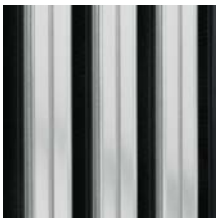


Aerodynamically optimised splitter frame

Tested to VDI 6022

Attenuators

XK

Splitter with high insertion loss with broadband attenuation even in the low frequency range

Sound attenuator splitters, installation kit to be used in ventilation and air conditioning systems

- Attenuation effect due to absorption
- Energy efficient due to aerodynamically formed frame (bullnose radius 0.8")
- Acoustic data measured to ISO 7235
- Sound absorbing material is biosoluble and hence hygienically safe
- Sound absorbing material faced with glass fibre fabric as a protection against erosion due to airflow velocities up to 3937 fpm
- The sound absorbing material is non-combustible, to EN 13501, fire rating class A1
- For use in areas with potentially explosive atmospheres (according to EC Directive 2014/34/EU (ATEX)), zones 1, 2, and zones 21 and 22 (outside) according to EC Directive 1999/92/EC
- Operating temperature up to 212 °F, with expanded metal (variant L) up to 572 °F for a limited period of time

Optional equipment and accessories

- Expanded metal as an additional mechanical protection for the sound absorbing material
- Stainless steel variant A2 (1.4301), with optional perforated metal facing as an additional protection for the sound absorbing material
- Other stainless steel and aluminium variants as well as PUR coating upon request
- U-sheets and clamp sheets to join subdivided attenuator splitters

General information

Application
- Sound attenuator splitters are used for the reduction of fan noise and air-regenerated noise in ventilation and air conditioning systems
- Attenuation effect due to absorption
- Broadband attenuation even in the high frequency range
- Hygiene tested and compliant with VDI 6022
- For use in areas with a potentially explosive atmosphere (EC Directive 2014/34/EU (ATEX)), zones 1, 2, 21 and 22 (outside) according to Directive 1999/92/EC

Special features
- Increased insertion loss even in the high-frequency range
- Energy savings due to aerodynamically profiled splitter frame
  - Up to 30 % lower differential pressure
- Hygiene tested and compliant with VDI 6022
- Multi-section construction available for large dimensions

Nominal sizes
- H: 6" – 98"
- L: 20", 30", 39", 49", 59", 69", 79", 89", 98"
- Intermediate sizes of H and L are possible: 6" – 98" in increments of 0.04"
- Undivided construction: H + L 24" min., 157" max., 220 lbs max.
  - Size limit for H or L: If one dimension is greater than 59", the other one must not exceed 59"
- Height or length subdivided in case of a deviation and for sizes 98" – 197"
  - Height subdivided from H ≥ 98", otherwise with the length subdivided

Variants
- XK100: splitter thickness 4"
- XK200: splitter thickness 8"
- XK230: splitter thickness 9"
- XK300: splitter thickness 12"

Construction
Splitter surface
- F: Glass fibre fabric
- L: glass fibre fabric faced with expanded metal as an additional mechanical protection for the sound absorbing material

Materials and surfaces
- No entry: galvanised steel 1.0917
- A2: stainless steel 1.4301
  - Construction L: Glass fibre fabric with perforated metal facing as an additional mechanical protection for the sound absorbing material
- P1: Powder-coated, RAL 7001, silver grey

Parts and characteristics
- Aerodynamically profiled frame
  - Reduced weight and increased rigidity due to special profile
  - Helps to optimise the airflow, hence reducing the air-regenerated noise
  - Reduces the pressure loss
  - Covers the edges of the sound absorbing material
- Sound absorbing material fitted to reduce air-regenerated noise by absorption

Accessories
- UU-sheets/clamp sheets to join subdivided attenuator splitters (included with subdivided splitter constructions)

Construction features
Aerodynamically formed splitter frame (bullnose radius 0.8") that helps to reduce turbulence on both the upstream and downstream sides; frame with grooves for increased rigidity
- Frame edges are folded to protect the infill
- Operating temperature up to 212 °F; variant L up to 572 °F for 8h max.

Materials and surfaces
- Splitter frame and centre mullion made of galvanised sheet steel 1.0917 or stainless steel 1.4301
- Expanded metal facing made of galvanised steel 1.0917
- Perforated metal facing made of stainless steel 1.4301
- Absorption material is mineral wool
  - To EN 13501, fire rating Class A1, non-combustible
  - RAL quality mark RAL-GZ 388
  - Biosoluble and hence hygienically safe according to the German TRGS 905 (Technical Rules for Hazardous Substances) and EU directive 97/69/EC
  - Faced with glass fibre fabric as a protection against erosion from airflow velocities of up to 3937 fpm
  - Inert to fungal and bacterial growth according to EN 846

