SETFON ZN

Sound-absorbing baffle in galvanized steel

ACOUSTIC





Description and application:
Rectangular sound-absorbing baffle made of high-performance acoustic materials, designed to provide effective noise attenuation while maintaining low pressure drop.
It is ideal for applications requiring a high level of acoustic comfort and reduced sound transmission within air distribution systems.
Suitable for attenuating noise generated by fans and airflow in main, secondary or terminal ducts of ventilation and air-conditioning systems, for both supply and return air applications, in both commercial and industrial environments.

Construction:
- Execution made of Z200 galvanized steel;
- Frame/Casing riveted, thickness 0,8 mm;
- Aerodynamic profiles on both sides;
- Sound-absorbing material in rock wool, density 50 kg/m³, covered with black glass fiber veil.

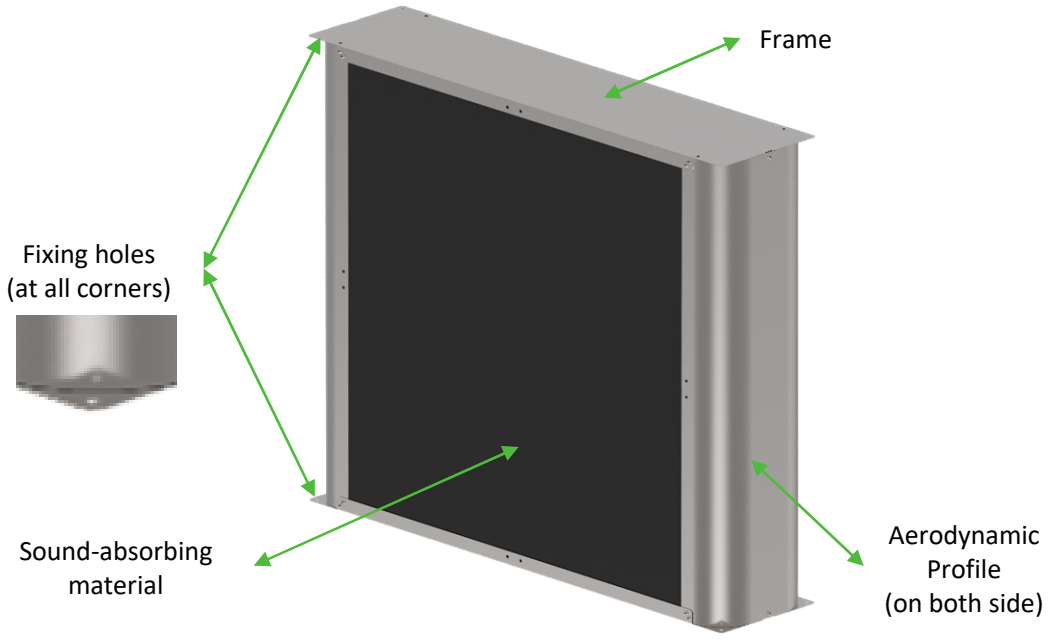
Available executions:
- Central type with thicknesses 300, 200, 150 or 100 mm;
- Lateral type with thicknesses 150, 100 or 50 mm;
- Configuration suitable for an effective V_{max} of up to 20 m/s, protecting the sound-absorbing material covering, with micro-expanded mesh or perforated metal sheet R5T8;
- Hygenic version, with 50 kg/m³ rock wool covered with glass fabric, VDI6022 certified, suitable for an effective V_{max} of up to 20 m/s;
- Marine version, with 60 kg/m³ rock wool covered with glass veil, M.E.D. (Marine Equipment Directive) certified, suitable for an effective V_{max} 12 m/s (increasable up to 20 m/s with a dedicated configuration);
- Execution made of stainless steel AISI 304 finishing 2B (**X4** version) / stainless steel AISI 316L finishing 2B (**X6** version) / ZM 310 Zinc-Magnesium steel (**ZM** version).

