Rectangular straight sound attenuator with resonating plates

TUNE-RS



Description

Rectangular straight sound attenuator, provided with TUNE-RA attenuation splitters. The splitters are filled with mineral wool as sound absorbing material and the sides are partly covered with resonating plates and glass fleece cover, specifically tuned to enhance sound attenuation in critical fan noise lower frequency range.

The sound attenuator casing and the splitter frames are made in galvanized steel sheet.

- Splitters available in four thicknesses; 100, 150, 200, and 230 mm.
- Improved sound attenuation at lower frequencies due to resonating plates.
- Air tightness class C (EN 15727)
- Cleanable with rotating nylon brush, vacuum cleaner, and damp cloth.
- Hygienic approved VDI 6022 and DIN 1946-4.
- Equipped with joining profile RJFP.

Technical data concluded in accordance with ISO 7235.

For special requirements, please contact Lindab sales.

Order code

Product **TUNE-RS** **B** **S** **a** **b** **l** **f**

TUNE-RS

Splitter width (B) in mm

100, 150, 200 or 230 mm

Splitter distance (S) in mm

Calculate - see text

Width (a) in mm

Min. - Max. 400 - 2400 mm

Height (b) in mm

Min. - Max. 200 - 2400 mm

Length (l) in mm

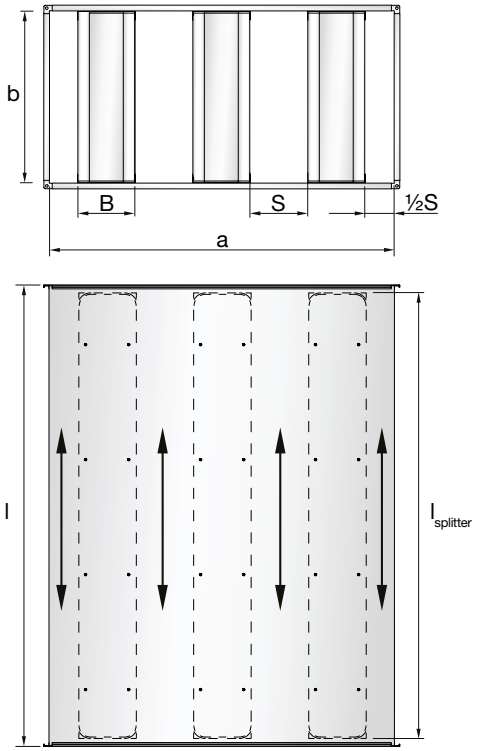
MIn. - Max. 500 - 2550 mm

Connection type

e.g. RJFP 20, 30 or 40

Example: TUNE-RS - 200 - 200 - 1200 - 900 - 1550 - RJFP30

Dimensions



l - 50 = $l_{splitter}$ (length of splitter).

b = Inner hight of TUNE-RS.

The splitter height is b - 5 mm, to fit into duct.

Note that you can exceed maximum dimensions by combining several attenuators side by side or on top of each other. Please see installation instruction of rectangular attenuators / splitters.

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TUNE-RS

Technical data

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	
550	3	3	9	17	19	14	10	8	4,3
1050	3	5	16	29	35	21	14	12	5,4
1550	4	7	24	41	>50	29	18	15	6,5
2050	4	9	32	>50	>50	37	21	19	7,6
2550	5	12	39	>50	>50	44	25	22	8,7

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	
550	3	5	12	20	21	14	10	9	8,2
1050	4	9	23	33	34	21	15	13	10,5
1550	6	13	34	46	48	28	19	16	12,9
2050	7	17	44	>50	>50	35	23	19	15,2
2550	9	21	>50	>50	>50	42	28	23	17,6

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	
550	2	2	6	13	11	8	6	5	1,6
1050	2	3	12	21	21	13	9	8	2,1
1550	3	5	18	30	30	18	11	10	2,5
2050	3	6	23	39	40	22	14	12	2,9
2550	3	7	29	47	50	27	16	15	3,3

