

Hand in hand for tomorrow



BSWS-R Automatic jaw quick-change system

1. **The BSWS-Family**

- BSWS
- BSWS-M

2. **Product presentation BSWS-R**

- Product presentation
- Advantages and benefits

3. **Sales facts**

- Price
- Competition overview

4. **Marketing facts**

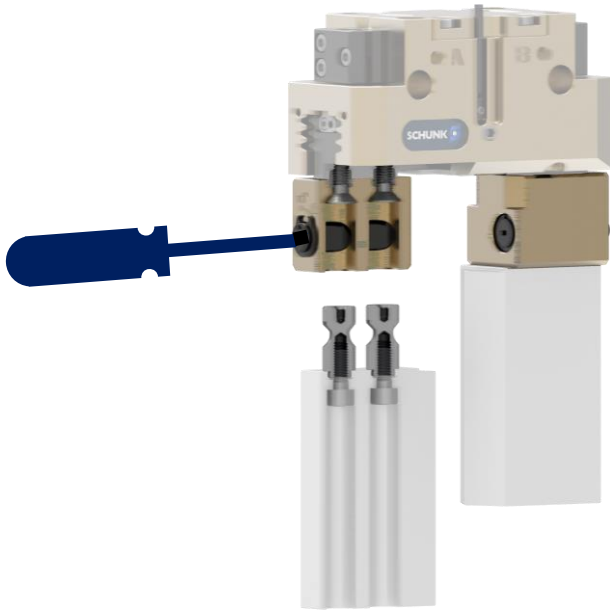
- Marketing activities
- Roadshow case finger accessories
- Fair pedestal

The BSWS-Family

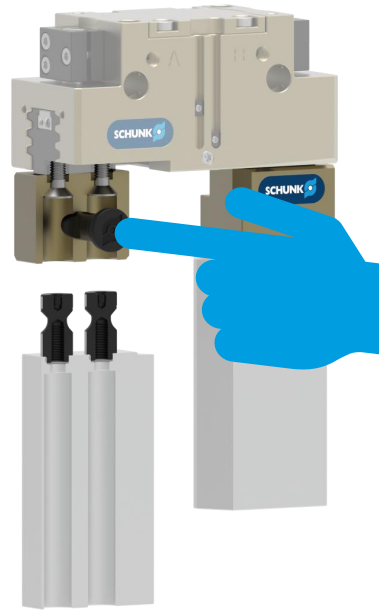


The BSWS-Family

BSWS
(tool-operated)



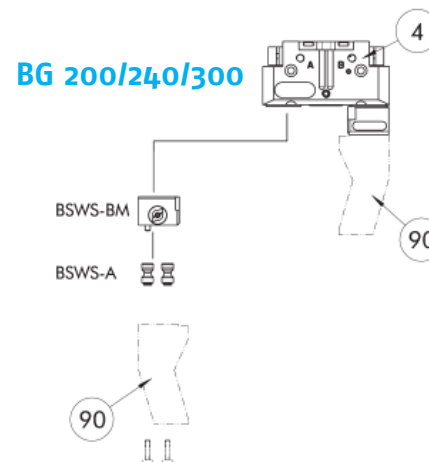
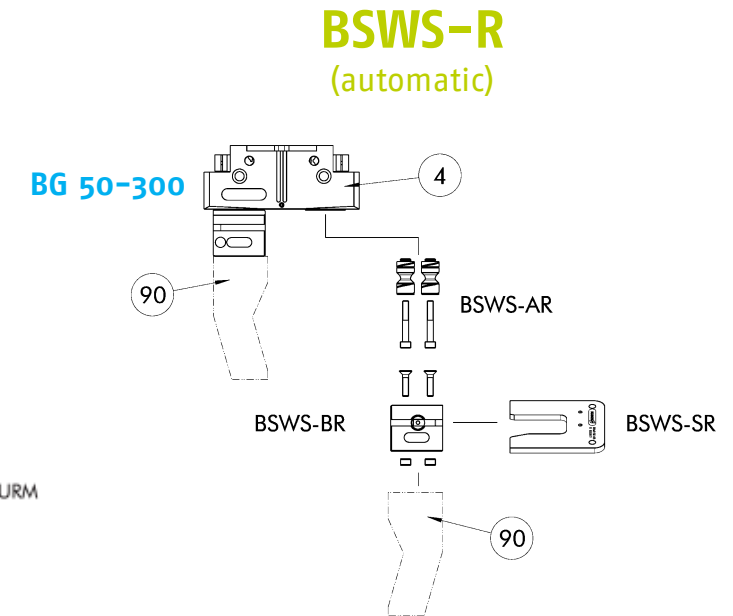
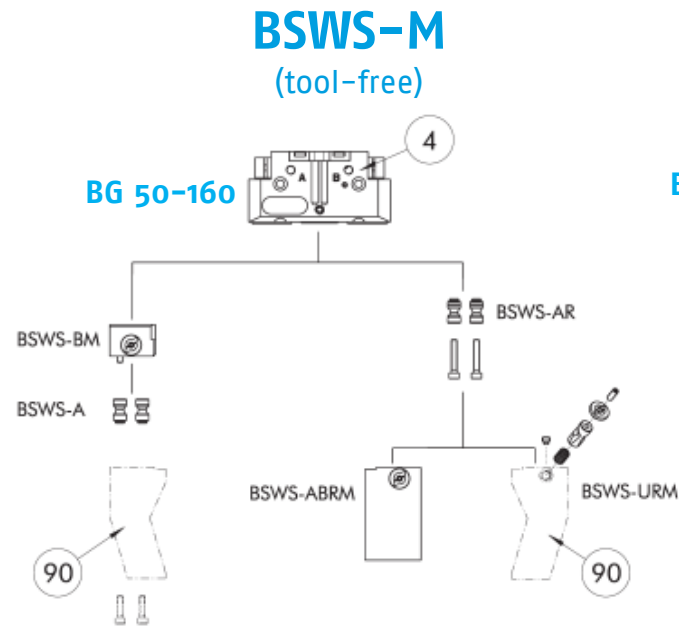
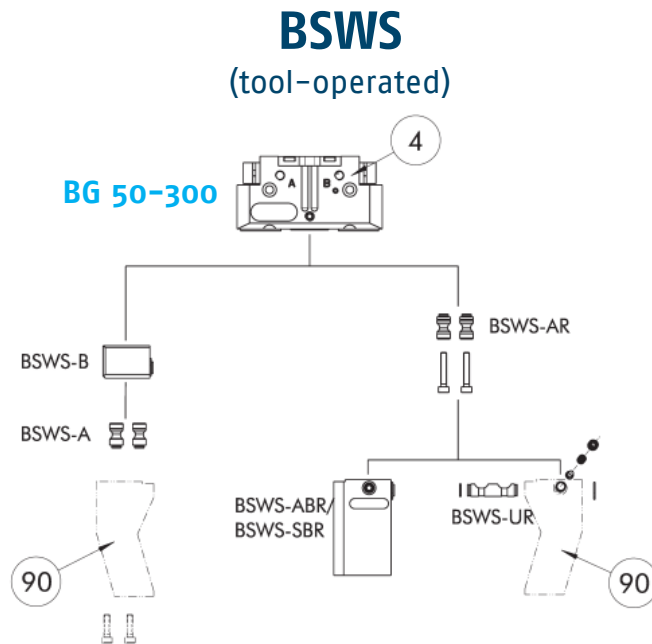
BSWS-M
(tool-free)



BSWS-R
(automatic)



