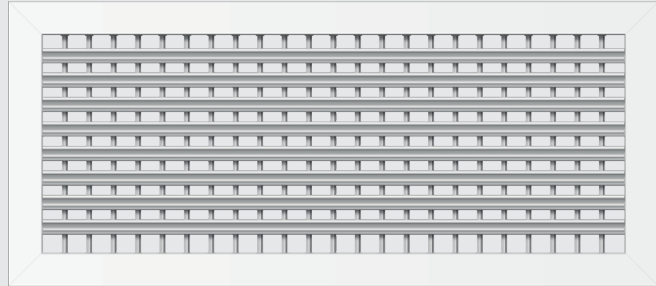


Air grille with adjustable horizontal and vertical fins

DH



Description

The DH grille is a supply and exhaust diffuser with individually adjustable horizontal and vertical aluminum fins. The DH 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

80 - 2850 m³/h (20-800 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 and vertical 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 DH 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. Throw length calculations can be done in accordance with what is shown on figures 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

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

T.1. Correction K_o [dB]

Medium frequency [Hz]						
63	125	250	500	1000	2000	4000
+4	+6	+5	+1	-2	-6	-15

Tol. ±2 dB

T.2. Sound attenuation ΔL_d [dB]

Type	Medium frequency [Hz]			
	125	250	500	1000
100	8	4	2	1
150	7	3	1	0
200	6	2	0	0

Tol. ±3 dB

Free area A_f

Calculated with the help of the following equation:

$$A_f = B \times H \times k \text{ where}$$

A_f = free area [m²]

B = nominal width [mm]

H = nominal height [mm]

k = Correction factor according to Table 3.

Example: DH 600 x 150 $A_f = 0,6 \times 0,15 \times 0,60 = 0,054 \text{ m}^2$

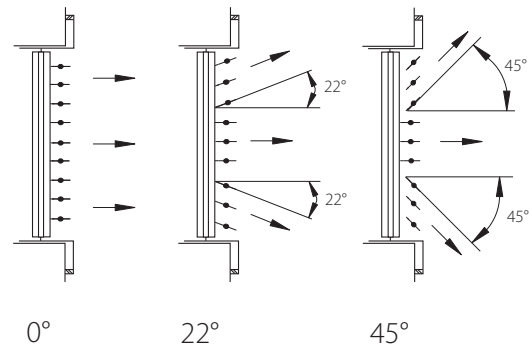


Figure 1.

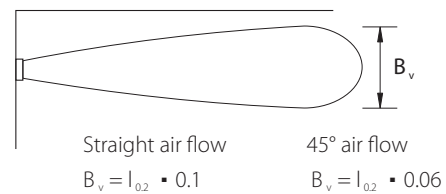
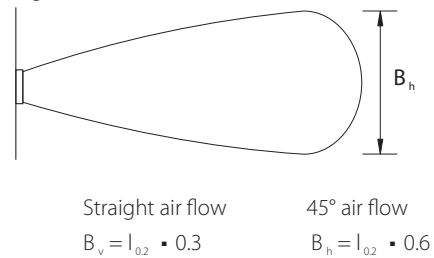


Figure 2.



