

Assembly and Operating Manual

DPZ-plus

Sealed 3-finger centric gripper

Translation of Original Operating
Manual

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1 General

1.1 About this manual

This manual contains important information for a safe and appropriate use of the product.

This manual is an integral part of the product and must be kept accessible for the personnel at all times.

Before starting work, the personnel must have read and understood this operating manual. Prerequisite for safe working is the observance of all safety instructions in this manual.

NOTE: The illustrations in this manual are intended to provide a basic understanding and may deviate from the actual version.

The product has been redesigned as of 2020. The modified successor version is directly interchangeable with the previous version and replaces it.

The difference between the two versions lies exclusively in the design and is therefore only relevant for spare parts such as the sealing kit. The instructions identify the two versions at the relevant points with the additions "previous version" and "successor version".

To distinguish between the two versions, a list of all ID numbers is provided in the appendix of this manual, ▶ 11 [77].

In addition to these instructions, the documents listed under ▶ 1.1.2 [6] are applicable.

1.1.1 Presentation of Warning Labels

To make risks clear, the following signal words and symbols are used for safety notes.



⚠ DANGER

Dangers for persons!

Non-observance will inevitably cause irreversible injury or death.



⚠ WARNING

Dangers for persons!

Non-observance can lead to irreversible injury and even death.



⚠ CAUTION

Dangers for persons!

Non-observance can cause minor injuries.

NOTICE

Material damage!

Information about avoiding material damage.

1.1.2 Applicable documents

- General terms of business *
- Catalog data sheet of the purchased product *
- Assembly and operating manuals of the accessories *
- For ATEX versions: Supplementary sheet "Installation and operating instructions - EX" *

The documents labeled with an asterisk (*) can be downloaded from [schunk.com/downloads](https://www.schunk.com/downloads).

1.1.3 Sizes

This operating manual applies to the following sizes:

- DPZ-plus 40
- DPZ-plus 50
- DPZ-plus 64
- DPZ-plus 80
- DPZ-plus 100
- DPZ-plus 125
- DPZ-plus 160
- DPZ-plus 200

1.1.4 Variants

This operating manual applies to the following variations:

- DPZ-plus stroke 1
- DPZ-plus stroke 2
- DPZ-plus without gripping force maintenance
- DPZ-plus with gripping force maintenance "O.D. gripping" (AS)
- DPZ-plus with gripping force maintenance "I.D. gripping" (IS)
- DPZ-plus force intensification (KVZ)
- DPZ-plus ATEX (EX)
- DPZ-plus high-temperature (V/HT)

1.2 Warranty

If the product is used as intended, the warranty is valid for 36 months from the ex-works delivery date under the following conditions:

- Observe the specified maintenance and lubrication intervals
- Observe the ambient conditions and operating conditions

Parts touching the workpiece and wear parts are not included in the warranty.

1.3 Scope of delivery

The scope of delivery includes

- Sealed 3-finger centric gripper DPZ-plus in the ordered model
- Safety information (product-specific instructions available online)
- Accessory pack

Content of the accessory pack:

- 6 x Centering sleeves for mounting
- 2 x O-ring for hose-free direct connection
- 2 x screw plug for hose connection
- 2 x cylindrical pins for mounting

ID of the accessory kit

Size	ID number
40	5521694
50	5520796
64	5515333
80	5515334
100	5515335
125	5515336
160	5515337
200	5515338

Size	ID number high-temperature (V/HT)
40	5521695
50	395520796
64	395515333
80	395515334
100	395515335
125	395515336
160	395515337

Size	ID number high-temperature (V/HT)
200	395515338

1.4 Accessories

A wide range of accessories are available for this product. For information regarding which accessory articles can be used with the corresponding product variants, see catalog data sheet. The product has been redesigned as of 2020. The modified successor version is directly interchangeable with the previous version and replaces it.

The difference between the two versions lies exclusively in the design and is therefore only relevant for spare parts such as the sealing kit. The instructions identify the two versions at the relevant points with the additions "previous version" and "successor version".

To distinguish between the two versions, a list of all ID numbers is provided in the appendix of this manual, ► 11 [📄 77].

1.4.1 Seal kits

Previous version:

contents of the sealing kit, ► 7.9 [📄 70].

DPZ-plus	ID number
40	5515373
50	5515374
64	5515346
80	5515347
100	5515348
125	5515349
160	5515350
200	5515351

DPZ-plus	ID number high-temperature (V/HT) *
40	395515373
50	395515374
64	1323203
80	395515347
100	395515348
125	1378544
160	395515350

1.4.2 Spare parts packages

Spare parts packages allow for the maintenance and repair of individual components. For information on the range of the spare parts packages, see www.schunk.com > Service.

The following spare parts packages are available for this product:

- Spare part package "Sealing kit"

Subsequent version:

Contents of the spare parts package, ▶ 7.9 [📄 70].

DPZ-plus	ID number
40	1322262
50	1322264
64	1322266
80	1322269
100	1322271
125	1322272
160	1322275
200	1322276

DPZ-plus	ID number high-temperature (V/HT) *
40	1322277
50	1322278
64	1322280
80	1322281
100	1322282
125	1322283
160	1322284
200	1322285

* high-temperature (V/HT) up to max. 100°C

DPZ-plus	ID number force intensification (KVZ)
64	1322267
80	1322270

2 Basic safety notes

2.1 Intended use

The product is designed exclusively for gripping and temporarily holding workpieces or objects.

- The product may only be used within the scope of its technical data, ▶ 3 [19].
- The product is intended for installation in a machine/ automated system. The applicable guidelines for the machine/ automated system must be observed and complied with.
- The product is intended for industrial and industry-oriented use. Its use outside enclosed spaces is only permitted if suitable protective measures are taken against outdoor exposure. The product is not suitable for use in salty air.
- The product can be used within the permissible load limits and technical data for holding workpieces during simple machining operations, but is not a clamping device according to EN 1550:1997+A1:2008.
- Appropriate use of the product includes compliance with all instructions in this manual.
- Any utilization that exceeds or differs from the appropriate use is regarded as misuse.

2.2 Constructional changes

Implementation of structural changes

Modifications, changes or reworking, e.g. additional threads, holes, or safety devices, can damage the product or impair its functionality or safety.

- Structural changes should only be made with the written approval of SCHUNK.

2.3 Spare parts

Use of unauthorized spare parts

Using unauthorized spare parts can endanger personnel and damage the product or cause it to malfunction.

- Use only original spare parts or spares authorized by SCHUNK.

2.4 Gripper fingers

Requirements of gripper fingers

Accumulated energy can make the product unsafe and risk the danger of serious injuries and considerable material damage.

- Execute the gripper fingers in such a way that the product reaches either the "open" or "closed" position in a de-energized state.
- Only change gripper fingers if no residual energy can be released.
- Make sure that the product and the top jaws are a sufficient size for the application.

2.5 Ambient conditions and operating conditions

Required ambient conditions and operating conditions

Incorrect ambient and operating conditions can make the product unsafe, leading to the risk of serious injuries, considerable material damage and/or a significant reduction to the product's life span.

- Make sure that the product is used only in the context of its defined application parameters, ▶ 3 [19].

2.6 Personnel qualification

Inadequate qualifications of the personnel

If the personnel working with the product is not sufficiently qualified, the result may be serious injuries and significant property damage.

- All work may only be performed by qualified personnel.
- Before working with the product, the personnel must have read and understood the complete assembly and operating manual.
- Observe the national safety regulations and rules and general safety instructions.

The following personal qualifications are necessary for the various activities related to the product:

Trained electrician

Due to their technical training, knowledge and experience, trained electricians are able to work on electrical systems, recognize and avoid possible dangers and know the relevant standards and regulations.

Qualified personnel

Due to its technical training, knowledge and experience, qualified personnel is able to perform the delegated tasks, recognize and avoid possible dangers and knows the relevant standards and regulations.

Instructed person

Instructed persons were instructed by the operator about the delegated tasks and possible dangers due to improper behaviour.

Service personnel of the manufacturer Due to its technical training, knowledge and experience, service personnel of the manufacturer is able to perform the delegated tasks and to recognize and avoid possible dangers.

2.7 Personal protective equipment

Use of personal protective equipment

Personal protective equipment serves to protect staff against danger which may interfere with their health or safety at work.

- When working on and with the product, observe the occupational health and safety regulations and wear the required personal protective equipment.
- Observe the valid safety and accident prevention regulations.
- Wear protective gloves to guard against sharp edges and corners or rough surfaces.
- Wear heat-resistant protective gloves when handling hot surfaces.
- Wear protective gloves and safety goggles when handling hazardous substances.
- Wear close-fitting protective clothing and also wear long hair in a hairnet when dealing with moving components.

2.8 Notes on safe operation

Incorrect handling of the personnel

Incorrect handling and assembly may impair the product's safety and cause serious injuries and considerable material damage.

- Avoid any manner of working that may interfere with the function and operational safety of the product.
- Use the product as intended.
- Observe the safety notes and assembly instructions.
- Do not expose the product to any corrosive media. This does not apply to products that are designed for special environments.
- Eliminate any malfunction immediately.
- Observe the care and maintenance instructions.
- Observe the current safety, accident prevention and environmental protection regulations regarding the product's application field.

2.9 Transport

Handling during transport

Incorrect handling during transport may impair the product's safety and cause serious injuries and considerable material damage.

- When handling heavy weights, use lifting equipment to lift the product and transport it by appropriate means.
- Secure the product against falling during transportation and handling.
- Stand clear of suspended loads.

2.10 Malfunctions

Behavior in case of malfunctions

- Immediately remove the product from operation and report the malfunction to the responsible departments/persons.
- Order appropriately trained personnel to rectify the malfunction.
- Do not recommission the product until the malfunction has been rectified.
- Test the product after a malfunction to establish whether it still functions properly and no increased risks have arisen.

2.11 Disposal

Handling of disposal

The incorrect handling of disposal may impair the product's safety and cause serious injuries as well as considerable material and environmental harm.

- Follow local regulations on dispatching product components for recycling or proper disposal.

2.12 Fundamental dangers

General

- Observe safety distances.
- Never deactivate safety devices.
- Before commissioning the product, take appropriate protective measures to secure the danger zone.
- Disconnect power sources before installation, modification, maintenance, or calibration. Ensure that no residual energy remains in the system.
- If the energy supply is connected, do not move any parts by hand.
- Do not reach into the open mechanism or movement area of the product during operation.

2.12.1 Protection during handling and assembly

Incorrect handling and assembly

Incorrect handling and assembly may impair the product's safety and cause serious injuries and considerable material damage.

- Have all work carried out by appropriately qualified personnel.
- For all work, secure the product against accidental operation.
- Observe the relevant accident prevention rules.
- Use suitable assembly and transport equipment and take precautions to prevent jamming and crushing.

Incorrect lifting of loads

Falling loads may cause serious injuries and even death.

- Stand clear of suspended loads and do not step into their swiveling range.
- Never move loads without supervision.
- Do not leave suspended loads unattended.

2.12.2 Protection during commissioning and operation

Falling or violently ejected components

Falling and violently ejected components can cause serious injuries and even death.

- Take appropriate protective measures to secure the danger zone.
- Never step into the danger zone during operation.

2.12.3 Protection against dangerous movements

Unexpected movements

Residual energy in the system may cause serious injuries while working with the product.

- Switch off the energy supply, ensure that no residual energy remains and secure against inadvertent reactivation.
- Never rely solely on the response of the monitoring function to avert danger. Until the installed monitors become effective, it must be assumed that the drive movement is faulty, with its action being dependent on the control unit and the current operating condition of the drive. Perform maintenance work, modifications, and attachments outside the danger zone defined by the movement range.
- To avoid accidents and/or material damage, human access to the movement range of the machine must be restricted. Limit/prevent accidental access for people in this area due through technical safety measures. The protective cover and protective

fence must be rigid enough to withstand the maximum possible movement energy. EMERGENCY STOP switches must be easily and quickly accessible. Before starting up the machine or automated system, check that the EMERGENCY STOP system is working. Prevent operation of the machine if this protective equipment does not function correctly.

2.12.4 Protection against electric shock

Possible electrostatic energy

Components or assembly groups may become electrostatically charged. When the electrostatic charge is touched, the discharge may trigger a shock reaction leading to injuries.

- The operator must ensure that all components and assembly groups are included in the local potential equalisation in accordance with the applicable regulations.
- While paying attention to the actual conditions of the working environment, the potential equalisation must be implemented by a specialist electrician according to the applicable regulations.
- The effectiveness of the potential equalisation must be verified by executing regular safety measurements.

2.13 Notes on particular risks



⚠ DANGER

Risk of fatal injury from suspended loads!

Falling loads can cause serious injuries and even death.

- Stand clear of suspended loads and do not step within their swiveling range.
- Never move loads without supervision.
- Do not leave suspended loads unattended.
- Wear suitable protective equipment.



⚠ WARNING

Risk of injury from objects falling and being ejected!

Falling and ejected objects during operation can lead to serious injury or death.

- Take appropriate protective measures to secure the danger zone.



⚠ WARNING

Risk of injury from sharp edges and corners!

Sharp edges and corners can cause cuts.

- Use suitable protective equipment.



⚠ WARNING

Risk of injury due to unexpected movements!

If the power supply is switched on or residual energy remains in the system, components can move unexpectedly and cause serious injuries.

- Before starting any work on the product: Switch off the power supply and secure against restarting.
- Make sure, that no residual energy remains in the system.



⚠ WARNING

Risk of injury from crushing and impacts!

Serious injury could occur during movement of the base jaw, due to breakage or loosening of the gripper fingers or if the workpiece is lost.

- Wear suitable protective equipment.
- Do not reach into the open mechanism or the movement area of the product.



⚠ WARNING

Risk of injury due to spring forces!

Parts are under spring tension on products which clamp using spring force or which have gripping force maintenance. While disassembling components can move unexpectedly and cause serious injuries.

- Disassemble the product cautiously.
- Make sure that no residual energy remains in the system.



⚠ WARNING

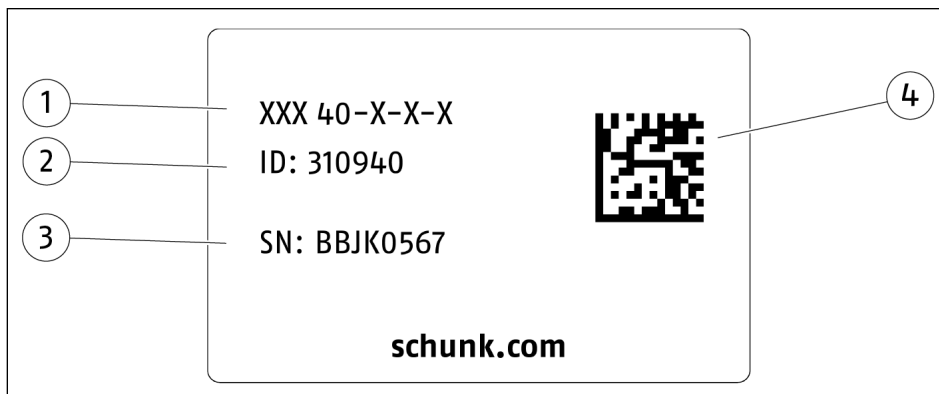
Risk of injury from objects falling during energy supply failure

Products with a mechanical gripping force maintenance can, during energy supply failure, still move independently in the direction specified by the mechanical gripping force maintenance.

- Secure the end positions of the product with SCHUNK SDV-P pressure maintenance valves.

3 Technical data

3.1 Name plate



- 1 Product designation

- 2 ID

- 3 Serial number

- 4 Data matrix code

Scan code or enter serial number on the web and get all the product information: operating manuals, spare parts packages, software updates and much more.

For further information, visit [schunk.com/serialisierung](https://www.schunk.com/serialisierung)

A separate app may be required for scanning with a mobile phone.

3.2 Basic data

Connection data

Pressure medium	Compressed air, compressed air quality according to ISO 8573-1:2010 [7:4:4]
Nominal operating pressure [bar]	6
Minimum pressure [bar] without maintenance of gripping force	2.5
Minimum pressure [bar] with maintenance of gripping force	4
Maximum pressure [bar] without maintenance of gripping force	8
Maximum pressure [bar] with maintenance of gripping force	6.5
Maximum pressure [bar] with force intensified cylinder	6
Pressure range for air purge [bar]	0.2 – 0.5

More technical data is included in the catalog data sheet. Whichever is the latest version.