The BSWS-Family



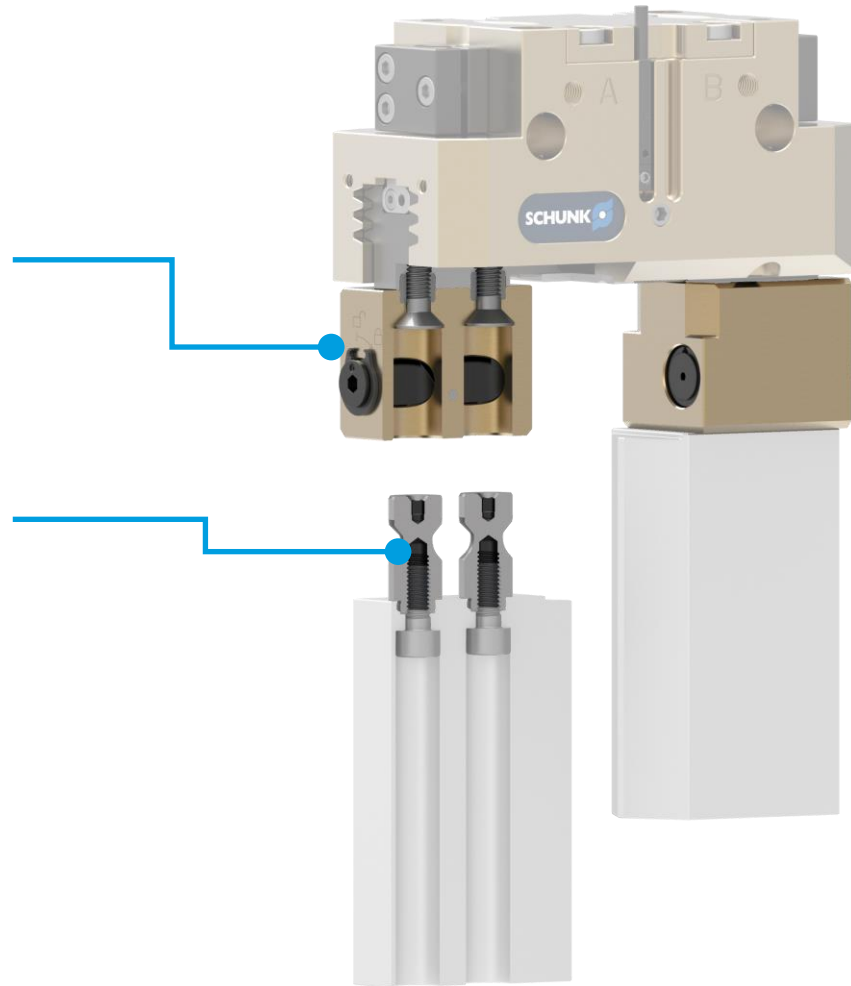
BSWS – normal structure

BSWS-B

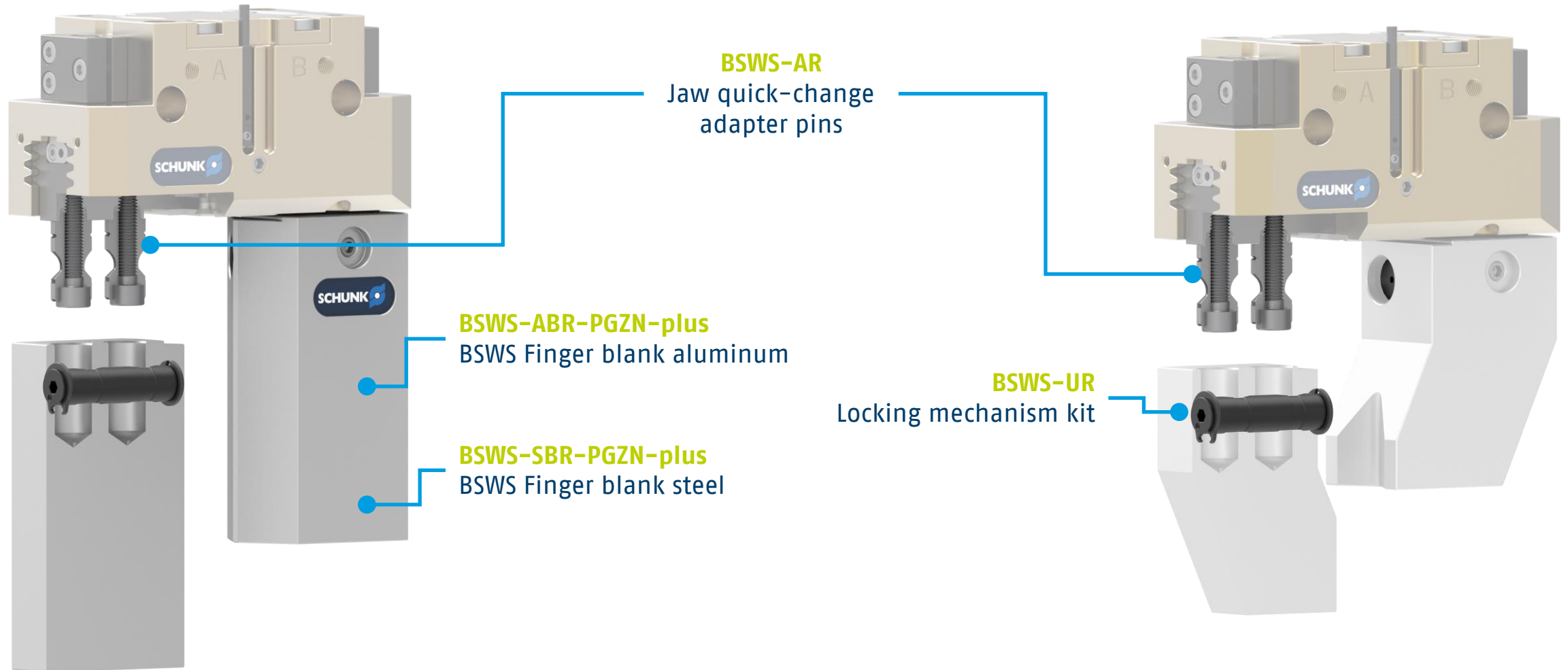
Jaw quick-change
base unit

BSWS-A

Jaw quick-change
adapter pins



BSWS – reverse structure



Jaw quick-change system, tool-free

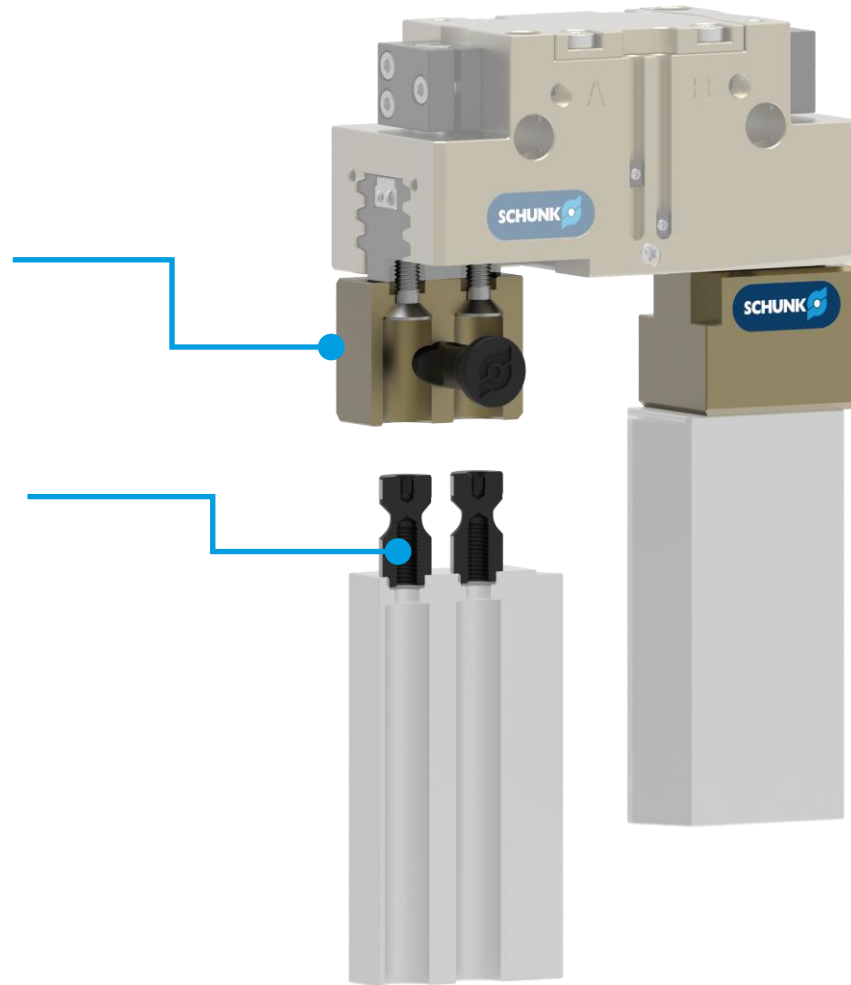
BSWS-M – normal structure

BSWS-BM

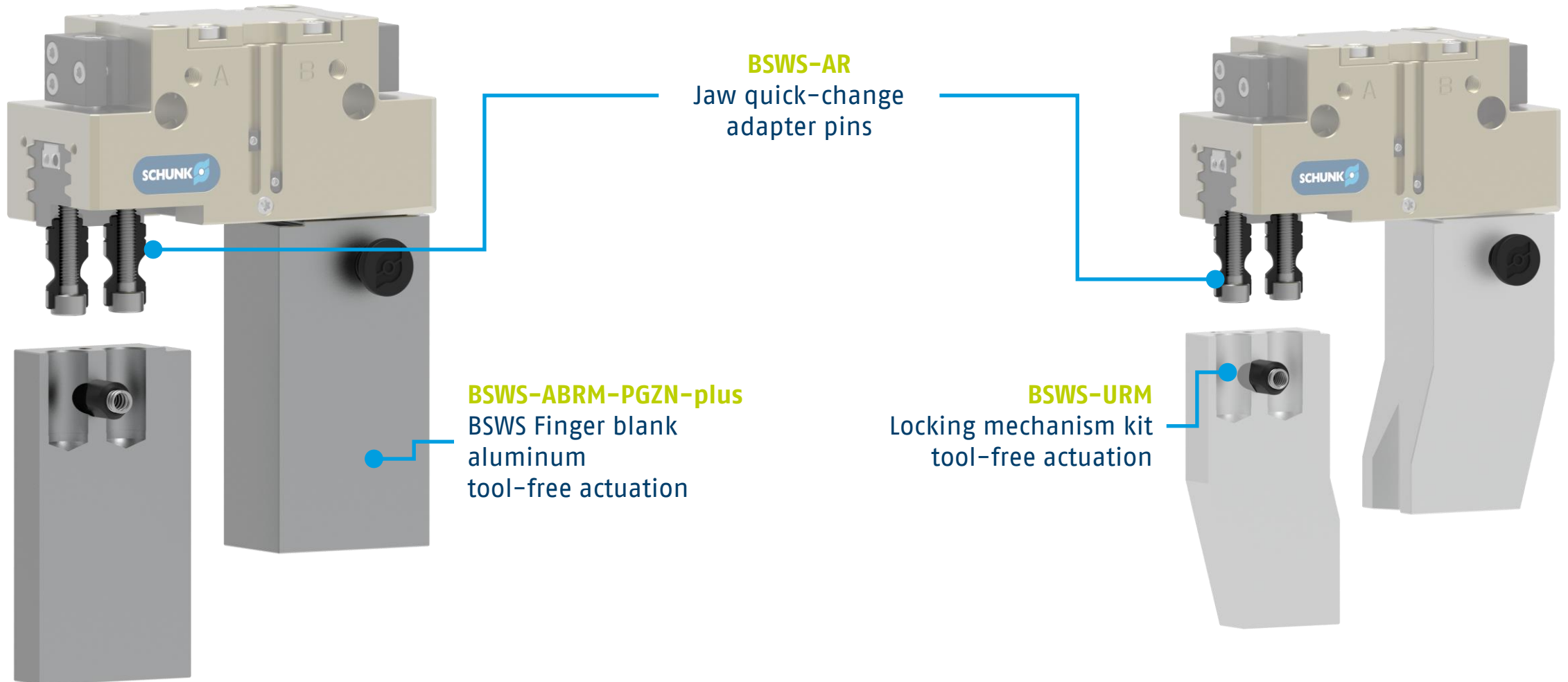
Jaw quick-change base unit
tool-free actuation

BSWS-A

Jaw quick-change adapter pins



BSWS-M – reverse structure



Portfolio overview – where we come from



PGZN-plus	40	50	64	80	100	125	160	200	240	300	380
BSWS-B		303021	303023	303025	303027	303029	303031	303033	303035	303037	
BSWS-A		303020	303022	303024	303026	303028	303030	303032	303034	303036	
BSWS-AR		300091	300092	300093	300094	300095	300096	1453341	1453342	1453343	
BSWS-UR		302990	302991	302992	302993	302994	302994	1451606	1451607	1451608	
BSWS-ABR		300071	300072	300073	300074	300075	300076	1453347	1453348	1453349	
BSWS-SBR		300081	300082	300083	300084	300085	300086				



BSWS-BM		1313899	1313900	1313901	1313902	1302006	1418962	1419306	1470901	1462015	
BSWS-A		303020	303022	303024	303026	303028	303030	303032	303034	303036	
BSWS-AR		300091	300092	300093	300094	300095	300096	1453341	1453342	1453343	
BSWS-URM		1380614	1398401	1398402	1398403	1398404	1420541				
BSWS-ABRM		1420850	1420851	1420852	1420853	1420854	1420855				
BSWS-SBRM											

