

# Halton Vita VHH – HEPA diffuser



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## Overview

Halton Vita VHH is a diffuser that is dedicated for hospitals and cleanrooms. It is suitable to install flush with the ceiling or the wall. Air is supplied through adjustable nozzles.

The diffuser is designed to be equipped with H14 class HEPA filter with gel gasket.

Halton Vita VHH is available in one size with two different types of duct connection.

## Applications

- Cleanrooms in hospitals and laboratories
- Suitable for supply ventilation
- Can be installed flush with the ceiling or wall

## Key features

- Radial, swirl or low turbulent flow pattern
- Air supply through adjustable nozzles
- Lockable nozzles that allow easy cleaning without changing the nozzles setting
- H14 class HEPA filter available
- Antibacterial epoxy-polyester powder paint finishing to prevent microbial growth
- Easy filter change through the front panel
- Test probe for measuring the filter pressure loss

# Quick selection

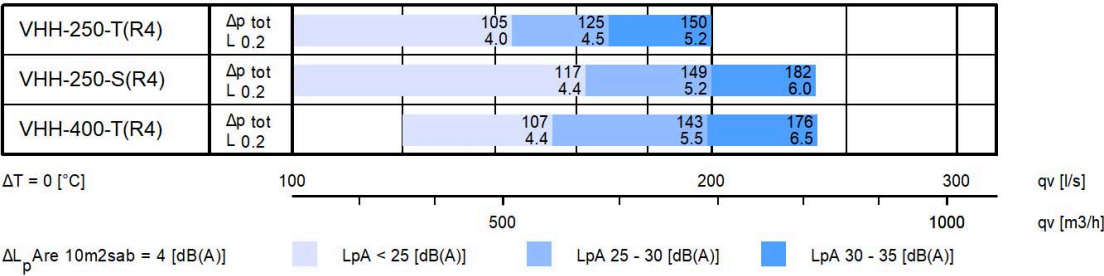
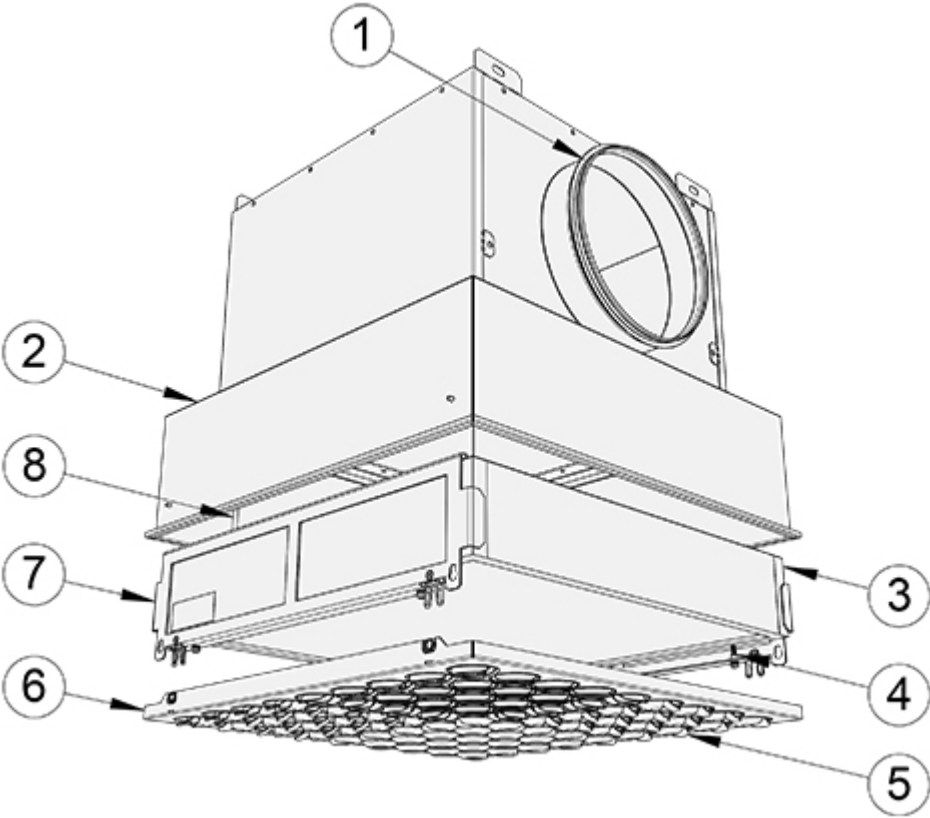