Operating Limits:
- Dimension DxH: min 300x200 mm / max 2200x2200 mm;
- Maximum temperature: +150 °C;
- Dimensional drawing: page 3;
- Effective V_{max}: 12 m/s (see **available execution**);
- Performance and attenuation: page 4*.

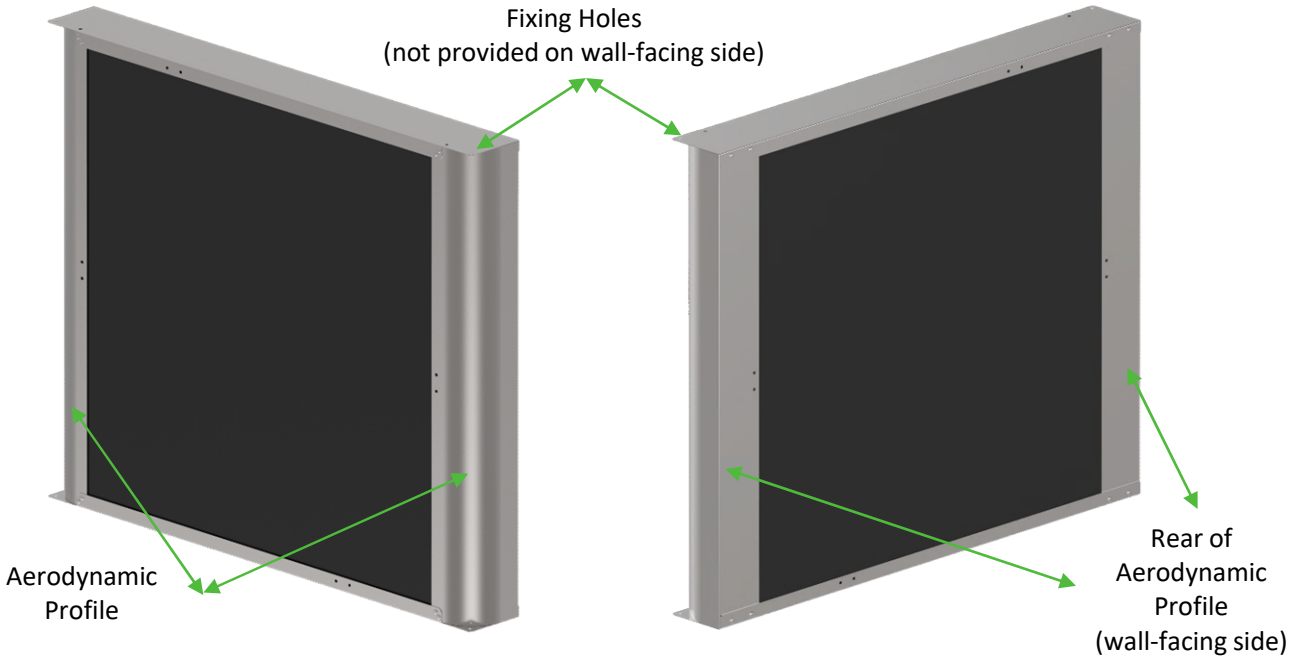
** Detailed data for different dimensions, executions, types, configurations and versions, are available through the online silencer configurator.*

Certifications and Testing:
- Sound-absorbing material with Euroclass A1 fire resistance in accordance with EN 13501;
- Insertion Loss, Pressure Drop and Regenerated noise tests, carried out in accordance with ISO 7235 at the CTTM laboratory in Le Mans (test report no. A200359_01_A).