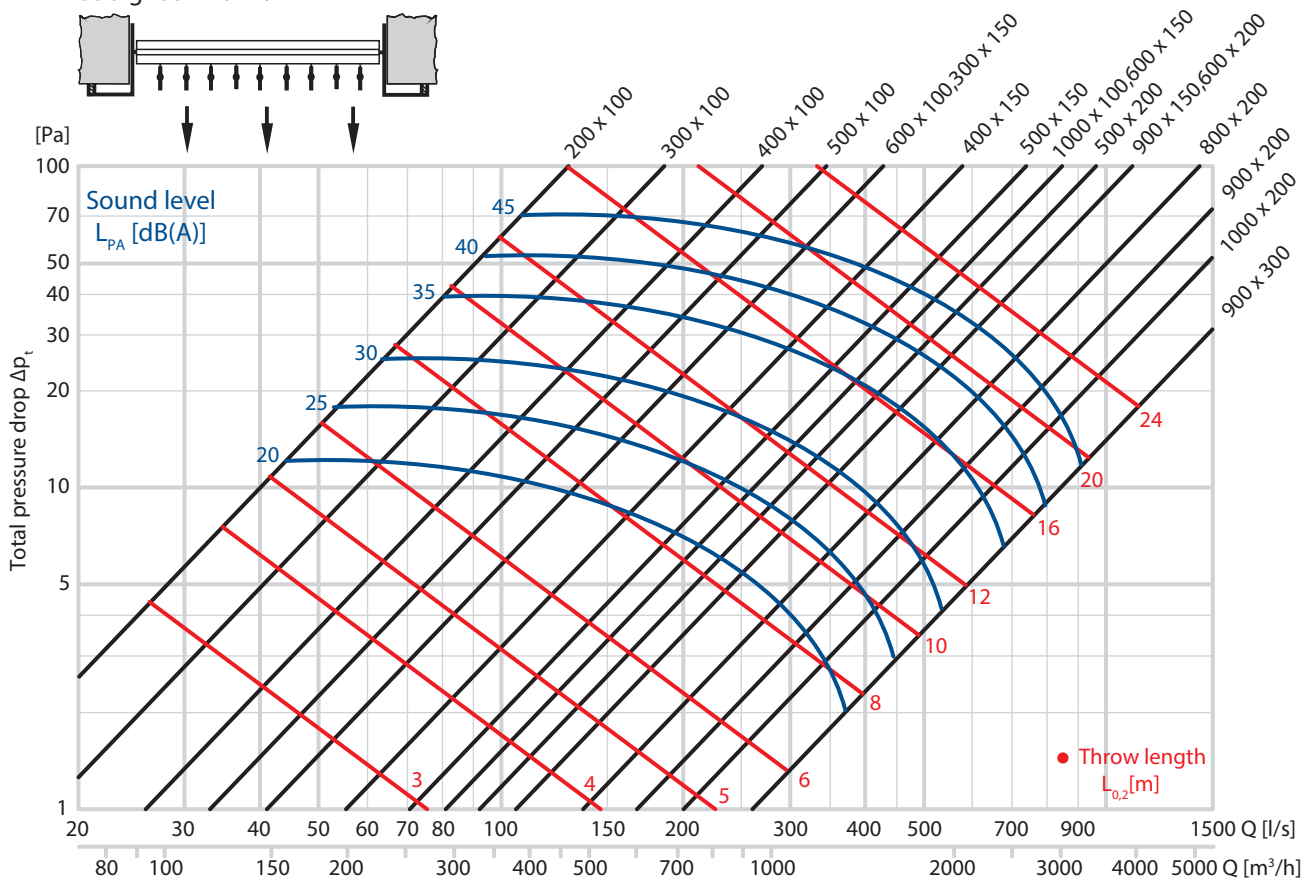
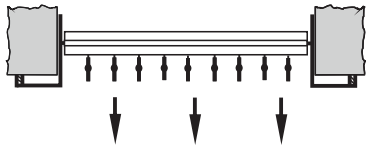
T.3. Correction factor

