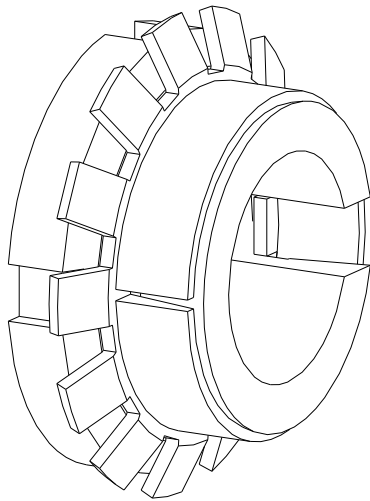
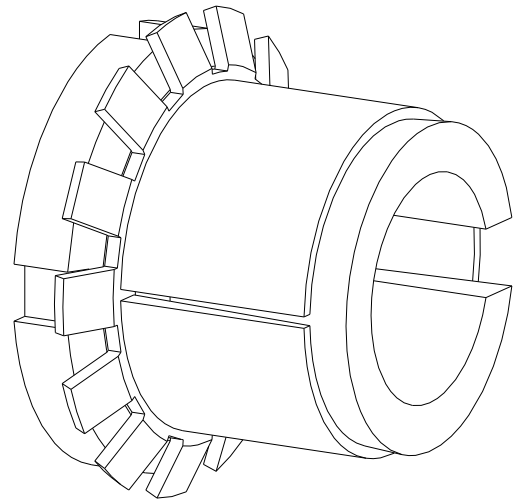




### CLAMPEX® KTR 125




### CLAMPEX® KTR 125.1



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

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**1 Technical data**

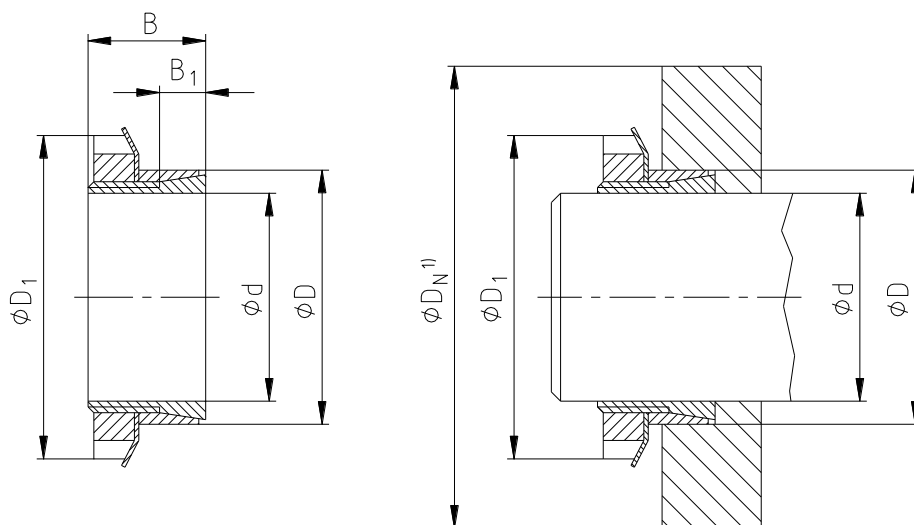


Illustration 1: CLAMPEX® KTR 125

<sup>1)</sup> Dimension  $D_N$ : For calculation of hub see catalogue "Drive Technology"

