

Type: KBHS 35/45/55/65/125

Version 1.4 / 21.03.2014

Clamping Elements



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 hydraulic connections
- Malfunction of hydraulic supply caused by pressure fluctuation or excessive heating
- Malfunction of hydraulic system caused by improper filling of hydraulic system
- Loose hydraulic connections
- Loose attachment screws
- Not turning off the operating instrument during installation or repair works at the clamping elements
- 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 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. Model KBHS BREAKING- and CLAMPING ELEMENT (with spring energy storage)

The clamping element of the model KBHS 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. The model KBHS is delivered with a hydraulic oil filling (HLP 46) ex factory.
Note: In case of the use of other types of oil, the faultless functionality of the product can not be guaranteed.

2.1. Operational Area:

The model KBHS is particularly suitable for heavy load applications (Its main focus lies with breaking and positioning). The elements are licensed for 300.000 static processes and for 2.000 breaking processes. The use of specific friction lining prevents track damage with dynamic usage.

- max. environmental temperature 70°C
- max. hydraulic operating pressure: see table, item 5., Technical Data
- OEM seal are available as accessories
- NBR-compatibility with external influences has to be warranted



3. Installation Instructions

3.1. General

For mounting the clamping elements, screws used have to comply with the category of solidity of min. 8.8. Tighten attachment screws with required moment. (Tab.1)

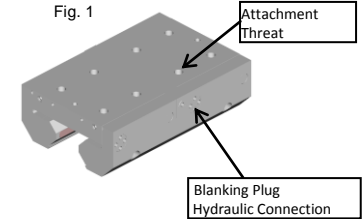
The maximum holding load is reached only by a rigid connection construction which must cover the complete connection surface of the clamping element.

The accessibility of the elements has to be warranted, in order that the wearing part can be changed without complexity.



3.2. Installation / Uninstallation:

- Remove blanking plug on one side. (see Fig. 1)
- Install G1/8" (G1/4") hydraulic connection.
- Filling (deaeration) of hydraulic piping by loosening blanking plug on opposite side and loosen hydraulic connection at the clamping element cautiously until oil becomes visible, tighten respective screw connection afterwards!
- Unreleased air inside of improperly filled hydraulic lines may cause the destruction of the clamping element and the linear guide
- To the assembly of the model KBHS, increase pressure from less than 50 bar continuously on the respective working pressure.
- remove transportation lock between contact sections
- pay attention to cleanliness and evenness of the mounting areas
- mount clamping element together with the guiding slide at the connecting construction
- turn the screws into the attachment threads and only apply the screws
- Clamp model KBHS by depressurizing
- Attachment screws have to be tightened with the required moment (Tab.1)
- tighten attachment screws of the dirt wiper (supplies)
- For uninstalling perform in reverse order



3.3. 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 hydraulic connection is hydraulically pressurized to at least the operating pressure. It is permitted to release pressure from the clamping element, only if an associated guide rail or a transportation lock exists!
With not expert centering of the KBHS the clamping is damaged and loses your function.

4. Operational Test

4.1. 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 hydraulic pipe installation has to be tested by visual control. All hydraulic 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)
For further information please contact our technical service: 0049/7844/9138-0

Non-observance of the installation and operating instruction causes the guarantee to expire.

5. Technical Data

Table 1

Size	Min. Operating Pressure [bars]	Allowable Peak Pressure [bars]	Allowable Holding Force ¹ [N]	Swallowing Capacity per Clamping Process [cm ³]	Attachment Screws Category of Solidity 8.8	Moment [Nm]
35	150	160	>7.500	5.0	M 8	23
45	150	160	>9.000	6.7	M10	46
55	150	160	>11.500	8.5	M 12	79
65	150	160	>16.000	10.2	M 16	195
125	150	160	>25.000	30	M 16	195

1) Values are exclusively appropriate for standard-clamping technology of the model range KBHS.

Technical modifications reserved.

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Manufacturer's Statement

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

Herewith we certify that the type of construction

Product Name: Clamping Element

Part Number: KBHS

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 / EEC.

A handwritten signature in black ink, appearing to read "Markus F.", written in a cursive style.

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Legally binding signature (Business Management)