Ambient conditions and operating conditions

Designation

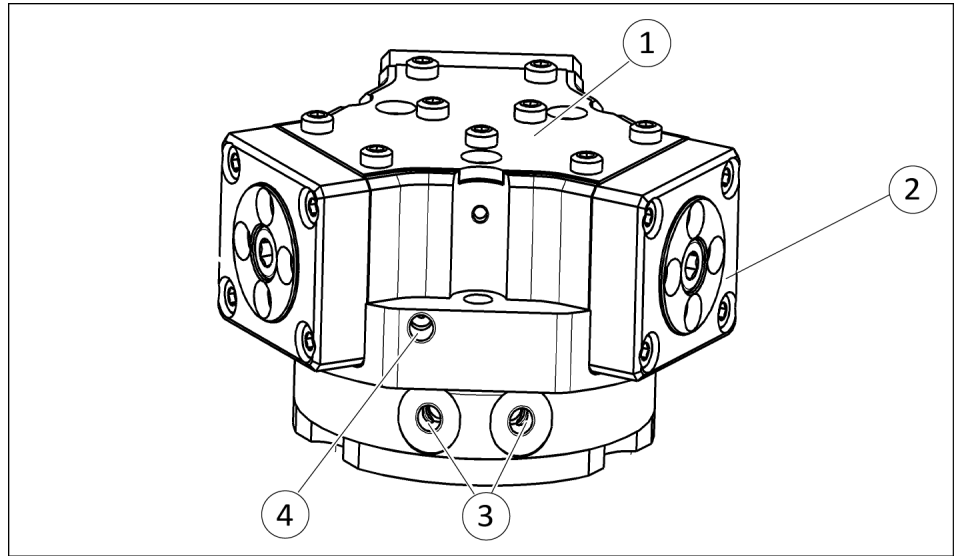
Ambient temperature [°C] min.	+5
Ambient temperature [°C] max.	+90
Ambient temperature [°C] max. (variant V/HT)	+100 (previous version) +130 (successor version)
IP rating*	
with sinter filter (delivery state)	54
with ventilation connection	
with Air purge connection	67 68
Noise emission [dB(A)]	≤70

* For use in dirty ambient conditions (e.g. sprayed water, vapors, abrasion or processing dust) SCHUNK offers corresponding product options as standard. SCHUNK also offers customized solutions for special applications in dirty ambient conditions.

More technical data is included in the catalog data sheet. Whichever is the latest version.

4 Design and description

4.1 Design



Sealed 3-finger centric gripper

- | | |
|---|--------------------------------|
| 1 | Housing |
| 2 | Base jaw |
| 3 | Compressed air main connection |
| 4 | Air purge connection |

4.2 Description

Sealed 3-finger central gripper with high gripping force and high maximum moments due to multi-tooth guidance.

5 Assembly

5.1 Installing and connecting



⚠ DANGER

Danger of explosion in potentially explosive areas!

- Observe supplementary sheet for products with explosion-resistant versions "DPZ-plus -...-EX".

⚠ WARNING

Risk of injury due to unexpected movements!

If the power supply is switched on or residual energy remains in the system, components can move unexpectedly and cause serious injuries.

- Before starting any work on the product: Switch off the power supply and secure against restarting.
- Make sure, that no residual energy remains in the system.

NOTICE

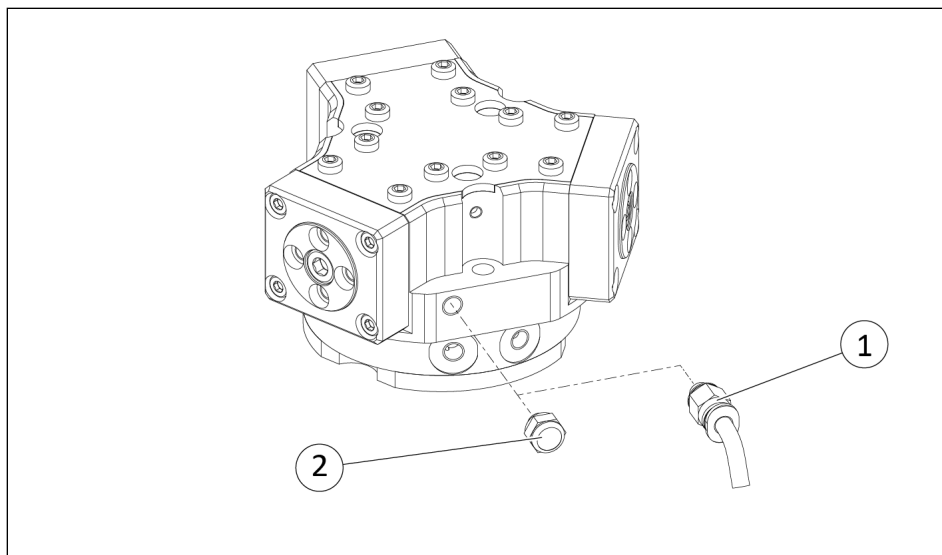
Damage to the gripper is possible!

If the maximum permissible finger weight or the permissible mass moment of inertia of the fingers is exceeded, the gripper can be damaged.

- A jaw movement always has to be without jerks and bounce.
- You must therefore implement sufficient reduction and/or damping.
- Observe the information in the catalog data sheet.

1. Check the evenness of the mounting surface, ▶ 5.2.1 [24].
2. Only open the required air connections (main connection or direct connection), ▶ 5.2.2 [27].
3. Connect the product via the hose-free direct connection.
4. OR: Connect compressed air lines to the main air connections "A" and "B".
 - ⇒ Remove the locking screws.
 - ⇒ Screw in air connections (plug connections).
OR: Screw on throttle valve in order to be able to perform sufficient throttling and/or damping.
5. Screw the product to the machine/system, ▶ 5.2.1 [24].
 - ⇒ When mounting from the rear: use cylindrical pins for fixing the product in place.

- ⇒ If necessary, use appropriate connection elements (adapter plates).
 - ⇒ Observe requirements for adapter plate, ▶ 5.2.1 [24].
 - ⇒ Observe the maximal tightening torque, admissible screw-in depth and, if necessary, strength class.
- 6.** If necessary, mount the pressure piece for spring-supported positioning of the work piece against a stop, Mounting of the gripper by using a spring loaded pressure-piece.
 - 7.** Secure the gripper fingers to the base jaws, ▶ 5.2.1 [24].
 - ⇒ Insert two centering sleeves per base jaw, positioned horizontally or vertically opposite and fasten with four screws.
 - ⇒ Observe the permissible depth of engagement.



Installing the ventilation connection or air purge connection

- 8.** Dismantle the sinter filter (1).
- 9.** Install the ventilation connection (2) or air purge connection (2), ▶ 5.3 [28].
- 10.** Connect the sensor, see assembly and operating manual of the sensor.
- 11.** Mount the sensor, ▶ 5.4 [32].

5.2 Connections

5.2.1 Mechanical connection

Evenness of the mounting surface

The values apply to the whole mounting surface to which the product is mounted.

Edge length	Permissible unevenness
< 100	< 0.02
> 100	< 0.05

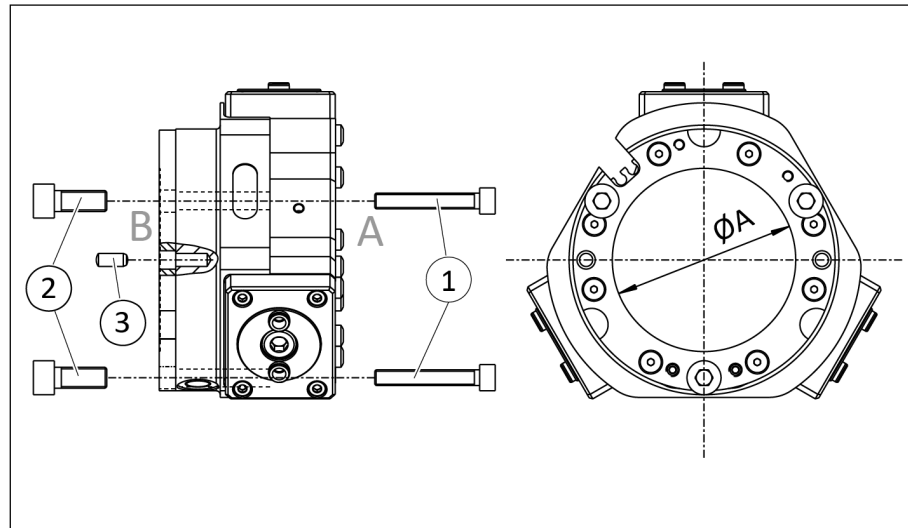
Tab.: Requirements for evenness of the mounting surface (Dimensions in mm)

Requirements for customer adapter plates

If the adapter plate has bores or recesses and therefore the product is not fully flush, the minimum support surface must be adhered to. The recess/bore in the adapter plate may not exceed the dimension "A"; for dimensions, see the following table.

The product can be assembled from two sides.

Connections at the housing



Connection from side A

Size	① Screw (3x)
40	M3
50	M3
50 AS	M3
50 IS	M3
64	M5
64 AS	M5
64 IS	M5
80	M6
80 AS	M6
80 IS	M6
100	M6
100 AS	M6

Size	① Screw (3x)
100 IS	M6
125	M8
125 AS	M8
125 IS	M8
160	M8
160 AS	M8
160 IS	M8
200	M10
200 AS	M10
200 IS	M10

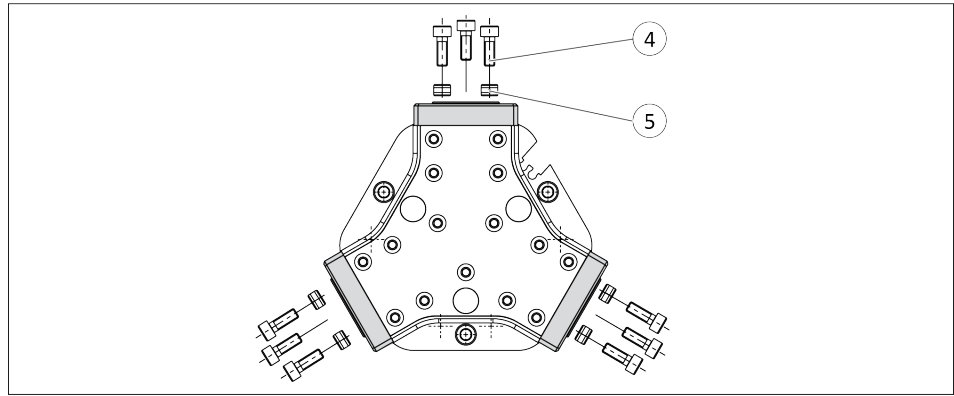
Connection from side B

Size	② Screw* (3x)	③ Centering pin** Ø [mm]	Recess (A) Ø [mm]
50	M4/10	3	32
50 AS	M4/20.5	3	32
50 IS	M4/20.5	3	32
64	M6/13	4	40
64 AS	M6/26	4	40
64 IS	M6/26	4	40
80	M8/17	5	55
80 AS	M8/32	5	55
80 IS	M8/32	5	55
100	M8/18	5	70
100 AS	M8/38	5	70
100 IS	M8/38	5	70
125	M8/21	6	85
125 AS	M8/45.5	6	85
125 IS	M8/45.5	6	85
160	M8/21.5	6	115
160 AS	M10/46	6	115
160 IS	M10/46	6	115
200	M12/25	8	150
200 AS	M12/61	8	150
200 IS	M12/61	8	150

* Max. depth of engagement from locating surface [mm]

** Contained in accessory pack.

Connections at the base jaws



Size	④ Screw* (2x)	Centering sleeve** diameter [mm]
50	M3/7	5
50 AS	M3/7	5
50 IS	M3/7	5
64	M4/8	6
64 AS	M4/8	6
64 IS	M4/8	6
80	M5/10	8
80 AS	M5/10	8
80 IS	M5/10	8
100	M5/10	8
100 AS	M5/10	8
100 IS	M5/10	8
125	M6/12	10
125 AS	M6/12	10
125 IS	M6/12	10
160	M8/13	12
160 AS	M8/13	12
160 IS	M8/13	12
200	M12/20	16
200 AS	M12/20	16
200 IS	M12/20	16

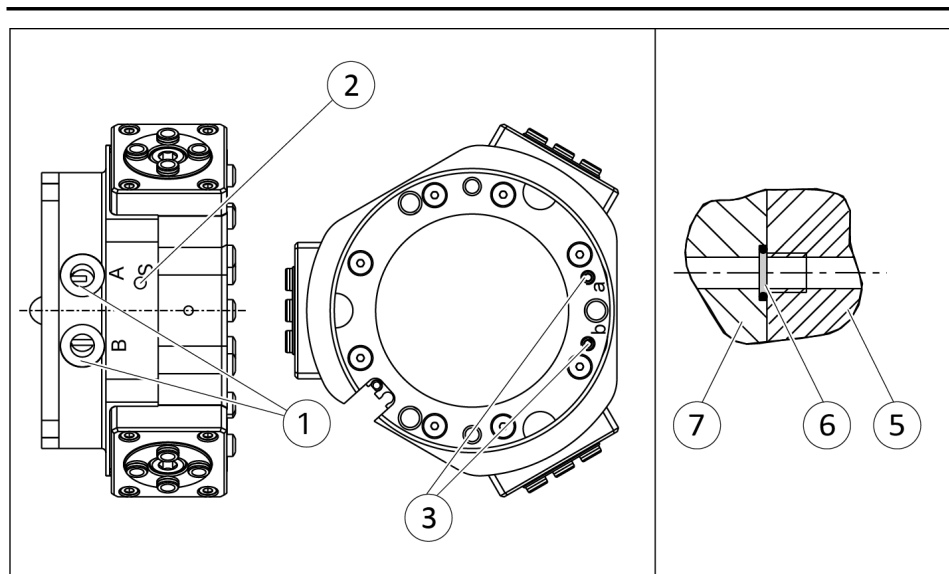
* Max. depth of engagement from locating surface [mm]

** Contained in accessory pack.

5.2.2 Pneumatic connection

NOTE

- Observe the requirements for the compressed air supply, ▶ 3 [19].
- In case of compressed air loss (cutting off the energy line), the components lose their dynamic effects and do not remain in a secure position. However, the use of a SDV-P pressure maintenance valve is recommended in this case in order to maintain the dynamic effect for some time. Product variants are also offered with mechanical gripping force via springs, which also ensure a minimum clamping force in the event of a pressure drop.



Air connections

- 1 Main connections (Hose connection)
(A = open, B = close)
- 2 Air purge connection
- 3 Hose-free direct connection
(a = open, b = close)

Hose-free direct connection

- 5 Product
- 6 O-ring
- 7 Attachment

Size	① Main air connections	② Direct connection	③ Air purge connection
40	M3	M3	M3
50	M5	M3	M5

Size	① Main air connections	② Direct connection	③ Air purge connection
64	M5	M4	M5
80	M5	M5	M5
100	G1/8	M5	M5
125	G1/8	M5	M5
160	G1/8	M5	M5
200	G1/8	M5	M5

5.3 Installing the ventilation connection/air purge connection

NOTICE

Material damage due to incorrect connection!

If the product is only operated with the two main air connections, neither correct functioning nor permanent tightness can be guaranteed. This can result in damage to the product.

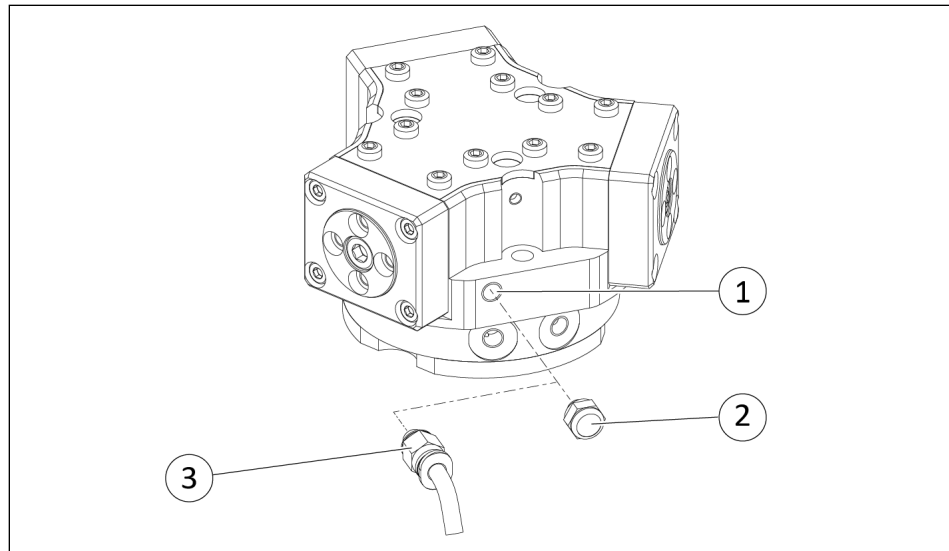
- The product can only be operated if either a ventilation hose (preferred) or the air purge has been connected at the air purge connection.
- When using the air purge connection, make sure the product releases excess pressure while closing.

NOTICE

Material damage due to liquid ingress!

When used under water, liquid may enter the gripper during temporary or constant immersion.

- In such cases, always operate the product with air purge in order to prevent ingress of liquid.



Installing the ventilation connection

The ventilation line is designed to compensate for changes in volume inside the gripper due to gripper movement. It ensures no vacuums are created inside the gripper and that no dirt is thus sucked into the gripper.