**Table 1: CLAMPEX® KTR 125**

Dimensions [mm]				Groove nut DIN 981 $\mu_{total} = 0.14$			Transmittable torque or axial force		Surface pressure between clamping set [N/mm <sup>2</sup> ]		Weight [~kg]
d x D	B	B <sub>1</sub>	D <sub>1</sub>	Code designation	M	T <sub>A</sub> [Nm]	T [Nm]	F <sub>ax</sub> [kN]	Shaft P <sub>w</sub>	Hub P <sub>N</sub>	
14 x 25	16.5	6.5	32	KM 4	M20x1	65	37	5	171	96	0.050
15 x 25	16.5	6.5	32	KM 4	M20x1	65	40	5	159	96	0.050
16 x 25	16.5	6.5	32	KM 4	M20x1	65	42	5	149	96	0.042
17 x 25	16.5	6.5	38	KM 4	M20x1	75	52	6	162	110	0.040
18 x 30	17	7	38	KM 5	M25x1.5	85	64	7	167	100	0.040
19 x 30	17	7	38	KM 5	M25x1.5	95	59	6	138	87	0.072
20 x 30	17	7	38	KM 5	M25x1.5	110	72	7	151	101	0.068
22 x 35	17	7	45	KM 6	M30x1.5	140	83	8	145	91	0.12
24 x 35	17	7	45	KM 6	M30x1.5	155	101	8	147	101	0.096
25 x 35	17	7	45	KM 6	M30x1.5	160	108	9	146	104	0.090
28 x 40	20	8	52	KM 7	M35x1.5	205	134	10	126	88	0.13
30 x 40	20	8	52	KM 7	M35x1.5	240	168	11	137	103	0.124
32 x 45	22	9	58	KM 8	M40x1.5	320	208	13	133	95	0.113
35 x 45	22	9	58	KM 8	M40x1.5	320	228	13	122	95	0.166
38 x 50	23	9	65	KM 9	M45x1.5	440	301	16	137	104	0.28
40 x 50	23	9	65	KM 9	M45x1.5	440	317	16	130	104	0.238
42 x 55	25.5	10	70	KM 10	M50x1.5	550	372	18	124	95	0.35
45 x 55	25.5	10	70	KM 10	M50x1.5	550	449	20	131	107	0.28
48 x 60	25.5	10	75	KM 11	M55x2	660	525	22	134	107	0.36
50 x 60	25.5	10	75	KM 11	M55x2	660	546	22	129	107	0.302
55 x 65	29.5	12	80	KM 12	M60x2	750	625	23	102	86	0.40
60 x 70	29.5	12	85	KM 13	M65x2	880	843	28	115	99	0.418



**1 Technical data**

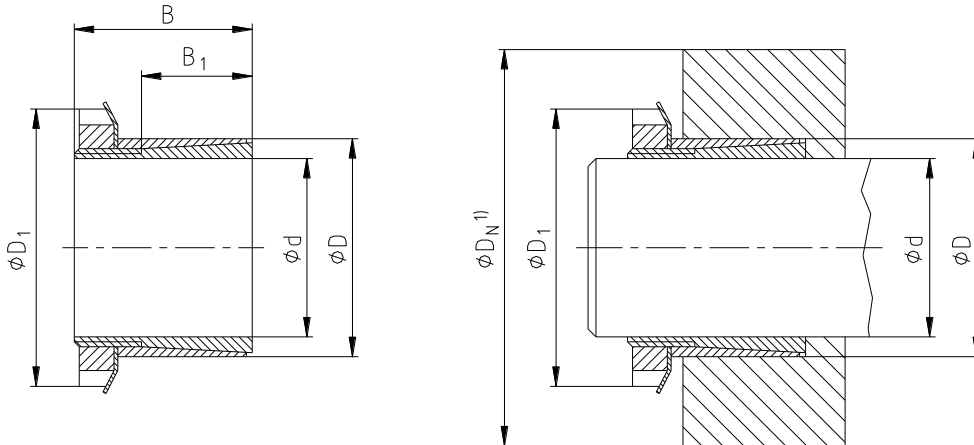


Illustration 2: CLAMPEX® KTR 125.1

<sup>1)</sup> Dimension  $D_N$ : For calculation of hub see catalogue "Drive Technology"

