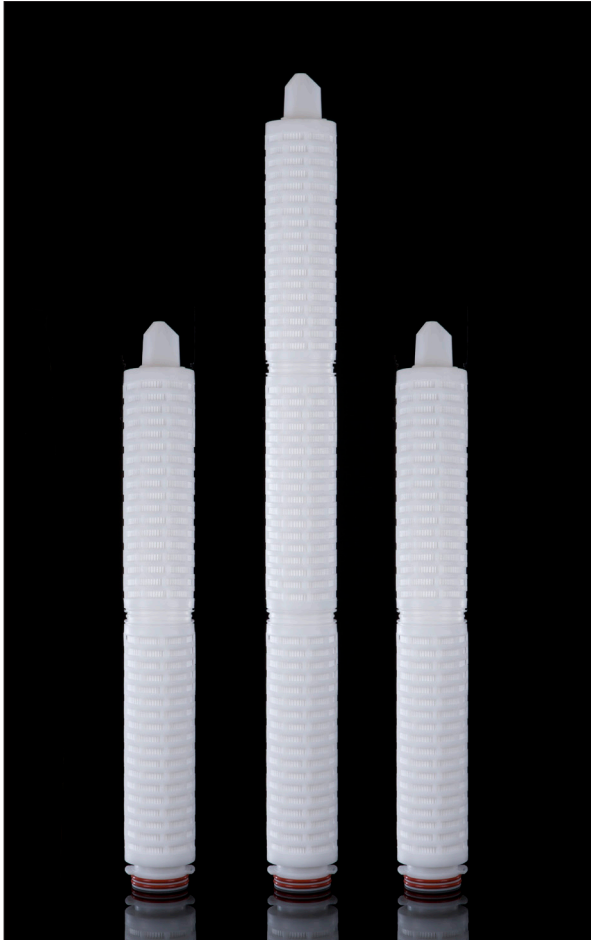


TETPOR AIR

Filter Cartridges



TETPOR AIR sterilization filter cartridges offer exceptional filtration performance while providing the highest levels of biosecurity throughout the process industry.

Operating at ambient temperature conditions, TETPOR AIR filter cartridges provide a cost-effective filtration solution. A unique polypropylene prefilter layer extends service life in heavily contaminated environments.

TETPOR AIR filter cartridges also utilize a well-proven, inherently hydrophobic expanded PTFE membrane validated as sterilizing grade in liquid in accordance with ASTM F838-05. This ensures the removal of all airborne bacteria, viruses and bacteriophage.

Features

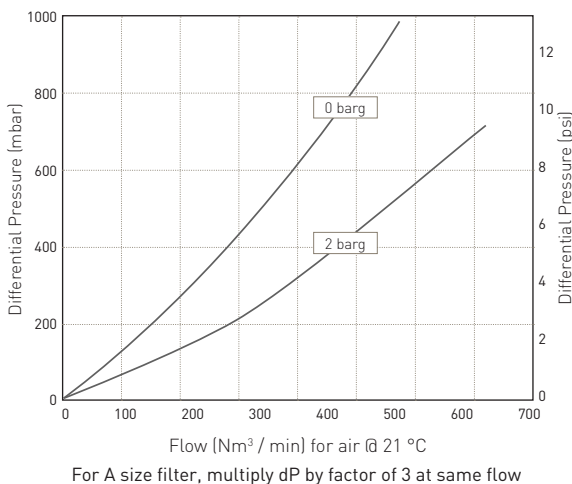
- Highly hydrophobic PTFE membrane
- Fully validated to ASTM 838-05 liquid bacterial challenge
- Fully validated to aerosol & viral challenge

Benefits

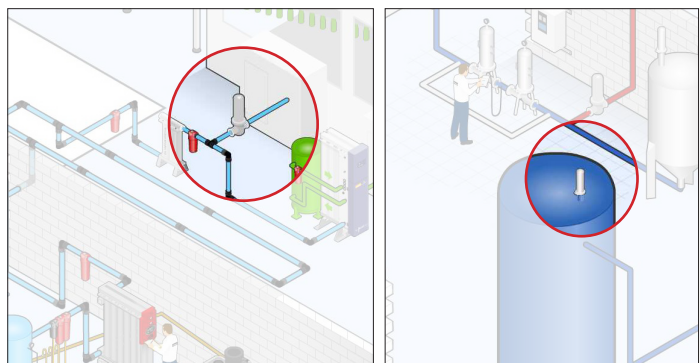
- Prevents membrane blinding during high humidity conditions
- Provides sterile effluent in high humidity environments and increased product protection
- Can be integrity tested in-situ using VALAIRDATA 3

Performance Characteristics

Filtration Stage



Sterile Gas and Vent Filtration





Specifications

Materials of Construction

- Filtration Membrane: Expanded PTFE
- Upstream Support: Polypropylene
- Downstream Support: Polypropylene

