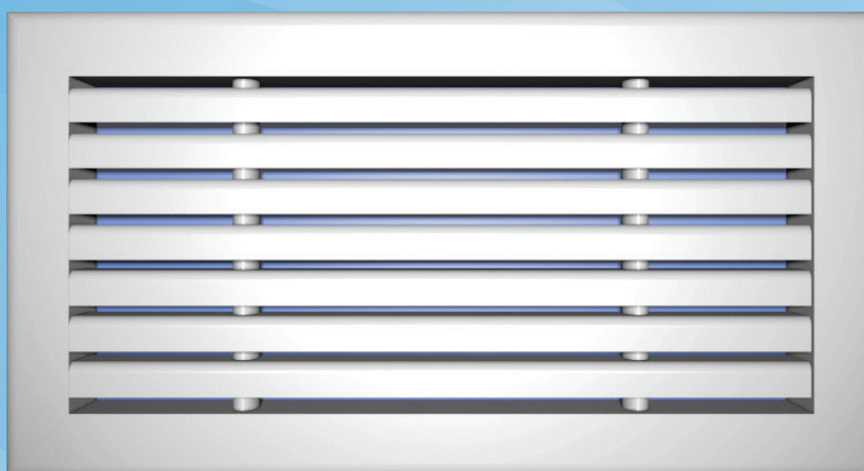


Halton AHF

Exhaust Grille

20/AHF/3500/0606/EN



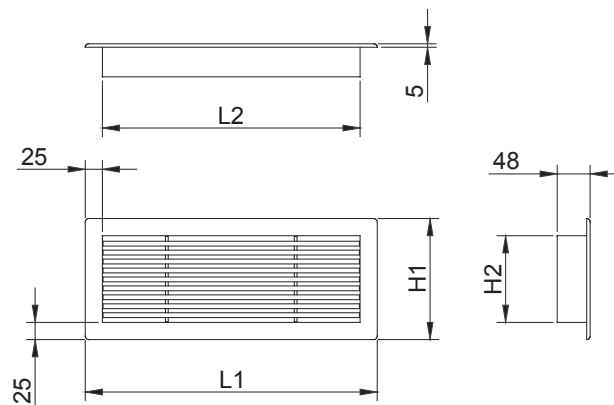
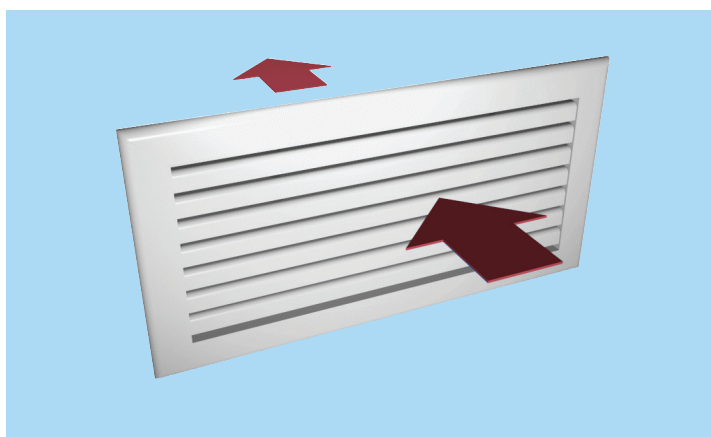
- Large free area, high airflow rates with minimal pressure drop
- Integrated filter of class EU3
- Reduced visibility through grille due to shaped horizontal vanes
- Sizes adapted to suit modular 600x600 suspended ceilings
- Detachable grille allows cleaning of the grille and ductwork
- Spring clip fastening

Product Models & Accessories

- Model with openable vane section
- Airflow adjustment damper
- Installation frame
- Balancing plenum with measurement and adjustment functions
- Plenum insulation
- Spare filter

MATERIAL AND FINISHING

PART	MATERIAL	FINISHING	NOTE
Frame	Aluminium	Anodised, Polyester-painted, White RAL 9010 50% gloss, Mill finished	Special colours available Epoxy-painting (100 %) available
Fixed vanes	Aluminium	Anodised, Polyester-painted, White RAL 9010 50% gloss, Mill finished	Special colours available Epoxy-painting (100 %) available
Air filter	Filter in Polyester	EU3 class (Eurovent 4/5 method)	
Filter frame	Galvanised steel		
Installation frame	Galvanised steel		
Plenum box / spigot	Galvanised steel		



Function

Air is exhausted from the space with a low pressure drop through the vanes of the grille and filter.

Wall or ceiling installation.

DIMENSIONS

LxH	L1	L2	H1	H2
300x300	326	276	326	276
570x270	596	546	296	246
570x570	596	546	596	546
1170x570	1196	1146	596	546

Square grilles have symmetrically inverted vanes.