Portfolio overview



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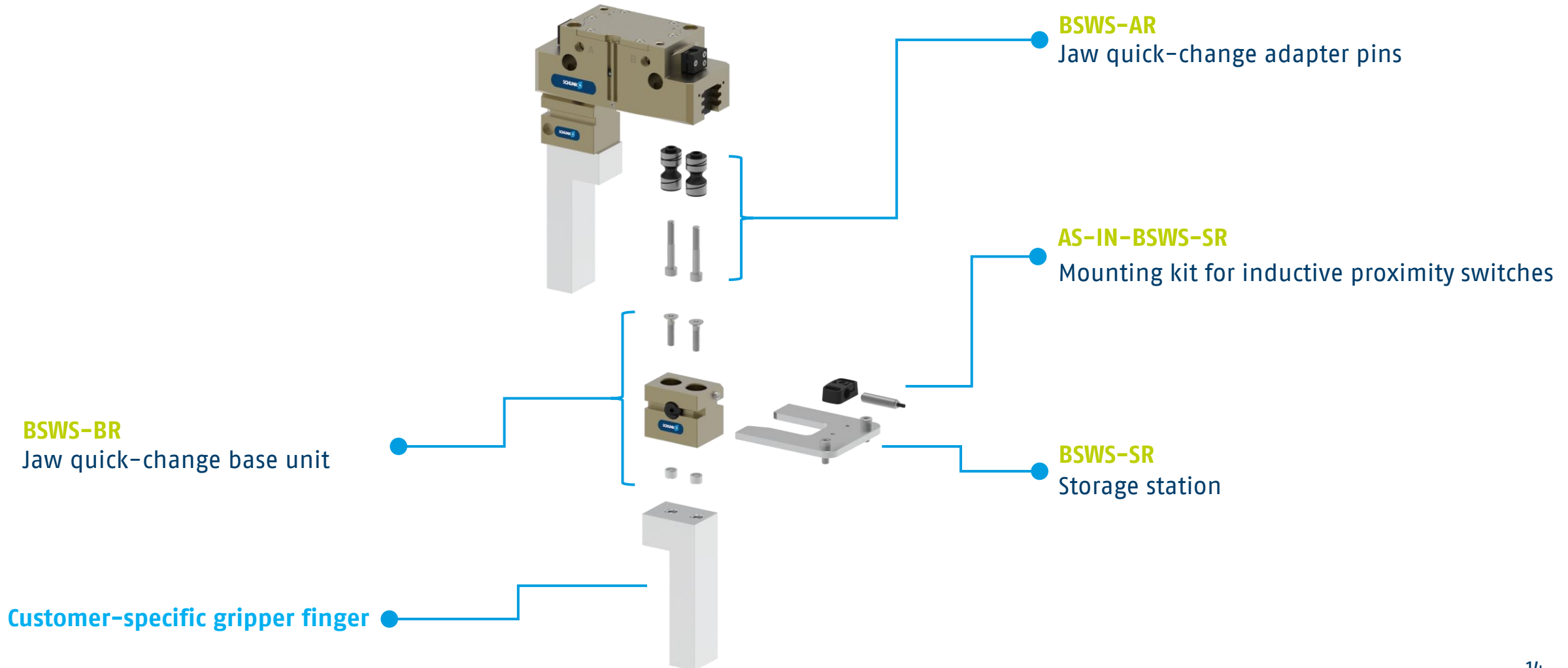


BSWS-AR		300091	300092	300093	300094	300095	300096	1453341	1453342	1453343	
BSWS-BR		1555889	1555914	1555917	1555933	1555937	1555940	1555942	1555943	1555944	
BSWS-SR		1555948	1555950	1555951	1555959	1555972	1555974	1555976	155978	1555982	

Product presentation BSWS-R



Overview



BSWS / BSWS-M vs. BSWS-R

BSWS-BM <---> BSWS-A



normal structure

BSWS-AR <---> BSWS-URM



reverse structure

~~BSWS-AR <---> BSWS-BM~~



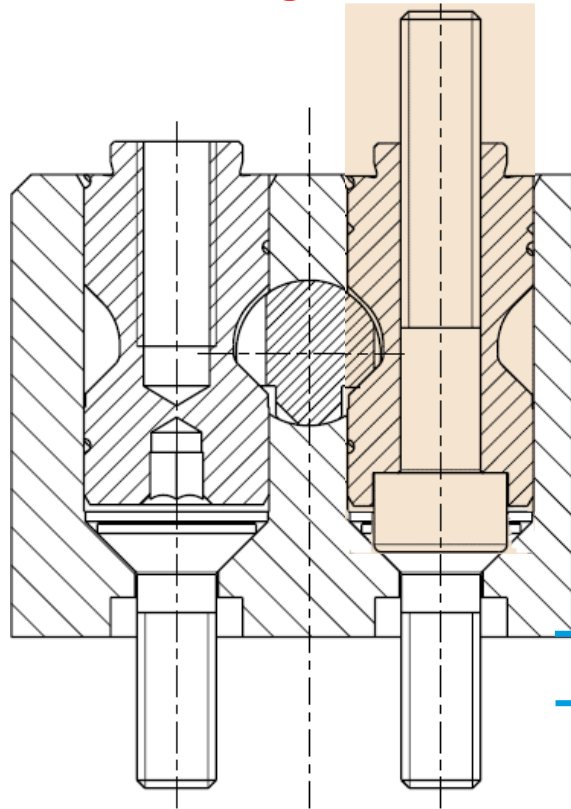
reverse structure
with BSWS-BM
= not compatible

BSWS-AR <---> BSWS-BR



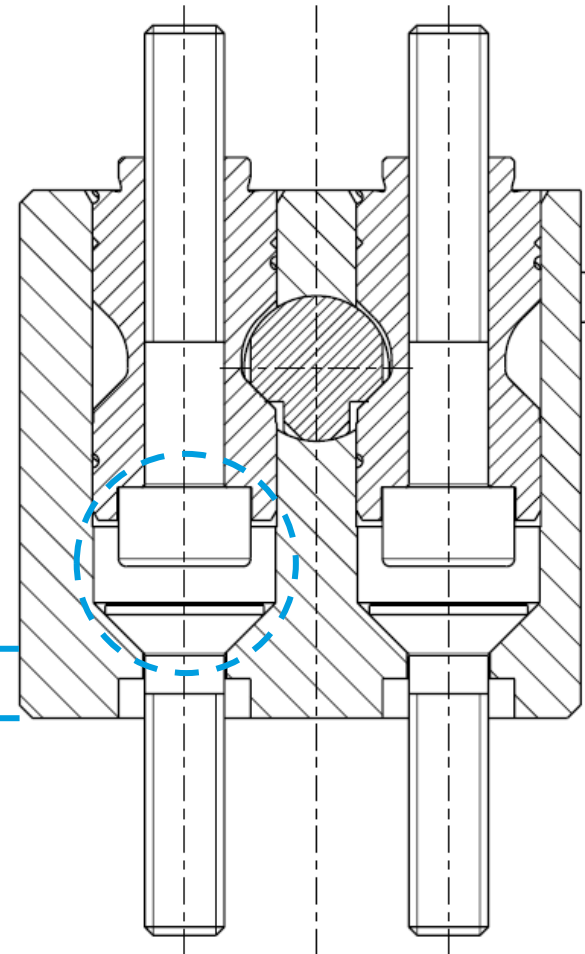
BSWS / BSWS-M vs. BSWS-R

BSWS-BM ✓ BSWS-A
BSWS-AR ✗ BSWS-BM



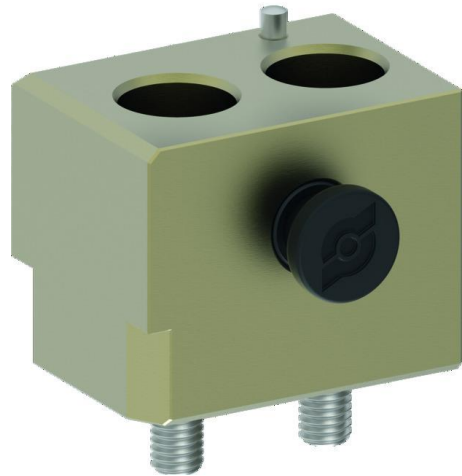
Height difference

BSWS-AR ✓ BSWS-BR



BSWS / BSWS-M vs. BSWS-R

BSWS-BM



BSWS-BR



Storage groove

BSWS-R, 9 sizes



Fingerprint	Jaw quick-change adapter pins	Jaw quick-change Base unit	Storage station	Mounting kit for inductive proximity switches
PGN-plus-P 50	BSWS-AR 50	BSWS-BR 50	BSWS-SR 50	AS-IN40-BSWS-SR 50/64
PGN-plus-P 64	BSWS-AR 64	BSWS-BR 64	BSWS-SR 64	
PGN-plus-P 80	BSWS-AR 80	BSWS-BR 80	BSWS-SR 80	AS-IN40-BSWS-SR 80/100
PGN-plus-P 100	BSWS-AR 100	BSWS-BR 100	BSWS-SR 100	
PGN-plus-P 125	BSWS-AR 125	BSWS-BR 125	BSWS-SR 125	AS-IN80-BSWS-SR 125/160
PGN-plus-P 160	BSWS-AR 160	BSWS-BR 160	BSWS-SR 160	
PGN-plus-P 200	BSWS-AR 200	BSWS-BR 200	BSWS-SR 200	AS-IN80-BSWS-SR 200
PGN-plus-P 240	BSWS-AR 240	BSWS-BR 240	BSWS-SR 240	AS-IN80-BSWS-SR 240/300
PGN-plus-P 300	BSWS-AR 300	BSWS-BR 300	BSWS-SR 300	

Advantages – customer benefits

- + **Automatic change of gripper fingers**, simple, energy-free and without manual operation, purely through the movement of the robot
- + **Also suitable for the operation on Cobots**, Storage station prevents overloading of the robot thanks to elastic support
- + **PGN-plus-P Fingerprint** enables universal use and retrofitting to a large number of gripper series
- + **Simple finger design**, it is no longer necessary to screw through the gripper fingers, only a thread needs to be inserted into the finger
- + **Process reliability**, by monitoring the presence of the gripper fingers in the storage station using an inductive proximity switch
- + **No confusion of gripper fingers**, thanks to finger coding using an RFID data carrier

Automatic change of gripper fingers

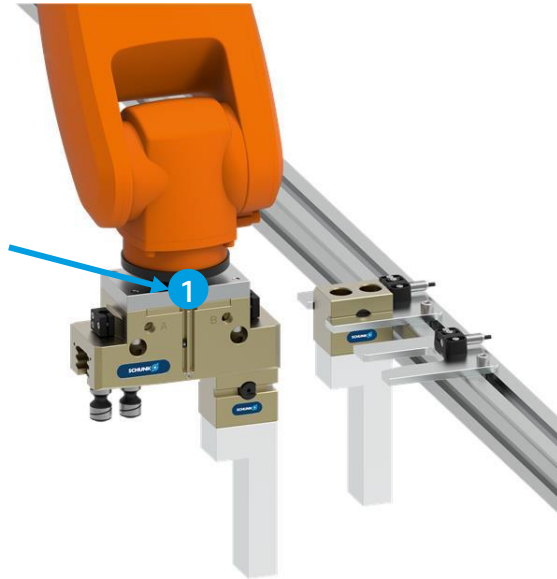


Change process in
three steps.

