

# MICRODYN *i*Sep™ 500-PVDF Ultrafiltration Modules *LENNTECH* WATER TREATMENT SOLUTIONS

MICRODYN *i*Sep™ 500 ultrafiltration (UF) modules feature a vacuum-driven, backwashable, spiral-wound membrane design to handle high fouling water and wastewater streams. With open feed channels and an integrated tank design, *i*Sep modules can handle significantly higher solids than many standard polymeric UF designs on the market today. As the latest evolution of the SpiraSep™ product line, *i*Sep modules consistently deliver high-quality permeate regardless of feed conditions with the additional benefits of reduced footprint, higher membrane area, integrated aeration, and the ability to quickly drain solids from the modules between backwashes.

Extensive pre-treatment for UF systems, such as clarifiers, adds significant and unnecessary cost, footprint, and complexity. With the ability to directly treat some of the most difficult water and wastewater streams, *i*Sep is able to drastically reduce capital and operational costs while simplifying the overall treatment process.

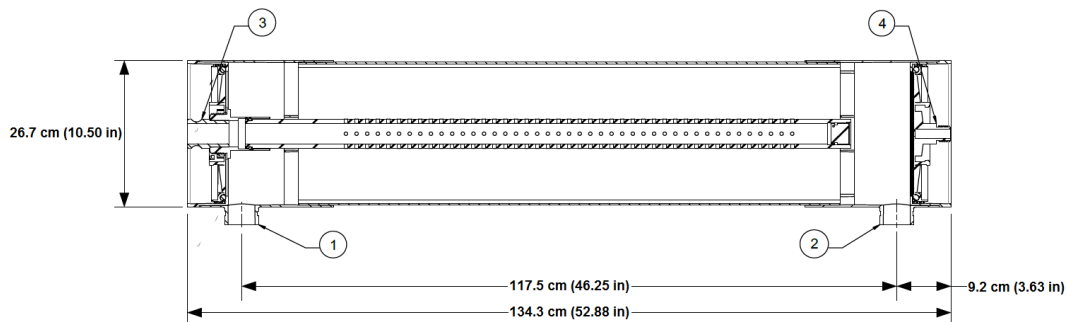
## MEMBRANE CHARACTERISTICS

<b>Membrane Chemistry</b>	Polyvinylidene Fluoride (PVDF)
<b>Construction</b>	Submerged, Negative Pressure Ultrafiltration Module
<b>Pore Size</b>	0.03 micron

## MODULE SPECIFICATIONS

<b>Model</b>	MICRODYN <i>i</i> Sep™ 500-PVDF
<b>Feed Channel</b>	90 mil corrugated
<b>Membrane Area - m<sup>2</sup> (ft<sup>2</sup>)</b>	27.4 (295)

## PHYSICAL DIMENSIONS



<b>Item 1</b>	Overflow	2.0" Grooved End Coupling
<b>Item 2</b>	Feed/Drain	2.0" Grooved End Coupling
<b>Item 3</b>	Permeate	1.5" Cam & Groove Coupling
<b>Item 4</b>	Air	0.75" MNPT
<b>Module Weight - kg (lb)</b>	23 (50)	-

**OPERATING PARAMETERS**

<b>Transmembrane Pressure Range</b>	0.07 – 0.7 bar (1 – 10 psi)
<b>Temperature Range<sup>1</sup></b>	1 – 45°C (34 – 113°F)
<b>pH Range<sup>1</sup></b>	2.0 – 11.0
<b>Applicable Air Scour Rate</b>	5.6 Nm <sup>3</sup> /hr (3.5 scfm)
<b>Cleaning Chlorine Tolerance</b>	2,000 mg/L
<b>Maximum Feed TSS<sup>2</sup></b>	1,000 mg/L
<b>Maximum Feed Oil &amp; Grease<sup>2</sup></b>	300 mg/L

<sup>1</sup> Temperature, pH limits, and cleaning procedures are further detailed in the *iSep*<sup>™</sup> 500 Product Manual.

<sup>2</sup> Depending on feed water quality and operating conditions.

**IMPORTANT INFORMATION**

**Start-up:** MICRODYN-NADIR recommends an operational sequence that incorporates permeate production, cleaning, and module draining steps. For a more detailed operational sequence, please see *iSep* 500 Product Manual pages 10-11.

**Cleaning:** *iSep* 500 ultrafiltration modules must be cleaned routinely via backwash, chemically enhanced backwash (CEB), and clean-in-place (CIP) to ensure proper operation and to prevent membrane damage. Please see *iSep* 500 Product Manual pages 12-15.

**Storage:** *iSep* 500 ultrafiltration modules must be stored appropriately to ensure proper operation and to prevent membrane damage. Please see *iSep* 500 Product Manual pages 18-19.

**CUSTOMIZABLE SPECIALTY ELEMENTS**

MICRODYN-NADIR offers a full range of membranes and element designs for challenging water and process applications. Technologies include low-fouling RO, submerged UF, continuous high temperature, ultra-high pressure, unique sanitary designs and more. Contact MICRODYN-NADIR to customize a product that satisfies your specific requirements.

Contact

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