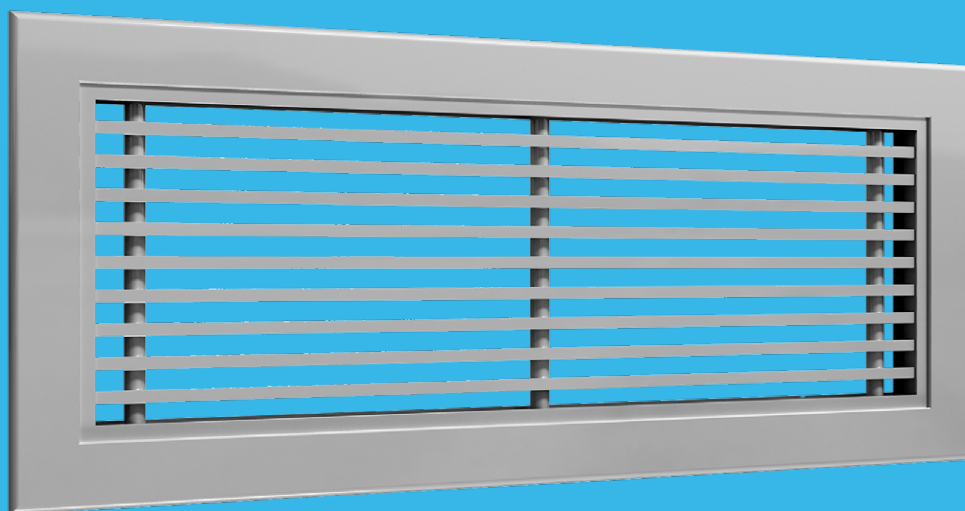




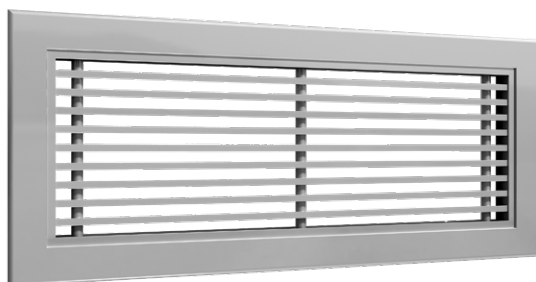
AL

Grilles Global version



Grille Global version

AL



Description

The AL is a linear bar grille with fixed blades made of aluminum. With several frame and grid combinations, the AL grille is very flexible and suitable for various kind of applications.

The grille is available with several mounting options and can be delivered with mounting frame, opposed blade damper and plenum box accessories.

The AL can be delivered as a single grille in lengths up to the maximum size indicated in the following tables (Min.-max. dimensions).

Grilles are available in 2 versions:

- Global version: wall opening is $L + 5 \times H + 5$
- Nordic version: wall opening is $L \times H$

Order code

Product	AL	a	b	c	d	eeee x fff	gggg
Type	AL						
Frame (See page 3)							
0, 1, 2, 3, 4, 5, 6							
Grid (See page 3)							
0,1, 7, 8							
Installation (See page 4)							
- V, VM, C, CM, H, HM, B, F							
Accessories (See page 4)							
- D							
Size							
L: 200 - 2000 mm							
H: 75 - 600 mm							
(For L longer than 2000 mm, see page 5.)							
Grilles standard finish:							
- Anodized aluminium							
9003 RAL 9003, gloss 30							
xxxx On request, other RAL colour							

Example 1: AL-1-1-CM-800 x 200-9003

Example 2: AL-0-0-1000x100

Min. - max. dimensions

AL - 0, 1, 2, 3

H	L	200	← →	2000
75				
↕				
600				

AL - 4, 5

H	L	200	← →	1500
50				
↕				
400				

AL - 6

H	L	200	← →	1200
100				
↕				
300				

Standard grilles are available in 50 mm steps within the above min. and max. sizes.

Customized sizes available on request.

For the lengths bigger than the maximum indicated in the above tables, the AL can be delivered in multiple pieces as a linear continuous grille line (see details page 5).

LindQST

Use the advanced Lindab web tool LindQST to calculate the full range of grilles and to find the suitable grille type and dimension for all applications.

Product selection, room dimensioning and documentation search are easy available directly on web and mobile devices.

Find this and much more on www.lindQST.com.

Maintenance

Remove the grille to gain access to the plenum box or duct. External parts should be wiped with a damp cloth.

Accessories

Plenum box:	PBA , VBX
Mounting frame:	MFA
Opposed blade damper:	DGA

Materials and finish

Grille frame and blades:	Anodized aluminium
Mounting frame:	Galvanized steel
Opposed blade damper:	Galvanized steel
Grilles standard finish:	- Aluminium anodized
	- RAL 9003, gloss 30

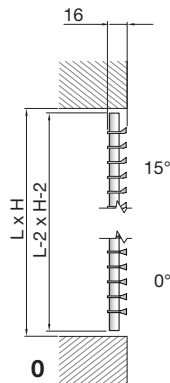
The grille is available in other colours. Please contact Lindab's sales department for further information.

