

AFC

Grille



Grille

AFC



Description

AFC is a filter holder grille for extract and is equipped with rigid filter class G3.

The AFC is available with several type of grid options made of aluminum and is specifically designed for installation also in modular ceilings. Optional grids are eggcrate mesh 0° or 45° inclination, fixed 58° angle blades or perforated front plate.

With a smart push-pull closing system on the grid, it is easy to gain access to the filter.

AFC grille is available with plenum box (PBAF) as accessory.

Order

Product	AFC	1	a	b	c	ddd x eee	fff
Type							
AFC							
Frame							
1 - 25 mm frame							
Grid							
1 - Eggcrate 0°							
2 - Eggcrate 45°							
3 - Blade inclination 58°							
4 - Perforated plate							
Installation							
- Not prepared							
Accessories							
- No accessories							
F Rigid G3 filter							
Size							
L: min. 400 - max.1195 mm							
H: min. 200 - max. 670 mm							
For details, see dimension table							
Grilles standard finish:							
- Anodized aluminium					ONLY grid type 1, 2, 3		
9003 RAL 9003, gloss 30					All grid types		
xxxx On request, other RAL colour					All grid types		

Example 1: AFC-11-F-1000-300-9003

Example 2: AFC-12-F-600-400

Min. - max. dimensions

Size			L x H	
400	400	Nominal	432	432
500	500	Nominal	532	532
600	600	Nominal	632	632
600	400	Nominal	632	432
800	400	Nominal	832	432
1000	200	Nominal	1032	232
1000	300	Nominal	1032	332
1000	400	Nominal	1032	432
595	295	External frame	595	295
595	595	External frame	595	595
620	620	External frame	620	620
670	670	External frame	670	670
1195	595	External frame	1195	595

Standard grille sizes available, see table above.

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.

Accessories

Filter: Rigid filter G3
Plenum: PBAFC

Materials and finish

Grilles frame: Aluminium
Blade: Aluminium
Eggcrate: Aluminium
Perforated plate: Steel

Grilles standard finish:

- Anodized aluminium (only grid type 1,2,3)
- RAL 9003 gloss 30

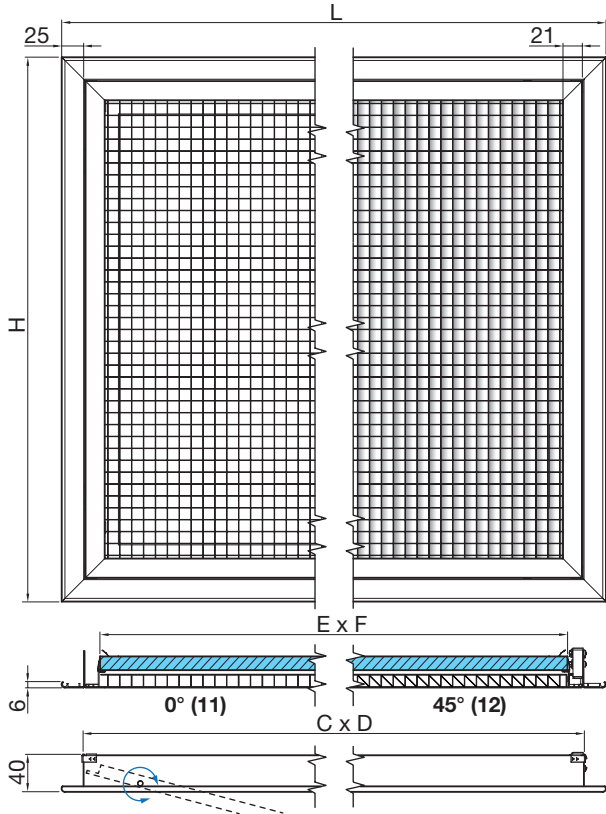
The grille is available in other colours. Please contact Lindab's sales department for further information.

