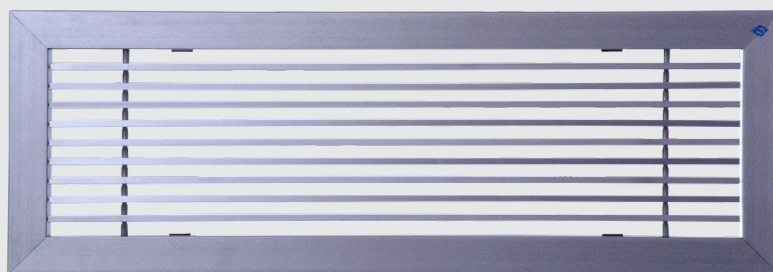


Louvered grille with
fixed straight slats

AC



Description

- Rectangular louvered grille with fixed slats for straight dispersion of supply air, suitable for most types of premises with high requirements on appearance.
- The grille is normally installed directly to a rectangular duct with a mounting frame (accessory) but can also be installed with a cleanable commissioning box of type DLKR.
- Max. recommended sub-temperature, 6 °C.

Versions

AC is supplied in three alternative versions (see image 1):

- **AC-420:** Reinforced version for floor mounting, alternatively wall or ceiling mounting med reinforcement requirements, e.g. sports halls.
- **AC-440:** Standard version for wall or ceiling mounting.
- **AC-450:** Reinforced version for recessed or molded mounting in floors alternatively walls.

Materials

- **AC:** Anodized aluminum, in either natural aluminum finish or powder coated standard white RAL 9003 color. The product can be supplied in alternative colours, please contact our sales for further inquiries.
- **DLKR:** Galvanized sheet steel, internally insulated with washable, surface-lined sound absorber.
- **RAM:** Galvanized sheet steel.

Key features

- Rectangular louvered grille for straight dispersion
- Suitable for wall, ceiling or bench top mounting
- Available in reinforced design for floor mounting
- Cleanable commissioning box DLKR, available as an option

T1: Quick selection – grille only

Size (mm) W x H	Air flow (l/s) [m³/h]			
	at 25 dB (A)		at 30 dB (A)	
200 x 100	37	[133]	44	[158]
300 x 100	52	[187]	60	[216]
400 x 100	74	[266]	85	[306]
600 x 100	125	[450]	150	[540]
500 x 200	185	[666]	222	[799]
600 x 200	220	[792]	250	[900]
800 x 200	290	[1044]	330	[1188]
1000 x 200	350	[1260]	400	[1440]

Accessories

- Mounting frame, **RAM**: Standard mounting frame for grilles from Klimatbyrån. Intended for installation of AC-420/440 without a commissioning box.
- Molding frame for floor mounted grille, version AC-450.
- Cleanable commissioning box **DLKR**, with built in measuring hose and commissioning damper, that comes in two duct connectivity options:
 - Rear duct connection, **DLKRB**.
 - Side duct connection, **DLKRS**.
- Damper, **S**: Commissioning damper for rectangular grilles from Klimatbyrån.
- Damper **LS**: Throttle damper for grilles from Klimatbyrån.

Mounting

- AC has a rectangular connecting spigot and is primarily intended for wall or floor mounting in rectangular ducts, but can also be mounted in ceilings.
- The product is normally installed with a mounting frame (accessory RAM), alternatively into a commissioning box.
- When installed with a commissioning box, the grille is connected directly into the box's telescopic frame.
- The commissioning box spigot is connected to a circular duct. Connection to a flexible duct is possible, but not recommended.
- When the grille is installed without a commissioning box, it should be secured with either a mounting frame (wall mounting) or a molding frame (floor mounting), see headers **Versions** respective **Accessories**.
- The mounting frame has predrilled holes (Ø6 mm) and is secured with screws or pop rivets. The product is then attached into the frame with a clip function.

Delivery form

- The product is supplied in single units. Transfer air applications require installation in pairs, please take this into account when ordering. (this also applies for the mounting frame, RAM).

Other documentation

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

Sizing Sound data

The following applies for the presented sound data:

- Sound pressure level, L_{PA} dB(A) is read from **Sizing charts**, where P_t (Pa) is total pressure, P_s (Pa) is static pressure and q (l/s alt. m³/h) is air flow.
- Data in table **T2: Sound attenuation – grille only** applies for grille without commissioning box including attenuation orifice.
- Correction factor, K_{OK} dB for mid-frequency in each octave band is obtained from table **T3**.
- Sound efficiency level, L_p dB is calculated according to formula $L_W = L_{PA} + K_{OK}$.
- The measurements have been made according to ISO 9614-2 and ISO 11691: 1995.

T2: Sound attenuation – grille only

Size ^{a)} (H _{nom})	Octave band, Hz (dB)							
	63	125	250	500	1000	2000	4000	8000
100	10	8	4	2	0	0	0	0
150	8	7	3	1	0	0	0	0
200	6	5	2	0	0	0	0	0

Tolerance ±3 dB

^{a)} Size listing in the table is based on nominal product height (H_{nom}) in millimeters.