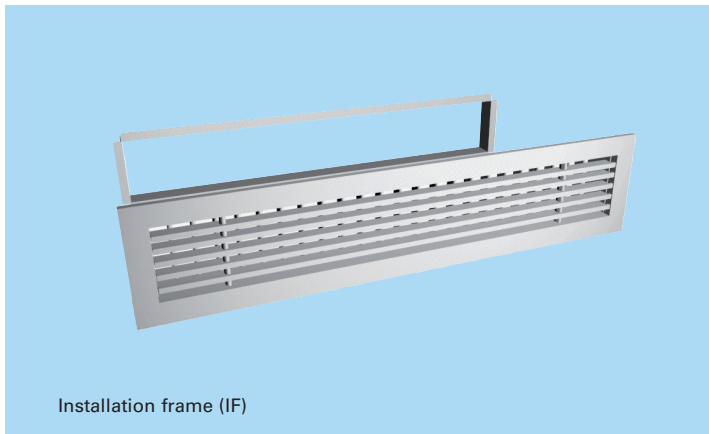
The free area of the AHF grille is 75 %.

Special Dimensions

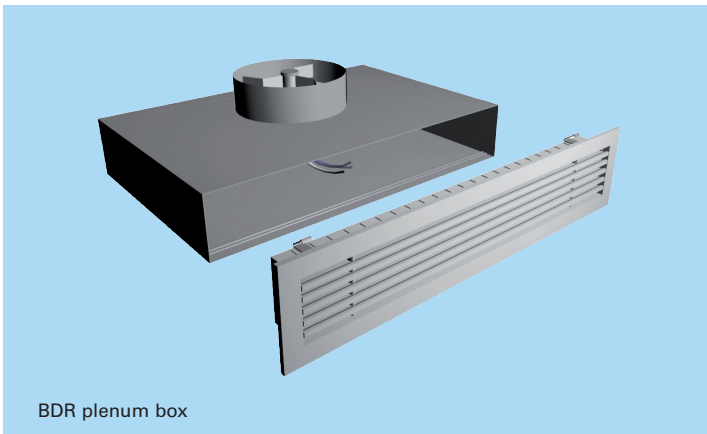
In addition to these standard sizes, other dimensions can be specially ordered.

ACCESSORIES

ACCESSORY	CODE	DESCRIPTION
Plenum	BDR	Plenum for duct connection (with or without attenuation material)
Airflow measurement and adjustment unit	MEM	For exhaust installation
Sound attenuation	IN	Mineral wool for the BDR plenum box.
Installation frame	IF	For installation without plenum
Filter	RF	Spare filter



Installation frame (IF)

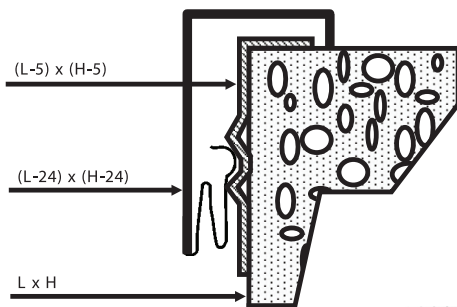


BDR plenum box

Installation

The grille is connected either directly to the duct using the installation frame or a BDR plenum.

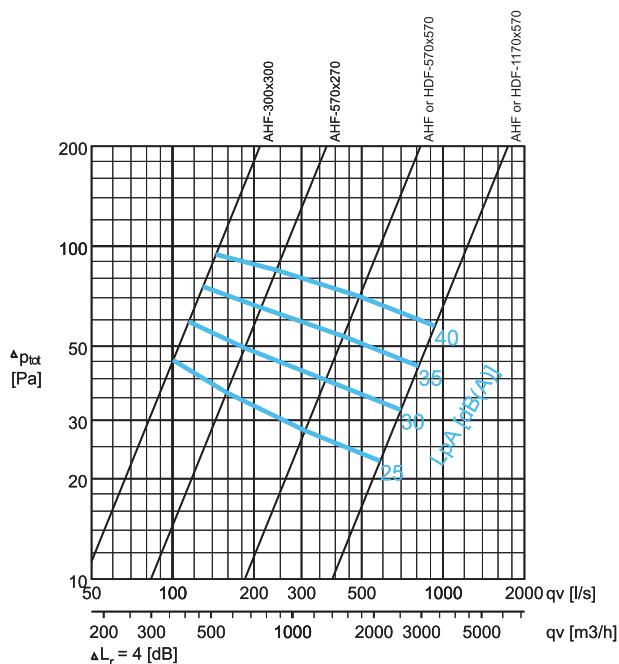
Clips fastening (standard)



The grilles are supplied with spring fastening as standard.

Spring fastening is used with BDR plenums and IF installation frames.

