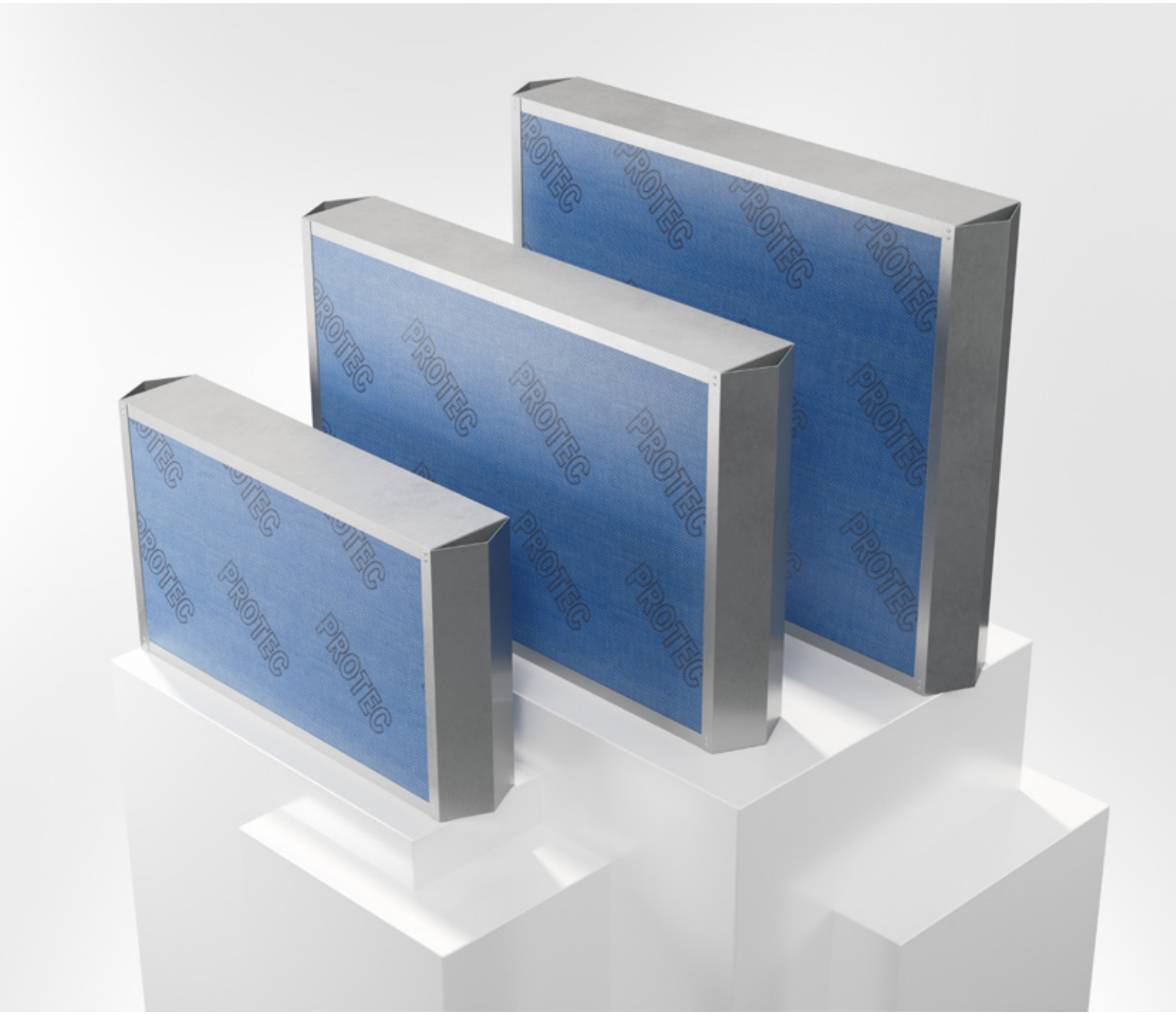
LFAB

Silencer baffles

SILENCERS



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Silencer baffles LFAB

Quick facts

- Thickness 100, 200 och 300 mm
- Sizes from 300 x 300 mm to 2000 x 1800 mm
- Type approved cleanable Protec surface layer
- Can be manufactured in many special versions

Use

LFAB is designed to attenuate fan noise and air noise from e.g. dampers. The baffles are supplied with assembly profiles and are ideal for use in large, site-built silencers, in shafts or for supplementing in existing ducts. LFAB conforms to all requirements according to the current building regulations in terms of cleanability, fibre safety, emissions and microorganisms.

LFAB can be manufactured in a number of variants, the reported data is only a sample. The inlet and outlet sides of the baffles are equipped with angled profiles to limit the pressure drop. The absorption material has a type-approved surface layer that is cleanable and fibre-proof.

The silencers are installed independent of the air direction. In the event of large sizes or restricted entry openings, the baffles are delivered in sections that are easily assembled on site.

