Private: WSD 格栅

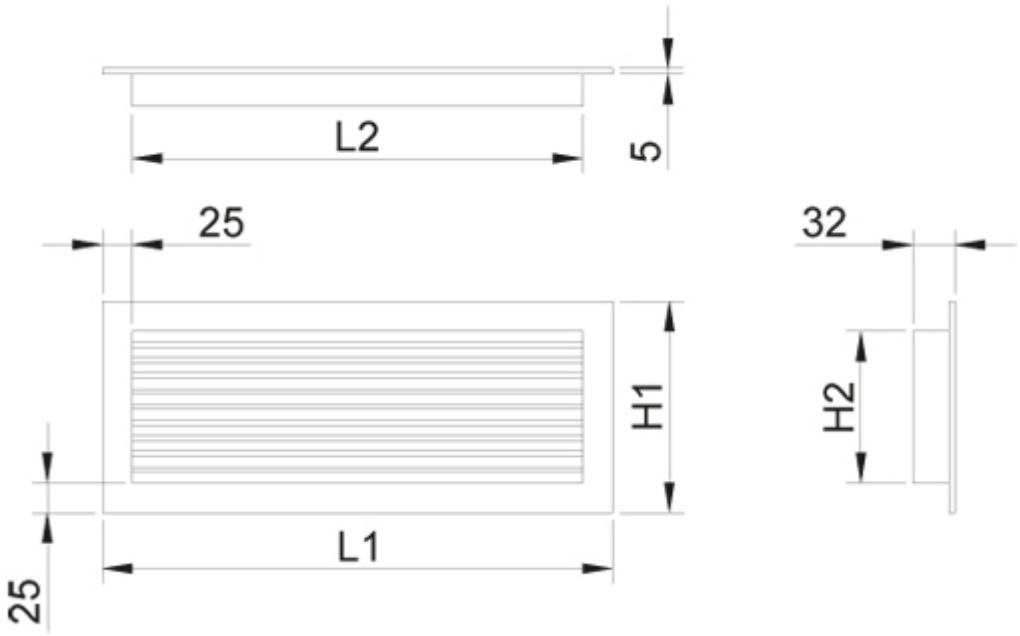
概述

- 可水平供风，同时也可用于排气
- 水平叶片可调
- 采用铝制结构，外观雅致
- 格栅可拆卸，便于清洁格栅和管道

配件

- 流量调节阀
- 可选配具备测量和调节功能的静压箱
- 安装架

Dimensions



LxH	L1	L2	H1	H2
200×100	226	176	126	76
250×100	276	226	126	76
300×100	326	276	126	76
300×150	326	276	176	126
400×150	426	376	176	126
400×200	426	376	226	176
500×200	526	476	226	176
600×200	626	576	226	176
800×200	826	776	226	176
1000×200	1026	976	226	176
600×300	626	576	326	276
800×300	826	776	326	276
1000×300	1026	976	326	276
1000×400	1026	976	426	376
1200×400	1226	1176	426	376

With OD (airflow adjustment damper) total depth = 32 mm + 45 mm.

Special dimensions

In addition to these standard sizes, other dimensions are available by special order. The maximum size is 1500mm x 600mm (LxH).

