Halton AGC – Exhaust grille

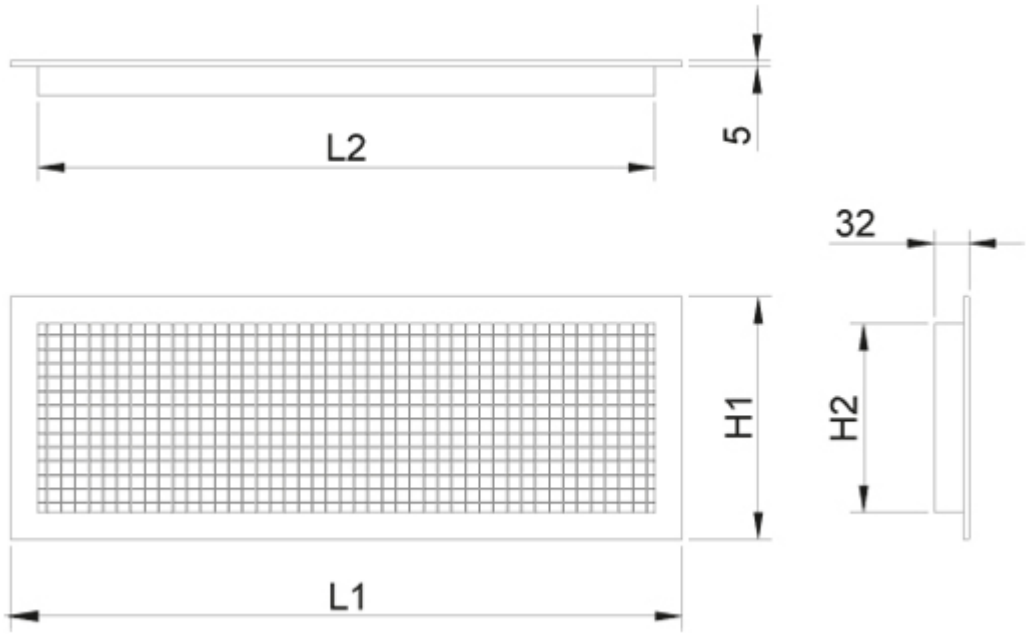
Overview

- Large free area, high airflow rates with minimal pressure drop
- Detachable grille enables cleaning of the grille and ductwork
- Spring clip fastening

Product models and accessories

- Model without frame
- Airflow adjustment damper
- Plenum options with measurement and adjustment functions
- Installation frame
- Plenum insulation

Dimensions



Halton reserves the right to alter products without notice.

LxH	L1	L2	H1	H2
200×100	226	176	126	76
300×150	326	276	176	126
400×200	426	376	226	176
300×300	326	276	326	276
500×300	526	476	326	276
600×300	626	576	326	276
600×400	626	576	426	376
800×400	826	776	426	376
570×270	596	546	296	246
570×570	596	546	596	546
1170×570	1196	1146	596	546

With flow control damper OD total depth is 32 mm + 45 mm.
The free area of the AGC grille is 92 %.

Halton AGC/S model

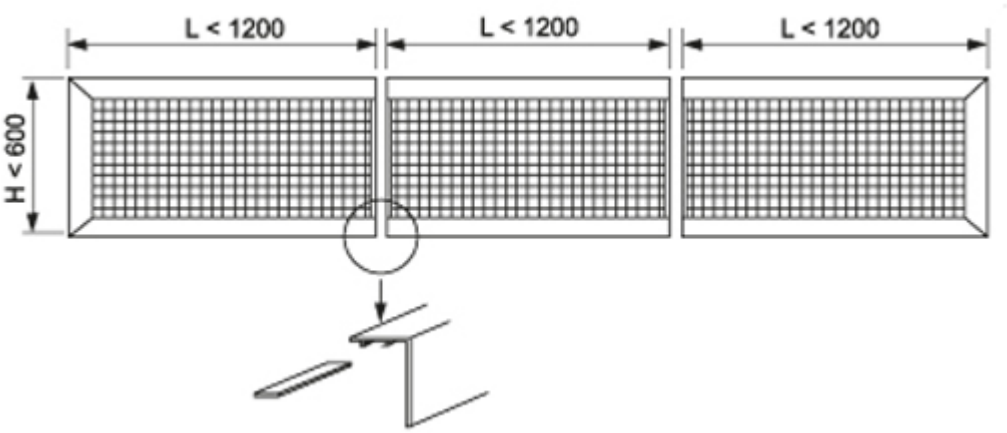
Nominal sizes are 595 x 595 mm and 1195 x 1195 mm.

Special dimensions

In addition to these standard sizes, other dimensions can be specially ordered. The maximum size is 1200×670 mm (LxH).

