

Installation and Operating Instructions

1. Security Advice:

Caution:
Please read the complete documentation carefully before starting the set-up operation!



1.1. Depending on the type of application danger will be caused by:

- Contusion during installation caused by unsecured connecting construction
- Improper pneumatic connections
- Malfunction of the pneumatic supply, e.g. because of pressure fluctuations
- Loose pneumatic connections
- Loose attachment screws
- removal of the spring cap
- Not turning off the operating instrument during installation or repair works at the clamp element
- Human malpractice
- Non-observance of the information and warning facilities during installation and the set-up operation

Installation instructions have to be followed and the necessary equipment and the supplies have to be used during installation, modifications, maintenance and repair. Throughout every working process on the clamping elements the appropriate accident prevention regulations, VDE security and installation instructions have to be followed.

1.2. The application of the clamping technology – in accordance with regulations – implies that this technology will be utilized exclusively in consideration of the realm of possibilities defined by technical specification. All different ways of use exclude further liability of the Zimmer GmbH.

2. The Model MBPS (with spring storage)

The clamping element is preset to the appropriate LM guide gauge ex factory. The contact sections are pressed onto the non-attached areas of the LM guide. Therefore the process of clamping does not influence the precision and the economic life-time of the LM guide.

2.1. Operational area:

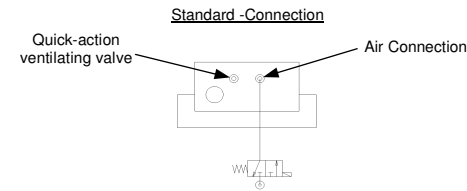
The MBPS models are designed for static and dynamic clamping. The elements are licensed for 2000 breaking processes. The use of specific friction lining prevents track damage with dynamic usage. Short reaction rates are guaranteed by the implemented quick-action ventilating valves.

- max. surrounding temperature 70°C
- pneumatic operating pressure min 4.5 bar, max. 8 bar

3. MBPS

The model MBPS can be operated as a plain spring storage element.

Fig. 1 Diagram of Connections



3.1. For a transportation lock, the spring energy storage is pre-stressed by a spacer between the contact sections.

Caution:

It is permitted to remove the transportation lock, only if the air connection is pneumatically pressurized to at least 4.5 bar according to instructions.
It is permitted to release pressure from the clamping element, only if an associated guide rail or a transportation lock exists!

4. Installation Instructions

4.1. General:

For mounting the clamp elements, used screws have to comply with the category of solidity of min. 8.8. Attachment screws have to be tightened with the required moment. (Tab.1)
The maximum holding load is reached only by a rigid connection construction which must cover the complete connection surface of the clamping element.



The accessibility of the elements has to be warranted.

Caution: The cap of the clamping must not be removed, spring storage!

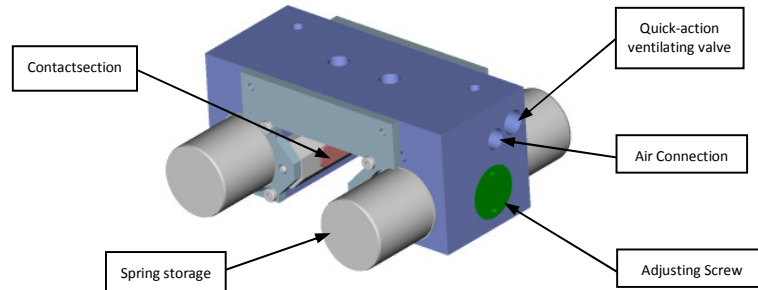
4.2. Installation / Uninstalling:

- Removal of the plastic blanking plug
- attachment of M5 resp. G1/8" pneumatic connections
- pressurize air connection to open the clamping element
- In case of using an adapter plate PMB, place this adapter plate between the clamping element and the connecting construction as a device of levelling
- Set clamping element onto LM guide and centred by repeated tacts (min. 10 times Open and Close in 3 Seconds)
- Turn the screws loosely into the screw threads
- Clamp model MBPS by depressurizing
- Tighten attachment screws with the required moment (Tab.1)
- For uninstalling perform in reverse order

Type:
MBPS

Version 1.6 / 07.05.2014

Clamping Elements



5. Operational Test

5.1. After the appropriate installation of the clamping element the operating readiness has to be tested

The mobility has to be tested by manually moving the slide.
The process of clamping has to be tested by manually moving the connecting construction.
The appropriate mounting of the fixed and flexible pneumatic pipe installation has to be tested by visual control.
All pneumatic connections at the pressurized element have to be visually checked for leakage.
All attachment screws have to be checked for their required moment. (Tab.1)

5.2. Readjusting

After appropriate installation, readjusting will not be necessary because the contact sections are preset ex factory.
Open the clamping element
Tighten adjusting screws clockwise until the contact section suits. (supplies, adapter)
Caution: Both adjusting screws have to be screwed in identically and subsequently have to be screwed back to an angle of 15°. Start operational test.

For further information please contact our technical service: 0049/7844/9138-0

6. Technical Data

Table 1

Size	Connection	estimated Consumption per Cycle at 6bar [cm ³]	Attachment Screws Category of Solidity 8.8	tightening Torque [Nm]
15	M5	34	M5	5,5
20	M5	34	M6	9,5
25	M5	48	M6	9,5
30	M5	65	M6	9,5
35	M5 / G1/8"	93	M8	23,0
45	G1/8"	149	M10	46,0
55	G1/8"	244	M10	46,0
65	G1/8"	244	M10	46,0

Data concerning air consumption is approximate.
Technical modifications reserved.

Manufacturer's Statement

in terms of the EC – Machinery Directive 98/37/EG, Appendix II B

Herewith we certify that the type of construction

Product's Name: Clamping Elements

Part Number: MBPS

is – in its delivered version - intended to be installed into a machine or for the assembly with other machines in order to create a new machine, and that its start-up is prohibited until it is proved that the machine, in which the above-named machine shall be integrated, corresponds to the EC – Machinery Directive 93/44/EWG.

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Legally binding signature (business management)