**Table 2: CLAMPEX® KTR 125.1**

Dimensions [mm]				Groove nut DIN 981 $\mu_{total} = 0.14$			Transmittable torque or axial force		Surface pressure between clamping set [N/mm <sup>2</sup> ]		Weight [-kg]
d x D	B	B <sub>1</sub>	D <sub>1</sub>	Code designation	M	T <sub>A</sub> [Nm]	T [Nm]	F <sub>ax</sub> [kN]	Shaft P <sub>w</sub>	Hub P <sub>N</sub>	
14 x 25	29	17	32	KM 4	M20x1	90	91	13	161	90	0.12
15 x 25	29	17	32	KM 4	M20x1	90	98	13	151	90	0.10
16 x 25	29	17	32	KM 4	M20x1	70	81	10	110	70	0.10
17 x 25	31	18	38	KM 4	M20x1	120	148	17	167	114	0.08
18 x 30	31	18	38	KM 5	M25x1.5	190	199	22	202	121	0.10
19 x 30	31	18	38	KM 5	M25x1.5	150	166	17	151	95	0.15
20 x 30	31	18	38	KM 5	M25x1.5	110	128	13	105	70	0.15
22 x 35	35	22	45	KM 6	M30x1.5	230	245	22	135	85	0.19
24 x 35	35	22	45	KM 6	M30x1.5	230	267	22	124	85	0.28
25 x 35	35	22	45	KM 6	M30x1.5	170	205	16	88	63	0.30
28 x 40	35	22	52	KM 7	M35x1.5	390	454	32	155	109	0.35
30 x 40	35	22	52	KM 7	M35x1.5	240	300	20	89	67	0.35
32 x 45	42	27	58	KM 8	M40x1.5	320	371	23	79	56	0.40
35 x 45	42	28	58	KM 8	M40x1.5	320	449	26	77	60	0.40
38 x 50	44	28	65	KM 9	M45x1.5	440	594	31	87	66	0.38
40 x 50	44	28	65	KM 9	M45x1.5	440	625	31	82	66	0.32
42 x 55	45	28	70	KM 10	M50x1.5	550	733	35	87	67	0.48
45 x 55	45	28	70	KM 10	M50x1.5	550	785	35	82	67	0.37
48 x 60	46	28	75	KM 11	M55x2	660	917	38	84	67	0.50
50 x 60	46	28	75	KM 11	M55x2	660	955	38	80	67	0.43
55 x 65	47	28	80	KM 12	M60x2	780	1137	41	79	67	0.80
60 x 70	52	28	85	KM 13	M65x2	1050	1539	51	90	77	0.80

**Tolerances, surfaces**

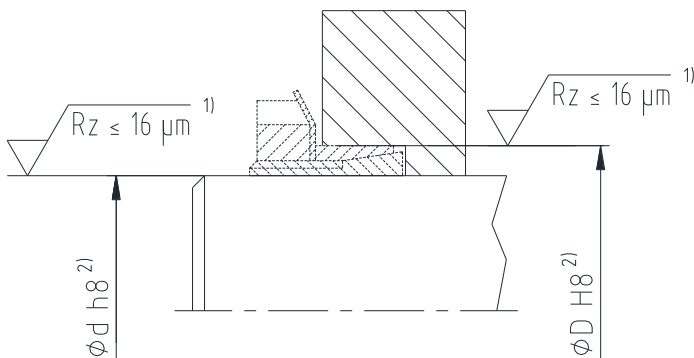


Illustration 3: Tolerances and surfaces (example: CLAMPEX® KTR 125)

- <sup>1)</sup> One proper turning process is sufficient ( $R_z \leq 16 \mu\text{m}$ ).
- <sup>2)</sup> Highest permissible tolerance of the hub or shaft.

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**2 Advice**

**2.1 General advice**

Please read through these operating/assembly instructions carefully before you mount the clamping set. Please pay special attention to the safety instructions! The operating/assembly instructions are part of your product. Please store them carefully and close to the clamping set. The copyright for these operating/assembly instructions remains with KTR.

**2.2 Safety and advice symbols**



**Warning of potentially explosive atmospheres**

This symbol indicates notes which may contribute to preventing bodily injuries or serious bodily injuries that may result in death caused by explosion.



**Warning of personal injury**

This symbol indicates notes which may contribute to preventing bodily injuries or serious bodily injuries that may result in death.



**Warning of product damages**

This symbol indicates notes which may contribute to preventing material or machine damage.



**General advice**

This symbol indicates notes which may contribute to preventing undesirable results or conditions.

**2.3 General hazard warnings**



**With assembly and disassembly of the clamping set it has to be made sure that the entire drive train is secured against accidental switch-on. You may be seriously hurt by rotating parts. Please make absolutely sure to read through and observe the following safety indications.**

- All operations on and with the clamping set have to be performed taking into account "safety first".
- Please make sure to switch off the power pack before you perform your work on the clamping set.  
Secure the power pack against accidental switch-on, e. g. by providing warning signs at the place of switch-on or removing the fuse for current supply.
- Do not reach into the operation area of the machine as long as it is in operation.
- Please secure the rotating drive components against accidental contact. Please provide for the necessary protection devices and covers.

**2.4 Intended use**

You may only assemble and disassemble the clamping set if you

- have carefully read through the operating/assembly instructions and understood them
- had technical training
- are authorized by your company

The clamping set may only be used in accordance with the technical data (see chapter 1). Unauthorized modifications on the clamping set are not admissible. We will not assume liability for any damage that may arise. In the interest of further development we reserve the right for technical modifications.

