



Vita

Halton Vita VSC - Installation guide

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1 Introduction

1.1 Copyright and disclaimers

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1.2 How to use this guide

Guideline to install the Halton Vita VSC exhaust unit. Users of this guide are assumed to have basic heating, ventilating and air conditioning (HVAC) design knowledge.

1.3 Summary of changes

Version	Date	Description
1.0	2019-03-01	First version
2.0	2019-07-02	<ul style="list-style-type: none">• Structure pictures added• Grille installation holes dimensions updated & given in the tables for each grille nominal size• New dimensions of wall thickness for inward and outward grille installation.• Installing Halton Vita VSG in the Halton Vita VSC exhaust unit chapter added.
2.1	2019-12-06	<ul style="list-style-type: none">• Document structure changed• Safety notes & Contact information chapters added

Version	Date	Description
2.2	2020-03-11	<ul style="list-style-type: none"> • Dimensions drawings updated • Dimensions tables updated • Weight information added • Hole dimension table updated about the required distance from the bottom to the centre to the grille
2.3	2020-03-12	<ul style="list-style-type: none"> • Correction in hole dimensions table

1.4 Safety notes

All information in this section is important and relevant for your safety. Please pay special attention to these icons and the accompanying messages when used later in context in this manual.

Warnings

Warning signs indicate a risk of personal injury including death. There is also a potential risk of material damage. Pay attention to the following signs when performing any tasks or moving in the area:



WARNING!

This symbol indicates a potential hazard, obstacle or condition requiring special attention.



DANGER OF ROTATING UNIT PARTS!

This symbol indicates a hazardous location with a risk of personal injury including death and material damage.



DANGER OF OVERHEAD LOADS!

This symbol indicates a hazardous location with a risk of personal injury including death and material damage.

**DANGER OF PERSONAL INJURY!**

This symbol indicates a hazardous location (excluding the above-mentioned danger areas) with a risk of personal injury including death and material damage.

Cautions

Caution signs indicate a risk of personal injury or material damage. To ensure your own safety, consider the following cautions:

**CAUTION!**

This symbol indicates a hazardous location with a risk of material damage that can also lead to personal injury.

**CAUTION! HEAVY OBJECT**

Do not lift objects over 20kg (44lbs) alone. Use a lift or seek assistance.

**CAUTION!**

Risk of personal injury or material damage.

Notes

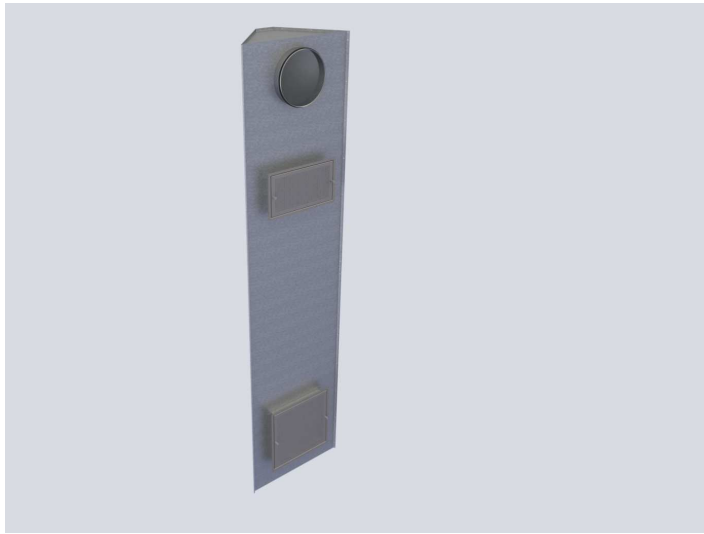
NOTE: Notes are statements to which you should pay special attention.

1.5 Contact information

You can find the contact details from www.halton.com/contact.

2 Product description

2.1 Overview



Halton Vita VSC is an exhaust unit with grilles and a vertical duct for all Halton Vita OR Space and Halton Vita OR Zone solutions.