T3: Correction factor, K_{OK} dB – grille only

Size	Octave band, Hz (dB)							
	63	125	250	500	1000	2000	4000	8000
All sizes	+ 6	+ 5	- 3	- 2	0	- 3	- 10	- 12

Tolerance ±3 dB

Sizing diagrams

- Sound pressure level, L_{PA} dB(A) in diagram **D1** corresponds to A-weighted sound level in the reverberant field at an equivalent absorption area of 10 m². This corresponds to 4 dB of attenuation in a room with a volume of 25 m³ with normal acoustic absorption.
- Diagram **D1** applies to grille without a commissioning box.
- Dimensions in diagram **D1** refer to product size (WxH in mm).
- For room types with other absorption than normal, see table **T4: Acoustic absorption for other room types**.

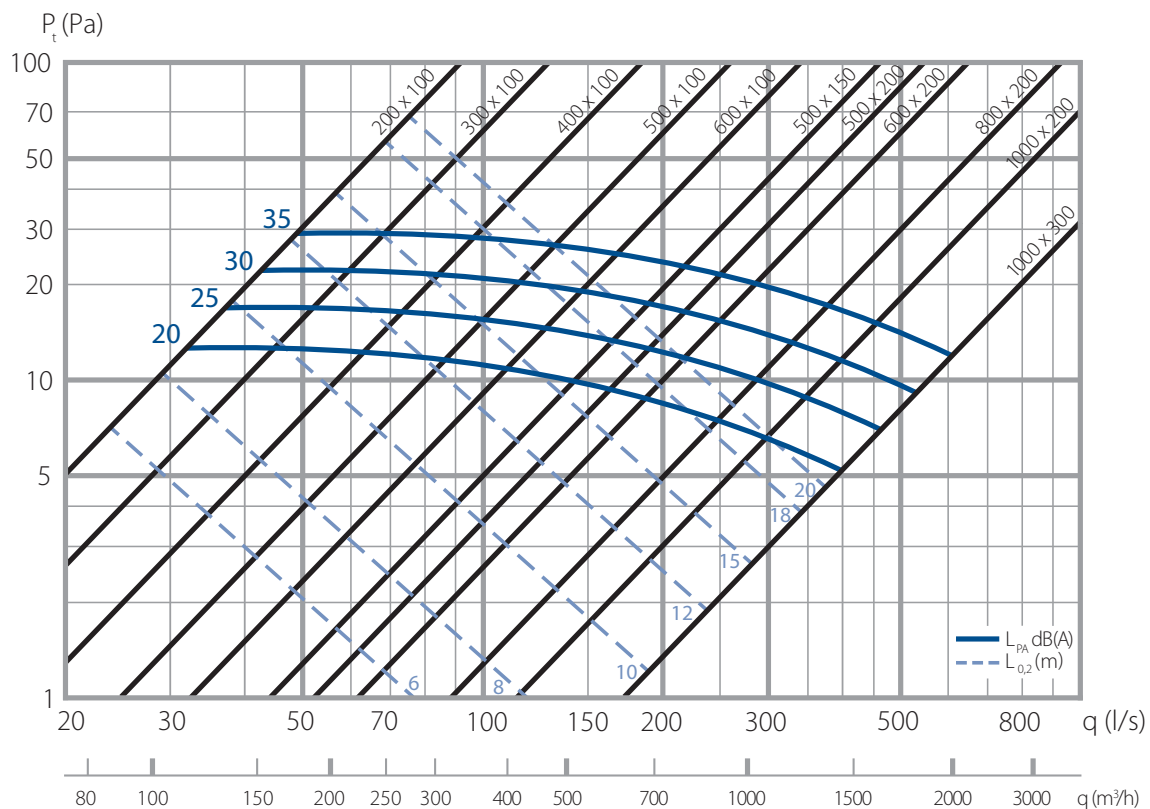
T4: Acoustic absorption for other room types

Room volume (m ³)	Room type	Correction (dB)
25	Hard room / low absorption	+ 2
	Absorbing room	- 2
150	Hard room / low absorption	- 3
	Normal absorption	- 5
	Absorbing room	- 7

Abbreviations and formulas

Designation	Unit	Formula
q = Airflow	l/s alt. m ³ /h	
P_t = Total pressure	Pa	
L_{PA} = Sound pressure level	dB (A)	
$L_{0,2}$ = Throw length	m	
K_{OK} = Correction factor	–	
L_p = Sound pressure	dB	$L_p = L_{PA} + K_{OK}$
L_W = Sound power level	dB	$L_W = L_{PA} + K_{OK}$
A_F = Free Area	m ²	$A_F = W_{nom} \times H_{nom} \times k$
k = Correction factor, free area	–	
W_{nom} / W_{real} = Width _{nominal/real}	mm	
H_{nom} / H_{real} = Height _{nominal/real}	mm	
B_C = Rear connection	mm (Ø)	
S_C = Side connection	mm (Ø)	
U_C = Top connection	mm (Ø)	

