

## 1. Supporting documents

### NOTICE

- Read through the installation and operating instructions carefully before installing the product! The installation and operating instructions contain important notes for your personal safety. They must be read and understood by all persons who work with or handle the product during any phase of the product lifetime. The documents listed below are available for download on our website ([www.zimmer-group.com](http://www.zimmer-group.com)). Only those documents currently available on the website are valid.
- Catalogs, drawings, CAD data, performance data
  - Information on accessories
  - Detailed installation and operating instructions
  - Technical data sheets
  - General Terms and Conditions of Business with specifications for the warranty entitlement

## 2. Safety notes

### CAUTION

- Non-compliance may result in severe injuries.
1. Installation, commissioning, maintenance and repairs may only be performed by qualified specialists in accordance with these installation and operating instructions.
  2. The gripper is state-of-the-art. It is fitted to industrial machines and is used to hold workpieces. The following are examples of situations in which the gripper may cause a hazard:
    - It is not properly installed, used or maintained
    - It is not used for its intended purpose
    - Local regulations (legislation, decrees, guidelines), such as the EC Machinery Directive, accident prevention regulations and the installation and operating instructions, are not observed.
  3. The gripper may be used only in accordance with its proper use and technical data. Zimmer GmbH shall accept no liability for any damage caused by improper use.
  4. Any use other than the intended use requires written approval from Zimmer GmbH.
  5. Do not reach into the operational range of the gripper.
  6. Make sure that the power cables are disconnected before you install, modify, maintain or repair the gripper.
  7. In case of maintenance, modification or attachment work, remove the gripper from the machine and perform the work outside the danger zone.
  8. When commissioning or testing, make sure that the gripper cannot be actuated by mistake.
  9. Modifications to the gripper, such as adding drilled holes or threads, may be made only with prior approval from Zimmer GmbH.
  10. The specified maintenance intervals and compressed air quality specifications are to be observed; also refer to the Maintenance section. When the gripper is used under extreme conditions, the maintenance interval must be adapted depending on the extent of the contamination.
  11. Use of the gripper under extreme conditions, such as aggressive liquids and abrasive dusts, is subject to prior approval from Zimmer GmbH.
  12. When removing grippers that have an integrated spring, work with extra caution because the spring is always under tension.

## 3. Proper use

### NOTICE

- The gripper is to be used only in its original state with its original accessories, without any unauthorized changes and within the scope of its defined parameters of use. Zimmer GmbH shall accept no liability for any damage caused by improper use.

The gripper is designed exclusively for pneumatic operation. The gripper is designated for use in enclosed rooms for temporarily gripping, handling and holding parts. The gripper is not suitable for clamping workpieces during a machining process. Direct contact with perishable goods/food is not permitted.

## 4. Personnel qualification

Installation, commissioning and maintenance may only be performed by qualified personnel. These persons must have read and understood the installation and operating instructions in full.

## 5. Product description

### 5.1 Forces and torques

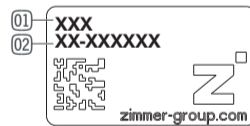
#### INFORMATION

- For information on forces and torques, please visit our website. Zimmer Customer Service is available to provide you with assistance if you have any further questions.

### 5.2 Type plate

A type plate is attached to the housing of the gripper. The confirmation number and the article number are indicated on this type plate.

- The confirmation number should be assigned to the project.
- ⇒ Article number: 01
- ⇒ Confirmation number: 02



## 6. Function

The function is based on a pneumatic piston vented on both sides. Alternating ventilation causes the pneumatic piston to move up and down. The generated power is transferred to the gripper jaws by kinematics, thereby producing the gripping force. The spring used in the cylinder chamber acts as an energy accumulator and gripping force safety device.

1	Housing
2	Mounting and positioning
3	Power supply
4	Integrated slot
5	Positive-drive wedge hook transmission
6	Gripper jaw
7	Integrated gripping force safety device
8	Mounting block
9	Position sensing

Fig. 1: GP400

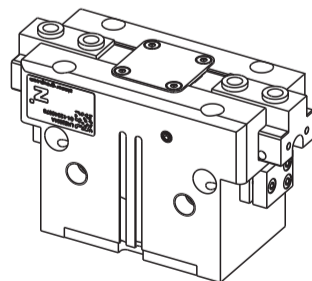
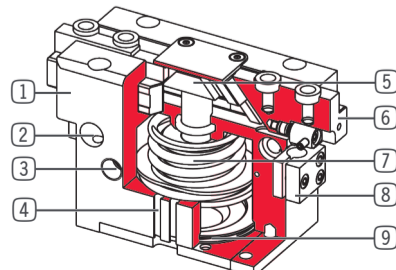


Fig. 2: Cutaway view of the GP400



## 7. Installation

### 7.1 General installation information

#### WARNING

- Risk of injury in case of unexpected movement of the machine or system into which the gripper is to be installed.
- Switch off the power supply to the machine before all work.
  - Secure the machine against being switched on unintentionally.
  - Check the machine for any residual energy.