Grille Global version

AL

Frame

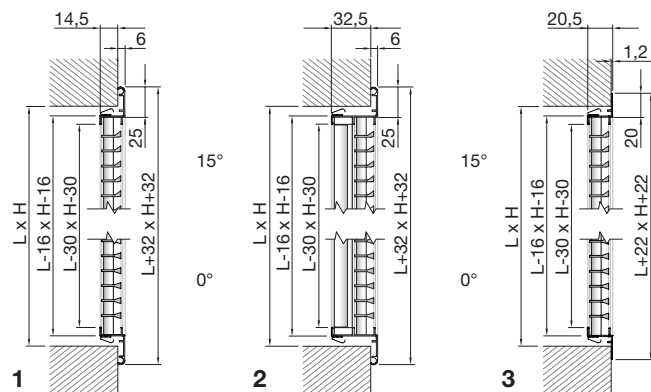
0 - No frame



1 - 25 mm frame

2 - 25 mm frame with direction

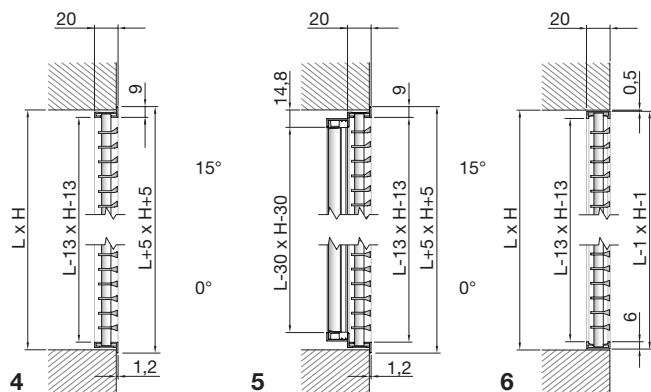
3 - 20 mm flat frame



4 - 9 mm flat frame

5 - 9 mm flat frame with direction

6 - Frame with no flange



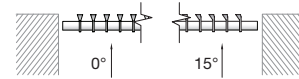
Grid

0 - Fixed grid 0°

All frames

1 - Fixed grid 15°

All frames

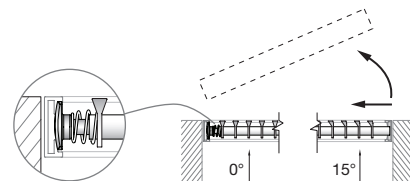


7 - Removable grid 0°

Only frame 6

8 - Removable grid 15°

Only frame 6



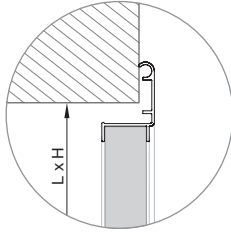
Grille Global version

AL

Installation

- Not prepared

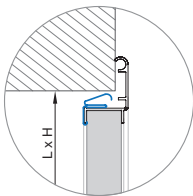
All frames



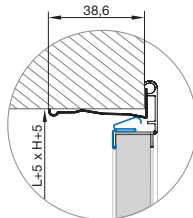
C - Clips

CM - Clips + mounting frame

Only frame 1 + 2



C

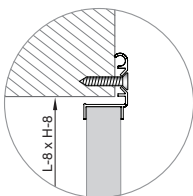


CM

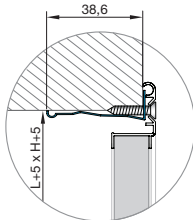
V* - Visible screw holes

VM* - Visible screw holes + mounting frame

Only frame 1 + 2



V*



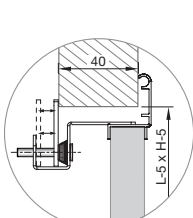
VM*

* Screws are not included.

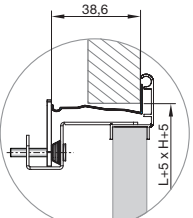
H** - Hidden screws

HM** - Hidden screws + mounting frame

Only frame 1 + 2



H**

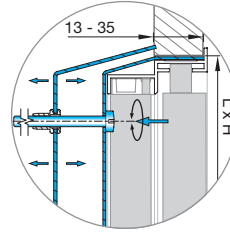


HM**

** Limitation:
max. length: 1200 mm,
max. height: 1000 mm.

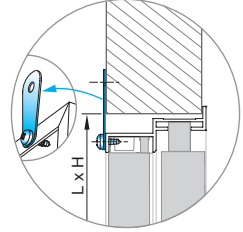
B - Mounting bridge

F - Fixing brackets



B

Only frame 4 + 5



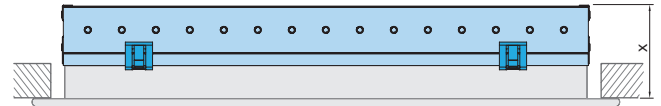
F

Only frame 4 + 5 + 6

Accessories

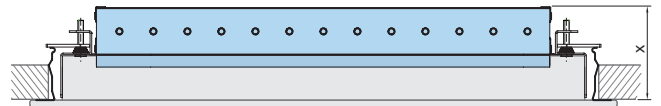
- No damper

D - Opposed blade damper DGA



AL with frame type 1, 2, 3 and installation type C, CM, V and VM.

A full length click-on DGA-damper is available.



AL with installation type H, HM or B has a shortend DGA damper option due to the hidden screw and mounting bridge installation type.

The damper is mounted from factory and is not detachable.

Frame type	x mm
1	51
2	69
3	51
4	73.4
5	73.4
6	68

- plenum box

- mounting frame

Details see website on www.lindQST.com.

