



Microelectronics

Microza¹ Hollow Fiber UNA Modules



Description

The UNA Series (hollow fiber filtration) modules are designed for reverse osmosis (RO) pretreatment applications. AriaSM systems incorporating UNA modules can replace conventional upstream operations such as flocculation, settling and granular media filtration. The modules provide consistent high-quality effluent, independent of incoming raw water quality without the use of coagulating chemicals, typically achieving a SDI of < 2 – 3 and a turbidity of < 0.08 NTU. These robust Aria systems have a comparatively small footprint, are modular in design, and are fully automated. They may be easily incorporated into the existing DI water infrastructure.

UNA Module Features

- Hollow fiber construction with 0.1 µm rated membrane for removal of particles, bacteria, colloidal silica and for reduction of turbidity.
- PVDF membrane resistant to oxidizing agents.
- Filtration from outside fiber to inside of fiber:
 - Large surface area per module for excellent throughput, resulting in compact systems, and exceptional tolerance for high contaminant levels.
 - Removal of foulants by unique and periodic air-scouring combined with permeate back flushing.
 - Minimum prefiltration required (e.g., 400 µm self-cleaning strainers for removal of tramp solids).
- Low operating costs
 - By providing high quality RO prefiltration, the time between RO membrane cleaning is greatly extended. This results in reduced downtime and chemical/disposal costs.
 - High water recovery rates (typically up to 95%-98%) minimize cost per volume of water produced.

Applications

Microza UNA module systems are designed to optimize the performance and extend the life of RO membranes.

¹ Microza is a trademark of Asahi Kasei Corporation

Operating Parameters

Performance²	<ul style="list-style-type: none"> Process Capacity Typical Range: 2.2-6.8 m³/h / 10-30 gpm
Dimensions	<ul style="list-style-type: none"> Membrane Area: 50 m² / 538 ft² Module Length: 2160 mm / 85 in Module Diameter: 165 mm / 6.5 in
Operating Conditions	<ul style="list-style-type: none"> Maximum Operating Temperature: 40°C / 104°F Maximum Transmembrane Pressure: 3 bar / 45 psi Maximum Inlet Pressure: 3 bar / 45 psi pH Range: 1-10
Materials	<ul style="list-style-type: none"> Membrane: PVDF Housing: ABS Potting Material: Polyurethane Gaskets: Silicone Preservative: 40% calcium chloride

² Please contact Pall Corporation for operating manual and system sizing, as capacity per module is dependent on feed water quality, temperature and other factors.

Part Numbers / Ordering Information

Module

Module Part Number	Length (L ₁) mm / in	Length (L ₂) mm / in	Diameter (D ₁) mm / in	Diameter (D ₂) mm / in
UNA-620A	2364 / 93	272 / 10.7	165 / 6.5	221 / 8.7

Accessories and Spare Parts

Item	1 Adapter Feed Connection	2 Adapter Permeate Connection	3 Adapter Reject Connection	4 Cap Nut Feed & Permeate Connections	5 Nut Reject Connection	6 O-ring for Feed & Permeate Adapter	7 Gasket Reject Connection
Material	304 SS	PVC	PVC	AS (20% GF)	PVC	Silicone	Silicone

Note: The information provided in this literature was reviewed for accuracy at the time of publication. Product specifications may be subject to change without notice. For current information, consult your local Pall distributor or contact Pall Microelectronics directly.

Unit conversion: 1 bar = 100 kilopascals

Dimensions

