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# 8" INOX

### **RO WATER TREATMENT SYSTEMS**

EPS provides turnkey solutions for a wide variety of industrial water treatment applications, including pilot studies, design, engineering, manufacturing. construction, commissioning and ongoing maintenance.

Our RO water treatment systems are used in various sectors such as food and beverage; healthcare; data centres; microelectronic manufacturing, power generation and pharmaceutical applications.

Our INOX 8" range has a proven reliability and improved durability in various adverse conditions.

### **APPLICATIONS**



**CAR WASH** 



**BOILER FEED** 



**DISTILLERY** 



**BREWERY** 



DAIRY AND MEAT PROCESSING



**DATA CENTRES** 



HEALTHCARE & LABORATORIES



**MICROELECTRONICS** 



POWER GENERATORS

### 8" INOX REVERSE OSMOSIS SYSTEMS

#### **APPLICATIONS**

Process water, rinse water, steam boilers, heating and cooling circuits, agriculture, desalination, food and beverage, utility water treatment.

#### **EQUIPMENT**

- Grundfos CR high pressure pump
- 300 psi composite plastic membrane housings
- · BB20 filter housings
- Danfoss or Praher motorized valves
- Honeywell or Praher regulating valves
- Piping, valves, instrumentation, frame
- Permeate membrane flushing inlet port
- Raw water blending line port
- · Frame mounted casters

#### **OPTIONS**

- Filmtec™ XLE-440 / ECO PRO-440 or Ecosoft ELP-8040 membranes
- Dosing pump for antiscalant or other RO chemicals
- Permeate inlet for permeate membrane flushing
- · Raw water blending line
- Break tank c/w forward feed



8" INOX RE	8" INOX REVERSE OSMOSIS SYSTEMS		
Code	Product	Flow capacity, m³/h (GPH)	Membranes*
M02TI5	EPS INOX MO2 RO System	2–2.5 (530–660)	2/80 x 40
MO3TI5	EPS INOX MO3 RO System	3-4 (800-1 060)	3/80 x 40
MO4TI5	EPS INOX MO4 RO System	4-5 (1 060-1 320)	4/80 x 40
M06TI5	EPS INOX MO6 RO System	6-8 (1 600-2 100)	6/80 x 40
M09TI5	EPS INOX MO9 RO System	9–12 (2 400–3 200)	9/80 x 40
M012TI5	EPS INOX MO12 RO System	12-15 (3 200-4 000)	12/80 x 40

<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.

SYSTEM FRAME MADE OF AISI 304 STAINLESS STEEL

HIGH PRESSURE PIPELINE MADE OF AISI 316 STAINLESS STEEL

### **EPS INOX MO2** 8" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Process water, rinse water, steam boilers, heating and cooling circuits, agriculture, desalination, food and beverage, utility water treatment.

#### **EQUIPMENT**

•	Grundfos® CR 5-20 high pressure pump	_1 pcs
•	8040 membrane housing	2 pcs
•	BB20 sediment prefilter	2 pcs
•	Motorized valves	2 pcs
	(feed water in, flush out)	
•	Balancing valves	_2 pcs
	(concentrate reject, concentrate recycle)	
•	Electrical panel with OC5000 controller	1 set
•	Set of instruments	1 set
•	AISI 316 Stainless steel high pressure line	1 set
•	AISI 304 Stainless steel frame	1 set
•	Frame mounted casters	_1 set

#### **OPTIONS**

- Filmtec™ XLE-440 / ECO PRO-440 or Ecosoft ELP-8040 membranes
- Dosing pump for antiscalant or other RO chemicals
- Permeate inlet for permeate membrane rinse
- · Raw water mixing line
- Break tank c/w forward feed

#### **CONNECTION PORT SIZES:**

Influent water	G 1½"
Permeate	G 1"
Concentrate	_G 1½"
CIP inlet	_G 1½"
CIP return	G 1½"
CIP permeate	G ½"
Antiscalant dosing port	G ½"



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### **PHYSICAL PARAMETERS:**

Approximate dimensions (bare) (Width × Depth × Height, ±5%)	1.90 × 1.10 × 1.95 m
Approximate dimensions (crated)	2.10 × 1.20 × 2.22 m
(Width $\times$ Depth $\times$ Height, $\pm 5\%$ )	
Approximate weight (bare)	300 kg
Approximate weight (crated)	390 kg

#### **EPS INOX MO2 8" REVERSE OSMOSIS SYSTEM**

Code	Product	Flow capacity, m³/h (GPH)	Membranes*
M02TI5	EPS INOX MO2 RO System	2–2.5 (530–660)	2/80 x 40

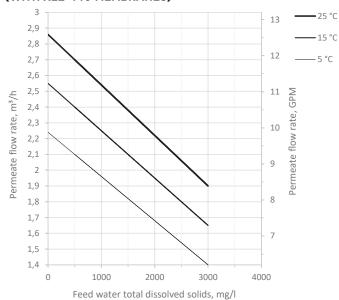
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	2 m³/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	4500 mg/L
Influent flow demand	2.74 m <sup>3</sup> /h (service)
	10 m³/h (rinse)
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	380400 V, 50 Hz (3 ph)
-1	
Electrical power	3 kW
Prefilter rating	3 kW 5 μm

 $<sup>^{\</sup>rm 1}$  depends on feed water TDS, temperature, and permeate recovery — see graph on the right

# MO2 RO FLOW CAPACITY GRAPH (WITH XLE-440 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

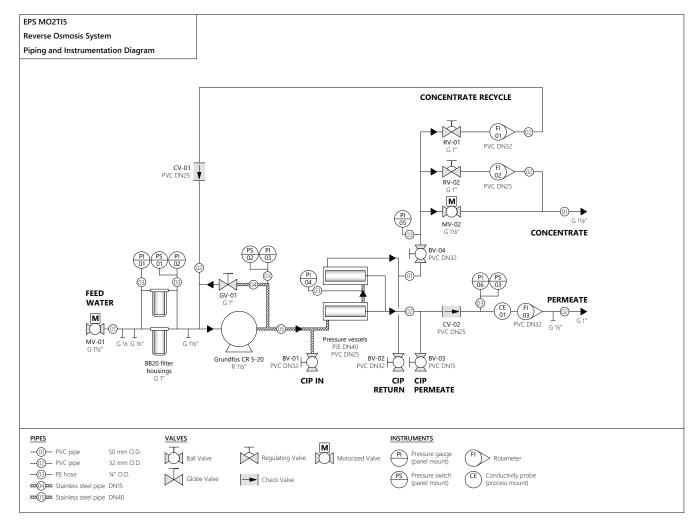
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-440 membrane

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

SYSTEM FRAME MADE OF AISI 304 STAINLESS STEEL

HIGH PRESSURE PIPELINE MADE OF AISI 316 STAINLESS STEEL

### **EPS INOX MO3** 8" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Process water, rinse water, steam boilers, heating and cooling circuits, agriculture, desalination, food and beverage, utility water treatment.

#### **EQUIPMENT:**

•	Grundfos® CR 10-12 high pressure pump	_1 pcs
•	8040 membrane housing	.3 pcs
•	BB20 sediment prefilter	.3 pcs
•	Motorized valves	2 pcs
	(feed water in, flush out)	
•	Balancing valves	2 pcs
	(concentrate reject, concentrate recycle)	
•	Electrical panel with OC5000 controller	1 set
•	Set of instruments	_1 set
•	AISI 316 Stainless steel high pressure line	1 set
•	AISI 304 Stainless steel frame	1 set
•	Frame mounted casters	1 set

#### **OPTIONS**

- Filmtec™ XLE-440 / ECO PRO-440 or Ecosoft ELP-8040 membranes
- Dosing pump for antiscalant or other RO chemicals
- Permeate inlet for permeate membrane rinse
- · Raw water mixing line
- Break tank c/w forward feed

#### **CONNECTION PORT SIZES:**

Influent water	_G 1½"
Permeate	G 1"
Concentrate	_G 1½"
CIP inlet	_G 1½"
CIP return	G 1½"
CIP permeate	G ½"
Antiscalant dosing port	G ½"



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### **PHYSICAL PARAMETERS:**

Approximate dimensions (bare) (Width × Depth × Height, ±5%)	1.90 × 1.10 × 1.95 m
Approximate dimensions (crated) (Width × Depth × Height, ±5%)	2.10 × 1.20 × 2.22 m
Approximate weight (bare)	340 kg
Approximate weight (crated)	430 kg

#### **EPS INOX MO3 8" REVERSE OSMOSIS SYSTEM**

Code	Product	Flow capacity, m³/h (GPH)	Membranes*
MO3TI5	EPS INOX MO3 RO System	3-4 (800-1 060)	3/80 x 40

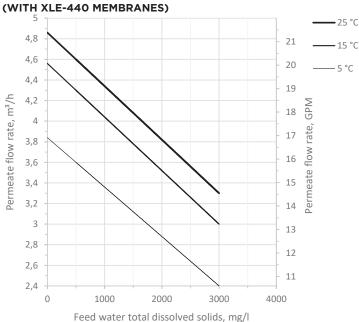
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



3 m³/h
75%
4500 mg/L
46 m³/h (service)
10 m³/h (rinse)
812 bar
14 bar
380400 V, 50 Hz (3 ph)
4 kW
5 μm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

### MO3 RO FLOW CAPACITY GRAPH



Permeate flow rates are calculated under the following conditions:

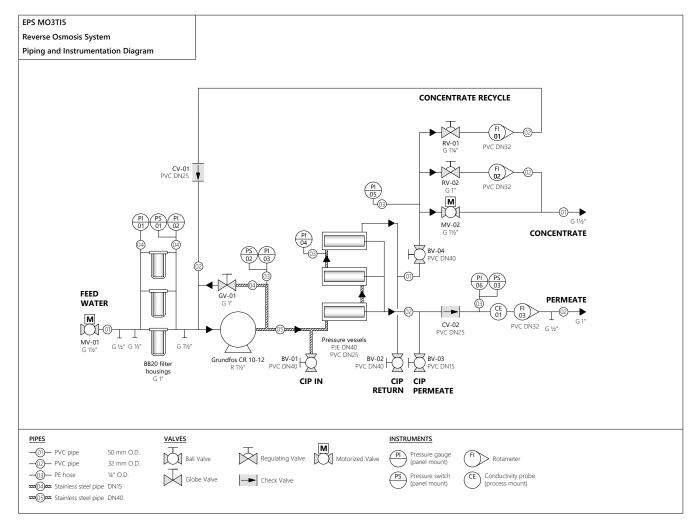
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-440 membrane

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

SYSTEM FRAME MADE OF AISI 304 STAINLESS STEEL

HIGH PRESSURE PIPELINE MADE OF AISI 316 STAINLESS STEEL

### **EPS INOX MO4** 8" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Process water, rinse water, steam boilers, heating and cooling circuits, agriculture, desalination, food and beverage, utility water treatment.

#### **EQUIPMENT:**

•	Grundfos® CR 10-12 high pressure pump	1 pcs
•	8040-2 membrane housing	2 pcs
•	BB20 sediment prefilter	3 pcs
•	Motorized valves	2 pcs
	(feed water in, flush out)	
•	Balancing valves	2 pcs
	(concentrate reject, concentrate recycle)	
•	Electrical panel with OC5000 controller	1 set
•	Set of instruments	1 set
•	AISI 316 Stainless steel high pressure line	1 set
•	AISI 304 Stainless steel frame	1 set
•	Frame mounted casters	1 set



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### **OPTIONS**

- Filmtec™ XLE-440 / ECO PRO-440 or Ecosoft ELP-8040 membranes
- Dosing pump for antiscalant or other RO chemicals
- Permeate inlet for permeate membrane rinse
- Raw water mixing line
- Break tank c/w forward feed

#### **CONNECTION PORT SIZES:**

Influent water	G 1½"
Permeate	G 1"
Concentrate	G 1½"
CIP inlet	G 1½"
CIP return	G 1½"
CIP permeate	G ½"
Antiscalant dosing port	G ½"

#### **PHYSICAL PARAMETERS:**

Approximate dimensions (bare) (Width × Depth × Height, ±5%)	2.90 × 1.20 × 1.95 m
Approximate dimensions (crated) (Width × Depth × Height, ±5%)	3.05 × 1.37 × 2.24 m
Approximate weight (bare)	340 kg
Approximate weight (crated)	.500 kg

#### **EPS INOX MO4 8" REVERSE OSMOSIS SYSTEM**

Code	Product	Flow capacity, m³/h (GPH)	Membranes*
MO4TI5	EPS INOX MO4 RO System	4–5 (1 060–1 320)	4/80 x 40

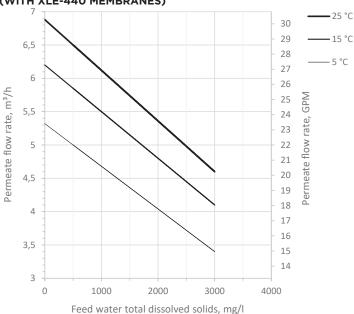
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	4 m³/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	4500 mg/L
Influent flow demand	5.58 m <sup>3</sup> /h (service)
	10 m <sup>3</sup> /h (rinse)
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	380400 V, 50 Hz (3 ph)
Electrical power	4 kW
Prefilter rating	5 μm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right





Permeate flow rates are calculated under the following conditions:

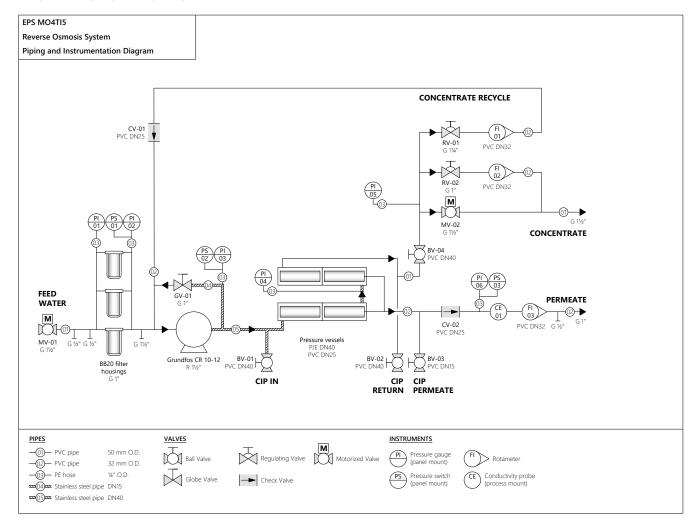
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-440 membrane

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

SYSTEM FRAME MADE OF AISI 304 STAINLESS STEEL

HIGH PRESSURE PIPELINE MADE OF AISI 316 STAINLESS STEEL

### **EPS INOX MO6** 8" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Process water, rinse water, steam boilers, heating and cooling circuits, agriculture, desalination, food and beverage, utility water treatment.

#### **EQUIPMENT:**

•	Grundfos® CR 15-9 high pressure pump	1 pcs
•	8040-2 membrane housing	3 pcs
•	BB20 sediment prefilter	4 pcs
•	Motorized valves	2 pcs
	(feed water in, flush out)	
•	Balancing valves	2 pcs
	(concentrate reject, concentrate recycle)	
•	Electrical panel with OC5000 controller	1 set
•	Set of instruments	1 set
•	AISI 316 Stainless steel high pressure line	1 set
•	AISI 304 Stainless steel frame	1 set
	Frame mounted casters	1 set



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### **OPTIONS**

- Filmtec™ XLE-440 / ECO PRO-440 or Ecosoft ELP-8040 membranes
- Dosing pump for antiscalant or other RO chemicals
- Permeate inlet for permeate membrane rinse
- Raw water mixing line
- · Break tank c/w forward feed

#### **CONNECTION PORT SIZES:**

Influent water	G 2"
Permeate	G 1½"
Concentrate	G 2"
CIP inlet	.G 1½"
CIP return_	G 1½"
CIP permeate	G 1"
Antiscalant dosing port	.G ½"

#### **PHYSICAL PARAMETERS:**

Approximate dimensions (bare) (Width × Depth × Height, ±5%)	2.90 × 1.20 × 1.95 m
Approximate dimensions (crated) (Width × Depth × Height, ±5%)	3.05 × 1.37 × 2.24 m
Approximate weight (bare)	560 kg
Approximate weight (crated)	720 kg

#### **EPS INOX MO6 8" REVERSE OSMOSIS SYSTEM**

Code	Product	Flow capacity, m³/h (GPH)	Membranes*
M06TI5	EPS INOX MO6 RO System	6-8 (1 600-2 100)	6/80 x 40

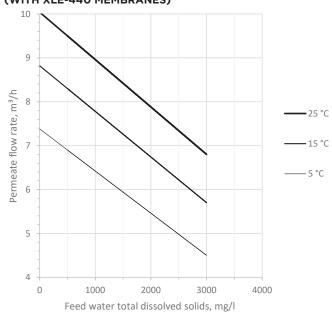
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	6 m³/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	4500 mg/L
Influent flow demand	812 m <sup>3</sup> /h (service)
	20 m³/h (rinse)
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	380400 V, 50 Hz (3 ph)
Electrical power	7.5 kW
Prefilter rating	5 µm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

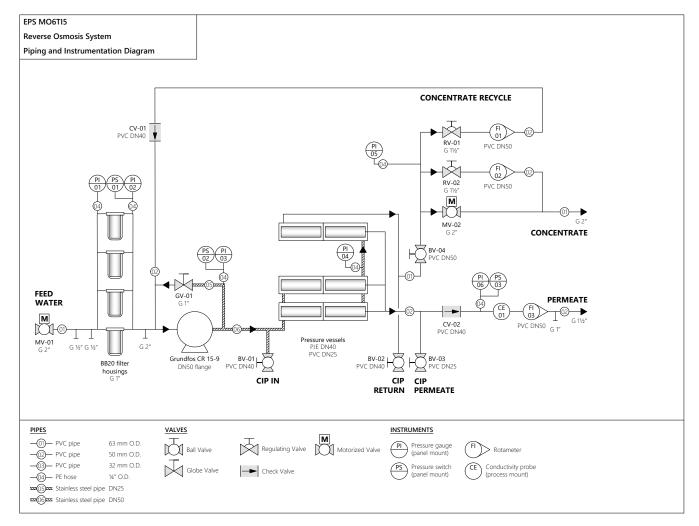
# MO6 RO FLOW CAPACITY GRAPH (WITH XLE-440 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

• 2 bar influent water pressure
• 0 bar backpressure in the permeate line
• fresh membranes
• XLE-440 membrane

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

SYSTEM FRAME MADE OF AISI 304 STAINLESS STEEL

HIGH PRESSURE PIPELINE MADE OF AISI 316 STAINLESS STEEL

# **EPS INOX MO9**8" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Process water, rinse water, steam boilers, heating and cooling circuits, agriculture, desalination, food and beverage, utility water treatment.



