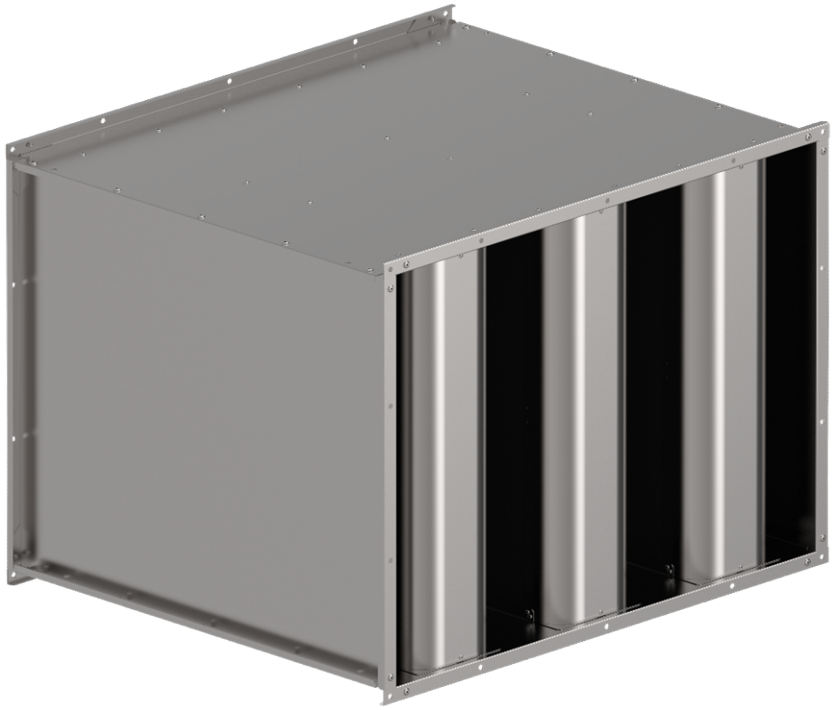
SILRET ZN

Rectangular silencer in galvanized steel

ACOUSTIC



Description and application:
Rectangular silencers with 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 1 mm;
- Flange 30 mm with perimeter ≤ 7 m/l, 40 mm when perimeter > 7 m/l, drilled Ø10 pitch 300 mm, centered;
- Internal baffles with aerodynamic profiles on both sides, frame thickness 0,8 mm, riveted to the casing;
- Sound-absorbing material in rock wool, density 50 kg/m^3, covered with black glass fiber veil.

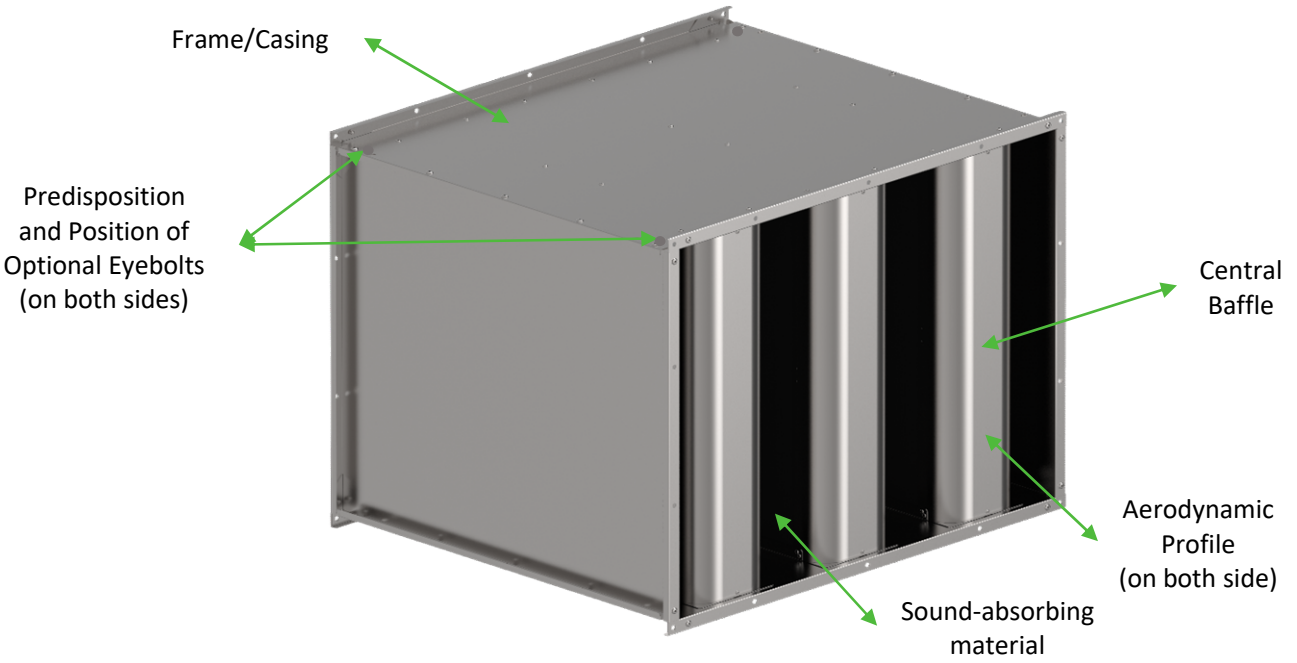
Available executions:
- Removable lifting eyebolts (optional kit);
- Version with central baffles, thicknesses 300, 200, 150 or 100 mm, or with central + lateral baffles (lateral baffle with half thickness compared to the central type);
- Internal baffles with different types, configurations and versions available, refer to the **SETFON** data sheet;
- 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).

