



The bellhousing is a connecting element between electro motor and hydraulic pump. Bell housings are produced from the materials aluminium, cast iron, nylon and steel.

### General Hints

Please read through these mounting instructions carefully before you assemble the bellhousing. Please pay special attention to the safety instructions!

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

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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 bellhousing 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 bellhousing have to be performed taking into account "safety first".
- Please make sure to disengage the power pack before you perform your work at the bellhousing.
- 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 bellhousing if you

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

The bellhousing ring may only be used in accordance with the technical data (see hydraulic components catalogue). Unauthorized modifications on the bellhousing design 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 **bellhousing** described in here corresponds to the technical status at the time of printing of these mounting instructions.

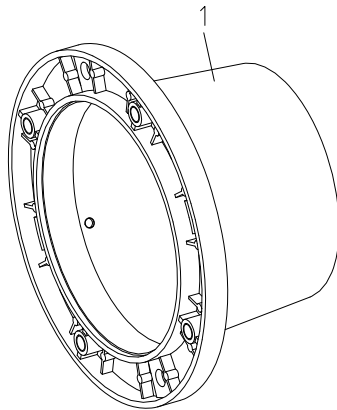
Schutzvermerk ISO 16016 beachten.	Gezeichnet: 03.11.08 Pz/Wy Geprüft: 03.11.08 Pz	Ersatz für: KTR-N vom 30.10.07 Ersetzt durch:
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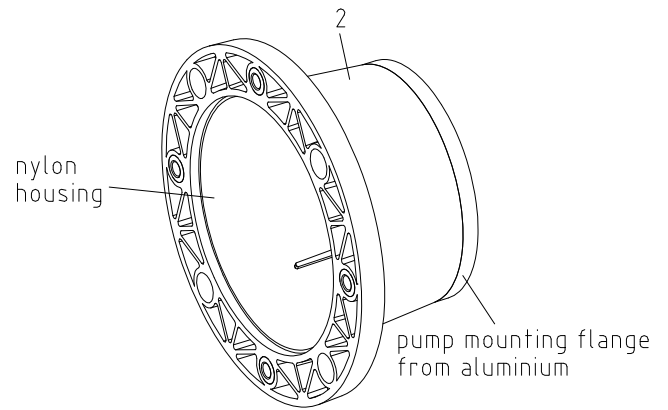
The bellhousing is generally supplied ready for assembly.

### Components of Bellhousing

Component	Quantity	Designation
1	1	bell housings from aluminium, cast iron or steel
2	1	bell housings from nylon with pump mounting flange from aluminium



picture 1: bellhousing



picture 2: bell housings from nylon

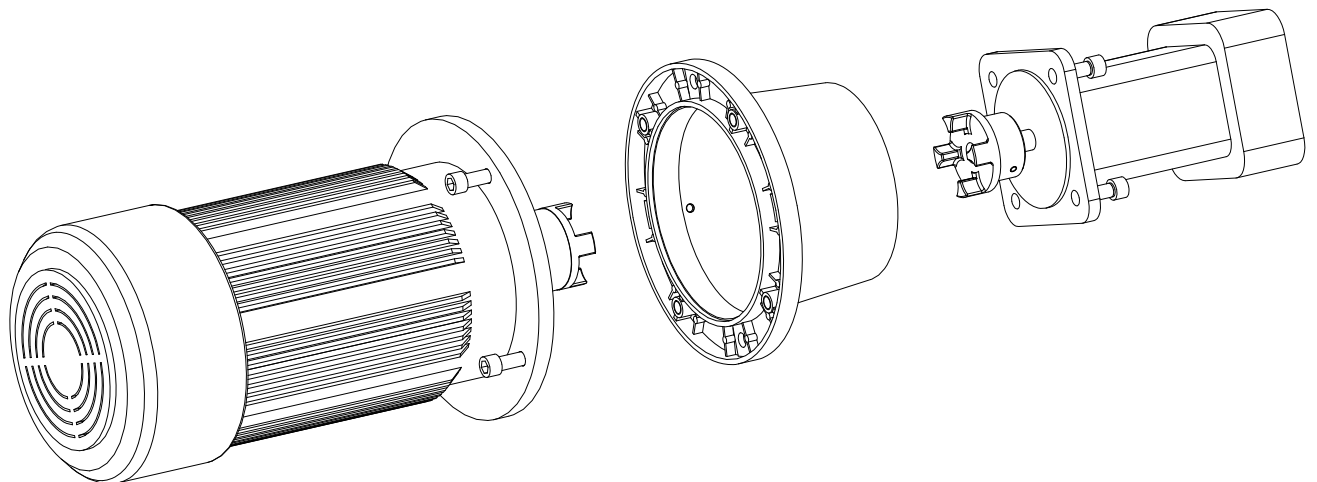
### Assembly Bellhousing

- The bellhousing will be pushed onto the engine centering / pump centering (see picture 3) and screwed. To fix the bellhousing at the engine please only use the respective tappings.