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### **EQUIPMENT:**

•	Grundfos® CR 15-9 high pressure pump	1 pcs
•	8040-3 membrane housing	3 pcs
•	BB20 sediment prefilter	5 pcs
•	Motorized valves	2 pcs
	(feed water in, flush out)	
•	Balancing valves	2 pcs
	(concentrate reject, concentrate recycle)	
•	Electrical panel with Ecosoft controller OC5000	1 set
•	Set of instruments	1 set
•	AISI 316 Stainless steel high pressure line	1 set
•	AISI 304 Stainless steel frame	1 set
	Frame mounted casters	1 set

#### **OPTIONS**

- Filmtec™ XLE-440 / ECO PRO-440 or Ecosoft ELP-8040 membranes
- Dosing pump for antiscalant or other RO chemicals
- Permeate inlet for permeate membrane rinse
- Raw water mixing line
- Break tank c/w forward feed

#### CONNECTION PORT SIZES:

Influent water	G 2"
Permeate	G 1½"
Concentrate	G 2"
CIP inlet	G 1½"
CIP return	G 1½"
CIP permeate	G 1"
Antiscalant dosing port	_G ½"

#### **PHYSICAL PARAMETERS:**

Approximate dimensions (bare)(Width × Depth × Height, ±5%)	3.90 × 1.20 × 1.95 m
Approximate dimensions (crated) (Width × Depth × Height, ±5%)	4.10 × 1.37 × 2.24 m
Approximate weight (bare)	600 kg
Approximate weight (crated)	920 kg

#### **EPS INOX MO9 8" REVERSE OSMOSIS SYSTEM**

Code	Product	Flow capacity, m³/h (GPH)	Membranes*
M09TI5	EPS INOX M09 R0 System	9–12 (2 400–3 200)	9/80 x 40

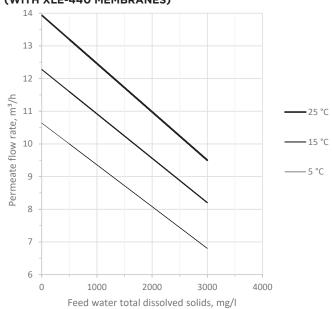
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	9 m³/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	4500 mg/L
Influent flow demand	1216 m <sup>3</sup> /h (service)
	20 m³/h (rinse)
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	380400 V, 50 Hz (3 ph)
Electrical power	7.5 kW
Prefilter rating	5 µm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

# MO9 RO FLOW CAPACITY GRAPH (WITH XLE-440 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

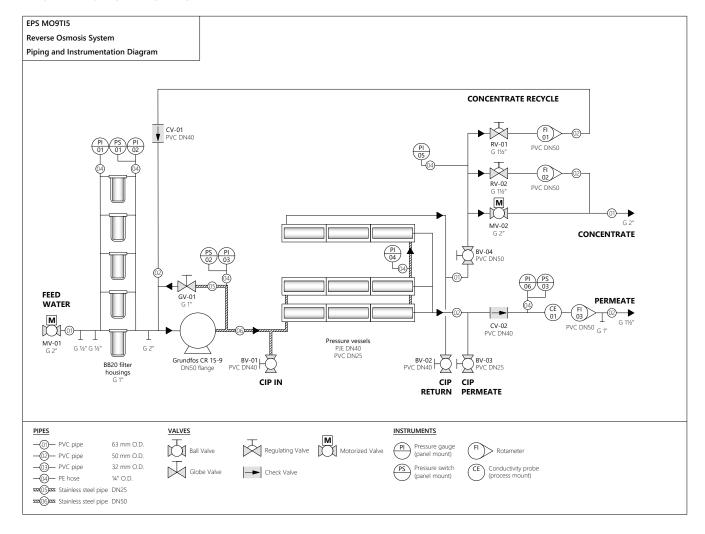
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-440 membrane

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

SYSTEM FRAME MADE OF AISI 304 STAINLESS STEEL

HIGH PRESSURE PIPELINE MADE OF AISI 316 STAINLESS STEEL

### **EPS INOX MO12** 8" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Process water, rinse water, steam boilers, heating and cooling circuits, agriculture, desalination, food and beverage, utility water treatment.



#### **EQUIPMENT:**

•	Grundfos® CR 20-10 high pressure pump	1 pcs
•	8040-3 membrane housing	4 pcs
•	Stainless steel housing with 7 PP 2,5 $\times$ 40" filters	5 pcs
•	Motorized valves	2 pcs
	(feed water in, flush out)	
•	Balancing valves	2 pcs
	(concentrate reject, concentrate recycle)	
•	Electrical panel with Ecosoft controller OC5000	1 set
•	Set of instruments	1 set
•	AISI 316 Stainless steel high pressure line	1 set
•	AISI 304 Stainless steel frame	1 set
•	Frame mounted casters	1 set

EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### **OPTIONS**

- Filmtec™ XLE-440 / ECO PRO-440 or Ecosoft ELP-8040 membranes
- Dosing pump for antiscalant or other RO chemicals
- Permeate inlet for permeate membrane rinse
- Raw water mixing line
- Break tank c/w forward feed

#### **CONNECTION PORT SIZES:**

Influent water	DN65 (flange)
Permeate	DN50 (G 2")
Concentrate	DN65 (flange)
CIP inlet	DN40 (G 1½")
CIP return	DN40 (G 1½")
CIP permeate	DN25 (G 1")

#### PHYSICAL PARAMETERS:

Approximate dimensions (bare) (Width × Depth × Height, ±5%)	4.00 × 1.40 × 2.10 m
Approximate weight (bare)	820 kg
Approximate weight (crated)	1100 kg

#### **EPS INOX MO9 8" REVERSE OSMOSIS SYSTEM**

Code	Product	Flow capacity, m³/h (GPH)	Membranes*
M012TI5	EPS INOX M09 R0 System	12–15 (3 200–4 000)	12/80 x 40

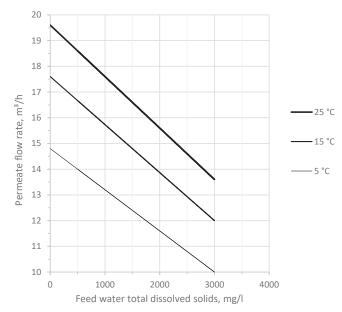
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	12 m³/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	4500 mg/L
Influent flow demand	1620 m³/h
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	380400 V, 50 Hz (3 ph)
Electrical power	11 kW
Prefilter rating	5 μm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

# MO12 RO FLOW CAPACITY GRAPH (WITH XLE-440 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

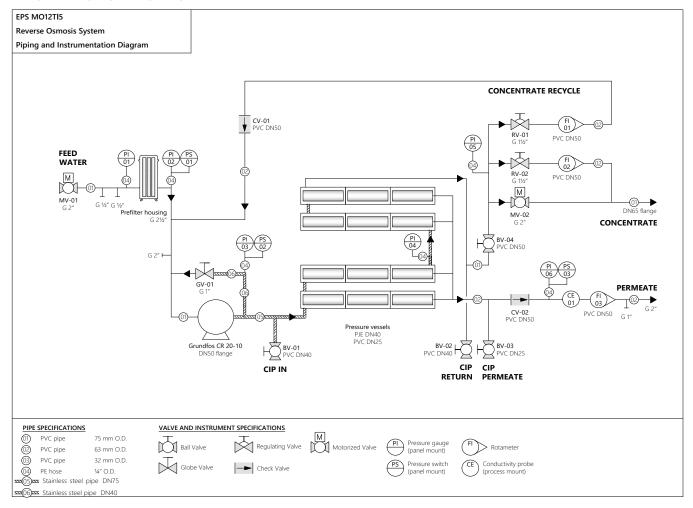
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

resh membranes

• XLE-440 membrane

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

# 8"

### STANDARD RO WATER TREATMENT SYSTEMS

EPS provides turnkey solutions for a wide variety of industrial water treatment applications, including pilot studies, design, engineering, manufacturing. construction, commissioning and ongoing maintenance.

Our RO water treatment systems are used in various sectors such as food and beverage; healthcare; data centres; microelectronic manufacturing, power generation and pharmaceutical applications.

### **APPLICATIONS**



CAR WASH



BREWERY



HEALTHCARE & LABORATORIES



**BOILER FEED** 



DAIRY AND MEAT PROCESSING



**MICROELECTRONICS** 



**DISTILLERY** 



**DATA CENTRES** 



POWER GENERATORS

TO UNDERSTAND THE DIFFERENCE BETWEEN THE STANDARD AND INOX RANGE

### 8" STANDARD REVERSE OSMOSIS SYSTEMS

**SEE APPENDIX 1** 

#### **APPLICATIONS**

Process water, rinse water, steam boilers, heating and cooling circuits, agriculture, desalination, food and beverage, utility water treatment.

#### **EQUIPMENT**

- Grundfos® CR high pressure pump
- 300 psi composite plastic membrane housings
- BB20 or stainless steel multi filter housings
- Electrical cabinet with controller
- · Danfoss or Praher motorized valves
- · Honeywell or Praher regulating valves
- Piping, valves, instrumentation, frame
- Permeate membrane flushing inlet port
- Raw water blending line port



#### **OPTIONS**

- Filmtec™ XLE-440 / ECO PRO-440 or Ecosoft ELP-8040 membranes
- Dosing pump for antiscalant or other RO chemicals
- Permeate inlet for permeate membrane flushing
- Raw water blending line
- Break tank c/w forward feed

8" INOX REVERSE OSMOSIS SYSTEMS			
Code	Product	Flow capacity, m³/h (GPH)	Membranes*
MO2TP5	EPS MO2 RO System	2–2.5 (530–660)	2/80 x 40
MO3TP5	EPS MO3 RO System	3-4 (800-1 060)	3/80 x 40
MO4TP5	EPS MO4 RO System	4-5 (1 060-1 320)	4/80 x 40
MO6TP5	EPS MO6 RO System	6-8 (1 600-2 100)	6/80 x 40
MO9TP5	EPS MO9 RO System	9–12 (2 400–3 200)	9/80 x 40
M012TP5	EPS M012 R0 System	12-15 (3 200-4 000)	12/80 x 40
M016TP5	EPS MO16 RO System	16-20 (4 200-5 300)	16/80 x 40
M024TP5	EPS MO24 RO System	24-28 (6 400-7 400)	24/80 x 40
M048TP5	EPS MO48 RO System	48-56 (12 500-14 800)	48/80 x 40

<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.

### **EPS MO2** 8" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Process water, rinse water, steam boilers, heating and cooling circuits, agriculture, desalination, food and beverage, utility water treatment.

#### **EQUIPMENT:**

•	Grundfos® CR 5-20 high pressure pump	1 pcs
•	8040 membrane housing	2 pcs
•	BB20 sediment prefilter	2 pcs
•	Motorized valves	2 pcs
	(feed water in, flush out)	
•	Balancing valves	2 pcs
	(concentrate reject, concentrate recycle)	
•	Electrical cabinet with controller	1 set
•	Piping, instrumentation, steel frame	_1 set

#### **OPTIONS**

- Filmtec™ XLE-440 / ECO PRO-440 or Ecosoft ELP-8040 membranes
- Dosing pump for antiscalant or other RO chemicals
- Permeate inlet for permeate membrane rinse
- Raw water mixing line
- Break tank c/w forward feed



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### **CONNECTION PORT SIZES:**

Influent water	G 1½"
Permeate	G 1"
Concentrate	G 1½"
CIP inlet	G 1½"
CIP return	G 1½"
CIP permeate	G ½"
Antiscalant dosing port	G ½"

#### PHYSICAL PARAMETERS:

1.90 × 1.10 × 1.95 m
2.10 × 1.20 × 2.22 m
_300 kg
390 kg

#### **EPS MO2 8" REVERSE OSMOSIS SYSTEM**

Code	Product	Flow capacity, m³/h (GPH)	Membranes*
MO2TP5	EPS MO2 RO System	2–2.5 (530–660)	2/80 x 40

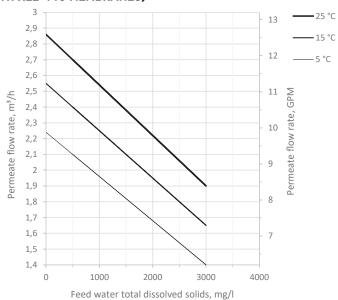
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	2 m³/h	
Permeate recovery <sup>2</sup>	75%	
Maximum TDS	3000 mg/L	
Influent flow demand	2.74 m³/h (service)	
	10 m <sup>3</sup> /h (rinse)	
Operating pressure	812 bar	
Maximum pressure	14 bar	
Electrical requirements	380400 V, 50 Hz (3 ph)	
Electrical power	3 kW	
Prefilter rating	5 μm	

¹ depends on feed water TDS, temperature, and permeate recovery — see graph on the right

# MO2 RO FLOW CAPACITY GRAPH (WITH XLE-440 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

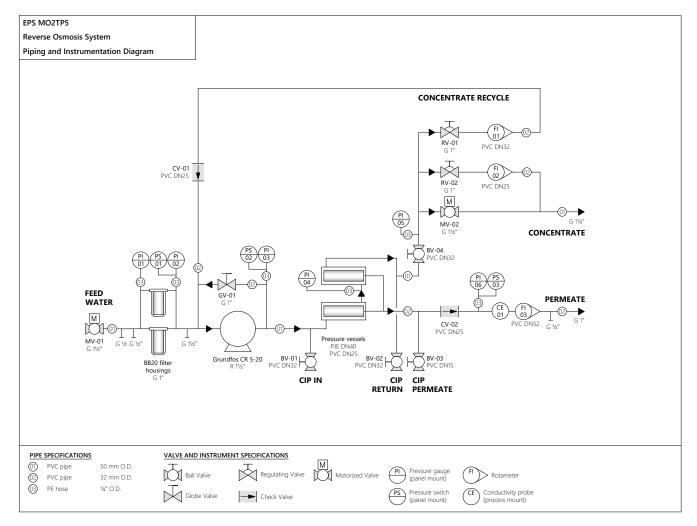
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-440 membrane

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

### **EPS MO3** 8" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Process water, rinse water, steam boilers, heating and cooling circuits, agriculture, desalination, food and beverage, utility water treatment.

#### **EQUIPMENT:**

•	Grundfos® CR 10-12 high pressure pump	1 pcs
•	8040 membrane housing	3 pcs
•	BB20 sediment prefilter	3 pcs
•	Motorized valves	2 pcs
	(feed water in, flush out)	
•	Balancing valves	2 pcs
	(concentrate reject, concentrate recycle)	
•	Electrical cabinet with controller	1 set
•	Piping, instrumentation, steel frame	1 set

#### **OPTIONS**

- Filmtec™ XLE-440 / ECO PRO-440 or Ecosoft ELP-8040 membranes
- Dosing pump for antiscalant or other RO chemicals
- Permeate inlet for permeate membrane rinse
- Raw water mixing line
- Break tank c/w forward feed



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### **CONNECTION PORT SIZES:**

Influent water	G 1½"
Permeate	G 1"
Concentrate	G 1½"
CIP inlet	G 1½"
CIP return	G 1½"
CIP permeate	G ½"
Antiscalant dosing port	G ½"

#### PHYSICAL PARAMETERS:

Approximate dimensions (bare)(Width × Depth × Height, ±5%)	1.90 × 1.10 × 1.95 m
Approximate dimensions (crated)(Width × Depth × Height, ±5%)	2.10 × 1.20 × 2.22 m
Approximate weight (bare)	340 kg
Approximate weight (crated)	430 kg

#### **EPS MO3 8" REVERSE OSMOSIS SYSTEM**

Code	Product	Flow capacity, m³/h (GPH)	Membranes*
MO3TP5	EPS MO3 RO System	3-4 (800-1 060)	3/80 x 40

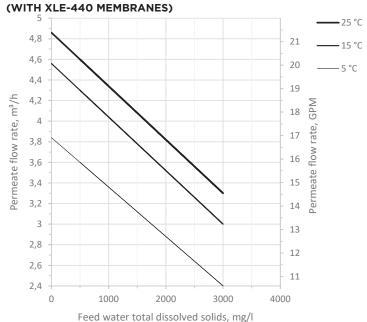
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	3 m³/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	3000 mg/L
Influent flow demand	46 m <sup>3</sup> /h (service)
	10 m³/h (rinse)
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	380400 V, 50 Hz (3 ph)
Electrical power	4 kW
Prefilter rating	5 μm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

### MO3 RO FLOW CAPACITY GRAPH



Permeate flow rates are calculated under the following conditions:

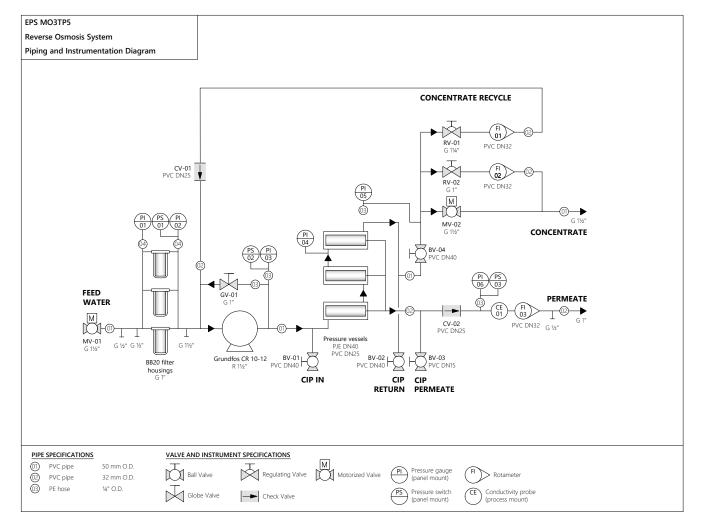
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-440 membrane

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

### **EPS MO4** 8" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Process water, rinse water, steam boilers, heating and cooling circuits, agriculture, desalination, food and beverage, utility water treatment.

