



Type HDD Absorption silencer

Application

The TIO silencers type HDD are designed for various applications such as:

- exhaust lines of diesel engines
- superchargers
- vacuum installations
- gas/air discharge

Design

The operation of the silencer type HDD is based on the absorption system. The gas flow passes straight through a perforated tube surrounded by highly efficient sound absorbing material, thus giving an excellent attenuation over a wide frequency range.

Attenuation

Approx. 35 dB(A).

The attenuation in each middle frequency is shown in the attenuation table. The shaded area shows the differences which probably appear due to the influence of temperature, back pressure and location of silencer. The attenuation also depends on unsilenced noise level.

Gasvelocity

Recommended: 35 – 50 m/sec.

Pressure loss

The pressure loss will not be more than in a straight tube having the same length and bore as the silencer. The pres-

sure loss table shows pressure loss in relation to velocity and temperature.

Temperature

Maximum: 600° C.

Special designs are available for higher temperatures.

Insulation

If a low body temperature of the silencer is required, it is recommended to insulate the silencer thermally.

Material

Standard – S235JRG2 – St37.2. Executions in stainless steel, Cor-Ten staal etc. are possible.

Paint

One layer of zinc phosphate primer.

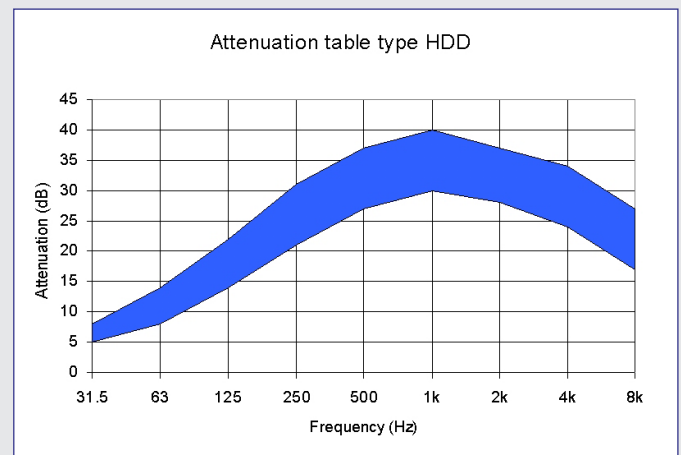
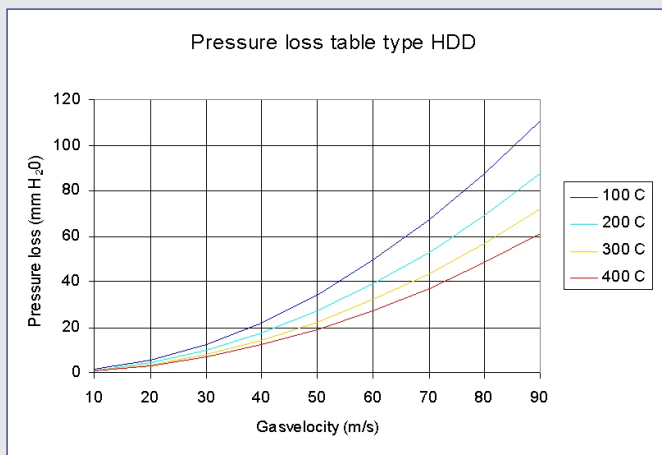
Installation

Type HDD may be installed vertically, horizontally or in any position close to the end of the piping. Supports can be welded on silencer body.

Special connection

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

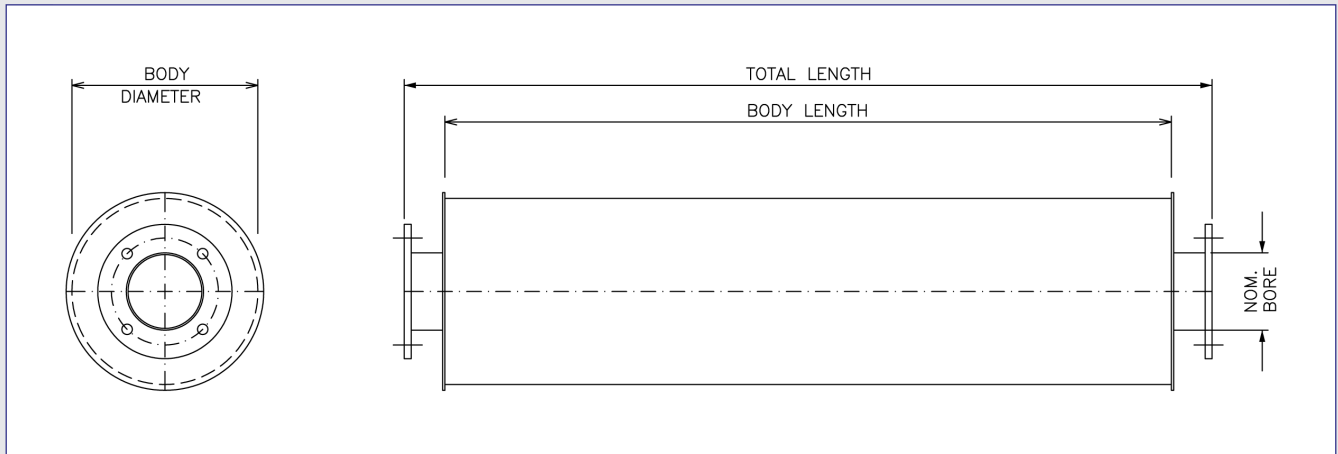
N.B. All TIO silencers can be combined with TIO spark arresters.



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Executions with TIO flanges

Silencer type	Nominal bore	Body diameter	Body length	Total length
1-1/2"	40	180	970	1060
2"	50	240	1000	1090
2-1/2"	70	240	1200	1300
3"	80	320	1290	1400
3-1/2"	94	320	1380	1500
4"	100	369	1470	1600
5"	125	390	1560	1700
6"	150	479	1650	1800
7"	175	537	2000	2200
8"	200	570	2200	2400
9"	225	635	2200	2400
10"	250	700	2600	2800
11"	275	700	2600	2800
12"	300	750	3000	3200
13"	325	750	3000	3200
14"	350	850	3200	3400
15"	375	900	3300	3600
16"	400	950	3700	4000
18"	450	1050	3900	4200
20"	500	1100	3900	4200
22"	550	1200	4100	4400
24"	600	1250	4300	4600