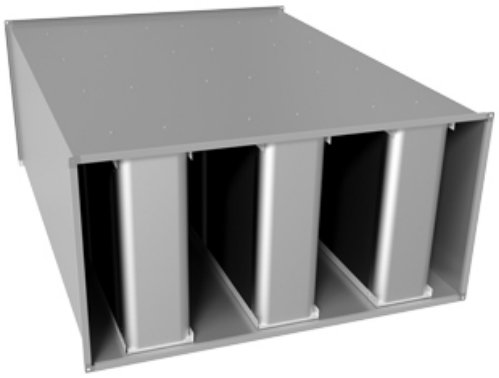
Rectangular straight attenuator TUNE-S



Description

TUNE has a conventional design with dimensions that not exceed the corresponding connection dimensions. The attenuator can be manufactured in all standard duct sizes.

Design

Rectangular straight attenuator from the TUNE series. TUNE-S is built with the splitter TUNE-A. The attenuator is manufactured with the frame of galvanized sheet and stone wool absorption material.

The TUNE-S is available with splitter width 100, 150 and 200 mm. Attenuator is equipped with joining profile RJFP.

To calculate the attenuator, you can use our IT-online tool LindQST or DIMsilencer, where splitter distance, length and height can be optimized for the best performance.

Tested according to ISO 7235 standard.

Order code

Product **Tune-S** **B** **S** **a** **b** **l** **f**

TUNE-S

Splitter width (B) in mm

100, 150 or 200 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

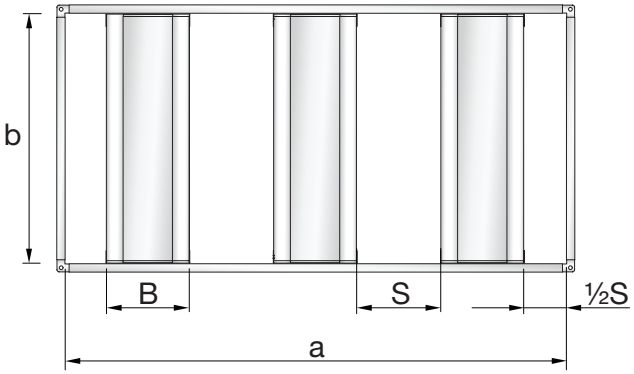
Connection type

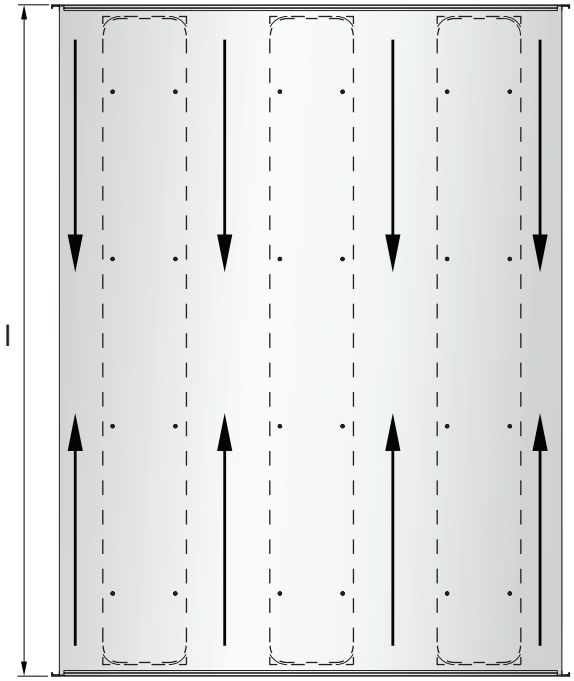
e.g. RJFP 20, 30 or 40

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

Max dimensions can be increased by building two attenuators top of each other on common flange.

Dimensions





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

b = Inner hight of TUNE-S.

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

Special materials and sizes, please contact Lindab sales.

Other lengths and heights are available. See min. - max. dimensions in order code. Note that you can exceed the max. dimensions by building together several TUNE-S attenuators.

Rectangular straight attenuator TUNE-S

Technical data

Splitter Width (B) = 100
Splitter distance (S) = 60 mm

Length lnom [mm]	Insertion loss [dB] for centre frequency [Hz] 63	125	250	500	1K	2K	4K	8K	Pressure value ξ
550	1	4	7	14	25	27	21	16	4,3
1050	2	6	13	23	44	48	32	22	5,4
1550	4	8	19	31	50	50	43	29	6,5
2050	5	11	25	40	50	50	50	35	7,6
2550	7	13	32	48	50	50	50	41	8,7

Splitter Width (B) = 100
Splitter distance (S) = 100 mm

Length lnom [mm]	Insertion loss [dB] for centre frequency [Hz] 63	125	250	500	1K	2K	4K	8K	Pressure value ξ
550	1	2	5	11	20	17	13	10	1,6
1050	2	4	9	18	34	30	19	13	2,1
1550	3	5	13	24	49	43	26	17	2,5
2050	4	6	17	31	50	50	32	21	2,9
2550	5	8	22	37	50	50	39	25	3,3