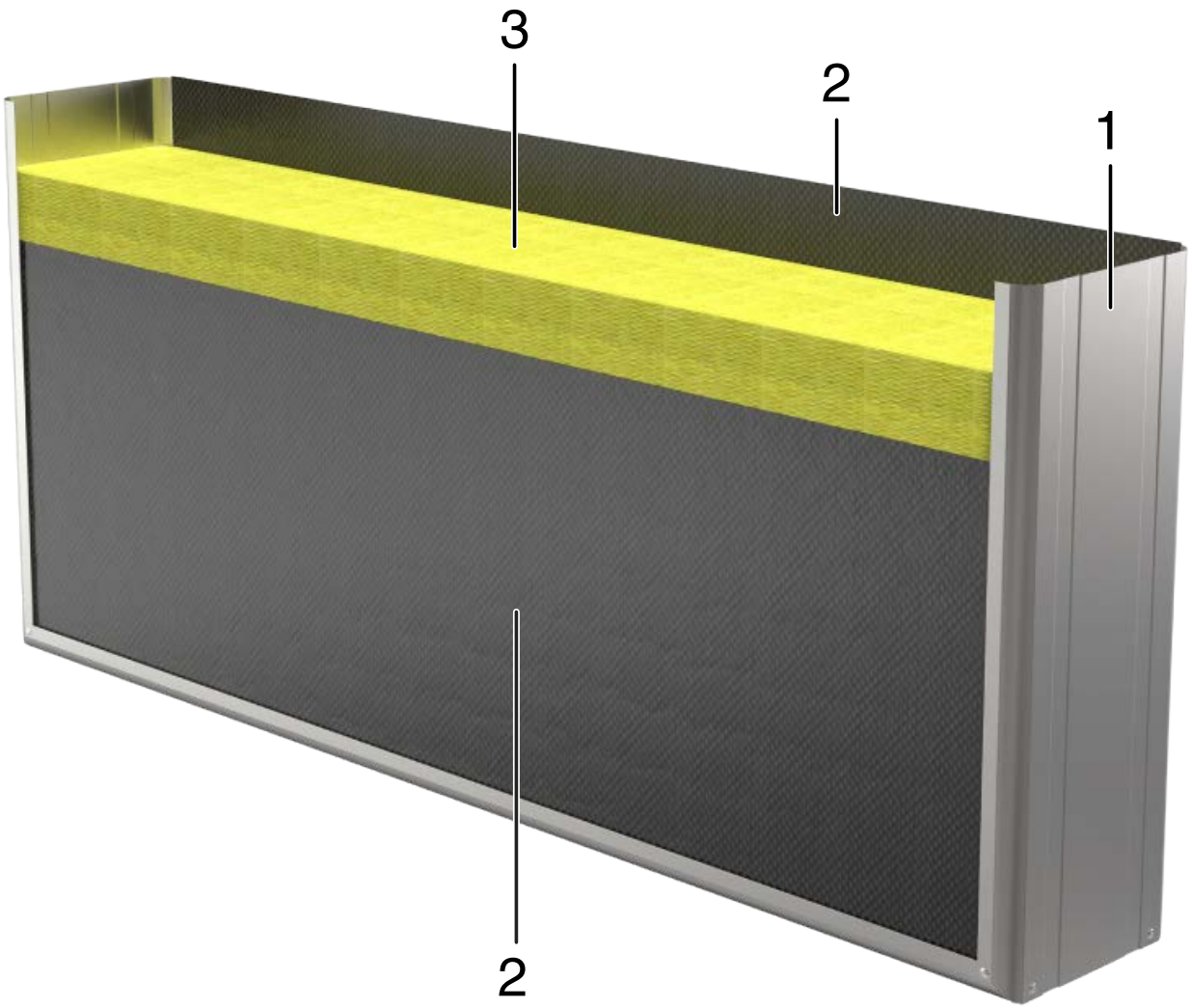
Standards and guidelines
- Insertion loss and sound power level of air-regenerated noise tested to ISO 7235
- Meets the hygiene requirements of VDI 6022, VDI 3803 Part 1 and DIN 1946 Part 4
- EC Directive 2014/34/EC (ATEX): Equipment and protective systems intended for use in areas with potentially explosive atmospheres
- EC Directive 1999/92/EC (ATEX): Improvement of the safety and health protection of workers potentially at risk from explosive atmospheres

Maintenance
- Low maintenance as construction and materials are not subject to wear

Function

The attenuation effect of the XK splitters is due to absorption. The splitters have a mineral wool infill as sound absorbing material.

Schematic illustration of XK



1 Splitter frame
2 Glass fibre fabric (facing)
3 Sound absorbing material

Technical data

Splitter thickness	4", 8", 9", 12"
Nominal sizes (H × L)	6" × 18" – 59" × 98", 18" × 6" – 98" × 59"
Height subdivide	98" – 197" or if H and L > 59"
Length subdivided	98" – 197" or if H and L > 59"
Intermediate sizes	In increments of 0.04"
Operating temperature	Up to 212 °F, variant L up to 572 °F for 8 h max.

