

Microza¹ Ultrafiltration Modules OLT Series



Data Sheet MEOLTENa

Description

The Microza OLT ultrafiltration (UF) modules feature hollow fiber membranes having a uniformly smooth, tight skin on both the inside and outside of the fiber.

Features & Benefits

- 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
- Designed specifically for ultra high purity water
- Polysulfone membranes and housings
- 6,000 and 10,000 molecular weight cut off ratings
- External feed:
Feed water flows from the outside to the inside of the hollow fiber. This flow path produces exceptionally clean water and eliminates stagnant areas on the permeate side.
- Large membrane area results in high flow rates per module
- High temperature and pressure modules available



Application

The OLT modules are recommended for high purity water systems where the TOC is less than 20 ppb and the particle counts in the feed are as shown in the table below.

Specifications

Particle Size	Maximum Number of Particles/ml
≥ 0.1 µm	100
≥ 0.2 µm	20

Connections

- Feed / Reject:
PVDF union sockets for these ports are available for thermal fusion to PVDF piping.
- Permeate:
Connections are 2 in. or 2 ½ in. 3 piece clamp.

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

Operating Parameters

			OLT-6036HAW	OLT-6036VAW	OLT-6036SAW
Performance	Molecular weight cut-off (nominal)	daltons	6,000	6,000	6,000
	Initial clean permeate flow ^{3,4}	m ³ / h	16	16	16
		gpm	70	70	70
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 ⁵	mm	172	179	172
		in.	6.8	7.1	6.8
	Weight	kg	32	34	33
		lb	71	75	73
Operating Conditions ⁶	Maximum inlet pressure (30 °C / 86 °F)	MPa	0.9	0.9	1.2
		psi	130	130	174
	Maximum transmembrane pressure (30 °C / 86 °F)	MPa	0.3	0.3	0.3
		psi	45	45	45
	Maximum operating temperature	°C	30	80	30
		°F	86	176	86
	Maximum sanitizing temperature	°C	90	90	90
		°F	194	194	194
	pH range		1 – 14	1 – 14	1 – 14
	Membrane	Polysulfone			
Materials	Housing	Polysulfone; V and S grades have outer fiberglass reinforcement			
	End caps	Polyphenylsulfone			
	Collar nuts ⁷	Fiberglass reinforced polyphenylene ether			
	Cap nuts ⁷	Fiberglass reinforced polyphenylene ether			
	Potting material	Epoxy resin			
	Gasket	Fluoropolymer elastomer			
	Transportation Liquid	Ultrapure water			

³ Initial clean water permeate flow at 25 °C / 77 °F and 0.1 MPa / 14.5 psi average transmembrane pressure.

Please consult manual for general operating guidelines.

⁴ DESIGN FLUX IS 80% OF THIS VALUE (12.5 m³ / h or 55 GPM)

⁵ 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.

⁶ Pressure must be reduced at higher temperatures. See tables on following pages.

⁷ Non-wetted parts

Operating Parameters

			OLT-5026APW
Performance	Molecular weight cut-off (nominal)	daltons	10,000
	Initial clean permeate flow ^{8, 9}	m ³ / h	7.5
		gpm	33
Dimensions	Fiber inner / outer diameter	mm	0.6 / 1.1
	Membrane area	m ²	23
		ft ²	248
	Module length	mm	1,147
		in.	45.1
	Module diameter	mm	149
		in.	5.81
	Weight	kg	23
		lb	51
Operating Conditions ¹⁰	Maximum inlet pressure (30 °C / 104 °F)	MPa	0.9
		psi	130
	Maximum transmembrane pressure (40 °C / 104 °F)	MPa	0.3
		psi	45
	Maximum operating temperature	°C	80
		°F	176
	Maximum sanitizing temperature	°C	90
		°F	194
Materials	pH range		1 – 14
	Membrane	Polysulfone	
	Housing	Polysulfone, outer fiberglass reinforcement	
	End caps	Polyphenylsulfone	
	Cap nuts ¹¹	High temperature PVC	
	Potting material	Epoxy resin	
	Gasket	Fluoropolymer elastomer	
	Transportation Liquid	Ultrapure water	

⁸ Initial clean water permeate flow at 25 °C / 77 °F and 0.1 MPa /14.5 psi average transmembrane pressure.

