

DHL

HEPA terminal filter diffuser



- Low turbulent flow diffuser (LTF), also suitable for exhaust
- 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

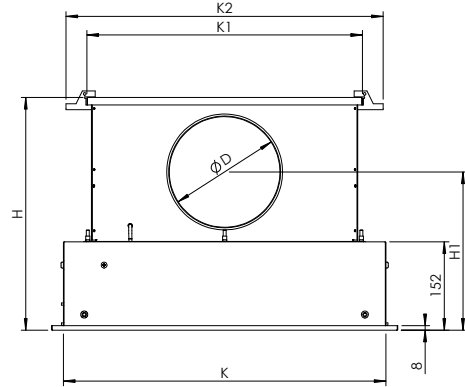
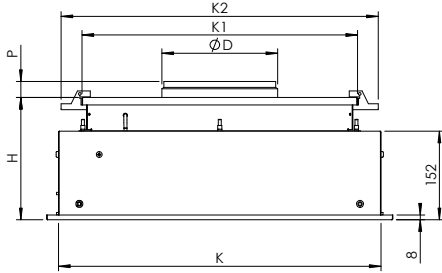
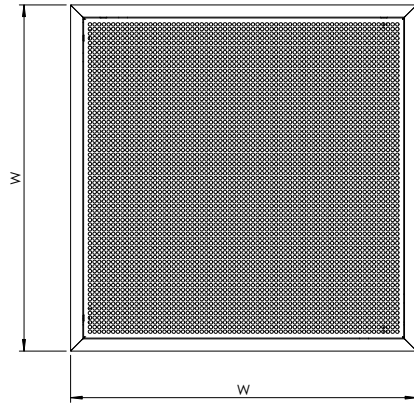
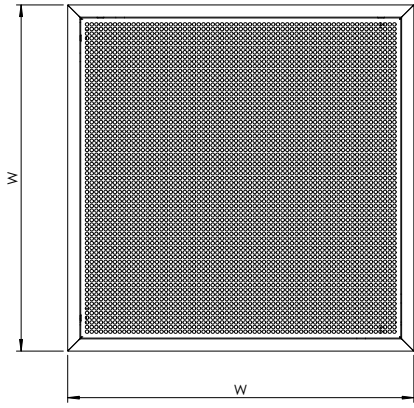
Accessories

- Filters should be ordered separately.
- H11 with polyurethane seal
- H14 with polyurethane or gel seal
- Pre-filter G4 for exhaust applications

MATERIAL AND FINISHING

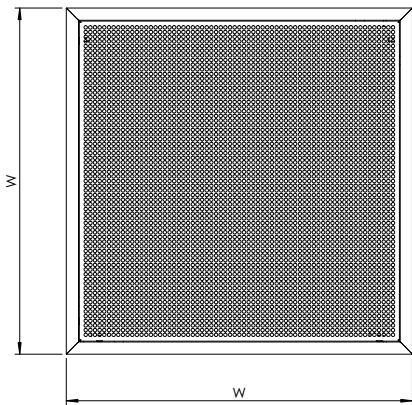
PART	MATERIAL	NOTE
Casing	Galvanized steel	
Front panel	Perforated steel	
Coupling sleeve	Galvanized steel	
Filter brackets	Acid proof steel	
Guide pins	Polyethylene terephthalate (PET)	
Fixing brackets	Galvanized steel	
Finishing	Painting, standard colour RAL 9010	Special colours available

DIMENSIONS

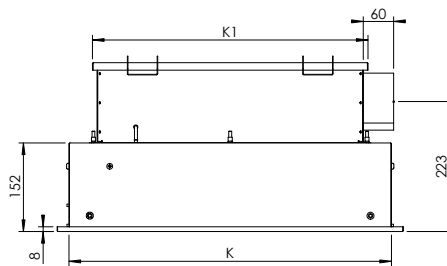
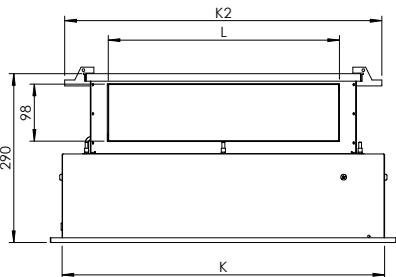


DHL	ØD	W	H	K	K1	K2
365-1	159	365	210	336	320	392
595-1	199	595	210	554	473	545
670-1	314	670	210	641	625	697
315	418	313	6			

DHL	ØD	W	H	H1	K	K1	K2
365-2	159	365	360	252	336	320	392
595-2	199	595	400	272	554	473	545
670-2	249	670	450	297	641	625	697
315	418	313	6				

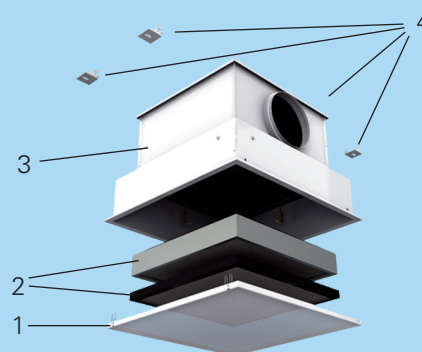
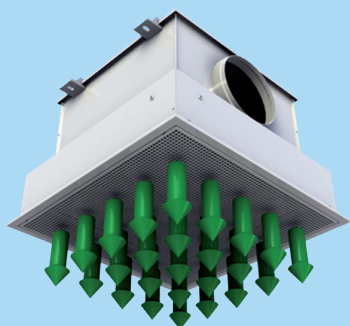