Product characteristics

- Includes two exhaust grilles, a vertical air duct and a duct spigot for horizontal exhaust ductwork connection
- One third (1/3) of the exhaust air flows through the upper grille and 2/3 through the lower grill
- Three different duct connection sizes covering a wide airflow range
- Standard heights at 100 mm intervals (3000-4300mm)
- Stainless steel grilles equipped with stainless steel mesh fluff separators
- Front panel of the grille is easy to remove and clean; can be sterilised in an autoclave

Product models

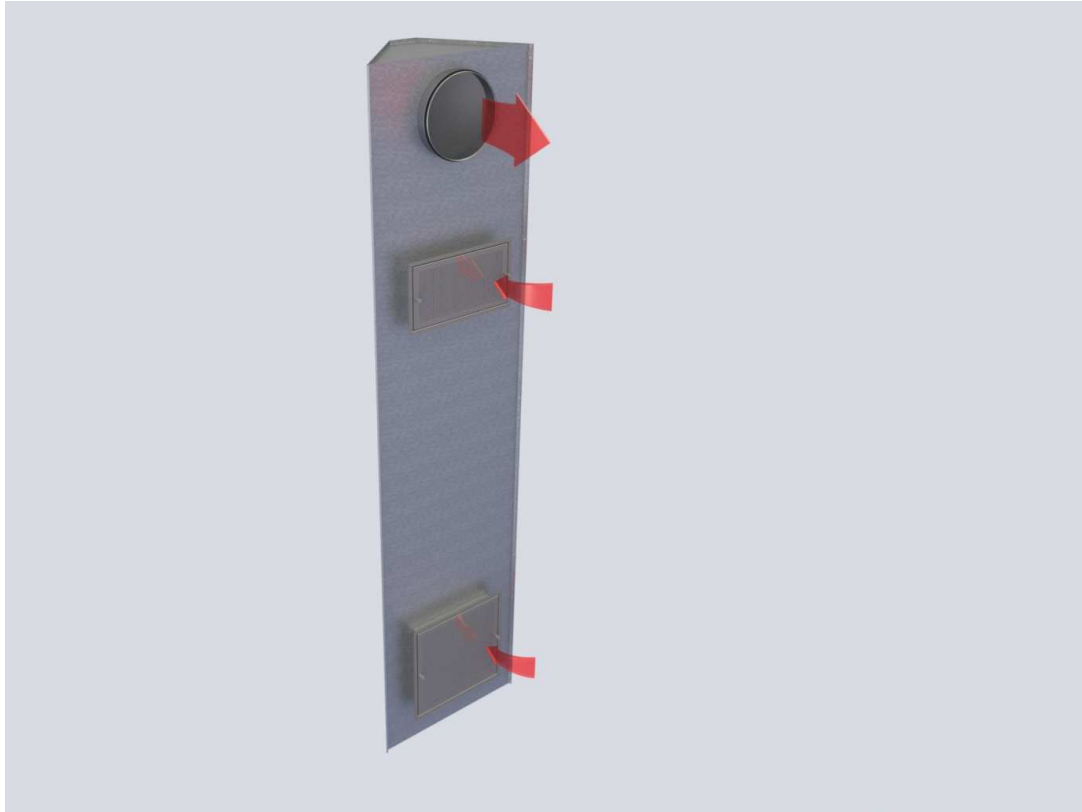
- Halton Vita VSC/A exhaust unit with circular duct connection for corner installations
- Halton Vita VSC/B exhaust unit with rectangular duct connection for wall installations

Options

- Single grille (lower grille) option available
- Special configurations with different airflow distribution ratios
- Available also without the metal mesh fluff separator
- Custom unit heights according to operating room design

2.2 Function

The exhaust air grilles are dimensioned so that one third (1/3) of the air is exhausted through the upper grille and two thirds (2/3) through the lower grille.



2.3 Material

Part	Material
Vertical duct	Galvanised steel
Duct spigot	Galvanised steel, gasket rubber compound
Exhaust grille	Stainless steel (AISI 316)
Fluff separator	Stainless steel (AISI 316)

2.4 Further technical details

For Halton Vita VSC dimensions and weight see the [Dimensions and weight](#) chapter in the technical reference data section.

3 Installation

3.1 Before you start

3.1.1 Installation process

This chapter outlines possible installation locations and related components.

