

DHC

HEPA terminal filter diffuser



- Horizontal air supply through conical front panel
- Installation flush to the ceiling, also suitable for wall installation
- A measurement access through the diffuser plenum for pressure measurement and aerosol test
- Easy filter change and cleaning through the openable diffuser panel
- Low unit height
- Fixing brackets for easy installation of the product
- Sizes 595 and 670 adapted for installation in modular suspended ceilings
- HEPA filters H11 and H14 available as standard
- Powder coated finishing, standard colour RAL9010

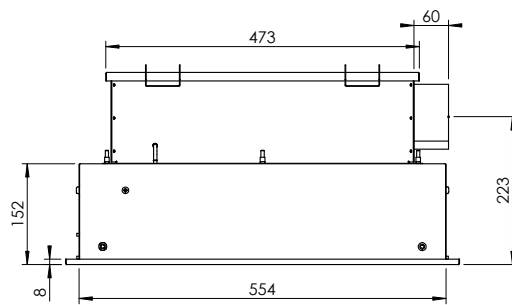
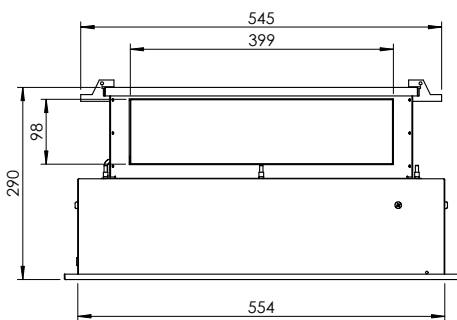
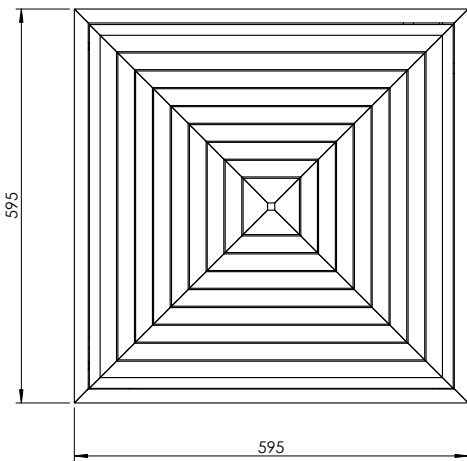
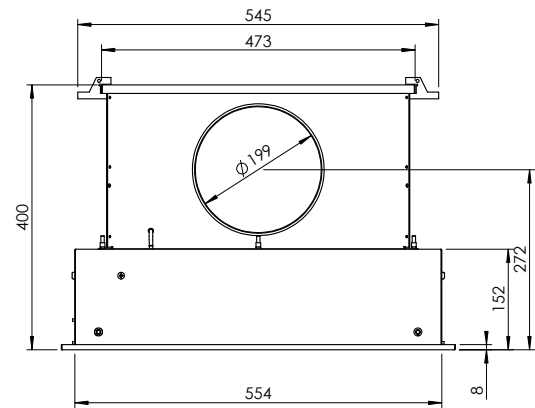
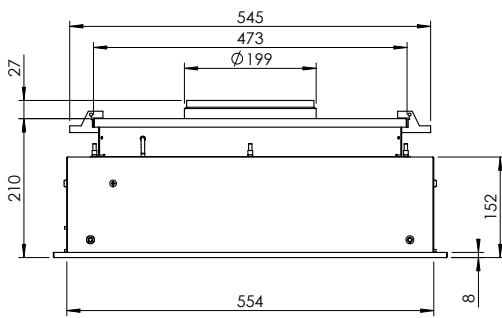
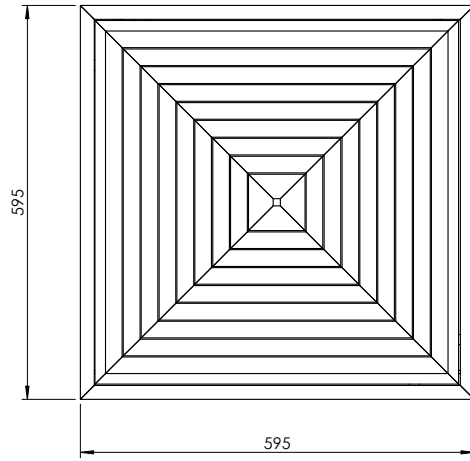
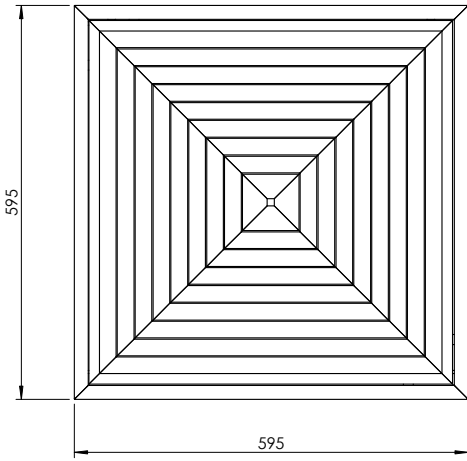
Accessories

