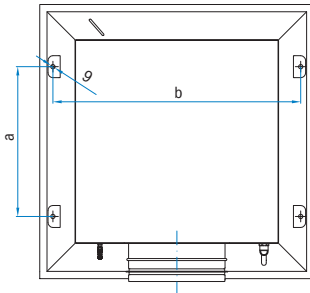
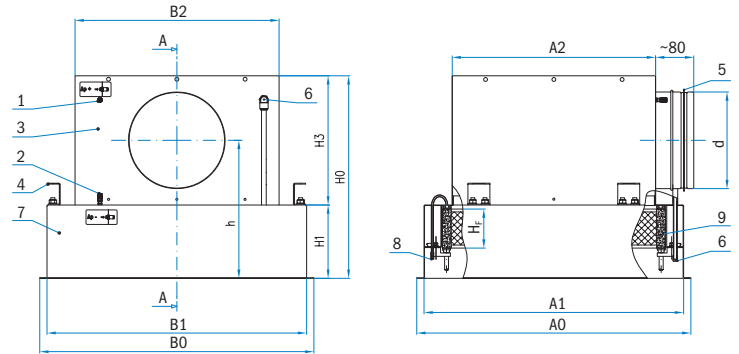


Ceiling HEPA filter units with semicircular or U-shaped gasket AFV-8B



- St
- RAL 9010
- F
- M
- ▲

AFV-8B/F/_R_-S (side entry spigot)



Description

- General description: air supply for highest standards of air purity,
- Filter: E10...H14 class (EN 1822:2009),
- Front plate: KD-1A, KD-6, OD-5, OD-9KK, OD-15KK, SR-4,
- Dry gasket: (PO) semicircular (foam) or (U) U-shaped profile,
- Suitable for: air supply in laboratories, infection and sterile departments, electronics, precision mechanics, pharmaceuticals, chemistry, food, film and audio tape industry.

Material and surface protection

- Filter housing, diffuser and spigot connection housing is made from cold rolled steel,
- Holding brackets are made from stainless steel,
- Filter holders are made from galvanized engineering steel.

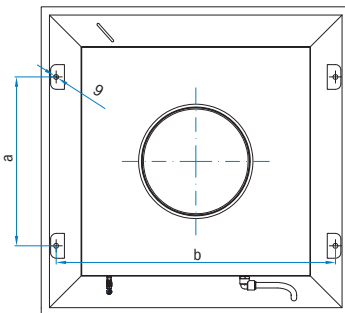
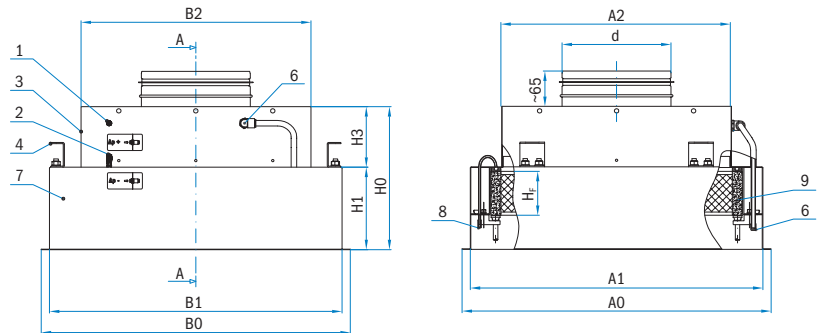
On customer's request the filter units can be made from stainless steel.

Filter housing and front plate are powder coated in RAL 9010. On customer's request any other color in RAL can be chosen.

Accessories

See chapter Accessories.

AFV-8B/F/_R_-V (top entry spigot)



1. Static pressure connection in front of filter + Δp
2. Static pressure connection after filter - Δp
3. Spigot connection housing
4. "O" hangers or "T" traverse
5. Rubber lip sealing
6. Connection (UPSTREAM) for scan test
7. Filter housing
8. Connection for filter tightness test (DIN 1946-4)
9. Filter.