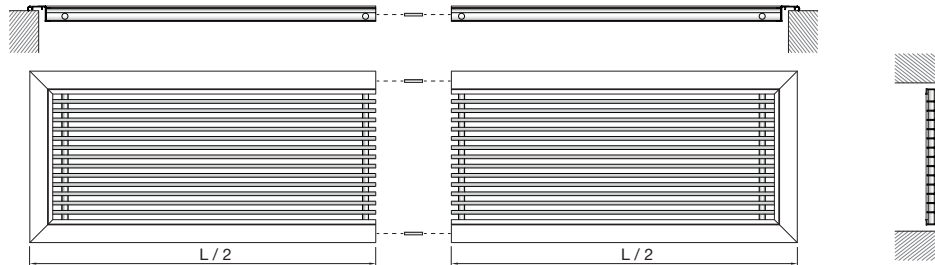
Grille Global version

AL

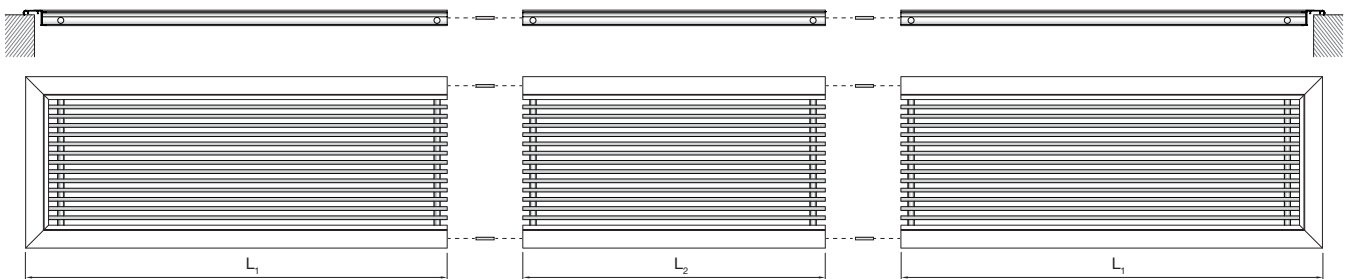
L longer than 2000 mm

REMARK: Maximum possible height is 250 mm

25 mm frame, $4000 \geq L > 2000$ mm



25 mm frame, $6000 \geq L > 4001$ mm



When the AL is ordered with:

- a) 25 mm frame, $5000 \geq L > 4001$ mm, the grille always is delivered in whole pieces of 1500 mm (L_1) and one piece (L_2) that will complete the desired length.
- b) 25 mm frame, $6000 \geq L > 5001$ mm, the grille always is delivered in whole pieces of 2000 mm (L_1) and one piece (L_2) that will complete the desired length.
- c) 25 mm frame, $L > 6001$ mm, like b).

For other frame types consult your local Lindab dealer.

Order code

Product	AL	a	b	c	d	eeee x fff	gggg
Type	AL						
Frame (See page 3)		1, 2, 3, 4, 5, 6					
Grid (See page 3)		0,1					
Installation (See page 4)		- V, VM, C, CM, H, HM, B, F					
Accessories (See page 4)		-, D					
Size							
L > 2000 mm							
H: 75 - 250 mm (Frame 1, 2, 3)							
H: 50 - 250 mm (Frame 4, 5, 6)							
Grilles standard finish:							
-		Anodized aluminium					
9003		RAL 9003, gloss 30					
xxxx		On request, other RAL colour					

Example 1: AL-1-1-CM-4000-200-9003

Example 2: AL-4-0-5000-200

Grille Global version

AL

Free area

H \ L	AL - 1x Linear bar grille with 25 mm frame																	
	A _k (m ²)																	
	200	250	300	350	400	450	500	550	600	700	800	900	1000	1100	1200	1300	1400	1500
75	0,007	0,008	0,010	0,012	0,014	0,016	0,018	0,020	0,022	0,026	0,030	0,034	0,038	0,042	0,046	0,049	0,053	0,057
100	0,010	0,014	0,017	0,020	0,023	0,026	0,029	0,032	0,035	0,042	0,048	0,054	0,060	0,066	0,073	0,079	0,085	0,091
150	0,018	0,024	0,029	0,034	0,040	0,045	0,051	0,056	0,062	0,073	0,083	0,094	0,105	0,116	0,127	0,138	0,149	0,160
200	0,026	0,034	0,041	0,049	0,057	0,065	0,073	0,080	0,088	0,104	0,119	0,135	0,150	0,166	0,181	0,197	0,212	0,228
250	0,034	0,044	0,054	0,064	0,074	0,084	0,094	0,104	0,114	0,135	0,155	0,175	0,195	0,215	0,236	0,256	0,276	0,296
300	0,041	0,054	0,066	0,079	0,091	0,104	0,116	0,128	0,141	0,166	0,190	0,215	0,240	0,265	0,290	0,315	0,339	0,364
350	0,049	0,064	0,079	0,093	0,108	0,123	0,138	0,152	0,167	0,197	0,226	0,256	0,285	0,315	0,344	0,374	0,403	0,432
400	0,057	0,074	0,091	0,108	0,125	0,142	0,159	0,176	0,194	0,228	0,262	0,296	0,330	0,364	0,398	0,432	0,467	0,501
450	0,065	0,084	0,104	0,123	0,142	0,162	0,181	0,200	0,220	0,259	0,297	0,336	0,375	0,414	0,453	0,491	0,530	0,569
500	0,073	0,094	0,116	0,138	0,159	0,181	0,203	0,225	0,246	0,290	0,333	0,377	0,420	0,463	0,507	0,550	0,594	0,637
550	0,080	0,104	0,128	0,152	0,176	0,200	0,225	0,249	0,273	0,321	0,369	0,417	0,465	0,513	0,561	0,609	0,657	0,705
600	0,088	0,114	0,141	0,167	0,194	0,220	0,246	0,273	0,299	0,352	0,404	0,457	0,510	0,563	0,615	0,668	0,721	0,774