Material

Part	Material	Finishing	Note
Frame	Aluminium	Anodised or polyester-painted, White (RAL 9003/30% gloss)	Special colours available. 100 % epoxy-painted as an option.
Egg crate core (13x13x13 mm)	Aluminium	Anodised or polyester-painted, White (RAL 9003/30% gloss)	Special colours available. 100 % epoxy-painted as an option.
Installation frame	Galvanised steel	–	Option: Concealed screw (CC) fastening – galvanised steel
Plenum box / spigot	Galvanised steel	–	–



The bevel angles of the outer frame have been welded so that the joints are almost invisible.

Accessories

Product model	Code	Description
Grille without frame	AGC/S	Installation on ceiling profiles

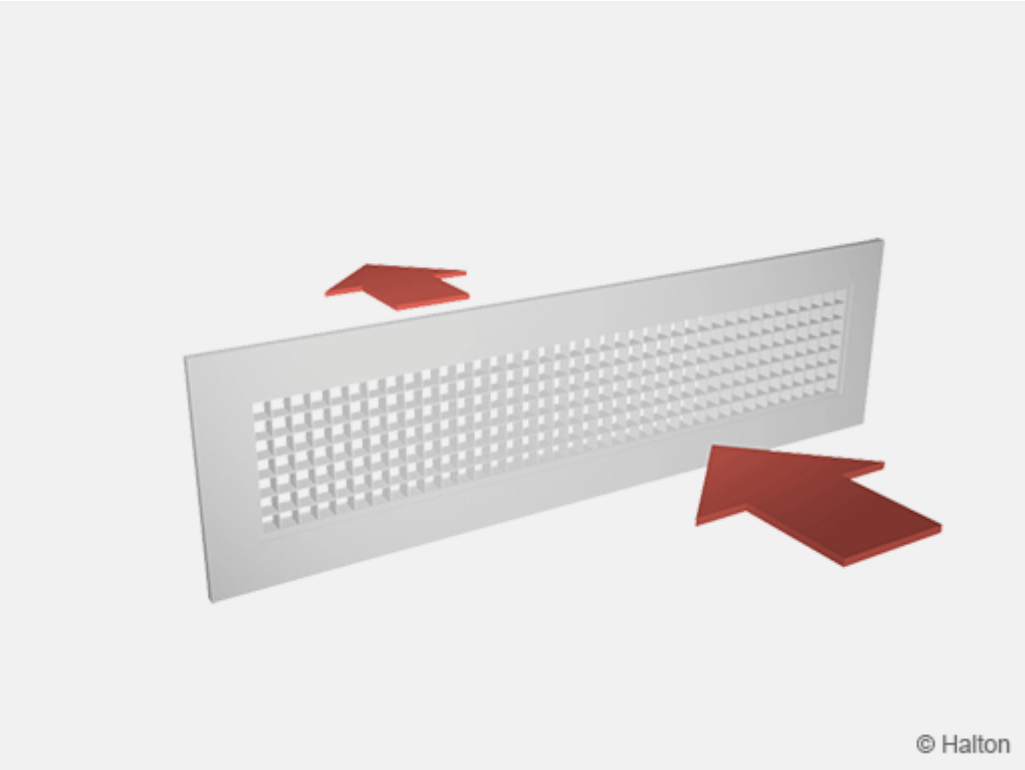
Accessory	Code	Description
Balancing plenum	PRL	For balancing and equalising the airflow and attenuating the duct noise
Plenum	BDR	Plenum for duct connection (with or without attenuation material)
Airflow measurement and adjustment unit	MEM	For exhaust
Sound attenuation	IN	Mineral wool for the Halton BDR plenum box. Mineral wool or polyester fiber for the Halton PRL plenum box.
Installation frame	IF	For installation without plenum
Concealed screw fixing	CC	For installation with BDR plenum or IF frame
Visible screw fastening	SF	Screw fastening

Mesh alternatives

Both models Halton AGC and Halton AGC/S can be equipped with following alternative mesh types.

Mesh	Code	Description
Standard mesh	ME=A	Aluminium egg crate core 13mm x 13mm x 13mm
Special mesh B	ME=B	Aluminium egg crate core 15mm x 15mm x 13mm
Special mesh C	ME=C	Aluminium egg crate core 13mm x 13mm x 13mm with a deflection of 45° to reduce the visibility through the grille

Function



Air is exhausted from the space through the egg crate core of the grille.