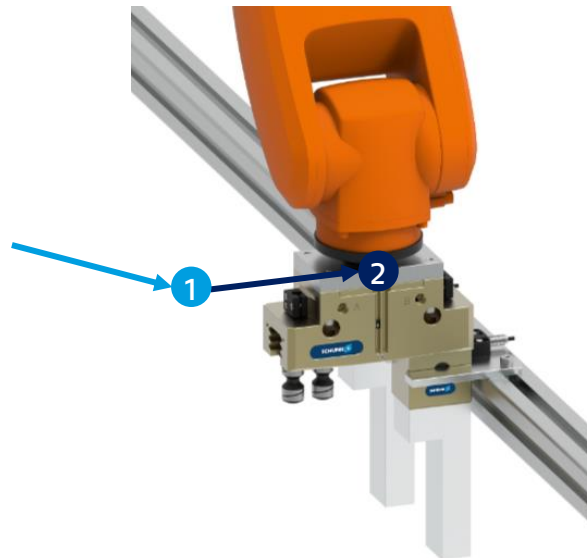


Automatic change of gripper fingers

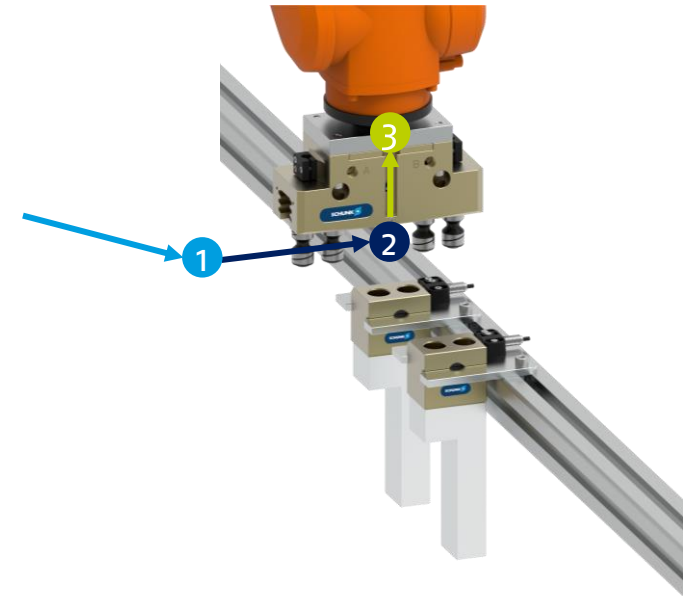
1. Pre-positioning



2. Run in (unlock)

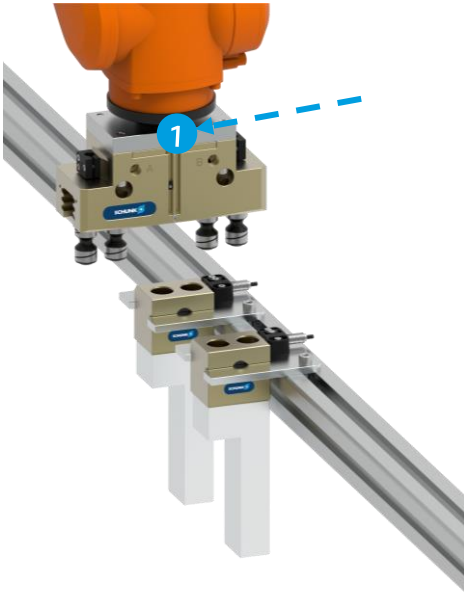


3. Drive out

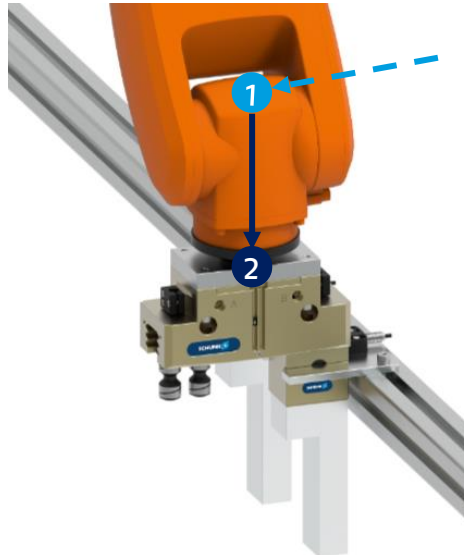


Automatic change of gripper fingers

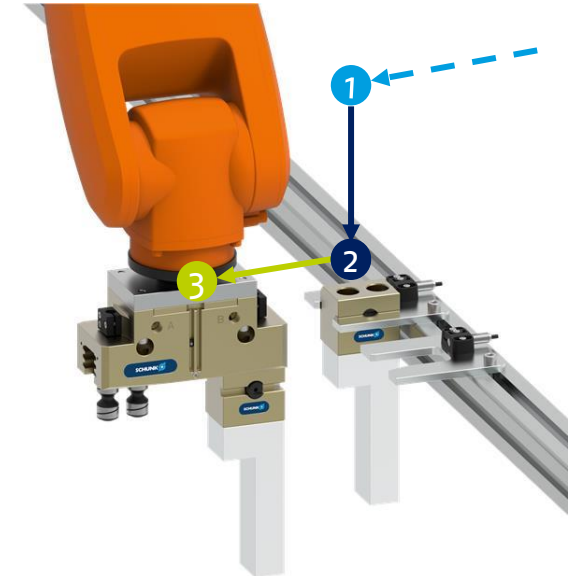
1. Pre-positioning



2. Run in



3. Drive out (lock)



Also suitable for the operation on Cobots



BSWS-SR 50 – 100
Storage Station



BSWS-SR 125 – 300
Storage Station

PGN-plus-P Fingerprint

Pneumatic Grippers:

1. PGN-plus-P
2. PZN-plus
3. JGP-P
4. JGZ
5. PGL-plus-P
6. PGB
7. PZB-plus
8. PWG-plus
9. PZV
10. DPG-plus (with intermediate jaws)
11. DPZ-plus (with intermediate jaws)
12. PFH-mini (with intermediate jaws)
13. PSH (with intermediate jaws)
14. PHL (with intermediate jaws)



Electric Grippers

1. EGK (with intermediate jaws)
2. EGU (with intermediate jaws)
3. Sep. 2024: EZU (with intermediate jaws)

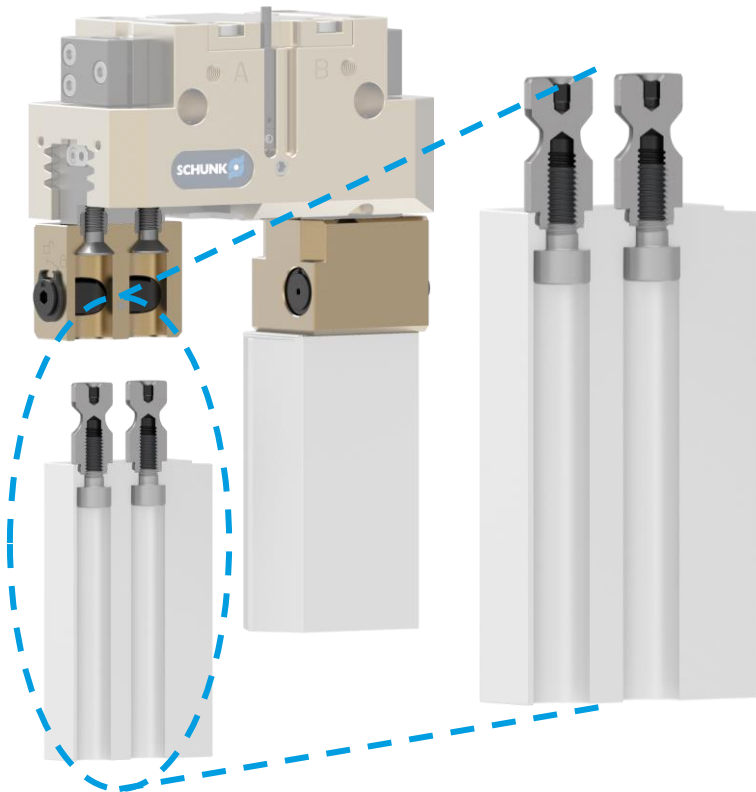


PGN-plus-P Fingerprint
enables universal use and retrofitting to
a large number of gripper series

Simple finger design

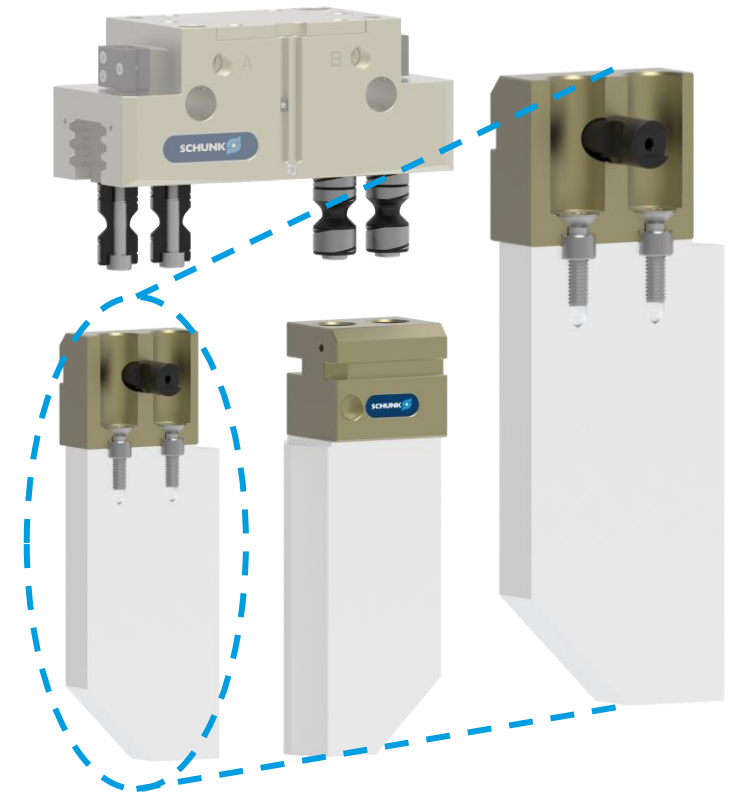
BSWS / BSWS-M

Through-hole in the top jaw



BSWS-R

Thread in the top jaw



Process reliability

Inductive query for presence monitoring of the base in the storage station

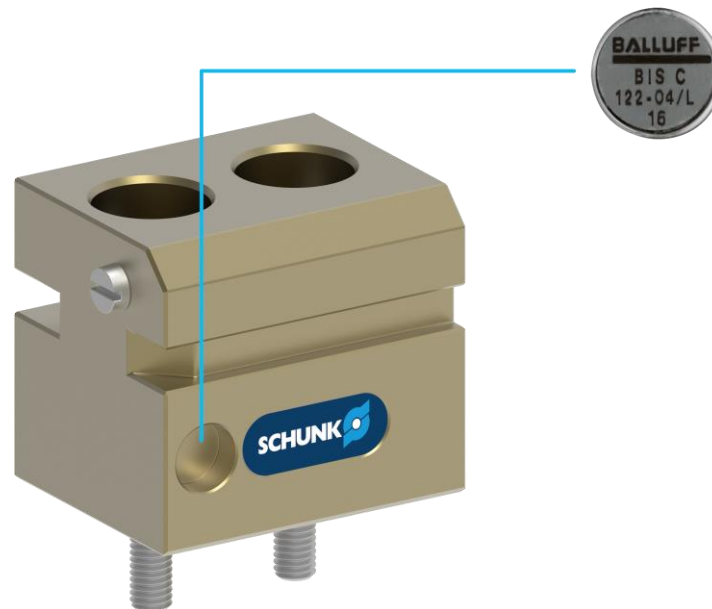
→ To query the presence of the BSWS-BR base unit in the BSWS-SR storage station, it can be fitted with an inductive proximity switch



