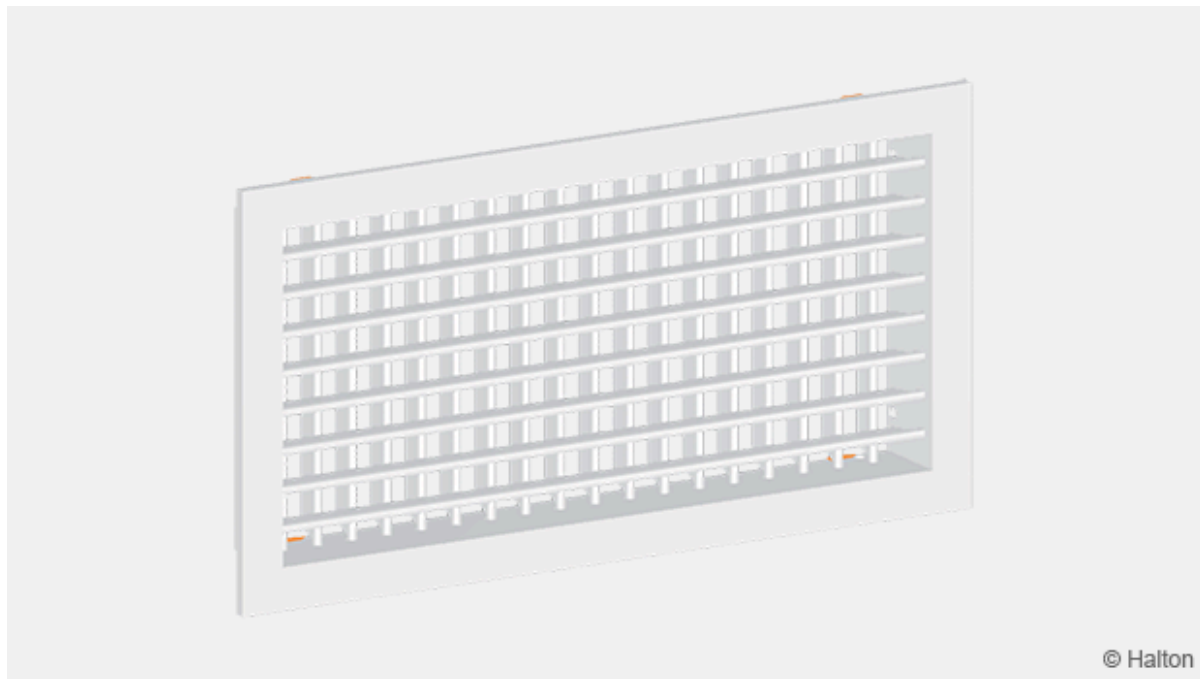


# Private: Halton WTS – 格栅



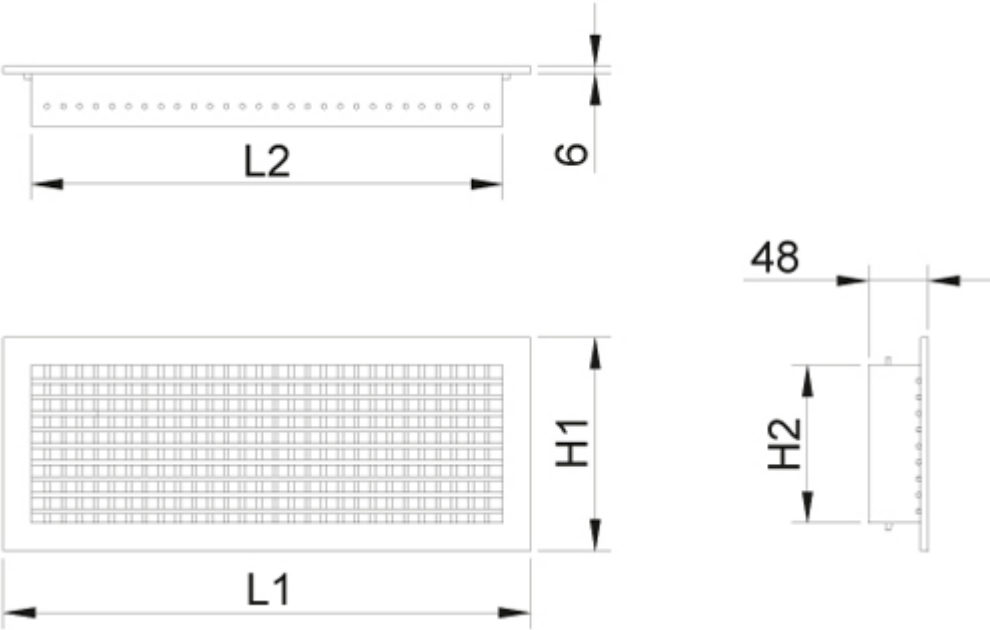
## 概述

- 适于透过墙壁水平供风，同时也可用于排气
- 前排叶片固定、流型稳定且无垂直偏转
- 后排叶片可调，能控制空气射流发生水平偏转
- 采用铝制结构，外观雅致
- 格栅可拆卸，便于清洁格栅和管道
- 连续格栅配有模块化构造

