

AEC

Grille



Grille

AEC



Description

AEC is an eggcrate grille for extract air with eggcrate grid 0° or 45° inclination, made of aluminum and specifically designed for installation in modular ceilings, with particular thin frame that becomes invisible, once installed.

AEC grille is available with G3 filter as accessory.

Available in various standard dimensions.

Order code

Product	AEC	1	a	-	b	ccc x ddd	eeee
Type							
AEC							
Frame							
1 - Frame with no flange							
Grid							
1 - Eggcrate 0°							
2 - Eggcrate 45°							
Installation							
- Not prepared							
Accessories							
- No accessories							
F Rigid G3 filter							
Size							
L x H: 595x295 , 595x595 , 670x670							
Grilles standard finish:							
- Anodized aluminium							
9010 RAL 9010, gloss 30							
9003 RAL 9003, gloss 30							
xxxx On request, other RAL colour							

Example 1: AEC-11-F-595-595-9010

Example 2: AEC-12-670-670

Min. - max. dimensions

AEC is available in 3 different standard sizes.

L x H in mm :

595 x 295

595 x 595

670 x 670

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

Filter: Rigid filter G3

Materials and finish

Grilles frame and eggcrate: Aluminium

Grilles standard finish:

- RAL 9010 gloss 30
- RAL 9003 gloss 30

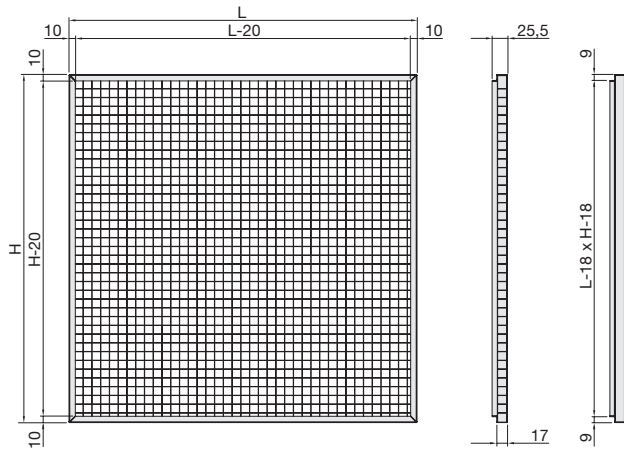
The grille is available in other colours. Please contact Lindab's sales department for further information.

Grille

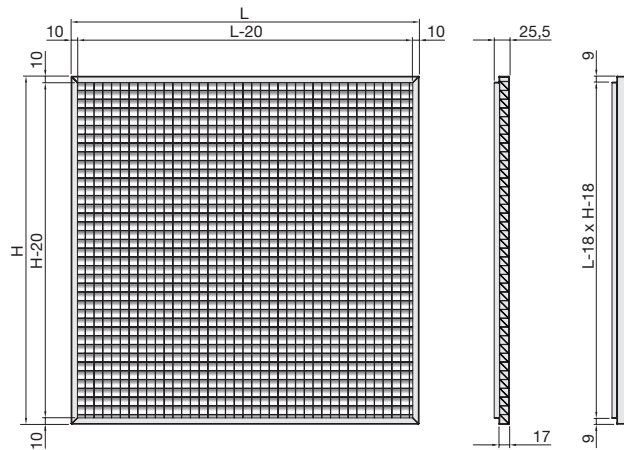
AEC

Frame and grid

AEC-11 - Frame without flange and 0° eggcrate grid.

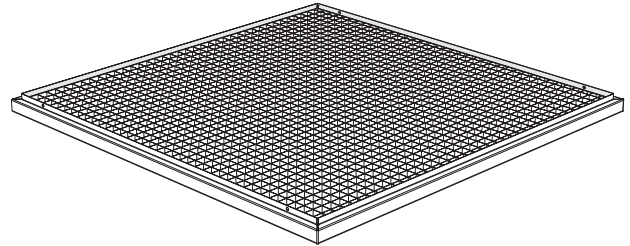


AEC-12 - Frame without flange and 45° eggcrate grid.