Filter Cartridges

- Inner Support Core: Polypropylene
- Outer Protection Cage: Polypropylene
- End Caps: Polypropylene
- End Caps Insert: 316L Stainless Steel
- Standard o-rings/gaskets: Silicone

DEMOCAP Filter Capsules

- Core: Polypropylene
- Sleeve: Polypropylene
- End Caps: Polypropylene
- Capsule Body: Polypropylene
- Capsules Vent Seals: Silicone
- Filling Bell: Polycarbonate

Food and Biological Safety

Parker domnick hunter's range of TETPOR AIR filters are intended for indirect food contact and as such are manufactured from materials suitable for the sterilization of compressed gasses within Food and Beverage applications. Materials conform to the relevant requirements of the United States FDA 21CFR part 177 and USP Plastics Class VI – 121°C and ISO 10993 equivalents.

Recommended Operating Conditions

Filter Cartridges

Up to 60 °C (140 °F) continuous operating temperature and higher short-term temperatures during CIP to the following limits:

Temperature		Max Forward dP	
°C	°F	(bar)	(psi)
20	68	5.0	72.5
40	104	4.0	58.0
60	140	3.0	43.5
80	176	2.0	29.0
90	194	1.7	24.6

Parker Hannifin certify that this product complies with the European Council Pressure Equipment Directive (PED) 97/23/EC Article 3, Paragraph 3 - Sound Engineering Practice (SEP). This product is intended for use with Group 1 & 2 Dangerous and Harmless Liquids and Group 2 Harmless Gases at the operating conditions stated in this document : In compliance with PED Article 3, Paragraph 3, SEP, this product does not bear the CE mark.

DEMOCAP Filter Capsules

Up to 40 °C (104 °F) at line pressures up to 5.0 barg (72 psig).

Effective Filtration Area

10" (250 mm):	0.77 m ²	(8.28 ft ²)
K Size:	0.36 m ²	(3.87 ft ²)
A Size:	0.25 m ²	(2.69 ft ²)
B Size:	0.12 m ²	(1.29 ft ²)
E Size:	0.06 m ²	(0.64 ft ²)

Sterilization

	Autoclave		Steam-in-place	
	Cycles	Temp	Cycles	Temp
Cartridges	120	142°C (287°F)	120	142°C (287°F)
DEMOCAP	100	135°C (275°F)	-	-

For detailed operational procedures and advice on cleaning and sterilization, please contact the Technical Support Group through your usual Parker domnick hunter contact.

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.

Cartridge	Test Pressure (barg)	(psig)	Diffusional Flow (ml / min)
E	0.8	11.6	1.5
B	0.8	11.6	3.0
A	0.8	11.6	6.0
K	0.8	11.6	8.5
10"	0.8	11.6	18.0

Retention Characteristics

TETPOR AIR filter cartridges are validated by bacterial challenge testing with *Brevundimonas diminuta* to current ASTM F838-05 methodology (10⁷ organisms / cm² EFA minimum) with typical in-house challenge levels being 10¹¹ organisms per 10" (250 mm) filter cartridge.

In addition, TETPOR AIR filter cartridges are also validated by aerosol bacterial and MS-2 coliphage challenge testing.

Ordering Information

Cartridges

ZCMT

Code	Length (Nominal)	Code	Micron	Code	Endcap (10 inch)	Code	Endcap (Demi)	Code	Variant	Code	O-rings
B*	2.5" (65 mm)	020	20.0	B*	dh DOE	SK	Retrofit	A	Air / Gas	E	EPDM
A*	5" (125 mm)			C	BF / 226 Bayonet	T	TRUESEAL	P			PTFE Encapsulated Silicone
K	5" (125 mm)			D	Fin / 222	X	116	S*			Silicone
1	10" (250 mm)			E	Flat Top / 222	Y	Demi Sub	V			Viton
2	20" (500 mm)			F	BF / 216 / 218	Z	Demi A & B Std	* Silicone o-ring supplied as standard without having to specify the 'S' code			
3	30" (750 mm)			G	Recess / 222	*EPDM gaskets supplied as standard					
* Supplied in packs of 3											

Demicap Capsules

ZEMT

Code	Length (Nominal)	Code	Micron	Code	Inlet Connection	Code	Outlet Connection	Code	Variant	Code	Grade	Code	Pack N°
E	4.4" (113 mm)	020	20.0	T	1" Tri-Clamp	T	1" Tri-Clamp	A	Air / Gas	N	None Sterile	3	Pack of 3
B	5.5" (140 mm)			N	1/2" NPT Male	N	1/2" NPT Male						
A	7.9" (200 mm)			H	1/2" Hosebarb	H	1/2" Hosebarb						
G Stepped Hosebarb													
M 1/2" NPT Male													
Q Walther QC													
R Grommel / QC													
V 3/8" NPT Female													