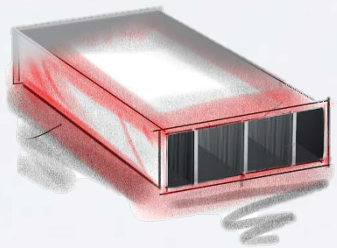
FONOISOLAMENTI

TECHNICAL DATA SHEET

Silencer with SH™ Baffles



Description

High-performance silencer, based on the innovative Slim Hurdle™ technology, designed to significantly reduce pressure drop while minimising overall footprint and enhancing acoustic performance.

Intende use

Silencer with ST baffles can be installed:

- To limit the noise emissions from fans of various configurations, including low-pressure models.
- On air handling units or internal ventilation systems, to reduce noise propagation along ductwork without increasing energy consumption or airflow demand.
- On general ventilation systems, to minimize crosstalk between adjacent rooms.
- On extraction systems, including high-capacity installations, to reduce noise emissions to the outside while maintaining operational efficiency

Features

- Internal baffles Thickness: 20 mm
- External Cladding Thickness: 13 mm
- Net open area: up to 91% of the duct cross-sectional area.
- Internal sound-absorbing layer: Noise Layer™ 10 Black – 918 gr/m2.
- Shear Damping Mass: Damping Bulk™ 7 Mag. – 5,1 kg/m2
- Operating Temperature Range: from -20°C to +70°C
- Sound Absorption Coefficient (αw): 0,90 – 0,95

Dimensions

Dimensions and diameters: available in custom sizes

Fields of application

- Fan coils, AHUs, Extractors, RTUs
- Ventilation systems, Air intakes, Filtration units
- Cooling units, Heat recovery systems
- HVAC systems for Residential, Commercial, and Industrial buildings

Variants

Rectangular model

Flanged for rectangular-section ducts

Circular model

For circular-section ducts

Curved model

- A unique product on the market
- Both rectangular and circular-section versions can be supplied with 45° or 90° curves

Pressure drop

	Calculation results	
Gas velocity in the duct	3	m/s
Internal wall roughness	0.036322	r/d
Reynolds number	53755	
Friction coefficient (Colebrook)	0.0628	
Distributed pressure drop	0,58	Pa
Localised pressure drop	2,38	Pa
Total dynamic pressure drop	**2,96**	**Pa**

Acoustic performance (Insertion Loss)

→ Rw= 10-50 dB(A)

To ensure optimal results, the product must be installed following a thorough technical/acoustic assessment of the noise source. Surrounding sound-insulated structures or designated surfaces must provide an acoustic seal equal to or greater than that of the Silencer. It is advisable to position the silencer as close as possible to the noise-emitting source. For maximum effectiveness, installation by specialised personnel is strongly recommended.

The user is solely responsible for ensuring compliance with applicable laws and for obtaining necessary permits and authorisations.