## 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	220	176	120	76
250×100	270	226	120	76
300×100	320	276	120	76
300×150	320	276	170	126
400×150	420	376	120	126
400×200	420	376	220	176
600×200	620	576	220	176
800×200	820	776	220	176
1000×200	1020	976	220	176
600×300	620	576	320	276
800×300	820	776	320	276
1000×300	1020	976	320	276
1000×400	1020	976	420	376
1200×400	1220	1176	420	376

With OD (airflow adjustment damper) total depth is 48 mm + 45 mm.

## Special dimensions

In addition to standard sizes, other dimensions are available by special order. The maximum size is 1200 mm x 600 mm (LxH).

The special length and the special height will be a multiple of 50 mm.

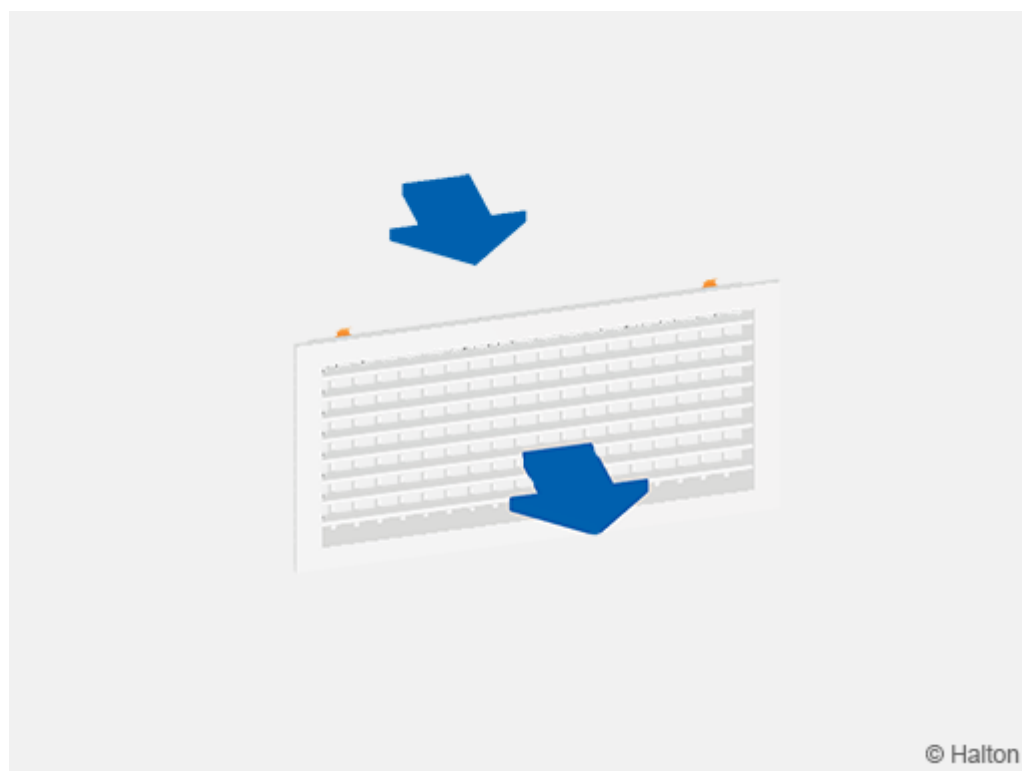
## Material

Part	Material	Finishing	Note
Frame	Steel	Epoxy-painted, white (RAL 9010/50% gloss)	Special colours available
Vertical vanes	Steel	Epoxy-painted, white (RAL 9010/50% gloss)	Special colours available
Horizontal vanes L<600mm	Steel	Epoxy-painted, white (RAL 9010/50% gloss)	Special colours available
Horizontal vanes L>600mm	Aluminium	Epoxy-painted, white (RAL 9010/50% gloss)	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

