

Safe Change Filter Housing,
Type SCF_{circular}



Aerosol and Dust Removal Systems

Ventilation systems in laboratories, chemical, pharmaceutical or nuclear industry have to separate toxic particles, radioactive particles and pathogen agents in order to protect the environment and safeguard the health of the personnel.

Filter systems have to meet high demands regarding the safety and efficiency of particle separation. For these applications Krantz developed the Safe Change Filter Housing, Type SCF_{circular}. The SCF_{circular} filter housing can be customized to meet specific operational and spacial requirements.

Characteristics

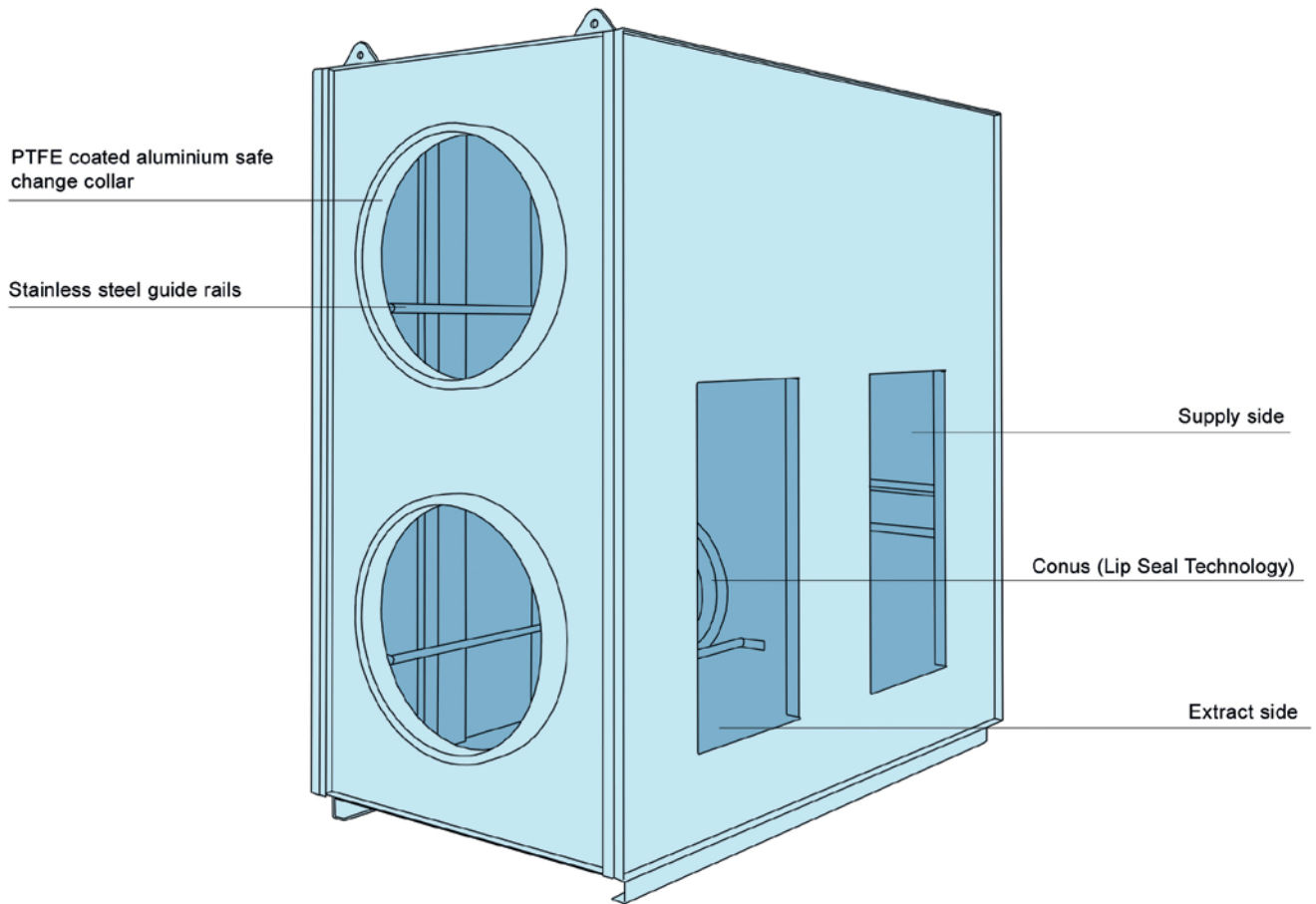
- Compact construction
- Flexible design options.