Splitter Width (B) = 100
Splitter distance (S) = 140 mm

Length lnom [mm]	Insertion loss [dB] for centre frequency [Hz] 63	125	250	500	1K	2K	4K	8K	Pressure value ξ
550	1	2	4	10	17	12	9	7	0,9
1050	2	3	7	15	29	22	14	10	1,1
1550	3	4	10	21	41	32	18	12	1,3
2050	3	5	14	26	50	41	23	15	1,5
2550	4	6	17	32	50	50	28	18	1,7

Splitter Width (B) = 150
Splitter distance (S) = 60 mm

Length lnom [mm]	Insertion loss [dB] for centre frequency [Hz] 63	125	250	500	1K	2K	4K	8K	Pressure value ξ
550	2	5	9	21	28	28	18	15	8,2
1050	5	9	18	33	50	50	31	23	10,5
1550	8	14	26	46	50	50	45	31	12,9
2050	11	18	35	50	50	50	50	39	15,2
2550	14	23	44	50	50	50	50	47	17,6

Splitter Width (B) = 150
Splitter distance (S) = 100 mm

Length lnom [mm]	Insertion loss [dB] for centre frequency [Hz] 63	125	250	500	1K	2K	4K	8K	Pressure value ξ
550	2	3	6	16	19	17	11	9	2,8
1050	4	6	13	26	39	33	19	14	3,6
1550	6	9	19	37	50	49	27	19	4,4
2050	8	12	26	47	50	50	35	23	5,2
2550	10	15	32	50	50	50	43	28	6,0

Splitter Width (B) = 150
Splitter distance (S) = 140 mm

Length lnom [mm]	Insertion loss [dB] for centre frequency [Hz] 63	125	250	500	1K	2K	4K	8K	Pressure value ξ
550	2	2	5	14	14	12	8	6	8,2
1050	3	4	10	23	30	23	14	10	10,5
1550	5	7	16	31	46	35	19	13	12,9
2050	7	9	21	40	50	47	25	17	15,2
2550	9	11	26	49	50	50	31	20	17,6

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.

Rectangular straight attenuator TUNE-S

Technical data

Splitter Width (B) = 200
Splitter distance (S) = 60 mm

Length lnom [mm]	Insertion loss [dB] for centre frequency [Hz] 63	125	250	500	1K	2K	4K	8K	Pressure value ξ
550	2	6	12	24	36	38	28	18	17,5
1050	4	12	20	42	50	50	44	24	20,3
1550	5	17	27	50	50	50	50	31	23,2
2050	7	22	34	50	50	50	50	37	26,1
2550	8	27	41	50	50	50	50	44	29,0

Splitter Width (B) = 200
Splitter distance (S) = 100 mm

Length lnom [mm]	Insertion loss [dB] for centre frequency [Hz] 63	125	250	500	1K	2K	4K	8K	Pressure value ξ
550	2	5	10	19	24	20	15	11	5,7
1050	3	8	15	33	44	36	23	15	6,6
1550	4	12	21	46	50	50	32	19	7,5
2050	5	16	27	50	50	50	40	23	8,5
2550	6	20	33	50	50	50	49	27	9,4

