INSTALLATION AND OPERATING INSTRUCTION: Clamping element manual Series HK/miniHK

Installation and operating instruction HK/miniHK

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1 Supporting documents

NOTE:

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

- 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:

- Contusion during assembly due to unsecured connection structure
- Missing or loosened fastening screws
- Not switching off the machine (plant) during assembly or repair work
- Human error
- Failure to observe the safety and warning instructions during installation and start-up

These installation and operating instructions are intended for installation and maintenance technicians as well as design engineers requiring the element for an application. Please read all installation and operation instructions carefully before start-up and pay special attention to the following hazard warnings and notes.

3 Proper use

NOTE:

The element of the HK, miniHK or HKR series hould only 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 accepts no liability for any damage caused by improper use.

DANGER:

The elements of the HK, HKR and miniHK series are not suitable for securing suspended loads ⇨ Danger of life!

The models HK/HKR and miniHK are conceived for the process of static clamping.
The HK-model is a manually operated element. By operating the freely adjustable clamping lever the contact sections are synchronically pressed into the non-attached areas of the track guide.
The symmetrical force transmission onto the track guide is guaranteed by the floatingly stored contact sections. The position of the clamping lever can be changed by lifting.

4 Personnel qualification

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

5 Product description

CAUTION:

Clamping processes during motion can lead to damage of the element as well as the linear guide!

The clamping technology of the model HK/HKR and miniHK vis preset to the appropriate track gauge ex factory. The contact sections are pressed onto the non-attached areas of the track guide. Therefore the process of clamping does not influence the precision and the economic life-time of the track.
The elements of the series HKR are designed only for use on round and shaft guides.
The clamping is done manually by turning the clamping lever or the knurled screw.

1	profile rail
2	clamping lever
3	clamping jaws
4	housing with threaded hole
5	adapter plate (optionally)

1	profile rail
2	knurled screw
3	clamping jaws
4	housing with threaded hole

Abb. 1: HK element

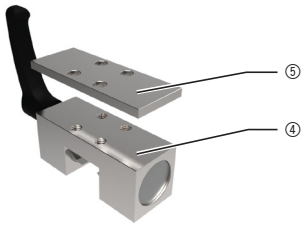


Abb. 1: miniHK element

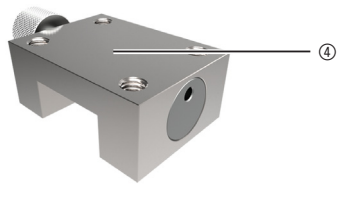


Abb. 2: HK element cross section

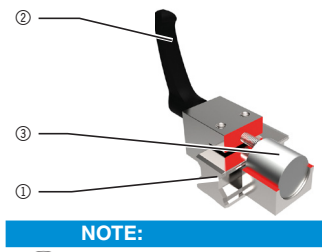
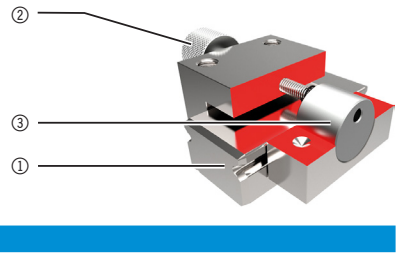


Abb. 2: miniHK element cross section



NOTE:

The elements of the series HKR are designed only for use on round and shaft guides.
The technical design meets the HK series.

6 Assembly

Before assembly check the element for damage.
- The element may only be used in conjunction with linear guide carriage.
- The maximum holding load is reached only by a rigid connection construction.
- The connection construction must cover the complete connection surface of the element.
- Screws used have to comply with the category of solidity of min. 8.8.
- Tighten attachment screws with required moment

⇨ http://www.schrauben-normen.de/anziehmomente.html ⇨ DIN 912 bzw. ISO 4762

► Put element onto linear guide.
► In case of using an adapter plate PHK, place this adapter plate between the element and the connecting construction as a device of leveling..
► Turn the screws loosely into the screw threads.
► Tighten Clamping lever / Knurled screw 2.
► Tighten attachment screws with the required Moment

6.1 Checking operational readiness

After the appropriate installation of the 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.
- All attachment screws have to be checked for their required moment.

6.2 Removal

Disassembly is carried out in the reverse order of that described in 6. Do not forget the transport lock!

7 Maintenance

The elements are maintenance-free up to the number of cycles listed in point 7 under the following conditions:
- Compliance with the maximum permissible holding forces and the maximum permissible tightening torques of the clamping lever.
- The guide rail must be clean and free from greasy films.

► Even though the element is, as mentioned, maintenance-free, perform a regular visual inspection for possible corrosion, damage and contamination on the element.
► Clean the element as needed using a commercially available machine cleaning agent and then apply an anti-corrosion agent to the housing.

8 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 or the technical data, please contact the customer Service of ZIMMER GmbH. Our technical hotline ☎ +49 7844 9138-5556 is available for this.

9 Troubleshooting

INFORMATION:

For an exact and detailed overview of possible malfunctions and their remedies, please visit our website www.zimmer-group.com/en/lt-faq. If these measures do not lead to success, please contact the customer service of ZIMMER GmbH. For this purpose our technical-hotline ☎ +49 7844 9138-5556 is available.

10 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.

11 Declaration of incorporation

in terms of the EC Directive 2006/42/EC on Machinery (appendix II 1 B)
Name and Adress of the manufacturer:
ZIMMER GmbH • Im Salmenkopf 5 • D-77866 Rheinau • Tel.: +49 (0)7844 9138 0 •
Fax.: +49 (0)7844 9138 80 • www.zimmer-group.de
We hereby declare that the undermentioned identical elements,
Product designation: Clamping element
Type description: **HK, miniHK**
in conform to the requirements of the 2006/42/EU in their design and the version we put on the market.
The following harmonized standards have been used:
(A full list of applied standards is available at the manufacturer's facilities.)

DIN EN ISO 12100:2011-03	Safety of machinery - General principles - Risk assessment and risk reduction
DIN EN 894-3	Safety of machinery - Ergonomics requirements for the design of control actuators
DIN EN 1005-3	Safety of machinery - Recommended force limits for machinery Operation

We also declare that the special 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 the incomplete machine's special documents via 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 satisfi es 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 compiling the relevant documents:

Michael Hemler	(see manufacturer´s adress)	Rheinau, 18.07.2018	Martin Zimmer
First name, last name	*adress*	*Place and date*	*(legally binding signature)*