## FiberFlo TF 1680

## Hollow Fiber Crossflow Filtration

FiberFlo TF 1680 Cartridges are made using the unique polysulfone hollow fiber membranes available only from Mar Cor Purification. The TF Cartridge is available in a pore size of $0.1 \mu \mathrm{~m}$ and $0.05 \mu \mathrm{~m}, 0.2 \mu \mathrm{~m} \& 0.45 \mu \mathrm{~m}$ pore sizes are available for pre-assessment.

## Dependable Membrane Performance

The Hollow Fiber membrane is produced in a registered FDA medical device facility under an extensive quality program compliant with ISO 13485:2003 standard. Each membrane lot is tested to rigorous standards resulting in very consistent performance not only within each lot but also from lot to lot.

## Hollow Fiber Membrane Structure

Ideal for separation and purification applications, the polysulfone fibers have a graded pore size structure with a "skin" on the inside of the fibers. Fluids, even with varying viscosities, flow easily through the center of the fibers (inside the lumens) with the skin resistant to fouling by materials in the fluids

## Product Configuration

FiberFlo TF 1680 cartridges are available for use in pilot and small production scale environments; stainless steel housing required. The TF 1680 cartridges have much higher membrane surface area than small scale laboratory capsules, also available from Mar Cor Purification, making them ideal for scale up from laboratory batch volumes to pilot and small production batch volumes.

## Typical Applications

The Microfiltration membranes are ideal for many applications in biotechnology that include:

- Latex microparticle washing \& coating
- Cell concentration
- Cell Debris removal
- Cell harvest
- Cell perfusion
- Multi-particle washing


## Traceability

Each cartridge has a unique serial number etched into the case. Each is packaged in two sealed plastic pouches. Each shipping carton also contains a Certificate of Compliance and the Directions for Use

## Technical Data

## FiberFlo TF 1680 Specifications

| Membrane Material | Polysulfone Hollow Fiber |
| :--- | :--- |
| Cartridge Cage Material | Polysulfone |
| Fiber Sealing Technolog | Urethane Potting |
| Membrane Surface Area | $16.8 \mathrm{ft}^{2}\left(1.6 \mathrm{~m}^{2}\right)$ |
| Fiber Flow Path Length | $9.5^{\prime \prime}(24 \mathrm{~cm})$ |
| Cleanliness and Biosafety | All components meet or exceed <br> USP Class VI-121C plastic test |
| Biosafety | Permeate and Retentate meet <br> USP XXIX requirement |
| Oxidizable Substances | Less than 0.25 EU/m |
| Endotoxins | Operating Characteristics |
| Maximum Recommended |  |
| Trans-Membrane Pressure at <br> $25^{\circ} \mathrm{C}$ | $80^{\circ} \mathrm{C}$ |
| Maximum Continuous <br> Operating Temperature, <br> 200 Hours Total Exposure | $80 \mathrm{cc} / \mathrm{minute}$ @ 30ps |
| Integrity Test | Air Diffusion (Inside Lumen to Out- <br> side Lumen): |

## Clean Water Flux

Figure 1 shows the normalized water flux rate for the $0.1 \mu \mathrm{~m}$ pore size filter through a range of transmembrane pressures. This flux data is a guide for system design. Flux rates for solutions will vary depending on solution particulate load and viscosity.

Figure 1
Cloan Water Flux vs Transmembrane Pressure FiberFlo TF Plot Cartridge


Ordering Information
FiberFlo TF 1680 Nomenclature Matrix

Device Type
Pore Size Range
M - Microfiltration (Microns)
Pore Size Rating
1000-0.1 $\mu \mathrm{m}$

| Membrane ID |
| :--- | :--- |
| $0.28-0.28 \mathrm{~mm}$ |

Nominal Flow Path Length
24-24cm

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