



FS SERIES

Sterile filter

FS Series Sterile Filter-Element

Sterile filter element is made by Parker Domnick Hunter in UK. FS series gas sterilisation filters have been developed to benefit from technological advances within the manufacture of PTFE membranes. This new generation of filter sets the standard with an unrivalled combination of efficiency, flow rate and strength.

It is validated as a 0.01 micron sterilising grade filter in gas through full retention to an aerosol challenge of MS2 phage. This ensures the filter will guarantee the sterility of your process in the worst-case scenario where the filter may be subjected to bulk liquid due to a process problem.



Materials of Construction

- Filtration Membrane : PTFE
- Upstream Support : Polypropylene
- Downstream Support: Polypropylene
- Inner Support Core: 316L Stainless Steel
- End Caps: Polypropylene
- Standard o-rings: Silicone



Subtle changes to the structure of the PTFE have also resulted in the production of an extremely robust product now validated for 225 steam sterilisation cycles @ 142 °C (287.6 °F). The combination of non-woven supports upstream of the membrane and an expanded net layer downstream has significant benefits. It provides increased protection and service life while guaranteeing zero fiber shedding into the process.

It is suitable for all sterile gas applications including fermentation inlet and off gas streams, venting, lyophilisers, autoclave vacuum breaks and blow-fill-seal equipment as well as the provision of particle free air within the electronics industry.

Product Selection and Technical Data

Filter model	Pipe Size	Flow rate at 7 barg.			Element model	Element Quantity
		cfm	m ³ /min	m ³ /hr		
FS-ZVA-01B-ABE	1/2"BSPP	30	1.8	108	ZHFT-BZ	1
FS-ZVA-01B-BBE	3/4"BSPP	30	1.8	108	ZHFT-BZ	1
FS-ZVA-01A-BBE	1"BSPP	60	3.6	216	ZHFT-AZ	1
FS-ZVA-01A-BTE	1"Tri-Clamp	60	3.6	216	ZHFT-AZ	1
FS-ZVA-01A-BFE	1"Flange	60	3.6	216	ZHFT-AZ	1
FS-ZVA-011-CTE	1 1/2"Tri-Clamp	133	8	480	ZHFT-1C	1
FS-ZVA-011-CFE	1 1/2"Flange	133	8	480	ZHFT-1C	1
FS-ZVA-011-DFE	2"Flange	133	8	480	ZHFT-1C	1
FS-ZVA-012-CTE	2"Tri-Clamp	235	14.1	846	ZHFT-2C	1
FS-ZVA-012-CFE	2"Flange	235	14.1	846	ZHFT-2C	1
FS-ZVA-031-DFE	3"Flange	433	26	1560	ZHFT-1C	3
FS-ZVA-032-DFE	3"Flange	600	36	2400	ZHFT-2C	3
FS-ZVA-051-EFE	4"Flange	700	42	2520	ZHFT-1C	5
FS-ZVA-052-EFE	4"Flange	1000	60	3600	ZHFT-2C	5
FS-ZVA-091-FFE	6"Flange	1200	72	4320	ZHFT-1C	9
FS-ZVA-092-FFE	6"Flange	1800	108	6480	ZHFT-2C	9
FS-ZVA-151-GFE	8"Flange	2000	120	7200	ZHFT-1C	15
FS-ZVA152-GFE	8"Flange	3000	180	10800	ZHFT-2C	15

Sterile Filter-Housing

Materials of Construction

- Housing : 304 BA stainless steel
- Surface Finish : 400mesh Mechanical polish
- Standard o-rings : Silicone
- Maximum operating pressure : 10 kg/cm²
- Maximum operating temperature : 60 °C

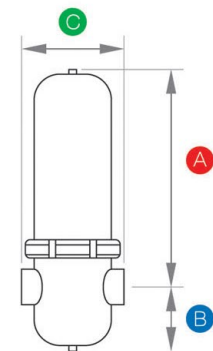
Food and Biological Safety

Materials conform to the relevant requirements of 21CFR Part 177, EC1935 / 2004 and current USP Plastics Class VI - 121 °C and ISO10993 equivalents.

Integrity Test Data

All cartridges are integrity tested prior to despatch by the pressure decay and aerosol challenge test methods. Values are for cartridges wetted with 60/40 IPA / Water.

Filter model	Test Pressure		Diffusional Flow ml / min	Water Intrusion Test Pressure		Water intrusion ml / 10min	Water Flow ul / 10min
	bar	psi		barg	psig		
ZHFT-BZ	0.8	11.6	0.8	2.5	36.2	2.3	657
ZHFT-AZ	0.8	11.6	0.8	2.5	36.2	4.6	1314
ZHFT-1C	0.8	11.6	0.8	2.5	36.2	13.5	3857
ZHFT-2C	0.8	11.6	0.8	2.5	36.2	27.0	7714



Weights and Dimensions

Filter model	Pipe size	Vent	Drain	Dimensions			Weight (kg)
				A(mm)	B(mm)	C(mm)	
FS-ZVA-01B-ABE	1/2"BSPP	1/4"	1/4"	165	150	70	5
FS-ZVA-01B-BBE	3/4"BSPP	1/4"	1/4"	165	150	70	5
FS-ZVA-01A-BBE	1"BSPP	1/4"	1/4"	230	150	70	6
FS-ZVA-01A-BTE	1"Tri-Clamp	1/4"	1/4"	230	150	70	6
FS-ZVA-01A-BFE	1"Flange	1/4"	1/4"	230	200	70	7
FS-ZVA-011-CTE	1 1/2"Tri-Clamp	1/4"	1/4"	365	200	75	9
FS-ZVA-011-CFE	1 1/2"Flange	1/4"	1/4"	365	250	85	10
FS-ZVA-011-DFE	2"Flange	1/4"	1/4"	380	250	100	10
FS-ZVA-012-CTE	2"Tri-Clamp	1/4"	1/4"	605	250	85	10
FS-ZVA-012-CFE	2"Flange	1/4"	1/4"	630	250	100	11
FS-ZVA-031-DFE	3"Flange	1/4"	1/4"	465	430	150	55
FS-ZVA-032-DFE	3"Flange	1/4"	1/4"	715	430	150	65
FS-ZVA-051-EFE	4"Flange	1/4"	1/4"	530	500	155	75
FS-ZVA-052-EFE	4"Flange	1/4"	1/4"	780	500	155	85
FS-ZVA-091-FFE	6"Flange	1/2"	1/2"	560	545	230	95
FS-ZVA-092-FFE	6"Flange	1/2"	1/2"	810	545	230	105
FS-ZVA-151-GFE	8"Flange	1/2"	1/2"	650	590	270	135
FS-ZVA152-GFE	8"Flange	1/2"	1/2"	900	590	270	145



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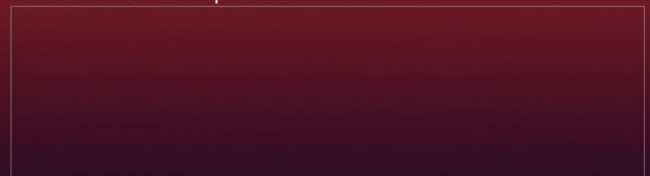
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