H \ L	AL - 0x Linear bar grille with no frame																	
	A _k (m ²)																	
	200	250	300	350	400	450	500	550	600	700	800	900	1000	1100	1200	1300	1400	1500
75	0,014	0,017	0,021	0,024	0,028	0,031	0,035	0,038	0,042	0,049	0,056	0,063	0,070	0,077	0,084	0,091	0,098	0,105
100	0,019	0,023	0,028	0,033	0,037	0,042	0,047	0,051	0,056	0,065	0,074	0,084	0,093	0,102	0,112	0,121	0,130	0,140
150	0,028	0,035	0,042	0,049	0,056	0,063	0,070	0,077	0,084	0,098	0,112	0,126	0,140	0,153	0,167	0,181	0,195	0,209
200	0,037	0,047	0,056	0,065	0,074	0,084	0,093	0,102	0,112	0,130	0,149	0,167	0,186	0,205	0,223	0,242	0,260	0,279
250	0,047	0,058	0,070	0,081	0,093	0,105	0,116	0,128	0,140	0,163	0,186	0,209	0,233	0,256	0,279	0,302	0,326	0,349
300	0,056	0,070	0,084	0,098	0,112	0,126	0,140	0,153	0,167	0,195	0,223	0,251	0,279	0,307	0,335	0,363	0,391	0,419
350	0,065	0,081	0,098	0,114	0,130	0,146	0,163	0,179	0,195	0,228	0,260	0,293	0,326	0,358	0,391	0,423	0,456	0,488
400	0,074	0,093	0,112	0,130	0,149	0,167	0,186	0,205	0,223	0,260	0,298	0,335	0,372	0,409	0,446	0,484	0,521	0,558
450	0,084	0,105	0,126	0,146	0,167	0,188	0,209	0,230	0,251	0,293	0,335	0,377	0,419	0,460	0,502	0,544	0,586	0,628
500	0,093	0,116	0,140	0,163	0,186	0,209	0,233	0,256	0,279	0,326	0,372	0,419	0,465	0,512	0,558	0,605	0,651	0,698
550	0,102	0,128	0,153	0,179	0,205	0,230	0,256	0,281	0,307	0,358	0,409	0,460	0,512	0,563	0,614	0,665	0,716	0,767
600	0,112	0,140	0,167	0,195	0,223	0,251	0,279	0,307	0,335	0,391	0,446	0,502	0,558	0,614	0,670	0,725	0,781	0,837