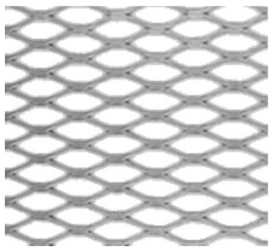
Additional Construction Details SETFON Central Type

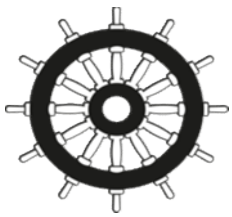


Additional Construction Details SETFON Lateral Type



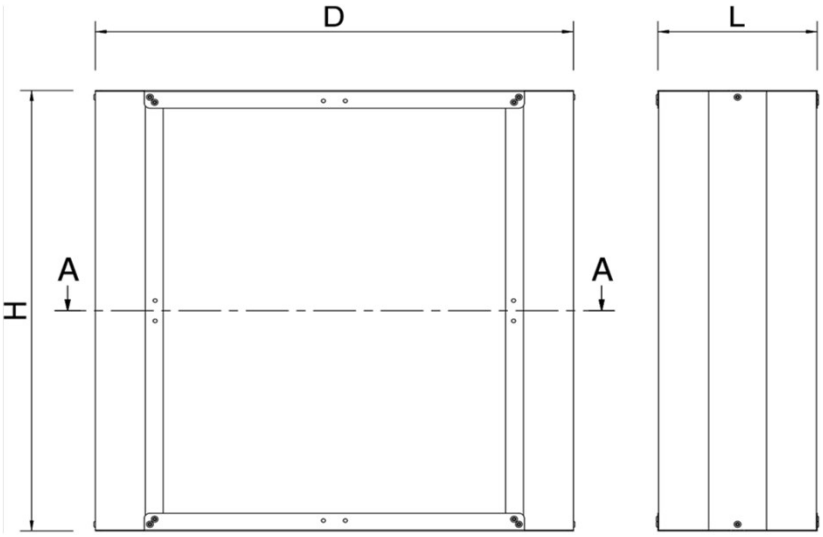
Option and Available Execution

Configuration suitable for V_{max} of up to 20 m/s	
Micro-expanded mesh	Perforated sheet R5T8
	

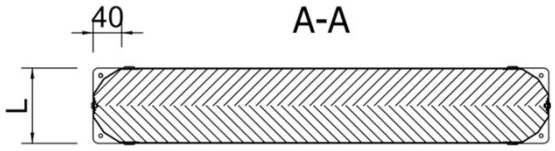
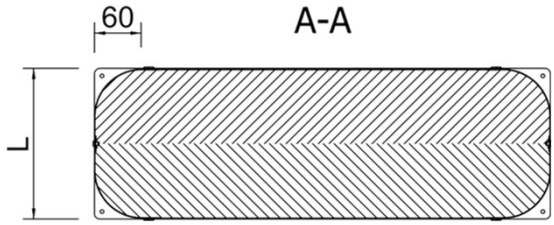
Version (sound-absorbing material)	
Hygenic	Marine M.E.D
	 0575

Dimensional Drawing (size in mm)