The length (L) of sound attenuator splitters refers to the airflow direction.

Quick sizing

Quick sizing tables provide a good overview of the insertion loss and of differential pressures for different airway widths and airflow velocities. Intermediate values can be calculated with our Easy Product Finder design program.
The differential pressures apply to sound attenuators with a height of 3'.

XK4, XS4, insertion loss D_e [dB] and differential pressure Δp_t [in WC]

L	Airway width	Centre frequency f_m [Hz]								v_s [fpm]		
		2	5	10	20	39	79	157	315	0.2	0.4	0.6
20	2	4	8	6	18	35	40	27	22	1969	5709	11024
20	4	4	4	4	15	27	22	15	10	1575	4528	8858
39	2	6	10	14	28	44	48	35	29	2559	7283	14173
39	3	5	7	10	24	38	38	27	20	1969	5512	10827
39	4	5	5	8	23	36	33	23	15	1772	5118	10039
59	2	7	13	21	38	> 50	> 50	43	37	3150	8661	17126
59	3	6	9	16	33	48	48	35	26	2362	6299	12402
59	4	6	7	13	30	45	45	31	21	1969	5709	11024
79	2	8	16	29	48	> 50	> 50	> 50	45	3740	10236	20079
79	3	7	10	21	41	> 50	> 50	43	33	2559	7087	13780
79	4	7	8	18	38	> 50	> 50	39	27	2165	6299	12205
98	2	10	18	36	> 50	> 50	> 50	> 50	> 50	4331	11811	23228
98	3	8	12	27	49	> 50	> 50	> 50	39	2756	7874	15354
98	4	8	9	22	45	> 50	> 50	48	33	2362	6693	13189
118	2	11	21	44	> 50	> 50	> 50	> 50	> 50	4724	13386	26181
118	3	10	14	33	> 50	> 50	> 50	> 50	45	3150	8661	16732
118	4	9	10	27	> 50	> 50	> 50	> 50	38	2559	7283	14370

XK8, XS8, insertion loss D_e [dB] and differential pressure Δp_t [in WC]

L	Airway width	Centre frequency f_m [Hz]								v_s [fpm]		
		2	5	10	20	39	79	157	315	0.2	0.4	0.6
20	2	4	9	14	27	42	38	25	19	4134	11417	22441
20	4	2	5	10	19	28	24	16	12	2165	6102	12008
39	2	5	14	21	43	> 50	> 50	36	25	4724	13189	25787
39	3	4	10	18	35	46	41	27	19	2953	8465	16535
39	4	4	9	16	32	41	35	23	16	2559	6890	13583
59	2	7	19	29	> 50	> 50	> 50	47	31	5315	14764	28937
59	3	6	14	24	49	> 50	> 50	35	23	3346	9449	18054
59	4	5	12	22	44	> 50	46	30	19	2756	7874	15354
79	2	9	24	36	> 50	> 50	> 50	> 50	37	5906	16339	32283
79	3	7	19	31	> 50	> 50	> 50	44	27	3740	10433	20669
79	4	6	16	28	> 50	> 50	> 50	37	23	3150	8661	16929
79	8	3	9	19	40	44	31	16	9	1772	4921	9843
98	2	11	29	44	> 50	> 50	> 50	> 50	42	6496	18110	35433
98	3	9	23	37	> 50	> 50	> 50	> 50	32	4134	11614	22637
98	4	8	20	34	> 50	> 50	> 50	44	27	3346	9449	18504
98	8	4	11	24	49	> 50	38	19	11	1969	5512	10630
118	2	13	34	> 50	> 50	> 50	> 50	> 50	48	7087	19685	38780
118	3	10	27	44	> 50	>50	> 50	> 50	36	4528	12598	24803
118	4	9	23	40	> 50	> 50	> 50	> 50	30	3740	10433	20276
118	8	5	13	29	> 50	> 50	45	22	12	2165	5906	11614

XK230, XS230, insertion loss D_e [dB] and differential pressure Δp_t [in WC]