Grille Global version

AL

Quick selection, Supply air, AL - 10

Grille size [mm]			Air flow rate																		
			m³/h l/s	100 (28)	150 (42)	200 (56)	250 (69)	300 (83)	350 (97)	400 (111)	500 (139)	600 (167)	700 (194)	800 (222)	900 (250)	1000 (278)	1250 (347)	1500 (417)	2000 (556)	2500 (694)	3000 (833)
A _k [m²]																					
H=100	200x100 (0,01)	L _{WA} [dB(A)]	24	36	46																
		V _k [m/s]	2,7	4	5,4																
		Δp _t [Pa]	8	18	31																
		L _{0,2} [m]	4,2	6,3	8,4																
	300x100 (0,017)	L _{WA} [dB(A)]	<20	23	32	38	44	49													
		V _k [m/s]	1,7	2,5	3,4	4,1	5	5,8													
		Δp _t [Pa]	3	7	12	19	27	37													
		L _{0,2} [m]	3,3	5	6,6	8,2	9,8	11,5													
	400x100 (0,023)	L _{WA} [dB(A)]		<20	22	29	35	40	44												
		V _k [m/s]		1,8	2,4	3	3,6	4,2	4,9												
		Δp _t [Pa]		4	6	10	14	19	25												
		L _{0,2} [m]		4,3	5,7	7	8,4	9,8	11,2												
500x100 (0,029)	L _{WA} [dB(A)]			<20	22	28	33	37	44	50											
	V _k [m/s]			1,9	2,4	2,9	3,3	3,8	4,8	5,7											
	Δp _t [Pa]			4	6	9	12	16	25	36											
	L _{0,2} [m]			5	6,2	7,4	8,7	10	12,5	15											
600x100 (0,035)	L _{WA} [dB(A)]				<20	22	27	31	38	44	49										
	V _k [m/s]				2	2,3	2,7	3,1	3,9	4,7	5,5										
	Δp _t [Pa]				4	6	8	11	17	24	33										
	L _{0,2} [m]				5,6	6,8	7,9	9	11,3	13,6	15,8										
800x100 (0,048)	L _{WA} [dB(A)]					<20	<20	22	29	35	40	44	48								
	V _k [m/s]					1,7	2	2,3	2,9	3,5	4,1	4,6	5,2								
	Δp _t [Pa]					3	4	6	9	13	18	23	30								
	L _{0,2} [m]					5,8	6,8	7,8	9,7	11,7	13,6	15,5	17,5								
H=150	300x150 (0,029)	L _{WA} [dB(A)]			<20	22	28	33	37	44	50										
		V _k [m/s]			1,9	2,4	2,9	3,3	3,8	4,8	5,7										
		Δp _t [Pa]			4	6	9	12	16	25	36										
		L _{0,2} [m]			5	6,2	7,5	8,7	10	12,5	15										
	400x150 (0,04)	L _{WA} [dB(A)]				<20	<20	23	27	35	40	45	50								
		V _k [m/s]				1,7	2,1	2,4	2,8	3,5	4,2	4,9	5,6								
		Δp _t [Pa]				3	5	6	8	13	19	25	33								
		L _{0,2} [m]				5,3	6,4	7,4	8,5	10,6	12,8	14,9	17								
	500x150 (0,051)	L _{WA} [dB(A)]					<20	<20	20	27	33	38	42	46	50						
		V _k [m/s]					1,6	1,9	2,2	2,7	3,3	3,8	4,4	4,9	5,5						
		Δp _t [Pa]					3	4	5	8	12	16	21	26	32						
		L _{0,2} [m]					5,6	6,6	7,5	9,4	11,3	13,2	15,1	17	18,9						
600x150 (0,062)	L _{WA} [dB(A)]						<20	<20	22	28	32	37	40	44							
	V _k [m/s]						1,6	1,8	2,3	2,7	3,1	3,6	4,1	4,5							
	Δp _t [Pa]						3	3	5	8	11	14	18	22							
	L _{0,2} [m]						6	6,8	8,6	10,3	12	13,7	15,4	17,1							
800x150 (0,083)	L _{WA} [dB(A)]								<20	<20	23	28	31	35	42	48					
	V _k [m/s]								1,7	2	2,3	2,7	3	3,3	4,2	5					
	Δp _t [Pa]								3	4	6	8	10	12	19	27					
	L _{0,2} [m]								7,4	8,8	10,3	11,8	13,2	14,7	18,4	22,1					
H=200	400x200 (0,057)	L _{WA} [dB(A)]						<20	<20	24	30	35	39	43	46						
		V _k [m/s]							1,7	1,9	2,4	2,9	3,4	3,9	4,4	4,9					
		Δp _t [Pa]							3	4	6	9	13	16	21	26					
		L _{0,2} [m]							6,2	7,1	8,9	10,7	12,4	14,2	16	17,8					
	500x200 (0,073)	L _{WA} [dB(A)]							<20	<20	23	27	32	36	39	46					
		V _k [m/s]							1,5	1,9	2,3	2,7	3,1	3,4	3,8	4,8					
		Δp _t [Pa]							3	4	6	8	10	13	16	25					
		L _{0,2} [m]							6,3	7,9	9,5	11	12,6	14,2	15,8	19,7					
600x200 (0,088)	L _{WA} [dB(A)]								<20	<20	22	26	30	33	40	46					
	V _k [m/s]								1,6	1,9	2,2	2,5	2,8	3,2	3,9	4,7					
	Δp _t [Pa]								3	4	5	7	9	11	17	24					
	L _{0,2} [m]								7,2	8,6	10	11,4	12,9	14,3	17,9	21,5					
800x200 (0,119)	L _{WA} [dB(A)]										<20	<20	21	24	31	37	46				
	V _k [m/s]										1,6	1,9	2,1	2,3	2,9	3,5	4,7				
	Δp _t [Pa]										3	4	5	6	9	13	24				
	L _{0,2} [m]										8,6	9,8	11,1	12,3	15,4	18,5	24,7				
H=300	500x300 (0,116)	L _{WA} [dB(A)]										<20	<20	22	25	32	38	47			
		V _k [m/s]										1,7	1,9	2,2	2,4	3	3,6	4,8			
		Δp _t [Pa]										3	4	5	6	10	14	25			
		L _{0,2} [m]										8,7	10	11,2	12,5	15,6	18,7	25			
	600x300 (0,141)	L _{WA} [dB(A)]											<20	<20	<20	26	32	41	48		
		V _k [m/s]											1,6	1,8	2	2,5	3	3,9	4,9		
		Δp _t [Pa]											3	3	4	7	9	17	26		
		L _{0,2} [m]											9,1	10,2	11,3	14,2	17	22,7	>25		
800x300 (0,19)	L _{WA} [dB(A)]													<20	<20	23	32	39	45		
	V _k [m/s]													1,5	1,8	2,2	2,9	3,6	4,4		
	Δp _t [Pa]													2	4	5	9	14	21		
	L _{0,2} [m]													9,7	12,2	14,6	19,5	24,3	>25		

10 ≤ L_{WA} < 3030 ≤ L_{WA} < 4040 ≤ L_{WA} < 50

Data valid for:

- Supply air
- Isotherm conditions
- Throw without ceiling effect
(distance > 800 mm. to ceiling)

Terminology:

- A_k = effective free area
- V_k = effective face velocity
- Δp_t = total pressure loss
- L_{WA} = sound power level
- l_{0,2} = throw to terminal velocity at 0.2 m/s

Grille Global version

AL

Quick selection, Extract air, AL - 10/11

Grille size [mm]		Air flow rate																		
		m³/h	100	150	200	250	300	350	400	500	600	700	800	900	1000	1250	1500	2000	2500	3500
A _k [m²]		l/s	(28)	(42)	(56)	(69)	(83)	(97)	(111)	(139)	(167)	(194)	(222)	(250)	(278)	(347)	(417)	(556)	(694)	(972)
H=100	200x100 (0,01)	L _{WA} [dB(A)] V _k [m/s] Δp _t [Pa]	30 2,7 13	42 4 30																
	300x100 (0,017)	L _{WA} [dB(A)] V _k [m/s] Δp _t [Pa]	<20 1,7 5	30 2,5 12	39 3,4 21	45 4,1 31														
	400x100 (0,023)	L _{WA} [dB(A)] V _k [m/s] Δp _t [Pa]	<20 1,2 3	22 1,8 6	31 2,4 11	37 3 17	43 3,6 24	47 4,2 33												
	500x100 (0,029)	L _{WA} [dB(A)] V _k [m/s] Δp _t [Pa]		<20 1,4 4	25 1,9 7	31 2,4 10	36 2,9 15	41 3,3 20	45 3,8 27											
	600x100 (0,035)	L _{WA} [dB(A)] V _k [m/s] Δp _t [Pa]		<20 1,2 3	20 1,6 5	26 2 7	31 2,3 10	36 2,7 14	40 3,1 18	47 3,9 28										
	800x100 (0,048)	L _{WA} [dB(A)] V _k [m/s] Δp _t [Pa]			<20 1,2 3	<20 1,4 4	24 1,7 6	28 2 8	32 2,3 10	39 2,9 15	45 3,5 22	49 4,1 30								
	H=150	300x150 (0,029)	L _{WA} [dB(A)] V _k [m/s] Δp _t [Pa]		<20 1,4 4	25 1,9 7	31 2,4 10	36 2,9 15	41 3,3 20	45 3,8 27										
		400x150 (0,04)	L _{WA} [dB(A)] V _k [m/s] Δp _t [Pa]			<20 1,4 4	23 1,7 5	28 2,1 8	33 2,4 11	37 2,8 14	44 3,5 22	49 4,2 32								
		500x150 (0,051)	L _{WA} [dB(A)] V _k [m/s] Δp _t [Pa]			<20 1,1 2	22 1,4 3	27 1,6 5	31 1,9 7	38 2,2 9	43 2,7 14	47 3,3 20								
600x150 (0,062)		L _{WA} [dB(A)] V _k [m/s] Δp _t [Pa]				<20 1,1 2	22 1,3 3	26 1,6 5	33 1,8 6	38 2,3 9	43 3,1 13	47 3,6 18	50 4,1 30							
800x150 (0,083)		L _{WA} [dB(A)] V _k [m/s] Δp _t [Pa]						<20 1,2 2	<20 1,3 3	25 1,7 5	30 2 7	35 2,3 10	39 3 13	42 4 16	46 4,1 20					
H=200		400x200 (0,057)	L _{WA} [dB(A)] V _k [m/s] Δp _t [Pa]				<20 1,2 3	<20 1,5 4	24 1,7 5	28 1,9 7	35 2,4 11	40 2,9 16	45 3,4 21	49 3,9 28						
	500x200 (0,073)	L _{WA} [dB(A)] V _k [m/s] Δp _t [Pa]					<20 1,1 2	<20 1,3 3	22 1,5 4	28 1,9 7	34 2,3 10	38 2,7 13	42 3,1 17	46 3,4 22	49 3,8 27					
	600x200 (0,088)	L _{WA} [dB(A)] V _k [m/s] Δp _t [Pa]						<20 1,1 2	<20 1,3 3	24 1,6 5	29 1,9 7	33 2,2 9	37 2,5 12	41 2,8 15	44 3,2 18					
	800x200 (0,1191)	L _{WA} [dB(A)] V _k [m/s] Δp _t [Pa]								<20 1,2 2	21 1,4 4	26 1,6 5	30 1,9 8	33 2,1 10	36 2,3 16	43 2,9 22	49 3,5 28			
	H=300	500x300 (0,116)	L _{WA} [dB(A)] V _k [m/s] Δp _t [Pa]							<20 1 2	<20 1,2 3	22 1,4 4	26 1,7 5	30 1,9 7	34 2,2 9	37 2,4 11	44 3 16	49 3,6 24		
600x300 (0,141)		L _{WA} [dB(A)] V _k [m/s] Δp _t [Pa]								<20 1 2	<20 1,2 3	21 1,4 5	26 1,6 6	29 1,8 7	32 2 11	39 2,5 16	44 3 24			
800x300 (0,19)		L _{WA} [dB(A)] V _k [m/s] Δp _t [Pa]										<20 1 2	<20 1,2 3	21 1,3 4	25 1,5 6	31 1,8 9	37 2,2 16	45 2,9 24		

10 ≤ L_{WA} < 30 30 ≤ L_{WA} < 40 40 ≤ L_{WA} < 50

Data valid for:

- Extract air

Terminology:

- A_k = effective free area
- V_k = effective face velocity
- Δp_t = total pressure loss
- L_{WA} = sound power level

Grille Global version

AL

Technical data

Capacity

Air flow rate q_v [l/s] and [m³/h], total pressure loss Δp_t [Pa], throw $l_{0,2}$ [m] and sound power level L_{WA} [dB(A)] can be seen in the diagrams.