#### **EQUIPMENT:**

• Grundfos® CR 10-12 high pressure pump	1 pcs
8040-2 membrane housing	2 pcs
BB20 sediment prefilter	3 pcs
Motorized valves	2 pcs
(feed water in, flush out)	
Balancing valves	2 pcs
(concentrate reject, concentrate recycle)	
Electrical cabinet with controller	1 set
Piping, instrumentation, steel frame	1 set



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### **OPTIONS**

- Filmtec™ XLE-440 / ECO PRO-440 or Ecosoft ELP-8040 membranes
- Dosing pump for antiscalant or other RO chemicals
- Permeate inlet for permeate membrane rinse
- · Raw water mixing line
- Break tank c/w forward feed

#### **CONNECTION PORT SIZES:**

Influent water	G 1½"
Permeate	G 1"
Concentrate	G 1½"
CIP inlet	G 1½"
CIP return	G 1½"
CIP permeate	G ½"
Antiscalant dosing port	G ½"

#### PHYSICAL PARAMETERS:

Approximate dimensions (bare)	2.90 × 1.20 × 1.95 m
(Width $\times$ Depth $\times$ Height, $\pm 5\%$ )	
Approximate dimensions (crated)	3.05 × 1.37 × 2.24 m
(Width $\times$ Depth $\times$ Height, $\pm 5\%$ )	
Approximate weight (bare)	340 kg
Approximate weight (crated)	500 kg
	_

#### **EPS MO4 8" REVERSE OSMOSIS SYSTEM**

Code	Product	Flow capacity, m³/h (GPH)	Membranes*
MO4TP5	EPS MO4 RO System	4–5 (1 060–1 320)	4/80 x 40

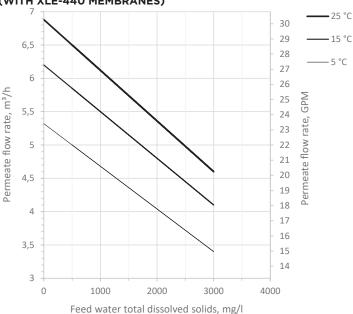
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	4 m³/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	3000 mg/L
Influent flow demand	5.58 m³/h (service)
	10 m³/h (rinse)
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	380400 V, 50 Hz (3 ph)
Electrical power	4 kW
Prefilter rating	5 μm

¹ depends on feed water TDS, temperature, and permeate recovery — see graph on the right

# MO4 RO FLOW CAPACITY GRAPH (WITH XLE-440 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

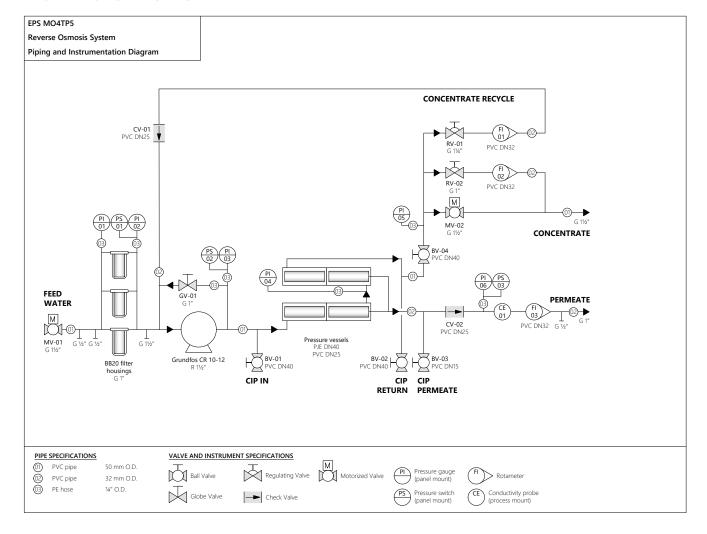
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-440 membrane

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

### **EPS MO6** 8" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Process water, rinse water, steam boilers, heating and cooling circuits, agriculture, desalination, food and beverage, utility water treatment.

#### **EQUIPMENT:**

Grundfos® CR 15-9 high pressure pump	1 pcs
8040-2 membrane housing	3 pcs
BB20 sediment prefilter	4 pcs
Motorized valves	2 pcs
(feed water in, flush out)	
Balancing valves	2 pcs
(concentrate reject, concentrate recycle)	
Electrical cabinet with controller	1 set
Piping, instrumentation, steel frame	1 set



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### **OPTIONS**

- Filmtec™ XLE-440 / ECO PRO-440 or Ecosoft ELP-8040 membranes
- Dosing pump for antiscalant or other RO chemicals
- Permeate inlet for permeate membrane rinse
- · Raw water mixing line
- Break tank c/w forward feed

#### **CONNECTION PORT SIZES:**

Influent water	G 2"
Permeate	G 1½"
Concentrate	G 2"
CIP inlet	G 1½"
CIP return	G 1½"
CIP permeate	G 1"
Antiscalant dosing port	G ½"

#### PHYSICAL PARAMETERS:

Approximate dimensions (bare)	2.90 × 1.20 × 1.95 m
(Width $\times$ Depth $\times$ Height, $\pm 5\%$ )	
Approximate dimensions (crated)	3.05 × 1.37 × 2.24 m
(Width $\times$ Depth $\times$ Height, $\pm 5\%$ )	
Approximate weight (bare)	560 kg
Approximate weight (crated)	720 kg

#### **EPS MO6 8" REVERSE OSMOSIS SYSTEM**

Code	Product	Flow capacity, m³/h (GPH)	Membranes*
M06TP5	EPS MO6 RO System	6-8 (1 600-2 100)	6/80 x 40

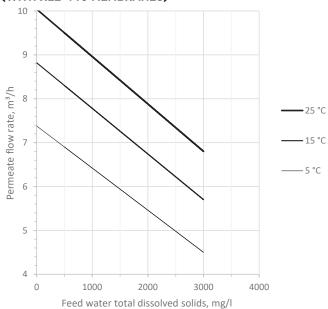
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	6 m³/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	3000 mg/L
Influent flow demand	812 m³/h (service)
	20 m³/h (rinse)
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	380400 V, 50 Hz (3 ph)
Electrical power	7.5 kW
Prefilter rating	5 μm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

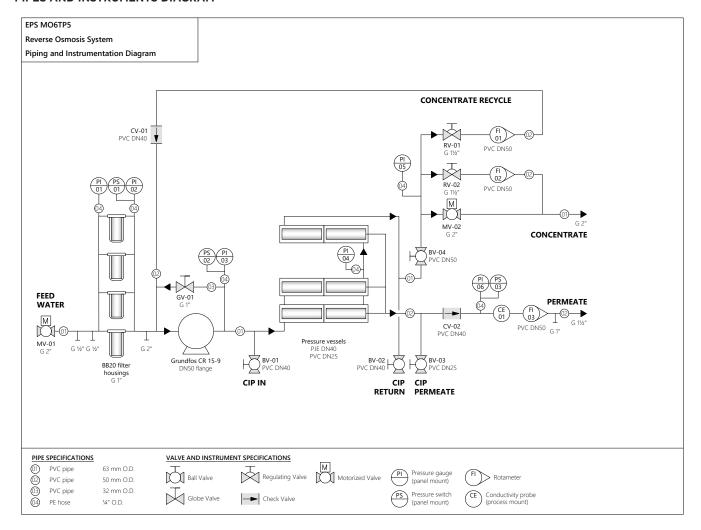
# MO6 RO FLOW CAPACITY GRAPH (WITH XLE-440 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

• 2 bar influent water pressure
• 0 bar backpressure in the permeate line
• fresh membranes
• XLE-440 membrane

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

### **EPS MO9** 8" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Process water, rinse water, steam boilers, heating and cooling circuits, agriculture, desalination, food and beverage, utility water treatment.



#### **EQUIPMENT:**

• Grundfos® CR 15-9 high pressure pump	1 pcs
8040-3 membrane housing	3 pcs
BB20 sediment prefilter	5 pcs
Motorized valves	2 pcs
(feed water in, flush out)	
Balancing valves	2 pcs
(concentrate reject, concentrate recycle)	
Electrical cabinet with controller	1 set
Piping, instrumentation	1 set
Steel frame	1 set

EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### **OPTIONS**

- Filmtec<sup>™</sup> XLE-440 / ECO PRO-440 or Ecosoft ELP-8040 membranes
- Dosing pump for antiscalant or other RO chemicals
- · Permeate inlet for permeate membrane rinse
- · Raw water mixing line
- Break tank c/w forward feed

#### **CONNECTION PORT SIZES:**

Influent water	G 2"
Permeate	G 1½"
Concentrate	G 2"
CIP inlet	G 1½"
CIP return	G 1½"
CIP permeate	G 1"
Antiscalant dosing port	G ½"

#### PHYSICAL PARAMETERS:

Approximate dimensions (bare)(Width × Depth × Height, ±5%)	3.90 × 1.20 × 1.95 m
Approximate dimensions (crated) (Width × Depth × Height, ±5%)	4.10 × 1.37 × 2.24 m
Approximate weight (bare)	600 kg
Approximate weight (crated)	920 kg

#### **EPS MO9 8" REVERSE OSMOSIS SYSTEM**

Code	Product	Flow capacity, m³/h (GPH)	Membranes*
МО9ТР5	EPS M09 RO System	9–12 (2 400–3 200)	9/80 x 40

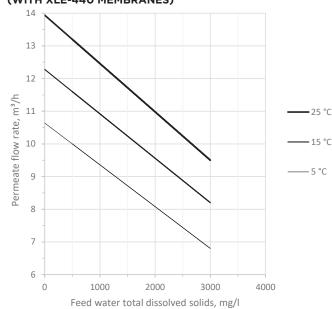
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	9 m³/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	3000 mg/L
Influent flow demand	1216 m <sup>3</sup> /h (service)
	20 m³/h (rinse)
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	380400 V, 50 Hz (3 ph)
Electrical power	7.5 kW
Prefilter rating	5 µm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

# MO9 RO FLOW CAPACITY GRAPH (WITH XLE-440 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

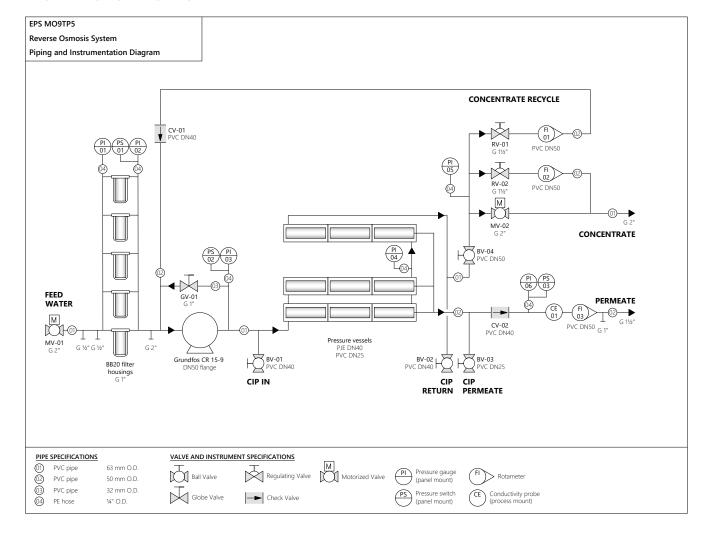
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-440 membrane

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

### **EPS MO12** 8" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Process water, rinse water, steam boilers, heating and cooling circuits, agriculture, desalination, food and beverage, utility water treatment.



#### **EQUIPMENT:**

Grundfos® CR 20-10 high pressure pump	1 pcs
8040-3 membrane housing	4 pcs
• Stainless steel housing with 7 PP 2,5 $\times$ 40" filters	1 pcs
Motorized valves	2 pcs
(feed water in, flush out)	
Balancing valves	2 pcs
(concentrate reject, concentrate recycle)	
Electrical cabinet with controller	1 set
Piping, instrumentation	1 set
Steel frame	1 set

EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### **OPTIONS**

- Filmtec™ XLE-440 / ECO PRO-440 or Ecosoft ELP-8040 membranes
- Dosing pump for antiscalant or other RO chemicals
- Permeate inlet for permeate membrane rinse
- Raw water mixing line

#### **CONNECTION PORT SIZES:**

Influent water	DN65 (flange)
Permeate	DN50 (G 2")
Concentrate	DN65 (flange)
CIP inlet	DN40 (G 1½")
CIP return	DN40 (G 1½")
CIP permeate	DN25 (G 1")

#### PHYSICAL PARAMETERS:

Approximate dimensions (installed) (Width $\times$ Depth $\times$ Height, $\pm 5\%$ )	4.00 × 1.40 × 2.10 m
Approximate weight (bare)	820 kg
Approximate weight (crated)	1100 kg

#### **EPS MO12 8" REVERSE OSMOSIS SYSTEM**

Code	Product	Flow capacity, m³/h (GPH)	Membranes*
M012TP5	EPS M012 R0 System	12-15 (3 200-4 000)	12/80 x 40

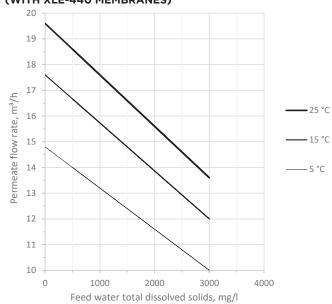
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	12 m³/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	3000 mg/L
Influent flow demand	1620 m³/h
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	380400 V, 50 Hz (3 ph)
Electrical power	11 kW
Prefilter rating	5 μm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery see graph on the right

# MO12 RO FLOW CAPACITY GRAPH (WITH XLE-440 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

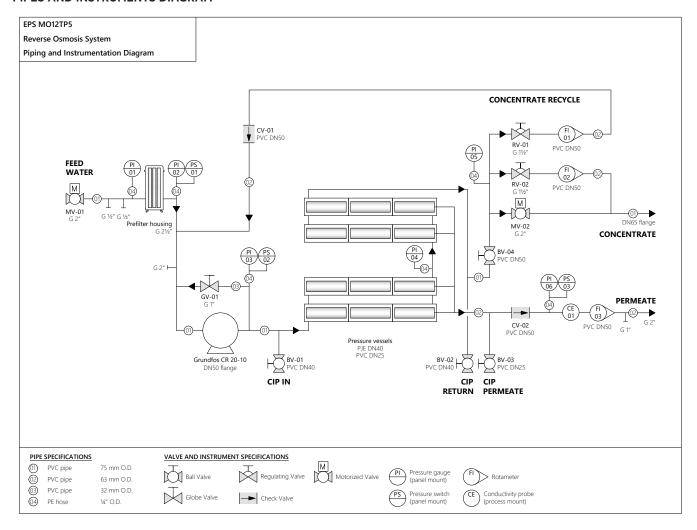
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-440 membrane

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

### **EPS MO16** 8" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Process water, rinse water, steam boilers, heating and cooling circuits, agriculture, desalination, food and beverage, utility water treatment.