Fig.1. Halton

VHH, radial jet 4 directions

# Material

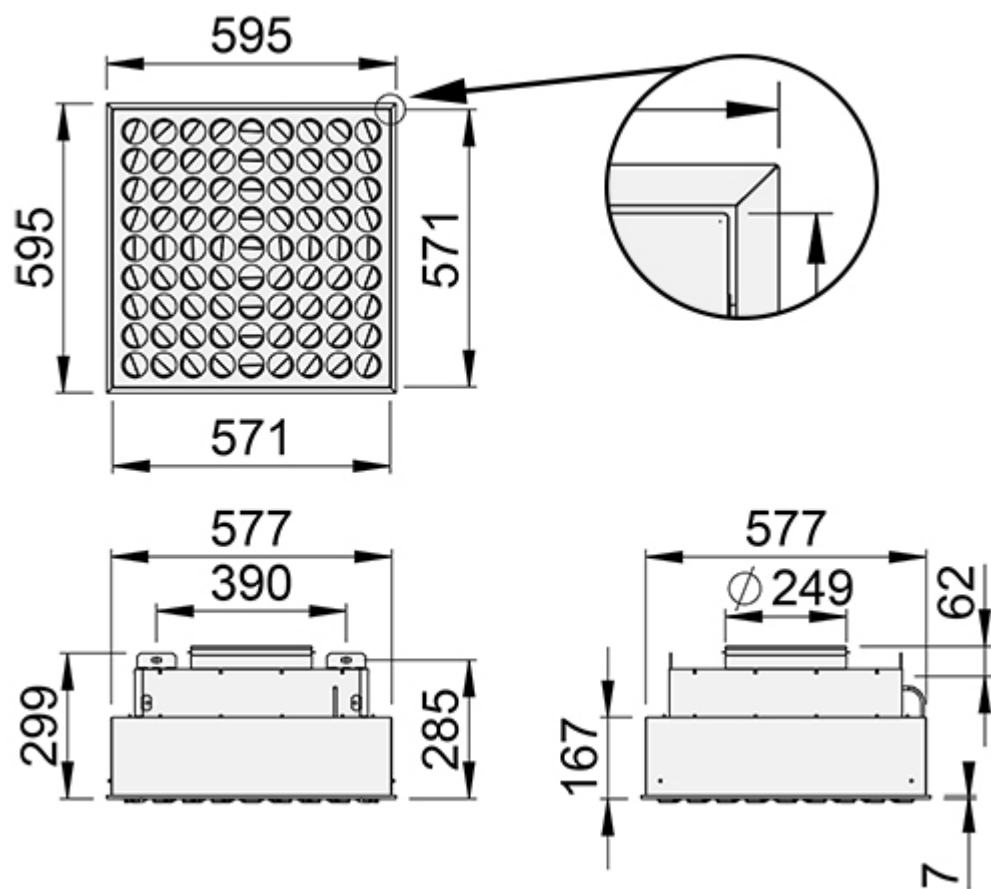


| No. | Part                      | Material   | Colour alternatives  |
|-----|---------------------------|--|--|
| 1   | Duct seal gasket          | Rubber   | –  |
| 2   | Casing                    | Galvannealed steel with antibacterial epoxy polyester powder paint, white (RAL 9003) finishing | Special colours available on request   |
| 3   | Filter                    | Fibreglass paper, aluminium frame and gel gasket   | –  |
| 4   | Filter tightening screws  | Acid proof steel M5x25 screws  | –  |
| 5   | Nozzles                   | Polyacetal (POM)   | White, grey, black   |
| 6   | Front panel               | Galvannealed steel with antibacterial epoxy polyester powder paint, white (RAL 9003) finishing | Standard epoxy polyester powder paint, white (RAL 9003) and special colours available on request |
| 7   | Filter brackets           | Galvanised steel with antibacterial epoxy polyester powder paint, white (RAL 9003) finishing   | –  |
| 8   | Pressure measurement hose | Polyurethane   | –  |