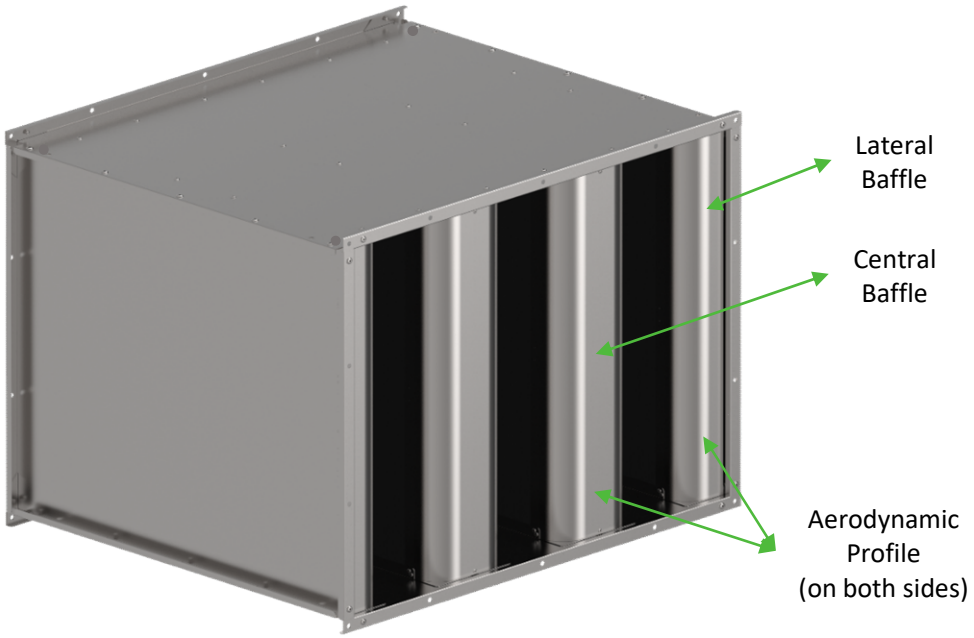
Operating limits:
- Dimension WxHxD: min 200x200x300 mm / max 2400x2400x1560 mm. Max depth D = 2400 mm, with casing volum limit ≤ 9 m^3;
- Maximum temperature: +150 °C;
- Dimensional drawing: page 3;
- Effective V_{max}: 12 m/s (see **SETFON** data sheet);
- Performance and attenuation data: page 4*.

***** *Detailed data for different dimensions, executions, types, configurations and versions, available with the online 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 SILRET





Option and Available Execution

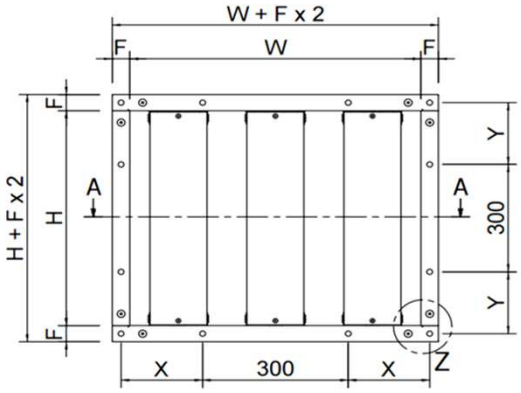
Lifting
Removable eyebolts (kit of 4 pcs)

