

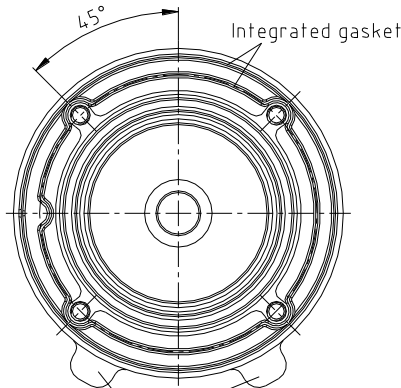
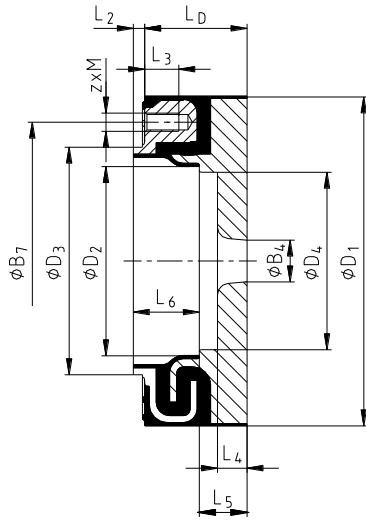
The **damping ring** serves for separation of structure-borne noise between bellhousing and pump.

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**1 Technical data**



Cams for pumps with rectangular connection with damping ring type D150

Illustration 1: Damping ring D150 to D330

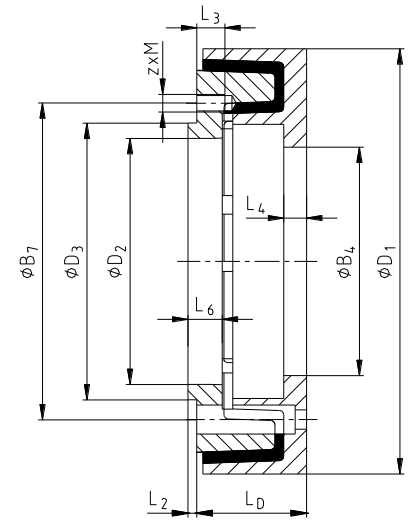


Illustration 2: Damping ring D84, D125 and D145

**Table 1: Dimensions**

Size	Dimensions [mm]													
	B <sub>4</sub>		B <sub>7</sub>	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	L <sub>D</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	L <sub>6</sub>	z x M
	Min.	Max.												
D150/..	18	83	122	148	83	100	78	45	5	15	13	16	30	4 x M8
D190/..	30	121	150	190	116	130	100	45	5	15	14	18	33	4 x M10
D230/..	97	143	195	234	143	160	136	58	5	18	17	23	47	4 x M12
D260/..	97	164	210	264	164	180	156	58	4	20	18	23	46	4 x M16
D330/..	120	208	264	330	208	220	201	83	6	35	23	28	64	4 x M20
D84/..A	147	224	280	360	210	224	-	83	5	35	25	25	18	4 x M20
D84/..C														
D125/..A	260	320	360	484	285	315	-	125	10	33	25	25	40	M20 <sup>2)</sup>
D145/..A	390	400	<sup>1)</sup>	590	370	400	-	145	12	45	35	35	47	M24 <sup>2)</sup>

1) Pitch circle diameter on request.

2) Quantity of connecting bores on request.

	<b>Damping ring</b> <b>Operating/Assembly instructions</b> <b>(Type D, locked)</b>	KTR-N 43010 EN Sheet: 3 of 6 Edition: 2

## 2 Advice

### 2.1 General advice

Please read through these operating/assembly instructions carefully before you start up the damping ring. 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 damping ring.  
 The copyright for these operating/assembly instructions remains with KTR.

### 2.2 Safety and advice symbols



**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 adverse results or conditions.

### 2.3 General hazard warnings



**With assembly and disassembly of the damping ring 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 damping ring 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 damping ring.
- 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 damping ring if you

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

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

Please observe protection note ISO 16016.	Drawn: 2017-01-02 Sho/Pz	Replacing: KTR-N dated 2015-02-04
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### 3 Storage, transport and packaging

#### 3.1 Storage

The damping rings are supplied in preserved condition and can be stored at a dry and covered place for 6 - 9 months.



The storage rooms must not include any ozone-generating devices like e. g. fluorescent light sources, mercury-vapour lamps or electrical high-voltage appliances. Humid storage rooms are not suitable. Please make sure that condensation is not generated. The best relative air humidity is less than 65 %.

#### 3.2 Transport and packaging



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

The damping rings 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

The damping ring is supplied ready for assembly.

#### 4.1 Components of damping ring

Component	Quantity	Description
1	1	Damping ring (Type D, locked)
2 <sup>1)</sup>	4 / 8 <sup>2)</sup>	Hexagon screws DIN EN ISO 4017
3 <sup>1)</sup>	4 / 8 <sup>2)</sup>	Washers with taps DIN 463

1) Not included in the scope of delivery, please order separately.

2) with size D150 - D330 and D84 4-off;  
with size D125 - D145 8-off

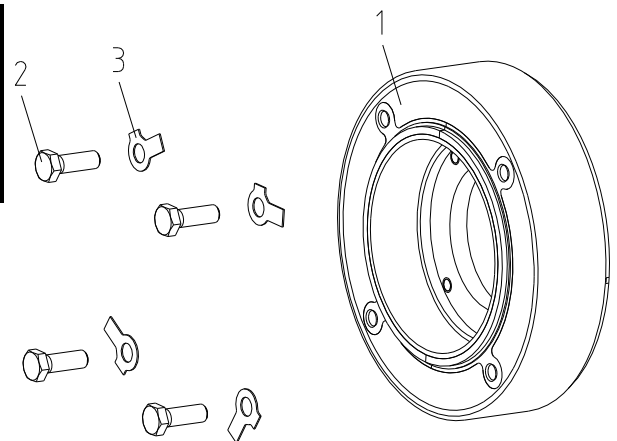


Illustration 3: Damping ring



4 Assembly

4.2 Assembly of bellhousing with damping ring

- The damping ring is put onto the bellhousing and screwed on (see picture 4).
- The screw lengths must be selected in such a way that, if possible, the complete length of the thread in the damping ring is used. For tightening torques  $T_A$  please refer to table 2.