Grille

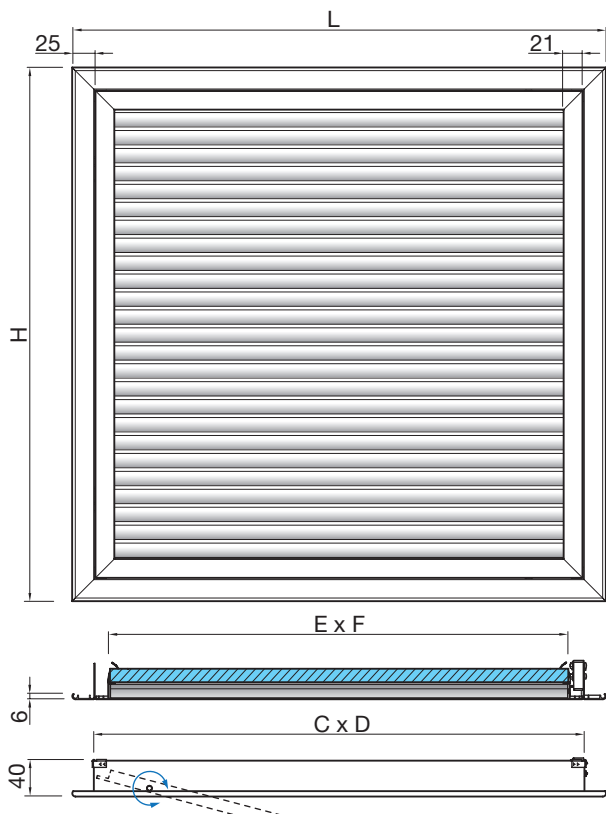
AFC

Frame and grid

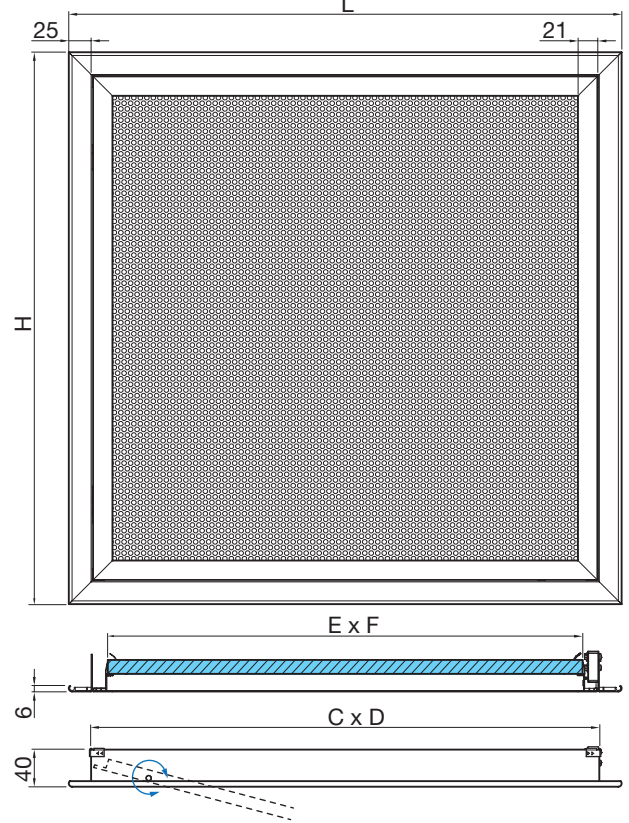
11 and 12 - Frame - Eggcrate 0° and 45° grid.



13 - Frame - Blade 58° inclination grid.



14 - Frame - Perforated grid.



L x H

Please see Min. - max. dimensions table, page 2.

$E \times F = L - 85 \times H - 85$ (Filter dimensions).