For general information about silencers and technical data, see “General information about silencers” in the technical section on bevent-rasch.com

Specifications

Example:

Silencer baffle **LFAB - 200 - 600 - 1200 - 1**

Thickness, mm

Height, mm

Length, mm

Material:

Galvanized sheet steel = 1

Stainless AISI 316L – EN 1.4404 = 3

Aluzinc AZ185 = 4

Materials and surface treatment

LFAB is manufactured as standard of galvanised sheet steel with an absorbent material of mineral wool. The baffles can also be made of stainless steel or aluzinc and with or without surface treatment. In heavily contaminated air, the baffles can be enclosed and fitted with perforated sheet.

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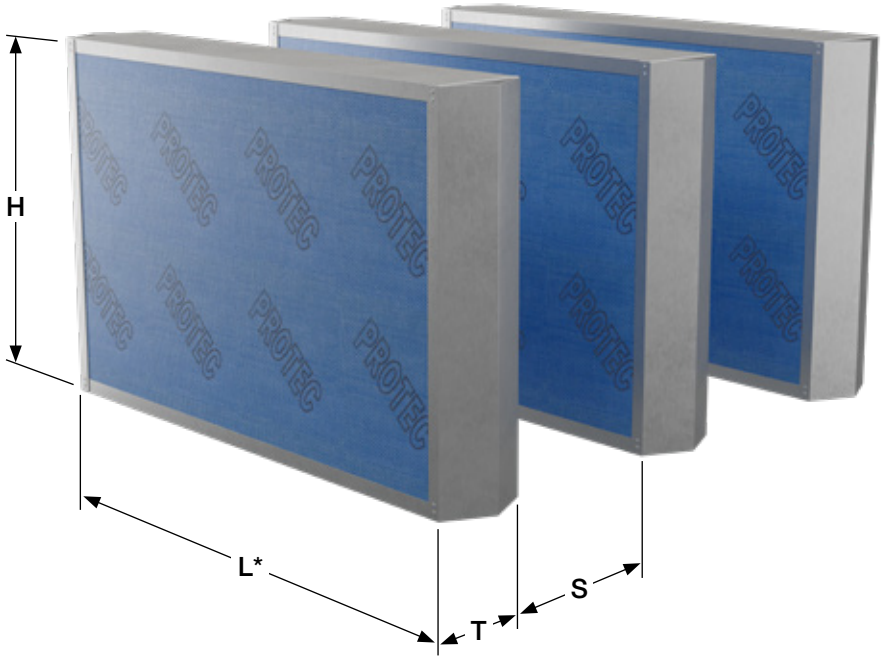
Size and weight



Width, height and length are freely selected according to (for standard dimensions, see table):
Thickness (T) = 100, 200, 300 mm
Height (H) = 300 - 2000 mm
Length (L) = 600 - 1800 mm. Non-reported lengths in the table ‘Insertion Loss’, are interpolated.

** Total construction length = L + 100 mm*

Weight/m² baffle

Thickness, mm	100	200	300
Weight, kg	12	20	28

Selection

1. Select the baffle thickness and gap (T and S) for attenuation requirements and available space. Initially utilise the available length space.

2. Find the current flow line in the selection diagram and read the pressure drop and thickness/gap (T/S) corresponding to the current gross area.

3. Calculate the number of baffles relative to the size restrictions. Ideally start and finish with half baffles.

Pressure drop according to the selection diagram refers to duct-duct connected silencer regardless of length. In other installations, in terms of air direction, the pressure drop is multiplied by the following factor:

LFAB	Type 1	Type 2	Type 3	Type 4	Type 5
Chamber – Chamber	2,0	2,4	2,9	3,2	3,5
Duct – Chamber	1,7	2,0	2,4	2,6	2,9
Chamber – Duct	1,2	1,3	1,5	1,6	1,7

Insertion loss

T / S mm	Length mm	Insertion loss in octave band dB Centre frequency Hz							
		63	125	250	500	1K	2K	4K	8K
100/100	600	3	5	8	16	23	24	18	10
	900	3	6	11	21	30	34	24	14
	1200	4	6	14	27	37	39	28	17
	1500	4	7	16	39	50	49	36	20
	1800	5	8	19	46	50	49	42	22
200/100	900	7	11	21	31	43	38	31	16
	1200	8	14	26	39	46	44	36	22
	1800	12	19	36	50	50	46	41	29
200/150	1200	7	11	22	34	42	38	28	15
	1800	10	17	30	46	48	40	31	20
200/200	1200	6	8	17	26	35	30	16	9
	1800	7	12	25	39	44	34	19	11
300/100	900	11	17	29	42	50	49	33	18
	1200	13	20	33	45	50	50	35	20
	1500	14	24	38	47	50	50	40	23
	1800	16	27	44	50	50	50	45	24

