**1 Supporting documents**

**NOTE:**

The documents mentioned below are available for download on our website www.zimmer-group.de.

- Catalogs, drawings, CAD data, performance data
- Detailed installation and operating instructions
- General Terms and Conditions

**2 Safety notes**

**CAUTION:**

- Non-compliance may result in severe injuries. Injuries/malfunctions can occur especially with:
  - Contamination during assembly due to unscrewed connection structures.
  - Improperly assembled pneumatic connections.
  - Pneumatic supply interferences, e.g. due to pressure fluctuations.
  - Damaged or loose pneumatic lines.
  - Missing or loosened fastening screws.
  - Removal of the safety cover.
  - Not switching off the working medium during assembly or repair work on the element.
  - Human error.

- Failure to observe the safety and warning instructions during installation and start-up.

- The RBPS series is exclusively operated as a spring accumulator element.

**3 Proper use**

The element must not be mounted on a line guide rail other than what the manufacturer has specified.

- The element is to be transported and stored only in the packaging supplied by Zimmer GmbH. If the element is stored differently or transported, it must be provided with corrosion protection to prevent any corrosion.

- The RBPS element is designed for operation with compressed air only. The element is not suited for operation with any other media. According to EN ISO 13849-1, the element is to be regarded as a safety-relevant component of controls. Furthermore, we can confirm the manufacture of the product using the basic and private safety principles (EN ISO B.1 and B.2 of EN ISO 13849-2). Thus, according to EN ISO 13849-1, chapter 6.2.4, para. 6, the element RBPS is considered as a proven component. The element can be used in control systems of category B or 1 without further control measures. For category 2 controls, a control chain must be provided. For use in higher control categories, the control must be executed in a mul-
ti-channel manner, whereby each channel must realize the safety function itself.

- The element must not be mounted on a line guide rail other than what the manufacturer has specified.

**4 Personnel qualification**

Danger!

- Various components of the element are continuously under spring tension. Never open the housing. No personnel is permitted to carry out hazardous tasks! Warning: Injuries/disability.

- The assembly, commissioning, maintenance and repairs may only be undertaken according to the present installation and operating instructions by only qualified personnel who have the professional experience and know how, as well as the dangers, of the machine into which the element is being installed.

**5 Product description**

The pneumatically operated RBPS series is a safety component. It is designed for clamping and braking on linear guide rails. The function is based on a wedge-type gear acting on both sides, each with a spring accumulator for the decompression clamping and braking. The spring accumulator closes the element in a de-pressurized state, which makes high holding forces possible. Any damage to the contact surface of the linear guide rail is prevented by the packing of said contact material as well as by the contact profile geometry. The elements are configured to the respective factory default rail measurement.

**6 Connections**

The RBPS series is exclusively operated as a spring accumulator element. The clamping and braking element of the RBPS series has an air connection. The air connection is for operating the element.

7 Installation

- Check the element for any damage before installing it. Measure the round guide or the piston rod with a suitable measuring tool.
- The assembly bolts are to be tightened to a torque of 10 Nm.
- If the measured size lies outside of this, the circular guide has to be replaced.
- Make sure the mounting piece is sufficiently rigid.
- Use bolts with a minimum strength class of 8.8.
- The screws and bolts have to be atmospherically free of their outer corrosion protection and protected against liquids (oil, grease, etc.) and chips.

**7.1 Checking operational readiness**

- The element can only be de-pressurized if the round guide or the transport lock is located between the contact surface! In the event of a pressure cut-off without a transport lock or a round guide, please contact ZIMMER GmbH customer service at +49 7944 9138-5556.

- Remove sealing plugs from the pneumatic connection.
- Connect the pneumatic connection to connection 0.
- Connect the pneumatic system, slacken the element by pressurization 0.
- Remove the transport lock from the element.
- Push the element pad at the end of the round guide or piston rod
- Manually screw the assembly bolts into the threaded holes. Note the minimum screw depth of 0.5 x D.
- The element system itself as a result of the round guide (a min. of 30 opening and closing cycles). The element cannot be used in a vacuum.
- Switch the element into a de-pressurized state and clamp. Tighten the mounting screws using the specified tightening torque.
- Remove the transport lock from the round guide
- Perform the disassembly in the reverse order.

**7.2 Checking operational readiness**

After the element has been properly installed, check whether it is ready to be operated according to the following characteristic values:

- The connection of the pneumatic connections for leaks by listening.
- All mounting screws are checked for their prescribed tightening torque.
- Lock and leak test is performed before the element is commissioned.

**8 Maintenance**

**NOTE:**

- Surface Ra 0,2 - 3,2 µm
- Roundness 1/2 dimensional tolerance
- Grinding and machining centers without temperature compensation.
- The round guide or the piston rod must be cleaned and free of greasy films.
- All mounting screws are checked for their prescribed tightening torque.
- The round guide or the piston rod must be clean and free of greasy films.

Even though the element is, as mentioned, maintenance-free, perform a regular visual inspection to check for corrosion, damages, and wear or other failure modes.

**9 Technical Data**

**INFORMATION:**

- The technical data can be found on our homepage www.zimmer-group.com/en/lt-td.

- If you have any further questions about the product of the technical data, please contact the customer Service of ZIMMER GmbH. Our technical hotline +49 7944 9138-5556 is available for this.

**10 Troubleshooting**

**INFORMATION:**

- For an exact and detailed overview of possible malfunctions and their remeides, please visit our website www.zimmer-group.com/en/lt-td.

- If these measures do not lead to success, please contact the customer service of ZIMMER GmbH.

**11 Transport and Storage**

The element is to be transported and stored only in the packaging supplied by Zimmer GmbH. If the element is stored differently or transported, it must be provided with corrosion protection to prevent any corrosion.

**12 Declaration of conformity**

In terms of the EC Directive 2006/42/EC on Machinery [appendix 8 A]

**Name and address of the manufacturer:**

ZIMMER GmbH • Im Salmenkopf 5 • D-77866 Rheinau, Germany • Phone: +49 7944 9138-0 • Fax: +49 7944 9138 80 • www.zimmer-group.de

We hereby declare that the following, identically constructed safety components:

**Type designation:**

- RBPS

- conformance to the requirements of the 2006/42/EC directive in their design and the version we put on the market.

- The following harmonized standards have been used: (The manufacturer has a full list of the applied standards.)
- DIN EN ISO 13849-1
- DIN EN ISO 13849-1 / 2
- DIN EN ISO 4414
- DIN EN ISO 10201-301-03
- DIN EN ISO 13849-1 / 2
- DIN EN ISO 4414
- Safety of machinery - General principles of design
- Safety of machinery - Safety-related parts of control systems
- Safety-related requirements for pneumatic systems and their components