Table 1: Filter housing dimension and weight table

Filter dimension				Spigot		Plenum box								AFV-8B/F_/R_-S				AFV-8B/F_/R_-V						
				H _F	ød	A0	A1	A2	a	B0	B1	B2	b	h	H1	H3	H0	Weight [kg]	H1	H3	H0	Weight [kg]		
F10	305	x	305	x	69-80	R4	158	410	380	265	155	410	380	265	356	263	150	225	375	6.1	150	110	260	5.2
F20	305	x	610	x	69-80	R5	198	410	380	265	155	715	685	570	661	283	150	265	415	9.6	150	110	260	7.5
F30	457	x	457	x	69-80	R5	198	562	532	417	307	562	532	417	508	283	150	265	415	9.8	150	110	260	7.7
F40	535	x	535	x	69-80	R6	248	640	610	495	385	640	610	495	586	308	150	315	465	12.3	150	110	260	9.1
F50	610	x	610	x	69-80	R6	248	715	685	570	460	715	685	570	661	308	150	315	465	14.3	150	110	260	10.6
F60	610	x	915	x	69-80	R8	313	715	685	570	460	1020	990	875	966	340	150	380	530	19.8	150	110	260	13.6
F70	610	x	1220	x	69-80	R9	353	715	685	570	460	1325	1295	1180	1271	360	150	420	570	25.0	150	110	260	16.6

Note:

- Total weight = weight of front plate + weight of housing + weight of filter.
- Deviation of weight is ±10 %.

Detail: Filter gasket type

(U) U-shaped profile:

- It is considered as dry gasket
- Filter tightness test (DIN 1946-4): YES
- Measuring tube size ø4 mm on housing allows pressure tapping for filter tightness test (position 8)

(PO) Semicircular shaped profile:

- It is considered as dry gasket
- Filter tightness test (DIN 1946-4): NO
- Housing doesn't have measuring tube for pressure tapping for filter tightness test

Detail: Filter and front plate fixing

Bottom plate is mounted with screws to movable nuts (position 10) on filter housing. Filter is fixed in place with pressure screw on filter holders (position 11 and 17). Height of filter can be from 69 up to 80 mm.

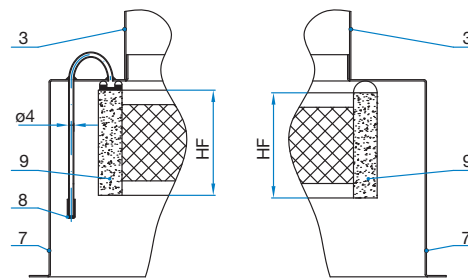
Detail: UPSTREAM connection for scan test

Housing has UPSTREAM connection (position 6) size ø8 mm for scan test. This way you can taper concentration of MPPS size aerosol on dirty side of filter and confirm filter efficiency and also filter housing tightness.

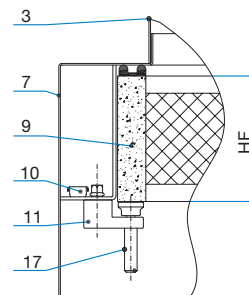
It can also be used to monitor static pressure before filter + Δp.

Fig. 1

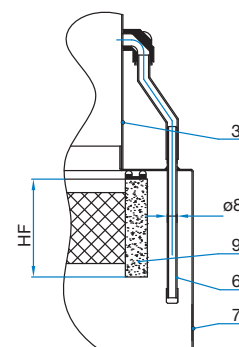
Detail: Filter gasket type



Detail: Filter and bottom plate fixing



Detail: UPSTREAM connection for scan test



- 3. Spigot connection housing
- 6. Connection UPSTREAM for scan test
- 7. Filter housing
- 8. Connection for filter tightness test (DIN 1946-4)
- 9. Filter
- 10. Bottom plate nuts
- 11. Filter holders

Installation: “O” hangers

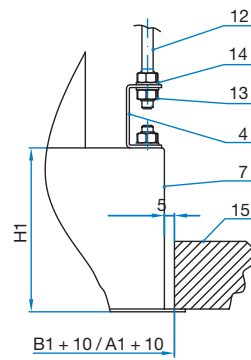
When using “O” hangers, first step is to mount four threaded rods size 8 mm (position 12) to fixed ceiling according to dimension a and b from Table 1 in place of AFV-8B final position. Second step is to make B1+10 / A1+10 size hole in suspended ceiling to fit filter housing (position 7). Final step is to place sealant on interface of filter housing and suspended ceiling and secure it in place with nut (position 13) and spring washer (position 14) on to threaded rod.

