BevMAX™

REVERSE OSMOSIS SYSTEMS

THE BEST SOLUTION FOR BEVERAGE

Custom solutions through advanced standardization

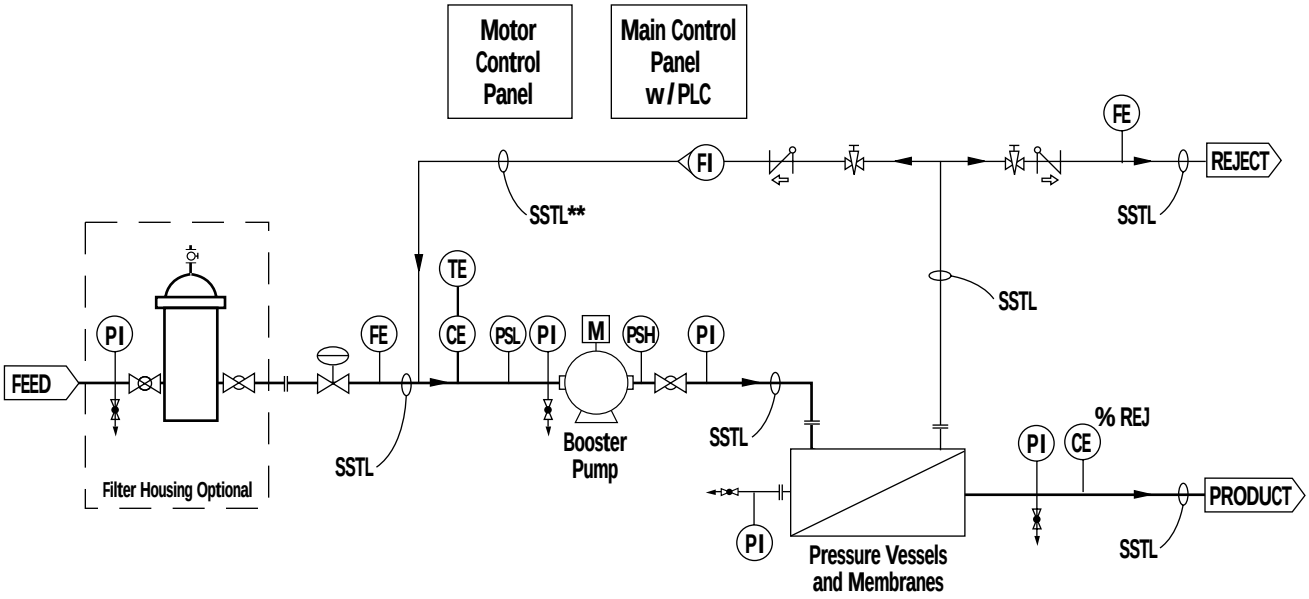
BevMAX™ are standard pre-packaged reverse osmosis (RO) systems specifically designed and engineered for beverage and drinking water applications. As part of the MAX™ Membrane product family, BevMAX systems offer you the greatest flexibility possible from a standard system. They provide a range of features at competitive prices with quick delivery. We work with you to build the BevMAX system that fits your requirements. It's easy – just choose from the variety of options available. With twenty-five different systems and product flow rates between 50 and 360 gpm, we'll find the right solution for you.

BevMAX features make the difference

- Membrane choices to fit your application: brackish water, low-pressure or hot-water sanitizable Thin Film Composite (TFC); Cellulose Acetate (CA); or nanofiltration
- Choice of chemical or hot-water-sanitization methods
- Butt-welded 316L stainless steel piping
- 8-inch FRP side port pressure vessels
- Horizontal 316 stainless steel multistage booster pump
- Allen-Bradley MicroLogix fixed I/O programmable logic controller (PLC)
- Electronic conductivity and flow monitors
- Vortex shedding flow meters
- Comprehensive testing performed in our ISO9001 certified factory and shipped to you as one integral unit

USFilter
Taking Care of the World's Water

BevMAX™ Process Flow Diagram



DESIGN PARAMETERS

	Common Specifications
Configuration	Multi-Stage, Single Pass
Inlet Pressure Requirements	25 – 60 psig
Feed Water Temperature*	60°F (15°C)
Feed Water Source	Well or Softened
Prefiltration Requirements	5 micron nominal
Feed Water Fouling Index	SDI < 3
System Recovery (Nominal)	75%
Product Pressure Available	25 psig

