

Superior Clamping and Gripping

Product Information

Magnetic gripper with shank interface GSW-M

Cost-effective. Productive. Compliant.

Magnetic gripper GSW-M

Magnetic gripper for spindle interfaces for handling flat components

Field of application

Unit for automatic loading and unloading of machining centers by their own axis, which provides compressed air and coolant supply via the tool mounting.



Advantages – Your benefits

Low-cost module for flexible automation in your machine

Fast, automated gripper changeover from the gripper to the storage rack

Fully automated workpiece changeover without robot or gantry system

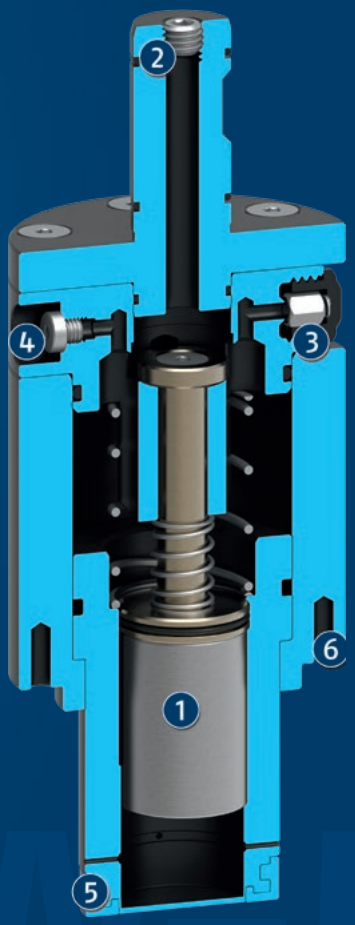
Universally suitable for many different workpieces

Sizes	Weight	Holding force	Workpiece weight
Quantity: 1	1 kg	70 N	3.5 kg

Functional description

The gripper can be used in any machine which provides compressed air or lubricating coolants supply via the toolholder mounting.
The magnetic gripper GSW-M is placed on the workpiece and pressed 20 mm deep. The spring force (Fc) of the ejector must be overcome. (In addition, there is a reserve or compensation stroke of 9 mm.)

The stroke causes the permanent magnet to approach the workpiece and the workpiece is firmly held by the magnet. To place the workpiece, the gripper is actuated with compressed air or coolant. During the placement, the gripper continuously supplies coolant or compressed air via the outlet port.



① **Permanent magnet**
for holding of magnetic materials

② **Media supply**
via spindel interface

③ **Overpressure valve**
for a large pressure range

④ **Drain valve**
for coolant operation

⑤ **Rubber friction ring**
for absorbing shear forces and protecting the workpiece

⑥ **Thread**
For customer-specific attachments/supports

GSW-M

Magnetic gripper with shank interface

General notes about the series

Operating principle: Permanent magnet

Housing material: Aluminum

Spindle interface material: Aluminum alloy

Actuation: hydraulically with machine coolant (filtered, max. particle size of 30 µm) or pneumatically with filtered compressed air in accordance with ISO 8573-1:2010 [7:4:4].

Warranty: 24 months

Service life characteristics: on request

Scope of delivery: Assembly and operating manual



Application example

Handling of pinions in a milling center

1. Vacuum gripper GSW-V
2. Magnetic gripper GSW-M
3. Gripper with shaft interface GSW-B and PGN-plus
4. Gripper with shaft interface GSW-B and PZN-plus
5. Cleaning unit RGG

SCHUNK offers more ...

The following components make the product even more productive – the suitable addition for the highest functionality, flexibility, reliability, and controlled production.





Gripper with shaft interface



Vacuum Gripper



Cleaning Unit



Toolholders



Stationary clamping technology

ⓘ For more information on these products can be found on the following product pages or at schunk.com.

Options and special information

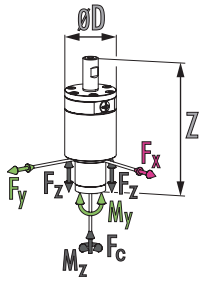
Please note that applications under extreme conditions (e.g. coolant, casting or abrasive dust) will reduce the service life of this product considerably.
Further shaft diameters on request.
Please note that the product is not suitable for heat shrinking toolholders.
Precondition: If the spindles do not rotate, then the machines have to provide compressed air or coolant.

