

Air grille with adjustable horizontal fins

DR



Description

The DR grille is a supply and exhaust diffuser with individually adjustable horizontal aluminum fins. The DR grille is suitable for most premises.

Mounting can be done with clip-ons or hidden screws. Standard grilles kept on stock, up to sizes with area of 0,12 m² will be delivered with clip-ons. For custom-orders, up to 0,2 m² the grilles can be delivered with either clip ons or hidden screws. For ceiling installation, or together with control damper the use of hidden screws is recommended. Mounting the grille together with a plenum box is only possible with clips and without mounting frame.

Standard sizes

See table 4.

Airflow range

40 - 1430 m³/h (10-400 l/s) for further details please see the diagrams.

Material & finish

Aluminum frame and aluminum fins electrostatically powder coated with white RAL 9003.

Main features

- individually adjustable horizontal aluminum air deflectors
- suitable for both ceiling and wall installations
- mounting can be done with clip-ons or hidden screws

Optional accessories

RAM mounting frame

S control damper

DLK commissioning box (for supply air),

FLK commissioning box (for exhaust air):

The DR air grille's standard optional accessory is the DLK or FLK plenum box which is equipped with insulation, commissioning damper with measuring tubes. The DLK plenum box is made of galvanized stainless steel, with glass wool insulation, and air-tight rubber sealing on the connection. As standard versions the boxes are available either with side (S), back (B) or top (O) connection.

Technical data

The throw lengths are measured at 8°C Δt (temperature difference between the supplied and the room air) and 2,7 m room height. The throw length values can be read off of diagrams 1. and 2.

The sound level is applicable at an equivalent sound absorption area of 10 m².

Sound power level: L_W [dB]

Sound level: L_{PA} [dB(A)] (see diagram 1. and 2.)

Correction factor: K_O [dB] from table 1.

$$L_W = L_{PA} + K_O$$

Free area A_f

Calculated with the help of the following equation:

A_f = B x H x k where

A_f = free area [m²]

B = nominal width [mm]

H = nominal height [mm]

k = Correction factor according to table 3.

Example: DR 600 x 150 A_f = 0,6 x 0,15 x 0,60 = 0,054 m²

T.1. Correction K_O [dB]

Medium frequency [Hz]							
63	125	250	500	1000	2000	4000	8000
+11	+6	+5	+2	-2	-10	-18	-20

Tolerance ±2 dB

T.2. Sound attenuation ΔL_p [dB]

Nominal height	Medium frequency [Hz]				
	63	125	250	500	1000
100	10	8	4	2	1
150	9	7	3	1	0
200	8	6	2	0	0

Tolerance ±3 dB

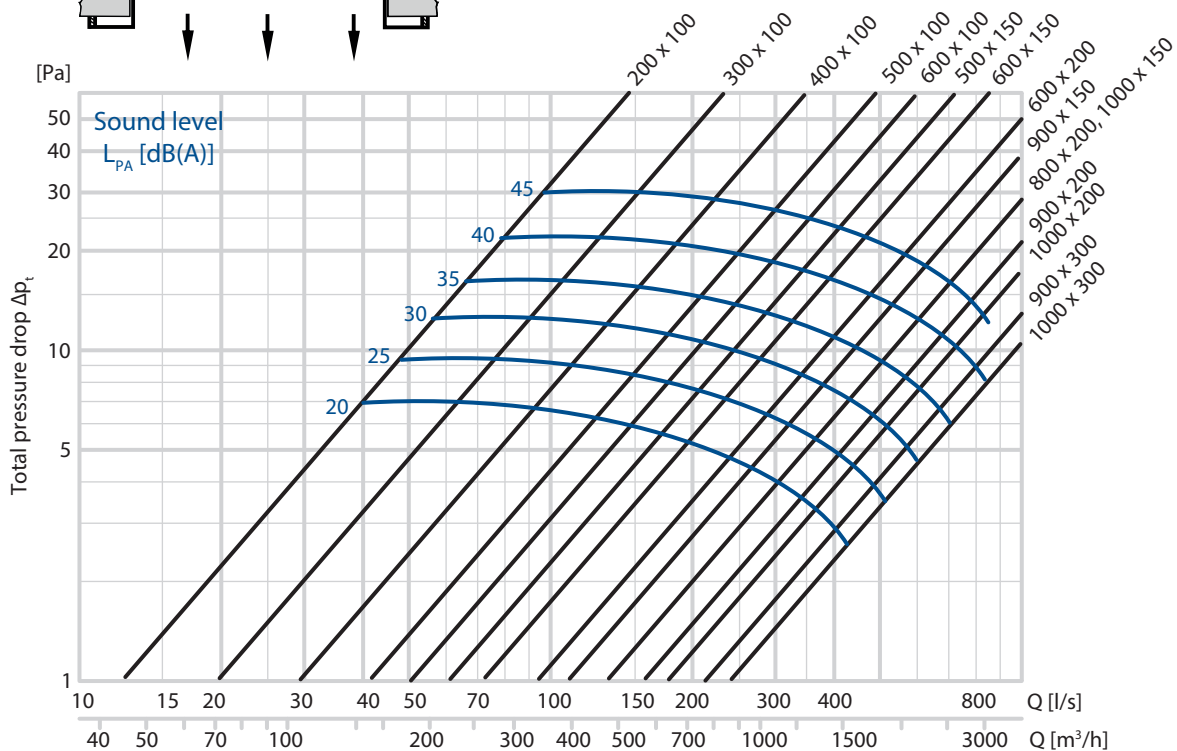
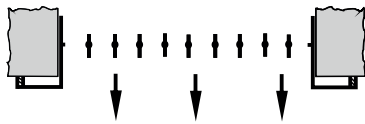
T.3. Correction factor

