TRIDENT
engineering quality air & gas











- Borosilicate filter element 99.999% efficiency
- Compliant with HEALTH TECHNICAL MEMORANDUM 2022
- Lightweight, corrosion-protected aluminium body
- Differential Pressure Gauge indicator for filter element replacement
- Sterilisable drain flask to capture biological fluids
- Vacuum flow rates from 3 to 68 litres/second
- Available in ½" to 3" pipe connections

Medical Vacuum Filters

Complete Bacteria Removal

Trident Medical Vacuum Filter Series

Trident Medical Vacuum Filter series are designed to remove the liquid, solid and bacterial contamination from the suction side of the vacuum pump and the potential biological infection of the surrounding environment. The filter elements and housings are designed for medical use and can be utilized in hospitals, pharmaceutical laboratories, dentist's surgery and other critical areas.

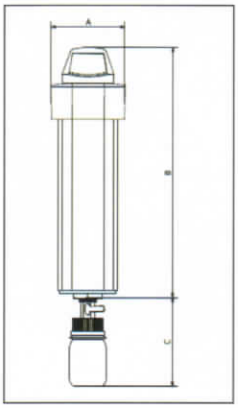
Installed on suction side of vacuum pump to remove bacteria and prevent contamination to the pump and atmosphere.

Biological liquids are collected in a transparent drain flask, which can be easily removed for sterilization. The flask should be visually checked daily and removed for cleaning and sterilization. The filter element must be replaced at least every 6 months or when the pressure drop reaches 100 mbar.

The efficiency of the installed filter elements exceeds the 0.005% penetration specified in HTM 2022 for infectious disease units, when tested in accordance with BS 3928.

Technical Specifications

Model	Item Code	Flow rate at atmospheric pressure		Pipe Connection	Housing Dimensions (mm)			Spares - Item Code	
		scfm	Nl/s	BSP	A	B	C	Spare Kit Filter Element	Draft Flask 100ml
T100 V	PFV07	7	3	½"	87	294	170	AS701	
T250 V	PFV08	18	9	1"	114	399	170	AS693	
T600 V	PFV09	44	21	1½"	114	474	170	AS697	AC249
T851 V	PFV10	63	30	2"	148	666	170	AS717	
T1210 V	PFV11	89	42	2"	148	736	170	AS721	
T1810 V	PFV12	134	63	3"	211	761	170	AS913	



Correction factor

Gauge reading	mm Hg	760	380	252	188	150
	in Hg	29.9	15.0	9.9	7.4	5.9
	psi (abs)	14.7	7.4	4.9	3.6	2.9
	Kpa (abs)	101	51	34	25	20
Correction factor	-	1	2	3	4	5

Example :

1. Flow & vacuum at user end : 50 scfm, 380 mm Hg (gauge reading)
2. Since the catalogue specifies flow rates at atmospheric pressure, the suitable correction factor must be selected from the table - this is 2 in this case.

   Therefore, filter capacity required : 50 scfm / 2 = 25 scfm
3. From the table of models, choose the model that has the closest flow rate to the above value. In this case, it is 44 scfm, so model T600 V must be used.

SPECIFICATION

Penetration to	BS 3928 <0.005%	Maximum working vacuum	Full vacuum
Particle removal	0.01 micron (99.999%)	Filter element	Borosilicate
Maximum temperature	80°C (176°F)	Construction material	Extruded Aluminium Alloy
Pressure loss-clean element	30 mbar (0.44 psi)	Coating – External	Epoxy Powder coating
Pressure loss-change element	100 mbar (1.5 psi)	Drain type	Hand shut-off valve with Sterilisable drain flask (capacity 100 ml)
Maximum working pressure	7 barg (100 psig)		







Our Other Range of Products

• Timer based Auto Drain Valve • Level Sensing Auto Drain Valve • Desiccant Dryer (Heatless) • Desiccant Dryer (Heated) • Refrigeration Dryers • Oxygen & Nitrogen Generators







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