Splitter Width (B) = 200
Splitter distance (S) = 140 mm

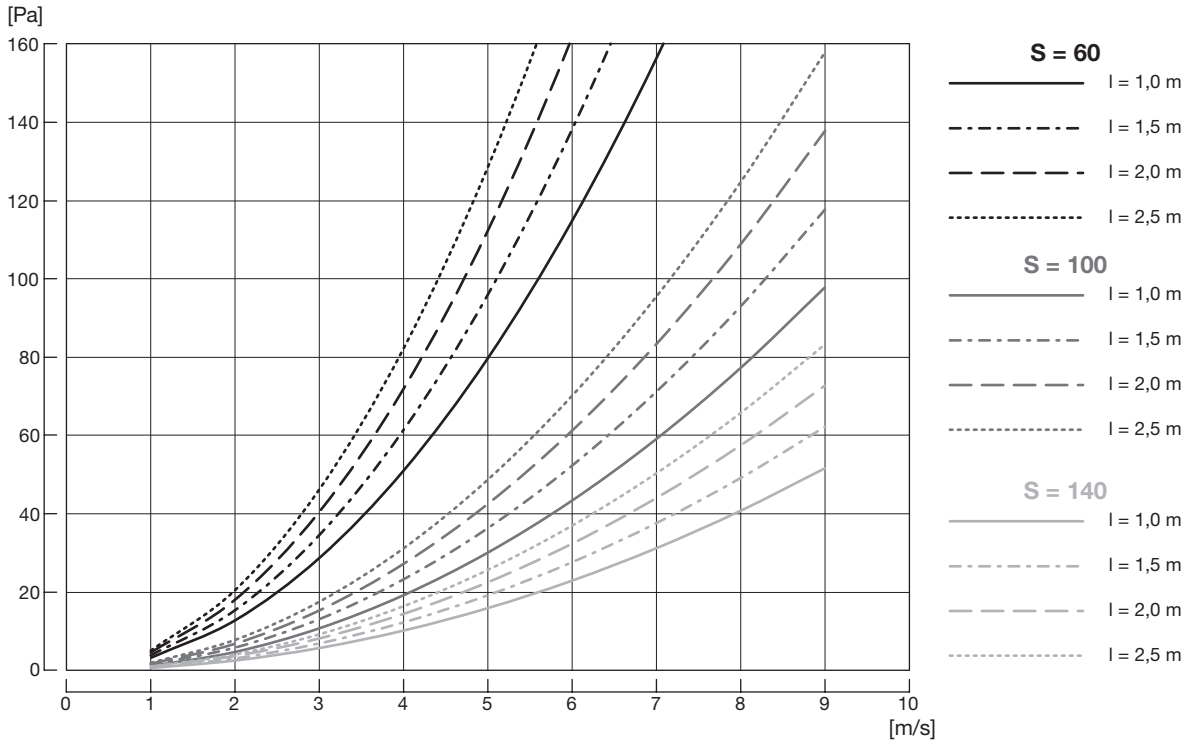
Length lnom [mm]	Insertion loss [dB] for centre frequency [Hz] 63	125	250	500	1K	2K	4K	8K	Pressure value ξ
550	1	4	8	16	18	14	10	8	2,7
1050	2	7	13	28	33	24	15	11	3,2
1550	3	10	18	39	49	35	21	14	3,6
2050	4	13	23	50	50	46	26	17	4,0
2550	5	16	28	50	50	50	32	20	4,5

Rectangular straight attenuator TUNE-S

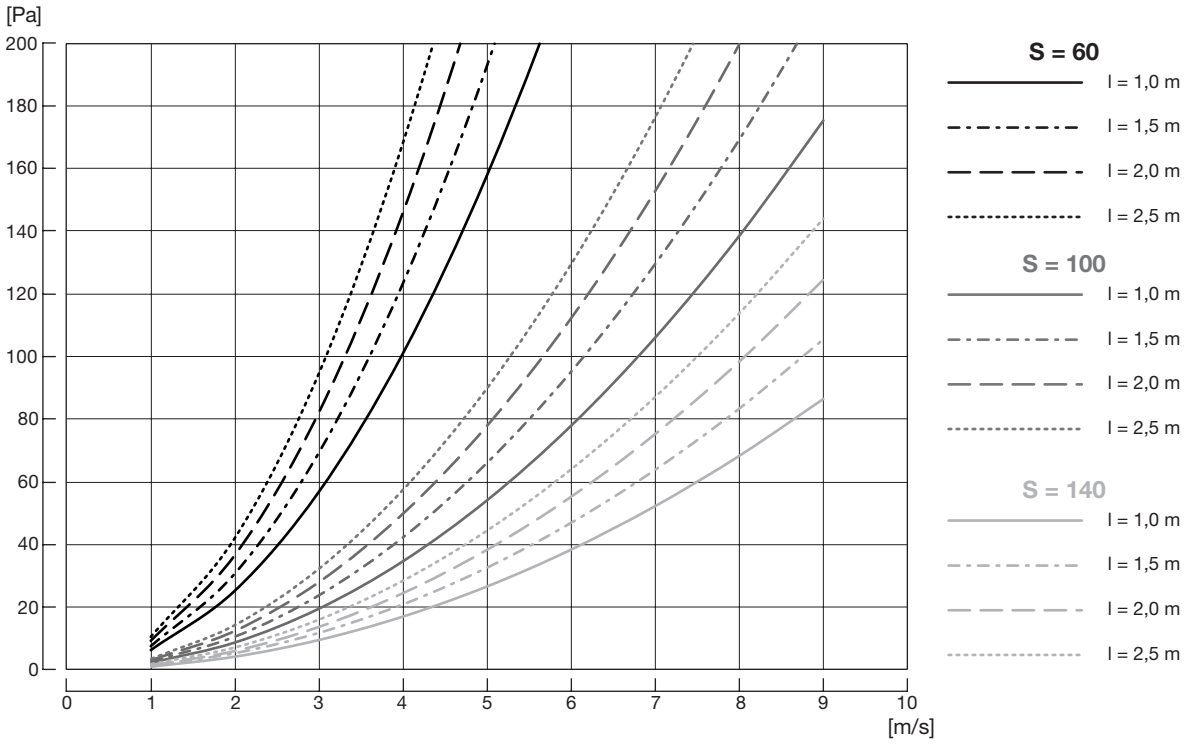
Technical data

Pressure loss

TUNE-S with splitter width (B) = 100
(S) is distance between splitters.



TUNE-S with splitter width (B) = 150
(S) is distance between splitters.



Rectangular straight attenuator TUNE-S

Technical data

TUNE-S with splitter width (B) = 200
(S) is distance between splitters.