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	
550	2	3	9	15	14	9	7	6	2,8
1050	3	6	18	24	23	14	9	9	3,6
1550	4	9	26	34	32	18	12	11	4,4
2050	6	11	34	43	41	22	15	13	5,2
2550	7	14	43	>50	50	27	18	15	6,0

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	
550	2	2	5	10	8	6	5	4	0,9
1050	2	3	10	18	15	9	7	6	1,1
1550	2	4	15	25	22	13	8	8	1,3
2050	2	5	19	32	28	16	10	10	1,5
2550	3	6	24	39	35	19	12	11	1,7

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	
550	2	3	8	12	11	7	5	5	1,4
1050	3	5	15	20	18	10	7	7	1,8
1550	4	7	22	27	25	13	9	8	2,2
2050	5	9	29	35	31	17	11	10	2,6
2550	6	11	36	43	38	20	13	12	3,0

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

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

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Technical data

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	
550	3	6	16	20	22	15	11	10	17,5
1050	5	12	26	35	31	21	15	14	20,3
1550	7	19	36	50	40	27	19	17	23,2
2050	9	25	46	>50	50	33	23	20	26,1
2550	10	31	>50	>50	>50	40	27	23	29,0

Splitter Width (B) = 230

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	
550	3	6	19	21	24	16	12	11	21,7
1050	6	13	31	34	36	23	16	14	25,1
1550	8	19	42	47	49	30	20	17	28,3
2050	11	25	>50	>50	>50	37	24	20	31,8
2550	14	31	>50	>50	>50	44	28	23	35,2

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	
550	2	5	13	14	15	10	7	7	5,7
1050	4	9	21	24	22	14	10	9	6,6
1550	5	13	28	34	29	18	13	11	7,5
2050	6	18	36	44	36	22	15	14	8,5
2550	7	22	44	>50	43	26	18	16	9,4

Splitter Width (B) = 230

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	
550	2	5	14	15	15	10	8	7	6,4
1050	4	10	23	24	23	15	11	9	7,4
1550	6	15	32	33	31	20	13	12	8,3
2050	8	19	41	42	39	24	16	14	9,3
2550	10	24	49	>50	48	29	19	16	10,3

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	
550	2	4	11	11	12	7	6	5	2,7
1050	3	7	17	18	18	10	8	7	3,2
1550	4	11	24	26	23	13	10	9	3,6
2050	5	14	31	34	29	16	12	10	4,0
2550	6	18	37	42	34	19	14	12	4,5

Splitter Width (B) = 230

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	
550	2	4	12	12	11	8	6	6	3,1
1050	3	8	19	19	17	11	8	7	3,6
1550	5	12	26	26	23	15	10	9	4,0
2050	6	16	33	33	29	18	12	11	4,4
2550	8	20	41	41	35	22	14	12	4,9

