



## PROPOR TFF single-use

- tangential flow filtration
- modified polyethersulphone hollow fibre cartridges

PROPOR TFF single-use hollow fibre filters provide maximum cross-flow performance with minimal preparation and installation time.

High flux, low fouling and low binding modified PES hollow fibre membrane technology offers consistent and fully scaleable performance in a broad range of applications.

Applying single-use technologies to tangential flow filtration reduces the risk of batch-to-batch contaminations, increases operational flexibility and decreases time to market through the elimination of cleaning, validation and storage protocols.

PROPOR TFF single-use filters are supplied glycerin-free, ready to use without the need for extensive pre-flushing. Set up time can be reduced even further when provided pre-integrated and irradiated as part of a Parker domnick hunter manifold.

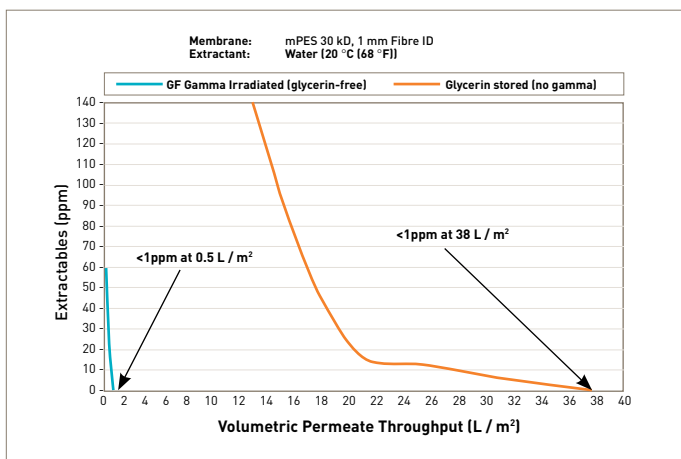
### Features and Benefits

- Ready to use cross flow filtration - no pre-rinse required
- Up to 80x reduction in extractables compared to glycerin conditioned membranes
- High flux, low fouling modified PES membrane for exceptional performance
- Plug-and-play - connect, use and discard
- No cleaning required
- Self-contained hollow fibre filters - no hardware, no installation
- 100% integrity tested
- Sterilizable by gamma-irradiation



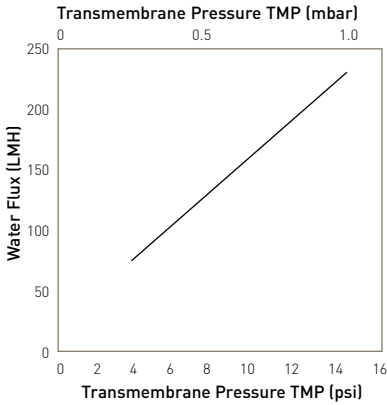
Note: PROPOR is a registered trademark of Parker Hannifin Corporation.

### PROPOR TFF single-use filters offer minimal extractable levels with no water flush

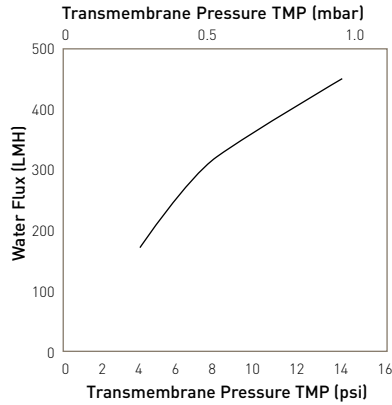


Extractable flush analysis: glycerin-free vs glycerin stored

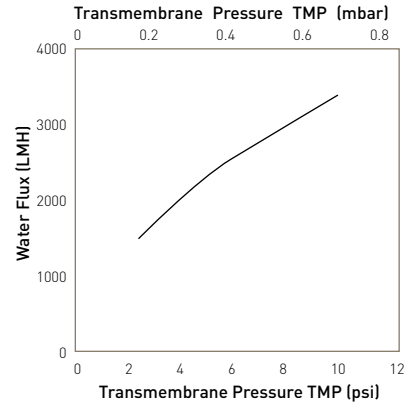
## Performance Characteristics



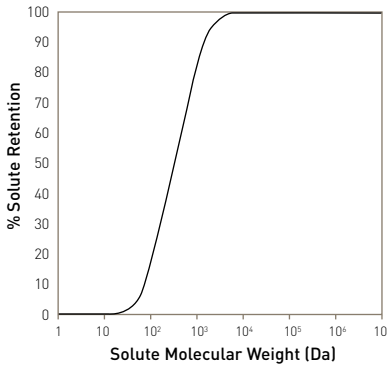
Clean water flux for a 12" PilotPlus 30K MWCO, 1.0mm ID



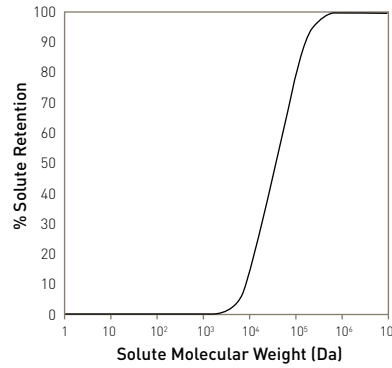
Clean water flux for a 12" PilotPlus 300K MWCO, 1.0mm ID



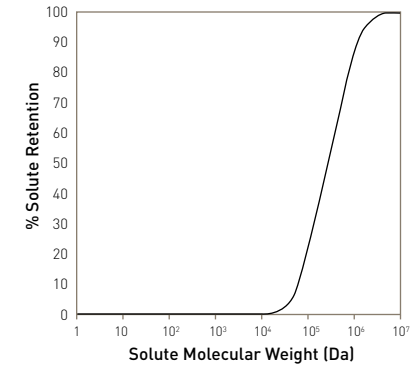
Clean water flux for a 12" PilotPlus 0.2 micron, 1.0mm ID



30K MWCO membrane solute retention



300K MWCO membrane solute retention



0.2 micron membrane solute retention

## Typical Batch Sizes & Flow Rates by Product Format

Cartridge Type	12 inch Fibre Length		24 inch Fibre Length		41 inch Fibre length	
	Recommended Batch Volume (L)	Recommended Permeate Flow Rate (L/h)	Recommended Batch Volume (L)	Recommended Permeate Flow Rate (L/h)	Recommended Batch Volume (L)	Recommended Permeate Flow Rate (L/h)
LabPlus	0.01 to 0.25	up to 0.125	0.05 to 0.4	up to 0.25	N/A	N/A
LabMax	0.15 to 0.75	up to 0.4	0.25 to 1.5	up to 0.8	0.3 to 3.0	up to 1.5
Pilot	0.4 to 2.0	up to 1.4	0.7 to 4.0	up to 2.5	1.0 to 8.0	up to 5.0
PilotPlus	1.0 to 6.0	up to 3.0	2.0 to 12.0	up to 6.0	3.0 to 25.0	up to 12.0
Production	25.0 to 100.0	up to 30.0	50.0 to 250.0	up to 70.0	100.0 to 500.0	up to 150.0
ProductionMax	N/A	N/A	100.0 to 500.0	100.0 to 500.0	300.0 to 1000.0	300.0 to 1000.0