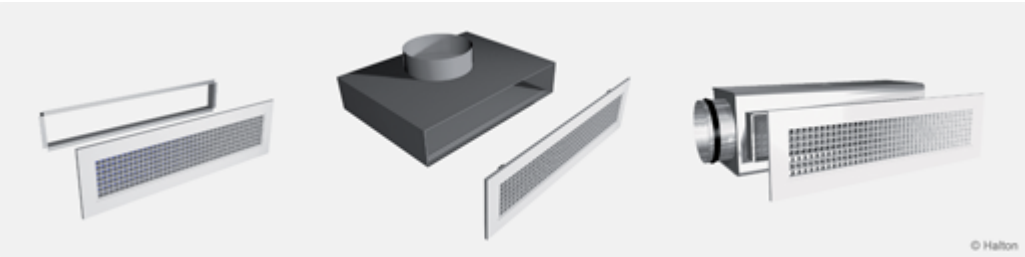
Wall or ceiling installation.

Installation

Size of installation hole is LxH with an installation frame and (L-5)x(H-5) without installation frame.

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

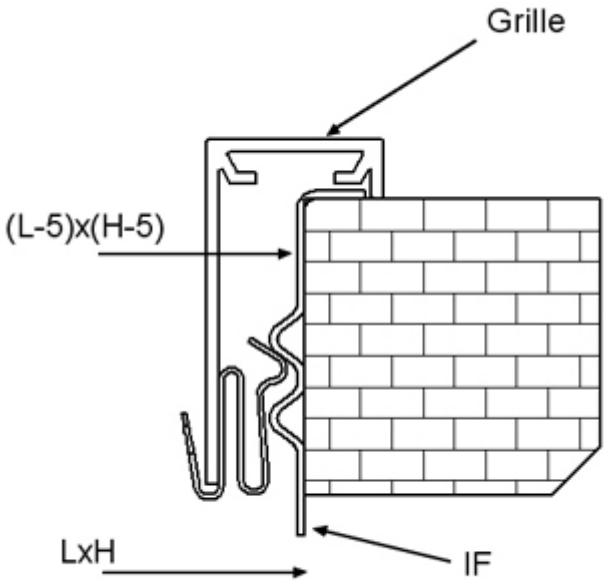
Halton PRL is not available for all AGC sizes.



Installation frame, IF/AGC Plenum box, BDR Balancing plenum, PRL

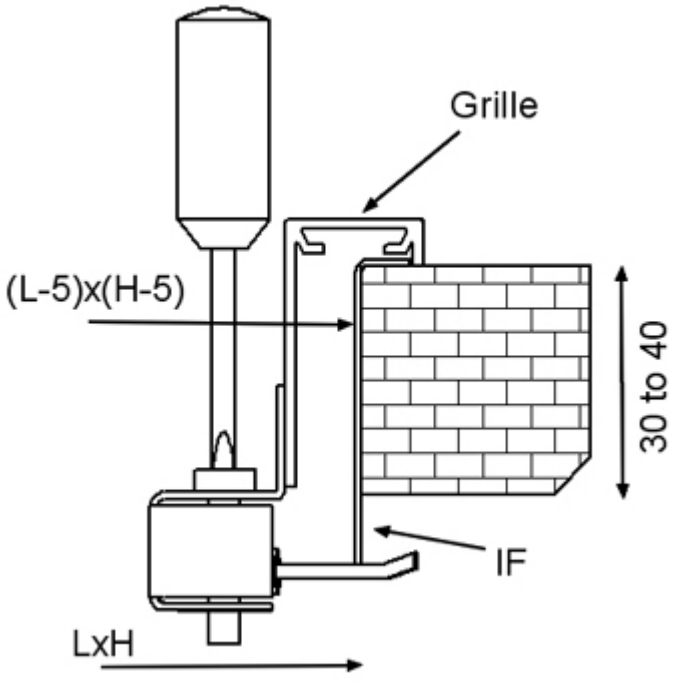
Fastening options

Clips, as standard (CL)



The grilles are supplied with clips fastening as standard.
Clips fastening is used with installation frame (IF) or balancing plenums (Halton PRL and Halton BDR).

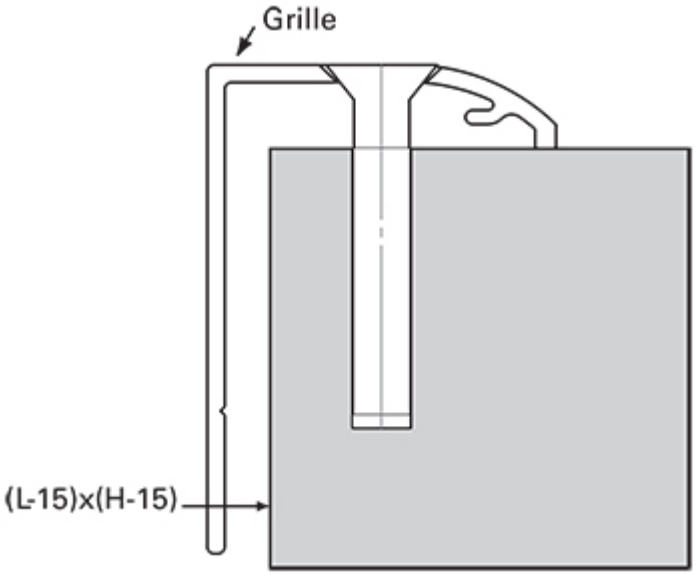
Concealed screw (CC)