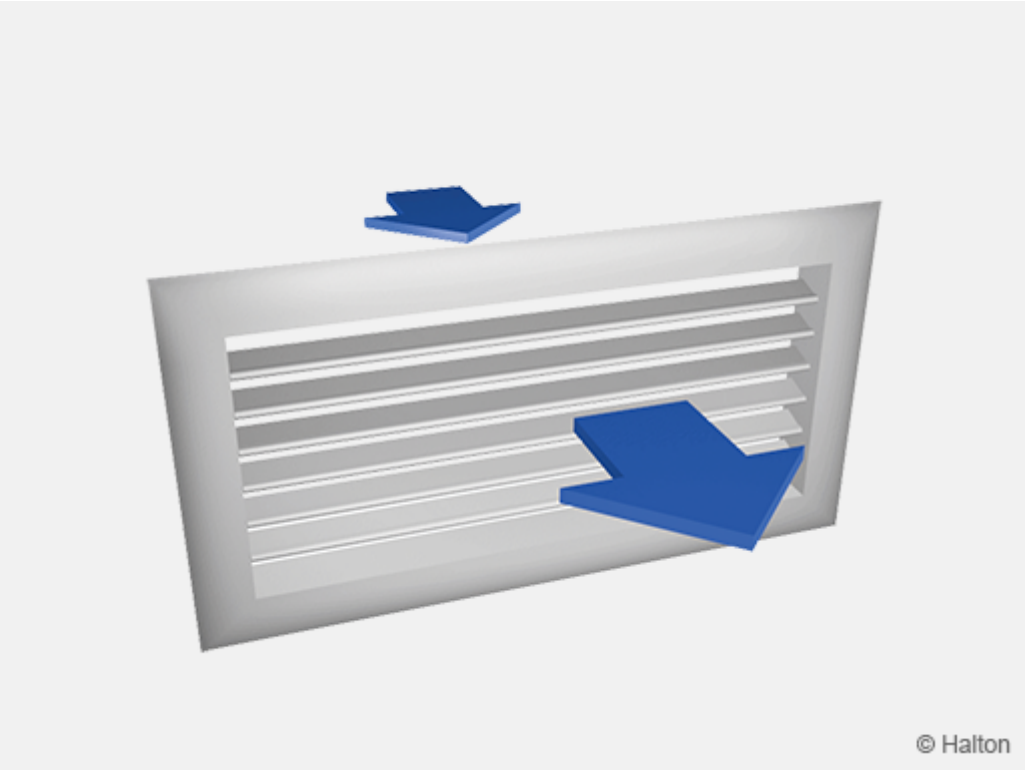
Material

Part	Material	Finishing	Note
Frame	Aluminium	Polyester-painted as white (RAL9010/50% gloss), anodised or mill finished	Special colours available
Fixed vanes	Aluminium	Polyester-painted as white (RAL9010/50% gloss), anodised or mill finished	Special colours available
Installation frame	Galvanised steel		
Plenum box/spigot	Galvanised steel		

Accessories

Accessory	Code	Description
Balancing plenum	PRL	For balancing & equalising the airflow and attenuating the duct noise
Plenum	BDR	Plenum for duct connection (with or without attenuation material)
Airflow measurement and adjustment unit	MSM	For supply installation
Airflow measurement and adjustment unit	MEM	For exhaust installation
Sound attenuation	IN	Mineral wool for the BDR plenum box. Mineral wool and polyester fibre for the PRL plenum box
Flow adjustment damper	OD	Aluminium opposite blade damper for airflow adjustment
Installation frame	IF	For installation without plenum
Visible screw fastening	SF	Screw fastening
Concealed screw fastening	CC	For installation with BDR plenum or IF frame

Function



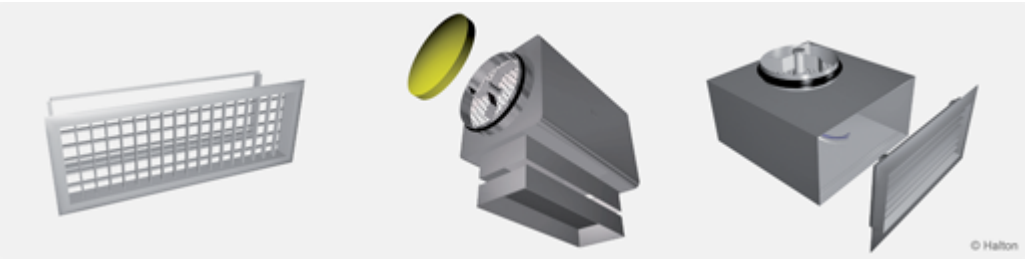
Supply air is supplied with possible deflection through the horizontal vanes into the space. The supply air mixes with the room air in front of the grille. The supply air is directed with the horizontal adjustable vanes.

In wall installations, the recommended distance from the ceiling is 200 mm, when the supply air is directed to the ceiling.

The Halton WSD grille can also be used as an exhaust unit.