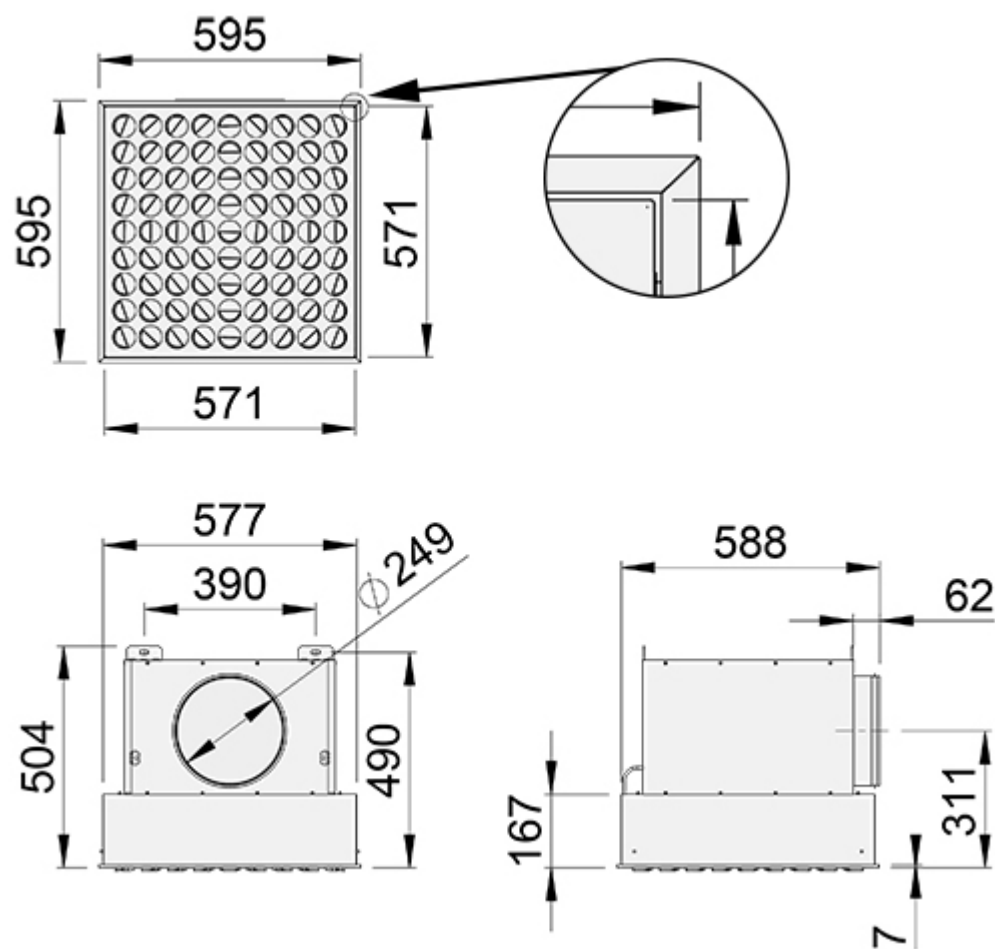
## Dimensions

Halton Vita VHH is available in one size (600 x 600). There three options that differ in duct connection type and size.

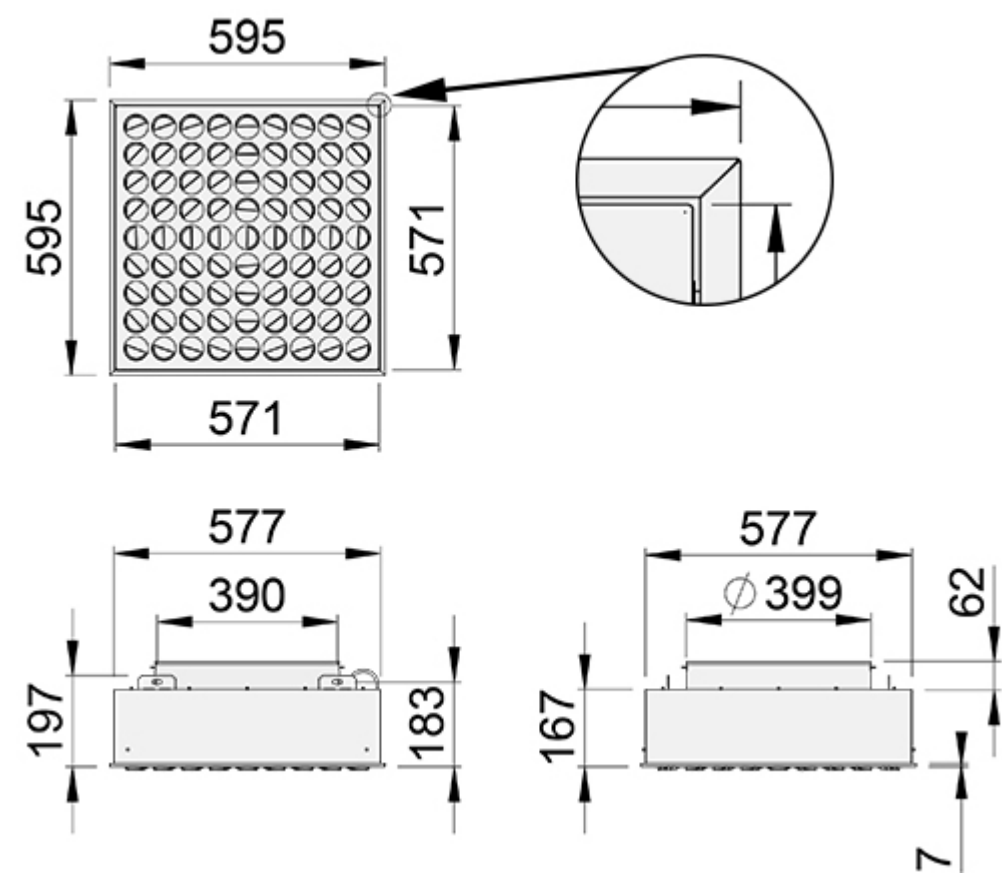
Halton Vita VHH with top circular (Ø250) duct connection