Installation location

There are typically four Halton Vita VSC units in the operating room.

Halton Vita VSC units can be installed in the corners (Halton Vita VSC/A model recommended), or on the wall (Halton Vita VSC/B model recommended), accordingly to the location marked on the technical drawing prepared by the designer.

Both Halton Vita VSC models can be installed inside or outside the operating room.

Related components

Halton Vita VSG exhaust grilles are included in the Halton Vita VSC delivery. They complete the Halton Vita VSC installation.

3.2 Step by step instructions

3.2.1 Installing the Halton Vita VSC unit

The exhaust unit is connected to the exhaust air ductwork situated above the false ceiling. The ventilation contractor carries out the installation.

Before you start

- Unpack the modules and check their condition.
- Check that all the parts required for installation are present. That is:
 - the upper part of the Halton Vita VSC unit
 - the lower part of the Halton Vita VSC unit
 - fixing frames for Halton Vita VSG grilles (one for each opening)
 - two Halton Vita VSG grilles

NOTE: Halton Vita VSG grilles are packed separately.

NOTE: Bolts are included in the delivery: M5 x 50 for inwards installation and M5 x 110 for outwards installation.

- Disassemble metal mesh filter, grille frame and front panel before installation.
- Determine the correct location for unit installation:

- Outside or inside the room
- Corner or wall

Procedure

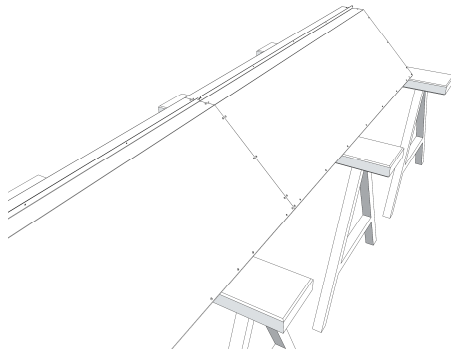
1. Assemble the upper and lower unit parts.

The Halton Vita VSC unit is delivered on site in two parts.

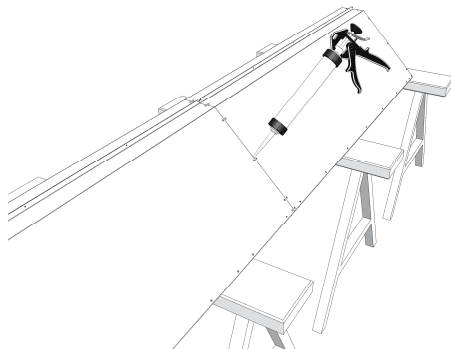
- a. Move the two unit parts so that they are in-line.



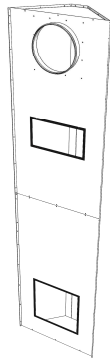
- b. Assemble the two parts with pop rivets.



- c. Seal the connection with sealant mass.



2. Raise the unit to the vertical position and move it to the place of installation.



3. Fix the unit to the wall construction.

- Halton Vita VSC/A model

Halton Vita VSC/A model has 12 pre-drilled fixing holes. Each hole has a 5 mm diameter and is placed in a flange.

NOTE: If the use of pre-drilled holes is not possible due to the type of wall construction follow the instructions for the Halton Vita VSC/B model.

- Halton Vita VSC/B model

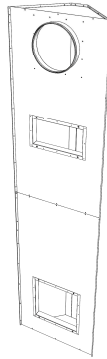
Secure the units with screws from the inside to the wall or use angle brackets. Use pop-rivets to attach angle brackets on the unit.

4. Fix the grille fixing frame to the exhaust unit duct.
 - a. Choose the orientation of the fixing frame installation.

The orientation of the fixing frame depends on the wall thickness. If the wall thickness is between:

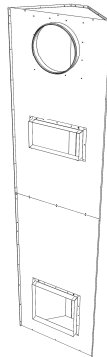
- 30-60 mm

The fixing frame has to be installed inwards.



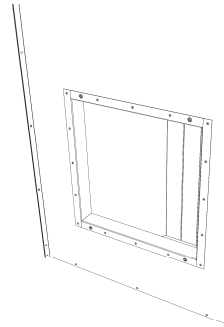
- 75-115 mm

The fixing frame has to be installed outwards.

