

# MW Series

## Industrial Oil/Water Separation UF Elements

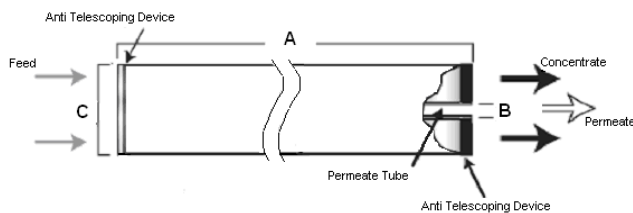
The M-Series Ultrafillic\* membranes are made of polyacrylonitrile (PAN) polymer. This membrane is characterized by a pore size of 0.01 microns with an approximate molecular weight cut-off of 20K-50K Dalton. To avoid fouling by "free" oils, the MW - series elements have been engineered to be extremely hydrophilic (water attracting) as compared to conventional membranes that are oleophilic (oil attracting).

MW Elements are used for oil/water separation and suspended solids removal. They are also used as pretreatment of process water before reverse osmosis or nanofiltration.

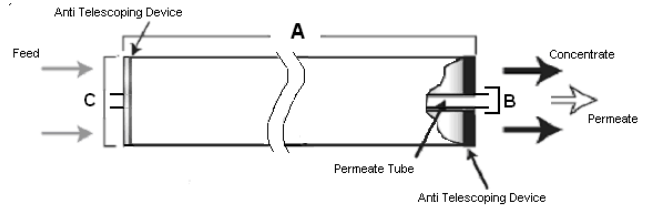
**Table 1: Element Specification**

Membrane	M-series, polyacrylonitrile
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Model	Spacer mil (mm)	Active area ft <sup>2</sup> (m <sup>2</sup> )	Outer wrap	Part number
MW2540F2100	35 (0.89)	23 (2.1)	Fiberglass	1233383
MW4040FM1993	50 (1.27)	65 (6.0)	Fiberglass	3050562
MW8040C1066	50 (1.27)	266 (24.7)	Cage	1220654
MW8040CF2071	50 (1.27)	261 (24.2)	Epoxy Shell	1229852



**Figure 1: Element Dimensions Diagram – Female 8040**



**Figure 2: Element Dimensions Diagram – Male 2540 & 4040**

**Table 2: Dimensions and Weight**

Model <sup>2</sup>	Dimensions, inches (cm)			Boxed Weight lbs (kg)
	A	B <sup>1</sup>	C <sup>3</sup>	
MW2540F2100	40.0 (101.6)	0.75 (1.9 OD)	2.4 (6.1)	4 (1.8)
MW4040FM1993	40.0 (101.6)	0.75 (1.9 OD)	3.9 (9.9)	9 (4.1)
MW8040C1066	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	29 (13.2)
MW8040CF2071	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	29 (13.2)

<sup>1</sup>Internal diameter unless specified OD (outside diameter).

<sup>2</sup>These elements are bagged dry before shipping.

<sup>3</sup> The element diameter (dimension C) is designed for optimum performance in GE pressure vessels. Others pressure vessel dimension and tolerance may result in excessive bypass and loss of capacity.

**Table 3: Operating and CIP parameters**

Typical Operating Flux	5 - 20 GFD (8 - 34 LMH)
Maximum Operating Pressure	100psi (700kPa)
Maximum Temperature*	Continuous operation: 122°F (50°C) Clean-In-Place (CIP): 122°F (50°C)
pH Range	Continuous operation: 2-10, Clean-In-Place (CIP): 3-9
Maximum Pressure Drop	Over an element: 15psi (103kPa) Per housing: 60psi (414kPa)
Chlorine Tolerance	200,000 ppm-hours

\* Element sized 8040 can be used at higher temperature. Please contact your GE representative for further technical recommendations.

Note: Oil/water separation applications require the selection of materials compatible with the content of the highly concentrated solution.

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