

 <b>KTR</b> Kupplungstechnik GmbH D-48407 Rheine	<b>CLAMPEX® KTR 250</b> <b>mounting instructions</b>		KTR-N 40817 E
			sheet: 1
			edition: 4

The **CLAMPEX®** clamping set is a frictionally engaged, detachable shaft - hub connection for cylindrical shafts and bores without feather key.

### General Hints

Please read through these mounting instructions carefully before assembling the clamping set.

Please pay special attention to the safety instructions!

The mounting instructions are part of your product. Please keep them carefully and close to the clamping set.

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### Safety and Advice Hints



**DANGER!**

**Danger of injury to persons.**



**CAUTION!**

**Damages on the machine possible.**



**ATTENTION!**

**Pointing to important items.**

### General Hints to Danger



**DANGER!**

**With assembly and disassembly of the clamping set it has to be made sure that the entire drive train is protected against unintentional engagement. You can be seriously hurt by rotating parts. Please make absolutely sure to read through and observe the following safety instructions.**

- All operations on and with the clamping set have to be performed taking into account "safety first".
- Please make sure to disengage the power pack before you perform your work at the clamping set.
- Protect the power pack against unintentional engagement, e. g. by providing hints at the place of engagement or removing the fuse for current supply.
- Do not touch the operation area of the machine as long as it is in operation.
- Please protect the rotating drive parts against unintentional touch. Please provide for the necessary protection devices and caps.

### Proper Use

You may only assemble and disassemble the clamping set if you

- carefully read through the mounting instructions and understood them
- had technical training
- are authorized to do so by your company

The clamping set may only be used in accordance with the technical data (see **CLAMPEX®** catalogue). Unauthorized modifications on the clamping set are not admissible. We do not take any warranty for resulting damages. To further develop the product we reserve the right for technical modifications. The **CLAMPEX®** clamping set described in here corresponds to the technical status at the time of printing of these mounting instructions.

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The clamping set is generally delivered in assembled condition.

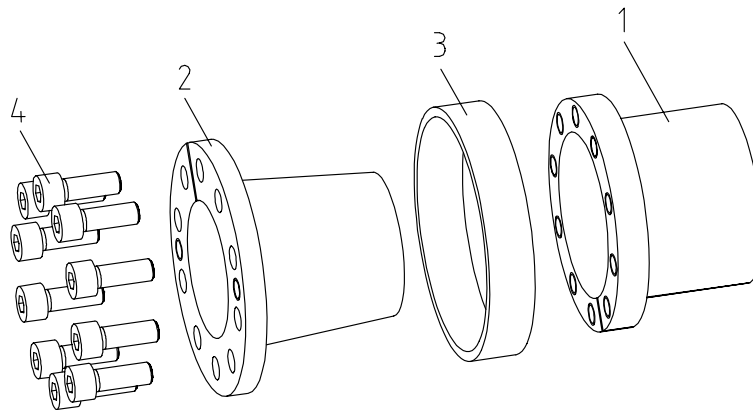
**Tolerances, surfaces**

A good rotating process is sufficient:  
**Rz ≤ 16µm**

Highest permissible toleranz:  
**d = h8/H8 - shaft/hub**

**Components of CLAMPEX® KTR 250**

Component	Quantity	Designation
1	1	external ring (slotted)
2	1	internal ring (slotted)
3	1	axial ring
4	see catalogue	cap screw DIN EN ISO 4762



picture 1: CLAMPEX® KTR 250



**ATTENTION!**

Dirty or used clamping sets must be disassembled, cleaned and afterwards oiled with thin-bodied oil (e. g. Castrol 4 in 1 or Klüber Quitsch Ex) before the assembly.



**CAUTION!**

When assembling the internal ring (part 2) and the external ring (part 1) please make sure that the slots are staggered. The forcing thread of the internal ring (part 2) must not be congruent with the slot of the external ring (part 1).



**Assembly**

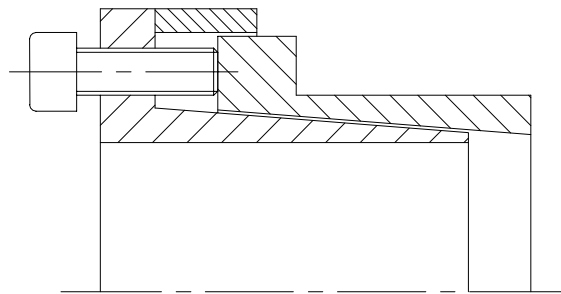
- Check the position of shaft and hub regarding the stipulated tolerance (h8/H8).
- Clean the hub bore and the shaft and afterwards oil them with thin-bodied oil (e. g. Castrol 4 in 1 or Klüber Quitsch Ex).



**CAUTION!**

**Do not use oils and greases with molybdenum disulphide or high pressure additions as well as slide grease pastes.**

- Lightly unscrew the clamping screws. To facilitate the assembly fasten the internal and external ring via the pull-off threads by means of two clamping screws (see drawing 2). Insert the clamping set KTR 250 between shaft and hub.



picture 2: fixing of the clamping set KTR 250

- Slightly tighten the clamping screws manually and align the clamping set with hub part.
- Regarding KTR 250 please make sure that the axial supporting ring (component 3) fits closely and evenly.
- Tighten the clamping screws evenly and crosswise. Increase the tightening torque step by step. This procedure must be repeated until the tightening torque indicated in table 1 is reached with all clamping screws.

**Table 1:**

type of clamping set	KTR 250						
	screw size M	M3	M4	M6 <sup>1)</sup>	M8	M10	M12
tightening torque T <sub>A</sub> [Nm]		2	5	15 / 17	41	83	145

1) In case of bore-Ø 15 and 16 the tightening torque is T<sub>A</sub> = 15 Nm.



## Disassembly

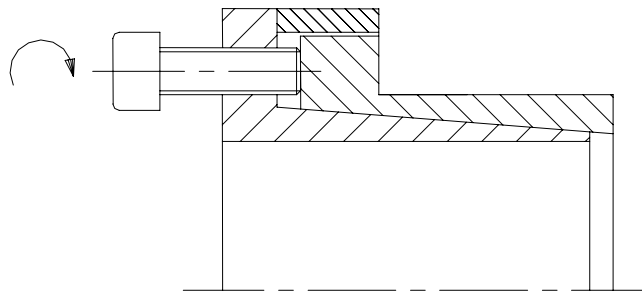


### DANGER!

Loosened or falling drive parts can cause injuries to persons or damages to the machines.

Safe the drive parts before the disassembly.

- Loose all clamping screws evenly one after the other and unscrew them.
- Screw the clamping screws into the threads of the internal ring (component 2).
- Tighten the clamping screws evenly and crosswise. Increase the tightening torque step by step until the external ring (component 1) and the internal ring (component 2) are separated.
- Remove the unscrewed clamping set between shaft and hub.



picture 3: unscrew the clamping set KTR 250



### CAUTION!

In case of non-observance of these hints or in case of non-considerance of the operating conditions regarding the selection of the clamping set, the function of the clamping set can be influenced.

### Disposal of waste:

*Defective clamping sets must be cleaned and scrapped.*

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