$C \times D = L - 48 \times H - 48$

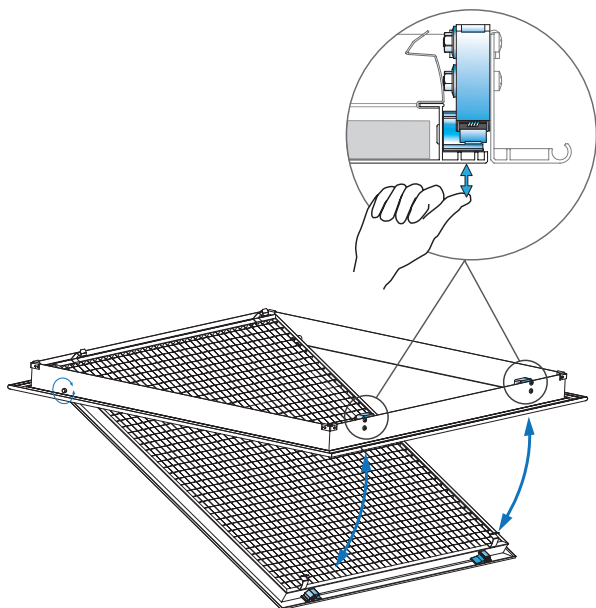
Grille

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Installation

- Not prepared

Opening the hinged faceplate and accessing the filter is done via the push-pull system.



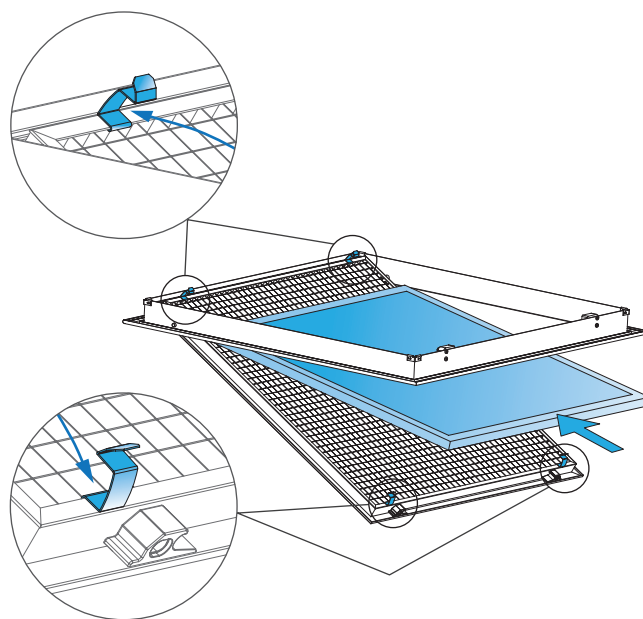
Accessories

F - Rigid filter G3

The thickness of the filter is 15 mm.
A filter can be ordered that fits your chosen AFC dimension (L x H). The dimension of the filter is shown as E x F on the frame and grid drawings on the previous page.

$$E \times F = L - 85 \times H - 85$$

The filter can be installed onto the hinged faceplate, using no tools.



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Free area

Grille size [mm]			$A_k(m^2)$			
L	H		AFC-11	AFC-12	AFC-13	AFC-14
400	400	Nominal	0.121	0.110	0.040	0.053
500	500	Nominal	0.199	0.181	0.068	0.088
600	600	Nominal	0.294	0.268	0.104	0.133
600	400	Nominal	0.189	0.172	0.063	0.084
800	400	Nominal	0.257	0.234	0.087	0.115
1000	200	Nominal	0.146	0.133	0.039	0.060
1000	300	Nominal	0.236	0.215	0.074	0.103
1000	400	Nominal	0.326	0.296	0.110	0.146
595	295	External frame	0.110	0.100	0.033	0.046
595	595	External frame	0.257	0.234	0.090	0.116
620	620	External frame	0.282	0.256	0.100	0.127
670	670	External frame	0.336	0.305	0.120	0.153
1195	595	External frame	0.552	0.501	-	-

