

# UNISOL Food & Dairy MF Elements

## Sanitary MF Spiral Wound Elements

SN MPV020

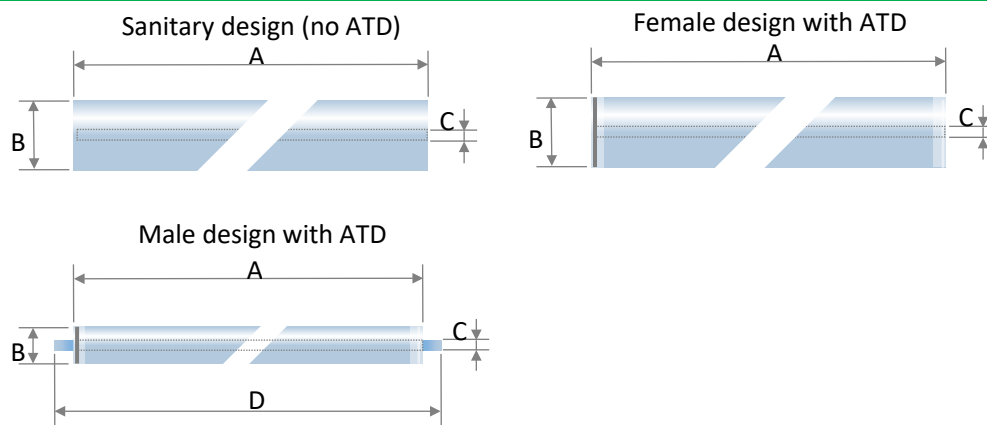
<b>Description</b>	UNISOL sanitary MF is a PVDF membrane with the pore size at 0.2µm, this high-flux membrane is often used to remove macromolecules and concentrate large organic solutes, it is often used for Food, Beverage, wine filtration etc.		
<b>Characteristics</b>	Membrane Chemistry	PVDF	
	Pore size	0.2µm	
	Outer wrap	Net wrap	
	Regulatory Status	Compliant with US FDA CFR Title 21, EC Reg. No. 1935/2004, and EU Reg. No. 10/2011. Halal certificate by the Islamic Food and Nutrition Council of America (IFANCA). Kosher certificate by Committee of Kashrut.	
<b>Limits</b>	Max Operating Pressure	5 bar (72.5 psi)	
	Max Pressure Drop	1 bar (14.5 psi)	
	Max. Operating Temperature	55 °C (131 °F)	
	Max. Cleaning Temperature	50 °C (122 °F)	
	Operating pH Range	2 – 10	
	Cleaning pH Range	1.8 – 11	
<b>Area</b> ft <sup>2</sup> (m <sup>2</sup> )	31mil diamond spacer	SN MPV020 1812B	2.1 (0.19)
	31mil diamond spacer	SN MPV020 3838B	75 (7.0)
	46mil diamond spacer	SN MPV020 3838C	58 (5.4)
	80mil diamond spacer	SN MPV020 3838F	43 (4.0)
	31mil diamond spacer	SN MPV020 4040B	85 (7.9)
	46mil diamond spacer	SN MPV020 5819C	64 (6)
	46mil diamond spacer	SN MPV020 6338C	172 (16)
	46mil diamond spacer	SN MPV020 8038C	290 (27)

<sup>(1)</sup> For the purpose of improvement, specifications may be updated periodically

<sup>(2)</sup> Detailed information can be found in the appendix on the last page.

<sup>(3)</sup> Consult UNISOL Membrane Technology when intend to operate at elevated pressure, temperature, concentrations.

## Dimensions



Size mm (inch)	A <sup>[1]</sup>	∅B <sup>[2]</sup>	∅C <sup>[3]</sup>	D	Tube
SN MPV020 1812	305 (12)	46 (1.8)	16 (0.629)	/	Female
SN MPV020 3838	965 (38)	96 (3.8)	21.1 (0.831)	/	Female
SN MPV020 4040*-M	965 (38)	99.4 (3.9)	19 (0.748)	1016 (40)	Male
SN MPV020 4040*-F	1016 (40)	99.4 (3.9)	16 (0.625)	/	Female
SN MPV020 5819	476 (18.7)	150 (5.9)	32.5 (1.28)	/	Female
SN MPV020 6338	965 (38)	160 (6.3)	28.8 (1.138)	/	Female
SN MPV020 8038	965 (38)	200.5 (7.9)	28.9 (1.138)	/	Female

<sup>[1]</sup> Tolerance: -2~0mm

<sup>[2]</sup> Tolerance: -2~0mm

<sup>[3]</sup> 1812/3838/4040-F tolerance: ±0.1mm, 4040-M tolerance: 0~+0.1mm, 5819 tolerance: ±0.075mm  
 6338/8038 tolerance: -0.2~0 mm

## Handling

**Water quality for cleaning and diafiltration.** Maximum feed turbidity is 1NTU. Maximum feed SDI is 5.0 (15minutes test).

**Operation.** Stated operational conditions are valid and the rules for installation, cleaning, water and preservation have to be adhered. UNISOL approved cleaning detergent, anti-foam, polymers, other chemicals and filter-aids lubricants can be applied only. For further questions, do not hesitate to contact our service engineer.

**Lubricants.** During installation, use only water or glycerin to lubricate seals. The use of petroleum or vegetable-based oils or solvents may damage the element and void any warranty.

**Preservation and Storage.** Plan ahead to use new membranes. The element should be stored in a sealed bag, at 4 – 30 °C (39 – 86 °F). Storage solutions should be made with: 1 % w/w sodium metabisulfite.

**Chemical Exposure.** Residual chlorine concentration during cleaning cycle (CIP) should be 150 ppm @ pH 10.5 or higher. Chlorine concentration should never exceed 200 ppm.

**Cleaning.** UNISOL modules may be put into production after having gone through the first cleaning prescribed by UNISOL on product packing notes or given differently by UNISOL.

## Annex

Nomenclature: SN-MPV020–3838-B

SN	MPV020	3838	B
Design/Application	Membrane	Diameter & Length	Feed spacer
<b>SN</b> Sanitary Design	MPV020	1812 <b>3838</b> 3840 4040 4338 5819 6338 6438 8038	<b>B: 31mil /0.8mm (diamond)</b> C: 46mil/1.1mm (diamond) E: 65mil /1.6mm (diamond) F: 80mil /2.0mm (diamond)