kits & Sensors

### Basic Construction Kit:

One part number to order a construction kit consisting of clamps, connectors, and extrusion to create custom end-of-arm-tools in minutes without any CAD design or machining.

ID#	1407983		
	QTY	Part Description	Weight (kg) / ea
1	2	30 x 30 beam, 200mm long, P22 profile	0.186
2	2	30 x 15 beam, 100mm long, P22 profile	0.031
3	2	P22 variable angle connector	0.118
4	3	Cable clamp with prism for cable tie	0.007
5	2	P22 parallel connector, 25mm width	0.024
6	4	P22 right angle connector	0.095
7	4	P22 reinforced prism connector	0.03
8	2	SCHUNK end cap P22 (30-15)	0.0009
9	10	SCHUNK end cap P22 (30-30)	0.0027
	10	SCHUNK wrench T handle M4	



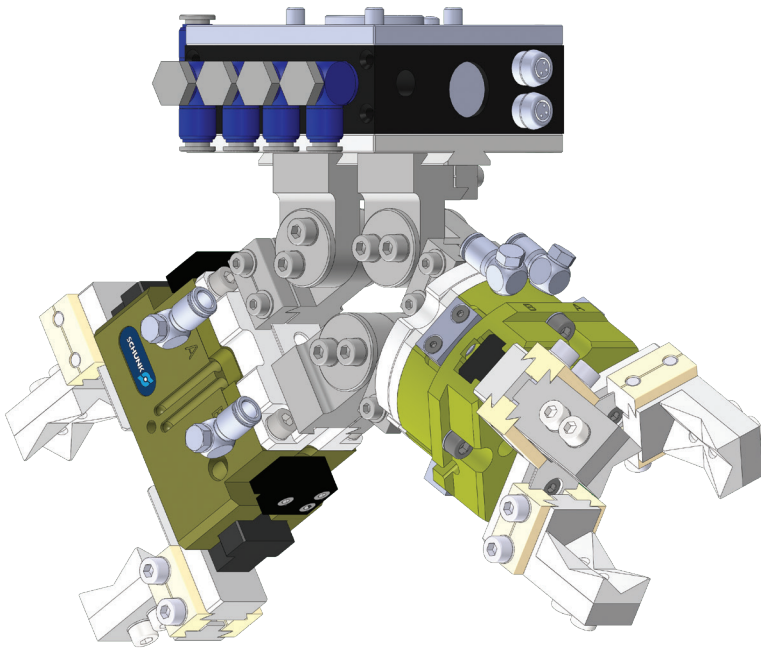
### Sensors



Part Description	1 Position Magnetic Sensor	2 Position Magnetic Sensor	Y Splitter Cable for 2 Position Magnetic Sensor	1 Position Inductive Proximity Sensor
Gripper / Sensor Part Number	301032	301370	301380	301474
PGN+ E 80, 100	•			
JGP 64, 80, 100, 125	•			
JGZ 64, 80, 100	•			
EGP 25, 40, 50, 64				•
MPG+ 32, 40, 50, 64		•	•	
KG 80-30, 80-60		•	•	

2 Positions can be sensed on all gripper models.  
 \*Y Splitter cable is needed for the 2 position magnetic sensor

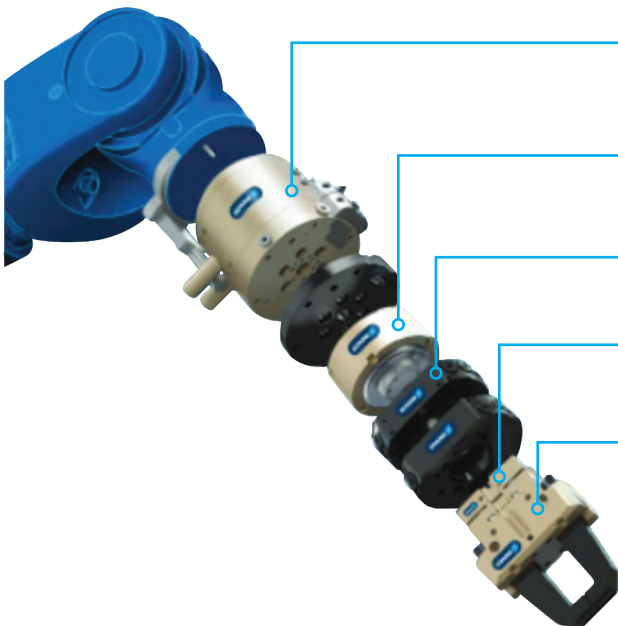
### Bill of Materials Example



QTY	Part Description	Part #
1	Robot Base Kit with Valves [ISO 50]	1407986
1	JGP 64 [Robust parallel 2 jaw gripper]	1407468
1	JGZ 64 [Robust centric 3 jaw gripper]	1407473
1	JGP/PGN+E Finger Kit	1407988
1	JGZ Finger Kit	1407989
1	Basic Construction Kit	1407983
4	Single Position Magnetic Sensor	301032

### Accessories:

SCHUNK provides a comprehensive range of accessories for the mechanical, sensory, and power connection of handling devices and robots. Visit [SCHUNK.com](http://SCHUNK.com) for the complete offering.



More than 50 pneumatic, electrical, or combined SCHUNK rotary feed-throughs.

More than 60 collision and overload sensors and 150 sensors for precise measurement of forces

More than 100 precise quick-change systems

More than 90 compensation components

The world's most extensive gripper portfolio with more than 2,550 pneumatic and electric components.

# SCHUNK Co-act Grippers – Always the Right Choice for your Cobot Application

The SCHUNK Co-act grippers are especially designed for applications with cobots. However, the EGH Co-act gripper is designed for applications where no direct interaction between humans and robots is required. Safety is still ensured by various protective devices. The EGH Co-act gripper facilitates the initial break into automation, due to its great flexibility and simplicity.

For applications in which cobots directly collaborate with humans, the certified SCHUNK Co-act EGP-C and Co-act EGL-C grippers are available. The reliable safety features that these grippers can be used in the field of human-robot collaboration. Select the suitable Co-act gripper for your application.

## Types of Collaboration with Cobots