Nominal height H	Correction factor k
100	0,50
150	0,60
200	0,65
300	0,70

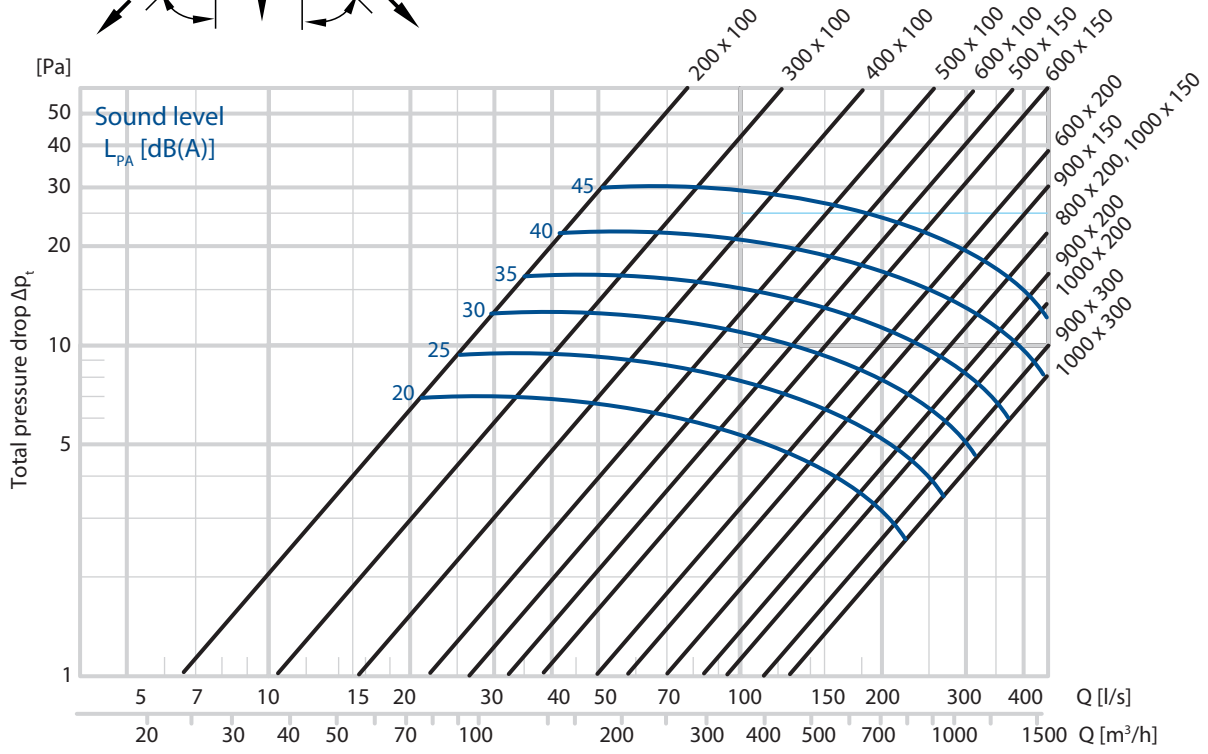
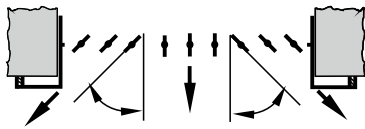
Diagrams

D.1.

