

# SEMI FLEXIBLE SOUND ATTENUATOR



## TSD 50

The semi flexible sound attenuator consists of a corrugated perforated aluminium innerduct and a 2 layer corrugated outerduct 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.*

Article code: TSD50{Ø}/Length

### Application in practice

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

### CONSTRUCTION

**Inner Duct** : Corrugated, perforated aluminium.  
**Insulation** : Glasswool, thickness 50 mm.  
**Outer Duct** : 2 layer corrugated aluminium.

Technical data	
Colour	aluminium
Material	corrugated aluminium
Temperature range	-30 up to +250 °C
Over pressure	max. 2000 Pa
Under pressure	max. 1500 Pa
Recommended air velocity	max. 10 m/s
Standard length	L = 0.5, 0.75, 1.0, 1.5 and 2.0 m
Bending radius	R = 2 to 3 x D2 (from 1 meter)

### Fire Rating:

Ducting is tested according DIN4102 and is classified as **A1** .

1.8b

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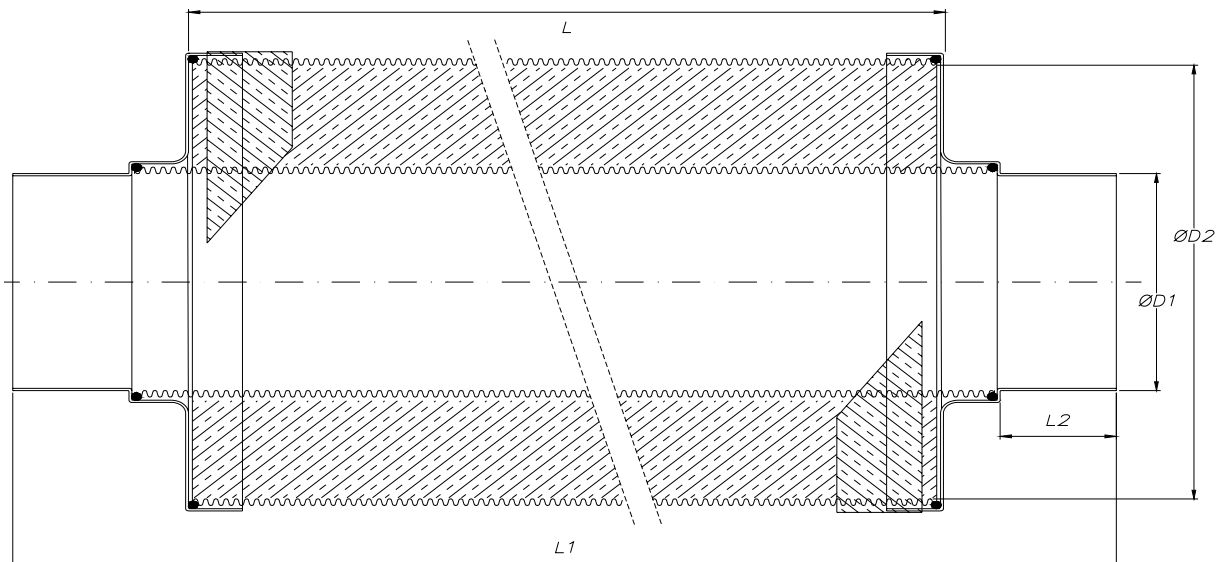
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# SEMI FLEXIBLE SOUND ATTENUATOR

## Sound attenuation, Dimensions and Weights

TSD50 (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)	Weight (kg)
		125	250	500	1000	2000	4000		
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
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



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

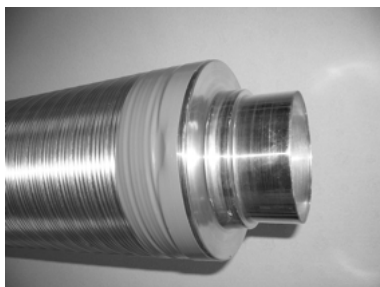
L2 = 60 mm

**1.8b**

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# SEMI FLEXIBLE SOUND ATTENUATOR



## TSD 25

The semi flexible sound attenuator consists of a corrugated perforated aluminium innerduct and a 2 layer corrugated outerduct with end spigots made of aluminium. The space between the inner and outer duct is filled with 25mm sound absorbing material.