D1: AC – grille only, standard sizes



Dimensions and weight

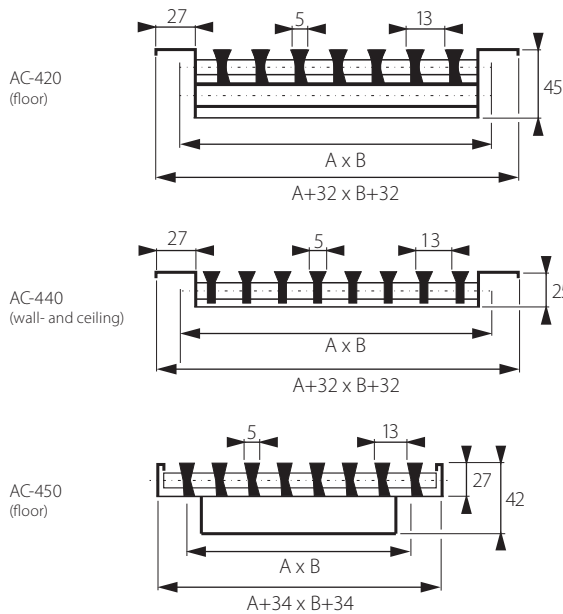


Image 1. Dimensions, grille AC (mm).

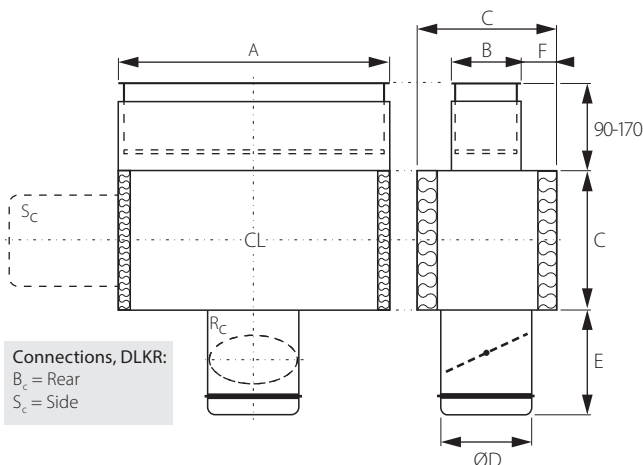


Image 2. Dimensions, commissioning box DLKR (mm).

T5: Dimensions and weight

Size, nom. DLKR Ø (nom)	AC/DLKR (WxH)		Dimensions (mm)				Weight (kg) DLKR ^{*)}
	A	B	C	ØD	E	F	
125	200 x 100		190	123	170	45	2,7
160	300 x 100		230	158	210	65	4,2
	400 x 100					65	4,9
200	500 x 100		270	198	220	85	6,6
	600 x 100					85	7,6
	300 x 150					60	5,0
250	400 x 150		320	248	300	85	7,3
	500 x 150					85	8,3
	600 x 150					85	9,5
	400 x 200					60	7,4
315	500 x 200		360	313	350	80	10,7
	600 x 200					80	11,8

CL = Center line

Hole cutting dimension = Nominal dimension + 5 mm.

^{*)} Presented weight corresponds to the heaviest variant of supplied connection types.

Order specification

Ordering code	AC	XXX	-XXX-XXX	-X	-X	-XXX	-X	-X
Grille								
Straight dispersion	AC	XX						
Version								
Floor mount/reinforced	420							
Wall/Ceiling mount	440							
Floor mount, molding	450	XXX						
Size ^{*)} , WxH (mm)	200-100							
	300-100							
	400-100							
	500-100							
	600-100							
	300-150							
	400-150							
	500-150							
	600-150							
	400-200							
	500-200							
	600-200	XXXXXX						
Frame Accessories ^{***)}								
Mounting frame (AC-420/440)	Exclude	Z						
	Include	R						
Molding frame (only AC-450)	Include	5	X					
Damper Accessories ^{***)}	Exclude							
Commissioning damper, S	Include	S						
Throttling damper, LS	Include	LS	XX					
Commissioning box, DLKR ^{****)}	Exclude							
	Include	DLKR	XXXX					
Product version, DLKR:						b	b	
Connection side, DLKR						Rear	B	
						Side	S	X

Ordering example: AC440-R-S-300x100

^{*)} The listing displays combinable sizes of AC with DLKR. The product can also be supplied in additional non-stocked sizes, please contact our sales for further information.

^{***)} Accessory! Only applicable when ordering grille without commissioning box.

Mounting frame RAM will be included for orders without commissioning box, unless specifically excluded.

^{****)} The duct connection of the commissioning box is dependent of the WxH dimension of the selected grille, see the dimensions table **T5** for applicable dimensions (Ø, mm) when ordering a combination of grille with commissioning box.

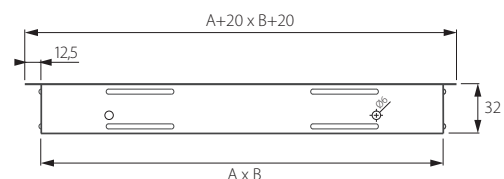


Image 3. Dimensions, mounting frame RAM (mm).