

VACU-SHIELD TRAPS AND FILTERS

EXHAUST FILTERS

Exhaust filters are ANCORP's recommended filters for coating and semiconductor applications. They are attached directly to an oil-sealed rotary vane mechanical exhaust port.



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Product Features

- Captures oil, fog, mist, or smoke from exhaust of oil flooded vacuum pumps
- Minimum 99.97% D.O.P. on 0.3 micron particles
- Temp (continuous): min 40° (4.4°C) max 220°F (104°F)
- Seamless drawn housings - no welds to rust or vibrate apart

OPEN EXHAUST FILTER

- Easy thumbscrew access for maintenance
- Steel construction with nickel chrome plated finish



CLOSED EXHAUST FILTER

- Back pressure valve releases element at 0.5 bar (7.35 PSI) differential for pump safety
- 1/8" NPT oil drain
- Easy field maintenance
- Compact, steel construction
- Available in high conductance configuration



HERMETIC EXHAUST FILTER

- Rechargeable, 304 stainless steel housing: allows rapid, in-situ vacuum gasket servicing and media replacement. Elastomeric gasket and stainless steel clamp suitable for high vacuum applications
- Media: Borosilicate glass filter

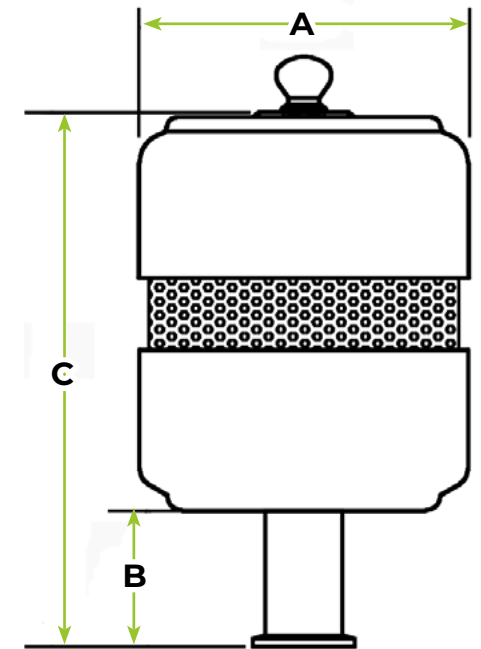


Open Exhaust Filter

The Open Exhaust Filter works on an inside-out basis. The air-oil mixture is discharged from the pump into the inner diameter (surface) of the rolled media. The larger oil molecules are physically blocked by the media's (coalescing) fibers and eventually will drain to the bottom of the filter housing. The air or process gas continues through the filter and into room air. Therefore, open exhaust filters are designed for air or inert gas (nitrogen, argon) processes only.

Previous tests have shown that 99% or more of the pump's oil exhaust is captured by the open exhaust filter. The filter's mesh size is approximately 1μ nominal (nominally sub 1 micron).

Open Exhaust Filters are offered in ISO-QF and NPT flange configurations.



PART #	REFERENCE ID	A	B	C	FLANGE CONNECTION	CONDUCTANCE (CFM)
7505105	VSOE-5-50NPT	2.50	0.90	4.00	1/2" NPT	4.50
7505110	VSOE-5-QF16	2.50	0.90	4.00	QF16	4.50
7505111	VSOE-5-QF25	2.50	0.90	4.00	QF25	4.50
7505112	VSOE-7-QF25	2.50	0.90	4.00	QF25	7.00
7505120	VSOE-10-QF25	5.10	2.10	8.50	QF25	24.00

Non-standard flanges available upon request.

Closed Exhaust Filter

The closed exhaust filter also works on an inside-out basis. The body of the filter is made from sheet steel with a baked-on enamel coating. The two halves of the filter are held together by tabs that are built into the body walls. The seal on the closed exhaust filter is an o-ring gasket (Buna-N). An integrated oil drain valve is included with the valve.

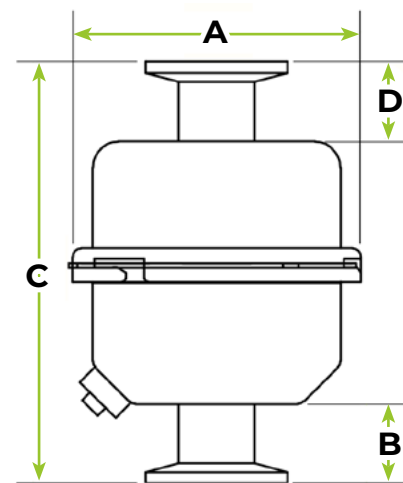
The difference between the open and closed exhaust filter is that the closed exhaust provides a flange and therefore a means to hard plumb the exhaust to a scrubber or other means of disposal.

Note: Although this filter does have a gasket seal, it is not intended to be "hermetically-sealed." Rather, it is intended to direct dry, oil-free, "non-toxic" gaseous effluents away from the pump.