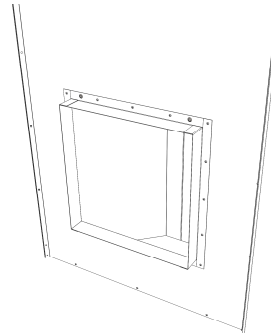


- b. Fix the grille fixing frame to the exhaust unit duct in the pre-made openings with pop rivets.

▪ Inwards



▪ Outwards



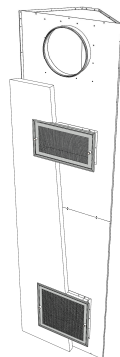
5. At this stage, the exhaust duct should be covered with a wall element. The wall element should have a hole for the grille. Check the hole dimensions from the table below.

NS	Hole Dimensions	Distance from the bottom to the centre of the lower grille	Distance from the top to the centre of the upper grille
400x200	465x265	-	844
400x400	465x465	444	-
500x250	565x315	-	869
500x500	565x565	494	-
600x250	665x315	-	869
600x600	665x665	544	-

Hole dimensions for different grille nominal sizes

6. Install the Halton Vita VSG grilles in the pre-made openings.

NOTE: See [Installing Halton Vita VSG in the Halton Vita VSC exhaust unit](#) for detailed installation instructions.



7. Connect exhaust air ductwork, situated above the false ceiling, to the Halton Vita VSC unit.



3.2.2 Installing Halton Vita VSG in the Halton Vita VSC exhaust unit

This procedure shows how to install the Halton Vita VSG in the Halton Vita VSC exhaust unit.

Before you start

- Install the Halton Vita VSC units.

NOTE: See [Installing the Halton Vita VSC unit](#) for detailed installation instructions.

Procedure

1. Fix the grille frame to the fixing frame with bolts.

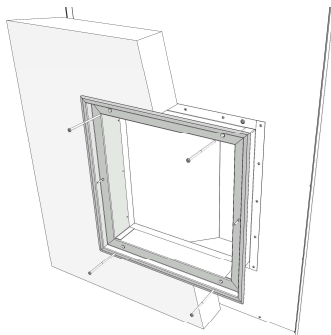
Depending on the orientation of the fixing frame installation:

- Inwards

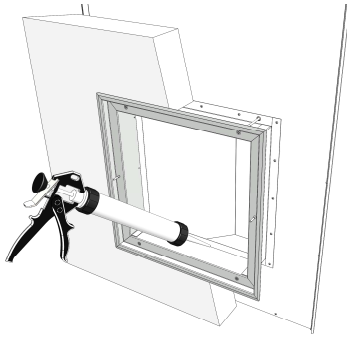
Use the shorter M5 x 50mm bolts.

- Outwards

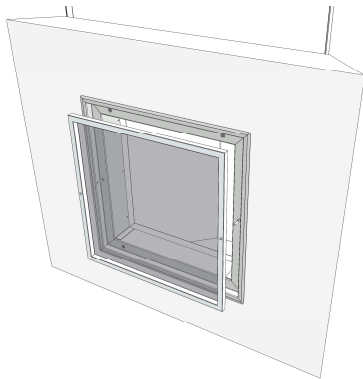
Use the longer M5 x 110mm bolts.



2. Seal the gap between the grille frame and the fixing frame with sealant mass.

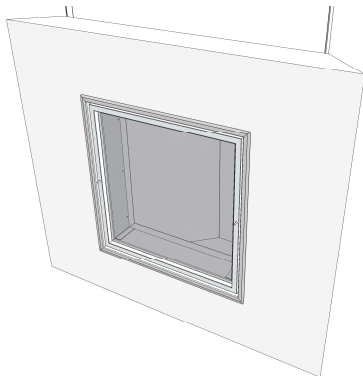


3. Align the metal mesh fluff separator so that the mesh side is facing the duct.

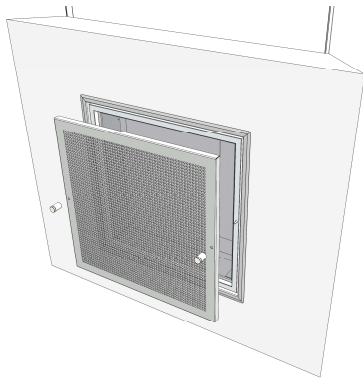


NOTE: The metal mesh fluff separator is optional.

