

Efficient air filtration in cleanrooms

Safe-change system

For contamination-free filter replacement



Housing			
Article	Dimensions [mm]	Dimensions of matching filters [mm]	Housing material
SFSafe-V-363	755 x 495 x 570	610 x 305 x 292	Steel, powder-coated RAL 7035
SFSafe-V-663	755 x 800 x 570	610 x 610 x 292	Steel, powder-coated RAL 7035
SFSafe-V-763	755 x 950 x 570	610 x 762 x 292	Steel, powder-coated RAL 7035
SFSafe-X-663	755 x 800 x 570	610 x 610 x 292	Stainless steel (AISI 304)

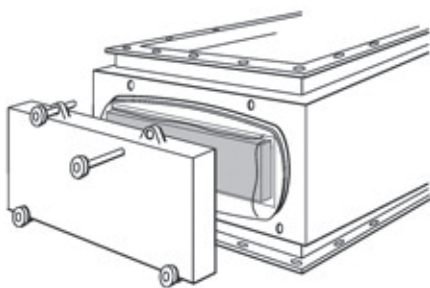


Bench			
Article	Number of filter stages	Integrated option	Housing material
SFBench-1-V-663-C-N-S-M-R	1	M, R	Steel, powder-coated RAL 7035
SFBench-2-V-663-C-N-S-M-R	2	M, R	Steel, powder-coated RAL 7035
SFBench-1-X-363-C-N-S-M-R-T	1	M, R, T	Stainless steel (AISI 304)
SFBench-1-X-6613-C-N-S-2M-R-T	1	M (2x), R, T	Stainless steel (AISI 304)
SFBench-2-X-6613-C-N-S-2M-R-T	2	M (2x), R, T	Stainless steel (AISI 304)

Housing

The entire housing consists of powder-coated steel in the colour RAL 7035 (Type V) or stainless steel (Type X).

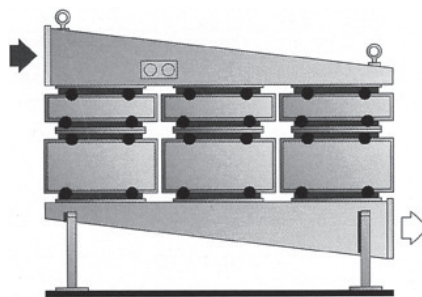
The system provides for contamination-free filter replacement using a safety bag (bag in / bag out, see back of the page). The filter element is fixed in place using two eccentric rods made of stainless steel.



The hinged and removable maintenance cover is fixed in position with manually operated clamping wheels, and sealed with a circumferential leakproof rubber seal.

Bench

For putting together a larger or multi stage filter system, up to six housings can be combined with each other in parallel.



Combination example for a 3-stage filter system featuring safe-change housings

These are fitted as standard with a rectangular intake and exhaust air duct. The entire unit stands on stable feet.

Filter element

Fine or EPA/HEPA/ULPA filters can be used with plastic, steel-sheeting or MDF frames in various dimensions.

Accessories / Options

Housing

- Safety bag and elastic O-ring (featured as standard)
- Connections for measuring the pressure drop (featured as standard)

Bench

- Manometer for checking the pressure drop (M)
- Pressure equalization valve (R)
- Aerosol connections for checking leakproofing and filter's seal fit (T)

The filter may be replaced only when the system has been switched off.
Caution: take care not to damage the safety bags and seals during filter replacement.

Procedure for contamination-free filter replacement:

1. Open the maintenance cover using the four manual clamping wheels.
2. Roll out the safety bag located in the housing's opening. (Fig. 1)
3. Open the two catches of the eccentric rods, so as to release the filter.
4. The O-ring of the safety bag in use is located in the front groove of the housing's opening. Carefully pull out the used filter by its handle from inside the housing into the safety bag, and place it in front of the housing on a convenient surface or on the floor. (Fig. 2)
5. Use a film welding device to create two airtight weld seams approx. 5 cm apart. Cut through between the two seams. (Fig. 3)
6. Push a new filter, with the seal facing upwards, into a new safety bag, and place it in front of the housing. Fit the new O-ring loosely around the open end of the new bag.
7. Insert the remains of the old safety bag into the new safety bag, and pull the open end of the new bag over the old one and its O-ring, as far as the rear groove of the housing's opening.
8. The remains of the old safety bag and its O-ring are now inside the new safety bag. Now carefully detach the old safety bag and its O-ring from the front groove of the housing's opening, and let it fall downwards into the new bag, behind the filter.
9. Push the new filter into the housing, past the remains of the old bag. Use the eccentric rods to secure the filter in position, so that it is pressed with the seal against the top edge of the housing. (Fig. 5)
10. The remains of the old bag and its O-ring are now in the lower part of the new safety bag. Use the film welding device to again create two horizontal weld seams, and then cut between them. The remains of the old bag and the O-ring can now be disposed off, welded inside the bag. (Fig. 5)
11. Now push the new O-ring at the housing's opening from the rear groove into the front groove, roll up the end of the safety bag, and stow it in the housing's opening. Then close the maintenance cover again.

Fig. 1: Open the housing

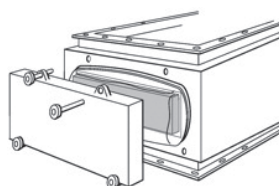


Fig. 2: Remove the used filter

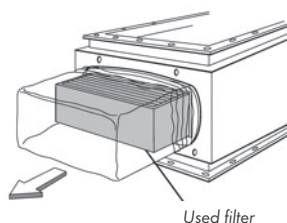


Fig. 3: Weld-seal and cut off the old safety bag

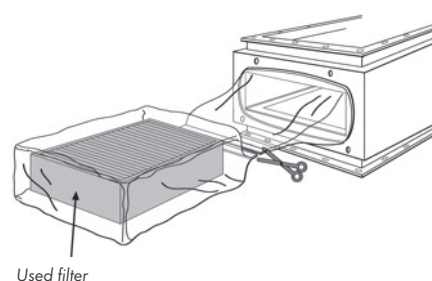


Fig. 4: Install the new filter

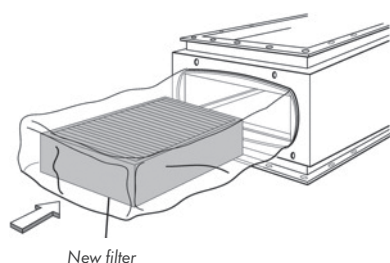


Fig. 5: Remove remains of the old bag and O-ring by weld-sealing and cutting