Air Jet Dispersal

Throw l_{xx} [m] at an average speed of 0.2, 0.25 and 0.3 m/s, frontal fixed blades at 0° and, (if present), a second row of adjustable blades settled at 0°, without ceiling effect, (distance from grille to ceiling over 800 mm), can be seen in the diagrams.

Sound power level L_{WA}

Sound power level L_{WA} [dB(A)] for frontal fixed blades at 0° and, (if present), a second row of adjustable blades settled at 0°, can be seen in the diagrams.

The sound power levels apply for grilles without an opposed blade damper. See the table below for correction of sound power levels on damper settings [dB].

Frequency-related sound power level

The sound power level in the frequency band is defined as

$$L_{Wf} = L_{WA} + K_{ok}$$

K_{ok} values are given in the table below.

	Centre frequency Hz							
	63	125	250	500	1K	2K	4K	8K
Supply air	6	5	1	-3	-9	-14	-12	-8
Extract air	8	6	0	-4	-7	-12	-10	-9

Opposed blade damper DGA

Correction of total pressure loss Δp_t [Pa] and sound power level L_{WA} [dB(A)] using a damper. See table below.

Damper position	Open	25% Closed	50% Closed
Total pressure loss Δp_t	x 1.2	x 1.9	x 10
Sound power level L_{WA}	+ 1	+ 9	+ 27

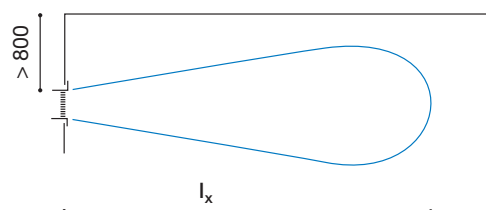
Extract air

Total pressure loss Δp_t	x 0.83
Sound power level L_{WA}	- 2

Throw and air jet dispersal

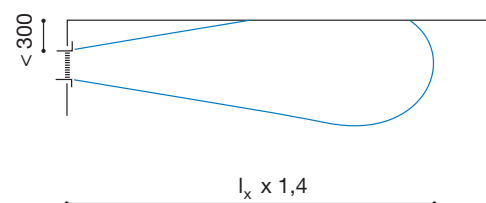
Throw

All given throw data applies for installation more than 800 mm from the ceiling.



For grilles installed less than 300 mm from the ceiling, the air throw is extended by 40% so that:

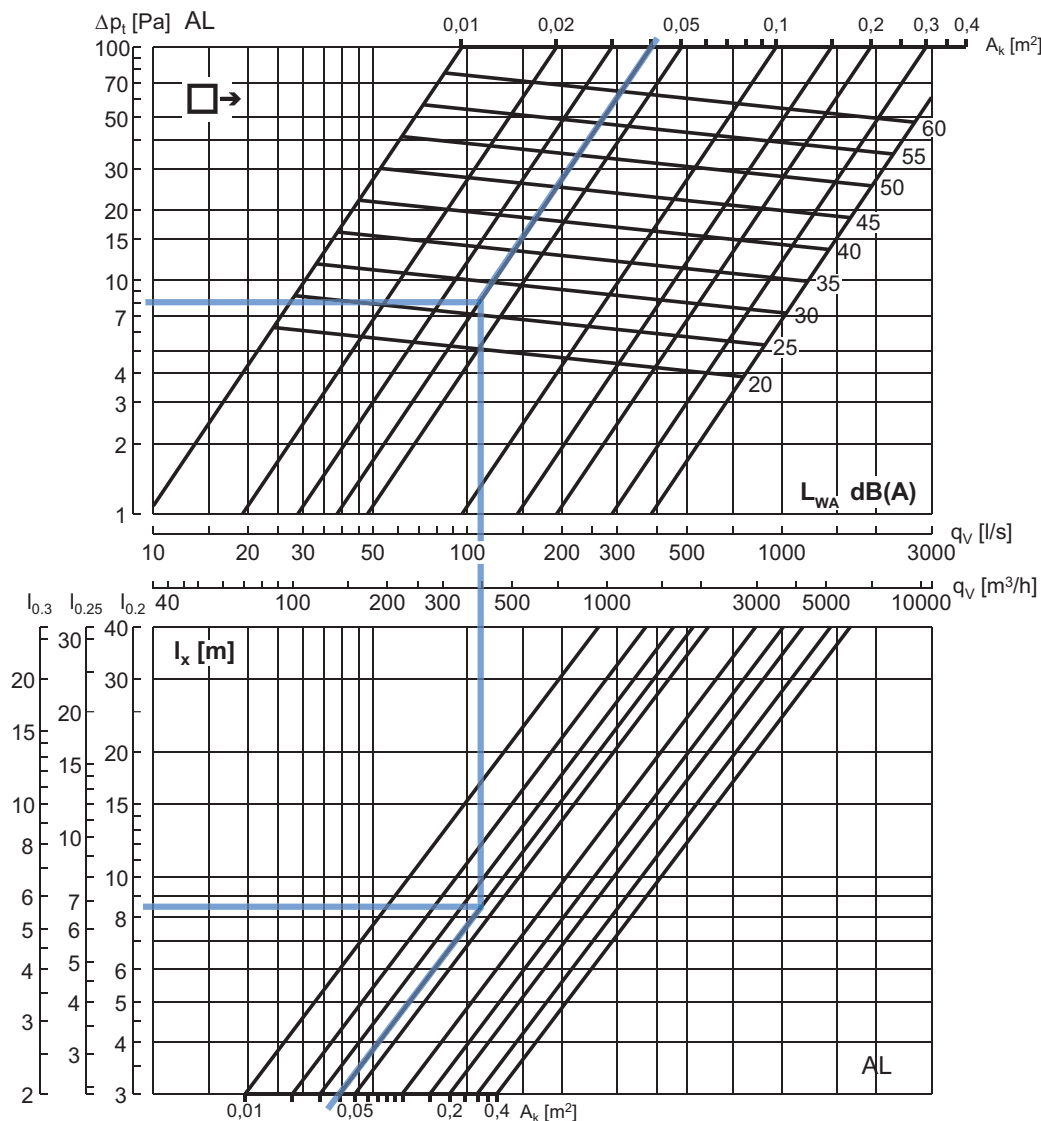
$$l_{x \text{ result}} = 1,4 \times l_{x \text{ diagram value}}$$