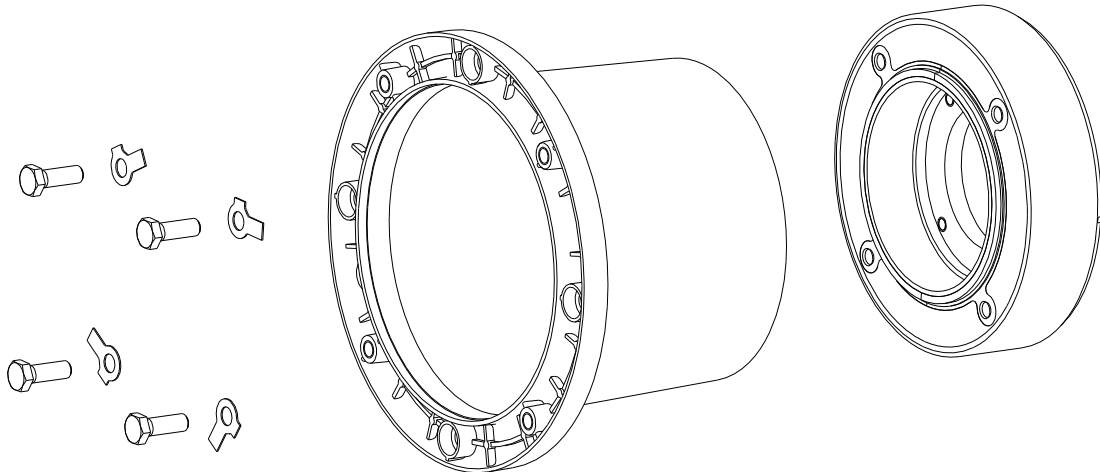


Illustration 4: Assembly of bellhousing with damping ring

Table 2:

Hexagon screws DIN EN ISO 4017 <sup>1)</sup>	M8	M10	M12	M16	M20
Tightening torque $T_A$ [Nm] <sup>2)</sup>	12	23	40	100	190

1) min. property class 8.8

2) Tightening torques of property class 5.6



The screws must be fastened by using washers with tabs according to DIN 463.



**When using oil**, the sealing lips vulcanized on the bellhousing side must be inspected for damage before mounting the damping ring. The damping rings D84, D125 and D145 (without sealing lips) have to be sealed versus the bellhousing via liquid sealer.

4.3 Technical advice



For permissible weights, temperature ranges as well as technical dimensions refer to catalogue „hydraulic components“.

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**4 Assembly**

**4.4 Other information**

For assembly of the bellhousing-damping ring combination with electric motor and pump please refer to KTR-N 41010 „Bellhousing Operating/assembly instructions“ (see picture 5).

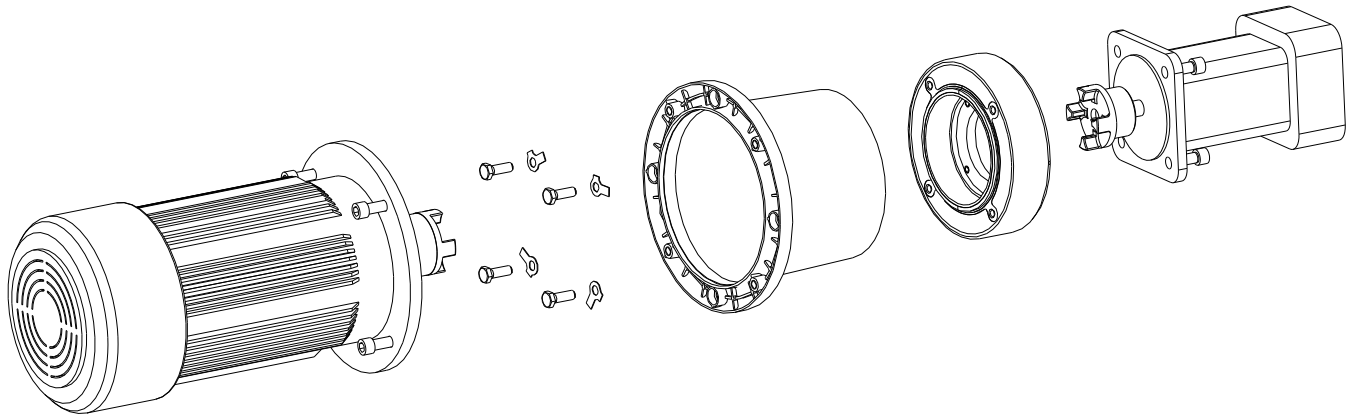


Illustration 5: Combination of bellhousing - damping ring with electric motor and pump



**The user is responsible for the sealing between damping ring and pump!**

**5 Disposal**

In respect of environmental protection we would ask you to dispose of the packaging or products on termination of their service life in accordance with the legal regulations and standards that apply, respectively.

**6 Spares inventory, customer service addresses**

A basic requirement to ensure the operational readiness of the damping ring is a stock of the most important spare parts on site.

Contact addresses of the 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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