Installation: “T” traverse

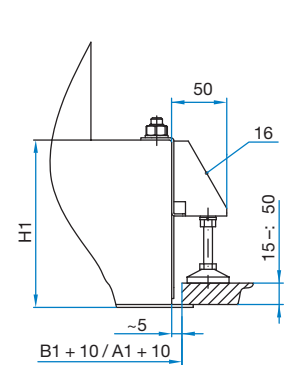
When using “T” traverse, first step is to make B1+10 / A1+10 size hole in suspended ceiling to fit filter housing (position 7). Then place sealant on interface of filter housing and suspended ceiling, attach traverse (position 16) on filter housing and secure it to the suspended ceiling. Thickness of suspended ceiling can be from 15 to 50 mm).

Fig. 2

Installation: “O” hangers



Installation: “T” traverse



- 4. “O” hangers
- 7. Filter housing
- 11. Filter holders
- 12. Threaded rod size 8 mm
- 13. Nut for threaded rod
- 14. Spring washer for threaded rod
- 15. Suspended ceiling
- 16. “T” traverse

Regulation:

First you need to install filter and lock it into place. Then you have to loose screw for hatch blocker (position 5) and move regulation hatch (position 1) into place with regulation axis (position 3). Then you have to tighten screw for hatch blocker (position 5) and install bottom plate.

Housing size:

Standard air volume regulation can be chosen only for filter size F10, F20, F30, F40, F50.

Material and surface protection:

- filter housing, bottom plate and spigot connection housing is made from cold rolled steel,
- holding brackets and regulation axis are made from stainless steel,
- detachable regulation hatch is made from galvanized sheet steel,
- filter holders are made from galvanized engineering steel.

On customer’s request any other material can be chosen.

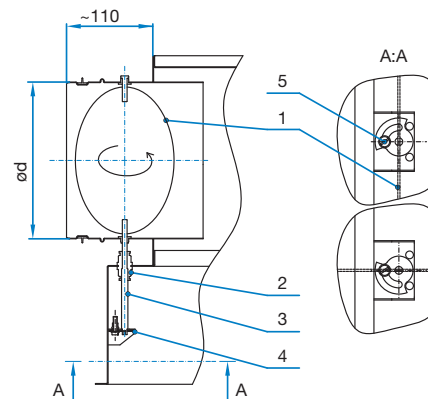
Filter housing and bottom plate are powder coated in RAL 9010, 30 % gloss. On customer’s request any other color in RAL can be chosen.

Dimensions and weight 1,2

- 1) for whole weight sum weight of bottom plate, weight of housing, weight of filter and additional weight for volume regulation shown on table 2
- 2) deviation of weight is ±10 %

Fig. 3

Detail: Side entry spigot with air volume regulator (not airtight)



- 1. Detachable regulation hatch
- 2. Air tight fittings
- 3. Regulation axis (0° to 90°)
- 4. Hatch blocker
- 5. Screw for hatch blocker