NOTE

Make sure the ventilation line is assembled in a clean environment so that no dirt or liquid can be sucked into the gripper.

1. Remove the sinter filter (2) from the purge air connection (1).
2. Connect the ventilation line (3) to the purge air connection (1).
3. Place the hose end in a clean area.
4. If necessary, attach a filter to the end of the hose in order to prevent ingress of foreign bodies as much as possible.

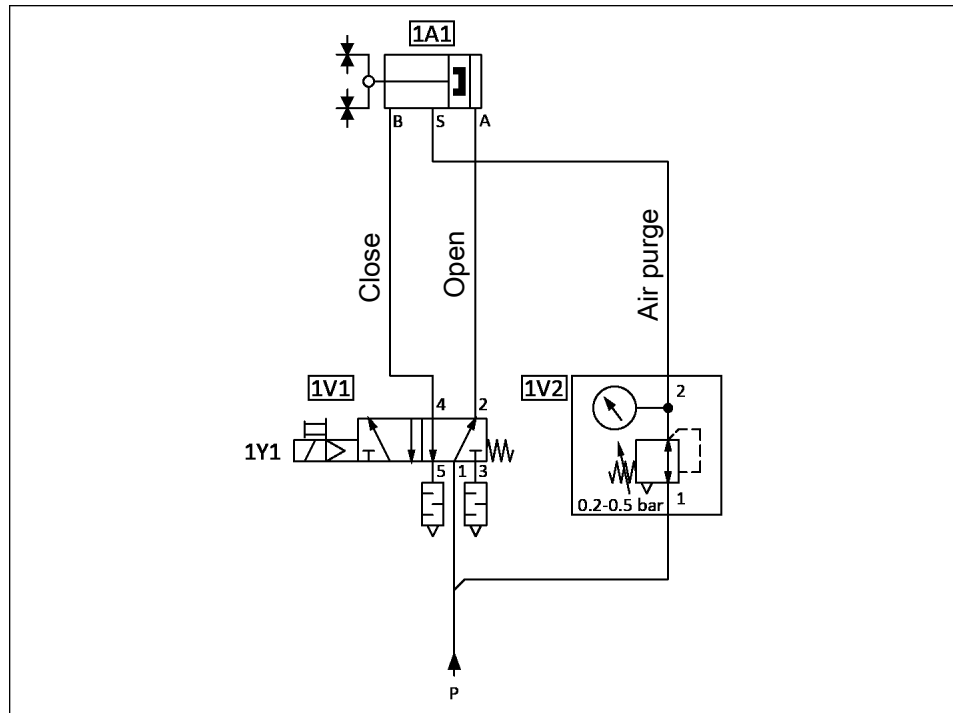
Fitting the air purge connection

During operation using air purge, excess pressure may occur. If the gripper is not sufficiently relieved of excess pressure, the gripper jaws may close slowly or with a jolt. Excess pressure needs to be released via a pressure control valve with secondary venting, see Actuation plan "1V2". This ensures air purge pressure remains constant. For a recommendation regarding a suitable pressure control valve with secondary venting, contact Technical Sales.

1. Remove the sinter filter (2) from the purge air connection (1).
2. Connect air purge via a pressure control valve with secondary venting (3) at the purge air connection (1).

Actuation with air purge

- Set the air purge pressure between 0.2 bar and a maximum 0.5 bar. The air purge pressure must be present constantly.



Air purge actuation plan

The use of air purge changes the gripping forces. Air purge pressure reduces the gripping force on closing and increases it on opening.

Size	Gripping force change at air purge pressure			
	0.2 bar	0.3 bar	0.4 bar	0.5 bar
40	12 N	18 N	24 N	30 N
50	17 N	26 N	35 N	44 N
64	20 N	30 N	40 N	50 N
80	39 N	58 N	77 N	96 N
100	42 N	63 N	84 N	105 N
125	66 N	99 N	132 N	164 N
160	102 N	153 N	204 N	255 N
200	162 N	243 N	324 N	405 N

When using air purge, the gripping forces may be calculated using the following formulas. The changes in gripping force using air purge from the table above are used for this.

Gripping force on opening: $F_{G, \text{opening}} = F_{G, \text{nominal}} + F_{\text{air purge}}$

Gripping force on closing: $F_{G, \text{closing}} = F_{G, \text{nominal}} - F_{\text{air purge}}$

Example: DPZ-plus 80 (Stroke 1,
 Rated pressure = 6 bar, Air purge pressure = 0.5 bar, Clamping
 force = ?)

Closing force (from catalog)	900 N	(at 6 bar)
Gripping force change (from table)	- 96 N	(at 0.5 bar)
Closing force at air purge pressure 0.5 bar	804 N	

5.4 Installing the sensors



⚠ DANGER

Danger of explosion in potentially explosive areas!

- Observe supplementary sheet for products with explosion-resistant versions "DPZ-plus -...-EX".

NOTE

Observe the assembly and operating manual of the sensor for mounting and connecting.

The product is prepared for the use of sensors.

- For the exact type designations of suitable sensors, please see catalog datasheet and ▶ 5.4.1 [32].
- For technical data for the suitable sensors, see assembly and operating manual and catalog datasheet.
 - The assembly and operating manual and catalog datasheet are included in the scope of delivery for the sensors and are available at schunk.com.
- Information on handling sensors is available at schunk.com or from SCHUNK contact persons.

5.4.1 Overview of sensors

Size	MMS 22	MMS 22-PI1	MMS 22-PI2	MMS-P 22	MMS 22-IOL	RMS 22
40	✓	✓	✓	✓	⊘	⊘
50	✓	✓	✓	✓	⊘	⊘
64	✓	✓	✓	✓	✓	⊘
80	✓	✓	✓	✓	✓	✓
100	✓	✓	✓	✓	✓	✓
125	✓	✓	✓	✓	✓	✓
160	✓	✓	✓	✓	✓	⊘
200	✓	✓	⊘	⊘	✓	✓

5.4.2 Switch-off hysteresis for magnetic switches

Sensors MMS 22, MMS 22-PI1, MMS 22-PI2 and MMS-P 22

The smallest detectable difference in stroke is defined in the following table:

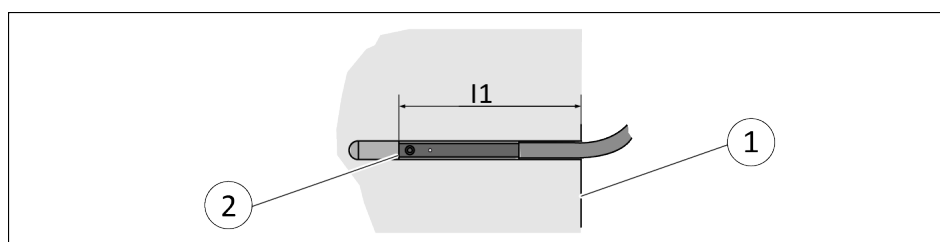
For products with X mm nominal stroke per jaw	Min. query range per jaw/ min. queried stroke difference per jaw
$X \leq 5 \text{ mm}$	30 % of the nominal stroke per jaw
$X > 5 \text{ mm to } X \leq 10 \text{ mm}$	20 % of the nominal stroke per jaw
$X > 10 \text{ mm}$	10 % of the nominal stroke per jaw

Tab.: The smallest detectable difference in stroke based on the nominal stroke

Example: Product with 7 mm nominal stroke per jaw

$$7 \text{ mm} * 20\% = 1.4 \text{ mm}$$

5.4.3 Setting dimensions



* Setting dimension l1, from product bottom edge (1) to front sensor (2)

The setting dimension applies for the following sensors:

Size	Setting dimension l1* [mm]		
	MMS 22-PI1	MMS 22-PI2	MMS-P 22
40	20.3	20.3	20.3
40 AS	28.2	28.2	28.2
40 IS	28.3	28.3	28.3
50	-	-	21.7
50 AS	-	-	32.2
50 IS	-	-	32.23
64	24.5	24.5	24.5
64 AS	38	38	38
64 IS	38	38	38
64 CPC	45.5	45.5	45.5
80	26.9	26.9	26.9
80 IS	42.3	42.3	42.3
80 AS	42.3	42.3	42.3
80 CPC	51.9	51.9	51.9
100	29.8	29.8	29.8
100 AS	49.9	49.9	49.9
100 IS	49.9	49.9	49.9
125	32.5	32.5	32.5
125 AS	56.9	56.9	56.9

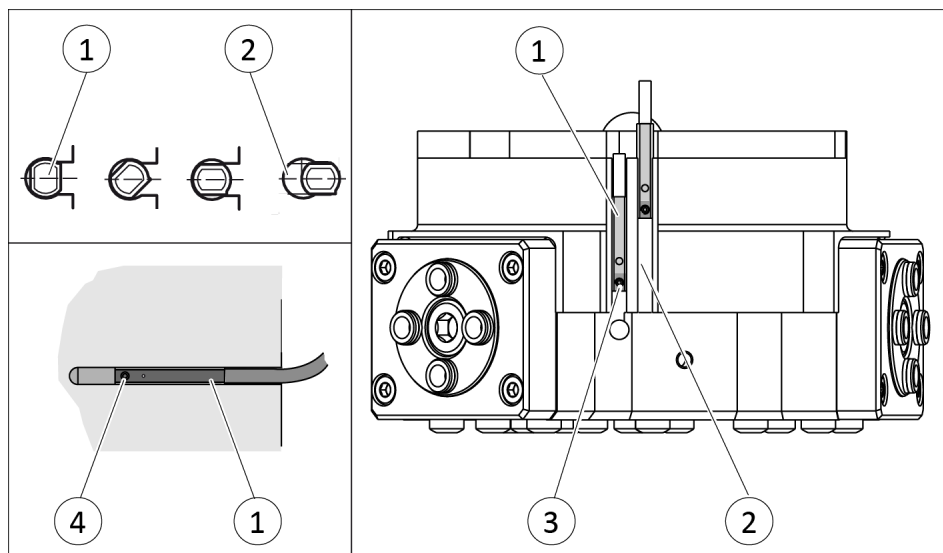
Size	Setting dimension l1* [mm]		
	MMS 22-PI1	MMS 22-PI2	MMS-P 22
125 IS	56.9	56.9	56.9
160	42	42	42
160 AS	71.5	71.5	71.5
160 IS	72.5	72.5	72.5
200	-	-	41.6
200 AS	-	-	77.9
200 IS	-	-	77.6

5.4.4 Mounting MMS 22 magnetic switch

NOTICE

Risk of damage to the sensor during assembly!

- Observe the maximal tightening torque.



Positioning the magnetic switches

Position "Gripper open" or "Part gripped (I.D. gripping)"

1. Bring product in the position to be set.
2. If necessary remove T-nut (3).
3. Turn the sensor 1 (1) into the groove (2).
OR: Slide the sensor 1 (1) into the groove (2) until the sensor 1 (1) stops at the end of the groove.
4. Pull the sensor 1 (1) back again slowly until it switches.
5. Secure the sensor 1 (1) using the set-screw (4).
Tightening torque: 10 Ncm
6. Bring product into the "Gripper open" or "Part gripped" position and test the function.

Position "Gripper closed" or "Part gripped (O.D. gripping)"

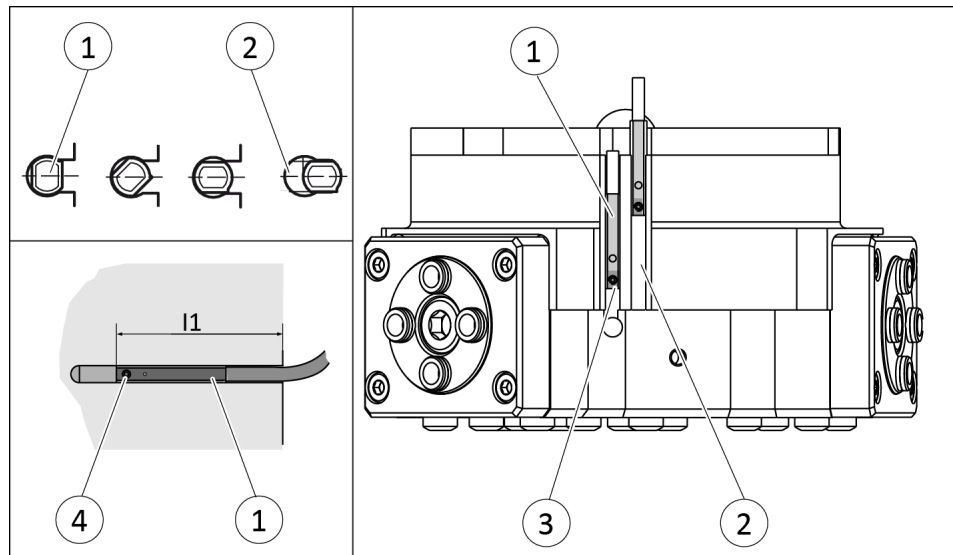
1. Bring product in the position in which it is to be set.
2. If necessary remove T-nut (3).
3. Turn the sensor 2 (1) into the groove (2).
OR: Slide sensor 2 (1) into the groove (2) in the direction of the housing middle (3), until the sensor 2 (1) switches.
4. Secure the sensor 2 (1) using the set-screw (4).
Tightening torque: 10 Ncm
5. Bring product into the "Gripper closed" or "Part gripped" position and test the function.

5.4.5 Mounting MMS 22-PI1 programmable magnetic switch

NOTICE

Risk of damage to the sensor during assembly!

- Observe the maximal tightening torque.



NOTE

If there is no T-nut available, slide the sensor according to dimension l_1 into the groove (2), ▶ 5.4.3 [33].

Sizes 40 - 160, except 50

1. Turn the sensor 1 (1) into the groove (2).
OR: Slide the sensor 1 (1) into the groove (2) until the sensor 1 (1) stops at the T-nut (3).
2. Secure the sensor 1 (1) using the set-screw (4).
Tightening torque: 10 Ncm
3. Adjust sensor 1 (1), see sensor assembly and operating manual.
4. Repeat steps for sensor 2.

Sizes 50, 200

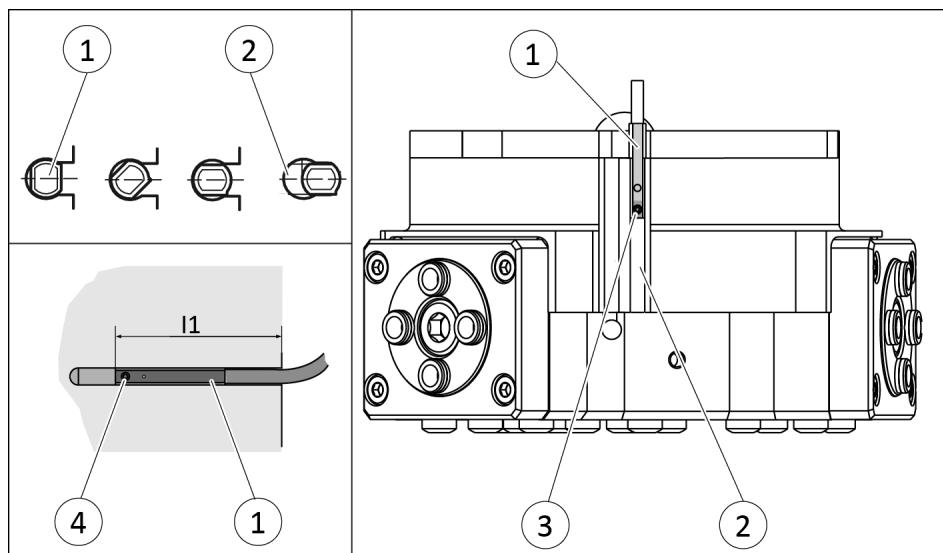
1. Put product in the position in which it is to be set.
2. Hold teaching tool to the sensor 1 (1) until the sensor flashes.
3. Slide sensor 1 (1) into the groove (2), until the sensor 1 flashes rapidly.
⇒ The optimum position is displayed.
4. Secure the sensor 1 (1) using the set-screw (3).
Tightening torque: 10 Ncm
5. Hold teaching tool to the sensor 1 (1) to confirm the position.
⇒ The sensor 1 (1) has been taught in.
6. Repeat steps for sensor 2.

5.4.6 Mounting programmable MMS 22-PI2 magnetic switch

NOTICE

Risk of damage to the sensor during assembly!

- Observe the maximal tightening torque.



NOTE

If there is no T-nut available, slide the sensor according to dimension l_1 into the groove (2), ► 5.4.3 [33].