L	Airway width	Centre frequency f_m [Hz]								v_s [fpm]		
		2	5	10	20	39	79	157	315	0.2	0.4	0.6
20	3	3	6	11	22	30	22	16	15	2953	8465	16535
20	4	3	5	10	19	26	19	14	14	2559	6890	13583
39	3	4	10	18	32	42	34	23	19	3543	9646	19094
39	4	4	9	17	29	38	30	20	17	2756	7874	15354
39	8	3	6	12	20	23	17	11	10	1575	4528	8661
59	3	5	14	25	41	> 50	47	30	22	3937	11024	21457
59	4	5	13	23	38	49	41	26	20	3150	8858	17323
59	8	4	8	18	27	32	23	14	12	1772	4921	9646
79	3	6	18	32	> 50	> 50	> 50	37	26	4331	12205	23819
79	4	6	16	30	47	> 50	> 50	32	23	3543	9843	19291
79	8	4	11	23	35	40	28	17	14	1969	5512	10630
98	3	7	22	39	> 50	> 50	> 50	43	29	4921	13386	26378
98	4	7	20	37	> 50	> 50	> 50	38	26	3937	10827	21260
98	8	5	13	28	42	48	34	20	16	2165	5906	11614
118	3	8	26	46	> 50	> 50	> 50	50	32	5315	14567	28740
118	4	8	24	43	> 50	> 50	> 50	44	29	4331	11811	23031
118	8	6	16	33	50	> 50	40	24	18	2362	6496	12598

XK12, XS12, insertion loss D_e [dB] and differential pressure Δp_t [in WC]

L	Airway width	Centre frequency f_m [Hz]								v_s [fpm]		
		2	5	10	20	39	79	157	315	0.2	0.4	0.6
20	3	3	7	15	22	29	26	18	12	4134	11417	22244
20	4	3	6	13	20	26	23	16	11	3346	9055	17913
39	3	5	12	23	34	42	37	24	16	4528	12795	25000
39	4	4	11	21	31	38	33	22	14	3543	10039	19882
39	8	3	8	16	22	25	21	13	10	1969	5315	10433
59	3	6	17	32	45	> 50	47	30	20	5118	14173	27756
59	4	5	16	29	42	50	42	27	18	3937	11024	21850
59	8	3	12	22	29	33	27	17	11	2165	5709	11220
79	3	7	23	40	> 50	> 50	> 50	36	23	5512	15551	30315
79	4	6	21	37	> 50	> 50	> 50	32	21	4331	12205	23819
79	8	4	15	28	37	41	33	20	13	2165	6102	12008
98	3	9	28	49	> 50	> 50	> 50	42	27	6102	16929	33071
98	4	8	26	45	> 50	> 50	> 50	37	24	4724	13189	25787
98	8	5	19	34	45	50	39	24	15	2362	6496	12795
118	3	10	34	> 50	> 50	> 50	> 50	48	30	6496	18307	35827
118	4	9	31	> 50	> 50	> 50	> 50	43	27	5118	14173	27756
118	8	6	23	40	> 50	> 50	45	27	17	2559	6890	13583

Specification text

This specification text describes the general properties of the product. Texts for variants can be generated with our Easy Product Finder design program.

Specification text

Sound attenuator splitters used for the reduction of fan noise and air-regenerated noise in air conditioning systems. Attenuation effect due to absorption. Energy-saving as well as hygiene tested. The installation kit consists of an aerodynamically profiled frame (bullnose radius of 0.8") and sound absorbing material. The splitter frame reduces pressure losses and air-regenerated noise. The special profile helps to reduce the weight and increase the rigidity of the splitters. Frame edges are folded to protect the sound absorbing infill. Insertion loss and sound power level of air-regenerated noise measured according to EN ISO 7235. Hygiene compliant with VDI 6022, VDI 3803 Part 1 and DIN 1946 Part 4. Suitable for areas with potentially explosive atmospheres (ATEX), zones 1, 2, 21 and 22 (outside) according to Directive 1999/92/EC.

Special features

- Increased insertion loss even in the high-frequency range
- Energy savings due to aerodynamically profiled splitter frame
  - Up to 30 % lower differential pressure
- Hygiene tested and compliant with VDI 6022
- Multi-section construction available for large dimensions

Materials and surfaces

- Splitter frame and centre mullion made of galvanised sheet steel 1.0917 or stainless steel 1.4301
- Expanded metal facing made of galvanised steel 1.0917
- Perforated metal facing made of stainless steel 1.4301
- Absorption material is mineral wool
  - To EN 13501, fire rating Class A1, non-combustible
  - RAL quality mark RAL-GZ 388
  - Biosoluble and hence hygienically safe according to the German TRGS 905 (Technical Rules for Hazardous Substances) and EU directive 97/69/EC
  - Faced with glass fibre fabric as a protection against erosion from airflow velocities of up to 3937 fpm
  - Inert to fungal and bacterial growth according to EN 846

Construction

Splitter surface

- F: Glass fibre fabric
- L: glass fibre fabric faced with expanded metal as an additional mechanical protection for the sound absorbing material

Materials and surfaces

- No entry: galvanised steel 1.0917
- A2: stainless steel 1.4301
  - Construction L: Glass fibre fabric with perforated metal facing as an additional mechanical protection for the sound absorbing material
- P1: Powder-coated, RAL 7001, silver grey

Technical data

- Splitter thickness: 4", 8", 9", 12"
- Dimensions: 6" × 18" – 59" × 98", 18" × 6" – 98" × 59"
- Height subdivided: up to 197"
- Length subdivided: up to 197"
- Intermediate sizes: in increments of 0.04"
- Operating temperature: up to 212 °F, variant L up to 572 °F for 8 h max.