GSW-M 20

Magnetic gripper with shank interface



Dimensions and maximum loads



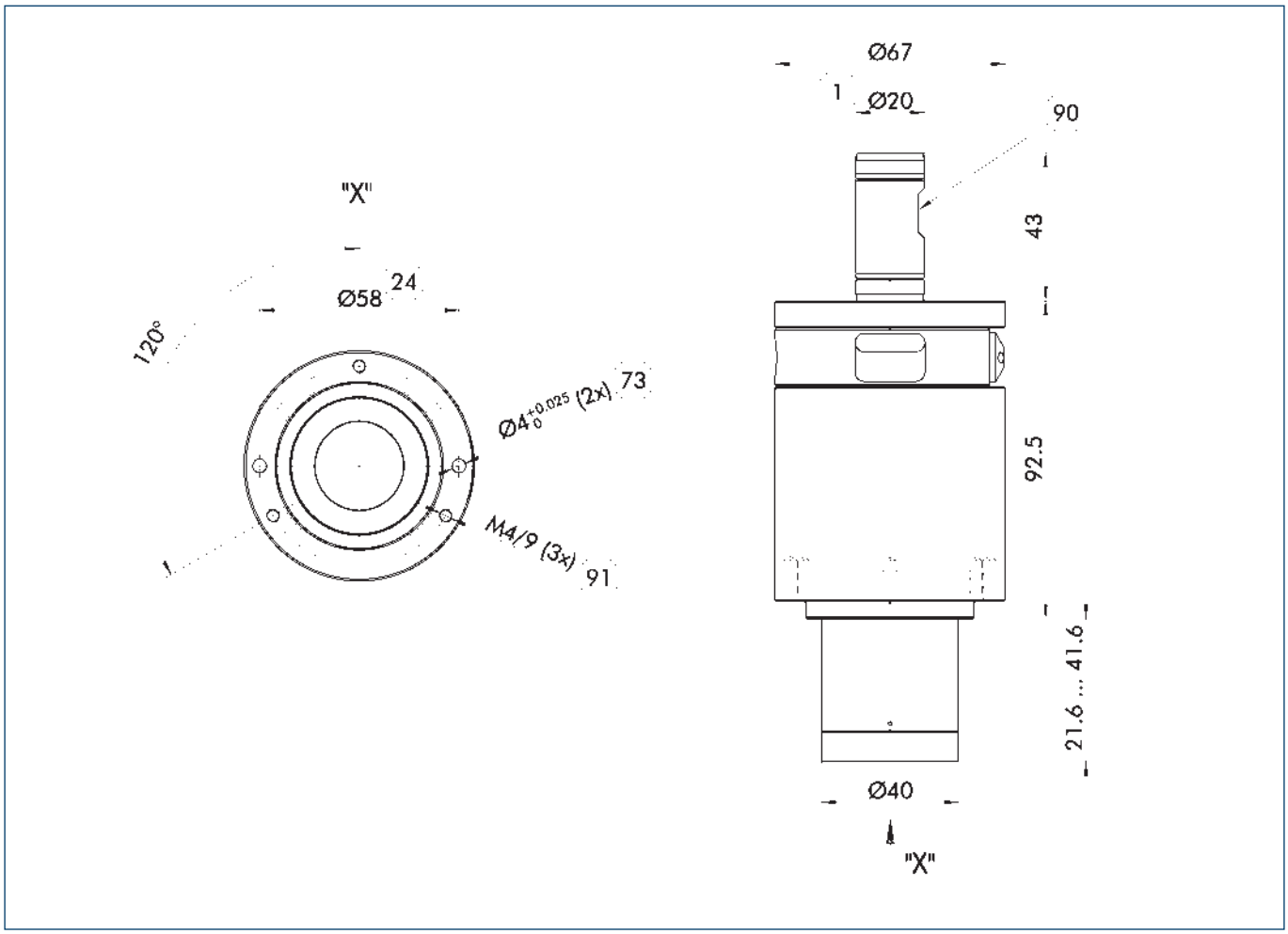
Mx max. 13.5 Nm	Fx max. 150 N
My max. 13.5 Nm	Fy max. 150 N
Mz max. 30 Nm	Fz max. 400 N

ⓘ The indicated moments and forces are statical values and may appear simultaneously.

Technical data

Description		GSW-M 20
ID		0308355
General technical data		
Weight	[kg]	1
Holding force	[N]	70
Recommended workpiece weight	[kg]	3.5
Max. permissible speed	[1/min]	0
Nominal operating pressure compressed air	[bar]	6
Min./max. operating pressure, compressed air	[bar]	2/8
Nominal operating pressure coolant	[bar]	40
Min./max. operating pressure, coolant	[bar]	10/50
IP protection class		44
Min./max. ambient temperature	[°C]	5/90
Dimensions Ø D x Z	[mm]	67 x 177.1
Broach spring force Fc	[N]	80.00

Main view



The drawing shows the unit in standard design, without considering any dimensions of the options described below.

(1) Gripper connection
(24) Bolt circle
(73) Fit for centering pins
(90) WELDON clamping surface
(91) Thread for pressure piece

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