Grille Global version

AL

Technical data - Supply air

**Example:**

Grille size (LxH): 400×150 mm
 Free area A_k : 0.004 m²
 Air flow rate q_v : 400 m³/h (111 l/s)
 Result:
 Sound power level L_{WA} : ~27 [dB(A)]
 Total pressure loss Δp_t : ~8 [Pa]
 Throw $I_{0.2}$: ~8.5 [m]

Data valid for:

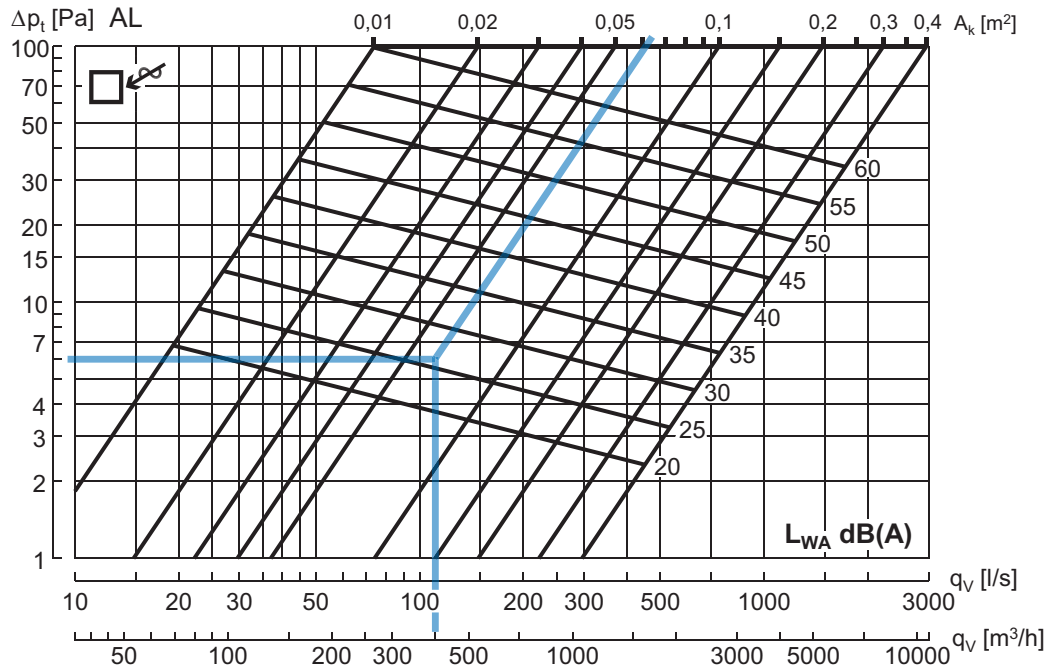
- Supply air
- Blade setting 0°
- Isotherm conditions
- Throw without ceiling effect (distance > 800 mm. to ceiling)

For grilles with free area > 0.4 m², we refer to use Lindabs online calculation tool on www.lindab.com.

Grille Global version

AL

Technical data - Extract

**Example:**

Grille size (LxH): 600×150 mm
 Free area A_k : 0.062 m²
 Air flow rate q_v : 400 m³/h (111 l/s)
 Result:
 Sound power level L_{WA} : ~26 [dB(A)]
 Total pressure loss Δp_t : ~6 [Pa]

Data valid for:

- Extract air

For grilles with free area > 0.4 m², we refer to use Lindabs online calculation tool on www.lindab.com.



Most of us spend the majority of our time indoors. Indoor climate is crucial to how we feel, how productive we are and if we stay healthy.

We at Lindab have therefore made it our most important objective to contribute to an indoor climate that improves people's lives. We do this by developing energy-efficient ventilation solutions and durable building products. We also aim to contribute to a better climate for our planet by working in a way that is sustainable for both people and the environment.

Lindab | For a better climate