Installation

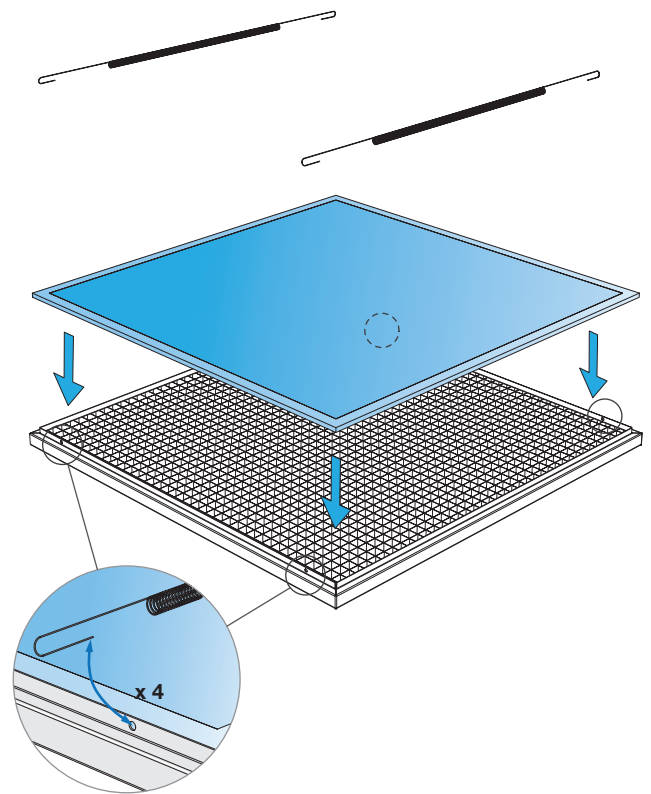
- Not prepared



Accessories

- No accessories
F 6 mm Rigid G3 filter

When ordering the grille with filter you can order the Rigid G3 filter kit too.



Rigid G3 filter dimensions

Grille size [mm] L x H [mm]	Rigid G3 filter dimensions [mm]
595 x 295	572 x 272 x 6
595 x 595	572 x 572 x 6
670 x 670	647 x 647 x 6

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Free area

AEC Grille size [mm]		Free area A_k [m ²]	
L	H	0°	45°
595	295	0,151	0,137
595	595	0,319	0,290
670	670	0,406	0,369

Quick selection, Extract air, AEC-11 and AEC-12

Grille size [mm]		Air flow rate																		
A_k [m ²]	m ³ /h l/s	800	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	3800	4000	4200	
		(222)	(278)	(333)	(389)	(444)	(500)	(556)	(611)	(667)	(722)	(778)	(833)	(889)	(944)	(1000)	(1056)	(1111)	(1167)	
0°	595x295 (0,151)	L _{WA} [dB(A)]	<20	20	26	31	36	40	43	46	49									
		V _k [m/s]	1,5	1,8	2,2	2,6	2,9	3,3	3,7	4,1	4,4									
		Δp _t [Pa]	2	3	4	6	8	10	12	15	18									
	595x595 (0,319)	L _{WA} [dB(A)]				<20	<20	<20	22	25	28	30	33	35	37	39	41	43	45	46
		V _k [m/s]				1,2	1,4	1,6	1,7	1,9	2,1	2,3	2,4	2,6	2,8	3	3,1	3,3	3,5	3,7
		Δp _t [Pa]				1	2	2	3	3	4	5	5	6	7	8	9	10	11	12
	670x670 (0,406)	L _{WA} [dB(A)]						<20	<20	<20	21	24	26	28	30	32	34	36	38	39
		V _k [m/s]						1,2	1,4	1,5	1,6	1,8	1,9	2,1	2,2	2,3	2,5	2,6	2,7	2,9
		Δp _t [Pa]						1	2	2	2	3	3	4	4	5	5	6	7	7
45°	595x295 (0,137)	L _{WA} [dB(A)]	<20	23	29	34	38	42	46	49										
		V _k [m/s]	1,6	2	2,4	2,8	3,2	3,6	4,1	4,5										
		Δp _t [Pa]	2	4	5	7	9	12	15	18										
	595x595 (0,29)	L _{WA} [dB(A)]				<20	<20	21	24	28	30	33	36	38	40	42	44	46	47	49
		V _k [m/s]				1,3	1,5	1,7	1,9	2,1	2,3	2,5	2,7	2,9	3,1	3,3	3,5	3,6	3,8	4
		Δp _t [Pa]				2	2	3	3	4	5	6	6	7	8	10	11	12	13	15
	670x670 (0,369)	L _{WA} [dB(A)]				<20	<20	<20	21	24	26	29	31	33	35	37	39	41	42	
		V _k [m/s]				1,2	1,4	1,5	1,7	1,8	2	2,1	2,3	2,4	2,6	2,7	2,9	3	3,2	
		Δp _t [Pa]				1	2	2	2	2	3	3	4	5	5	6	7	7	8	9