Quick selection, Extract air, AFC-11 / AFC-12

Grille size [mm]			Air flow rate																					
			m ³ /h	600	700	900	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3500	3700	4000	4800			
A _k [m ²]			l/s	(167)	(194)	(250)	(278)	(333)	(389)	(444)	(500)	(556)	(611)	(667)	(722)	(778)	(833)	(972)	(1028)	(1111)	(1333)			
AFC-11	595x295 (0,11)	L _{WA} [dB(A)]	<20	<20	26	29	35	40	45	49														
		V _k [m/s]	1,5	1,8	2,3	2,5	3	3,6	4,1	4,6														
		Δp _t [Pa]	2	3	5	6	8	11	15	19														
		*Δp _t F [Pa]	25	34	57	70	>100	>100	>100	>100														
	595x595 (0,257)	L _{WA} [dB(A)]					<20	<20	20	24	28	31	34	37	39	41	46	48						
		V _k [m/s]					1,3	1,5	1,7	1,9	2,2	2,4	2,6	2,8	3	3,2	3,8	4						
		Δp _t [Pa]					2	2	3	3	4	5	6	7	8	9	13	14						
		*Δp _t F [Pa]					18	25	32	41	50	61	72	85	98	>100	>100	>100						
	620x620 (0,282)	L _{WA} [dB(A)]					<20	<20	22	25	28	31	34	36	39	44	46	48						
		V _k [m/s]					1,4	1,6	1,8	2	2,2	2,4	2,6	2,8	3	3,4	3,6	3,9						
Δp _t [Pa]						2	2	3	3	4	5	6	7	8	11	12	14							
*Δp _t F [Pa]						20	27	34	42	50	60	70	81	93	>100	>100	>100							
670x670 (0,336)	L _{WA} [dB(A)]					<20	<20	20	23	26	29	31	34	39	41	43	49							
	V _k [m/s]					1,3	1,5	1,7	1,8	2	2,2	2,4	2,6	2,8	3,1	3,3	3,3	3,9						
	Δp _t [Pa]					2	2	3	3	4	4	5	6	7	8	10	14							
	*Δp _t F [Pa]					19	24	29	35	42	49	57	66	76	86	100	>100	>100						
1195x595 (0,552)	L _{WA} [dB(A)]									<20	<20	20	25	26	29	35								
	V _k [m/s]									1,2	1,3	1,4	1,5	1,8	1,9	2	2,4							
	Δp _t [Pa]									1	2	2	2	3	3	4	5							
	*Δp _t F [Pa]									16	18	21	24	28	33	37	43							
AFC-12	595x295 (0,1)	L _{WA} [dB(A)]	<20	20	28	32	38	43	47															
		V _k [m/s]	1,7	1,9	2,5	2,8	3,3	3,9	4,5															
		Δp _t [Pa]	3	3	6	7	10	14	18															
		*Δp _t F [Pa]	26	35	58	71	>100	>100	>100															
	595x595 (0,234)	L _{WA} [dB(A)]					<20	<20	23	27	31	34	37	39	42	44	49							
		V _k [m/s]					1,4	1,7	1,9	2,1	2,4	2,6	2,9	3,1	3,3	3,6	4,2							
		Δp _t [Pa]					2	2	3	4	5	6	7	9	10	11	16							
		*Δp _t F [Pa]					18	25	33	41	51	62	74	86	100	>100	>100							
	620x620 (0,256)	L _{WA} [dB(A)]					<20	<20	21	24	28	31	34	37	39	41	46	48						
		V _k [m/s]					1,3	1,5	1,7	2	2,2	2,4	2,6	2,8	3	3,2	3,8	4						
Δp _t [Pa]						2	2	3	3	4	5	6	7	8	9	13	14							
*Δp _t F [Pa]						15	21	27	34	42	51	61	71	83	95	>100	>100							
670x670 (0,305)	L _{WA} [dB(A)]					<20	<20	<20	23	26	29	32	34	36	41	43	46							
	V _k [m/s]					1,3	1,5	1,6	1,8	2	2,2	2,4	2,5	2,7	3,2	3,4	3,6							
	Δp _t [Pa]					1	2	2	3	4	4	5	6	7	9	10	12							
	*Δp _t F [Pa]					15	19	24	30	36	43	50	58	67	91	>100	>100							
1195x595 (0,501)	L _{WA} [dB(A)]									<20	<20	<20	20	22	27	29	32	38						
	V _k [m/s]									1,2	1,3	1,4	1,6	1,7	1,9	2,1	2,2	2,7						
	Δp _t [Pa]									1	2	2	2	2	3	4	4	6						
	*Δp _t F [Pa]									13	16	19	22	25	34	38	44	63						

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

Data valid for:

- Extract air

NOTE!