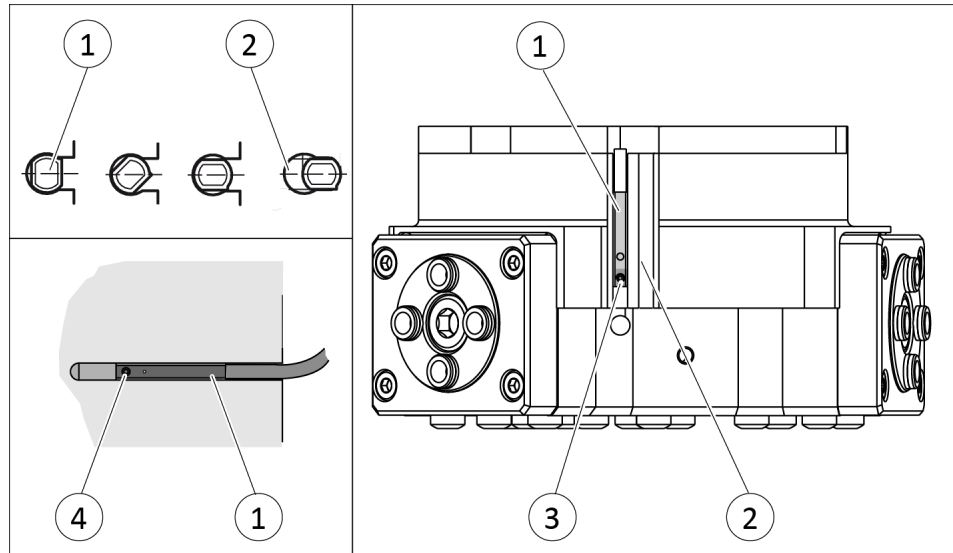
1. Turn the sensor (1) into the groove (2).
OR: Slide the sensor (1) into the groove (2) until the sensor (1) stops at the T-nut (3).
2. Secure the sensor (1) using the set-screw (4).
Tightening torque: 10 Ncm
3. Adjust sensor (1), see sensor assembly and operating manual.

5.4.7 Mounting programmable MMS 22-P 22 magnetic switch

NOTICE

Risk of damage to the sensor during assembly!

- Observe the maximal tightening torque.



NOTE

If there is no T-nut available, slide the sensor according to dimension l1 into the groove (2), ▶ 5.4.3 [33].

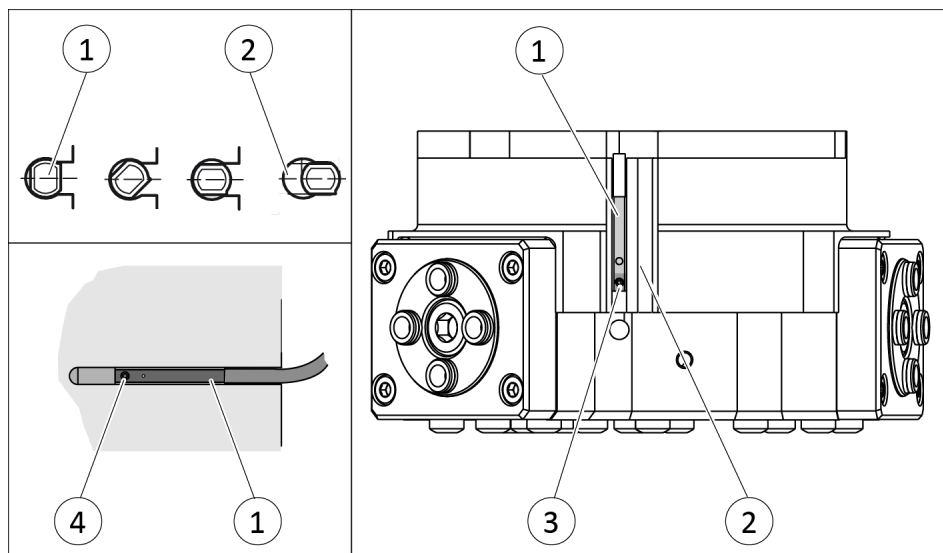
1. Turn the sensor 1 (1) into the groove (2).
OR: Slide the sensor 1 (1) into the groove (2) until the sensor 1 (1) stops at the T-nut (3).
2. Secure the sensor 1 (1) using the set-screw (4).
Tightening torque: 10 Ncm
3. Adjust sensor 1 (1), see sensor assembly and operating manual.
4. Repeat steps for sensor 2.

5.4.8 Mounting programmable magnetic switch MMS 22-I0L

NOTICE

Risk of damage to the sensor during assembly!

- Observe the maximal tightening torque.



NOTE

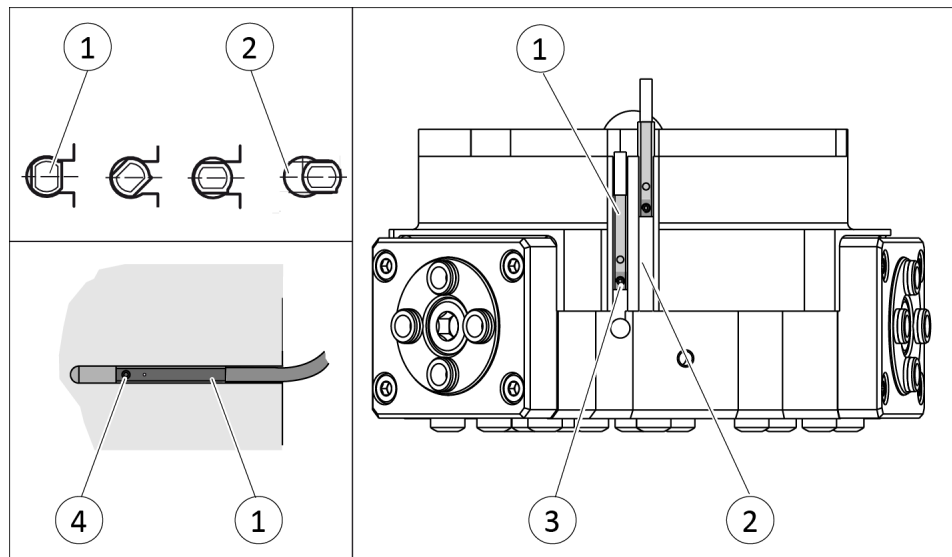
If there is no T-nut available, slide the sensor according to dimension l1* into the groove (2), ▶ 5.4.3 [□ 33].

1. Turn the sensor 1 (1) into the groove (2).
OR: Slide the sensor 1 (1) into the groove (2) until the sensor 1 (1) stops at the T-nut (3).
2. Secure the sensor 1 (1) using the set-screw (4).
Tightening torque: 10 Ncm
3. Adjust sensor 1 (1), see sensor assembly and operating manual.
4. Repeat steps for sensor 2.

Size	l1* [mm]
64	24
64 AS	38
64 IS	45
64 CPC	45
80	29.8
80 AS	29.8
80 IS	29.8
80 CPC	54.8

Size	l* [mm]
100	29.8
100 AS	49.9
100 IS	49.9
125	35.25
125 AS	58.75
125 IS	58.75
160	40.5
160 AS	71.75
160 IS	71

5.4.9 Mounting reed switch RMS 22



Position "Gripper open" or "Part gripped (I.D. gripping)"

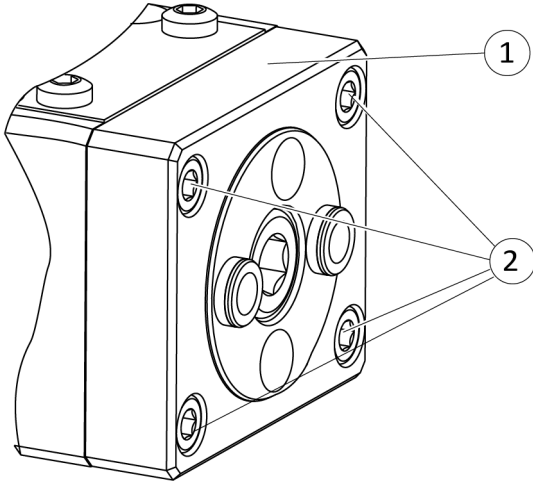
1. Bring product in the position to be set.
2. If necessary remove T-nut (3).
3. Turn the sensor 1 (1) into the groove (2).
OR: Slide the sensor 1 (1) into the groove (2) until the sensor 1 (1) stops at the end of the groove.
4. Pull the sensor 1 (1) back again slowly until it switches.
5. Secure the sensor 1 (1) using the set-screw (4).
Tightening torque: 10 Ncm
6. Bring product into the "Gripper open" or "Part gripped" position and test the function.

Position "Gripper closed" or "Part gripped (O.D. gripping)"

1. Bring product in the position in which it is to be set.
2. If necessary remove T-nut (3).
3. Turn the sensor 2 (1) into the groove (2).
OR: Slide sensor 2 (1) into the groove (2) in the direction of the housing middle (3), until the sensor 2 (1) switches.
4. Secure the sensor 2 (1) using the set-screw (4).
Tightening torque: 10 Ncm
5. Bring product into the "Gripper closed" or "Part gripped" position and test the function.

6 Troubleshooting

6.1 Product is not moving

Possible cause	Corrective action
Base jaws jam in housing, e.g. mounting surface is not sufficiently even.	<p>Check the evenness of the mounting surface. ▶ 5.2.1 [24]</p> <hr/> <p>Loosen the mounting screws of the product and actuate the product again.</p>
Side covers have move slightly due to a collision or other external influence.	<ol style="list-style-type: none"> 1. Adjust the side covers (1). To that, loosen slightly the screws (2) so that the side cover (1) can be moved. Move the side cover (1) to the right or to the left. Tighten screws (2) crosswise. 2. Apply compressed air to the product. <ul style="list-style-type: none"> ⇒ When the product opens and closes, the side cover has the correct position. ⇒ If the product does not open and close, adjust the side cover (1) again. If the product after then still does not open and close, send the product to SCHUNK for repair.
	
Pressure drops below minimum.	<p>Check air supply. ▶ 5.2.2 [27]</p>
Compressed air lines switched.	<p>Check compressed air lines. ▶ 5.2.2 [27]</p>
Proximity switch defective or set incorrect.	<p>Readjust or change sensor.</p>
Unused air connections open.	<p>Close unused air connections.</p>
Flow control valve closed.	<p>Open the flow control valve.</p>
Component part defective.	<p>Replace component or send it to SCHUNK for repair.</p>

6.2 The product is not executing the complete stroke

Possible cause	Corrective action
Dirt deposits between cover and piston.	Clean and if necessary re-lubricate. ▶ 7 [📄 45]
Dirt deposits between basic jaws and guidance.	Disassemble and clean the product.
Pressure drops below minimum.	Check air supply. ▶ 5.2.2 [📄 27]
Mounting surface is not sufficiently flat.	Check the evenness of the mounting surface. ▶ 5.2.1 [📄 24]
Component part defective.	Replace component or send it to SCHUNK for repair.
Air purge set too high (> 0.5 bar).	Reduce air purge (max. 0.5 bar).

6.3 Product is opening or closing abruptly

Possible cause	Corrective action
Too little grease in the mechanical guiding areas.	Clean and lubricate product. ▶ 7 [📄 45]
Compressed air lines blocked.	Check compressed air lines of damage.
Mounting surface is not sufficiently flat.	Check the evenness of the mounting surface.
Excess pressure cannot be released when using air purge.	Check the pressure control valve with drain hole and replace if necessary. ▶ 5.3 [📄 28]

6.4 The gripping force is dropping

Possible cause	Corrective action
Compressed air can escape.	Check seals, if necessary, disassemble the product and replace seals.
Too much grease in the mechanical movement space.	Clean and lubricate product. ▶ 7 [📄 45]
Pressure drops below minimum.	Check air supply. ▶ 5.2.2 [📄 27]
Component part defective.	Replace component or send it to SCHUNK for repair.
Air purge reduces the gripping force when closing.	Check the dimensioning. ▶ 5.3 [📄 28]

6.5 Product does not achieve the opening and closing times

Possible cause	Corrective action
Compressed air lines are not installed optimally.	If present: Open the flow control couplings on the product to the maximum that the movement of the jaws occurs without bouncing and hitting.
	Check compressed air lines.
	Inner diameters of compressed air lines are of sufficient size in relation to compressed air consumption.
	Keep compressed air lines between the product and directional control valve as short as possible.
	Flow rate of valve is sufficiently large relative to the compressed air consumption.
	NOTICE! The one-way flow control valve must not be removed even if the opening and closing times are not achieved.
	If you still cannot achieve the open and close times in the latest catalog, we recommend the use of quick-air-vent-valves directly at the product.

6.6 Programmable magnetic switches not switching as desired

Possible cause	Corrective action
Incorrect position of sensor	Check adjustment dimensions, ► 5.4.3 [33].
Magnetic field too weak	Check function of sensor in both grooves.

7 Maintenance

7.1 Notes



⚠ DANGER

Danger of explosion in potentially explosive areas!

- Observe supplementary sheet for products with explosion-resistant versions "DPZ-plus -...-EX".



⚠ WARNING

Risk of burns through contact with hot surfaces!

Surfaces of components can heat up severely during operation. Skin contact with hot surfaces causes severe burns to the skin.

- For all work in the vicinity of hot surfaces, wear safety gloves.
- Before carrying out any work, make sure that all surfaces have cooled down to the ambient temperature.

7.2 Maintenance intervals

Interval (million cycles)	2 (Size 40 – 125) 1 (Size 160 – 200)
---------------------------	---

Interval (million cycles)	2
---------------------------	---

Interval (million cycles)	1
---------------------------	---

- | | |
|------------------|---|
| Maintenance work | <ul style="list-style-type: none"> • Clean all parts thoroughly, check for damage and wear, if necessary replace seals and wearing parts, ▶ 7.5 [47] and ▶ 7.6 [58]. • Treat all grease areas with lubricant, ▶ 7.3 [46] |
|------------------|---|

7.3 Grease/greasing areas

NOTICE

Damage due to ingress of foreign particles!

If the lubrication nipples are installed during operation, the tightness of the product cannot be guaranteed and foreign particles may enter the product. This can lead to considerable damage.

- Remove all lubrication nipples after greasing and seal!

SCHUNK recommends the lubricants listed.

Greasing area	Lubricant
Metallic sliding surfaces	SCHUNK grease 3
Seals and sealing surfaces	SCHUNK grease 1

The guides in the housing can be re-lubricated as needed. Remove the set-screw of the air purge connection and replace it with a lubrication nipple.

Details regarding SCHUNK lubricant designations are available at schunk.com/lubricants.

The product contains food-compliant lubricants as standard. **The requirements of standard EN 1672-2:2020 are not fully met.**

NOTE

- Change contaminated food-compliant lubricant.
- Observe information in the safety data sheet from the lubricant manufacturer.

7.4 Threadlocker

Position of the item numbers, ▶ 7.9 [70]

- Secure the screws and nuts listed in the table with the specified adhesive and tighten with the tightening torque, ▶ 7.7 [68].

Adhesive	Item
Weicon 302-41	(41) (42) (46)
Weicon 302-43	(40) (43) (45)
Weicon 302-70	(2) (7) (13)

Equivalent greases/adhesives/surface-sealing pastes from other manufacturers can also be used.

7.5 Disassembly and assembly (previous version)

7.5.1 Variant without maintenance of gripping force (previous version)

Position of the item numbers ▶ 7.9 [📄 70]

Disassembling

1. Remove the compressed air hose.
2. If necessary, remove the pressure piece, see insert "Installation instructions – pressure piece".
3. Unfasten and remove the screws (47).
4. Remove the cover (5) and seal (37).
5. Mark the installation positions of the piston (3/8), the base jaws (2/7) and the side cover (12) on the housing (1).
6. Unscrew and remove the screws (42) and remove the side cover (12) and the gasket (14).
7. Unscrew and remove the screws (41) and remove the cover (4).
8. Mark the installation position between the cylinder piston (60) and the housing (1).
9. Unscrew screw (40) and remove cylinder piston (60) from the housing (1).
10. Push the pistons (3/8) upwards out of the housing (1).
11. Pull the base jaws (2/7) out of the housing (1).

Assembling

1. Push the base jaw (2/7) into the housing (1), observing the correct installation position.
2. Insert the piston (3/8) into the housing (1) from above.
3. Position the base jaws (2/7) so that the piston (3/8) can be pushed into the base jaws (2/7) without any problems.

NOTE

Do not damage the sealing lips of the seal (30) while pushing in the cylinder piston.

4. Insert the cylinder piston (60) from below into the housing (1), observing the correct installation position.
5. Screw in the screw (40).
6. Fasten the cover (4) with screws (41).

NOTE

The product must be in the "closed" position to prevent the gasket (14) from being clamped in the housing (1) by the intermediate jaw (13).

7. Insert the gasket (14) in the housing (1).

NOTE

Do not damage the sealing lips of the seal (36) with the intermediate jaw (13).

8. Put on the side cover (12), making sure the installation position is correct.
9. Do not screw the screw (42) completely into the cover (12). The gap between the side cover (12) and the housing (1) should be approximately divided in half.
10. Allow the gripper to run for about 20 cycles so that the side covers (12) can be centered with respect to the base jaws (2/7)/ intermediate jaws (13), the gasket (14) and the housing (1).
11. Tighten the screws (42) to fasten the side cover (12).
12. Apply a strip of Plast-o-Seal along the side cover (12), ▶ 7.5.5 [□ 57].
13. Insert the seal (37) into the housing (1).
14. Screw the cover plate (5) on tight with the screws (47).
15. If necessary, install the pressure piece, see insert "Installation instructions – pressure piece".