4. Mount the metal mesh fluff separator to the grille frame by putting it on the bolt that frame has (optional).



5. Screw the knobs to fix the front panel to the grille frame.



Connect exhaust air ductwork to the Halton Vita VSC unit.

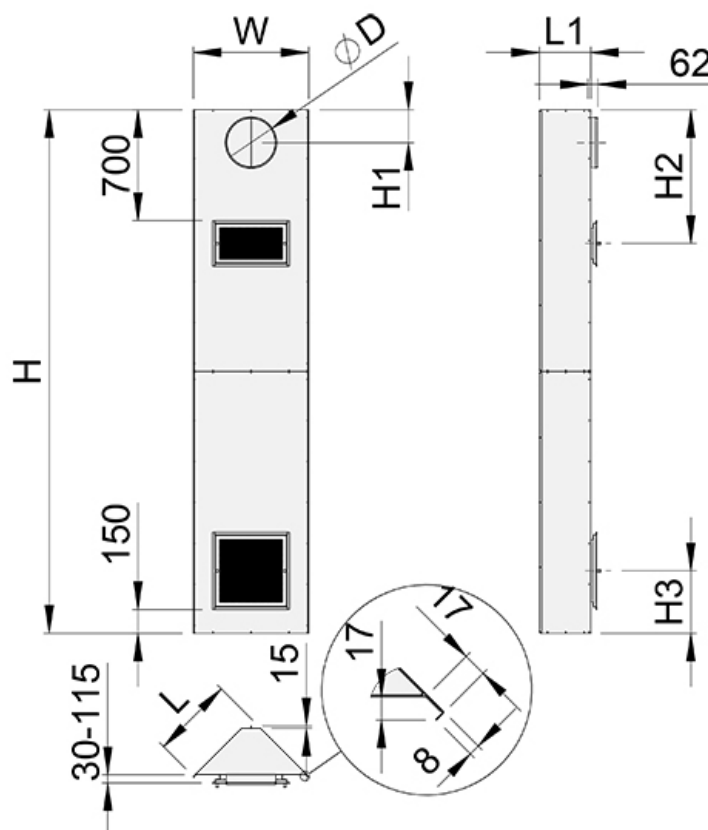
NOTE: See step 7 in [Installing the Halton Vita VSC unit](#) chapter for detailed instructions.

4 Technical reference data

4.1 Dimensions and weight

The dimensions for the different exhaust unit options are detailed in the following figures and tables. The standard models have an upper and lower exhaust grille, while the option with the lower grille only is also available.

Halton Vita VSC/A with circular duct connection for corner installations



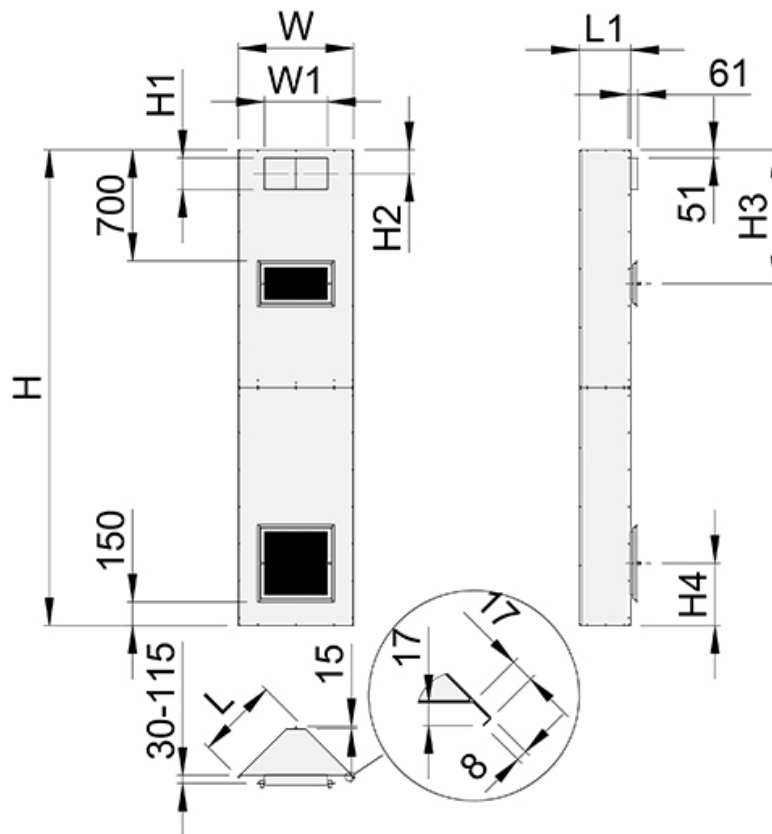
D	H	H1	H2	H3	L	L1	W	Lower grille	Upper grille
315	3000,3100...4300	208	844	444	515	325	727	400x400	400x200
400	3000,3100...4300	250	869	494	615	395	868	500x500	500x250
500	3000,3100...4300	300	869	544	715	466	1010	600x600	600x250