The construction is based on our extensive experience regarding

- Applications
- Materials
- Tightness requirements
- Contamination free exchange of filter elements
- Testing and inspection

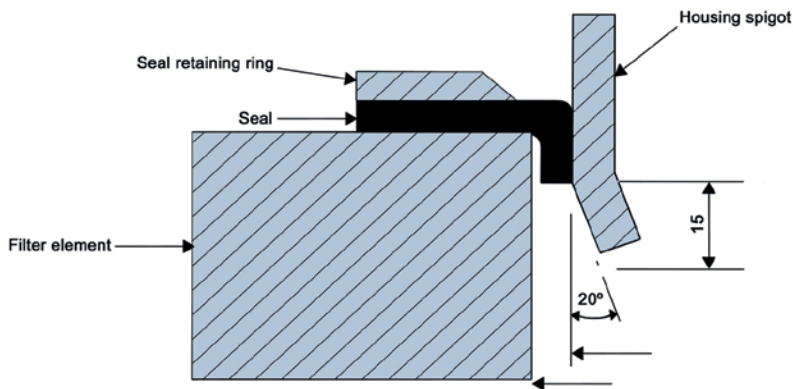


Module



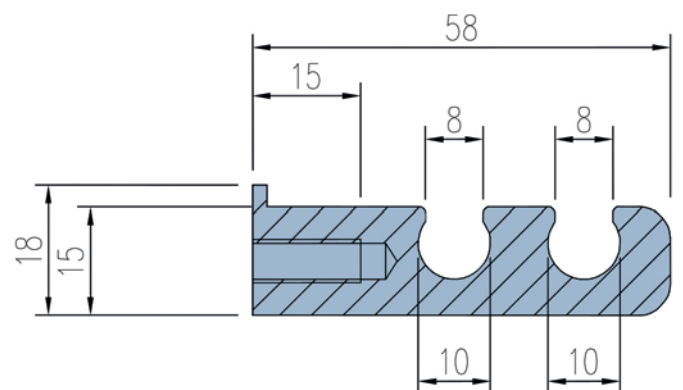
To guarantee the high efficiency of a HEPA filter element, the tightness of the filter seat is very important. The filter element is inserted onto stainless steel guide rails, ensuring alignment with the sealing spigot. The sealing spigot, also constructed from stainless steel is designed specifically to accommodate the inner seal ring on the circular filter element, which is locked into position during operation.





