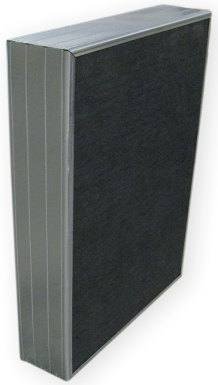
ACOUSTIC SPLITTER

SONIE BL - CLEAN ROOMS

Acoustic splitter for clean rooms.
The **SONIE BL** acoustic splitter is made of :

- An aerodynamic frame including groove stiffening deformation
- Assembly with rivets or clips
- A 50 kg/m³ sound proofing mineral wool
- A fiberglass fabric protection for efficient anti-erosion.



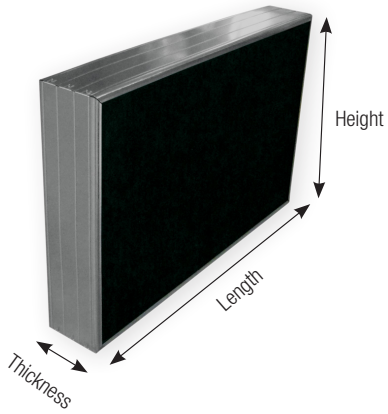
CONSTRUCTION

		Characteristics	Options
Frame	Material	Galvanized steel sheet with groovings	Stainless steel 304L or 316L, painted steel standard RAL or aluminium
	Thickness	0,6 mm to 0,8 mm	1 mm,1,2 mm or 1,5 mm
	Width	50, 100, 150, 200 or 300 mm	
	Assembly	By steel rivets or clips	By stainless steel rivets
	Stiffener	Depending on the size	-
Sound proofing material	Material	Mineral wool panel Isolant non hydrophile Fire classification A1 (M0)	-
	Density	50 kg/m³ +/- 10%	-
	Protection	anti-erosion fiberglass fabric on both sides	Other on request (according to quantity)

DIMENSIONS

The splitters are made in one or several units depending on the dimensions.
A one unit construction shall respect the following criteria :

Length max. (mm)	2 500
Height max. (mm)	2 500
Surface max.	4 m²
Weight max.	50 kg



APPLICATIONS

The **SONIE BL** splitter is recommended for sound attenuators installed in laboratories, clean rooms, operating rooms,…
Anti-erosion fiberglass fabric protection prevents the fiber dispersion in the ventilation ductworks.
In addition for restricted areas, an adapted filter must be installed downstream the sound attenuator.

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INSERTION LOSSES (dB)

Thickness 100 mm

Length of splitter (mm)	Airway spacing (mm)	Frequency (Hz)							
		63	125	250	500	1000	2000	4000	8000
600	50	2	4	9	17	35	37	27	21
	100	2	2	5	12	24	21	13	9
900	50	2	5	12	25	43	42	34	23
	100	2	2	7	17	33	30	17	11
1200	50	3	7	16	32	51	47	40	25
	100	2	3	9	22	42	39	21	14
1500	50	3	8	18	37	53	48	45	26
	100	2	4	11	28	47	44	25	16
1800	50	4	9	19	41	55	50	49	26
	100	2	5	12	35	53	49	29	19
2100	50	4	11	23	46	57	52	51	26
	100	2	5	14	39	56	53	33	21
2400	50	5	12	27	51	59	54	54	26
	100	3	6	15	43	60	57	37	23

Thickness 200 mm

Length of splitter (mm)	Airway spacing (mm)	Frequency (Hz)							
		63	125	250	500	1000	2000	4000	8000
600	100	2	4	10	20	26	26	16	11
	150	2	4	9	15	23	22	13	7
	200	1	3	6	14	18	17	10	5
	250	2	2	6	8	11	11	8	7
900	100	3	6	14	19	31	30	19	13
	150	2	5	13	22	30	29	16	11
	200	1	4	10	19	24	22	14	7
	250	2	3	9	11	16	14	10	9
1200	100	4	9	18	32	46	47	28	18
	150	3	7	17	29	39	38	19	12
	200	2	5	13	26	31	27	16	8
	250	3	4	11	15	21	18	11	11
1500	100	5	10	20	39	51	50	32	20
	150	4	9	20	36	47	45	22	14
	200	2	6	16	31	37	31	18	9
	250	3	4	13	18	26	21	12	12
1800	100	7	13	24	44	52	50	34	22
	150	5	11	24	43	52	52	25	15
	200	3	8	20	37	44	36	20	12
	250	4	5	15	21	30	25	14	13
2100	100	8	15	29	47	54	52	37	26
	150	6	13	27	47	53	53	27	17
	200	4	10	25	42	49	40	22	14
	250	4	6	17	24	35	27	15	14
2400	100	8	17	33	50	56	53	38	26
	150	6	14	27	49	55	54	29	18
	200	4	10	27	47	50	45	24	14
	250	4	8	19	28	39	30	17	15

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DYNAMIC REGENERATIONS OF BL SPLITTERS

Dynamic regeneration data are the result of tests carried out by an independent laboratory.
The dynamic regeneration must be 10 dB under the residual sound power level. If this is not the case, you have to increase the spacing between the splitters or the section of the duct.

Sound power level of air-regenerated noise Lw in dB

Internal air velocity (m/s)	Frequency (Hz)							
	63	125	250	500	1000	2000	4000	8000
2	10	5	1	0	0	0	0	0
3	19	14	11	10	9	9	7	6
4	29	23	21	19	18	17	14	11
5	34	28	26	24	23	22	19	15
6	40	33	32	31	29	27	24	19
7	44	38	37	35	34	32	29	24
8	48	43	41	39	38	37	33	28
9	50	45	42	41	40	39	35	30
10	52	46	45	43	42	41	37	31
11	55	49	48	47	45	45	39	33
12	57	52	50	49	47	47	41	35
13	61	56	54	53	51	51	45	38
14	64	59	58	57	54	55	48	41
15	73	68	67	68	64	66	56	46

The data applies to an front section L x H = 0,8 m².
A correcting coefficient must be applied for different sections (see table below) :

L x H (m²)	0.1	0.2	0.4	0.8	1	2	4	8	10
Correction in dB	-9	-6	-3	0	+1	+4	+7	+10	+11

SPECIFICATIONS

- Acoustic splitter for clean rooms
- A rounded aerodynamic frame in galvanized steel with grooving
- Soundproofing with 50 kg/m³ insulation panel, inorganic, rot-resistant and water-repellent
- Anti-erosion fiberglass fabric protection on both sides preventing fiber dispersion into the ventilation ductworks.

ISO 9001 14001 Certified

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F2A Equipementier en traitement de l'air