Text for tender

Safe change filter housing, Type SCFclassic

* For the separation of airborne particles and aerosols, provide for a horizontal arrangement of the following particulate air filter elements:
- Fine dust filter elements; W/H/D 610/610/150 [mm]; filter class F. acc. to EN 779
- HEPA filter elements; W/H/D 610/610/292 [mm]; filter class H.. acc. to EN 1822

General

* Extreme compact construction, by means of a special arrangement of the filter elements
* All welding are made according to DIN 25 496, item 6.2(4), that means using stabilised steel at austenitic material, e.g. material 1.4541 (AISI/SAE 321 or B.S. 321 S12) and using killed steel at ferretic material. To ensure a good decontamination and disinfection result housing welds are continuous and without gaps
* The clamping devices of the HEPA filter elements are operated from outside and proportioned to ensure the tightness requirements for the seat of the filter element according to DIN 25 496, table 3, under conditions of maximum loading of the filter elements and a retreating sealing
* The filter housing design allows the exchange of the filter elements by means of the safe change technology and without of contamination of operational staff and environment
* Profile sealing made of silicon rubber ensure the tightness of the screwed parts of the filter housing. The sealing system is not sticking, therefore the sealing is easy detachable and also reusable during maintenance work

Design

* Robust filter housing made of stainless steel, material 1.4301 (AISI/SAE 304) in gastight design according to the tightness requirements of the DIN 25 496, table 3, to insert filter elements
* Intake device for the positioning of filter elements with a vertical air flow
* Top and bottom positioned connecting flanges for air inlet- and outlet chamber
* Insertion ports for filter elements, equipped with a special collar for the safe change technology.
* Special collar, made of aluminium, with two grooves according to DIN 25 466, supplement 1, to take the hollow rubber band for the plastic bag fixation.
* Undercut groove with perfectly matched hollow rubber band to ensure total safety with gastight sealing of safe change plastic bag
* Maintenance covers made of stainless steel, material 1.4301 (AISI/SAE 304) to ensure a gastight closing of the insertion ports and a protection of the special collar and the rolled plastic bag.
* The covers are fixed to the filter housing, by means of four screwing elements with a star shaped handle. Each cover is equipped with a central positioned transport handle
* Clamping of the HEPA filter elements by means of self-adjusting spring system, to ensure the tightness requirements for the seat of the filter element according to DIN 25 496, table 3, under conditions of a retreating sealing caused by e.g. aging.
* Quick release of the clamping device by means of single acting pneumatic cylinders. For initial filter element fitting and subsequent filter element changes only a (portable) supply of compressed air (6 bar oil free and waterless) is required. This is via a fast acting coupling positioned on front of filter housing
* Test groove according to DIN 1946-4 resp. DIN 25 414 for each filter element made of stainless steel. In order to proof the leak free seat of the filter element connect the test groove to the seal test device via fast acting coupling, positioned at the front side on the filter housing.
* Manometer points to connect pressure gauge

Options

* Air inlet chamber, made of stainless steel, material 1.4301 (AISI/SAE 304) in gastight design. Chamber with connection flanges to filter housing and raw gas duct including installation for optimal spreading of inlet air (if necessary)
* Air outlet chamber, made of stainless steel, material 1.4301 (AISI/SAE 304) in gastight design. Chamber with connection flanges to filter housing and clean gas duct
* Pressure gauges for each filter stage for each fine dust and HEPA filter stage, comprising of Magnehelic® differential pressure gauge, instrument holders, connections and connecting lines
* Aerosol validation points on clean gas side
* Bleed filter system for pressure balancing

Technical data

* Fabricate: Krantz
* Type: SCFclassic n x m F./H..
* Nominal air flow per filter element: 3 000 m3/h
* Admissible design pressure: ± 6 000 Pa
* Designtemperature: 90 °C
* Tightness of filter housing acc. to DIN 25 496: leakage rate < 3 · 10-5 of nominal air flow at
Δp = 2 000 Pa
* Tightness of filter seat acc. to DIN 25 496: leakage rate < 3 · 10-5 of nominal air flow at
Δp = 2 000 Pa
* Radiation resistance: ≤ 105 Gy

Fine dust filter elements

* Filter class: F. acc. to EN 779
* Dimensions W × H × D: 610 × 610 × 150 mm
* Intake capacity and arrangement: e.g. 6 pieces (2 columns, 3 lines)

HEPA filter elements

* Filter class: H.. acc. to EN 1822
* Dimensions W × H × D: 610 × 610 × 292 mm
* Intake capacity and arrangement: e.g. 6 pieces (2 columns, 3 lines)

Subject to technical alterations!

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