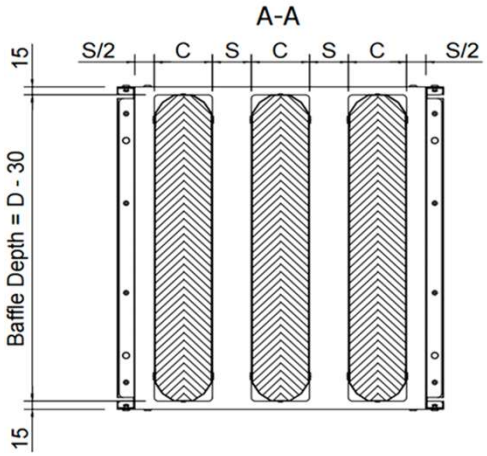


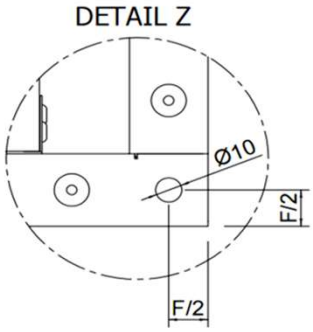
Internal Baffle
Refer to the dedicated **SETFON** technical data sheet

Dimensional Drawing and Standard Drilling Pattern (size in mm, always refferred to the inside of the flanges)

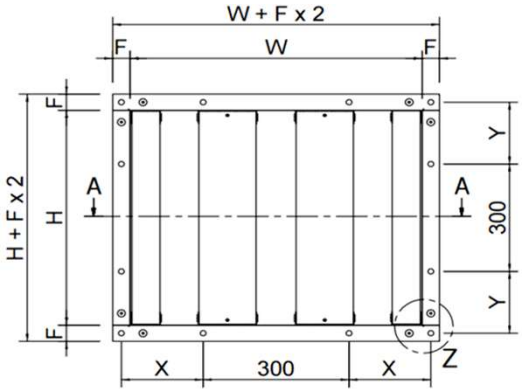
Central Baffles Version

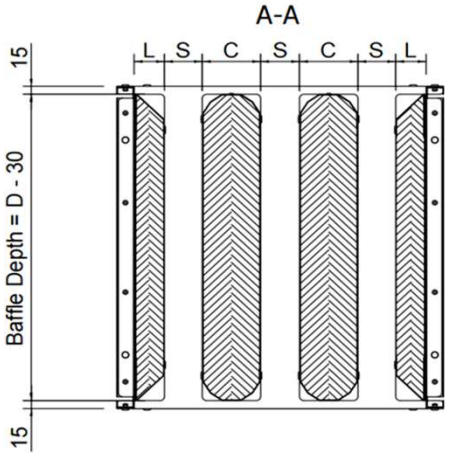






Central + Lateral Baffles Version





WIDTH AND HEIGHT DRILLING (STD LIMITS)

W \ H	N°HOLES	X \ Y
300	\	\
350	\	\
400	1	215
450	1	240
500	1	265
550	1	290
600	1	315
650	1	340
700	2	215
750	2	240
800	2	265
850	2	290
900	2	315
950	2	340
1000	2	365

W \ H	N°HOLES	X \ Y
1000	3	215
1050	3	240
1100	3	265
1150	3	290
1200	3	315
1250	3	340
1300	4	215
1350	4	240
1400	4	265
1450	4	290
1500	4	315
1550	4	340
1600	5	215
1650	5	240
1700	5	265

W \ H	N°HOLES	X \ Y
1750	5	290
1800	5	315
1850	5	340
1900	6	215
1950	6	240
2000	6	265
2050	6	290
2100	6	315
2150	6	340
2200	7	215
2250	7	240
2300	7	265
2350	7	290
2400	7	315

Drawing Legend		
F	=	Flange
C	=	Thickness of Central Baffles
L	=	Thickness of Lateral Baffles
S	=	Spacing between Baffles

F, T, L and S values available with the online configurator.

***Note** : For sizes not listed in the table, the number of holes and the starting position X or Y (Width or Height) are determined by referring to the next lower standard dimension.*

***N.B.** If the sum of the four sides reaches a perimeter value > 7 m/l (W x 2 + H x 2), the flange becomes 40 mm, and the value of X or Y consequently increases by +5 mm compared to the values in the table. The hole position will consequently be centered inside the aforementioned flange (see DETAIL Z in the drawing above).*

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.



C.L.A. S.r.l. Via Strada Artigianale Angelo Lapsus 310, 23036 San Giacomo di Teglio (So) Italy Tel.+39 0342 786116 | utek-air.it | cla-air.it

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