GENERAL SPECIFICATIONS

Pressure vessels	Fiberglass reinforced plastic (FRP)
Conductivity monitor	Thornton 200CR series
Flow Monitor	Thornton 200F series
Flow sensor (feed and reject)	Vortex shedding type, PVDF
Flow indicator (reject recycle)**	Acrylic construction
Control System	NEMA 4

OPERATING LIMITS

Maximum Feed Temperature	113°F (45°C)
Minimum Feed Temperature	33°F (0.5°C)
Maximum Feed Pressure	90 psig
Minimum Feed Pressure	25 psig
Maximum Feed Free Chlorine	0 ppm

FEEDWATER REQUIREMENTS

Maximum Silt Density Index	< 5
Max Langelier Saturation Index	< 0
Operating pH Range	2 – 11
Prefiltration	5 micron
Total Dissolved Solids	< 1500 ppm

**Lower temperature may require larger booster pump*
Due to different feed flow requirements and membrane type, the cartridge filter housings must be sized and ordered separately.

***3 membrane vessels only.*

SYSTEM SPECIFICATIONS

Model Number	BM3-18	BM4-28	BM4-40	BM6-54	BM6-72	BL3-18	BL4-28	BL4-40	BL6-54	BL6-72
Product Flow*	75 gpm	115 gpm	165 gpm	225 gpm	300 gpm	90 gpm	140 gpm	200 gpm	270 gpm	360 gpm
Feed Flow	100 gpm	153 gpm	220 gpm	300 gpm	400 gpm	120 gpm	187 gpm	267 gpm	360 gpm	480 gpm
Reject Flow	25 gpm	38 gpm	55 gpm	75 gpm	100 gpm	30 gpm	47 gpm	67 gpm	90 gpm	125 gpm
Reject Recycle Flow	5 gpm	—	—	—	—	5 gpm	—	—	—	—
Nominal Recovery	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
Membranes										
Type	TFC/Brackish Water					TFC/Low Pressure				
Membranes/Vessel	3	4	4	6	6	3	4	4	6	6
Membrane Quantity	18	28	40	54	72	18	24	40	54	72
Vessels										
Vessel Array	3:2:1	4:2:1	5:3:2	6:3	8:4	3:2:1	3:2:1	5:3:2	6:3	8:4
Vessel Quantity	6	7	10	9	12	6	6	10	9	12
Pump										
Type	Horizontal Multi-Stage					Horizontal Multi-Stage				
Motor HP	40	60	75	100	125	30	40	60	75	100
Piping	316L Stainless Steel									
Controller	Fixed I/O PLC									
System Dimensions										
HxWxD inches	85x44x150	81x55x190	81x55x190	90x60x275	90x60x275	85x44x150	81x55x190	81x55x190	90x60x275	90x60x275
cm	216x112x381	206x140x483	206x140x483	229x152x699	229x152x699	216x112x381	206x140x483	206x140x483	229x152x699	229x152x699
Shipping Weight lb (kg)	2900 (1315)	3800 (1724)	4400 (1996)	7500 (3402)	9000 (4082)	2900 (1315)	3800 (1724)	4400 (1996)	7500 (3402)	9000 (4082)
Electrical										
Controls Service	120 VAC	120 VAC	120 VAC	120 VAC	120 VAC	120 VAC	120 VAC	120 VAC	120 VAC	120 VAC
Motor Service	480 VAC	480 VAC	480 VAC	480 VAC	480 VAC	480 VAC	480 VAC	480 VAC	480 VAC	480 VAC
Amp Draw	52	77	96	124	156	40	52	77	96	124

