



## TPE™ Series Filter Cartridges

### Improved mechanical strength & corrosion resistance

#### 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 powder
  - Offers high corrosion resistance
- Cleanable/Backwashable
  - Allows for re-use
  - Maximum economy
- High Temperature Sintering
  - No media migration
- Various gasket/O-Ring materials and configurations
  - Easily retrofits most systems

#### PRODUCT SPECIFICATIONS

Media	Titanium, 316 Stainless Steel
End Caps	Titanium, 316 Stainless Steel
Gaskets/O-Rings	EPR, Buna-N, Viton, Teflon Encapsulated Viton (O-Rings only), Teflon (gasket only)
Micron Ratings	0.5, 1, 5, 10, 15, 35, 50, 100 μ
Dimensions	
Nominal Lengths	5", 10", 20", 30", 40" (25.4, 50.8, 76.2 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



## TYPICAL APPLICATIONS

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

## REMOVAL EFFICIENCY

BETA 200 99.5%
0.5 micron
1 microns
5 microns
10 microns
15 microns
35 microns

BETA 20 95%
0.3 micron
0.8 microns
3 microns
8 microns
12 microns
32 microns

BETA 10 90%
0.1 micron
0.4 microns
1 microns
5 microns
10 microns
28 microns

$$\text{BETA RATIO} = \frac{\text{Upstream particle counts}}{\text{Downstream particle counts}}$$

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. Contaminant's included latex beads, coarse and fine test dust. Removal efficiencies were determined using dual laser source particle counters.

\*Note: DOE style is not compatible with SCB housings.

## TPE NOMENCLATURE INFORMATION

TPE Filter Type TPE Series Filters	T	10 Retention Ratings (microns)	-30 Nominal Length (inches)	M1 End Configuration	N Gasket or O-Ring
Material S 316 Stainless Steel T Titanium		0.5	-5	P Double Open End *	S Silicone
		1	-9.75	P2 226/Flat Single Open End	B Buna-N
		5	-10	P3 222/Flat Single Open End	E EPDM
		10	-20	M1 3/4 Inch MNPT Threads	V Viton
		15	-30	M2 1 Inch MNPT Threads	T Teflon endcap. Viton (O-Rings only)
		35	-40		T Teflon (Gasket only)
	50			N None	
	100				

Example TPET10-30M1N

## TPE 2.36" (60 MM) FLOW RATE

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