Total pressure loss values in table for AFC's with or without filter.

Terminology:

- A_k = effective free area
- v_k = effective face velocity
- *Δp_tF = total pressure loss with filter
- Δp_t = total pressure loss without filter
- L_{WA} = sound power level

Grille

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Quick selection, Extract air, AFC-13 / AFC-14

Grille size [mm]			Air flow rate																				
			m ² /h	200	300	400	450	500	600	700	800	900	1000	1200	1400	1500	1800	2000	2250	2500	2800		
A _k [m ²]			l/s	(56)	(83)	(111)	(125)	(139)	(167)	(194)	(222)	(250)	(278)	(333)	(389)	(417)	(500)	(556)	(625)	(694)	(778)		
AFC-13	595x295 (0,033)	L _{WA} [dB(A)]	<20	25	32	35	37	41	45	48													
		V _k [m/s]	1,7	2,5	3,4	3,8	4,3	5,1	5,9	6,8													
		Δp _t [Pa]	3	7	13	17	21	30	40	53													
		*Δp _f [Pa]	6	14	25	32	39	57	77	100													
	595x595 (0,09)	L _{WA} [dB(A)]				<20	<20	<20	21	24	27	30	34	38	39	43	46	49					
		V _k [m/s]				1,4	1,5	1,9	2,2	2,5	2,8	3,1	3,7	4,3	4,6	5,6	6,2	6,9					
		Δp _t [Pa]				3	3	5	7	9	11	14	20	27	31	45	55	70					
		*Δp _f [Pa]				5	6	9	12	16	20	25	36	49	57	81	>100	>100					
	620x620 (0,1)	L _{WA} [dB(A)]					<20	<20	<20	22	25	27	32	35	37	41	44	46	49				
		V _k [m/s]					1,4	1,7	1,9	2,2	2,5	2,8	3,3	3,9	4,2	5	5,6	6,3	7				
		Δp _t [Pa]					3	4	6	7	9	12	17	23	26	37	46	58	72				
		*Δp _f [Pa]					5	8	10	13	17	21	30	41	47	67	83	>100	>100				
670x670 (0,12)	L _{WA} [dB(A)]						<20	<20	<20	21	23	27	31	33	37	39	42	44	47				
	V _k [m/s]						1,4	1,6	1,9	2,1	2,3	2,8	3,2	3,5	4,2	4,6	5,2	5,8	6,5				
	Δp _t [Pa]						3	4	5	7	8	12	16	18	27	33	42	51	64				
	*Δp _f [Pa]						5	7	9	12	15	21	29	33	48	59	74	92	>100				
AFC-14	595x295 (0,046)	L _{WA} [dB(A)]			<20	<20	<20	22	26	30	34	37	42	46	48								
		V _k [m/s]			2,4	2,7	3	3,6	4,2	4,8	5,4	6	7,2	8,4	9								
		Δp _t [Pa]			6	8	10	14	19	25	32	40	57	78	89								
		*Δp _f [Pa]			17	22	27	38	52	68	86	>100	>100	>100	>100								
	595x595 (0,116)	L _{WA} [dB(A)]										<20	<20	21	26	28	33	36	39	43	46		
		V _k [m/s]										2,2	2,4	2,9	3,4	3,6	4,3	4,8	5,4	6	6,7		
		Δp _t [Pa]										5	6	9	12	14	21	25	32	40	50		
		*Δp _f [Pa]										14	18	25	35	40	57	71	90	>100	>100		
	620x620 (0,127)	L _{WA} [dB(A)]										<20	<20	23	25	31	34	37	40	44			
		V _k [m/s]										2	2,2	2,6	3,1	3,3	3,9	4,4	4,9	5,5	6,1		
		Δp _t [Pa]										4	5	8	10	12	17	21	27	33	41		
		*Δp _f [Pa]										12	15	21	29	33	47	59	74	91	>100		
670x670 (0,153)	L _{WA} [dB(A)]										<20	<20	<20	21	27	30	33	36	40				
	V _k [m/s]										1,8	2,2	2,5	2,7	3,3	3,6	4,1	4,5	5,1				
	Δp _t [Pa]										4	5	7	8	12	15	18	23	29				
	*Δp _f [Pa]										10	15	20	23	33	41	52	64	80				

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

Data valid for:

- Extract air

NOTE!