7.5.2 Variant with "O.D. gripping" maintenance of gripping force (previous version)

Position of the item numbers ▶ 7.9 [□ 70]



⚠ WARNING

Risk of injury due to spring forces!

The cover may be ejected due to the high spring forces.

- Dismantle the product carefully.

Disassembling

1. Remove the compressed air hose.
2. Unfasten and remove the screws (47).
3. Remove the cover (5) and seal (37).
4. Mark the installation positions of the piston (3/8), the base jaws (2/7) and the side cover (12) on the housing (1).

5. Unscrew and remove the screws (42) and remove the side cover (12) and the gasket (14).
6. **WARNING! Risk of injury due to spring forces! The cover is under spring tension. Carefully dismantle the product.** Clamp the product between the housing (1) and the cover (9) in the vise so that it is still possible to remove the eight screws (46).
7. Unfasten and remove the screws (46).
8. Open the vise carefully and remove the cover (9).
9. Mark the installation position between the cylinder piston (60) and the housing (1).
10. **WARNING! Risk of injury due to spring forces! The cylinder piston is under spring tension. Carefully dismantle the product.** Clamp the product between the housing (1) and the cylinder piston (60).
11. Unscrew and remove the screw (45).
12. Carefully open the vise until the compression spring (25) has no more tension.
13. Remove the cylinder piston (60) from the housing (1).
14. Push the pistons (3/8) upwards out of the housing (1).
15. Pull the base jaws (2/7) out of the housing (1).

Assembling

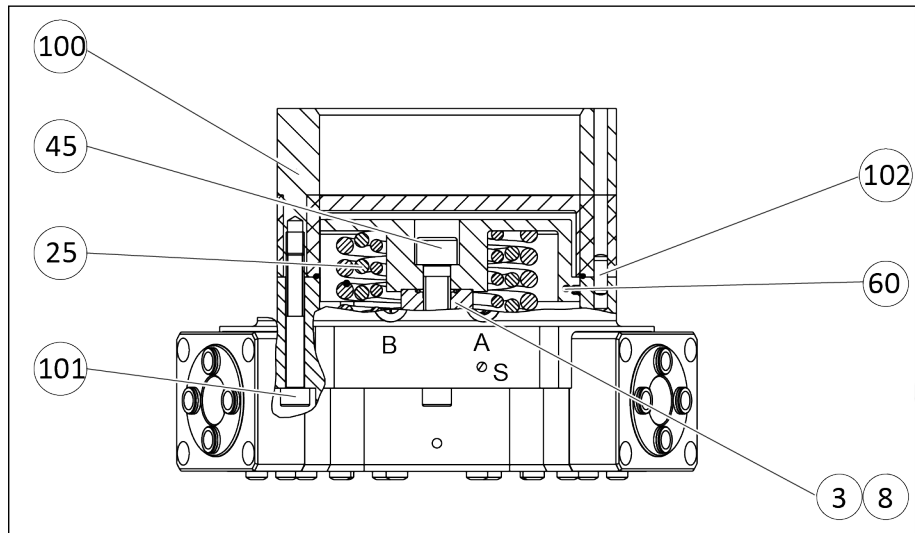
NOTE

Tighten all screws to the required torque, ▶ 7.7 [□ 68]

For sizes 40–100, the cylinder piston must be installed using assembly device 1, and for sizes 125–200 using assembly device 1 and 2, ▶ 7.8 [□ 69].

1. Push the base jaw (2/7) into the housing (1), observing the correct installation position.
2. Position the base jaws (2/7) so that the piston (3/8) can be pushed into the base jaws (2/7) without any problems.
3. Insert the piston (3/8) into the housing (1) from above.

Size 40–100



Fastening elements for assembly device

Size	Assembly device 1 (100)	Screw DIN ISO 4762 (101)	Cylindrical pin (102)
40	X	M3 x 20	2m6 x 6
50	X	M3 x 25	3m6 x 8
64	X	M5 x 30	5m6 x 10
80	X	M6 x 35	5m6 x 14
100	X	M6 x 40	5m6 x 14

1. Install and grease device 1 (100).
2. Insert spring (25) through the centering bore in the housing (1).

NOTE

Do not damage the sealing lips of the seal (30).

3. Place the cylinder piston (60) with the seal (30) on the centering bore and evenly push it into the bore hole by hand so that it pushes the spring (25). When doing this, pay attention to the correct installation position.
4. Tighten screw (45).
5. Remove device 1 (100).
6. Insert the cylindrical pins (55) into the housing (1).
7. Fasten the cover (9) with the screws (46).

NOTE

The product must be in the "closed" position to prevent the gasket (14) from being clamped in the housing (1) by the intermediate jaw (13).

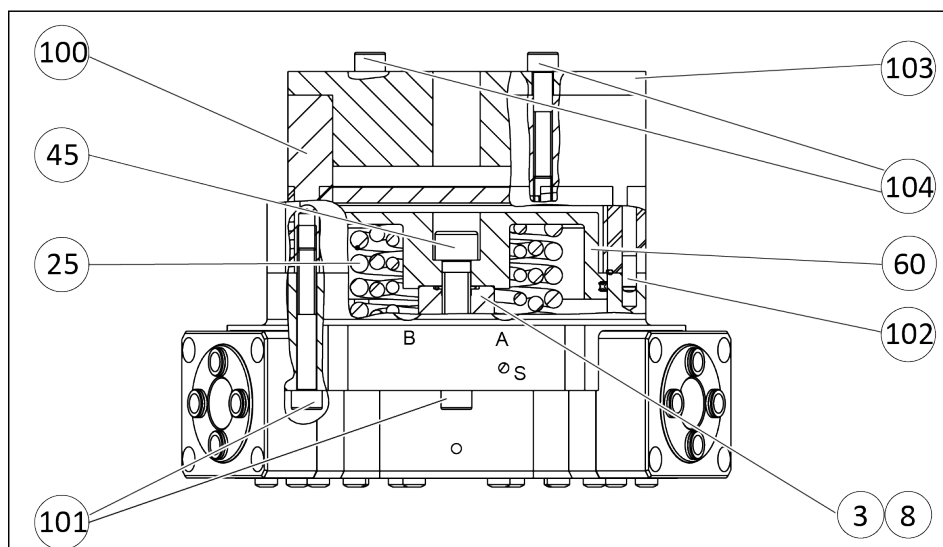
8. Insert the gasket (14) in the housing (1).

NOTE

Do not damage the sealing lips of the seal (36) with the intermediate jaw (13).

9. Put on the side cover (12), making sure the installation position is correct.
10. Do not screw the screw (42) completely into the cover (12). The gap between the side cover (12) and the housing (1) should be approximately divided in half.
11. Allow the gripper to run for about 20 cycles so that the side covers (12) can be centered with respect to the base jaws (2/7)/intermediate jaws (13), the gasket (14) and the housing (1).
12. Tighten the screws (42) to fasten the side cover (12).
13. Apply a strip of Plast-o-Seal along the side cover (12), ▶ 7.5.5 [57].
14. Insert the seal (37) into the housing (1).
15. Screw the cover plate (5) on tight with the screws (47).

Size 125–200 with two assembly devices



DPZ-plus	Assembly device 1 (100)	Screw DIN ISO 4762 (101)	Cylindrical pin (102)	Assembly device 2 (103)	Screw DIN ISO 4762 (104)
125	X	M8 x 50	6m6 x 16	X	M8 x 40
160	X	M8 x 60	6m6 x 16	X	M8 x 45
200	X	M10 x 70	8m6 x 20	X	M10 x 50

1. Install and grease device 1 (100).
2. Insert spring (25) through the centering bore in the housing (1).

NOTE

Do not damage the sealing lips of the seal (30).

3. Place the cylinder piston (60) with the seal (30) on the centering bore and evenly push it into the bore hole by hand so that it pushes the spring (25). When doing this, pay attention to the correct installation position.
4. Position device 2 (103) and secure to device 1 (100).
5. Tighten screw (45).
6. Remove the devices.
7. Insert the gasket (14) in the housing (1).

NOTE

Do not damage the sealing lips of the seal (36) with the intermediate jaw (13).

8. Put on the side cover (12), making sure the installation position is correct.
9. Do not screw the screw (42) completely into the cover (12). The gap between the side cover (12) and the housing (1) should be approximately divided in half.
10. Allow the gripper to run for about 20 cycles so that the side covers (12) can be centered with respect to the base jaws (2/7)/ intermediate jaws (13), the gasket (14) and the housing (1).
11. Tighten the screws (42) to fasten the side cover (12).
12. Apply a strip of Plast-o-Seal along the side cover (12), ▶ 7.5.5 [57].
13. Insert the seal (37) into the housing (1).
14. Screw the cover plate (5) on tight with the screws (47).

7.5.3 Variant with "I.D. gripping" maintenance of gripping force (previous version)

Position of the item numbers ▶ 7.9 [70]



⚠ WARNING

Risk of injury due to spring forces!

The cover may be ejected due to the high spring forces.

- Dismantle the product carefully.

Disassembling

NOTE

Tighten all screws with the required tightening torque., ▶ 7.7 [68].

1. Remove the compressed air hose.
2. Unfasten and remove the screws (47).
3. Remove the cover (5) and seal (37).
4. Mark the installation positions of the piston (3/8), the base jaws (2/7) and the side cover (12) on the housing (1).
5. Unscrew and remove the screws (42) and remove the side cover (12) and the gasket (14).
6. **WARNING! Risk of injury due to spring forces! The cover is under spring tension. Carefully dismantle the product.**
Clamp the product between the housing (1) and the cover (9) in the vise so that it is still possible to remove the eight screws (46).
7. Unfasten and remove the screws (46).
8. Carefully open the vise, remove the cover (9) and remove the compression spring (25).
9. Remove the cylindrical pins (55).
10. Mark the installation position between the cylinder piston (60) and the housing (1).
11. Clamp the product between the housing (1) and the cylinder piston (60).
12. Unscrew and remove the screw (45).
13. Carefully open the vise until the compression spring (25) has no more tension.
14. Remove the cylinder piston (60) from the housing (1).
15. Push the pistons (3/8) upwards out of the housing (1).
16. Pull the base jaws (2/7) out of the housing (1).

Assembling

1. Push the base jaw (2/7) into the housing (1), observing the correct installation position.
 2. Position the base jaws (2/7) so that the piston (3/8) can be pushed into the base jaws (2/7) without any problems.
-

NOTE

Do not damage the sealing lips of the seal (30) while pushing in the cylinder piston.

3. Insert the cylinder piston (60) from below into the housing (1), observing the correct installation position.
4. Screw in and tighten the screw (40).
5. Slide the compression spring (25) onto the cylinder piston (60) over the collar.
6. Insert the cylindrical pins (55) into the housing (1).
7. Clamp the gripper in a vise so that the screws (46) can be assembled.
8. Fasten the cover (9) with the screws (46).

NOTE

The product must be in the "closed" position to prevent the gasket (14) from being clamped in the housing (1) by the intermediate jaw (13).

9. Insert the gasket (14) in the housing (1).
-

NOTE

Do not damage the sealing lips of the seal (36) with the intermediate jaw (13).

10. Put on the side cover (12), making sure the installation position is correct.
11. Do not screw the screw (42) completely into the cover (12). The gap between the side cover (12) and the housing (1) should be approximately divided in half.
12. Allow the gripper to run for about 20 cycles so that the side covers (12) can be centered with respect to the base jaws (2/7)/ intermediate jaws (13), the gasket (14) and the housing (1).
13. Tighten the screws (42) to fasten the side cover (12).
14. Apply a strip of Plast-o-Seal along the side cover (12), ▶ 7.5.5 [57].
15. Insert the seal (37) into the housing (1).
16. Screw the cover plate (5) on tight with the screws (47).

7.5.4 Variant with "force intensifying cylinder" (KVZ) (previous version)

Position of the item numbers ▶ 7.9 [70]

Disassembling

1. Remove the compressed air hose.
2. If necessary, remove the pressure piece, see insert "Installation instructions – pressure piece".
3. Unfasten and remove the screws (47).
4. Remove the cover (5) and seal (37).

5. Mark the installation positions of the piston (3/8), the base jaws (2/7) and the side cover (12) on the housing (1).
6. Unscrew and remove the screws (42) and remove the side cover (12) and the gasket (14).
7. Unscrew and remove the screws (41) and remove the cover (4).
8. Unscrew the screw (40) and remove the cylinder piston (6) from the intermediate housing (65).
9. Remove the intermediate housing (65).
10. Mark the installation position between the cylinder piston (6) and the housing (1).
11. Remove the intermediate piston (66).
12. Remove the second cylinder piston (60) from the housing (1).
13. Push the pistons (3/8) upwards out of the housing (1).
14. Pull the base jaws (2/7) out of the housing (1).

Assembling

NOTE

Tighten all screws with the required tightening torque., ▶ 7.7 [□ 68].

1. Push the base jaw (2/7) into the housing (1), observing the correct installation position.
 2. Position the base jaws (2/7) so that the piston (3/8) can be pushed into the base jaws (2/7) without any problems.
 3. Insert the piston (3/8) into the housing (1) from above.
-

NOTE

Do not damage the sealing lips of the seal (30) while pushing in the cylinder piston.

4. Insert the cylinder piston (60) from below into the housing (1), observing the correct installation position.
5. Install the intermediate piston (66).
6. Assemble a second cylinder piston (6) on the intermediate piston with the screw (40) and tighten to the required torque, ▶ 7.7 [□ 68].
7. Push the intermediate housing (65) over the cylinder piston (6).
8. Fasten the cover (4) with screws (41).

NOTE

The product must be in the "closed" position to prevent the gasket (14) from being clamped in the housing (1) by the intermediate jaw (13).

9. Insert the gasket (14) in the housing (1).
-

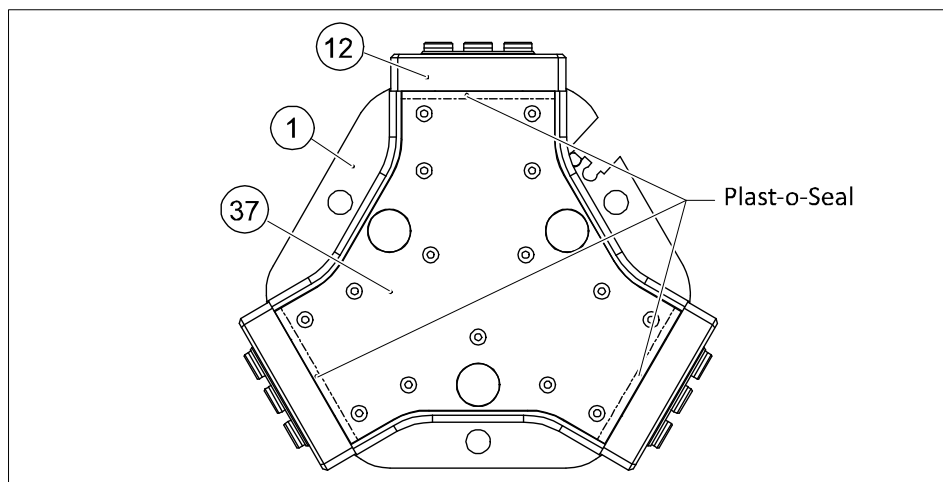
NOTE

Do not damage the sealing lips of the seal (36) with the intermediate jaw (13).

10. Put on the side cover (12), making sure the installation position is correct.
11. Do not screw the screw (42) completely into the cover (12). The gap between the side cover (12) and the housing (1) should be approximately divided in half.
12. Allow the gripper to run for about 20 cycles so that the side covers (12) can be centered with respect to the base jaws (2/7)/ intermediate jaws (13), the gasket (14) and the housing (1).
13. Tighten the screws (42) to fasten the side cover (12).
14. Apply a strip of Plast-o-Seal along the side cover (12), ▶ 7.5.5 [□ 57].
15. Insert the seal (37) into the housing (1).
16. Screw the cover plate (5) on tight with the screws (47).

7.5.5 Position of the Plast-o-Seal (previous version)

Position of the item numbers, ▶ 7.9 [70]



Position of the Plast-o-Seal

7.6 Disassembly and assembly (successor version)

7.6.1 Variant without maintenance of gripping force (successor version)

Position of the item numbers, ► 7.9 [📄 70]

Disassembling

1. Remove the compressed air hose.
2. If necessary, remove the pressure piece, see insert "Installation instructions – pressure piece".
3. Unfasten and remove the screws (47).
4. Remove the cover (5) and flat seal (20).
5. Mark the installation positions of the piston (3/8), the base jaws (2/7) and the side cover (12) on the housing (1).
6. Unscrew and remove the screws (42) and remove the side cover (12) and the flat seal ring (39). **NOTICE! Do not disassemble the filler piece (18) for maintenance purposes, as the product may leak. If the filler piece (18) is disassembled however, seal the filler piece (18) with liquid sealant on reassembly.**
7. Unscrew and remove the screws (41) and remove the cover (4).
8. Mark the installation position between the cylinder piston (61) and the housing (1).
9. Unscrew the screw (40) and remove the cylinder piston (61) from the housing (1).
10. Push the pistons (3/8) upwards out of the housing (1).