The clamping set described in here corresponds to the technical status at the time of printing of these operating/assembly instructions.

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**3 Storage, transport and packaging**

**3.1 Storage**

The clamping sets are supplied in preserved condition and can be stored at a dry and roofed place for 6 - 9 months.



**Humid storage rooms are not suitable.  
Please make sure that condensation is not generated.**

**3.2 Transport and packaging**



**In order to avoid any injuries and any kind of damage please always make use of proper lifting equipment.**

The clamping sets are packed differently each depending on size, quantity and kind of transport. Unless otherwise contractually agreed, packaging will follow the in-house packaging specifications of KTR.

**4 Assembly**

Generally the clamping set is supplied in mounted condition. Before assembly the clamping set has to be inspected for completeness.

**4.1 Components of clamping set CLAMPEX® KTR 125 / KTR 125.1**

Component	Quantity	Description
1	1	Outer ring (slot)
2	1	Inner ring (slot)
3	1	Groove nut DIN 981
4	1	Safety plate DIN 5406

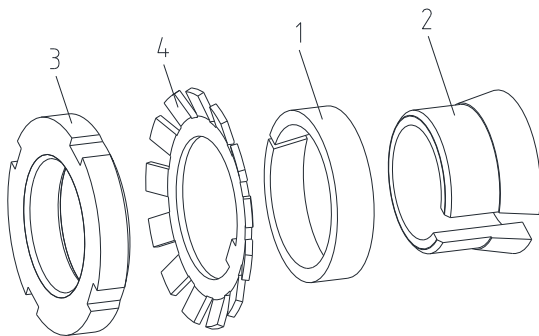


Illustration 4: CLAMPEX® KTR 125

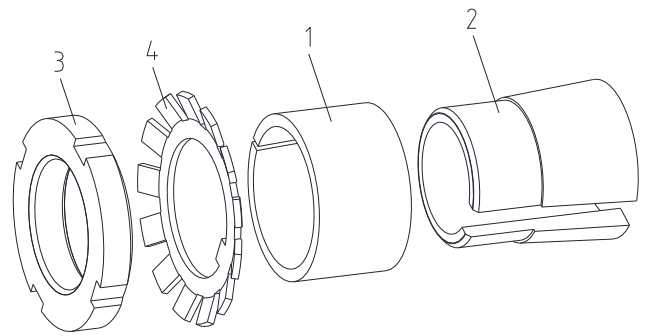


Illustration 5: CLAMPEX® KTR 125.1



## 4 Assembly

### 4.2 Assembly of the clamping set

- Inspect the fit of shaft and hub for the tolerance specified (illustration 3).
- Clean the surfaces of the clamping set marked in illustration 6 as well as of shaft and hub and afterwards apply thin fluid oil lightly (e. g. Ballistol Universal oil or Klüber Quietsch-Ex).

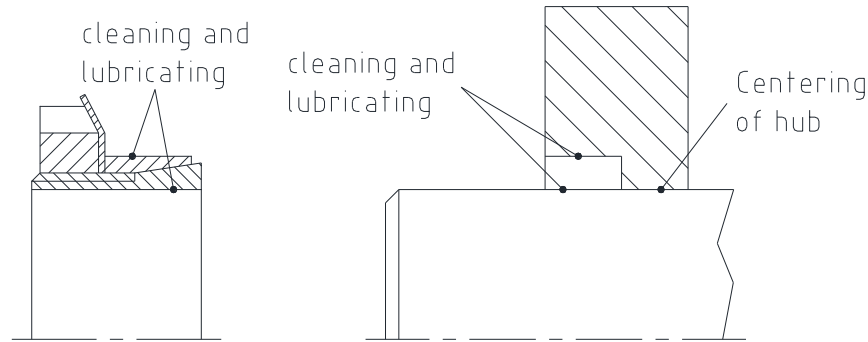


Illustration 6: Cleaning and lubricating the surfaces (example: CLAMPEX® KTR 125)



**Oils and greases with molybdenum disulphide or other high-pressure additives, additives of Teflon and silicone as well as internal lubricants reducing the coefficient of friction significantly must not be used. When mounting the tapers of the clamping set free from oil the tabular and calculated parameters deviate.**

- Unscrew the grooved nut (component 3) and insert the clamping set KTR 125 / KTR 125.1 between shaft and hub.



