

Compact. Flat. Productive.

CWS Compact Change System

Compact manual change system with integrated air feed-through for direct mounting the most important SCHUNK gripping and compensating modules.

Field of Application

Ideally suited for use in laboratory technology and assembly automation.

Advantages – Your benefit

High productivity through fast manual gripper change, especially with small and medium lot sizes

Flat and weight-reduced through direct assembly of the gripper onto the change system without adapter plate

Series with five different sizes for optimal size selection and a broad application range

Integrated pneumatic feed-through for secure energy supply of the gripping modules

ISO flange pattern for easy assembly to most types of robots without needing additional adapter plates



Sizes
Quantity: 5



Handling weight
10 .. 28 kg



Moment load M_x
20 .. 110 Nm

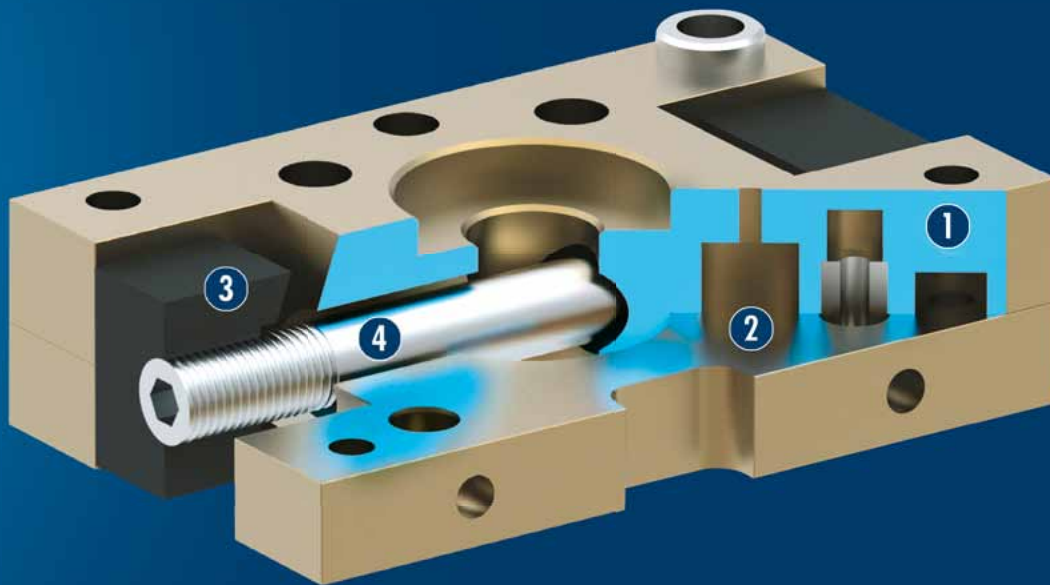


Moment load M_z
3.3 .. 66.7 Nm

Functional Description

The CWS compact change system consists of a CWK change master and a CWA change adapter. A form-fit connection is established between the CWK change master and the change adapter with two clamping jaws connected via a

thread spindle. Four integrated pneumatic feed-throughs reliably supply the gripper with pneumatic and optionally leave room for two additional pneumatic uses.



- ① **Housing**
Weight-optimized through application of high-strength aluminum alloy
- ② **Air feed-through**
Integration into housing means no interfering contours
- ③ **Clamping jaw**
for a form-fit safe hold
- ④ **Drive spindle**
for manually locking and unlocking the change system

CAD data, operating manuals and other current product documents are available at www.schunk.com

General Notes to the Series

Actuation: manually via Allen key, provided by the customer

Operating principle: by turning the threaded spindle, the clamping jaws are clamped or unclamped

Pass through: Integrated pneumatic feed-through

Housing: The housing is made of high-tensile, hard-coated aluminum alloy. The functional parts are made of hardened steel.

Scope of delivery: Centering sleeves for mounting and direct connection

Warranty: 24 months (details, general terms and conditions and operation manuals can be downloaded at www.schunk.com)

Harsh environmental conditions: Please note that the use in harsh environmental conditions (e.g. in the coolant area, cast and grinding dust) can considerably reduce the service lifetime of the units, and will void warranty. However, in many cases we can find a solution. Please contact us.

Handling weight: The weight of the total load attached to the flange. The design must take into account the permissible forces and moments. Please note that the life span will be reduced if the maximum handling weight is exceeded.

Application example

Flexible assembly unit for various product versions. Simple and quick tool changing using a quick-change system.

