

# PermaFlux™ V8 High Efficiency Module

*Tubular Membranes Reinvented*

## Description and Use

- PermaFlux™ is a state-of-the-art pressurized crossflow membrane technology
- Able to concentrate suspended solids and oil and grease to extremely high levels without risk of sludging
- Most energy efficient crossflow membrane on the market
- Fully back-washable modules
- No aeration needed

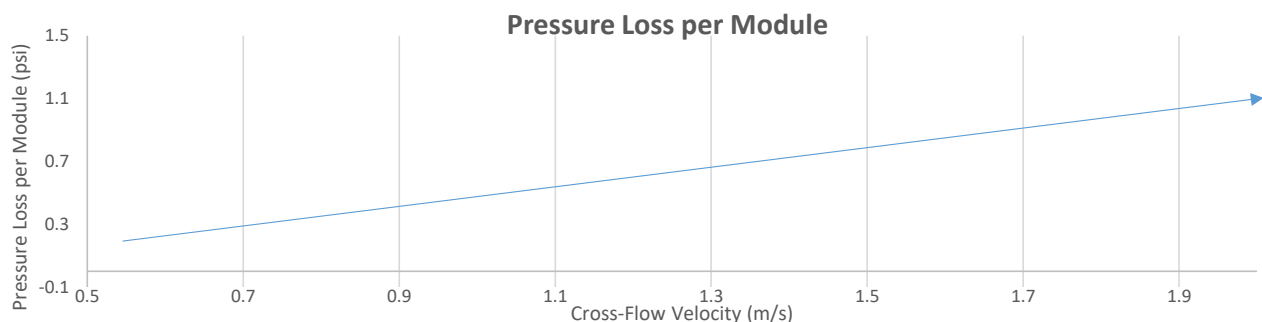


## Standard Applications

The PermaFlux™ module is best suited for numerous applications including (but not limited to):

- Industrial/Oily Wastewater
- Landfill & Remediation
- Municipal Sludge Thickening
- Agriculture Waste Treatment
- Algae Thickening
- Metal fabrication and machining
- Food and beverage waste
- Pharmaceuticals & Chemicals
- Mining
- Anaerobic Digestate Liquid/Solid Separation

UF quality permeate can be stored and re-used for non-potable applications (rinsing/washing, cooling towers, boilers, irrigation, etc).



\*Graph data based on water at 68 °F (20 °C) and a viscosity up to 10 cP

PermaFlux is a trademark of Thetis Environmental that may or may not be registered in one or more countries.

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### PRODUCT PROPERTIES

Model	PermaFlux™ V8 High Efficiency
Active Surface Area	11.1 m <sup>2</sup> (120 ft <sup>2</sup> )
Membrane Configuration	28 filtration filaments in parallel
Membrane Material	PVDF
Housing Material	PVC
Flow Path	Outside-in
Membrane Pore Size	0.04 µm
Molecular Weight Cut-Off	100 kDalton



### MODULE SPECIFICATIONS

Length	1,500 mm (60")
Housing Diameter	200 mm (8")
Permeate Connection	Custom coupling with 1" male NPT (optional camlock or hosebarb)
Maximum Dry Shipping Weight	32 kg (70 lb)
Maximum Weight of Wet Module	42 kg (93 lb)

### MEMBRANE AND SYSTEM PROPERTIES

- **Patented** closed loop batch filtration system reduces maintenance and energy consumption by up to 90% compared to other membrane technologies
- Expected **energy consumption of 0.5 - 3.0 kWh/m<sup>3</sup>** permeate produced
- Typical **installed power of 0.1 hp/m<sup>2</sup> membrane** (expected use of installed power is 30%)

### OPERATING PARAMETERS

Trans-Membrane Pressure (TMP) Range	PERMEATION: <138 kPa (20 psig) BACKWASH: <103 kPa (15 psig)
Permeate Flow Range	5.4 - 109 m <sup>3</sup> /day (1 - 20 GPM)
Temperature Range	5 - 55°C (41 - 131°F)
Operating pH Range	2 - 12
Cross Flow Velocity Range*	0.5 - 2 m/s

\*Cross flow velocity refers to the speed the water is traveling within the proprietary closed loop module configuration

### CLEANING LIMITS

Maximum Cleaning Temperature	45°C (113°F)
Cleaning pH Range	1.9 - 12 (<35°C); 1.9 - 11.5 (>35°C)
Chemical Concentration During Clean	200 - 2,000 ppm

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