Table 2: Additional weight for air volume regulator

Spigot		
	ød	Weight [kg]
R4	158	0.3
R5	198	0.4
R6	248	0.5

Filter and front plate combinations

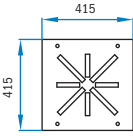




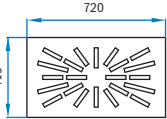
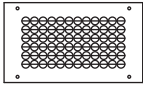
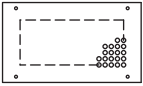
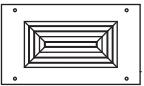
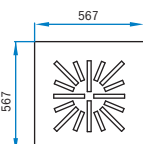
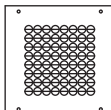
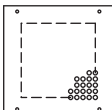
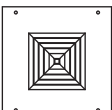
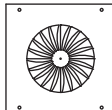
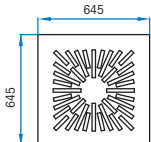
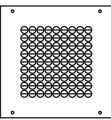
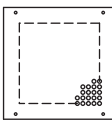
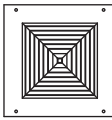
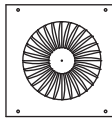
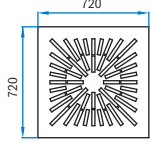
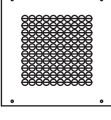
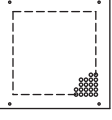
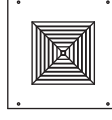
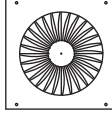
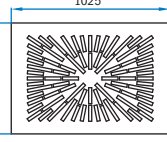
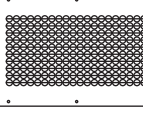
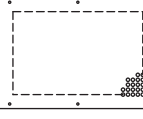
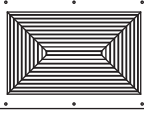
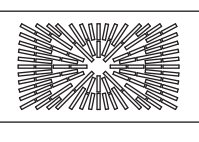
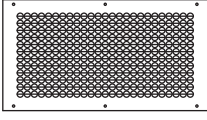
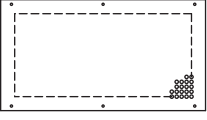
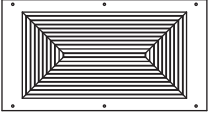
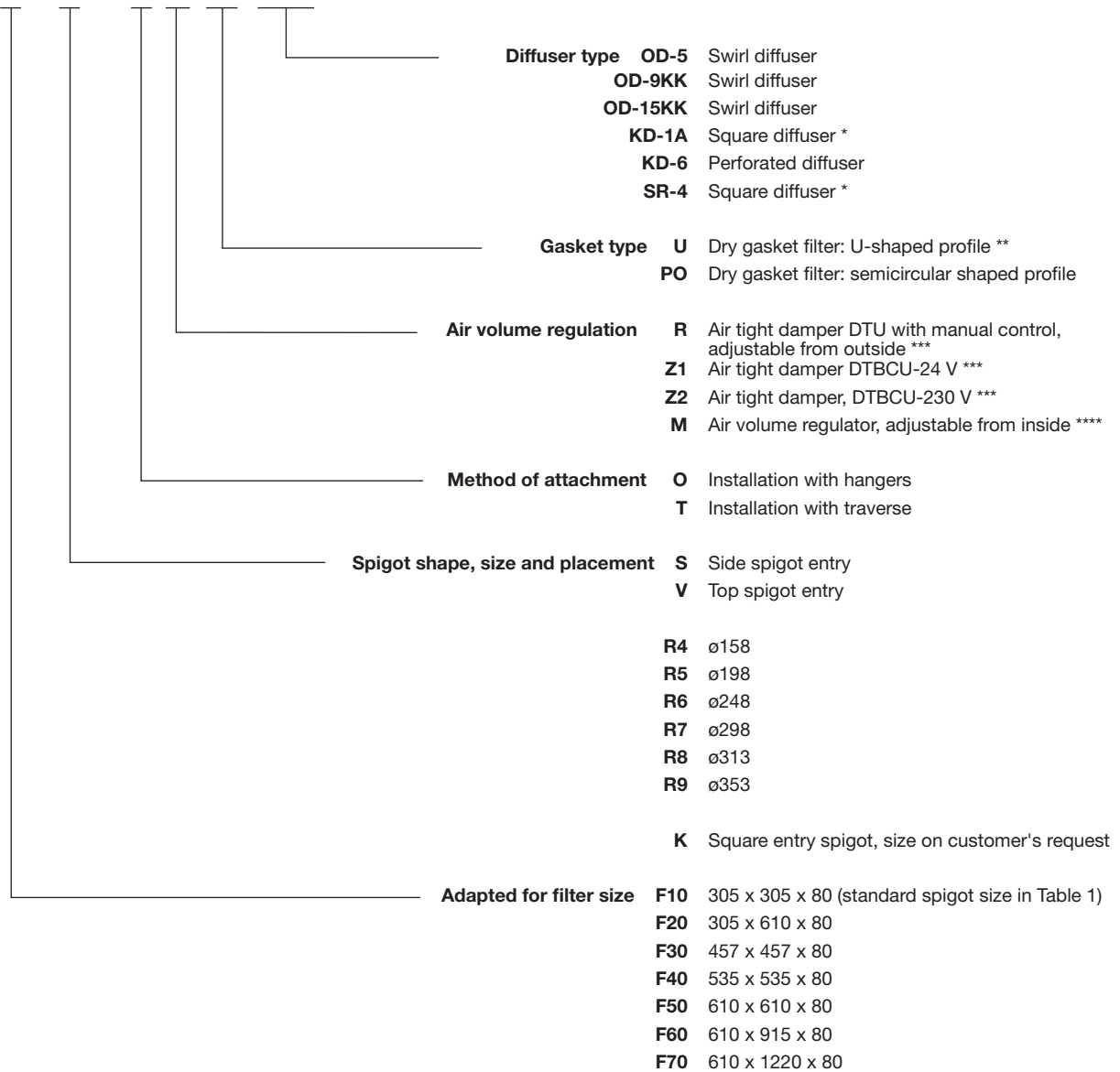
Filter size	Front plate				
F10	OD-9KK/AFV-8B size 310/F10 	OD-15KK/AFV-8B size 300/F10 	KD-6/AFV-8B size F10 	KD-1A/AFV-8B size 1(2)/F10 	OD-5/AFV-8B size 300/F10 
F20	OD-9KK/AFV-8B size F20 	OD-15KK/AFV-8B size F20 	KD-6/AFV-8B size F20 	SR-4/AFV-8B size F20 	
F30	OD-9KK/AFV-8B size 400/F30 	OD-15KK/AFV-8B size 400/F30 	KD-6/AFV-8B size F30 	KD-1A/AFV-8B size 2(3,4)/F30 	OD-5/AFV-8B size 400/F30 
F40	OD-9KK/AFV-8B size 500/F40 	OD-15KK/AFV-8B size 500/F40 	KD-6/AFV-8B size F40 	KD-1A/AFV-8B size 4(5,6)/F40 	OD-5/AFV-8B size 500/F40 
F50	OD-9KK/AFV-8B size 600/F50 	OD-15KK/AFV-8B size 600/F50 	KD-6/AFV-8B size F50 	KD-1A/AFV-8B size 5(6,7,8)/F50 	OD-5/AFV-8B size 600/F50 
F60	OD-9KK/AFV-8B size F60 	OD-15KK/AFV-8B size F60 	KD-6/AFV-8B size F60 	SR-4/AFV-8B size F60 	
F70	OD-9KK/AFV-8B size F70 	OD-15KK/AFV-8B size F70 	KD-6/AFV-8B size F70 	SR-4/AFV-8B size F70 	

