

Sound silencer splitter

TUNE-A



Description

TUNE-A is the basic element in the TUNE silencer series. TUNE-A is manufactured with a frame of galvanized sheet and stone wool absorption material covered with glass fleece surface. The TUNE-A is available in width 100, 150 and 200 mm. The TUNE-A is also available in other lengths than shown in the tables. Special materials and sizes, please contact to Lindab sales.

Tools for dimensioning and planing

NOTE that dimensioning your silencer is a delicate balance between numbers of splitters (n) and air pressure in duct. More splitters give a higher attenuation, but also a higher pressure in duct. A higher pressure will result in a higher energy consumption to make system run.

See how to find the numbers of splitters (n) in duct and how to calculate (S) from a given (a) in the separate AeroDim SLRA-SLRS installation instruction.

You can also choose to use Lindab's IT-program DIMsilencer where splitter distance (S), width (B) and height (b) can be optimized for best performance.

Consult your local Lindab dealer for further information.

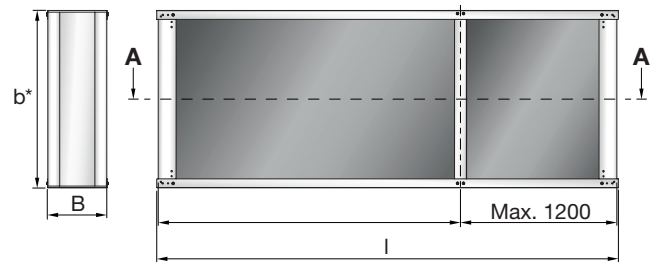
Order code

Product	TUNE-A	B	b	l
TUNE-A				
Splitter width (B) in mm				
100, 150 or 200 mm				
Height (b) mm				
Min. - Max. 200 - 2400 mm (Single TUNE-A splitter max. 1200 mm*)				
Length (l_{nom}) mm				
Min. - Max. 450 - 2500 mm				

Example: TUNE-A - 200 - 900 - 1500

* In case that height > 1200 mm the splitter will be made in 2 pieces.

Dimensions TUNE-A



b* = Manufactured height of splitter is b-5 mm, to fit into duct.

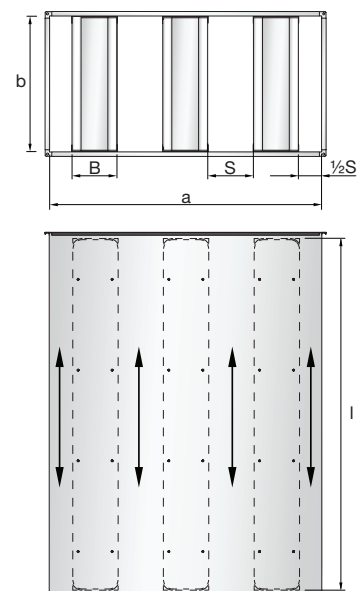
B=100, 150 or 200

l = Nominal Size Less 50 mm (Please state a time of order if actual size is required).

Absorption material covered with black glass fleece surface on outside of visible splitter insulation.



TUNE-A in duct



Length of splitter should be 50 mm shorter than length of duct.

Due to the symmetrical construction of the TUNE-A, no special concerns are needed when installing the splitter. Even the airflow direction can later be changed without having to turn the splitter around.

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Technical data

TUNE-A splitters

Splitter width (B) = 100

Splitter distance (S) = 60 mm

Length l_{nom} [mm]	Insertion loss [dB] for centre frequency [Hz]								Pressure value ξ
	63	125	250	500	1K	2K	4K	8K	
500	1	4	7	14	25	27	21	16	4,3
1000	2	6	13	23	44	48	32	22	5,4
1500	4	8	19	31	50	50	43	29	6,5
2000	5	11	25	40	50	50	50	35	7,6
2500	7	13	32	48	50	50	50	41	8,7

Splitter width (B) = 100

Splitter distance (S) = 100 mm

Length l_{nom} [mm]	Insertion loss [dB] for centre frequency [Hz]								Pressure value ξ
	63	125	250	500	1K	2K	4K	8K	
500	1	2	5	11	20	17	13	10	1,6
1000	2	4	9	18	34	30	19	13	2,1
1500	3	5	13	24	49	43	26	17	2,5
2000	4	6	17	31	50	50	32	21	2,9
2500	5	8	22	37	50	50	39	25	3,3

