

KTR-N 40811 E sheet: 1 edition: 1

The **CLAMPEX**<sup>®</sup> 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.

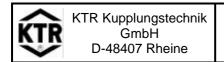
### **Proper Use**

You may only assemble and disassemble the clamping set if you

- have carefully read through the mounting instructions and understood them
- and if you are authorized and have proper skills

The clamping set may only be used in accordance with the technical data (see **CLAMPEX**<sup>®</sup> 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**<sup>®</sup> 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**

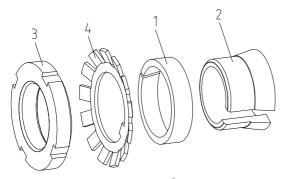
A good rotating process is sufficient:

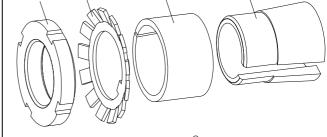
Rz £ 16mm

Highest permissible tolerance: d = h8/H8 - shaft/hub

# Components of CLAMPEX® KTR 125 / KTR 125.1

Component	Quantity	Designation
1	1	external ring (slotted)
2	1	internal ring (slotted)
3	see drawing M367700	locking nut DIN 981
4	1	safety plate





picture 1: CLAMPEX® KTR 125

picture 2: CLAMPEX® KTR 125.1



### 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.

## **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.

- Unscrew the locking nut and insert the clamping set KTR 125 / KTR 125.1 between shaft and hub.
- Slighly tighten the locking nut and align the clamping set with hub part.

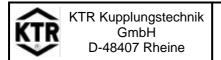


#### CAUTION!

The hub position for KTR 125 and KTR 125.1 must be as long as the dimension  $B_1$  (see table 1).

- Tighten the locking nut until reaching the tightening torque T<sub>A</sub> indicated in table 1.
- After reaching the tightening torque T<sub>A</sub> secure the locking nut with safety plate.

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# Assembly

## Table 1:

KTR 125						KTR 125.1									
dim	dimensions [mm] $\begin{array}{c} \text{locking nut DIN 981} \\ \mu_{\text{des.}} = 0,14 \end{array}$			dimensions [mm] $\begin{array}{c} \text{locking nut DIN} \\ \mu_{\text{qes.}} = 0.14 \end{array}$											
d x D	В	B <sub>1</sub>	D <sub>1</sub>	Kurzbe- zeichg.	М	T <sub>A</sub> [Nm]	d x D	В	B <sub>1</sub>	D <sub>1</sub>	Kurzbe- zeichg.	М	T <sub>A</sub> [Nm]		
14 x 25	16,5	6,5	32	KM 4	M20x1	65	14 x 25	29	17	32	KM 4	M20x1	90		
15 x 25	16,5	6,5	32	KM 4	M20x1	65	15 x 25	29	17	32	KM 4	M20x1	90		
16 x 25	16,5	6,5	32	KM 4	M20x1	65	16 x 25	29	17	32	KM 4	M20x1	70		
17 x 25	16,5	6,5	32	KM 4	M20x1	75	17 x 25	31	18	32	KM 4	M20x1	120		
18 x 30	17	7	38	KM 5	M25x1,5	85	18 x 30	31	18	38	KM 5	M25x1,5	190		
19 x 30	17	7	38	KM 5	M25x1,5	95	19 x 30	31	18	38	KM 5	M25x1,5	150		
20 x 30	17	7	38	KM 5	M25x1,5	110	20 x 30	31	18	38	KM 5	M25x1,5	110		
22 x 35	17	7	45	KM 6	M30x1,5	140	22 x 35	35	22	45	KM 6	M30x1,5	230		
24 x 35	17	7	45	KM 6	M30x1,5	155	24 x 35	35	22	45	KM 6	M30x1,5	230		
25 x 35	17	7	45	KM 6	M30x1,5	160	25 x 35	35	22	45	KM 6	M30x1,5	170		
28 x 40	20	8	52	KM 7	M35x1,5	205	28 x 40	35	22	52	KM 7	M35x1,5	390		
30 x 40	20	8	52	KM 7	M35x1,5	240	30 x 40	35	22	52	KM 7	M35x1,5	240		
32 x 45	22	9	58	KM 8	M40x1,5	320	32 x 45	42	27	58	KM 8	M40x1,5	320		
35 x 45	22	9	58	KM 8	M40x1,5	320	35 x 45	42	28	58	KM 8	M40x1,5	320		
38 x 50	23	9	65	KM 9	M45x1,5	440	38 x 50	44	28	65	KM 9	M45x1,5	440		
40 x 50	23	9	65	KM 9	M45x1,5	440	40 x 50	44	28	65	KM 9	M45x1,5	440		
42 x 55	25,5	10	70	KM 10	M50x1,5	550	42 x 55	45	28	70	KM 10	M50x1,5	550		
45 x 55	25,5	10	70	KM 10	M50x1,5	550	45 x 55	45	28	70	KM 10	M50x1,5	550		
48 x 60	25,5	10	75	KM 11	M55x2	660	48 x 60	46	28	75	KM 11	M55x2	660		
50 x 60	25,5	10	75	KM 11	M55x2	660	50 x 60	46	28	75	KM 11	M55x2	660		
55 x 65	28,5	12	80	KM 12	M60x2	750	55 x 65	47	28	80	KM 12	M60x2	780		
60 x 70	25,5	12	85	KM 13	M65x2	880	60 x 70	52	28	85	KM 13	M65x2	1050		

## **ATTENTION!**

During the assembly an axial displacement of the hub is effected.

(B)

### **ATTENTION!**

The clamping set KTR 125.1 is self-locking. This clamping set is mainly used for a single assembly.

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## **Disassembly**



#### DANGER!

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

Safe the drive parts before the disassembly.

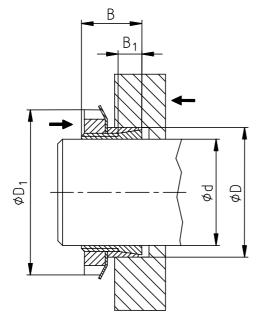
- Open the safety plate of the locking nut.
- Unscrew the locking nut.
- The clamping set KTR 125 is not self-locking. If the internal and the external ring cannot be unscrewed, you have to start the unscrewing process at several positions of the measurement by pressing the hub and the locking nut (see picture 3).

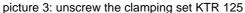


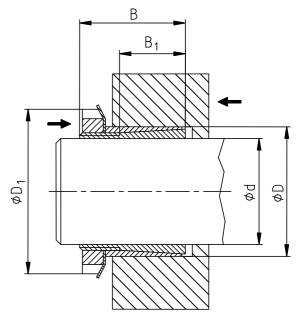
#### ATTENTION!

The clamping set KTR 125.1 is self-locking. You have to reckon with a more difficult disassembly.

- If the internal and the external ring of the KTR 125.1 cannot be unscrewed, you have to start the unscrewing process with a suitable tool (assembly hammer) (see picture 4).
- Remove the unscrewed clamping set between shaft and hub.







picture 4: unscrew the clamping set KTR 125.1



## **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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