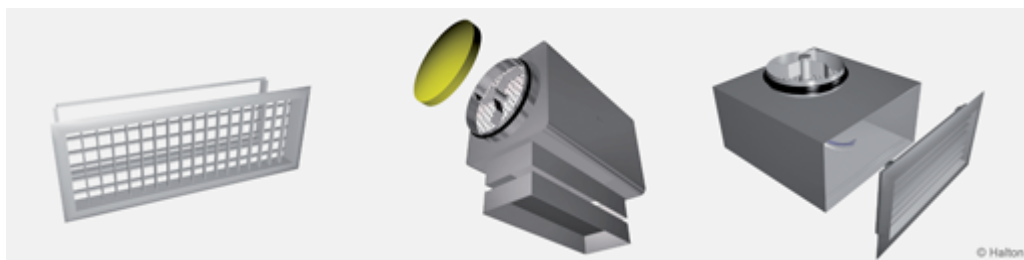
# Function



Supply air is supplied through the horizontal front and vertical rear vanes into the space. The supply air mixes with room air in front of the grille. The flow pattern can be adjusted by changing the angles of the adjustable vanes. In wall installations, the recommended distance from the ceiling is 200 mm, when the supply air is directed to the ceiling. The 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.

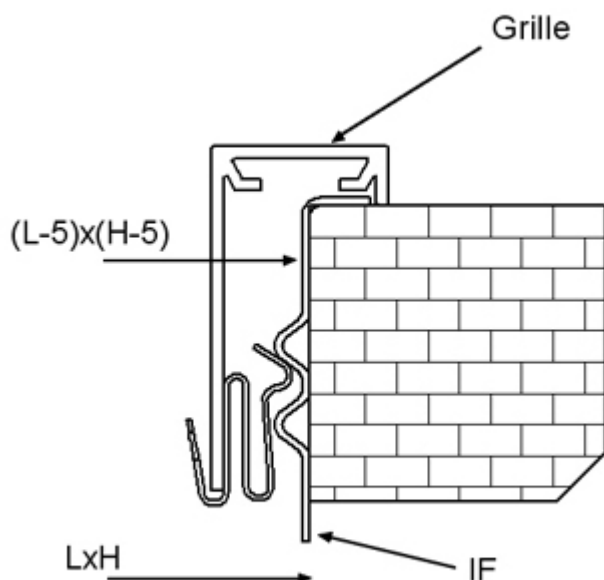


Installation frame, IF/WTS

Balancing plenum, PRL

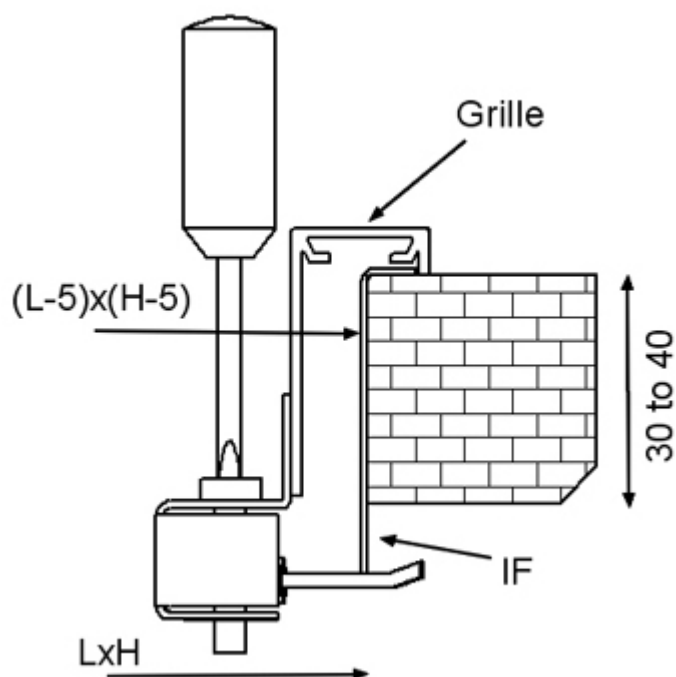
Plenum box, BDR

## Clips fastening (standard)



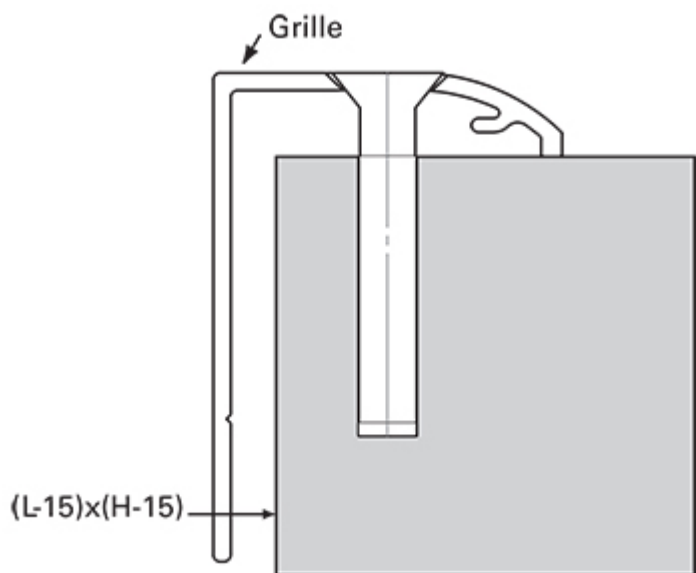
The grilles are delivered with spring fastening as standard. Spring fastening is used with Halton PRL, Halton BDR and IF/WTS.