The length (L) of splitter sound attenuators refers to the airflow direction.

Sizing data

- B [in]
- H [in]
- L (in airflow direction) [in]
- q_v (cfm)
- D_e At 250 Hz [dB]
- Δp_{st} [in WC]

Order code

XK – … – F – A2 / 8 × 24 × 59
1 2 3 4 5 6 7

1 Type
XK Sound attenuator splitter

2 Variant
No entry: TROX standard variants

3 Splitter surface
F Glass fibre fabric
L Glass fibre fabric and expanded metal

4 Material
No entry: galvanised steel (1.0917)
A2 Stainless steel (1.4301)
P1 Powder-coated RAL 7001, silver grey

5 Splitter thickness [in]
4, 8, 9, 12

6 Height [in]
6 – 197

7 Length in airflow direction [in]
6 – 197

Order example: XK-L/8×59×39

Splitter surface	Glass fibre fabric and expanded metal
Splitter thickness	8"
Height	59"
Length	39"

Assembly material SDK
To be ordered separately if splitters are to be subdivided by others.

SDK – A2 / 8 / 2
1 2 3 4

1 Type
SDK Accessories for sound attenuator splitters

2 Material
No entry: galvanised steel (1.0917)
A2 Stainless steel (1.4301)
P1 Powder-coated RAL 7001 (galvanised steel (1.0917))

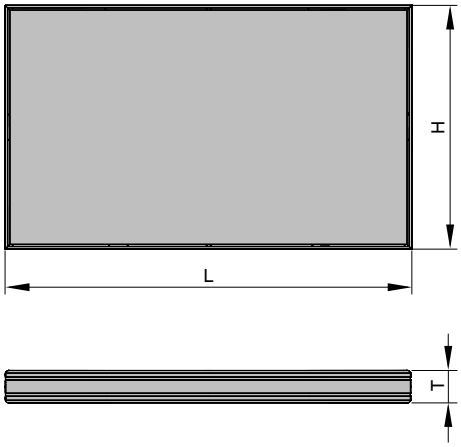
3 Splitter thickness T [in]
No entry: without U-sheets
4 With 2 U-sheets
8 With 2 U-sheets
9 With 2 U-sheets
12 With 2 U-sheets

4 No. of clamp sheets for the joints
No entry: H or L ≤ 30" without clamp sheets
2 H or L 30" – 39": 2 clamp sheets
4 H or L ≥ 39": 4 clamp sheets

Order example: SDK-A2/8/2

Material	Stainless steel (1.4301)
Splitter thickness	8", with 2 U-sheets
No. of clamp sheets	2

Dimensions



- H: 6" – 98"
- L: 20", 30", 39", 49", 59", 69", 79", 89", 98"
- Intermediate sizes of H and L are possible: 6" – 98" in increments of 0.04"
- Undivided construction: H + L 24" min., 157" max., 220 lbs max.
- Size limit for H or L: If one dimension is greater than 59", the other one must not exceed 59"
- Height or length subdivided is possible for sizes 98" – 197"

The total weight for intermediate sizes can be generated with our Easy Product Finder design program.

Weights

XK 4 – Glass fibre fabric (-F)

H	L								
	20	30	39	49	59	69	79	89	98
20	7	7	9	11	13	15	18	20	20
30	7	9	11	13	15	20	22	24	26
39	9	11	15	18	22	24	29	31	33
49	11	13	18	22	26	31	33	42	44
59	13	15	22	26	31	35	44	49	51
69	15	20	24	31	35	X	X	X	X
79	18	22	29	33	37	X	X	X	X
89	20	24	31	35	42	X	X	X	X
98	20	26	33	40	46	X	X	X	X

X = subdivided construction

XK 4 – Glass fibre fabric and expanded metal (-L)

H	L								
	20	30	39	49	59	69	79	89	98
20	9	11	15	18	20	24	26	31	33
30	11	15	20	24	29	33	37	42	46
39	15	20	24	31	40	44	49	55	60
49	18	24	31	40	46	53	60	71	77
59	20	29	37	46	53	62	75	84	90
69	15	20	24	31	35	X	X	X	X
79	18	22	29	33	37	X	X	X	X
89	20	24	31	35	42	X	X	X	X
98	20	26	33	40	46	X	X	X	X

X = subdivided construction

XK 4 – Glass fibre fabric and perforated sheet metal (-L-A2)