#### **EQUIPMENT:**

Grundfos® CR 32-6 high pressure pump 1 pcs
8040-4 membrane housing 4 pcs
Stainless steel housing with 7 PP 2,5 × 40" filters 1 pcs
Motorized butterfly valves 2 pcs (feed water in, flush out)
Balancing valves 2 pcs (concentrate reject, concentrate recycle)
Electrical cabinet with controller 1 set
Piping, instrumentation 1 set
Steel frame 1 set

EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### **OPTIONS**

- Filmtec™ XLE-440 / ECO PRO-440 or Ecosoft ELP-8040 membranes
- Dosing pump for antiscalant or other RO chemicals
- Permeate inlet for permeate membrane rinse
- Raw water mixing line
- Break tank c/w forward feed

#### **CONNECTION PORT SIZES:**

Influent water	DN80 (flange)
Permeate	DN65 (flange)
Concentrate	DN80 (flange)
CIP inlet	DN65 (flange)
CIP return	DN65 (flange)
CIP permeate	DN40 (G 11/2")

#### PHYSICAL PARAMETERS:

Approximate dimensions (installed)	5.50 × 1.60 × 2.40 m
(Width $\times$ Depth $\times$ Height, $\pm 5\%$ )	
Approximate weight (bare)	900 kg
Approximate weight (crated)	1200 kg

#### **EPS MO16 8" REVERSE OSMOSIS SYSTEM**

Code	Product	Flow capacity, m³/h (GPH)	Membranes*
M016TP5	EPS M016 R0 System	16-20 (4 200-5 300)	16/80 x 40

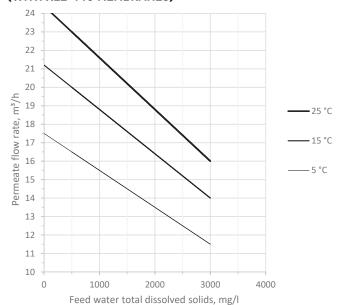
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	16 m³/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	3000 mg/L
Influent flow demand	2025 m³/h
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	380400 V, 50 Hz (3 ph)
Electrical power	11 kW
Prefilter rating	5 μm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

# MO16 RO FLOW CAPACITY GRAPH (WITH XLE-440 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

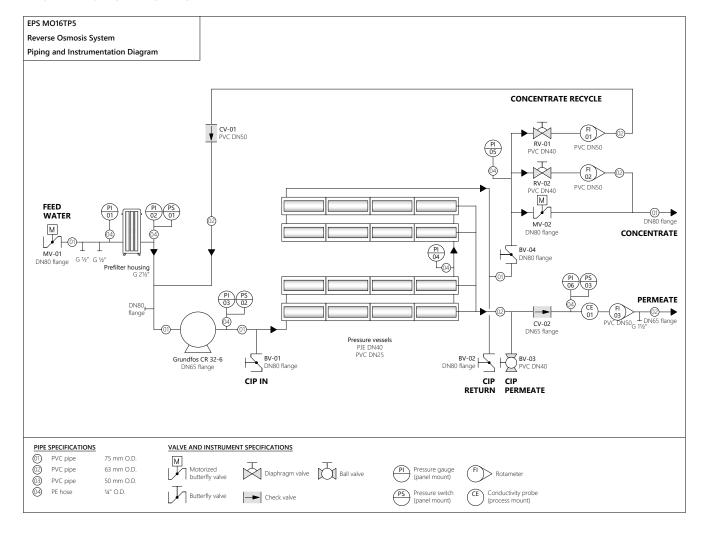
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-440 membrane

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

### EPS MO24 8" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Process water, rinse water, steam boilers, heating and cooling circuits, agriculture, desalination, food and beverage, utility water treatment.



#### **EQUIPMENT:**

Grundfos® CR 45-4 high pressure pump 1 pcs
8040-4 membrane housing 6 pcs
Stainless steel housing with 7 PP 2,5 × 40" filters 2 pcs
Motorized butterfly valves 2 pcs (feed water in, flush out)
Balancing valves 2 pcs (concentrate reject, concentrate recycle)
Electrical cabinet with controller 1 set
Piping, instrumentation 1 set
Steel frame 1 set

## EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### **OPTIONS**

- Filmtec™ XLE-440 / ECO PRO-440 or Ecosoft ELP-8040 membranes
- Dosing pump for antiscalant or other RO chemicals
- Permeate inlet for permeate membrane rinse
- Raw water mixing line
- Break tank c/w forward feed

#### **CONNECTION PORT SIZES:**

Influent water	DN80 (flange)
Permeate	DN65 (flange)
Concentrate	DN80 (flange)
CIP inlet	DN65 (flange)
CIP return	DN65 (flange)
CIP permeate	DN40 (G 1½")

#### PHYSICAL PARAMETERS:

Approximate dimensions (installed) (Width $\times$ Depth $\times$ Height, $\pm$ 5%)	5.50 × 1.60 × 2.40 m
Approximate weight (bare)	1100 kg
Approximate weight (crated)	1500 kg

#### **EPS MO24 8" REVERSE OSMOSIS SYSTEM**

Code	Product	Flow capacity, m³/h (GPH)	Membranes*
M024TP5	EPS MO24 RO System	24–28 (6 400–7 400)	24/80 x 40

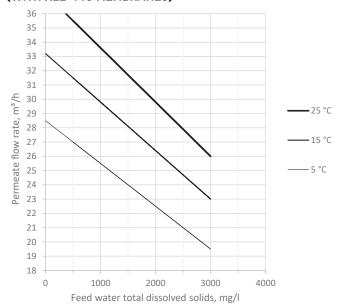
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	24 m³/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	3000 mg/L
Influent flow demand	3040 m³/h
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	380400 V, 50 Hz (3 ph)
Electrical power	18.5 kW
Prefilter rating	5 μm

¹ depends on feed water TDS, temperature, and permeate recovery — see graph on the right

# MO24 RO FLOW CAPACITY GRAPH (WITH XLE-440 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

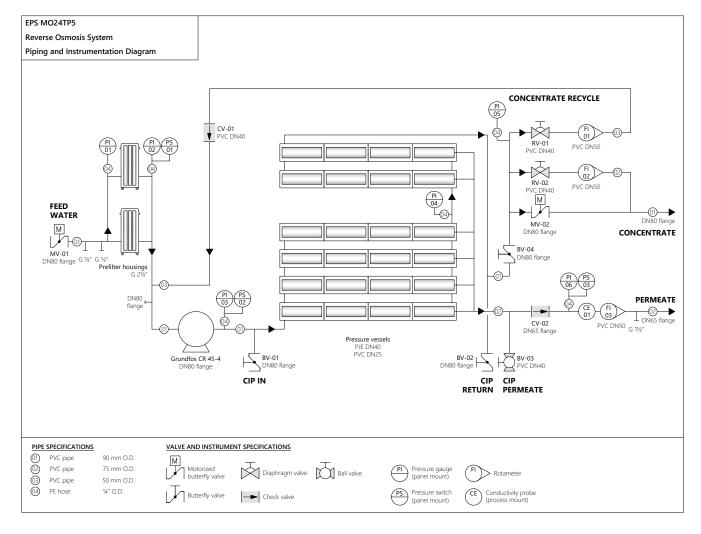
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-440 membrane

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

### **EPS MO48** 8" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Process water, rinse water, steam boilers, heating and cooling circuits, agriculture, desalination, food and beverage, utility water treatment.



#### **EQUIPMENT:**

Grundfos® CR 64-4 high pressure pump	1 pcs
8040-6 membrane housing	8 pcs
• Stainless steel housing with 7 PP 2,5 $\times$ 40" filters	2 pcs
Motorized butterfly valves	2 pcs
Balancing valves	2 pcs
Electrical cabinet with controller	1 set
Piping, instrumentation	1 set
Steel frame	1 set

EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

CIP unit is not included with the system

#### **OPTIONS**

- Filmtec™ XLE-440 / ECO PRO-440 or Ecosoft ELP-8040 membranes
- Dosing pump for antiscalant or other RO chemicals
- Permeate inlet for permeate membrane rinse
- Raw water mixing line
- Break tank c/w forward feed

#### **CONNECTION PORT SIZES:**

Influent water	DN100 (flange)
Permeate	DN100 (flange)
Concentrate	DN100 (flange)
CIP inlet	DN80 (flange)
CIP return	DN80 (flange)

#### PHYSICAL PARAMETERS:

Approximate dimensions (installed)	7.00 × 2.40 × 2.50 m
(Width $\times$ Depth $\times$ Height, $\pm 5\%$ )	
Approximate weight (bare)	1900 kg
Approximate weight (crated)	2400 kg

#### **EPS MO48 8" REVERSE OSMOSIS SYSTEM**

Code	Product	Flow capacity, m³/h (GPH)	Membranes*
M048TP5	EPS MO48 RO System	48-56 (12 700-14 800)	48/80 x 40

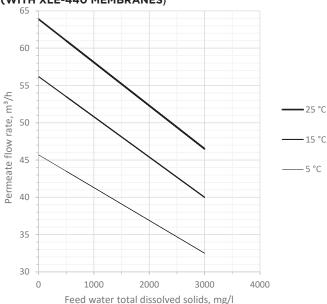
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	48 m³/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	3000 mg/L
Influent flow demand	6580 m³/h
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	380400 V, 50 Hz (3 ph)
Electrical power	22 kW
Prefilter rating	5 μm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

## MO48 RO FLOW CAPACITY GRAPH (WITH XLE-440 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

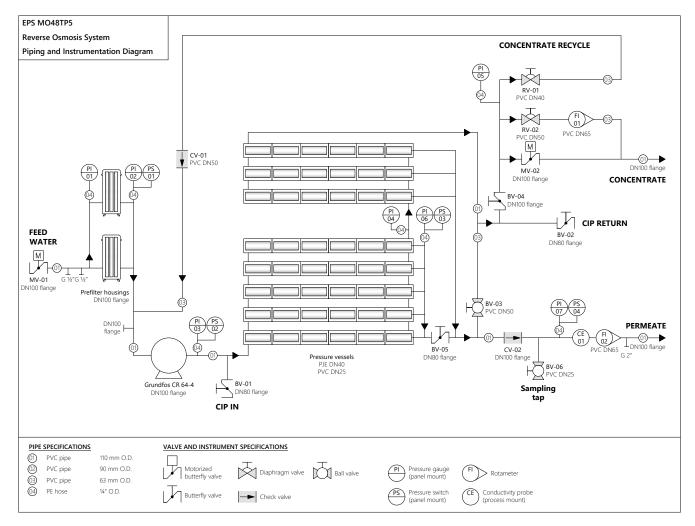
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-440 membrane

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

## PERMEATE FLUSHING ASSEMBLY FOR EPS MO2...MO48 8" RO SYSTEMS

#### **APPLICATIONS**

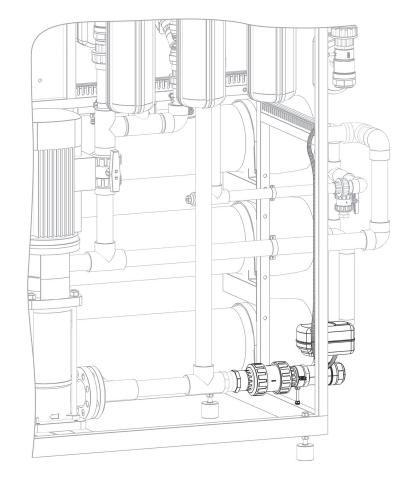
The product fits an already operating reverse osmosis system, with the use of only a few basic tools\*.

The flushing assembly has a large flow capacity for efficient flushing of the membranes.

Duration and frequency of membrane flushes are set up in the controller settings.

#### THE PRODUCT IS USED IN THE FOLLOWING CASES:

- Insufficient supply water flow capacity for normal membrane flush
- Supply water treatment process can be sized to a smaller flow capacity absent the peak flow demand during membrane flush
- Industrial reverse osmosis systems have built-in flush ports for the flushing assembly connection.



#### **COMPONENTS**

- Motorized valve
- PVC piping assembly with PVC check valve
- · Pipe clamp and fasteners
- Installation and connection instructions

#### WARNING!

To flush the membranes with permeate, it is necessary to use a purified water pump with sufficient capacity (according to the technical characteristics of the reverse osmosis system).

The pump must be connected to the flushing unit with a permeate pipe of at least the nominal diameter of the flushing unit.

#### PERMEATE FLUSHING ASSEMBLY FOR EPS MO2...MO48 8" RO SYSTEMS

Code	For systems	Recommended flow rate	Connection port size
PM01234	MO2TP5, MO3TP5, MO4TP5, MO2TI5, MO3TI5, MO4TI5	8 m³/h	DN40
PM069	MO6TP5, MO9TP5, MO6TI5, MO9TI5	15 m³/h	DN50
PM01224	M012TP5, M016TP5, M024TP5, M012TI5	30 m³/h	DN80
PM03048	M036TP5, M048TP5	50 m³/h	DN100



## RAW WATER BLENDING ASSEMBLY FOR EPS MO2...MO48 8" RO SYSTEMS

#### **APPLICATIONS**

The product fits an already operating reverse osmosis system, with the use of only a few basic tools\*.

The raw water blending assembly has a separate inlet for blending water from any source point to the purified water.

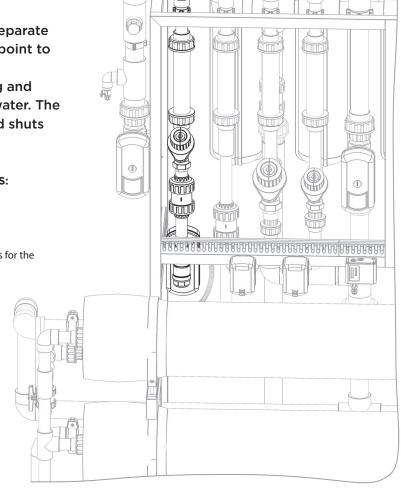
The balancing valve is used for regulating and sustaining the required flow rate of raw water. The motorized valve opens during service and shuts off during standby or downtime.

#### THE PRODUCT IS USED IN THE FOLLOWING CASES:

- Amending the mineral composition of product water
- Increasing the product water capacity
- Industrial reverse osmosis systems have built-in blend ports for the blending assembly connection.

#### **COMPONENTS**

- Motorized valve
- PVC check valve
- · Balancing valve
- Rotameter
- PVC pipeline, mounting clamps
- · Installation and connection instructions



#### RAW WATER BLENDING ASSEMBLY FOR EPS MO2...MO48 8" RO SYSTEMS

Code	For systems	Maximum flow rate	Connection port size
IM01234	MO2TP5, MO3TP5, MO4TP5, MO2TI5, MO3TI5, MO4TI5	2,5 m3/h	DN15
IM069	MO6TP5, MO9TP5, MO6TI5, MO9TI5	6 m3/h	DN25
IM01224	M012TP5, M016TP5, M024TP5, M012TI5	16 m3/h	DN40
IM03048	M036TP5, M048TP5	25 m3/h	DN50

## 4"

## **RO WATER TREATMENT SYSTEMS**

EPS have numerous customers who use our 4" RO systems for a variety of applications including hotels; public swimming pools; garden centres; dairy farms; small food and beverage producers; micro breweries; glass manufacturers and car washes.

We stock a wide range of 4" RO system options that are plug and play in both design and set-up.

## **APPLICATIONS**



**CAR WASH** 



BREWERY



HEALTHCARE & LABORATORIES



**BOILER FEED** 



DAIRY AND MEAT PROCESSING



HORECA (HOTELS, RESTAURANTS & CATERING)



**DISTILLERY** 



**DATA CENTRES** 



**DOMESTIC HOUSES** 



**B&B/HOTELS** 



AGRICULTURE



DAIRY/FOOD & BEVERAGE



## IOT ADVANCED 4" REVERSE OSMOSIS SYSTEMS

- IoT advanced with remote online monitoring and control
- Proven engineering with a smart design and reliable instrumentation
- Ecosoft controller OC6000 with Econnect functionality and additional sensors
- Suitable for water with TDS up to 3 000 mg/L

## PROFESSIONAL 4" REVERSE OSMOSIS SYSTEMS

- Best price-quality ratio
- Proven engineering with a smart design and reliable instrumentation
- OC5000 controller designed for automatic control of system
- Suitable for water with TDS up to 3 000 mg/L





## COST EFFECTIVE 4" REVERSE OSMOSIS SYSTEMS

- Budget-saving solution for your purified water needs
- Tiny footprint and compact design suitable for smaller premises
- OC5000 controller designed for automatic control of system
- Suitable for water with TDS up to 3 000 mg/L

## **IOT ADVANCED**

## EPS MO6500 4" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Steam boilers, heating and cooling circuits, breweries and beverage production, livestock and poultry farms, glass manufacturing, laundry and car washes etc.

