



Type CSM Resonance silencer

Application

The TIO resonance silencer type CSM can be installed in the ducting for almost any application and medium. The CSM silencer combines an excellent low frequency attenuation with a low back pressure.

Design

The operation of the silencer CSM is based on the resonance principle (with expansion). The acoustical performance is determined by one or more expansion chambers. The gas flow passes through these chambers which are connected by tubes. Diameter and length of the CSM silencer are calculated in such a way that an optimum attenuation in the most disturbing (low) frequencies can be realized in relation to the back-pressure. If high silencing demands are required, the CSM silencer can be efficiently combined with absorption silencers like our types HD, HDD, etc.

Attenuation

The average attenuation is depending on the project data and the dimensioning of the silencer. Maximum app. 25 dB(A).

Gas velocity

The maximum allowable gas velocity is depending a.o. on the noise requirements and allowable backpressure. Recommended 35 – 50 m/s

Pressure loss

Depending on the silencer configuration and project data.

Temperature

Maximum: 600 °C.

Special designs are available for higher temperatures.

Material

Standard – S235JRG2 – St 37-2. Executions in stainless steel, Cor-Ten, etc. are possible.

Insulation

As the gasses are in direct connection with the body, thermal insulation is recommended. In order to avoid noise radiation from the body of the silencer, it is recommended to insulate the silencer acoustically.

Paint

One layer of zinc phosphate primer.

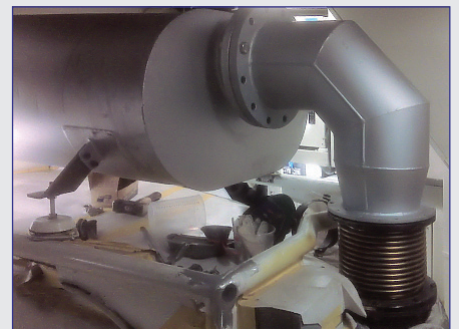
Installation

The silencer type CSM may be installed vertically, horizontally or in any position wanted, but as close as possible to the engine. Because the gasses are in direct connection with the body, the temperature of the wall will be fast equal to medium's temperature and expansion of the body of the silencer takes place. Before supporting and installing the silencer, you have to consider the above. When installing at site, it is possible to weld suspensions on the body.

Special connections

For in- and outlet are special connections on request available. Supports are available, etc.

N.B. All TIO silencers can be combined with TIO spark arresters



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