- 1 CWS Compact Change System
- 2 PGN-plus Universal Gripper
- 3 LM Linear Module



SCHUNK offers more ...

The following components make the CWS even more productive – the perfect complement for highest functionality, flexibility, and process reliability.



Centering Sleeves



Fittings



PGN-plus Universal Gripper

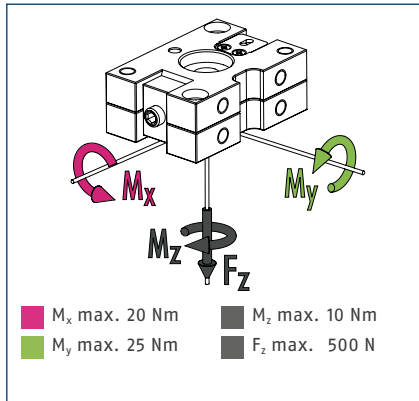


PWG-plus Angular Gripper

① Further information regarding the products can be found on the following products pages or at www.schunk.com. Please contact us for further information: SCHUNK technical hotline +49-7133-103-2696



Forces and moments



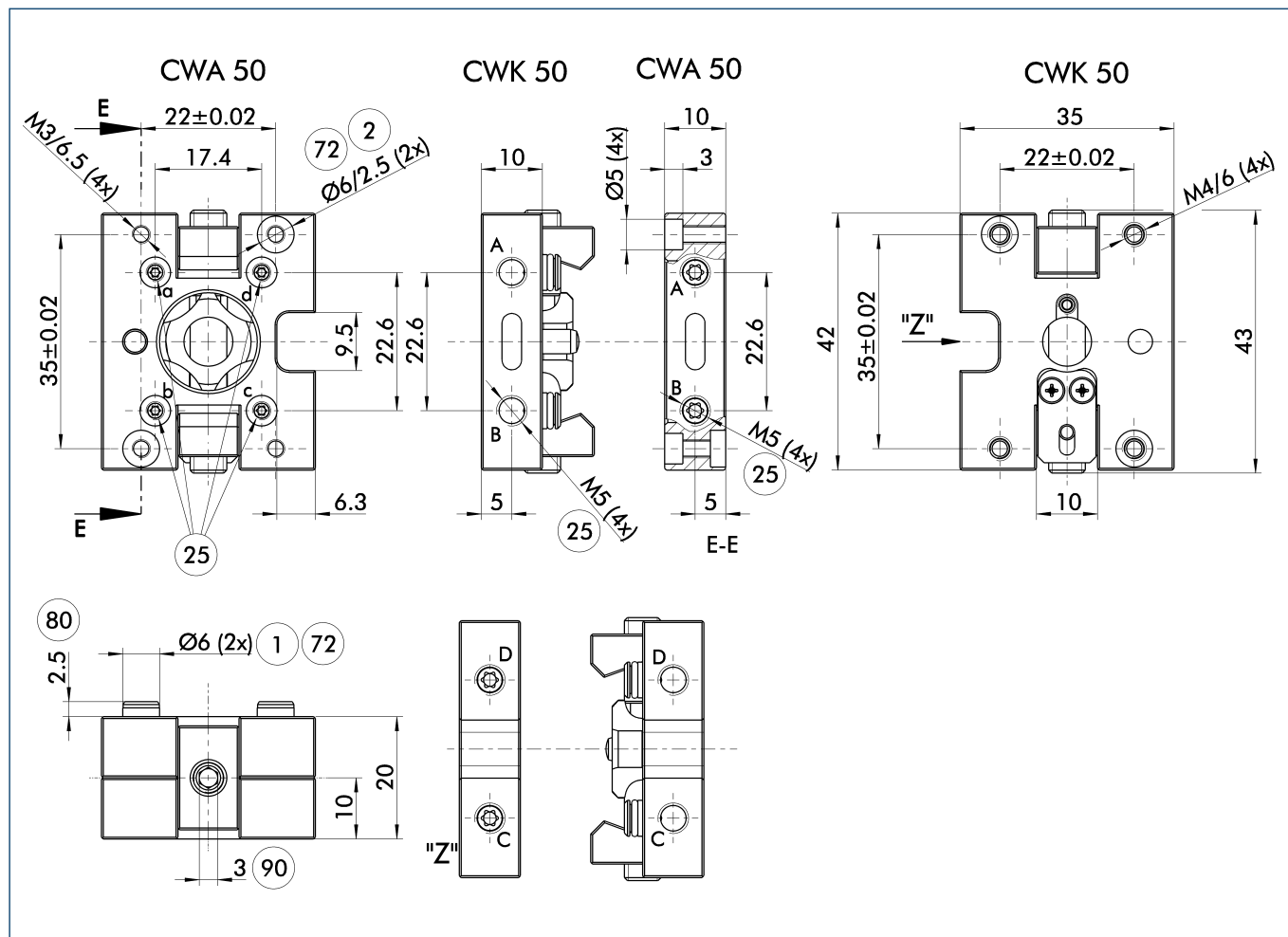
ⓘ This is the max. sum of all torques (acceleration torques, process forces, acceleration forces etc.) that are permitted to act on the change system in order to ensure error-free functioning.