#### **EQUIPMENT:**

- Grundfos® CM 1-10 pump
- 300 psi membrane housing
- BB20 sediment prefilter
- · Electrical panel with Ecosoft controller
- Danfoss solenoid valves
- Piping, instrumentation
- · Steel frame
- · Carton crate

#### **KEY FEATURES**

- OC6000 controller with Econnect functionality providing online access to the RO machine
- Easy to use due to smart architecture
- Modularised architecture for adding permeate flushing or raw water blending assembly to the system
- Grundfos worldwide guarantee
- CE marked and confirmed to be safe in accordance with EC New Approach Directives

#### **OPTIONS**

- Filmtec™ XLE-4040 / LCLE-4040 or Ecosoft ELP-4040 membrane
- Dosing pump for antiscalant
- Versatile set for raw water blending (30...240 L/h) or permeate flushing
- Break tank c/w forward feed

#### **PHYSICAL PARAMETERS:**

Influent water, concentrate, permeate	G ½"	
Antiscalant dosing port	G ½"	
Permeate flushing input port	G ½"	
Approx. weight (bare system / crate)	55 kg	80 kg
Dimensions (bare system, $W \times D \times H$ )	0.55 × 0.42 × 1.50 m	
Dimensions (crate, $W \times D \times H$ )	0.60 × 0.50 × 1.65 m	



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### **IOT ADVANCED EPS MO6500 4" REVERSE OSMOSIS SYSTEM**

Code	Product	Flow rate, L/h (GPH)	Membranes*	Pieces on pallet
M06500TP6	EPS M06500 Econnect RO System	200-300 (50-80)	1/40 x 40	4

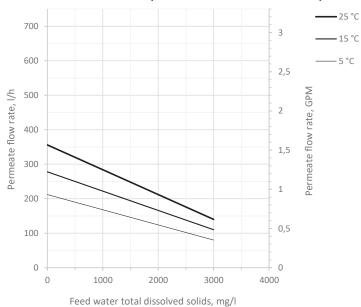
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	250 L/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	3000 mg/L
Influent flow demand	320400 L/h (service)
	15002000 L/h (rinse)
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	230 V, 50 Hz (1 ph)
Electrical power	1 kW
Prefilter rating	5 μm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

#### MO6500 FLOW CAPACITY (WITH XLE-4040 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

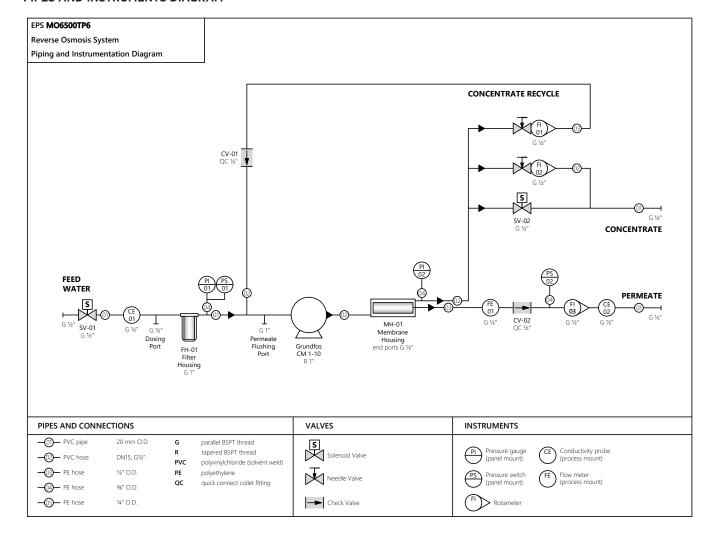
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-4040 membranes

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

## **IOT ADVANCED**

## EPS MO12000 4" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Steam boilers, heating and cooling circuits, breweries and beverage production, livestock and poultry farms, glass manufacturing, laundry and car washes etc.

#### **EQUIPMENT:**

- Grundfos® CM 1-10 pump
- · 300 psi membrane housings
- BB20 sediment prefilter
- · Electrical panel with controller
- Danfoss solenoid valves
- · Piping, instrumentation
- · Steel frame
- · Carton crate

#### **KEY FEATURES**

- OC6000 controller with Econnect functionality providing onlineaccess to the RO machine
- Easy to use thanks to smart architecture
- Modularized architecture for adding permeate flushing or raw water blending assembly to the system
- Grundfos worldwide guarantee
- CE marked and confirmed to be safe in accordance with EC New Approach Directives

#### **OPTIONS**

- Filmtec™ XLE-4040 / LCLE-4040 or Ecosoft ELP-4040 membrane
- Dosing pump for antiscalant
- Versatile set for raw water blending (30...240 L/h) or permeate flushing
- Break tank c/w forward feed

#### PHYSICAL PARAMETERS

Influent water, concentrate, permeate	G ½"	
Antiscalant dosing port	G ½"	
Permeate flushing input port	G ½"	
Approx. weight (bare system / crate)	60 kg	85 kg
Dimensions (bare system, $W \times D \times H$ )	0.55 × 0.42 ×	1.50 m
Dimensions (crate, $W \times D \times H$ )	0.60 × 0.50 ×	1.65 m



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### **IOT ADVANCED EPS MO12000 4" REVERSE OSMOSIS SYSTEM**

Code	Product	Flow rate, L/h (GPH)	Membranes*	Pieces on pallet
M012000TP6	EPS M012000 Econnect RO System	400–550 (100–150)	2/40 x 40	4

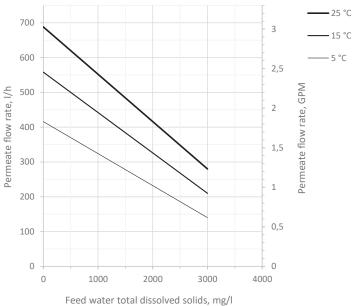
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	500 L/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	3000 mg/L
Influent flow demand	650800 L/h (service)
	15002000 L/h (rinse)
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	230 V, 50 Hz (1 ph)
Electrical power	1 kW
Prefilter rating	5 μm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

#### MO12000 FLOW CAPACITY (WITH XLE-4040 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

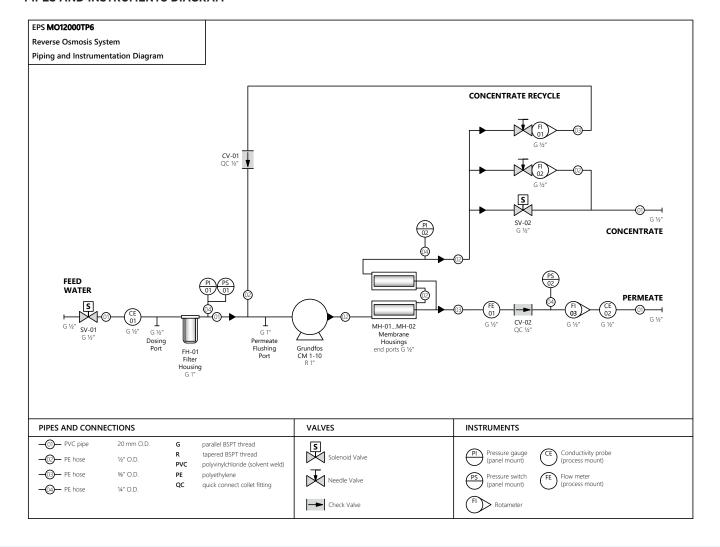
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-4040 membranes

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

## **IOT ADVANCED**

## EPS MO24000 4" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Steam boilers, heating and cooling circuits, breweries and beverage production, livestock and poultry farms, glass manufacturing, laundry and car washes etc.

#### **EQUIPMENT:**

- Grundfos® CM 3-14 pump
- 300 psi membrane housings
- BB20 sediment prefilter
- Electrical panel with controller
- · Danfoss solenoid valves
- Piping, instrumentation
- Steel frame
- · Carton crate

#### **KEY FEATURES**

- OC6000 controller with Econnect functionality providing onlineaccess to the RO machine
- · Easy to use thanks to smart architecture
- Modularized architecture for adding permeate flushing or raw water blending assembly to the system
- Grundfos worldwide guarantee
- CE marked and confirmed to be safe in accordance with EC New Approach Directives

#### **OPTIONS**

- Filmtec™ XLE-4040 / LCLE-4040 or Ecosoft ELP-4040 membrane
- · Dosing pump for antiscalant
- Versatile set for raw water blending (120...1080 L/h) or permeate flushing
- Break tank c/w forward feed

#### PHYSICAL PARAMETERS

Influent water, concentrate, permeate	G 1"	
Antiscalant dosing port	G ½"	
Permeate flushing input port	G 1"	
Raw water blending port	G 3/8"	
Approx. weight (bare system / crate)	110 kg	150 kg
Dimensions (bare system, $W \times D \times H$ )	0.70 × 0.60 × 1.50 m	
Dimensions (crate, $W \times D \times H$ )	1.00 × 0.75 × 1.90 m	



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### **IOT ADVANCED EPS MO24000 4" REVERSE OSMOSIS SYSTEM**

Code	Product	Flow rate, L/h (GPH)	Membranes*	Pieces on pallet
M024000TP6	EPS MO24000 Econnect RO System	1000–1200 (250–330)	4/40 x 40	1

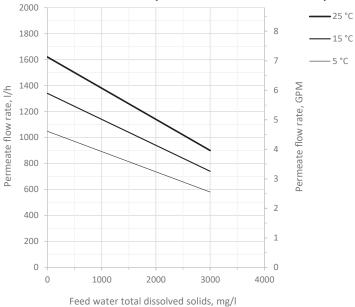
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	1000 L/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	3000 mg/L
Influent flow demand	13001500 L/h (service)
	30004000 L/h (rinse)
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	230 V, 50 Hz (1 ph)
Electrical power	2 kW
Prefilter rating	5 μm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

#### MO24000 FLOW CAPACITY (WITH XLE-4040 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

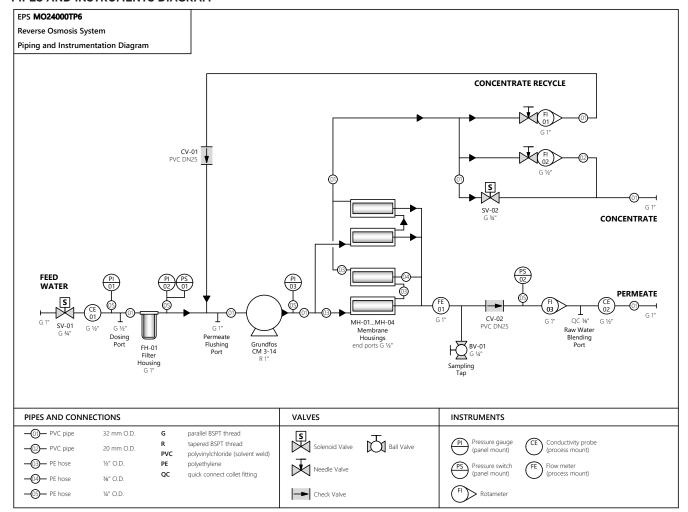
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-4040 membranes

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

## **IOT ADVANCED**

## EPS MO36000 4" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Steam boilers, heating and cooling circuits, breweries and beverage production, livestock and poultry farms, glass manufacturing, laundry and car washes, greenhouses etc.

#### **EQUIPMENT:**

- Grundfos® CM 3-14 pump
- 300 psi membrane housings
- BB20 sediment prefilter
- Electrical panel with controller
- · Danfoss solenoid valves
- · Piping, instrumentation
- Steel frame
- · Carton crate

#### **KEY FEATURES**

- OC6000 controller with Econnect functionality providing onlineaccess to the RO machine
- · Easy to use thanks to smart architecture
- Modularized architecture for adding permeate flushing or raw water blending assembly to the system
- Grundfos worldwide guarantee
- CE marked and confirmed to be safe in accordance with EC New Approach Directives

#### **OPTIONS**

- Filmtec™ XLE-4040 / LCLE-4040 or Ecosoft ELP-4040 membrane
- · Dosing pump for antiscalant
- Versatile set for raw water blending (120...1080 L/h) or permeate flushing
- Break tank c/w forward feed

#### PHYSICAL PARAMETERS

Influent water, concentrate, permeate	G 1"	
Antiscalant dosing port	G 1/2"	
Permeate flushing input port	G 1"	
Raw water blending port	G %"	
Approx. weight (bare system / crate)	130 kg 170 kg	
Dimensions (bare system, $W \times D \times H$ )	0.90 × 0.60 × 1.50 m	
Dimensions (crate, $W \times D \times H$ )	$1.20 \times 0.75 \times 1.90 \text{ m}$	



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### IOT ADVANCED EPS MO36000 4" REVERSE OSMOSIS SYSTEM

Code	Product	Flow rate, L/h (GPH)	Membranes*	Pieces on pallet
M036000TP6	EPS MO36000 Econnect RO System	1400–1600 (350–420)	6/40 x 40	1

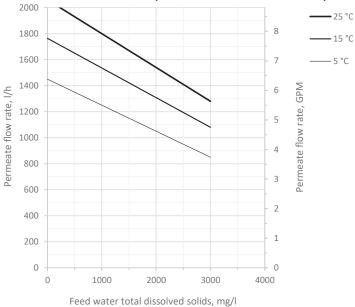
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	1500 L/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	3000 mg/L
Influent flow demand	20002500 L/h (service)
	30004000 L/h (rinse)
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	230 V, 50 Hz (1 ph)
Electrical power	2 kW
Prefilter rating	5 μm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

#### MO36000 FLOW CAPACITY (WITH XLE-4040 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

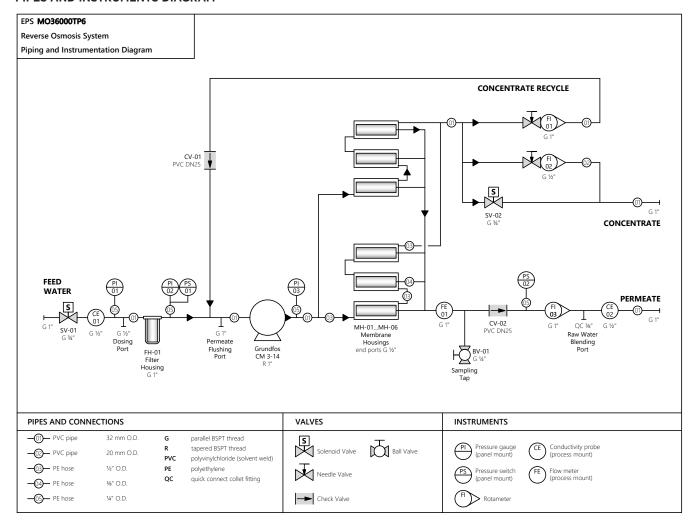
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-4040 membranes

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

## **PROFESSIONAL**

## EPS MO6500 4" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Steam boilers, heating and cooling circuits, breweries and beverage production, livestock and poultry farms, glass manufacturing, laundry and car washes, etc.

#### **EQUIPMENT:**

- Grundfos® CM 1-10 pump
- 300 psi membrane housing
- BB20 sediment prefilter
- Electrical panel with controller
- Danfoss solenoid valves
- · Piping, instrumentation
- · Steel frame
- · Carton crate

#### **KEY FEATURES**

- OC5000 controller
- · Easy to use thanks to smart architecture
- Modularized architecture for adding permeate flushing or raw water blending assembly to the system
- Grundfos worldwide guarantee
- CE marked and confirmed to be safe in accordance with EC New Approach Directives

#### **OPTIONS**

- Filmtec™ XLE-4040 / LCLE-4040 or Ecosoft ELP-4040 membrane
- Dosing pump for antiscalant
- Versatile set for raw water blending (30...240 L/h) or permeate flushing
- Break tank c/w forward feed

#### **PHYSICAL PARAMETERS:**

Influent water, concentrate, permeate	G ½"	
Antiscalant dosing port	G ½"	
Permeate flushing input port	G ½"	
Approx. weight (bare system / crate)	55 kg	80 kg
Dimensions (bare system, $W \times D \times H$ )	0.55 × 0.42 × 1.50 m	
Dimensions (crate, $W \times D \times H$ )	0.60 × 0.50 × 1.65 m	



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### PROFESSIONAL EPS MO6500 4" REVERSE OSMOSIS SYSTEM

Code	Product	Flow rate, L/h (GPH)	Membranes*	Pieces on pallet
M06500TP5	EPS M06500 RO System	200–300 (50–80)	1/40 x 40	4

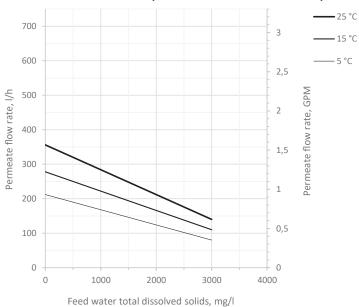
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	250 L/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	3000 mg/L
Influent flow demand	320400 L/h (service)
	15002000 L/h (rinse)
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	230 V, 50 Hz (1 ph)
Electrical power	1 kW
Prefilter rating	5 μm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

#### MO6500 FLOW CAPACITY (WITH XLE-4040 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

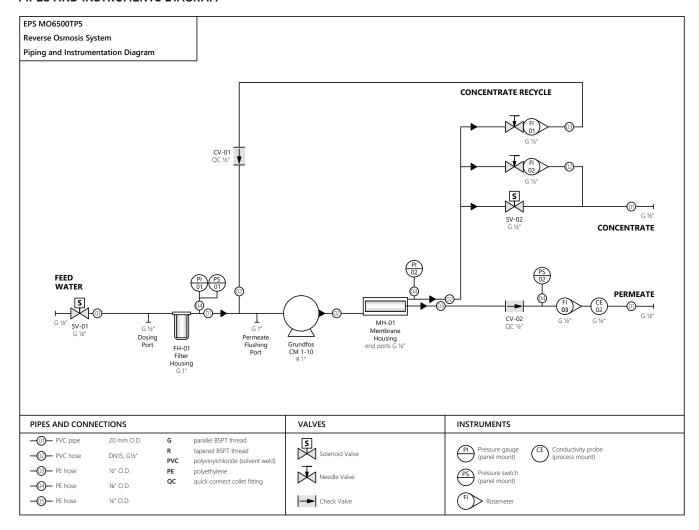
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-4040 membranes

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

## **PROFESSIONAL**

## EPS MO12000 4" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Steam boilers, heating and cooling circuits, breweries and beverage production, livestock and poultry farms, glass manufacturing, laundry and car washes etc.