## Concealed screw fastening



Concealed screw fastening is possible when the grille is installed with an installation frame (IF/ WTS) 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  $(L-5) \times (H-5)$  without installation frame.

# Adjustment

In order to enable airflow adjustment and measurement of airflow rate we recommend connecting the grille to a Halton BDR plenum or Halton PRL balancing plenum equipped with the MSM/MEM module.

The supply flow rate is determined by using the measurement and adjustment module MSM and the exhaust flow rate by measuring the static pressure of the plenum.  
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:

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

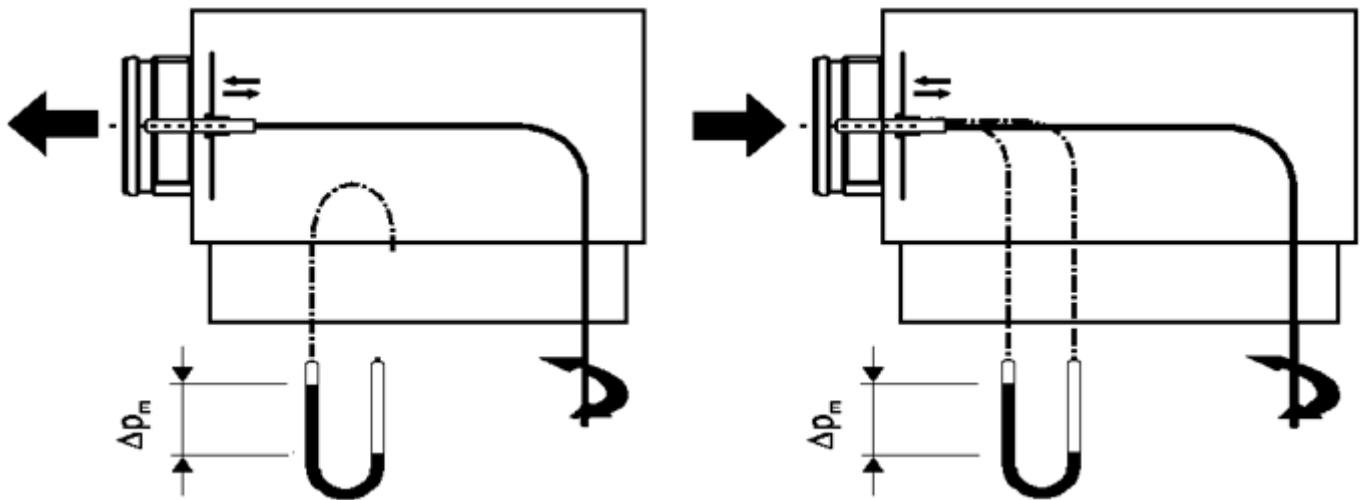
Adjust the airflow rate by rotating the control spindle until the desired setting is achieved.  
Lock the damper position with a screw.  
Replace the tubes and spindle into the plenum and replace the grille.

**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

## 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 has adjustable horizontal front vanes and adjustable vertical rear vanes, and an 18 mm wide flat frame, epoxy-painted with a white (RAL 9010) colour.  
The frame is made of steel. The vertical vanes are made of steel.  
Where the length of the grille is smaller than 600 mm, the horizontal vanes are made of steel.  
Where the length of the grille is greater than 600 mm, the horizontal vanes are made of aluminium.  
The supply air jet is directable by changing the vane angles of the front and rear vanes.  
The grille can be connected to the duct using an installation frame.



## 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 mineral wool or 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

### WTS-L-H

**L = Length**

200, +50, ..., 1200

**H = Height**

100, +50, ..., 600

## Other options and Accessories

**FS = Fastening**

CL Clips

SF Screw fastening

CC Concealed screw fastening

**CO = Colour**

W White (RAL 9010)

X Special colour

**ZT = Tailored product**

N No

Y Yes

## Sub products

BDR Plenum

PRL Balancing plenum

IF      Installation frame (Grilles)  
OD      Opposed blade damper (Grilles)

## Code example

WTS-200-100, FS=CL, CO=W, ZT=N