

Microza¹ Ultrafiltration Modules

OAT Series

for Enhanced Efficiency and Cleanliness



Data Sheet MEOATENC

Description

The Microza OAT ultrafiltration (UF) modules feature the latest high flow hollow fiber technology using a newly developed asymmetric support structure and a dual skin cut off layer on both the inside and outside of the fiber.

Features & Benefits

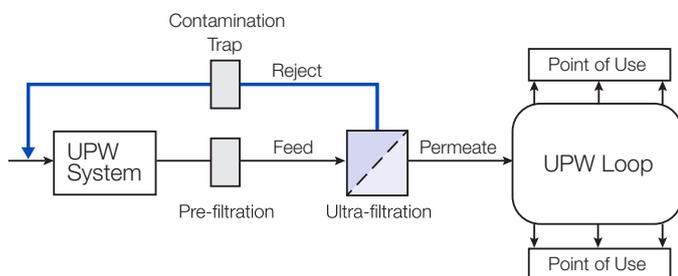
- Dual rated at 2 nm by Pall's gold nanoparticle challenge test and 4 kD molecular weight cut off
- Diffusion driven contamination control avoids accumulation on membrane
- 20 nm particle rinse up control
- Low metal extractables by pre elution using new hot water rinsing process
- Up to 24 months on shelf life ex works due to hot water sanitization²
- Shipped water wet
- 100% integrity tested and documented
- High temperature and pressure modules available



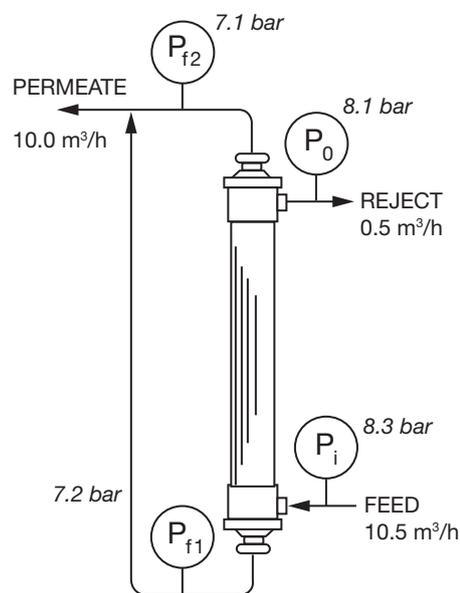
Application

The Microza OAT modules are used in today's most demanding ultra high purity water systems. The outer module dimensions and connections are compatible with Microza OLT 6036 series. Therefore they are also suitable for upgrades of existing installations.

Typical Installation Scheme



Typical Operation Scheme



¹ Microza is a trademark of Asahi Kasei Corporation

² Recommended storage conditions: no direct sunlight, packaging unopened, ambient temperature (max 25 °C), do not freeze

Feed Specifications

Particle Size	Maximum Number of particles /ml effluent pre-filter
≥ 0.1 μm	100
≥ 0.2 μm	20

Operating Parameters and Dimensions

Part Number			OAT-6036HAW	OAT-6036VAW	OAT-6036SAW
Performance	Molecular weight cut-off (nominal)	daltons	4,000	4,000	4,000
	Particle rating	nm	2	2	2
	Clean permeate flow ³	m ³ / h	10	10	10
		gpm	44	44	44
Dimensions	Fiber inner/outer diameter	mm	0.6 / 1.0	0.6 / 1.0	0.6 / 1.0
	Membrane area	m ²	34	34	34
		ft ²	366	366	366
	Module length	mm	1,177	1,177	1,177
		in.	46.3	46.3	46.3
	Module diameter ⁴	mm	172	179	172
		in.	6.8	7.1	6.8
	Weight	kg	32	34	33
		lb	71	75	73
	Operating Conditions ⁵	Maximum inlet pressure (30 °C / 86 °F)	MPa	0.9	0.9
psi			130	130	174
Maximum transmembrane pressure (30 °C / 86 °F at max 10m ³ /h or 44 gpm)		MPa	0.3	0.3	0.3
		psi	45	45	45
Maximum operating temperature		°C	30	80	30
		°F	104	176	104
Maximum sanitizing temperature	°C	90	90	90	
	°F	194	194	194	
Materials	Membrane	Polysulfone			
	Housing	Polysulfone; V and S grades have outer fiberglass reinforcement			
	End caps	Polyphenylsulfone			
	Collar nuts ⁶	Fiberglass reinforced polyphenylene ether			
	Cap nuts ⁶	Fiberglass reinforced polyphenylene ether			
	Potting material	Epoxy resin			
	Gasket	Fluoropolymer elastomer			
	Filling	Ultrapure water			