Please consult manual for general operating guidelines.

⁹ DESIGN FLUX IS 80% OF THIS VALUE

¹⁰ Pressure must be reduced at higher temperatures. See tables on following pages.

¹¹ Non-wetted parts

Operating Pressure vs Water Temperature

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

Part Number: OLT-6036HAW

UF Feed Temperature °C / °F	Maximum Transmembrane Pressure	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 ¹²	0.1 MPa / 15 psi	0.35 MPa / 50 psi	0.35 MPa / 50 psi

Part Number: OLT-6036VAW

UF Feed Temperature °C / °F	Maximum Transmembrane Pressure	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 ¹²	0.1 MPa / 15 psi	0.5 MPa / 73 psi	0.5 MPa / 73 psi

Part Number: OLT-6036SAW

UF Feed Temperature °C / °F	Maximum Transmembrane Pressure	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 ¹²	0.1 MPa / 15 psi	0.5 MPa / 73 psi	0.5 MPa / 73 psi

Part Number: OLT-5026APW

UF Feed Temperature °C / °F	Maximum Transmembrane Pressure	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
30-50 / 86-122	0.3 MPa / 45 psi	0.75 MPa / 109 psi	0.75 MPa / 109 psi
50-70 / 122-158	0.2 MPa / 30 psi	0.65 MPa / 94 psi	0.65 MPa / 94 psi
70-80 / 158-176	0.15 MPa / 22 psi	0.6 MPa / 87 psi	0.6 MPa / 87 psi
80-90 / 176-194 ¹²	0.1 MPa / 15 psi	0.55 MPa / 80 psi	0.55 MPa / 80 psi

¹² High temperature only for short term sanitization

Part Numbers / Ordering Information

Module

Part Numbers	Permeate Connection Size	Feed and Reject Connection Size
OLT-6036HAW	2 1/2" 3 piece clamp	63 mm O.D.
OLT-6036VAW	2 1/2" 3 piece clamp	63 mm O.D.
OLT-6036SAW	2 1/2" 3 piece clamp	63 mm O.D.
OLT-5026APW	2 3 piece clamp	40 mm O.D.

Spare Parts

Description	Material	Module Spare Part Numbers ¹³		
		OLT-6036HAW	OLT-6036VAW	OLT-6036SAW
Union Socket	PVDF	AUME-OT60H-31 0450602	AUME-OT60H-31 0450602	AUME-OT60H-31 0450602
Cap Nut	GF reinforced PPE	AUME-OT60H-13b 0450600	AUME-OT60H-13b 0450600	AUME-OT60H-13b 0450600
Cap Nut Retainer Ring	GF reinforced PPE	AUME-OT60H-13a 0450601	AUME-OT60H-13a 0450601	AUME-OT60H-13a 0450601
Permeate Gasket	Fluoropolymer elastomer	AUME-OT60H-17 0150612	AUME-OT60H-17 0150612	AUME-OT60H-17 0150612
Feed / Reject O-Ring	Fluoropolymer elastomer	AUME-OT60H-14 0150611	AUME-OT60H-14 0150611	AUME-OT60H-14 0150611
Dummy	Polysulfone	AUME-OT60H-30 0450608	AUME-OT60H-30 0450608	AUME-OT60H-30 0450608

Description	Material	Module Spare Part Numbers ¹³
		OLT-5026APW
Union Socket	PVDF	AUME-OT50G-20 0450504
Cap Nut	Stainless steel or PVDF	AUME-OT50G-13 0450558 (Stainless steel / PFA coating)
Permeate Gasket	Fluoropolymer elastomer	AUME-OT50G-17 0150328
Feed / Reject O-Ring	Fluoropolymer elastomer	AUME-OT50G-14 0150550
Dummy	Polysulfone	AUME-OT50G-30 0450570

¹³ Spare parts can be ordered by either part number

Dimensions