#### **EQUIPMENT:**

- Grundfos® CM 1-10 pump
- 300 psi membrane housings
- BB20 sediment prefilter
- · Electrical panel with controller
- Danfoss solenoid valves
- · Piping, instrumentation
- · Steel frame
- · Carton crate

#### **KEY FEATURES**

- OC5000 controller
- · Easy to use thanks to smart architecture
- Modularized architecture for adding permeate flushing or raw water blending assembly to the system
- Grundfos worldwide guarantee
- CE marked and confirmed to be safe in accordance with EC New Approach Directives

#### **OPTIONS**

- Filmtec™ XLE-4040 / LCLE-4040 or Ecosoft ELP-4040 membrane
- Dosing pump for antiscalant
- Versatile set for raw water blending (30...240 L/h) or permeate flushing
- Break tank c/w forward feed

#### PHYSICAL PARAMETERS

Influent water, concentrate, permeate	G ½"	
Antiscalant dosing port	G ½"	
Permeate flushing input port	G ½"	
Approx. weight (bare system / crate)	60 kg	85 kg
Dimensions (bare system, $W \times D \times H$ )	0.55 × 0.42 × 1.50 m	
Dimensions (crate, $W \times D \times H$ )	0.60 × 0.50 × 1.65 m	



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### PROFESSIONAL EPS MO12000 4" REVERSE OSMOSIS SYSTEM

Code	Product	Flow rate, L/h (GPH)	Membranes*	Pieces on pallet
M012000TP5	EPS M012000 R0 System	400–550 (100–150)	2/40 x 40	4

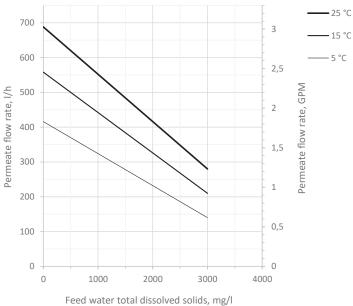
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	500 L/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	3000 mg/L
Influent flow demand	650800 L/h (service)
	15002000 L/h (rinse)
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	230 V, 50 Hz (1 ph)
Electrical power	1 kW
Prefilter rating	5 μm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

#### MO12000 FLOW CAPACITY (WITH XLE-4040 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

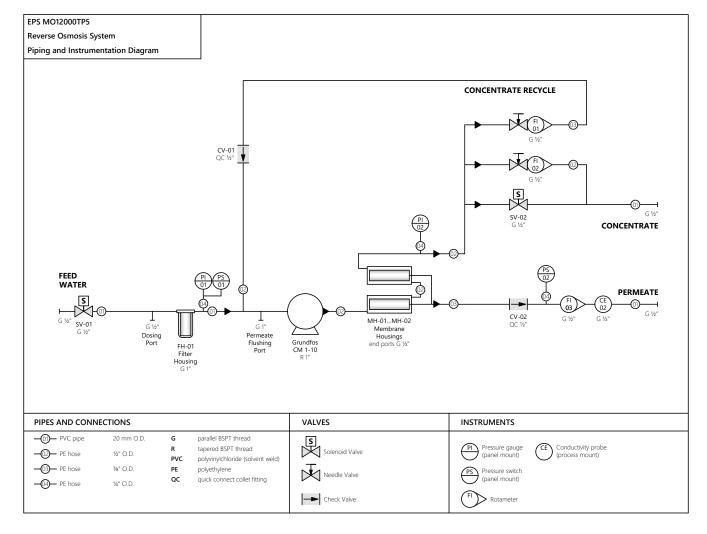
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-4040 membranes

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

## **PROFESSIONAL**

## EPS MO24000 4" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Steam boilers, heating and cooling circuits, breweries and beverage production, livestock and poultry farms, glass manufacturing, laundry and car washes etc.

#### **EQUIPMENT:**

- Grundfos® CM 3-14 pump
- 300 psi membrane housings
- BB20 sediment prefilter
- · Electrical panel with Ecosoft controller
- Danfoss solenoid valves
- · Piping, instrumentation
- Steel frame
- · Carton crate

#### **KEY FEATURES**

- OC5000 controller
- · Easy to use thanks to smart architecture
- Modularized architecture for adding permeate flushing or raw water blending assembly to the system
- Grundfos worldwide guarantee
- CE marked and confirmed to be safe in accordance with EC New Approach Directives

#### **OPTIONS**

- Filmtec™ XLE-4040 / LCLE-4040 or Ecosoft ELP-4040 membrane
- · Dosing pump for antiscalant
- Versatile set for raw water blending (120...1080 L/h) or permeate flushing
- Break tank c/w forward feed

#### PHYSICAL PARAMETERS

Influent water, concentrate, permeate	G 1"	
Antiscalant dosing port	G ½"	
Permeate flushing input port	G 1"	
Raw water blending port	G 3/8"	
Approx. weight (bare system / crate)	110 kg	150 kg
Dimensions (bare system, $W \times D \times H$ )	0.70 × 0.60 × 1.50 m	
Dimensions (crate, $W \times D \times H$ )	1.00 × 0.75 × 1.90 m	



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### PROFESSIONAL EPS MO24000 4" REVERSE OSMOSIS SYSTEM

Code	Product	Flow rate, L/h (GPH)	Membranes*	Pieces on pallet
M024000TP5	EPS MO24000 RO System	1000–1200 (250–330)	4/40 x 40	1

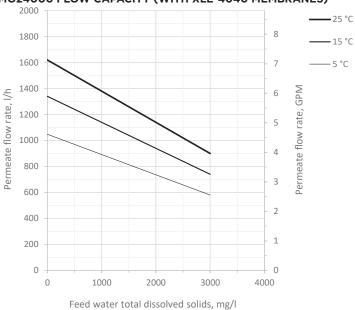
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	1000 L/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	3000 mg/L
Influent flow demand	13001500 L/h (service)
	30004000 L/h (rinse)
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	230 V, 50 Hz (1 ph)
Electrical power	2 kW
Prefilter rating	5 μm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

#### MO24000 FLOW CAPACITY (WITH XLE-4040 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

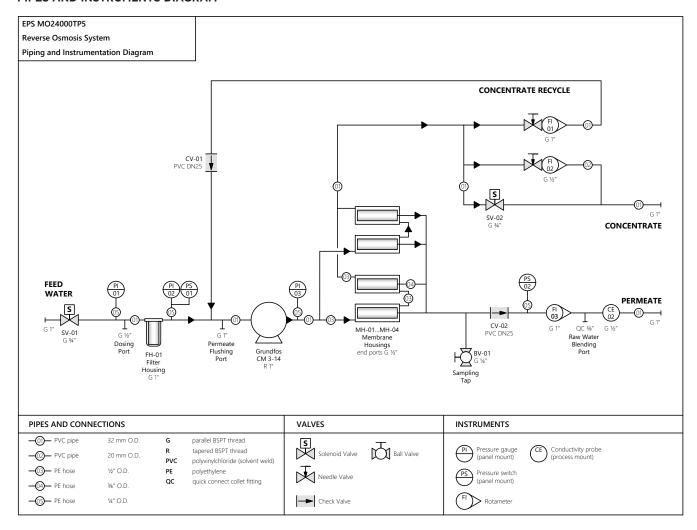
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-4040 membranes

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

## **PROFESSIONAL**

## EPS MO36000 4" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Steam boilers, heating and cooling circuits, breweries and beverage production, livestock and poultry farms, glass manufacturing, laundry, car washes and greenhouses etc.

#### **EQUIPMENT:**

- Grundfos® CM 3-14 pump
- 300 psi membrane housings
- BB20 sediment prefilter
- Electrical panel with controller
- Danfoss solenoid valves
- · Piping, instrumentation
- Steel frame
- · Carton crate

#### **KEY FEATURES**

- OC5000 controller
- · Easy to use thanks to smart architecture
- Modularized architecture for adding permeate flushing or raw water blending assembly to the system
- Grundfos worldwide guarantee
- CE marked and confirmed to be safe in accordance with EC New Approach Directives

#### **OPTIONS**

- Filmtec™ XLE-4040 / LCLE-4040 or Ecosoft ELP-4040 membrane
- · Dosing pump for antiscalant
- Versatile set for raw water blending (120...1080 L/h) or permeate flushing
- Break tank c/w forward feed

#### PHYSICAL PARAMETERS

Influent water, concentrate, permeate	G 1"	
Antiscalant dosing port	G ½"	
Permeate flushing input port	G 1"	
Raw water blending port	G 3/8"	
Approx. weight (bare system / crate)	130 kg	170 kg
Dimensions (bare system, $W \times D \times H$ )	$0.90 \times 0.60 \times 1.50 \text{ m}$	
Dimensions (crate, $W \times D \times H$ )	1.20 × 0.75 × 1.90 m	



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### PROFESSIONAL EPS MO36000 4" REVERSE OSMOSIS SYSTEM

Code	Product	Flow rate, L/h (GPH)	Membranes*	Pieces on pallet
M036000TP5	EPS MO36000 RO System	1400–1600 (350–420)	6/40 x 40	1

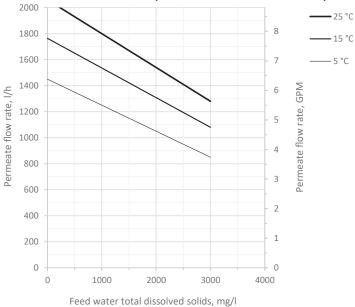
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	1500 L/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	3000 mg/L
Influent flow demand	20002500 L/h (service)
	30004000 L/h (rinse)
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	230 V, 50 Hz (1 ph)
Electrical power	2 kW
Prefilter rating	5 μm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

#### MO36000 FLOW CAPACITY (WITH XLE-4040 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

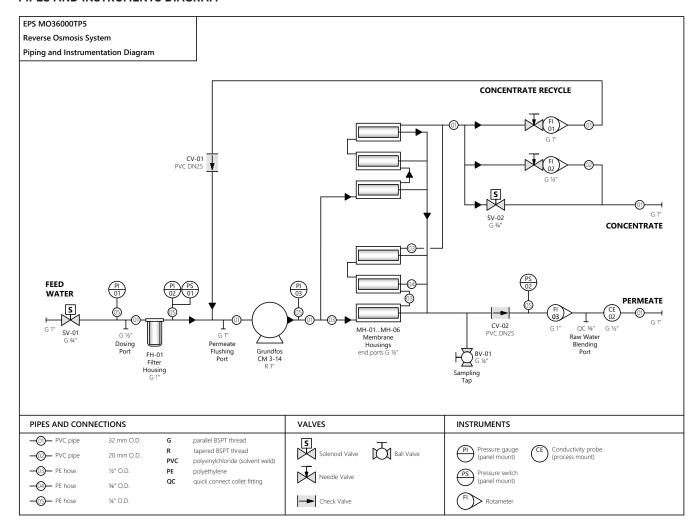
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-4040 membranes

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

## **COST EFFECTIVE**

## EPS MO5000 4" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Steam boilers, heating and cooling circuits, breweries and beverage production, livestock and poultry farms, glass manufacturing, laundry and car washes etc.

#### **EQUIPMENT:**

- Grundfos® CM 1-10 pump
- 300 psi membrane housing
- $2.5 \times 10$ " sediment prefilter
- Electrical panel with controller
- · Danfoss solenoid valve
- Piping, instrumentation
- Steel frame
- · Wooden crate

#### **KEY FEATURES**

- · OC5000 controller
- Saves up to 55% of space\*
- Easy to use thanks to smart architecture
- Grundfos worldwide guarantee
- CE marked and confirmed to be safe in accordance with EC New Approach Directives
  - \* Compared to MO6500

#### **OPTIONS**

- Filmtec™ XLE-4040 / LCLE-4040 or Ecosoft ELP-4040 membrane
- Break tank c/w forward feed

#### PHYSICAL PARAMETERS

Influent water, concentrate, permeate	G ½"
Approx. weight (bare system / crate)	45 kg 60 kg
Dimensions (bare system, $W \times D \times H$ )	0.29 × 0.36 × 1.48 m
Dimensions (crate, $W \times D \times H$ )	0.3 × 0.4 × 1.65 m



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### EPS MO5000 4" REVERSE OSMOSIS SYSTEM

Code	Product	Flow rate, L/h (GPH)	Membranes*	Pieces on pallet
M05000TP5	EPS M05000 RO System	200–300 (50–80)	1/40 x 40	9

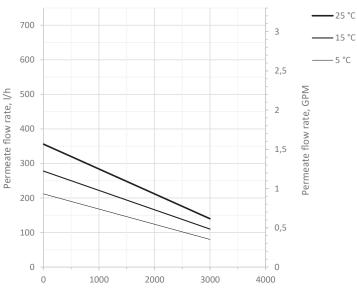
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	250 L/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	3000 mg/L
Influent flow demand	320400 L/h (service)
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	230 V, 50 Hz (1 ph)
Electrical power	1 kW
Prefilter rating	5 μm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

#### MO5000 FLOW CAPACITY (WITH XLE-4040 MEMBRANE)



Feed water total dissolved solids, mg/l

Permeate flow rates are calculated under the following conditions:

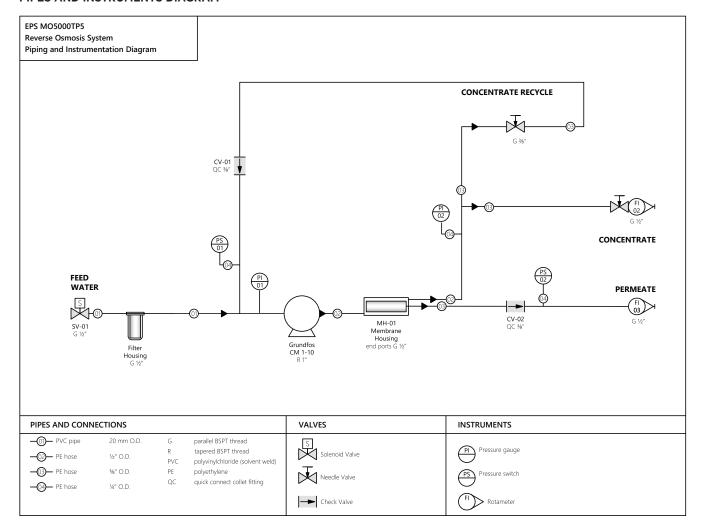
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-4040 membranes

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

## **COST EFFECTIVE**

## EPS MO10000 4" REVERSE OSMOSIS SYSTEM

#### **APPLICATIONS**

Steam boilers, heating and cooling circuits, breweries and beverage production, livestock and poultry farms, glass manufacturing, laundry and car washes etc.

#### **EQUIPMENT:**

- Grundfos® CM 1-10 pump
- 300 psi membrane housing
- $2.5 \times 10$ " sediment prefilter
- Electrical panel with controller
- · Danfoss solenoid valve
- Piping, instrumentation
- Steel frame
- · Wooden crate

#### **KEY FEATURES**

- OC5000 controller
- Saves up to 55% of space\*
- Easy to use thanks to smart architecture
- Grundfos worldwide guarantee
- CE marked and confirmed to be safe in accordance with EC New Approach Directives
  - \* Compared to MO12000

#### **OPTIONS**

- Filmtec™ XLE-4040 / LCLE-4040 or Ecosoft ELP-4040 membranes
- Break tank c/w forward feed

#### PHYSICAL PARAMETERS

Influent water, concentrate, permeate	G ½"	
Approx. weight (bare system / crate)	50 kg	65 kg
Dimensions (bare system, $W \times D \times H$ )	0.29 × 0.30	6 × 1.48 m
Dimensions (crate, $W \times D \times H$ )	0.3 × 0.4 ×	1.65 m



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### **EPS MO10000 4" REVERSE OSMOSIS SYSTEM**

Code	Product	Flow rate, L/h (GPH)	Membranes*	Pieces on pallet
M010000TP5	EPS M010000 R0 System	400–550 (100–150)	2/40 x 40	9

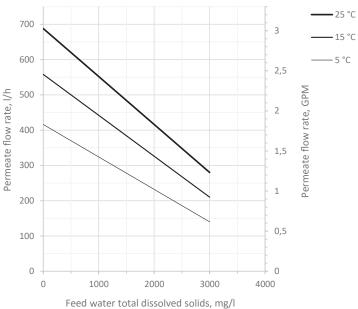
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	500 L/h
Permeate recovery <sup>2</sup>	75%
Maximum TDS	3000 mg/L
Influent flow demand	650800 L/h (service)
Operating pressure	812 bar
Maximum pressure	14 bar
Electrical requirements	230 V, 50 Hz (1 ph)
Electrical power	1 kW
Prefilter rating	5 μm

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

#### MO10000 FLOW CAPACITY (WITH XLE-4040 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

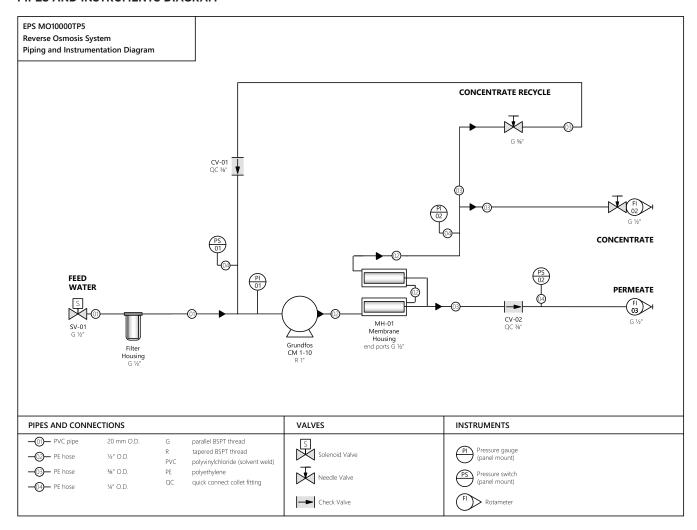
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-4040 membranes

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

## REVERSE OSMOSIS SYSTEM EPS MO20000

#### **APPLICATIONS**

Steam boilers, heating and cooling circuits, breweries and beverage production, livestock and poultry farms, glass manufacturing, laundry, car washes and greenhouses etc.