³ Initial clean water permeate flow at 25°C / 77°F and 0.1 MPa / 14.5 psi average
Please consult manual for general operating guidelines.

⁴ Nominal shell diameter excluding headers and permeate ports. Note the diameter of the dummy module used for fit-up is 172 mm / 6.8 in.⁵

⁵ Pressure must be reduced at higher temperatures. See tables on following pages.

⁶ Non-wetted parts

Operating Pressure vs Water Temperature

The allowable operating pressure will vary with water temperature. See tables below.

Part Number: OAT-6036HAW

UF Feed Temperature °C / °F	Maximum Transmembrane Pressure ⁸	Maximum Feed Pressure	Maximum Permeate Pressure
0-30 / 32-86	0.3 MPa / 45 psi	0.9 MPa / 130 psi	0.9 MPa / 130 psi
80-90 / 176-194 ⁷	0.1 MPa / 15 psi	0.35 MPa / 50 psi	0.35 MPa / 50 psi

Part Number: OAT-6036VAW

UF Feed Temperature °C / °F	Maximum Transmembrane Pressure ⁸	Maximum Feed Pressure	Maximum Permeate Pressure
0-70 / 32-158	0.2 MPa / 30 psi	0.9 MPa / 130 psi	0.9 MPa / 130 psi
70-80 / 158-176	0.1 MPa / 15 psi	0.8 MPa / 116 psi	0.8 MPa / 116 psi
80-90 / 176-194 ⁷	0.1 MPa / 15 psi	0.5 MPa / 73 psi	0.5 MPa / 73 psi

Part Number: OAT-6036SAW

UF Feed Temperature °C / °F	Maximum Transmembrane Pressure ⁸	Maximum Feed Pressure	Maximum Permeate Pressure
0-30 / 32-86	0.3 MPa / 45 psi	1.2 MPa / 174 psi	1.2 MPa / 174 psi
80-90 / 176-194 ⁷	0.1 MPa / 15 psi	0.5 MPa / 73 psi	0.5 MPa / 73 psi

Spare Parts

Description	Material	Module Spare Part Numbers ⁹	
		OAT-6036HA, VA, SA	Attached to module
Union Socket Feed / Reject	PVDF	AUME-OT60H-31 0450602	
Union Socket Reject, metric DN15		OT60K15	
Union Socket Feed, metric DN50		OT60F50	
Union Socket Permeate, metric DN40		OT60P40	
Cap Nut	GF reinforced PPE	AUME-OT60H-13b 0450600	✓
Cap Nut Retainer Ring	GF reinforced PPE	AUME-OT60H-13a 0450601	
Permeate Gasket	Fluoropolymer elastomer	AUME-OT60H-17 0150612	✓
Feed / Reject Gasket Clamp	Fluoropolymer elastomer	AUME-OT60H-14 0150611	✓
	SUS304	AUME-OT60H-16 0150613	✓
Dummy	Polysulfone	AUME-OT60H-30 0450608	
	PVC	AUME-OT60H-30X 0450609	

Please consult manual for installation instructions. Installation kits available on request.

Connections

- Feed / Reject:
PVDF union sockets for these ports are available for thermal fusion to PVDF piping.
- Permeate:
Connections are 2 1/2 in. 3 piece clamp.

⁷ High temperature only for short term sanitization
⁸ At 30 °C / 86 °F at max 10 m³/h or 44 gpm
⁹ Spare parts can be ordered by either part number.

Dimensions