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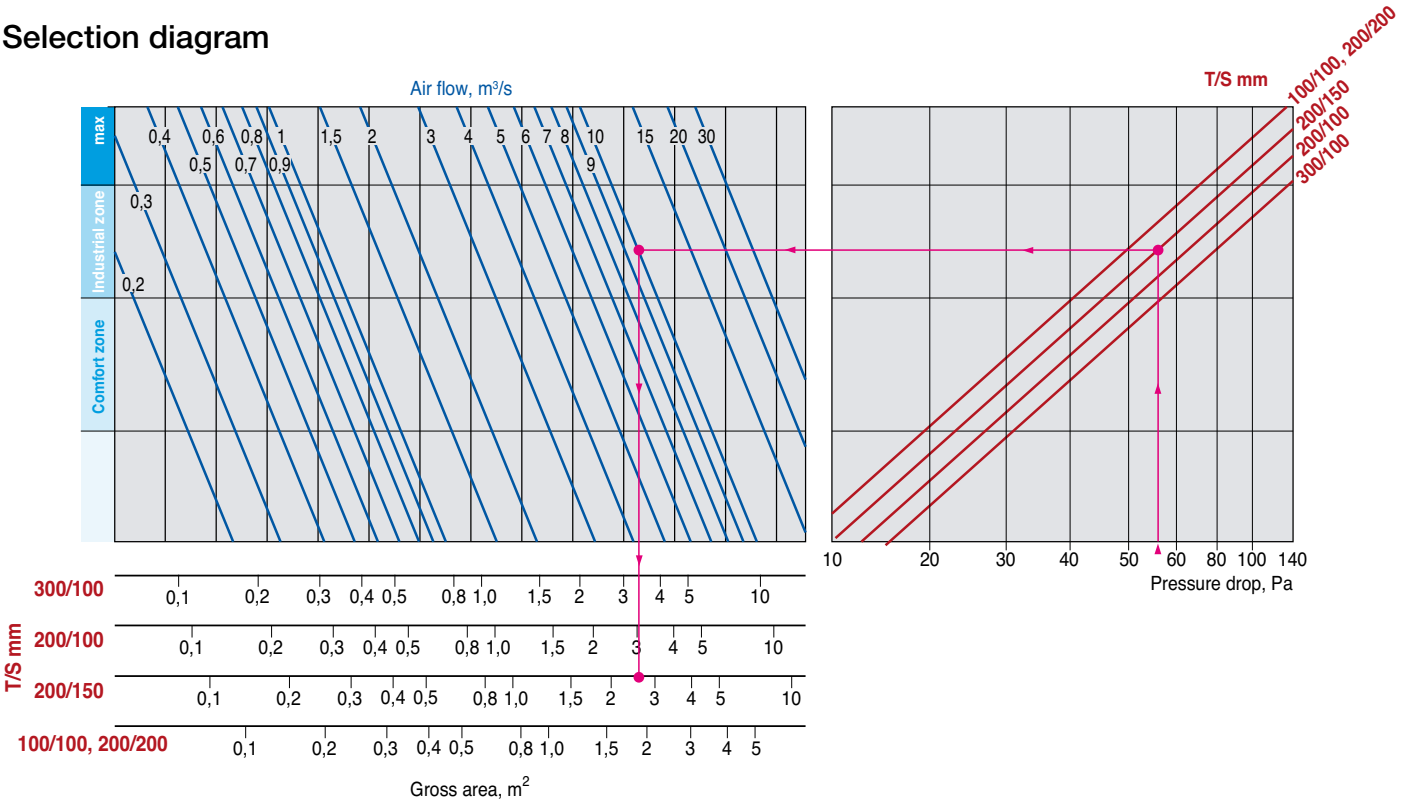
Selection diagram



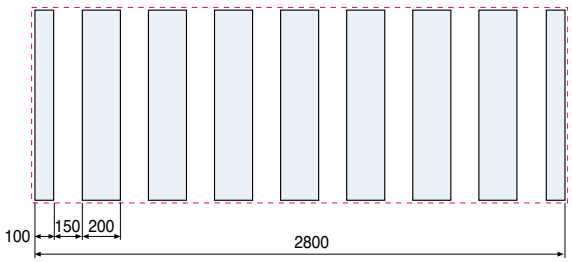
Reported work areas to the left of the selection diagram are a recommendation. For working areas reported as 'comfort zone', the inherent sound generation is generally negligible.
For details of inherent sound please contact the supplier.

Selection example

Conditions:
- Air flow 10 m³/s
- Max. pressure drop 55 Pa
- Required attenuation 17 dB (250 Hz).
- Gross area 2,8 m² (B x H = 2800 x 1000 mm)

Result:
- According to the insertion loss tables and the selection diagram, the following silencers can be selected:
  Thickness/Gap (T/S) = 200/150 mm

  Baffle length = 1800 mm
  7 baffles, T = 200 mm
  2 baffles, T = 100 mm
  8 baffles, S = 150 mm



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