Total pressure loss values in table for AFC's with or without filter.

Terminology:

- A_k = effective free area
- v_k = effective face velocity
- *Δp_tF = total pressure loss with filter
- Δp_t = total pressure loss without filter
- L_{WA} = sound power level

Grille

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Technical data

Capacity

Air flow rate q_v [l/s] and [m³/h], total pressure loss Δ_{pt} [Pa] and sound power level L_{WA} [dB(A)] can be seen in the dia-gram on next page for a given example.

Frequency-related sound power level

The sound power level in the frequency band is defined as

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

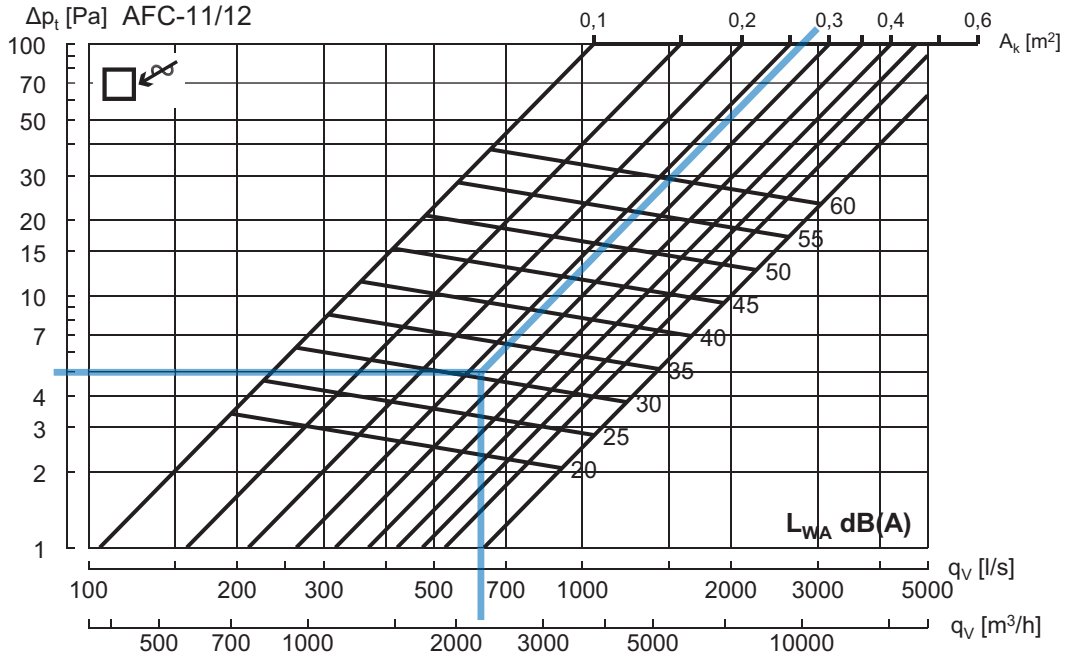
K_{ok} values are given in the table below.

	Centre frequency Hz							
	63	125	250	500	1K	2K	4K	8K
Extract air	2	9	3	-4	7	-12	-20	-22

Grille

AFC

Technical data



Example: AFC-11 (Full blue line in diagram)

Grille size (LxH): 595x595 mm
 Free area A_k : 0.257 [m²]
 Air flow rate q_v : 2200 m³/h (611 l/s)

Data valid for:

- Extract air, (Filter not included).

Grilles available also in Lindabs online calculation tool on www.lindQST.com.

Result:

Sound power level L_{WA} : ~ 31 dB(A)
 Total pressure loss Δp_i : ~ 5 [pa] (Without filter)

Go to the Quick selection tables to find Δp_i (total pressure loss values with filter).



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](#)