

Marine Damper – Type M



Made in Sweden



DESCRIPTION

The Swedspjäll **type M** dampers (Serie 150-**M** and Serie 200-**M**) is a damper specifically designed for marine applications.

The pulsations from the diesel engines creates vibrations and big turbulences in the gas flow. In combination with the tight duct design due to space limitations, the result is heavy loads on the damper disc in both open and closed positions.

For these reasons, the **type M** damper was introduced to the market.

Type M is a very robust construction with a solid shaft penetrating the damper body. The ball bearings are mounted on the outside of the damper, preventing gas from entering the bearings.

The marine type design can be applied to either our Serie 200 or Serie 150 base models, see separate datasheets for more information.

TECHNICAL INFORMATION

Type M is strengthened with thick flanges acc.to DIN 86044 as standard or with weld ends. The shaft and disc are also strengthened to compensate for the pulsations and vibrations.

When flanged dampers are being used, it is very important that the flanges are rigid and have a machined surface on the gasket area. The flanges must absorb the pulsations and vibrations from the engine without any leakage.

From a safety perspective, if exhaust gas leaks from the stuffing box or the flanged connections, it can be a disaster in the engine room, especially if the ship is out on the open ocean during heavy sea.

Type M is always equipped with a cast stuffing box in stainless steel to guarantee no leakage.



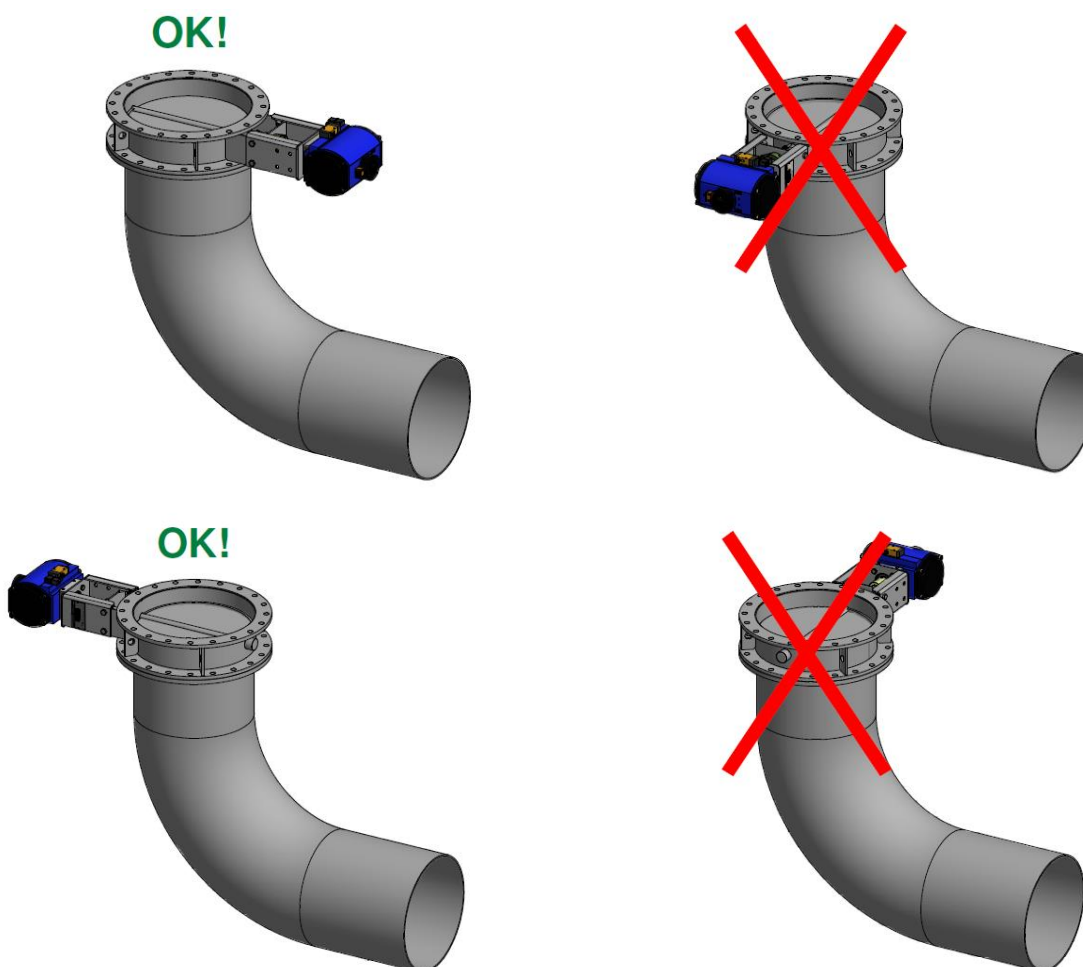
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The vibrations caused by resonance on ships can easily increase to critical levels on dampers with actuators. This phenomenon will occur if the actuator mounting bracket is flexible and for this reason **type M** dampers are equipped with very strong brackets. In extreme cases, we use special supports for the actuator to further minimize the vibration risks.

MOUNTING GUIDELINES

The mounting position of the damper is also critical for damper function. Our experience from ship installations will give you the most important mounting information, see the pictures below:



Normal guidelines for installation of dampers dictates that there should be a straight pipe before and after the damper with a length of 3 to 5 X DN. But on ships, this is normally not possible because of the lack of space. Therefore, it is important to install the damper as shown above: The shaft of the damper shall align with the piping to split the forces of the turbulent flow evenly.