Aluminium Safe Change Collar

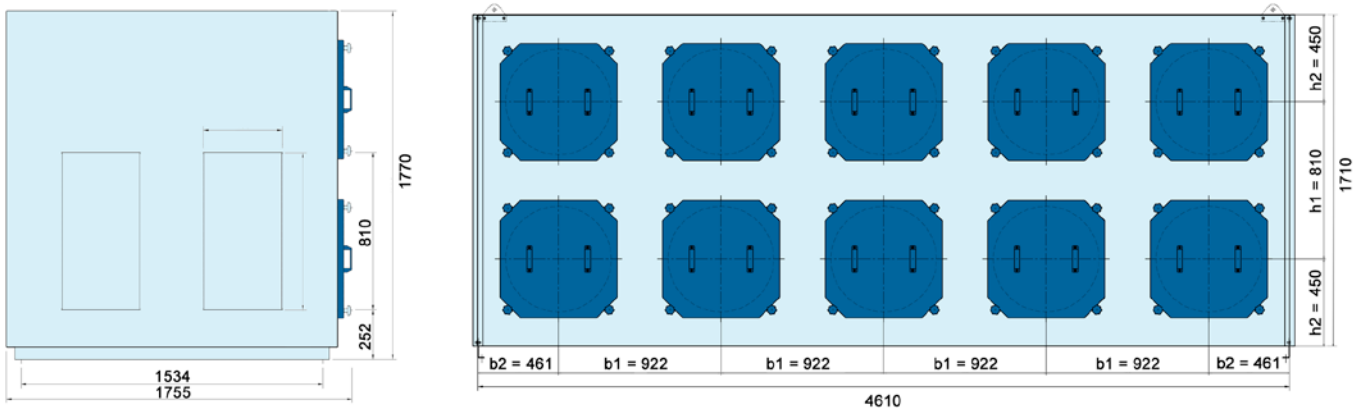
The special collar, made from aluminium, is formed with double grooves, in accordance with DIN25 466 supplement 1, to take the hollow rubber band for the fixation of PE bags. The aluminium collar can also be coated in PTFE to protect from exposure to nitric acid.



Dimensions and weights

Filter Module SCF_{circular}

n x m,
n = number of columns,
m = number of rows



		n columns				
		1	2	3	4	5
1	Vnom [m³/h]	3 420	6 840	10 260	13 680	17 100
	m* [kg]	260	400	520	700	830
	H [mm]	2 x h2 = 900	2 x h2 = 900	2 x h2 = 900	2 x h2 = 900	2 x h2 = 900
	B [mm]	2 x b2 = 922	1 x b1 + 2 x b2 = 1 844	2 x b1 + 2 x b2 = 2 766	3 x b1 + 2 x b2 = 3 688	4 x b1 + 2 x b2 = 4 610
Recommended damper size [mm]		300x400	600x400	900x400	900x500	1400x500
2	Vnom [m³/h]	6 840	13 680	20 520	27 360	34 200
	m* [kg]	450	700	950	1 200	1 450
	H [mm]	1 x h1 + 2 x h2 = 1 710	1 x h1 + 2 x h2 = 1 710	1 x h1 + 2 x h2 = 1 710	1 x h1 + 2 x h2 = 1 710	1 x h1 + 2 x h2 = 1 710
	B [mm]	2 x b2 = 922	1 x b1 + 2 x b2 = 1 844	2 x b1 + 2 x b2 = 2 766	3 x b1 + 2 x b2 = 3 688	4 x b1 + 2 x b2 = 4 610
	Recommended damper size [mm]	600x400	900x500	1400x500	1900x500	2400x500

For all other damper options please refer to Krantz design.

Single cell units can offer gastight parallel slide dampers.

2" bsp inbleed standard assuming fitting of gastight isolation dampers.

For lower quality isolation dampers, larger inbleed ports and inbleed HEPA's will be required. The size of which will be dependent upon the isolation damper blade leakage rate.