Model Number	BH3-18	BH4-28	BH4-40	BH6-54	BH6-72	BC3-18	BC4-28	BC4-40	BC6-48	BC6-72
Product Flow*	75 gpm	115 gpm	165 gpm	225 gpm	300 gpm	60 gpm	100 gpm	135 gpm	150 gpm	200 gpm
Feed Flow	100 gpm	153 gpm	220 gpm	300 gpm	400 gpm	80 gpm	133 gpm	180 gpm	200 gpm	267 gpm
Reject Flow	25 gpm	38 gpm	55 gpm	75 gpm	100 gpm	20 gpm	33 gpm	45 gpm	50 gpm	67 gpm
Reject Recycle Flow	5 gpm	—	—	—	—	5 gpm	—	—	—	—
Nominal Recovery	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
Membranes										
Type	TFC/Heat Sanitizable					Cellulose Acetate				
Membranes/Vessel	3	4	4	6	6	3	4	4	6	6
Membrane Quantity	18	24	40	54	72	18	24	40	48	72
Vessels										
Vessel Array	3:2:1	3:2:1	5:3:2	6:3	8:4	3:2:1	4:2:1	5:3:2	5:3	8:4
Vessel Quantity	6	6	10	9	12	6	6	10	8	12
Pump										
Type	Horizontal Multi-Stage					Horizontal Multi-Stage				
Motor HP	40	60	75	100	125	40	60	100	125	125
Piping	316L Stainless Steel									
Controller	PLC					Fixed I/O PLC				
System Dimensions										
HxWxD inches	85x44x150	81x55x190	81x55x190	90x60x275	90x60x275	85x44x150	81x55x190	81x55x190	90x60x275	90x60x275
cm	216x112x381	206x140x483	206x140x483	229x152x699	229x152x699	216x112x381	206x140x483	206x140x483	229x152x699	229x152x699
Shipping Weight lb (kg)	2900 (1315)	3800 (1724)	4400 (1996)	7500 (3402)	9000 (4082)	2900 (1315)	3800 (1724)	4400 (1996)	7500 (3402)	9000 (4082)
Electrical										
Controls Service	120 VAC	120 VAC	120 VAC	120 VAC	120 VAC	120 VAC	120 VAC	120 VAC	120 VAC	120 VAC
Motor Service	480 VAC	480 VAC	480 VAC	480 VAC	480 VAC	480 VAC	480 VAC	480 VAC	480 VAC	480 VAC
Amp Draw	52	77	96	124	156	52	77	124	156	156

**Product flow rates are based on 16-17 GFD flux rates for well water feed. These product flow rates may not be appropriate for other feed waters. An applications specialist can de-rate the units for other feed water conditions.*
Lower temperature may require larger booster pump.
Due to different feed flow requirements and membrane type, the cartridge filter housings must be sized and ordered separately.

SYSTEM SPECIFICATIONS *continued*

Model Number	BN3-12	BN4-28	BN4-40	BN6-48	BN6-60
Product Flow*	50 gpm	100 gpm	165 gpm	200 gpm	250 gpm
Feed Flow	67 gpm	133 gpm	220 gpm	267 gpm	333 gpm
Reject Flow	17 gpm	33 gpm	55 gpm	67 gpm	83 gpm
Reject Recycle Flow	5 gpm	—	—	—	—
Nominal Recovery	75%	75%	75%	75%	75%
Membranes					
Type	Nanofiltration				
Membranes/Vessel	3	4	4	6	6
Membrane Quantity	12	28	40	48	60
Vessels					
Vessel Array	2:1:1	4:2:1	5:3:2	5:3	6:4
Vessel Quantity	4	7	10	8	10
Pump					
Type	Vertical Multi-Stage				
Motor HP	10	20	25	30	40
Piping	316L Stainless Steel				
Controller	Fixed I/O PLC				
System Dimensions					
HxWxD inches	85x44x150	81x55x190	81x55x190	90x60x275	90x60x275
cm	216x112x381	206x140x483	206x140x483	229x152x699	229x152x699
Shipping Weight lb (kg)	4400 (1996)	7500 (3402)	7500 (3402)	9000 (4082)	9000 (4082)
Electrical					
Controls Service	120 VAC	120 VAC	120 VAC	120 VAC	120 VAC
Motor Service	480 VAC	480 VAC	480 VAC	480 VAC	480 VAC
Amp Draw	14	27	34	40	52

**Product flow rates are based on 16-17 GFD flux rates for well water feed. These product flow rates may not be appropriate for other feed waters. An applications specialist can de-rate the units for other feed water conditions.*

Lower temperature may require larger booster pump.

Due to different feed flow requirements and membrane type, the cartridge filter housings must be sized and ordered separately.

BevMAX™ PRE-PACKAGED SYSTEMS

Models	Flow Rate Range (at default flux rate)	Feed Piping	Product Piping	Pump Type		Membrane Type					Controls Type	
		316L SST	316L SST	Vert. Multi-Stage	Horiz. Multi-Stage	Brackish Water TFC	Heat Sanitizable TFC	Low Pressure TFC	Cellulose Acetate	Nanofiltration	Fixed I/O PLC	PLC
BM Series	75-300 gpm	■	■		■	■					■	
BL Series	90-360 gpm	■	■		■			■			■	
BH Series	75-300 gpm	■	■		■		■					■
BC Series	60-200 gpm	■	■		■				■		■	
BN Series	50-250 gpm	■	■	■						■	■	

OPTIONS AVAILABLE

A member of the MAX Product family, BevMAX systems offer a wide variety of options. Contact USFilter if you have alternative requirements.