Halton Vita VSC/A with circular duct connection for corner installations dimensions

D	H	Weight (kg)
315	3000	49
400	3000	59
500	3000	69

Halton Vita VSC/A with circular duct connection for corner installations weight

Halton Vita VSC/A with rectangular duct connection for corner installations



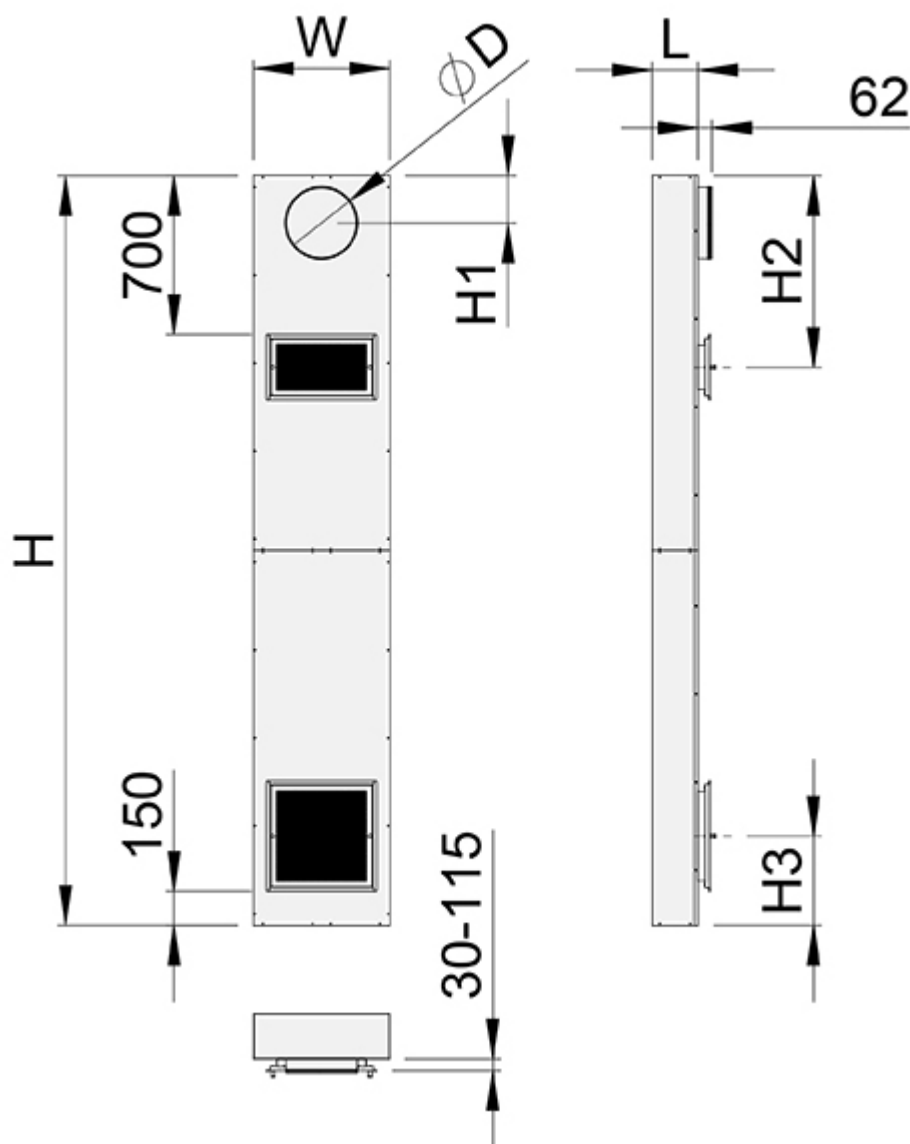
W1xH1	H	H2	H3	H4	L	L1	W	Lower grille	Upper grille
400x200	3000,3100...4300	150	844	444	515	325	727	400x400	400x200
500x250	3000,3100...4300	175	869	494	615	395	868	500x500	500x250
600x300	3000,3100...4300	200	869	544	715	466	1010	600x600	600x250

