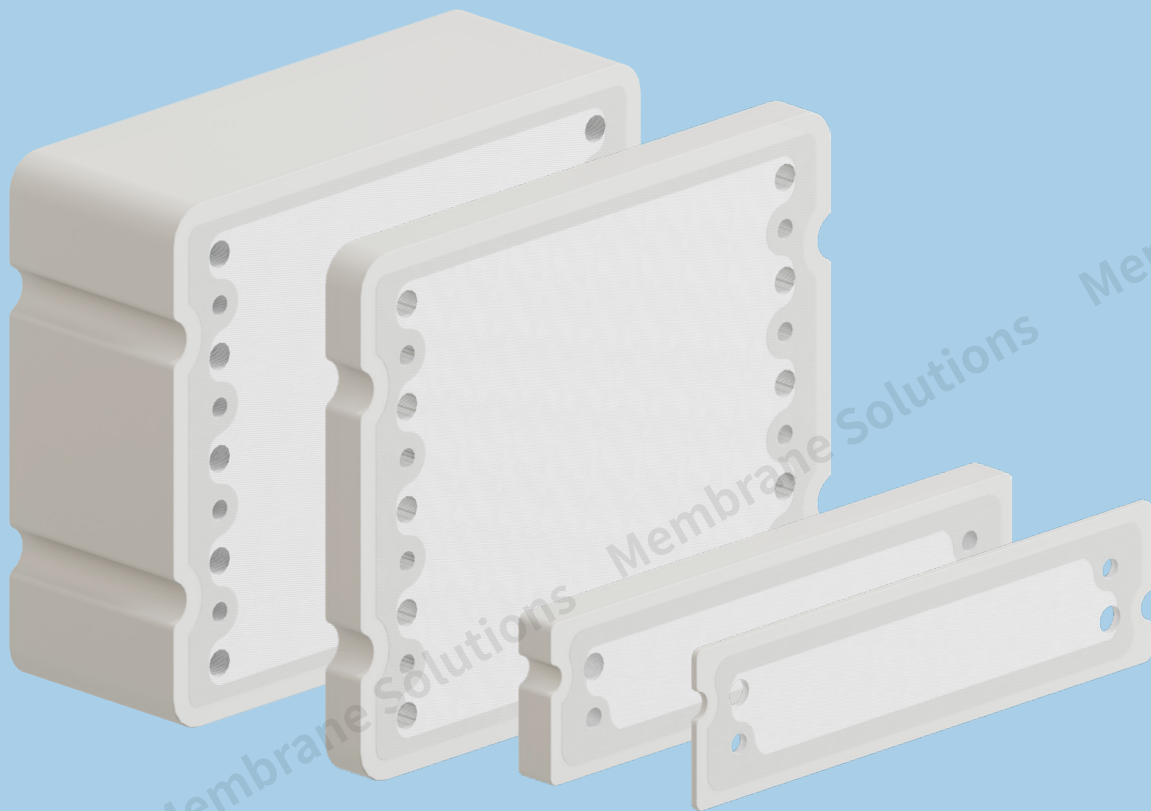


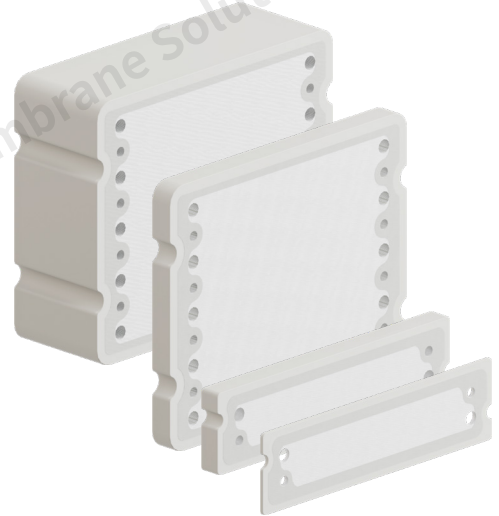
NuggetMem™ TFF Cassettes for BioPharm Process

► Technical Data Sheet



Description

Membrane Solutions has launched the NuggetMem™ Process Series tangential flow ultrafiltration cassette product as a solution to meet the pilot-scale and production needs in life sciences. The NuggetMem™ Process Series tangential flow cassettes are equipped with high-performance ultrafiltration membranes made of modified PES material, featuring high flow rates and chemical resistance. This product serves as safe, efficient, and cost-effective tangential flow filtration solution for biopharmaceutical, life science, and related fields. NuggetMem™ is typically applied in downstream processing of monoclonal antibodies, recombinant protein drugs, viral vectors, vaccines, plasmids, mRNA lipid-coated particles, etc., including processes such as concentration, separation, and purification. It also demonstrates excellent performance in concentrating suspended particle systems, clarifying cell suspension systems, and conducting buffer exchange.