Table 3: Front plate weight table

Front plate	Filter size						
	F10	F20	F30	F40	F50	F60	F70
OD-5	1.5 kg	/	2.7 kg	3.4 kg	4.2 kg	/	/
OD-9KK	1.5 kg	2.4 kg	2.6 kg	3.3 kg	4.0 kg	5.7 kg	7.3 kg
OD-15KK	1.3 kg	2.1 kg	2.3 kg	3.0 kg	3.7 kg	4.8 kg	6.2 kg
KD-6	1.0 kg	1.7 kg	1.8 kg	2.4 kg	2.9 kg	4.2 kg	5.4 kg
KD-1A	size 1 / 2.0 kg size 2 / 2.1 kg	/	size 2 / 3.3 kg size 3 / 3.5 kg size 4 / 3.7 kg	size 4 / 4.4 kg size 5 / 4.7 kg size 6 / 5.0 kg	size 5 / 5.5 kg size 6 / 5.8 kg size 7 / 6.4 kg size 8 / 6.5 kg	/	/
SR-4	/	3.7 kg	/	/	/	9.8 kg	13.0 kg

Ordering key

AFV-8B / F_ / R_ S / O / Z / PO / OD-5



Note:

Filter is not included and must be ordered separately.

* SR-4 is available for sizes F20, F60, F70.

* KD-1A is available for sizes F10, F30, F40, F50.

** Connection for filter sit tightness test according to DIN 1946-4.

*** Air tight damper DTBCU is possible only with version RS and RV.

**** Air volume regulation is possible only with version RS and spigot size R4, R5, R6.