Halton Vita VSC/A with rectangular duct connection for corner installations dimensions

W1xH1	H	Weight (kg)
400x200	3000	49
500x250	3000	59
600x300	3000	69

Halton Vita VSC/A with rectangular duct connection for corner installations weight

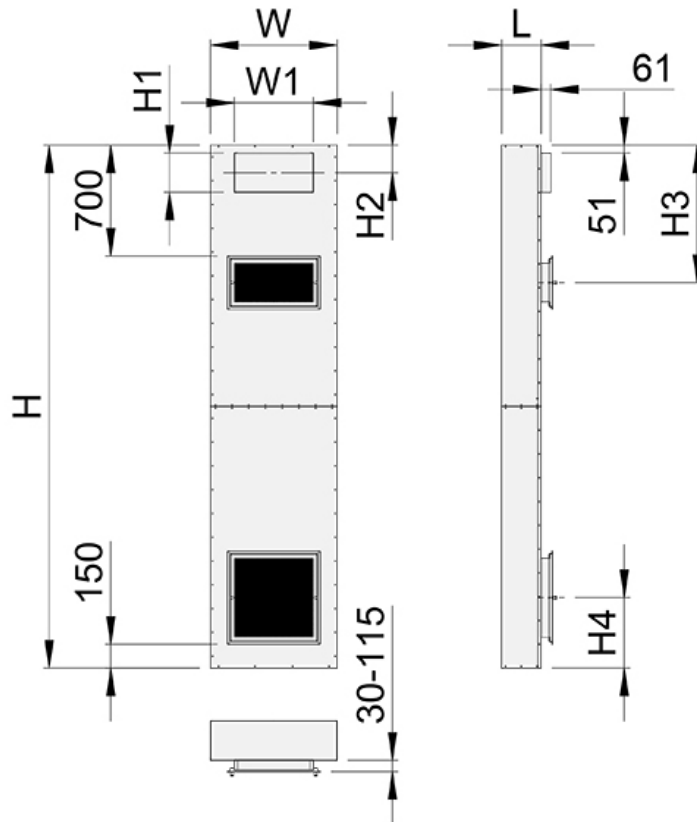
Halton Vita VSC/B with circular duct connection for wall installations



D	H	H1	H2	H3	L	W	Lower grille	Upper grille
315	3000,3100...4300	208	844	444	200	600	400x400	400x200
400	3000,3100...4300	250	869	494	250	800	500x500	500x250
500	3000,3100...4300	300	869	544	300	800	600x600	600x250

Halton Vita VSC/B with circular duct connection for wall installations dimensions

Halton Vita VSC/B with rectangular duct connection for wall installations



W1xH1	H	H2	H3	H4	L	W	Lower grille	Upper grille
400x200	3000,3100...4300	150	844	444	200	600	400x400	400x200
500x250	3000,3100...4300	175	869	494	250	800	500x500	500x250
600x300	3000,3100...4300	200	869	544	300	800	600x600	600x250

Halton Vita VSC/B with rectangular duct connection for wall installations dimensions