Splitter width (B) = 100

Splitter distance (S) = 140 mm

Length l_{nom} [mm]	Insertion loss [dB] for centre frequency [Hz]								Pressure value ξ
	63	125	250	500	1K	2K	4K	8K	
500	1	2	4	10	17	12	9	7	0,9
1000	2	3	7	15	29	22	14	10	1,1
1500	3	4	10	21	41	32	18	12	1,3
2000	3	5	14	26	50	41	23	15	1,5
2500	4	6	17	32	50	50	28	18	1,7

NB. Max. attenuation specified is 50 dB in the tables above.

The pressure loss Δp in pa can be calculated from the pres-sure value ξ : $\Delta p = 0,6 \times v^2 \times \xi$ where (v) is the velocity on the face area of the silencer.

Splitter width (B) = 150

Splitter distance (S) = 60 mm

Length l_{nom} [mm]	Insertion loss [dB] for centre frequency [Hz]								Pressure value ξ
	63	125	250	500	1K	2K	4K	8K	
500	3	5	10	22	31	30	19	16	8,2
1000	6	10	19	35	50	50	33	24	10,5
1500	8	14	27	47	50	50	46	32	12,9
2000	11	19	36	50	50	50	50	40	15,2
2500	14	23	45	50	50	50	50	48	17,6

Splitter width (B) = 150

Splitter distance (S) = 100 mm

Length l_{nom} [mm]	Insertion loss [dB] for centre frequency [Hz]								Pressure value ξ
	63	125	250	500	1K	2K	4K	8K	
500	2	3	7	17	21	18	12	9	2,8
1000	4	6	14	27	42	34	20	14	3,6
1500	6	9	20	38	50	49	28	19	4,4
2000	8	12	26	48	50	50	36	24	5,2
2500	11	15	33	50	50	50	44	29	6,0

Splitter width (B) = 150

Splitter distance (S) = 140 mm

Length l_{nom} [mm]	Insertion loss [dB] for centre frequency [Hz]								Pressure value ξ
	63	125	250	500	1K	2K	4K	8K	
500	2	2	6	15	16	13	8	7	8,2
1000	3	5	11	24	32	25	14	10	10,5
1500	5	7	16	32	48	36	20	14	12,9
2000	7	9	21	41	50	48	26	17	15,2
2500	9	11	27	50	50	50	32	21	17,6

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Splitter width (B) = 200

Splitter distance (S) = 60 mm

Length l_{nom} [mm]	Insertion loss [dB] for centre frequency [Hz]								Pressure value ξ
	63	125	250	500	1K	2K	4K	8K	
500	2	6	12	24	36	38	28	18	17,5
1000	4	12	20	42	50	50	44	24	20,3
1500	5	17	27	50	50	50	50	31	23,2
2000	7	22	34	50	50	50	50	37	26,1
2500	8	27	41	50	50	50	50	44	29,0

Splitter width (B) = 200

Splitter distance (S) = 100 mm

Length l_{nom} [mm]	Insertion loss [dB] for centre frequency [Hz]								Pressure value ξ
	63	125	250	500	1K	2K	4K	8K	
500	2	5	10	19	24	20	15	11	5,7
1000	3	8	15	33	44	36	23	15	6,6
1500	4	12	21	46	50	50	32	19	7,5
2000	5	16	27	50	50	50	40	23	8,5
2500	6	20	33	50	50	50	49	27	9,4

Splitter width (B) = 200

Splitter distance (S) = 140 mm

Length l_{nom} [mm]	Insertion loss [dB] for centre frequency [Hz]								Pressure value ξ
	63	125	250	500	1K	2K	4K	8K	
500	1	4	8	16	18	14	10	8	2,7
1000	2	7	13	28	33	24	15	11	3,2
1500	3	10	18	39	49	35	21	14	3,6
2000	4	13	23	50	50	46	26	17	4,0
2500	5	16	28	50	50	50	32	20	4,5