H	L								
	20	30	39	49	59	69	79	89	98
20	9	11	15	22	26	31	35	40	44
30	11	15	22	29	35	42	51	57	64
39	15	22	29	37	46	57	66	75	84
49	18	26	35	46	60	71	82	90	106
59	20	31	42	57	71	82	95	115	126
69	35	51	66	82	95	X	X	X	X
79	40	57	75	90	108	X	X	X	X
89	46	64	84	101	121	X	X	X	X
98	51	71	90	112	132	X	X	X	X

X = subdivided construction

XK 8 – Glass fibre fabric (-F)

H	L								
	20	30	39	49	59	69	79	89	98
20	9	13	15	20	22	26	29	33	35
30	13	18	22	26	29	35	40	44	49
39	15	22	26	31	40	44	51	55	60
49	20	26	31	40	46	53	60	71	77
59	22	29	40	46	53	62	75	82	88
69	26	35	44	53	62	X	X	X	X
79	31	40	51	60	68	X	X	X	X
89	33	44	55	66	77	X	X	X	X
98	37	49	60	73	38	X	X	X	X

X = subdivided construction

XK 8 – Glass fibre fabric and expanded metal (-L)

H	L								
	20	30	39	49	59	69	79	89	98
20	13	18	22	26	31	35	40	44	49
30	18	22	29	35	42	49	55	62	68
39	22	29	37	44	55	64	71	79	86
49	26	35	44	57	66	77	86	99	110
59	31	42	55	66	77	90	106	117	128
69	35	51	64	77	90	X	X	X	X
79	40	55	71	86	101	X	X	X	X
89	46	62	79	95	112	X	X	X	X
98	51	68	86	104	123	X	X	X	X

X = subdivided construction

XK 9 – Glass fibre fabric (-F)

H	L								
	20	30	39	49	59	69	79	89	98
20	11	15	18	22	26	31	33	37	42
30	15	20	24	29	33	40	44	49	55
39	18	24	31	35	44	51	57	62	68
49	22	29	35	46	53	62	68	79	86
59	26	33	44	53	62	71	84	93	101
69	31	40	51	62	71	X	X	X	X
79	35	46	57	68	79	X	X	X	X
89	37	51	62	75	86	X	X	X	X
98	42	55	68	82	95	X	X	X	X

X = subdivided construction

XK 9 – Glass fibre fabric and expanded metal (-L)

H	L								
	20	30	39	49	59	69	79	89	98
20	13	18	24	29	33	40	44	49	53
30	18	24	31	40	46	53	60	66	73
39	24	31	40	49	60	68	77	86	95
49	29	40	49	62	73	84	95	108	119
59	33	46	60	73	84	97	115	128	139
69	40	55	68	84	97	X	X	X	X
79	44	62	77	95	110	X	X	X	X
89	51	68	86	104	121	X	X	X	X
98	55	75	95	115	134	X	X	X	X

X = subdivided construction

XK 9 – Glass fibre fabric and perforated sheet metal (-L-A2)

H	L								
	20	30	39	49	59	69	79	89	98
20	18	24	31	35	42	51	57	64	71
30	24	33	42	51	60	71	79	88	97
39	31	42	53	64	79	90	104	115	126
49	35	51	64	82	97	112	126	146	159
59	42	60	79	97	112	132	154	172	187
69	51	71	90	112	132	X	X	X	X
79	57	79	104	126	148	X	X	X	X
89	64	90	115	141	165	X	X	X	X
98	71	99	126	154	183	X	X	X	X

X = subdivided construction

XK 12 – Glass fibre fabric (-F)

H	L								
	20	30	39	49	59	69	79	89	98
20	13	18	22	29	33	37	42	46	51
30	18	24	31	37	42	51	57	62	68
39	22	31	37	46	57	64	73	79	88
49	29	37	46	57	66	77	86	99	110
59	33	42	55	66	77	90	106	117	128
69	40	51	64	77	90	X	X	X	X
79	44	57	73	86	101	X	X	X	X
89	49	64	79	95	110	X	X	X	X
98	53	71	88	104	121	X	X	X	X

X = subdivided construction

XK 12 – Glass fibre fabric and expanded metal (-L)

H	L								
	20	30	39	49	59	69	79	89	98
20	15	22	29	33	40	46	53	60	64
30	22	31	37	46	55	64	73	79	88
39	29	37	49	60	73	82	93	104	112
49	33	46	60	73	86	99	112	130	141
59	40	55	71	86	101	117	137	152	165
69	49	66	82	99	117	X	X	X	X
79	53	73	93	112	132	X	X	X	X
89	60	82	104	126	146	X	X	X	X
98	66	90	112	137	161	X	X	X	X

X = subdivided construction

XK 12 – Glass fibre fabric and perforated sheet metal (-L-A2)