Features

- High quality membrane material, high flux, high retention rate, low protein binding.
- Cassettes of different sizes have the same channel height and length, making it easy to scale up from lab small-scale linear testing to pilot scale testing and production.
- Continuous production technology, robust materials and reliable structural design make the cassette products have stable structure and excellent stability, which can withstand harsher use conditions.
- Less recirculation volume facilitates maximum recovery of the feed liquid and reduces material loss.
- Broad and excellent chemical resistance, combined with a unique structural design, facilitate easy cleaning.
- Multiple MWCOs and filtration areas are available, compliant with the latest biopharmaceutical regulations, providing customers with flexible solutions.

Compatible Holder

It is compatible with mainstream cassette holders in the market, and Membrane Solutions can also provide holders that meet the requirements.



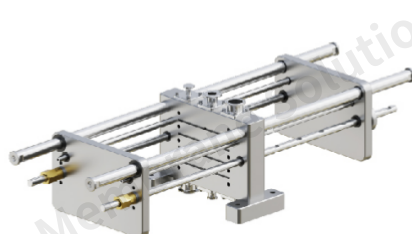
0.5m² Holder



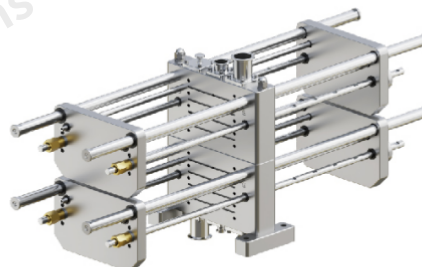
5m² Holder



7m² Holder



20m² Holder



40m² Holder

Parameters

Material Composition	Membrane	PES/PVDF
	Support	Polyolefin
	Fleece	PP
	Packaging Materials	Silicone
	Gasket	Silicone
Operation Condition	Maximum Operating Pressure	5.5bar@50°C
	Maximum TMP	4.0bar@50°C
	Operating Temperature	4-50°C
	Operating pH	1-14
	Recommended Process Flow Rate	4.0-6.0L/m²/min
	Recommended Cleaning Flow Rate	8.0-10.0L/m²/min
Integrity Testing	Test Method	Diffusion Flow (Air)
	Test Conditions	1.0bar@25°C
	Test Standards	≤100mL/min/m²
Regulatory Information	Biosafety	All materials and components of NuggetMem™ cassettes meet requirements of USP <87> and USP <88>.
	Insoluble Particles	Complies with USP<778>standards
	Endotoxins	<0.25EU/mL
	Quality System	Follow the quality management systems of ISO9001 and ISO13485.
	Production conditions	Complies with GMP regulatory requirements, 100% product integrity testing and visual inspection.

Notes: Traceability: Each cassette is assigned a unique serial number for complete traceability.

Packaging includes one quality guarantee certificate, two silicone gaskets, and the user manual, MSDS and validation guide are available from Membrane Solutions upon request.

Packaging and protective liquid:** The aluminum foil bag is vacuum-sealed, and the cassette packaging contains a 25% glycerol aqueous solution with 0.2N sodium hydroxide.**

Specifications

Area (m ²)	L/W/H (mm)	Application
0.01	210.0×55.5×1.7	R&D, Lab
0.02	210.0×55.5×3.4	R&D, Lab
0.10	210.0×55.5×15.0	R&D, Lab, Pilot
0.50	213.0×178.0×16.0	Pilot, Process
1.00	213.0×318.0×16.0	Pilot, Process
2.50	213.0×178.0×75.0	Pilot, Process

Ordering Information

NuggetMem® TFF UF Cassette					
Series Name	Membrane Material	MWCO	Flow Channel Type	Effective Membrane Area	Application
NMTC	E	100	F	010	P
NMTC= NuggetMem® TFF Cassette	E = PES	001 = 1kDa 002 = 2kDa 003 = 3kDa 005 = 5kDa 008 = 8kDa 010 = 10kDa 020 = 20kDa 030 = 30kDa 050 = 50kDa 100 = 100kDa 300 = 300kDa	F = Fine C = Coarse V = Suspended	001 = 0.01m ² 002 = 0.02m ² 010 = 0.10m ² 050 = 0.50m ² 250 = 2.50m ²	PR = BioPharm Process F = Food and Beverage W = Water

NuggetMem® TFF MF Cassette					
Series Name	Membrane Material	Removal Rating	Flow Channel Type	Effective Membrane Area	Application
NMTC	E	011	V	010	P
NMTC= NuggetMem® TFF Cassette	E = PES V = PVDF	011 = 0.1µm 022 = 0.22µm 045 = 0.45µm	V = Suspended	002 = 0.02m ² 010 = 0.10m ² 050 = 0.50m ² 250 = 2.50m ²	PR = BioPharm Process F = Food and Beverage W = Water



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