Concealed screw fastening is possible when the grille is installed with an installation frame (IF) or with a Halton BDR plenum box.

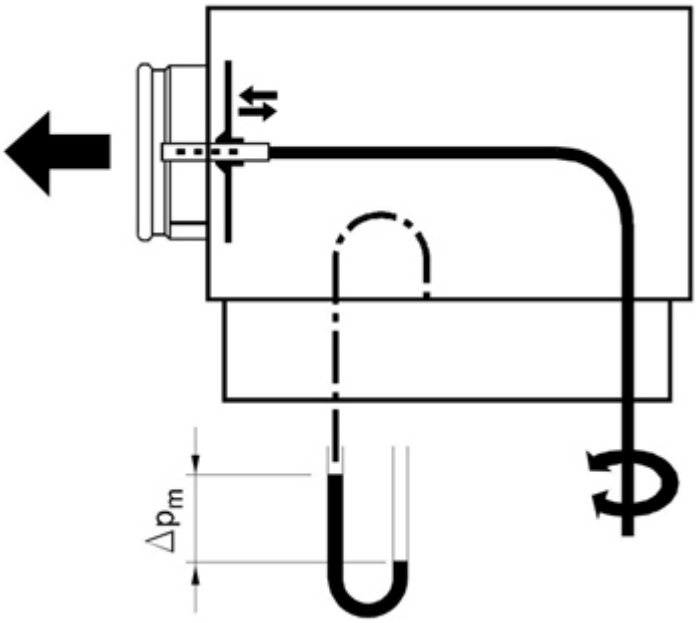
In such cases, small holes are factory made in Halton BDR for each concealed screw.
Concealed screw fastening is not possible with Halton PRL plenum.
For ceiling installation concealed screw fastening is recommended.

Visible screw (SF)



For ceiling installation the use of visible screw fastening is recommended. Bevel headed screws (4.2×25) are supplied with the grille.

Adjustment



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

The airflow rate can only be adjusted and measured when the grille is connected to the Halton BDR or Halton PRL plenum.

Define the exhaust airflow rate by measuring the pressure difference between the measurement tap on the Halton PRL or Halton 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.

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

Halton BDR

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

Airflow adjustment damper (OD/AGC)

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.

Servicing

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

Option:

Installation with balancing plenum Halton PRL + MEM or Halton 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 into place until the module meets the stopper.
Push the grille back into place so that the springs lock.

Specification

The Halton AGC exhaust grille has a large free area. Pressure loss will remain minimal, even with high exhaust rates.
The grille has a 25 mm wide flat frame and an egg crate core, anodised or painted with a white (RAL 9003) colour.
The joints of the outer frame are practically invisible.

Option 1

The grille is connected to the ductwork using a plenum with mineral wool as sound attenuation material.

Option 2

The grille is connected to the ductwork using the balancing plenum, comprising sound attenuation material made from polyester fibre with a washable surface.
The plenum will comprise an airflow measurement and adjustment unit.

The exhaust grille is openable in order to provide access to the measurement and adjustment module in the balancing plenum.

Order code

AGC/S-L-H; FS-ME-FI-CO-ZT

S = Model
N Standard
S Without frame (AGC/SC)

L = Length (mm)
200, +1,.., 1200

H = Height (mm)
100, +1,.., 670

Other options and accessories

FS = Fastening
CL Clips
SF Screw
CC Concealed screw
NA Not assigned

ME = Mesh
A Standard mesh (13x13x13 mm)
B Special mesh (15x15x13 mm)
C Special mesh 45° (13x13x13 mm)

FI = Finishing
AN Anodised
PN Painted

CO = Colour
SW Signal white (RAL 9003)
X Special colour (RAL xxxx)
N No painting

ZT = Tailored product
N No
Y Yes (ETO)

Sub products

BDR Balancing plenum
PRL Balancing plenum
IF Installation frame (Grilles)
OD Opposed blade damper (Grilles)

Code example

AGC/N-200-100, FS=CL,ME=A,FI=AN,CO=N, ZT=N