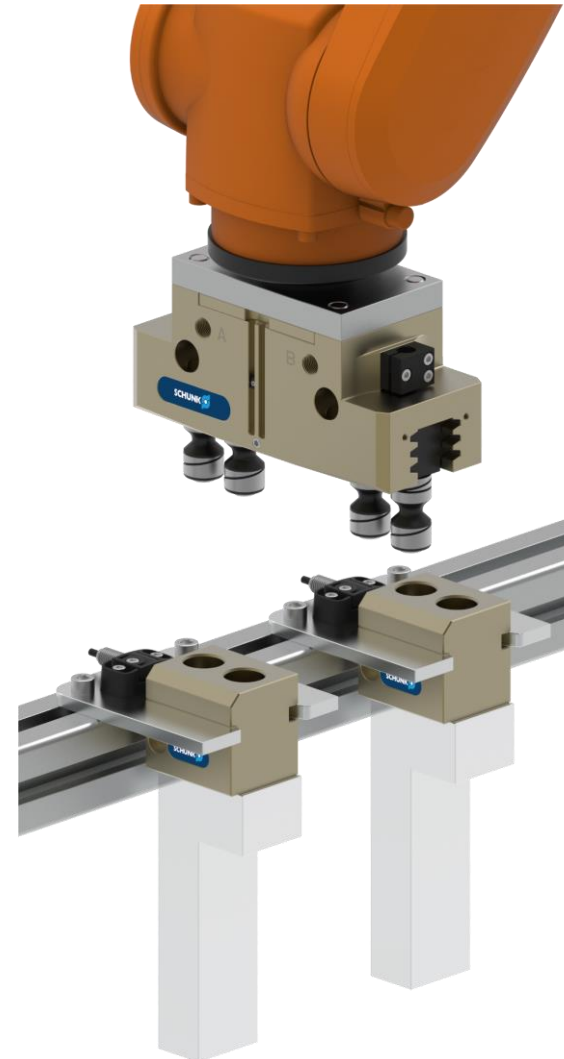
No confusion of gripper fingers

RFID data carriers for finger coding

→ The BSWS-BR base unit is prepared for mounting an RFID data carrier. The installation of an RFID data carrier in accordance with DIN 69873 enables the coding of the workpiece-specific gripper fingers.



Sales facts

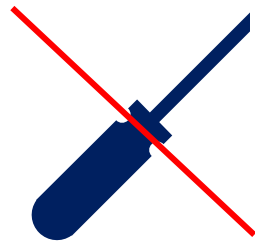


Pricing | Argumentation

Compared to the manual system, the BSWS-M offers clear added value for the customer.

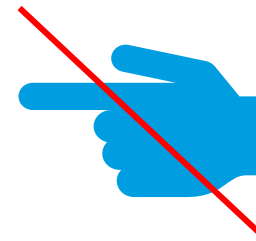


Compared to the manual tool-free system, the BSWS-R offers clear added value for the customer.



#tool-free

$$\text{BSWS-BM} = \text{BSWS-B} * 1,6$$



#automatic

$$\text{BSWS-BR} = \text{BSWS-BM} * 1,3$$

Overview of the competitors

Zimmer

- No further information is known besides this picture
- No product on ZIMMER website



Menu 

Arbeitspaketen an verschiedenen Fragen.
Unterstützt werden sie durch das Fraunhofer-Institut für Produktionstechnologie (IPT). Gestartet ist das Projekt 2017, es läuft noch bis Ende 2019.



Overview of the competitors

Wenger

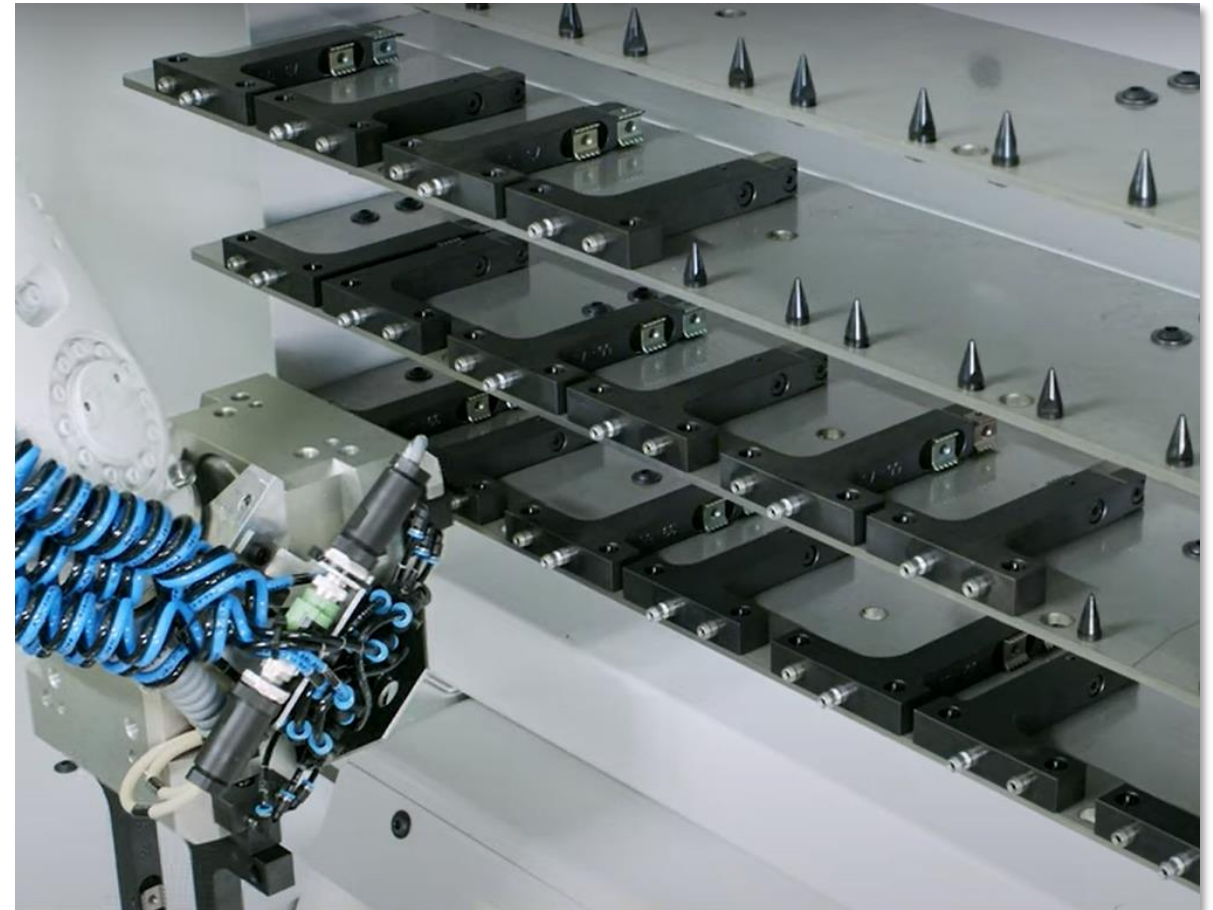
- WeStep – Automatic gripper jaw change
- Similar to our system from the system solutions "ABWS"
- A separate variant of the change system for each stroke variant of the gripper
- Gripping only in locking direction



Overview of the competitors

Kosmek

- WPW: Parallel gripper with integrated finger change
- Standardized at HERMLE in robot systems for WZM loading



Overview of the competitors

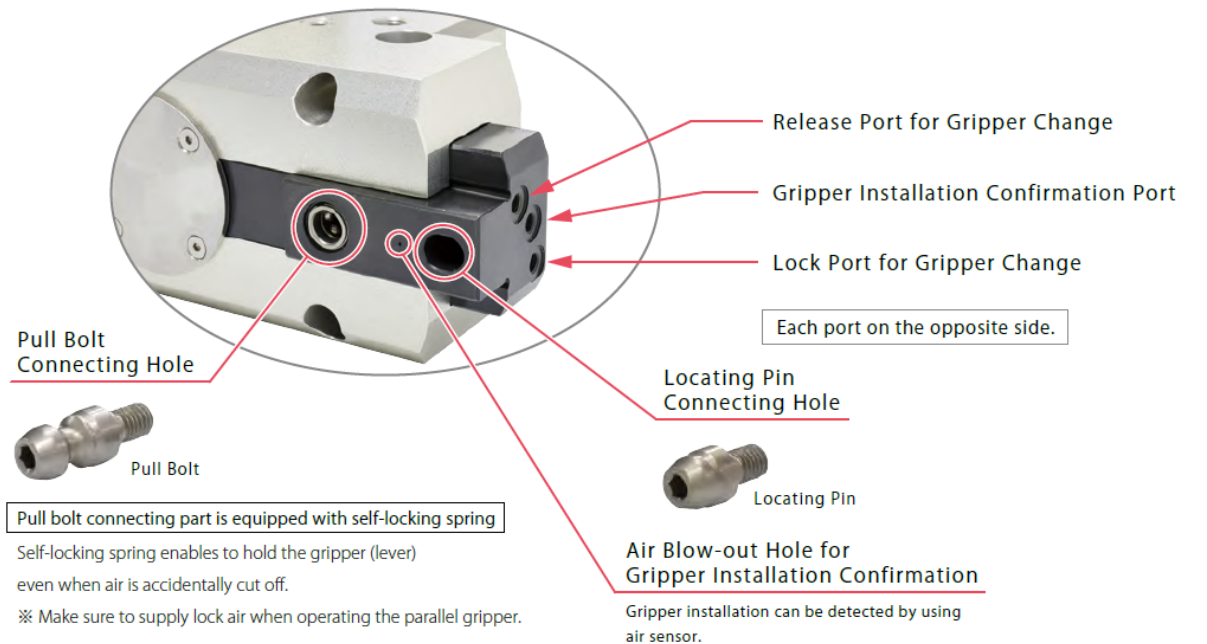
Kosmek

- 2 Sizes
 - WPW0500-C → PGN-plus-P 125-1
 - WPW0600-C → PGN-plus-P 160-1



- Grippers can be changed in sequence by air control of each port.