#### CAUTION

- Risk of injury in the event of unexpected movement of the gripper when the power supply is connected.
- Switch off the power supply to the gripper before all work.
  - Secure the power supply against being switched on unintentionally.
  - Check the power supply for any residual energy.

#### NOTICE

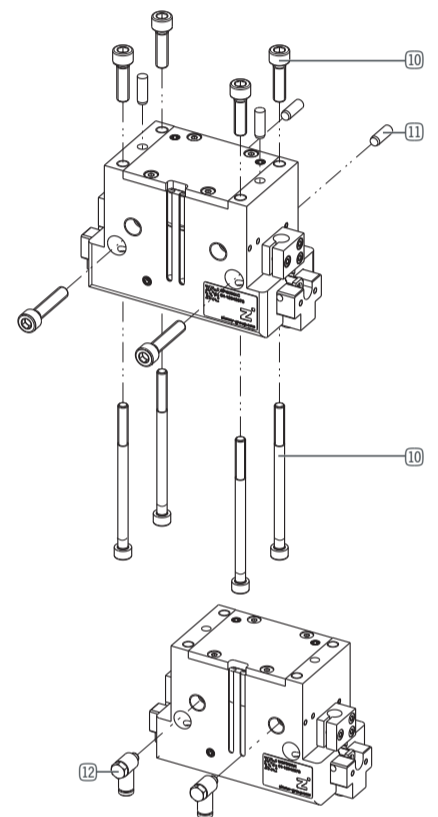
- Switch off the power supply before any assembly, installation or maintenance work.

### 7.2 General installation information

- The gripper must be installed on a mounting surface in accordance with the specifications for flatness.
- ⇒ Permissible unevenness of 0.03 mm
  - ⇒ The mounting screws are not included in the scope of delivery.
  - ⇒ Strength class of the mounting screws at least 8.8 DIN EN ISO 4762.
  - ⇒ Observe the tightening torque of the mounting screws.
  - ⇒ Make sure the mounting surface is sufficiently rigid and flat.
  - ⇒ For detailed information, refer to the technical data sheet.

### 7.3 Installing the gripper

- The gripper can be installed from multiple sides on the mounting piece via the threads on the housing. The following work steps must be observed during installation:
- Insert the straight pins 11 into the designated fits on the gripper.
  - Use the straight pins 11 to position the gripper on the designated mounting piece.
  - Use mounting screws 10 to secure the gripper to the mounting piece.



### 7.4 Installing the power supply

- Insert the screw connection 12 into the designated connectors. There are two alternative connections available. The alternative connections are located on the bottom plate of the housing.

### 7.5 Installing accessories

#### NOTICE

- Before installing an accessory, make sure it is suitable for use with the selected variant. For information on all available accessories, please visit our website.

## 8. Technical data

#### INFORMATION

- For technical data, please visit our website. This data varies within the series, depending on the specific design. Zimmer Customer Service is available to provide you with assistance if you have any further questions.

## 9. Maintenance

Maintenance-free operation of the gripper is guaranteed for up to **10 million cycles**. The maintenance interval may shorten under the following circumstances:

- Operation with compressed air that does not comply with DIN ISO 8573-1 [4:4:4]
- Dirty environment
- Improper use and use that does not comply with the power specifications
- Note the ambient temperature

We recommend allowing maintenance and seal replacement to be carried out by Zimmer Customer Service. Dismantling and reassembling the gripper without authorization may result in complications, as special installation equipment is required in some cases. Zimmer GmbH accepts no liability for any resulting malfunctions or damage.

## 10. Declaration of Incorporation

In terms of the EU Machinery Directive 2006/42/EC (Annex II 1 B).

**Name and address of the manufacturer:**  
Zimmer GmbH • Im Salmenkopf 5 • 77866 Rheinau, Germany • +49 7844 9138 0 • +49 7844 9138 80 • www.zimmer-group.com

We hereby declare that the incomplete machine described below

**Product designation: 2-jaw parallel gripper, pneumatic**

**Type designation: GP400 series**

satisfies the following basic requirements of the Machinery Directive 2006/42/EC: No. 1.1.2., No. 1.1.3., No. 1.1.5., No. 1.3.2., No. 1.3.4., No. 1.3.7., No. 1.5.3., No. 1.5.4., No. 1.5.8., No. 1.6.4., No. 1.7.1., No. 1.7.4

The manufacturer has a complete list of the applied standards. We also declare that the specific technical documents were produced in accordance with Annex VII Part B of this Directive. We undertake to provide the market supervisory bodies with electronic versions of special documents for the incomplete machine through our documentation department, should they have reason to request them.

**The incomplete machine may only be commissioned if it has been ascertained, if applicable, that the machine or system in which the incomplete machine is to be installed satisfies the requirements of Directive 2006/42/EC on Machinery and an EC Declaration of Conformity has been drawn up in accordance with Annex II 1 A.**

Authorized representative for the compilation of relevant technical documents

Kurt Ross	See manufacturer's address	Rheinau, Germany, 2020-10-08	Martin Zimmer, Managing Director
First name, last name	Address	Place and date of issuance	Legally binding signature