#### **EQUIPMENT:**

- Grundfos® CR 3-15 pump
- 300 psi membrane housing
- Electrical panel with controller
- · Danfoss solenoid valve
- · Piping, instrumentation
- Steel frame
- · Wooden crate

#### **KEY FEATURES**

- Saves of space, in 2 times\*
- Saves up to 43% of energy\*
- · Original design
- Easy to use thanks to smart architecture
- OC5000 controller
- Grundfos worldwide guarantee
- CE marked and confirmed to be safe in accordance with EC New Approach Directives
  - \* Compared to MO24000

PHYSICAL PARAMETERS

#### **OPTIONS**

• Filmtec™ XLE-4040 / LCLE-4040 or Ecosoft ELP-4040 membranes

Influent water	G ¾"	
Concentrate	G 1/2"	
Permeate	G 1"	
Approx. weight (bare system / crate)	90 kg	95 kg
Dimensions (bare system, $W \times D \times H$ )	0.495 × 0.395 × 1.48 m	
Dimensions (crate, $W \times D \times H$ )	$0.5 \times 0.4 \times 1.5 \text{ m}$	



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### EPS MO20000 4" REVERSE OSMOSIS SYSTEM

Code	Product	Flow rate, L/h (GPH)	Membranes*	Pieces on pallet
M020000TP5	EPS M020000 R0 System	1000—1200 (250—330)	4/40 x 40	6

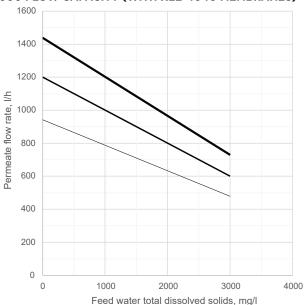
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



1000 L/h
75%
3000 mg/L
13001500 L/h
812 bar
14 bar
230 V, 50 Hz (1 ph)
1.4 kW

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

#### MO20000 FLOW CAPACITY (WITH XLE-4040 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

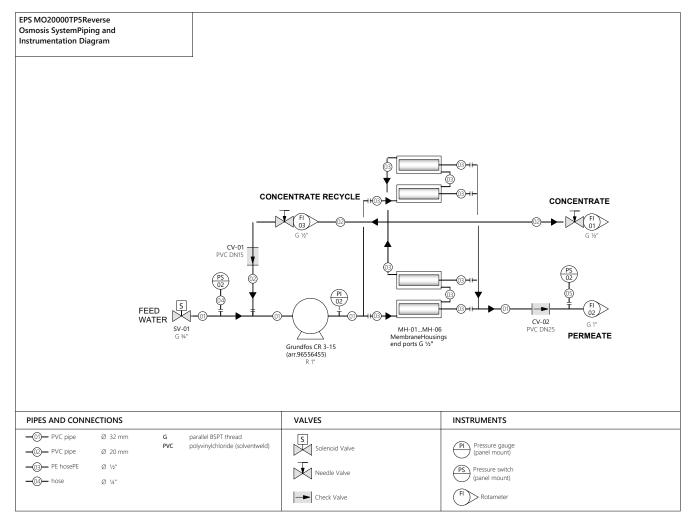
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-4040 membranes

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

## REVERSE OSMOSIS SYSTEM EPS MO30000

#### **APPLICATIONS**

Steam boilers, heating and cooling circuits, breweries and beverage production, livestock and poultry farms, glass manufacturing, laundry, car washes and greenhouses etc.

#### **EQUIPMENT:**

- Grundfos® CR 3-15 pump
- 300 psi membrane housing
- Electrical panel with controller
- · Danfoss solenoid valve
- Piping, instrumentation
- · Steel frame
- · Wooden crate

#### **KEY FEATURES**

- Space saving, in 2.65 times
- Saves up to 43% of energy
- Original design
- Easy to use, due to smart architecture
- OC5000 controller
- Grundfos worldwide guarantee
- CE marked and confirmed to be safe in accordance with EC New Approach Directives
  - \* Compared to MO24000

**PHYSICAL PARAMETERS** 

#### **OPTIONS**

• Filmtec<sup>™</sup> XLE-4040 / LCLE-4040 or Ecosoft ELP-4040 membranes

### Filmtec: XLE-4040 / LCLE-4040 or Ecosoft ELP-4040 membranes

Influent water	G ¾"	
Concentrate	G ½"	
Permeate	G 1"	
Approx. weight (bare system / crate)	95 kg	100 kg
Dimensions (bare system, $W \times D \times H$ )	0.495 × 0.395 × 1.48 m	
Dimensions (crate, $W \times D \times H$ )	0.5 × 0.4 × 1.5 m	



EPS reserves the right to amend the product's system architecture without materially affecting functionality or usability

#### **EPS MO20000 4" REVERSE OSMOSIS SYSTEM**

Code	Product	Flow rate, L/h (GPH)	Membranes*	Pieces on pallet
M030000TP5	EPS M030000 R0 System	1400–1600 (350–420)	6/40 x 40	6

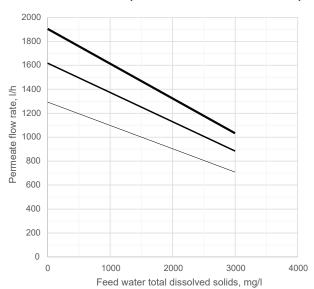
<sup>\*</sup> Membranes are not included. Select membrane according to performance requirements. Refer to Membrane Selection Sheet, pg 69-71.



Permeate capacity <sup>1</sup>	1500 L/h		
Permeate recovery <sup>2</sup>	75%		
Maximum TDS	3000 mg/L		
Influent flow demand	20002500 L/h		
Operating pressure	812 bar		
Maximum pressure	14 bar		
Electrical requirements	230 V, 50 Hz (1 ph)		
Electrical power	1.4 kW		

<sup>&</sup>lt;sup>1</sup> depends on feed water TDS, temperature, and permeate recovery — see graph on the right

#### MO30000 FLOW CAPACITY (WITH XLE-4040 MEMBRANES)



Permeate flow rates are calculated under the following conditions:

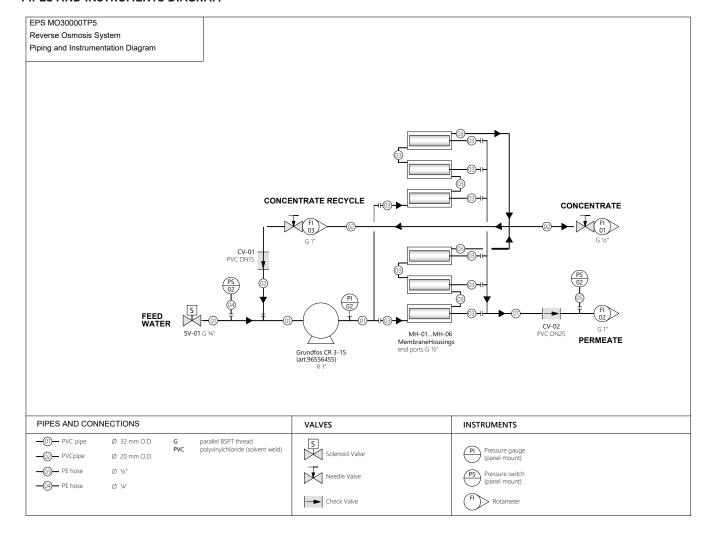
• 2 bar influent water pressure

• 0 bar backpressure in the permeate line

• fresh membranes

• XLE-4040 membranes

#### PIPES AND INSTRUMENTS DIAGRAM



<sup>&</sup>lt;sup>2</sup> for low scaling/fouling water

#### INSTALLATION OF THE ASSEMBLY FOR WATER BLENDING

## VERSATILE SET FOR RAW WATER BLENDING (30...240 L/H) OR PERMEATE FLUSHING FOR EPS MO6500, MO12000 4" RO SYSTEMS

#### **APPLICATIONS**

This product is a dual purpose retrofittable assembly for MO6500 and MO12000 reverse osmosis systems.

When set up for water blending, the product allows to blend water from any stage of the water treatment process to the RO permeate. The product can also be set up for permeate flushing of membranes in the following cases:

- Insufficient supply water flow capacity for normal membrane flush
- Longer membrane service life before CIP is required, especially on difficult feed water analysis
- Supply water treatment process can be sized to a smaller flow capacity absent the peak flow demand during membrane flush

#### **COMPONENTS:**

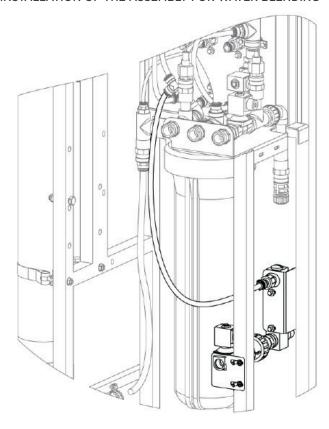
- · Solenoid valve
- 30...240 L/h rotameter
- Piping assembly
- Mounting bracket
- Installation and use manual

#### **KEY FEATURES:**

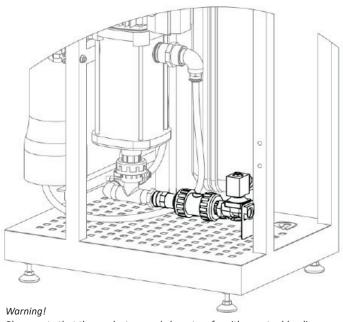
- Quick and easy installation
- Possibility of additional installation if necessary
- Detailed instructions on connecting

#### PHYSICAL PARAMETERS

Connection port size	1/2"
Approx. weight (packaged)	1.5 kg
Dimensions $(W \times D \times H)^1$	0.38 × 0.30 × 0.23 m
<sup>1</sup> Dimensions may vary ± 5%	



#### INSTALLATION OF THE ASSEMBLY FOR PERMEATE FLUSHING



Please note that the product can only be set up for either water blending or permeate flushing, but not both!

The set is delivered as a separate product to be fitted on an RO system during installation / startup.

#### VERSATILE SET FOR RAW WATER BLENDING OR PERMEATE FLUSHING IN EPS MO6500, MO12000 4" RO SYSTEMS

Code	Product	Flow rate	Connection port type
PIM0612*	EPS PIMO612	30-240 L/h	G ½2" female

<sup>\*</sup> Not applicable for Standard series



## **VERSATILE SET FOR RAW WATER BLENDING** (120...1080 L/H) OR PERMEATE FLUSHING FOR **EPS MO24000, MO36000** 4" RO SYSTEMS

#### **APPLICATIONS**

This product is a dual purpose retrofittable assembly for MO24000 and MO36000 reverse osmosis systems.

When set up for water blending, the product allows to blend water from any stage of the water treatment process to the RO permeate. The product can also be set up for permeate flushing of membranes in the following cases:

- Insufficient supply water flow capacity for normal membrane flush
- Longer membrane service life before CIP is required, especially on difficult feed water analysis
- Supply water treatment process can be sized to a smaller flow capacity absent the peak flow demand during membrane flush.

#### **COMPONENTS:**

- Solenoid valve
- 120...1080 L/h rotameter
- · Piping assembly
- · Mounting bracket
- · Installation and use manual

#### **KEY FEATURES:**

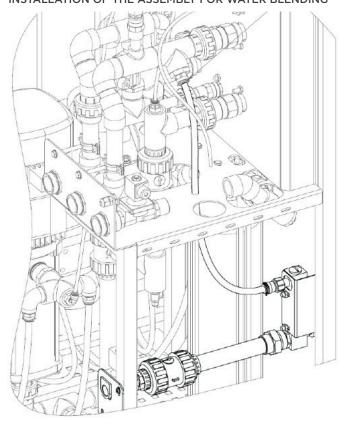
- Quick and easy installation
- Retrofittable to operational systems
- · Installation and use manual

#### **PHYSICAL PARAMETERS**

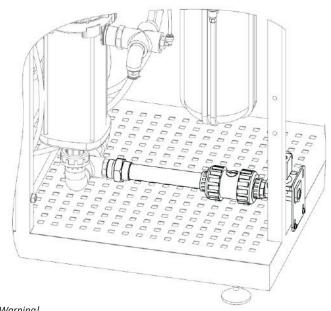
Connection port size	3/4"
Approx. weight (packaged)	2.5 kg
Dimensions $(W \times D \times H)^1$	0.38 × 0.30 × 0.23 m

<sup>&</sup>lt;sup>1</sup> Dimensions may vary ± 5%

#### INSTALLATION OF THE ASSEMBLY FOR WATER BLENDING



#### INSTALLATION OF THE ASSEMBLY FOR PERMEATE FLUSHING



#### Warning!

Please note that the product can only be set up for either water blending or permeate flushing, but not both!

The set is delivered as a separate product to be fitted on an RO system during installation / startup.

#### VERSATILE SET FOR RAW WATER BLENDING OR PERMEATE FLUSHING IN EPS MO24000, MO36000 4" RO SYSTEMS

Code	Product	Flow rate	Connection port type
PIM02436*	EPS PIMO2436	120-1080 L/h	G ¾" female

<sup>\*</sup> Not applicable for Standard series

### **RO MEMBRANES**

Code/Product	Description
ELP4040	Ecosoft 4" ELP-4040
XLE4040	Dow Filmtec™ 4″ XLE-4040
LCLE4040	Dow Filmtec™ 4″ LCLE-4040
ELP8040	Ecosoft 8" ELP-8040
XLE440	Dow Filmtec™ 8″ XLE-440
ECOPRO440	Dow Filmtec™ 8″ ECO PRO-440

### **CIP UNITS FOR EPS MO SYSTEMS**

Code/Product	Description	
CIPSEP4	EPS CIP unit for 2.5", 4" membranessystems	
CIPSEP	EPS CIP unit for 8" membranes systems (for MO2 to MO4)	
CIPSEP616	EPS CIP unit for 8" membranes systems (for MO6 to MO16)	
CIPSEP2030	EPS CIP unit for industrial MO systems (MO20 to MO30)	

#### DOSING PUMP KITS

#### **APPLICATIONS:**

Dosing water treatment chemicals for reverse osmosis, ultrafiltration, heating/cooling circuits, boiler feed water, process water, CIP systems, water remineralization, and other additives

#### **KEY FEATURES:**

- Simple and reliable design (solenoid pump)
- Built-in electrical protection against power surges and overvoltage
- Chemical tank for maximum chemical compatibility
- High accuracy with low flow rates

#### **MAIN COMPONENTS:**

- · Dosing pump
- Suction valve with foot filter and level probe
- · Injection valve
- · Pack of hoses
- · Chemical tank with mounting bracket
- · 500 mL graduated cylinder
- Water meter with pulse output (proportional dosing pumps only)



- Continuous chemical injection
- Suitable for high flow applications
- High wear resistance in demanding conditions
- High precision in a broad flow control range (logarithmic control scale)

#### **BENEFITS:**

- · Accuracy and ease of setting
- Working pressure up to 10 bar
- Flow rate up to 6 L/h
- Low noise level
- Graphic display and text menu



#### DOSING PUMP KITS

Code	Product	Dosing pump max capacity	Chemical tank / pulse meter (if included)
D100660	EMEC FACO basic dosing pump set (no meter connectivity)	0.6 L/h @ up to 10 bar	60 L/—
99135150-60BASIC	Grundfos DDC 6—10 basic dosing pump set		60 L / —
99135150-120BASIC	without pulse meter	601/h@up to 10 hor	130 L / —
99135150-60-25BASIC	Grundfos DDC 6—10 basic dosing pump set	6.0 L/h @ up to 10 bar	60 L / DN 25
99135150-120-40BASIC	with pulse meter		130 L / DN 40



Our 4" membranes are intended for use in the treatment of brackish water in low pressure systems.

With a large active surface area, combined with high rejection rates, our 4" membranes are suitable for use in variable flow and pressure conditions, ensuring a consistently high quality permeate.

Our 4" membranes are most suited to MO5000, MO10000, MO20000, MO30000, MO6500, MO12000, MO24000, MO36000 models.

## **APPLICATIONS**



CAR WASH



**BOILER FEED** 



DISTILLERY



**B&B/HOTELS** 



**BREWERY** 



DAIRY AND MEAT PROCESSING



**DATA CENTRES** 



**AGRICULTURE** 



HEALTHCARE & LABORATORIES



HORECA (HOTELS, RESTAURANTS & CATERING)



**DOMESTIC HOUSES** 



DAIRY/FOOD & BEVERAGE

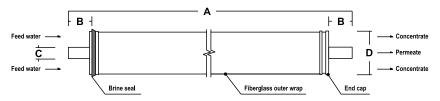


#### **KEY FEATURES**

Product	Brand	Description		
XLE-4040	Dow Filmtec	XLE-4040 membranes offer better system performance and economics by operating at very low applied pressure. The XLE membrane, made with a patented technology, provides consistent and reliable system performance.		
LC LE-4040 delivers high quality water and high salt rejection at low pressure in harsh water condition.  DuPont's innovative, proprietary technology for low energy applications.		LC LE-4040 delivers high quality water and high salt rejection at low pressure in harsh water conditions, using DuPont's innovative, proprietary technology for low energy applications.		
ELP-4040	Ecosoft	Basic ELP-4040 is intended for purification of tap water in low pressure systems. The active surface area, together with high rejection rates allow the membranes to be used in variable pressure and flow conditions without reducing permeate quality.		

The results outlined in the table below show different types of membrane performance when tested on the model MO6500 under the same test conditions and using the same feed water quality.