10 ≤ LWA < 30 30 ≤ LWA < 40 40 ≤ LWA < 50

Data valid for:

- Extract air (no filter)

Terminology:

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

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Technical data

Capacity

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

Sound power level L_{WA}

Sound power level L_{WA} [dB(A)] with eggcrate 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 level on blade settings [dB].

Frequency-related sound power level

The sound power level in the frequency band is defined as

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

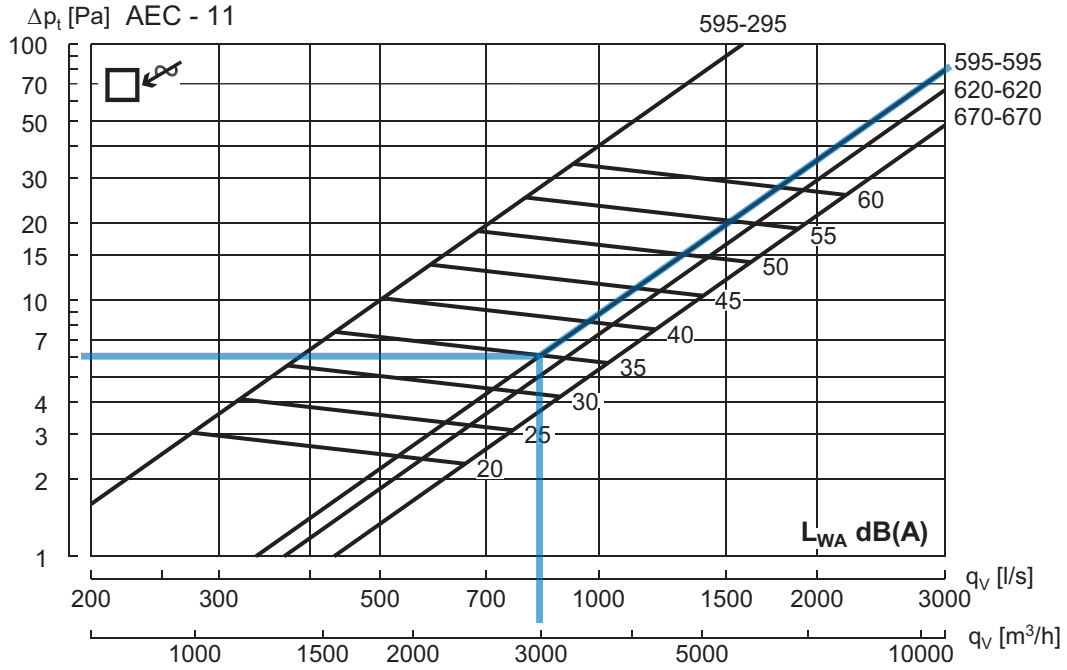
K_{ok} values are given in the table below.

	Centre frequency Hz							
	63	125	250	500	1K	2K	4K	8K
Extract	2	11	1	-2	-7	-12	-21	-27

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Technical data



Example:

Grille size: 595x595 mm
 Free area A_k : 0,319 [m²]
 Air flow rate q_v : 3000 m³/h (833 l/s)

Result:

Sound power level L_{WA} : ~35 dB(A)
 Total pressure loss Δp_t : ~ 6 pa

Data valid for:

- Extract air

Grilles available also on the Lindabs online calculation too on www.lindQST.com



Good Thinking

At Lindab, good thinking is a philosophy that guides us in everything we do. We have made it our mission to create a healthy indoor climate – and to simplify the construction of sustainable buildings. We do that by designing innovative products and solutions that are easy to use, as well as offering efficient availability and logistics. We are also working on ways to reduce our impact on our environment and climate. We do that by developing methods to produce our solutions using a minimum of energy and natural resources, and by reducing negative effects on the environment. We use steel in our products. It's one of few materials that can be recycled an infinite number of times without losing any of its properties. That means less carbon emissions in nature and less energy wasted.

We simplify construction