- Prefilter Housings
- pH Monitor
- NEMA 4X Control Panels
- SLC 5/04 Control System
- Junction Box only with Solenoids
- ASME Vessels
- Electropolished Piping
- High-Purity Sanitary Elements

ORDERING INFORMATION

Catalog Number:[1]	B	X	X	XX
Pre-packaged MAX System . . .	B=BevMAX	M=TFC/Brackish Water		
		L=TFC/Low Pressure		12=12
		H=TFC/Heat Sanitizable*		18=18
		C=Cellulose Acetate	3=3 Membranes/Vessel	28=28
Membrane		N=Nanofiltration	4=4 Membranes/Vessel	40=40
Vessel Length			6=6 Membranes/Vessel	48=48
				54=54
				60=60
Membrane Quantity				72=72

To figure your order number, replace the X with one of the numbered options below it.

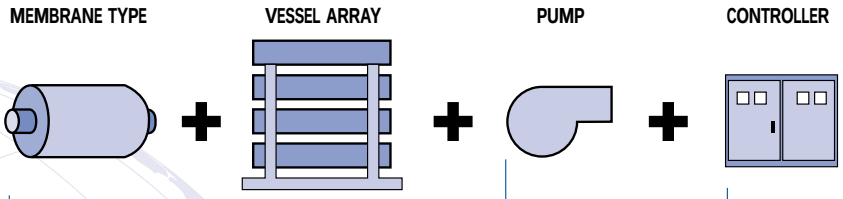
[1]Not all combinations are available as a standard system. Please refer to system specifications for available configuration.

*Additional engineering may be required to configure a heat sanitizable system.

USFilter
Taking Care of the World's Water

Custom Solutions through Advanced Standardization

MAX Membrane Reverse Osmosis Systems were designed with flexibility in mind. They have more standard options and configurations than any other standard RO system on the market today. With 6 membrane types, 40 vessel array choices, 3 different pumps, 4 pipe styles and 6 controllers — there are literally thousands of standard solutions. Though we have various easy to order pre-packaged MAX systems —FlowMAX, PharmMAX and ValueMAX to name just a few — by picking and choosing from our wide array of options, you can easily create a custom solution from standard products, fast and economically.



- Brackish Water TFC
- Low pressure TFC
- Heat-Sanitizable TFC
- Nanofiltration
- Cellulose Acetate

- 9 Membrane
- 12 Membrane
- 18 Membrane
- 24 Membrane
- 28 Membrane
- 40 Membrane
- 54 Membrane
- 60 Membrane
- 72 Membrane
- PVC Piping
- Stainless Steel Piping
- Sanitary Polypropylene Tubing
- Sanitary Stainless Steel Tubing

- Vertical (PVC or Stainless Steel piping)
- Horizontal (PVC or Stainless Steel piping)
- Submersible (PVC or Stainless Steel piping)

- PLC (SLC 5/04)
- PLC (Fixed I/O)
- Microprocessor
- Solenoid Panel
- Instrument Panel

Service and Technical Support

USFilter Service Centers provide easy access to professional, quality service. Our support network of over 1,500 technically trained field personnel ensures that you receive immediate and reliable service. Technical support is available weekdays from 8:00 am to 7:00 pm, EST.

The quality of our product is reflected in the quality of our service professionals. We take pride in providing our customers with the best maintenance and service in the industry.

For information on USFilter products or services call now! 800.875.7873.

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ITM
Muhendislik San. ve Tic. A.S.
İ. Karaoglanoglu Etem Zengin Is Merkezi No: 25
34418 Seyrantepe - Istanbul - Turkiye
Tel: +90 212 278 78 12 Fax: +90 212 278 78 11
web site: www.itmfilter.com e-mail: itm@tahas.com

USFilter
Taking Care of the World's Water

10 Technology Drive
Lowell, MA 01851
800.875.7873 *technical support*
800.466.7873 *customer service*
978.934.9349 *phone*
978.453.6025 *fax*
http://www.usfilter.com