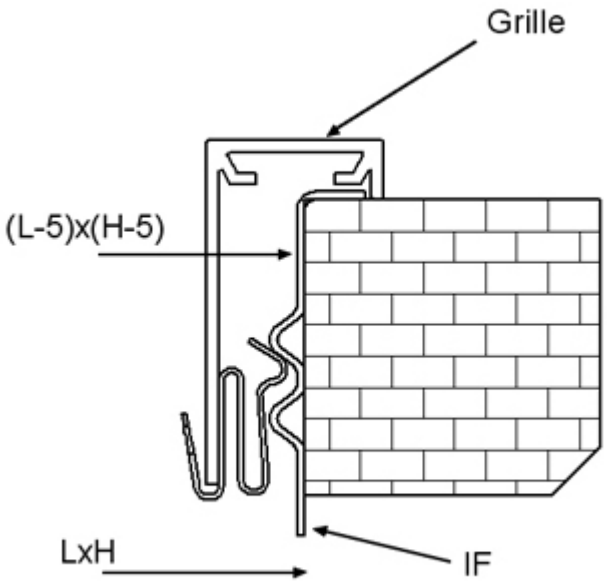
Installation

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



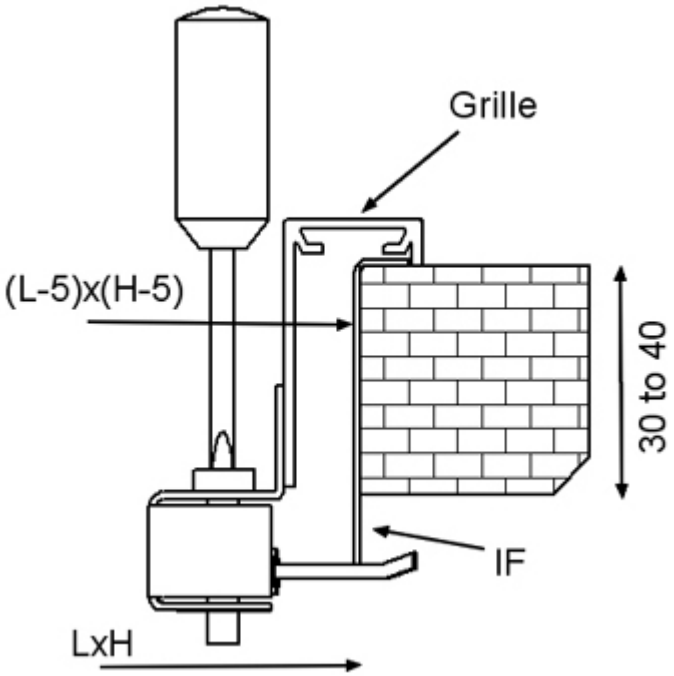
Installation frame, IF/WSD Balancing plenum, PRL Plenum box, BDR

Clips fastening (standard)



The grilles are delivered with spring fastening as standard.
Spring fastening is used with Halton PRL, Halton BDR and IF/WSD.

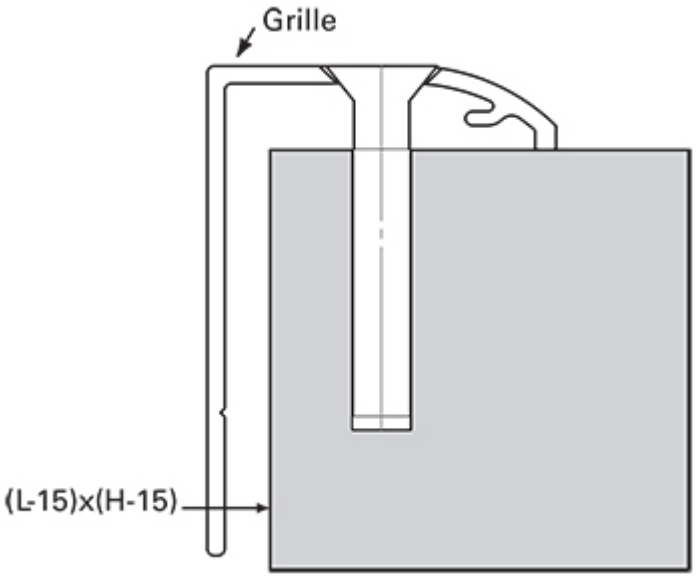
Concealed screw fastening



Concealed screw fastening is possible when the grille is installed with an installation frame (IF/WSD) or with a Halton BDR plenum; not with a Halton PRL balancing plenum. Holes are provided

for screws in BDR.

Visible screw fastening

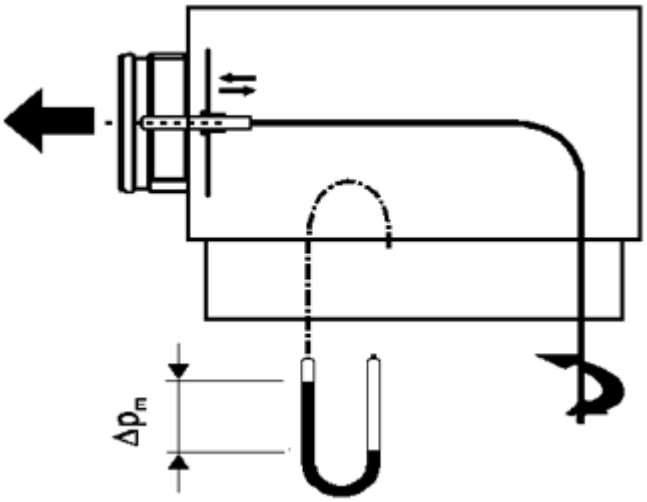


For large grilles, we recommend using visible screw fastening. The auto screws, 4.2×25 (bevel headed screw) are supplied.

