Memtrex NY

Pleated Filters with Hydrophilic Nylon 66 Membrane



Figure 1: Memtrex NY Filters

Description and Use

Memtrex NY (MNY) filters (Figure 1) are uniquely constructed for superior performance with a serial membrane layer design that incorporates a large pore-size membrane layer upstream of the final membrane layer. The first membrane acts like a prefilter to increase the life and efficiency of the cartridge. It is also highly effective in retaining difficult contaminants such as gelatinous particles. The final membrane layer ensures consistent retention characteristics.

MNY filters are designed to ensure maximum downstream cleanliness. GE Water & Process Technologies Nylon 66 membranes are naturally hydrophilic, non-shedding and do not contain leachable wetting agents. Thermoplastic sealing technologies are used in the cartridge construction eliminating the need for potentially contaminating adhesives. Each cartridge is manufactured under strict production

control and is individually integrity tested. GE is your complete source for filters, crossflow membranes, housings and other filtration equipment.

Typical Applications

MNY filters have excellent chemical compatibility making them the ideal choice for a broad range of applications such as high purity water, strong solvents, photoresists and other critical process fluid systems. Typical applications include:

- Filtration of pharmaceuticals intermediates
- Filtration of positive photoresists
- Final filtration of beverages

General Properties

Memtrex NY filters are available the following absolute pore size micron ratings: 0.1, 0.2, 0.45, 0.65 and 1.0 µm. Tables 1, 2, 3, 4 and 5 show further details on materials of construction, dimensions, operational limits, integrity testing and flow performance.

Table 1: Materials of Construction

| Description | Material of Construction |
|----------------------|---|
| Media | 2 layers of Nylon 66 Membrane (prefilter layer over final layer) |
| Support Layers | Polyester Microfiber |
| Core and Cage | Polypropylene |
| Endcaps and Adapters | Polyester |

Table 2: Dimensions

| Nominal O.D. | Nominal I.D. | Effective Filtration Area | | | |
|---------------|---------------|--|--|--|--|
| 2.75" (70 mm) | 1.25" (31 mm) | 6.9 ft ² (0.64 m ²) | | | |



Table 3: Operational Limits

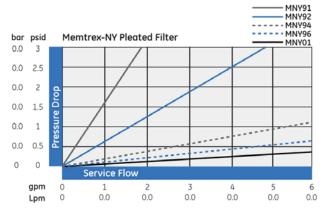
| Description | Operational Limits |
|---------------------------------------|---|
| Maximum Forward Differential Pressure | 60 psi (4.1 bar) at 70°F (21°C) |
| Maximum Reverse Differential Pressure | 30 psi (2.1 bar) at 70°F (21°C) |
| Maximum Operating Temperature | 180°F (82°C) at 10 psid (0.7 bar) in water |

Table 4: Integrity Testing

| Micron Rating | Specification |
|---------------|--|
| 0.1 µm | ≤ 50 cc/min at 40 psig (2.76 bar) |
| 0.2 µm | ≤ 50 cc/min at 30 psig (2.07 bar) |
| 0.45 µm | \leq 50 cc/min at 15 psig (1.03 bar) |
| 0.65 µm | ≤ 50 cc/min at 12 psig (0.83 bar) |
| 1.0 µm | ≤ 50 cc/min at 5 psig (0.34 bar) |

Air diffusion per 10" module after saturation with clean water

Table 5: Flow Performance in Clean Water¹



¹ Data based on 10" length filter

Additional Information

- Memtrex NY filters may be autoclaved or in situ steam sterilized (up to 257°F [125°C], 30-minute cycles) for a maximum accumulated exposure of 10 hours. Alternately, the filters may be sanitized with compatible chemical agents.
- GE certifies that the material contained in its Memtrex NY pleated filters meet U.S. FDA requirements for food contact under the applicable regulations in 21 CFR. For further information, contact GE technical services. Memtrex NY filters meet the test criteria for USP class VI-121°C Plastics.
- Aqueous extracts from Memtrex NY filters contain less that 0.25 EU/ml. The filters typically exhibit low levels of non-volatile residues.
- GE filter cartridges are designed and manufactured for resistance to a wide range of chemical solutions. Conditions will vary with each application and users should carefully verify chemical compatibility. Please contact your GE distributor for more information.
- Table 6 provides additional ordering information.

Table 6: Ordering Information

| Туре | Micron Rating | Nominal Cartridge Length | End #1 Adapter | | End #2 Adapter | | Elastomer Material | |
|------|---|---|---------------------|--|----------------|--------------------------|---------------------|--|
| MNY | 91 = 0.1 µm 92 = 0.2 µm 94 = 0.45 µm 96 = 0.65 µm 01 = 1.0 µm | 1 = 10 in. (25.4 cm) 2 = 20 in. (50.8 cm) 3 = 30 in. (76 cm) 4 = 40 in. (101.5 cm) | B = C = E = F = J = | Open End Gasket 120 O-Ring 213 O-Ring 222 O-Ring 226 O-Ring 020 O-Ring 222 O-Ring Stainless Steel Insert 226 O-Ring Stainless Steel Insert | C = G = | 120 O-Ring 213 O-Ring | B = E = S = T = V = | Buna-N EPDM Silicone Teflon ² Encapsulated (Only in 222 and 226 Sizes Viton ² |

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Page 2 FS1092EN Nov-08