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

Diagrams

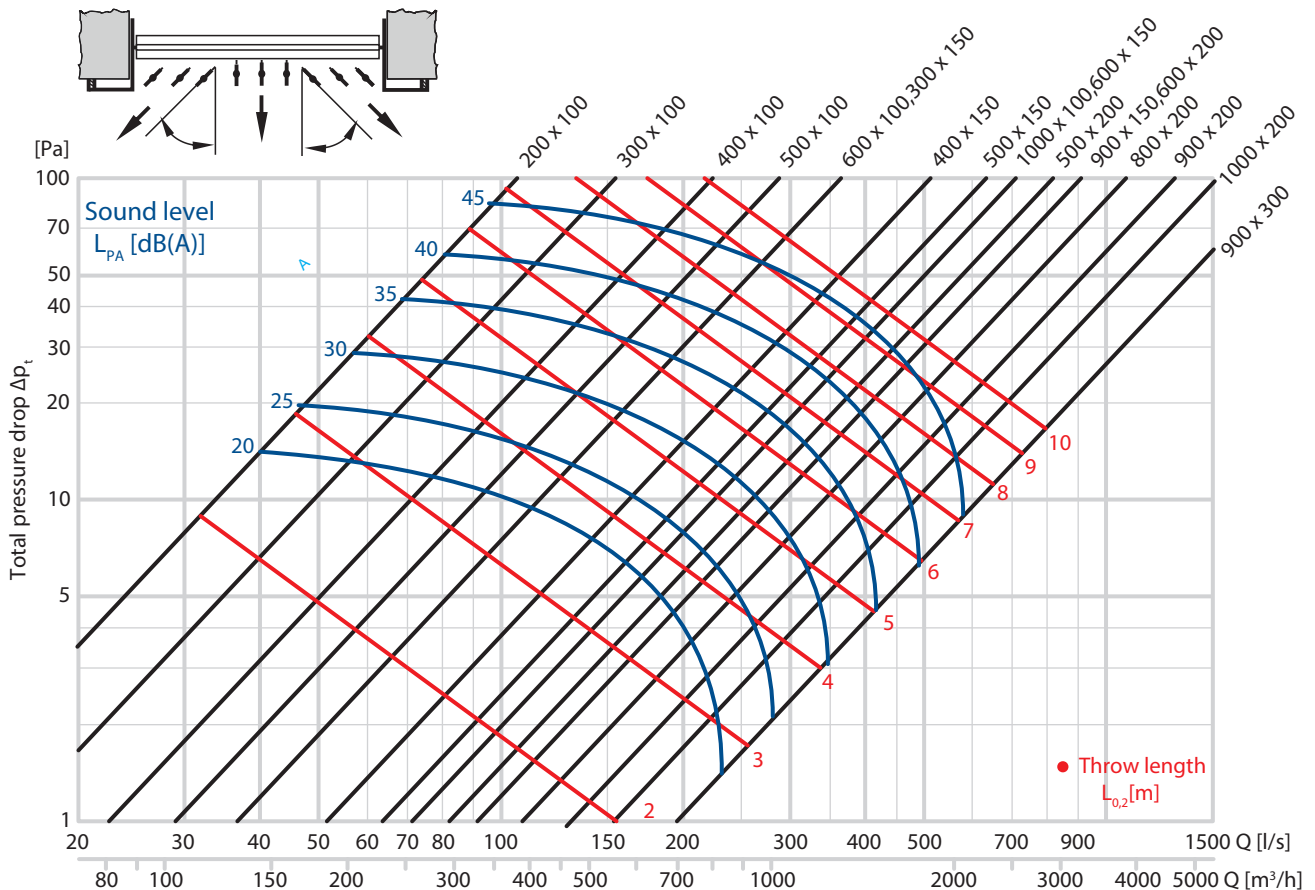
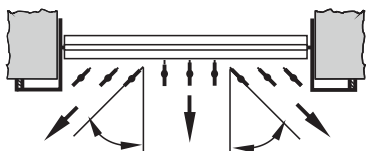
D.1.

Straight air flow 0°

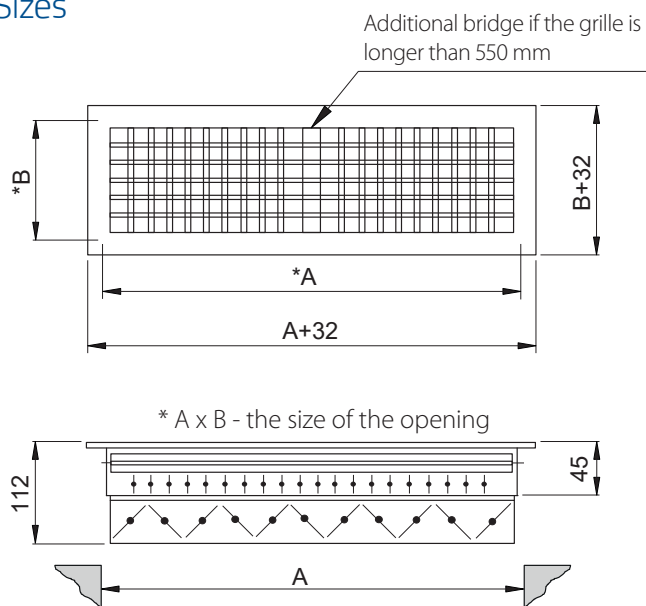


D.2.

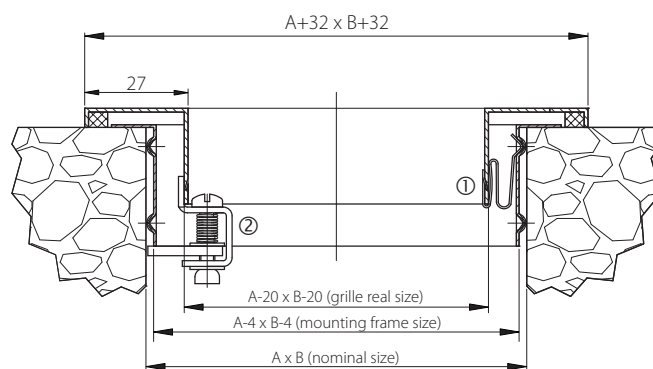
45° air flow



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

DH air grille

Ordering code:	DH	XXXX	-XXX	X	+X
Product acronym:	DH				
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: DH 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			