H	L								
	20	30	39	49	59	69	79	89	98
20	20	26	35	42	51	57	66	73	82
30	26	37	49	60	68	82	90	101	112
39	35	49	62	75	90	106	119	132	146
49	42	60	75	93	110	128	143	165	181
59	51	68	90	110	130	150	176	196	214
69	60	82	106	128	150	X	X	X	X
79	66	93	119	143	170	X	X	X	X
89	75	104	132	161	190	X	X	X	X
98	82	115	146	176	209	X	X	X	X

X = subdivided construction

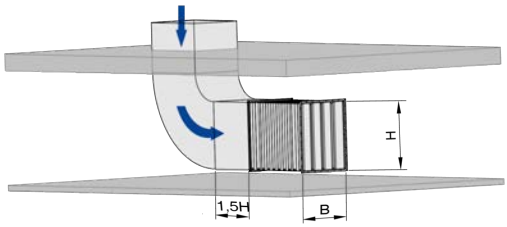
Installation details

Installation and commissioning

- Follow the installation manual and comply with the general codes of good practice in order to achieve the given performance data
- Up to height H = 47", length L = 59" and 88 lbs max.: any installation orientation, but we recommend upright installation of splitters
  From height H = 47": upright installation only
- The length (L) of sound attenuator splitters and splitter sound attenuators refers to the airflow direction; be sure to note how width,
- height and length are defined, particularly in case of a vertical airflow

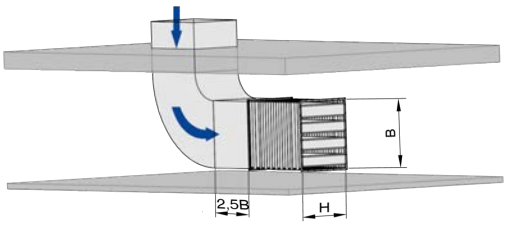
- A turbulent airflow may cause damage to the splitters
  - A straight upstream section is required upstream of the sound attenuator
  - The recommended minimum upstream section depends on the change of direction, change of cross-section and splitter arrangement
- Installation in ducts outside closed rooms requires sufficient protection against the effects of weather

Upstream conditions after bends, junctions or a narrowing or widening of the duct, vertical upstream section, splitters upright



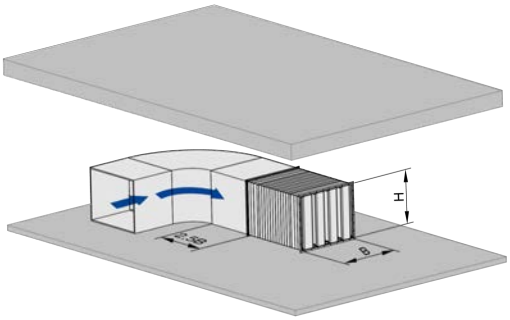
B Width of the sound attenuator
H Height of the sound attenuator and the splitters

Upstream conditions after bends, junctions or a narrowing or widening of the duct, vertical upstream section, splitters lying flat



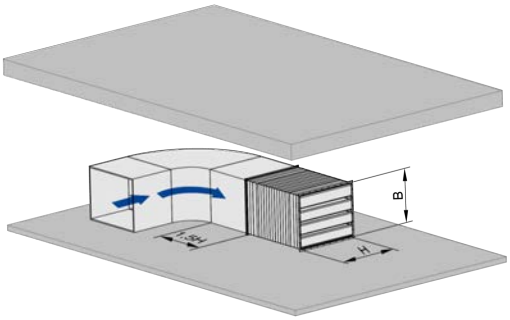
B Width of the sound attenuator
H Height of the sound attenuator and the splitters
Installation with the splitters lying flat only for splitters up to height 47"

Upstream conditions after bends, junctions or a narrowing or widening of the duct, horizontal upstream section, splitters upright



B Width of the sound attenuator
H Height of the sound attenuator and the splitters

Upstream conditions after bends, junctions or a narrowing or widening of the duct, horizontal upstream section, splitters lying flat