#### CAUTION!

The screws between the nylon housing and the pump mounting flange from aluminium must not be unscrewed on the nylon bell housings (error in alignment).



picture 3: assembly electro motor or pump with bellhousing

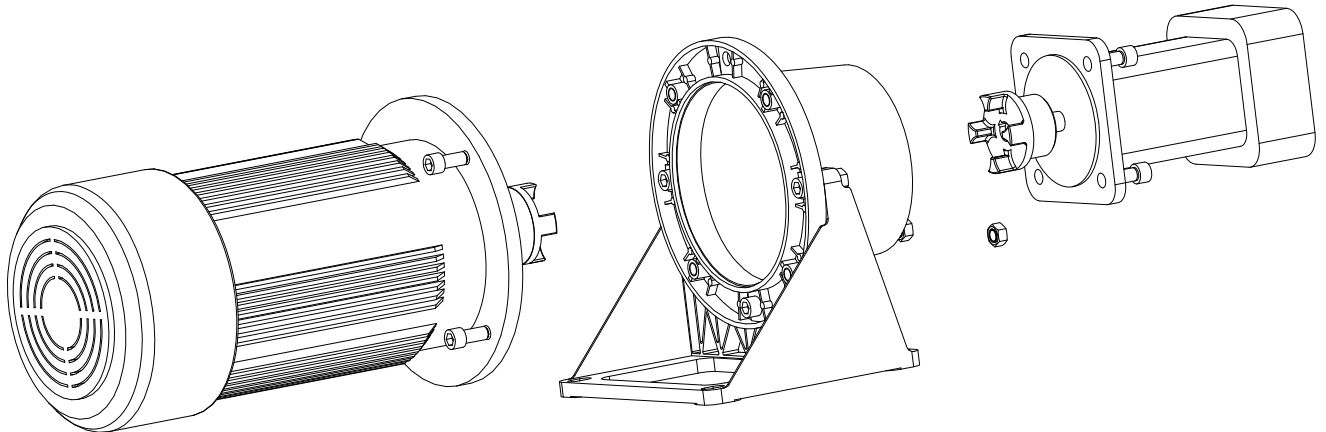
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**Assembly Bellhousing**

**Continuation:**

- The screw length must be selected in such a way that at least the complete length of the thread is used in the bellhousing. You can see the screw tightening torques in the following tables 1, 2 and 3.
- If the bellhousing is connected with a foot flange, the length of the screws to fix the engine in the area of the foot flange must be selected in such a way that they project through the foot flange and can be screwed with a nut (see picture 4).



picture 4: assembly electro motor or pump with bellhousing and foot flange

**Table 1: tightening torques of bellhousings from aluminium and nylon**

cap screws <sup>1)</sup> according to DIN EN ISO 4762	M8	M10	M12	M16	M20
tightening torque [Nm] <sup>2)</sup>	12	23	40	100	190

1) min. property class 8.8

2) tightening torques of the property class 5.6

**Table 2: tightening torques of bellhousings from cast iron**

cap screws <sup>1)</sup> according to DIN EN ISO 4762	M8	M10	M12	M16	M20	M24
tightening torque [Nm] <sup>2)</sup>	27	53	92	230	460	590

1) min. property class 8.8

2) tightening torques of the property class 8.8

**Table 3: tightening torques of bellhousings from steel**

cap screws <sup>1)</sup> according to DIN EN ISO 4762	M8	M10	M12	M16	M20	M24
tightening torque [Nm] <sup>2)</sup>	39	78	135	335	490	840

1) min. property class 10.9

2) tightening torques of the property class 10.9



**Assembly Bellhousing**

Continuation:



**ATTENTION!**

The screws must be generally used with Loctite, Omnifit 230M or comparable adhesives for securing.



**CAUTION!**

If through holes with screws and nuts are used to fix the engine due to reasons of stiffness, the tappings in the engine flange must be bored accordingly. This has to be indicated on the order!



**DANGER!**

Ventilation bores or assembly opening in the bellhousing must be closed according to instructions in such a way that a contact of the coupling or shafts rotating in the bellhousing is not possible. (Here KTR offers nylon stoppers and covering grid plates, see pictures 5 and 6.)



picture 5: covering grid plate



picture 6: nylon stopper

- In case of a sealing function of the bellhousing regarding oil flowing out of the bellhousing or coming into the bellhousing (e. g. lateral tank assembly under the oil level or type V1) this must be indicated in the order!  
Then the bellhousing is checked regarding tightness and a marking (green point) is made in the area of the engine connection.  
Before the assembly please make sure that the marking was made.



**CAUTION!**

The user is responsible for the sealing between bellhousing and tank wall or pump. Sealing for this can partly be obtained from KTR.

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