



Type HD Absorption silencer

Application

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

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

Design

The operation of the silencer type HD 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. 25 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 etc. are possible.

Paint

One layer of zincphosphate primer.

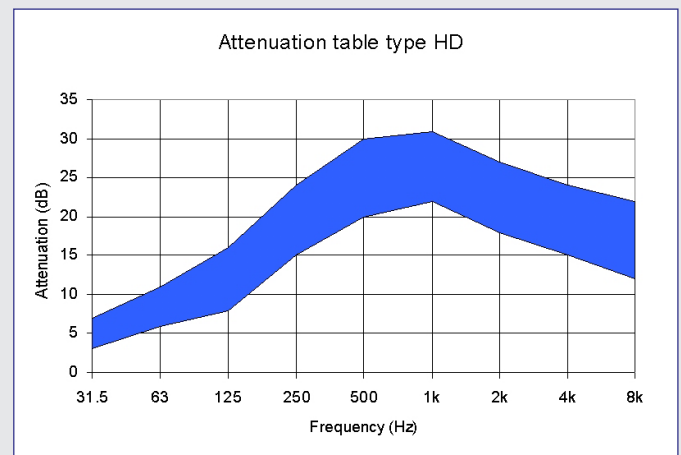
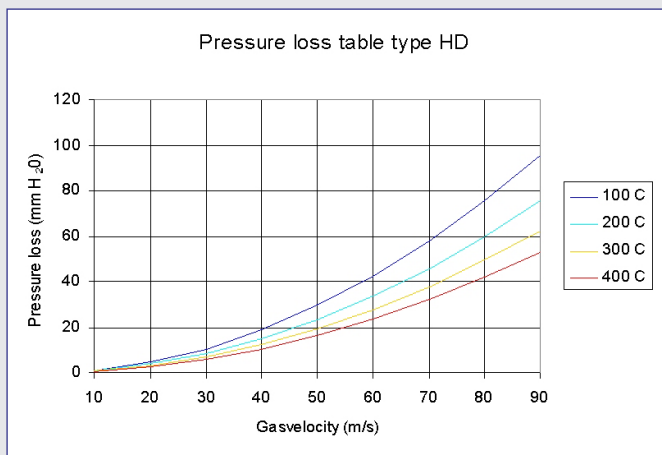
Installation

Type HD 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.

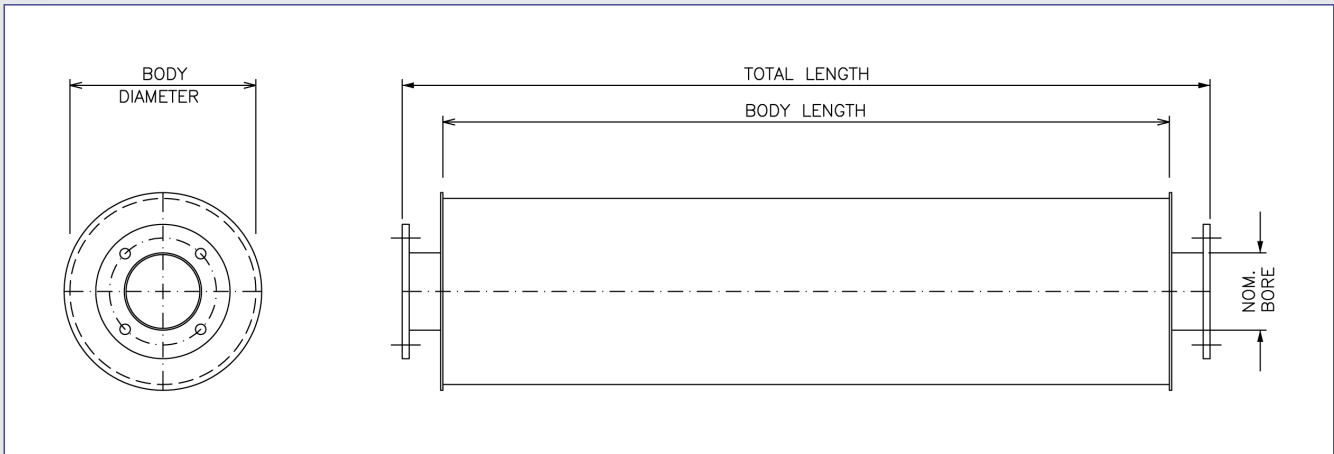
N.B. All TIO silencers can be combined with TIO spark arresters.



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Type HD Absorption silencer



Executions with thread

Silencer type	Nominal bore	Body diameter	Body length	Total length
1"	25	110	454	516
1-1/4"	32	110	504	566
1-1/2"	40	110	754	840
2"	50	132	896	980

Executions with TIO flanges

Silencer type	Nominal bore	Body diameter	Body length	Total length
1-1/2"	40	110	754	840
2"	50	132	896	980
2-1/2"	70	157	1000	1100
3"	80	181	1000	1110
3-1/2"	94	181	1230	1350
4"	100	239	1240	1370
5"	125	320	1250	1390
6"	150	369	1540	1710
7"	175	390	1680	1880
8"	200	390	1830	2030
9"	225	478	1800	2030
10"	250	570	2135	2335
11"	275	570	2300	2500
12"	300	635	2500	2700
13"	325	635	2700	2900
14"	350	700	2800	3000
15"	375	700	2900	3200
16"	400	750	3100	3400
18"	450	800	3100	3400
20"	500	900	3300	3600
22"	550	1000	3500	3800
24"	600	1100	3700	4000