



## TSD50

### SEMI FLEXIBLE SOUND ATTENUATORS

The **TSD50** consists of a corrugated perforated aluminium inner duct and a corrugated outer duct with end spigots made of aluminium. The space between the inner and outer duct is filled with 50mm sound absorbing material. At request a barrier to prevent particle migration can be added.

#### APPLICATION

- Air supply systems
- Air conditioning systems
- Insertion loss damper
- Sound attenuator
- Decreasing sound of machines

#### SPECIFICATIONS

Article code:	TSD50{Ø}/L
Temperature range:	-30 °C to 250 °C
Operating pressure:	up to +3000 Pa
Operating air velocity:	max. 10 m/s
Min. bending radius:	1 to 2 x D2
Standard diameter range:	80 - 400 mm
Standard length:	0,5+0,75+1 mtr

#### CONSTRUCTION

Inner duct:	Perforated corrugated aluminium
Glass wool blanket:	50mm, 16kg/m³
Outer duct:	Corrugated aluminium
R-value glass wool:	1.3 m² K/W (ASTM C177-76)
Appearance:	aluminium

#### Sound attenuation, Dimensions and Weights

<b>TSD50</b> (Test report nr. A1453-1 Peutz bv - The Netherlands)									
D <sub>n</sub> (mm)	L (mtr)	Attenuation, dB - Mid-frequency, Hz						D <sub>i</sub> (dB)	W (kg)
		125	250	500	1k	2k	4k		
080	1	11	16	40	55	65	52	32	1.3
100	1	6	13	23	44	62	41	26	1.5
125	1	7	13	26	44	51	28	27	1.7
150	1	5	11	25	44	40	25	24	1.9
160	1	3	11	25	43	40	20	22	2.0
180	1	2	11	22	41	28	18	18	2.3
200	1	4	10	21	43	25	14	21	2.5
250	1	3	9	20	39	15	9	17	3.1
315	1	1	5	14	30	11	6	13	3.6

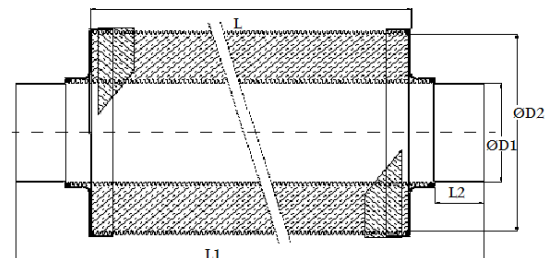
D<sub>i</sub> = Average attenuation  
According: **ISO 7235**

Diameter (Dn) range ØD1 - ØD2 (mm)	
080 - 180	224 - 315
100 - 200	250 - 355
125 - 224	280 - 400
140 - 250	300 - 400
150 - 250	315 - 400
160 - 250	355 - 450
180 - 280	400 - 500
200 - 300	

L = Effective length

D < Ø250  
L1 = L + 120 mm  
L2 = 40 mm

D ≥ Ø250  
L1 = L + 160 mm  
L2 = 60 mm



The **TSD50** fulfills all the requirements and are classified as specified within EN 13180:  
*Ventilation for buildings – Ductwork - Dimensions and mechanical requirements for flexible ducts.*

#### LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

#### PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

#### TRADEMARKS:

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#### RESTRICTIONS:

The TSD ducts are not suitable for discharging combustion products from open fireplaces and oil-fired boilers. Neither are the ducts suitable for transporting air with a high concentration of acid and base.

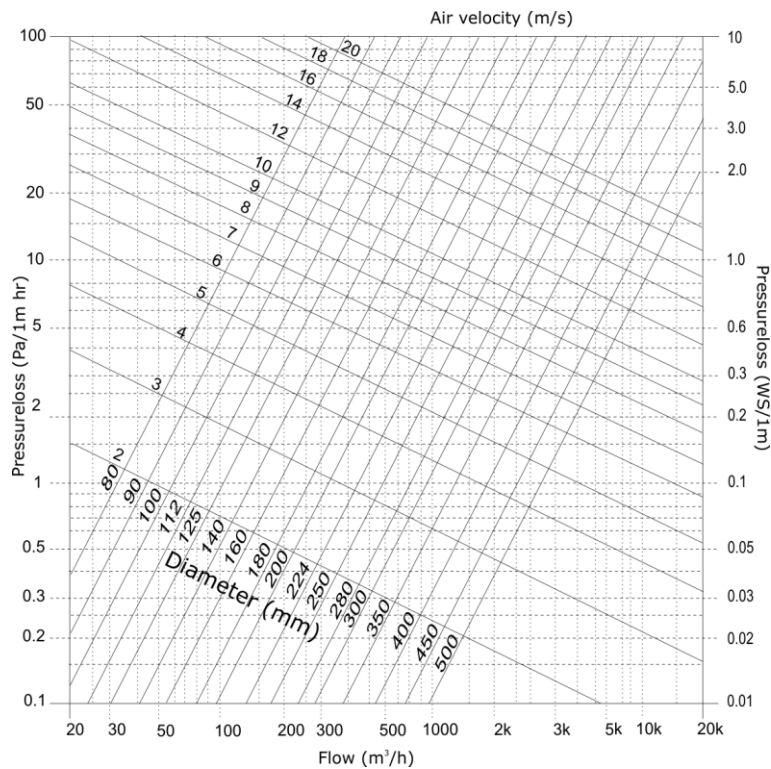




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### PRESSURE LOSS (STRAIGHT DUCT)



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