Technical data

Description		CWK-050-P	CWA-050-P
		Compact change master	Compact change adapter
ID		0305750	0305751
max. payload	[kg]	10	10
max. static moment M_x	[Nm]	6.7	6.7
max. static moment M_y	[Nm]	8.3	8.3
max. static moment M_z	[Nm]	3.3	3.3
Repeat accuracy	[mm]	0.01	0.01
Mass	[g]	50	20
Number of pneumatic feed-throughs		4	4
min. / max. ambient temperature	[°C]	5/60	5/60
Direct connection to*			PGN-plus 50

ⓘ * and for other gripper with the same mounting pattern

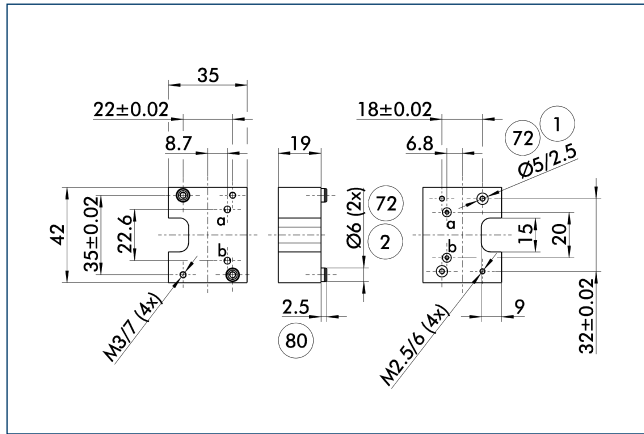
Main view



The drawing shows the basic design of the gripper change system and does not take into consideration the dimensions of any options described below.

- ① Robot side connection
- ② Tool side connection
- ②⑤ Pneumatic feed-through
- ②⑦ Fitting for centering sleeve
- ⑧⑩ Depth of the centering sleeve hole in the mating part
- ⑨⑩ Wrench size

Adapter plate between CWA-064 and PGN-plus 50

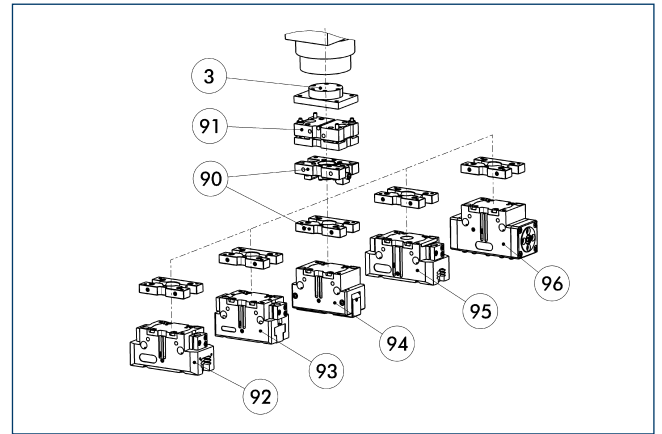


- ① Robot side connection
- ② Tool side connection
- ⑦ Fitting for centering sleeve
- ⑧ Depth of the centering sleeve hole in the mating part

Air feed-throughs are integrated in the adapter plate. Therefore the matching gripper can be directly connected without using hoses.

Description	ID	Height
Tool-side		
A-CWA-050-040-P	0305754	19 mm

Modular system



- ③ Adapter plate
- ⑨ CWS compact change system
- ⑩ TCU tolerance compensation unit
- ⑪ PGN-plus 2-finger parallel gripper
- ⑫ JGP 2-finger parallel gripper
- ⑬ PWG-plus 2-finger angular gripper
- ⑭ PGB 2-finger parallel gripper
- ⑮ DPG-plus sealed gripper

The unit is part of a modular system in which various components such as grippers or compliant devices can be threaded to one another directly.