M06500		RO membrane			
		ELP4040	XLE4040	LC LE 4040	
Units Feed water			Permeate		
Inlet Pressure	Bar	-	10	10	10
Temperature	°C	-	12	12	12
Capacity	l/h	-	190	240	220
TDS	mg/l	1,429.2	51.8	57.3	30.7
N03-	mg/l	180.0	24.7	32.7	9.3
Boron	mg/l	0.7	0.5	0.4	0.4
Mg+2	mg/l	73.3	1.1	0.4	1.0
Ca+2	mg/l	225.6	3.3	2.1	3.1
K+	mg/l	6.0	0.2	0.3	0.2
Na+	mg/l	61.9	8.8	12.5	3.4
CI-	mg/l	78.6	1.2	0.7	1.1
S04-2	mg/l	415.5	4.5	2.2	3.2
HC03-	mg/l	387.4	7.5	5.9	9.0



#### MEMBRANE DIMENSIONS

MEMBRANE DIMENSIONS			
	Product		
	XLE-4040	LCLE-4040	ELP-4040
A	1016 mm	1016 mm	1016 mm
В	26.7 mm	26.7 mm	26.7 mm
C	19 mm	19 mm	19 mm
D	99 mm	99 mm	99 mm
OPERATING AND CLEANING LIMITS			
	XLE-4040	LCLE-4040	ELP-4040
Maximum operating temperature	45 °C	45 °C	45 °C
Maximum operating pressure	41 bar	41 bar	41 bar
Maximum element pressure drop	1 bar	1 bar	1 bar
Continuous operation pH range	2 – 11	2 – 11	3 – 11
Short term (cleaning) pH range	1 – 13	1 – 13	1.5 – 12
Maximum chlorine concentration	0.1 mg/l	0.1 mg/l	0.1 mg/l
Maximum Silt Density Index	5	5	5



Our 8" membranes are intended for the treatment of brackish water in low pressure systems.

With a large active surface area, combined with high rejection rates, our 8" membranes are suitable for use in variable flow and pressure conditions, ensuring a consistently high quality permeate.

Our 8" membranes are most suited to MO2-MO48 models.

## **APPLICATIONS**



CAR WASH



**BOILER FEED** 



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DAIRY AND MEAT PROCESSING



**DATA CENTRES** 



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HORECA (HOTELS, RESTAURANTS & CATERING)



DOMESTIC HOUSES



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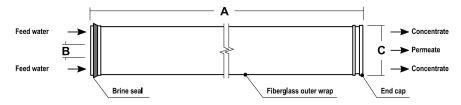


#### **KEY FEATURES**

Product	Brand	Description
XLE-440	Dow Filmtec	XLE-440 elements offer better system performance and economics by operating at very low applied pressure.  XLE membrane, made with a patented technology, provides consistent and reliable system performance.
ECO PRO-440	Dow Filmtec	ECO PRO-440 Ideal for reverse osmosis plant managers and operators dealing with controlled pre-treatment waters and seeking advanced membrane treatment with high water purity and low energy consumption.
ELP-8040-400	Ecosoft	Basic ELP-8040-400 are intended for purification of tap water in low pressure systems. Active surface area together with high rejection rates allows to use the membranes in variable pressure and flow conditions without deterioration of permeate quality.

The results outlined in the table below show different types of membrane performance when tested on the model MO1 under the same test conditions and using the same feed water quality.

M01			RO membrane		
	M01		ELP8040 XLE440		EcoPro440
	Units	Feed water		Permeate	
Inlet Pressure	Bar	-	10	10	10
Temperature	°C	-	12	12	12
Capacity	l/h	-	930	1,140	930
TDS	mg/l	1,429.2	50.6	57.0	19.2
N03-	mg/l	180.0	24.1	32.4	3.9
Boron	mg/l	0.7	0.5	0.4	0.5
Mg+2	mg/l	73.3	1.1	0.4	0.2
Ca+2	mg/l	225.6	3.2	2.1	0.9
K+	mg/l	6.0	0.2	0.3	0.5
Na+	mg/l	61.9	8.6	12.4	3.6
CI-	mg/l	78.6	1.2	0.7	0.6
S04-2	mg/l	415.5	4.4	2.3	1.2
HC03-	mg/l	387.4	7.3	6.0	7.9



#### **MEMBRANE DIMENSIONS**

	Product			
	XLE-440 ECO PRO-440 ELP-8040-400			
A	1016 mm	1016 mm	1016 mm	
В	38 mm	29 mm	29 mm	
C	201 mm	201 mm	201 mm	

#### **OPERATING AND CLEANING LIMITS**

	XLE-440	ECO PRO-440	ELP-8040-400
Maximum operating temperature	45 °C	45 °C	45 °C
Maximum operating pressure	41 bar	41 bar	41 bar
Maximum element pressure drop	1 bar	1 bar	1 bar
Continuous operation pH range	2 – 11	2 – 11	3 – 11
Short term (cleaning) pH range	1 – 13	1 – 13	1.5 – 12
Maximum chlorine concentration	0.1 mg/l	0.1 mg/l	0.1 mg/l
Maximum Silt Density Index	5	5	5



## **CHEMICALS**

We can provide a variety of high quality anti-scalants which can be used with your RO treatment system to prevent crystal formation or scaling on the membranes.

Membrane flushing reagents are also available to assista with your system's ongoing maintenance when in operation.

The chemicals are suitable for the MO5000-30000, MO6500-MO36000 4" RO systems, or the MO2-MO48 8" RO systems.

## **APPLICATIONS**



CAR WASH



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## CHEMICALS FOR REVERSE OSMOSIS SYSTEMS

Chemicals are used for continuous operation of the 4" and 8" reverse osmosis system. Antiscalant is constantly added before systems to prevent scaling on membrane surface. Cleaning chemicals are used periodically to restore membrane surface from fouling and scaling (solids, organic metter, biofilm, etc.) during clean in place operations. Biocides can be used either constantly or as part of a cleaning program to control biofouling in reverse osmosis membranes.

Product	Application	Packaging
Scale Guard 50M02	Multifunctional antiscalant	25 kg
Vitec 5100	Multifunctional antiscalant	20 kg
DC20	RO Membranes acid cleaner	20 kg
BWT OSMOCLEAN A	RO Membranes acid cleaner	20 kg
BWT OSMOCLEAN B	RO Membranes basic cleaner	20 kg
BWT CS-3002	Fast-acting non-oxidative biocide	10 kg
Sodium Hypochlorite, 5% <= C < 16%	Fast-acting oxidative biocide	10 kg

#### **MULTIFUNCTIONAL ANTISCALANTS - SCALE GUARD 50M02 AND VITEC 5100**

EFFECTIVE TO PREVENT SCALING:	Calcium Carbonate     Calcium, Barium, Sulphates	Calcium Fluoride     Silica
USAGE RECOMMENDATIONS:	Dosage	2-5 ml/m3
	Dosing mode	Constant
	Injection form	Pure (diluted if necessary)

#### **RO MEMBRANES ACID CLEANER BWT OSMOCLEAN A**

EFFECTIVE TO REMOVE:	Iron oxides     Calcium and magnesium deposits	• Sludge • Silica
USAGE RECOMMENDATIONS:	Dosage	1% v/v
	Dosing mode	Chemical cleaning once per 3-12 months
	Injection form	Pure or diluted

#### RO MEMBRANES BASIC CLEANER BWT OSMOCLEAN B

EFFECTIVE TO REMOVE:	Biofilm     Sludge	Organic deposits	
USAGE RECOMMENDATIONS:	Dosage	3% v/v	
	Dosing mode	Chemical cleaning once per 3-12 months	
	Injection form	Pure or diluted	

#### **FAST-ACTING NON-OXIDATIVE BIOCIDE BWT CS-3002**

EFFECTIVE TO REMOVE:	Bacteria     Legionella			
USAGE RECOMMENDATIONS:	Dosage 2,5-5 mg/l		30-80 mg/l	80-250 mg/
	Dosing mode Constant		Shock dosing	Chemical cleaning
	Injection form	Pure or diluted	Pure or diluted	Pure or diluted

#### SODIUM HYPOCHLORITE 5% <=C < 16%

EFFECTIVE TO REMOVE:	Bacteria     Algae	• Legionella
USAGE RECOMMENDATIONS:	Dosage	150-500 mg/l
	Dosing mode	Chemical cleaning
	Injection form	Pure



## **APPENDICES**

Additional technical specifications

## **APPLICATIONS**



CAR WASH



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**MICROELECTRONICS** 



POWER GENERATORS

## 8" REVERSE OSMOSIS SYSTEMS





8" RO SYSTEMS

**8" INOX RO SYSTEMS** 

COMPONENTS	PURPOSE	8" RO Systems	8" INOX RO SYSTEMS
Motorized valves (feed water in, flush out)	Smooth start/stop	+	+
Grundfos high-pressure pump	High-energy efficiency (IE4, A+), low noise and vibration	+	+
Controller	Automatic service and fault detection	OC5000	OC5000
Electrical conductivity probe for outlet water		+	+
Languages		EN	EN
Powder coat frame		+	
AISI 304 Stainless steel frame	Long life and durable		+
AISI 316 Stainless steel high pressure line	Can work with the TDS up to 4 500 ppm		+
Sediment filter on board	Remove sediment particles with size more than 5 microns	+	+
Connection ports for dosing pump, permeate flush, raw water blending kits	Permeate flush prolongs membrane service life	+	+
Automatic raw water flushing of the membrane	Longer membrane service life before CIP is required	+	+
Balancing valves (concentrate reject, recycle)		+	+
Pressure switch after sediment filter	«Dry run» control	Adjustable	Adjustable
Pressure switch on permeate line	Switch on/off the RO by the hight pressure on permeate line	+	+
Pressure switch on high pressure line	Membrane protection	+	+
Max. TDS limit of feed water, ppm		≤3 000	≤4 500
Frame mounted casters	Easily moved from location to location		+



## COMMERCIAL RO MO5000TP5, MO6500TP5, MO6500TP6

COST EFFECTIVE PROFESSIONAL IOT ADVANCED

COMPONENTS	PURPOSE	M05000TP5	M06500TP5	M06500TP6
Product flow rate, liter per hour*		200-300	200-300	200-300
Grundfos high-pressure pump	High-energy efficiency (IE4, A+), low noise and vibration	CM110	CM110	CM110
Controller	Automatic service and fault detection	OC5000	OC5000	0C6000
Econnect function	Online access to the RO machine	_	_	+
Electrical conductivity probe for inlet water		_	_	+
Electrical conductivity probe for outlet water		_	+	+
Languages		EN	EN	EN, FR, UA, CZ
Frame		Powder coat	Powder coat	Powder coat
Sediment filter on board	Remove sediment particles with size more than 5 microns	2,5" x 10"	4,5" x 20"	4,5" x 20"
Connection ports for dosing pump, permeate flush, raw water blending kits	Permeate flush prolongs membrane service life	_	+	+
Automatic raw water flushing of the membrane	Longer membrane service life before CIP is required	_	+	+
Recycle adjustment		valve	rotameter	rotameter
Pressure switch after sediment filter	"Dry run" control	Non-adjustable	Adjustable	Adjustable
Pressure switch on permeate line	Switch on/off the RO connected to pressure tank	_	+	+
Max. TDS limit of feed water, ppm		≤3 000	≤3 000	≤3 000
Overall dimensions (Height $\times$ Width $\times$ Depth), meter		$1,48 \times 0,29 \times 0,37$	$1,45 \times 0,54 \times 0,39$	$1,45 \times 0,54 \times 0,39$
Unit net weight (without membrane), kg		45	60	60
Pieces on pallet		9	4	4

<sup>\*</sup> see detailed performance and conditions data in the product catalog

## **COMMERCIAL RO MO10000TP5, MO12000TP5, MO12000TP6**

COST EFFECTIVE PROFESSIONAL IOT ADVANCED

COMPONENTS	PURPOSE	M010000TP5	M012000TP5	M012000TP6
Product flow rate, liter per hour*		400-500	400-500	400-500
Grundfos high-pressure pump	High-energy efficiency (IE4, A+), low noise and vibration	CM110	CM110	CM110
Controller	Automatic service and fault detection	OC5000	OC5000	0C6000
Econnect function	Online access to the RO machine	_	_	+
Electrical conductivity probe for inlet water		_	_	+
Electrical conductivity probe for outlet water		_	+	+
Languages		EN	EN	EN, FR, UA, CZ
Frame		Powder coat	Powder coat	Powder coat
Sediment filter on board	Remove sediment particles with size more than 5 microns	2,5" x 10"	4,5" x 20"	4,5" x 20"
Connection ports for dosing pump, permeate flush, raw water blending kits	Permeate flush prolongs membrane service life	_	+	+
Automatic raw water flushing of the membrane	Longer membrane service life before CIP is required	_	+	+
Recycle adjustment		valve	rotameter	rotameter
Pressure switch after sediment filter	"Dry run" control	Non-adjustable	Adjustable	Adjustable
Pressure switch on permeate line	Switch on/off the RO connected to pressure tank	_	+	+
Max. TDS limit of feed water, ppm		≤3 000	≤3 000	≤3 000
Overall dimensions (Height $\times$ Width $\times$ Depth), meter		$1,48 \times 0,29 \times 0,37$	1,45 × 0,54× 0,39	$1,45 \times 0,54 \times 0,39$
Unit net weight (without membrane), kg		50	70	70
Pieces on pallet		9	4	4

<sup>\*</sup> see detailed performance and conditions data in the product catalog



## **COMMERCIAL RO MO20000TP5, MO24000TP5, MO24000TP6**

**COST EFFECTIVE** 

**PROFESSIONAL** 

**IOT ADVANCED** 







COMPONENTS	PURPOSE	M020000TP5	M024000TP5	M024000TP6
Product flow rate, liter per hour*		800-1000	1000-1200	1000-1200
Grundfos high-pressure pump	High-energy efficiency (IE4, A+), low noise and vibration	CR315	CM314	CM314
Controller	Automatic service and fault detection	OC5000	OC5000	OC6000
Econnect function	Online access to the RO machine	_	_	+
Electrical conductivity probe for inlet water		_	_	+
Electrical conductivity probe for outlet water		_	+	+
Languages		EN	EN	EN, FR, UA, CZ
Frame		Powder coat	Powder coat	Powder coat
Sediment filter on board	Remove sediment particles with size more than 5 microns	_	4.5" x 20"	4.5" x 20"
Connection ports for dosing pump, permeate flush, raw water blending kits	Permeate flush prolongs membrane service life	_	+	+
Automatic raw water flushing of the membrane	Longer membrane service life before CIP is required	_	+	+
Recycle adjustment		rotameter	rotameter	rotameter
Pressure switch after sediment filter	"Dry run" control	Adjustable	Adjustable	Adjustable
Pressure switch on permeate line	Switch on/off the RO connected to pressure tank	+	+	+
Max. TDS limit of feed water, ppm		≤3 000	≤3 000	≤3 000
Overall dimensions (Height $ imes$ Width $ imes$ Depth), meter		$1.50\times0.50\times0.40$	$1.49 \times 0.70 \times 0.58$	$1.49 \times 0.70 \times 0.58$
Unit net weight (without membrane), kg		90	100	100
Pieces on pallet		6	1	1

 $<sup>\</sup>ensuremath{^*}$  see detailed performance and conditions data in the product catalog

## **COMMERCIAL RO MO30000TP5, MO36000TP5, MO36000TP6**

**COST EFFECTIVE** 

**PROFESSIONAL** 

**IOT ADVANCED** 







COMPONENTS	PURPOSE	M030000TP5	M036000TP5	M036000TP6
Product flow rate, liter per hour*		1200-1600	1400-1800	1400-1800
Grundfos high-pressure pump	High-energy efficiency (IE4, A+), low noise and vibration	CR315	CM314	CM314
Controller	Automatic service and fault detection	OC5000	OC5000	0C6000
Econnect function	Online access to the ROmachine	_	_	+
Electrical conductivity probe for inlet water		_	_	+
Electrical conductivity probe for outlet water		_	+	+
Languages		EN	EN	EN, FR, UA, CZ
Frame		Powder coat	Powder coat	Powder coat
Sediment filter on board	Remove sediment particles with size more than 5 microns	_	4,5" x 20"	4,5" x 20"
Connection ports for dosing pump, permeate flush, raw water blending kits	Permeate flush prolongs membrane service life	_	+	+
Automatic raw water flushing of the membrane	Longer membrane service life before CIP is required	_	+	+
Recycle adjustment		rotameter	rotameter	rotameter
Pressure switch after sediment filter	"Dry run" control	Adjustable	Adjustable	Adjustable
Pressure switch on permeate line	Switch on/off the RO connected to pressure tank	+	+	+
Max. TDS limit of feed water, ppm		≤3 000	≤3 000	≤3 000
Overall dimensions (Height $\times$ Width $\times$ Depth), meter		$1,50\times0,50\times0,40$	$1,49 \times 0,87 \times 0,58$	$1,49 \times 0,87 \times 0,58$
Unit net weight (without membrane), kg		95	100	100
Pieces on pallet		6	1	1

 $<sup>\</sup>ensuremath{^*}$  see detailed performance and conditions data in the product catalog



## **FEED WATER QUALITY REQUIREMENTS**

Water quality parameter	Value, max.*
Total dissolved solids	3000 ppm
Hardness	150 mg/L CaCO3
Iron	0.2 mg/L
Manganese	0.05 mg/L
Silicate	20 mg/L
Chemical oxygen demand	4.0 mg O2/L
Residual chlorine	0.1 mg/L
Hydrogen sulfide	none
Total microbial count (TMC)	50 CFU/100 ml
Coliform index	3 MPN/100ml

<sup>\*</sup>The limitations may be exceeded if using antiscalant, oxygen scavenger, or other type of chemical pretreatment



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