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

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

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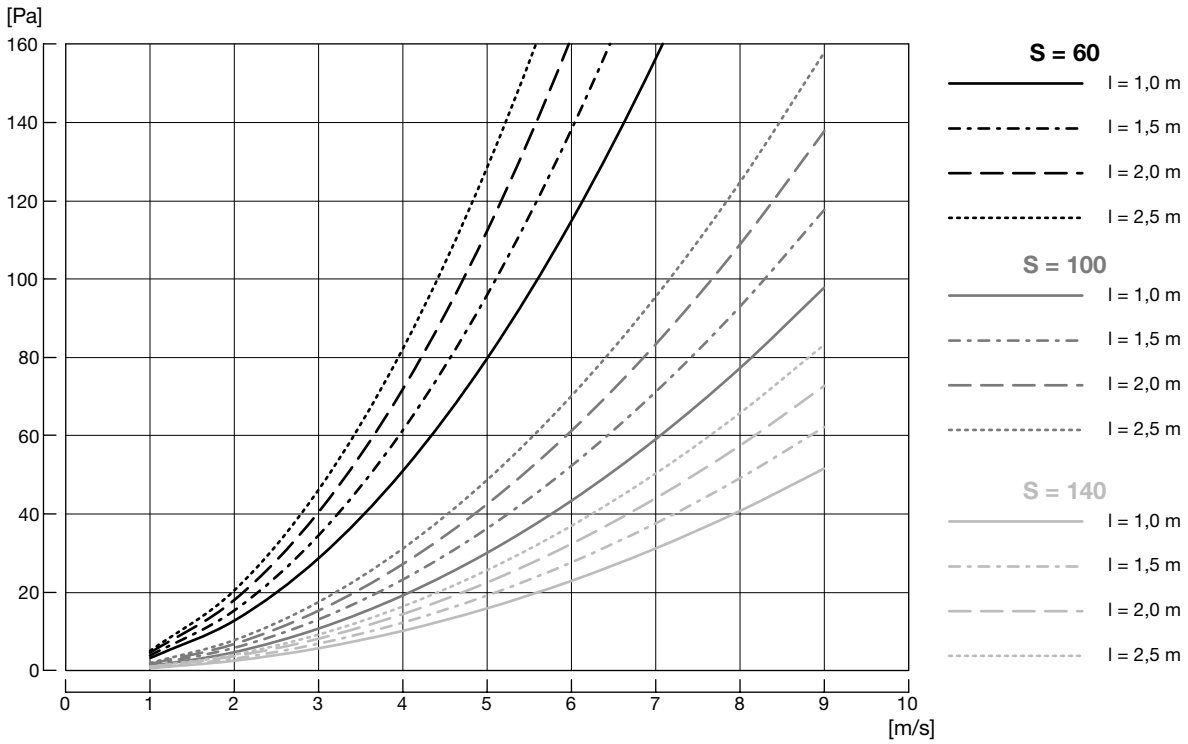
TUNE-RS