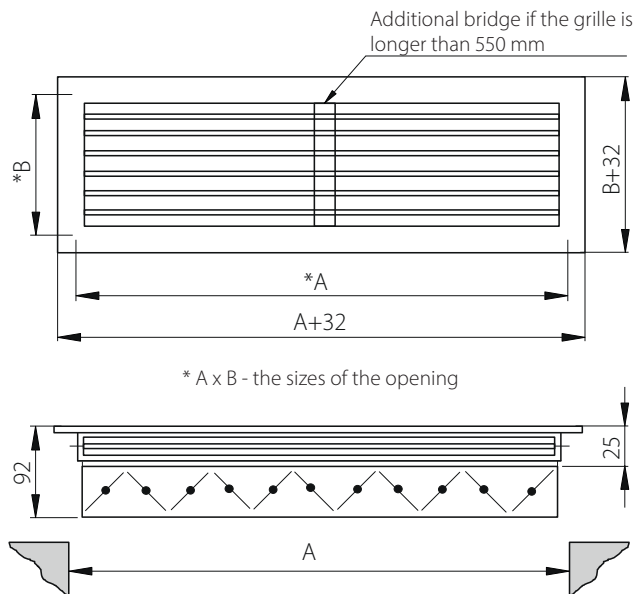
Straight air flow 0°



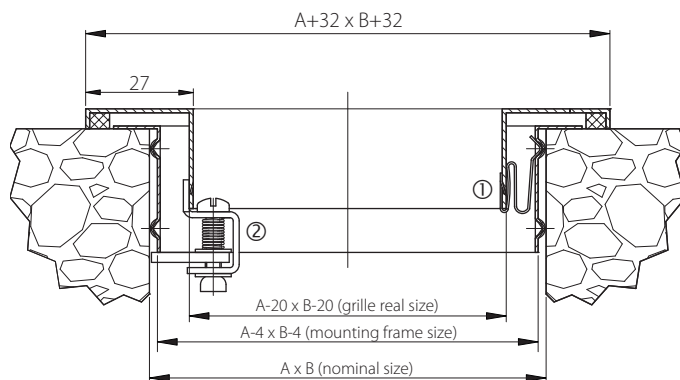
D.2.
45° air flow



Sizes



Installation of the grille



- 1. with spring clips
- 2. with hidden screw

T.4.

		Standard sizes [mm]											
B \ A	A	200	300	400	500	600	700	800	900	1000	1100	1200	↔ 2000
100		●	●	●	●	●	●	●	●	●	●	●	
150		●	●	●	●	●	●	●	●	●	●	●	
200		●	●	●	●	●	●	●	●	●	●	●	
300		●	●	●	●	●	●	●	●	●	●	●	
400		●	●	●	●	●	●	●	●	●	●	●	
500		●	●	●	●	●	●	●	●	●	●	●	
600		●	●	●	●	●	●	●	●	●	●	●	
700		●	●	●	●	●	●	●	●	●	●	●	
800		●	●	●	●	●	●	●	●	●	●	●	
900		●	●	●	●	●	●	●	●	●	●	●	
1000		●	●	●	●	●	●	●	●	●	●	●	
1100		●	●	●	●	●	●	●	●	●	●	●	
1200		●	●	●	●	●	●	●	●	●	●	●	
↕ 2000													

- standard sizes
- standard sizes kept on stock
- In case of custom-orders sizes A and B are available up to 2000 mm, but has to be divisible by 5.

Specification

DR air grille

Ordering code:	DR	-XXXX	-XXX	X	+X
Product acronym:	DR				
Nominal size A:		200			
		300			
		400			
		500			
		600			
		700			
		800			
		900			
		1000			
		1100			
		1200			
Nominal size B:		100			
		150			
		200			
		300			
		400			
		500			
		600			
		700			
		800			
		900			
		1000			
		1100			
		1200			
Fixing options:					
- with spring clips					M
- with screw					Y
Optional accessories:					
- control damper					S
- mounting frame					RAM
- plenum box				for supply air	DLK
				for extract air	FLK
Example: DR-1000-300 M+S					

When ordering the plenum box, information on the required size is needed.

Specification

Plenum box

Ordering code:	DLK/FLK	X	-XXX-XXX
Product acronym:	DLK/FLK		
Side of connection:			
- back			B
- side			S
- top			O
Size of the plenum box:			
			200-100
			300-100
			400-100
			500-100
			600-100
			300-150
			400-150
			500-150
			600-150
			400-200
			500-200
			600-200
Example: DLKB-200-100			