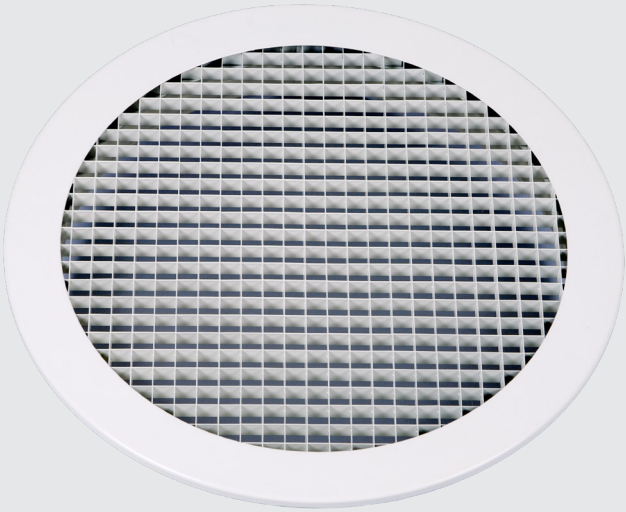
E50 – Transfer Air

Circular egg crate grille for transfer or extract air

E50



Description

- Circular egg crate grille for transfer or extract air, suitable for most types of premises.
- For sizing and sound data on extract air installation, please see separate product sheet, **E5O-EA**.
- Grille from thin aluminum vanes offers low pressure drops and low sound generation.
- The product is supplied without screw holes in the frame.
- The product is equipped with a connecting spigot, holding a rubber sealing.

Material and finish

- Grille vanes in aluminum with a sheet steel frame, both powder coated in white RAL standard colour. The product can be supplied in alternative colours, please contact our sales for further inquiries.
- For general product specifications, see page **0:2** in our product catalog or the separate document **Product specification**, available for download from our website.

Mounting

- The product is mounted into a circular duct.
- If required, secure the product with screws through the frame.
- For transfer air applications, the product is mounted in pairs on each side of a wall over a hole cutting in custom-purposed dimension. The grille parts are then pressed onto the hole and if required, secured with screws through the frame.

Delivery form

- The product is supplied in single units. Transfer air applications require installation in pairs, please take this into account when ordering.

Key features

- Circular egg crate grille for transfer or extract air
- Large proportion of free area
- Low pressure drop
- Easy mounting

Other documentation

- Swedish operation/maintenance instruction, building product declaration (BVD) and k-factor booklet are available for download from our website, **www.klimatbyran.se**.

T1: Quick selection

Size, nom (Ø, mm)	Air flow (l/s) [m³/h] at 7 Pa	
100	13	[47]
125	23	[83]
160	41	[148]
200	65	[234]
250	110	[396]
315	195	[702]
400	300	[1080]
500	480	[1728]
630	740	[2664]

Sizing

Sound data

The following applies for the presented sound data:

- Sound pressure level, L_{PA} dB(A) is read from **Sizing diagram**, where P_t (Pa) is total pressure, P_s (Pa) is static pressure and q (l/s alt. m³/h) is air flow.
- Correction factor, K_{OK} dB for mid-frequency in each octave band is obtained from table **T2**.
- Sound pressure level, L_P dB is calculated according to formula $L_P = L_{PA} + K_{OK}$.
- Free area of the grille, $\mathbf{A_F}$ (%) is estimated by diagram **D2,** based on the nominal size of the grille, $Ø_{nom}$ (mm).

T2: Correction K_{OK} dB

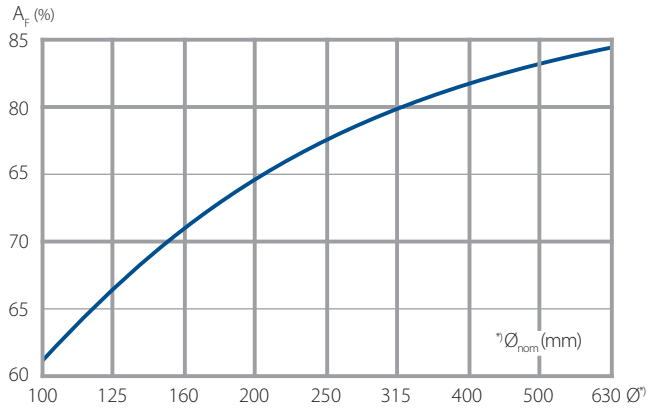
Size, nom. (Ø, mm)	Octave band, Hz (dB)							
	63	125	250	500	1000	2000	4000	8000
100	+ 3	- 7	- 9	- 12	- 9	- 3	+ 1	- 12
125	+ 8	- 2	- 5	+ 1	- 1	- 2	- 10	- 29
160	+ 4	- 3	- 4	0	- 1	- 2	- 10	- 29
200	+ 2	- 3	- 2	0	0	- 2	- 13	- 26
250	+ 8	- 4	- 2	- 2	0	- 1	- 14	- 28
315	- 1	- 3	0	- 1	0	- 3	- 12	- 30
400	- 1	0	+ 3	0	0	- 4	- 16	- 33
500	+ 3	0	+ 3	+ 2	0	- 6	- 24	- 33
630	+ 16	+ 7	+ 5	+ 3	- 2	- 8	- 18	- 31