Locating Repeatability of Gripper : $\pm 0.05\text{mm}$



Marketing facts



Automatic Jaw quick-change system – BSWS-R

Press release | BSWS-Family





Hand in hand for tomorrow

Presseinformation

11.12.2023

Automatisches Backsenschnellwechselsystem

Einfacher Fingerwechsel im laufenden Prozess

Mit dem neuen Backsenschnellwechselsystem BSWS-R ermöglicht SCHUNK den automatisierten Fingerwechsel im laufenden Prozess. Das clever aufgebaute System besteht nur aus wenigen Komponenten und ist kompatibel mit allen Greifern mit PGN-plus-P-Anschraubbild. Das BSWS-R ist die nächste Evolutionsstufe der BSWS-Baureihe von SCHUNK.

Die Produktion wandelt sich in vielen Branchen immer stärker in Richtung high mix, low volume. Dort wird es für Unternehmen zum großen Vorteil, Variantenvielfalt selbst in kleinsten Losgrößen vollkommen ohne manuellen Rüstaufwand herstellen zu können. Diese Flexibilität ermöglicht ab sofort das Backsenschnellwechselsystem BSWS-R. Denn mit der neuesten Evolutionsstufe der BSWS-Baureihe können Roboter ihre Greiferfinger automatisch im laufenden Prozess wechseln – und das in unter drei Sekunden!

Einfacher Aufbau, einfache Anwendung, mehr Freiheit

Bislang ist der automatisierte Wechsel nur mit einem Austausch des kompletten Greifers möglich. Das BSWS-R hingegen schafft diese Aufgabe mit minimalem Komponenteneinsatz: Pro Greiferfinger braucht es lediglich eine Backsenschnellwechsel-Basis, zwei Adapterbolzen sowie eine Ablagestation. Die Basis wird mit dem werkstückspezifischen Greiferfinger verschraubt, die Adapterbolzen an der Grundbacke des Greifers befestigt. Führt die Basis in die Ablagestation, wird der Verriegelungsbolzen betätigt und die formschlüssige Mechanik so entriegelt. Der Roboter bewegt sich nach oben aus dem Backsenschnellwechselsystem heraus. Finger und Basis bleiben in der Ablagestation. Zusätzliche Aufwände sind nicht nötig, da der Roboter den Wechsel aus eigener Kraft vollzieht. Durch den neuen Aufbau des Systems entfällt die Durchbohrung des Fingers. Hier sind lediglich Gewindebohrungen nötig. Das gibt den Anwendern noch mehr Freiheit bei der Fingergestaltung.

Prozesssicherheit durch Anwesenheitskontrolle

Den BSWS-R gibt es in neun Baugrößen. Bei kleineren Baugrößen bis 100, sind die Ablagestationen mit Elastomer-Lagern ausgeführt, damit eignen sie sich ideal für den Einsatz mit Cobots. Für noch mehr Prozesssicherheit ist optional ein induktiver Näherungsschalter erhältlich, der kontrolliert, ob der Finger in der Ablagestation liegt. Zusätzlich ist die Basis für die Montage eines RFID-Datenträgers zur Finger-Codierung vorbereitet.

Neben dem neuen BSWS-R bleiben die beiden manuellen Wechselsysteme der Baureihe auch weiterhin bestehen: Beim bewährten BSWS wechselt der Bediener den Finger mit einem Inbusschlüssel, beim BSWS-M per Knopfdruck.

schunk.com



Hand in hand for tomorrow

Bildunterschriften:

	Das automatische Backsenschnellwechselsystem BSWS-R ermöglicht einen schnellen und automatischen Fingerwechsel am Greifer – und das ganz einfach. Bild: SCHUNK
<???	

Kontakt:

Kathrin Müller
Corporate Communications
Global Marketing
Tel. +49-7133-103-2327
kathrin.mueller@de.schunk.com
schunk.com

Belegexemplar:

Bitte senden Sie im Falle einer Veröffentlichung ein Belegexemplar an folgende Adresse:

SCHUNK SE & Co. KG
Spanntechnik I Greiftechnik I Automatisierungstechnik
Astrid Häberle
Bahnhofstr. 106 – 134
D-74348 Lauffen/Neckar
astrid.haerberle@de.schunk.com

SCHUNK SE & Co. KG
Spanntechnik
Greiftechnik
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Bahnhofstr. 106 – 134
D-74348 Lauffen/Neckar
Tel. +49-7133-103-0
www.schunk.com

SCHUNK SE & Co. KG
Spanntechnik
Greiftechnik
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Bahnhofstr. 106 – 134
D-74348 Lauffen/Neckar
Tel. +49-7133-103-0
www.schunk.com

Press release | BSWS-Family



BSWS
Jaw quick-change
systems
BSWS, BSWS-M, BSWS-R

Hand in hand for tomorrow





SCHUNK SE & Co., KG
Spanntechnik
Greiftechnik
Automatisierungstechnik
Bahnhofstr. 106 - 134
D-76348 Lauffen/Neckar
Tel. +49-7143-103-2599
schunk.com

Follow us



We print sustainably



Productive, flexible and cost-efficient

The BSW series combines all these key features. With our jaw quick-change system, you can change top jaws quickly and easily, no matter if it is done with an Allen key, at the push of a button, or automated using a robot.

The finger change reduces set-up time to a minimum and enhances productivity. In applications with a high number of variants and small batch sizes, the BSWS provides the necessary flexibility for your system. The series offers a wide range of variants and sizes to ensure that you can find the right component for any application.

Your advantages

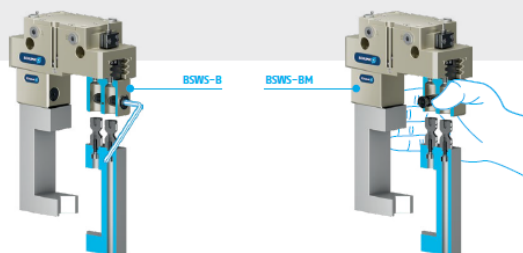
- **Maximum flexibility:** Thanks to the BSWS product family, one single gripper can be used universally in various applications
- **Time saving when converting applications** based on finger change, various workpieces can be handled
- **PGN-plus-P Fingerprint** enables universal use and retrofitting for a variety of gripper series

BSWS Manually operated tool

The BSWs allows the gripper fingers to be changed manually using an Allen key. It enables quick and easy locking and unlocking, while the form-fit locking mechanism ensures that the gripper fingers can be replaced quickly. This is the ideal choice for applications where tool actuation is not a restriction and a quick finger change is required.

BSWS-M Manual tool-free operation

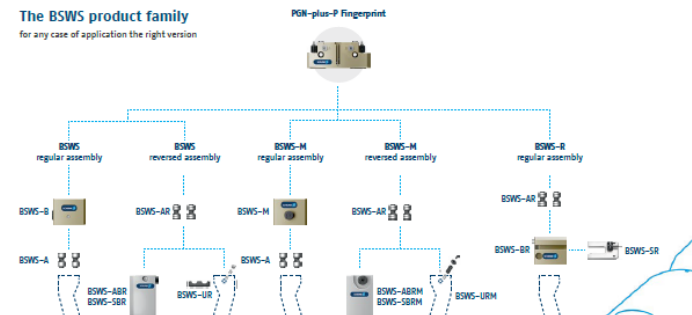
The BSW-M is characterized by its tool-free, manual operation. Simply press the release button to mechanically unlock the top jaw and immediately remove it from the gripper. This particularly pays off in case of frequent set-up processes and ensures high flexibility and efficiency in adapting your grippers to different requirements.



2

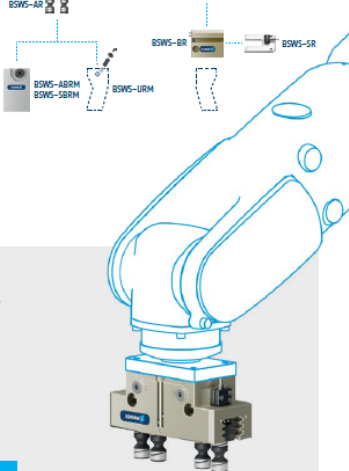
The BSWS product family
for any case of application the right version

The BSWS product family



BSWS-R automatic

The BS5W-R allows fully automatic exchange of gripper fingers, without manual intervention. The change process is carried out exclusively by the movement of the robot. When the base is retracted into the storage station, the locking bolt is actuated and unlocks the mechanism. As a result, a robot or an axis gantry can easily move upwards out of the jaw quick-change system while the base remains in the deposit station. Each gripper finger can be exchanged in just a few seconds. As a result, the system offers maximum efficiency and precision while enabling unmanned availability of the systems.



Even more advantages

- ✦ **Suitable for operation on cobots**
The storage station is elastically mounted and therefore prevents overloading of the robot
- ✦ **Simple finger design**
The need to bolting through the gripper fingers is no longer required, only a thread needs to be inserted into the finger
- ✦ **Process safety due to presence control**
of the gripper fingers in the storage station via inductive proximity switch
- ✦ **No mix-up of the gripper jaws** due to finger coding via RFID data carrier



BSWS
jaw quick-change system

eCademy



Increased flexibility in the gripping application

Interesting facts about the BSWS family

Available for an unlimited time



Online course



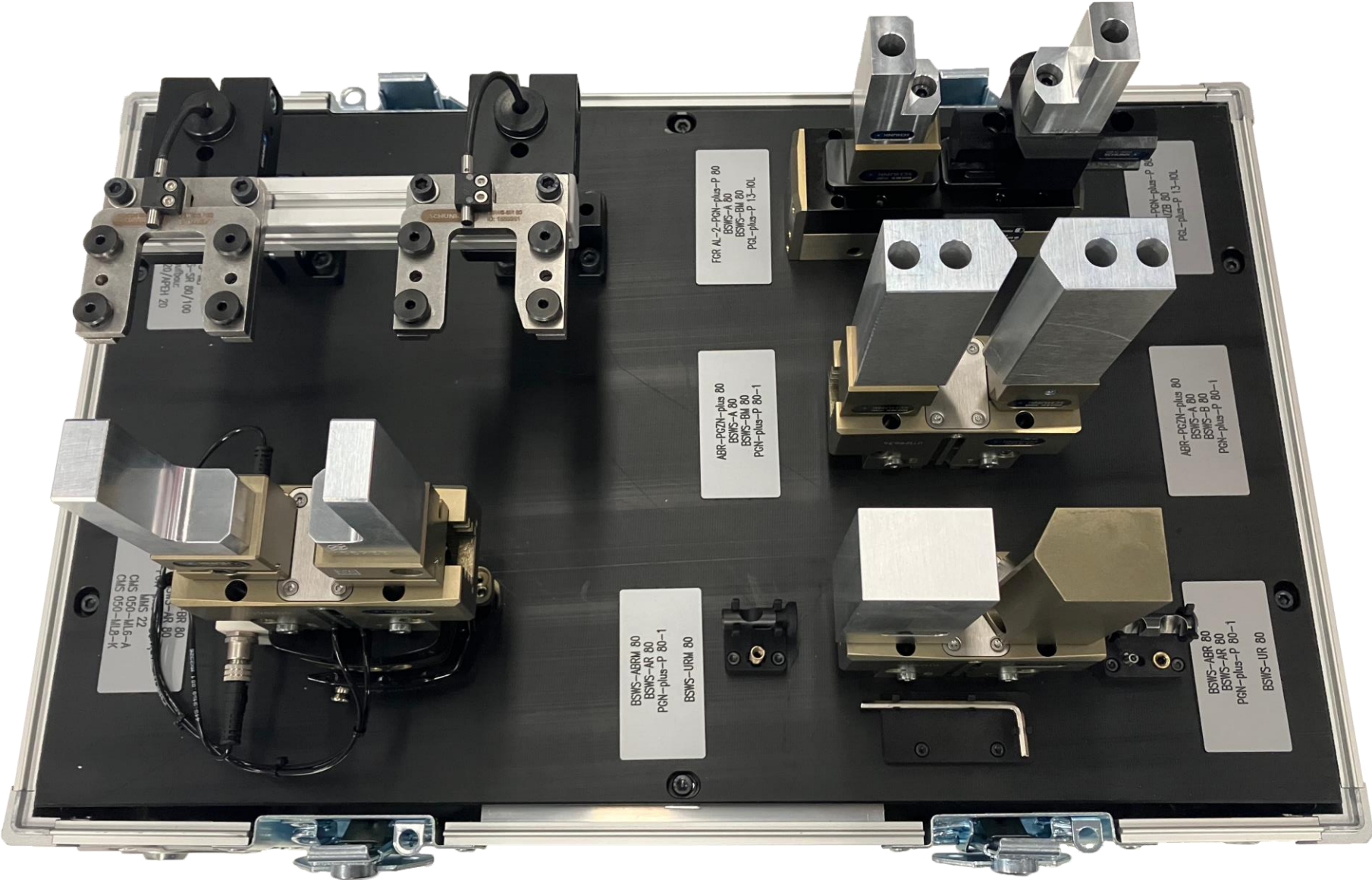
Increased flexibility in the gripping application