The dimensions of the installation holes are LxH when an installation frame is used, and (L-5) x (H-5) without installation frame.

Adjustment

Supply



In order to enable airflow adjustment and measurement of airflow rate we recommend connecting

the diffuser to a Halton BDR plenum or Halton PRL balancing plenum equipped with the MSM module.
The supply flow rate is determined by using the measurement and adjustment module MSM.
Detach the grille and pass the tubes and control spindle through the grille.
Measure the differential pressure with a manometer. The flow rate is calculated using the formula below.

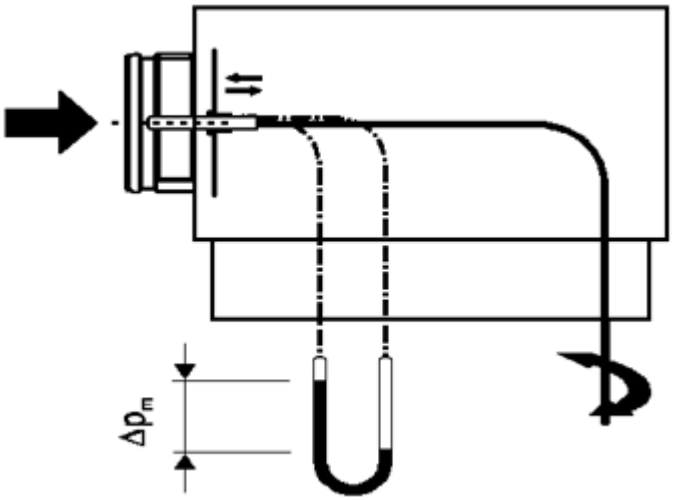
$$q_v = k * \sqrt{\Delta p_m}$$

Adjust the airflow rate by rotating the control spindle until the desired setting is achieved.
Lock the damper position with a screw.
Replace the tubes and spindle into the plenum and replace the grille.

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

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

Exhaust



The airflow rate is selected by measuring the pressure difference between the measurement tap on the Halton PRL balancing plenum or Halton BDR plenum and the room air.
The corresponding airflow rate is calculated and can be adjusted by turning the control spindle of the adjustment unit MEM.

Airflow adjustment damper OD

The airflow rate can also be adjusted by turning the damper blades behind the grille with a screwdriver. The measurement is carried out when 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 them with a damp cloth.
Push the grille back into place until the springs lock (or fix by screwing on the concealed screws).

Option:
With balancing plenum Halton PRL + MEM or Halton BDR + MEM

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

Specification

The grille is made of extruded aluminium, with an anodised or epoxy-painted with a white (RAL9010) standard colour.
The bevel angles of the outer frame are welded so that the joints are almost invisible.
The Halton WSD grille has horizontal adjustable vanes and a 25 mm wide radius frame (which shall incorporate a sealing gasket).

Alternative 1

The grille can be connected to the ductwork using a plenum, with mineral wool as sound insulation material.

Alternative 2

The grille can be connected to the ductwork using a balancing plenum, which comprises sound attenuation material made of polyester fibre with a washable surface.

The plenum comprises an airflow measurement and adjustment unit.
The grille is removable in order to provide access to the measurement and adjustment module in the plenum.

Order Code

WSD-L-H

L = Length
200, +1, .., 1500

H = Height
100, +1, .., 600

Other options and accessories

FS = Fastening
CL Clips
SF Screw fastening
CC Concealed screw fastening

FI = Finishing
PN Painted
AN Anodised
MF Mill finished

CO = Colour
W White, as standard (RAL 9010)
X Special colour
N No painting

ZT = Tailored Product
N No
Y Yes

Sub products

BDR Plenum
PRL Plenum
IF Installation frame (Grilles)

OD Opposed blade damper (Grilles)

Code example

WSD-200-100, FS=CL, FI=AN, CO=N, ZT=N