NOTE

Do not disassemble the intermediate jaw (13) from the base jaw (2/7).

11. Pull the base jaws (2/7) out of the housing (1).

Assembling

NOTE

Tighten all screws with the required tightening torque., ► 7.7 [📄 68].

1. Push the base jaw (2/7) into the housing (1), observing the correct installation position.
2. Position the base jaws (2/7) so that the piston (3/8) can be pushed into the base jaws (2/7) without any problems.
3. Insert the piston (3/8) into the housing (1) from above.

NOTE

Do not damage the sealing lips of the seal (30) while pushing in the cylinder piston.

4. Insert the cylinder piston (61) from below into the housing (1), observing the correct installation position.
5. Screw in the screw (40).
6. Insert seal (32) / O-rings (32/34) into the cover (4).
7. Fasten the cover (4) with screws (41).
8. Insert the flat seal ring (39) into the side cover (12).

NOTE

Do not damage the sealing lips of the seal (36) with the intermediate jaw (13).

9. Put on the side cover (12), making sure the installation position is correct.
10. Do not screw the screw (42) completely into the cover (12). The gap between the side cover (12) and the housing (1) should be approximately divided in half.
11. Allow the product to run for about 20 cycles so that the side covers (12) can be centered with respect to the base jaws (2/7)/ intermediate jaws (13).
12. Tighten the screws (42) to fasten the side cover (12).
13. Insert the flat seal (20) into the housing (1).
14. Screw the cover plate (5) on tight with the screws (47).
15. If necessary, install the pressure piece, see insert "Installation instructions – pressure piece".

7.6.2 Variant with "O.D. gripping" maintenance of gripping force (successor version)

Position of the item numbers, ▶ 7.9 [70]



⚠ WARNING

Risk of injury due to spring forces!

The cover may be ejected due to the high spring forces.

- Dismantle the product carefully.

Disassembling

1. Remove the compressed air hose.
2. Unfasten and remove the screws (47).
3. Remove the cover (5) and flat seal (20).

4. Mark the installation positions of the piston (3/8), the base jaws (2/7) and the side cover (12) on the housing (1).
5. Unscrew and remove the screws (42) and remove the side cover (12) and the flat seal ring (39). **NOTICE! Do not disassemble the filler piece (18) for maintenance purposes, as the product may leak. If the filler piece (18) is disassembled however, seal the filler piece (18) with liquid sealant on reassembly.**
6. **WARNING! Risk of injury due to spring forces! The cover is under spring tension. Carefully dismantle the product.** Clamp the product between the housing (1) and the cover (9) in the vise so that it is still possible to remove the eight screws (46).
7. Unfasten and remove the screws (46).
8. Open the vise carefully and remove the cover (9).
9. Remove the cylindrical pins (55).
10. Mark the installation position between the cylinder piston (62) and the housing (1).
11. **WARNING! Risk of injury due to spring forces! The cylinder piston is under spring tension. Dismantle the product carefully.** Clamp the product between the housing (1) and the cylinder piston (62).
12. Unscrew and remove the screw (45).
13. Carefully open the vise until the compression spring (25) has no more tension.
14. Remove the cylinder piston (62) and compression spring (25) from the housing (1).
15. Push the pistons (3/8) upwards out of the housing (1).

NOTE

Do not disassemble the intermediate jaw (13) from the base jaw (2/7).

16. Pull the base jaws (2/7) out of the housing (1).

Assembling

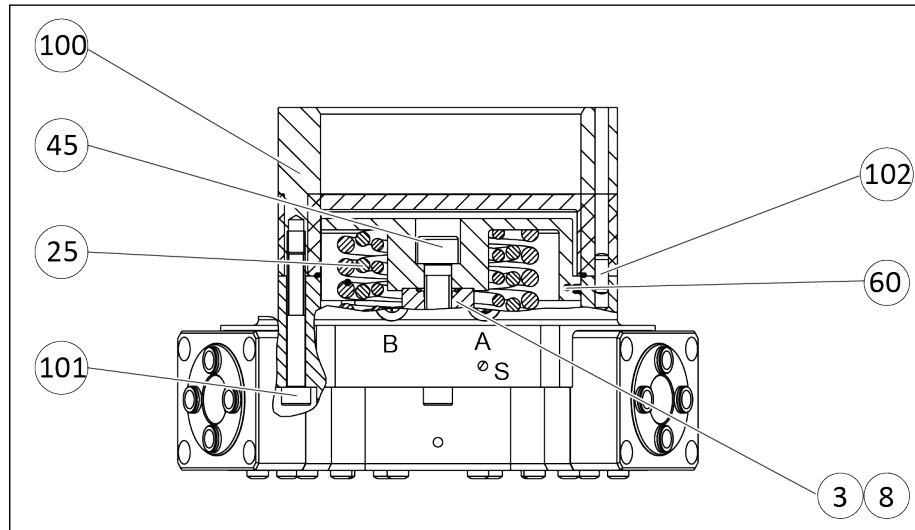
NOTE

Tighten all screws to the required torque, ▶ 7.7 [68]

For sizes 40–100, the cylinder piston must be installed using assembly device 1, and for sizes 125–200 using assembly device 1 and 2, ▶ 7.8 [69].

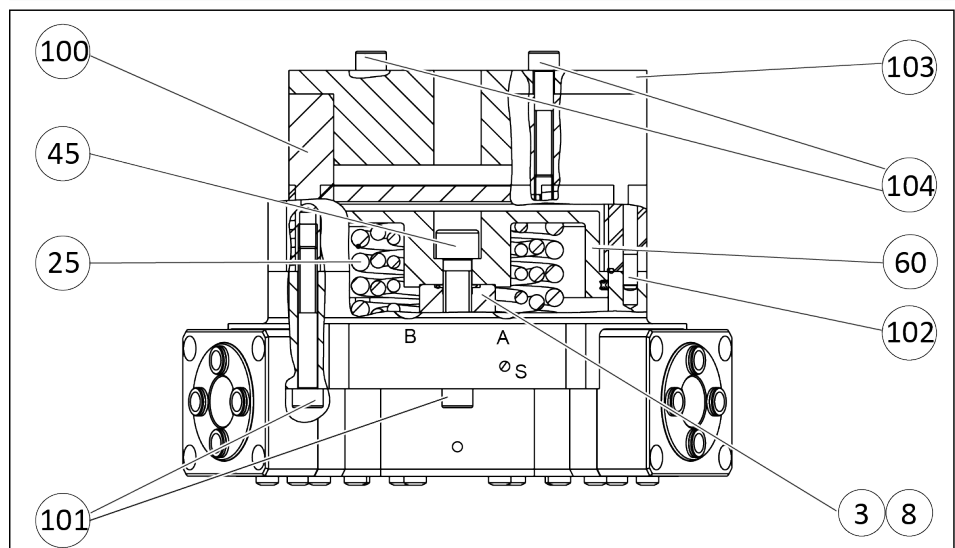
1. Push the base jaw (2/7) into the housing (1), observing the correct installation position.
2. Position the base jaws (2/7) so that the piston (3/8) can be pushed into the base jaws (2/7) without any problems.
3. Insert the piston (3/8) into the housing (1) from above.

Size 40–100



Size	Assembly device 1 (100)	Screw DIN ISO 4762 (101)	Cylindrical pin (102)
40	X	M3 x 20	2m6 x 6
50	X	M3 x 25	3m6 x 8
64	X	M5 x 30	5m6 x 10
80	X	M6 x 35	5m6 x 14
100	X	M6 x 40	5m6 x 14

Size 125–200 with two assembly devices



DPZ-plus	Assembly device 1 (100)	Screw DIN ISO 4762 (101)	Cylindrical pin (102)	Assembly device 2 (103)	Screw DIN ISO 4762 (104)
125	X	M8 x 50	6m6 x 16	X	M8 x 40
160	X	M8 x 60	6m6 x 16	X	M8 x 45
200	X	M10 x 70	8m6 x 20	X	M10 x 50

1. Install and grease device 1 (100).
2. Insert spring (25) through the centering bore in the housing (1).

NOTE

Do not damage the sealing lips of the seal (30).

3. Place the cylinder piston (62) with the seal (30) on the centering bore and evenly push it into the bore hole by hand so that it pushes the spring (25). When doing this, pay attention to the correct installation position.
4. **For sizes 125–200:** Position device 2 (103) and secure to device 1 (100).
5. Tighten screw (45).
6. **For sizes 125–200:** Remove devices.
7. **For sizes 40–100:** Remove device 1 (100).
8. Insert the cylindrical pins (55) into the housing (1).
9. Insert seal (32) / O-rings (32/34) into the cover (9).
10. Fasten the cover (9) with the screws (46).
11. Insert the flat seal ring (39) into the side cover (12).

NOTE

Do not damage the sealing lips of the seal (36) with the intermediate jaw (13).

12. Put on the side cover (12), making sure the installation position is correct.
13. Do not screw the screw (42) completely into the cover (12). The gap between the side cover (12) and the housing (1) should be approximately divided in half.
14. Allow the product to run for about 20 cycles so that the side covers (12) can be centered with respect to the base jaws (2/7)/ intermediate jaws (13).
15. Tighten the screws (42) to fasten the side cover (12).
16. Insert the flat seal (20) into the housing (1).

17. Screw the cover plate (5) on tight with the screws (47).
18. If necessary, install the pressure piece, see insert "Installation instructions – pressure piece".

7.6.3 Variant with "I.D. gripping" maintenance of gripping force (successor version)

Position of the item numbers, ▶ 7.9 [□ 70]



⚠ WARNING

Risk of injury due to spring forces!

The cover may be ejected due to the high spring forces.

- Dismantle the product carefully.

Disassembling

1. Remove the compressed air hose.
2. Unfasten and remove the screws (47).
3. Remove the cover (5) and flat seal (20).
4. Mark the installation positions of the piston (3/8), the base jaws (2/7) and the side cover (12) on the housing (1).
5. Unscrew and remove the screws (42) and remove the side cover (12) and the flat seal ring (39). **NOTICE! Do not disassemble the filler piece (18) for maintenance purposes, as the product may leak. If the filler piece (18) is disassembled however, seal the filler piece (18) with liquid sealant on reassembly.**
6. **WARNING! Risk of injury due to spring forces! The cover is under spring tension. Carefully dismantle the product.** Clamp the product between the housing (1) and the cover (9) in the vise so that it is still possible to remove the eight screws (46).
7. Unfasten and remove the screws (46).
8. Carefully open the vise, remove the cover (9) and remove the compression spring (25).
9. Remove the cylindrical pins (55).
10. Mark the installation position between the cylinder piston (61) and the housing (1).
11. Clamp the product between the housing (1) and the cylinder piston (61).
12. Unscrew and remove the screw (45).
13. Remove the cylinder piston (61) from the housing (1).
14. Push the pistons (3/8) upwards out of the housing (1).

NOTE

Do not disassemble the intermediate jaw (13) from the base jaw (2/7).

15. Pull the base jaws (2/7) out of the housing (1).

Assembling

NOTE

Tighten all screws with the required tightening torque., ▶ 7.7 [📄 68].

1. Push the base jaw (2/7) into the housing (1), observing the correct installation position.
 2. Position the base jaws (2/7) so that the piston (3/8) can be pushed into the base jaws (2/7) without any problems.
 3. Insert the piston (3/8) into the housing (1) from above.
-

NOTE

Do not damage the sealing lips of the seal (30) while pushing in the cylinder piston.

4. Insert the cylinder piston (61) from below into the housing (1), observing the correct installation position.
 5. Screw in and tighten the screw (40).
 6. Push the compression spring (25) onto the cylinder piston (61) over the collar.
 7. Insert the cylindrical pins (55) into the housing (1).
 8. Insert seal (32) / O-rings (32/34) into the cover (9).
 9. Fasten the cover (9) with the screws (46).
 10. Insert the flat seal ring (39) into the side cover (12).
-

NOTE

Do not damage the sealing lips of the seal (36) with the intermediate jaw (13).

11. Put on the side cover (12), making sure the installation position is correct.
12. Do not screw the screw (42) completely into the cover (12). The gap between the side cover (12) and the housing (1) should be approximately divided in half.
13. Allow the product to run for about 20 cycles so that the side covers (12) can be centered with respect to the base jaws (2/7)/ intermediate jaws (13).
14. Tighten the screws (42) to fasten the side cover (12).

15. Insert the flat seal (20) into the housing (1).
16. Screw the cover plate (5) on tight with the screws (47).
17. If necessary, install the pressure piece, see insert "Installation instructions – pressure piece".

7.6.4 Variant with "force intensifying cylinder" (KVZ) (successor version)

Position of the item numbers, ▶ 7.9 [70]

Disassembling

1. Remove the compressed air hose.
2. If necessary, remove the pressure piece, see insert "Installation instructions – pressure piece".
3. Unfasten and remove the screws (47).
4. Remove the cover (5) and flat seal (20).
5. Mark the installation positions of the piston (3/8), the base jaws (2/7) and the side cover (12) on the housing (1).
6. Unscrew and remove the screws (42) and remove the side cover (12) and the flat seal ring (39). **NOTICE! Do not disassemble the filler piece (18) for maintenance purposes, as the product may leak. If the filler piece (18) is disassembled however, seal the filler piece (18) with liquid sealant on reassembly.**
7. Unscrew and remove the screws (41) and remove the cover (4).
8. Unscrew the screw (40) and remove the cylinder piston (6) from the intermediate housing (65).
9. Remove the intermediate housing (65).
10. Remove the cylindrical pins (55).
11. Mark the installation position between the cylinder piston (61) and the housing (1).
12. Remove the intermediate piston (66).
13. Remove the second cylinder piston (61) from the housing (1).
14. Push the pistons (3/8) upwards out of the housing (1).

NOTE

Do not disassemble the intermediate jaw (13) from the base jaw (2/7).

15. Pull the base jaws (2/7) out of the housing (1).

Assembling

NOTE

Tighten all screws with the required tightening torque., ▶ 7.7 [📄 68].

1. Push the base jaw (2/7) into the housing (1), observing the correct installation position.
 2. Position the base jaws (2/7) so that the piston (3/8) can be pushed into the base jaws (2/7) without any problems.
 3. Insert the piston (3/8) into the housing (1) from above.
-

NOTE

Do not damage the sealing lips of the seal (30) while pushing in the cylinder piston.

4. Insert the cylinder piston (61) from below into the housing (1), observing the correct installation position.
 5. Install the intermediate piston (66).
 6. Insert the cylindrical pins (55) into the housing (1).
 7. Insert seals (32)/O-rings (32/34) into the intermediate housing (65).
 8. Insert intermediate housing (65).
-

NOTE

Do not damage the sealing lips of the seal (30) while pushing in the cylinder piston.

9. Push the cylinder piston (6) into the intermediate housing (65) from below.
 10. Screw in and tighten the screw (40).
 11. Insert seal (32) / O-rings (32/34) into the cover (4).
 12. Fasten the cover (4) with screws (41).
 13. Insert the flat seal ring (39) into the side cover (12).
-

NOTE

Do not damage the sealing lips of the seal (36) with the intermediate jaw (13).

14. Put on the side cover (12), making sure the installation position is correct.
15. Do not screw the screw (42) completely into the cover (12). The gap between the side cover (12) and the housing (1) should be approximately divided in half.

- 16.** Allow the product to run for about 20 cycles so that the side covers (12) can be centered with respect to the base jaws (2/7)/ intermediate jaws (13).
- 17.** Tighten the screws (42) to fasten the side cover (12).
- 18.** Insert the flat seal (20) into the housing (1).
- 19.** Screw the cover plate (5) on tight with the screws (47).
- 20.** If necessary, install the pressure piece, see insert "Installation instructions - pressure piece".