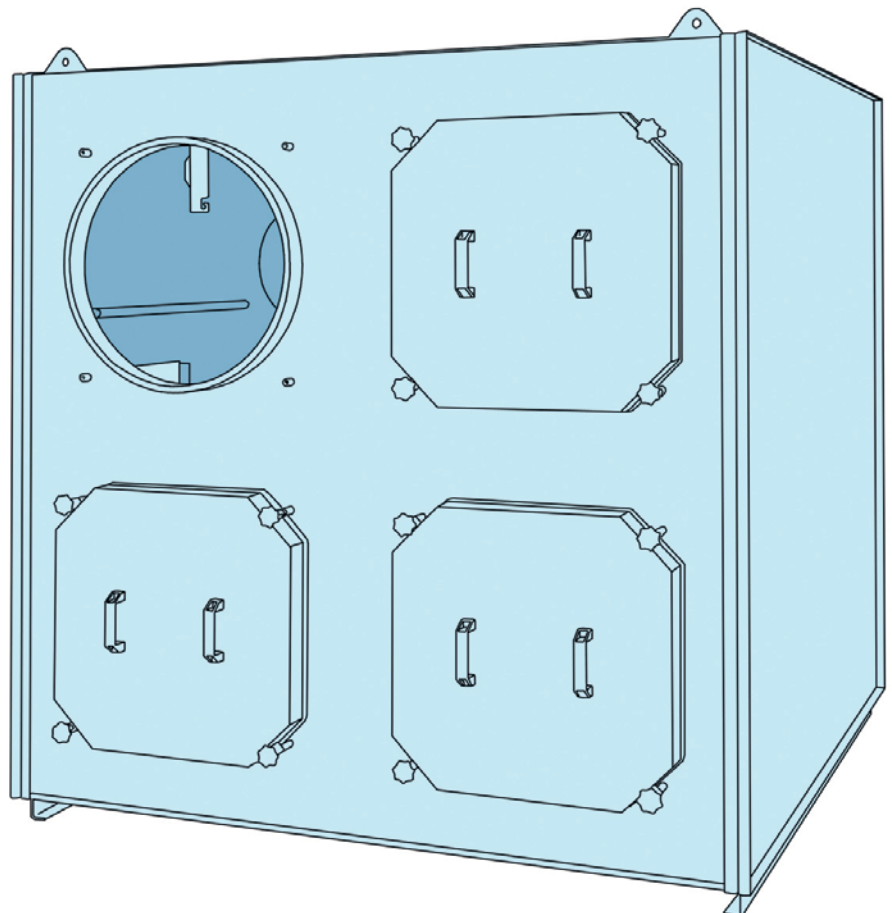
Text For Tender

General

- All weldings are continuous without gaps to ensure an easy decontamination.
- 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 to ensure tightness of the screwed part of the housing.
- The sealing system does not stick, and is easily detachable and reusable during maintenance work.
- PE bag. The covers are fixed to the housing by means of four screwing elements with a star shaped handle. Each cover is equipped with two transport handles.
- Clamping of the HEPA filter elements by means of conus (lip-seal technology)
- Reading of the pressure differential of HEPA filter stage to observe the level of loading is via a Magnehelic pressure gauge, instrument holder, connections, and connection tubes.

Design

- Robust filter housing made of stainless steel, material 1.4404 (AISI/SAE 316L) in gastight design according to the tightness requirements of the DIN 25 496, table 3, to absorb a HEPA filter element.
- Insertion ports for filter elements, equipped with a special collar for safe change technology.
- Connecting flanges for gastight air inlet and outlet dampers.
- 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 ensure a gastight seat of the plastic bag.
- Approved PTFE coating available on special collar to prevent corrosion from nitric acid on extract.
- Maintenance covers made of stainless steel, material 1.4404 (AISI/SAE 316L) ensure a gastight closing of the ports and protect the special collar and the rolled



Contacts

Caverion Deutschland GmbH
Riesstraße 25
80992 München, Germany
Phone: +49 89 374288-500
Fax: +49 89 374288-520

Krantz Filter Systems and Dampers
Uersfeld 24
52072 Aachen, Germany
Phone: +49 241 434-1
Fax: +49 241 434-500

Production workshop
Mallersdorf
Schillerstraße 16
84066 Mallersdorf-Pfaffenberg, Germany

Claus Schweinheim
Division Manager
Krantz Filter Systems and Dampers
Phone: +49 241 434-501
Fax: +49 241 434-500
Mobile: +49 173 3888718
email: claus.schweinheim@krantz.de

Reinhold Goettgens
Sales Manager
Phone: +49 241 434-269
Fax: +49 241 434-500
Mobile: +49 174 1658185
email: reinhold.goettgens@krantz.de