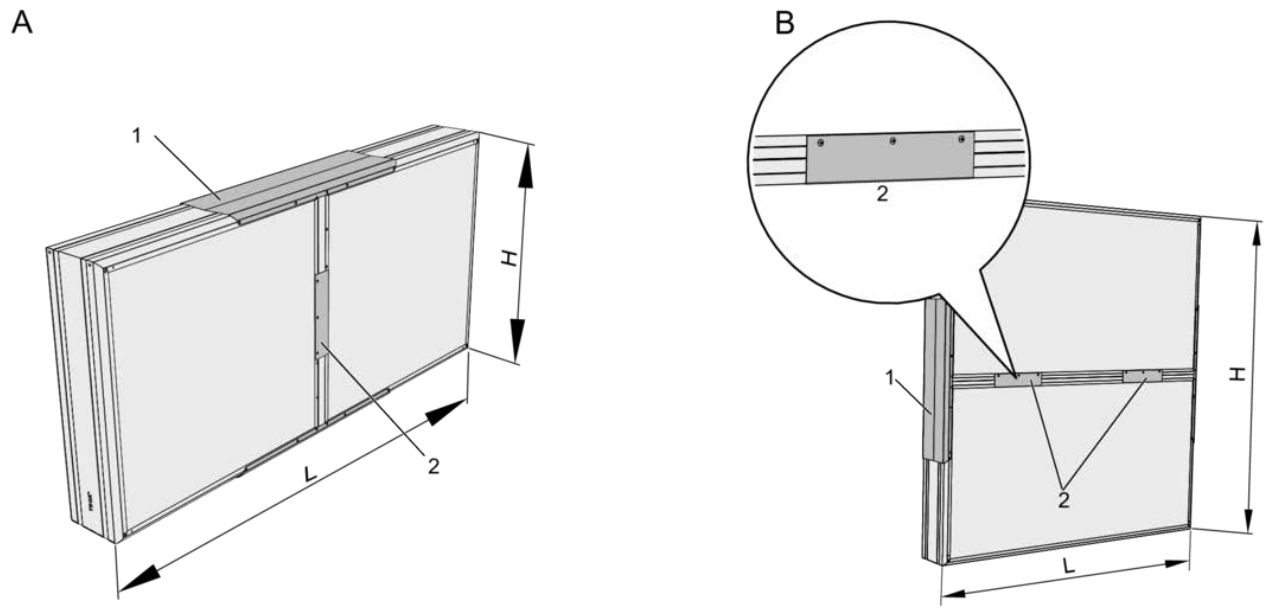


B Width of the sound attenuator
H Height of the sound attenuator and the splitters
Installation with the splitters lying flat only for splitters up to height 47"

Accessories - SDK

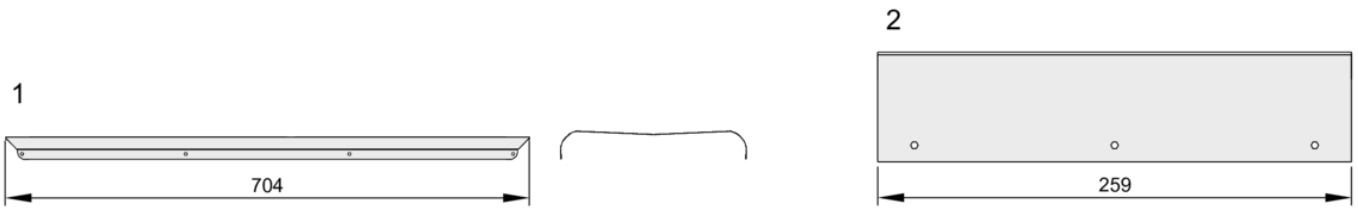
- U-sheets and clamp sheets to join attenuator splitters subdivided by others.
  - Depending on the splitter construction:
    - Material
    - Splitter thickness for U-sheets
  - No. of clamp sheets
- Screws for fixing U-sheets and clamp sheets are to be provided by others.

No. of clamp sheets per splitter joint:
H or L ≤ 30": without clamp sheet
H or L 30" – 39": 2 clamp sheets (1 on each side)
H or L ≥ 39": 4 clamp sheets (2 on each side)
No. of U-sheets per splitter joint: 2
Follow the instructions in the installation manual.



A Length subdivided
- H 39" × L 157" with 2 U-sheets, 2 clamp sheets B

Height subdivided
- H 79" × L 98" with 2 U-sheets, 4 clamp sheets



1 U-sheet
2 Clamp sheet

Nomenclature

L [in]
Length of sound attenuator including spigot (always in airflow direction)

L_1 [in]
Length of part 1 of a splitter sound attenuator with the length subdivided

L_2 [in]
Length of part 2 of a splitter sound attenuator with the length subdivided

B [in]
Sound attenuator width and duct width

B_1 [in]
Width of part 1 of a splitter sound attenuator with the width subdivided

B_2 [in]
Width of part 2 of a splitter sound attenuator with the width subdivided

H [in]
Sound attenuator height and duct height (upright splitters)

T [in]
Splitter thickness

S [in]
Airway width

m [lbs]
Weight

f_m [Hz]
Octave band centre frequency

D_e [dB]
Insertion loss

q_v [cfm]
Volume flow rate

Δp_t [in WC]
Total differential pressure

v_s [fpm]
Airflow velocity

Lengths
All lengths are given in inches [in] unless stated otherwise.

Measured values
All sound power levels are based on 1 pW. All values were measured in a TROX lab and to EN ISO 7235. Intermediate values may be achieved by interpolation. Lab measurements exceeding 50 dB are given as 50 dB, based on practical conditions.