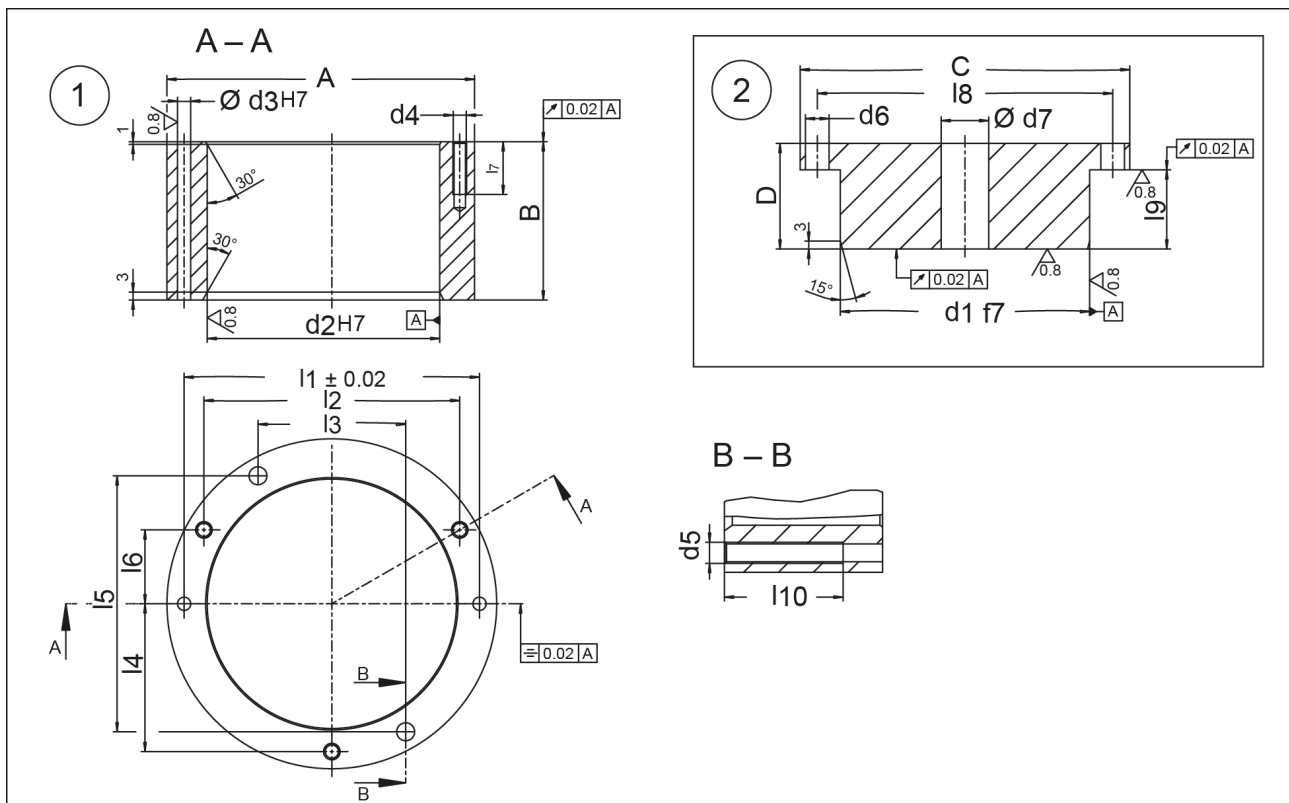
7.7 Tightening torque for screws

Position of the item numbers, ▶ 7.9 [📄 70]

Tightening torques in Nm

Size	Item 40	Item 41	Item 42	Item 43	Item 45	Item 46	Item 47
40	2.2	0.45	0.8	2.7	5.8	0.45	1.4
50	5.9	1.2	1.35	5.8	12	1.2	1.4
64	12	1.2	1.35	14	14	1.2	1.4
80	12	1.3	3.1	21	14	2.9	1.4
100	20	1.3	3.1	41	29	2.9	2.2
125	49	7.1	6.1	100	57.5	6.1	2.2
160	96	7.1	10	200	96	6.1	2.2
200	150	7.1	26	350	200	26	4.5

7.8 Assembly device for cylinder piston with maintenance of gripping force



Cylinder piston assembly device

Cylinder piston assembly device - dimensions in mm

Tab.: Cylinder piston assembly device - dimensions in mm

Size	Ø A	B	Ø C	D	Ø d1 f7	Ø d2 H7	Ø d3 H7	d4	d5	Ø d6	Ø d7
40	40	15	-	-	-	27.5	2	M3	-	-	-
50	50	20	-	-	-	34	3	M3	-	-	-
64	64	20	-	-	-	45	4	M5	-	-	-
80	80	20	-	-	-	58	5	M6	-	-	-
100	100	30	-	-	-	78	5	M6	-	-	-
125	125	60	125	40	94.5	94.5	6	M8	M8	9	18
160	160	75	160	40	127.5	127.5	6	M8	M8	9	20
200	200	90	200	50	165	165	8	M10	M10	11	22

Size	l1 ± 0.02	l2	l3	l4	l5	l6	l7	l8	l9	l10
40	36	29.9	-	17.25	-	8.6	10	-	-	-
50	45	41.2	-	22	-	11	10	-	-	-
64	56	48.5	-	28	-	14	20	-	-	-
80	70	60.6	-	35	-	17.5	20	-	-	-

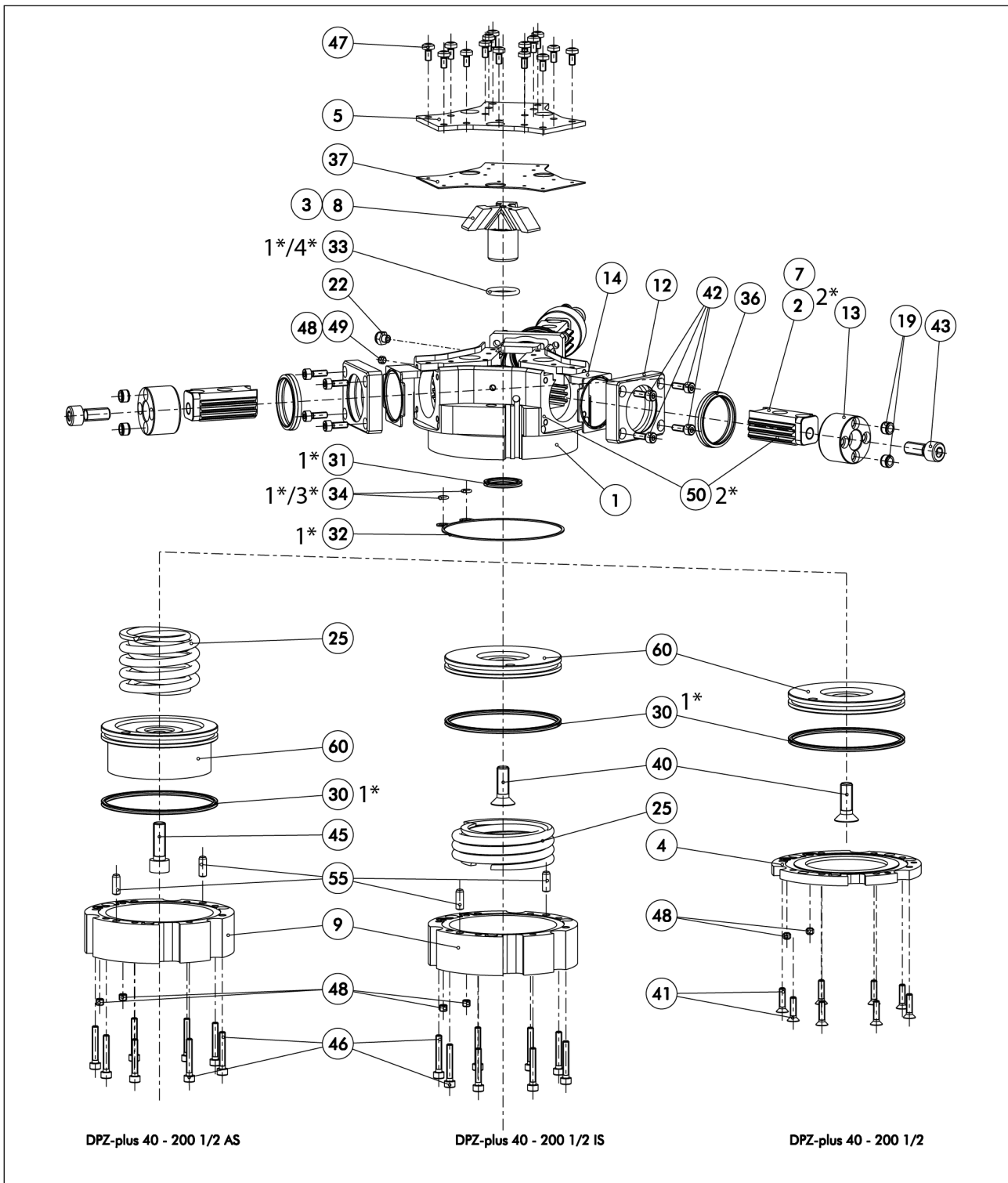
Size	l1 ± 0.02	l2	l3	l4	l5	l6	l7	l8	l9	l10
100	90	78	-	45	-	22.5	20	-	-	-
125	112	97	56	56	97	28	20	112	30	45
160	146	126.4	73	73	126.4	36.5	20	146	30	55
200	184	159.3	92	92	159.3	46	20	184	40	60

7.9 Assembly drawing

The following figures are example images.

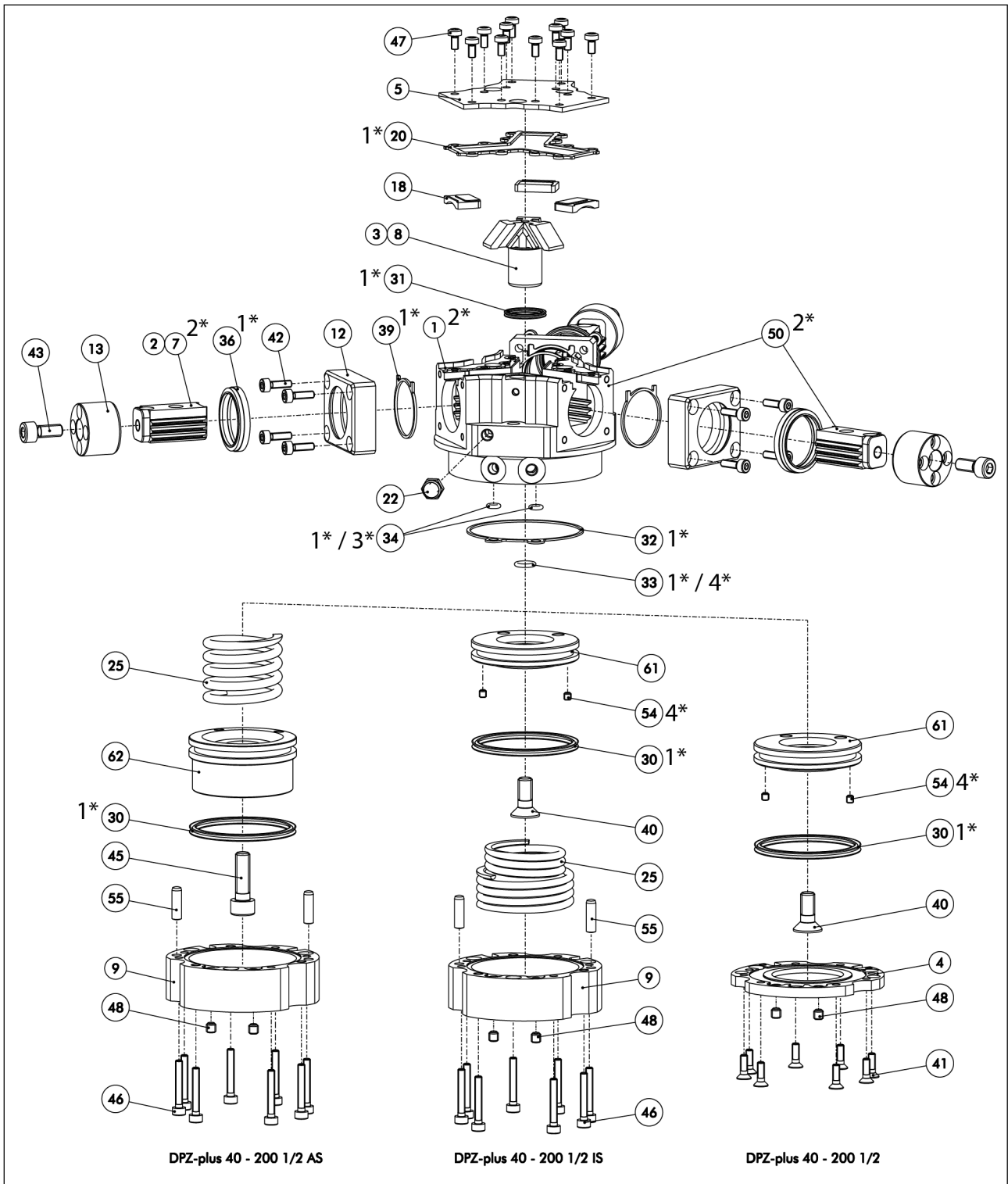
They serve for illustration and assignment of the spare parts.

Variations are possible depending on size and variant.



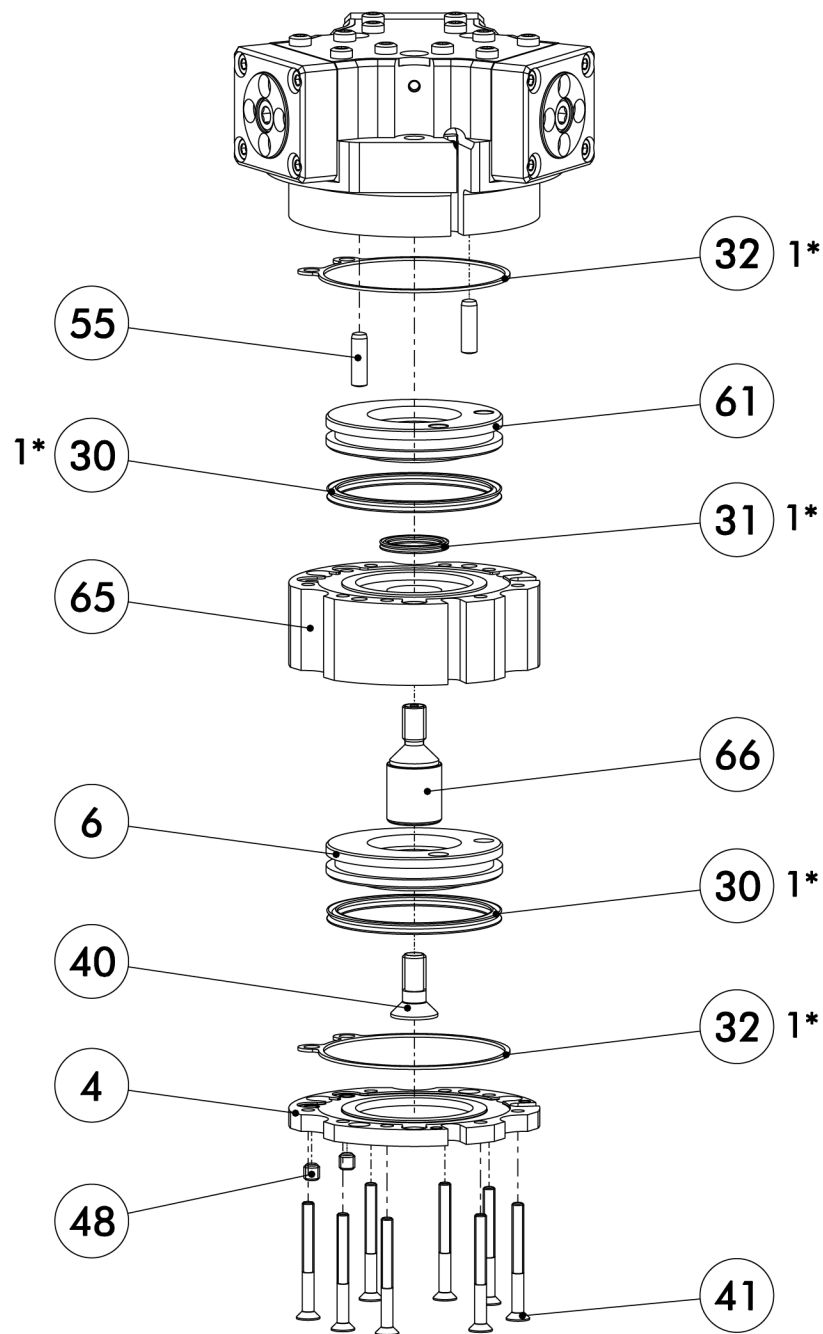
Assembly of the variants O.D. gripping/I.D. gripping/without maintenance of gripping force (previous version)

- 1* Wearing part, replace during maintenance. Included in the seal kit. Seal kit can only be ordered completely.
- 2* Positions are adapted to each other and can not be replaced by the customer.
- 3* for sizes 40 and from 125
- 4* from size 160



Assembly of the variants O.D. gripping/I.D. gripping/without maintenance of gripping force (successor version)

- 1* Wearing part, replace during maintenance.
Included in the seal kit. Seal kit can only be ordered completely.
- 2* Positions are adapted to each other and can not be replaced by the customer.
- 3* for sizes 40 and from 125
- 4* from size 160



DPZ-plus 64 / 80

Assembly of the variant with force intensification cylinder (previous version / successor version)

- * Wearing part, replace during maintenance.
Included in the seal kit. Seal kit can only be ordered completely.

Gripper variants with force intensification cylinders are not permitted for use in explosion-protected applications (EX).

8 Translation of the original declaration of incorporation

in terms of the Directive 2006/42/EG, Annex II, Part 1 Section B.

