UNISOL Food & Dairy NF Elements

Sanitary NF Spiral Wound Elements

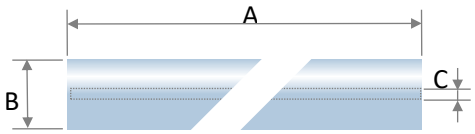
SN UNF90 Series

Description	UNISOL sanitary nanofiltration (NF) membrane elements are used by food and dairy processors for a variety of desalting, purification and other separations. All UNF90 elements contain an improved nanofiltration membrane sheet designed to reject organics with a MWCO more than 100 Daltons while passing monovalent salts.			
Characteristics	Membrane	UNF90		
	Material	Polyamide		
	Outer wrap	Net wrap		
	Regulatory Status	Compliant with US FDA CFR Title 21, EC Reg. No. 1935/2004, and EU Reg. No. 10/2011.		
Limits	Max Operating Pressure:	55 bar (800 psi)		
	Max Pressure Drop:	1 bar (14.5 psi)		
	Max. Operating Temperature:	50 °C (122 °F)		
	Max. Cleaning Temperature	55 °C (131 °F)		
	pH Range:	Operating: 2 – 10		
		Cleaning: 1.8 – 11		
	Free Chlorine Tolerance:	Non-detectable		
Area ft^2 (m^2)	Spacer	28mil (J)	31mil (B)	46mil (C)
	SN UNF90 2540	/	/	19 (1.8)
	SN UNF90 4021	51.7 (4.8)	45.2 (4.2)	37.7 (3.5)
	SN UNF90 8038	/	344 (32)	290 (27)
	SN UNF90 8040	390 (36)	390 (36)	270 (25)

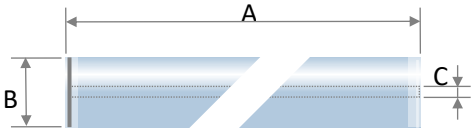
(1) For the purpose of improvement, specifications may be updated periodically
(2) Consult UNISOL Membrane Technology when intend to operate at elevated pressure, temperature, concentrations.

Dimensions

Sanitary design (No ATD)



With ATD



Size/ mm (inch)	A[1]	⌀B[2]	⌀C[3]	D
SN UNF90 2540	965 (38)	62 (2.4)	19 (0.7485)	1016 (40)
SN UNF90 4021	472(18.6)	99.4(3.9)	19.05(0.75)	533(21)
SN UNF90 8038	965 (38)	200.5 (7.9)	28.9 (1.138)	/
SN UNF90 8040	1016 (40)	200.5 (7.9)	28.9 (1.138)	1016 (40)

[1] Tolerance: -2~0mm
[2] Tolerance: -2~0mm
[3] 2540/4021 tolerance*: 0~+0.1mm*. 8038/8040 tolerance: -0.2~0 mm.

Handling

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