Text for tender

HEPA Filter System, Type GS

* The HEPA filter system, type GS is used to take in HEPA filter elements.
* The filter system can be used single or in combination with additional housings e.g. for pre-filter or sorption filter. For filtration of higher air flows some filter housings can be combined to large filter systems of any size.
* The connection is realised by a gastight duct system at both the top and bottom side of the housing. This allows the installation of one or more filter housings in circular duct systems one after the other.
* Both direction of airflow – „top-down“ or „bottom-up” can be choosen.
* Installation resp. fixing is done by either:  
  – plugging on static fixed ducts,  
  – attaching to wall brackets (available on request),  
  – positioning on floor supports (available on request).
* The duct connection is designed as a machine-lip flange for pull-ring connection, e. g. Jacob system, DN 300.
* Also a welded flange according EN 12 220, DN 300, is available as an option.

Design and funktion:

* All single parts of the filter housing type GS are made from stainless steel, material 1.4301 (AISI/SAE 304) and are connected gastight. Each filter housing has passed a detailed factory acceptance test (FAT).
* The HEPA filter housing is equipped with a clamping system for the filter element. The clamping system is composed of two single operating and balancing support frames at both sides of the housing with clamping screws which can be operated from outside. The transmission of the clamping force is done by means of springs. This means that losses of elasticity of the filter element sealing as well as manufacturing tolerances of the filter element hight will be leveled.
* The transition of the screws through the filter housing will be closed by a gastight plastic cover.
* The HEPA filter element will be installed into the housing absolutely gastight. The tightness proof frame of the filter element has a test groove acc. DIN 1946-4. A tube is leading from there to the outside of the housing and allows the connection of a leak test device in order to check the gastight seat of the filter element.
* Manometer points on both raw air and clean air side to connect pressure gauge for checking the pressure drop of the filter element.
* The filter housing for a pre-filter element is equal to the HEPA filter housing, but instead of the clamping devise a leaf spring is used.
* For the contamination free exchange of the filter elements (essential when filtering harmful air) a special collar can be connected to the opening of the housing gastight. The collar has two undercut grooves for the fixation of the plastic bag by means of hollow rubber bands.
* Gastight maintenance cover fixed to the filter housing by means of screwing elements with a star shaped handle. This cover ensures a gastight closing of the insertion port a protection of the special collar and the rolled plastic bag.

**Technical Data**

Pre-filter

* Dimension of filter elements: 610 x 610 x 50 mm
* Hight of housing: 348 mm
* Operating flow rate per housing: 1 800 m3/h
* Max. flow rate per housing1): 2 200 m3/h
* Weight without filter elements (approx.): 20 kg
* Dimension of filter elements: 610 x 610 x 150 mm
* Hight of housing: 443 mm
* Operating flow rate per housing: 1 800 m3/h
* Max. flow rate per housing1): 2 200 m3/h
* Weight without filter elements (approx.): 24 kg

HEPA filter

* Dimension of filter elements: 610 x 610 x 150 mm
* Hight of housing: 473 mm
* Operating flow rate per housing: 1 000m3/h
* Max. flow rate per housing1): 1 200 m3/h
* Weight without filter elements (approx.): 26 kg
* Dimension of filter elements: 610 x 610 x 292 mm
* Hight of housing: 615 mm
* Operating flow rate per housing: 1 800 m3/h
* Max. flow rate per housing1): 2 200 m3/h
* Weight without filter elements (approx.): 32 kg

1)According to the performance of the used filter elements. Technical data of the filter element manufacturer will apply. Filter housing for higher flow rate above 2 200 m3/h on request!

Subject to technical alterations.

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