Manufacturer/ Distributor SCHUNK SE & Co. KG
Spanntechnik | Greiftechnik | Automatisierungstechnik
Bahnhofstr. 106 – 134
D-74348 Lauffen/Neckar

We hereby declare that the partly completed machine described below

Product designation: Sealed 3-finger centric gripper / DPZ-plus /pneumatic
ID number 0304401... 0304501

meets the following basic occupational health and safety of the Machinery Directive 2006/42/EC:

No. 1.1.1, No. 1.1.2, No. 1.1.3, No. 1.1.5, No. 1.3.2, No. 1.5.3, No. 1.5.4, No. 1.5.6, No. 1.5.8, No. 1.5.10, No. 1.5.11, No. 1.5.13

The partly completed machinery may not be put into operation until it has been confirmed that the machine into which the partly completed machinery is to be installed complies with the provisions of the Machinery Directive (2006/42/EC). The declaration shall be rendered invalid if modifications are made to the product.

Applied harmonized standards, especially:

EN ISO 12100:2010 Safety of machinery – General principles for design –
Risk assessment and risk reduction

The special technical documentation according to Annex VII, Part B, belonging to the partly completed machine, has been created.

Person authorized to compile the technical documentation:
Stefanie Walter, Address: see manufacturer's address

Signature: see original declaration

Lauffen/Neckar, March 2025

Dr.-Ing. Manuel Baumeister,
Head of Systems Engineering,
Technology & Innovation

9 UKCA declaration of incorporation

in accordance with the Supply of Machinery (Safety) Regulations 2008.

Manufacturer/	SCHUNK Intec Limited
Distributor	Clamping and gripping technology 3 Drakes Mews, Crownhill MK8 0ER Milton Keynes

We hereby declare that on the date of the declaration the following partly completed machine complied with all basic safety and health regulations found in the "Supply of Machinery (Safety) Regulations 2008".

The declaration shall be rendered invalid if modifications are made to the product.

Product designation:	Sealed 3-finger centric gripper / DPZ-plus / pneumatic
ID number	0304401... 0304501

The partly completed machine may not be put into operation until it has been confirmed that the machine into which the partly completed machine is to be installed complies with the provisions of the "Supply of Machinery (Safety) Regulations 2008".

Applied harmonized standards, especially:

EN ISO 12100:2010	Safety of machinery – General principles for design – Risk assessment and risk reduction
-------------------	---

The special technical documentation according to Annex VII, Part B, belonging to the partly completed machine, has been created.

Person authorized to compile the technical documentation:
Marcel Machado, address: refer to manufacturer's address



Lauffen/Neckar, March 2025

Dr.-Ing. Manuel Baumeister,
Head of Systems Engineering,
Technology & Innovation

10 Information on the RoHS Directive, REACH Regulation and Substances of Very High Concern (SVHC)

RoHS Directive

SCHUNK products are classified as "large-scale stationary installations" or as "large-scale stationary industrial tools" within the meaning of Directive 2011/65/EU and its extension 2015/863/EU "on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)", or fulfill their intended function only as part of one. Therefore products from SCHUNK do not fall within the scope of the directive at this time.

REACH Regulation

Products from SCHUNK fully comply with the regulations of Regulation (EC) No. 1907/2006 "concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)" and its amendment 2022/477. SCHUNK attaches great importance to completely avoiding chemicals of concern to humans and the environment wherever possible.

Only in rare exceptional cases do SCHUNK products contain SVHC substances on the candidate list with a mass content above 0.1%. In accordance with Article. 33 (1) of Regulation (EC) No. 1907/2006, SCHUNK complies with its duty to "communicate information on substances in articles" and lists the components concerned and the substances used in an overview that can be viewed at [schunk.com/SVHC](https://www.schunk.com/SVHC).

Signature: see original declaration

Lauffen/Neckar, March 2025

Dr.-Ing. Manuel Baumeister,
Head of Systems Engineering,
Technology & Innovation

11 Appendix

11.1 Differentiation between the previous version and the successor version

The product has been redesigned as of 2020. The modified successor version is directly interchangeable with the previous version and replaces it.

The difference between the two versions lies exclusively in the design and is therefore only relevant for spare parts such as the sealing kit. The instructions identify the two versions at the relevant points with the additions "previous version" and "successor version".

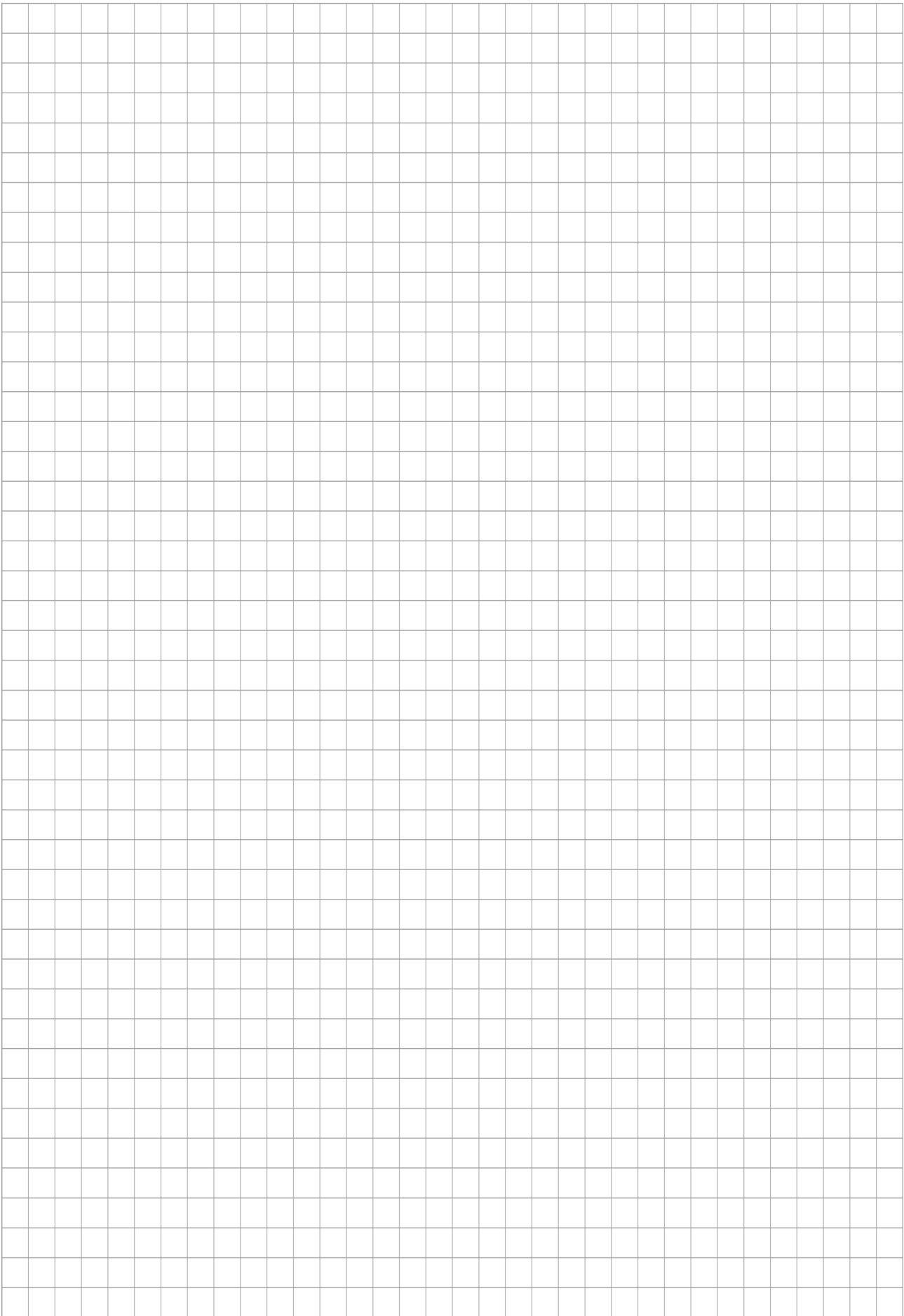
DPZ-plus	Ident number Previous version	Ident number Successor version
40	304501	1316263
40-1-AS-EX	305221	1315367
40-1-EX	305220	1315361
40-1-IS-EX	305222	1315369
40-AS	304503	1316265
40-AS-V	-	1321292
40-IS	304505	1316267
40-IS-V	39304505	1321293
40-V	39304501	1321291
50-1	304401	1316268
50-1-AS	304403	1316272
50-1-AS-EX	305232	1315379
50-1-AS-V	-	1321297
50-1-EX	305230	1315377
50-1-IS	304405	1316276
50-1-IS-EX	305234	1315396
50-1-IS-V	39304405	1321301
50-1-V	1318170	1321294
50-2	304402	1316271
50-2-AS	304404	1316275
50-2-AS-EX	305233	1315395
50-2-AS-V	-	1321299
50-2-EX	305231	1315378
50-2-IS	304406	1316277
50-2-IS-EX	305235	1315398

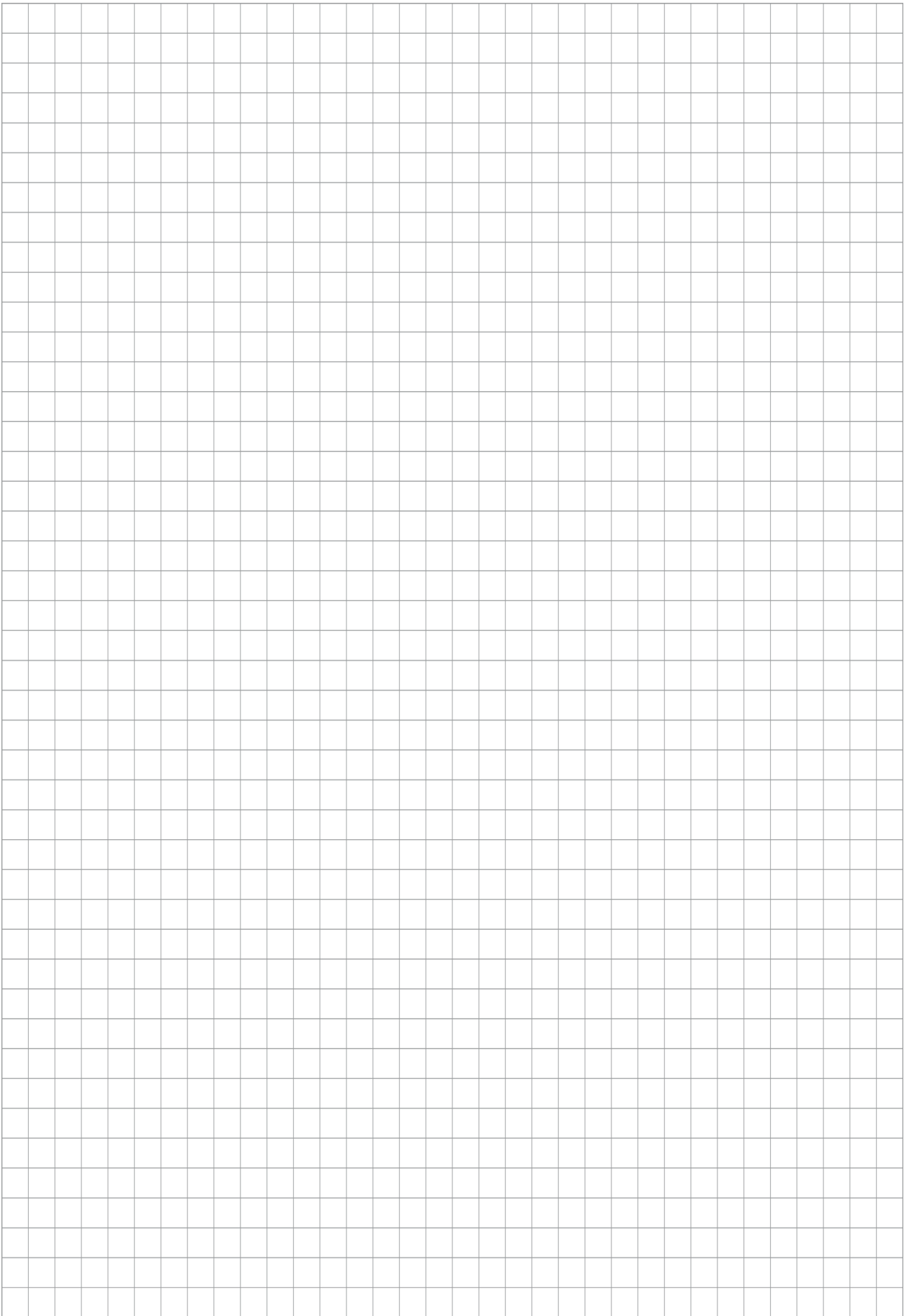
DPZ-plus	Ident number Previous version	Ident number Successor version
50-2-IS-V	-	1321302
50-2-V	-	1321296
64-1	304411	1316280
64-1-AS	304413	1316283
64-1-AS-EX	305242	1315457
64-1-AS-V	39304413	1321312
64-1-EX	305240	1315399
64-1-IS	304415	1316286
64-1-IS-EX	305244	1315465
64-1-IS-V	39304415	1321318
64-1-KVZ	304417	1316281
64-1-V	39304411	1321310
64-2	304412	1316282
64-2-AS	304414	1316284
64-2-AS-EX	305243	1315459
64-2-AS-V	1417451	1321313
64-2-EX	305241	1315402
64-2-IS	304416	1316287
64-2-IS-EX	305245	1315468
64-2-IS-V	1417452	1321319
64-2-V	39304412	1321311
80-1	304421	1316288
80-1-AS	304423	1316291
80-1-AS-EX	305252	1315478
80-1-AS-V	-	1321323
80-1-EX	305250	1315473
80-1-IS	304425	1316293
80-1-IS-EX	305254	1315485
80-1-IS-V	-	1321325
80-1-KVZ	304427	1316289
80-1-V	39304421	1321320
80-2	304422	1316290
80-2-AS	304424	1316292
80-2-AS-EX	305253	1315481
80-2-AS-V	-	1321324
80-2-EX	305251	1315477

DPZ-plus	Ident number Previous version	Ident number Successor version
80-2-IS	304426	1316295
80-2-IS-EX	305255	1315489
80-2-IS-V	1312216	1321328
80-2-V	-	1321321
100-1	304431	1316296
100-1-AS	304433	1316299
100-1-AS-EX	305262	1315494
100-1-AS-V	1321646	1321332
100-1-EX	305260	1315491
100-1-IS	304435	1316301
100-1-IS-EX	305264	1315505
100-1-IS-V	-	1321336
100-1-V	39304431	1321329
100-2	304432	1316297
100-2-AS	304434	1316300
100-2-AS-EX	305263	1315504
100-2-AS-V	-	1321334
100-2-EX	305261	1315492
100-2-IS	304436	1316302
100-2-IS-EX	305265	1315509
100-2-IS-V	39304436	1321340
100-2-V	39304432	1321331
125-1	304441	1316303
125-1-AS	304443	1316306
125-1-AS-EX	305272	1315514
125-1-AS-V	39304443	1321343
125-1-EX	305270	1315510
125-1-IS	304445	1316308
125-1-IS-EX	305274	1315520
125-1-IS-V	39304445	1321345
125-1-V	39304441	1321341
125-2	304442	1316304
125-2-AS	304444	1316307
125-2-AS-EX	305273	1315518
125-2-AS-V	-	1321344
125-2-EX	305271	1315511

DPZ-plus	Ident number Previous version	Ident number Successor version
125-2-IS	304446	1316309
125-2-IS-EX	305275	1315522
125-2-IS-V	-	1321346
125-2-V	39304442	1321342
160-1	304451	1316310
160-1-AS	304453	1316313
160-1-AS-EX	305282	1315531
160-1-AS-V	39304453	1321351
160-1-EX	305280	1315526
160-1-IS	304455	1316315
160-1-IS-EX	305284	1315544
160-1-IS-V	-	1321354
160-1-V	39304451	1321347
160-2	304452	1316312
160-2-AS	304454	1316314
160-2-AS-EX	305283	1315541
160-2-AS-V	1414841	1321352
160-2-EX	305281	1315529
160-2-IS	304456	1316316
160-2-IS-EX	305285	1315546
160-2-IS-V	-	1321355
160-2-V	1377891	1321350
200-1	304461	1316317
200-1-AS	304463	1316320
200-1-AS-EX	305292	1315550
200-1-AS-V	39304463	1321358
200-1-EX	305290	1315548
200-1-IS	304465	1316322
200-1-IS-EX	305294	1315552
200-1-IS-V	-	1321361
200-1-V	39304461	1321356
200-2	304462	1316318
200-2-AS	304464	1316321
200-2-AS-EX	305293	1315551
200-2-AS-V	39304464	1321360

DPZ-plus	Ident number Previous version	Ident number Successor version
200-2-EX	305291	1315549
200-2-IS	304466	1316323
200-2-IS-EX	305295	1315556
200-2-IS-V	-	1321362
200-2-V	39304462	1321357







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