CLOSED EXHAUST FILTER

PART #	REFERENCE ID	A	B	C	D	CFM	FLANGE CONNECTION
7505205	VCEC-8-QF16	3.25	0.88	4.69	0.88	8	QF16
7505206	VCEC-8-QF25	3.25	0.88	4.69	0.88	8	QF25

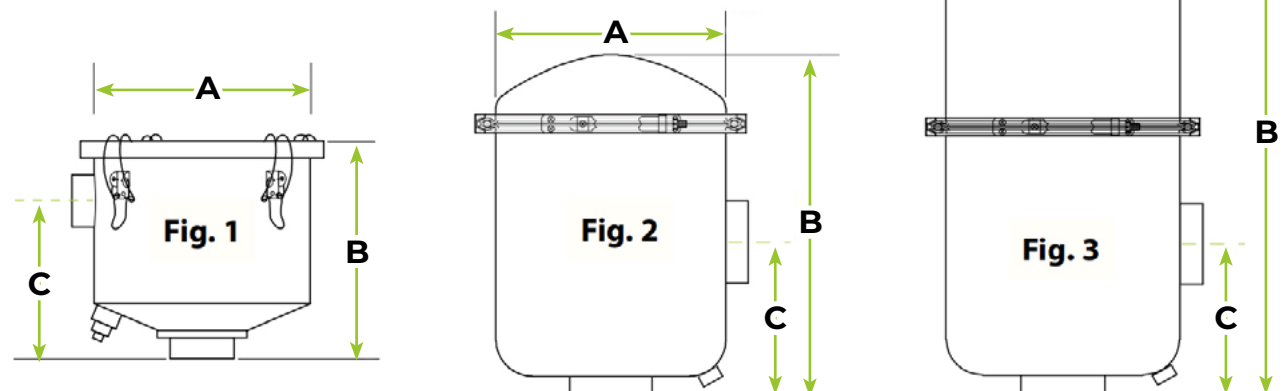
Non-standard flanges available upon request.



CLOSED EXHAUST FILTER, HIGH CONDUCTANCE

PART #	REFERENCE ID	A	B	C	CFM	FIG.	FLANGE CONNECTION
7505201	VCEA-50-150NPT	7.32	6.75	4.62	50	1	1 1/2" FEMALE NPT
7505210	VCEA-125-200NPT	8.75	11.25	5.00	125	2	2" FEMALE NPT
7505211	VCEA-175-200NPT	8.75	17.50	5.00	175	2	2" FEMALE NPT

Non-standard flanges available upon request.



Hermetic Exhaust Filter

The Hermetic Exhaust Filter also works on an inside-out basis. It provides a flange and therefore a means to hard plumb the filtered, dry, and oil-free exhaust gases to a scrubber. Its body is machined from 304 stainless steel and all connecting surfaces are sealed with ISO-QF flanges.

The media for the VSHE is a borosilicate microfiber that is spun into a roll (tube) shape. This material is chemically resistant to a broad spectrum of process effluents. The model also has an internal oil drain "flapper" valve that allows the captured pump oil to drain back into the pump.

HERMETIC EXHAUST FILTER - SHORT BODY

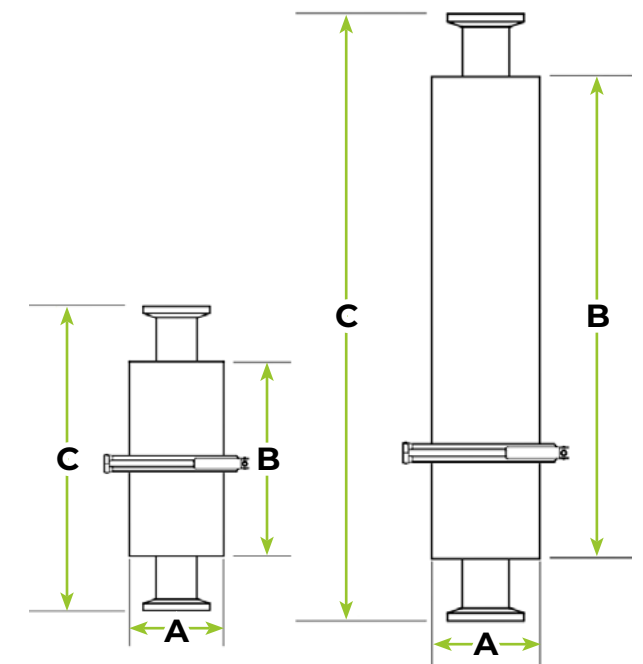
PART #	REFERENCE ID	A	B	C	CONNECTION
7505001	VSHE-S-QF25	2.50	4.80	6.90	QF25 FLANGE

Non-standard flanges available upon request.

HERMETIC EXHAUST FILTER - LONG BODY

PART #	REFERENCE ID	A	B	C	CONNECTION
7505002	VSHE-L-QF25	2.50	11.30	13.30	QF25 FLANGE
7505003	VSHE-L-QF40	2.50	11.30	13.30	QF40 FLANGE

Non-standard flanges available upon request.



ELEMENT INSTALLATION

1. Unscrew the element from the filter
2. Separate the top and bottom element caps from the element cartridge by pulling apart with a slight turn
3. Clean both caps
4. Insert a new cartridge between the top and bottom caps, using the tight fitting groove in the caps to seat the cartridge
5. Thread the assembly onto the threaded rod in the HIS filter. This can be done by holding the filter down with the rod and threading the new cartridge assembly onto the threaded rod until it comes to a stop
6. Turn the filter element up and tighten 1/2 turn. This seals the cartridge to the caps and the lower cap o-ring to the HIS body