



MICRODYN *iSep*™ 500-PES

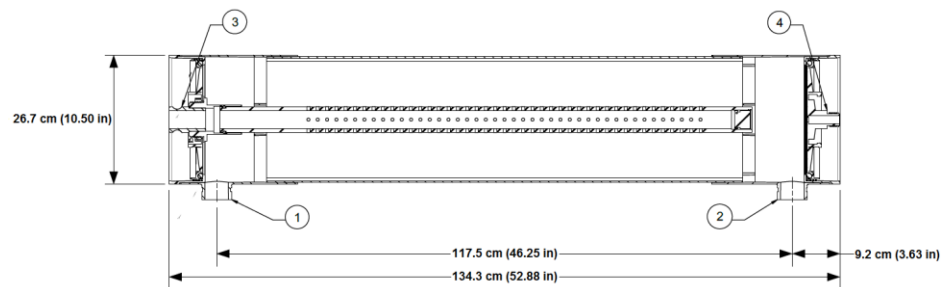
Ultrafiltration Modules

MICRODYN *iSep*™ 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, *iSep* 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, *iSep* 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, *iSep* is able to drastically reduce capital and operational costs while simplifying the overall treatment process.

MEMBRANE CHARACTERISTICS	Membrane Chemistry	Polyethersulfone (PES)
	Construction	Submerged, Negative Pressure Ultrafiltration Module
	Pore Size	0.03 micron
ELEMENT SPECIFICATIONS	Model	<i>iSep</i> 500-PES
	Feed Channel Spacer	90 mil corrugated
	Membrane Area – m² (ft²)	27.4 (295)

PHYSICAL DIMENSIONS



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

OPERATING PARAMETERS

Transmembrane Pressure Range	0.07 – 0.7 bar (1 – 10 psi)
Temperature Range¹	1 – 45°C (34 – 113°F)
pH Range¹	2.0 – 11.0
Applicable Air Scour Rate	5.6 Nm ³ /hr (3.5 scfm)
Cleaning Chlorine Tolerance¹	1,000 mg/L
Maximum Feed TSS²	1,000 mg/L
Maximum Feed Oil & Grease²	300 mg/L

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™* Product Manual pages 10-11.
- Cleaning:** *iSep* 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* Product Manual pages 12-15.
- Storage:** *iSep* ultrafiltration modules must be stored appropriately to ensure proper operation and to prevent membrane damage. Please see *iSep* Product Manual pages 18-19.
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- 1 Temperature, pH limits, and cleaning procedures are further detailed in the *iSep* Product Manual.
2 Depending on feed water quality and operating conditions.



Headquarters
MICRODYN-NADIR GmbH
Building D512
Kasteler Straße 45
65203 Wiesbaden
Germany
info@microdyn-nadir.de
www.microdyn-nadir.de

USA Office
MICRODYN-NADIR US, Inc.
93 South La Patera Lane
Goleta, CA 93117
USA
info@microdyn-nadir.com
www.microdyn-nadir.com/en
www.microdyn-nadir.com/trisep

China Office
MICRODYN-NADIR (Xiamen) Co. Ltd.
No. 66 Jinting North Road Xinglin
Xiamen, China 361022
infochina@microdyn-nadir.com

Singapore Office
MICRODYN-NADIR Singapore Pte. Ltd.
18 Tuas Avenue 8
639233 Singapore
info@microdyn-nadir.com