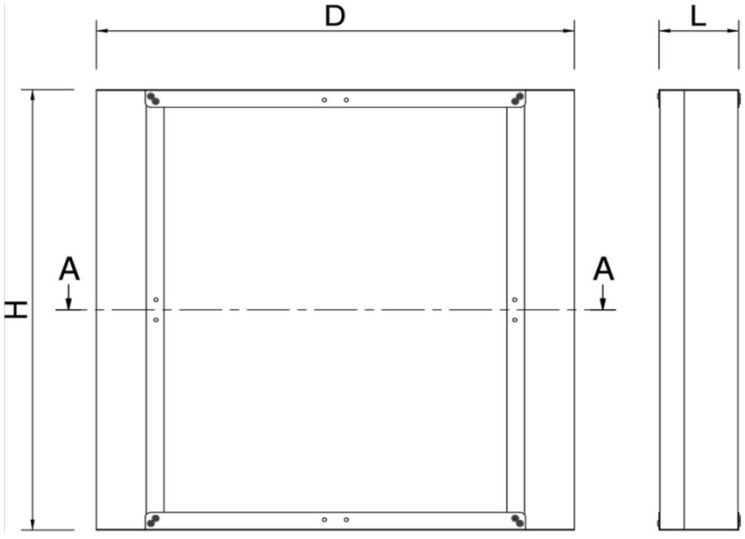
Central Type



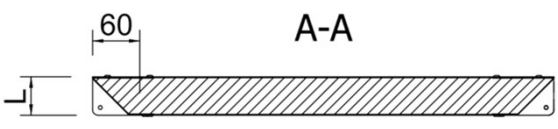
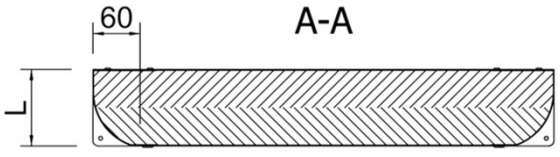
Available Thicknesses and Aerodynamic Profile Cross-Sections

L		L	
100		150 200 300	

Lateral Type



Available Thicknesses and Aerodynamic Profile Cross-Sections

L		L	
50		100 150	

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Pressure Drop and Regenerated Noise Table (in accordance with ISO 7235)						
V [m/s]	Baffle thickness L=200mm Spacing S=200mm		Baffle thickness L=200mm Spacing S=150mm		Baffle thickness L=200mm Spacing S=100mm	
	Δp_t [Pa]	LwA [dB(A)]	Δp_t [Pa]	LwA [dB(A)]	Δp_t [Pa]	LwA [dB(A)]
1	< 5	< 20	< 5	< 20	< 5	< 20
2	< 5	23	7	26	15	32
3	9	33	15	36	34	42
4	16	39	27	43	61	48
5	25	45	42	48	95	53
6	36	49	60	52	136	57
7	49	52	81	55		
8	64	55	106	58		
9	81	58				
	Free area / Total area Ratio					
	50% ($V_{effective}$ = V x 2)		43% ($V_{effective}$ = V x 2,326)		33% ($V_{effective}$ = V x 3,03)	

V = front face air velocity referred to the section W x H;

Δpt = total pressure drop;

LwA = sound power level;

***Note** : Use the void-to-solid ratio to determine the effective air Velocity and, consequently, the appropriate baffle configuration.*

Attenuation Table (in accordance with ISO 7235)										
Baffle Thickness	Baffle Spacing	Depth	Frequency [Hz]							
			63	125	250	500	1000	2000	4000	8000
L [mm]	S [mm]	D [mm]	[dB]							
200	200	500	1	2	5	7	9	8	5	3
		1000	3	5	10	16	20	18	10	6
		1500	4	7	16	24	31	26	15	8
		2000	6	10	22	33	42	34	17	9
	150	500	1	3	5	9	11	11	7	3
		1000	3	6	12	19	24	23	16	6
		1500	5	10	18	29	37	35	22	9
		2000	7	13	24	40	50	45	26	10
	100	500	2	3	7	13	16	17	10	6
		1000	5	7	16	28	35	38	23	13
		1500	7	11	24	43	50	50	32	18
		2000	10	15	33	50	50	50	38	21
L [mm]	S [mm]	D [mm]	[dB]							
100	100	500	1	1	3	9	16	18	11	5
		1000	2	3	7	19	35	40	23	12
		1500	3	4	11	30	50	50	32	16
		2000	4	6	15	40	50	50	39	20
	50	500	1	2	5	12	20	23	17	11
		1000	2	4	11	28	43	50	38	25
		1500	3	6	17	43	50	50	50	34
		2000	4	8	23	50	50	50	50	41

***Note** : Generic table referring to the standard baffle configuration with sound-absorbing material covered with glass fiber veil. Detailed data for the various types, configurations, versions, and dimensions are available through the online silencer configurator.*

AZIENDA CON SISTEMA DI GESTIONE QUALITÀ CERTIFICATO DA DNV GL
ISO 9001

AZIENDA CON SISTEMA DI GESTIONE AMBIENTALE CERTIFICATO DA DNV
ISO 14001



CLA & UTEK reserves the right to make any necessary changes at any time to improve the products, without prior notice.



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