Introduction

 5 minutes

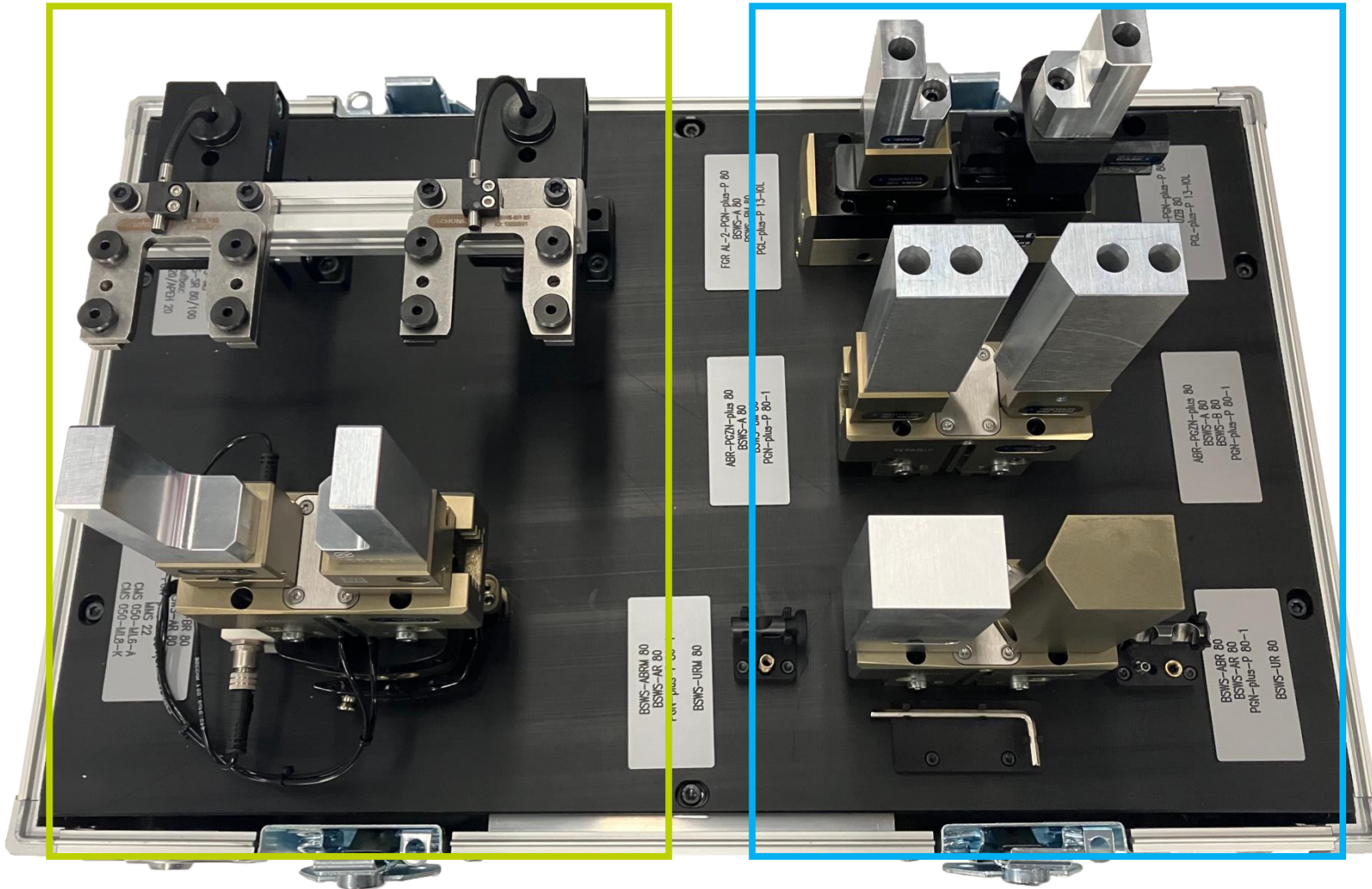
 Audio on

START



Overview roadshow case finger accessories

Automatic Jaw quick-change



Manual Jaw quick-change,
Adjustment

Manual Jaw quick-change, Adjustment

Manual Jaw quick-change,
tool-free

Adjustment of jaws,
tool-free

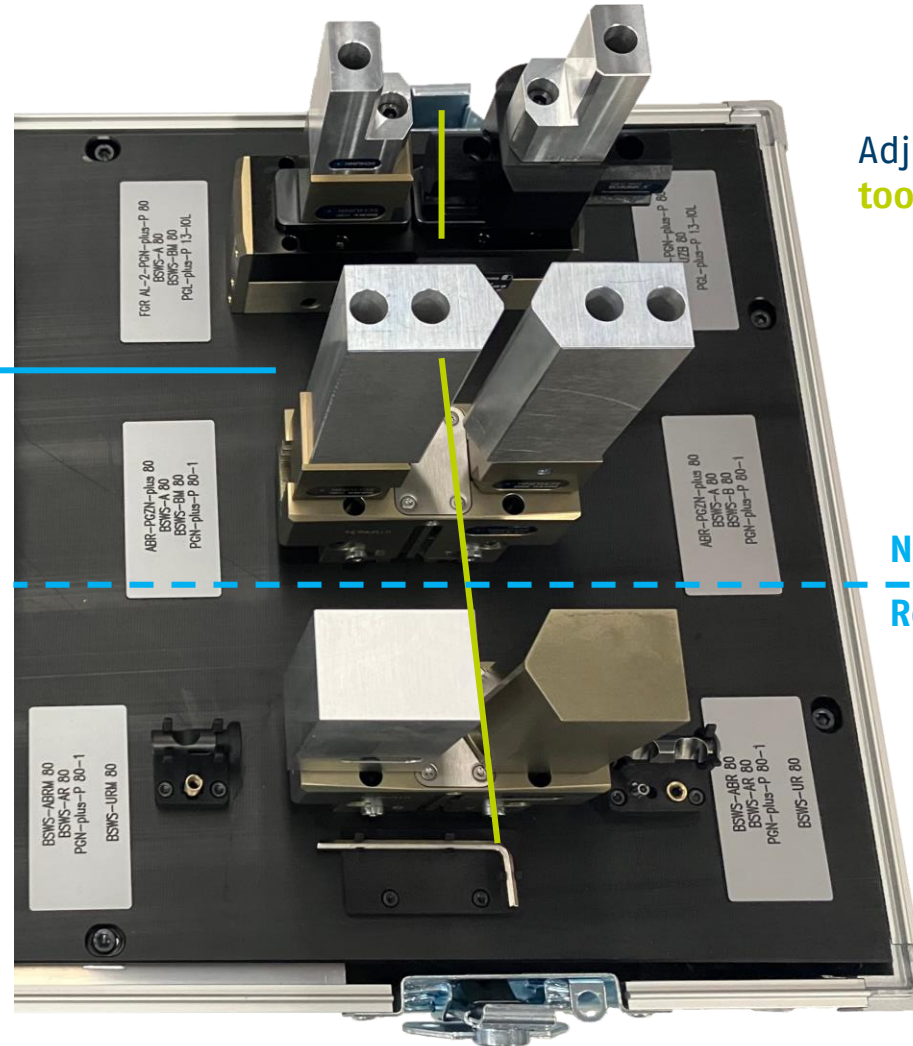
Change vs.
adjust

Tool-free vs.
tool-operated

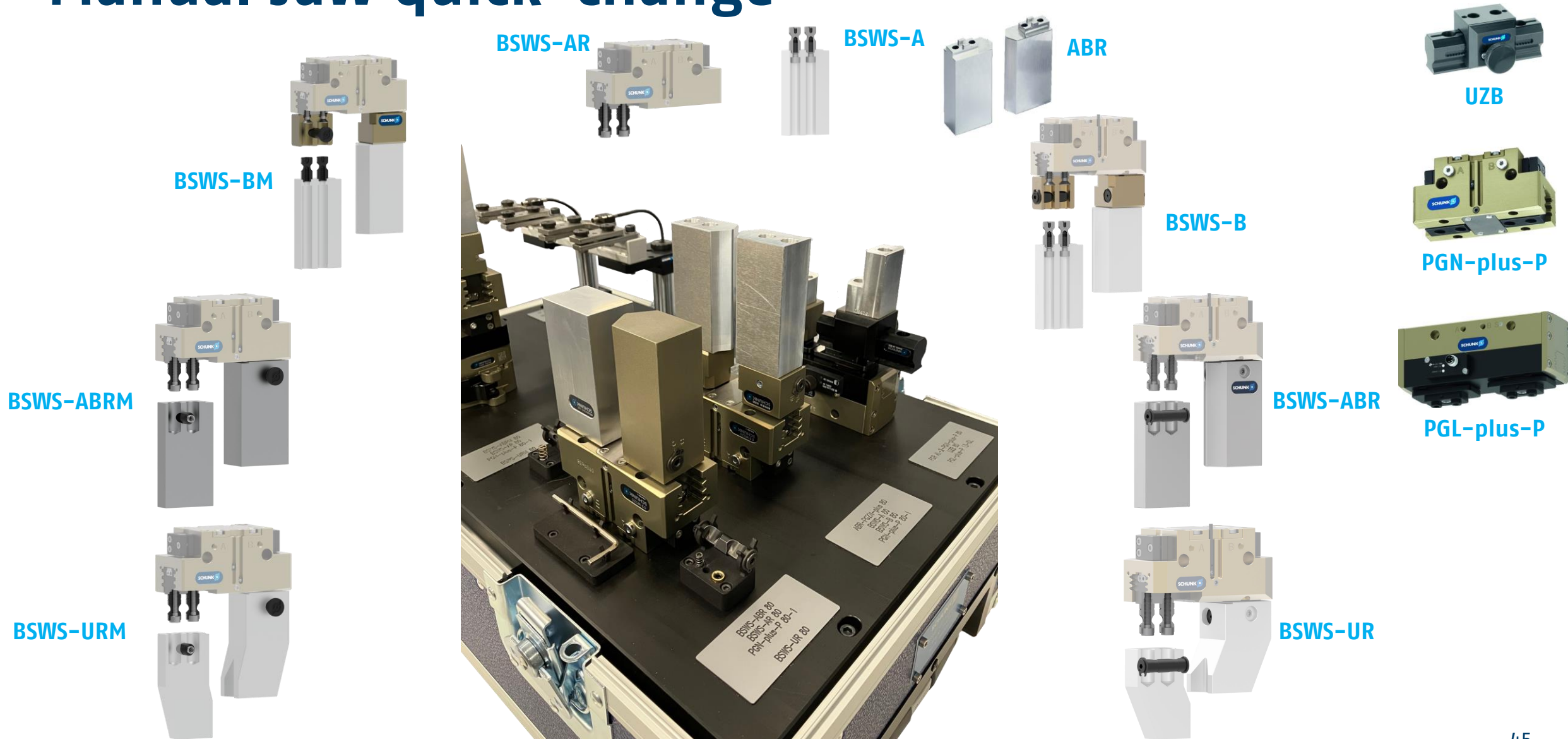
Manual Jaw
quick-change,
tool-free

Normaler structure vs.