**The centering of the hub for KTR 125 must at least be as long as dimension  $B_1$  (see table 1 or 2).**

- Lightly hand-tighten the grooved nut and align the clamping set with the hub part.
- Tighten the grooved nut to the tightening torque  $T_A$  specified in table 1 or 2.
- Having reached the tightening torque  $T_A$  secure the grooved nut by means of a locking washer.



**During assembly the hub is displaced axially towards the shaft.**

### 4.3 Disassembly of clamping set



**Driving components released or falling down may cause injury to persons or damage on the machine.  
 Secure the driving components before disassembly.**

- Open the locking washer (component 4) and unscrew the grooved nut (component 3).
- **Disassembly of KTR 125:**  
 The clamping set KTR 125 is not self-locking. If the inner and outer ring cannot be released, the process of releasing should be initiated by putting some pressure on the hub and the grooved nut in several positions of the circumference (see illustration 7).



**4 Assembly**

**4.3 Disassembly of clamping set**

• Disassembly of KTR 125.1:



The clamping set KTR 125.1 is self-locking. You may expect an excessively difficult disassembly.

If the inner and outer ring of KTR 125.1 cannot be released, the process of releasing should be initiated by means of proper tools (assembly hammer) (see illustration 8).

- Take out the clamping set released between shaft and hub.

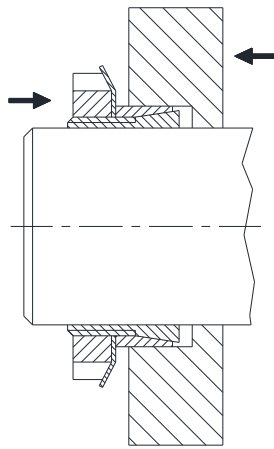


Illustration 7: Releasing the clamping set KTR 125

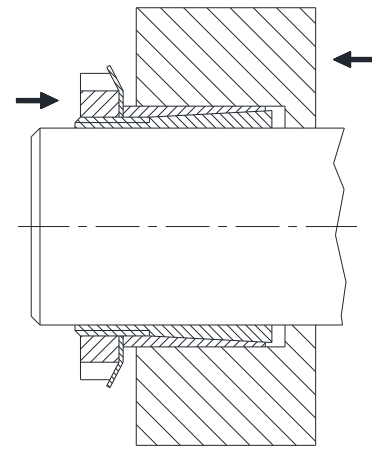


Illustration 8: Releasing the clamping set KTR 125.1



**If these hints are not observed or operating conditions are not taken into account with the selection of the clamping set, the operation of the clamping set may be affected.**



**Used clamping sets have to be disassembled and cleaned before assembly. Afterwards apply thin fluid oil lightly (e. g. Ballistol Universal oil or Klüber Quietsch-Ex).**

**5 Disposal**

In respect of environmental protection please dispose of the packaging or products on termination of their service life in accordance with the legal regulations and standards that apply, respectively.  
All clamping sets consist of metal. Any metal components have to be cleaned and disposed of by scrap metal.

**6 Spares inventory, customer service addresses**

A basic requirement to ensure the operational readiness of the drive components is a stock of some clamping sets on site.

Contact addresses of KTR partners for spare parts and orders can be obtained from the KTR homepage at [www.ktr.com](http://www.ktr.com).



**KTR does not assume any liability or warranty for the use of spare parts and accessories which are not provided by KTR and for the damages which may incur as a result.**

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**KTR-Group**

**CLAMPEX®**  
**KTR 125 / KTR 125.1**  
**Operating/Assembly instructions**

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**7 Advice regarding the use in  hazardous locations according to ATEX 95**

If used in hazardous locations the type and size of clamping set (for category 3 only) has to be selected such that the difference between the peak torque of the machine including all operating parameters and the rated torque of the clamping hub at least corresponds to a safety factor of  $s = 2$ .

**CLAMPEX®** clamping sets are not part of directive 94/9/EC, since

- this product is a torsionally rigid, backlash-free, frictionally engaged connection with one or more taper clamping ring(s) by means of several screws.  
**(Clamping screws have to be secured, e. g. by means of a medium strength adhesive.)**
- due to the design of clamping sets a fracture/failure is not likely (frictional heat is only caused by improper assembly/tightening torques, i. e. not with intended use).

Please observe protection note ISO 16016.	Drawn: 15-09-25 Kb/Jh	Replacing: KTR-N dated 19.07.12
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