

Installation and Operating instructions
RG series
DDOC00302
Index 0
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Im Salmenkopf
77866 Rheinau, Germany
☎: +49 7844 9138-0
☎: +49 7844 9138-80
www.zimmer-group.de

1 Supporting documents

NOTE:

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 life time.

The following documents are available for download on our website. Only the documents currently available on the website are valid.

- Catalog, drawings, CAD data, performance data
- Information on accessories
- Detailed installation and operating instructions, technical datasheets
- General Terms and Conditions of Business, including warranty information

2 Safety notes

CAUTION:

1. Installation, commissioning, maintenance and repairs may only be performed by qualified experts 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:
 - the gripper is not properly installed, used or maintained,
 - the gripper is not used for its intended purpose,
 - local regulations (legislation, regulations, 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 operating range of the gripper.
6. Make sure that the transmission lines are disconnected before you install, retool, maintain or repair the gripper.
7. In case of maintenance, renovation or expansion work, remove the gripper from the machine and carry out 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. Please contact our hotline for this purpose.
11. Use of either gripper under extreme conditions, such as aggressive liquids and abrasive dusts, is subject to prior approval from Zimmer GmbH.

3 Proper use

NOTE:

The LGG series gripper is only to be used in its original state with its original accessories, with no unauthorized changes and within the scope of its defined parameters for use. Zimmer GmbH shall accept no liability for any damage caused by improper use.

The gripper is designed for operation with compressed air only. It is not suited for operation with other media such as liquids or gases. The gripper is used as defined under "Proper use" in enclosed rooms for time-restricted gripping, handling and holding workpieces. It is not suitable for clamping workpieces during a machining process or for direct contact with perishable goods.

4 Personnel qualification

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

5 Function

5.1 Gripper function

The drive of RG series grippers is based on the principle of the expansion of volume of a rubber membrane. As a result, it is possible to control the gripper using just a single pneumatic line, thereby significantly reducing installation effort and interference contours. The energy supply can be connected to multiple sides of the gripper. The return of the gripper is produced by bleeding the rubber membrane. A safe standstill of the workpiece is ensured – even in the event of high dynamics – thanks to the high friction coefficient. The surface protection of the workpiece is permanently ensured by the gripper's rubber knobs, minimizing rejections in the process.

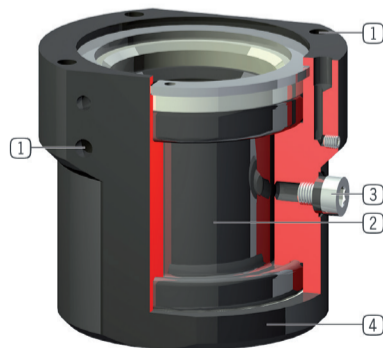
5.2 Gripper design

Fig. 1: RG series gripper

- 1 Mounting and positioning
- 2 Drive
- 3 Energy supply
- 4 Robust, lightweight housing



Fig. 2: Cutaway view of the RG series gripper



6 Installation

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:



While working with the gripper or in the work area of the machine, the valid regulations of workplace safety and health protection are to be observed.

Risk of injury in case of unexpected movement of the gripper when pneumatic energy is connected.

- ▶ Switch off the pneumatic energy before all work.
- ▶ Secure the pneumatic circuit against being switched on unintentionally.
- ▶ Check the pneumatic circuit for any existing residual energy, bleed if necessary.

6.1 Installing the gripper

The gripper can be installed onto a mounting surface from multiple sides. When doing so, make sure the specifications on levelness are adhered to.

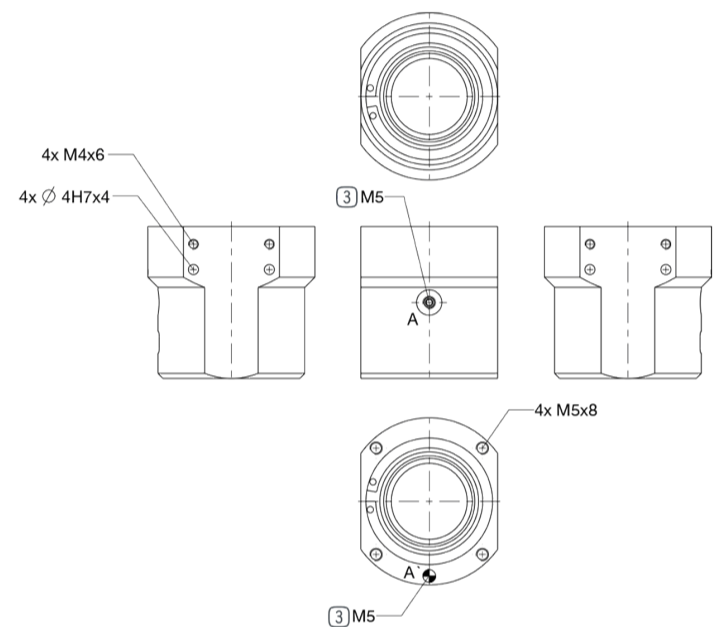
Mounting surface length [mm]	Permissible unevenness [mm]
< 100	< 0,02
> 100	> 0,05

6.2 Installing the pneumatic connections

The pneumatic energy power supply can be connected to multiple sides of the gripper.

- 3 Energy supply

RG0-30 example:



NOTE:



Close off unused pneumatic connections with dummy plugs. The available pneumatic connections can be found in the accessories list of the product data sheets on our website. You can also find the necessary ordering information there.

7 Technical data

These multi-page data sheets contain the following:

- A product description
- The technical data
- A dimensional drawing
- The available accessories

INFORMATION:



Please refer to our website www.zimmer-group.de for technical data. This data varies within the type series depending on the specific design. If you should have further questions about products or technical data, please contact ZIMMER GmbH customer service.

8 Maintenance

The gripper does not require maintenance.

The time of freedom from maintenance may shorten under the following circumstances:

- Operation with compressed air that does not comply with DIN ISO 8573-1 quality class 4.
- Dirty environment.
- Improper use and use that does not comply with the performance data.

We recommend using the Zimmer GmbH repair service for maintenance and the replacement of seals.

Dismantling and reassembling the gripper without authorization may result in complications, as special installation equipment is required in some cases.

INFORMATION:



Even though the gripper is, as mentioned, maintenance-free, perform a regular visual inspection to check for any corrosion, damage or contamination. Clean the gripper as needed using a commercially available cleaning agent for machines.

9 Declaration of Incorporation

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

Name and address of the manufacturer:

ZIMMER GmbH • Im Salmenkopf 5 • D-77866 Rheinau, Germany • Phone: +49 7844 9138 0 • www.zimmer-group.de

We hereby declare that the incomplete machine described below

Product designation: pneumatic gripper
Type designation: RG□□□□

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.

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 the machine or system in which the incomplete machine is to be installed has been determined to satisfy the conditions of the Machinery Directive 2006/42/EC and the EC Declaration of Conformity has been produced in accordance with Annex II 1 A.

Authorized representative for compiling the relevant technical documents

Kurt Ross	See manufacturer's address	Rheinau, Germany, 2019-02-07	Martin Zimmer, Managing Director
First name, last name	Address	Place and date of issuance	Legally binding signature