Technical data

Pressure loss

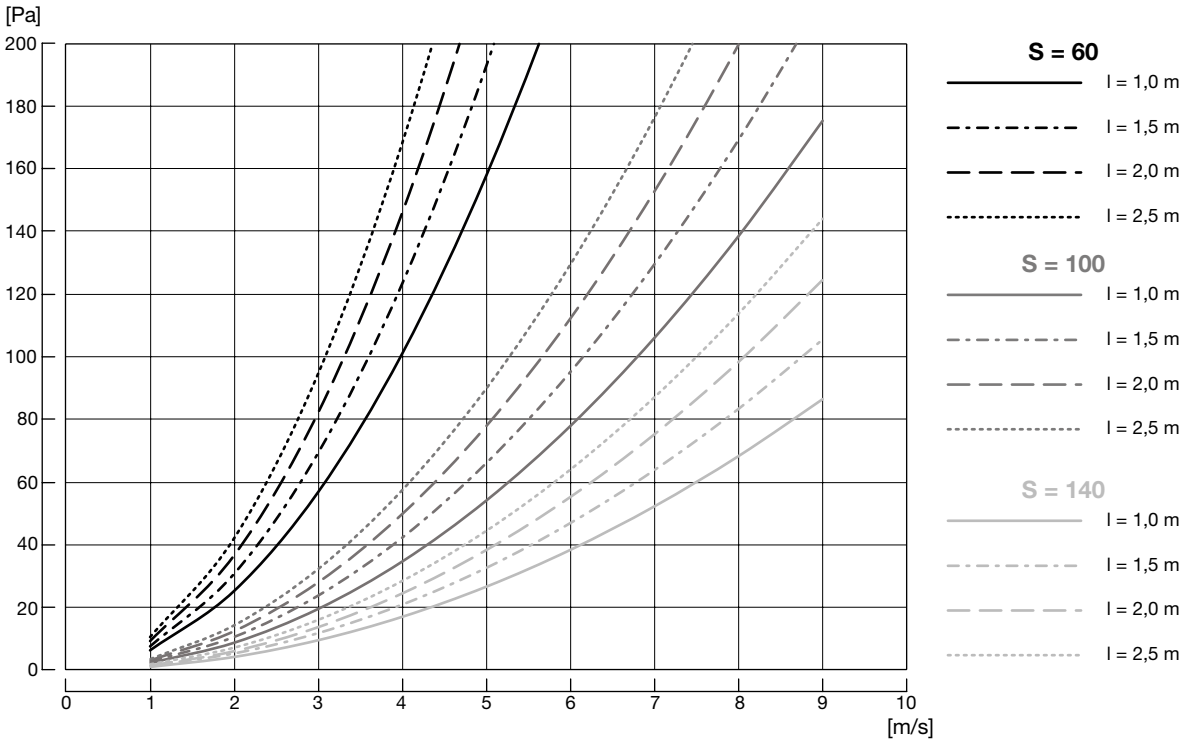
TUNE-RS with splitter width (B) = 100

(S) is distance between splitters.



TUNE-RS with splitter width (B) = 150

(S) is distance between splitters.



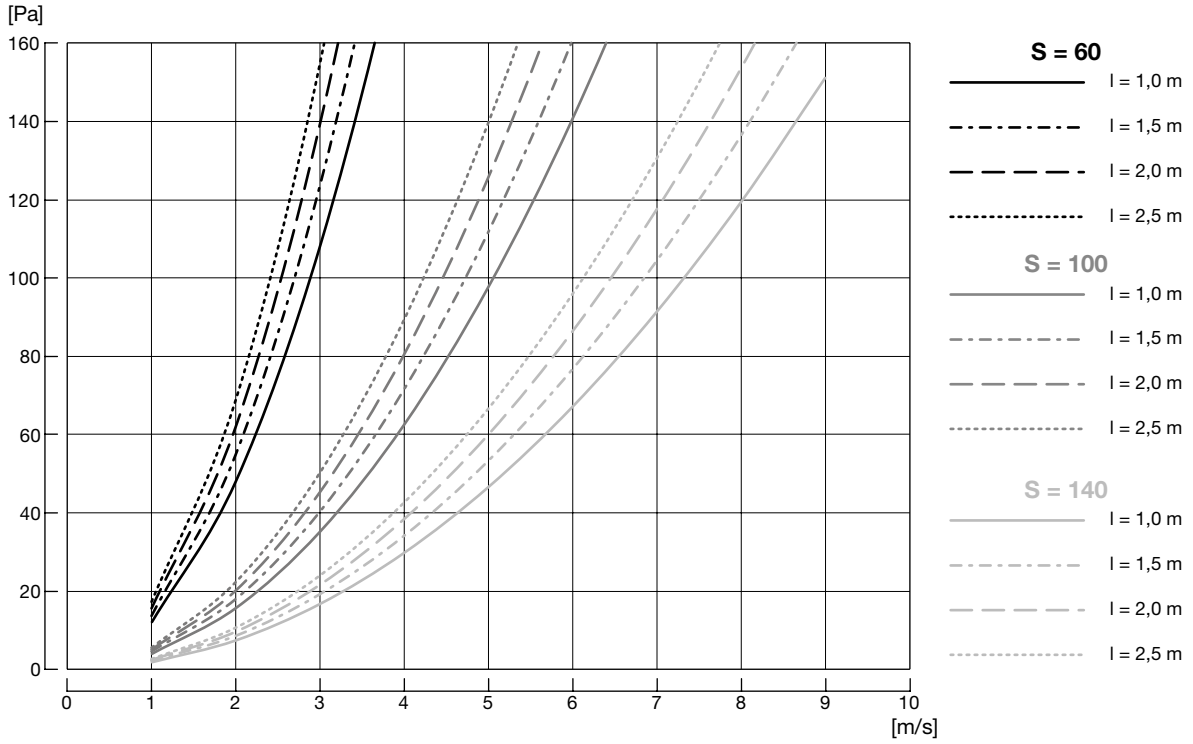
Rectangular straight sound attenuator with resonating plates

TUNE-RS

Technical data

TUNE-RS with splitter width (B) = 200

(S) is distance between splitters.



TUNE-RS with splitter width (B) = 230

(S) is distance between splitters.