DHL	L	W	K	K1	K2
365-3	199	365	336	320	392
595-3	399	595	554	473	545
670-3	499	670	641	625	697



DHL - HEPA terminal filter diffuser





Function

Air is filtered and supplied with low turbulence into the space or exhausted through the perforated 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	DHL 365	DHL 595	DHL 670
CLP-LF-AL-305-305-68-0-H11-GF-P	H11	305 x 305 x 68	PUR foam	X		
CLP-LF-AL-457-457-68-0-H11-GF-P	H11	457 x 457 x 68	PUR foam		X	
CLP-LF-AL-610-610-68-0-H11-GF-P	H11	610 x 610 x 68	PUR foam			X
CLP-LF-AL-305-305-68-0-H14-GF-P	H14	305 x 305 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-610-610-68-0-H14-GF-P	H14	610 x 610 x 68	PUR foam			X
CLP-LF-AL-305-305-80-G-H14-GF-P	H14	305 x 305 x 80	Gel	X		
CLP-LF-AL-457-457-80-G-H14-GF-P	H14	457 x 457 x 80	Gel		X	
CLP-LF-AL-610-610-80-G-H14-GF-P	H14	610 x 610 x 80	Gel			X

DIMENSIONS

FILTER TYPE	FILTER CODE	W	H	D
H11 with polyurethane sealant	CLP-LF-AF-305-305-68-0-H11-GF-P	305	305	68
	CLP-LF-AF-457-457-68-0-H11-GF-P	457	457	68
	CLP-LF-AF-610-610-68-0-H11-GF-P	610	610	68
H14 with polyurethane sealant	CLP-LF-AF-305-305-68-0-H14-GF-P	305	305	68
	CLP-LF-AF-457-457-68-0-H14-GF-P	457	457	68
	CLP-LF-AF-610-610-68-0-H14-GF-P	610	610	68
H14 with gel sealant	CLP-LF-AF-305-305-80-G-H14-GF-P	305	305	80
	CLP-LF-AF-457-457-80-G-H14-GF-P	457	457	80
	CLP-LF-AF-610-610-80-G-H14-GF-P	610	610	80

TECHNICAL VALUES

FILTER TYPE	FILTER CODE	FILTER CLASS	FLOW RATE		INITIAL PRESSURE DROP Pa	FILTERING SURFACE m ²	WEIGHT Kg
			m ³ /h	l/s			
H11 with foam sealant	CLP-LF-AL-305-305-68-0-H11-GF-P	H11	150	40	70 (±20)	2,7	2,5
	CLP-LF-AL-457-457-68-0-H11-GF-P	H11	335	90	70 (±20)	6,2	3,5
	CLP-LF-AL-610-610-68-0-H11-GF-P	H11	600	170	70 (±20)	11	7
H14 with foam gasket	CLP-LF-AL-305-305-68-0-H14-GF-P	H14	150	40	120 (±20)	2,7	2,5
	CLP-LF-AL-457-457-68-0-H14-GF-P	H14	335	90	120 (±20)	6,2	3,5
	CLP-LF-AL-610-610-68-0-H14-GF-P	H14	600	170	120 (±20)	11	7
H14 with gel gasket	CLP-LF-AL-305-305-80-G-H14-GF-P	H14	150	40	120 (±20)	2,7	2,7
	CLP-LF-AL-457-457-80-G-H14-GF-P	H14	335	90	120 (±20)	6,2	3,8
	CLP-LF-AL-610-610-80-G-H14-GF-P	H14	600	170	120 (±20)	11	7,7



Goarse panel filter, class G4

Specification

- Progressive thermally smoothened synthetic polyester having high dust holding capacity and high constancy for humidity
- The filter media is framed by a rigid plastic frame, which makes filters completely incinerable.
- Glueable seal provided with filter delivery

MATERIALS

PART	MATERIAL
Filter	Polyester fibre
Frame	Plastic
Sealant	Foamed plastic

Operating range

- Continuous operating temperature 80 °C
- Relative humidity max. 100 %
- Final pressure drop recommended for filter replacement 200 Pa
- Initial efficiency (2 µm, 1700 m³/h) 50 %

FILTER SELECTION

FILTER CODE	CLASS	SIZE	GASKET	DHL 365	DHL 595	DHL 670
ST-WF-P-302-302-25-H01-G4-S-P	G4	302 x 302 x 25	Yes	X		
ST-WF-P-457-457-25-H01-G4-S-P	G4	457 x 457 x 25	Yes		X	
ST-WF-P-610-610-25-H01-G4-S-P	G4	610 x 610 x 25	Yes			X

DIMENSIONS

FILTER CODE	W	H	D
ST-WF-P-302-302-25-H01-G4-S-P	302	302	25
ST-WF-P-457-457-25-H01-G4-S-P	457	457	25
ST-WF-P-610-610-25-H01-G4-S-P	610	610	25

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

Low turbulence flow supply and exhaust diffuser DHL with HEPA filter for hospital and clean room environments to be installed flush to the ceiling or to the wall.

Nominal size 595 and 670 adapted for installation in modular suspended ceiling. Diffuser frame (size 595) 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

DHL-A-D

A = Diffuser size

A = 365

A = 595

A = 670

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

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