Halton Vita VHH with side circular (Ø250) duct connection



# Halton Vita VHH with top circular (Ø400) duct connection



| Duct connection location | ØD  | Weight (kg) |
|--------------------------|-----|-------------|
| Top                      | 250 | 12.7        |
| Side                     | 250 | 15.9        |
| Top                      | 400 | 10.7        |

## Operating principle

The diffuser supplies the filtered air into the space. Adjustable nozzles allow creating the desired airflow pattern. Nozzles can be adjusted in 15 degrees intervals.



## Installation

The installation of Halton Vita HEPA diffuser is performed by the ventilation contractor.

The diffuser is connected to the duct by screwing or by riveting. The duct connection spigot is equipped with a seal gasket. The diffuser can be installed:

- Flush with the ceiling (hung from the ceiling with M6 drop rods using fixing brackets)
- Flush with the wall

### CAUTION!

Do not drill any holes into the casing. If the casing has been damaged, unfiltered air may leak.

**NOTE:** Step-by-step instructions on how to install the diffuser can be found in the Halton Vita HEPA diffuser Installation, commissioning and maintenance guide. To download the guide go to the “Downloads” section.

## Adjustment

The nozzles are pre-set in the factory to four directions.

To create the desired airflow pattern adjust the nozzles manually on site. Nozzles can be adjusted in 15 degrees intervals.

**NOTE:** Step-by-step instructions on how to adjust the nozzles can be found in the Halton Vita

HEPA diffuser Installation, commissioning and maintenance guide. To download the guide go to the “Downloads” section.

## Servicing

The required servicing tasks include filter change and cleaning the diffuser.

To ensure that air quality meets the requirements check the HEPA filter in short time intervals and replace the filter when necessary. The servicing frequency of a filter depends on the air cleanliness of the supply air and room air. Replace the filter immediately if:

- the final differential pressure has been reached
- the filter is damaged
- micro-organisms, fungal spores, or odours are present in the space

Clean the diffuser with disinfectants. The front panel can be detached and cleaned in the pre autoclave washing machine (<95°C). Lockable nozzles, that ensure that nozzles setting is not changed during cleaning.

**NOTE:** Step-by-step instructions on how to perform servicing can be found in the Halton Vita HEPA diffuser Installation, commissioning and maintenance guide. To download the guide go to the “Downloads” section.



# Filters



## Description

High efficiency particulate air (HEPA) filters are widely applied in cleanrooms where high air quality standards are essential.

## Technical data of HEPA filters

Filter compatible with Halton Vita VHH diffuser is available in class H14 (European Standard EN 1822-1:2009) with gel gasket.

Operating range:

- Temperature max. 70 °C
- Humidity max. 90 %
- Final pressure drop max. 500 Pa

| Dimensions WxHxD (mm) | Filter class | Weight (kg) | Order code                |
|-----------------------|--------------|-------------|---------------------------|
| 557x557x102           | H14          | 5.3         | AF-H14-AL-557*557*102-GEL |

# Specification

Diffuser with HEPA filter for cleanroom application. Creates radial, swirl or low turbulent airflow pattern. Suitable for supply ventilation. Possible to install flush to the ceiling or the wall.

## Construction

- Air supply through adjustable nozzles
- Lockable nozzles that ensure that nozzles setting is not changed during cleaning
- A smooth internal surface that enables easy cleaning
- Easy filter change through the front panel
- Test probe for measuring the filter pressure loss

## Material

- Galvannealed steel casing
- Antibacterial epoxy-polyester powder paint finishing to prevent microbial growth

## Accessories

A HEPA filter with aluminium frame and gel gasket according to EN 1822 with individual test certificate

## Order code

### VHH/D-C; CO-ZT

**D = Size of duct connection (mm)**  
250, 400

**C = Location of duct connection**  
S Side connection  
T Top connection

## Other options and accessories

**CO = Colour**  
SA Signal White (antibacterial, RAL 9003)  
SW Signal White (RAL 9003)  
X Special colour (RAL xxxx)

**ZT = Tailored product**

N No

Y Yes (ETO)

## Code Example

VHH-250-S, CO=W, ZT=N