Tolerance ±3 dB

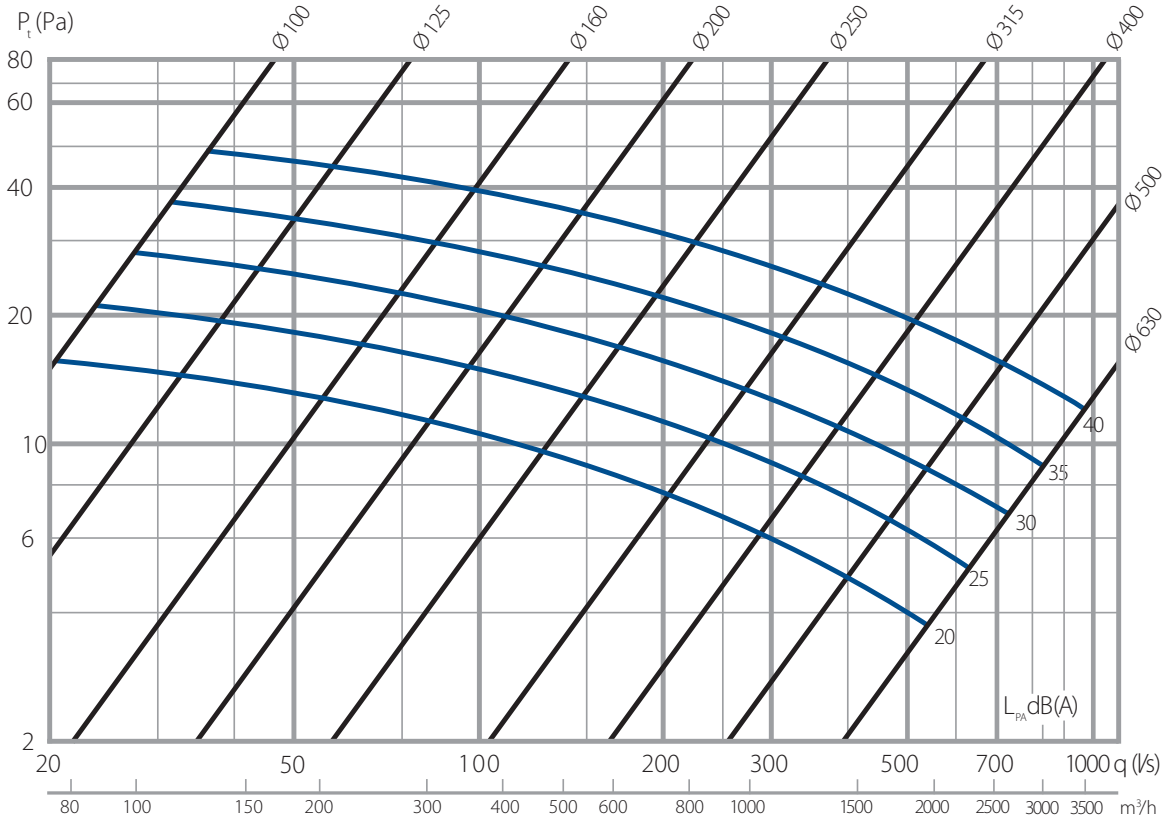
Sizing diagram

- Sound pressure level, L_{PA} dB(A) in diagram **D1** applies to an equivalent absorption area of 10 m².

D2: Free area



D1: E50 – all sizes



Dimensions and weight

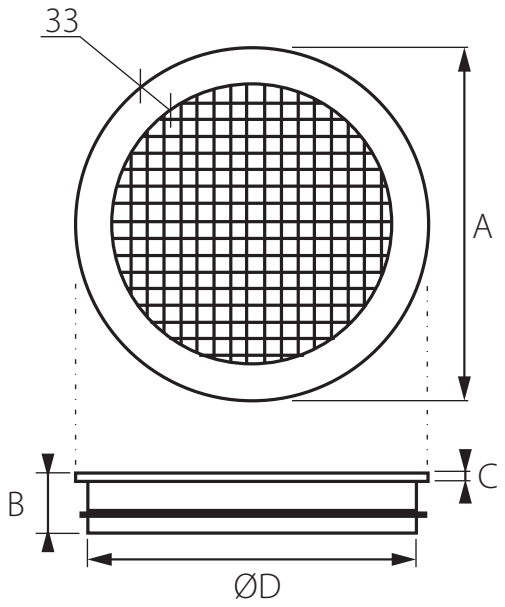


Image 1. Dimension E5O (mm).

T5: Dimensions and weight

Size, nom. (Ø, mm)	Dimensions (mm)				Weight (kg)
	ØD	A	B	C	
100	98	150	53	7	0,2
125	123	175	53	7	0,3
160	158	210	53	7	0,4
200	198	250	52	7	0,5
250	248	300	51	7	0,6
315	313	365	54	7	0,8
400	398	450	62	7	1,2
500	498	550	62	7	1,7
630	628	680	68	2	2,8

Hole cutting dimension = Nominal dimension + 5 mm.

Order specification

Ordering code*)	E5O	a	-XXX
Product designation	E5O		
Product version		a	
Size, Ø (mm)	100		
	125		
	160		
	200		
	250		
	315		
	400		
	500		
	630		XXX

**) The product is supplied in single units, order in pairs for transfer air installation.

Ordering code example: E5Oa-315