

# UNISOL Food & Dairy NF Elements

## Sanitary NF Spiral Wound Elements

### SN UNF604 Series

**Description** UNISOL sanitary Nano-filtration (NF) membrane elements are used by food and dairy processors for a variety of desalting, purification and other separations. All UNF604 elements have very low monovalent salt rejection, with pore size in the range of 1,000Daltons.

<b>Characteristics</b>	Membrane	UNF604
	Material	Polypiperazine
	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 by the Islamic Food and Nutrition Council of America (IFANCA). Kosher certificate by Committee of Kashrut.

<b>Limits</b>	Max. Operating Pressure	55 bar (800psi)
	Max. Pressure Drop	1 bar (14.5 psi)
	Max. Operating Temperature	50 °C (122 °F)
	Max. Cleaning Temperature	55 °C (131 °F)
	Operating pH range	2 – 10
	Cleaning pH Range	1.8 – 11
Free Chlorine Tolerance	Non-detectable	

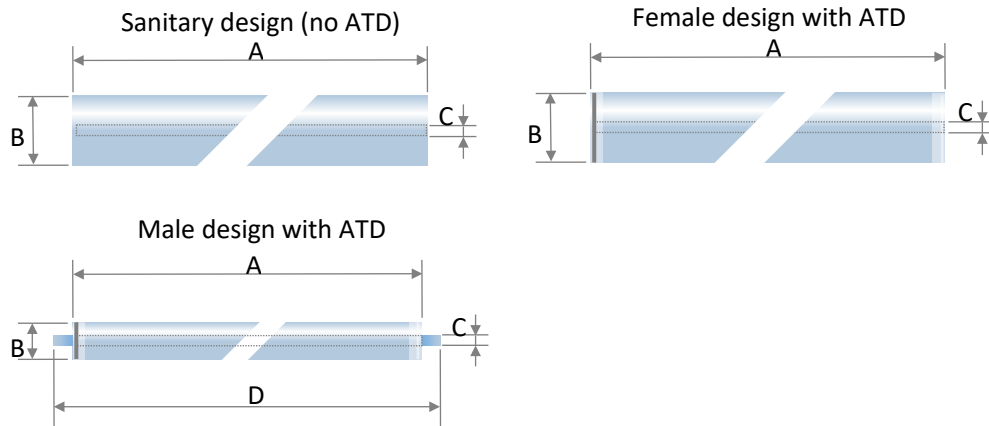
<b>Area</b> ft <sup>2</sup> (m <sup>2</sup> )	Spacer	31 mil	46 mil	65 mil
	2540	24 (2.2)	19 (1.8)	/
	3838	75 (7.0)	58 (5.4)	/
	3840	81 (7.5)	62 (5.8)	/
	6338	226 (21)	172 (16)	142 (13.2)
	8038	344 (32)	290 (27)	225 (20.9)
	8040	355 (33)	269 (25)	/

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

<sup>(2)</sup> Consult UNISOL Membrane Technology when intend to operate at elevated pressure, temperature, concentrations.

<sup>(3)</sup> For the product name, please refer to the annex in the last page.

**Dimensions**



Size mm (inch)	A <sup>[1]</sup>	∅B <sup>[2]</sup>	∅C <sup>[3]</sup>	D	Permeate tube	ATD
2540	965 (38)	62 (2.4)	19 (0.7485)	1016 (40)	Male	NO
3838	965 (38)	96 (3.8)	21.1 (0.831)	/	Female	NO
3840	1016 (40)	96 (3.8)	21.1 (0.831)	/	Female	NO
6338	965 (38)	160 (6.3)	28.9 (1.138)	/	Female	NO
8038	965 (38)	200.5 (7.9)	28.9 (1.138)	/	Female	NO
8040	1016 (40)	200.5 (7.9)	28.9 (1.138)	/	Female	With

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

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

<sup>[3]</sup> 3840/4040-M tolerance: 0~+0.1mm, 3838 tolerance: ±0.1 mm, 6338/8038/8040 tolerance: -0.2~0mm

**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 CIP would be <0.1ppm

**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- UNF604–8038-B

SN	UNF604	8038	B
Design/Application	Membrane	Diameter & Length	Feed spacer
<b>SN</b>	<b>UNF604</b>	3838	<b>B: 31mil /0.8mm (diamond)</b>
Sanitary Design		3840	C: 46mil/1.1mm (diamond)
		4338	E: 65mil /1.6mm (diamond)
		6338	F: 80mil /2.0mm (diamond)
		6438	
		<b>8038</b>	