- Filters should be ordered separately.
- H11 with polyurethane seal
- H14 with polyurethane or gel seal

MATERIAL AND FINISHING

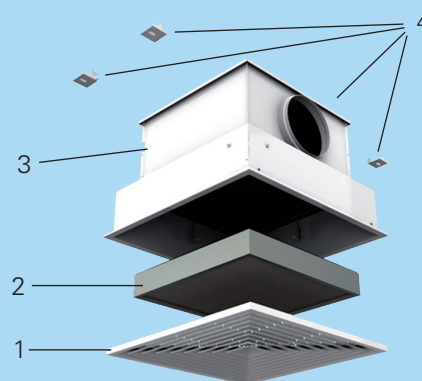
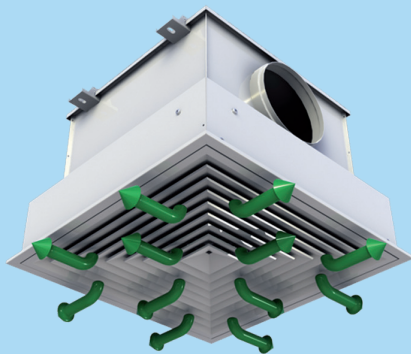
PART	MATERIAL	NOTE
Casing	Galvanized steel	
Front panel	Aluminium	
Coupling sleeve	Galvanized steel	
Filter brackets	Acid proof steel	
Guide pins	Polyethylene terephthalate (PET)	
Fixing brackets	Galvanized steel	
Finishing	Painting, standard colour RAL 9010	Special colours available

DIMENSIONS



DHC - HEPA terminal filter diffuser





Function

Air is filtered and supplied horizontally into the space or exhausted through the conical front panel of the unit.

Installation

- 1 Front panel
- 2 Filter
- 3 Plenum
- 4 Installation brackets

The diffuser is connected directly to the duct by screwing or by riveting. The connection is sealed as leakproof with an appropriate method.

The diffuser is installed either fast into or hanged from the ceiling with M8 drop rods using movable fixing brackets. Alternatively the diffuser is installed fast to the wall construction.

Open the front panel be gently pulling from the openings on side of the front panel. Front panel will hang from the hinges. Detach the panel from the hinges.

Clean the diffuser plenum before the filter installation
Install the filter into diffuser. The guide pins ensure the exact location of the filter. Turn the brackets below the filter and tighten them evenly.

Scan the filter for bypass leakages and correct the tightness, if necessary

Reattach the front panel by pushing it until the springs lock.

Adjustment

The airflow adjustment and shut off will be made with PTS/A damper in the ductwork (tightness class 4 EN 1751). The pressure drop of the clean filter can be used as a reference for airflow rate with a reasonable accuracy. If there is no measurement unit available, Halton MDA or MSD may be used as measurement unit.

Constant or variable air flow & shut off

The airflow is adjusted with the aid of electrical airflow management damper HFB/G in the ductwork. Depending on the application the damper is ordered either with constant or variable air volume settings. See details of ordering from HFB documentation.