Reverse structure

Manual Jaw
quick-change,
tool actuated

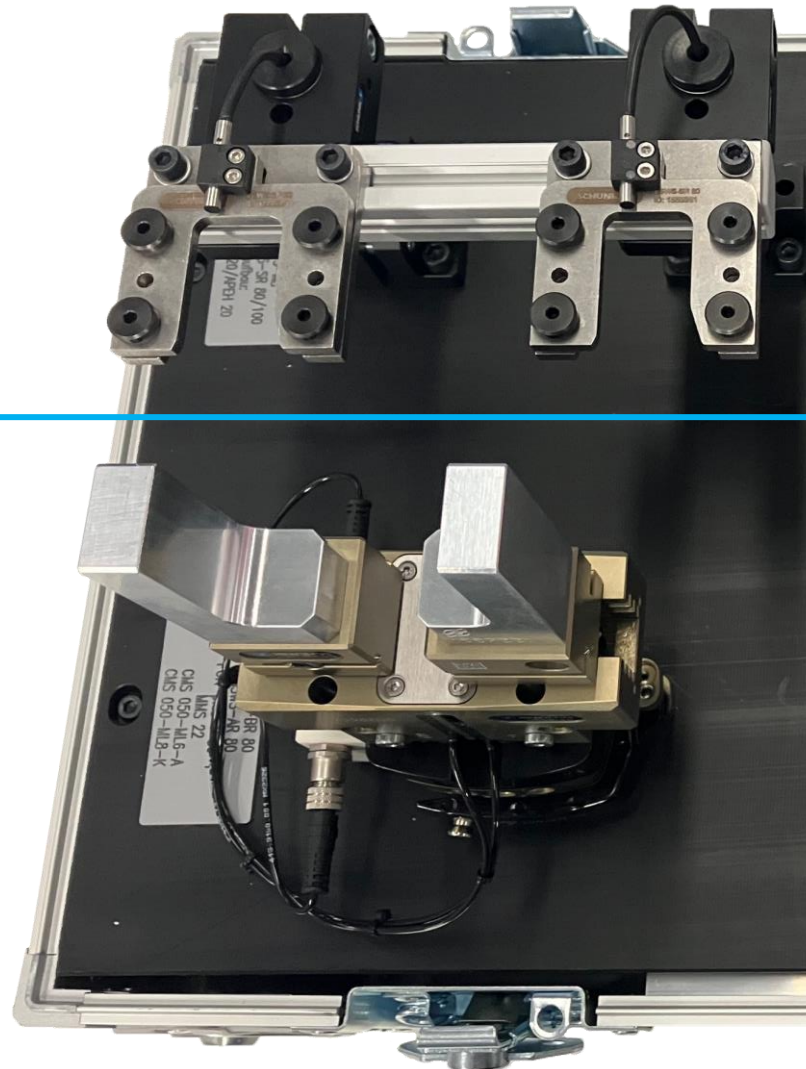


Manual Jaw quick-change



Automatic Jaw quick-change

Finger change vs. Gripper change



Automatic Jaw quick-change

BSWS-SR



IN 40



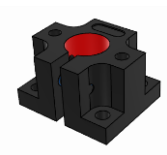
BSWS-BR



BSWS-AR



SOE



SLH



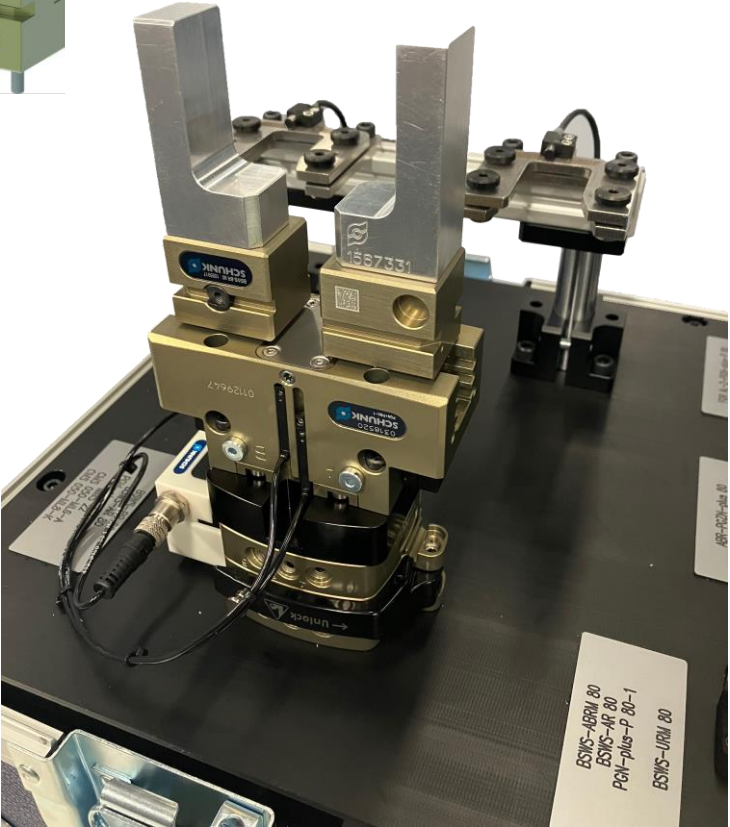
APEH



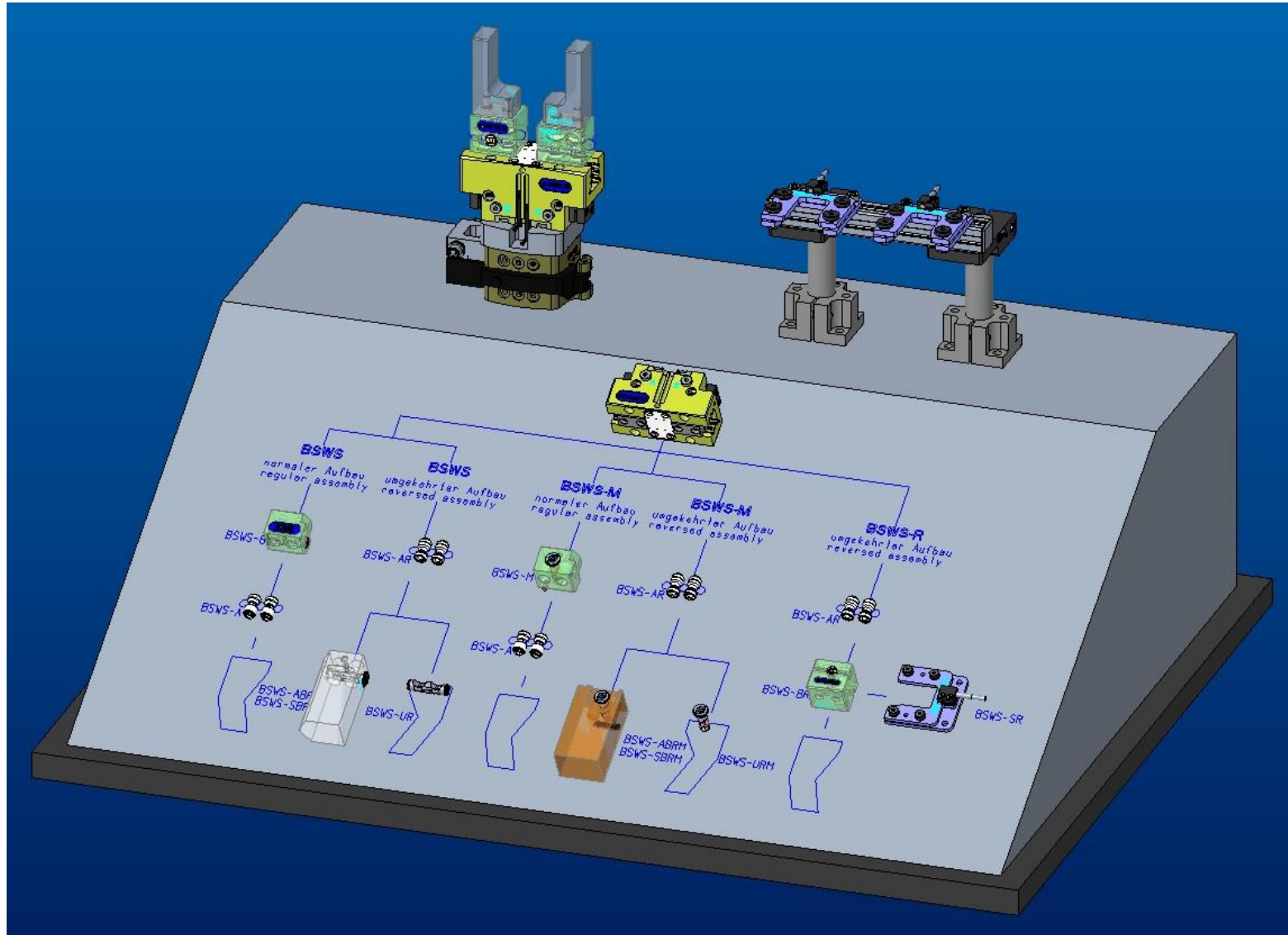
PGN-plus-P



CMS



Fair pedestal





Hand in hand for tomorrow