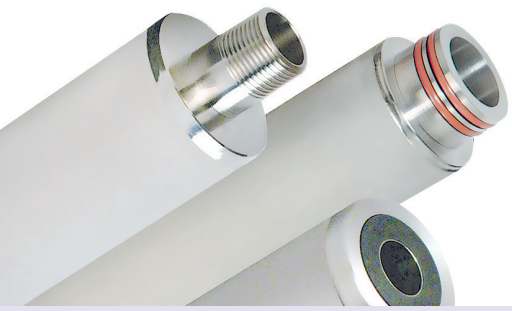
Graver Technologies

FILTRATION | SEPARATION | PURIFICATION



TPE Series Filter Cartridges

Improved mechanical strength and corrosion resistance

Product Specifications

Media:
Titanium, 316 Stainless Steel

End caps:
Titanium, 316 Stainless Steel

Gaskets/O-Rings:
Buna-N, EPR, Silicone, Teflon Encapsulated Viton (O-Rings only), Teflon (Gasket only), Viton

Micron ratings:
0.5, 1, 5, 10, 15, 35 µm

Dimensions

Nominal lengths:

5"	9.75"	10"	20"	30"	40"
12.7	*24.8*	*25.4*	*50.8*	*76.2*	*101.6 cm*

Outside diameter:
2.36" (60 mm)

Operating Parameters

Maximum operating temperature:
700°F (371°C) (threaded connection)

Maximum differential pressure:
250 psid (17.4 bar) forward
50 psid (3.5 bar) reverse

TITANIUM POROUS METAL TECHNOLOGY

TPE series filters are porous metal filters designed for applications involving heat, gases, aggressive chemicals, cryogenics or polymers. Made from metal powder, that is sintered to form a rugged, fixed pore structure, TPE filters are made to withstand temperature extremes, high pressures and repeated cleaning/backwash cycles. There are no longitudinal seams, for improved mechanical strength and corrosion resistance. TPE filters are produced in a range of configurations and micron ratings to perform in a variety of liquid and gas applications.

FEATURES & BENEFITS

- Constructed entirely of sintered titanium or 316 Stainless Steel powder — offers high corrosion resistance
- Cleanable/backwashable — allows for re-use, maximum economy
- High temperature sintering — no media migration, high pressure capabilities
- Various gasket/O-Ring materials and configurations — easily retrofits most systems

TYPICAL APPLICATIONS

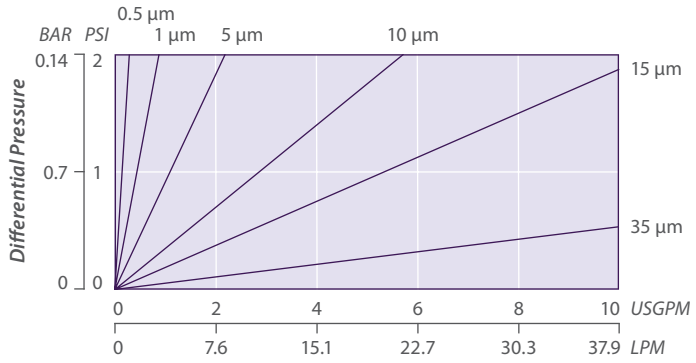
- Corrosive liquids and gases
- Cryogenic fluids
- High viscosity solutions
- Process steam
- High temperature liquids and gases
- Catalyst recovery

TPE NOMENCLATURE INFORMATION

Filter Type	Material	Retention Rating (microns)	Nominal Length (in)	End Configuration	Gasket or O-Ring
TPE Series 60 mm Diameter	**S** 316 Stainless Steel **T** Titanium	**0.5** **10** **1** **15** **5** **35**	**–5** **–9.75** **–10** **–20** **–30** **–40**	**P** Double Open End (Hard Endcaps) **P2** 226/Flat Single Open End **P3** 222/Flat Single Open End **M1** ¾ Inch MNPT Threads **M2** 1 Inch MNPT Threads	**B** Buna-N **E** EPDM **N** None **S** Silicone **T** Teflon encap. Viton (O-Rings only) **T** Teflon Gasket **V** Viton
Example: TPET 5–40M1N					
TPE	T	5	–40	M1	N

TPE FLOW RATE

Typical Flow Rate Clean Water at Ambient Temperature
(per 10" cartridge)



REMOVAL EFFICIENCY

Beta Ratio Efficiency	Beta 200 99.5%	Beta 20 95%	Beta 10 90%
0.5 µm	0.5	0.3	0.1
1 µm	1.0	0.8	0.4
5 µm	5.0	3.0	1.0
10 µm	10.0	8.0	5.0
15 µm	15.0	12.0	10.0
35 µm	35.0	32.0	28.0

$$\text{Beta Ratio} = \frac{\text{Upstream particle counts}}{\text{Downstream particle counts}}$$

The micron ratings shown at various efficiency and beta ratio value levels were determined through laboratory testing, and can be used as a guide for selecting cartridges and estimating their performance. Under actual field conditions, results may vary somewhat from the values shown due to the variability of filtration parameters.

Testing was conducted using the single-pass test method, water at 2.5 gpm/10" cartridge. Contaminants included latex beads, coarse and fine test dust. Removal efficiencies were determined using dual laser source particle counters.

FOR MORE INFORMATION **GTX-344 8-21**

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