Filters

Laminar flow filter, class H11 and H14

Specification

- Strong frame and construction with steel protection grid
- Filters available in classes H11, H14
- Aluminium frame, foamed polyurethane or gel gasket
- Protection screens composed of stretched steel grid with white painting

MATERIALS

PART	MATERIAL
Filter	Folded class fibre paper
Frame	Aluminium
Sealant	Polyurethane or gel

Operating range

- Continuous operating temperature 80 °C
- Relative humidity max. 100 %
- Final pressure drop recommended for filter replacement 400 Pa
- Maximum allowable pressure drop 600 Pa

FILTER SELECTION

PRODUCT CODE	CLASS	SIZE	GASKET	DHC 595
CLP-LF-AL-457-457-68-0-H11-GF-P	H11	457 x 457 x 68	PUR foam	X
CLP-LF-AL-457-457-68-0-H14-GF-P	H14	457 x 457 x 68	PUR foam	X
CLP-LF-AL-457-457-80-G-H14-GF-P	H14	457 x 457 x 80	PUR gel	X

DIMENSIONS

FILTER TYPE	FILTER CODE	W	H	D
H11 with polyurethane sealant	CLP-LF-AF-457-457-68-0-H11-GF-P	457	457	68
H14 with polyurethane sealant	CLP-LF-AF-457-457-68-0-H14-GF-P	457	457	68
H14 with gel sealant	CLP-LF-AF-457-457-80-G-H14-GF-P	457	457	80

TECHNICAL VALUES

FILTER TYPE	FILTER CODE	FILTER CLASS	FLOW RATE m³/h	l/s	INITIAL PRESSURE DROP Pa	FILTERING SURFACE m²	WEIGHT Kg
H11 with foam sealant	CLP-LF-AL-457-457-68-0-H11-GF-P	H11	335	90	70 (±20)	6,2	3,5
H14 with foam gasket	CLP-LF-AL-457-457-68-0-H14-GF-P	H14	335	90	120 (±20)	6,3	3,5
H14 with gel gasket	CLP-LF-AL-457-457-80-G-H14-GF-P	H14	335	90	120 (±20)	6,3	3,8

Servicing

Close the airflow with the shut off damper.

Detach the front panel by gently pulling it down. The front panel can also be removed to further ease the filter change.

Remove the filter from the diffuser box by unlocking the brackets and turning the fasteners to the side.

Clean carefully the diffuser and housing with a suitable method.

Install the new filter & lock it with the fasteners and tighten the screws.

Scan the filter for bypass leakages and correct the tightness, if necessary

Reattach the front panel by pushing it until the springs lock.

Suggested specifications

Horizontal supply air diffuser DHC with HEPA filter for hospital and clean room environments to be installed flush to the ceiling or to the wall.

Diffuser is adapted for installation in modular suspended ceiling. Diffuser frame adapted to suite different ceiling types. The diffuser is installed either fast into ceiling/wall or hanged from the ceiling using movable fixing parts.

Diffuser casing is made of galvanized steel and powder painted. The inside of the diffuser is smooth to enable easy cleaning and free from grooves to prevent collection of impurities. Plenum is equipped with an internal measurement tap for filter pressure drop and aerosol test.

Easy filter change and cleaning of the diffuser and ductwork through open able diffuser panel. Integral guides shall enable exact positioning of the filter to ensure complete tightness.

HEPA filter with aluminium frame and cold molded polyurethane or gel seal according to EN 1822 is supplied with individual test certificate (H14).

Product code

DHC-A-D

A = Diffuser size

A = 595

D = Duct connection

D = 1 Top connection

D = 2 Side connection, round

D = 3 Side connection, rectangular

Specifics and accessories

CO = Colour

W White, RAL 9010

X Special colour

IO = Ceiling type installation option

NA Standard T-profile (All sizes)

DC Dampa ceiling (Only for D = 595)

MA = Material

CS Galvanized steel

Code Example

DHC-595-1, CO=W, IO=NA, MA=CS