*At request a barrier to prevent particle migration can be added.*

**Article code:** TSD{Ø}/Length

### Application in practice

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

### CONSTRUCTION

**Inner Duct** : Corrugated, perforated aluminium.

**Insulation** : Glasswool, thickness 25 mm.

**Outer Duct** : 2 layer corrugated aluminium.

Technical data	
Colour	aluminium
Material	corrugated aluminium
Temperature range	-30 up to +250 °C
Over pressure	max. 2000 Pa
Under pressure	max. 1500 Pa
Recommended air velocity	max. 10 m/s
Standard length	L = 0.5, 0.75, 1.0, 1.5 and 2.0 m
Bending radius	R = 2 to 3 x D2 (from 1 meter)

### Fire Rating:

Ducting is tested according DIN4102 and is classified as **A1** .

1.8b

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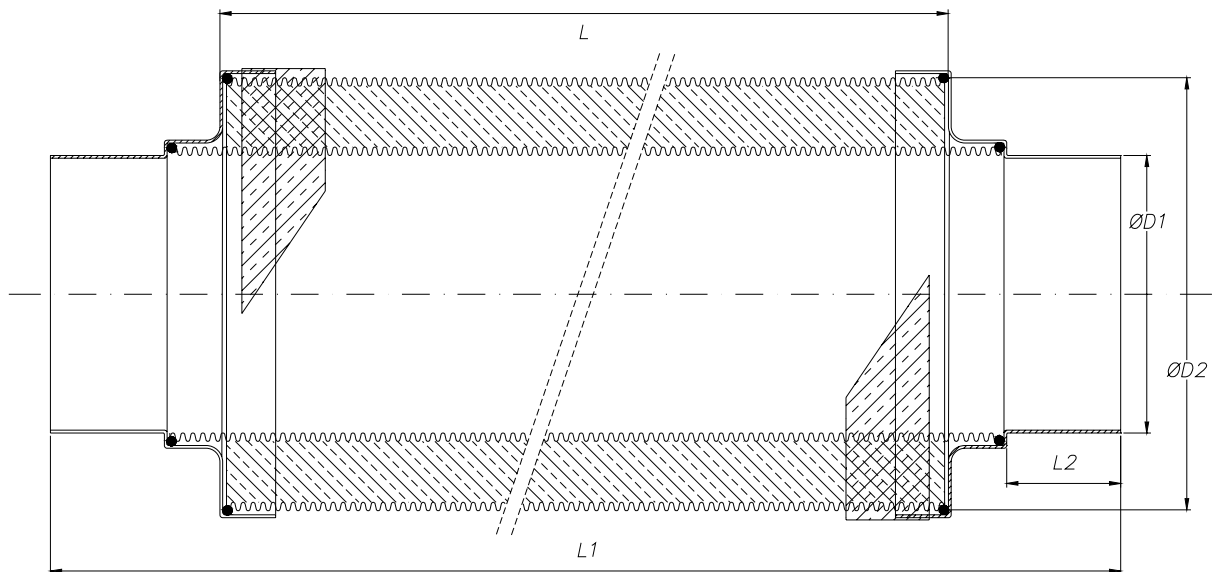
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# SEMI FLEXIBLE SOUND ATTENUATOR

## Sound attenuation, Dimensions and Weights

TSD25 (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)	Weight (kg)
		125	250	500	1000	2000	4000		
080	1	6	8	19	40	64	40	22	0.8
100	1	3	7	15	37	68	33	20	1.0
125	1	5	8	16	31	51	22	20	1.2
160	1	1	4	9	24	50	18	15	1.5
200	1	2	5	9	22	29	12	15	1.9
250	1	1	3	8	21	18	8	13	2.3

D<sub>i</sub> = Average attenuation



Diameter (D <sub>n</sub> ) range ØD1 – ØD2 (mm)	
080 – 130	224 – 280
100 – 150	250 – 300
125 – 180	280 – 355
140 – 200	300 – 355
150 – 200	315 – 355
160 – 200	355 – 400
180 – 224	400 – 450
200 – 250	450 – 500

**L = Effective length**

**D < Ø250**

L1 = L + 120 mm

L2 = 40 mm

**D ≥ Ø250**

L1 = L + 160 mm

L2 = 60 mm

**1.8b**

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