Pressure drop and sound data, exhaust



SOUND LEVEL DATA

	qv		ΔPst (Pa)	ΔPtot (Pa)	F (Hz)								LpA [dB(A)]	NR	NC
	(l/s)	(m ³ /h)			63	125	250	500	1000	2000	4000	8000			
AHF-300x300	100	360	46	45	40	30	34	25	19	20	13	7	25	19	16
	115	414	60	59	41	35	38	32	25	24	20	11	30	24	22
	129	464	77	76	42	40	41	39	30	29	26	16	35	31	29
	145	522	96	94	42	44	44	44	35	33	32	20	40	37	36
AHF-570x270	158	569	37	36	42	31	34	24	21	20	13	7	25	19	16
	185	666	50	49	43	36	37	32	26	25	19	12	30	24	22
	212	763	66	65	44	40	41	38	31	29	25	16	35	30	29
	242	871	86	85	45	44	44	44	35	33	30	20	40	37	36
AHF-570x570	309	1112	28	28	46	29	34	21	19	20	12	8	25	20	17
	368	1325	40	40	47	35	39	30	25	25	19	13	30	25	22
	429	1544	55	54	48	40	43	37	31	30	25	17	35	29	27
	492	1771	72	71	48	45	46	43	35	34	30	21	40	35	34
AHF-1170x570	585	2106	23	23	48	28	34	20	19	19	9	6	25	20	17
	698	2513	33	32	49	34	39	29	25	25	17	12	30	25	22
	812	2923	44	44	50	40	43	36	31	30	24	17	35	29	27
	935	3366	59	58	51	45	47	42	36	35	30	21	40	35	33

LpA values presented with room attenuation 4 dB (red 10m² - sab). When using room attenuation 8 dB (red 25m² - sab): LpA - 4dB.
NR/NC noise criteria

Adjustment

In order to enable adjustment and measurement of the airflow rate it is recommended that you connect the diffuser to the BDR balancing plenum equipped with the MEM module.

The airflow rate can only be adjusted and measured when the grille is connected to the BDR plenum. Define the exhaust airflow rate by measuring the pressure difference between the measurement tap on the BDR balancing plenum and the room air.

The corresponding airflow rate is calculated using the formula below.

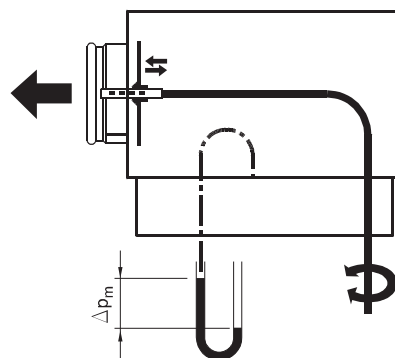
$$q_v = k * \sqrt{\Delta p_m}$$

Adjust the airflow rate by turning the control spindle of the MEM.

K-factor for installations with different safety distances (D= duct diameter)

Airflow adjustment damper OD

The airflow rate is adjusted by turning the damper blades behind the grille with a screwdriver. The measurement is performed when the grille is installed.



BDR

D	>6xD	min 3xD
100	6	7
125	10	12
160	19	22
200	28	32
250	49	51
315	77	83

Servicing

Remove the grille by gently drawing out it by the frame. Use a screwdriver if necessary.
Clean the parts by wiping them with a damp cloth.
Push the grille back into place so that the springs lock (or fix by tightening the concealed screws).

Option: Installation with balancing plenum BDR + MEM

Remove the measurement and adjustment module by gently pulling the shaft; (not the control spindle).
Wipe the parts with a damp cloth, instead of immersing in water.
Reassemble the measurement and adjustment module by pushing the shaft until the module meets the stopper.
Push the grille back into place so that the springs lock.

Suggested Specifications

The exhaust grille shall have a large free area.

Pressure loss shall remain minimal, even with high exhaust rates.

Non-clogging lightweight construction with fixed curved vanes shall prevent vision through the grille.

The joints of the outer frame shall be practically invisible.

The grille shall be anodised (or polyester-painted with a white (RAL 9010) standard colour).

Sizes 570x270 mm, 570x570 mm and 1170x570 mm can be selected for modular 600x600 mm suspended ceilings.

The grille shall comprise a filter of EU3 class (Eurovent method 4/5)

The grille can be connected to the duct using an installation frame or a plenum.

The plenum BDR can comprise sound attenuation material made of mineral wool.

Airflow measurement and adjustment unit MEM is available as an accessory.

The exhaust grille shall be detachable in order to provide access to the measurement and adjustment module in the plenum.

Product Code

AHF-L-H

L = Length

300, 570, 645, 670, 1170, 1320, 1345

H = Height

L=300: 300

L=570: 270, 570

L=645: 307, 645

L=1345: 645

L=1170: 570

L=1320: 645

Specifics and accessories

FI = Finishing

AN Anodised

PN Painted

CO = Colour

W White

Code example

AHF-300-300, FI=AN

Sub products

BDR Plenum

IF Installation frame (Grilles)

OD Opposed blade damper (Grilles)