

Installation and operating instructions Type 3D

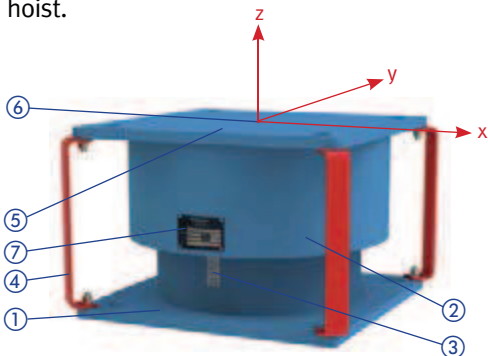
1 Transport and storage

Care must be taken during transport that the viscoelastic damper type 3D is always in upright position to avoid any leakage of the damping medium. When storing in the open the dampers are to be protected from dirt and water.

2 Delivery condition

LISEGA viscoelastic dampers are delivered preset to cold condition (offset). This is ensured by the transport brackets, which keep the offset position fixed in place between the upper and lower sections of the damper. If not ordered otherwise the blocking position (offset position $x = 0, y = 0, z = 0$) is supplied.

For a weight greater than 20kg, an M16 inner thread of limited engagement depth is located in the upper connection plate for attachment to a hoist.



- ① lower connection plate
- ② casing
- ③ position indicator
- ④ transport bracket
- ⑤ upper connection plate
- ⑥ connection thread
M16 for hoist
- ⑦ name plate

The following information is stamped on the name plate:

- type
- serial and commission number
- nominal load
- operating temperature
- ident. number

3 Installation

For installation, attention must be paid to the information in the installation instructions for the pipe systems. The LISEGA viscoelastic damper, which is supplied with installation load (cold load) is transported to the place of assembly in an upright position. A force-fitting connection of the upper and lower connection plates is made to the pipe system and steelwork. For this, the transport brackets must be removed. The screw torque values can be found in the table at the side.

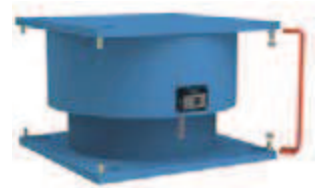
4 Commissioning

For types 3D.. ..-D it is recommended that the plant should be started up slowly so that the dampers can adjust to operating temperatures, otherwise strong reaction forces could develop that exceed the specified nominal loads. If required, the dampers could be brought to operational temperature by means of supplementary heating. During commissioning the relative position of the upper and lower connection plates changes to hot load position, as calculated beforehand.

During operation the damper should function roughly in middle position, otherwise the dynamic characteristics of the damper change. If the middle position in the tolerance range is not reached the calculations are to be reviewed.

5 Inspection and maintenance

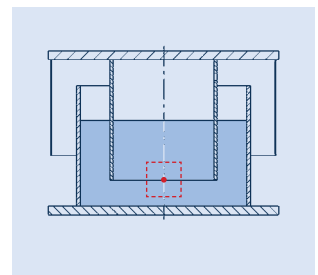
LISEGA viscoelastic dampers are in principle free of maintenance, but a annual visual inspection is recommended. For revision purposes the transport brackets can be attached again.



Removal of transport brackets

thread size	screw torque values * [Nm]	
	4.6	5.6
M 12	29	39
M 16	71	95
M 20	138	184
M 24	235	315
M 30	475	635
M 36	1080	1440

* Values acc. to VDI 2230 Appendix A, friction value $\mu = 0.14$



⬜ = Working range of type 3D at the middle position



Name plate type 3D