



## Damping rings DT, DTV and DTSV

The damping ring DT serves for structure-borne noise separation between the drive units (motor-bellhousing-pump) and tank cover respectively base plate.

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**1 Technical data**

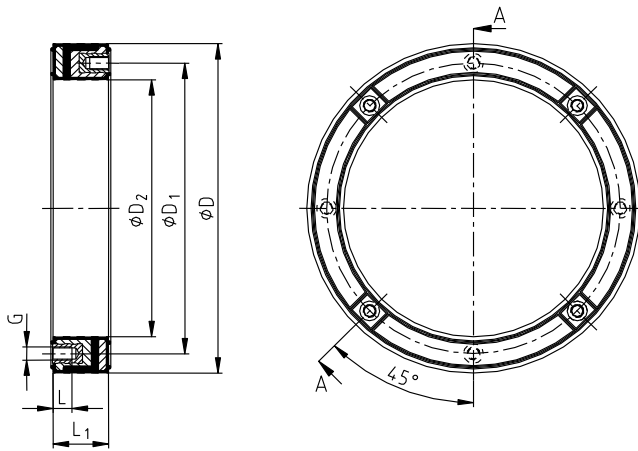


Illustration 1: Damping ring DT

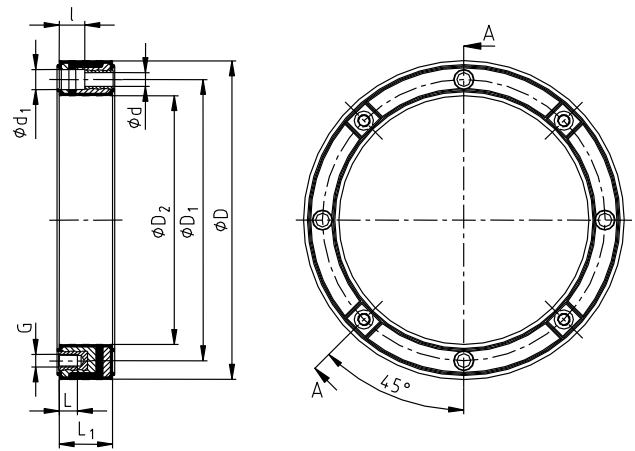


Illustration 2: Damping ring type DT.../2  
(not suitable for lateral installation of tank)

**Table 1: Dimensions for damping rings type DT and DTV for applications with standard IEC motors**

IEC motor size	Damping ring size	Dimensions in mm									$T_A$ in Nm
		D	$D_1$	$D_2$	$z \times G$	L	$L_1$	$z \times \phi d$	$z \times \phi d_1$	l	
71	DTV 160	160	130	111.0	4 x M8	16.5	35	4 x 9	4 x 14.5	18	12
80	DT 200	200	165	145.2	4 x M10	20.0	40	4 x 11	4 x 17.5	20	23
90 S											
90 L											
100 L	DT 250	250	215	191	4 x M12	17.5	45	4 x 13	4 x 19.5	22	40
112 M											
132 S	DT 300	300	265	235	4 x M12	17.5	50	4 x 13	4 x 19	24	40
132 M											
160 M	DT 350	350	300	261	4 x M16	31.0	60	4 x 17	4 x 25	26	100
160 L											
180 M											
180 L											
200 L	DT 400	400	350	301	4 x M16	31.0	70	4 x 17	4 x 25	31	100
225 S	DT 450	450	400	351	8 x M16	31.0	80	8 x 17	8 x 25	41	100
225 M											
250 M	DT 550 DTV 550	550	500	451	8 x M16	30.0	68	8 x 17	8 x 25	23	210
280 S											
280 M											
315 S	DT 660 DTV 660	660	600	551	8 x M20	30.0	68	8 x 22	8 x 33	23	410
315 M											
355	DTV 800	800	740	683	8 x M20	25.0	71	-	-	-	410

**Table 2: Dimensions for damping ring type DTSV for applications with servo motors**

IEC motor size	Damping ring size	Dimensions in mm									$T_A$ in Nm
		D	$D_1$	$D_2$	$z \times G$	L	$L_1$	$z \times \phi d$	$z \times \phi d_1$	l	
100 L/112 M	DTSV 250	250	215	191	4 x M12	17.5	45	4 x 13	4 x 19.5	22	79
132 S/M	DTSV 300	300	265	235	4 x M12	17.5	50	4 x 13	4 x 19.5	24	79
160 M/L - 180 M/L	DTSV 350	350	300	261	4 x M16	31.0	60	4 x 17	4 x 25	26	195



The damping rings type DTV and DTSV are suitable for vertical installation only.

Please observe protection note ISO 16016.	Drawn:	2023-04-04 Pz/Bet	Replacing:	KTR-N dated 2018-10-05
	Verified:	2023-05-09 Pz	Replaced by:	



## 2 Advice

### 2.1 General advice

Read carefully through these operating/assembly instructions before you start up the damping ring.

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 maintenance of the damping ring it has to be made sure that the entire drive train is secured against accidental switch-on and the plant is unpressurized. Improper treatment of the damping ring and rotating parts may cause serious injuries. 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".
- 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.
- Secure the rotating drive components against accidental contact. Provide for the necessary protection devices and covers.

### 2.4 Intended use

You may only assemble and maintain the damping ring if you

- have carefully read through the operating/assembly instructions and understood them
- are technically qualified and specifically trained (e. g. safety, environment, logistics)
- are authorized by your company

The damping ring may only be used in accordance with the technical data (see chapter 1). Unauthorized structural 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.



### 3 Storage, transport and packaging

#### 3.1 Storage

The features of the damping rings remain unchanged for up to 5 years with favourable storage conditions.



**The damping rings have to be protected against solar radiation or UV radiation.  
The temperature of the bearing should not exceed +30 °C.**

#### 3.2 Transport and packaging



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

The damping rings are packed differently each depending on size, number and kind of transport, only dry packaging material should be used. Unless otherwise contractually agreed, packaging will follow the in-house packaging specifications of KTR.

### 4 Assembly

The damping ring is generally supplied ready for assembly.

#### 4.1 Assembly of the damping ring with tank resp. base plate

##### Damping ring type DT (see illustration 1)

- The damping ring DT is fitted on the hole in the tank resp. base plate.
- Push the screws through the tank resp. base plate and screw them to the threads in the damping ring DT (see illustration 3).
- The screw lengths must be selected such that the complete length of the thread in the damping ring DT is utilised, if possible. For tightening torques  $T_A$  see table 1.

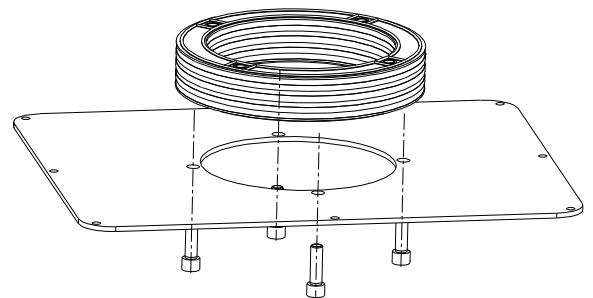


Illustration 3: Assembly of damping ring DT



**Secure the screw connection additionally against working loose, e. g. conglutinating with Loctite (average strength).**

**4 Assembly****4.1 Assembly of the damping ring with tank resp. base plate****Damping ring type DT.../2 (see illustration 2)**

- The damping ring DT.../2 is fitted on the hole in the tank resp. base plate.
- Push the screws through the counterbores in the damping ring and screw them to the threads in the tank or base plate (see illustration 4).
- The screw lengths must be selected such that the complete length of the thread in the tank or base plate is utilised, if possible. For tightening torques  $T_A$  see table 1 or 2.

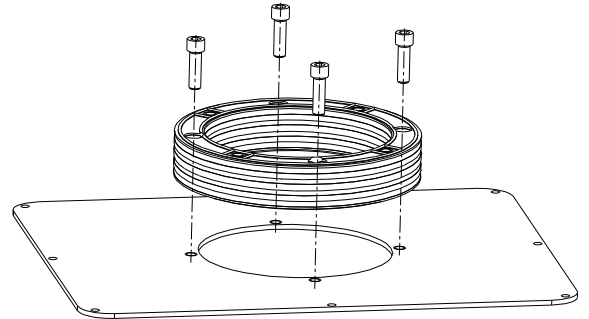


Illustration 4: Assembly of damping ring type DT.../2



**Secure the screw connection additionally against working loose, e. g. conglutinating with Loctite (average strength).**



**The damping ring DT.../2 is not suitable for lateral installation of tank, since sealing is not assured.**

**4.2 Assembly of damping ring with bellhousing**

- The bellhousing is pushed through the damping ring DT up to the contact surface.
- Push the screws through the bores in the collar of the bellhousing and screw them to the threads in the damping ring DT (see illustration 5).
- The screw lengths must be selected such that the complete length of the thread in the damping ring DT is utilised, if possible. For tightening torques  $T_A$  see table 1.

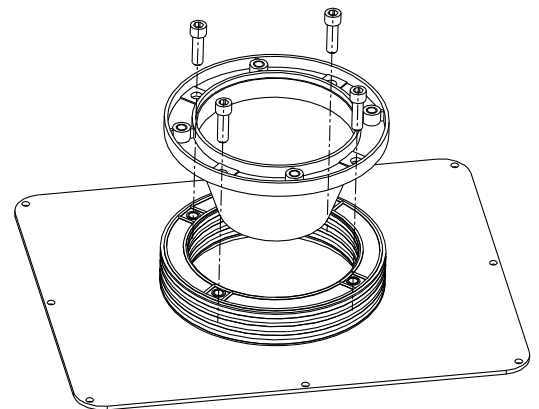


Illustration 5: Assembly of damping ring type DT with bellhousing



**Secure the screw connection additionally against working loose, e. g. conglutinating with Loctite (average strength).**

 <b>KTR KTR-Group</b>	<b>Damping rings</b> <b>DT, DTV and DTSV</b> <b>Operating/Assembly instructions</b>	<b>KTR-N</b> 42410 EN <b>Sheet:</b> 6 of 6 <b>Edition:</b> 6
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## 4 Assembly

### 4.3 Other information

- The damping ring DT can be used both horizontally and vertically (only standard IEC motors).
- The damping ring DTV is intended for vertical use only (only standard IEC motors).
- The damping ring DTSV is intended for vertical use only.
- Sealing lips are moulded on the damping rings DT so that additional gaskets between bellhousing and tank can be done without. The sealing lips must be inspected for potential damages before assembly.

Please observe the following KTR operating/assembly instructions:

- Bellhousing Operating/Assembly instructions → KTR-N 41010

## 5 Disposal

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

## 6 Spares inventory, customer service addresses

A basic requirement to ensure the readiness for use 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.**

**KTR Systems GmbH**  
 Carl-Zeiss-Str. 25  
 D-48432 Rheine  
 Phone: +49 5971 798-0  
 E-mail: mail@ktr.com

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	Verified: 2023-05-09 Pz	Replaced by: