Valves, controllers and accessories

Pressure vessels and accessories

Cabinets

Brine tanks

Membranes reverse osmosis and Ultra Filtration

Vessels, accessories, rotary pumps

UV sterilizers and spare parts

Filter housings, cartridges and polyphosphate feeders

Ion exchange resins and filtering media

Residential R.O. components

Italian Family Company

EUROTROL®

WATER TREATMENT COMPONENTS

EUROTROL is an Italian Family Company, leader in the water treatment components. It operating on the international market, in over 50 countries, as distributor of a wide range of components for water treatment systems, both residential and industrial.

The long experience on this job allows us to know thoroughly the reality and requirements of the market and to meet our Customer's needs with customized solution too.

Our business philosophy is based on service, respect and attention to Customers, swiftness in replying and delivering.

EUROTROL does not manufacture complete water treatment systems, this is our Customer's job: we just sell components and solutions.

Kindness, quality, service: we hope to have the opportunity to show you that these are our peculiarities.

EUROTROL®

WATER TREATMENT COMPONENTS

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Valves, controllers and accessories

EUROTROL®
WATER TREATMENT COMPONENTS

Autotrol®
Exclusive distributor for Italy

Autotrol Residential Valves Series 368

- For automatic and residential water softening systems;
- Valve body in NSF listed Noryl plastic material;
- Valve rubber compounded for cold water, NSF listed material;
- Operating flow rate Kv = 3,68;
- Backwash flow rate = 10 lpm @ Δp 1,72 bar;
- Resin volume range = 5 ÷ 25 litres;
- Available with the following controllers:
  - 604 electronic chronometric;
  - 606 electronic volumetric;
- With European transformer 12/230V – 50Hz;
- Accessories (e.g. upper screen, etc.) not included;
- Programmable chronometric regeneration (calendar override) and consumption statistical data memory.

Characteristics	
Pressure vessel connection	Threaded 2 ½ ”- 8 UN male
Brine line connection	Threaded ⅜” BSPT male
Distributor tube O. D. diameter	1,05” (= 27 mm)
Distributor tube length above pressure vessel	± ½” (= ± 13 mm)
Weight (valve + controller)	1,7 kg
Operating pressure	1,38 ÷ 8,27 bar
Water temperature	2°C ÷ 38°C

Ref.	Model	Description	
AB300	368 / 604	VAL.368/604 3/4" M REFILL.14 INJ E DLFC 0.9 GPM 12/230V 50HZ EURO PLUG	
AB301	368 / 604	VAL.368/604 3/4" M REFILL.14 INJ F DLFC 1.20 GPM 12/230V 50HZ EURO PLUG	
AB302	368 / 604	VAL.368/604 3/4" M REFILL.14 INJ G DLFC 1.60 GPM 12/230V 50HZ EURO PLUG	
AB303	368 / 604	VAL.368/604 3/4" M REFILL.14 INJ H DLFC 2.00 GPM 12/230V 50HZ EURO PLUG	
AB400 (*)	368 / 606	VAL.368/606 3/4" M REFILL.14 INJ E DLFC 0.9 GPM 12/230V 50HZ EURO PLUG	
AB401 (*)	368 / 606	VAL.368/606 3/4" M REFILL.14 INJ F DLFC 1.20 GPM 12/230V 50HZ EURO PLUG	
AB402 (*)	368 / 606	VAL.368/606 3/4" M REFILL.14 INJ G DLFC 1.60 GPM 12/230V 50HZ EURO PLUG	
AB403 (*)	368 / 606	VAL.368/606 3/4" M REFILL.14 INJ H DLFC 2.00 GPM 12/230V 50HZ EURO PLUG	
AB500	368 / 606 B	VAL.368/606 3/4" M REF.14 INJ E DLFC 0.9 GPM 12/230V 50HZ EUR P+ BYPASS	
AB501	368 / 606 B	VAL.368/606 3/4" M REF.14 INJ F DLFC 1.20 GPM 12/230V 50HZ EUR P+ BYPASS	
AB502	368 / 606 B	VAL.368/606 3/4" M REF.14 INJ G DLFC 1.60 GPM 12/230V 50HZ EUR P+ BYPASS	
AB503	368 / 606 B	VAL.368/606 3/4" M REF.14 INJ H DLFC 2.00 GPM 12/230V 50HZ EUR P+ BYPASS	

(*) NOTE: It’s not possible to coupling the bypass with a valve shipped without bypass

Autotrol Residential Valves Series 255 with Series 400 Controller

- for automatic and residential water softening systems;
- valve body in NSF listed Noryl plastic material;
- valve rubber compounded for cold water, NSF listed material;
- operating flow rate Kv = 3,4;
- backwash flow rate = 22,7 lpm @ Δp 1,72 bar;
- resin volume range = 5 ÷ 75 litres;
- available with series 400 controller (see 01-03-01-EN data sheet):
  - 460tc electronic chronometric;
  - 460i electronic volumetric;
- with European transformer 12/230V – 50Hz, except models with 450i pulse controller which need separate alimentation 24V – 50Hz;
- adapters and manifold kit not included, to order separately: see 01-04-01-EN and 01-04-05-EN data sheets;
- accessories (e.g. upper screen, etc.) not included.

Characteristics	
Pressure vessel connection	Threaded 2 ½ ”- 8 UN male
Brine line connection	Threaded ¼” NPT male
Distributor tube O. D. diameter	1,05 ” (= 27 mm)
Distributor tube length above pressure vessel	29 ± 3 mm
Weight (valve + controller)	1,8 kg
Operating pressure	1,38 ÷ 8,27 bar
Water temperature	2°C ÷ 38°C

Ref.	Model	Description	
AA310	255 / 460tc	VALV. 255/460tc 59' A-A 07 12/220V 50HZ SYM	
AA311	255 / 460tc	VALV. 255/460tc 59' A-A 08 12/220V 50HZ SYM	
AA313	255 / 460tc	VALV. 255/460tc 118' A-A 08 12/220V 50HZ SYM	
AA315	255 / 460tc	VALV. 255/460tc 118' B-B 10 12/220V 50HZ SYM	

Autotrol Residential Valves Series 255 with Series Logix Controller

- for automatic and residential water softening systems;
- valve body in NSF listed Noryl plastic material;
- valve rubber compounded for cold water, NSF listed material;
- operating flow rate Kv = 3,4;
- backwash flow rate = 22,7 lpm @ ∆p 1,72 bar;
- resin volume range = 5 ÷ 75 litres;
- available with series LOGIX controller (see 01-03-02-EN data sheet):
  - 740 C electronic chronometric;
  - 760 C electronic volumetric;
  - 742 C electronic chronometric programmable;
  - 762 C electronic volumetric programmable;
- with European transformer 12/230V – 50Hz;
- adapters and manifold kit not included, to order separately: see 01-04-01-EN and 01-04-05-EN data sheets;
- accessories (e.g. upper screen, etc.) not included.

Characteristics	
Pressure vessel connection	Threaded 2 ½ ”- 8 UN male
Brine line connection	Threaded ¼” NPT male
Distributor tube O. D. diameter	1,05 ” (= 27 mm)
Distributor tube length above pressure vessel	29 ± 3 mm
Weight (valve + controller)	1,8 kg
Operating pressure	1,38 ÷ 8,27 bar
Water temperature	2°C ÷ 38°C

Ref.	Model	Description	
AA203E	255 / 740C	VALV. 255/740C BW 07 INJ F SYMBOL 12/230V 50HZ EURO PLUG	
AA212E	255 / 740C	VALV. 255/740C BW 10 INJ J SYMBOL 12/230V 50HZ EURO PLUG	
AA212EE	255 / 740C	VALV. 255/740C BW 10 INJ J SYMBOL 12/230V 50HZ ENG. PLUG	
AA101E	255 / 742C	VALV. 255/742C .33 F 07 SYMBOL 12/230V 50HZ EURO PLUG	
AA104E	255 / 742C	VALV. 255/742C .33 J 10 SYMBOL 12/230V 50HZ EURO PLUG	
AC203E	255 / 760C	VALV. 255/760C BW 07 INJ F SYMBOL 12/230V 50HZ EURO PLUG	
AC206E	255 / 760C	VALV. 255/760C BW 08 INJ G SYMBOL 12/230V 50HZ EURO PLUG	
AC209E	255 / 760C	VALV. 255/760C BW 09 INJ H SYMBOL 12/230V 50HZ EURO PLUG	
AC212E	255 / 760C	VALV. 255/760C BW 10 INJ J SYMBOL 12/230V 50HZ EURO PLUG	
AC212EE	255 / 760C	VALV. 255/760C BW 10 INJ J SYMBOL 12/230V 50HZ ENG. PLUG	
AC215E	255 / 760C	VALV. 255/760C BW 12 INJ K SYMBOL 12/230V 50HZ EURO PLUG	
AC218E	255 / 760C	VALV. 255/760C BW 13 INJ L SYMBOL 12/230V 50HZ EURO PLUG	
AC221E	255 / 760C	VALV. 255/760C BW 14 INJ L SYMBOL 12/230V 50HZ EURO PLUG	
AC101E	255 / 762C	VALV. 255/762C .33 F 07 SYMBOL 12/230V 50HZ EURO PLUG	
AC102E	255 / 762C	VALV. 255/762C .33 G 08 SYMBOL 12/230V 50HZ EURO PLUG	
AC104E	255 / 762C	VALV. 255/762C .33 J 10 SYMBOL 12/230V 50HZ EURO PLUG	
AC105E	255 / 762C	VALV. 255/762C .33 K 12 SYMBOL 12/230V 50HZ EURO PLUG	
AC106E	255 / 762C	VALV. 255/762C .33 L 13 SYMBOL 12/230V 50HZ EURO PLUG	

Residential Duplex Systems with Autotrol Valves Series 255 Twin and 764 Controller

- for automatic and residential / commercial water softening systems;
- for twin alternating and twin parallel systems;
- consisting of n.2 valves (one “main” and another one “secondary”) with 764 electronic volumetric (see 01-03-02-EN data sheet);
- with European transformer 12/230V – 50Hz;
- valve body in NSF listed Noryl plastic material;
- valve rubber compounded for cold water, NSF listed material;
- operating flow rate for each tank Kv = 3,4;
- backwash flow rate for each tank = 22,7 lpm @ Δp 1,72 bar;
- resin volume range for each tank = 5 ÷ 75 litres;
- interconnection kit (REF. AV119, see 01-04-01-EN data sheet) and accessories (e.g. upper screen, etc.) not included, to order separately: see 01-04-05-EN data sheet

Characteristics	
Pressure vessel connection	Threaded 2 ½ ”- 8 UN male
Drain line connection	Threaded ½” male, included in interconnection kit
Brine line connection	Threaded ¼” NPT male
Distributor tube O. D. diameter	1,05 ” (= 27 mm)
Distributor tube length above pressure vessel	29 ± 3 mm
Weight (valve + controller)	1,8 kg
Operating pressure	1,38 ÷ 8,27 bar
Water temperature	2°C ÷ 38°C

Ref.	Model	Description	
AF054E	255 / 764 TWIN	VALV. 255/764 TWIN BW 10 INJ J SYMBOL 12/230V 50HZ EURO PLUG	
AF056E	255 / 764 TWIN	VALV. 255/764 TWIN BW 13 INJ L SYMBOL 12/230V 50HZ EURO PLUG	

Autotrol Residential Valves Series 263 with 460tc Controller

- for automatic and residential water filtration systems;
- with 460tc electronic chronometric controller (see 01-03-01-EN data sheet);
- valve body in NSF listed Noryl plastic material;
- valve rubber compounded for cold water, NSF listed material;
- operating flow rate Kv = 5,6;
- backwash flow rate = 75,7 lpm @ ∆p 1,72 bar;
- with European transformer 12/230V – 50Hz;
- adapters and manifold kit not included, to order separately: see 01-04-02-EN and 01-04-05-EN data sheets;
- accessories (ex. upper screen, etc.) not included.

Characteristics	
Pressure vessel connection	Threaded 2 ½ ”- 8 UN male
Drain line connection	Threaded ¾” NPT, male
Distributor tube O. D. diameter	1,05 ” (= 27 mm)
Distributor tube length above pressure vessel	29 ± 3 mm
Weight (valve + controller)	2,00 kg
Pressure vessel connection	Threaded 2 ½ ”- 8 UN male
Operating pressure	1,38 ÷ 8,27 bar
Water temperature	2°C ÷ 38°C

Ref.	Model	Description	
AL060	263 / 460tc	VALV. 263/460tc 118' BW 12 - 12V.50 HZ SYM	

Autotrol Residential Valves Series 268 with Series Logix Controller

- for automatic and residential water softening systems;
- valve body in NSF listed Noryl plastic material;
- valve rubber compounded for cold water, NSF listed material;
- operating flow rate Kv = 5,6;
- backwash flow rate = 75,7 lpm @ ∆p 1,72 bar;
- resin volume range = 30 ÷ 125 litres;
- available with series LOGIX controller (see 01-03-02-EN data sheet):
  - 740 C electronic chronometric;
  - 760 C electronic volumetric;
  - 742 C electronic chronometric programmable;
  - 762 C electronic volumetric programmable;
- with European transformer 12/230V – 50Hz;
- adapters and manifold kit not included, to order separately: see 01-04-02-EN and 01-04-05-EN data sheets;
- accessories (e.g. upper screen, etc.) not included;
- for 268FA/742 and 268FA/762 models see 01-01-10-EN data shee

Characteristics	
Pressure vessel connection	Threaded 2 ½ ”- 8 UN male
Drain line connection	Threaded ¾” NPT, male
Brine line connection	Threaded ⅜” NPT, male
Distributor tube O. D. diameter	1,05 ” (= 27 mm)
Distributor tube length above pressure vessel	½” ± ½” (= 13 ± 13 mm)
Weight (valve + controller)	2,42 kg
Operating pressure	1,38 ÷ 8,27 bar
Water temperature	2°C ÷ 38°C

Ref.	Model	Description	
AM218E	268 / 740C	VALV. 268/740C BW 13 INJ L SYMBOL 12/230V 50HZ EURO PLUG	
AM061E	268 / 742C	VALV. 268/742C .33 J 10 SYMBOL 12/230V 50HZ EURO PLUG	
AM062E	268 / 742C	VALV. 268/742C .33 K 12 SYMBOL 12/230V 50HZ EURO PLUG	
AP221E	268 / 760C	VALV. 268/760C BW 14 INJ L SYMBOL 12/230V 50HZ EURO PLUG	
AP042E	268 / 762C	VALV. 268/762C .33 K 12 SYMBOL 12/230V 50HZ EURO PLUG	
AP044E	268 / 762C	VALV. 268/762C .33 L 14 SYMBOL 12/230V 50HZ EURO PLUG	
AP046E	268 / 762C	VALV. 268/762C .33 M 14 SYMBOL 12/230V 50HZ EURO PLUG	

Autotrol Residential Valves Series 263 with Series Logix Controller

- for automatic and residential water filtration systems;
- valve body in NSF listed Noryl plastic material;
- valve rubber compounded for cold water, NSF listed material;
- operating flow rate Kv = 5,6;
- backwash flow rate = 75,7 lpm @ ∆p 1,72 bar;
- available with series LOGIX controller (see 01-03-02-EN data sheet):
  - 740 F electronic chronometric;
  - 760 F electronic volumetric;
  - 742 F electronic chronometric programmable;
  - 762 F electronic volumetric programmable;
- with European transformer 12/230V – 50Hz;
- adapters and manifold kit not included, to order separately: see 01-04-02-EN and 01-04-05-EN data sheets;
- accessories (e.g. upper screen, etc.) not included.

Characteristics	
Pressure vessel connection	Threaded 2 ½ ”- 8 UN male
Drain line connection	Threaded ¾” NPT, male
Distributor tube O. D. diameter	1,05 ” (= 27 mm)
Distributor tube length above pressure vessel	½” ± ½” (= 13 ± 13 mm)
Weight (valve + controller)	2,42 kg
Pressure vessel connection	Threaded 2 ½ ”- 8 UN male
Operating pressure	1,38 ÷ 8,27 bar
Water temperature	2°C ÷ 38°C

Ref.	Model	Description	
AL209E	263 / 740F	VALV. 263/740F BW 13 INJ H SYMBOL 12/230V 50HZ EURO PLUG	
AL215E-00	263 / 740F	VALV. 263/740F NO BW INJ K SYMBOL 12/230V 50HZ EURO PLUG	
AL073E	263 / 742F	VALV. 263/742F BW 14 INJ L SYMBOL 12/230V 50HZ EURO PLUG	
AL075E-00	263 / 742F	VALV. 263/742F NO BW INJ L SYMBOL 12/230V 50HZ EURO PLUG	

Autotrol Residential Valves Series 268FA with Series Logix Controller

- for automatic and residential water 5 cycles iron removal systems;
- valve body in NSF listed Noryl plastic material;
- valve rubber compounded for cold water, NSF listed material;
- operating flow rate Kv = 5,6;
- backwash flow rate = 75,7 lpm @ ∆p 1,72 bar;
- available with series LOGIX controller (see 01-03-02-EN data sheet):
  - 742 F electronic chronometric programmable;
  - 762 F electronic volumetric programmable;
- with European transformer 12/230V – 50Hz;
- adapters and manifold kit not included, to order separately: see 01-04-02-EN and 01-04-05-EN data sheets;
- accessories (e.g. upper screen, etc.) not included.

Characteristics	
Pressure vessel connection	Threaded 2 ½ " - 8 UN male
Drain line connection	Threaded ¾" NPT, male
Distributor tube O. D. diameter	1,05 " (= 27 mm)
Distributor tube length above pressure vessel	½" ± ½" (= 13 ± 13 mm)
Weight (valve + controller)	2,42 kg
Pressure vessel connection	Threaded 2 ½ "- 8 UN male
Operating pressure	1,38 ÷ 8,27 bar
Water temperature	2°C ÷ 38°C

Ref.	Model	Description	
AQ066E	268FA / 742	VALV. 268FA/742 BW 10 GPM (13") INJ L SYMBOL 12/230V 50HZ EURO PLUG	

Autotrol Residential Valves Series 278 with Series Logix Controller

- for automatic water softening systems with high resin volume;
- valve body in NSF listed Noryl plastic material;
- valve rubber compounded for cold water, NSF listed material;
- operating flow rate Kv = 5,6;
- backwash flow rate = 75,7 lpm @ ∆p 1,72 bar;
- resin volume range = 45 ÷ 225 litres;
- available with series LOGIX controller (see 01-03-02-EN data sheet):
  - 742 C electronic chronometric programmable;
  - 762 C electronic volumetric programmable;
- with European transformer 12/230V – 50Hz;
- adapters and manifold kit not included, to order separately: see 01-04-02-EN and 01-04-05-EN data sheets;
- accessories (e.g. upper screen, etc.) not included

Characteristics	
Pressure vessel connection	Threaded 2 ½ ”- 8 UN male
Drain line connection	Threaded ¾” NPT, male
Brine line connection	Threaded ⅜” NPT, male
Distributor tube O. D. diameter	1,05 ” (= 27 mm)
Distributor tube length above pressure vessel	½” ± ½” (= 13 ± 13 mm)
Weight (valve + controller)	2,42 kg
Operating pressure	1,38 ÷ 8,27 bar
Water temperature	2°C ÷ 38°C

Ref.	Model	Description	
AR104E	278 / 742C	VALV. 278/742C 1.3 M 14 SYMBOL 12/230V 50HZ EURO PLUG	
AR105E	278 / 742C	VALV. 278/742C 1.3 N 16 (7 GPM) SYMBOL 12/230V 50HZ EURO PLUG	
AR106E	278 / 742C	VALV. 278/742C 1.3 Q 18 (9 GPM) SYMBOL 12/230V 50HZ EURO PLUG	
AR114E	278 / 762C	VALV. 278/762C 1.3 M 14 SYMBOL 12/230V 50HZ EURO PLUG	
AR115E	278 / 762C	VALV. 278/762C 1.3 N 16 (7 GPM) SYMBOL 12/230V 50HZ EURO PLUG	
AR116E	278 / 762C	VALV. 278/762C 1.3 Q 18 (9 GPM) SYMBOL 12/230V 50HZ EURO PLUG	
AR117E	278 / 762C	VALV. 278/762C 1.3 R 21 (12 GPM) SYMBOL 12/230V 50HZ EURO PLUG	

Residential Duplex Systems with Autotrol Residential Valves Series 278 Twin and 764 Controller

- for automatic and residential / commercial water softening systems;
- for twin alternating and twin parallel systems;
- consisting of n.2 valves (one “main” and another one “secondary”) with 764 electronic volumetric (see 01-03-02-EN data sheet);
- with European transformer 12/230V – 50Hz;
- valve body in NSF listed Noryl plastic material;
- valve rubber compounded for cold water, NSF listed material;
- operating flow rate for each tank Kv = 5,6;
- backwash flow rate for each tank = 75,7 lpm @ ∆p 1,72 bar;
- resin volume range for each tank = 45 ÷ 225 litres;
- interconnection kit (see 01-04-03-EN data sheet) and accessories (e.g. upper screen, etc.) not included, to order separately: see 01-04-02-EN and 01-04-05-EN data sheets.

Characteristics	
Pressure vessel connection	Threaded 2 ½ ”- 8 UN male
Drain line connection	Threaded ¾” NPT, male
Brine line connection	Threaded ⅜” NPT, male
Distributor tube O. D. diameter	1,05 ” (= 27 mm)
Distributor tube length above pressure vessel	½” ± ½” (= 13 ± 13 mm)
Weight (valve + controller)	2,42 kg
Operating pressure	1,38 ÷ 8,27 bar
Water temperature	2°C ÷ 38°C

Ref.	Model	Description	
AN083E	278 / 764 TWIN	VALV. 278/764 TWIN 1.3 M 14 SYMBOL 12/230V 50HZ EURO PLUG	
AN084E	278 / 764 TWIN	VALV. 278/764 TWIN 1.3 N 16 (7 GPM) SYMBOL 12/230V 50HZ EURO PLUG	
AN085E	278 / 764 TWIN	VALV. 278/764 TWIN 1.3 Q 18 (9 GPM) SYMBOL 12/230V 50HZ EURO PLUG	
AN086E	278 / 764 TWIN	VALV. 278/764 TWIN 1.3 R 21 (12 GPM) SYMBOL 12/230V 50HZ EURO PLUG	

Autotrol Residential Valves Series 278 with 764 Controller for Multitank Systems

- for automatic and residential / commercial water softening systems;
- with electronic volumetric 764 controller (see 01-03-02-EN data sheet);
- for parallel systems;
- valve body in NSF listed Noryl plastic material;
- valve rubber compounded for cold water, NSF listed material;
- operating flow rate for each tank Kv = 5,6;
- backwash flow rate for each tank = 75,7 lpm @ Δp 1,72 bar;
- resin volume range for each tank = 45 ÷ 225 litres;
- with European transformer 12/230V – 50Hz for each valve;
- adapters and manifold kit not included, to order separately: see 01-04-02-EN and 01-04-05-EN data sheets;
- accessories (e.g. upper screen, etc.) not included.

Characteristics	
Pressure vessel connection	Threaded 2 ½ ”- 8 UN male
Connessione linea di scarico	Threaded ¾” NPT, male
Brine line connection	Threaded ⅜” NPT, male
Distributor tube O. D. diameter	1,05 ” (= 27 mm)
Distributor tube length above pressure vessel	½” ± ½” (= 13 ± 13 mm)
Weight (valve + controller)	2,42 kg
Operating pressure	1,38 ÷ 8,27 bar
Water temperature	2°C ÷ 38°C

Ref.	Model	Description	
AN103E	278 / 764 SIN	VALV. 278/764L 1.3 M 14 SYMBOL 12/230V 50HZ EURO PLUG	

Autotrol Industrial Softening Magnum CV 1,5” Valves with Series Logix Controller

- for automatic and industrial water softening systems;
- valve body in NSF listed Noryl plastic material with 304 Stainless Steel tank adapter (for heavy applications, like iron removal using $KMnO_4$ or decarbonisation using HCl, the Noryl tank adapter is available on request);
- o-rings in EPDM material;
- operating flow rate Kv = 17;
- backwash flow rate = 337 lpm @ Δp 1,72 bar;
- resin volume range = 100 ÷ 700 litres;
- available with series LOGIX controller (see 01-03-02-EN data sheet):
  - 742 electronic chronometric programmable;
  - 762 electronic volumetric programmable;
- with European transformer 12/230V – 50/60 Hz;
- available with or without by-pass;
- adapters, manifold kit and accessories (e.g. upper screen, etc.) not included, to order separately: see 01-04-04-EN and 01-04-05-EN data sheets;
- brine tank refill system doesn’t need a brine valve, but just an air-check;
- PVC 2” side mounting adapter available on demand (REF. CC084, see 01-04-04-EN data sheet).

Characteristics	
Pressure vessel connection	Threaded 4 ”- 8 UN male
Drain line connection	1,5” brass – NPT/BSPT male D50 CPVC to glue
Brine line connection	Threaded ¾” NPT male
Distributor tube O. D. diameter	1,5 ” (= 48,3 mm)
Pilot drain and auxiliary hydraulic out	¼” tube fitting
Distributor tube length above pressure vessel	16 ± 3 mm
Weight (valve + controller)	12,3 kg
Operating pressure	1,72 ÷ 6,90 bar
Water temperature	1°C ÷ 36°C

Ref.	Model	Description	
CA201E	298 CV/742	MAGNUM 1.5" 298/742 16" (6 GPM) HWB SYMBOL 12/230V 50HZ EURO PLUG	
CA205E	298 CV/742	MAGNUM 1.5" 298/742 30" (20 GPM) HWB SYMBOL 12/230V 50HZ EURO PLUG	
CA215E	298 CV/742	MAGNUM 1.5" 298/742 30" (20 GPM) NHB SYMBOL 12/230V 50HZ EURO PLUG	
CA216E	298 CV/742	MAGNUM 1.5" 298/742 36" (30 GPM) NHB SYMBOL 12/230V 50HZ EURO PLUG	
CA221E	298 CV/762	MAGNUM 1.5" 298/762 16" (6 GPM) HWB SYMBOL 12/230V 50HZ EURO PLUG	
CA222E	298 CV/762	MAGNUM 1.5" 298/762 18" (8 GPM) HWB SYMBOL 12/230V 50HZ EURO PLUG	
CA236E	298 CV/762	MAGNUM 1.5" 298/762 36" (30 GPM) NHB SYMBOL 12/230V 50HZ EURO PLUG	

Autotrol Industrial Magnum CV 1,5” Valves for Filtration with Series Logix Controller

- for automatic and industrial water filtration systems;
- valve body in NSF listed Noryl plastic material with 304 Stainless Steel tank adapter (for heavy applications, like sea water, the Noryl tank adapter is available on request);
- o-rings in EPDM material;
- operating flow rate Kv = 17;
- backwash flow rate = 337 lpm @ ∆p 1,72 bar;
- available with series LOGIX controller (see 01-03-02-EN data sheet):
  - 742 F electronic chronometric programmable;
  - 762 F electronic volumetric programmable;
- with European transformer 12/230V – 50/60 Hz;
- available with or without by-pass;
- adapters, manifold kit and accessories (e.g. upper screen, etc.) not included, to order separately: see 01-04-04-EN and 01-04-05-EN data sheets;
- PVC 2” side mounting adapter available on demand (REF. CC084, see 01-04-04-EN data sheet).

Characteristics	
Pressure vessel connection	Threaded 4 ”- 8 UN male
Drain line connection	1,5” brass – NPT/BSPT male D50 CPVC to glue
Brine line connection	Threaded ¾” NPT male
Distributor tube O. D. diameter	1,5 ” (= 48,3 mm)
Pilot drain and auxiliary hydraulic out	¼” tube fitting
Distributor tube length above pressure vessel	16 ± 3 mm
Weight (valve + controller)	12,3 kg
Operating pressure	1,72 ÷ 6,90 bar
Water temperature	1°C ÷ 36°C

Ref.	Model	Description	
CA240E	293 CV/742F	MAGNUM 1.5" 293/742F (5 GPM) UWB SYMBOL 12/230V 50HZ EURO PLUG	
CA241E	293 CV/742F	MAGNUM 1.5" 293/742F (5 GPM) NUB SYMBOL 12/230V 50HZ EURO PLUG	

Autotrol Industrial Softening Magnum IT 2” Valves with Series Logix Controller

- for automatic and industrial water softening systems;
- valve body in NSF listed Noryl plastic material with 304 Stainless Steel tank adapter (for heavy applications, like iron removal using $KMnO_4$ or decarbonisation using HCl, the Noryl tank adapter is available on request);
- o-rings in EPDM material;
- operating flow rate Kv = 17;
- backwash flow rate = 337 lpm @ Δp 1,72 bar;
- resin volume range = 100 ÷ 700 litres;
- available with series LOGIX controller (see 01-03-02-EN data sheet):
  - 742 electronic chronometric programmable;
  - 762 electronic volumetric programmable;
- with European transformer 12/230V – 50/60 Hz;
- available with or without by-pass;
- adapters, manifold kit and accessories (e.g. upper screen, etc.) not included, to order separately: see 01-04-04-EN and 01-04-05-EN data sheets;
- brine tank refill system doesn’t need a brine valve, but just an air-check;
- PVC 2” side mounting adapter available on demand (REF. CC084, see 01-04-04-EN data sheet).

Characteristics	
Pressure vessel connection	Threaded 4 ”- 8 UN male
Drain line connection	1,5” brass – NPT/BSPT male D50 CPVC to glue
Brine line connection	Threaded ¾” NPT male
Distributor tube O. D. diameter	1,5 ” (= 48,3 mm)
Pilot drain and auxiliary hydraulic out	¼” tube fitting
Distributor tube length above pressure vessel	16 ± 3 mm
Weight (valve + controller)	12,3 kg
Operating pressure	1,72 ÷ 6,90 bar
Water temperature	1°C ÷ 36°C

Ref.	Model	Description	
CB202E	298/742	MAGNUM IT 2" 298/742 18" (8 GPM) HWB SYMBOL 12/230V 50HZ EURO PLUG	
CB221E	298/762	MAGNUM IT 2" 298/762 16" (6 GPM) HWB SYMBOL 12/230V 50HZ EURO PLUG	
CB222E	298/762	MAGNUM IT 2" 298/762 18" (8 GPM) HWB SYMBOL 12/230V 50HZ EURO PLUG	
CB223E	298/762	MAGNUM IT 2" 298/762 21" (10 GPM) HWB SYMBOL 12/230V 50HZ EURO PLUG	
CB224E	298/762	MAGNUM IT 2" 298/762 24" (14 GPM) HWB SYMBOL 12/230V 50HZ EURO PLUG	
CB226E	298/762	MAGNUM IT 2" 298/762 36" (30 GPM) HWB SYMBOL 12/230V 50HZ EURO PLUG	
CB234E	298/762	MAGNUM IT 2" 298/762 24" (14 GPM) NHB SYMBOL 12/230V 50HZ EURO PLUG	
CB236E	298/762	MAGNUM IT 2" 298/762 36" (30 GPM) NHB SYMBOL 12/230V 50HZ EURO PLUG	

Autotrol Industrial Magnum IT 2” Valves for Filtration with Series Logix Controller

- for automatic and industrial water filtration systems;
- valve body in NSF listed Noryl plastic material with 304 Stainless Steel tank adapter (for heavy applications, like sea water, the Noryl tank adapter is available on request);
- o-rings in EPDM material;
- operating flow rate Kv = 17;
- backwash flow rate = 337 lpm @ Δp 1,72 bar;
- available with series LOGIX controller (see 01-03-02-EN data sheet):
  - 742 F electronic chronometric programmable;
  - 762 F electronic volumetric programmable;
- with European transformer 12/230V – 50/60 Hz;
- available with or without by-pass;
- adapters, manifold kit and accessories (e.g. upper screen, etc.) not included, to order separately: see 01-04-04-EN and 01-04-05-EN data sheets;
- PVC 2” side mounting adapter available on demand (REF. CC084, see 01-04-04-EN data sheet).

Characteristics	
Pressure vessel connection	Threaded 4 ”- 8 UN male
Drain line connection	1,5” brass – NPT/BSPT male D50 CPVC to glue
Brine line connection	Threaded ¾” NPT male
Distributor tube O. D. diameter	1,5 ” (= 48,3 mm)
Pilot drain and auxiliary hydraulic out	¼” tube fitting
Distributor tube length above pressure vessel	16 ± 3 mm
Weight (valve + controller)	12,3 kg
Operating pressure	1,72 ÷ 6,90 bar
Water temperature	1°C ÷ 36°C

Ref.	Model	Description	
CB240E	293/742F	MAGNUM IT 2" 293/742F (5 GPM) UWB SYMBOL 12/230V 50HZ EURO PLUG	
CB241E	293/742F	MAGNUM IT 2" 293/742F (5 GPM) NUB SYMBOL 12/230V 50HZ EURO PLUG	
CB245E	293/762F	MAGNUM IT 2" 293/762F (5 GPM)NUB SYMBOL 12/230V 50HZ EURO PLUG	

Industrial Duplex Systems with Autotrol Softening Magnum IT 2” Valves and 764 Controller

- for automatic and industrial water softening systems;
- for twin alternating and twin parallel systems;
- consisting of n.2 valves (one “main” and another one “secondary”) with 764 electronic volumetric (see 01-03-02-EN data sheet);
- valve body in NSF listed Noryl plastic material with 304 Stainless Steel tank adapter (for heavy applications, like iron removal using $KMnO_4$ or decarbonisation using HCl, the Noryl tank adapter is available on request);
- o-rings in EPDM material;
- operating flow rate for each tank Kv = 17;
- backwash flow rate for each tank = 337 lpm @ Δp 1,72 bar;
- resin volume range for each tank = 100 ÷ 700 litres;
- with European transformer 12/230V – 50/60 Hz;
- available with or without by-pass;
- adapters, manifold kit and accessories (e.g. upper screen, etc.) not included, to order separately: see 01-04-04-EN and 1-04-05-EN data sheets;
- brine tank refill system doesn’t need a brine valve, but just an air-check;
- PVC 2” side mounting adapter available on demand (REF. CC084, see 01-04-04-EN data sheet);
- interconnection not included.

Characteristics	
Pressure vessel connection	Threaded 4 ”- 8 UN male
Drain line connection	1,5” brass – NPT/BSPT male D50 CPVC to glue
Brine line connection	Threaded ¾” NPT male
Distributor tube O. D. diameter	1,5 ” (= 48,3 mm)
Pilot drain and auxiliary hydraulic out	¼” tube fitting
Distributor tube length above pressure vessel	16 ± 3 mm
Weight (valve + controller)	12,3 kg
Operating pressure	1,72 ÷ 6,90 bar
Water temperature	1°C ÷ 36°C

Ref.	Model	Description	
CB250E	298 764 TWIN	MAGNUM 298 2" MIT-TWS-764-14" (5 GPM) NHB SYMBOL 12/230V 50HZ EURO PLUG	
CB251E	298 764 TWIN	MAGNUM 298 2" MIT-TWS-764-16" (6 GPM) NHB SYMBOL 12/230V 50HZ EURO PLUG	
CB252E	298 764 TWIN	MAGNUM 298 2" MIT-TWS-764-18" (8 GPM) NHB SYMBOL 12/230V 50HZ EURO PLUG	
CB253E	298 764 TWIN	MAGNUM 298 2" MIT-TWS-764-21" (10 GPM) NHB SYMBOL 12/230V 50HZ EURO PLUG	
CB254E	298 764 TWIN	MAGNUM 298 2" MIT-TWS-764-24" (14 GPM) NHB SYMBOL 12/230V 50HZ EURO PLUG	
CB255E	298 764 TWIN	MAGNUM 298 2" MIT-TWS-764-30" (20 GPM) NHB SYMBOL 12/230V 50HZ EURO PLUG	
CB256E	298 764 TWIN	MAGNUM 298 2" MIT-TWS-764-36" (30 GPM) NHB SYMBOL 12/230V 50HZ EURO PLUG	

Autotrol Industrial Softening Magnum IT 2” Valves with 764 Controller for Multitank Systems

- for automatic and industrial water softening systems;
- with electronic volumetric 764 controller (see 01-03-02-EN data sheet);
- for parallel systems;
- valve body in NSF listed Noryl plastic material with 304 Stainless Steel tank adapter (for heavy applications, like iron removal using $KMnO_4$ or decarbonisation using HCl, the Noryl tank adapter is available on request);
- o-rings in EPDM material;
- operating flow rate for each tank Kv = 17;
- backwash flow rate for each tank = 337 lpm @ Δp 1,72 bar;
- resin volume range for each tank = 100 ÷ 700 litres;
- with European transformer 12/230V – 50/60 Hz for each valve;
- available with or without by-pass;
- adapters, manifold kit and accessories (e.g. upper screen, etc.) not included, to order separately: see 01-04-04-EN and 01-04-05-EN data sheets;
- brine tank refill system doesn’t need a brine valve, but just an air-check;
- PVC 2” side mounting adapter available on demand (REF. CC084, see 01-04-04-EN data sheet);
- interconnection not included.

Characteristics	
Pressure vessel connection	Threaded 4 ”- 8 UN male
Drain line connection	1,5” brass – NPT/BSPT male D50 CPVC to glue
Brine line connection	Threaded ¾” NPT male
Distributor tube O. D. diameter	1,5 ” (= 48,3 mm)
Pilot drain and auxiliary hydraulic out	¼” tube fitting
Distributor tube length above pressure vessel	16 ± 3 mm
Weight (valve + controller)	12,3 kg
Operating pressure	1,72 ÷ 6,90 bar
Water temperature	1°C ÷ 36°C

Ref.	Model	Description	
CB266E	298 764 L	MAGNUM 298 2" MIT-SN-764-36" (30 GPM) NHB SYMBOL 12/230V 50HZ EURO PLUG	

Series 400 Controllers
for Autotrol Valves Series 255 - 263 – 268

440i

460tc / 460i

Controllers for softeners characteristics			
Characteristic	**440i**	**460tc**	**460i**
Controller type	Electromechanical	Electronic	Electronic
Regeneration mode	Chronometric: 7 or 6 days	Chronometric	Volumetric
Regeneration frequency	Daily	Daily	Daily
Regeneration cycle length	59’ or 118’	59’ or 118’	59’ or 118’
Cycle length	Fixed not modifiable	Fixed not modifiable	Fixed not modifiable
Salt setting	Pounds of salt	Pounds of salt	Pounds of salt

Controllers for filtration characteristics		
Characteristic	**440i**	**460tc**
Controller type	Electromechanical	Electronic
Backwash mode	Chronometric: 7 or 6 days	Chronometric
Backwash frequency	Daily	Daily
Filter cycle length	Fixed not modifiable	Fixed not modifiable

Logix Controllers for Autotrol Valves
Series 255 – 263 – 268 – 273 – 278 – 293 – 298

Controllers for softeners characteristics					
CHARACT.	**740 C**	**760 C**	**742 C**	**762 C**	**764**
Controller type	Electronic	Electronic	Electronic	Electronic	Electronic
Regeneration mode	Chronometric	Volumetric	Chronometric	Volumetric	Volumetric
Regeneration frequency	Fixed day or 0,5 ÷ 99 days calendar override	0,5 ÷ 99 days calendar override	Fixed day or 0,5 ÷ 99 days calendar override	0,5 ÷ 99 days calendar override	0,5 ÷ 99 days calendar override
Adjustable regeneration time	Yes	Yes	Yes	Yes	Yes
Cycle length	Computer calculated	Computer calculated	Fully programmable	Fully programmable	Fully programmable
Salt setting	3 options	3 options	Fully adjustable	Fully adjustable	Fully adjustable

Controllers for filtration characteristics					
CHARACT.	**740 F**	**760 F**	**742 F**	**762 F**	**764 F**
Controller type	Electronic	Electronic	Electronic	Electronic	Electronic
Backwash mode	Chronometric	Volumetric	Chronometric	Volumetric	Volumetric
Backwash frequency	Fixed day or 0,5 ÷ 99 days calendar override	0,5 ÷ 99 days calendar override	Fixed day or 0,5 ÷ 99 days calendar override	0,5 ÷ 99 days calendar override	0,5 ÷ 99 days calendar override
Adjustable cycle time	Programmable backwash time	Programmable backwash time	Fully programmable	Fully programmable	Fully programmable
Filter cycle length	Computer calculated	Computer calculated	Fully adjustable	Fully adjustable	Fully adjustable

Autotrol Valves Series 255 Accessories

256 bypass kits

- with gaskets, brass adapters, screws and nuts.

REF.	IN/OUT CONNECTION	DRAIN LINE	
AV028	¾”	½”	
AV029	1”	½”	

Ref. AV028

Ref. AV029

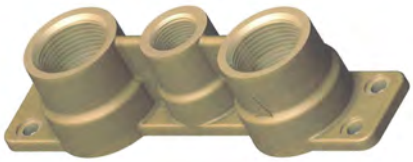
Female mainfold kits

- with o-rings, screws and nuts.

REF.	IN/OUT CONNECTION	DRAIN LINE	MATERIAL	
AV013	¾”	½”	NORYL	
AV010	¾”	⅜”	BRASS	
AV011	1”	½”	BRASS	

Ref. AV013

Ref. AV010



Ref. AV011

Female mixing mainfold kits

- with o-rings, screws and nuts.

REF.	IN/OUT CONNECTION	DRAIN LINE	MATERIAL	
AV007	¾”	⅜”	BRASS	
AV012	1”	½”	BRASS	

Ref. AV012

Autotrol Valves Series 255 Accessories

Male mainfold kits

- in plastic material Noryl;
- with o-rings, screws and nuts.

REF.	CONNECTIONS IN/OUT	DRAIN LINE	OPTION	
AV001	¾"	¾"	WITH TURBINE	
AV001A	¾"	¾"	WITHOUT TURBINE	
AV022	1"	½"	WITH TURBINE	
AV022A	1"	½"	WITHOUT TURBINE	

Ref. AV022

Slim cover for valve 255 Logix

- in plastic material.

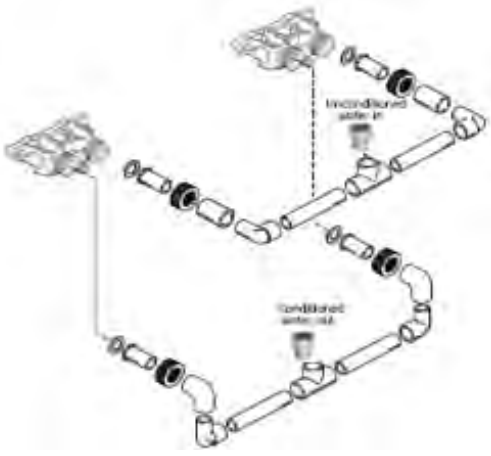
REF.	
AW145	

Ref. AW145

D. 32 interconnection kit for 255/764twin residential duplex systems

- special manifold for AUTOTROL 255 valves included;
- for twin alternating and twin parallel systems;
- consisting of:

QUANTITY	DESCRIPTION
2	Adapter PVC-U D = 32 mm - 1"
2	Tee connection PVC-U D = 32 mm
4	Elbow PVC-U D = 32 mm D1 = 25 mm
4	Tube PVC-U D = 32 mm
2	Elbow D = 32 mm
2	Coupling sleeve D = 32 mm
2	Manifold kit with adapter D. 32 to glue
2	256 by-pass with o-rings, screws and nuts



REF.	
AV119	

Autotrol Valves Series 263 – 268 – 278
Accessories

1265 bypass Kits

- special manifold for AUTOTROL valves series 263, 268 and 278;
- with gaskets, brass adapters and nuts.

REF.	IN/OUT CONNECTIONS	
AV039	1”	
AV040	1 ¼”	

Ref. AV039

Ref. AV040

Manifold Kits

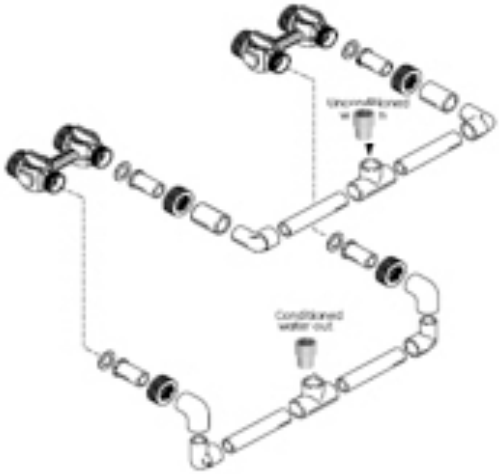
- special manifold for AUTOTROL valves series 263, 268 and 278;
- with 2 gaskets, 2 adapters and 2 nuts.

REF.	IN/OUT CONNECTION	MATERIAL ADAPTERS	
AV030B	¾”	BRASS	
AV031B	1”	BRASS	
AV032	D.32	PVC	
AV038	1 ¼”	BRASS	

Ref. AV031B

D. 32 interconnection kit for 278/764twin residential duplex systems

- special manifold for AUTOTROL 278 valves included;
- for twin alternating and twin parallel systems;
- with IN/OUT connection D.32;
- consisting of:

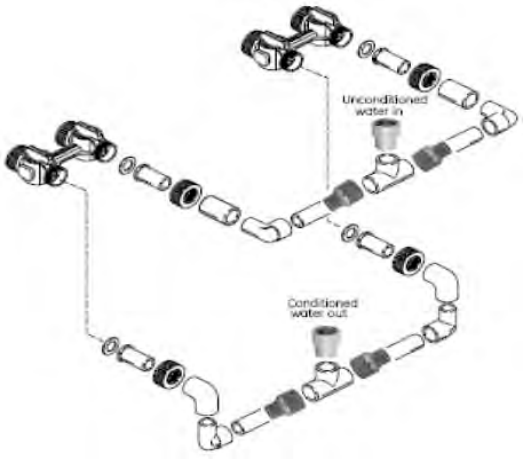


Q.TY	DESCRIPTION
2	Adapter PVC-U D = 32mm - 1”
2	Tee connection PVC-U D = 32 mm
4	Elbow PVC-U D = 32 mm D1 = 25 mm
4	Tube PVC-U D = 32 mm
2	Elbow D = 32 mm
2	Coupling sleeve D = 32 mm
2	Manifold kit with adapter D. 32 to glue
2	1265 by-pass with o-rings, screws and nuts

REF.	
AV128	

D. 40 interconnection kit for 278/764twin residential duplex systems

- special manifold for AUTOTROL 278 valves included;
- for twin alternating and twin parallel systems;
- with IN/OUT connection D.40;
- consisting of:



Q.TY	DESCRIPTION
2	Adapter PVC-U D = 40mm - 1”1/4
2	Tee connection PVC-U D = 40 mm
4	Reducing socket PVC-U D = 40 mm D2 = 32 mm
4	Elbow PVC-U D = 32 mm D1 = 25 mm
4	Tube PVC-U D = 32 mm
2	Elbow D = 32 mm
2	Coupling sleeve D = 32 mm
2	Manifold kit with adapter D. 32 to glue
2	1265 by-pass with o-rings, screws and nuts

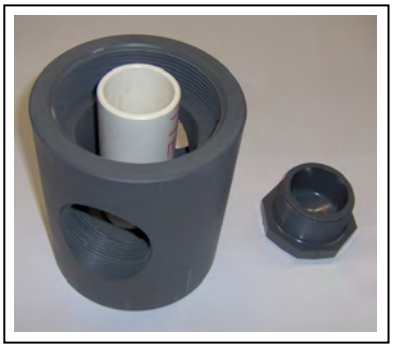
REF.	
AV129	

Autotrol Valves Magnum Accessories

Magnum side mounting adapters

- in PVC material

REF.	CONNECTIONS	
CC084	2” BSPT Female	
CC084A	D.63 Male to glue	



Manifold kits

- with 3 nuts, 3 gaskets and 3 adapters.

REF.	IN/OUT CONNECTION	MATERIAL ADAPTER	FOR AUTOTROL VALVE	
CC080	1 ½” BSPT	STAINLESS STEEL	MAGNUM CV 1,5” SERIES	
CC081	D.50	PVC	MAGNUM CV 1,5” SERIES	
CC082	2” BSPT	STAINLESS STEEL	MAGNUM IT 2” SERIES	
CC083	D.63	PVC	MAGNUM IT 2” SERIES	

Ref. CC080

Ref.CC081

Ref.CC082

Ref.CC083

D.25 NPT ¾" Pipe Union

REF.	
CC085	

- Suitable for brine line connection of the Magnum valves, alone or in coupling with a bonding hose connection (REF. CC086);
- In PVC-U.

D.25 Drain Fitting to glue

- Suitable for brine line connection of the Magnum valves, in coupling with D.25 NPT ¾" pipe union (REF. CC085);
- In PVC-U.

REF.	
CC086	

Blending kit for Autotrol valves

- kit of nut and screw to install on 255 and 268 valves for blending of hard and softened water;
- insert the nut into the blending valve orifice located near the bypass flapper (fig.1). Insert the screw through the top plate and the nut, and the screw until it touch the bypass flapper (fig.2);
- tightening the screw will force the bypass flapper open witch will blend hard water into the softened water supply (fig. 3). Loosening the screw will allow the bypass flapper to close reducing the blending;
- test the water and adjust the screw until the desired hardness level is reached.

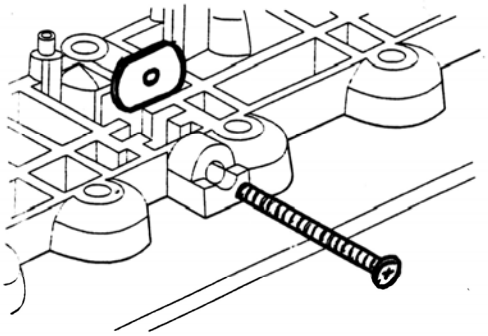


Fig. 1

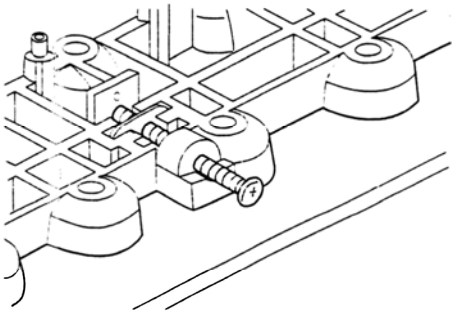


Fig. 2

REF.	DESCRIPTION	
AV037	Kit for 255-268-278 valves	
AV185	Kit for 366-368 valves	

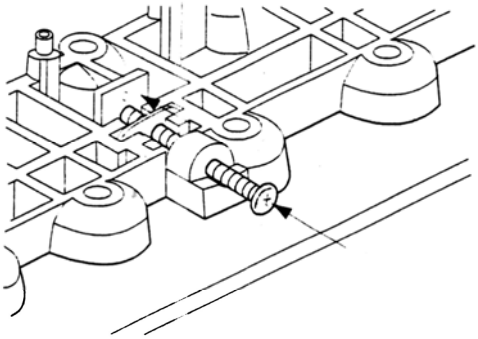


Fig. 3

Twist lock upper screens

- in ABS;
- max diameter 60 mm, length 64 mm;
- slots 0,3 mm.

REF.	FOR TUBE (inch)	FOR AUTOTROL VALVE	
AV070	13⁄16”	255	
AV071	1,05”	255, 263, 278	

Upper screen

- in ABS;
- max diameter 60 mm, length 64 mm;
- slots 0,3 mm.

REF.	FOR TUBE (inch)	
AV072	13⁄16”	
AV073	1,05”	

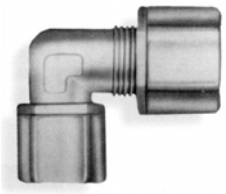
Upper screens to glue

- in ABS;
- diameter 88 mm;
- slots 0,3 mm.

REF.	LENGTH (mm)	FOR TUBE (mm)	FOR AUTOTROL VALVE	
CF010	98	41,8 (1 ¼”)	180 old model	
CF013	98	48,3	180 new model	
CC050	150	48,3	Magnum	
PV407	150	41,8 (1 ¼”)	Adapter 4” PV402	

Fittings for valves

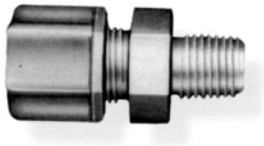
- Jaco Style elbow fittings for ⅜” tubing;
- material PP.



REF.	THREADED CONNECTION (inch)	FOR AUTOTROL VALVE	
AV150	¼” F	255	
AV154	⅜” F	268 366 – 368	

Fittings for valves

- Jaco Style straight fittings for ⅜” tubing;
- material PP.

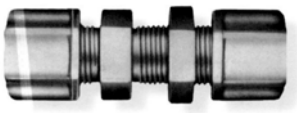


REF.	THREADED CONNECTION (inch)	
AV161	⅛” M	
AV152	¼” M	
AV153	⅜” M	

- Jaco Style elbow fittings for ⅜” tubing;
- material PP.

REF.	THREADED CONNECTION (inch)	FOR AUTOTROL VALVE	
AV151	¼” M	155	
AV159	⅜” M	-	

- Jaco Style bulkhead union for ⅜” tubing;
- material PP.



REF.	
AV156	

- Jaco Style union elbow for ⅜” tubing;
- material PP.

REF.	
AV155	

- Jaco Style union TEE for ⅜” tubing;
- material PP.

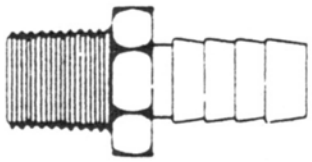
REF.	
AV158	

Barbed drain fittings – overflow

Straight drain fittings

- suitable for flexible hose 12,7 mm internal diameter;
- material nylon.

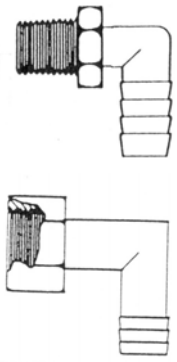
REF.	CONNECTION	
AV170	⅜" M	
AV171	½" M	
AV169	½" F	



Elbowed drain fittings

- suitable for flexible hose 12,7 mm internal diameter;
- material nylon / polyethylene.

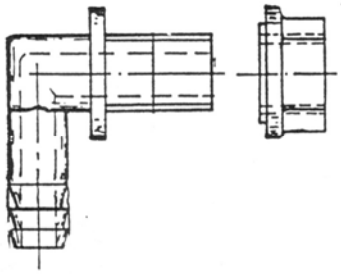
REF.	CONNECTION	
AV172	⅜" M	
AV173	½" M	
AV174	½" F	
AV175	¾" F	



Overflow elbows with nut

- material nylon.

REF.	THREADED CONNECTION	FOR HOSE INT. Ø (MM)	
AV180	⅜"	12,7	
AV181	½"	15,5	



Pvc tubes to glue

- for lower diffusors and lower lateral systems;
- to glue;
- in PVC.

REF.	DIAMETER (inch)	DIAMETER (mm)	LENGTH (mm)	
AV083	13⁄16”	20,6	890	
AV084	13⁄16”	20,6	1400	
AV087	1,05”	26,7	1830	
AV632	D32	32,0	2000	
CF012	1 ¼”	41,8	2000	
CC052	1,90”	48,3	2000	
CF050	D50	50,0	2000	
CF063	D63	63,0	2000	

Diffusors with tube

- 1,05” hi-flow lower diffusor;
- PVC tube included;
- slots 0,3 mm.

REF.	TUBE LENGTH (inch)	
AV116M	17”	
AV117M	35”	
AV103M	55”	
AV104M	72”	

Valves Accessories

Lower diffusors to glue

- lower diffusors in ABS;
- max diameter 60 mm;
- slots 0,3 mm;
- connection to glue.

REF.	FOR TUBE (inch)	LENGTH (mm)	FLOW (lpm) Δp 30 mbar	
AV098	13⁄16”	70	24	
AV098A	1,05”	80	32	
AV097	1,05”	90 high flow	40	

Cylindrical lower diffusors

- cylindrical lower diffusor in ABS, diameter 88 mm;
- slots 0,3 mm;
- connection to glue.

ITEM	REF.	LENGTH (mm)	FOR TUBE (mm)	FOR AUTOTROL VALVE	
1	PV315	72	26,7 (1,05”)	PERFORMA	
1	CF011	98	41,8 (1 ¼”)	180 old model – PV402	
1	CF014	98	48,3	180 new model	
2	CC051	150	48,3	Magnum	

Segmented lower diffusors

- segmented lower diffusor in ABS;
- diameter 66 mm;
- slots 0,3 mm;
- to glue on tube 1,05”;
- flow = 50 lpm @ Δp 30 mbar.

REF.	LENGTH (mm)	FOR TUBE (mm)	
AV099A	102	26,7 (1,05")	
AV099C	98,5	32	

Valves Accessories

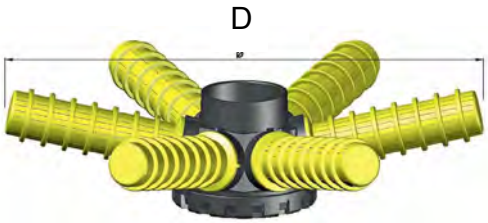
Lower lateral systems for top mounted valves

- For top mounted valves;
- ABS material;
- With 8 laterals (**threaded connection**) slots 0,3 mm;
- Hub connection to glue.

REF.	USEFUL FOR VESSEL (inch)	HUB CONNECT FOR TUBE (mm)	FOR AUTOTROL VALVE	
PV316	14" - 16"	26,7 (1,05")	PERFORMA	
PV317	18" - 21" - 24"	26,7 (1,05")	PERFORMA	
PV318	14" - 16"	41,8 (1 ¼")	PV402	
PV319	18" - 21" - 24"	41,8 (1 ¼")	PV402	
PV320	14" - 16"	48,3 (1,90")	MAGNUM	
PV321	18" - 21" - 24"	48,3 (1,90")	MAGNUM	
PV322	30"	48,3 (1,90")	MAGNUM	
PV323	36"	48,3 (1,90")	MAGNUM	

Lower lateral systems for top mounted valves

- For top mounted valves;
- ABS material;
- With 6 **twist lock** laterals, slots 0,25 mm;
- Hub connection to glue.



REF.	USEFUL FOR VESSEL (inch)	HUB CONNECT FOR TUBE (mm)	DIAMETER D (mm)	FOR AUTOTROL VALVE	
PV316B	14" - 16"	26,7 (1,05")	260	PERFORMA	
PV317B	18" - 21" - 24"	26,7 (1,05")	373	PERFORMA	
PV318B	14" - 16"	41,8 (1 ¼")	260	PV402	
PV319B	18" - 21" - 24"	41,8 (1 ¼")	373	PV402	
PV320B	14" - 16"	48,3 (1,90")	260	MAGNUM	
PV321B	18" - 21" - 24"	48,3 (1,90")	373	MAGNUM	
PV322B	30"	48,3 (1,90")	563	MAGNUM	
PV323B	36"	48,3 (1,90")	705	MAGNUM	
PV320B50	14" - 16"	50 (2")	260		
PV321B50	18" - 21" - 24"	50 (2")	373		
PV322B50	30"	50 (2")	563		
PV323B50	36"	50 (2")	705		

Valves Accessories

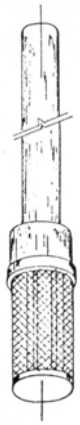
Diffusor for brine draw

- connection for rigid or flexible tube ⅜”.

REF.	
AV118	

Mesh type screen with tube

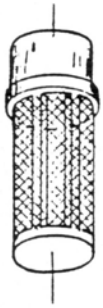
- mesh type screen for brine complete with ⅜” PVC tube length 42”.



REF.	
AV090M	

Mesh type screen for brine

- for ⅜” tube to glue.



REF.	
AV075	

Polyethylene flexible tube

- flexible tube ⅜” (= 9,52 mm) diameter;
- transparent;
- hanks of 30 m.
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;

REF.	
AV140	

J-tube air-check with tube

- J-tube with air-check, complete with PVC tube.

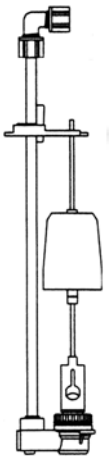
REF.	TUBE DIAMETER (inch)	LENGTH (mm)	
AV093M	⅜”	1060	
CC064M	¾”	1200	

Brine Valves Accessories

Model 464

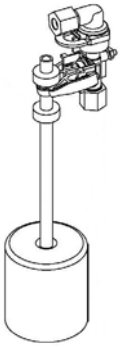
- model 464 Standard version (for no timed refill controls) and High Flow (for timed refill controls);
- connection for ⅜” tubing;
- length tube 42” (1060 mm);
- length float rod 600 mm;
- brine draw rate 3,8 l/min@ 152 mm Hg vacuum;
- max operating pressure 8,5 bar @ 40°C;
- brine well diameter 90 mm min.

REF.	MODEL	Refill flow rate (l/min) @ 3,5 bar	
AV096	464 Standard	1,3	
AV125	464 High Flow	3,8	



Model 2310

- length float rod 774 mm;
- refill flow rate 4,5 l/min;
- brine draw rate 2,1 l/min;
- max operating pressure 8,6 bar @ 40°C;
- brine well diameter 100 mm;
- without air check.

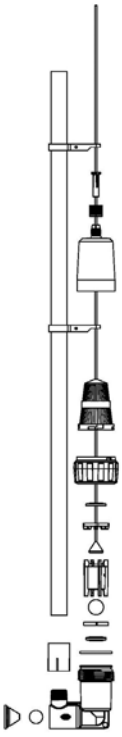


REF.	
FVA060067-03	

Model 484

- complete with ¾” tube length 1200 mm;
- length float rod 915 mm;
- refill flow rate 15 l/min @ 3,5 bar;
- brine draw rate 38 l/min @ 66 mm Hg vacuum;
- max operating pressure 8,5 bar @ 40°C;
- brine well diameter 130 mm.

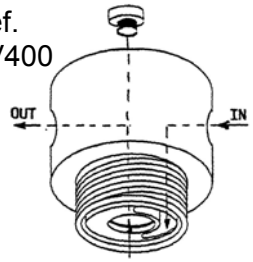
REF.	
CC059	



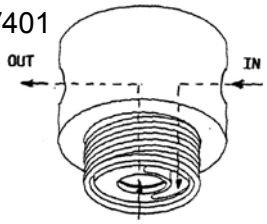
Heads for tank

- PVC heads for tank complete with NBR o-ring;
- max operating pressure 8 bar;
- max operating temperature 25°C;
- REF. PV400 and REF. PV401 are to use with upper screen REF. AV073 (see 01-04-05.02-EN data sheet) and with lower diffusors on catalogue (see 01-04-05.06-EN data sheet);
- REF. PV402 is to use with upper screen REF. PV407 (see 01-04-05.02-EN data sheet) and with lower diffusor REF. CF011 (see 01-04-05.06-EN data sheet).

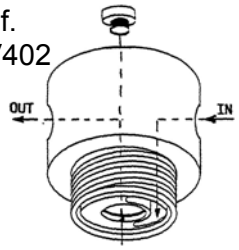
Ref. PV400



Ref. PV401



Ref. PV402



REF.	IN / OUT CONNECTION	OPTION PLUG	RISER TUBE DIAMETER	MAX FLOW RATE SUGGESTED	FIT THREADED TANKS	
PV400	¾" GAS	½" on outlet	1,05"	2,5 m^3/h	2 ½" – 8NPSM	
PV401	¾" GAS	no plug	1,05"	2,5 m^3/h	2 ½" – 8NPSM	
PV402	1 ¼" GAS	½" on outlet	1 ¼"	6,0 m^3/h	4" – 8UN	

- PP molded heads for tank with connection threaded 2 ½" – 8NPSM;
- complete with NBR o-ring;
- without plug;
- max operating pressure 8 bar;
- max operating temperature 45°C; it is to use with upper screen REF. AV070 (see 01-04-05.02-EN data sheet) and with lower diffusor REF. AV098 (see 01-04-05.06-EN data sheet).

REF.	IN / OUT CONNECTION	RISER TUBE DIAMETER	MAX SUGGESTED FLOW RATE	
PV409	¾" NPT	$^{13}/_{16}$"	2,5 m^3/h	

Conductivity Meter Resilight

- positive, reliable and economical method of monitoring water quality via conductivity;
- bright green/red visual output easy to read:
  - Green: conductivity below the threshold value;
  - Red: conductivity above the threshold value;
  - set point conductivity adjustable from 1,5 to 200 microsiemens;
- probe with threaded ⅜" connection, probe constant K=5;
- with reduction in PVC M/F ½" x ⅜";
- complete with transformer 230/5V - 50 Hz and 1,5 m cable;
- for installation on piping at system outlet, or directly on the heads REF. PV400 and REF. PV402 (see 01-04-05.10-EN data sheet).

ATTENTION: for greatest accuracy it is required that the water be flowing on probe.

REF.	
PV425	

Chlorgen Chlorin Generator

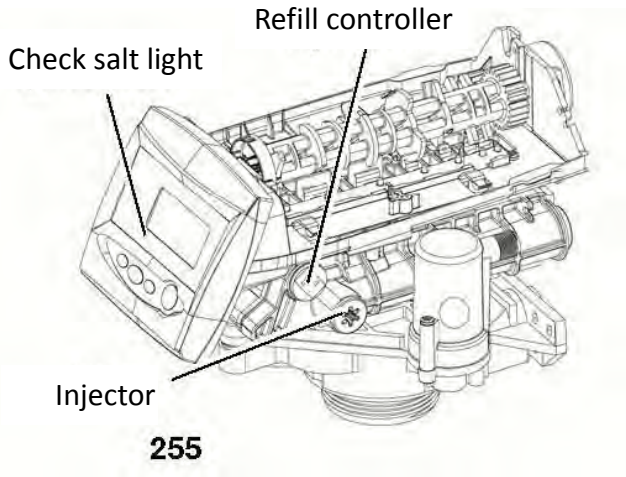
- positive, reliable and economical method of chlorine generation;
- n.1 Titanium Probe for chlorine generation, n.1 TEE ⅜" connection and n.2 Jaco straight fitting for ⅜" x ⅜" tube included;
- bright green/yellow visual output easy to read:
  - Green: the system is on;
  - Yellow: the system is working in disinfection;
- with time generation adjust;
- 230V - 50 Hz power supply and 1,8 m cable;
- Power 2 W;
- The Chlorin Generator can disinfect up to 140 litres of resin.

REF.	
AX210	

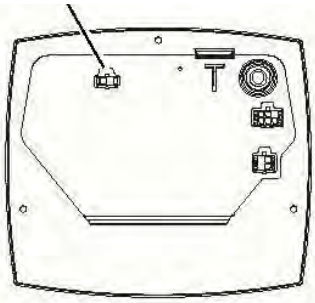
Chlorine generator suitable for valve 255 and Performa 268 with Logix 740/760 and 742/762 controller

- Simple, reliable and cheap disinfection device;
- Delivery includes n.1 electrode and n.1 connection cable;
- Logix 740/760 and 742/762 controllers provide to make a low chlorine level in order to sanitize resin bed during regeneration;
- Logix controller has a light check salt that indicates to end user when salt has to be added into brine tank;
- Potassium chloride or sodium chloride can be used.

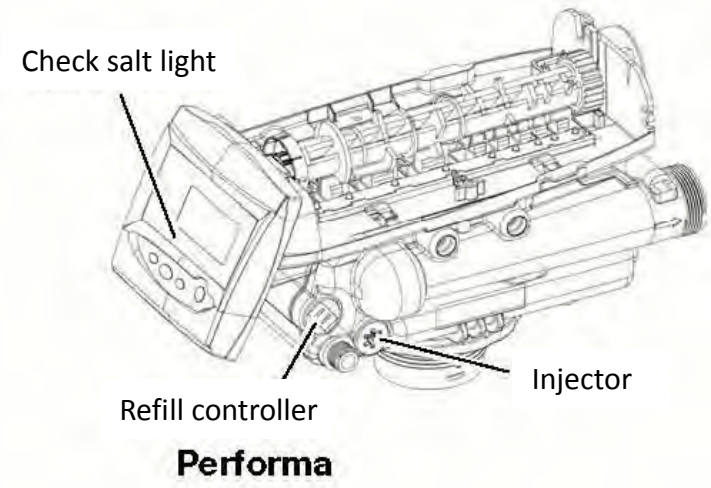
REF.	
AX040	



Chlorine generator connection



Logix controller - Rear



Test kit for hardness

- kit for hardness testing with indicator and titrant complete with test tube;
- definition 0,5 °F;
- number of tests 400°F;
- available No 6 blister of indicator 15 ml (REF. AV203) and No 6 blister of titrant 25 ml (REF. AV204).

Ref. AV200

REF.	
AV200	
AV203	
AV204	

- kit for hardness testing with single reagent packaged in blister, with test tube;
- available for definition with French (REF. AV202) or German (REF. AV207) degrees.

Ref. AV202

REF.	DEFINITION	NUMBER OF TESTS	
AV202	1°F	700°F	
AV207	1°D	600°D	

- kit for hardness testing with single reagent packaged in blister, with test tube;
- available for definition with French (REF. AV201) or German (REF. AV206) degrees.

Ref. AV201

REF.	DEFINITION	NUMBER OF TESTS	
AV201	1°F	350°F	
AV206	1°D	300°D	

TOTAL CHLORINE KIT

- Color comparison kit for Chlorine reaction;
- Ideal for water with low content of organics, like drink water.

REF.	MODEL	RANGE (ppm Cl_2)	TEST QUANTITY	
AV205	O-TOL	0,10 - 0,25 - 0,50 - 0,75 - 1,0 - 2,0	75	

CHLORINE DPD KIT

- Color comparison kit for Chlorine reaction;
- This kit measures the free chlorine and the total chlorine. The difference is given by the combined chlorine (for water with high total organic carbon);
- IPT kits are ideal for few analyzes with discrete precision. For higher precision, we suggest the HYDROCHECK DPD (ideal for waste water, purified drinking water and swimming pool).

REF.	MODEL	RANGE		TEST QUANTITY	
		SAMPLE	(ppm Cl_2)		
AV208	IPT DPD	5 ml	0,1 - 0,2 - 0,3 - 0,4 - 0,5 - 0,75 - 1,0 - 1,5	150	
AV220	HYDROCHECK DPD	I	0,1 - 0,2 - 0,3 - 0,4 - 0,5 - 0,75 - 1,0 - 1,5	350	
		II	0,025 - 0,050 - 0,075		

AMMONIA KIT

- Color comparison kit for Ammonia reaction;
- IPT kits are ideal for few analyzes with discrete precision. For higher precision, we suggest the HYDROCHECK.

REF.	MODEL	RANGE (ppm NH_3)	TEST QUANTITY	
AV209	IPT	0,25 - 0,50 - 0,75 - 1,0 - 2,0 - 8,0	200	
AV221	HYDROCHECK	0,0 - 0,10 - 0,25 - 0,5 - 1,0 - 2,0 - 4,0	180	

IRON KIT

- Color comparison kit for Iron reaction;
- IPT kits are ideal for few analyzes with discrete precision. For higher precision, we suggest the HYDROCHECK HIGH.

REF.	MODEL	RANGE		TEST QUANTITY	
		SAMPLE	(ppm Fe)		
AV210	IPT	5 ml	0,25 - 0,50 - 1,0 - 2,0 - 5,0 - 7,5 - 10 - 15	100	
		20 ml	0,05 - 0,10 - 0,15 - 0,20		
AV222	HYDROCHECK HIGH	I	0,25 - 0,50 - 1,0 - 2,0 - 5,0 - 7,5 - 10 - 15	400	
		II	0,05 - 0,10 - 0,15 - 0,20		

MANGANESE KIT

- Color comparison kit for Manganese reaction;
- IPT kits are ideal for few analyzes with discrete precision. For higher precision, we suggest the HYDROCHECK.

REF.	MODEL	RANGE		TEST QUANTITY	
		SAMPLE	(ppm Mn)		
AV211	IPT	5 ml	0,1 - 0,2 - 0,25 - 0,5 - 0,75 - 1,0 - 1,25 - 1,5	70	
AV223	HYDROCHECK	I	0,1 - 0,2 - 0,25 - 0,5 - 0,75 - 1,0 - 1,25 - 1,5	130	
		II	0,025 - 0,050 - 0,100		

NITRATE KIT

- Color comparison kit for Nitrate reaction;
- IPT kits are ideal for few analyzes with discrete precision. For higher precision, we suggest the HYDROCHECK (ideal for waste water, superficial water and drinking water).

REF.	MODEL	RANGE (ppm NO_3)	TEST QUANTITY	
AV212	IPT	10 - 20 - 40 - 60 - 80 - 100 - 120 - 140	50	
AV224	HYDROCHECK	5 - 10 - 20 - 40 - 60 - 80 - 100 - 120 - 140	100	

PH KIT

- Color comparison kit for pH;
- IPT kits are ideal for few analyzes with discrete precision. For higher precision, we suggest pH meters.

REF.	MODEL	RANGE (pH)	TEST QUANTITY	
AV213	IPT	1-2-3-4-5-5,5-6-6,5-7-7,5-8-8,5-9-9,5-10-11	200	

SULPHATE KIT

- Color comparison kit for Sulphate by turbidimetric method.

REF.	MODEL	RANGE (ppm SO_4)	TEST QUANTITY	
AV214	IPT	50 - 75 - 100 - 150 - 200 - 250 - 300 - 400	70	

F65 Runxin Residential Down Flow Valves

- Electronic programmable valve, suitable for automatic and residential water softening systems;
- Valve body in NSF listed Noryl plastic material;
- Operating system based on two high design ceramic discs;
- Regeneration DF;
- Operating flow rate Kv = 1,08;
- Backwash flow rate Kv = 0,50;
- Resin volume range = 5 ÷ 40 liters;
- Available in chronometric or volumetric versions;
- With White Injector mounted (Pink, Yellow and Blue Injectors included), European transformer 12/230V – 50Hz, upper screen, n.1 Base Seal O-ring, n.1 Drain Hose Connector, n.1 Brine Tube Hose Connector, n.1 Tube Bushing and n.1 Brine Line Flow Control);
- Others injectors (6800 Series)and accessories not included, to order separately (please, see the data sheet (01-06-01-EN).

REF.
RF65B1

REF.
RF65D1

Characteristics	
Tank size	6” ÷ 10”
In / Out connections	Threaded ¾” female (male optional included)
Pressure vessel connection	Threaded 2 ½ ”- 8 UN male
Drain line connection	Threaded ½” male
Brine line connection	Threaded ⅜” BSPT male
Distributor tube O. D. diameter	1,05” (= 27 mm)
Distributor tube length above pressure vessel	0 ± 2 mm
Weight (valve + controller)	1,66 kg
Operating pressure	1,5 ÷ 6,0 bar
Water temperature	5°C ÷ 50°C

REF.	DESCRIPTION	
RF65B1	Electronic Chronometric Softening Valve (LED)	
RF65D1	Electronic Chronometric Softening Valve (LCD)	
RF65D1/F70B (*)	Electronic Chronometric Softening Valve (LCD) with By-pass	
RF65D3/F70BL (*)	Electronic Volumetric Softening Valve (LCD) with By-pass with Turbine	

SPECIFIC ACCESSORIES

REF.	DESCRIPTION	
RF70B (*)	By-pass for RF65 and RF69 Valves	
RF70BL (*)	By-pass with Turbine for RF65 and RF69 Valves	
RF09959	Floating valve 35"	

SPARE PARTS

REF.	DESCRIPTION	
RF09967	European Power Adapter	
RFP9999	Upper Screen ¾” Bajonet	

Note: If you use a by-pass (*), you must install a floating valve (our ref. RF09959).

F79B-LCD Runxin Residential Volumetric Valve

REF.
RF79B-LCD

- Electronic volumetric programmable valve multilanguage, suitable for automatic and residential water softening systems;
- Valve body in NSF listed Noryl plastic material;
- Operating system based on two high design ceramic discs;
- Regeneration DF or UF;
- Operating flow rate Kv = 1,14; Backwash flow rate Kv = 0,5;
- Resin volume range = 5 ÷ 40 liters;
- With Pink Injector mounted (Yellow, Blue and White Injectors included), European transformer 12/230V – 50Hz, upper screen, n.1 Base Seal O-ring, n.1 Drain Hose Connector, n.1 Brine Tube Hose Connector, n.1 Tube Bushing and n.1 red Brine Line Flow Control), Meter and Bypass Adjusting Bolt;
- Others injectors (6800 Series) and accessories not included, to order separately (please, see the data sheet (01-06-01-EN).

Characteristics	
Tank size	6” ÷ 10”
In / Out connections	Threaded ¾” male
Pressure vessel connection	Threaded 2 ½ ”- 8 UN male
Drain line connection	Threaded ½” male
Brine line connection	Threaded ⅜” BSPT male
Distributor tube O. D. diameter	1,05” (= 27 mm)
Distributor tube length above pressure vessel	0 ± 2 mm
Weight (valve + controller)	2,25 kg
Operating pressure	1,5 ÷ 6,0 bar
Water temperature	5°C ÷ 50°C

REF.	DESCRIPTION	
RF79B-LCD	Electronic Volumetric Softening Valve	

SPECIFIC ACCESSORIES

REF.	DESCRIPTION	
RF70D	By-pass for RF79B-LCD Valve	

SPARE PARTS

REF.	DESCRIPTION	
RF09962	O-R CONNECTOR 3/4" FOR FLOW METER	
RF09963	CONNECTOR 3/4" FLOW METER	
RF09964	ELECTRONIC CONTROL BOARD	
RF09965	ELECTRONIC POSITIONING BOARD	
RF09966	ELECTRONIC BOARD FOR DISPLAY	
RF09967	EUROPEAN POWER ADAPTER	
RF09968	TURBINE FLOW METER	
RF09969	SEMI-TRANSPARENT COVER	
RF09970	PIPE CONNECTIONS 3/4"	
RFP9999	Upper Screen ¾” Bajonet	

F69 Runxin Residential Up Flow Softening Valves

- Electronic programmable valve, suitable for residential water softening systems;
- Valve body in NSF listed Noryl plastic material;
- Operating system based on two high design ceramic discs;
- Regeneration UF;
- Operating flow rate Kv = 1,08;
- Backwash flow rate Kv = 0,5;
- Resin volume range = 5 ÷ 40 liters;
- Available in chronometric or volumetric versions;
- F69C Valve is with Brown Injector mounted;
- F69P Valves are with Pink Injector mounted (Yellow, Blue and White Injectors included);
- European transformer 12/230V – 50Hz, upper screen, n.1 Base Seal O-ring, n.1 Drain Hose Connector, n.1 Brine Tube Hose Connector, n.1 Tube Bushing and n.1 Brine Line Flow Control);
- Others injectors (6800 Series) and accessories not included, to order separately (please, see the data sheet 01-06-01-EN).

REF.
RF69P3Y

Characteristics	
Tank size	6” ÷ 10”
In / Out connections	Threaded ¾” female (male optional included)
Pressure vessel connection	Threaded 2 ½ ”- 8 UN male
Drain line connection	Threaded ½” male
Brine line connection	Threaded ⅜” BSPT male
Distributor tube O. D. diameter	1,05” (= 27 mm)
Distributor tube length above pressure vessel	0 ± 2 mm
Weight (valve + controller)	2,04 kg
Operating pressure	1,5 ÷ 6,0 bar
Water temperature	5°C ÷ 50°C

REF.	DESCRIPTION	
RF69C	Electronic Chronometric Semi-Automatic Valve	
RF69P1Y	Electronic Chronometric Valve (Indicator)	
RF69P3Y	Electronic Volumetric Valve (Indicator)	
RF69P3Y/F70BL	Electronic Volumetric Valve (Indicator) with By-pass with Turbine	

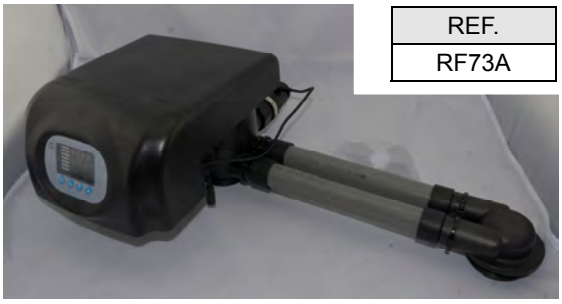
SPECIFIC ACCESSORIES

REF.	DESCRIPTION	
RF70B	By-pass for RF65 and RF69 Valves	
RF70BL	By-pass with Turbine for RF65 and RF69 Valves	
RF09960	USB Programmer for RF69C Valves	

SPARE PARTS

REF.	DESCRIPTION	
RF09967	European Power Adapter	
RFP9999	Upper Screen ¾” Bajonet	

F73A Runxin Residential Volumetric Valve on a Duplex Tanks



REF.
RF73A

- Electronic volumetric programmable valve, suitable for automatic and residential water softening systems;
- Valve body in NSF listed Noryl plastic material;
- Operating system based on two high design ceramic discs;
- Regeneration DF or UF;
- Operating flow rate Kv = 2,33;
- Backwash flow rate Kv = 0,88;
- Resin volume range = 45 ÷ 100 liters;
- With Red Injector mounted (Black Injector included), European transformer 12/230V – 50Hz, upper screen, n.1 Base Seal O-ring, n.1 Drain Hose Connector, n.1 Brine Tube Hose Connector, n.1 Tube Bushing, n.1 Brine Line Flow Control, Meter and Bypass Adjusting Bolt;
- Others injectors (6800 Series) and accessories not included, to order separately (please, see the data sheet 01-06-01-EN).

Characteristics	
Tank size	10” ÷ 14”
In / Out connections	Threaded 1” male
Pressure vessel connection	Threaded 2 ½ ”- 8 UN male
Drain line connection	Threaded ¾” male
Brine line connection	Threaded ⅜” BSPT male
Distributor tube O. D. diameter	1,05” (= 27 mm)
Distributor tube length above pressure vessel	0 ± 2 mm
Weight (valve + controller)	4,75 kg
Operating pressure	1,5 ÷ 6,0 bar
Water temperature	5°C ÷ 50°C

REF.	DESCRIPTION	
RF73A	Electronic Volumetric Softening Valve (LED)	

SPARE PARTS

REF.	DESCRIPTION	
RF09967	European Power Adapter	
RFP9999	Upper Screen ¾” Bajonet	

F63 Runxin Residential Down Flow Softening Valves

- Electronic programmable valve, suitable for automatic and residential water softening systems;
- Valve body in NSF listed Noryl plastic material;
- Operating system based on two high design ceramic discs;
- Regeneration DF; Resin volume range = 40 ÷ 150 liters;
- Operating flow rate Kv = 3,13; Backwash flow rate Kv = 1,25;
- Available in chronometric or volumetric versions;
- With Green Injector mounted (Purple and White Injectors included), European transformer 12/230V – 50Hz, upper screen, n.1 Base Seal O-ring, n.1 Drain Hose Connector, n.1 Brine Tube Hose Connector, n.1 Tube Bushing and n.1 Brine Line Flow Control);
- Others injectors (6800 Series) and accessories not included, to order separately (please, see the data sheet 01-06-01-EN).

REF.
RF63B1

Characteristics	
Tank size	10” ÷ 18”
In / Out connections	Threaded 1” female (male optional included)
Pressure vessel connection	Threaded 2 ½ ”- 8 UN male
Drain line connection	Threaded ½” male
Brine line connection	Threaded ⅜” BSPT male
Distributor tube O. D. diameter	1,05” (= 27 mm)
Distributor tube length above pressure vessel	0 ± 2 mm
Weight (valve + controller)	2,34 kg
Operating pressure	1,5 ÷ 6,0 bar
Water temperature	5°C ÷ 50°C

REF.	DESCRIPTION	
RF63B1 (*)	Electronic Chronometric Softening Valve (LED)	
RF63D1	Electronic Chronometric Softening Valve (LCD)	
RF63P1Y	Electronic Chronometric Softening Valve (Indicator)	
RF63B3 (*)	Electronic Volumetric Softening Valve (LED)	
RF63C3	Electronic Volumetric Softening Valve (LED)	
RF63C3/F70AL	Electronic Volumetric Softening Valve (LED) with By-pass	
RF63D3	Electronic Volumetric Softening Valve (LCD)	
RF63D3/F70AL	Electronic Volumetric Softening Valve (LCD) with By-pass	

(*) available till it will be out-of-stock.

SPECIFIC ACCESSORIES

REF.	DESCRIPTION	
RF70A	By-pass for RF63 and RF68 Valves	
RF70AL	By-pass with Turbine for RF63 and RF68 Valves	

SPARE PARTS

REF.	DESCRIPTION	
RF09967	European Power Adapter	
RFP9999	Upper Screen ¾” Bajonet	

F82B-LCD Runxin Residential Volumetric Valves

- Electronic volumetric programmable valve multilanguage, suitable for automatic and residential water softening systems;
- Valve body in NSF listed Noryl plastic material;
- Operating system based on two high design ceramic discs;
- Regeneration DF or UF;
- Operating flow rate Kv = 3,13;
- Backwash flow rate Kv = 1,25;
- Resin volume range = 40 ÷ 150 liters;
- With White Injector mounted (Red, Black and Orange Injectors included), European transformer 12/230V – 50Hz, upper screen, n.1 Base Seal O-ring, n.1 Drain Hose Connector, n.1 Brine Tube Hose Connector, n.1 Tube Bushing and n.1 Brine Line Flow Control), Meter and Bypass Adjusting Bolt;
- Others injectors (6800 Series) and accessories not included, to order separately (please, see the data sheet 01-06-01-EN).

REF.
RF82B-LCD

Characteristics	
Tank size	10” ÷ 18”
In / Out connections	Threaded 1” male
Pressure vessel connection	Threaded 2 ½ ”- 8 UN male
Drain line connection	Threaded ½” male
Brine line connection	Threaded ⅜” BSPT male
Distributor tube O. D. diameter	1,05” (= 27 mm)
Distributor tube length above pressure vessel	0 ± 2 mm
Weight (valve + controller)	2,72 kg
Operating pressure	1,5 ÷ 6,0 bar
Water temperature	5°C ÷ 50°C

REF.	DESCRIPTION	
RF82B-LCD	Electronic Volumetric Softening Valve (LCD)	
RF82B-LCD/F70CL (*)	Electronic Volumetric Softening Valve (LCD) with Bypass CL	

ACCESSORIES

REF.	DESCRIPTION	
RF70CL	By-pass with Turbine for RF63, RF68 and RF82 Valves	

SPARE PARTS

REF.	DESCRIPTION	
RF09967	EUROPEAN POWER ADAPTER	
RFP9999	Upper Screen ¾” Bajonet	

F68 Runxin Residential Up Flow Valves

- Electronic programmable valve, suitable for automatic and residential water softening systems;
- Valve body in NSF listed Noryl plastic material;
- Operating system based on two high design ceramic discs;
- Regeneration UF;
- Operating flow rate Kv = 3,13;
- Backwash flow rate Kv = 1,25;
- Resin volume range = 18 ÷ 150 liters;
- Available in volumetric version;
- With Yellow Injector mounted (Red, Black and Orange Injectors included), European transformer 12/230V – 50Hz, upper screen, n.1 Base Seal O-ring, n.1 Drain Hose Connector, n.1 Brine Tube Hose Connector, n.1 Tube Bushing and n.1 Brine Line Flow Control);
- Others injectors (Series 6800) and accessories not included, to order separately (please, see the data sheet 01-06-01-EN).

REF.
RF68C3/F70AL

Characteristics	
Tank size	10” ÷ 18”
In / Out connections	Threaded 1” male
Pressure vessel connection	Threaded 2 ½ ”- 8 UN male
Drain line connection	Threaded ½” male
Brine line connection	Threaded ⅜” BSPT male
Distributor tube O. D. diameter	1,05” (= 27 mm)
Distributor tube length above pressure vessel	0 ± 2 mm
Weight (valve + controller)	2,90 kg
Operating pressure	1,5 ÷ 6,0 bar
Water temperature	5°C ÷ 50°C

REF.	DESCRIPTION	
RF68C3/F70AL	RF68C3 Electronic Volumetric Softening Valve (LED) with By-pass AL	
RF68P3Y/F70AL	RF68P3Y Electronic Volumetric Softening Valve (Indicator) with By-pass AL	
RF68P3Y/F70CL	RF68P3Y Electronic Volumetric Softening Valve (Indicator) with By-pass CL	

SPECIFIC ACCESSORIES

REF.	DESCRIPTION	
RF70AL	By-pass with Turbine for RF63 and RF68 Valves	
RF70CL	By-pass with Turbine for RF63, RF68 and RF82 Valves	

SPARE PARTS

REF.	DESCRIPTION	
RF09967	European Power Adapter	
RFP9999	Upper Screen ¾” Bajonet	

F92A-LED Runxin Residential Up Flow Valve

- Electronic programmable valve, suitable for automatic and residential water softening systems;
- Valve body in NSF listed Noryl plastic material;
- Operating system based on two high design ceramic discs;
- Regeneration UF;
- Operating flow rate Kv = 4,77;
- Backwash flow rate Kv = 1,35;
- Resin volume range = 120 ÷ 300 liters;
- Available in volumetric version;
- With Red Injector mounted (Purple, Green, Yellow and Orange Injectors included), European transformer 12/230V – 50Hz, upper screen, n.1 Base Seal O-ring, n.1 Drain Hose Connector, n.1 Brine Tube Hose Connector, n.1 Tube Bushing and n.1 Brine Line Flow Control).

REF.
RF92A-LED

Characteristics	
Tank size	16” ÷ 24”
In / Out connections	Threaded 1” male
Pressure vessel connection	Threaded 2 ½ ”- 8 UN male
Drain line connection	Threaded ½” male
Brine line connection	Threaded ⅜” BSPT male
Distributor tube O. D. diameter	32 mm
Distributor tube length above pressure vessel	0 ± 2 mm
Weight (valve + controller)	2,72 kg
Operating pressure	1,5 ÷ 6,0 bar
Water temperature	5°C ÷ 50°C

REF.	DESCRIPTION	
RF92A-LED	Electronic Volumetric Softening Valve (LED)	

SPARE PARTS

REF.	DESCRIPTION	
RF09967	European Power Adapter	
RF09949	Upper Screen 32mm	

Runxin Residential Valves Accessories

- Injectors and Accessories not included in the Runxin Residential Valves, to order separately.

SPECIFIC ACCESSORIES

REF.	DESCRIPTION	
RF06801	INJECTOR BROWN + DLFC FOR RUNXIN VALVES - 6301	
RF06802	INJECTOR PINK + DLFC FOR RUNXIN VALVES - 6302	
RF06803	INJECTOR YELLOW + DLFC FOR RUNXIN VALVES - 6303	
RF06804	INJECTOR BLUE + DLFC FOR RUNXIN VALVES - 6304	
RF06805	INJECTOR WHITE + DLFC FOR RUNXIN VALVES - 6305	
RF06806	INJECTOR BLACK + DLFC FOR RUNXIN VALVES - 6306	
RF06807	INJECTOR PURPLE + DLFC FOR RUNXIN VALVES - 6307	
RF06808	INJECTOR RED + DLFC FOR RUNXIN VALVES - 6308	
RF06809	INJECTOR GREEN FOR RUNXIN VALVES - 6309	
RF06810	INJECTOR ORANGE FOR RUNXIN VALVES - 6310	
RF06301	INJECTOR BROWN + DLFC #1 FOR RUNXIN VALVES - 6301	
RF06302	INJECTOR PINK + DLFC #1 FOR RUNXIN VALVES - 6302	
RF06303	INJECTOR YELLOW + DLFC #2 FOR RUNXIN VALVES - 6303	
RF06304	INJECTOR BLUE + DLFC #2 FOR RUNXIN VALVES - 6304	
RF06305	INJECTOR WHITE + DLFC #3 FOR RUNXIN VALVES - 6305	
RF06306	INJECTOR BLACK + DLFC #3 FOR RUNXIN VALVES - 6306	
RF06307	INJECTOR PURPLE + DLFC #4 FOR RUNXIN VALVES - 6307	
RF06308	INJECTOR RED + DLFC #4 FOR RUNXIN VALVES - 6308	
RF06309	INJECTOR GREEN + DLFC #5 FOR RUNXIN VALVES - 6309	
RF06310	INJECTOR ORANGE + DLFC #5 FOR RUNXIN VALVES - 6310	
RF09995	Service Wrench for Valves - 8484003	
RF47010	Runxin Chlorine Generator F79 and F82	
RF09998	2.5" M/F Adapter with O-ring with Wrench	
RF09997	Adapter Wrench	
RF09971	English Power Adapter	
RF43010	Brine Well D.60 mm H=396 mm with Brine Valve	
RF43011	Brine Well D.60 mm H=308 mm with Brine Valve	

F74 Runxin Industrial Down Flow Valve

- Electronic programmable valve, suitable for automatic and industrial water softening systems;
- Valve body in NSF listed Noryl plastic material;
- Operating system based on two high design ceramic discs;
- Regeneration DF;
- Operating flow rate Kv = 6,50;
- Backwash flow rate Kv = 3,57;
- Resin volume range = 120 ÷ 450 liters;

- With Pink Injector mounted (Brown and Blue Injectors included), European transformer 12/230V – 50Hz, upper screen, n.1 Base Seal O-ring, n.1 Drain Hose Connector, n.1 Brine Tube Hose Connector, n.1 Tube Bushing and n.1 Brine Line Flow Control);
- Others injectors (series 7400) and accessories not included, to order separately (please, see the data sheet 01-08-01 EN)

REF.
RF74A3

Characteristics	
Tank size	21” ÷ 30”
In / Out connections	Threaded 2” male
Pressure vessel connection	Threaded 4 ”- 8 UN male
Drain line connection	Threaded 1” male
Brine line connection	Threaded ½” BSPT male
Distributor tube O. D. diameter	50 mm
Distributor tube length above pressure vessel	0 ± 2 mm
Weight (valve + controller)	5,88 kg
Operating pressure	2,0 ÷ 6,0 bar
Water temperature	5°C ÷ 50°C

REF.	DESCRIPTION	
RF74A3	Electronic Volumetric Softening Valve (LED)	

SPARE PARTS

REF.	DESCRIPTION	
RF09974	European Power Adapter for Industries Valves	
RF09950	Upper Screen 50mm	

F99 Runxin Industrial Down Flow Valves

- Electronic programmable valve, suitable for automatic and industrial water softening systems;
- Valve body in NSF listed Noryl plastic material;
- Operating system based on two high design ceramic discs;
- Regeneration DF;
- Operating flow rate Kv = 14,4;
- Backwash flow rate Kv = 5,72;
- Resin volume range = 450 ÷ 800 liters;

- With Yellow Injector mounted (Pink Injectors included), European transformer 12/230V – 50Hz, upper screen, n.1 Base Seal O-ring, n.1 Drain Hose Connector, n.1 Brine Tube Hose Connector, n.1 Tube Bushing and n.1 Brine Line Flow Control);
- Others injectors (7700 Series) and accessories not included, to order separately (please, see the data sheet 01-08-01 EN).

REF.
RF99A3

Characteristics	
Tank size	30” ÷ 42”
In / Out connections	Threaded 2” male
Pressure vessel connection	Threaded 4 ”- 8 UN male
Drain line connection	Threaded 1,5” male
Brine line connection	Threaded ¾” BSPT male
Distributor tube O. D. diameter	48,3 mm
Distributor tube length above pressure vessel	0 ± 2 mm
Weight (valve + controller)	11,50 kg
Operating pressure	2,0 ÷ 6,0 bar
Water temperature	5°C ÷ 50°C

REF.	DESCRIPTION	
RF99A1	Electronic Chronometric Softening Valve (LED)	
RF99A3	Electronic Volumetric Softening Valve (LED)	

SPARE PARTS

REF.	DESCRIPTION
RF09974	European Power Adapter

F111 Runxin Industrial Down Flow Valves

- Electronic programmable valve, suitable for automatic and industrial water softening systems;
- Valve body in NSF listed Noryl plastic material;
- Operating system based on two high design ceramic discs;
- Regeneration DF;
- Operating flow rate Kv = 16,71;
- Backwash flow rate Kv = 18,97;
- Resin volume range = 450 ÷ 800 liters;
- Available in chronometric or volumetric versions;
- With Blue Injector mounted (Yellow and White Injectors included), European transformer 12/230V – 50Hz, upper screen, n.1 Base Seal O-ring, n.1 Drain Hose Connector, n.1 Brine Tube Hose Connector, n.1 Tube Bushing and n.1 Brine Line Flow Control);
- Others injectors (7700 Series) and accessories not included, to order separately (please, see the data sheet

REF.
RF111A3

Characteristics	
Tank size	30” ÷ 48”
In / Out connections	Threaded 2” male
Pressure vessel connection	Threaded 4 ”- 8 UN male
Drain line connection	Threaded 1,5” male
Brine line connection	Threaded ¾” BSPT male
Distributor tube O. D. diameter	63 mm
Distributor tube length above pressure vessel	0 ± 2 mm
Weight (valve + controller)	11,50 kg
Operating pressure	2,0 ÷ 6,0 bar
Water temperature	5°C ÷ 50°C

REF.	DESCRIPTION	
RF111A1	Electronic Chronometric Softening Valve (LED)	
RF111A3	Electronic Volumetric Softening Valve (LED)	

SPARE PARTS

REF.	DESCRIPTION
RF09974	European Power Adapter
RF09951	Upper Screen 63mm

Runxin Industrial Valves Accessories

- Injectors and Accessories not included in the Runxin Industrial Valves, to order separately.

SPECIFIC ACCESSORIES

REF.	DESCRIPTION	
RF07401	Injector Brown for Runxin Valves - 7401	
RF07402	Injector Pink for Runxin Valves - 7402	
RF07403	Injector Yellow for Runxin Valves - 7403	
RF07404	Injector Blue for Runxin Valves - 7404	
RF07701	Injector Brown for Runxin Valves - 7701	
RF07702	Injector Pink for Runxin Valves - 7702	
RF07703	Injector Yellow for Runxin Valves - 7703	
RF07704	Injector Blue for Runxin Valves - 7704	
RF07705	Injector White for Runxin Valves - 7705	
RF09995	Service Wrench for Valves - 8484003	

F75 Runxin Industrial Filter Valve

- Electronic valve, suitable for automatic and industrial water filtering systems;
- Valve body in NSF listed Noryl plastic material;
- Operating system based on two high design ceramic discs;
- Operating flow rate Kv = 8,7;
- Backwash flow rate Kv = 8,0;
- With European transformer 12/230V – 50Hz, upper screen, n.1 Base Seal O-ring, n.1 Drain Hose Connector.

REF.
RF75A

Characteristics	
Tank size	16” ÷ 24”
In / Out connections	Threaded 2” male
Pressure vessel connection	Threaded 4 ”- 8 UN male
Drain line connection	Threaded 2” male
Distributor tube O. D. diameter	50 mm
Distributor tube length above pressure vessel	0 ± 2 mm
Weight (valve + controller)	4,4 kg
Operating pressure	2,0 ÷ 6,0 bar
Water temperature	5°C ÷ 50°C

REF.	DESCRIPTION	
RF75A	Electronic Filtering Valve (LED)	

SPARE PARTS

REF.	DESCRIPTION	
RF09974	European Power Adapter for Industries Valves	
RF09950	Upper Screen 50mm	

Runxin Manual Softening Valves

- Multi-way valves having five functions: service, backwash, brine, fast rinse and refill;
- IN/OUT connections ¾" BSPP female;
- Drain line connection ½" BSPP female;
- Brine line connection ⅜" BSPT male;
- Riser tube diameter 1,05" (26,7 mm);
- Max suggested flow 1,5 m^3/h (only valve) @ Δp = 1,75 bar;
- Operating flow rate Kv = 1,09;
- Backwash flow rate Kv = 0,55;
- Max operating pressure 6 bar @ 20°C;
- Max operating temperature 50°C;
- Upper screen included.

REF.
RF64B

REF.
RF64BC

REF.	DF / UF	MOUNTING	
RF64B	DF	Vertical	
RF64BC	DF	Side	
RF64C (*)	UF	Vertical	

REF.
RF64C

- Multi-way valves having five functions: service, backwash, brine, fast rinse and refill;
- IN/OUT connections 1" BSPP female;
- Drain line connection ½" BSPP female;
- Brine line connection ⅜" BSPT male;
- Riser tube diameter 1,05" (26,7 mm);
- Max suggested flow 4,5 m^3/h (only valve) @ Δp = 1,75 bar;
- Operating flow rate Kv = 3,13;
- Backwash flow rate Kv = 1,25;
- Max operating pressure 6 bar @ 20°C;
- Max operating temperature 50°C;
- Upper screen included.

REF.
RF64A1

REF.
RF64A2

REF.
RF64AC

REF.	DF / UF	MOUNTING	HANDLE MATERIAL	
RF64A1	DF	Vertical	Metal	
RF64A2	DF	Vertical	Plastic	
RF64AC	DF	Side	Plastic	

ATTENTION: this multi-way valve is prohibited to change working position with pressure; make sure to shut down pump or close feed valve before rotating the handle to other working position.

(*) available till it will be out-of-stock.

Runxin Manual Filter Valves

Max 4 m^3/h Multi-way Manual Valve

- Multi-way valve having three functions: filtration, backwash, rinse;
- Fits threaded tanks 2 ½" – 8NPSM;
- IN/OUT connections and drain 1" BSPP female;
- Riser tube diameter 1,05" (26,7 mm);
- Max suggested flow 4 m^3/h (only valve);
- Max operating pressure 6 bar @ 20°C;
- Max operating temperature 50°C;
- Upper screen included.

ATTENTION: this multi-way valve is prohibited to change working position with pressure; make sure to shut down pump or close feed valve before rotating the handle to other working position.

REF.	
PV410	

Max 10 m^3/h Multi-way Manual Valves

- Multi-way valve having three functions: filtration, backwash, rinse;
- Fits threaded tanks 4" – 8UN;
- IN/OUT connections 2" BSPP female;
- Drain line connection 1,5" BSPP female;
- Riser tube diameter 50 mm;
- Max suggested flow 10 m^3/h (only valve) @ Δp = 1,75 bar;
- Operating flow rate Kv = 8,2;
- Backwash flow rate Kv = 6,1;
- Max operating pressure 6 bar @ 20°C;
- Max operating temperature 50°C;
- Upper screen included.

REF.
RF56D1

REF.
RF56D2

REF.	HANDLE MATERIAL	
RF56D1	Metal	
RF56D2	Plastic	

ATTENTION: this multi-way valve is prohibited to change working position with pressure; make sure to shut down pump or close feed valve before rotating the handle to other working position.

Pressure vessels and accessories

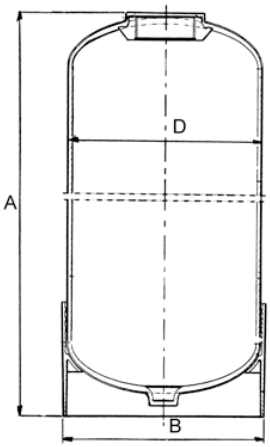
EUROTROL®
WATER TREATMENT COMPONENTS

MWG®
ITALIAN WATER TECHNOLOGY
Exclusive distributor worldwide

STRUCTURAL

MWG Residential Pressure Vessels with Base

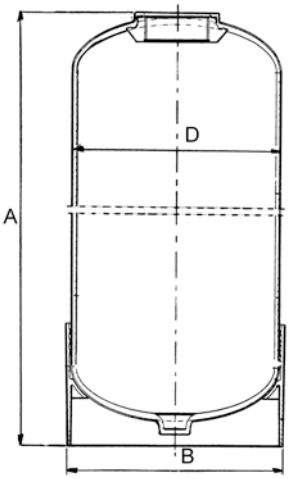
- Made in China;
- Composite pressure vessels PE liner reinforced with fiberglass and epoxy resin;
- For industrial and potable water treatment systems;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- Certification for contact with drinking water following EC directives and KTW (for Germany) recommendations;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- In compliance with the sanitary certification ACS (France);
- Max operating pressure 10 bar; max operating temperature 50°C;
- Top connection threaded 2 ½" – 8NPSM or 4"– 8UN;
- Cycle test 250.000 times from 0,7 to 10 bar;
- Burst test to 4 times max operating pressure;
- Blue colour; warranty 10 years.



REF.	MODEL	VOLUME (liters)	EXTERNAL D (mm)	A (mm)	B (mm)	CONNECTION	
BMWG05013BB	5 x 13	3,2	130	335 ± 6	135	2 ½"	
BMWG06013BB	6 x 13	4,9	159	335 ± 6	165	2 ½"	
BMWG06018BB	6 x 18	7,2	159	462 ± 6	165	2 ½"	
BMWG06035BB	6 x 35	15,0	159	896 ± 6	165	2 ½"	
BMWG07013BB	7 x 13	6,3	180	333 ± 6	188	2 ½"	
BMWG07017BB	7 x 17	8,6	180	434 ± 6	188	2 ½"	
BMWG07024BB	7 x 24	13,2	180	605 ± 6	188	2 ½"	
BMWG07030BB	7 x 30	16,4	180	768 ± 6	188	2 ½"	
BMWG07035BB	7 x 35	20,1	180	891 ± 6	188	2 ½"	
BMWG08013BB	8 x 13	8,5	207	338 ± 6	216	2 ½"	
BMWG08017BB	8 x 17	10,9	207	439 ± 6	216	2 ½"	
BMWG08024BB	8 x 24	15,9	207	627 ± 6	216	2 ½"	
BMWG08030BB	8 x 30	20,9	207	773 ± 6	216	2 ½"	
BMWG08035BB	8 x 35	25,0	207	898 ± 6	216	2 ½"	
BMWG08044BB	8 x 44	32,6	207	1130 ± 6	216	2 ½"	
BMWG09017BB	9 x 17	13,8	231	456 ± 6	240	2 ½"	
BMWG09030BB	9 x 30	26,9	231	776 ± 6	240	2 ½"	
BMWG09035BB	9 x 35	32,1	231	900 ± 6	240	2 ½"	
BMWG09042BB	9 x 42	38,4	231	1076 ± 6	240	2 ½"	
BMWG09048BB	9 x 48	44,4	231	1227 ± 6	240	2 ½"	
BMWG10017BB	10 x 17	16,7	258	445 ± 6	266	2 ½"	
BMWG10019BB	10 x 19	19,3	258	482 ± 6	266	2 ½"	
BMWG10024BB	10 x 24	25,2	258	611 ± 6	266	2 ½"	
BMWG10030BB	10 x 30	33,0	258	780 ± 6	266	2 ½"	
BMWG10035BB	10 x 35	39,4	258	902 ± 6	266	2 ½"	
BMWG10044BB	10 x 44	51,0	258	1132 ± 6	266	2 ½"	
BMWG10047BB	10 x 47	54,1	258	1197 ± 6	266	2 ½"	
BMWG10054BB	10 x 54	63,5	258	1391 ± 6	266	2 ½"	
BMWG10054GB	10 x 54	63,5	258	1390 ± 6	266	4"	
BMWG12048BB	12 x 48	78,9	308	1234 ± 6	318	2 ½"	
BMWG12052BB	12 x 52	85,9	308	1334 ± 6	318	2 ½"	
BMWG13044BB	13 x 44	83,1	335	1118 ± 6	343	2 ½"	
BMWG13054BB	13 x 54	104,3	335	1375 ± 6	343	2 ½"	
BMWG13054GB	13 x 54	104,3	335	1375 ± 6	343	4"	

Structural Residential Pressure Vessels with Base

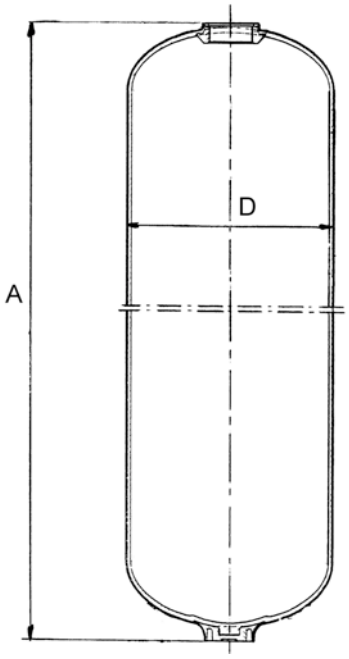
- Made in European Union (Belgium);
- Composite pressure vessels PE liner reinforced with fiberglass and epoxy resin;
- For industrial and potable water treatment systems;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- Certification for contact with drinking water following EC directives and KTW (for Germany) recommendations;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- In compliance with the sanitary certification ACS (France);
- Max operating pressure 10 bar;
- Max operating temperature 50°C;
- Top connection threaded 2 ½" – 8NPSM or 4"– 8UN;
- Cycle test 250.000 times from 0,7 to 10 bar;
- Burst test to 4 times max operating pressure;
- Blue colour;
- Warranty 5 years.



REF.	MODEL	VOLUME (liters)	EXTERNAL D (mm)	A (mm)	B (mm)	CONNECTION	
BSQ0613A3	6 x 13	4,6	159	342 ± 2	170	2 ½"	
BSQ0618A3	6 x 18	6,9	159	475 ± 2	170	2 ½"	
BSRT0635P3E	6 x 35	14,4	159	907 ± 2	170	2 ½"	
BSQ0713A3	7 x 13	6,3	184	341 ± 2	195	2 ½"	
BSQ0717A3	7 x 17	8,8	184	446 ± 2	195	2 ½"	
BSRT0724A3E	7 x 24	13,5	184	613 ± 2	195	2 ½"	
BSQ0730A3	7 x 30	16,8	184	778 ± 2	195	2 ½"	
BSQ0735A3	7 x 35	20,4	184	901 ± 2	195	2 ½"	
BSQ0817A3	8 x 17	11,0	208	435 ± 2	220	2 ½"	
BSRT0824A3E	8 x 24	16,6	208	612 ± 4	220	2 ½"	
BSQ0830A3	8 x 30	22,0	208	783 ± 2	220	2 ½"	
BSQ0835A3	8 x 35	25,7	208	902 ± 2	220	2 ½"	
BSQ0844P3	8 x 44	33,6	208	1124 ± 2	220	2 ½"	
BSRT0917A3E	9 x 17	13,7	233	431 ± 4	240	2 ½"	
BSRT0930A3E	9 x 30	26,6	233	766 ± 5	240	2 ½"	
BSQ0935A3	9 x 35	31,3	233	903 ± 2	240	2 ½"	
BSRT0942A3E	9 x 42	38,2	233	1074 ± 5	240	2 ½"	
BSRT0948A3E	9 x 48	44,6	233	1228 ± 5	240	2 ½"	
BSRT1017A3E	10 x 17	16,8	257	436 ± 4	269	2 ½"	
BSQ1019A3	10 x 19	19,1	257	502 ± 2	269	2 ½"	
BSRT1022A3E	10 x 22	22,9	257	559 ± 4	269	2 ½"	
BSRT1024A3E	10 x 24	25,1	257	605 ± 4	269	2 ½"	
BSRT1030A3E	10 x 30	32,4	257	766 ± 4	269	2 ½"	
BSQ1035A3	10 x 35	38,9	257	903 ± 2	269	2 ½"	
BSQ1044P3	10 x 44	48	257	1122 ± 2	269	2 ½"	
BSRT1047P3E	10 x 47	54	257	1188 ± 5	269	2 ½"	
BSQ1054P3	10 x 54	61	257	1385 ± 2	269	2 ½"	
BSRT1055P3EN	10 x 55	62	257	1382 ± 5	269	4"	
BSQ1248P3	12 x 48	76	304	1232 ± 3	315	2 ½"	
BSQ1252P3	12 x 52	84	304	1335 ± 3	315	2 ½"	
BSRT1344A3E	13 x 44	85	334	1145 ± 6	330	2 ½"	
BSQ1354A3	13 x 54	103	334	1371 ± 3	330	2 ½"	
BSRT1355A3EN	13 x 55	103	334	1371 ± 3	330	4"	

MWG Residential Pressure Vessels without Base

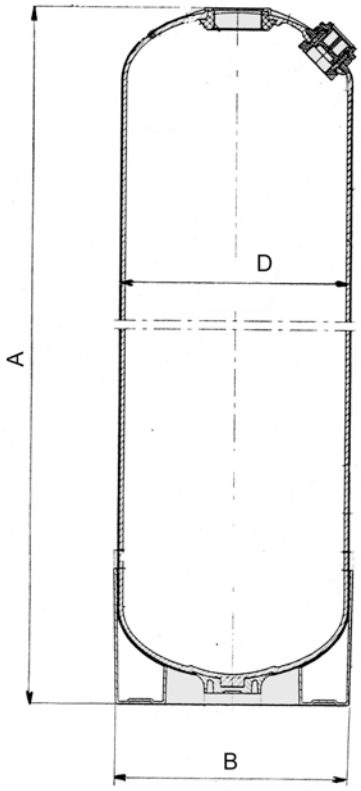
- Made in China;
- Composite pressure vessels PE liner reinforced with fiberglass and epoxy resin;
- For industrial and potable water treatment systems;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- Certification for contact with drinking water following EC directives and KTW (for Germany) recommendations;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- In compliance with the sanitary certification ACS (France);
- Max operating pressure 10 bar;
- Max operating temperature 50°C;
- Top connection threaded 2 ½" – 8NPSM or 4"– 8UN;
- Cycle test 250.000 times from 0,7 to 10 bar;
- Burst test to 4 times max operating pressure;
- Blue colour;
- Warranty 10 years.



REF.	MODEL	VOLUME (liters)	EXTERNAL D (mm)	A (mm)	CONNECTION (inch)	
BMWG05013AB	5 x 13	3,1	129	329 ± 3	2 ½"	
BMWG06013AB	6 x 13	4,7	159,5	329 ± 3	2 ½"	
BMWG07013AB	7 x 13	5,9	180	329 ± 3	2 ½"	
BMWG07017AB	7 x 17	8,2	180	431 ± 3	2 ½"	
BMWG07019AB	7 x 19	9,4	180	483 ± 3	2 ½"	
BMWG07024AB	7 x 24	12,4	180	611 ± 3	2 ½"	
BMWG07030AB	7 x 30	16,01	180	771 ± 3	2 ½"	
BMWG07035AB	7 x 35	18,09	180	891 ± 3	2 ½"	
BMWG08013AB	8 x 13	7,6	207	329 ± 3	2 ½"	
BMWG08017AB	8 x 17	10,7	207	431 ± 3	2 ½"	
BMWG08024AB	8 x 24	16,03	207	611 ± 3	2 ½"	
BMWG08030AB	8 x 30	21,2	207	771 ± 3	2 ½"	
BMWG08035AB	8 x 35	25,0	207	891 ± 3	2 ½"	
BMWG09017AB	9 x 17	13,3	230	431 ± 3	2 ½"	
BMWG09024AB	9 x 24	20,3	230	611 ± 3	2 ½"	
BMWG09030AB	9 x 30	26,5	230	771 ± 3	2 ½"	
BMWG09035AB	9 x 35	31,1	230	891 ± 3	2 ½"	
BMWG10017AB	10 x 17	16,4	257,5	431 ± 3	2 ½"	
BMWG10019AB	10 x 19	19,0	257,5	483 ± 3	2 ½"	
BMWG10024AB	10 x 24	25,2	257,5	611 ± 3	2 ½"	
BMWG10030AB	10 x 30	33,0	257,5	771 ± 3	2 ½"	
BMWG10035AB	10 x 35	38,8	257,5	891 ± 3	2 ½"	

Structural Dome-Hole Residential Pressure Vessels

- Made in U.S.A.;
- Composite pressure vessels PE liner reinforced with fiberglass and epoxy resin;
- 1 ¼" opening on the dome top of the tank with Noryl plug;
- For industrial and potable water treatment systems;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- Certification for contact with drinking water following EC directives and KTW (for Germany) recommendations;
- Max operating pressure 10 bar;
- Max operating temperature 50°C;
- Top connection threaded 2 ½" – 8NPSM;
- Cycle test 250.000 times from 0,7 to 10 bar;
- Burst test to 4 times max operating pressure;
- Natural colour;
- Warranty 5 years.

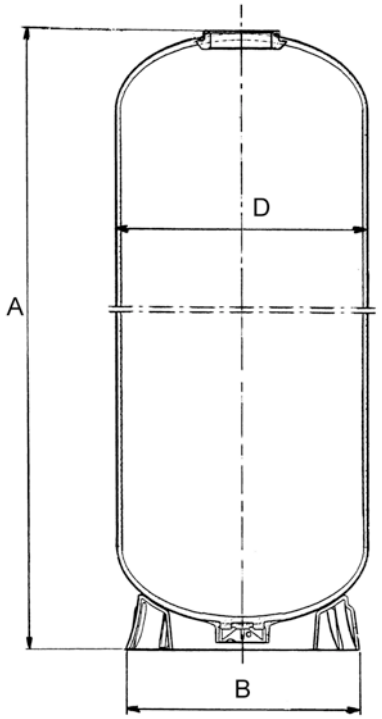


REF.	MODEL	VOLUME (liters)	EXTERNAL D (mm)	A (mm)	B (mm)	CONNECTION (inch)	
B10044QN(*)	10 x 44 DH	48	257	1122	269	2 ½"	
B10054QN(*)	10 x 54 DH	61	257	1378	269	2 ½"	
B12052QN(*)	12 x 52 DH	84	306	1346	312	2 ½"	
B13054QN(*)	13 x 54 DH	103	364	1370	375	2 ½"	

(*) not available in stock.

MWG Industrial Pressure Vessels With Threaded Top Opening

- Made in China;
- Composite pressure vessels PE liner reinforced with fiberglass and epoxy resin;
- For industrial and potable water treatment systems;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- Certification for contact with drinking water following EC directives and KTW (for Germany) recommendations;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- In compliance with the sanitary certification ACS (France);
- Max operating pressure 10 bar;
- Max operating temperature 50°C;
- Threaded top connection 4”– 8UN;
- Cycle test 250.000 times from 0,7 to 10 bar;
- Burst test to 4 times max operating pressure;
- Blue colour;
- Warranty 5 years.



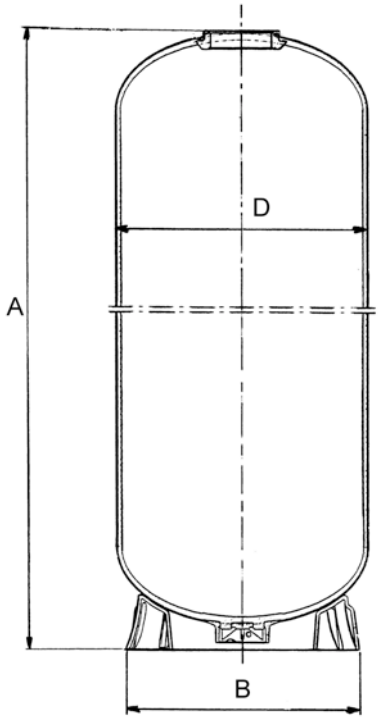
REF.	MODEL	VOLUME (liters)	EXTERNAL DIAMETER (mm)	A (mm)	B (mm)	CONNEC-TION (inch)	
BMWG14052GB	14 x 52	115,4	360	1325 ± 6	369	4” (**)	
BMWG14065GB	14 x 65	147	360	1655 ± 6	369	4” (**)	
BMWG16052GB	16 x 52	150,0	410	1316 ± 6	420	4” (**)	
BMWG16065GB	16 x 65	191,3	410	1648 ± 6	420	4” (**)	
BMWG18053GB	18 x 53	193,6	464	1366 ± 6	451	4”	
BMWG18065GB	18 x 65	242,3	464	1670 ± 6	451	4”	
BMWG21036GB	21 x 36	168,2	541	958 ± 10	532	4”	
BMWG21053GB	21 x 53	262,4	541	1390 ± 10	532	4”	
BMWG21062GB	21 x 62	312,7	541	1620 ± 10	532	4”	
BMWG24065GB	24 x 65	426,5	615	1730 ± 10	612	4”	
BMWG24072GB	24 x 72	477,5	615	1910 ± 10	612	4”	
BMWG30072GB (*)	30 x 72	725,9	767	1890 ± 10	752	4”	
BMWG36072GB (*)	36 x 72	1030,2	919	1965 ± 10	910	4”	

(*) Vacuum breaker included.

(**) with reduction 2,5”

Structural Industrial Pressure Vessels With Threaded Top Opening

- Made in European Union (Belgium);
- composite pressure vessels PE liner reinforced with fiberglass and epoxy resin;
- for industrial and potable water treatment systems;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- Certification for contact with drinking water following EC directives and KTW (for Germany) recommendations;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- In compliance with the sanitary certification ACS (France);
- Max operating pressure 10 bar;
- max operating temperature 50°C;
- threaded top connection 4”– 8UN;
- cycle test 250.000 times from 0,7 to 10 bar;
- burst test to 4 times max operating pressure;
- blue colour;
- Warranty 5 years.



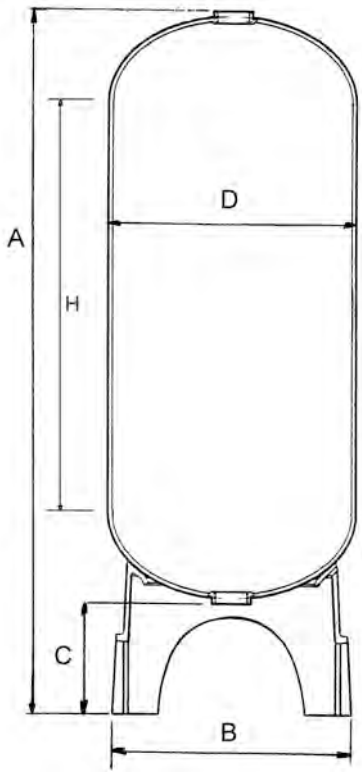
REF.	MODEL	VOLUME (liters)	EXTERNAL DIAMETER (mm)	A (mm)	B (mm)	CONNECTION (inch)	
BSRT1452A3REN	14 x 52	122	369	1360 ± 20	330	4” (**)	
BSRT1465A3REN	14 x 65	140	369	1645 ± 20	380	4” (**)	
BSRT1649A3REN	16 x 49	125	406	1269 ± 20	420	4” (**)	
BSRT1665A3REN	16 x 65	170	406	1632 ± 20	420	4” (**)	
BSRT1856A3E	18 x 56	211	469	1432 ± 20	510	4”	
BSRT1865A3EN	18 x 65	250	469	1726 ± 20	510	4”	
BSRT2153A3E	21 x 53	277	552	1434 ± 20	510	4”	
BSRT2160A3E	21 x 60	310	552	1625 ± 20	510	4”	
BSRT2469A3E	24 x 69	440	610	1870 ± 20	510	4”	
BSRT3072A3E (*)	30 x 72	710	770	2030 ± 30	730	4”	
BSRT3672A3E (*)	36 x 72	1020	930	2130 ± 30	730	4”	

(*) Vacuum breaker included.

(**) with reduction 2,5”

MWG Industrial Pressure Vessels With Top&Bottom Threaded Openings

- Made in China;
- Composite pressure vessels PE liner reinforced with fiberglass and epoxy resin;
- For industrial and potable water treatment systems;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- Certification for contact with drinking water following EC directives and KTW (for Germany) recommendations;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- In compliance with the sanitary certification ACS (France);
- Max operating pressure 10 bar;
- Max operating temperature 50°C;
- Top and bottom threaded connection 4”– 8UN;
- Cycle test 250.000 times from 0,7 to 10 bar;
- Burst test to 4 times max operating pressure;
- Blue colour;
- Warranty 5 years.

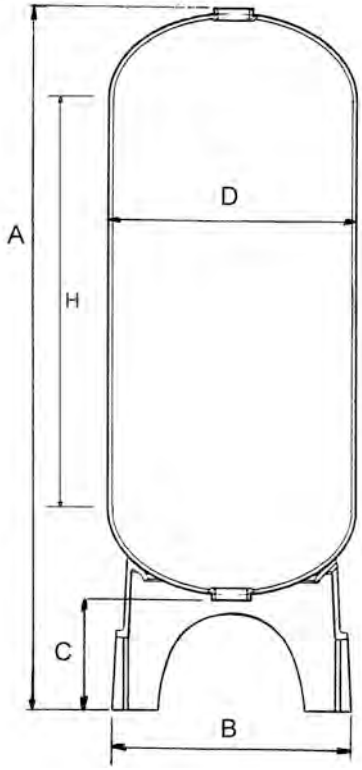


REF.	MODEL	VOLUME (liters)	EXTERNAL DIAMETER (mm)	A (mm)	B (mm)	C (mm)	H (mm)	CONNECTION (inch)	
BMWG14065HB	14 x 65	147,0	360	1856 ± 6	369	230	1386	4”	
BMWG16065HB	16 x 65	191,3	410	1880 ± 6	430	250	1365	4”	
BMWG18065HB	18 x 65	242,3	464	1950 ± 10	480	320	1330	4”	
BMWG21062HB	21 x 62	312,7	541	1902 ± 10	555	330	1220	4”	
BMWG24065HB	24 x 65	426,5	615	1916 ± 10	610	246	1220	4”	
BMWG24072HB	24 x 72	477,5	615	2095 ± 10	610	240	1400	4”	
BMWG30072HB (*)	30 x 72	726	750	2075 ± 10	762	235	1270	4”	
BMWG36072HB (*)	36 x 72	1030,2	922	2190 ± 10	930	350	1170	4”	

(*) Vacuum breaker included.

Structural Industrial Pressure Vessels With Top&Bottom Threaded Openings

- Made in European Union (Belgium);
- Composite pressure vessels PE liner reinforced with fiberglass and epoxy resin;
- For industrial and potable water treatment systems;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- Certification for contact with drinking water following EC directives and KTW (for Germany) recommendations;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- In compliance with the sanitary certification ACS (France);
- Max operating pressure 10 bar;
- Max operating temperature 50°C;
- Top and bottom threaded connection 4”– 8UN;
- Cycle test 250.000 times from 0,7 to 10 bar;
- Burst test to 4 times max operating pressure;
- Blue colour;
- Warranty 5 years.

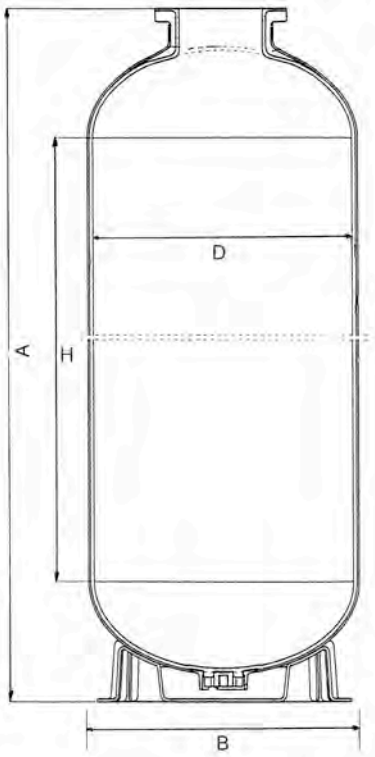


REF.	MODEL	VOLUME (liters)	EXTERNAL DIAMETER (mm)	A (mm)	B (mm)	C (mm)	H (mm)	CONNEC-TION (inch)	
BSRT1465F7E	14 x 65	140	369	2031 ± 20	488	381	1378	4”	
BSRT1665F7E	16 x 65	170	406	2031 ± 20	497	384	1371	4”	
BSRT1865F7E	18 x 65	250	469	2080 ± 20	554	404	1350	4”	
BSRT2160F7E	21 x 60	310	552	1923 ± 20	554	389	1155	4”	
BSRT2469F7E	24 x 69	440	610	2169 ± 20	620	422	1327	4”	
BSRT3072F7E (*)	30 x 72	710	770	2248 ± 30	816	413	1313	4”	
BSRT3672F7E (*)	36 x 72	1020	927	2305 ± 30	1001	408	1266	4”	

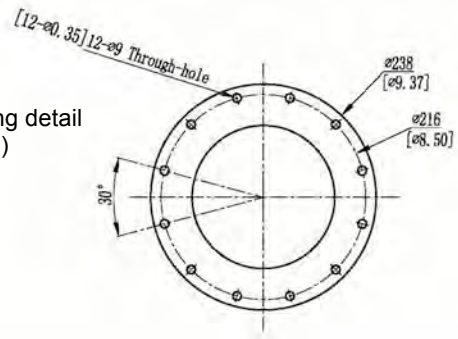
(*) Vacuum breaker included.

Structural Industrial Pressure Vessels With Flanged Top Opening

- Made in European Union (Belgium);
- Composite pressure vessels PE liner reinforced with fiberglass and epoxy resin;
- For industrial and potable water treatment systems;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- Certification for contact with drinking water following EC directives and KTW (for Germany) recommendations;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- In compliance with the sanitary certification ACS (France);
- Max operating pressure 10 bar;
- Max operating temperature 65°C;
- 6” top connection;
- Cycle test 250.000 times from 0,7 to 10 bar;
- Burst test to 4 times max operating pressure;
- Blue colour;
- Warranty 5 years.



Flanged top opening detail (dimensions in mm)

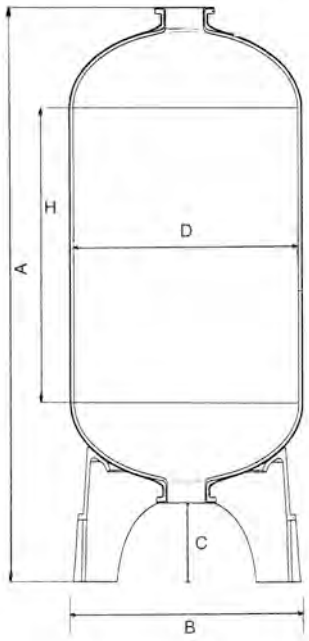


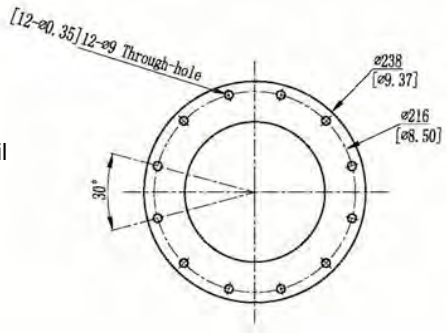
REF.	MODEL	VOLUME (liters)	EXTERNAL DIAMETER (mm)	A (mm)	B (mm)	H (mm)	CONNEC-TION (inch)	
BSRT1868A3E	18 x 68	250	469	1777 ± 20	510	1344	6”	
BSRT2166A3E	21 x 66	310	552	1673 ± 20	510	1159	6”	
BSRT2475A3E	24 x 75	450	610	1908 ± 20	510	1320	6”	
BSRT3078A3E (*)	30 x 78	710	770	2058 ± 30	768	1282	6”	
BSRT3678A3E (*)	36 x 78	1020	927	2155 ± 30	768	1235	6”	

(*) Vacuum breaker included.

MWG Industrial Pressure Vessels
With Flanged Top&Bottom Openings

- Made in China;
- Composite pressure vessels PE liner reinforced with fiberglass and epoxy resin;
- For industrial and potable water treatment systems;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- Certification for contact with drinking water following EC directives and KTW (for Germany) recommendations;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- In compliance with the sanitary certification ACS (France);
- Max operating pressure 10 bar;
- Max operating temperature 65°C;
- Top and bottom 6” flange connection;
- Cycle test 250.000 times from 0,7 to 10 bar;
- Burst test to 4 times max operating pressure;
- Blue colour;
- Warranty 5 years.





Flanged top opening detail
(dimensions in mm)

(*) Vacuum breaker included.

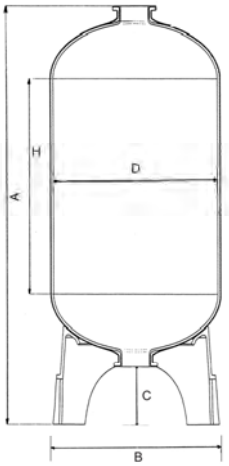
REF.	MODEL	VOLUME (liters)	EXTERNAL DIAMETER (mm)	A (mm)	B (mm)	C (mm)	H (mm)	CONN. (inch)	
BMWG30072MB (*)	30 x 72	736	772	2245 ± 25	815	265	1260	6”	
BMWG36072MB (*)	36 x 72	1045	925	2270 ± 25	920	285	1195	6”	
BMWG42063MB (*)	42 x 63	1235	1085	2055 ± 25	1070	270	955	6”	
BMWG42072MB (*)	42 x 72	1437	1085	2290 ± 25	1070	275	1185	6”	
BMWG48072MB (*)	48 x 72	1784	1218	2275 ± 25	1230	260	1110	6”	
BMWG63067MB (*)	63 x 67	2630	1608	2050 ± 25	1620	260	660	6”	
BMWG63086MB (*)	63 x 86	3425	1608	2460 ± 25	1620	260	1100	6”	

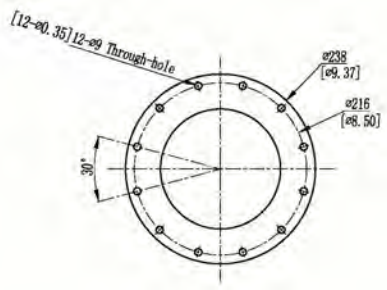
ATTENTION: for 63” pressure vessels, when you use a DN100 lower system, you have to raise the pressure vessel.

Structural Industrial Pressure Vessels With Flanged Top&Bottom Openings

- Made in European Union (Belgium);
- Composite pressure vessels PE liner reinforced with fiberglass and epoxy resin;
- For industrial and potable water treatment systems;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- Certification for contact with drinking water following EC directives and KTW (for Germany) recommendations;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- In compliance with the sanitary certification ACS (France);
- Max operating pressure 10 bar;
- Max operating temperature 65°C;
- Top and bottom 6” flange connection;
- Cycle test 250.000 times from 0,7 to 10 bar;
- Burst test to 4 times max operating pressure;
- Blue colour;
- Warranty 5 years.

(*) Vacuum breaker included.
(**) not available in stock.



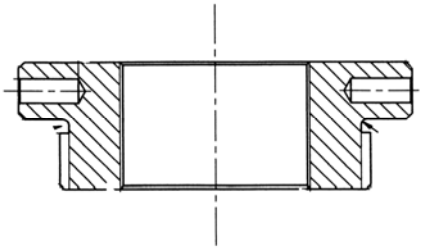


Flanged top opening detail
(dimensions in mm)

REF.	MODEL	VOLUME (liters)	EXTERNAL DIAMETER (mm)	A (mm)	B (mm)	C (mm)	H (mm)	CONN. (inch)	
BSC1868F7	18 x 68	250	469	2129 ± 15	545	349	1345	6”	
BSC2166F7	21 x 66	310	552	1995 ± 10	545	353	1158	6”	
BSC2475F7	24 x 75	450	610	2224 ± 10	698	358	1320	6”	
BSC3078F7 (*)	30 x 78	712	770	2284 ± 15	777	360	1284	6”	
BSC3678F7 (*)	36 x 78	1020	927	2345 ± 20	952	370	1250	6”	
BSRT4264F7E (*)	42 x 64	1047	1074	2065 ± 30	1110	440	775	6”	
BSC4278F7 (*)	42 x 78	1345	1074	2419 ± 20	1092	439	1130	6”	
BSC4882F7 (*)	48 x 82	1830	1226	2441 ± 15	1270	408	1125	6”	
BSC55104F7 (*) (**)	55 x 104	2619	1429	2740 ± 20	1570	618	1087	6”	
BSC55120F7 (*) (**)	55 x 120	3220	1429	3134 ± 20	1570	618	1481	6”	
BSC55130F7 (*) (**)	55 x 130	3602	1429	3384 ± 20	1570	618	1731	6”	
BSC55140F7 (*) (**)	55 x 140	3984	1429	3634 ± 20	1570	618	1981	6”	
BSRT6367F7E (*)	63 x 67	2484	1623	2075 ± 30	1570	355	594	6”	
BSRT6386F7E (*)	63 x 86	3200	1623	2475 ± 30	1570	355	996	6”	
BSC63103F7 (*) (**)	63 x 103	4265	1623	3269 ± 20	1570	646	1501	6”	
BSC63113F7 (*) (**)	63 x 113	4760	1623	3519 ± 20	1570	646	1751	6”	
BSC63123F7 (*) (**)	63 x 123	5255	1623	3769 ± 20	1570	646	2001	6”	

Adapters

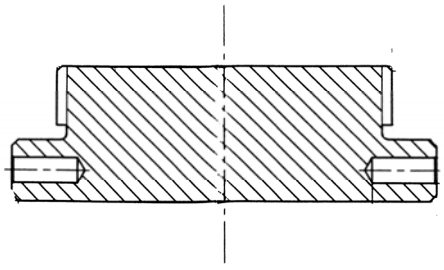
- adapter 4”– 8UN to 2 ½” – 8NPSM;
- with O-ring.



REF.	MODEL	REDUCTION TO	
PV300	PVC machined	2 ½” – 8 NPSM	
PV307	PVC machined	2” BSP	

Closures

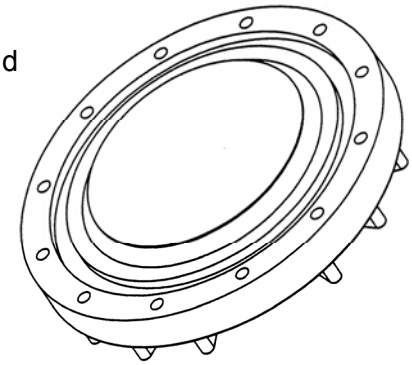
- closure for 4”– 8UN tanks thread;
- with O-ring.



REF.	MATERIAL	
PV301	PVC machined	

6” closed flange

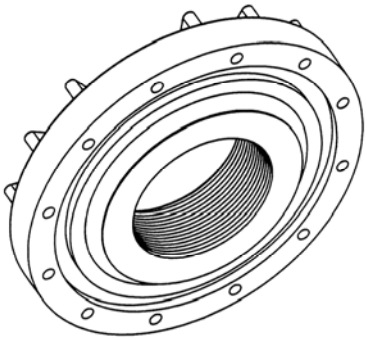
- 6” closed flange complete with bolts, nuts, washer and O-ring;
- flange material PVC;
- bolts material AISI 304.



REF.	
PV510B	

6” - 4” adapter

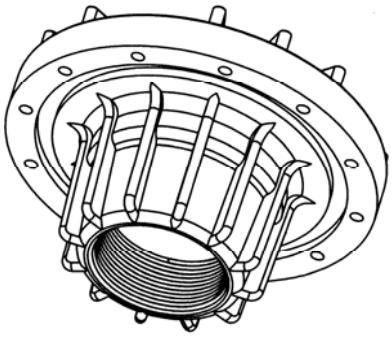
- 6” flanged adapter 4”-8UN, complete with bolts, nuts , washer and O-ring;
- bolts material AISI 304.



REF.	ADAPTER MATERIAL	
PV511B	PVC	

6” - 3” - 3” adapter

- 6” flanged x 3” x 3” BSP threaded adapter complete with bolts, nuts, washer and O-ring.;
- flange material PPO;
- bolts material AISI 304.



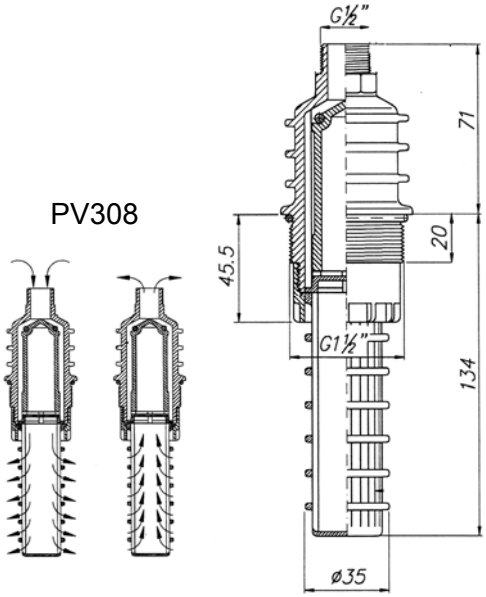
REF.	
PV509 (*)	

(*) available till it will be out-of-stock.

Aeration valve & vacuum breaker

- aeration valve and vacuum breaker in PP;
- connection 1 ½”, drain ½”;
- max pressure 10 bar;
- max temperature 65°C.

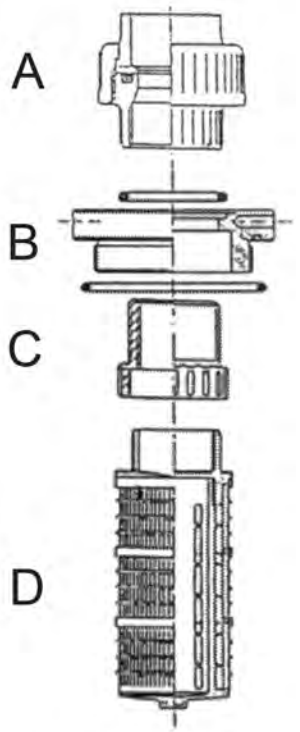
PV308



REF.	
PV308	
PV308B	

Cylindrical diffusors

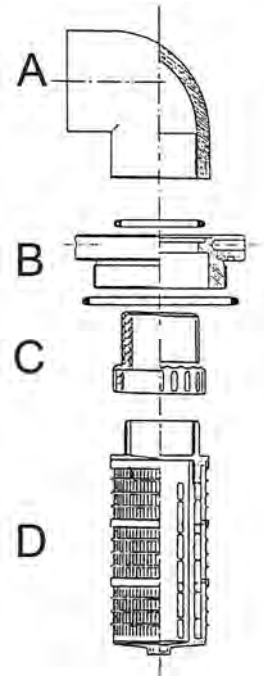
- cylindrical diffusor for vessels with 4”- 8UN, for upper or lower installation;
- outlet connection to glue D.63;
- 0,2 mm slots or 0,5 mm;
- materials: adapter PVC, diffusor PP;
- flow 20 m^3/h at Δp 0,2 bar;
  - A. union D63 (REF. PV329);
  - B. adapter 4” with gasket (REF. PV332);
  - C. reduction 2” M/F (REF. PV335);
  - D. diffusor diameter 85 mm length 180 mm.(REF. PV340 0,2 mm slots – REF. PV342 0,5 mm slots).



REF.	SLOTS (mm)	VESSEL	
PV351	0,2	14” ÷ 36”	
PV352	0,5	14” ÷ 36”	

Cylindrical diffusors with elbow

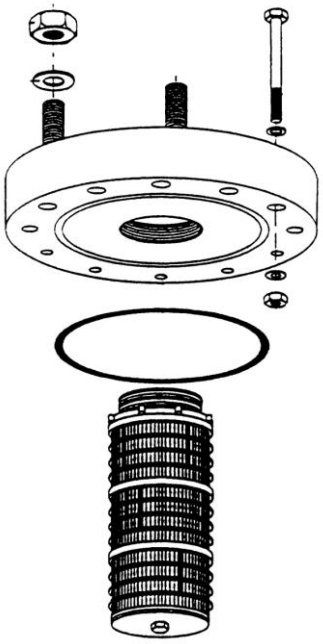
- cylindrical diffusor for vessel 4”-8UN, for upper installation;
- outlet connection with elbow to glue D63;
- 0,2 mm slots or 0,5 mm
- materials: adapter and elbow PVC, diffusor PP;
- flow 20 m^3/h at Δp 0,2 bar;
- including:
  - A. elbow D63 (REF. PV331);
  - B. adapter 4” with gasket (REF. PV332);
  - C. reduction 2” M/F (REF. PV335);
  - D. diffusor con diameter 85 mm length 180 mm (REF.PV340 0,2 mm slots – REF. PV342 0,5 mm slots).



REF.	SLOTS (mm)	VESSEL	
PV350	0,2	14” ÷ 36”	
PV349	0,5	14” ÷ 36”	

Flanged upper diffusors

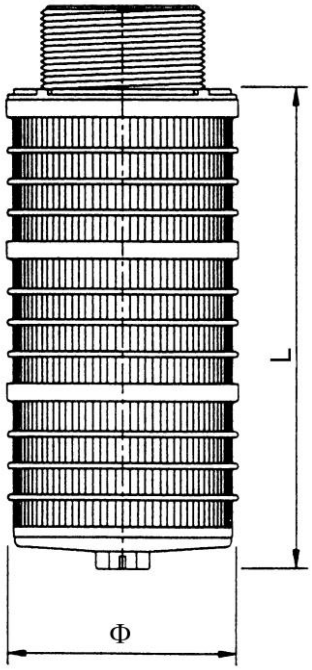
- upper diffusor 6” flanged, complete with bolts, nuts, washer and O-ring;
- flange material PVC;
- PP cylindrical diffusor 0,2 mm slots or 0,5 mm slots – see data sheet 02-03-05-EN;
- bolts material AISI 304.



REF.	VESSEL	OUTLET	CYLINDRICAL DIFFUSOR DIAMETER (mm)	CYLINDRICAL DIFFUSOR LENGTH (mm)	SLOTS (mm)	FLOW (m3/h) Δp 0,2 bar	
PV512	18” ÷ 36”	DN65	85	284	0,2	20	
PV514	24” ÷ 36”	DN80	120	240	0,2	30	
PV515	42” ÷ 48”	DN80	120	312	0,2	36	
PV553	63”	DN80	120	384	0,2	50	
PV518	63”	DN100	120	384	0,2	60	
PV513	18” ÷ 36”	DN65	85	284	0,5	20	
PV516	24” ÷ 36”	DN80	120	240	0,5	30	
PV517	42” ÷ 48”	DN80	120	312	0,5	36	
PV554	63”	DN80	120	384	0,5	50	
PV519	63”	DN100	120	384	0,5	60	

Cylindrical diffusors

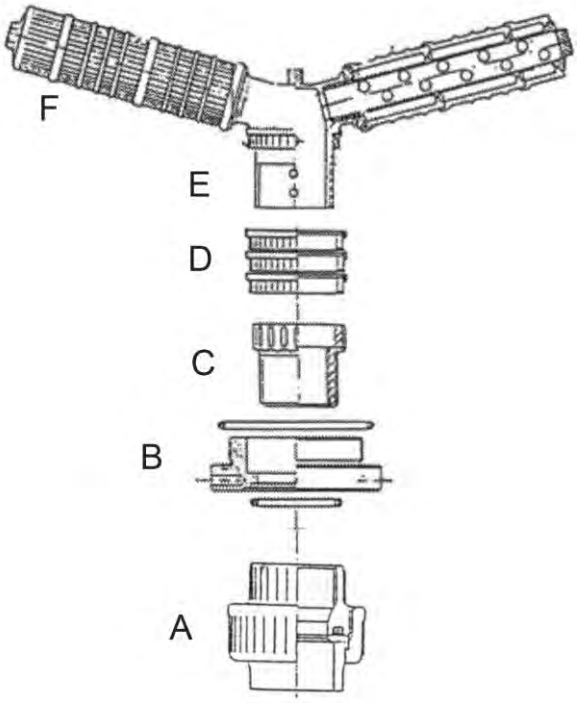
- PP cylindrical diffusor with thread connection 2”, 3” or 4”;
- slots 0,2 or 0,5 mm.



REF.	CONNECTION	DIAMETER (mm)	LENGTH (mm)	SLOTS (mm)	
PV340	2”	85	180	0,2	
PV339	2”	85	284	0,2	
PV341	2”	85	338	0,2	
PV342	2”	85	180	0,5	
PV343	2”	85	284	0,5	
PV344	2”	85	338	0,5	
PV364	3”	120	240	0,2	
PV365	3”	120	312	0,2	
PV366	3”	120	384	0,2	
PV367	3”	120	240	0,5	
PV368	3”	120	312	0,5	
PV369	3”	120	384	0,5	
PV393	4”	120	384	0,2	
PV394	4”	120	384	0,5	

Lower lateral system

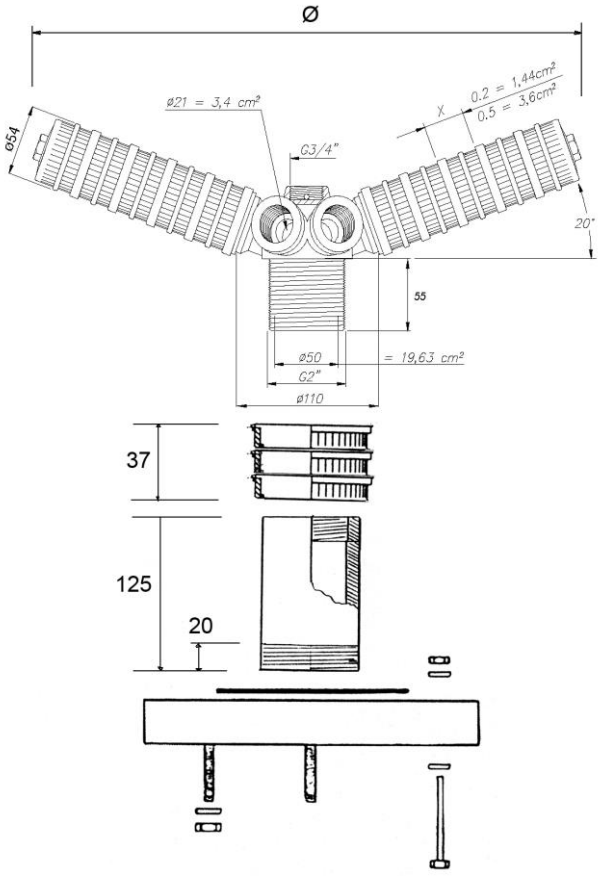
- lower lateral system for vessels with 4” – 8UN opening;
- outlet connection to glue D63;
- slots 0,2 or 0,5 mm;
- materials: adapter PVC, hub and laterals PP;
- including:
  - A. union D63 (REF. PV329);
  - B. adapter 4” with O-rings (REF. PV332);
  - C. reduction 2” M/F (REF. PV335);
  - D. n.3 spacers (REF. PV337);
  - E. hub (REF. PV336);
  - F. N.5 laterals diameter 54 mm, length = see table.



REF.	VESSEL	LATERALS LENGHT (mm)	SLOTS (mm)	FLOW (m^3/h) Δp 0,2 bar	
PV353	14” - 16” - 18”	113	0,2	16	
PV354	21” - 24”	175	0,2	17	
PV355	30”	237	0,2	18	
PV356	36”	299	0,2	20	
PV360	14” - 16” - 18”	113	0,5	16	
PV361	21” - 24”	175	0,5	17	
PV362	30”	237	0,5	18	
PV363	36”	299	0,5	20	

Lower lateral systems with 6 laterals hub for flanged pressure vessels

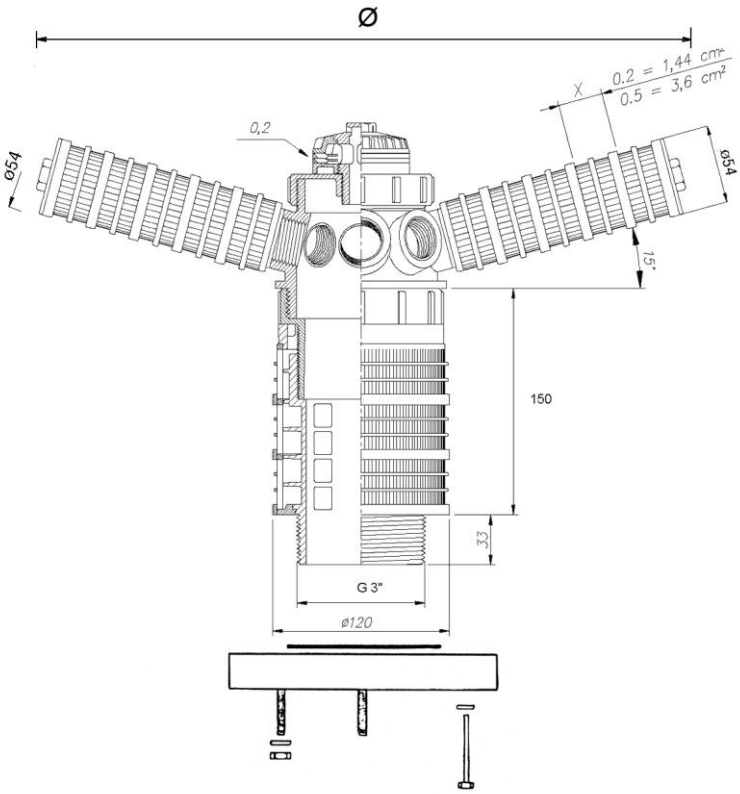
- lower lateral system for 6” flanged pressure vessels;
- flange material PVC;
- complete with AISI 304 bolts and washer;
- hub at 6 laterals;
- laterals in PP, slots 0,2 or 0,5 mm, length as table below.



REF.	VESSEL	CONNECTION	LATERALS LENGTH (mm)	DIAMETER Ø (mm)	SLOTS (mm)	FLOW (m^3/h) Δp 0,2 bar	
PV520	18” - 21”	DN 65	144	374	0,2	16	
PV521	24”	DN 65	175	432	0,2	17	
PV522	30”	DN 65	237	549	0,2	18	
PV523	36”	DN 65	299	665	0,2	20	
PV524	18” - 21”	DN 65	144	374	0,5	16	
PV525	24”	DN 65	175	432	0,5	17	
PV526	30”	DN 65	237	549	0,5	18	
PV527	36”	DN 65	299	665	0,5	20	

Lower lateral systems with 8 laterals hub for flanged pressure vessels

- lower lateral system for 6" flanged pressure vessels;
- flange material PVC;
- complete with AISI 304 bolts and washer;
- hub at 8 laterals;
- laterals in PP, slots 0,2 or 0,5 mm, length as table below.

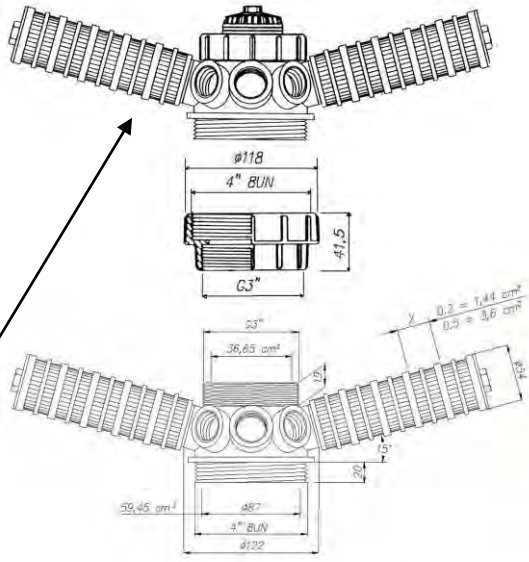


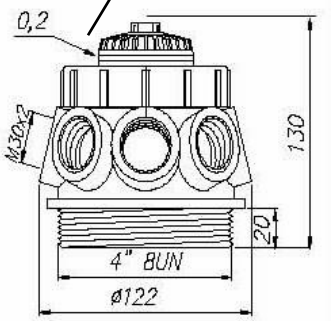
REF.	VESSEL	CONNECTION	LATERALS LENGTH (mm)	DIAMETER Ø (mm)	SLOTS (mm)	FLOW (m^3/h) Δp 0,2 bar	
PV522A	30"	DN 65	237	580	0,2	28	
PV523A	36"	DN 65	299	699	0,2	30	
PV528	24"	DN 80	175	461	0,2	26	
PV529	30"	DN 80	237	580	0,2	28	
PV530	36"	DN 80	299	699	0,2	30	
PV526A	30"	DN 65	237	580	0,5	28	
PV527A	36"	DN 65	299	699	0,5	30	
PV531	24"	DN 80	175	461	0,5	26	
PV532	30"	DN 80	237	580	0,5	28	
PV533	36"	DN 80	299	699	0,5	30	

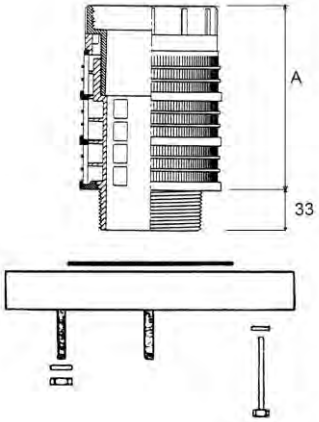
Pressure Vessels Accessories

Lower double lateral systems for flanged pressure vessels

- lower double lateral system for 6” flanged pressure vessels;
- flange material PVC, bolts in AISI 304;
- complete with bolts and washer;
- double hub at 8 + 8 laterals;
- laterals in PP, slots 0,2 or 0,5 mm, length as table below.





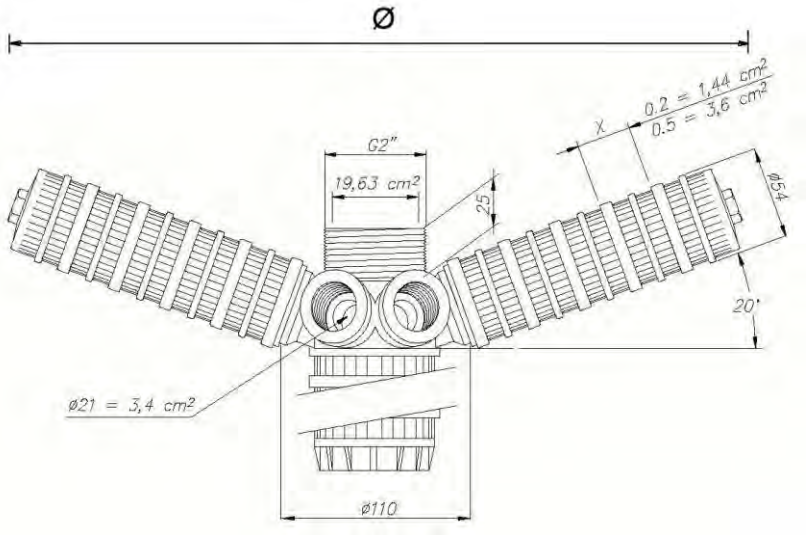


REF.	VESSEL	CONNECTION	LATERALS QUANTITY	A (mm)	LATERALS LENGTH (mm)	SYSTEMS DIAMETERS (mm)	SLOTS (mm)	FLOW (m3/h) Δp 0,2 bar	
PV534	42”	DN 80	8 + 8	150	361 423	819 939	0,2	32	
PV535	48”	DN 80	8 + 8	150	423 485	939 1059	0,2	36	
PV555	63”	DN 80	8 + 8	190	578 640	1239 1359	0,2	50	
PV538	63”	DN 100	8 + 8	190	578 640	1239 1359	0,2	60	
PV536	42”	DN 80	8 + 8	150	361 423	819 939	0,5	32	
PV537	48”	DN 80	8 + 8	150	423 485	939 1059	0,5	36	
PV556	63”	DN 80	8 + 8	190	578 640	1239 1359	0,5	50	
PV539	63”	DN 100	8 + 8	190	578 640	1239 1359	0,5	60	

Pressure Vessels Accessories

Top mount lower lateral systems for flanged pressure vessels

- lower lateral system for 6” flanged pressure vessels for top mount valve, with 6 laterals;
- material hub and laterals PP, length as table below;
- slots 0,2 or 0,5 mm;
- to install with 2” adapter for the needed riser tube diameter.

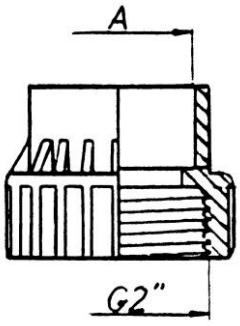


REF.	VESSEL	LATERALS LENGTH (mm)	DIAMETER Ø (mm)	SLOTS (mm)	FLOW (m^3/h) Δp 0,2 bar	
PV540	18” - 21”	144	374	0,2	16	
PV541	24”	175	432	0,2	17	
PV542	30”	237	549	0,2	18	
PV543	36”	299	665	0,2	20	
PV544	18” - 21”	144	374	0,5	16	
PV545	24”	175	432	0,5	17	
PV546	30”	237	549	0,5	18	
PV547	36”	299	665	0,5	20	

2” gas adapter

- 2” GAS adapters with connection to glue;
- material PVC.

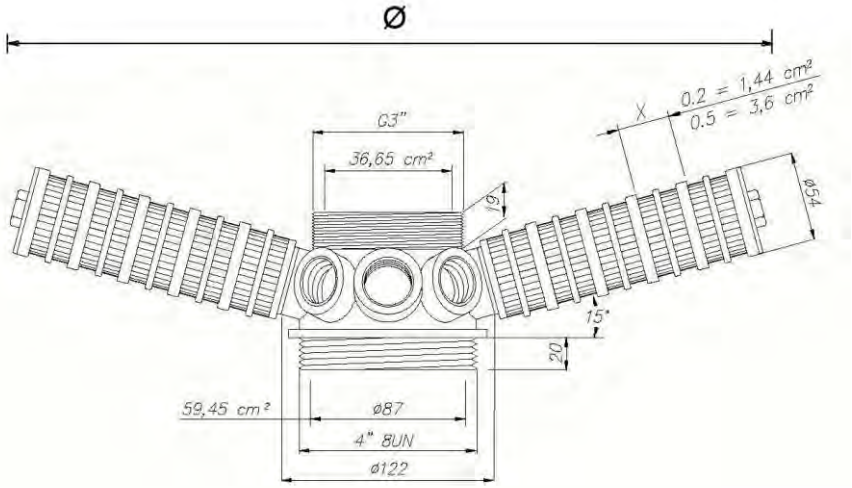
REF.	CONNECTION TO GLUE (mm)	
PV384	41,8	
PV385	48,3	
PV386	50,0	
PV387	63,0	

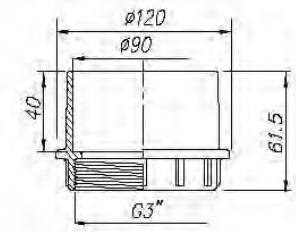


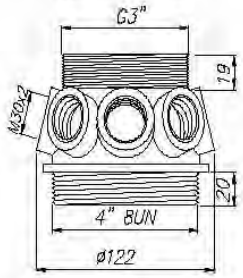
Pressure Vessels Accessories

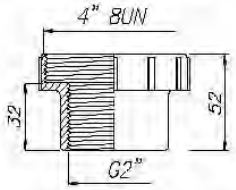
Top mount lower lateral systems for tubes diameter 90 mm

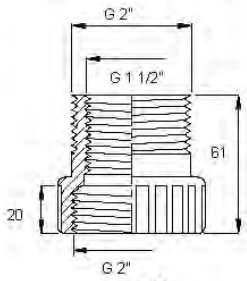
- lower lateral system for 6” flanged pressure vessels for top mount valve, with 8 laterals;
- material hub and laterals PP, length as table below;
- slots 0,2;
- to glue on tube diameter 90 mm.

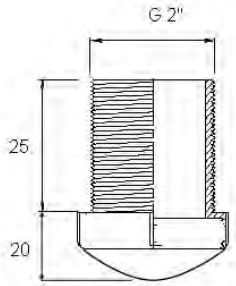








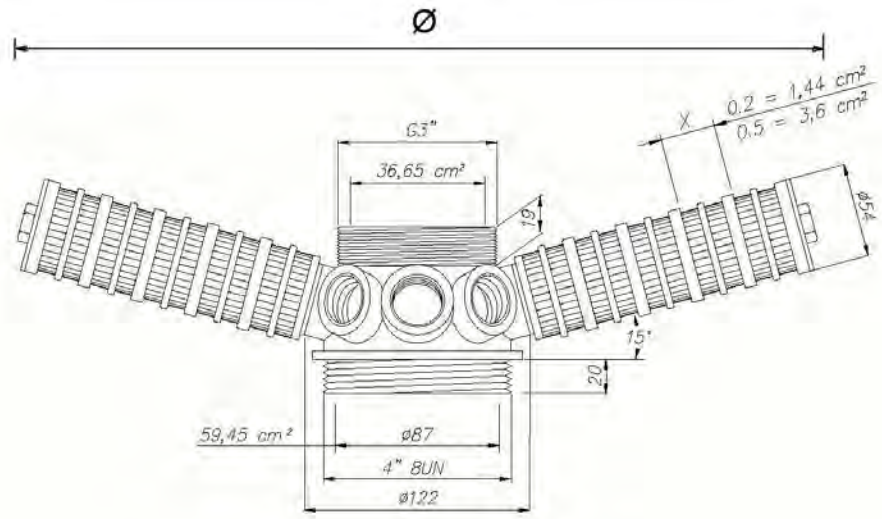


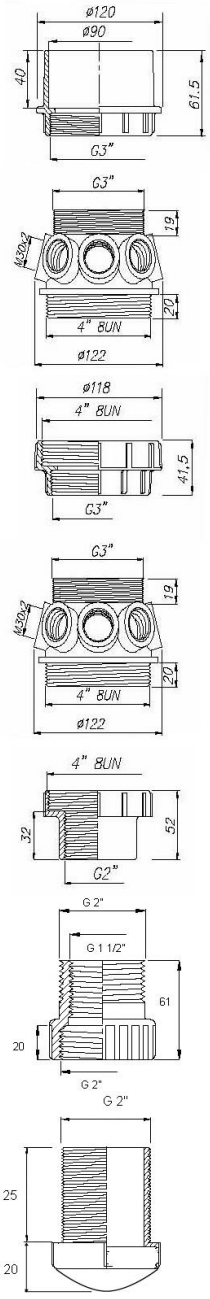


REF.	PRESSURE VESSEL	LATERALS LENGTH (mm)	DIAMETER Ø (mm)	SLOTS (mm)	FLOW (m3/h) Δp 0,2 bar	
PV548	30”	237	580	0,2	28	
PV549	36”	299	699	0,2	30	

Top mount lower double lateral systems
for tubes diameter 90 mm

- lower lateral system for 6” flanged pressure vessels for top mount valve, with 8+8 laterals;
- material hub and laterals PP, length as table below;
- slots 0,2;
- to glue on tube diameter 90 mm.

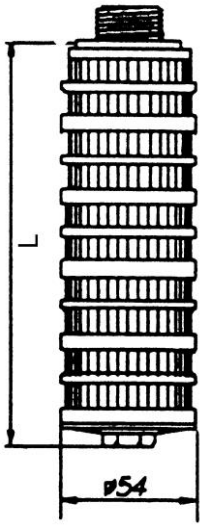




REF.	PRESSURE VESSEL	LATERALS QUANTITY	LATERALS LENGTH (mm)	DIAMETERS Ø (mm)	SLOTS (mm)	FLOW (m3/h) Δp 0,2 bar	
PV550	42”	8 + 8	299 423	699 939	0,2	31	
PV551	48”	8 + 8	361 485	819 1059	0,2	34	

Pressure Vessels Accessories

Cylindrical laterals



- cylindrical laterals with threaded connection
- M 30x2;
- material PP;
- diameter 54 mm;
- slots 0,2 or 0,5 mm.

Laterals with 0,2 mm slots											
REF.	PV345	PV370	PV346	PV371	PV347	PV348	PV372	PV373	PV374	PV389	PV391
LENGTH (mm)	113	144	175	206	237	299	361	423	485	578	640

Laterals with 0,5 mm slots											
REF.	PV375	PV376	PV377	PV378	PV379	PV380	PV381	PV382	PV383	PV390	PV392
LENGTH (mm)	113	144	175	206	237	299	361	423	485	578	640

Flange coupling kit

- for 6” flanged pressure vessels;
- including flange adaptor and coupling flange in PVC;
- with gasket in EPDM.

REF.	CONNECTION	
PV594M	DN65	
PV595M	DN80	
PV596M	DN100	

Mineral tank funnels

- The tank funnels are designed for filling mineral tanks with granular media and ion exchange resin;
- the funnels are designed to fit 2,5”, 4” and 6” mineral tank openings;
- these economical funnels are nestable to reduce shipping and storage costs;
- the funnel ref. PV395 snaps into a 4” or 6” mineral tank opening for stability when pouring media. The neck of the funnel has been carefully designed to allow trapped air inside the mineral tank to escape when media is poured in. This heavy duty part is blow molded out of high density polyethylene for exceptional strength and durability. The oval design provides an extra wide opening for ease of use when pouring. Handles are molded into the funnel for added convenience.

REF.	DESCRIPTION	
PV295	Funnel 2,5” openings	
PV395	Funnel 4” and 6” openings	

WELLMATE Pressure Vessels

- Pressure Vessels, suitable for industrial and potable water treatment systems;
- Made in U.S.A.;
- In Polyether Urethane (PEU);
- CE and NSF/ANSI 61 certified;
- European 97/23/EC Directive compliant for pressure equipment (PED);
- Max operating external temperature 50°C;
- Max operating internal temperature 38°C;
- Min. operating temperature 4°C;
- Grey colour;
- Warranty 5 years.

REF.	VOLUME (liters)	MAX OPERATING PRESSURE (bar)	DIAMETER (mm)	TOTAL HEIGHT (mm)	IN-OUT HEIGHT FROM THE FLOOR (mm)	CONNECTION (inch)	WEIGHT (kg)	
BWM0060	55	8,5	410	660	44	1" NPT M	7	
BWM0075	75	8,5	410	810	44	1" NPT M	8	
BWM0120	112	8,5	410	1120	44	1" NPT M	11	
BWM0150	153	8,5	530	1570	57	1" NPT M	30	
BWM0180	178	8,5	610	1050	57	1 ¼" NPT M	23	
BWM0235	235	8,5	610	1400	57	1 ¼" NPT M	33	
BWM0330	328	8,5	610	1400	57	1 ¼" NPT M	33	
BWM0450	453	8,5	610	1890	57	1 ¼" NPT M	43	
BWM-LP-075	73	8,5	610	510	57	1" NPT M	11	
BWM-LP-130	131	8,5	610	710	57	1" NPT M	14	
BWM0600	606	10,0	760	1740	150	2" NPT M	76	
BWM-HP-110	114	5,0	410	1110	38	1 ¼" NPT M	12	
BWM-HP-150	151	5,0	410	1440	38	1 ¼" NPT M	13	
BWM-HP-300	303	5,0	530	1570	51	1 ¼" NPT M	16	
BWM-HP-450	454	5,0	610	1840	51	1 ¼" NPT M	29	

Note: Diameter, height and weight could change without prior advice.
Not available in stock.

Accessories and Spare Parts:

REF.	DESCRIPTION	
BWM-AC-0600	AIRCELL REPLACEMENT KIT FOR BWM0600	
BWM-AC-0750	AIRCELL REPLACEMENT KIT FOR BWM-IN-0750	
BWM-AC-1000	AIRCELL REPLACEMENT KIT FOR BWM-IN-1000	
BWM-AVC-20290	AIR VOLUME CONTROL ASSEMBLY FOR BWM-HP-110	
BWM-AVC-20288	AIR VOLUME CONTROL ASSEMBLY FOR BWM-HP-150	
BWM-AVC-20287	AIR VOLUME CONTROL ASSEMBLY FOR BWM-HP-300	
BWM-AVC-20291	AIR VOLUME CONTROL ASSEMBLY FOR BWM-HP-450	
BWM-AVC-1	AIR VOLUME CONTROL ASSEMBLY FOR BWM-HP/UT	
BWM-BA-20513	WELLMATE BASE 180/300	
BWM-DA-3174	WM SCREEN & ADAPT. ASSY + O-RING - 4" X 2" NPSM	
BWM-DA-HU79	WM BOTTOM DRAIN + 1 1/4" NPT THREADED PIPES HP110-150	
BWM-DA-HU86	WM BOTTOM DRAIN + 1 1/4" NPT THREADED PIPES HP300-450	
BWM-PB-001	WM PUMP MOUNT BRACKET	
BWM-AI-01	WM AIR INJECTOR/MICRONIZER-HP	
BWM-VB-10724	WM VACUUM BREAKER UT/HP	
BWM-CL-0002	WM "H" CLIP	

Cabinets

MWG®
ITALIAN WATER TECHNOLOGY

Made by Eurotrol S.p.A.

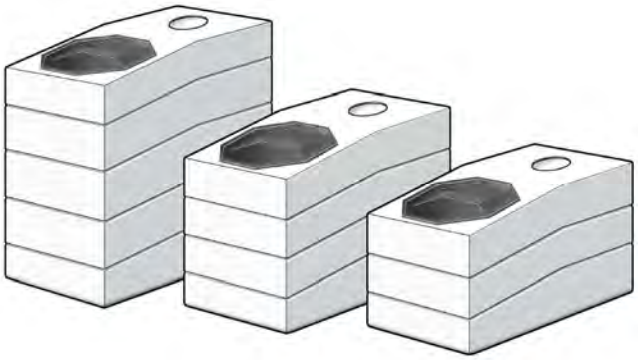
Cabinets for Softeners Mini Cab Series

- Tanks and covers made in European Union (Italy);
- Cabinets for residential softeners, complete with salt lid and cover of exclusive design;
- Materials: tank in HDPE, cover in polystyrene;
- Standard colours: white tank and blue, white or black cover;
- On demand and for quantities we can realize customized colours;
- EU design patent no. 003156272.

REF. WITH WHITE TANK AND BLUE COVER	C0513MWMAS	C0613MWMAS	C0713MWMAS
REF. WITH WHITE TANK AND WHITE COVER	C0513MWMWS	C0613MWMWS	C0713MWMWS
REF. WITH WHITE TANK AND BLACK COVER	C0513MWMDS	C0613MWMDS	C0713MWMDS
MODEL	MINI CAB 13	MINI CAB 13	MINI CAB 13
WIDTH (mm)	220	220	220
LENGTH (mm)	365	365	365
HEIGHT (mm)	333	333	333
WITH MWG TANK	5 x 13	6 x 13	7 x 13

Cabinets for Softeners New Junior Series

- Tanks and covers made in European Union (Italy);
- Cabinets for residential softeners, complete with salt lid;
- Materials: tank in HDPE, salt lid in polystyrene;
- Standard colours: tank white, salt lid black:
- Different colours available on demand ;
- EU design patent no. 003156272.



REF.	MODEL	WIDTH (mm)	LENGTH (mm)	HEIGHT (mm)	WITH MWG TANK	
C0513GWGDX	NEW JUNIOR 13	240	435	330	5 x 13	
C0613GWGDX	NEW JUNIOR 13	240	435	330	6 x 13	
C0713GWGDX	NEW JUNIOR 13	240	435	330	7 x 13	
C0813GWGDX	NEW JUNIOR 13	240	435	330	8 x 13	
C0717GWGDX	NEW JUNIOR 17	240	435	432	7 x 17	
C0817GWGDX	NEW JUNIOR 17	240	435	432	8 x 17	
C0724GWGDX	NEW JUNIOR 24	240	435	610	7 x 24	
C0824GWGDX	NEW JUNIOR 24	240	435	610	8 x 24	

ACCESSORIES				
REF.	DESCRIPTION	DIAMETER (mm)	HEIGHT (mm)	
PA012	BRINE WELL FOR 13”	100	220	
PA003	BRINE WELL FOR 17”	100	342	
PA075	BRINE WELL FOR 24”	100	520	

Cabinets for Softeners Slim Line Series

- Tanks and covers made in European Union (Italy);
- Cabinets for residential softeners, complete with salt lid and cover of exclusive design;
- Materials: tank in HDPE, cover in polystyrene;
- Standard colours: white tank and blue, white or black cover;
- On demand and for quantities we can realize customized colours;
- EU design patent no. 003156272.

REF. WITH WHITE TANK AND ...			SLIM LINE MODEL	WIDTH (mm)	LENGTH (mm)	HEIGHT (mm)	WITH MWG TANK	
BLUE COVER	WHITE COVER	BLACK COVER						
C0717LWSAS	C0717LWSWS	C0717LWSDS	17	320	500	440	7 x 17	
C0817LWSAS	C0817LWSWS	C0817LWSDS	17	320	500	440	8 x 17	
C0917LWSAS	C0917LWSWS	C0917LWSDS	17	320	500	440	9 x 17	
C1017LWSAS	C1017LWSWS	C1017LWSDS	17	320	500	440	10 x 17	
C0724LWSAS	C0724LWSWS	C0724LWSDS	24	320	500	620	7 x 24	
C0824LWSAS	C0824LWSWS	C0824LWSDS	24	320	500	620	8 x 24	
C0924LWSAS	C0924LWSWS	C0924LWSDS	24	320	500	620	9 x 24	
C1024LWSAS	C1024LWSWS	C1024LWSDS	24	320	500	620	10 x 24	
C0735LWSAS	C0735LWSWS	C0735LWSDS	35	320	500	900	7 x 35	
C0835LWSAS	C0835LWSWS	C0835LWSDS	35	320	500	900	8 x 35	
C0935LWSAS	C0935LWSWS	C0935LWSDS	35	320	500	900	9 x 35	
C1035LWSAS	C1035LWSWS	C1035LWSDS	35	320	500	900	10 x 35	

ACCESSORIES				
REF.	DESCRIPTION	DIAMETER (mm)	HEIGHT (mm)	
PA003	BRINE WELL FOR 17”	100	340	
PA075	BRINE WELL FOR 24”	100	520	
PA077	BRINE WELL FOR 35”	100	780	

Cabinets for Softeners Slim Surf Series

- Tanks and covers made in European Union (Italy);
- Cabinets for residential softeners, complete with salt lid and cover of exclusive design;
- Materials: tank in HDPE, cover in polystyrene;
- Standard colours: white tank and blue, white or black cover;
- On demand and for quantities we can realize customized colours;
- EU design patent no. 003156272.

REF. WITH WHITE TANK AND …			SLIM SURF MODEL	WIDTH (mm)	LENGTH (mm)	HEIGHT (mm)	WITH MWG TANK	
BLUE COVER	WHITE COVER	BLACK COVER						
C0717SWSAS	C0717SWSWS	C0717SWSDS	17	320	500	440	7 x 17	
C0817SWSAS	C0817SWSWS	C0817SWSDS	17	320	500	440	8 x 17	
C0917SWSAS	C0917SWSWS	C0917SWSDS	17	320	500	440	9 x 17	
C1017SWSAS	C1017SWSWS	C1017SWSDS	17	320	500	440	10 x 17	
C0724SWSAS	C0724SWSWS	C0724SWSDS	24	320	500	620	7 x 24	
C0824SWSAS	C0824SWSWS	C0824SWSDS	24	320	500	620	8 x 24	
C0924SWSAS	C0924SWSWS	C0924SWSDS	24	320	500	620	9 x 24	
C1024SWSAS	C1024SWSWS	C1024SWSDS	24	320	500	620	10 x 24	
C0735SWSAS	C0735SWSWS	C0735SWSDS	35	320	500	900	7 x 35	
C0835SWSAS	C0835SWSWS	C0835SWSDS	35	320	500	900	8 x 35	
C0935SWSAS	C0935SWSWS	C0935SWSDS	35	320	500	900	9 x 35	
C1035SWSAS	C1035SWSWS	C1035SWSDS	35	320	500	900	10 x 35	

ACCESSORIES				
REF.	DESCRIPTION	DIAMETER (mm)	HEIGHT (mm)	
PA003	BRINE WELL FOR 17”	100	340	
PA075	BRINE WELL FOR 24”	100	520	
PA077	BRINE WELL FOR 35”	100	780	

Cabinets for Softeners Top Line Series

- Tanks and covers made in European Union (Italy);
- Cabinets for residential softeners, complete with salt lid and cover of exclusive design;
- Materials: tank in HDPE, cover in polystyrene;
- Standard colours: white tank and blue, white or black cover;
- On demand and for quantities we can realize customized colours;
- EU design patent no. 003156272.

REF. WITH WHITE TANK AND ...			TOP LINE MODEL	WIDTH (mm)	LENGTH (mm)	HEIGHT (mm)	WITH MWG TANK	
BLUE COVER	WHITE COVER	BLACK COVER						
C0717LWTAS	C0717LWTWS	C0717LWTDS	17	320	500	670	7 x 17	
C0817LWTAS	C0817LWTWS	C0817LWTDS	17	320	500	670	8 x 17	
C0917LWTAS	C0917LWTWS	C0917LWTDS	17	320	500	670	9 x 17	
C1017LWTAS	C1017LWTWS	C1017LWTDS	17	320	500	670	10 x 17	
C0724LWTAS	C0724LWTWS	C0724LWTDS	24	320	500	840	7 x 24	
C0824LWTAS	C0824LWTWS	C0824LWTDS	24	320	500	840	8 x 24	
C0924LWTAS	C0924LWTWS	C0924LWTDS	24	320	500	840	9 x 24	
C1024LWTAS	C1024LWTWS	C1024LWTDS	24	320	500	840	10 x 24	
C0735LWTAS	C0735LWTWS	C0735LWTDS	35	320	500	1140	7 x 35	
C0835LWTAS	C0835LWTWS	C0835LWTDS	35	320	500	1140	8 x 35	
C0935LWTAS	C0935LWTWS	C0935LWTDS	35	320	500	1140	9 x 35	
C1035LWTAS	C1035LWTWS	C1035LWTDS	35	320	500	1140	10 x 35	

ACCESSORIES				
REF.	DESCRIPTION	DIAMETER (mm)	HEIGHT (mm)	
PA003	BRINE WELL FOR 17”	100	340	
PA075	BRINE WELL FOR 24”	100	520	
PA077	BRINE WELL FOR 35”	100	780	

Cabinets for Softeners Top Surf Series

- Tanks and covers made in European Union (Italy);
- Cabinets for residential softeners, complete with salt lid and cover of exclusive design;
- Materials: tank in HDPE, cover in polystyrene;
- Standard colours: white tank and blue, white or black cover;
- On demand and for quantities we can realize customized colours;
- EU design patent no. 003156272.

REF. WITH WHITE TANK AND …			TOP SURF MODEL	WIDTH (mm)	LENGTH (mm)	HEIGHT (mm)	WITH MWG TANK	
BLUE COVER	WHITE COVER	BLACK COVER						
C0717SWTAS	C0717SWTWS	C0717SWTDS	17	320	500	670	7 x 17	
C0817SWTAS	C0817SWTWS	C0817SWTDS	17	320	500	670	8 x 17	
C0917SWTAS	C0917SWTWS	C0917SWTDS	17	320	500	670	9 x 17	
C1017SWTAS	C1017SWTWS	C1017SWTDS	17	320	500	670	10 x 17	
C0724SWTAS	C0724SWTWS	C0724SWTDS	24	320	500	840	7 x 24	
C0824SWTAS	C0824SWTWS	C0824SWTDS	24	320	500	840	8 x 24	
C0924SWTAS	C0924SWTWS	C0924SWTDS	24	320	500	840	9 x 24	
C1024SWTAS	C1024SWTWS	C1024SWTDS	24	320	500	840	10 x 24	
C0735SWTAS	C0735SWTWS	C0735SWTDS	35	320	500	1140	7 x 35	
C0835SWTAS	C0835SWTWS	C0835SWTDS	35	320	500	1140	8 x 35	
C0935SWTAS	C0935SWTWS	C0935SWTDS	35	320	500	1140	9 x 35	
C1035SWTAS	C1035SWTWS	C1035SWTDS	35	320	500	1140	10 x 35	

ACCESSORIES				
REF.	DESCRIPTION	DIAMETER (mm)	HEIGHT (mm)	
PA003	BRINE WELL FOR 17”	100	340	
PA075	BRINE WELL FOR 24”	100	520	
PA077	BRINE WELL FOR 35”	100	780	

Cabinets for Softeners Top Line Clear Series

- Tanks and covers made in European Union (Italy);
- Cabinets for residential softeners, complete with salt lid and cover of exclusive design with transparent insert;
- Materials: tank in HDPE, cover in polystyrene;
- Standard colours: white tank and blue, white or black cover;
- On demand and for quantities we can realize customized colours;
- EU design patent no. 003156272.

REF. WITH WHITE TANK AND ...			TOP LINE CLEAR MODEL	WIDTH (mm)	LENGTH (mm)	HEIGHT (mm)	WITH MWG TANK	
BLUE COVER AND TRANSPARENT INSERT	**WHITE** COVER AND TRANSPARENT INSERT	**BLACK** COVER AND TRANSPARENT INSERT						
C0717LWTPS	C0717LWTZS	C0717LWTTS	17	320	500	670	7 x 17	
C0817LWTPS	C0817LWTZS	C0817LWTTS	17	320	500	670	8 x 17	
C0917LWTPS	C0917LWTZS	C0917LWTTS	17	320	500	670	9 x 17	
C1017LWTPS	C1017LWTZS	C1017LWTTS	17	320	500	670	10 x 17	
C0724LWTPS	C0724LWTZS	C0724LWTTS	24	320	500	840	7 x 24	
C0824LWTPS	C0824LWTZS	C0824LWTTS	24	320	500	840	8 x 24	
C0924LWTPS	C0924LWTZS	C0924LWTTS	24	320	500	840	9 x 24	
C1024LWTPS	C1024LWTZS	C1024LWTTS	24	320	500	840	10 x 24	
C0735LWTPS	C0735LWTZS	C0735LWTTS	35	320	500	1140	7 x 35	
C0835LWTPS	C0835LWTZS	C0835LWTTS	35	320	500	1140	8 x 35	
C0935LWTPS	C0935LWTZS	C0935LWTTS	35	320	500	1140	9 x 35	
C1035LWTPS	C1035LWTZS	C1035LWTTS	35	320	500	1140	10 x 35	

ACCESSORIES				
REF.	**DESCRIPTION**	**DIAMETER (mm)**	**HEIGHT (mm)**	
PA003	BRINE WELL FOR 17”	100	340	
PA075	BRINE WELL FOR 24”	100	520	
PA077	BRINE WELL FOR 35”	100	780	

Cabinets for Softeners Top Surf Clear Series

- Tanks and covers made in European Union (Italy);
- Cabinets for residential softeners, complete with salt lid and cover of exclusive design with transparent insert;
- Materials: tank in HDPE, cover in polystyrene;
- Standard colours: white tank and blue, white or black cover;
- On demand and for quantities we can realize customized colours;
- EU design patent no. 003156272.

REF. WITH WHITE TANK AND …			TOP SURF CLEAR MODEL	WIDTH (mm)	LENGTH (mm)	HEIGHT (mm)	WITH MWG TANK	
BLUE COVER AND TRANSPARENT INSERT	**WHITE** COVER AND TRANSPARENT INSERT	**BLACK** COVER AND TRANSPARENT INSERT						
C0717SWTPS	C0717SWTZS	C0717SWTTS	17	320	500	670	7 x 17	
C0817SWTPS	C0817SWTZS	C0817SWTTS	17	320	500	670	8 x 17	
C0917SWTPS	C0917SWTZS	C0917SWTTS	17	320	500	670	9 x 17	
C1017SWTPS	C1017SWTZS	C1017SWTTS	17	320	500	670	10 x 17	
C0724SWTPS	C0724SWTZS	C0724SWTTS	24	320	500	840	7 x 24	
C0824SWTPS	C0824SWTZS	C0824SWTTS	24	320	500	840	8 x 24	
C0924SWTPS	C0924SWTZS	C0924SWTTS	24	320	500	840	9 x 24	
C1024SWTPS	C1024SWTZS	C1024SWTTS	24	320	500	840	10 x 24	
C0735SWTPS	C0735SWTZS	C0735SWTTS	35	320	500	1140	7 x 35	
C0835SWTPS	C0835SWTZS	C0835SWTTS	35	320	500	1140	8 x 35	
C0935SWTPS	C0935SWTZS	C0935SWTTS	35	320	500	1140	9 x 35	
C1035SWTPS	C1035SWTZS	C1035SWTTS	35	320	500	1140	10 x 35	

ACCESSORIES				
REF.	**DESCRIPTION**	**DIAMETER (mm)**	**HEIGHT (mm)**	
PA003	BRINE WELL FOR 17”	100	340	
PA075	BRINE WELL FOR 24”	100	520	
PA077	BRINE WELL FOR 35”	100	780	

Cabinets for Softeners New Crystal

- Tanks and covers made in European Union (Italy);
- Cabinets for residential softeners, complete with salt lid and cover of exclusive design with clear insert;
- Materials: - tank and salt lid in HDPE;
  - cover in polystyrene;
- Standard colours: white tank and blue, white or black cover;
- On demand and for quantities we can realize customized colours;
- EU design patent no. 003156272.

REF. WITH WHITE TANK AND …			NEW CRYSTAL MODEL	WIDTH (mm)	LENGTH (mm)	HEIGHT (mm)	WITH MWG TANK	
BLUE COVER	WHITE COVER	BLACK COVER						
C0717NWCAS	C0717NWCWS	C0717NWCDS	NEWMINI	320	500	670	7 x 17	
C0817NWCAS	C0817NWCWS	C0817NWCDS	NEWMINI	320	500	670	8 x 17	
C0917NWCAS	C0917NWCWS	C0917NWCDS	NEWMINI	320	500	670	9 x 17	
C1017NWCAS	C1017NWCWS	C1017NWCDS	NEWMINI	320	500	670	10 x 17	
C0730NWCAS	C0730NWCWS	C0730NWCDS	NEWMIDI	320	500	1010	7 x 30	
C0830NWCAS	C0830NWCWS	C0830NWCDS	NEWMIDI	320	500	1010	8 x 30	
C0930NWCAS	C0930NWCWS	C0930NWCDS	NEWMIDI	320	500	1010	9 x 30	
C1030NWCAS	C1030NWCWS	C1030NWCDS	NEWMIDI	320	500	1010	10 x 30	
C0735NWCAS	C0735NWCWS	C0735NWCDS	NEWMAXI	320	500	1140	7 x 35	
C0835NWCAS	C0835NWCWS	C0835NWCDS	NEWMAXI	320	500	1140	8 x 35	
C0935NWCAS	C0935NWCWS	C0935NWCDS	NEWMAXI	320	500	1140	9 x 35	
C1035NWCAS	C1035NWCWS	C1035NWCDS	NEWMAXI	320	500	1140	10 x 35	

ACCESSORIES				
REF.	DESCRIPTION	DIAMETER (mm)	HEIGHT (mm)	
PA003	BRINE WELL FOR NEWMINI	100	342	
PA010	BRINE WELL FOR NEWMIDI	100	690	
PA005	BRINE WELL FOR NEWMAXI	100	820	

Cabinets for Softeners New Iceberg

- Tanks and covers made in European Union (Italy);
- Cabinets for residential softeners, complete with salt lid and cover of exclusive design;
- Materials:
  - tank and salt lid in HDPE;
  - cover in polystyrene;
- Standard colours: white tank and blue (or white or black) cover with white insert;
- On demand and for quantities we can realize customized colours;
- EU design patent no. 003156272.

REF. WITH WHITE TANK AND …			NEW ICEBERG MODEL	WIDTH (mm)	LENGTH (mm)	HEIGHT (mm)	WITH MWG TANK	
BLUE COVER WITH WHITE INSERT	**WHITE** COVER WITH WHITE INSERT	**BLACK** COVER WITH WHITE INSERT						
C0717NWIQS	C0717NWIWS	C0717NWISS	NEWMINI	320	500	670	7 x 17	
C0817NWIQS	C0817NWIWS	C0817NWISS	NEWMINI	320	500	670	8 x 17	
C0917NWIQS	C0917NWIWS	C0917NWISS	NEWMINI	320	500	670	9 x 17	
C1017NWIQS	C1017NWIWS	C1017NWISS	NEWMINI	320	500	670	10 x 17	
C0730NWIQS	C0730NWIWS	C0730NWISS	NEWMIDI	320	500	1010	7 x 30	
C0830NWIQS	C0830NWIWS	C0830NWISS	NEWMIDI	320	500	1010	8 x 30	
C0930NWIQS	C0930NWIWS	C0930NWISS	NEWMIDI	320	500	1010	9 x 30	
C1030NWIQS	C1030NWIWS	C1030NWISS	NEWMIDI	320	500	1010	10 x 30	
C0735NWIQS	C0735NWIWS	C0735NWISS	NEWMAXI	320	500	1140	7 x 35	
C0835NWIQS	C0835NWIWS	C0835NWISS	NEWMAXI	320	500	1140	8 x 35	
C0935NWIQS	C0935NWIWS	C0935NWISS	NEWMAXI	320	500	1140	9 x 35	
C1035NWIQS	C1035NWIWS	C1035NWISS	NEWMAXI	320	500	1140	10 x 35	

ACCESSORIES				
REF.	**DESCRIPTION**	**DIAMETER (mm)**	**HEIGHT (mm)**	
PA003	BRINE WELL FOR NEWMINI	100	342	
PA010	BRINE WELL FOR NEWMIDI	100	690	
PA005	BRINE WELL FOR NEWMAXI	100	820	

Cabinet for Softeners Ocean Series

- Tanks and covers made in European Union (Italy);
- Cabinets for residential softeners, complete with salt lid and cover of exclusive design with clear insert;
- Materials: - tank and salt lid in HDPE;
  - cover in polystyrene;
- Standard colours: white tank and blue, white or black cover;
- On demand and for quantities we can realize customized colours;
- EU design patent no. 003156272.

REF. WITH WHITE TANK AND …			OCEAN MODEL	WIDTH (mm)	LENGTH (mm)	HEIGHT (mm)	WITH MWG TANK	
BLUE COVER	WHITE COVER	BLACK COVER						
C0717NWOAS	C0717NWOWS	C0717NWODS	NEWMINI	320	500	670	7 x 17	
C0817NWOAS	C0817NWOWS	C0817NWODS	NEWMINI	320	500	670	8 x 17	
C0917NWOAS	C0917NWOWS	C0917NWODS	NEWMINI	320	500	670	9 x 17	
C1017NWOAS	C1017NWOWS	C1017NWODS	NEWMINI	320	500	670	10 x 17	
C0730NWOAS	C0730NWOWS	C0730NWODS	NEWMIDI	320	500	1010	7 x 30	
C0830NWOAS	C0830NWOWS	C0830NWODS	NEWMIDI	320	500	1010	8 x 30	
C0930NWOAS	C0930NWOWS	C0930NWODS	NEWMIDI	320	500	1010	9 x 30	
C1030NWOAS	C1030NWOWS	C1030NWODS	NEWMIDI	320	500	1010	10 x 30	
C0735NWOAS	C0735NWOWS	C0735NWODS	NEWMAXI	320	500	1140	7 x 35	
C0835NWOAS	C0835NWOWS	C0835NWODS	NEWMAXI	320	500	1140	8 x 35	
C0935NWOAS	C0935NWOWS	C0935NWODS	NEWMAXI	320	500	1140	9 x 35	
C1035NWOAS	C1035NWOWS	C1035NWODS	NEWMAXI	320	500	1140	10 x 35	

ACCESSORIES				
REF.	DESCRIPTION	DIAMETER (mm)	HEIGHT (mm)	
PA003	BRINE WELL FOR NEWMINI	100	342	
PA010	BRINE WELL FOR NEWMIDI	100	690	
PA005	BRINE WELL FOR NEWMAXI	100	820	

Cabinets for Softeners Logix Series

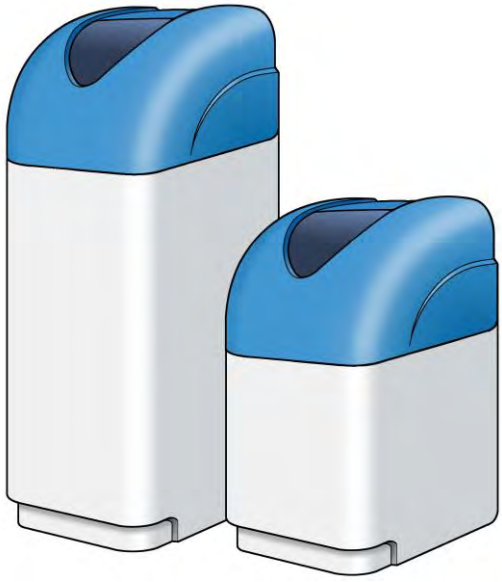
- Tanks and covers made in European Union (Italy);
- Cabinets for residential softeners, complete with salt lid and cover for integrate installation of LOGIX control AUTOTROL valves;
- Materials:
  - tank and salt lid in HDPE;
  - cover in polystyrene;
- Standard colours: white tank and blue, white or black cover;
- On demand and for quantities we can realize customized colours;
- EU design patent no. 003156272.

REF. WITH WHITE TANK AND …			LOGIX MODEL	WIDTH (mm)	LENGTH (mm)	HEIGHT (mm)	WITH MWG TANK	
BLUE COVER	WHITE COVER	BLACK COVER						
C0717NWLAS	C0717NWLWS	C0717NWLDS	NEWMINI	320	500	670	7 x 17	
C0817NWLAS	C0817NWLWS	C0817NWLDS	NEWMINI	320	500	670	8 x 17	
C0917NWLAS	C0917NWLWS	C0917NWLDS	NEWMINI	320	500	670	9 x 17	
C1017NWLAS	C1017NWLWS	C1017NWLDS	NEWMINI	320	500	670	10 x 17	
C0730NWLAS	C0730NWLWS	C0730NWLDS	NEWMIDI	320	500	1010	7 x 30	
C0830NWLAS	C0830NWLWS	C0830NWLDS	NEWMIDI	320	500	1010	8 x 30	
C0930NWLAS	C0930NWLWS	C0930NWLDS	NEWMIDI	320	500	1010	9 x 30	
C1030NWLAS	C1030NWLWS	C1030NWLDS	NEWMIDI	320	500	1010	10 x 30	
C0735NWLAS	C0735NWLWS	C0735NWLDS	NEWMAXI	320	500	1140	7 x 35	
C0835NWLAS	C0835NWLWS	C0835NWLDS	NEWMAXI	320	500	1140	8 x 35	
C0935NWLAS	C0935NWLWS	C0935NWLDS	NEWMAXI	320	500	1140	9 x 35	
C1035NWLAS	C1035NWLWS	C1035NWLDS	NEWMAXI	320	500	1140	10 x 35	

ACCESSORIES				
REF.	DESCRIPTION	DIAMETER (mm)	HEIGHT (mm)	
PA003	BRINE WELL FOR NEWMINI	100	342	
PA010	BRINE WELL FOR NEWMIDI	100	690	
PA005	BRINE WELL FOR NEWMAXI	100	820	

Cabinets for Softeners Crystal Series

- Tanks and covers made in European Union (Italy);
- Cabinets for residential softeners, complete with salt lid and cover of exclusive design with clear insert;
- Materials: - tank and salt lid in HDPE;
  - cover in polystyrene;
- Standard colours: white tank and blue, white or black cover;
- On demand and for quantities we can realize customized colours;
- EU design patent no. 003156272.

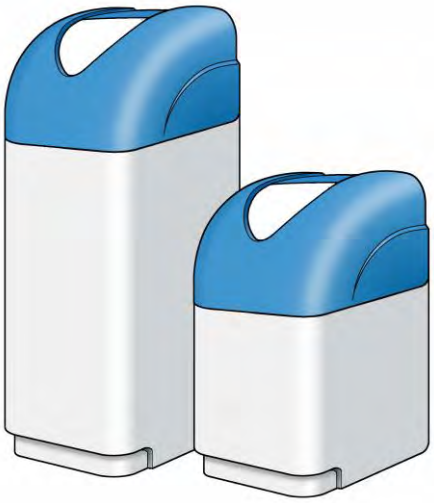


REF. WITH WHITE TANK AND …			CRYSTAL MODEL	WIDTH (mm)	LENGTH (mm)	HEIGHT (mm)	WITH MWG TANK	
BLUE COVER	**WHITE COVER**	**BLACK COVER**						
C0717EWCAS	C0717EWCWS	C0717EWCDS	MINI	320	500	670	7 x 17	
C0817EWCAS	C0817EWCWS	C0817EWCDS	MINI	320	500	670	8 x 17	
C0917EWCAS	C0917EWCWS	C0917EWCDS	MINI	320	500	670	9 x 17	
C1017EWCAS	C1017EWCWS	C1017EWCDS	MINI	320	500	670	10 x 17	
C0735EWCAS	C0735EWCWS	C0735EWCDS	MAXI	320	500	1140	7 x 35	
C0835EWCAS	C0835EWCWS	C0835EWCDS	MAXI	320	500	1140	8 x 35	
C0935EWCAS	C0935EWCWS	C0935EWCDS	MAXI	320	500	1140	9 x 35	
C1035EWCAS	C1035EWCWS	C1035EWCDS	MAXI	320	500	1140	10 x 35	

ACCESSORIES				
REF.	**DESCRIPTION**	**DIAMETER (mm)**	**HEIGHT (mm)**	
PA003	BRINE WELL FOR MINI	100	342	
PA005	BRINE WELL FOR MAXI	100	820	

Cabinets for Softeners Iceberg Series

- Tanks and covers made in European Union (Italy);
- Cabinets for residential softeners, complete with salt lid and cover of exclusive design;
- Materials:
  - tank and salt lid in HDPE;
  - cover in polystyrene;
- Standard colours: white tank and blue (or white or black) cover with white insert;
- On demand and for quantities we can realize customized colours;
- EU design patent no. 003156272.

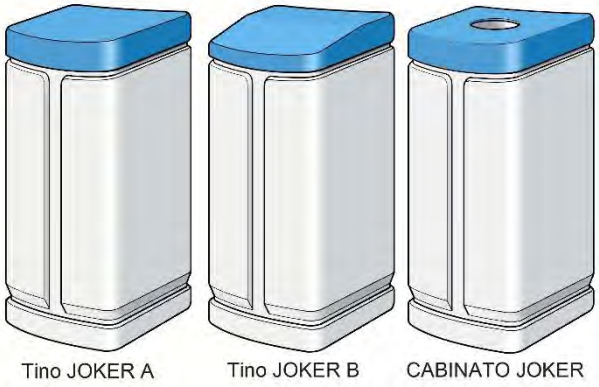


REF. WITH WHITE TANK AND ...			ICEBERG MODEL	WIDTH (mm)	LENGTH (mm)	HEIGHT (mm)	WITH MWG TANK	
BLUE COVER WITH WHITE INSERT	**WHITE** COVER WITH WHITE INSERT	**BLACK** COVER WITH WHITE INSERT						
C0717EWIQS	C0717EWIWS	C0717EWISS	MINI	320	500	670	7 x 17	
C0817EWIQS	C0817EWIWS	C0817EWISS	MINI	320	500	670	8 x 17	
C0917EWIQS	C0917EWIWS	C0917EWISS	MINI	320	500	670	9 x 17	
C1017EWIQS	C1017EWIWS	C1017EWISS	MINI	320	500	670	10 x 17	
C0735EWIQS	C0735EWIWS	C0735EWISS	MAXI	320	500	1140	7 x 35	
C0835EWIQS	C0835EWIWS	C0835EWISS	MAXI	320	500	1140	8 x 35	
C0935EWIQS	C0935EWIWS	C0935EWISS	MAXI	320	500	1140	9 x 35	
C1035EWIQS	C1035EWIWS	C1035EWISS	MAXI	320	500	1140	10 x 35	

ACCESSORIES				
REF.	**DESCRIPTION**	**DIAMETER (mm)**	**HEIGHT (mm)**	
PA003	BRINE WELL FOR MINI	100	342	
PA005	BRINE WELL FOR MAXI	100	820	

Cabinets for Softeners Joker Series

- Tanks and covers made in European Union (Italy);
- JOKER brine/resin tanks that can be combined in special bi-blocs cabinets;
- Capacity as brine tank 82 liters;
- Suitable to fit 7”- 8” - 9” - 10” x 35” tanks as resin tank;
- Overall dimensions 310 x 310 mm height 900 mm;
- Materials: - tank in HDPE;
  - cover in ABS;
- Standard colours: white tank and blue, white or black cover;
- On demand and for quantities we can realize customized colours;
- EU design patent no. 003156272.



REF. WITH WHITE TANK AND …			MODEL	WITH MWG TANK	
BLUE COVER	**WHITE COVER**	**BLACK COVER**			
C0735AWJAX	C0735AWJWX	C0735AWJDX	JOKER	7 x 35	
C0835AWJAX	C0835AWJWX	C0835AWJDX	JOKER	8 x 35	
C0935AWJAX	C0935AWJWX	C0935AWJDX	JOKER	9 x 35	
C1035AWJAX	C1035AWJWX	C1035AWJDX	JOKER	10 x 35	

JOKER BRINE TANKS				
REF. WITH WHITE TANK AND …			MODEL	
BLUE COVER	**WHITE COVER**	**BLACK COVER**		
T0082AWAA	T0082AWAW	T0082AWAD	JOKER A	
T0082BWBA	T0082BWBW	T0082BWBD	JOKER B	

ACCESSORIES				
REF.	**DESCRIPTION**	**DIAMETER (mm)**	**HEIGHT (mm)**	
PA005	BRINE WELL	100	820	

Cabinets for Softeners New Series

- Tanks and salt lids made in European Union (Italy);
- Cabinets for residential softeners;
- Materials: - tank in HDPE;
  - salt lid in polystyrene;
- Standard colours: tank and salt lid white;
- On demand and for quantities we can realize customized colours;
- EU design patent no. 003156272.

REF.	MODEL	WIDTH (mm)	LENGTH (mm)	HEIGHT (mm)	WITH MWG TANK	
C0717NWXXS	NEWMINI	320	500	435	7 x 17	
C0817NWXXS	NEWMINI	320	500	435	8 x 17	
C0917NWXXS	NEWMINI	320	500	435	9 x 17	
C1017NWXXS	NEWMINI	320	500	435	10 x 17	
C0730NWXXS	NEWMIDI	320	500	775	7 x 30	
C0830NWXXS	NEWMIDI	320	500	775	8 x 30	
C0930NWXXS	NEWMIDI	320	500	775	9 x 30	
C1030NWXXS	NEWMIDI	320	500	775	10 x 30	
C0735NWXXS	NEWMAXI	320	500	895	7 x 35	
C0835NWXXS	NEWMAXI	320	500	895	8 x 35	
C0935NWXXS	NEWMAXI	320	500	895	9 x 35	
C1035NWXXS	NEWMAXI	320	500	895	10 x 35	

ACCESSORIES				
REF.	DESCRIPTION	DIAMETER (mm)	HEIGHT (mm)	
PA003	BRINE WELL FOR NEWMINI	100	342	
PA010	BRINE WELL FOR NEWMIDI	100	690	
PA005	BRINE WELL FOR NEWMAXI	100	820	

Cabinets for Softeners “Mini” - “Maxi” Series

- Tanks and salt lids made in European Union (Italy);
- Cabinets for residential softeners;
- Materials: - tank in HDPE;
  - salt lid in polystyrene;
- Standard colours: tank and salt lid white;
- On demand and for quantities we can realize customized colours;
- EU design patent no. 003156272.

REF.	MODEL	WIDTH (mm)	LENGTH (mm)	HEIGHT (mm)	WITH MWG TANK	
C0717EWXXS	MINI	320	500	435	7 x 17	
C0817EWXXS	MINI	320	500	435	8 x 17	
C0917EWXXS	MINI	320	500	435	9 x 17	
C1017EWXXS	MINI	320	500	435	10 x 17	
C0735EWXXS	MAXI	320	500	895	7 x 35	
C0835EWXXS	MAXI	320	500	895	8 x 35	
C0935EWXXS	MAXI	320	500	895	9 x 35	
C1035EWXXS	MAXI	320	500	895	10 x 35	

ACCESSORIES				
REF.	**DESCRIPTION**	**DIAMETER (mm)**	**HEIGHT (mm)**	
PA003	BRINE WELL FOR MINI	100	342	
PA005	BRINE WELL FOR MAXI	100	820	

Brine tanks

MWG®
ITALIAN WATER TECHNOLOGY

Made by Eurotrol S.p.A.

Residential Square Brine Tank

- Made in European Union (Italy);
- Brine tank material HDPE;
- Complete with cover in ABS;
- Dimensions 380 x 380 mm, height 790 mm;
- Capacity 85 liters;
- Available multiple packaging of 30 pcs per pallet;
- EU design patent no. 003156272.

REF.	TANK COLOUR	COVER COLOUR	
T0085QWQA	White	Blue	
T0085QWQW	White	White	
T0085QWQD	White	Black	

Accessories:

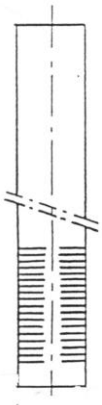
Salt Grid

- Made in European Union (Italy);
- Material HDPE;
- Height 200 mm;
- Hole for brine well diameter 100 mm;
- Salt gride holes ☐ 3 mm.

REF.	
PC006	

Brine well

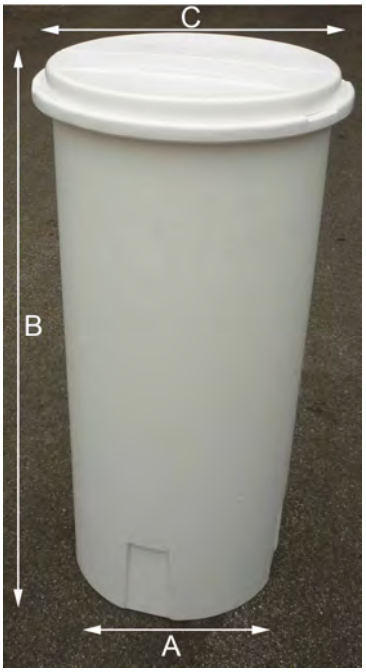
- Material PVC with cover;
- Diameter 100 mm;
- Height 640 mm.



REF.	
PA007	

Residential Round Brine Tanks

- Made in European Union (Italy);
- Brine tanks complete with cover;
- Material PE medium density, rotomolded;
- Single or multiple packaging of 20 pcs per pallet for 100 liters and 140 liters brine tanks and 16 pcs per pallet for 190 liters brine tanks;
- Colour white opaque UVA ray resistant;
- Cover colours available: white, blue or black;
- EU design patent no. 003156272.



REF.	CAPACITY (LITERS)	COVER COLOUR	OVERALL DIMENSIONS			
			A (mm)	B (mm)	C (mm)	
T0100CWCW	100	White	460	616	565	
T0100CWCA	100	Blue	460	616	565	
T0100CWCD	100	Black	460	616	565	
T0140CWCW	140	White	460	843	565	
T0140CWCA	140	Blue	460	843	565	
T0140CWCD	140	Black	460	843	565	
T0190CWCW	190	White	460	1123	565	
T0190CWCA	190	Blue	460	1123	565	
T0190CWCD	190	Black	460	1123	565	

Accessories:

Salt grids

- Made in European Union (Italy);
- Material PE medium density;
- Hole for brine well diameter 100 mm;
- Salt gride holes ˜ 3 mm.

REF.	HEIGHT (mm)	DIAMETER (mm)	
PC031	130	475	
PC032	200	475	
PC033	270	475	

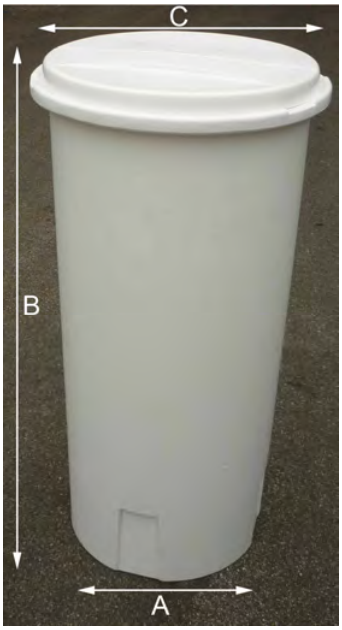
Brine well

- Material PVC with cover;
- Diameter 100 mm.

REF.	HEIGHT (mm)	FOR BRINE TANKS (liters)	
PA075	520	100	
PA010	690	140	
PA015	970	190	

Industrial Round Brine Tanks

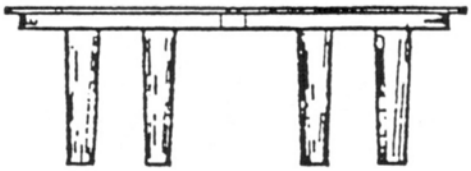
- Made in European Union (Italy);
- Brine tanks complete with cover;
- Material PE medium density, rotomolded;
- Single or multiple packaging of 3 pcs per pallet;
- Colour white opaque UVA ray resistant;
- Cover colours available: white, blue or black;
- EU design patent no. 003156272.



REF.	CAPACITY (LITERS)	COVER COLOUR	OVERALL DIMENSIONS			
			A (mm)	B (mm)	C (mm)	
T0340CWCW	340	White	594	1200	723	
T0340CWCA	340	Blue	594	1200	723	
T0340CWCD	340	Black	594	1200	723	
T0460CWCW	460	White	703	1196	833	
T0460CWCA	460	Blue	703	1196	833	
T0460CWCD	460	Black	703	1196	833	

Accessories:

Salt grids



- Made in European Union (Italy);
- Material PE medium density;
- Hole for brine well diameter 160 mm;
- Salt gride holes Ø = 5 mm.

REF.	HEIGHT (mm)	DIAMETER (mm)	FOR BRINE TANKS (liters)	
PC070	375	600	340	
PC071	375	700	460	

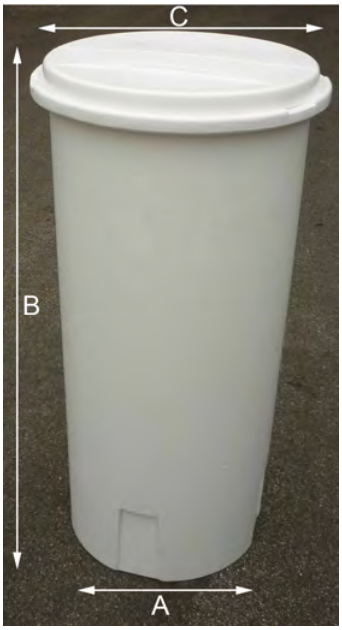
Brine well

- Material PVC with cover;
- Diameter 160 mm;
- Height 1050 mm.

REF.	
PA016	

Industrial Round Brine Tanks

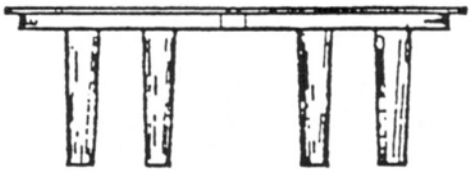
- Made in European Union (Italy);
- Brine tanks complete with cover;
- Material PE medium density, rotomolded;
- Single or multiple packaging of 3 pcs per pallet;
- Colour white opaque UVA ray resistant;
- Cover colours available: white, blue or black;
- EU design patent no. 003156272.



REF.	CAPACITY (LITERS)	COVER COLOUR	OVERALL DIMENSIONS			
			A (mm)	B (mm)	C (mm)	
T0670CWCW	670	White	847	1196	973	
T0670CWCA	670	Blue	847	1196	973	
T0670CWCD	670	Black	847	1196	973	
T0920CWCW	920	White	997	1206	1123	
T0920CWCA	920	Blue	997	1206	1123	
T0920CWCD	920	Black	997	1206	1123	

Accessories:

Salt grids



- Made in European Union (Italy);
- Material PE medium density;
- Hole for brine well diameter 160 mm;
- Salt gride holes Ø = 5 mm.

REF.	HEIGHT (mm)	DIAMETER (mm)	FOR BRINE TANKS (liters)	
PC072	375	835	670	
PC073	375	1010	920	

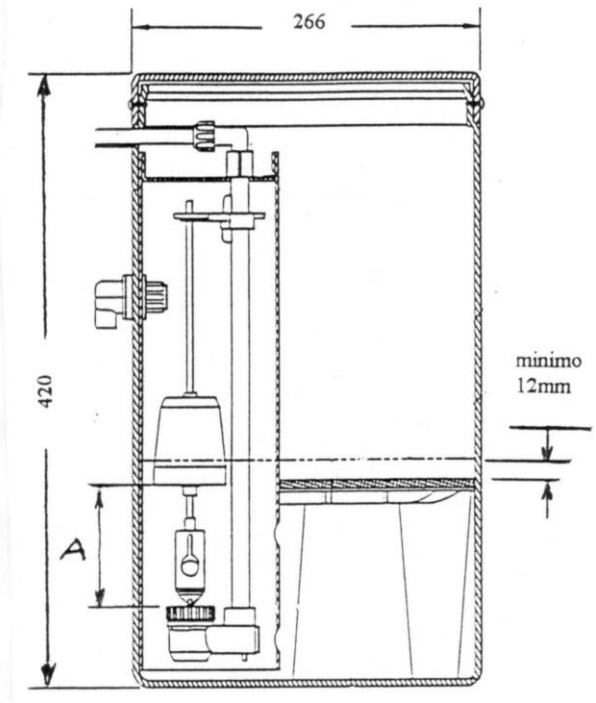
Brine well

- Material PVC with cover;
- Diameter 160 mm;
- Height 1050 mm.

REF.	
PA016	

Potassium Permanganate Feeder

- feeder for potassium permanganate solution, to realize automatic iron removal systems with manganese greensand;
- complete with floating valve, well, special grid for permanganate, overflow, safety screw for cover;
- material: polyethylene;
- dimensions: diameter 266 mm, height 420 mm;
- storage $KMnO_4$ capacity: 13,6 kg;
- connection for ⅜" tubing;
- colour black.



REF.	
AV120	

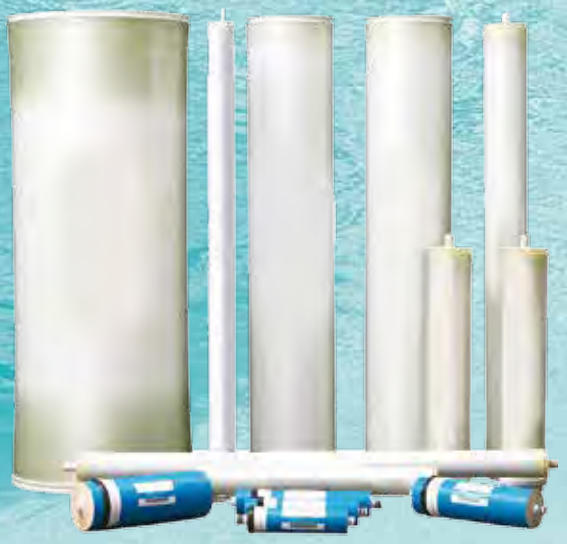
Float setting:

Suggested dose of regenerant: 2 ÷ 4 g $KMnO_4$ per greensand liter

$KMnO_4$ solution: 30 g/l at 10°C
60 g/l at 22°C

Minimum A floating setting at 108 mm is equivalent to 4 liters of solution.

Membranes reverse osmosis and Ultra Filtration



EUROTROL®

WATER TREATMENT COMPONENTS

MWG Membranes

Ref.	Mod.	Description	Permeate Flow Rate GPD (m^3/d)	Rejection NaCl Rate (%)	Effective Area m2 (ft2)	Spacer (mil)	Test	NSF	
MMRO1812-50	TW RO	MWG 1.8" MEMBRANE RO1812-50	50 (0,19)	98,0	0,37 (4)	X	1	58	
MMRO1812-75	TW RO	MWG 1.8" MEMBRANE RO1812-75	75 (0,28)	98,0	0,37 (4)	X	1	58	
MMRO2012-100	TW RO	MWG 2" MEMBRANE RO2012-100	100 (0,38)	98,0	0,56 (6)	X	1	58	
MMRO2012-150	TW RO	MWG 2" MEMBRANE RO2012-150	150 (0,57)	98,0	0,56 (6)	X	1	58	
MMRO2812-200	TW RO	MWG 2.8" MEMBRANE RO2812-200	200 (0,76)	98,0	0,93 (10)	X	1	58	
MMRO3012-300	TW RO	MWG 3" MEMBRANE RO3012-300	300 (1,14)	98,0	1,3 (14)	X	1	58	
MMRO3012-400	TW RO	MWG 3" MEMBRANE RO3012-400	400 (1,52)	98,0	1,3 (14)	X	1	58	
MMNF1812	TW NF	MWG 1.8" MEMBRANE NF-1812 (MgSO4)	100 (0,38) 100 (0,38)	30-50 96,0	0,37 (4)	X	2	X	
MMNF2012	TW NF	MWG 2" MEMBRANE NF-2012 (MgSO4)	150 (0,57) 150 (0,57)	30-50 96,0	0,56 (6)	X	2	X	
MMNF3012	TW NF	MWG 3" MEMBRANE NF-3012 (MgSO4)	350 (1,32) 350 (1,32)	30-50 96,0	1,3 (14)	X	2	X	
MMXLP2521	XLP	MWG 2.5" MEMBRANE XLP-2521	300 (1,13)	99,2	1,3 (14)	X	3	X	
MMXLP2540	XLP	MWG 2.5" MEMBRANE XLP-2540	600 (2,27)	99,2	2,5 (27)	X	3	X	
MMXLP4021	XLP	MWG 4" MEMBRANE XLP-4021	800 (3,04)	99,2	3,4 (36)	X	3	X	
MMXLP4040	XLP	MWG 4" MEMBRANE XLP-4040	2.400 (9,1)	99,2	7,9 (85)	X	4	X	
MMXLP8040	XLP	MWG 8" MEMBRANE XLP-8040	11.000 (41,6)	99,2	37,2 (400)	X	4	X	
MMXLP8040HR	XLP	MWG 8" MEMBRANE XLP-8040HR	9.000 (34,1)	99,3	35,3 (380)	X	4	X	
MMULP2540	LP	MWG 2.5" MEMBRANE ULP-2521	750 (2,84)	99,3	2,5 (27)	X	5	X	
MMULP4021	LP	MWG 4" MEMBRANE ULP-4021	950 (3,6)	99,3	3,4 (36)	X	5	61	
MMULP4040	LP	MWG 4" MEMBRANE ULP-4040	2.600 (9,8)	99,3	7,9 (85)	X	5	61	
MMULP4040HR	LP	MWG 4" MEMBRANE ULP-4040HR	1.800 (6,8)	99,7	7,9 (85)	X	5	61	
MMULP4040MR	LP	MWG 4" MEMBRANE ULP-4040MR	2.200 (8,3)	99,6	7,9 (85)	X	5	61	
MMULP8040	LP	MWG 8" MEMBRANE ULP-8040	12.000 (45,4)	99,3	39 (420)	X	5	61	
MMULP8040MR	LP	MWG 8" MEMBRANE ULP-8040MR	10.000 (37,8)	99,6	37,2 (400)	X	5	X	
MMBW4040	BW	MWG 4" MEMBRANE BW-4040	2.400 (9,1)	99,6	7,9 (85)	X	6	61	
MMBW4040FR	BW	MWG 4" MEMBRANE BW-4040FR	2.000 (7,6)	99,7	7,2 (78)	X	6	X	
MMBW8040	BW	MWG 8" MEMBRANE BW-8040	10.500 (39,7)	99,6	37,2 (400)	X	6	61	
MMBW8040FR	BW	MWG 8" MEMBRANE BW-8040FR	9.000 (34,1)	99,7	34 (365)	X	6	X	
MMBW8040HR	BW	MWG 8" MEMBRANE BW-8040HR	9.500 (35,9)	99,7	35,5 (380)	X	6	X	

MWG Membranes

Ref.	Mod.	Description	Permeate Flow Rate GPD (m^3/d)	Rejection NaCl Rate (%)	Effective Area m2 (ft2)	Spacer (mil)	Test	NSF	
MMSW2521	SW	MWG 2.5" MEMBRANE SW-2521	300 (1,13)	99,7	1,3 (14)	X	7	X	
MMSW2540	SW	MWG 2.5" MEMBRANE SW-2540	600 (2,27)	99,7	2,5 (27)	X	7	X	
MMSW4021	SW	MWG 4" MEMBRANE SW-4021	800 (3,04)	99,7	3,4 (36)	X	7	X	
MMSW4040	SW	MWG 4" MEMBRANE SW-4040	1.800 (6,8)	99,7	7,9 (85)	X	7	X	
MMSW4040HR	SW	MWG 4" MEMBRANE SW-4040HR	1.500 (5,7)	99,7	7,2 (78)	X	7	X	
MMSW8040	SW	MWG 8" MEMBRANE SW-8040	8.500 (32,1)	99,7	37,2 (400)	X	7	X	
MMSW8040HR	SW	MWG 8" MEMBRANE SW-8040HR	6.500 (24,6)	99,7	35,3 (380)	X	7	X	
MMSW8040MR	SW	MWG 8" MEMBRANE SW-8040MR	7.500 (28,3)	99,7	37,2 (400)	X	7	X	
MMNF2-2540	NF	MWG 2.5" MEMBRANE NF2-2540 (MgSO4)	800 (3,04) 800 (3,04)	30-50 96,0	2,5 (27)	X	8	X	
MMNF1-4040R	NF	MWG 4" MEMBRANE NF1-4040R (MgSO4)	1.800 (6,8) 1.800 (6,8)	> 85 99,0	7,9 (85)	X	8	X	
MMNF2-4040	NF	MWG 4" MEMBRANE NF2-4040 (MgSO4)	2.400 (9,1) 2.400 (9,1)	30-50 97,0	7,9 (85)	X	8	X	
MMNF2-8040	NF	MWG 8" MEMBRANE NF2-8040 (MgSO4)	12.000 (45,4) 12.000 (45,4)	30-50 97,0	37,2 (400)	X	8	X	

Test Condition	Pressure (psi)	Temperature of Solution (°C)	Concentration of NaCl Solution (ppm)	Concentration of MgSO4 Solution (ppm)	pH	Recovery Rate (%)
1	60	25	250	-	7,5 - 8,0	15
2	60	25	250	250	7,5 - 8,0	15
3	100	25	500	-	7,5 - 8,0	8
4	100	25	500	-	7,5 - 8,0	15
5	150	25	500	-	7,5 - 8,0	15
6	225	25	2000	-	7,5 - 8,0	15
7	800	25	32000	-	7,5 - 8,0	8
8	70	25	500	2000	7,5 - 8,0	15

- **TW RO:** RESIDENTIAL RO
- **XLP:** EXTRA LOW PRESSURE
- **BW:** BRACKISH WATER
- **NF:** NANO FILTRATION
- **TW NF:** INDUSTRIAL NF
- **LP:** LOW PRESSURE
- **SW:** SEA WATER

Certification: **DM 174**

Manufacturer: **MWG**

Vontron Membranes

Ref.	Mod.	Description	Permeate Flow Rate GPD (m^3/d)	Rejection NaCl Rate (%)	Effective Area m2 (ft2)	Spacer (mil)	Test	NSF
MVULP1812-50	TW RO	VONTRON 1.8" MEMBRANE ULP1812-50	50 (0,19)	97,5	x x	x	1	58
MVULP1812-75	TW RO	VONTRON 1.8" MEMBRANE ULP1812-75	75 (0,28)	97,5	x x	x	1	58
MVULP2012-100	TW RO	VONTRON 2" MEMBRANE ULP2012-100	100 (0,38)	95,0	x x	x	1	58
MVULP2812-200	TW RO	VONTRON 2.8" MEMBRANE ULP2812-200	200 (0,76)	97,0	x x	x	3	58
MVULP3012-300	TW RO	VONTRON 3" MEMBRANE ULP3012-300	300 (1,14)	97,0	x x	x	3	58
MVVNF1812	TW NF	VONTRON 1.8" MEMBRANE VNF-1812	100 (0,8)	30,0 ± 10	x x	x	2	58
		(CaCl2)	100 (0,8)	≥ 85				
MVVNF2012	TW NF	VONTRON 2" MEMBRANE VNF-2012	120 (0,45)	30,0 ± 10	x x	x	2	58
		(CaCl2)	120 (0,45)	≥ 85				
MVVNF2812	TW NF	VONTRON 2.8" MEMBRANE VNF-2812	300 (1,14)	30,0 ± 10	x x	x	2	58
		(CaCl2)	300 (1,14)	≥ 85				
MVXLP11-4040	XLP RO	VONTRON 4" MEMBRANE XLP11-4040	2.000 (7,6)	98,0	8,4 (90)	x	3	61
MVXLP12-8040	XLP RO	VONTRON 8" MEMBRANE XLP12-8040	9.000 (34)	98,0	37,2 (400)	x	3	x
MVULP21-2540	LP	VONTRON 2.5" MEMBRANE ULP21-2540	750 (2,84)	99,0	2,8 (30)	x	4	61
MVULP21-4021	LP	VONTRON 4" MEMBRANE ULP21-4021	950 (3,6)	99,0	3,3 (36)	x	4	61
MVULP21-4040	LP	VONTRON 4" MEMBRANE ULP21-4040	2.400 (9,1)	99,0	8,4 (90)	x	5	61
MVULP31-4040	LP	VONTRON 4" MEMBRANE ULP31-4040	1.900 (7,2)	99,4	8,4 (90)	x	5	61
MVULP22-8040	LP	VONTRON 8" MEMBRANE ULP22-8040	12.100 (45,7)	99,0	37,2 (400)	x	5	61
MVULP32-8040	LP	VONTRON 8" MEMBRANE ULP32-8040	10.500 (39,7)	99.5	37,2 (400)	x	5	61
MVULP440	LP	VONTRON 8" MEMBRANE ULP440	12.000 (45,4)	99,5	40,9 (440)	x	6	x
MVLP100	BW	VONTRON 4" MEMBRANE LP100	2.500 (9,5)	99,7	9,3 100)	x	7	x
MVLP21-4040	BW	VONTRON 4" MEMBRANE LP21-4040	2.400 (9,1)	99,5	8,4 (90)	x	7	61
MVLP21-8040	BW	VONTRON 8" MEMBRANE LP21-8040	9.600 (36,3)	99,5	33,9 (365)	x	7	61
MVLP22-8040	BW	VONTRON 8" MEMBRANE LP22-8040	10.500 (39,7)	99,5	37,2 (400)	x	7	61
MVFR11-4040	FR	VONTRON 4" MEMBRANE FR11-4040	2.200 (8,3)	99,5	8,4 (90)	x	7	61
MVFR11-8040	FR	VONTRON 8" MEMBRANE FR11-8040	9.600 (36,3)	99,5	33,9 (365)	34	7	61
MVFR12-8040	FR	VONTRON 8" MEMBRANE FR12-8040	10.500 (39,7)	99,5	37,2 (400)	34	7	x
MVPURO-LE	FR	VONTRON 8" MEMBRANE PURO-LE	10.000 (37,9)	99,5	37,2 (400)	34	8	x

Vontron Membranes

Ref.	Mod.	Description	Permeate Flow Rate GPD (m^3/d)		Rejection NaCl Rate (%)	Effective Area m2 (ft2)		Spacer (mil)	Test	NSF	
MVSW2521	SW	VONTRON 2.5" MEMBRANE SW2521	270	(1,0)	99,5	1,1	(12)	x	9	61	
MVSW4021	SW	VONTRON 4" MEMBRANE SW4021	750	(2,8)	99,5	3,1	(33)	x	9	61	
MVSW4040HR	SW	VONTRON 4" MEMBRANE SW4040HR	1.600	(6,1)	99,8	7,9	(85)	x	10	61	
MVSW4040LE	SW	VONTRON 4" MEMBRANE SW4040LE	1.900	(7,2)	99,7	7,9	(85)	x	10	61	
MVSW8040HR-400	SW	VONTRON 8" MEMBRANE SW8040HR-400	7.500	(28,4)	99,8	37,2	(400)	x	10	61	
MVSW8040LE-400	SW	VONTRON 8" MEMBRANE SW8040LE-400	9.000	(34,1)	99,8	37,2	(400)	x	10	61	
MVVNF1-2540	NF	VONTRON 2.5" MEMBRANE VNF1-2540	800	(3,03)	30-50	2,6	(28)	x	11	x	
		(MgSO4)	650	(2,46)	≥ 96						
MVVNF1-4040	NF	VONTRON 4" MEMBRANE VNF1-4040	2.400	(9,1)	30-50	7,4	(80)	x	11	x	
		(MgSO4)	2.000	(7,5)	≥ 96						
MVVNF1-8040	NF	VONTRON 8" MEMBRANE VNF1-8040	12.000	(45,4)	30-50	37,2	(400)	x	11	x	
		(MgSO4)	10.000	(37,9)	≥ 98						

Test Condition	Pressure (psi)	Temperature of Solution (°C)	Concentration of NaCl Solution (ppm)	Concentration of MgSO4 Solution (ppm)	pH	Recovery Rate (%)
1	60	25	250	-	6,5 - 8,5	15
2	60	25	250	CaCl2 250	6,5 - 8,5	15
3	100	25	500	-	7,5	15
4	150	25	1500	-	7,5	8
5	150	25	1500	-	7,5	15
6	150	25	500	-	7,5	15
7	225	25	2000	-	7,5	15
8	150	25	2000	-	7,5	15
9	800	25	32800	-	7,5	4
10	800	25	32800	-	7,5	8
11	100	25	2000	MgSO4 2000	7,5	15

- **TW RO:** RESIDENTIAL RO
- **XLP RO:** EXTRA LOW PRESSURE
- **BW:** BRACKISH WATER
- **SW:** SEA WATER
- **TW NF:** INDUSTRIAL NF
- **LP:** LOW PRESSURE
- **FR:** FOULING RESISTANT
- **NF:** NANO FILTRATION

Certification: **DM 174**

Manufacturer: **VONTRON**

CSM 2 ½" Membranes

LOW PRESSURE LPM MEMBRANES				
REF.	**MODEL**	**NSF/ANSI**	**DM174-2004**	
MCRE2514-TL	RE2514-TL	-	Compliant	
MCRE2514-TLF	RE2514-TLF	-	Compliant	
MCRE2521-BLN	RE2521-BLN	-	Compliant	
MCRE2521-BLF	RE2521-BLF	-	Compliant	
MCRE2540-BLN	RE2540-BLN	-	Compliant	
MCRE2540-BLF	RE2540-BLF	-	Compliant	
MCRE2540-BLR	RE2540-BLR	-	Compliant	

BRACKISH WATER BWM MEMBRANES				
REF.	**MODEL**	**NSF/ANSI**	**DM174-2004**	
MCRE2521-BE	RE2521-BE	-	Compliant	
MCRE2540-BE	RE2540-BE	-	Compliant	

FOULING RESISTANT FRM MEMBRANES				
REF.	**MODEL**	**NSF/ANSI**	**DM174-2004**	
MCRE2540-FEN	RE2540-FEn	-	Compliant	

SEA WATER SWM MEMBRANES				
REF.	**MODEL**	**NSF/ANSI**	**DM174-2004**	
MCRE2521-SHF	RE2521-SHF	-	Compliant	
MCRE2540-SHN	RE2540-SHN	-	Compliant	
MCRE2540-SHF	RE2540-SHF	-	Compliant	

NANOFILTRATION NFM MEMBRANES				
REF.	**MODEL**	**NSF/ANSI**	**DM174-2004**	
MCNE2540-90	NE2540-90	-	Compliant	

Ref. MCRE2514-TL

RE2514-TL

RO element for brackish water

CSM

SPECIFICATIONS:

General Features

Permeate flow rate:	250 GPD (0.94 m^3/day)
Stabilized salt rejection:	97.5%
Effective membrane area:	7 ft^2 (0.65 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **1,500 mg/L NaCl solution at 150 psig (1.0 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.0%.
3. Permeate flow rate for each element may vary but will be no more than 15%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D	E	Part Number	
						Inter-connector	Brine Seal
RE2514-TL	14.0 inch (356 mm)	2.4 inch (61 mm)	0.75 inch (19.1 mm)	1.18 inch (30 mm)	1.18 inch (30 mm)	DD004 (*)	DC005 (*)

(*) see 05-03-99-EN data sheet.

1. Each membrane element comes with one brine seal, one interconnector (coupler) and four o-rings.

RE2514-TL

RO element for brackish water

CSM

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	6 gpm (1.36 m³/hr)
	· Min. Concentrate Flow Rate	1 gpm (0.23 m³/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user's responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE2514-TLF

RE2514-TLF

RO element for brackish water

CSM

SPECIFICATIONS:

General Features

Permeate flow rate:	250 GPD (0.94 m³/day)
Stabilized salt rejection:	96.5%
Effective membrane area:	7 ft² (0.65 m²)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **500 mg/L NaCl solution at 100 psig (0.7 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.0%.
3. Permeate flow rate for each element may vary but will be no more than 15%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D	E	Part Number	
						Inter-connector	Brine Seal
RE2514-TLF	14.0 inch (356 mm)	2.4 inch (61 mm)	0.75 inch (19.1 mm)	1.18 inch (30 mm)	1.18 inch (30 mm)	DD004 (*)	DC005 (*)

(*) see 05-03-99-EN data sheet.

1. Each membrane element comes with one brine seal, one interconnector (coupler) and four o-rings.

RE2514-TLF

RO element for brackish water

CSM

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	6 gpm (1.36 m^3/hr)
	· Min. Concentrate Flow Rate	1 gpm (0.23 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user's responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE2521-BLN

RE2521- BLN

Low pressure grade RO element for brackish water

CSM

SPECIFICATIONS:

General Features

Permeate flow rate:	400 GPD (1.5 m^3/day)
Nominal salt rejection:	99.2%
Effective membrane area:	12 ft^2 (1.1 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

   - **1,500 mg/L NaCl solution at 150 psig (1.03 MPa) applied pressure**
   - **8% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

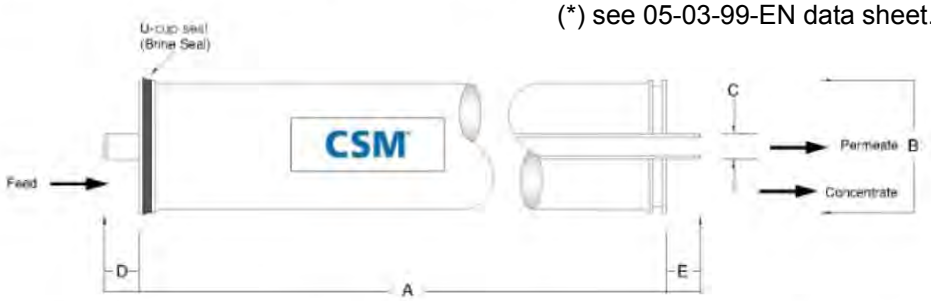
2. Minimum salt rejection is 99.0%.
3. Permeate flow rate for each element may vary +25 / -25%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D / E	Part Number	
					Inter-connector	Brine Seal
RE2521-BLN	21.0 inch (533.4 mm)	2.4 inch (60.8 mm)	0.75 inch (19.1 mm)	1.1 inch (28.0 mm)	DD004 (*)	DC005 (*)

(*) see 05-03-99-EN data sheet.



1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE2521 elements fit nominal 2.5 inch (63.5 mm) I.D. pressure vessels.

RE2521- BLN

CSM

Low pressure grade RO element for brackish water

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	6 gpm (1.36 m³/hr)
	· Min. Concentrate Flow Rate	1 gpm (0.23 m³/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE2521-BLF

RE2521- BLF

Ultra-low pressure grade RO element for low TDS water

CSM®

SPECIFICATIONS:

General Features

Permeate flow rate:	400 GPD (1.5 m^3/day)
Nominal salt rejection:	99.0%
Effective membrane area:	12 ft^2 (1.1 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

   - **500 mg/L NaCl solution at 100 psig (0.69 MPa) applied pressure**
   - **8% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

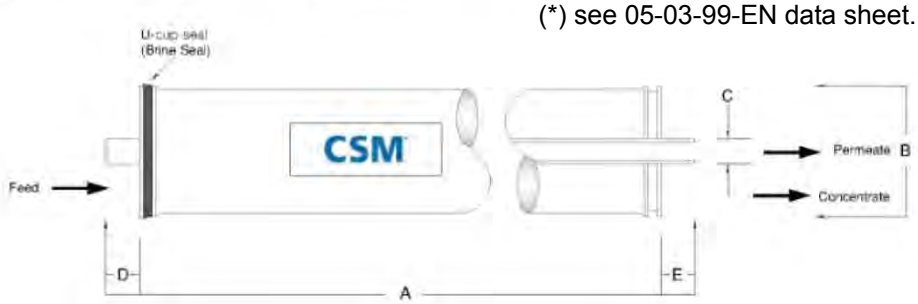
2. Minimum salt rejection is 99.0%.
3. Permeate flow rate for each element may vary +25 / -25%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D / E	Part Number	
					Inter-connector	Brine Seal
RE2521-BLF	21.0 inch (533.4 mm)	2.4 inch (60.8 mm)	0.75 inch (19.1 mm)	1.1 inch (28.0 mm)	DD004 (*)	DC005 (*)

(*) see 05-03-99-EN data sheet.



1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE2521 elements fit nominal 2.5 inch (63.5 mm) I.D. pressure vessels.

RE2521- BLF

Ultra-low pressure grade RO element for low TDS water

CSM

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240" Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	6 gpm (1.36 m^3/hr)
	· Min. Concentrate Flow Rate	1 gpm (0.23 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user's responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

CSM 2 ½" Membranes

Ref. MCRE2540-BLN

RE2540-BLN

Low pressure grade RO element for brackish water

CSM®

SPECIFICATIONS:

General Features

Permeate flow rate:	930 GPD (3.5 m^3/day)
Nominal salt rejection:	99.2%
Effective membrane area:	27 ft^2 (2.5 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

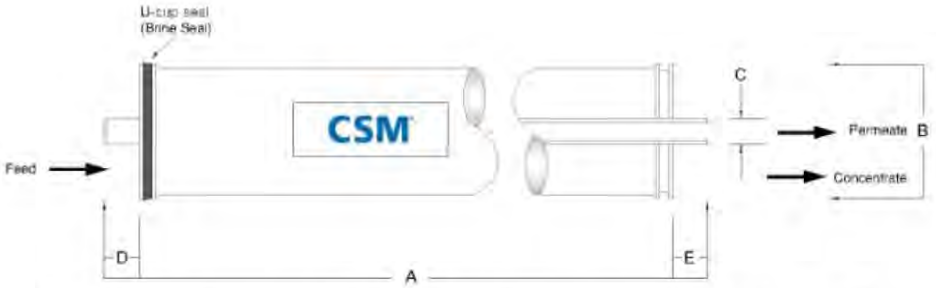
   - **1,500 mg/L NaCl solution at 150 psig (1.03 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

2. Minimum salt rejection is 99.0%.
3. Permeate flow rate for each element may vary +25 / -25%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D / E	Part Number	
					Inter-connector	Brine Seal
RE2540-BLN	40.0 inch (1,016 mm)	2.4 inch (60.8 mm)	0.75 inch (19.1 mm)	1.05 inch (26.7 mm)	SWA01050	SWA01047



1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE2540 elements fit nominal 2.5 inch (63.5 mm) I.D. pressure vessels.

RE2540-BLN

Low pressure grade RO element for brackish water

CSM®

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240" Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	6 gpm (1.36 m^3/hr)
	· Min. Concentrate Flow Rate	1 gpm (0.23 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user's responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE2540-BLF

RE2540-BLF

Ultra-low pressure grade RO element for low TDS water

CSM®

SPECIFICATIONS:

General Features

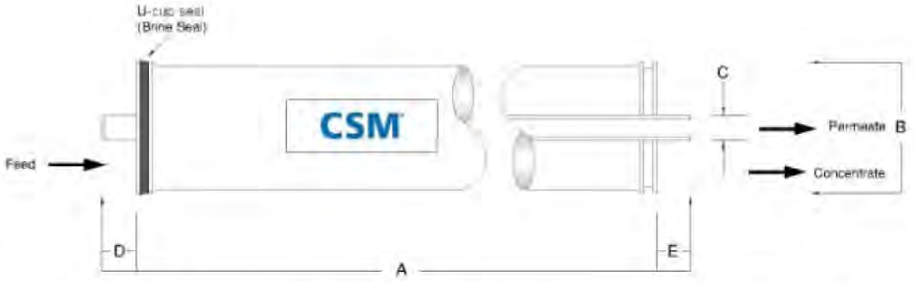
Permeate flow rate:	930 GPD (3.5 m^3/day)
Nominal salt rejection:	99.2%
Effective membrane area:	27 ft^2 (2.5 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **500 mg/L NaCl solution at 100 psig (0.69 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.0%.
3. Permeate flow rate for each element may vary +25 / -25%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D / E	Part Number	
					Inter-connector	Brine Seal
RE2540-BLF	40.0 inch (1,016 mm)	2.4 inch (60.8 mm)	0.75 inch (19.1 mm)	1.05 inch (26.7 mm)	SWA01050	SWA01047



1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE2540 elements fit nominal 2.5 inch (63.5 mm) I.D. pressure vessels.

RE2540-BLF

Ultra-low pressure grade RO element for low TDS water

CSM

APPLICATION DATA:

Operating Limits	Max. Pressure Drop / Element	15 psi (0.1 MPa)
	Max. Pressure Drop / 240" Vessel	60 psi (0.41 Mpa)
	Max. Operating Pressure	600 psi (4.14 MPa)
	Max. Feed Flow Rate	6 gpm (1.36 m^3/hr)
	Min. Concentrate Flow Rate	1 gpm (0.23 m^3/hr)
	Max. Operating Temperature	113 °F (45 °C)
	Operating pH Range	2.0–11.0
	CIP pH Range	1.0–13.0
	Max. Turbidity	1.0 NTU
	Max. SDI (15 min)	5.0
	Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	Wastewater Conventional (SDI < 5)	8–12 gfd
	Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	Seawater, Open Intake (SDI < 5)	7–10 gfd
	Seawater, Beach Well (SDI < 3)	8–12 gfd
	Surface Water (SDI < 5)	12–16 gfd
	Surface Water (SDI < 3)	13–17 gfd
	Well water (SDI < 3)	13–17 gfd
	RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	Langlier Saturation Index (LSI)	<+1.5
	Stiff and Davis Saturation Index (SDSI)	<+0.5
	$CaSO_4$	230% saturation
	$SrSO_4$	800% saturation
	$BaSO_4$	6,000% saturation
	SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user's responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE2540-BLR

RE2540-BLR

CSM

Low pressure grade RO element with high salt rejection for brackish water

SPECIFICATIONS:

General Features

Permeate flow rate:	740 GPD (2.8 m³/day)
Nominal salt rejection:	99.6%
Effective membrane area:	27 ft² (2.5 m²)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **1,500 mg/L NaCl solution at 150 psig (1.03 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.4%.
3. Permeate flow rate for each element may vary but will be no more than -15%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D / E	Part Number	
					Inter-connector	Brine Seal
RE2540-BLR	40.0 inch (1,016 mm)	2.4 inch (60.8 mm)	0.75 inch (19.1 mm)	1.05 inch (26.7 mm)	SWA01050	SWA01047

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE2540 elements fit nominal 2.5 inch (63.5 mm) I.D. pressure vessels.

RE2540-BLR

CSM

Low pressure grade RO element with high salt rejection for brackish water

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240" Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	6 gpm (1.36 m^3/hr)
	· Min. Concentrate Flow Rate	1 gpm (0.23 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user's responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE2521-BE

RE2521- BE

High productivity RO element with extended area for brackish water

CSM

SPECIFICATIONS:

General Features

Permeate flow rate:	400 GPD (1.5 m³/day)
Nominal salt rejection:	99.5%
Effective membrane area:	12 ft² (1.1 m²)

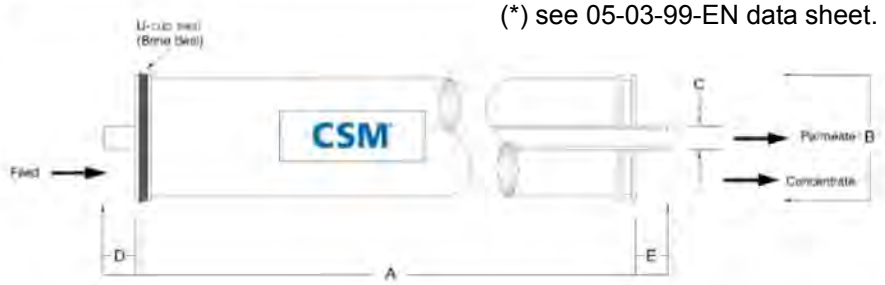
1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   5
   - **2,000 mg/L NaCl solution at 225 psig (1.55 MPa) applied pressure**
   - **8% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.0%.
3. Permeate flow rate for each element may vary +25 / -25%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D / E	Part Number	
					Inter-connector	Brine Seal
RE2521-BE	21.0 inch (533.4 mm)	2.4 inch (60.8 mm)	0.75 inch (19.1 mm)	1.1 inch (28.0 mm)	DD004 (*)	DC005 (*)

(*) see 05-03-99-EN data sheet.



1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE2521 elements fit nominal 2.5 inch (63.5 mm) I.D. pressure vessels.

RE2521-BE

CSM

High productivity RO element with extended area for brackish water

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240" Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	6 gpm (1.36 m^3/hr)
	· Min. Concentrate Flow Rate	1 gpm (0.23 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user's responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE2540-BE

RE2540-BE

CSM

High productivity RO element with extended area for brackish water

SPECIFICATIONS:

General Features

Permeate flow rate:	1,000 GPD (3.8 m^3/day)
Nominal salt rejection:	99.5%
Effective membrane area:	27 ft^2 (2.5 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

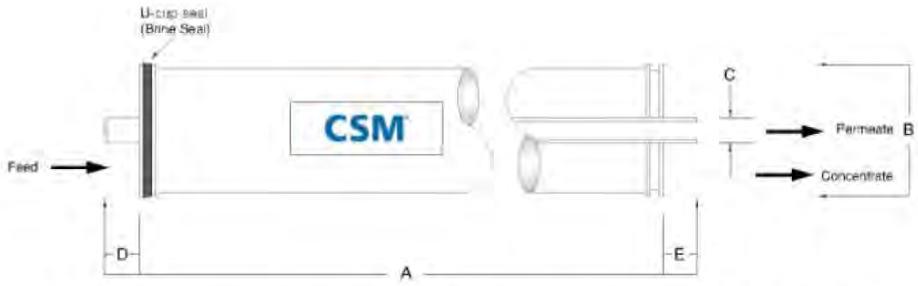
   - **2,000 mg/L NaCl solution at 225 psig (1.55 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

2. Minimum salt rejection is 99.0%.
3. Permeate flow rate for each element may vary +25 / -25%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D / E	Part Number	
					Inter-connector	Brine Seal
RE2540-BE	40.0 inch (1,016 mm)	2.4 inch (60.8 mm)	0.75 inch (19.1 mm)	1.05 inch (26.7 mm)	SWA01050	SWA01047



1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE2540 elements fit nominal 2.5 inch (63.5 mm) I.D. pressure vessels.

RE2540-BE

CSM

High productivity RO element with extended area for brackish water

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240" Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	6 gpm (1.36 m^3/hr)
	· Min. Concentrate Flow Rate	1 gpm (0.23 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user's responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE2540-FEN

RE2540-FEⁿ

CSM

Enhanced fouling resistant RO element for brackish water and wastewater reuse

SPECIFICATIONS:

General Features

Permeate flow rate:	1,000 GPD (3.8 m³/day)
Nominal salt rejection:	99.5%
Effective membrane area:	27 ft² (2.5 m²)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **2,000 mg/L NaCl solution at 225 psig (1.55 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.0%.
3. Permeate flow rate for each element may vary +25 / -25%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D / E	Part Number	
					Inter-connector	Brine Seal
RE2540-FEn	40.0 inch (1,016 mm)	2.4 inch (60.8 mm)	0.75 inch (19.1 mm)	1.05 inch (26.7 mm)	SWA01050	SWA01047

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE2540 elements fit nominal 2.5 inch (63.5 mm) I.D. pressure vessels.

RE2540-FE^{n}

CSM

Enhanced fouling resistant RO element for brackish water and wastewater reuse

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240" Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	6 gpm (1.36 m³/hr)
	· Min. Concentrate Flow Rate	1 gpm (0.23 m³/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user's responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE2521-SHF

RE2521-SHF

CSM®

High productivity RO element for seawater and high salinity well water

SPECIFICATIONS:

General Features

Permeate flow rate:	300 GPD (1.14 m^3/day)
Nominal salt rejection:	99.7%
Effective membrane area:	12 ft^2 (1.1 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

   - **32,000 mg/L NaCl solution at 800 psig (5.5 MPa) applied pressure**
   - **8% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

2. Minimum salt rejection is 99.6%.
3. Permeate flow rate for each element may vary but will be no more than 20%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D	E	Part Number	
						Inter-connector	Brine Seal
RE2521-SHF	21.0 inch (534 mm)	2.5 inch (64 mm)	0.75 inch (19.1 mm)	1.1 inch (28 mm)	1.1 inch (28 mm)	DD004 (*)	DC005 (*)

(*) see 05-03-99-EN data sheet.

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE2521 elements fit nominal 2.5 inch (64 mm) I.D. pressure vessels.

RE2521-SHF

CSM

High rejection RO element for seawater and high salinity well water

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240" Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	1,200 psi (8.27 MPa)
	· Max. Feed Flow Rate	6 gpm (1.36 m^3/hr)
	· Min. Concentrate Flow Rate	1 gpm (0.23 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user's responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE2540-SHN

RE2540-SHN

CSM

High Rejection RO element for seawater and high salinity well water

SPECIFICATIONS:

General Features

Permeate flow rate:	500 GPD (1.9 m³/day)
Stabilized salt rejection:	99.75%
Effective membrane area:	24 ft² (2.2 m²)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

   - **32,000 mg/L NaCl solution at 800 psig (5.5 MPa) applied pressure**
   - **8% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

2. Minimum salt rejection is 99.6%.
3. Permeate flow rate for each element may vary but will be no more than 15%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D	E
RE2540-SHN	40.0 inch (1,016 mm)	2.5 inch (64 mm)	0.75 inch (19.1 mm)	1.61 inch (41 mm)	1.61 inch (41 mm)

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE2540 elements fit nominal 2.5 inch (64 mm) I.D. pressure vessels.

RE2540-SHN

CSM

High rejection RO element for seawater and high salinity well water

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240" Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	1,200 psi (8.27 MPa)
	· Max. Feed Flow Rate	6 gpm (1.36 m^3/hr)
	· Min. Concentrate Flow Rate	1 gpm (0.23 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user's responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE2540-SHF

RE2540-SHF

CSM

High productivity RO element for seawater and high salinity well water

SPECIFICATIONS:

General Features

Permeate flow rate:	600 GPD (2.3 m³/day)
Stabilized salt rejection:	99.7%
Effective membrane area:	24 ft² (2.2 m²)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **32,000 mg/L NaCl solution at 800 psig (5.5 MPa) applied pressure**
   - **8% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.6%.
3. Permeate flow rate for each element may vary but will be no more than 15%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D	E
RE2540-SHF	40.0 inch (1,016 mm)	2.5 inch (64 mm)	0.75 inch (19.1 mm)	1.61 inch (41 mm)	1.61 inch (41 mm)

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE2540 elements fit nominal 2.5 inch (64 mm) I.D. pressure vessels.

RE2540-SHF

CSM®

High productivity RO element for seawater and high salinity well water

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240" Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	1,200 psi (8.27 MPa)
	· Max. Feed Flow Rate	6 gpm (1.36 m^3/hr)
	· Min. Concentrate Flow Rate	1 gpm (0.23 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user's responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCNE2540-90

NE2540-90

CSM

Normal grade NF element with high monovalent ion rejection

SPECIFICATIONS:

General Features

Permeate flow rate[1]:	500 GPD (1.9 m^3/day)
Monovalent ion rejection (NaCl)[1]:	85.0 – 95.0%
Divalent ion rejection ($CaCl_2$)[2]:	90.0 – 95.0%
Effective membrane area:	27 ft^2 (2.5 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following monovalent test conditions:
   - **2,000 mg/L NaCl solution at 75 psig (0.5 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. The stated product performance is based on data taken after 30 minutes of operation at the following divalent test conditions:
   - **500 mg/L $CaCl_2$ solution at 75 psig (0.5 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
3. $MgSO_4$ rejection is 97.0%. (Test conditions are equivalent with NaCl)
4. Permeate flow rate for each element may vary but will be no more than 15%.
5. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D	E
NE2540-90	40.0 inch (1,016 mm)	2.5 inch (64 mm)	0.75 inch (19.1 mm)	1.61 inch (41 mm)	1.61 inch (41 mm)

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All NE2540 elements fit nominal 2.5 inch (64 mm) I.D. pressure vessels.

NE2540-90

CSM

Normal grade NF element with high monovalent ion rejection

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240" Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	6 gpm (1.36 m^3/hr)
	· Min. Concentrate Flow Rate	1 gpm (0.23 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user's responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

TORAY CSM 4” Membranes

LOW PRESSURE LPM MEMBRANES				
REF.	**MODEL**	**NSF/ANSI**	**DM174-2004**	
MCRE4021-BLN	RE4021-BLN	-	Compliant	
MCRE4021-BLF	RE4021-BLF	-	Compliant	
MCRE4040-BLN	RE4040-BLN	Standard 61	Compliant	
MCRE4040-BLF	RE4040-BLF	Standard 61	Compliant	
MCRE4040-BLR	RE4040-BLR	Standard 61	Compliant	
MTMG10D	TMG10D	-	Compliant	

BRACKISH WATER BWM MEMBRANES				
REF.	**MODEL**	**NSF/ANSI**	**DM174-2004**	
MCRE4021-BE	RE4021-BE	-	Compliant	
MCRE4040-BE	RE4040-BE	-	Compliant	
MTM710D	TM710D	-	Compliant	

CHLORINE RESISTANT CRM MEMBRANES				
REF.	**MODEL**	**NSF/ANSI**	**DM174-2004**	
MCRE4040-CE (*)	RE4040-CE	-	Compliant	

FOULING RESISTANT FRM MEMBRANES				
REF.	**MODEL**	**NSF/ANSI**	**DM174-2004**	
MCRE4040-FEN	RE4040-FEn	-	Compliant	
MCRE4040-FLR	RE4040-FLR	-	Compliant	
MTML10D	TML10D	-	Compliant	

SEA WATER SWM MEMBRANES				
REF.	**MODEL**	**NSF/ANSI**	**DM174-2004**	
MCRE4021-SHN	RE4021-SHN	-	Compliant	
MTM810C	TM810C	-	Compliant	
MTM810V	TM810V	-	Compliant	

NANOFILTRATION NFM MEMBRANES				
REF.	**MODEL**	**NSF/ANSI**	**DM174-2004**	
MCNE4040-90	NE4040-90	-	Compliant	
MCNE4040-70 (*)	NE4040-70	-	Compliant	
MCNE4040-40 (*)	NE4040-40	-	Compliant	

(*) not available in stock.

Ref. MCRE4021-BLN

RE4021-BLN

Low pressure grade RO element for brackish water

CSM

SPECIFICATIONS:

General Features

Permeate flow rate:	1,200 GPD (4.5 m^3/day)
Nominal salt rejection:	99.2%
Effective membrane area:	35 ft^2 (3.3 m^2)

The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

- **1,500 mg/L NaCl solution at 150 psig (1.03 MPa) applied pressure**
- **8% recovery**
- **77 °F (25 °C)**
- **pH 6.5–7.0**

1. Minimum salt rejection is 99.0%.
2. Permeate flow rate for each element may vary +25 /-25%.
3. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D / E	Part Number	
					Inter-connector	Brine Seal
RE4021-BLN	21.0 inch (533.4 mm)	3.9 inch (99 mm)	0.75 inch (19.1 mm)	1.1 inch (28.0 mm)	SWA01050	SWA01046

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE4021 elements fit nominal 4.0 inch (101.6 mm) I.D. pressure vessels.

RE4021-BLN

Low pressure grade RO element for brackish water

CSM

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	13 gpm (2.95 m^3/hr)
	· Min. Concentrate Flow Rate	3 gpm (0.68 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE4021-BLF

RE4021-BLF

Ultra-low pressure grade RO element for low TDS water

CSM

SPECIFICATIONS:

General Features

Permeate flow rate:	1,200 GPD (4.5 m^3/day)
Nominal salt rejection:	99.2%
Effective membrane area:	35 ft^2 (3.3 m^2)

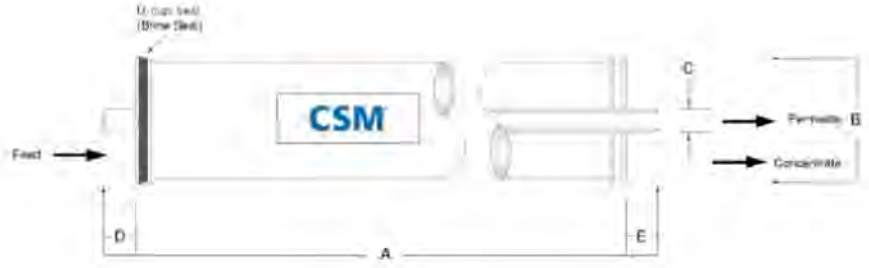
1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **500 mg/L NaCl solution at 100 psig (0.69 MPa) applied pressure**
   - **8% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.0%.
3. Permeate flow rate for each element may vary +25 /-25%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D / E	Part Number	
					Inter-connector	Brine Seal
RE4021-BLF	21.0 inch (533.4 mm)	3.9 inch (99 mm)	0.75 inch (19.1 mm)	1.1 inch (28.0 mm)	DD004 (*)	DD003 (*)

(*) see 05-03-99-EN data sheet.



1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE4021 elements fit nominal 4.0 inch (101.6 mm) I.D. pressure vessels.

RE4021-BLF

Ultra-low pressure grade RO element for low TDS water

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	13 gpm (2.95 m^3/hr)
	· Min. Concentrate Flow Rate	3 gpm (0.68 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE4040-BLN

RE4040-BLN

Low pressure grade RO element for brackish water

CSM

SPECIFICATIONS:

General Features

Permeate flow rate:	2,600 GPD (9.8 m^3/day)
Nominal salt rejection:	99.4%
Effective membrane area:	85 ft^2 (7.9 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **1,500 mg/L NaCl solution at 150 psig (1.03 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.3%.
3. Permeate flow rate for each element may vary +25 /-15%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D / E	Part Number	
					Inter-connector	Brine Seal
RE4040-BLN	40.0 inch (1,016 mm)	3.9 inch (99 mm)	0.75 inch (19 mm)	1.05 inch (26.7 mm)	SWA01050	SWA01046

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE4040 elements fit nominal 4.0 inch (101.6 mm) I.D. pressure vessels.

RE4040-BLN

CSM

Low pressure grade RO element for brackish water

APPLICATION DATA:

Operating Limits	Max. Pressure Drop / Element	15 psi (0.1 MPa)
	Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	Max. Operating Pressure	600 psi (4.14 MPa)
	Max. Feed Flow Rate	18 gpm (4.09 m³/hr)
	Min. Concentrate Flow Rate	4 gpm (0.91 m³/hr)
	Max. Operating Temperature	113 °F (45 °C)
	Operating pH Range	2.0–11.0
	CIP pH Range	1.0–13.0
	Max. Turbidity	1.0 NTU
	Max. SDI (15 min)	5.0
	Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	Wastewater Conventional (SDI < 5)	8–12 gfd
	Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	Seawater, Open Intake (SDI < 5)	7–10 gfd
	Seawater, Beach Well (SDI < 3)	8–12 gfd
	Surface Water (SDI < 5)	12–16 gfd
	Surface Water (SDI < 3)	13–17 gfd
	Well water (SDI < 3)	13–17 gfd
	RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	Langlier Saturation Index (LSI)	<+1.5
	Stiff and Davis Saturation Index (SDSI)	<+0.5
	$CaSO_4$	230% saturation
	$SrSO_4$	800% saturation
	$BaSO_4$	6,000% saturation
	SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE4040-BLF

RE4040-BLF

Ultra-low pressure grade RO element for low TDS water

CSM

SPECIFICATIONS:

General Features

Permeate flow rate:	2,500 GPD (9.5 m^3/day)
Nominal salt rejection:	99.2%
Effective membrane area:	85 ft^2 (7.9 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **500 mg/L NaCl solution at 100 psig (0.69 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.0%.
3. Permeate flow rate for each element may vary +25 /-15%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D / E	Part Number	
					Inter-connector	Brine Seal
RE4040-BLF	40.0 inch (1,016 mm)	3.9 inch (99 mm)	0.75 inch (19 mm)	1.05 inch (26.7 mm)	SWA01050	SWA01046

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE4040 elements fit nominal 4.0 inch (101.6 mm) I.D. pressure vessels.

RE4040-BLF

Ultra-low pressure grade RO element for low TDS water

CSM®

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	18 gpm (4.09 m^3/hr)
	· Min. Concentrate Flow Rate	4 gpm (0.91 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE4040-BLR

RE4040-BLR

CSM

Low pressure grade RO element with high salt rejection for brackish water

SPECIFICATIONS:

General Features

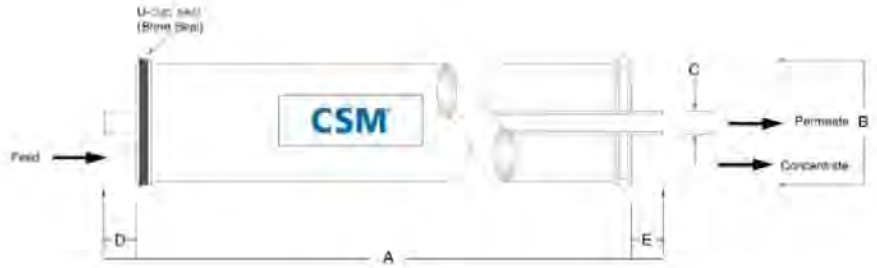
Permeate flow rate:	2,100 GPD (7.9 m^3/day)
Nominal salt rejection:	99.6%
Effective membrane area:	85 ft^2 (7.9 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **1,500 mg/L NaCl solution at 150 psig (1.03 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.5%.
3. Permeate flow rate for each element may vary but will be no more than -5%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D/E	Part Number	
					Inter-connector	Brine Seal
RE4040-BLR	40.0 inch (1,016 mm)	3.9 inch (99 mm)	0.75 inch (19 mm)	1.05 inch (26.7 mm)	SWA01050	SWA01046



1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE4040 elements fit nominal 4.0 inch (101.6 mm) I.D. pressure vessels.

RE4040-BLR

CSM

Low pressure grade RO element with extended area for brackish water

APPLICATION DATA:

Operating Limits	Max. Pressure Drop / Element	15 psi (0.1 MPa)
	Max. Pressure Drop / 240" Vessel	60 psi (0.41 Mpa)
	Max. Operating Pressure	600 psi (4.14 MPa)
	Max. Feed Flow Rate	18 gpm (4.09 m³/hr)
	Min. Concentrate Flow Rate	4 gpm (0.91 m³/hr)
	Max. Operating Temperature	113 °F (45 °C)
	Operating pH Range	2.0–11.0
	CIP pH Range	1.0–13.0
	Max. Turbidity	1.0 NTU
	Max. SDI (15 min)	5.0
	Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	Wastewater Conventional (SDI < 5)	8–12 gfd
	Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	Seawater, Open Intake (SDI < 5)	7–10 gfd
	Seawater, Beach Well (SDI < 3)	8–12 gfd
	Surface Water (SDI < 5)	12–16 gfd
	Surface Water (SDI < 3)	13–17 gfd
	Well water (SDI < 3)	13–17 gfd
	RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	Langlier Saturation Index (LSI)	<+1.5
	Stiff and Davis Saturation Index (SDSI)	<+0.5
	$CaSO_4$	230% saturation
	$SrSO_4$	800% saturation
	$BaSO_4$	6,000% saturation
	SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user's responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

TORAY 4” Membranes

Ref. MTMG10D

'TORAY'
Innovation by Chemistry

Ultra low pressure BWRO, enhanced chemical tolerance

TMG(D)

Type	Diameter Inch	Membrane Area $ft^2(m^2)$	Salt Rejection %	Product Flow Rate $gpd(m^3/d)$	Feed Spacer Thickness mil
TMG10D	4”	87(8)	99.7	2,850(10.8)	34

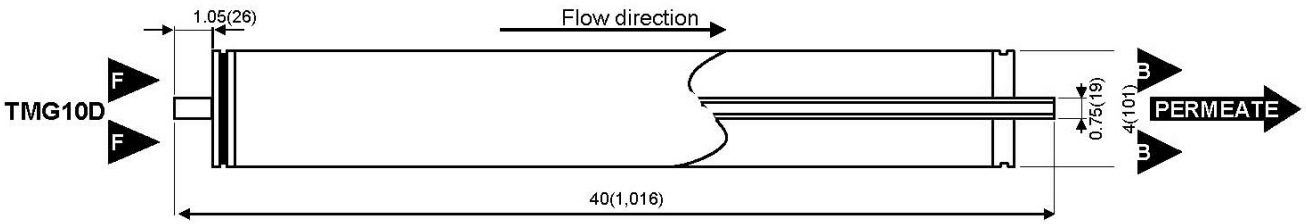
1. Membrane Type		Cross Linked Fully Aromatic Polyamide Composite
2. Test Conditions	Feed Water Pressure Feed Water Temperature Feed Water Concentration Recovery Rate Feed Water pH	150 psi(1.03MPa) 77° F(25°C) 2000 mg/l Nacl 15% 7
3. Minimum Salt Rejection		99.5%
4. Minimum Product Flow Rate		2,400gpd($9.1m^3/d$)

Dimensions

All dimensions shown in Inches (millimeter).

F Feed Water

B Concentrated Brine



TORAY 4” Membranes

Operating Limits

Maximum Operating Pressure	365psi (2.5 MPa)
Maximum Feed Water Temperature	113° F (45℃)
Maximum Feed Water SDI15	5
Feed Water Chlorine Concentration *See below 3 of Operating Information	< 0.1ppm
Feed Water pH Range, Continuous Operation	2-11
Feed Water pH Range, Chemical Cleaning	1-13
Maximum Pressure Drop per Element	15psi (0.10 MPa)
Maximum Pressure Drop per Vessel	50psi (0.34 MPa)

Operating Information

1. For the recommended design range, please consult the latest Toray technical bulletin, design guide lines, computer design program, and/ or call an application specialist. If the operating limits given in this Product Information Bulletin are not strictly followed, the Limited Warranty will be null and void.
2. All elements are wet tested, treated with a 1% by weight percent sodium bisulfite storage solution, and then vacuum packed in oxygen barrier bags, or treated with tested feed water solution, and then vacuum packed in oxygen barrier bags with deoxidant inside. To prevent biological growth during short term storage, shipment, or system shutdown, it is recommended that Toray elements be immersed in a protective solution containing 500 - 1,000 ppm of sodium bisulfite (food grade) dissolved in permeate.
3. The presence of free chlorine and other oxidizing agents under certain conditions, such as heavy metals which acts as oxidation catalyst in the feed water will cause unexpected oxidation of the membrane. Since oxidation damage is not covered under warranty, it is strongly recommended to remove these oxidizing agents contained in feed water before operating RO system.
4. Permeate from the first hour of operation shall be discarded.
5. The customer is fully responsible for the effects of chemicals that are incompatible with the elements. Their use will void the element Limited Warranty.

Notice

1. Toray accepts no responsibility for results obtained by the application of this information or the safety or suitability of Toray's products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product combination for their own purposes.
2. All data may change without prior notice, due to technical modifications or production changes.

Ref. MCRE4021-BE

RE4021-BE

High productivity RO element with extended area for brackish water

CSM

SPECIFICATIONS:

General Features

Permeate flow rate:	1,200 GPD (4.5 m³/day)
Nominal salt rejection:	99.5%
Effective membrane area:	35 ft² (3.3 m²)

The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

- **2,000 mg/L NaCl solution at 225 psig (1.55 MPa) applied pressure**
- **8% recovery**
- **77 °F (25 °C)**
- **pH 6.5–7.0**

1. Minimum salt rejection is 99.0%.
2. Permeate flow rate for each element may vary +25 /-25%.
3. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D / E	Part Number	
					Inter-connector	Brine Seal
RE4021-BE	21.0 inch (533.4 mm)	3.9 inch (99 mm)	0.75 inch (19.1 mm)	1.1 inch (28.0 mm)	SWA01050	SWA01046

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE4021 elements fit nominal 4.0 inch (101.6 mm) I.D. pressure vessels.

RE4021-BE

CSM

High productivity RO element with extended area for brackish water

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	13 gpm (2.95 m^3/hr)
	· Min. Concentrate Flow Rate	3 gpm (0.68 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE4040-BE

RE4040-BE

CSM

High productivity RO element with extended area for brackish water

SPECIFICATIONS:

General Features

Permeate flow rate:	2,400 GPD (9.1 m^3/day)
Nominal salt rejection:	99.7%
Effective membrane area:	85 ft^2 (7.9 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

   - **2,000 mg/L NaCl solution at 225 psig (1.55 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

2. Minimum salt rejection is 99.4%.
3. Permeate flow rate for each element may vary +25 /-15%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D / E	Part Number	
					Inter-connector	Brine Seal
RE4040-BE	40.0 inch (1,016 mm)	3.9 inch (99 mm)	0.75 inch (19 mm)	1.05 inch (26.7 mm)	SWA01050	SWA01046

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE4040 elements fit nominal 4.0 inch (101.6 mm) I.D. pressure vessels.

RE4040-BE

High productivity RO element with extended area for brackish water

CSM

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	18 gpm (4.09 m^3/hr)
	· Min. Concentrate Flow Rate	4 gpm (0.91 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

TORAY 4” Membranes

Ref. MTM710D

'TORAY'
Innovation by Chemistry

High rejection BWRO, enhanced chemical tolerance

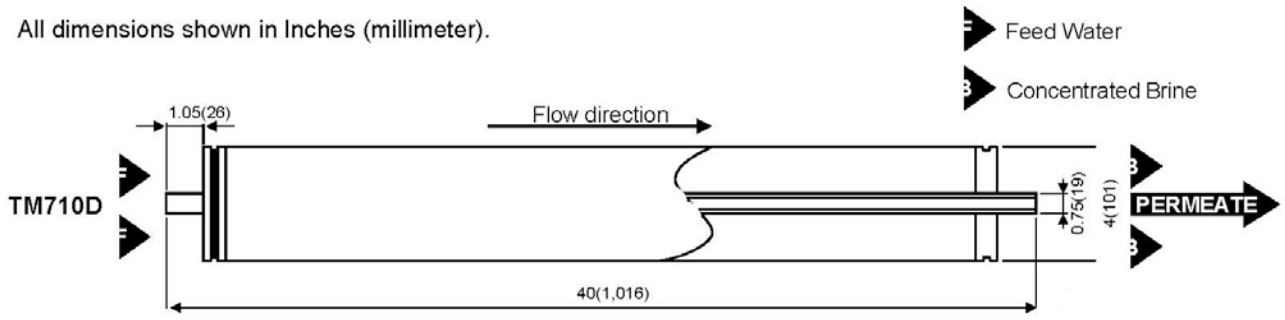
TM700D

Type	Diameter Inch	Membrane Area ft²(m²)	Salt Rejection %	Product Flow Rate gpd(m³ / d)	Feed Spacer Thickness mil
TM710D	4”	87(8)	99.8	2,600(9.8)	31

1. Membrane Type		Cross Linked Fully Aromatic Polyamide Composite
2. Test Conditions	Feed Water Pressure Feed Water Temperature Feed Water Concentration Recovery Rate Feed Water pH	225 psi(1.55MPa) 77° F(25°C) 2,000 mg/l Nacl 15% 7
3. Minimum Salt Rejection		99.65%
4. Minimum Product Flow Rate		2,150gpd(8.2m³/d)

Dimensions

All dimensions shown in Inches (millimeter).



TORAY 4” Membranes

Operating Limits

Maximum Operating Pressure	600psi (4.1 MPa)
Maximum Feed Water Temperature	113° F (45℃)
Maximum Feed Water SDI15	5
Feed Water Chlorine Concentration *See below 3 of Operating Information	<0.1ppm
Feed Water pH Range, Continuous Operation	2-11
Feed Water pH Range, Chemical Cleaning	1-13
Maximum Pressure Drop per Element	15 psi (0.10 MPa)
Maximum Pressure Drop per Vessel	50 psi (0.34 MPa)

Operating Information

1. For the recommended design range, please consult the latest Toray technical bulletin, design guide lines, computer design program, and/ or call an application specialist. If the operating limits given in this Product Information Bulletin are not strictly followed, the Limited Warranty will be null and void.
2. All elements are wet tested, treated with a 1% by weight percent sodium bisulfite storage solution, and then vacuum packed in oxygen barrier bags, or treated with tested feed water solution, and then vacuum packed in oxygen barrier bags with deoxidant inside. To prevent biological growth during short term storage, shipment, or system shutdown, it is recommended that Toray elements be immersed in a protective solution containing 500 - 1,000 ppm of sodium bisulfite (food grade) dissolved in permeate.
3. The presence of free chlorine and other oxidizing agents under certain conditions, such as heavy metals which acts as oxidation catalyst in the feed water will cause unexpected oxidation of the membrane. It is strongly recommended to remove these oxidizing agents contained in feed water before operating RO system.
4. Permeate from the first hour of operation shall be discarded.
5. The customer is fully responsible for the effects of chemicals that are incompatible with the elements. Their use will void the element Limited Warranty.

Notice

1. Toray accepts no responsibility for results obtained by the application of this information or the safety or suitability of Toray's products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product combination for their own purposes.
2. All data may change without prior notice, due to technical modifications or production changes.

Ref. MCRE4040-CE

RE4040-CE

CSM

Innovative chlorine resistant RO element for prolonged membrane lifetime

SPECIFICATIONS:

General Features

Permeate flow rate:	1,900 GPD (7.2 m^3/day)
Nominal salt rejection:	99.5%
Effective membrane area:	85ft^2 (7.9m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **2,000 mg/L NaCl solution at 225 psig (1.5 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.0%
3. Permeate flow rate for each element may vary but will be no more than 10%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D	E
RE4040-CE	40.0 inch (1,016 mm)	4.0 inch (102 mm)	0.75 inch (19.1 mm)	1.06 inch (27 mm)	1.06 inch (27 mm)

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE4040 elements fit nominal 4.0 inch (102 mm) I.D. pressure vessels.

RE4040-CE

CSM

Innovative chlorine resistant RO element for prolonged membrane lifetime

APPLICATION DATA:

Operating Limits	Max. Pressure Drop / Element	15 psi (0.1 MPa)
	Max. Pressure Drop / 240" Vessel	60 psi (0.41 Mpa)
	Max. Operating Pressure	600 psi (4.14 MPa)
	Max. Feed Flow Rate	18 gpm (4.09 m^3/hr)
	Min. Concentrate Flow Rate	4 gpm (0.91 m^3/hr)
	Max. Operating Temperature	113 °F (45 °C)
	Operating pH Range	2.0–11.0
	CIP pH Range	1.0–13.0
	Max. Turbidity	1.0 NTU
	Max. SDI (15 min)	5.0
	Free Chlorine Tolerance	5,000 ppm·hr
Design Guidelines for Various Water Sources	Wastewater Conventional (SDI < 5)	8–12 gfd
	Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	Seawater, Open Intake (SDI < 5)	7–10 gfd
	Seawater, Beach Well (SDI < 3)	8–12 gfd
	Surface Water (SDI < 5)	12–16 gfd
	Surface Water (SDI < 3)	13–17 gfd
	Well water (SDI < 3)	13–17 gfd
	RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	Langlier Saturation Index (LSI)	<+1.5
	Stiff and Davis Saturation Index (SDSI)	<+0.5
	$CaSO_4$	230% saturation
	$SrSO_4$	800% saturation
	$BaSO_4$	6,000% saturation
	SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user's responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE4040-FEN

RE4040-FEn

CSM

Enhanced fouling resistant RO element for brackish water and wastewater reuse

SPECIFICATIONS:

General Features

Permeate flow rate:	2,400 GPD (9.1 m^3/day)
Nominal salt rejection:	99.7%
Effective membrane area:	85 ft^2 (7.9 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **2,000 mg/L NaCl solution at 225 psig (1.55 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.4%.
3. Permeate flow rate for each element may vary +25 /-15%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D/E	Part Number	
					Inter-connector	Brine Seal
RE4040-FEn	40.0 inch (1,016 mm)	3.9 inch (99 mm)	0.75 inch (19 mm)	1.05 inch (26.7 mm)	SWA01050	SWA01046

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE4040 elements fit nominal 4.0 inch (101.6 mm) I.D. pressure vessels.

RE4040-FE^n

CSM

Enhanced fouling resistant RO element for brackish water and wastewater reuse

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	18 gpm (4.09 m³/hr)
	· Min. Concentrate Flow Rate	4 gpm (0.91 m³/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE4040-FLR

RE4040-FLR

CSM

Fouling resistant RO element with low pressure for brackish water and wastewater reuse

SPECIFICATIONS:

General Features

Permeate flow rate:	2,100 GPD (7.9 m^3/day)
Nominal salt rejection:	99.6%
Effective membrane area:	85 ft^2 (7.9 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

   - **1,500 mg/L NaCl solution at 150 psig (1.03 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

2. Minimum salt rejection is 99.5%.
3. Permeate flow rate for each element may vary but will be no more than -5%
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D/E	Part Number	
					Inter-connector	Brine Seal
RE4040-FLR	40.0 inch (1,016 mm)	3.9 inch (99 mm)	0.75 inch (19 mm)	1.05 inch (26.7 mm)	SWA01050	SWA01046

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE4040 elements fit nominal 4.0 inch (101.6 mm) I.D. pressure vessels.

RE4040-FLR

CSM

Fouling resistant RO element with low pressure for brackish water and wastewater reuse

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	18 gpm (4.09 m^3/hr)
	· Min. Concentrate Flow Rate	4 gpm (0.91 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

TORAY 4” Membranes

Ref. MTML10D

TORAY

Low fouling and high tolerance RO

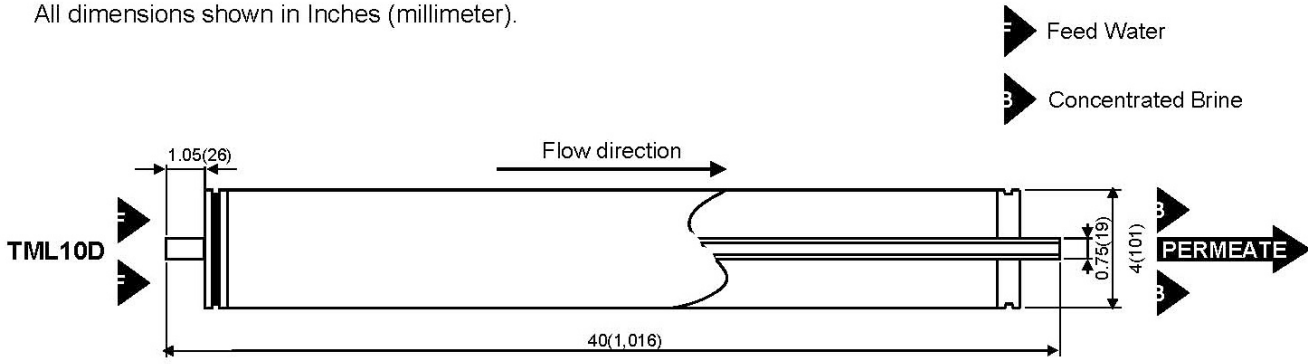
TML(D)

Type	Diameter Inch	Membrane Area $ft^2(m^2)$	Salt Rejection %	Product Flow Rate $gpd(m^3/d)$	Feed Spacer Thickness mil
TML10D	4”	73(7)	99.8	1,900(7.2)	34

1. Membrane Type		Cross Linked Fully Aromatic Polyamide Composite
2. Test Conditions	Feed Water Pressure Feed Water Temperature Feed Water Concentration Recovery Rate Feed Water pH	225 psi(1.55 MPa) 77 ° F(25 ℃) 2,000 mg/l NaCl 15 % 7
3. Minimum Salt Rejection		99.65 %
4. Minimum Product Flow Rate		1,500 gpd(5.8 m^3/d)

Dimensions

All dimensions shown in Inches (millimeter).



TORAY 4” Membranes

Operating Limits

Maximum Operating Pressure	600psi (4.1 MPa)
Maximum Feed Water Temperature	113° F (45℃)
Maximum Feed Water SDI_{15}	5
Feed Water Chlorine Concentration	<0.1ppm
Feed Water pH Range, Continuous Operation	2-11
Feed Water pH Range, Chemical Cleaning	1-13
Maximum Pressure Drop per Element	15 psi (0.10 MPa)
Maximum Pressure Drop per Vessel	50 psi (0.34 MPa)

Operating Information

1. For the recommended design range, please consult the latest Toray technical bulletin, design guide lines, computer design program, and/ or call an application specialist. If the operating limits given in this Product Information Bulletin are not strictly followed, the Limited Warranty will be null and void.
2. All elements are wet tested, treated with a 1% by weight percent sodium bisulfite storage solution, and then vacuum packed in oxygen barrier bags, or treated with tested feed water solution, and then vacuum packed in oxygen barrier bags with deoxidant inside. To prevent biological growth during short term storage, shipment, or system shutdown, it is recommended that Toray elements be immersed in a protective solution containing 500 - 1,000 ppm of sodium bisulfite (food grade) dissolved in permeate.
3. The presence of free chlorine and other oxidizing agents under certain conditions, such as heavy metals which acts as oxidation catalyst in the feed water will cause unexpected oxidation of the membrane. It is strongly recommended to remove these oxidizing agents contained in feed water before operating RO system.
4. Permeate from the first hour of operation shall be discarded.
5. The customer is fully responsible for the effects of chemicals that are incompatible with the elements. Their use will void the element Limited Warranty.

Notice

1. Toray accepts no responsibility for results obtained by the application of this information or the safety or suitability of Toray's products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product combination for their own purposes.
2. All data may change without prior notice, due to technical modifications or production changes.

Ref. MCRE4021-SHN

RE4021-SHN

CSM

High Rejection RO element for seawater and high salinity well water

SPECIFICATIONS:

General Features

Permeate flow rate:	600 GPD (2.3 m^3/day)
Nominal salt rejection:	99.75%
Effective membrane area:	35 ft^2 (3.3 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following divalent test conditions:

   - **32,000 mg/L NaCl solution at 800 psig (5.5 MPa) applied pressure**
   - **8% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

2. Minimum salt rejection is 99.6%
3. Permeate flow rate for each element may vary but will be no more than 15%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions and Weight

Model Name	A	B	C	D	E
RE4021-SHN	21.0 inch (534 mm)	4.0 inch (102 mm)	0.75 inch (19.1 mm)	1.55 inch (39.5 mm	1.55 inch (39.5 mm

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE4021 elements fit nominal 4.0 inch (102 mm) I.D. pressure vessels.

RE4021-SHN

CSM

High Rejection RO element for seawater and high salinity well water

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	1,200 psi (8.27 MPa)
	· Max. Feed Flow Rate	13 gpm (2.95 m^3/hr)
	· Min. Concentrate Flow Rate	3 gpm (0.68 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

TORAY 4” Membranes

Ref. MTM810C

'TORAY'
Innovation by Chemistry

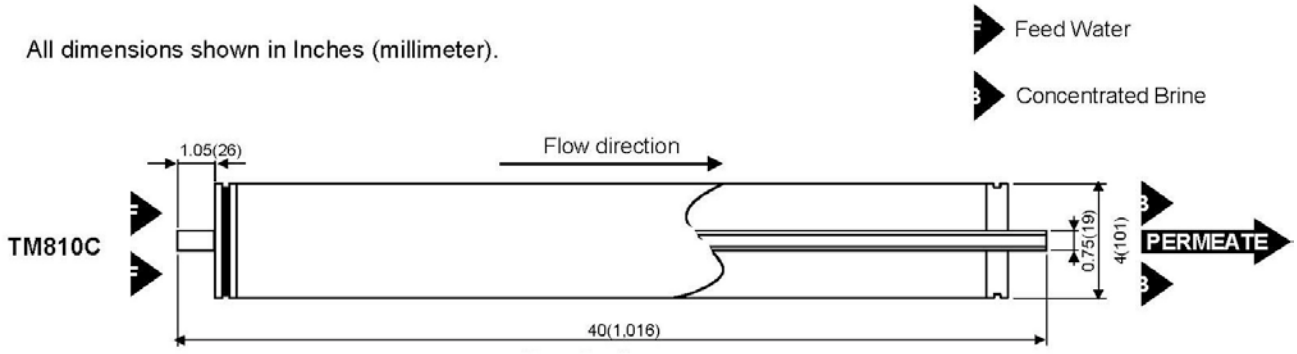
Standard SWRO
TM800C

Type	Diameter Inch	Membrane Area ft²(m²)	Salt Rejection %	Product Flow Rate gpd(m³ / d)	Feed Spacer Thickness mil
TM810C	4”	73(7)	99.75	1,200(4.5)	31

1. Membrane Type		Cross Linked Fully Aromatic Polyamide Composite
2. Test Conditions	Feed Water Pressure Feed Water Temperature Feed Water Concentration Recovery Rate Feed Water pH	800 psi(5.52MPa) 77° F(25°C) 32,000 mg/l Nacl 8% 7
3. Minimum Salt Rejection		99.5%
4. Minimum Product Flow Rate		1,000gpd(3.8m³/d)
5. Boron Rejection (typical value)		93% at pH 8 (5mg/l Boron added to Feed water)

Dimensions

All dimensions shown in Inches (millimeter).



TORAY 4” Membranes

Operating Limits

Maximum Operating Pressure	1200psi (8.3 MPa)
Maximum Feed Water Temperature	113° F (45℃)
Maximum Feed Water SDI_{15}	5
Feed Water Chlorine Concentration	Not detectable
Feed Water pH Range, Continuous Operation	2-11
Feed Water pH Range, Chemical Cleaning	1-12
Maximum Pressure Drop per Element	15 psi (0.10 MPa)
Maximum Pressure Drop per Vessel	50 psi (0.34 MPa)

Operating Information

1. For the recommended design range, please consult the latest Toray technical bulletin, design guidelines,computer design program, and/ or call an application specialist. If the operating limits given in this Product Information Bulletin are not strictly followed, the Limited Warranty will be null and void.
2. All elements are wet tested, treated with tested feed water solution, and then vacuum packed in oxygen barrier bags with deoxidant inside. To prevent biological growth during system shutdown, it is recommended to perform 30-60 minutes flushing of Toray elements with seawater once in every two days.
3. The presence of free chlorine and other oxidizing agents under certain conditions, such as heavy metals which acts as oxidation catalyst in the feed water will cause unexpected oxidation of the membrane. It is strongly recommended to remove these oxidizing agents contained in feed water before operating RO system.
4. Permeate from the first hour of operation shall be discarded.
5. The customer is fully responsible for the effects of chemicals that are incompatible with the elements. Their use will void the element Limited Warranty.

Notice

1. Toray accepts no responsibility for results obtained by the application of this information or the safety or suitability of Toray's products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product combination for their own purposes.
2. All data may change without prior notice, due to technical modifications or production changes.

TORAY 4” Membranes

Ref. MTM810V

TORAY
Innovation by Chemistry

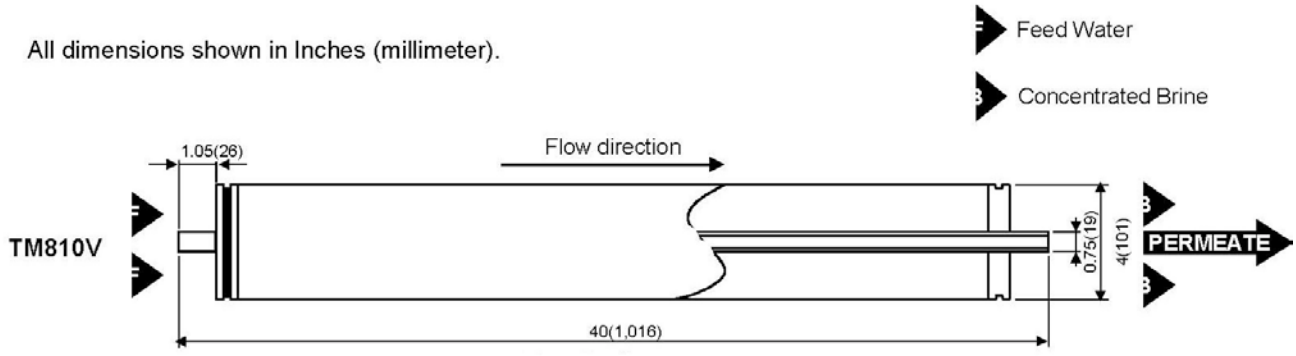
Low energy SWRO
TM800V

Type	Diameter Inch	Membrane Area ft²(m²)	Salt Rejection %	Product Flow Rate gpd(m³ / d)	Feed Spacer Thickness mil
TM810V	4”	87(8)	99.8	1,900(7.2)	28

1. Membrane Type		Cross Linked Fully Aromatic Polyamide Composite
2. Test Conditions	Feed Water Pressure Feed Water Temperature Feed Water Concentration Recovery Rate Feed Water pH	800 psi(5.52MPa) 77° F(25℃) 32,000 mg/l Nacl 8% 7
3. Minimum Salt Rejection		99.5%
4. Minimum Product Flow Rate		1,550gpd(5.9m³/d)
5. Boron Rejection (typical value)		92% at pH 8 (5mg/l Boron added to Feed water)

Dimensions

All dimensions shown in Inches (millimeter).



TORAY 4” Membranes

Operating Limits

Maximum Operating Pressure	1200psi (8.3 MPa)
Maximum Feed Water Temperature	113° F (45°C)
Maximum Feed Water SDI_{15}	5
Feed Water Chlorine Concentration	Not detectable
Feed Water pH Range, Continuous Operation	2-11
Feed Water pH Range, Chemical Cleaning	1-12
Maximum Pressure Drop per Element	15 psi (0.10 MPa)
Maximum Pressure Drop per Vessel	50 psi (0.34 MPa)

Operating Information

1. For the recommended design range, please consult the latest Toray technical bulletin, design guidelines,computer design program, and/ or call an application specialist. If the operating limits given in this Product Information Bulletin are not strictly followed, the Limited Warranty will be null and void.
2. All elements are wet tested, treated with tested feed water solution, and then vacuum packed in oxygen barrier bags with deoxidant inside. To prevent biological growth during system shutdown, it is recommended to perform 30-60 minutes flushing of Toray elements with seawater once in every two days.
3. The presence of free chlorine and other oxidizing agents under certain conditions, such as heavy metals which acts as oxidation catalyst in the feed water will cause unexpected oxidation of the membrane. It is strongly recommended to remove these oxidizing agents contained in feed water before operating RO system.
4. Permeate from the first hour of operation shall be discarded.
5. The customer is fully responsible for the effects of chemicals that are incompatible with the elements. Their use will void the element Limited Warranty.

Notice

1. Toray accepts no responsibility for results obtained by the application of this information or the safety or suitability of Toray's products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product combination for their own purposes.
2. All data may change without prior notice, due to technical modifications or production changes.

Ref. MCNE4040-90

NE4040-90

Normal grade NF element with high monovalent ion rejection

CSM

SPECIFICATIONS:

General Features

Permeate flow rate :	1,700 GPD (6.4 m^3/day)
Monovalent ion rejection (NaCl)[1]:	85.0 – 97.0%
Divalent ion rejection ($CaCl_2$)[2]:	90.0 – 97.0%
Effective membrane area :	85 ft^2 (7.9 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following monovalent test conditions:

   - **2,000 mg/L NaCl solution at 75 psig (0.5 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

2. The stated product performance is based on data taken after 30 minutes of operation at the following divalent test conditions:

   - **500 mg/L $CaCl_2$ solution at 75 psig (0.5 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

3. $MgSO_4$ rejection is 97.0%. (Test conditions are equivalent with NaCl)
4. Permeate flow rate for each element may vary but will be no more than 15%.
5. Elements can be supplied as dry or wet-type. Wet-tested elements are soaked in a preservative solution (1.0% food grade SBS) and vacuum sealed in a poly bag. All elements are individually boxed.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D	E	Part Number: Inter-connector	Part Number: Brine Seal
NE4040-70	40.0 inch (1,016 mm)	4.0 inch (102 mm)	0.75 inch (19.1 mm)	1.05 inch (26.7 mm)	1.05 inch (26.7 mm)	40000305	40000306

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All NE4040 elements fit nominal 4.0 inch (102 mm) I.D. pressure vessels.

NE4040-90

CSM

Normal grade NF element with high monovalent ion rejection

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	18 gpm (4.09 m^3/hr)
	· Min. Concentrate Flow Rate	4 gpm (0.91 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Wet elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCNE4040-70

NE4040-70

Normal grade NF element with high monovalent ion rejection

CSM

SPECIFICATIONS:

General Features

Permeate flow rate[1]:	1,500 GPD (5.7 m^3/day)
Monovalent ion rejection (NaCl)[1]:	40.0 – 70.0%
Divalent ion rejection ($CaCl_2$)[2]:	45.0 – 70.0%
Effective membrane area:	85 ft^2 (7.9 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following monovalent test conditions:
   - **2,000 mg/L NaCl solution at 75 psig (0.5 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. The stated product performance is based on data taken after 30 minutes of operation at the following divalent test conditions:
   - **500 mg/L $CaCl_2$ solution at 75 psig (0.5 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
3. $MgSO_4$ rejection is 97.0%. (Test conditions are equivalent with NaCl)
4. Permeate flow rate for each element may vary but will be no more than 15%.
5. Elements are supplied as dry-type. Dry elements are sealed in a poly bag and individually boxed.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D	E	Part Number	
						Inter-connector	Brine Seal
NE4040-70	40.0 inch (1,016 mm)	4.0 inch (102 mm)	0.75 inch (19.1 mm)	1.05 inch (26.7 mm)	1.05 inch (26.7 mm)	40000305	40000306

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All NE4040 elements fit nominal 4.0 inch (102 mm) I.D. pressure vessels.

NE4040-70

Normal grade NF element with medium monovalent ion rejection

CSM

APPLICATION DATA:

Operating Limits	Max. Pressure Drop / Element	15 psi (0.1 MPa)
	Max. Pressure Drop / 240" Vessel	60 psi (0.41 Mpa)
	Max. Operating Pressure	600 psi (4.14 MPa)
	Max. Feed Flow Rate	18 gpm (4.09 m³/hr)
	Min. Concentrate Flow Rate	4 gpm (0.91 m³/hr)
	Max. Operating Temperature	113 °F (45 °C)
	Operating pH Range	2.0–11.0
	CIP pH Range	1.0–13.0
	Max. Turbidity	1.0 NTU
	Max. SDI (15 min)	5.0
	Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	Wastewater Conventional (SDI < 5)	8–12 gfd
	Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	Seawater, Open Intake (SDI < 5)	7–10 gfd
	Seawater, Beach Well (SDI < 3)	8–12 gfd
	Surface Water (SDI < 5)	12–16 gfd
	Surface Water (SDI < 3)	13–17 gfd
	Well water (SDI < 3)	13–17 gfd
	RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	Langlier Saturation Index (LSI)	<+1.5
	Stiff and Davis Saturation Index (SDSI)	<+0.5
	$CaSO_4$	230% saturation
	$SrSO_4$	800% saturation
	$BaSO_4$	6,000% saturation
	SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user's responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCNE4040-40

NE4040-40

High productivity NF element

CSM

SPECIFICATIONS:

General Features

Permeate flow rate:	2,100 GPD (7.9 m³/day)
Monovalent ion rejection (NaCl):	20 – 40%
Effective membrane area:	85 ft² (7.9 m²)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

   - **2,000 mg/L NaCl solution at 75 psig (0.5 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

2. Permeate flow rate for each element may vary but will be no more than 20%.
3. Elements are supplied as dry-type. Dry elements are sealed in a poly bag and individually boxed.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions

Model Name	A	B	C	D	E	Part Number	
						Inter-connector	Brine Seal
NE4040-40	40.0 inch (1,016 mm)	4.0 inch (102 mm)	0.75 inch (19.1 mm)	1.05 inch (26.7 mm)	1.05 inch (26.7 mm)	DD004	DD003

(*) see 05-03-99-EN data sheet.

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All NE4040 elements fit nominal 4.0 inch (102 mm) I.D. pressure vessels.

NE4040-40

High productivity NF element

CSM

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	18 gpm (4.09 m^3/hr)
	· Min. Concentrate Flow Rate	4 gpm (0.91 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

TORAY CSM 8” Membranes

LOW PRESSURE LPM MEMBRANES				
REF.	**MODEL**	**NSF/ANSI**	**DM174-2004**	
MCRE8040-BLN	RE8040-BLN	Standard 61	Compliant	
MCRE8040-BLN440	RE8040-BLN440	-	Compliant	
MCRE8040-BLR	RE8040-BLR	Standard 61	Compliant	
MCRE8040-BLR440	RE8040-BLR440	-	Compliant	
MCRE8040-BLF	RE8040-BLF	Standard 61	Compliant	
MCRE8040-BLF440	RE8040-BLF440	-	Compliant	
MTMH20A-400C	TMH20A-400C	-	Compliant	
MTMH20A-440C (*)	TMH20A-440C	-	Compliant	
MTMG20D-400	TMG20D-400	-	Compliant	
MTMG20D-440 (*)	TMG20D-440	-	Compliant	

BRACKISH WATER BWM MEMBRANES				
REF.	**MODEL**	**NSF/ANSI**	**DM174-2004**	
MCRE8040-BN	RE8040-BN	Standard 61	Compliant	
MCRE8040-BE	RE8040-BE	Standard 61	Compliant	
MCRE8040-BE440	RE8040-BE440	Standard 61	Compliant	
MCRE8040-BR	RE8040-BR	-	Compliant	
MCRE8040-BR400 (**)	RE8040-BR400	-	Compliant	
MTM720D-400	TM720D-400	-	Compliant	
MTM720D-440 (*)	TM720D-440	-	Compliant	
MTM720L-440 (*)	TM720L-440	-	Compliant	

FOULING RESISTANT FRM MEMBRANES				
REF.	**MODEL**	**NSF/ANSI**	**DM174-2004**	
MCRE8040-FEN34	RE8040-FEn34	-	Compliant	
MCRE8040-FEN	RE8040-FEn	Standard 61	Compliant	
MCRE8040-FEN440 (*)	RE8040-FEn440	Standard 61	Compliant	
MCRE8040-FL (*)	RE8040-FL	-	Compliant	
MCRE8040-FLR (**)	RE8040-FLR	-	Compliant	
MCRE8040-FLR34	RE8040-FLR34	-	Compliant	
MTML20D-400	TML20D-400	-	Compliant	

SEA WATER SWM MEMBRANES				
REF.	**MODEL**	**NSF/ANSI**	**DM174-2004**	
MTM820M-400	TM820M-400	-	Compliant	
MTM820M-440 (*)	TM820M-440	-	Compliant	
MTM820V-400	TM820V-400	-	Compliant	
MTM820V-440 (*)	TM820V-440	-	Compliant	

NANOFILTRATION NFM MEMBRANES				
REF.	**MODEL**	**NSF/ANSI**	**DM174-2004**	
MCNE8040-90	NE8040-90	Standard 61	Compliant	
MCNE8040-70 (*)	NE8040-70	Standard 61	Compliant	
MCNE8040-40 (*)	NE8040-40	Standard 61	Compliant	

(*) not available in stock. (**) available till it will be out-of-stock.

Ref. MCRE8040-BLN

RE8040-BLN

Low pressure grade RO element for brackish water

CSM

SPECIFICATIONS:

General Features

Permeate flow rate:	12,000 GPD (45.4 m³/day)
Nominal salt rejection:	99.5%
Effective membrane area:	400 ft² (37.2 m²)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **1,500 mg/L NaCl solution at 150 psig (1.03 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.4%.
3. Permeate flow rate for each element may vary +25 / -15%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-connector	Brine Seal
RE8040-BLN	40.0 inch (1,016 mm)	7.9 inch (200 mm)	1.12 inch (28.5 mm)	15 kg	SWA01049	SWA01043

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE8040 elements fit nominal 8.0 inch (203.2 mm) I.D. pressure vessels.

RE8040-BLN

Low pressure grade RO element for brackish water

CSM

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	75 gpm (17.0 m^3/hr)
	· Min. Concentrate Flow Rate	16 gpm (3.6 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE8040-BLN440

RE8040-BLN440

Low pressure grade RO element for brackish water

CSM

SPECIFICATIONS:

General Features

Permeate flow rate:	13,000 GPD (49.2 m^3/day)
Nominal salt rejection:	99.5%
Effective membrane area:	440 ft^2 (40.9 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **1,500 mg/L NaCl solution at 150 psig (1.03 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.4%.
3. Permeate flow rate for each element may vary +25 / -15%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-connector	Brine Seal
RE8040-BLN440	40.0 inch (1,016 mm)	7.9 inch (200 mm)	1.12 inch (28.5 mm)	15 kg	SWA01049	SWA01043

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE8040 elements fit nominal 8.0 inch (203.2 mm) I.D. pressure vessels.

RE8040-BLN440

Low pressure grade RO element for brackish water

CSM

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	75 gpm (17.0 m^3/hr)
	· Min. Concentrate Flow Rate	16 gpm (3.6 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE8040-BLR

RE8040-BLR

CSM

Low pressure grade RO element for brackish water

SPECIFICATIONS:

General Features

Permeate flow rate:	10,000 GPD (37.9 m³/day)
Nominal salt rejection:	99.6%
Effective membrane area:	400 ft² (37.2 m²)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **1,500 mg/L NaCl solution at 150 psig (1.03 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.5%.
3. Permeate flow rate for each element may vary but will be no more than -5%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-connector	Brine Seal
RE8040-BLR	40.0 inch (1,016 mm)	7.9 inch (200 mm)	1.12 inch (28.5 mm)	15 kg	SWA01049	SWA01043

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE8040 elements fit nominal 8.0 inch (203.2 mm) I.D. pressure vessels.

RE8040-BLR

Low pressure grade RO element for brackish water

CSM

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	75 gpm (17.0 m^3/hr)
	· Min. Concentrate Flow Rate	16 gpm (3.6 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE8040-BLR440

RE8040-BLR440

Low pressure grade RO element for brackish water

CSM

SPECIFICATIONS:

General Features

Permeate flow rate:	11,000 GPD (41.6 m^3/day)
Nominal salt rejection:	99.6%
Effective membrane area:	440 ft^2 (40.9 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **1,500 mg/L NaCl solution at 150 psig (1.03 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.5%.
3. Permeate flow rate for each element may vary but will be no more than -5%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-connector	Brine Seal
RE8040-BLR440	40.0 inch (1,016 mm)	7.9 inch (200 mm)	1.12 inch (28.5 mm)	15 kg	SWA01049	SWA01043

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE8040 elements fit nominal 8.0 inch (203.2 mm) I.D. pressure vessels.

RE8040-BLR440

Low pressure grade RO element for brackish water

CSM®

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	75 gpm (17.0 m^3/hr)
	· Min. Concentrate Flow Rate	16 gpm (3.6 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE8040-BLF

RE8040-BLF

CSM

Ultra-low pressure grade RO element for low TDS water

SPECIFICATIONS:

General Features

Permeate flow rate:	11,500 GPD (43.5 m^3/day)
Nominal salt rejection:	99.2%
Effective membrane area:	400 ft^2 (37.2 m^2)

The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

- **500 mg/L NaCl solution at 100 psig (0.69 MPa) applied pressure**
- **15% recovery**
- **77 °F (25 °C)**
- **pH 6.5–7.0**

1. Minimum salt rejection is 99.0%.
2. Permeate flow rate for each element may vary +25 / -15%.
3. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-connector	Brine Seal
RE8040-BLF	40.0 inch (1,016 mm)	7.9 inch (200 mm)	1.12 inch (28.5 mm)	15 kg	SWA01049	SWA01043

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE8040 elements fit nominal 8.0 inch (203.2 mm) I.D. pressure vessels.

RE8040-BLF

CSM

Ultra-low pressure grade RO element for low TDS water

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	75 gpm (17.0 m³/hr)
	· Min. Concentrate Flow Rate	16 gpm (3.6 m³/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE8040-BLF440

RE8040-BLF440

CSM

Ultra-low pressure grade RO element for low TDS water

SPECIFICATIONS:

General Features

Permeate flow rate:	12,650 GPD (47.9 m^3/day)
Nominal salt rejection:	99.2%
Effective membrane area:	440 ft^2 (40.9 m^2)

The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

- **500 mg/L NaCl solution at 100 psig (0.69 MPa) applied pressure**
- **15% recovery**
- **77 °F (25 °C)**
- **pH 6.5–7.0**

1. Minimum salt rejection is 99.0%.
2. Permeate flow rate for each element may vary +25 / -15%.
3. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-connector	Brine Seal
RE8040-BLF440	40.0 inch (1,016 mm)	7.9 inch (200 mm)	1.12 inch (28.5 mm)	15 kg	SWA01049	SWA01043

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE8040 elements fit nominal 8.0 inch (203.2 mm) I.D. pressure vessels.

RE8040-BLF440

CSM

Ultra-low pressure grade RO element for low TDS water

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	75 gpm (17.0 m^3/hr)
	· Min. Concentrate Flow Rate	16 gpm (3.6 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

TORAY 8” Membranes

Ref. MTMH20A-400C

'TORAY'
Innovation by Chemistry

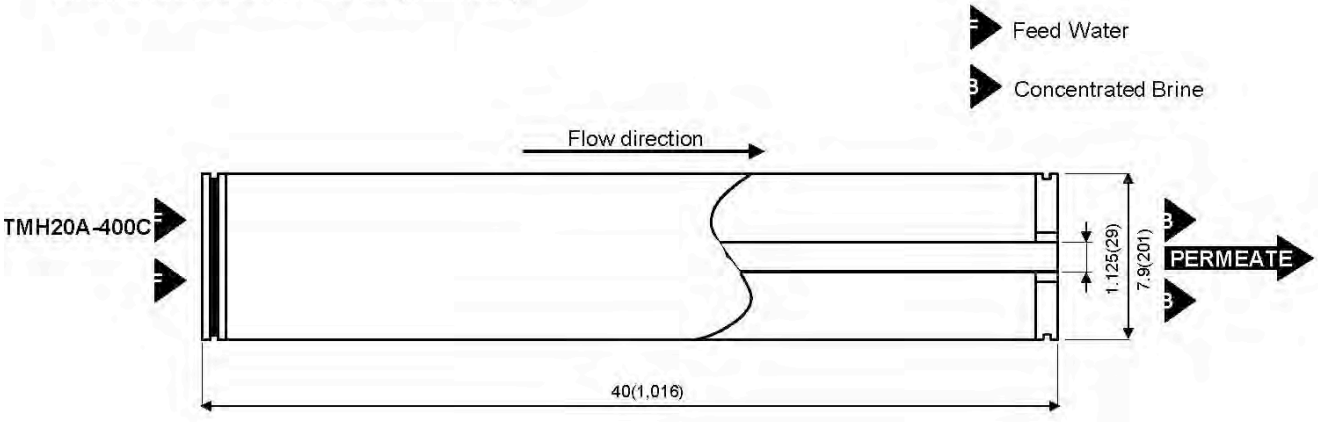
Ultra low pressure BWRO
TMHA (C)

Type	Diameter Inch	Membrane Area $ft^2(m^2)$	Salt Rejection %	Product Flow Rate $gpd(m^3/d)$	Feed Spacer Thickness mil
TMH20A-400C	8”	400(37)	99.3	11,000(41.6)	34

1. Membrane Type		Cross Linked Fully Aromatic Polyamide Composite
2. Test Conditions	Feed Water Pressure Feed Water Temperature Feed Water Concentration Recovery Rate Feed Water pH	100 psi(0.69MPa) 77° F(25°C) 500 mg/l Nacl 15% 7
3. Minimum Salt Rejection		99.0%
4. Minimum Product Flow Rate		8,800gpd(33.3m^3/d)

Dimensions

All dimensions shown in Inches (millimeter).



TORAY 8” Membranes

Operating Limits

Maximum Operating Pressure	365psi (2.5 MPa)
Maximum Feed Water Temperature	113° F (45℃)
Maximum Feed Water SDI_{15}	5
Feed Water Chlorine Concentration	Not Detactable
Feed Water pH Range, Continuous Operation	2-11
Feed Water pH Range, Chemical Cleaning	1-12
Maximum Pressure Drop per Element	15 psi (0.10 MPa)
Maximum Pressure Drop per Vessel	50 psi (0.34 MPa)

Operating Information

1. For the recommended design range, please consult the latest Toray technical bulletin, design guide lines, computer design program, and/ or call an application specialist. If the operating limits given in this Product Information Bulletin are not strictly followed, the Limited Warranty will be null and void.
2. All elements are wet tested, treated with a 1% by weight percent sodium bisulfite storage solution, and then vacuum packed in oxygen barrier bags, or treated with tested feed water solution, and then vacuum packed in oxygen barrier bags with deoxidant inside. To prevent biological growth during short term storage, shipment, or system shutdown, it is recommended that Toray elements be immersed in a protective solution containing 500 - 1,000 ppm of sodium bisulfite (food grade) dissolved in permeate.
3. The presence of free chlorine and other oxidizing agents under certain conditions, such as heavy metals which acts as oxidation catalyst in the feed water will cause unexpected oxidation of the membrane. It is strongly recommended to remove these oxidizing agents contained in feed water before operating RO system.
4. Permeate from the first hour of operation shall be discarded.
5. The customer is fully responsible for the effects of chemicals that are incompatible with the elements. Their use will void the element Limited Warranty.

Notice

1. Toray accepts no responsibility for results obtained by the application of this information or the safety or suitability of Toray's products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product combination for their own purposes.
2. All data may change without prior notice, due to technical modifications or production changes.

TORAY 8” Membranes

Ref. MTMH20A-440C

'TORAY'
Innovation by Chemistry

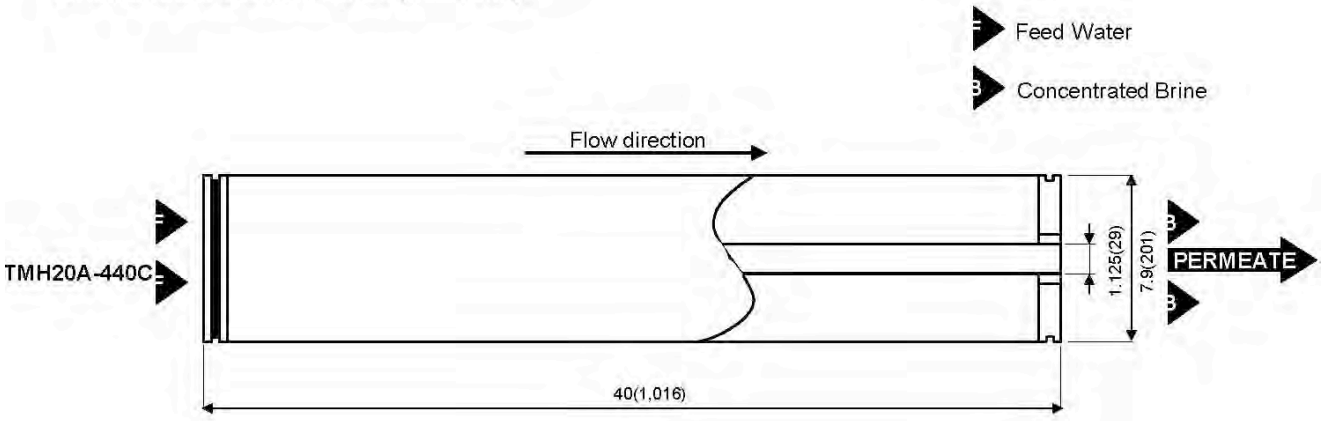
Ultra low pressure BWRO
TMHA (C)

Type	Diameter Inch	Membrane Area $ft^2(m^2)$	Salt Rejection %	Product Flow Rate $gpd(m^3/d)$	Feed Spacer Thickness mil
TMH20A-440C	8”	440(41)	99.3	12,100(45.7)	28

1. Membrane Type		Cross Linked Fully Aromatic Polyamide Composite
2. Test Conditions	Feed Water Pressure Feed Water Temperature Feed Water Concentration Recovery Rate Feed Water pH	100 psi(0.69MPa) 77° F(25°C) 500 mg/l Nacl 15% 7
3. Minimum Salt Rejection		99.0%
4. Minimum Product Flow Rate		9,700gpd(36.7m^3/d)

Dimensions

All dimensions shown in Inches (millimeter).



TORAY 8” Membranes

Operating Limits

Maximum Operating Pressure	365psi (2.5 MPa)
Maximum Feed Water Temperature	113° F (45℃)
Maximum Feed Water SDI_{15}	5
Feed Water Chlorine Concentration	Not Detactable
Feed Water pH Range, Continuous Operation	2-11
Feed Water pH Range, Chemical Cleaning	1-12
Maximum Pressure Drop per Element	15 psi (0.10 MPa)
Maximum Pressure Drop per Vessel	50 psi (0.34 MPa)

Operating Information

1. For the recommended design range, please consult the latest Toray technical bulletin, design guide lines, computer design program, and/ or call an application specialist. If the operating limits given in this Product Information Bulletin are not strictly followed, the Limited Warranty will be null and void.
2. All elements are wet tested, treated with a 1% by weight percent sodium bisulfite storage solution, and then vacuum packed in oxygen barrier bags, or treated with tested feed water solution, and then vacuum packed in oxygen barrier bags with deoxidant inside. To prevent biological growth during short term storage, shipment, or system shutdown, it is recommended that Toray elements be immersed in a protective solution containing 500 - 1,000 ppm of sodium bisulfite (food grade) dissolved in permeate.
3. The presence of free chlorine and other oxidizing agents under certain conditions, such as heavy metals which acts as oxidation catalyst in the feed water will cause unexpected oxidation of the membrane. It is strongly recommended to remove these oxidizing agents contained in feed water before operating RO system.
4. Permeate from the first hour of operation shall be discarded.
5. The customer is fully responsible for the effects of chemicals that are incompatible with the elements. Their use will void the element Limited Warranty.

Notice

1. Toray accepts no responsibility for results obtained by the application of this information or the safety or suitability of Toray's products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product combination for their own purposes.
2. All data may change without prior notice, due to technical modifications or production changes.

TORAY 8” Membranes

Ref. MTMG20D-400

TORAY
Innovation by Chemistry

Ultra low pressure BWRO, enhanced chemical tolerance

TMG(D)

Type	Diameter Inch	Membrane Area $ft^2(m^2)$	Salt Rejection %	Product Flow Rate $gpd(m^3/d)$	Feed Spacer Thickness mil
TMG20D-400	8”	400(37)	99.7	12,100(45.8)	34

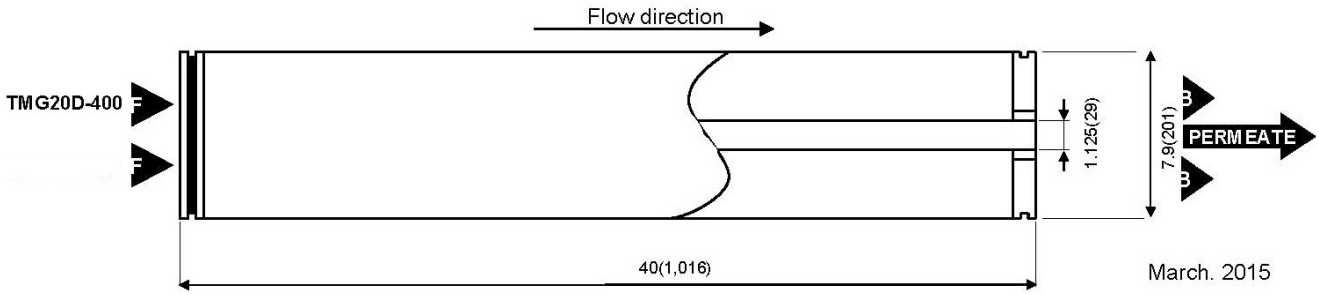
1. Membrane Type		Cross Linked Fully Aromatic Polyamide Composite
2. Test Conditions	Feed Water Pressure Feed Water Temperature Feed Water Concentration Recovery Rate Feed Water pH	150 psi(1.03MPa) 77° F(25°C) 2000 mg/l Nacl 15% 7
3. Minimum Salt Rejection		99.5%
4. Minimum Product Flow Rate		10,300gpd(39.0m^3/d)

Dimensions

All dimensions shown in Inches (millimeter).

F Feed Water

B Concentrated Brine



March. 2015

TORAY 8” Membranes

Operating Limits

Maximum Operating Pressure	365psi (2.5 MPa)
Maximum Feed Water Temperature	113° F (45°C)
Maximum Feed Water SDI15	5
Feed Water Chlorine Concentration *See below 3 of Operating Information	< 0.1ppm
Feed Water pH Range, Continuous Operation	2-11
Feed Water pH Range, Chemical Cleaning	1-13
Maximum Pressure Drop per Element	15psi (0.10 MPa)
Maximum Pressure Drop per Vessel	50psi (0.34 MPa)

Operating Information

1. For the recommended design range, please consult the latest Toray technical bulletin, design guide lines, computer design program, and/ or call an application specialist. If the operating limits given in this Product Information Bulletin are not strictly followed, the Limited Warranty will be null and void.
2. All elements are wet tested, treated with a 1% by weight percent sodium bisulfite storage solution, and then vacuum packed in oxygen barrier bags, or treated with tested feed water solution, and then vacuum packed in oxygen barrier bags with deoxidant inside. To prevent biological growth during short term storage, shipment, or system shutdown, it is recommended that Toray elements be immersed in a protective solution containing 500 - 1,000 ppm of sodium bisulfite (food grade) dissolved in permeate.
3. The presence of free chlorine and other oxidizing agents under certain conditions, such as heavy metals which acts as oxidation catalyst in the feed water will cause unexpected oxidation of the membrane. Since oxidation damage is not covered under warranty, it is strongly recommended to remove these oxidizing agents contained in feed water before operating RO system.
4. Permeate from the first hour of operation shall be discarded.
5. The customer is fully responsible for the effects of chemicals that are incompatible with the elements. Their use will void the element Limited Warranty.

Notice

1. Toray accepts no responsibility for results obtained by the application of this information or the safety or suitability of Toray's products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product combination for their own purposes.
2. All data may change without prior notice, due to technical modifications or production changes.

TORAY 8” Membranes

Ref. MTMG20D-440

TORAY
Innovation by Chemistry

Ultra low pressure BWRO, enhanced chemical tolerance

TMG(D)

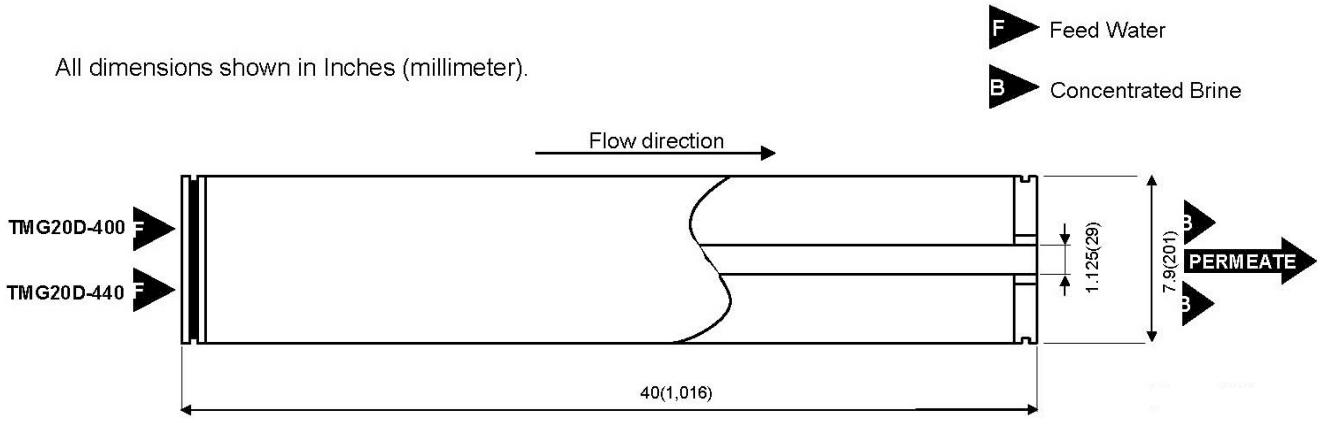
Type	Diameter Inch	Membrane Area $ft^2(m^2)$	Salt Rejection %	Product Flow Rate $gpd(m^3/d)$	Feed Spacer Thickness mil
TMG20D-440	8”	440(41)	99.7	13,300(50.3)	28

*** Above two types of TMG20D are with 29mm centerpipe as described in below “Dimensions”. Please note that while *TMG20* series with 29 mm centerpipe are distinguished by “C style”, TMG20D series are only with 29 mm centerpipe and not distinguished by “C style”.**

1. Membrane Type		Cross Linked Fully Aromatic Polyamide Composite
2. Test Conditions	Feed Water Pressure Feed Water Temperature Feed Water Concentration Recovery Rate Feed Water pH	150 psi(1.03MPa) 77° F(25°C) 2000 mg/l Nacl 15% 7
3. Minimum Salt Rejection		99.5%
4. Minimum Product Flow Rate		11,200gpd(42.4m^3/d)

Dimensions

All dimensions shown in Inches (millimeter).



TORAY 8” Membranes

Operating Limits

Maximum Operating Pressure	600 psi (4.1 MPa)
Maximum Feed Water Temperature	113° F (45°C)
Maximum Feed Water SDI15	5
Feed Water Chlorine Concentration *See below 3 of Operating Information	< 0.1ppm
Feed Water pH Range, Continuous Operation	2-11
Feed Water pH Range, Chemical Cleaning	1-13
Maximum Pressure Drop per Element	15psi (0.10 MPa)
Maximum Pressure Drop per Vessel	50psi (0.34 MPa)

Operating Information

1. For the recommended design range, please consult the latest Toray technical bulletin, design guide lines, computer design program, and/ or call an application specialist. If the operating limits given in this Product Information Bulletin are not strictly followed, the Limited Warranty will be null and void.
2. All elements are wet tested, treated with a 1% by weight percent sodium bisulfite storage solution, and then vacuum packed in oxygen barrier bags, or treated with tested feed water solution, and then vacuum packed in oxygen barrier bags with deoxidant inside. To prevent biological growth during short term storage, shipment, or system shutdown, it is recommended that Toray elements be immersed in a protective solution containing 500 - 1,000 ppm of sodium bisulfite (food grade) dissolved in permeate.
3. The presence of free chlorine and other oxidizing agents under certain conditions, such as heavy metals which acts as oxidation catalyst in the feed water will cause unexpected oxidation of the membrane. Since oxidation damage is not covered under warranty, it is strongly recommended to remove these oxidizing agents contained in feed water before operating RO system. Please refer to Toray RO Element Three-Year Prorated Limited Warranty.
4. Permeate from the first hour of operation shall be discarded.
5. The customer is fully responsible for the effects of chemicals that are incompatible with the elements. Their use will void the element Limited Warranty.
6. Recommended Process/ Operation pressure is < 2.0 MPa
   a) Ultra low pressure elements will perform best with low salinity brackish water
   b) Above pressure range should be maintained also at low temperature
   For more details, and in special cases, please consult the projection design guideline or contact your membrane supplier.

Notice

1. Toray accepts no responsibility for results obtained by the application of this information or the safety or suitability of Toray's products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product combination for their own purposes.
2. All data may change without prior notice, due to technical modifications or production changes.

Ref. MCRE8040-BN

RE8040-BN

CSM®

Low pressure grade RO element with thick feed spacer for brackish water

SPECIFICATIONS:

General Features

Permeate flow rate:	9,500 GPD (36.0 m^3/day)
Nominal salt rejection:	99.7%
Effective membrane area:	365 ft^2 (33.9 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **2,000 mg/L NaCl solution at 225 psig (1.5 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.4%.
3. Permeate flow rate for each element may vary but will be no more than 10%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions **A** = 40.0 inch (1,016 mm) **B** = 8.0 inch (201 mm) **C** = 1.12 inch (28 mm)

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE8040 elements fit nominal 8.0 inch (201 mm) I.D. pressure vessels.

RE8040-BN

CSM

Low pressure grade RO element with thick feed spacer for brackish water

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	75 gpm (17.0 m^3/hr)
	· Min. Concentrate Flow Rate	16 gpm (3.6 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE8040-BE

RE8040-BE

High productivity RO element with extended area for brackish water

CSM

SPECIFICATIONS:

General Features

Permeate flow rate:	11,000 GPD (41.6 m³/day)
Nominal salt rejection:	99.7%
Effective membrane area:	400 ft² (37.2 m²)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **2,000 mg/L NaCl solution at 225 psig (1.55 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.5%.
3. Permeate flow rate for each element may vary +25 / -15%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-connector	Brine Seal
RE8040-BE	40.0 inch (1,016 mm)	7.9 inch (200 mm)	1.12 inch (28.5 mm)	15 kg	SWA01049	SWA01043

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE8040 elements fit nominal 8.0 inch (203.2 mm) I.D. pressure vessels.

RE8040-BE

CSM

High productivity RO element with extended area for brackish water

APPLICATION DATA:

Operating Limits	Max. Pressure Drop / Element	15 psi (0.1 MPa)
	Max. Pressure Drop / 240" Vessel	60 psi (0.41 Mpa)
	Max. Operating Pressure	600 psi (4.14 MPa)
	Max. Feed Flow Rate	75 gpm (17.0 m^3/hr)
	Min. Concentrate Flow Rate	16 gpm (3.6 m^3/hr)
	Max. Operating Temperature	113 °F (45 °C)
	Operating pH Range	2.0–11.0
	CIP pH Range	1.0–13.0
	Max. Turbidity	1.0 NTU
	Max. SDI (15 min)	5.0
	Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	Wastewater Conventional (SDI < 5)	8–12 gfd
	Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	Seawater, Open Intake (SDI < 5)	7–10 gfd
	Seawater, Beach Well (SDI < 3)	8–12 gfd
	Surface Water (SDI < 5)	12–16 gfd
	Surface Water (SDI < 3)	13–17 gfd
	Well water (SDI < 3)	13–17 gfd
	RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	Langlier Saturation Index (LSI)	<+1.5
	Stiff and Davis Saturation Index (SDSI)	<+0.5
	$CaSO_4$	230% saturation
	$SrSO_4$	800% saturation
	$BaSO_4$	6,000% saturation
	SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user's responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE8040-BE440

RE8040-BE440

CSM

High productivity RO element with extended area for brackish water

SPECIFICATIONS:

General Features

Permeate flow rate:	12,000 GPD (45.4 m^3/day)
Nominal salt rejection:	99.7%
Effective membrane area:	440 ft^2 (40.9 m^2)

The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

- **2,000 mg/L NaCl solution at 225 psig (1.55 MPa) applied pressure**
- **15% recovery**
- **77 °F (25 °C)**
- **pH 6.5–7.0**

1. Minimum salt rejection is 99.5%.
2. Permeate flow rate for each element may vary +25 / -15%.
3. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-connector	Brine Seal
RE8040-BE440	40.0 inch (1,016 mm)	7.9 inch (200 mm)	1.12 inch (28.5 mm)	15 kg	SWA01049	SWA01043

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE8040 elements fit nominal 8.0 inch (203.2 mm) I.D. pressure vessels.

RE8040-BE440

CSM

High productivity RO element with extended area for brackish water

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	75 gpm (17.0 m^3/hr)
	· Min. Concentrate Flow Rate	16 gpm (3.6 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE8040-BR

RE8040-BR

High Rejection RO element with thick feed spacer for brackish water

CSM

SPECIFICATIONS:

General Features

Permeate flow rate:	6,000 GPD (22.7 m³/day)
Nominal salt rejection:	99.75%
Effective membrane area:	380 ft² (35.3 m²)

The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

- **2,000 mg/L NaCl solution at 225 psig (1.55 MPa) applied pressure**
- **15% recovery**
- **77 °F (25 °C)**
- **pH 6.5–7.0**

1. Minimum salt rejection is 99.5%.
2. Permeate flow rate for each element may vary +25 / -15%.
3. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-connector	Brine Seal
RE8040-BR	40.0 inch (1,016 mm)	7.9inch (200 mm)	1.12 inch (28.5 mm)	15 kg	SWA01049	SWA01043

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE8040 elements fit nominal 8.0 inch (203.2 mm) I.D. pressure vessels.

RE8040-BR

CSM

High Rejection RO element with thick feed spacer for brackish water

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	75 gpm (17.0 m^3/hr)
	· Min. Concentrate Flow Rate	16 gpm (3.6 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.05 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE8040-BR400

RE8040-BR400

CSM

Normal grade RO element with thick feed spacer for brackish water

SPECIFICATIONS:

General Features

Permeate flow rate:	6,600 GPD (24.9 m^3/day)
Nominal salt rejection:	99.75%
Effective membrane area:	400 ft^2 (37.2 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **2,000 mg/L NaCl solution at 225 psig (1.5 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.4%.
3. Permeate flow rate for each element may vary but will be no more than 10%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions **A** = 40.0 inch (1,016 mm) **B** = 8.0 inch (201 mm) **C** = 1.12 inch (28 mm)

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE8040 elements fit nominal 8.0 inch (201 mm) I.D. pressure vessels.

RE8040-BR400

CSM

Normal grade RO element with thick feed spacer for brackish water

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	75 gpm (17.0 m^3/hr)
	· Min. Concentrate Flow Rate	16 gpm (3.6 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

TORAY 8” Membranes

Ref. MTM720D-400

'TORAY'
Innovation by Chemistry

High rejection BWRO, enhanced chemical tolerance

TM700D

Type	Diameter Inch	Membrane Area ft²(m²)	Salt Rejection %	Product Flow Rate gpd(m³ / d)	Feed Spacer Thickness mil
TM720D-400	8”	400(37)	99.8	11,000(41.6)	34

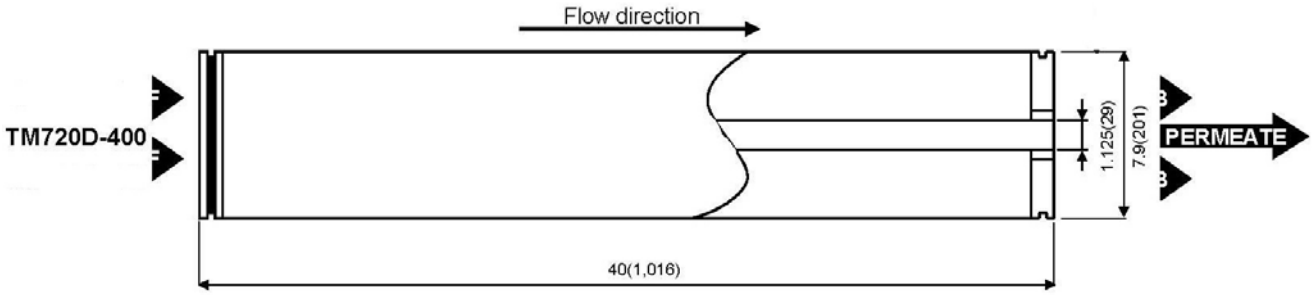
1. Membrane Type		Cross Linked Fully Aromatic Polyamide Composite
2. Test Conditions	Feed Water Pressure Feed Water Temperature Feed Water Concentration Recovery Rate Feed Water pH	225 psi(1.55MPa) 77° F(25°C) 2,000 mg/l Nacl 15% 7
3. Minimum Salt Rejection		99.65%
4. Minimum Product Flow Rate		8,900gpd(33.6m³/d)

Dimensions

All dimensions shown in Inches (millimeter).

F Feed Water

B Concentrated Brine



TORAY 8” Membranes

Operating Limits

Maximum Operating Pressure	600psi (4.1 MPa)
Maximum Feed Water Temperature	113° F (45℃)
Maximum Feed Water SDI15	5
Feed Water Chlorine Concentration *See below 3 of Operating Information	<0.1ppm
Feed Water pH Range, Continuous Operation	2-11
Feed Water pH Range, Chemical Cleaning	1-13
Maximum Pressure Drop per Element	15 psi (0.10 MPa)
Maximum Pressure Drop per Vessel	50 psi (0.34 MPa)

Operating Information

1. For the recommended design range, please consult the latest Toray technical bulletin, design guide lines, computer design program, and/ or call an application specialist. If the operating limits given in this Product Information Bulletin are not strictly followed, the Limited Warranty will be null and void.
2. All elements are wet tested, treated with a 1% by weight percent sodium bisulfite storage solution, and then vacuum packed in oxygen barrier bags, or treated with tested feed water solution, and then vacuum packed in oxygen barrier bags with deoxidant inside. To prevent biological growth during short term storage, shipment, or system shutdown, it is recommended that Toray elements be immersed in a protective solution containing 500 - 1,000 ppm of sodium bisulfite (food grade) dissolved in permeate.
3. The presence of free chlorine and other oxidizing agents under certain conditions, such as heavy metals which acts as oxidation catalyst in the feed water will cause unexpected oxidation of the membrane. It is strongly recommended to remove these oxidizing agents contained in feed water before operating RO system.
4. Permeate from the first hour of operation shall be discarded.
5. The customer is fully responsible for the effects of chemicals that are incompatible with the elements. Their use will void the element Limited Warranty.

Notice

1. Toray accepts no responsibility for results obtained by the application of this information or the safety or suitability of Toray's products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product combination for their own purposes.
2. All data may change without prior notice, due to technical modifications or production changes.

TORAY 8” Membranes

Ref. MTM720D-440

'TORAY'
Innovation by Chemistry

High rejection BWRO, enhanced chemical tolerance

TM700D

Type	Diameter Inch	Membrane Area $ft^2(m^2)$	Salt Rejection %	Product Flow Rate $gpd(m^3/d)$	Feed Spacer Thickness mil
TM720D-440	8”	440(41)	99.8	12,100(45.8)	28

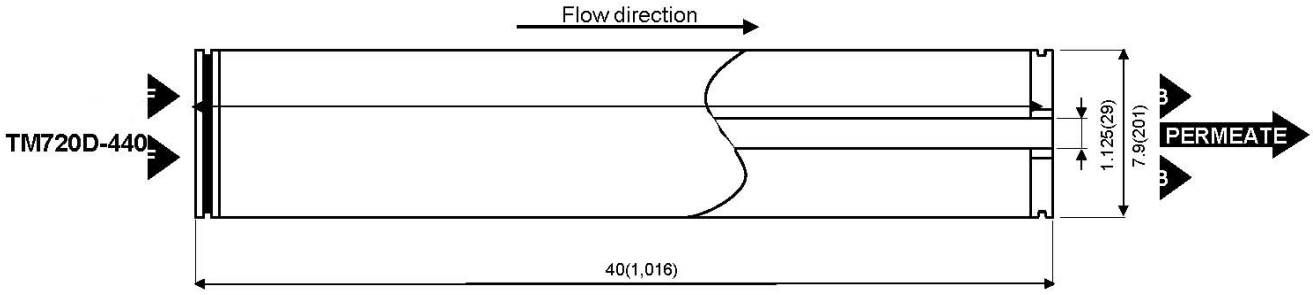
1. Membrane Type		Cross Linked Fully Aromatic Polyamide Composite
2. Test Conditions	Feed Water Pressure Feed Water Temperature Feed Water Concentration Recovery Rate Feed Water pH	225 psi(1.55MPa) 77° F(25°C) 2,000 mg/l Nacl 15% 7
3. Minimum Salt Rejection		99.65%
4. Minimum Product Flow Rate		9,800gpd(37.0m^3/d)

Dimensions

All dimensions shown in Inches (millimeter).

F Feed Water

B Concentrated Brine



TORAY 8” Membranes

Operating Limits

Maximum Operating Pressure	600psi (4.1 MPa)
Maximum Feed Water Temperature	113° F (45℃)
Maximum Feed Water SDI_{15}	5
Feed Water Chlorine Concentration	< 0.1 ppm
Feed Water pH Range, Continuous Operation	2-11
Feed Water pH Range, Chemical Cleaning	1-13
Maximum Pressure Drop per Element	15 psi (0.10 MPa)
Maximum Pressure Drop per Vessel	50 psi (0.34 MPa)

Operating Information

1. For the recommended design range, please consult the latest Toray technical bulletin, design guide lines, computer design program, and/ or call an application specialist. If the operating limits given in this Product Information Bulletin are not strictly followed, the Limited Warranty will be null and void.
2. All elements are wet tested, treated with a 1% by weight percent sodium bisulfite storage solution, and then vacuum packed in oxygen barrier bags, or treated with tested feed water solution, and then vacuum packed in oxygen barrier bags with deoxidant inside. To prevent biological growth during short term storage, shipment, or system shutdown, it is recommended that Toray elements be immersed in a protective solution containing 500 - 1,000 ppm of sodium bisulfite (food grade) dissolved in permeate.
3. The presence of free chlorine and other oxidizing agents under certain conditions, such as heavy metals which acts as oxidation catalyst in the feed water will cause unexpected oxidation of the membrane. It is strongly recommended to remove these oxidizing agents contained in feed water before operating RO system.
4. Permeate from the first hour of operation shall be discarded.
5. The customer is fully responsible for the effects of chemicals that are incompatible with the elements. Their use will void the element Limited Warranty.

Notice

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2. All data may change without prior notice, due to technical modifications or production changes.

TORAY 8” Membranes

Ref. MTM720L-440

"TORAY"
Innovation by Chemistry

Brackish Water RO Elements

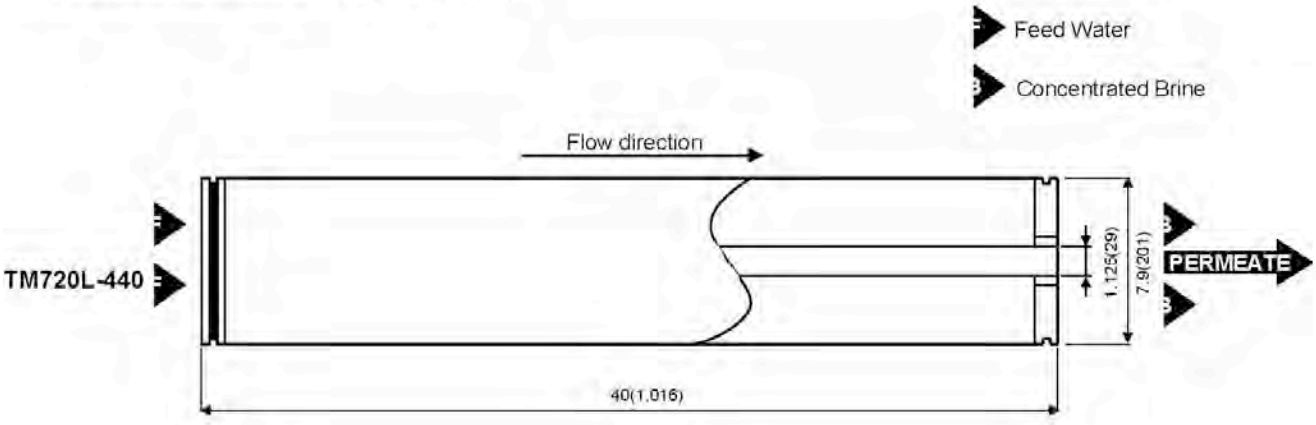
TM700L

Type	Diameter Inch	Membrane Area ft²(m²)	Salt Rejection %	Product Flow Rate gpd(m³ / d)	Feed Spacer Thickness mil
TM720L-440	8"	440(41)	99.5	9,400(35.6)	28

1. Membrane Type		Cross Linked Fully Aromatic Polyamide Composite
2. Test Conditions	Feed Water Pressure Feed Water Temperature Feed Water Concentration Recovery Rate Feed Water pH	150 psi(1.03MPa) 77° F(25°C) 2,000 mg/l Nacl 15% 7
3. Minimum Salt Rejection		99.0%
4. Minimum Product Flow Rate		7,500gpd(28.4m³/d)

Dimensions

All dimensions shown in Inches (millimeter).



TORAY 8” Membranes

Operating Limits

Maximum Operating Pressure	600psi (4.1 MPa)
Maximum Feed Water Temperature	113° F (45°C)
Maximum Feed Water SDI_{15}	5
Feed Water Chlorine Concentration	Not Detectable
Feed Water pH Range, Continuous Operation	2-11
Feed Water pH Range, Chemical Cleaning	1-12
Maximum Pressure Drop per Element	15 psi (0.10 MPa)
Maximum Pressure Drop per Vessel	50 psi (0.34 MPa)

Operating Information

1. For the recommended design range, please consult the latest Toray technical bulletin, design guide lines, computer design program, and/ or call an application specialist. If the operating limits given in this Product Information Bulletin are not strictly followed, the Limited Warranty will be null and void.
2. All elements are wet tested, treated with a 1% by weight percent sodium bisulfite storage solution, and then vacuum packed in oxygen barrier bags, or treated with tested feed water solution, and then vacuum packed in oxygen barrier bags with deoxidant inside. To prevent biological growth during short term storage, shipment, or system shutdown, it is recommended that Toray elements be immersed in a protective solution containing 500 - 1,000 ppm of sodium bisulfite (food grade) dissolved in permeate.
3. The presence of free chlorine and other oxidizing agents under certain conditions, such as heavy metals which acts as oxidation catalyst in the feed water will cause unexpected oxidation of the membrane. It is strongly recommended to remove these oxidizing agents contained in feed water before operating RO system.
4. Permeate from the first hour of operation shall be discarded.
5. The customer is fully responsible for the effects of chemicals that are incompatible with the elements. Their use will void the element Limited Warranty.

Notice

1. Toray accepts no responsibility for results obtained by the application of this information or the safety or suitability of Toray's products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product combination for their own purposes.
2. All data may change without prior notice, due to technical modifications or production changes.

Ref. MCRE8040-FEN34

RE8040-FEn34

CSM

Enhanced fouling resistant RO element for brackish water and wastewater reuse

SPECIFICATIONS:

General Features

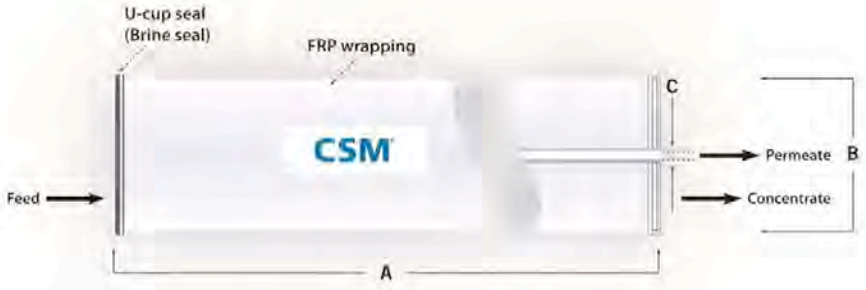
Permeate flow rate:	10,500 GPD (39.7 m³/day)
Nominal salt rejection:	99.7%
Effective membrane area:	400 ft² (37.2 m²)
Feed spacer thickness:	34mil

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **2,000 mg/L NaCl solution at 225 psig (1.5 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.4%.
3. Permeate flow rate for each element may vary but will be no more than 15%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-connector	Brine Seal
RE8040-FEn34	40.0 inch (1,016 mm)	8.0inch (201 mm)	1.12 inch (28 mm)	15 kg	40000308	40000309



1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE8040 elements fit nominal 8.0 inch (201 mm) I.D. pressure vessels.

RE8040-FE^{n}34

CSM

Enhanced fouling resistant RO element for brackish water and wastewater reuse

APPLICATION DATA:

Operating Limits	Max. Pressure Drop / Element	15 psi (0.1 MPa)
	Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	Max. Operating Pressure	600 psi (4.14 MPa)
	Max. Feed Flow Rate	75 gpm (17.0 m³/hr)
	Min. Concentrate Flow Rate	16 gpm (3.6 m³/hr)
	Max. Operating Temperature	113 °F (45 °C)
	Operating pH Range	2.0–11.0
	CIP pH Range	1.0–13.0
	Max. Turbidity	1.0 NTU
	Max. SDI (15 min)	5.0
	Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	Wastewater Conventional (SDI < 5)	8–12 gfd
	Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	Seawater, Open Intake (SDI < 5)	7–10 gfd
	Seawater, Beach Well (SDI < 3)	8–12 gfd
	Surface Water (SDI < 5)	12–16 gfd
	Surface Water (SDI < 3)	13–17 gfd
	Well water (SDI < 3)	13–17 gfd
	RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	Langlier Saturation Index (LSI)	<+1.5
	Stiff and Davis Saturation Index (SDSI)	<+0.5
	$CaSO_4$	230% saturation
	$SrSO_4$	800% saturation
	$BaSO_4$	6,000% saturation
	SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE8040-FEN

RE8040-FE^{n}

CSM

Enhanced fouling resistant RO element for brackish water and wastewater reuse

SPECIFICATIONS:

General Features

Permeate flow rate:	10,500 GPD (39.7 m³/day)
Nominal salt rejection:	99.7%
Effective membrane area:	400 ft² (37.2 m²)
Feed spacer thickness:	32 mil

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **2,000 mg/L NaCl solution at 225 psig (1.5 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.4%.
3. Permeate flow rate for each element may vary but will be no more than 15%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-connector	Brine Seal
RE8040-FEn	40.0 inch (1,016 mm)	8.0inch (201 mm)	1.12 inch (28 mm)	15 kg	40000308	40000309

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE8040 elements fit nominal 8.0 inch (201 mm) I.D. pressure vessels.

RE8040-FE^{n}

CSM

Enhanced fouling resistant RO element for brackish water and wastewater reuse

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	75 gpm (17.0 m³/hr)
	· Min. Concentrate Flow Rate	16 gpm (3.6 m³/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE8040-FEN440

RE8040-FEⁿ440

CSM

Enhanced fouling resistant RO element for brackish water and wastewater reuse

SPECIFICATIONS:

General Features

Permeate flow rate:	11,500 GPD (43.5 m^3/day)
Nominal salt rejection:	99.7%
Effective membrane area:	440 ft^2 (40.9 m^2)
Feed spacer thickness:	28mil

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

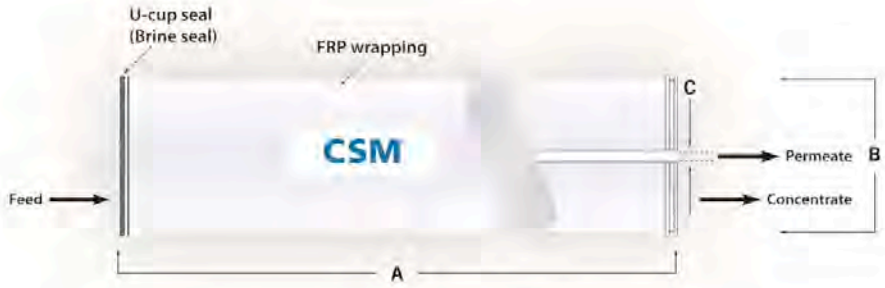
   - **2,000 mg/L NaCl solution at 225 psig (1.5 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

2. Minimum salt rejection is 99.4%.
3. Permeate flow rate for each element may vary but will be no more than 15%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-connector	Brine Seal
RE8040-FEn440	40.0 inch (1,016 mm)	8.0inch (201 mm)	1.12 inch (28 mm)	15 kg	40000308	40000309



1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE8040 elements fit nominal 8.0 inch (201 mm) I.D. pressure vessels.

RE8040-FE^{n}440

CSM

Enhanced fouling resistant RO element for brackish water and wastewater reuse

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	75 gpm (17.0 m³/hr)
	· Min. Concentrate Flow Rate	16 gpm (3.6 m³/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE8040-FL

RE8040-FL

CSM

Fouling resistant RO element with low pressure for brackish water and wastewater reuse

SPECIFICATIONS:

General Features

Permeate flow rate:	11,000 GPD (41.6 m^3/day)
Nominal salt rejection:	99.0%
Effective membrane area:	400 ft^2 (37.2 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **1,500 mg/L NaCl solution at 150 psig (1.0 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 98.5%.
3. Permeate flow rate for each element may vary but will be no more than 10%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions **A** = 40.0 inch (1,016 mm) **B** = 8.0 inch (201 mm) **C** = 1.12 inch (28 mm)

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE8040 elements fit nominal 8.0 inch (201 mm) I.D. pressure vessels.

RE8040-FL

CSM

Fouling resistant RO element with low pressure for brackish water and wastewater reuse

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	75 gpm (17.0 m^3/hr)
	· Min. Concentrate Flow Rate	16 gpm (3.6 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE8040-FLR

RE8040-FLR

CSM

Fouling resistant RO element with low pressure for brackish water and wastewater reuse

SPECIFICATIONS:

General Features

Permeate flow rate:	9,000 GPD (34.0 m^3/day)
Nominal salt rejection:	99.6%
Effective membrane area:	400 ft^2 (37.2 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **1,500 mg/L NaCl solution at 150 psig (1.0 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.5%.
3. Permeate flow rate for each element may vary but will be no more than 10%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions **A** = 40.0 inch (1,016 mm) **B** = 8.0 inch (201 mm) **C** = 1.12 inch (28 mm)

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE8040 elements fit nominal 8.0 inch (201 mm) I.D. pressure vessels.

RE8040-FLR

CSM®

Fouling resistant RO element with low pressure for brackish water and wastewater reuse

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	75 gpm (17.0 m^3/hr)
	· Min. Concentrate Flow Rate	16 gpm (3.6 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCRE8040-FLR34

RE8040-FLR34

CSM

Fouling resistant RO element with low pressure for brackish water and wastewater reuse

SPECIFICATIONS:

General Features

Permeate flow rate:	10,000 GPD (37.8 m³/day)
Nominal salt rejection:	99.6%
Effective membrane area:	400 ft² (37.2 m²)
Feed spacer thickness:	34mil

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **1,500 mg/L NaCl solution at 150 psig (1.0 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. Minimum salt rejection is 99.4%.
3. Permeate flow rate for each element may vary but will be no more than 15%.
4. All elements are vacuum sealed in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution and individually packaged in a cardboard box.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-connector	Brine Seal
RE8040-FLR34	40.0 inch (1,016 mm)	8.0inch (201 mm)	1.12 inch (28 mm)	15 kg	40000308	40000309

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All RE8040 elements fit nominal 8.0 inch (201 mm) I.D. pressure vessels.

RE8040-FLR34

CSM®

Fouling resistant RO element with low pressure for brackish water and wastewater reuse

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	75 gpm (17.0 m^3/hr)
	· Min. Concentrate Flow Rate	16 gpm (3.6 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

TORAY 8” Membranes

Ref. MTML20D-400

Low fouling and high tolerance RO

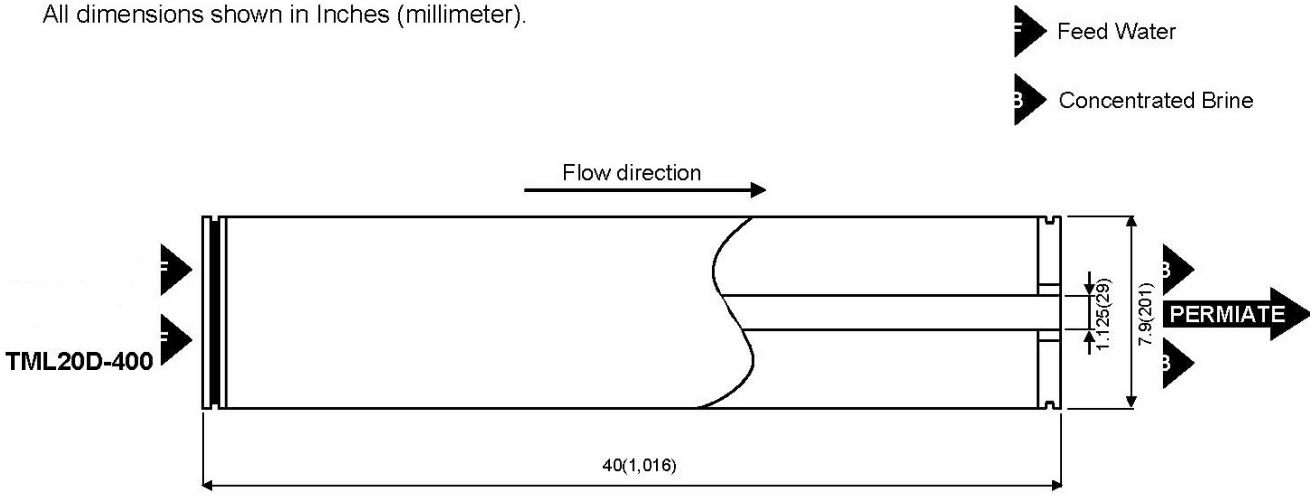
TML(D)

Type	Diameter Inch	Membrane Area $ft^2(m^2)$	Salt Rejection %	Product Flow Rate $gpd(m^3/d)$	Feed Spacer Thickness mil
TML20D-400	8”	400(37)	99.8	10,500(39.7)	34

1. Membrane Type		Cross Linked Fully Aromatic Polyamide Composite
2. Test Conditions	Feed Water Pressure Feed Water Temperature Feed Water Concentration Recovery Rate Feed Water pH	225 psi(1.55 MPa) 77 ° F(25 ℃) 2,000 mg/l NaCl 15 % 7
3. Minimum Salt Rejection		99.65 %
4. Minimum Product Flow Rate		8,400 gpd(31.8 m^3/d)

Dimensions

All dimensions shown in Inches (millimeter).



TORAY 8” Membranes

Operating Limits

Maximum Operating Pressure	600psi (4.1 MPa)
Maximum Feed Water Temperature	113° F (45°C)
Maximum Feed Water SDI_{15}	5
Feed Water Chlorine Concentration	<0.1ppm
Feed Water pH Range, Continuous Operation	2-11
Feed Water pH Range, Chemical Cleaning	1-13
Maximum Pressure Drop per Element	15 psi (0.10 MPa)
Maximum Pressure Drop per Vessel	50 psi (0.34 MPa)

Operating Information

1. For the recommended design range, please consult the latest Toray technical bulletin, design guide lines, computer design program, and/ or call an application specialist. If the operating limits given in this Product Information Bulletin are not strictly followed, the Limited Warranty will be null and void.
2. All elements are wet tested, treated with a 1% by weight percent sodium bisulfite storage solution, and then vacuum packed in oxygen barrier bags, or treated with tested feed water solution, and then vacuum packed in oxygen barrier bags with deoxidant inside. To prevent biological growth during short term storage, shipment, or system shutdown, it is recommended that Toray elements be immersed in a protective solution containing 500 - 1,000 ppm of sodium bisulfite (food grade) dissolved in permeate.
3. The presence of free chlorine and other oxidizing agents under certain conditions, such as heavy metals which acts as oxidation catalyst in the feed water will cause unexpected oxidation of the membrane. It is strongly recommended to remove these oxidizing agents contained in feed water before operating RO system.
4. Permeate from the first hour of operation shall be discarded.
5. The customer is fully responsible for the effects of chemicals that are incompatible with the elements. Their use will void the element Limited Warranty.

Notice

1. Toray accepts no responsibility for results obtained by the application of this information or the safety or suitability of Toray's products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product combination for their own purposes.
2. All data may change without prior notice, due to technical modifications or production changes.

TORAY 8” Membranes

Ref. MTM820M-400

'TORAY'
Innovation by Chemistry

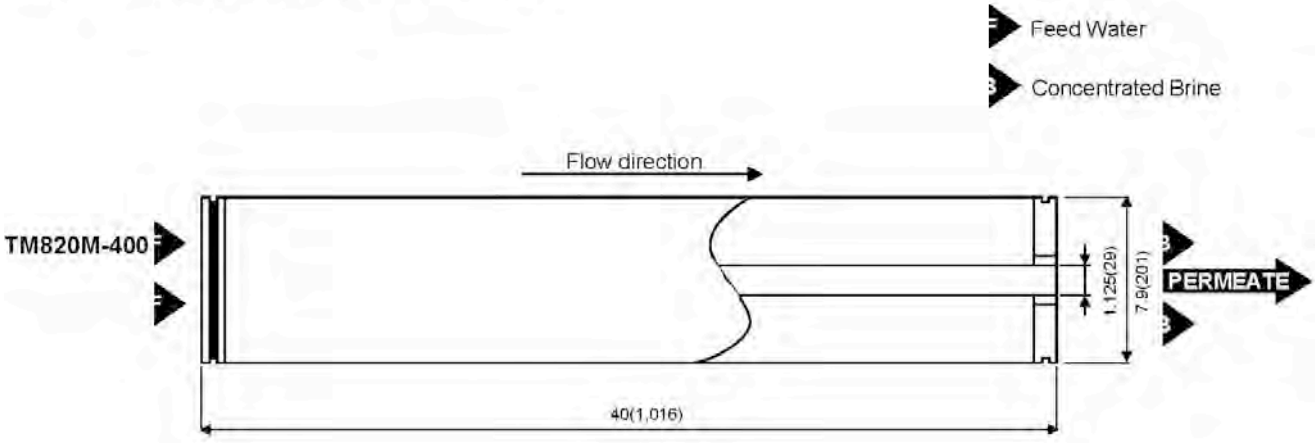
Standard SWRO
TM800M

Type	Diameter Inch	Membrane Area ft²(m²)	Salt Rejection %	Product Flow Rate gpd(m³ / d)	Feed Spacer Thickness mil
TM820M-400	8"	400(37)	99.8	7,000(26.5)	34

1. Membrane Type		Cross Linked Fully Aromatic Polyamide Composite
2. Test Conditions	Feed Water Pressure Feed Water Temperature Feed Water Concentration Recovery Rate Feed Water pH	800 psi(5.52MPa) 77° F(25°C) 32,000 mg/l Nacl 8% 7
3. Minimum Salt Rejection		99.5%
4. Minimum Product Flow Rate		5,600gpd(21.2m³/d)
5. Boron Rejection (typical value)		95% at pH 8 (5mg/l Boron added to Feed water)

Dimensions

All dimensions shown in Inches (millimeter).



TORAY 8” Membranes

Operating Limits

Maximum Operating Pressure	1200psi (8.3 MPa)
Maximum Feed Water Temperature	113° F (45℃)
Maximum Feed Water SDI_{15}	5
Feed Water Chlorine Concentration	Not detectable
Feed Water pH Range, Continuous Operation	2-11
Feed Water pH Range, Chemical Cleaning	1-12
Maximum Pressure Drop per Element	15 psi (0.10 MPa)
Maximum Pressure Drop per Vessel	50 psi (0.34 MPa)

Operating Information

1. For the recommended design range, please consult the latest Toray technical bulletin, design guidelines,computer design program, and/ or call an application specialist. If the operating limits given in this Product Information Bulletin are not strictly followed, the Limited Warranty will be null and void.
2. All elements are wet tested, treated with tested feed water solution, and then vacuum packed in oxygen barrier bags with deoxidant inside. To prevent biological growth during system shutdown, it is recommended to perform 30-60 minutes flushing of Toray elements with seawater once in every two days.
3. The presence of free chlorine and other oxidizing agents under certain conditions, such as heavy metals which acts as oxidation catalyst in the feed water will cause unexpected oxidation of the membrane. It is strongly recommended to remove these oxidizing agents contained in feed water before operating RO system.
4. Permeate from the first hour of operation shall be discarded.
5. The customer is fully responsible for the effects of chemicals that are incompatible with the elements. Their use will void the element Limited Warranty.

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TORAY 8” Membranes

Ref. MTM820M-440

TORAY
Innovation by Chemistry

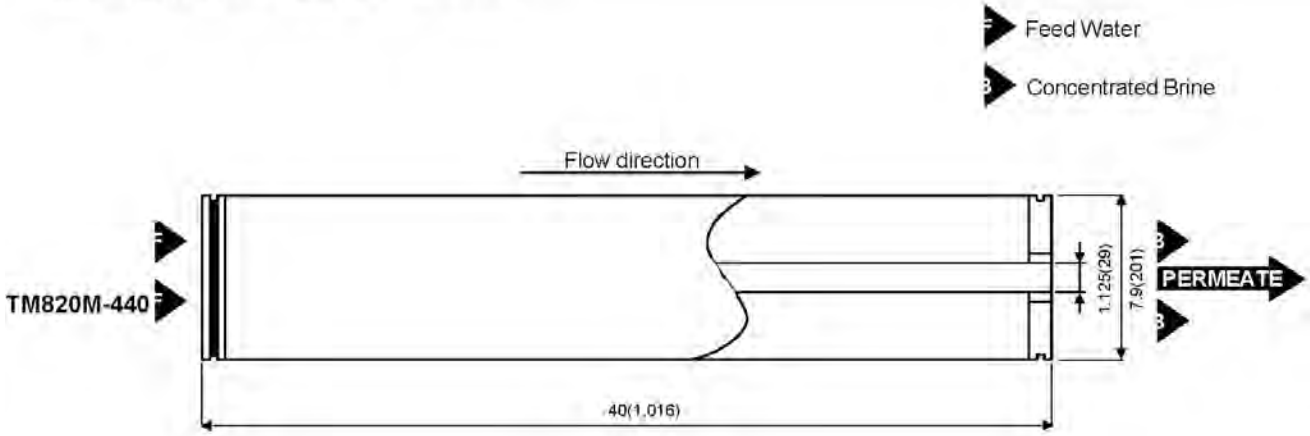
Standard SWRO
TM800M

Type	Diameter Inch	Membrane Area ft²(m²)	Salt Rejection %	Product Flow Rate gpd(m³ / d)	Feed Spacer Thickness mil
TM820M-440	8”	440(41)	99.8	7,700(29.2)	28

1. Membrane Type		Cross Linked Fully Aromatic Polyamide Composite
2. Test Conditions	Feed Water Pressure Feed Water Temperature Feed Water Concentration Recovery Rate Feed Water pH	800 psi(5.52MPa) 77° F(25°C) 32,000 mg/l Nacl 8% 7
3. Minimum Salt Rejection		99.5%
4. Minimum Product Flow Rate		6,200gpd(23.5m³/d)
5. Boron Rejection (typical value)		95% at pH 8 (5mg/l Boron added to Feed water)

Dimensions

All dimensions shown in Inches (millimeter).



TORAY 8” Membranes

Operating Limits

Maximum Operating Pressure	1200psi (8.3 MPa)
Maximum Feed Water Temperature	113° F (45℃)
Maximum Feed Water SDI_{15}	5
Feed Water Chlorine Concentration	Not detectable
Feed Water pH Range, Continuous Operation	2-11
Feed Water pH Range, Chemical Cleaning	1-12
Maximum Pressure Drop per Element	15 psi (0.10 MPa)
Maximum Pressure Drop per Vessel	50 psi (0.34 MPa)

Operating Information

1.For the recommended design range, please consult the latest Toray technical bulletin, design guidelines,computer design program, and/ or call an application specialist. If the operating limits given in this Product Information Bulletin are not strictly followed, the Limited Warranty will be null and void.

2. All elements are wet tested, treated with tested feed water solution, and then vacuum packed in oxygen barrier bags with deoxidant inside. To prevent biological growth during system shutdown, it is recommended to perform 30-60 minutes flushing of Toray elements with seawater once in every two days.

3.The presence of free chlorine and other oxidizing agents under certain conditions, such as heavy metals which acts as oxidation catalyst in the feed water will cause unexpected oxidation of the membrane. It is strongly recommended to remove these oxidizing agents contained in feed water before operating RO system.

4. Permeate from the first hour of operation shall be discarded.

5.The customer is fully responsible for the effects of chemicals that are incompatible with the elements. Their use will void the element Limited Warranty.

Notice

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TORAY 8” Membranes

Ref. MTM820V-400

'TORAY'
Innovation by Chemistry

Low energy SWRO
TM800V

Type	Diameter Inch	Membrane Area ft²(m²)	Salt Rejection %	Product Flow Rate gpd(m³ / d)	Feed Spacer Thickness mil
TM820V-400	8"	400(37)	99.8	9,000(34.1)	34

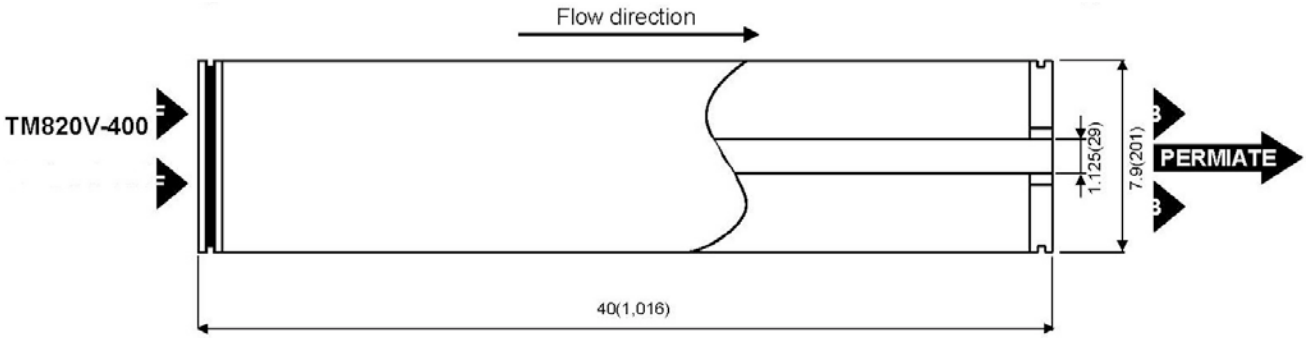
1. Membrane Type		Cross Linked Fully Aromatic Polyamide Composite
2. Test Conditions	Feed Water Pressure Feed Water Temperature Feed Water Concentration Recovery Rate Feed Water pH	800 psi(5.52MPa) 77° F(25°C) 32,000 mg/l Nacl 8% 7
3. Minimum Salt Rejection		99.5%
4. Minimum Product Flow Rate		7,500gpd(28.4m³/d)
5. Boron Rejection (typical value)		92% at pH 8 (5mg/l Boron added to Feed water)

Dimensions

All dimensions shown in Inches (millimeter).

F Feed Water

B Concentrated Brine



TORAY 8” Membranes

Operating Limits

Maximum Operating Pressure	1200psi (8.3 MPa)
Maximum Feed Water Temperature	113° F (45℃)
Maximum Feed Water SDI_{15}	5
Feed Water Chlorine Concentration	Not detectable
Feed Water pH Range, Continuous Operation	2-11
Feed Water pH Range, Chemical Cleaning	1-12
Maximum Pressure Drop per Element	15 psi (0.10 MPa)
Maximum Pressure Drop per Vessel	50 psi (0.34 MPa)

Operating Information

1. For the recommended design range, please consult the latest Toray technical bulletin, design guidelines,computer design program, and/ or call an application specialist. If the operating limits given in this Product Information Bulletin are not strictly followed, the Limited Warranty will be null and void.
2. All elements are wet tested, treated with tested feed water solution, and then vacuum packed in oxygen barrier bags with deoxidant inside. To prevent biological growth during system shutdown, it is recommended to perform 30-60 minutes flushing of Toray elements with seawater once in every two days.
3. The presence of free chlorine and other oxidizing agents under certain conditions, such as heavy metals which acts as oxidation catalyst in the feed water will cause unexpected oxidation of the membrane. It is strongly recommended to remove these oxidizing agents contained in feed water before operating RO system.
4. Permeate from the first hour of operation shall be discarded.
5. The customer is fully responsible for the effects of chemicals that are incompatible with the elements. Their use will void the element Limited Warranty.

Notice

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2. All data may change without prior notice, due to technical modifications or production changes.

TORAY 8” Membranes

Ref. MTM820V-440

'TORAY'
Innovation by Chemistry

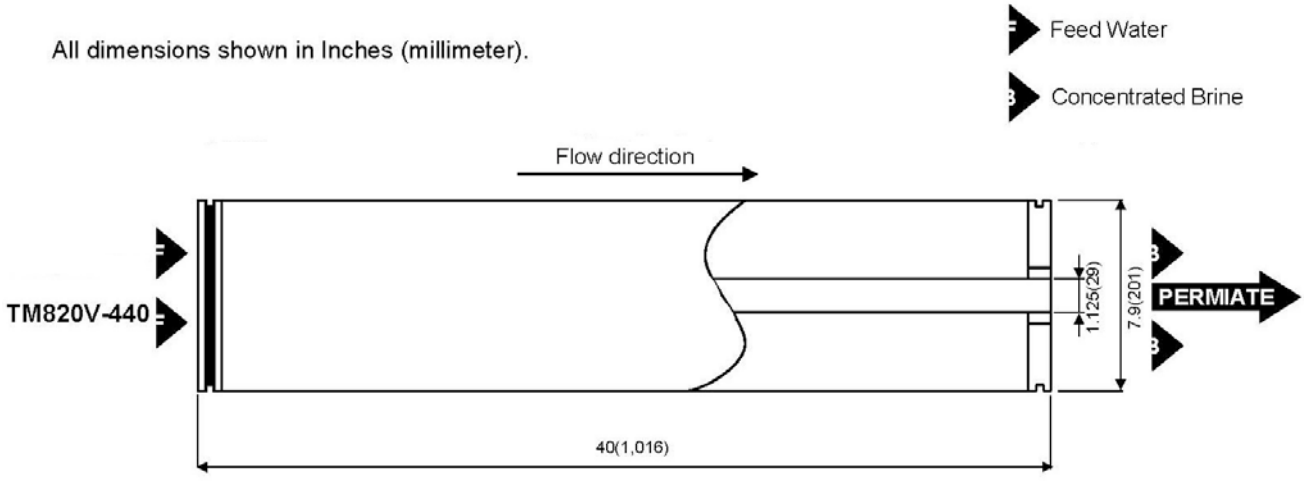
Low energy SWRO
TM800V

Type	Diameter Inch	Membrane Area ft²(m²)	Salt Rejection %	Product Flow Rate gpd(m³ / d)	Feed Spacer Thickness mil
TM820V-440	8"	440(41)	99.8	9,900(37.5)	28

1. Membrane Type		Cross Linked Fully Aromatic Polyamide Composite
2. Test Conditions	Feed Water Pressure Feed Water Temperature Feed Water Concentration Recovery Rate Feed Water pH	800 psi(5.52MPa) 77° F(25℃) 32,000 mg/l Nacl 8% 7
3. Minimum Salt Rejection		99.5%
4. Minimum Product Flow Rate		8,250gpd(31.2m³/d)
5. Boron Rejection (typical value)		92% at pH 8 (5mg/l Boron added to Feed water)

Dimensions

All dimensions shown in Inches (millimeter).



TORAY 8” Membranes

Operating Limits

Maximum Operating Pressure	1200psi (8.3 MPa)
Maximum Feed Water Temperature	113° F (45℃)
Maximum Feed Water SDI_{15}	5
Feed Water Chlorine Concentration	Not detectable
Feed Water pH Range, Continuous Operation	2-11
Feed Water pH Range, Chemical Cleaning	1-12
Maximum Pressure Drop per Element	15 psi (0.10 MPa)
Maximum Pressure Drop per Vessel	50 psi (0.34 MPa)

Operating Information

1. For the recommended design range, please consult the latest Toray technical bulletin, design guidelines,computer design program, and/ or call an application specialist. If the operating limits given in this Product Information Bulletin are not strictly followed, the Limited Warranty will be null and void.
2. All elements are wet tested, treated with tested feed water solution, and then vacuum packed in oxygen barrier bags with deoxidant inside. To prevent biological growth during system shutdown, it is recommended to perform 30-60 minutes flushing of Toray elements with seawater once in every two days.
3. The presence of free chlorine and other oxidizing agents under certain conditions, such as heavy metals which acts as oxidation catalyst in the feed water will cause unexpected oxidation of the membrane. It is strongly recommended to remove these oxidizing agents contained in feed water before operating RO system.
4. Permeate from the first hour of operation shall be discarded.
5. The customer is fully responsible for the effects of chemicals that are incompatible with the elements. Their use will void the element Limited Warranty.

Notice

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2. All data may change without prior notice, due to technical modifications or production changes.

Ref. MCNE8040-90

NE8040-90

CSM

Normal grade NF element with high monovalent ion rejection

SPECIFICATIONS:

General Features

Permeate flow rate[1]:	8,000 GPD (30.3 m^3/day)
Monovalent ion rejection (NaCl)[1]:	85.0 – 97.0%
Divalent ion rejection ($CaCl_2$)[2]:	90.0 – 97.0%
Effective membrane area:	400 ft^2 (37.2 m^2)

1. The stated product performance is based on data taken after 30 minutes of operation at the following monovalent test conditions:
   - **2,000 mg/L NaCl solution at 75 psig (0.5 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. The stated product performance is based on data taken after 30 minutes of operation at the following divalent test conditions:
   - **500 mg/L $CaCl_2$ solution at 75 psig (0.5 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
3. $MgSO_4$ rejection is 97.0%. (Test conditions are equivalent with NaCl)
4. Permeate flow rate for each element may vary but will be no more than 15%.
5. Elements can be supplied as dry or wet-type. Wet-tested elements are soaked in a preservative solution (1.0% food grade SBS) and vacuum sealed in a poly bag. All elements are individually boxed.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-connector	Brine Seal
NE8040-90	40.0 inch (1,016 mm)	8.0inch (201 mm)	1.12 inch (28 mm)	15 kg	40000308	40000309

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All NE8040 elements fit nominal 8.0 inch (201 mm) I.D. pressure vessels.

NE8040-90

Normal grade NF element with high monovalent ion rejection

CSM

APPLICATION DATA:

Operating Limits	Max. Pressure Drop / Element	15 psi (0.1 MPa)
	Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	Max. Operating Pressure	600 psi (4.14 MPa)
	Max. Feed Flow Rate	75 gpm (17.0 m^3/hr)
	Min. Concentrate Flow Rate	16 gpm (3.6 m^3/hr)
	Max. Operating Temperature	113 °F (45 °C)
	Operating pH Range	2.0–11.0
	CIP pH Range	1.0–13.0
	Max. Turbidity	1.0 NTU
	Max. SDI (15 min)	5.0
	Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	Wastewater Conventional (SDI < 5)	8–12 gfd
	Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	Seawater, Open Intake (SDI < 5)	7–10 gfd
	Seawater, Beach Well (SDI < 3)	8–12 gfd
	Surface Water (SDI < 5)	12–16 gfd
	Surface Water (SDI < 3)	13–17 gfd
	Well water (SDI < 3)	13–17 gfd
	RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	Langlier Saturation Index (LSI)	<+1.5
	Stiff and Davis Saturation Index (SDSI)	<+0.5
	$CaSO_4$	230% saturation
	$SrSO_4$	800% saturation
	$BaSO_4$	6,000% saturation
	SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Wet elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCNE8040-70

NE8040-70

CSM

Normal grade NF element with high monovalent ion rejection

SPECIFICATIONS:

General Features

Permeate flow rate[1]:	7,000 GPD (26.5 m³/day)
Monovalent ion rejection (NaCl)[1]:	40.0 – 70.0%
Divalent ion rejection ($CaCl_2$)[2]:	45.0 – 70.0%
Effective membrane area:	400 ft² (37.2 m²)

1. The stated product performance is based on data taken after 30 minutes of operation at the following monovalent test conditions:
   - **2,000 mg/L NaCl solution at 75 psig (0.5 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. The stated product performance is based on data taken after 30 minutes of operation at the following divalent test conditions:
   - **500 mg/L $CaCl_2$ solution at 75 psig (0.5 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
3. $MgSO_4$ rejection is 97.0%. (Test conditions are equivalent with NaCl)
4. Permeate flow rate for each element may vary but will be no more than 20%.
5. Elements are supplied as dry-type. Dry elements are sealed in a poly bag and individually boxed.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-connector	Brine Seal
NE8040-70	40.0 inch (1,016 mm)	8.0inch (201 mm)	1.12 inch (28 mm)	15 kg	40000308	40000309

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All NE8040 elements fit nominal 8.0 inch (201 mm) I.D. pressure vessels.

NE8040-70

Normal grade NF element with high monovalent ion rejection

CSM

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	75 gpm (17.0 m^3/hr)
	· Min. Concentrate Flow Rate	16 gpm (3.6 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

Ref. MCNE8040-40

NE8040-40

High productivity NF element

CSM

SPECIFICATIONS:

General Features

Permeate flow rate:	10,000 GPD (37.9 m³/day)
Nominal salt rejection:	20 – 40%
Effective membrane area:	400 ft² (37.2 m²)

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   - **2,000 mg/L NaCl solution at 75 psig (0.5 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**
2. $MgSO_4$ rejection is 97.0% (Test conditions are equivalent with NaCl)
3. Permeate flow rate for each element may vary but will be no more than 20%.
4. Elements are supplied as dry-type. Dry elements are sealed in a poly bag and individually boxed.

Membrane type:	Thin-Film Composite
Membrane material:	Polyamide (PA)
Element configuration:	Spiral-Wound, FRP Wrapping

Dimensions and Weight

Model Name	A	B	C	Weight	Part Number	
					Inter-connector	Brine Seal
NE8040-40	40.0 inch (1,016 mm)	8.0inch (201 mm)	1.12 inch (28 mm)	15 kg	40000308	40000309

1. Each membrane element supplied with one brine seal, one interconnector (coupler) and four o-rings.
2. All NE8040 elements fit nominal 8.0 inch (201 mm) I.D. pressure vessels.

NE8040-40

High productivity NF element

CSM

APPLICATION DATA:

Operating Limits	· Max. Pressure Drop / Element	15 psi (0.1 MPa)
	· Max. Pressure Drop / 240” Vessel	60 psi (0.41 Mpa)
	· Max. Operating Pressure	600 psi (4.14 MPa)
	· Max. Feed Flow Rate	75 gpm (17.0 m^3/hr)
	· Min. Concentrate Flow Rate	16 gpm (3.6 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· CIP pH Range	1.0–13.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L
Design Guidelines for Various Water Sources	· Wastewater Conventional (SDI < 5)	8–12 gfd
	· Wastewater Pretreated by UF/MF (SDI < 3)	10–14 gfd
	· Seawater, Open Intake (SDI < 5)	7–10 gfd
	· Seawater, Beach Well (SDI < 3)	8–12 gfd
	· Surface Water (SDI < 5)	12–16 gfd
	· Surface Water (SDI < 3)	13–17 gfd
	· Well water (SDI < 3)	13–17 gfd
	· RO permeate (SDI < 1)	21–30 gfd
Saturation Limits (Using Antiscalants)†	· Langlier Saturation Index (LSI)	<+1.5
	· Stiff and Davis Saturation Index (SDSI)	<+0.5
	· $CaSO_4$	230% saturation
	· $SrSO_4$	800% saturation
	· $BaSO_4$	6,000% saturation
	· SiO_2	100% saturation

†The above saturation limits are typically accepted by proprietary antiscalant manufacturers. It is the user’s responsibility to ensure proper chemical(s) and concentration are dosed ahead of the membrane system to prevent scale formation anywhere within the membrane system. Membrane elements fouled or damaged due to scale formation are not covered by the limited warranty.

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Avoid excessive pressure and flow spikes.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

CSM Membranes Brine Seal and Interconnector

- Each membrane element supplied with one brine seal and one interconnector (excepted for 2,5” membrane element, supplied without interconnector).

BRINE SEAL				
REF.	**DESCRIPTION**	**MATERIAL**	**FOR MEMBRANES**	
DC005	EPDM BRINE SEAL 2.5" CSM	EPDM	2,5”	
DD003	EPDM BRINE SEAL 4" CSM	EPDM	4”	
EA798	EPDM BRINE SEAL 8" CSM	EPDM	8”	

INTERCONNECTOR					
REF.	**DESCRIPTION**	**MATERIAL**	**COLOR**	**FOR MEMBRANES**	
DD004	ABS FEMALE INTERCONNECTOR CSM 2.5" & 4" WITH O-RING	ABS	WHITE	2,5” – 4”	
EA797	ABS MALE INTERCONNECTOR 1.5" CSM WITH O-RING	ABS	WHITE	8”	
EA799	ABS MALE INTERCONNECTOR 1.125" CSM WITH O-RING -BW TYPE	ABS	BLACK	8”	
EA800	NORYL MALE INTERCONNECTOR 1.125" CSM WITH O-RING - SW TYPE	NORYL	BLACK	8”	

Antiscaling for R. O. Membranes
Permascale Eut 110

- PERMASCALE EUT110 is a product that prevents scales and iron sediment on R.O. membranes systems;
- for industrial systems and for potable water treatment systems;
- very effective on various kinds of water, minimize the fouling and reduce the frequency of membranes cleaning;
- particularly suitable for big plants with permeate flows higher than 100 m^3/day;
- compatible with all kinds of membranes;
- replace totally or partially the acidification;
- easy to use due to the liquid form.

Characteristics	
Formulation	special phosphonated
pH	7,8 ± 0,5
Appearance	light yellow liquid
Density @ 20°C	1,30 ± 0,05 g/ml
Checking	phosphonated value
Solubility in water	complete

REF.	
EA100	

Use

Injection by dosing pump of pure or diluted product.
The dosage is according to the concentration of scaling salts and iron, and can vary from 2 to 10 cm^3/m^3 of feed water.

Instructions and Packaging

Handling: following safety data sheet. Take the normal precautions to handle chemical products.

Packaging: 25 kg drum.

Storage: closed on the original packaging, sheltered from cold and heat.

Antiscaling for R.O. Membranes
Permascale EUT 120

- PERMASCALE EUT120 is a product that prevents scales and iron sediment on R.O. membranes systems;
- very effective on various kinds of water, minimize the fouling and reduce the frequency of membranes cleaning;
- particularly suitable for plants with permeate flows lower than 100 m^3/day;
- compatible with all kinds of membranes;
- replace totally or partially the acidification;
- easy to use due to the liquid form.

Characteristics	
Formulation	special phosphonated
pH	7,5 ± 0,5
Appearance	light yellow liquid
Density @ 20°C	1,30 ± 0,02 g/ml
Checking	phosphonated value
Solubility in water	complete

REF.	
EA101	

Use

Injection by dosing pump of pure or diluted product.
The dosage is according to the concentration of scaling salts and iron, and can vary from 3 to 13 cm^3/m^3 of feed water.

Instructions and Packaging

Handling : following safety data sheet. Take the normal precautions to handle chemical products.
Packaging: 25 kg drum.
Storage: closed on the original packaging, sheltered from cold and heat.

Antiscaling for R. O. Membranes
PermaTreat PC-391T

- PermaTreat PC-391T is recommended for systems that produce less than 545 m^3/day (100 GPM) of permeate. This program is less concentrated than PermaTreat PC-191T and, therefore, offers the benefits and advantages of neat feed for smaller RO systems;
- PermaTreat PC-391T has exhibited excellent performance against the following foulants: calcium carbonate, calcium sulfate, barium sulfate, strontium sulfate and iron;
- Packaging: 25 kg drum.

Physical & Chemical Properties	
Color	Clear, yellow
Form	Liquid
Odor	Slight ammonia smell
Specific gravity @ 25°C	1,10
pH (Neat)	10,8
Solubility in water	Complete

REF.	
EA102 (*)	

(*) not available in stock.

Compatible Materials
Stainless Steel 304, CPVC Piping, Polyethylene, Polypropylene, Plasite 4300 and Plasite 7122.
All membrane elements based on Polyamide chemistries including Thin Film Composite (TFC) membranes when used as directed.

Not Compatible Materials
Neoprene, Hypalon elastomer, Buna-N and EPDM: P.S. for all these materials, O-rings are acceptable for static applications. If the fitting is opened, O-ring must be replaced.
Brass, Polyurethane and Viton.

Dosage and Feeding
PermaTreat PC-391T must be fed continuously. The feedpoint location should be as close to the RO membrane as practical but one that ensures good mixing with the feedwater prior to entering the RO system.
PermaTreat PC-391T dosage is dependent on feedwater chemistry, membrane type, system operating parameters (e.g., recovery, temperature and pressure). These parameters determine the potential foulant that is likely to foul the membrane elements.
Please, consult our Technical Department for detailed dosage and feeding information.

Antiscaling for R. O. Membranes
PermaTreat PC-391T

CONSEQUENCES OF OVERFEED
Overfeed of PermaTreat PC-391T will result in higher chemical cost.

CONSEQUENCES OF UNDERFEED
Underfeed of PermaTreat PC-391T will result in poor scale inhibition. This will lead to fouled RO membranes and reduce system performance and/or premature membrane replacement. In RO units, scaling is typically seen in the tail-end elements that have the highest reject concentration (4:1 for a 75% recovery system).

Please, consult our Technical Department for detailed dosage and feeding information.

ENVIRONMENTAL AND TOXICITY DATA
Refer to the MSDS for all available mammalian and aquatic toxicity information.

	ppm/ppm product
Biological Oxygen Demand (5-day BOD_5)	Not Available
Chemical Oxygen Demand (COD)	Not Available
Total Organic Carbon (TOC)	Not Available

SAFETY AND HANDLING
Before using PermaTreat PC-391T, please refer to the Material Safety Data Sheet (MSDS) for proper personal protective equipment (PPE) and for health effects.

STORAGE
PermaTreat PC-391T has a suggested in-plant storage limit of one year. The suggested maximum storage temperature is 38°C.
Refer to the (MSDS) for the most current data.

REMARKS
For Medical and Transportation Emergencies, please see the MSDS.

Antiscaling for R. O. Membranes
PermaTreat PC-191T

- PermaTreat PC-191T is a highly effective scale inhibitor whose active components were developed to treat reverse osmosis (RO) systems;
- PermaTreat PC-191T has shown excellent performance against the following scalants: calcium carbonate, calcium sulfate, barium sulfate, strontium sulfate, calcium fluoride, silica and iron;
- **For RO units with a feedwater flowrate of 545 m^3/day (100 GPM) or less, the recommended product would be PermaTreat PC-391T (our ref. EA102);**
- PermaTreat PC-191T is used when the silica level in the brine is less than 185 mg/l at a brine pH of 7,5 and temperature 25°C;
- Packaging: 25 kg drum.

Physical & Chemical Properties	
Color	Clear, yellow
Form	Liquid
Odor	Slight ammonia smell
Specific gravity @ 25°C	1,36
pH (Neat)	10,5
Solubility in water	Complete

REF.	
EA103 (*)	

(*) not available in stock.

Compatible Materials
Stainless Steel 304, CPVC Piping, Polyethylene, Polypropylene, Plasite 4300 and Plasite 7122.
All membrane elements based on Polyamide chemistries including Thin Film Composite (TFC) membranes when used as directed.

Not Compatible Materials
Neoprene, Hypalon elastomer, Buna-N and EPDM: P.S. for all these materials, O-rings are acceptable for static applications. If the fitting is opened, O-ring must be replaced.
Brass, Polyurethane and Viton.

Dosage and Feeding
PermaTreat PC-191T must be fed continuously. The feedpoint location should be as close to the RO membrane as practical but one that ensures good mixing with the feedwater prior to entering the RO system.
PermaTreat PC-191T dosage is dependent on feedwater chemistry, membrane type, system operating parameters (e.g., recovery, temperature and pressure). These parameters determine the potential foulant that is likely to foul the membrane elements.
Please, consult our Technical Department for detailed dosage and feeding information.

Antiscaling for R. O. Membranes
PermaTreat PC-191T

CONSEQUENCES OF OVERFEED
Overfeed of PermaTreat PC-191T will result in higher chemical cost.

CONSEQUENCES OF UNDERFEED
Underfeed of PermaTreat PC-191T will result in poor scale inhibition. This will lead to fouled RO membranes and reduce system performance and/or premature membrane replacement. In RO units, scaling is typically seen in the tail-end elements that have the highest reject concentration (4:1 for a 75% recovery system).

Please, consult our Technical Department for detailed dosage and feeding information.

ENVIRONMENTAL AND TOXICITY DATA
Refer to the MSDS for all available mammalian and aquatic toxicity information.

	ppm/ppm product
Biological Oxygen Demand (5-day BOD_5)	Not Available
Chemical Oxygen Demand (COD)	Not Available
Total Organic Carbon (TOC)	Not Available

SAFETY AND HANDLING
Before using PermaTreat PC-191T, please refer to the Material Safety Data Sheet (MSDS) for proper personal protective equipment (PPE) and for health effects.

STORAGE
PermaTreat PC-191T has a suggested in-plant storage limit of one year. The suggested maximum storage temperature is 38°C.
Refer to the (MSDS) for the most current data.

REMARKS
For Medical and Transportation Emergencies, please see the MSDS.

TORAY PVDF Hollow Fiber Membrane Module
HFU series (type N)

- Membrane Material = PVDF (Polyvinylidene fluoride);
- Housing Material = PVC and/or ABS;
- Potting Material = Epoxy Resin or Urethane Resin;
- Nominal Molecular Weight Cut Off = 150.000;
- Cleaning pH Range 0 ÷ 12;
- Maximum Cleaning Temperature 40°C;
- Maximum Concentration of NaClO Cleaning as Cl_2 = 3.000 mg/liter (10≤pH≤12);
- Maximum NaClO Exposure (lifetime contact time) as Cl_2 = 1.000.000 mg/liter hours;
- Maximum Acid Exposure Contact Time = 1.000 hours (pH≥0).

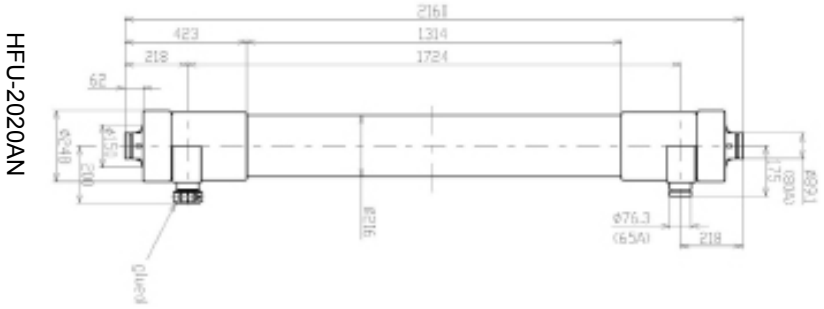
OPERATING CONDITIONS	
Filtration Method	Outside to inside, dead end
Maximum Inlet Pressure	300 kPa (43,5 psi)
Maximum Trans Membrane Pressure	300 kPa (43,5 psi)
Typical Operating Trans Membrane Pressure	< 200 kPa (<29,0 psi)
Operating Temperature Range	0÷40°C
Operating pH Range	1÷10

REF.	**MODULE TYPE**	**MEMBRANE SURFACE AREA (OUTER SURFACE)**	**DIAMETER**	**LENGTH**	**WEIGHT (FULL OF WATER)**	**WEIGHT (DRAINED)**	
		m^2 (ft^2)	**mm**	**mm**	**kg**	**kg**	
MTHFU-2020AN (*)	HFU-2020AN	72 (775)	216	2160	110	67	
MTHFU-1020N (*)	HFU-1020N	29 (312)	216	1120	60	40	
MTHFU-1010N (*)	HFU-1010N	7 (75)	114	1078	15	9	
MTHFU-2008N (*)	HFU-2008N	11,5 (124)	89	2000	18	11	

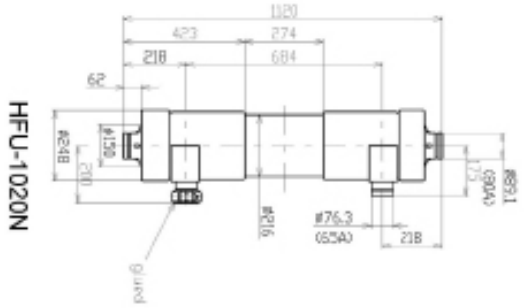
(*) not available in stock.

TORAY PVDF Hollow Fiber Membrane Module
HFU series (type N)

HFU-2020AN

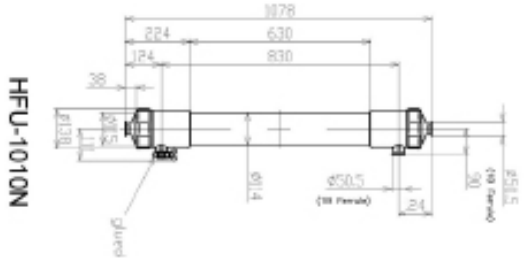


HFU-1020N



Dimensions in mm

HFU-1010N



HFU-2008N

Vessels, accessories, rotary pumps

EUROTROL®
WATER TREATMENT COMPONENTS

MWG®
ITALIAN WATER TECHNOLOGY

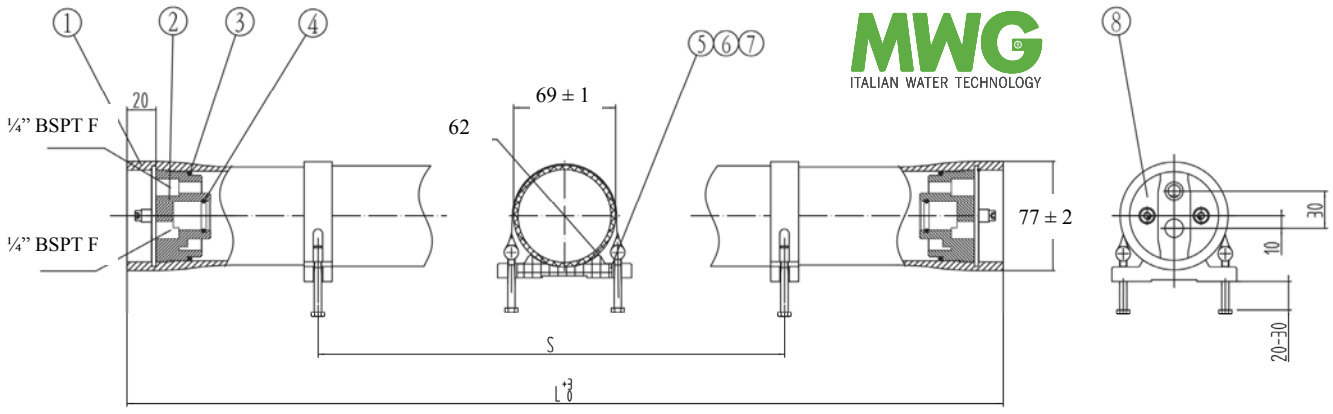
Engineered by Eurotrol S.p.A.

2 ½” Membrane Vessels
End Port Series 300 E-2.5

- fiberglass reinforced plastic pressure vessels series 300 E-2.5, D.75” direct connection, white painted, UVA-ray proof material;
- end-cap in ABS;
- max operating pressure 300 psi (21 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- connections: feed/concentrate ¼” BSPT F, permeate ¼” BSPT F;
- straps and saddles included.

REF.	MODEL	ELEMENTS	L (mm)	S (mm)	
H2E1BQ	300 E – 2514	1 x 14”	427	200	
H2E1BV	300 E – 2521	1 x 21”	605	400	
H2E1B1	300 E – 2.5 – 1	1 x 40”	1088	700	

PRODUCT BY MWG ITALIAN WATER TECHNOLOGY



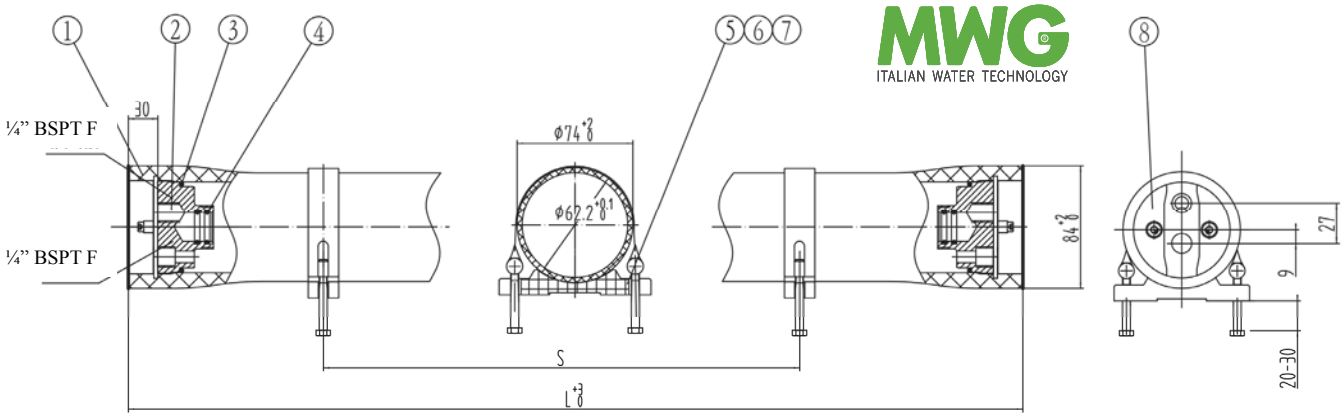
SPARE PARTS						
ITEM	REF.	DESCRIPTION	Q.TY	MATERIAL	REMARK	
1		Pressure Shell	1	Epoxy FRP	White	
2 + 4	H2R011	End Plate	2	ABS		
3	H2R103	Head Seal	2	EPDM	56x3,55	
4	H2R101	Adapter Seal	2	EPDM	19x2,65	
5	H2R001	Saddle	2	Rubber		
7 + 6	H2R003	Strap	2	AISI 304 - rubber		
8	H2R041	Seeger	4	AISI 304		

2 ½” Membrane Vessels
End Port Series 1000 E-2.5

- fiberglass reinforced plastic pressure vessels series 1000 E-2.5, D.75” direct connection, white painted, UVA-ray proof material;
- end-cap in super duplex steel AISI 2507;
- max operating pressure 1000 psi (69 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- connections: feed/concentrate ¼” BSPT F, permeate ¼” BSPT F;
- straps and saddles included.

REF.	MODEL	ELEMENTS	L (mm)	S (mm)	
H2E1GV	1000 E – 2521	1 x 21”	629	400	
H2E1G1	1000 E – 2.5 – 1	1 x 40”	1112	700	

PRODUCT BY MWG ITALIAN WATER TECHNOLOGY



SPARE PARTS						
Item	**Ref.**	**Description**	**Q.ty**	**Material**	**Remark**	
1		Pressure Shell	1	Epoxy FRP	White	
2 + 4	H2R013	End Plate	2	Super Duplex Steel AISI 2507		
3	H2R103	Head Seal	2	EPDM	56x3,55	
4	H2R101	Adapter Seal	4	EPDM	19x2,65	
5	H2R001	Saddle	2	Rubber		
7 + 6	H2R005	Strap	2	AISI 304 - Rubber		
8	H2R041	Seeger	4	AISI 316		

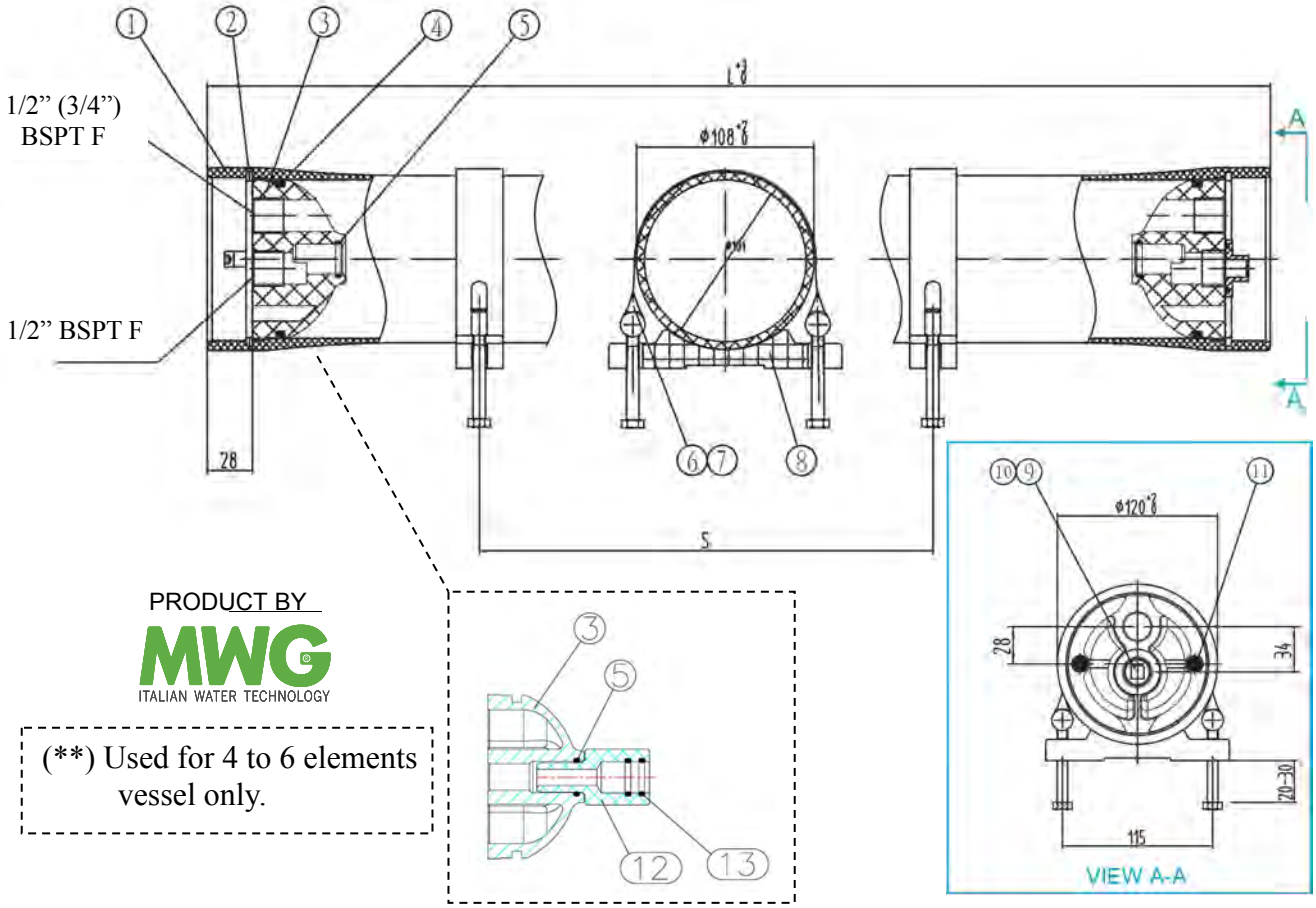
4” Membrane Vessels End Port Series 300 E-4

- fiberglass reinforced plastic pressure vessels series 300 E-4, D.75” direct connection, white painted, UVA-ray proof material;
- end-cap in ABS;
- max operating pressure 300 psi (21 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- permeate connections ½” BSPT F;
- straps and saddles included (n.2 pcs from 1 to 3 elements, n.3 pcs from 4 to 6 elements).

REF.	MODEL	ELEMENTS	L (mm)	S (mm)	CONNECTIONS FEED / CONCENTRATE	
H4E2BV	300 E – 4021	1 x 21”	658	400	½” BSPT F	
H4E3BV	300 E – 4021	1 x 21”	658	400	¾” BSPT F	
H4E2B1	300 E – 4 – 1	1 x 40”	1140	600	½” BSPT F	
H4E3B1	300 E – 4 – 1	1 x 40”	1140	600	¾” BSPT F	
H4E2B2	300 E – 4 – 2	2 x 40”	2156	1200	½” BSPT F	
H4E3B2	300 E – 4 – 2	2 x 40”	2156	1200	¾” BSPT F	
H4E2B3	300 E – 4 – 3	3 x 40”	3172	2200	½” BSPT F	
H4E3B3	300 E – 4 – 3	3 x 40”	3172	2200	¾” BSPT F	
H4E2B4 (*)	300 E – 4 – 4	4 x 40”	4268	1600x2	½” BSPT F	
H4E3B4 (*)	300 E – 4 – 4	4 x 40”	4268	1600x2	¾” BSPT F	
H4E2B5 (*)	300 E – 4 – 5	5 x 40”	5284	2300x2	½” BSPT F	
H4E3B5 (*)	300 E – 4 – 5	5 x 40”	5284	2300x2	¾” BSPT F	
H4E2B6 (*)	300 E – 4 – 6	6x 40”	6300	2700x2	½” BSPT F	
H4E3B6 (*)	300 E – 4 – 6	6 x 40”	6300	2700x2	¾” BSPT F	

(*) not available in stock – Minimum delivery 10-12 weeks.

4” Membrane Vessels End Port Series 300 E-4



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(**) Used for 4 to 6 elements vessel only.

SPARE PARTS						
Item	**Ref.**	**Description**	**Quantity**	**Material**	**Remark**	
1		Pressure Shell	1	Epoxy FRP	White	
2	H4R041	Seeger	4	AISI 304		
3 + 5	H4R401	End Plate	2	ABS	½” ½”	
	H4R403	End Plate	2	ABS	¾” ½”	
4	H4R107	Head Seal	2	EPDM	90x5,3	
5	H2R101	Adapter Seal	2	EPDM	19x2,65	
6 + 7	H4R003	Strap	2 - 3	AISI 304 - Rubber		
8	H4R001	Saddle	2 - 3	Rubber		
9	H4R081	Plug	1	ABS		
10	H4R101	O-ring of Plug	1	EPDM	23,6x3,55	
11	H4R209	Seeger Screw	4	AISI 304	M6x14	
12 + 13	H4R601	Adapter	2 (**)	ABS		
13	H2R101	Adapter Seal	4 (**)	EPDM	19x2,65	

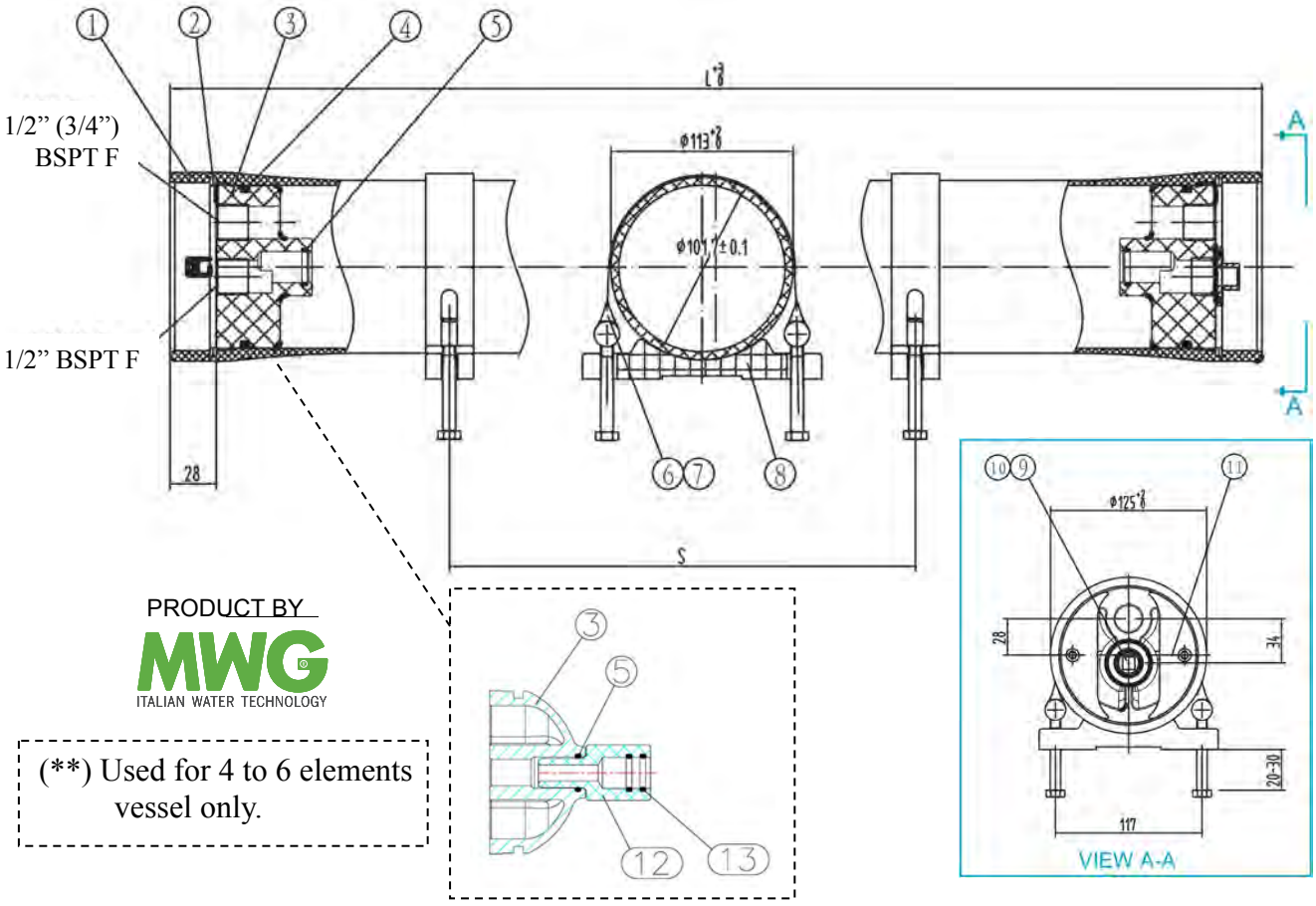
4” Membrane Vessels End Port Series 450 E-4

- fiberglass reinforced plastic pressure vessels series 450 E-4, D.75” direct connection, white painted, UVA-ray proof material;
- end-cap in ABS;
- max operating pressure 450 psi (31 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- permeate connections ½” BSPT F;
- straps and saddles included (n.2 pcs from 1 to 3 elements, n.3 pcs from 4 to 6 elements).

REF.	MODEL	ELEMENTS	L (mm)	S (mm)	CONNECTIONS FEED / CONCENTRATE	
H4E2CV	450 E – 4021	1 x 21”	670	400	½” BSPT F	
H4E2C1	450 E – 4 – 1	1 x 40”	1152	600	½” BSPT F	
H4E3C1	450 E – 4 – 1	1 x 40”	1152	600	¾” BSPT F	
H4E2C2	450 E – 4 – 2	2 x 40”	2168	1200	½” BSPT F	
H4E3C2	450 E – 4 – 2	2 x 40”	2168	1200	¾” BSPT F	
H4E2C3	450 E – 4 – 3	3 x 40”	3184	2200	½” BSPT F	
H4E3C3	450 E – 4 – 3	3 x 40”	3184	2200	¾” BSPT F	
H4E2C4 (*)	450 E – 4 – 4	4 x 40”	4280	1600x2	½” BSPT F	
H4E3C4 (*)	450 E – 4 – 4	4 x 40”	4280	1600x2	¾” BSPT F	
H4E2C5 (*)	450 E – 4 – 5	5 x 40”	5296	2300x2	½” BSPT F	
H4E3C5 (*)	450 E – 4 – 5	5 x 40”	5296	2300x2	¾” BSPT F	
H4E2C6 (*)	450 E – 4 – 6	6 x 40”	6312	2700x2	½” BSPT F	
H4E3C6 (*)	450 E – 4 – 6	6 x 40”	6312	2700x2	¾” BSPT F	

(*) not available in stock – Minimum delivery 10-12 weeks.

4” Membrane Vessels End Port Series 450 E-4



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(**) Used for 4 to 6 elements vessel only.

SPARE PARTS						
ITEM	**REF.**	**DESCRIPTION**	**Q.TY**	**MATERIAL**	**REMARK**	
1		Pressure Shell	1	Epoxy FRP	White	
2	H4R041	Seeger	4	AISI 304		
3 + 5	H4R401	End Plate	2	ABS	½” ½”	
	H4R403	End Plate	2	ABS	¾” ½”	
4	H4R107	Head Seal	2	EPDM	90x5,3	
5	H2R101	Adapter Seal	2	EPDM	19x2,65	
6 + 7	H4R003	Strap	2 - 3	AISI 304 - Rubber		
8	H4R001	Saddle	2 - 3	Rubber		
9	H4R081	Plug	1	ABS		
10	H4R101	O-ring of Plug	1	EPDM	23,6x3,55	
11	H4R209	Seeger Screw	4	AISI 304	M6x14	
12 + 13	H4R601	Adapter	2 (**)	ABS		
13	H2R101	Adapter Seal	4 (**)	EPDM	19x2,65	

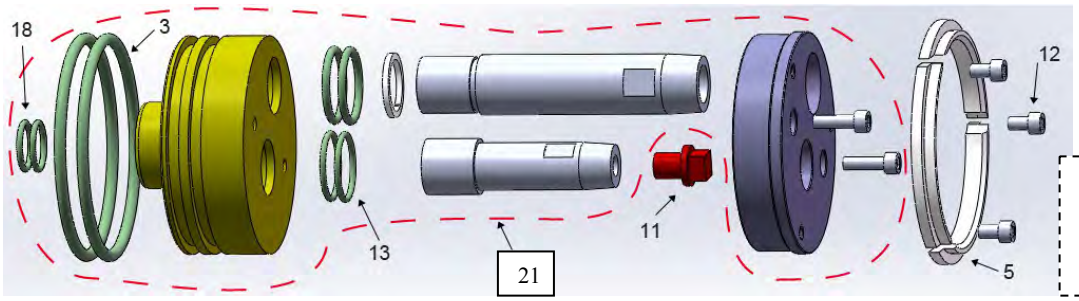
4” Membrane Vessels End Port Series 600 E-4

- fiberglass reinforced plastic pressure vessels series 600 E-4, complete with 0,75” adapters, white painted, UVA-ray proof material;
- max operating pressure 600 psi (41 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- feed/concentrate connections ¾” BSPT M, in super duplex steel AISI 2507;
- permeate connections ½” BSPT M;
- straps and saddles included (n.2 pcs from 1 to 3 elements, n.3 pcs from 4 to 6 elements).

(*) not available in stock – Minimum delivery 10-12 weeks.

REF.	MODEL	ELEMENTS	L (mm)	S (mm)	
H4E4DV	600 E-4021	1 x 21”	762	400	
H4E4D1	600 E-4-1	1 x 40”	1244	600	
H4E4D2 (*)	600 E-4-2	2 x 40”	2260	1200	
H4E4D3 (*)	600 E-4-3	3 x 40”	3276	2200	
H4E4D4 (*)	600 E-4-4	4 x 40”	4372	1600x2	

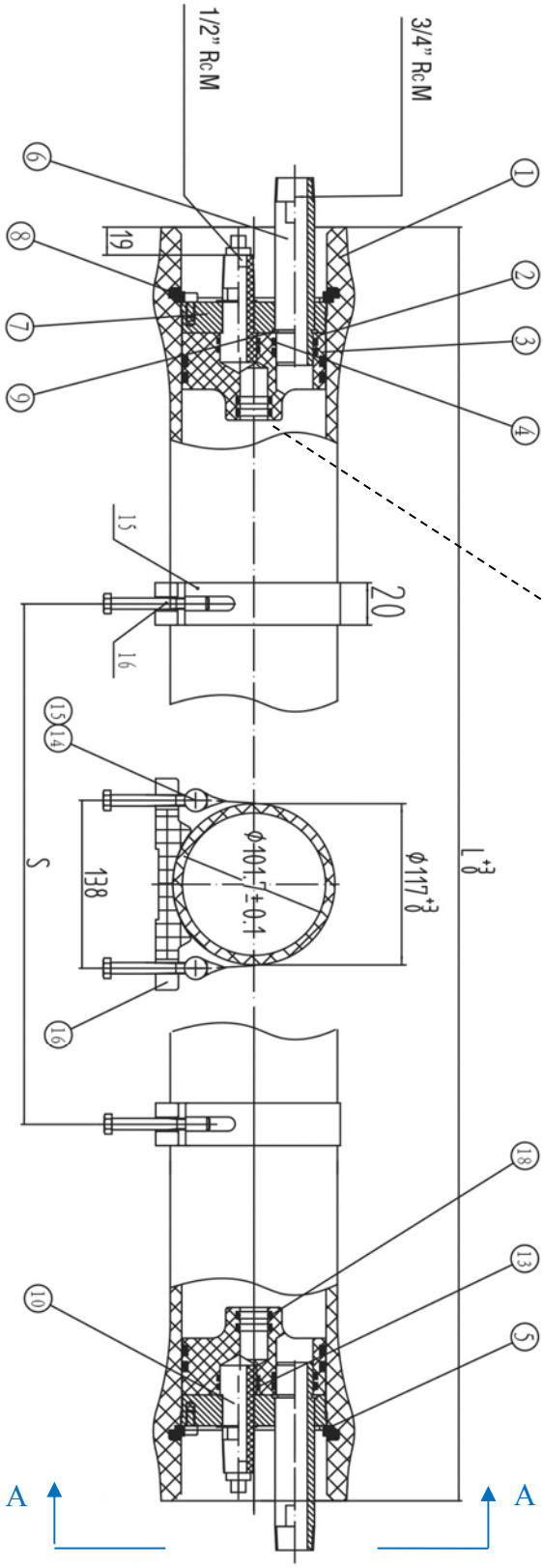
SPARE PARTS:



(**) Used for 4 to 6 elements vessel only.

ITEM	REF.	DESCRIPTION	Q.TY	MATERIAL	REMARK	
3	H4R107	Head Seal	4	EPDM	90x5,3	
5	H4R045	Locking Kit (n.3 Segments)	2	AISI 316		
11	H4R083	Plug	1	ABS		
12	H4R205	Securing Screw	6	AISI 304	M6x20	
13	H4R111	Permeate Port O-ring	4	EPDM	25x2,65	
14 + 15	H4R005	Strap	2-3	AISI 304 - Rubber		
16	H4R001	Saddle	2-3	Rubber		
18	H2R101	Adapter Seal	4	EPDM	19x2,65	
19 + 20	H4R601	Adapter	2 (**)	ABS		
20	H2R101	Adapter Seal	4 (**)	EPDM	19x2,65	
21	H4R707	Head Assembly end port	2			

4” Membrane Vessels End Port Series 600 E-4



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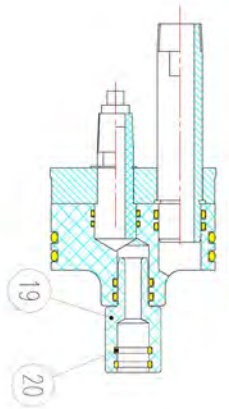
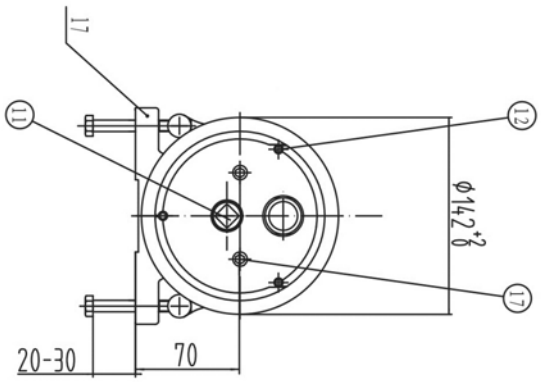
(**) Used for 4 to 6 elements vessel only.



VIEW A – A



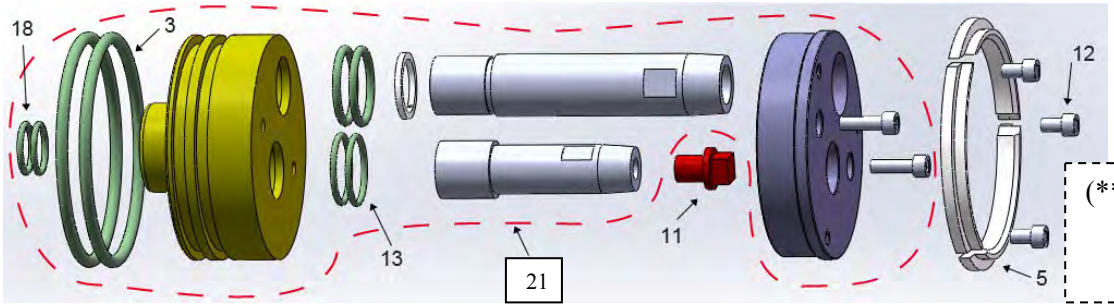
4” Membrane Vessels End Port Series 1000 E-4

- fiberglass reinforced plastic pressure vessels series 1000 E-4, complete with 0,75” adapters, white painted, UVA-ray proof material;
- max operating pressure 1000 psi (69 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- feed/concentrate connections ¾” BSPT M, in super duplex steel AISI 2507;
- permeate connections ½” BSPT M;
- straps and saddles included (n.2 pcs from 1 to 3 elements, n.3 pcs from 4 to 6 elements).

(*) not available in stock – Minimum delivery 10-12 weeks.

REF.	MODEL	ELEMENTS	L (mm)	S (mm)	
H4E4GV	1000 E-4021	1 x 21”	762	400	
H4E4G1	1000 E-4-1	1 x 40”	1244	600	
H4E4G2	1000 E-4-2	2 x 40”	2260	1200	
H4E4G3	1000 E-4-3	3 x 40”	3276	2200	
H4E4G4 (*)	1000 E-4-4	4 x 40”	4372	1600x2	
H4E4G5 (*)	1000 E-4-5	5 x 40”	5388	2300x2	
H4E4G6 (*)	1000 E-4-6	6 x 40”	6404	2700x2	

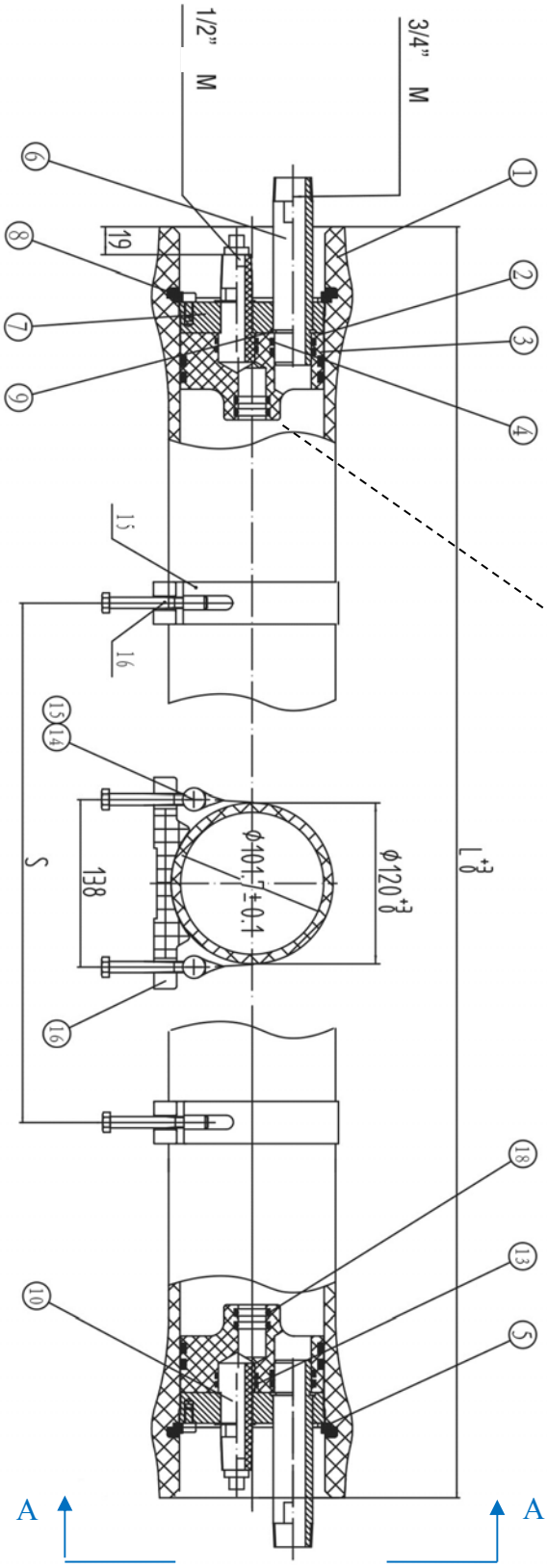
SPARE PARTS:



(**) Used for 4 to 6 elements vessel only.

ITEM	REF.	DESCRIPTION	Q.TY	MATERIAL	REMARK	
3	H4R107	Head Seal	4	EPDM	90x5,3	
5	H4R045	Locking Kit (n.3 Segments)	2	AISI 316		
11	H4R083	Plug	1	ABS		
12	H4R205	Securing Screw	6	AISI 304	M6x20	
13	H4R111	Permeate Port O-ring	4	EPDM	25x2,65	
14 + 15	H4R005	Strap	2-3	AISI 304 - Rubber		
16	H4R001	Saddle	2-3	Rubber		
18	H2R101	Adapter Seal	4	EPDM	19x2,65	
19 + 20	H4R601	Adapter	2 (**)	ABS		
20	H2R101	Adapter Seal	4 (**)	EPDM	19x2,65	
21	H4R707	Head Assembly end port	2			

4” Membrane Vessels End Port Series 1000 E-4



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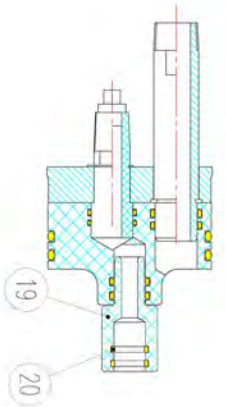
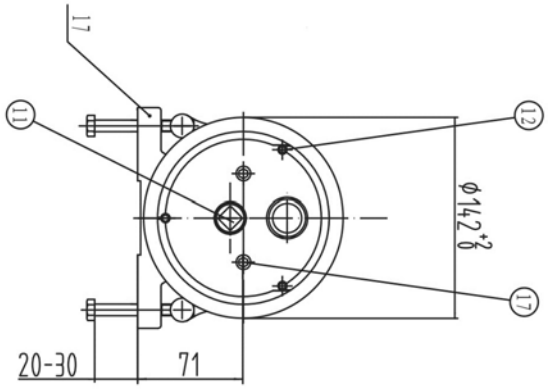
(**) Used for 4 to 6 elements vessel only.



VIEW A – A



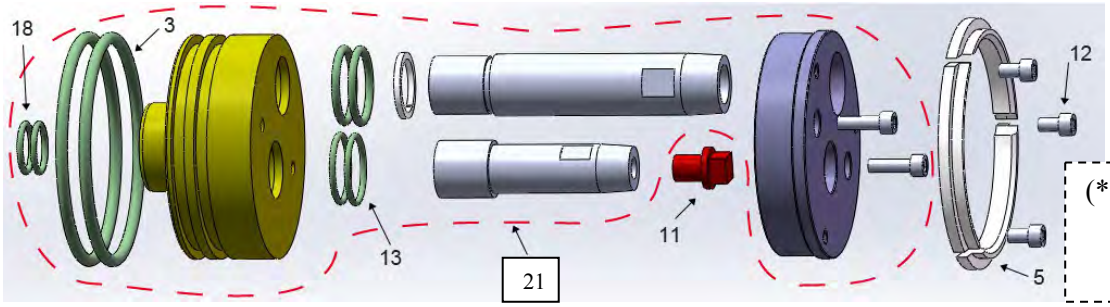
4” Membrane Vessels End Port Series 1200 E-4

- fiberglass reinforced plastic pressure vessels series 1200 E-4, complete with 0,75” adapters, white painted, UVA-ray proof material;
- max operating pressure 1200 psi (83 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- feed/concentrate connections ¾” BSPT M, in super duplex steel AISI 2507;
- permeate connections ½” BSPT M;
- straps and saddles included (n.2 pcs from 1 to 3 elements, n.3 pcs from 4 to 6 elements).

(*) not available in stock – Minimum delivery 10-12 weeks.

REF.	MODEL	ELEMENTS	L (mm)	S (mm)	
H4E4H1	1200 E-4-1	1 x 40”	1244	600	
H4E4H2	1200 E-4-2	2 x 40”	2260	1200	
H4E4H3	1200 E-4-3	3 x 40”	3276	2200	
H4E4H4 (*)	1200 E-4-4	4 x 40”	4372	1600x2	
H4E4H5 (*)	1200 E-4-5	5 x 40”	5388	2300x2	
H4E4H6 (*)	1200 E-4-6	6 x 40”	6404	2700x2	

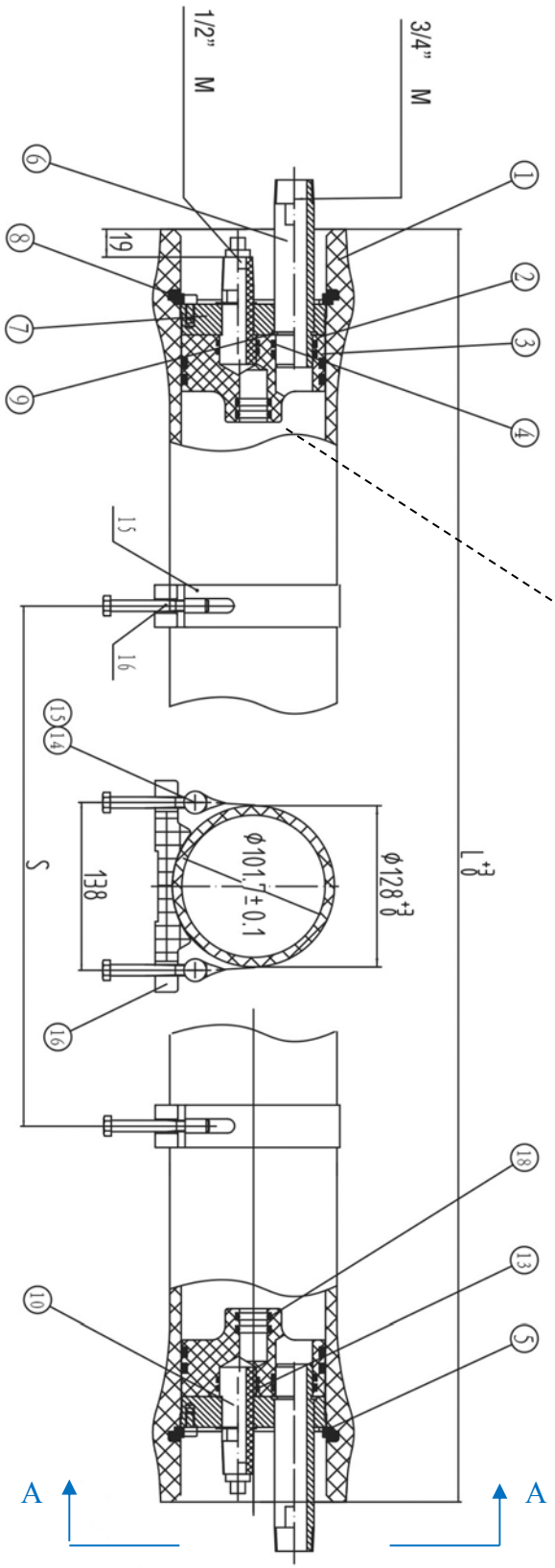
SPARE PARTS:



(**) Used for 4 to 6 elements vessel only.

ITEM	REF.	DESCRIPTION	Q.TY	MATERIAL	REMARK	
3	H4R107	Head Seal	4	EPDM	90x5,3	
5	H4R045	Locking Kit (n.3 Segments)	2	AISI 316		
11	H4R083	Plug	1	ABS		
12	H4R205	Securing Screw	6	AISI 304	M6x20	
13	H4R111	Permeate Port O-ring	4	EPDM	25x2,65	
14 + 15	H4R005	Strap	2-3	AISI 304 - Rubber		
16	H4R001	Saddle	2-3	Rubber		
18	H2R101	Adapter Seal	4	EPDM	19x2,65	
19 + 20	H4R601	Adapter	2 (**)	ABS		
20	H2R101	Adapter Seal	4 (**)	EPDM	19x2,65	
21	H4R707	Head Assembly end port	2			

4” Membrane Vessels End Port Series 1200 E-4



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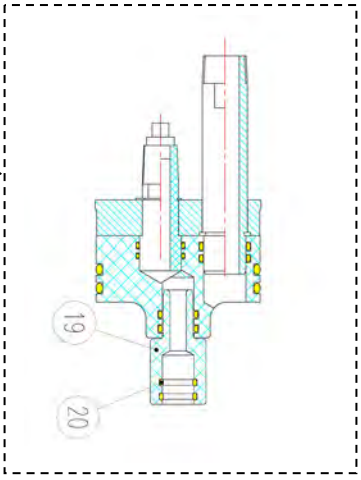
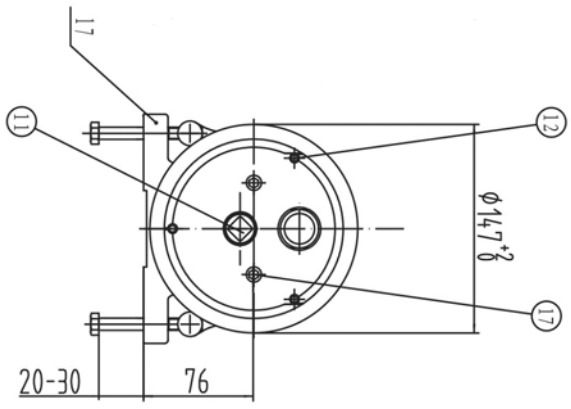
(**) Used for 4 to 6 elements vessel only.

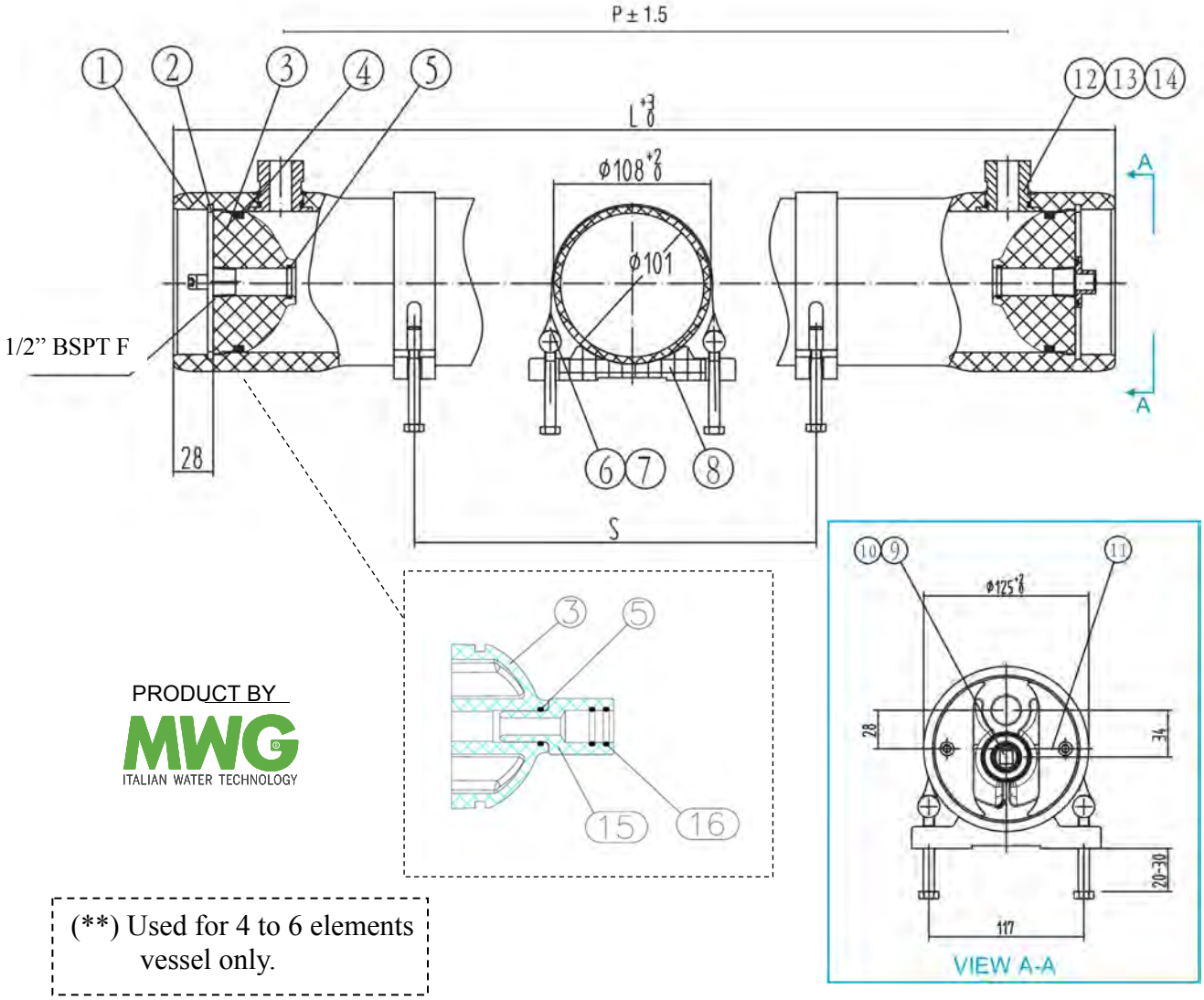


VIEW A – A



4” Membrane Vessels Side Port Series 300 S-4

- fiberglass reinforced plastic pressure vessels series 300 S-4, D.75” direct connection, white painted, UVA-ray proof material;
- max operating pressure 300 psi (21 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- feed/concentrate connections 1” Victaulic, 0° or 180° oriented;
- permeate connections ½” BSPT F;
- straps and saddles included (n.2 pcs from 1 to 3 elements, n.3 pcs from 4 to 6 elements).



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(**) Used for 4 to 6 elements vessel only.

4” Membrane Vessels Side Port Series 300 S-4

REF.	MODEL	ELEMENTS	L (mm)	P (mm)	S (mm)	ORIENT.	
H410B1 (*)	300 S-4-1D5D-1	1 x 40”	1140	984	600	0°	
H410B2 (*)	300 S-4-1D5D-2	2 x 40”	2156	2000	1200	0°	
H410B3 (*)	300 S-4-1D5D-3	3 x 40”	3172	3016	2200	0°	
H410B4 (*)	300 S-4-1D5D-4	4 x 40”	4268	4112	1600x2	0°	
H410B5 (*)	300 S-4-1D5D-5	5 x 40”	5284	5128	2300x2	0°	
H410B6 (*)	300 S-4-1D5D-6	6 x 40”	6300	6144	2700x2	0°	
H412B1	300 S-4-1D7D-1	1 x 40”	1140	984	600	180°	
H412B2	300 S-4-1D7D-2	2 x 40”	2156	2000	1200	180°	
H412B3	300 S-4-1D7D-3	3 x 40”	3172	3016	2200	180°	
H412B4 (*)	300 S-4-1D7D-4	4 x 40”	4268	4112	1600x2	180°	
H412B5 (*)	300 S-4-1D7D-5	5 x 40”	5284	5128	2300x2	180°	
H412B6 (*)	300 S-4-1D7D-6	6 x 40”	6300	6144	2700x2	180°	

(*) not available in stock – Minimum delivery 10-12 weeks.

SPARE PARTS						
ITEM	REF.	DESCRIPTION	QUANTITY	MATERIAL	REMARK	
1		Pressure Shell	1	Epoxy FRP	White	
2	H4R041	Seeger	4	AISI 304		
3 + 5	H4R405	End Plate	2	ABS		
4	H4R107	Head Seal	2	EPDM	90x5,3	
5	H2R101	Adapter Seal	2	EPDM	19x2,65	
6 + 7	H4R003	Strap	2 - 3	AISI 304 - Rubber		
8	H4R001	Saddle	2 - 3	Rubber		
9	H4R081	Plug	1	ABS		
10	H4R101	O-ring of Plug	1	EPDM	23,6x3,55	
11	H4R209	Seeger Screw	4	AISI 304	M6x14	
15+16	H4R601	Adapter	2 (**)	ABS		
16	H2R101	Adapter Seal	4 (**)	EPDM	19x2,65	

(**) Used for 4 to 6 elements vessel only.

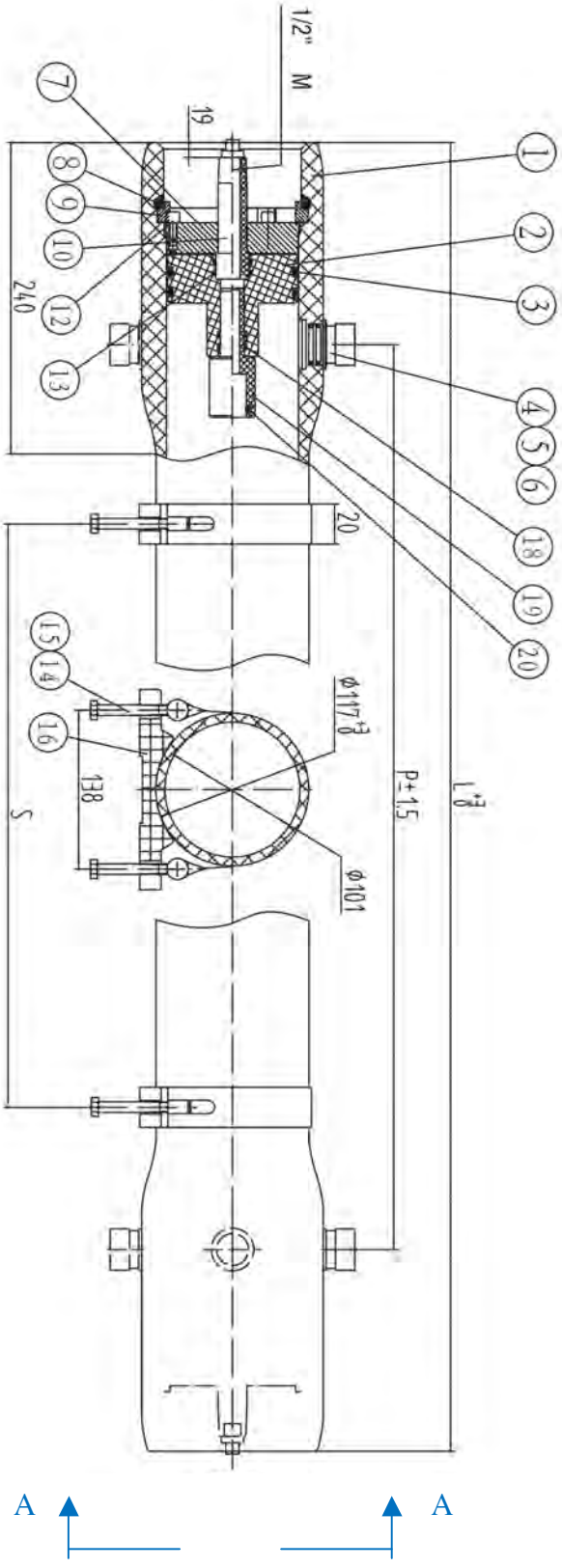
4” Membrane Vessels Side Port Series 600 S-4

- fiberglass reinforced plastic pressure vessels series 600 S-4, D.75” direct connection, white painted, UVA-ray proof material;
- max operating pressure 600 psi (41 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- feed/conc. connections 1” Victaulic, 0° or 180° oriented, in super duplex steel AISI 2507;
- permeate connections ½” BSPT M;
- straps and saddles included (n.2 pcs from 1 to 3 elements, n.3 pcs from 4 to 6 elements).

REF.	MODEL	ELEMENTS	L (mm)	P (mm)	S (mm)	ORIENT.	
H410D1 (*)	600 S-4-1D5D-1	1 x 40”	1364	1036	600	0°	
H410D2 (*)	600 S-4-1D5D-2	2 x 40”	2380	2052	1200	0°	
H410D3 (*)	600 S-4-1D5D-3	3 x 40”	3396	3068	2200	0°	
H410D4 (*)	600 S-4-1D5D-4	4 x 40”	4412	4084	1600x2	0°	
H410D5 (*)	600 S-4-1D5D-5	5 x 40”	5428	5100	2300x2	0°	
H410D6 (*)	600 S-4-1D5D-6	6 x 40”	6444	6116	2700x2	0°	
H412D1	600 S-4-1D7D-1	1 x 40”	1364	1036	600	180°	
H412D2	600 S-4-1D7D-2	2 x 40”	2380	2052	1200	180°	
H412D3	600 S-4-1D7D-3	3 x 40”	3396	3068	2200	180°	
H412D4 (*)	600 S-4-1D7D-4	4 x 40”	4412	4084	1600x2	180°	
H412D5 (*)	600 S-4-1D7D-5	5 x 40”	5428	5100	2300x2	180°	
H412D6 (*)	600 S-4-1D7D-6	6 x 40”	6444	6116	2700x2	180°	

(*) not available in stock – Minimum delivery 10-12 weeks.

4” Membrane Vessels Side Port Series 600 S-4



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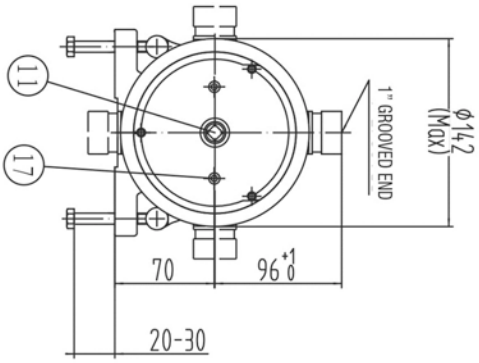
VIEW A – A



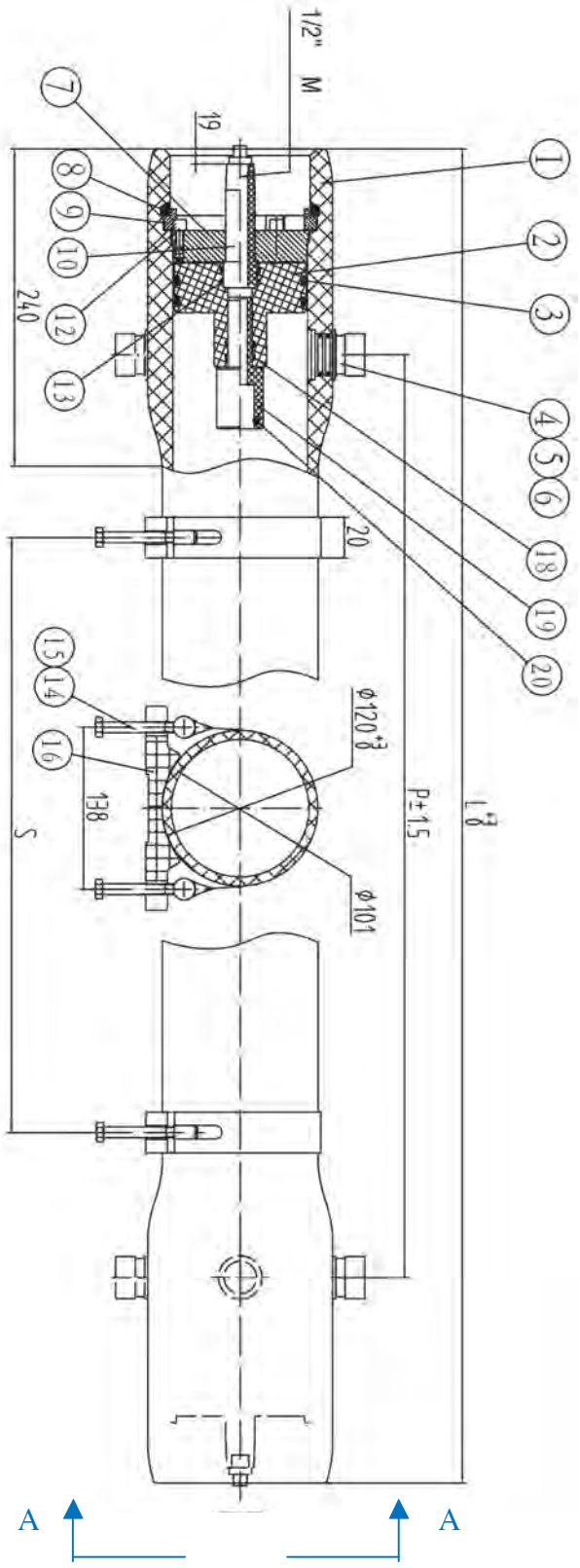
4” Membrane Vessels Side Port Series 1000 S-4

- fiberglass reinforced plastic pressure vessels series 1000 S-4, D.75” direct connection, white painted, UVA-ray proof material;
- max operating pressure 1000 psi (69 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- feed/conc. connections 1” Victaulic, 0° or 180° oriented, in super duplex steel AISI 2507;
- permeate connections ½” BSPT M;
- straps and saddles included (n.2 pcs from 1 to 3 elements, n.3 pcs from 4 to 6 elements).

REF.	MODEL	ELEMENTS	L (mm)	P (mm)	S (mm)	ORIENT.	
H410G1 (*)	1000 S-4-1D5D-1	1 x 40”	1364	1036	600	0°	
H410G2 (*)	1000 S-4-1D5D-2	2 x 40”	2380	2052	1200	0°	
H410G3 (*)	1000 S-4-1D5D-3	3 x 40”	3396	3068	2200	0°	
H410G4 (*)	1000 S-4-1D5D-4	4 x 40”	4412	4084	1600x2	0°	
H410G5 (*)	1000 S-4-1D5D-5	5 x 40”	5428	5100	2300x2	0°	
H410G6 (*)	1000 S-4-1D5D-6	6 x 40”	6444	6116	2700x2	0°	
H412G1	1000 S-4-1D7D-1	1 x 40”	1364	1036	600	180°	
H412G2	1000 S-4-1D7D-2	2 x 40”	2380	2052	1200	180°	
H412G3	1000 S-4-1D7D-3	3 x 40”	3396	3068	2200	180°	
H412G4 (*)	1000 S-4-1D7D-4	4 x 40”	4412	4084	1600x2	180°	
H412G5 (*)	1000 S-4-1D7D-5	5 x 40”	5428	5100	2300x2	180°	
H412G6 (*)	1000 S-4-1D7D-6	6 x 40”	6444	6116	2700x2	180°	

(*) not available in stock – Minimum delivery 10-12 weeks.

4” Membrane Vessels Side Port Series 1000 S-4



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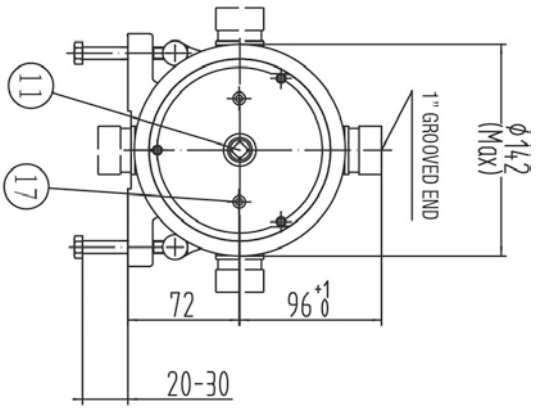


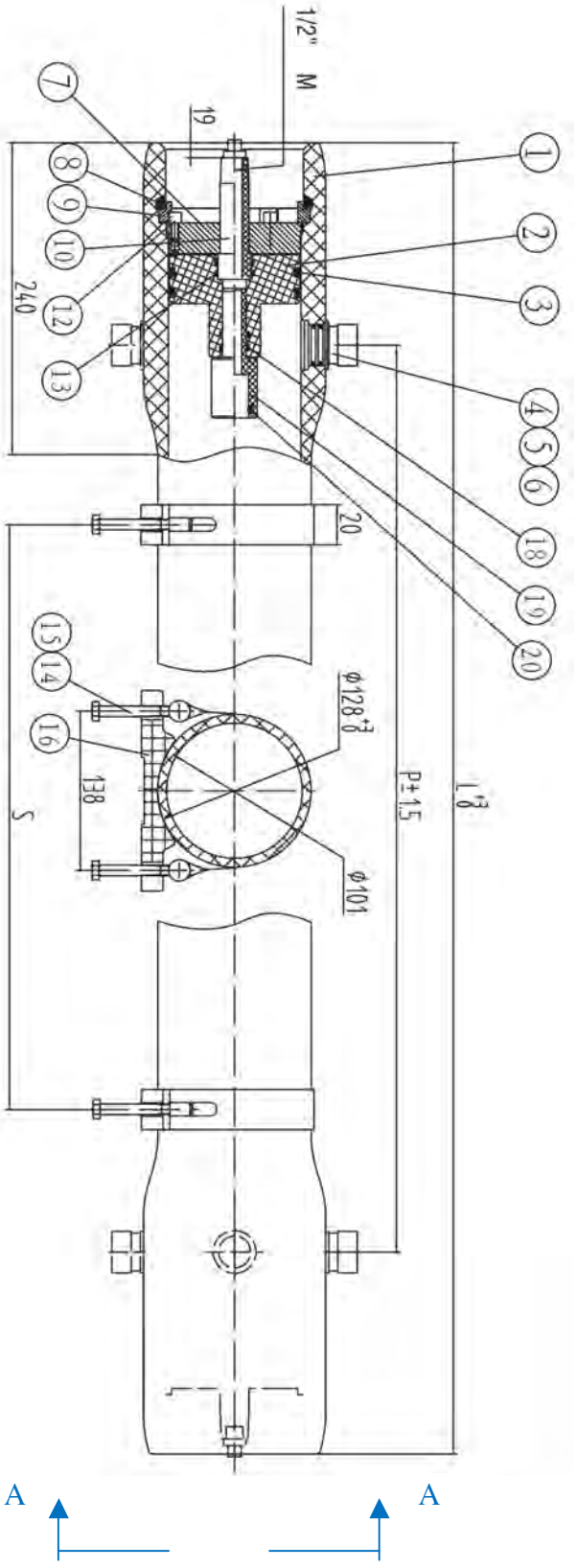
4” Membrane Vessels Side Port Series 1200 S-4

- fiberglass reinforced plastic pressure vessels series 1200 S-4, D.75” direct connection, white painted, UVA-ray proof material;
- max operating pressure 1200 psi (83 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- feed/conc. connections 1” Victaulic, 0° or 180° oriented, in super duplex steel AISI 2507;
- permeate connections ½” BSPT M;
- straps and saddles included (n.2 pcs from 1 to 3 elements, n.3 pcs from 4 to 6 elements).

REF.	MODEL	ELEMENTS	L (mm)	P (mm)	S (mm)	ORIENT.	
H410H1 (*)	1200 S-4-1D5D-1	1 x 40”	1364	1036	600	0°	
H410H2 (*)	1200 S-4-1D5D-2	2 x 40”	2380	2052	1200	0°	
H410H3 (*)	1200 S-4-1D5D-3	3 x 40”	3396	3068	2200	0°	
H410H4 (*)	1200 S-4-1D5D-4	4 x 40”	4412	4084	1600x2	0°	
H410H5 (*)	1200 S-4-1D5D-5	5 x 40”	5428	5100	2300x2	0°	
H410H6 (*)	1200 S-4-1D5D-6	6 x 40”	6444	6116	2700x2	0°	
H412H1	1200 S-4-1D7D-1	1 x 40”	1364	1036	600	180°	
H412H2	1200 S-4-1D7D-2	2 x 40”	2380	2052	1200	180°	
H412H3	1200 S-4-1D7D-3	3 x 40”	3396	3068	2200	180°	
H412H4 (*)	1200 S-4-1D7D-4	4 x 40”	4412	4084	1600x2	180°	
H412H5 (*)	1200 S-4-1D7D-5	5 x 40”	5428	5100	2300x2	180°	
H412H6 (*)	1200 S-4-1D7D-6	6 x 40”	6444	6116	2700x2	180°	

(*) not available in stock – Minimum delivery 10-12 weeks.

4” Membrane Vessels Side Port Series 1200 S-4



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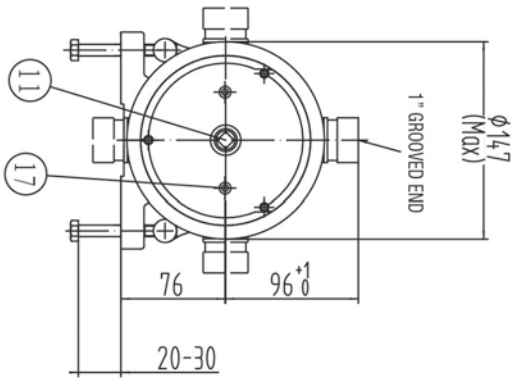
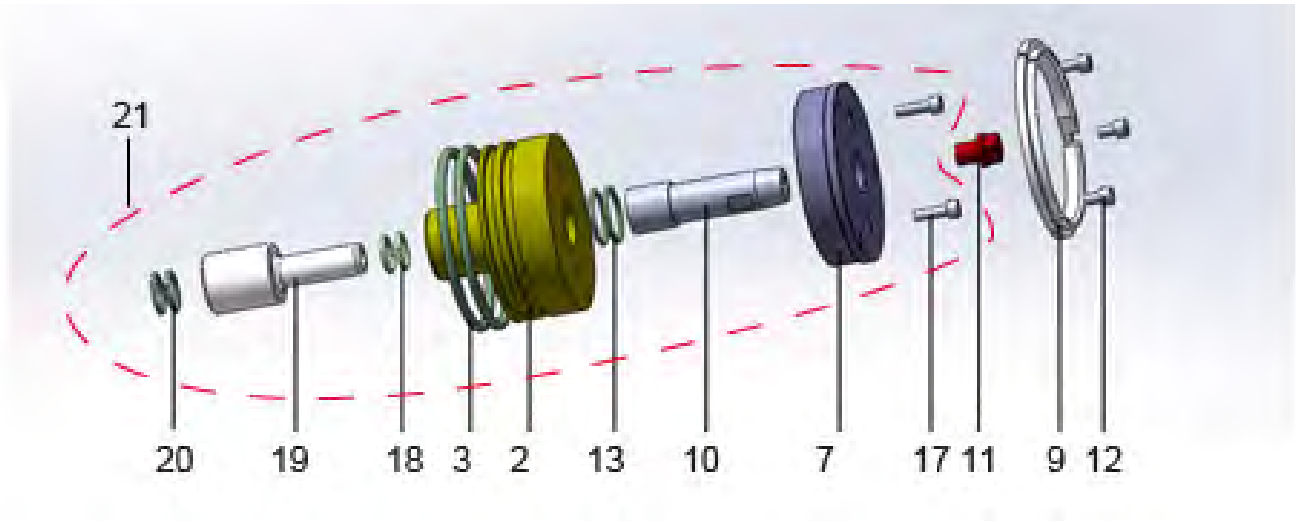


4” Side Port 600-1000-1200 Psi Vessels Spare Parts



ITEM	REF.	DESCRIPTION	Q.TY	MATERIAL	NOTE	
3	H4R107	Head Seal	4	EPDM	90x5,3	
9	H4R045	Locking Kit (n.3 Segments)	2	AISI 316		
11	H4R083	Plug	1	ABS		
12	H4R205	Securing Screw	6	AISI 304	M6x20	
13	H4R111	Permeate Port O-ring	4	EPDM	25x2,65	
NOT SHOWN	H4R005	Strap	2-3	AISI 304 - Rubber		
NOT SHOWN	H4R001	Saddle	2-3	Rubber		
18	H4R113	Sealing Plate O-ring	4	EPDM	17x2,65	
19 + 20	H4R603	Adapter	2	ABS		
20	H2R101	Adapter Seal	4	EPDM	19x2,65	
21	H4R717	Head Assembly side port	2			

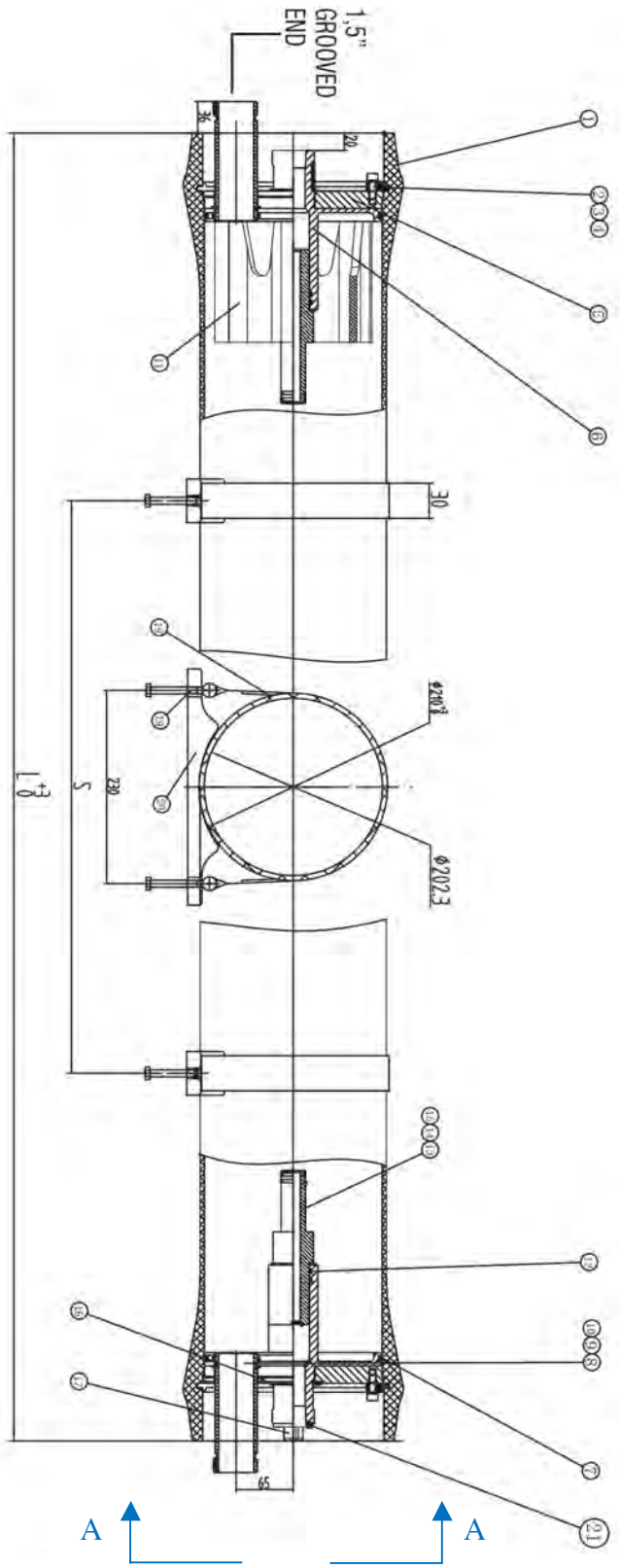
8” Membrane Vessels End Port Series 300 E-8

- fiberglass reinforced plastic pressure vessels series 300 E-8, white painted, UVA-ray proof material;
- max operating pressure 300 psi (21 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- feed/concentrate connections 1 ½” Victaulic in AISI 316;
- permeate connections 1” BSPT F;
- straps and saddles included (n.2 pcs from 1 to 3 elements, n.3 pcs from 4 to 7 elements);
- 1,125” membrane adapters included.

REF.	MODEL	ELEMENTS	L (mm)	S (mm)	
H8E5B1	300 E – 8040 – 1	1 x 40”	1498	700	
H8E5B2	300 E – 8040 – 2	2 x 40”	2514	1460	
H8E5B3	300 E – 8040 – 3	3 x 40”	3530	2080	
H8E5B4	300 E – 8040 – 4	4 x 40”	4546	1600x2	
H8E5B5	300 E – 8040 – 5	5 x 40”	5562	2000x2	
H8E5B6	300 E – 8040 – 6	6 x 40”	6578	2360x2	
H8E5B7 (*)	300 E – 8040 – 7	7 x 40”	7594	2860x2	

(*) not available in stock – Minimum delivery 10-12 weeks.

8” Membrane Vessels End Port Series 300 E-8



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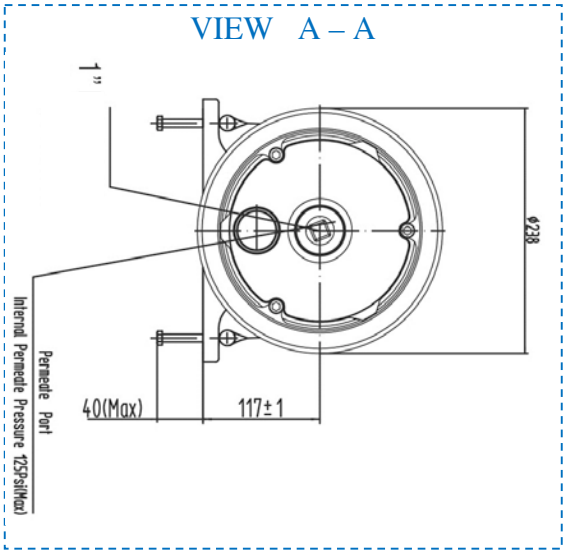


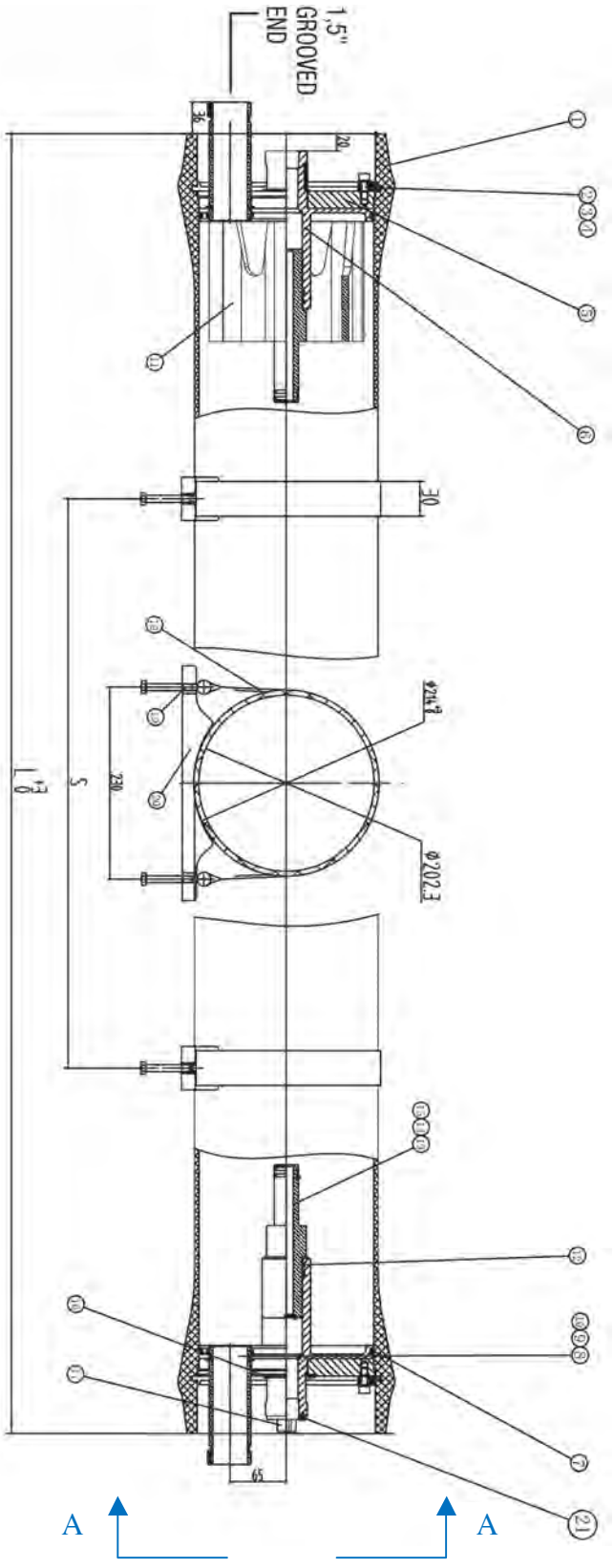
8” Membrane Vessels End Port Series 450 E-8

- fiberglass reinforced plastic pressure vessels series 450 E-8, white painted, UVA-ray proof material;
- max operating pressure 450 psi (31 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- feed/concentrate connections 1 ½” Victaulic in AISI 316;
- permeate connections 1” BSPT F;
- straps and saddles included (n.2 pcs from 1 to 3 elements, n.3 pcs from 4 to 7 elements);
- 1,125” membrane adapters included.

REF.	MODEL	ELEMENTS	L (mm)	S (mm)	
H8E5C1	450 E – 8040 – 1	1 x 40”	1498	700	
H8E5C2	450 E – 8040 – 2	2 x 40”	2514	1460	
H8E5C3	450 E – 8040 – 3	3 x 40”	3530	2080	
H8E5C4 (*)	450 E – 8040 – 4	4 x 40”	4546	1600x2	
H8E5C5 (*)	450 E – 8040 – 5	5 x 40”	5562	2000x2	
H8E5C6 (*)	450 E – 8040 – 6	6 x 40”	6578	2360x2	
H8E5C7 (*)	450 E – 8040 – 7	7 x 40”	7594	2860x2	

(*) not available in stock – Minimum delivery 10-12 weeks.

8” Membrane Vessels End Port Series 450 E-8



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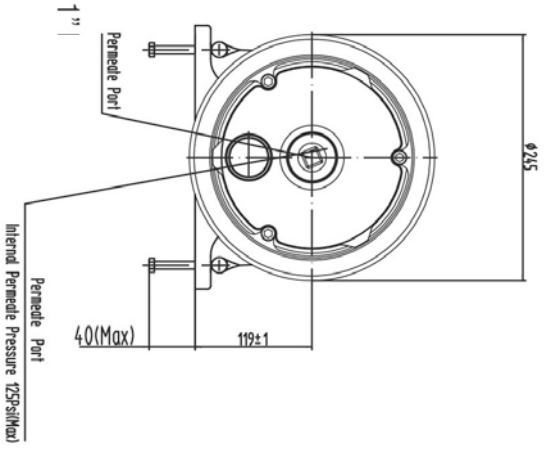


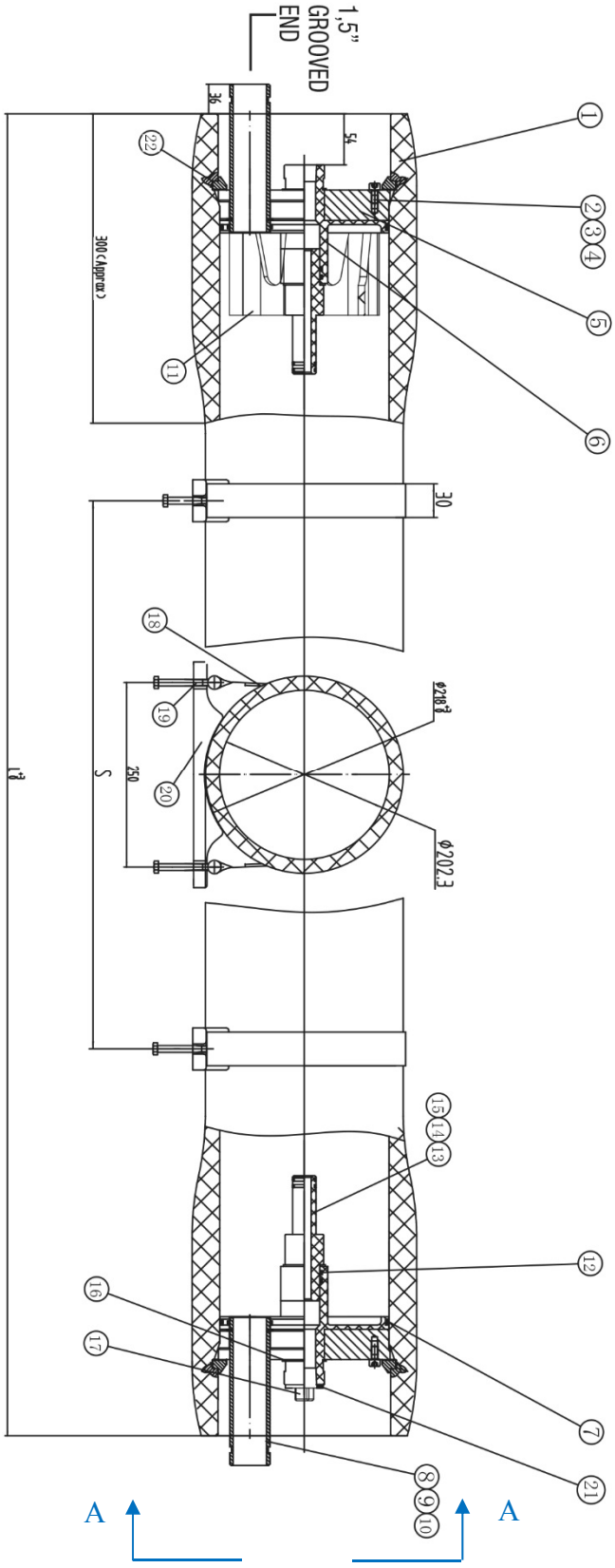
8” Membrane Vessels End Port Series 600 E-8

- fiberglass reinforced plastic pressure vessels series 600 E-8, white painted, UVA-ray proof material;
- max operating pressure 600 psi (41 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- feed/concentrate connections 1 ½” Victaulic in super duplex steel AISI 2507;
- permeate connections 1” BSPT F;
- straps and saddles included (n.2 pcs from 1 to 3 elements, n.3 pcs from 4 to 7 elements);
- 1,125” membrane adapters included.

REF.	MODEL	ELEMENTS	L (mm)	S (mm)	
H8E5D1	600 E – 8040 – 1	1 x 40”	1514	700	
H8E5D2	600 E – 8040 – 2	2 x 40”	2530	1460	
H8E5D3 (*)	600 E – 8040 – 3	3 x 40”	3546	2080	
H8E5D4 (*)	600 E – 8040 – 4	4 x 40”	4562	1600x2	
H8E5D5 (*)	600 E – 8040 – 5	5 x 40”	5578	2000x2	
H8E5D6 (*)	600 E – 8040 – 6	6 x 40”	6594	2360x2	
H8E5D7 (*)	600 E – 8040 – 7	7 x 40”	7610	2860x2	

(*) not available in stock – Minimum delivery 10-12 weeks.

8” Membrane Vessels End Port Series 600 E-8



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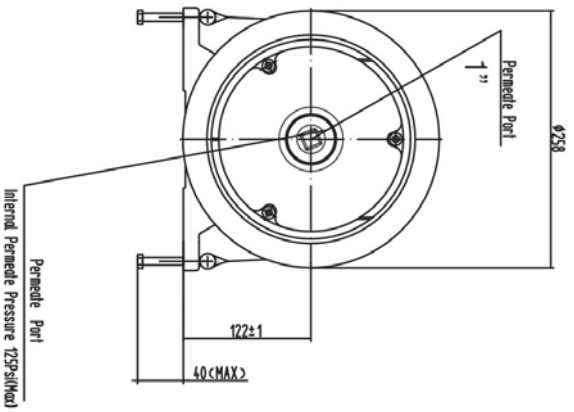


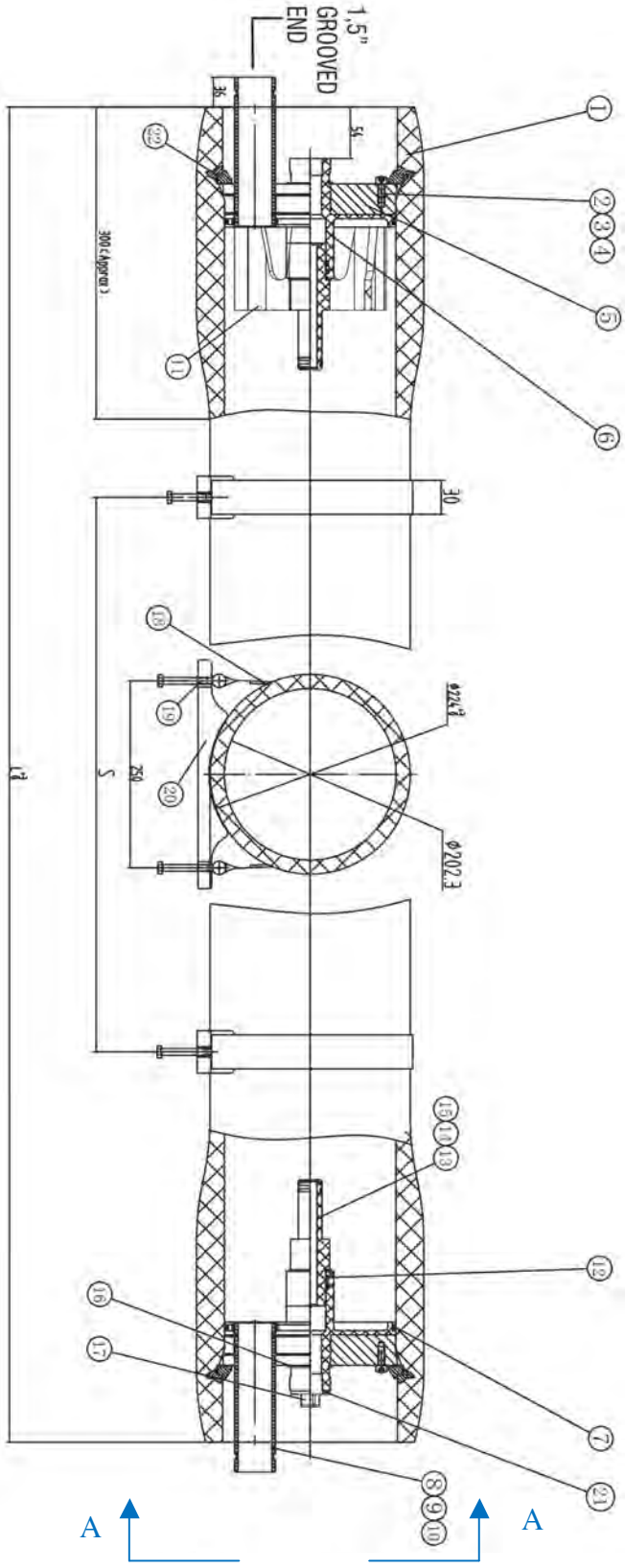
8” Membrane Vessels End Port Series 1000 E-8

- fiberglass reinforced plastic pressure vessels series 1000 E-8, white painted, UVA-ray proof material;
- max operating pressure 1000 psi (69 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- feed/concentrate connections 1 ½” Victaulic in super duplex steel AISI 2507;
- permeate connections 1” BSPT F;
- straps and saddles included (n.2 pcs from 1 to 3 elements, n.3 pcs from 4 to 7 elements);
- 1,125” membrane adapters included.

REF.	MODEL	ELEMENTS	L (mm)	S (mm)	
H8E5G1	1000 E – 8040 – 1	1 x 40”	1514	700	
H8E5G2	1000 E – 8040 – 2	2 x 40”	2530	1460	
H8E5G3	1000 E – 8040 – 3	3 x 40”	3546	2080	
H8E5G4 (*)	1000 E – 8040 – 4	4 x 40”	4562	1600x2	
H8E5G5 (*)	1000 E – 8040 – 5	5 x 40”	5578	2000x2	
H8E5G6 (*)	1000 E – 8040 – 6	6 x 40”	6594	2360x2	
H8E5G7 (*)	1000 E – 8040 – 7	7 x 40”	7610	2860x2	

(*) not available in stock – Minimum delivery 10-12 weeks.

8” Membrane Vessels End Port Series 1000 E-8



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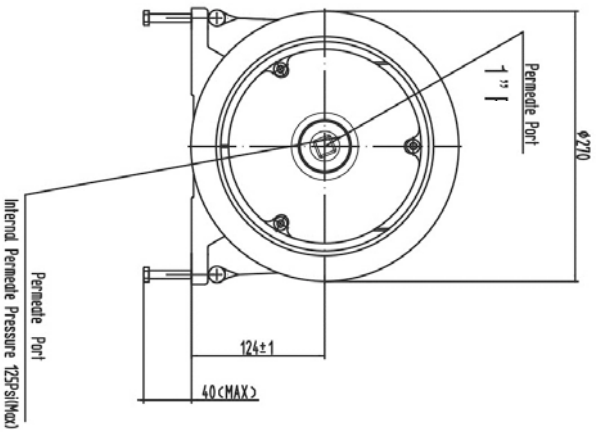


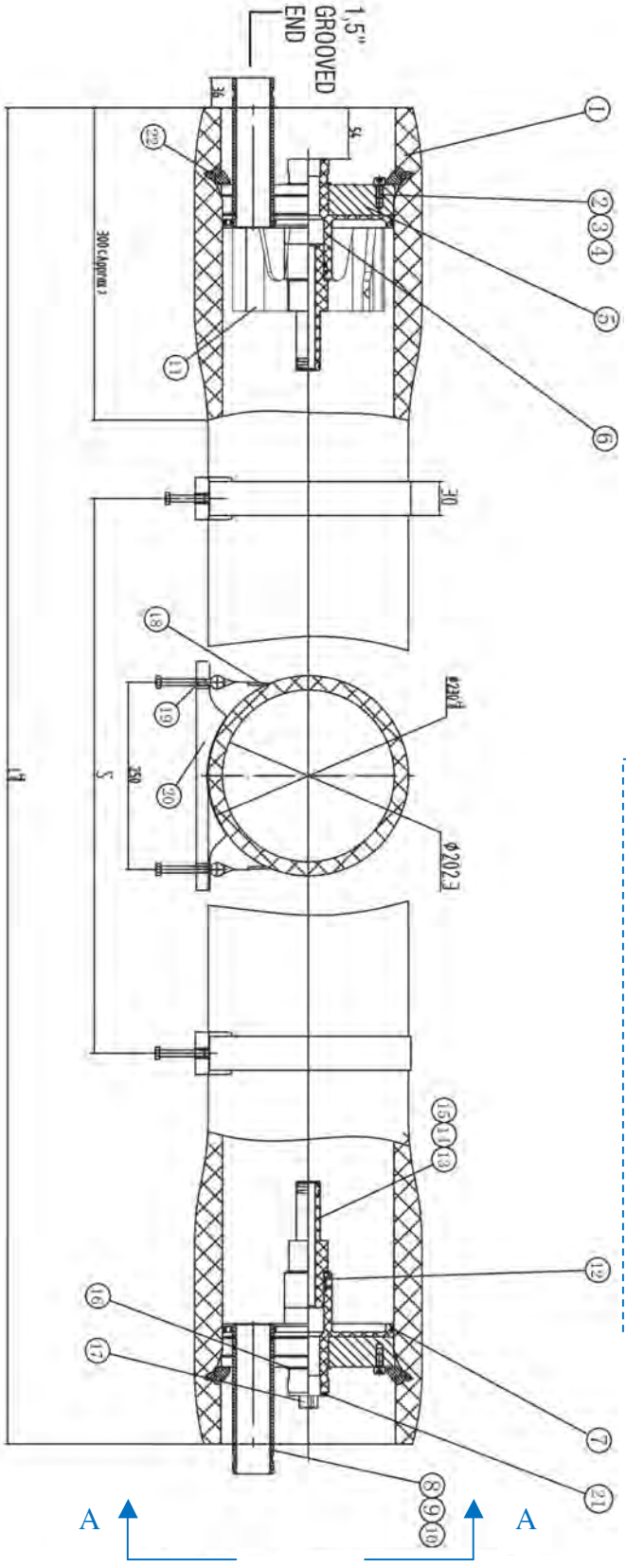
8” Membrane Vessels End Port Series 1200 E-8

- fiberglass reinforced plastic pressure vessels series 1000 E-8, white painted, UVA-ray proof material;
- max operating pressure 1200 psi (83 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- feed/concentrate connections 1 ½” Victaulic in super duplex steel AISI 2507;
- permeate connections 1” BSPT F;
- straps and saddles included (n.2 pcs from 1 to 3 elements, n.3 pcs from 4 to 7 elements);
- 1,125” membrane adapters included.

REF.	MODEL	ELEMENTS	L (mm)	S (mm)	
H8E5H1	1200 E – 8040 – 1	1 x 40”	1514	700	
H8E5H2	1200 E – 8040 – 2	2 x 40”	2530	1460	
H8E5H3	1200 E – 8040 – 3	3 x 40”	3546	2080	
H8E5H4 (*)	1200 E – 8040 – 4	4 x 40”	4562	1600x2	
H8E5H5 (*)	1200 E – 8040 – 5	5 x 40”	5578	2000x2	
H8E5H6 (*)	1200 E – 8040 – 6	6 x 40”	6594	2360x2	
H8E5H7 (*)	1200 E – 8040 – 7	7 x 40”	7610	2860x2	

(*) not available in stock – Minimum delivery 10-12 weeks.

8” Membrane Vessels End Port Series 1200 E-8



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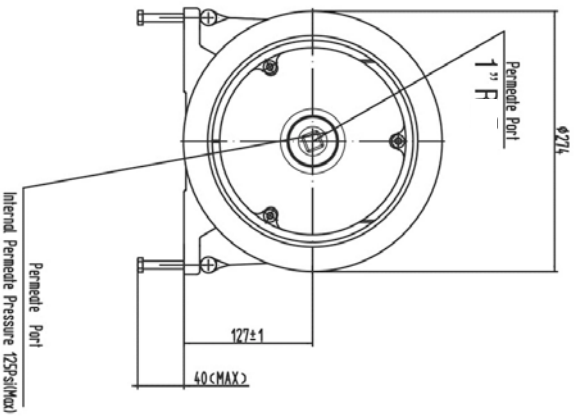
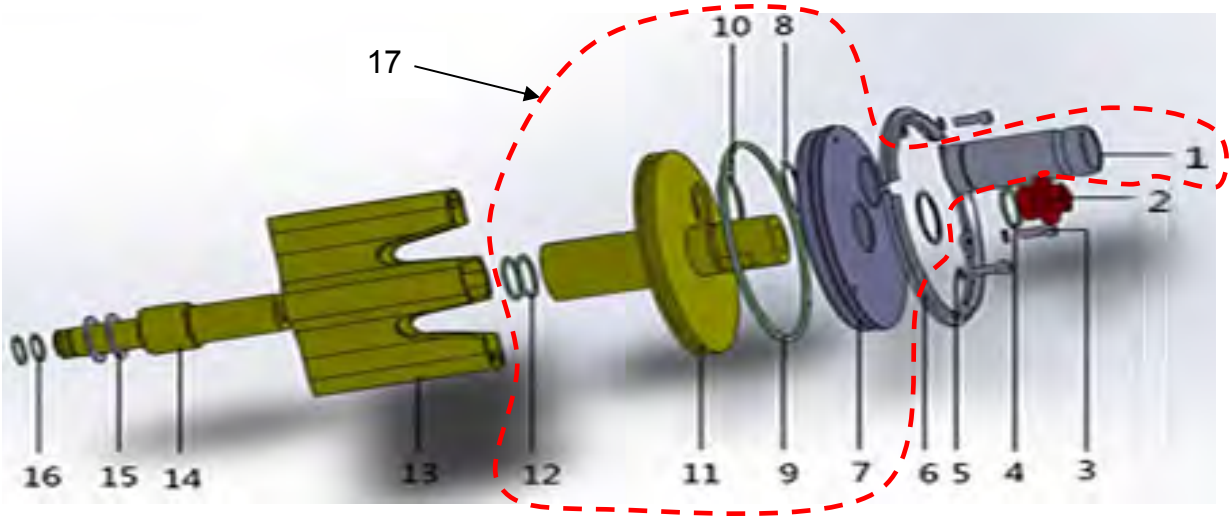
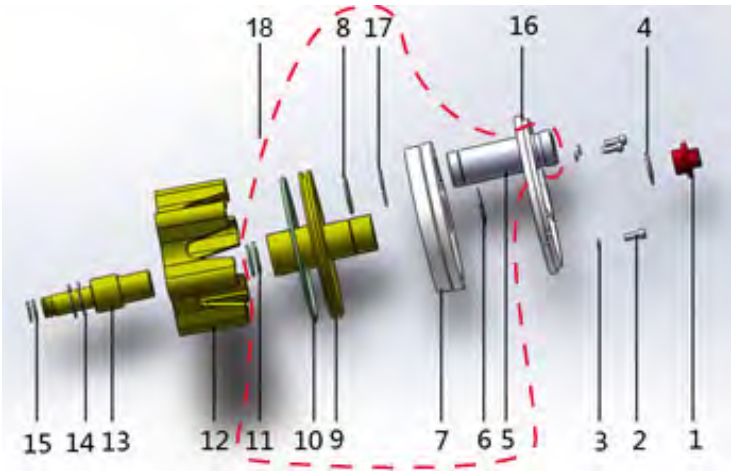


8” End Port 300-450 Psi Vessels Spare Parts



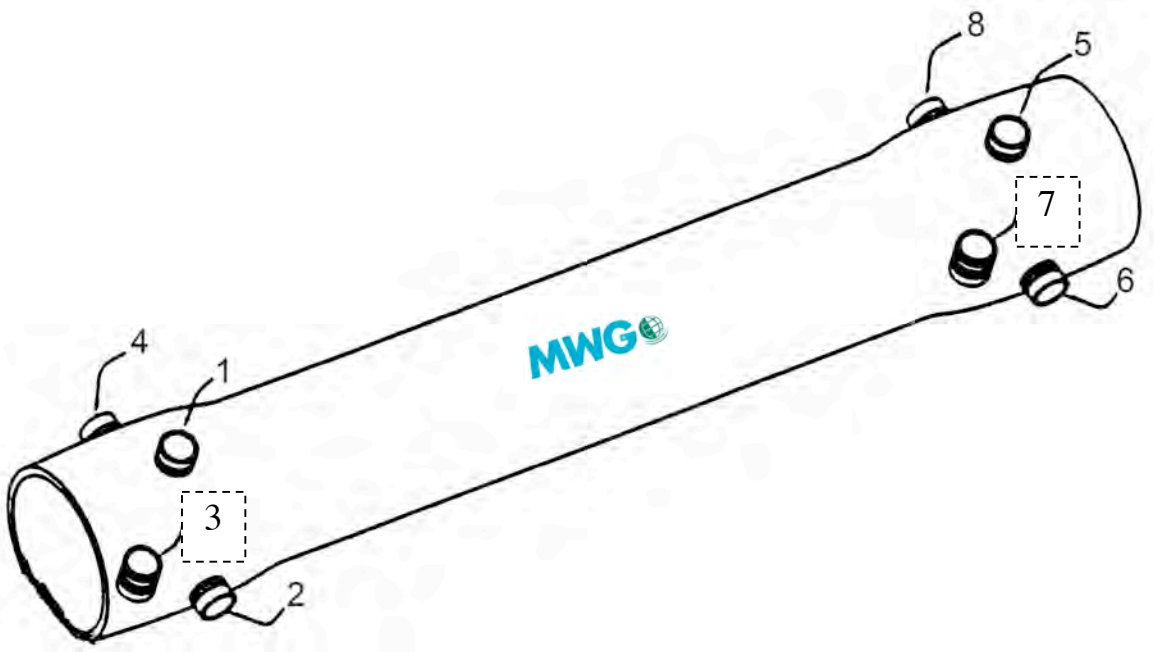
ITEM	REF.	DESCRIPTION	MATERIAL	
1		FEED CONCENTRATE PORT 1,5” VICTAULIC	AISI 316	
2	H8R081	PLUG	ABS	
3	H8R203	LOCKING SEGMENT SCREW	AISI 304	
4	H8R111	PWT SEAL	EPDM	
5	H8R031	SPRING PAD	AISI 304	
6	H8R041	LOCKING SEGMENT	AISI 304	
7		BEARING PLATE	ALUMINUM	
8		RETAINING RING	AISI 304	
9	H8R107	HEAD SEAL	EPDM	
10	H8R109	FEED CONCENTRATE PORT SEAL	EPDM	
11		SEALING PLATE (PERMEATE PORT)	ABS	
12	H8R111	PWT SEAL	EPDM	
13	H8R061	THRUST CONE	ABS	
14 + 16	H8R601	1,125” ADAPTER	ABS	
15	H8R651	1,125” ADAPTER PAD	ABS	
16	H8R113	1,125” ADAPTER O-RING	EPDM	
17	H8R701	HEAD ASSEMBLY END PORT 300 PSI		
	H8R703	HEAD ASSEMBLY END PORT 450 PSI		
NOT SHOWN	H8R001	SADDLE	RUBBER	
NOT SHOWN	H8R005	STRAP (L = 520 mm)	AISI 304 - RUBBER	

8” End Port 600-1000-1200 Psi Vessels Spare Parts



ITEM	REF.	DESCRIPTION	MATERIAL	
1	H8R081	PLUG	ABS	
2	H8R203	LOCKING SEGMENT SCREW	AISI 304	
3	H8R031	SPRING PAD	AISI 304	
4	H8R111	PWT SEAL	EPDM	
5		FEED CONC. PORT 1,5” VICTAULIC	SUPER DUPLEX AISI 2507	
8	H8R109	FEED CONCENTRATE PORT SEAL	EPDM	
9		SEALING PLATE (PERMEATE PORT)	ABS	
10	FBEFR11	HEAD SEAL	EPDM	
11	H8R111	PWT SEAL	EPDM	
12	H8R063	THRUST CONE	ABS	
13 + 15	H8R603	1,125” ADAPTER	ABS	
	H8R613	1,5” ADAPTER (OPTIONAL)	ABS	
14	H8R651	1,125” ADAPTER PAD	ABS	
	H8R653	1,5” ADAPTER PAD (OPTIONAL)	ABS	
15	H8R113	1,125” ADAPTER O-RING	EPDM	
	H8R115	1,5” ADAPTER O-RING (OPTIONAL)	EPDM	
16	H8R045	LOCKING KIT (N.3 SEGMENTS)	AISI 304	
18	H8R705	HEAD ASSEMBLY END PORT 600 PSI		
	H8R707	HEAD ASSEMBLY END PORT 1000 PSI		
	H8R709	HEAD ASSEMBLY END PORT 1200 PSI		
NOT SHOWN	H8R001	SADDLE	RUBBER	
NOT SHOWN	H8R009	STRAP (L = 580 mm)	AISI 304 - RUBBER	

8” Side Port Vessels Feed/Concentrate Port Options



Each vessel 8” side port can have maximum 3 ports per each end, located in 4 different positions 90° among them. The drawing shows the numbers of different positions.

Each port can have three different dimensions:

D = 1 ½” (standard connection)
E = 2”
F = 2 ½”
G = 3”
I = 4”

Note: a 2 ½” port is not allowed at 90° from any other.

To determine the required configuration, identify the ports starting from N°1 with relevant dimension, complete this side and identify the opposite end.

Example: vessel with ports 1 & 5 connection 1½”, ports 2 & 6 connection 2”.

The configuration is: 1D 5D 2E 6E

8” Side Port Vessels Feed/Concentrate Port Options

Options for MWG 8” side port vessels

Vessel 8”		Add one extra port			
		1,5”	2”	2,5”	3”
PRESSURE (psi)	MATERIAL				
300	AISI 316				
450	AISI 316				
600	Super Duplex 2507				
1000	Super Duplex 2507				
1200	Super Duplex 2507				

Vessel 8”		UPGRADE from 1,5” port to …		
		2”	2,5”	3”
PRESSURE (psi)	MATERIAL			
300	AISI 316			
450	AISI 316			
600	Super Duplex 2507			
1000	Super Duplex 2507			
1200	Super Duplex 2507			

8” Membrane Vessels Side Port Series 300 S-8

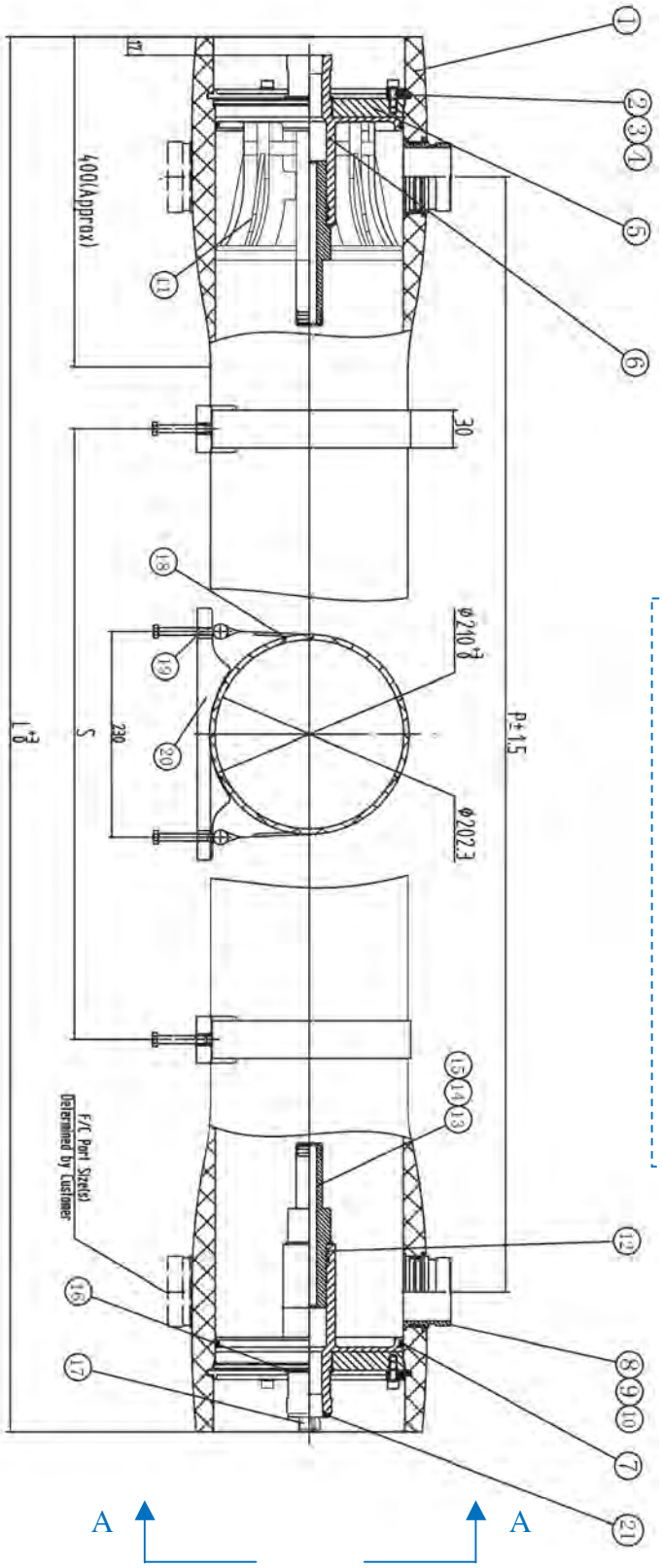
- fiberglass reinforced plastic pressure vessels series 300 S-8, white painted, UVA-ray proof material;
- max operating pressure 300 psi (21 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- feed/concentrate connections 1 ½” or 2”Victaulic (optional 2 ½” or 3”);
- permeate connections 1” BSPT F;
- straps and saddles included (n.2 pcs from 1 to 3 elements, n.3 pcs from 4 to 7 elements);
- 1,125” membrane adapters included;
- version from 2 to 7 ports (see list of options).

REF. CONNECTIONS 1 ½” ORIENT. 0°	REF. CONNECTIONS 1 ½” ORIENT. 180°	MODEL	ELEMENTS	L (mm)	P (mm)	S (mm)	
H815B1 (*)	H817B1 (*)	300S-8-1	1 x 40”	1494	1194	700	
H815B2 (*)	H817B2 (*)	300S-8-2	2 x 40”	2510	2210	1460	
H815B3 (*)	H817B3 (*)	300S-8-3	3 x 40”	3526	3226	2080	
H815B4 (*)	H817B4 (*)	300S-8-4	4 x 40”	4542	4242	1600x2	
H815B5 (*)	H817B5 (*)	300S-8-5	5 x 40”	5558	5258	2000x2	
H815B6 (*)	H817B6 (*)	300S-8-6	6 x 40”	6574	6274	2360x2	
H815B7 (*)	H817B7 (*)	300S-8-7	7 x 40”	7590	7290	2860x2	

REF. CONNECTIONS 2” ORIENT. 0°	REF. CONNECTIONS 2” ORIENT. 180°	MODEL	ELEMENTS	L (mm)	P (mm)	S (mm)	
H820B1 (*)	H822B1	300S-8-1	1 x 40”	1494	1194	700	
H820B2 (*)	H822B2	300S-8-2	2 x 40”	2510	2210	1460	
H820B3 (*)	H822B3	300S-8-3	3 x 40”	3526	3226	2080	
H820B4	H822B4 (*)	300S-8-4	4 x 40”	4542	4242	1600x2	
H820B5	H822B5 (*)	300S-8-5	5 x 40”	5558	5258	2000x2	
H820B6	H822B6 (*)	300S-8-6	6 x 40”	6574	6274	2360x2	

(*) not available in stock – Minimum delivery 10-12 weeks.

8” Membrane Vessels Side Port Series 300 S-8



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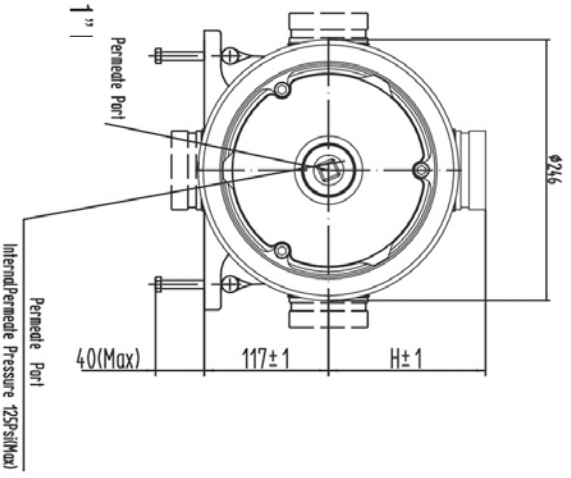
VIEW A – A



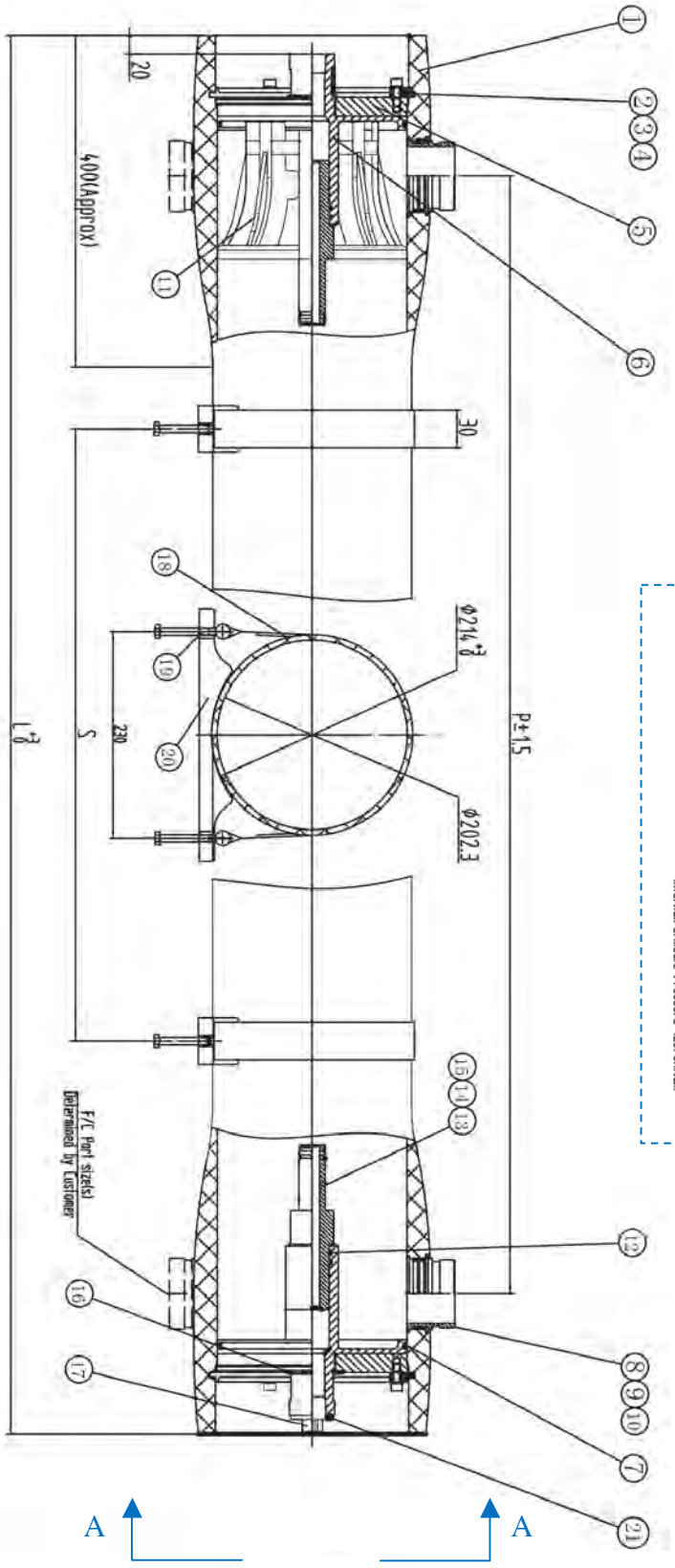
8” Membrane Vessels Side Port Series 450 S-8

- fiberglass reinforced plastic pressure vessels series 450 S-8, white painted, UVA-ray proof material;
- max operating pressure 450 psi (31 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- feed/concentrate connections 1 ½” Victaulic (optional 2”, 2 ½” or 3”);
- permeate connections 1” BSPT F;
- straps and saddles included (n.2 pcs from 1 to 3 elements, n.3 pcs from 4 to 7 elements);
- 1,125” membrane adapters included;
- version from 2 to 7 ports (see list of options).

REF. ORIENT. 0°	REF. ORIENT. 180°	MODEL	ELEMENTS	L (mm)	P (mm)	S (mm)	
H815C1 (*)	H817C1 (*)	450S-8-1	1 x 40”	1498	1194	700	
H815C2 (*)	H817C2 (*)	450S-8-2	2 x 40”	2514	2210	1460	
H815C3 (*)	H817C3 (*)	450S-8-3	3 x 40”	3530	3226	2080	
H815C4 (*)	H817C4 (*)	450S-8-4	4 x 40”	4546	4242	1600x2	
H815C5 (*)	H817C5 (*)	450S-8-5	5 x 40”	5562	5258	2000x2	
H815C6 (*)	H817C6 (*)	450S-8-6	6 x 40”	6578	6274	2360x2	
H815C7 (*)	H817C7 (*)	450S-8-7	7 x 40”	7594	7290	2860x2	

(*) not available in stock – Minimum delivery 10-12 weeks.

8” Membrane Vessels Side Port Series 450 S-8



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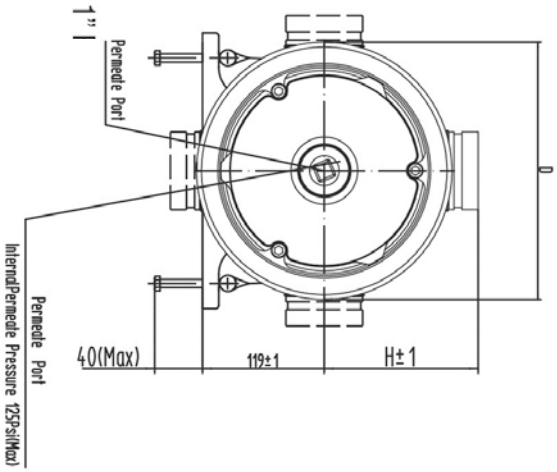
VIEW A – A



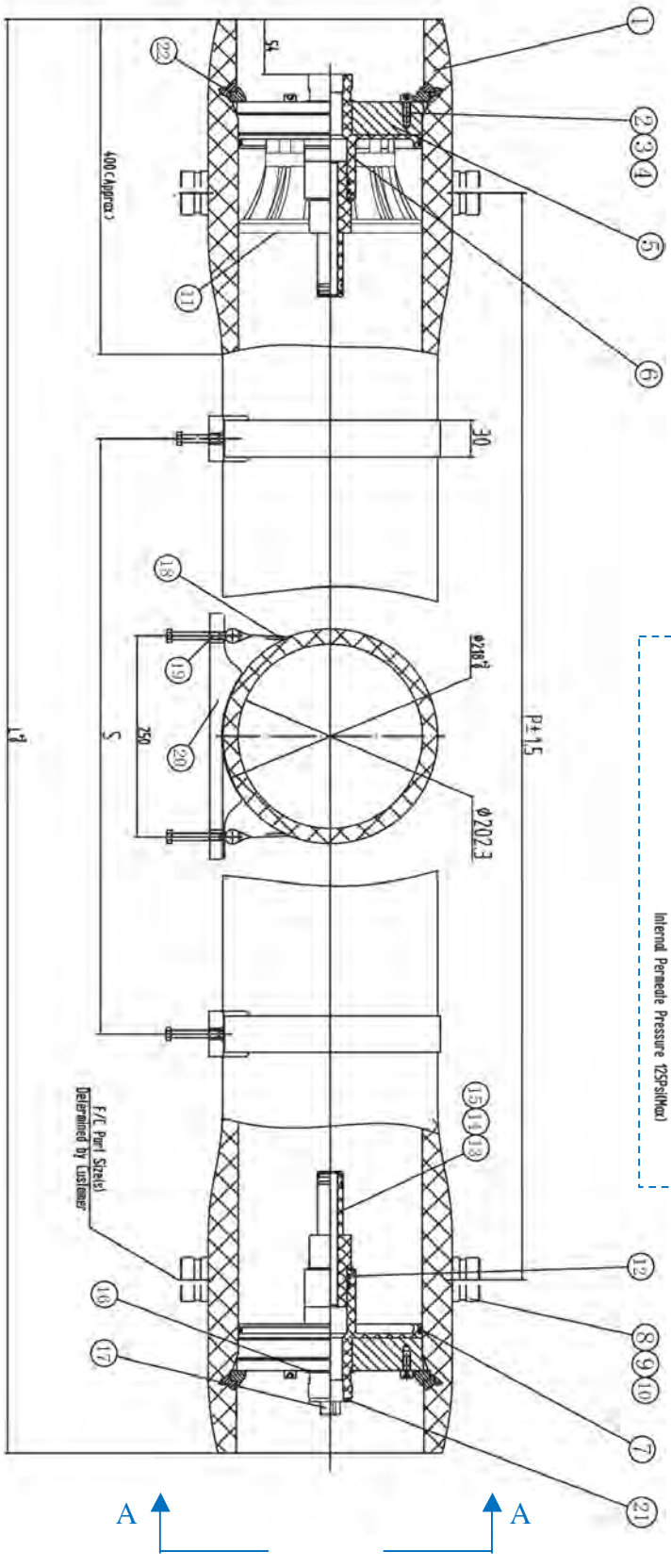
8” Membrane Vessels Side Port Series 600 S-8

- fiberglass reinforced plastic pressure vessels series 600 S-8, white painted, UVA-ray proof material;
- max operating pressure 600 psi (41 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- feed/concentrate connections 1 ½” Victaulic (optional 2”, 2 ½” or 3”) in super duplex steel AISI 2507;
- permeate connections 1” BSPT F;
- straps and saddles included (n.2 pcs from 1 to 3 elements, n.3 pcs from 4 to 7 elements);
- 1,125” membrane adapters included;
- version from 2 to 7 ports (see list of options).

REF. ORIENT. 0°	REF. ORIENT. 180°	MODEL	ELEMENTS	L (mm)	P (mm)	S (mm)	
H815D1 (*)	H817D1 (*)	600S-8-1	1 x 40”	1514	1143	700	
H815D2 (*)	H817D2 (*)	600S-8-2	2 x 40”	2530	2159	1460	
H815D3 (*)	H817D3 (*)	600S-8-3	3 x 40”	3546	3175	2080	
H815D4 (*)	H817D4 (*)	600S-8-4	4 x 40”	4562	4191	1600x2	
H815D5 (*)	H817D5 (*)	600S-8-5	5 x 40”	5578	5207	2000x2	
H815D6 (*)	H817D6 (*)	600S-8-6	6 x 40”	6594	6223	2360x2	
H815D7 (*)	H817D7 (*)	600S-8-7	7 x 40”	7610	7239	2860x2	

(*) not available in stock – Minimum delivery 10-12 weeks.

8” Membrane Vessels Side Port Series 600 S-8



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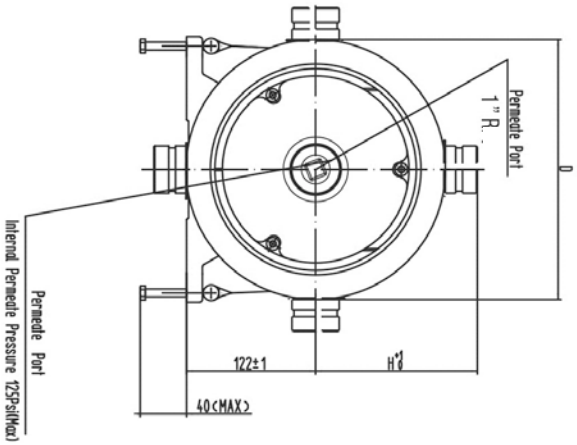
VIEW A – A



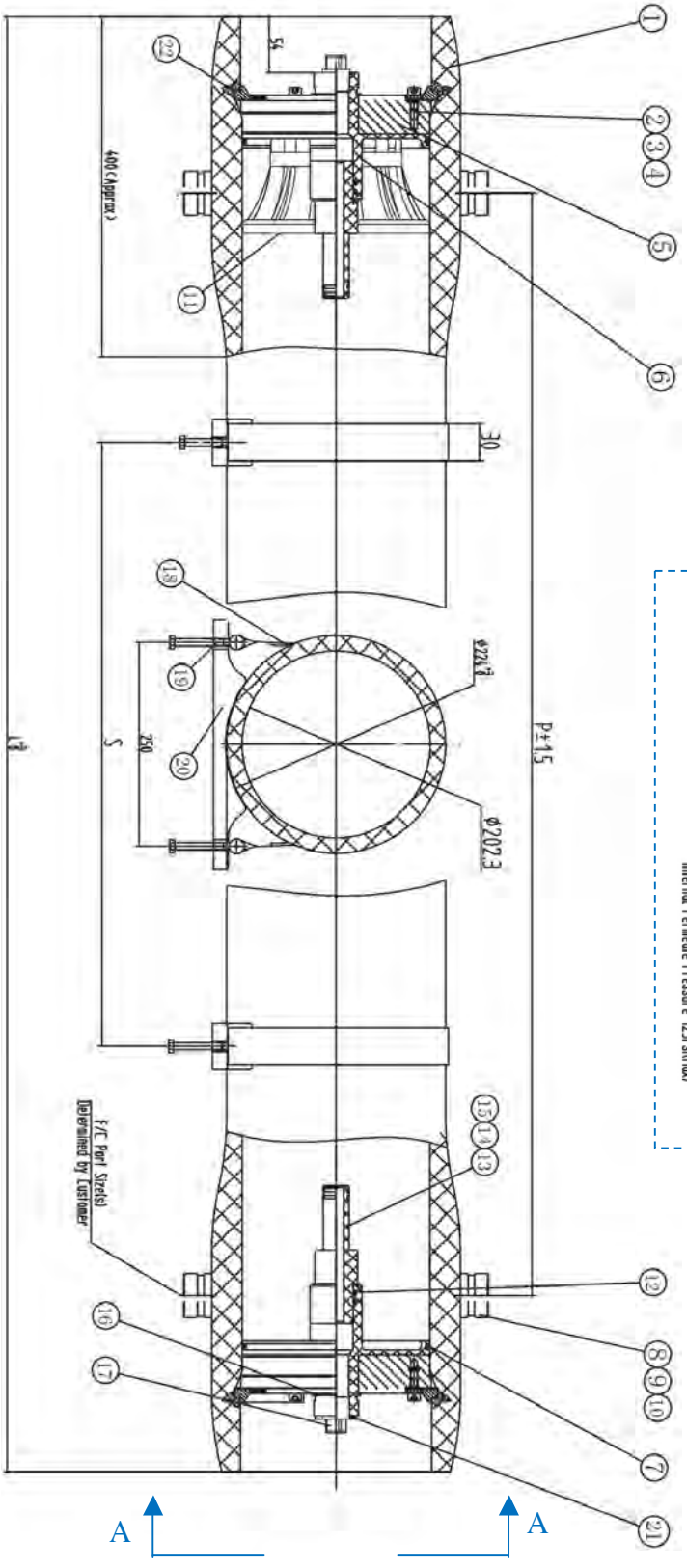
8” Membrane Vessels Side Port Series 1000 S-8

- fiberglass reinforced plastic pressure vessels series 600 S-8, white painted, UVA-ray proof material;
- max operating pressure 600 psi (41 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- feed/concentrate connections 1 ½” Victaulic (optional 2”, 2 ½” or 3”) in super duplex steel AISI 2507;
- permeate connections 1” BSPT F;
- straps and saddles included (n.2 pcs from 1 to 3 elements, n.3 pcs from 4 to 7 elements);
- 1,125” membrane adapters included;
- version from 2 to 7 ports (see list of options).

REF. ORIENT. 0°	REF. ORIENT. 180°	MODEL	ELEMENTS	L (mm)	P (mm)	S (mm)	
H815G1 (*)	H817G1 (*)	1000S-8-1	1 x 40”	1514	1143	700	
H815G2 (*)	H817G2 (*)	1000S-8-2	2 x 40”	2530	2159	1460	
H815G3 (*)	H817G3 (*)	1000S-8-3	3 x 40”	3546	3175	2080	
H815G4 (*)	H817G4 (*)	1000S-8-4	4 x 40”	4562	4191	1600x2	
H815G5 (*)	H817G5 (*)	1000S-8-5	5 x 40”	5578	5207	2000x2	
H815G6 (*)	H817G6 (*)	1000S-8-6	6 x 40”	6594	6223	2360x2	
H815G7 (*)	H817G7 (*)	1000S-8-7	7 x 40”	7610	7239	2860x2	

(*) not available in stock – Minimum delivery 10-12 weeks.

8” Membrane Vessels Side Port Series 1000 S-8



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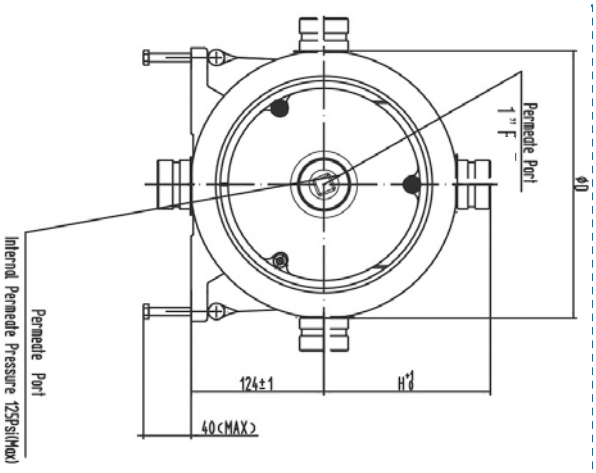


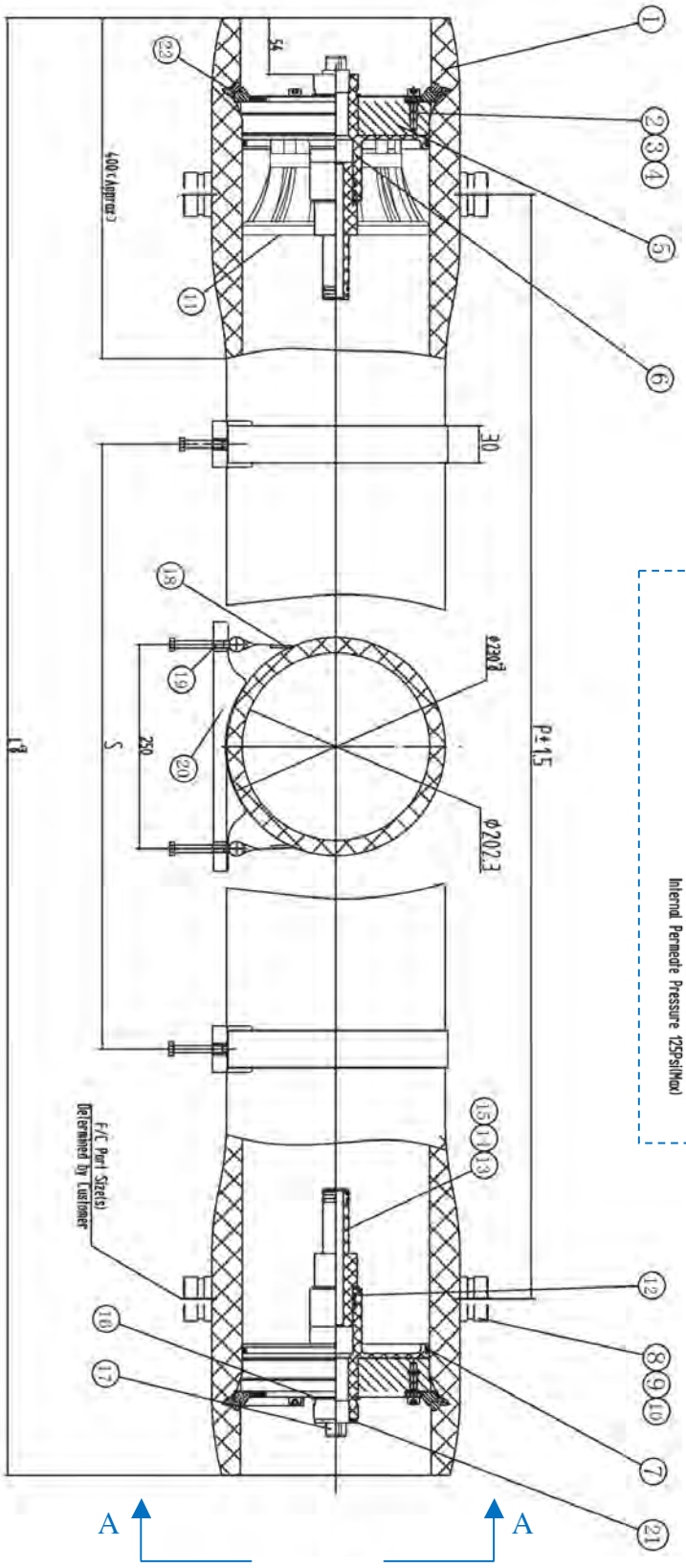
8” Membrane Vessels Side Port Series 1200 S-8

- fiberglass reinforced plastic pressure vessels series 1200 S-8, white painted, UVA-ray proof material;
- max operating pressure 1200 psi (83 bar);
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- built in accordance with ASME code section X;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- each vessel is factory tested at 1,5 times max operating pressure;
- feed/concentrate connections 1 ½” Victaulic (optional 2”, 2 ½” or 3”) in super duplex steel AISI 2507;
- permeate connections 1” BSPT F;
- straps and saddles included (n.2 pcs from 1 to 3 elements, n.3 pcs from 4 to 7 elements);
- 1,125” membrane adapters included;
- version from 2 to 7 ports (see list of options).

REF. ORIENT. 0°	REF. ORIENT. 180°	MODEL	ELEMENTS	L (mm)	P (mm)	S (mm)	
H815H1 (*)	H817H1 (*)	1200S-8-1	1 x 40”	1514	1143	700	
H815H2 (*)	H817H2 (*)	1200S-8-2	2 x 40”	2530	2159	1460	
H815H3 (*)	H817H3 (*)	1200S-8-3	3 x 40”	3546	3175	2080	
H815H4 (*)	H817H4 (*)	1200S-8-4	4 x 40”	4562	4191	1600x2	
H815H5 (*)	H817H5 (*)	1200S-8-5	5 x 40”	5578	5207	2000x2	
H815H6 (*)	H817H6 (*)	1200S-8-6	6 x 40”	6594	6223	2360x2	
H815H7 (*)	H817H7 (*)	1200S-8-7	7 x 40”	7610	7239	2860x2	

(*) not available in stock – Minimum delivery 10-12 weeks.

8” Membrane Vessels Side Port Series 1200 S-8



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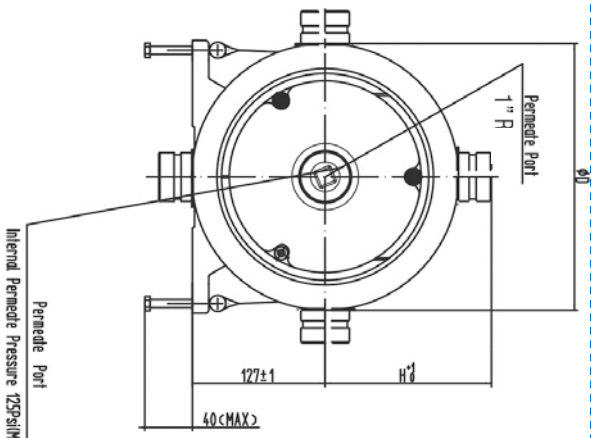
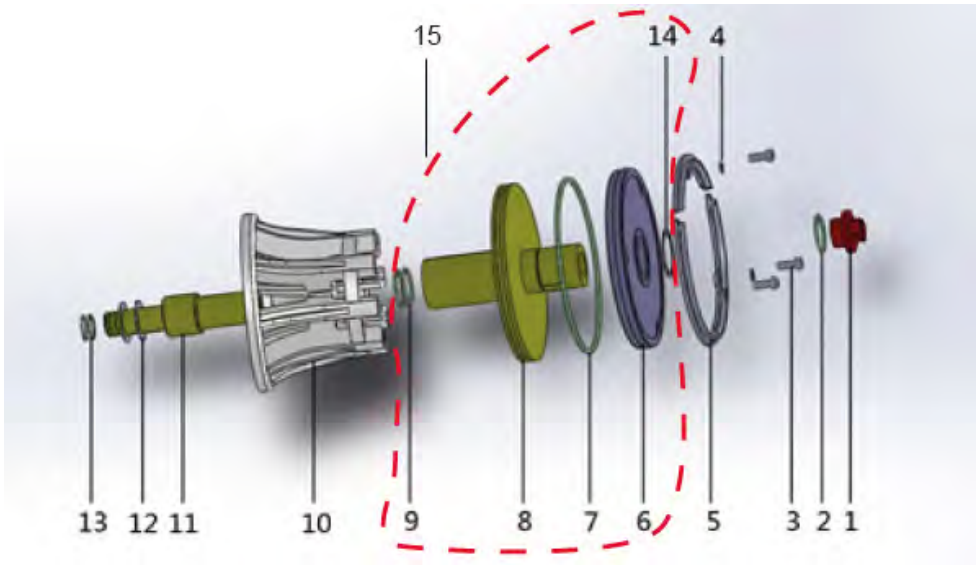
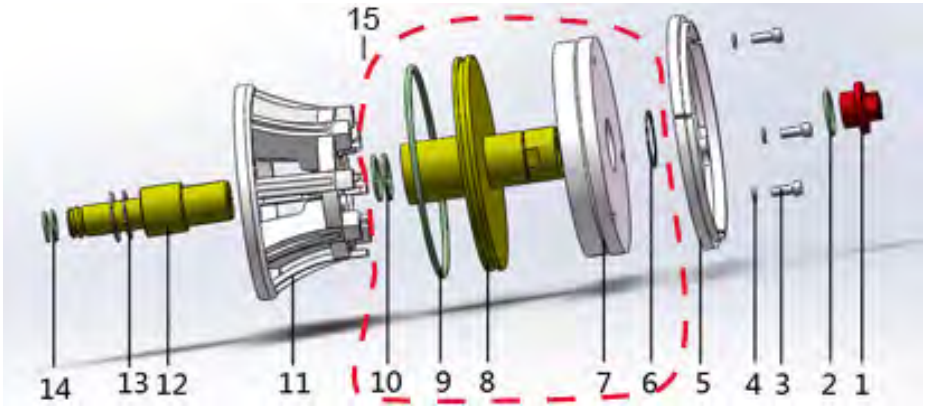


8” Side Port 300-450 Psi Vessels Spare Parts



ITEM	REF.	DESCRIPTION	MATERIAL	
1	H8R081	PLUG	ABS	
2	H8R111	PWT SEAL	EPDM	
3	H8R203	LOCKING SEGMENT SCREW	AISI 304	
4	H8R031	SPRING PAD	AISI 304	
5	H8R041	LOCKING SEGMENT	AISI 304	
7	H8R107	HEAD SEAL	EPDM	
9	H8R111	PWT SEAL	EPDM	
10	H8R071	THRUST CONE	ABS	
11 + 13	H8R601	1,125” ADAPTER	ABS	
	H8R611	1,5” ADAPTER (OPTIONAL)	ABS	
12	H8R651	1,125” ADAPTER PAD	ABS	
	H8R653	1,5” ADAPTER PAD (OPTIONAL)	ABS	
13	H8R113	1,125” ADAPTER O-RING	EPDM	
	H8R115	1,5” ADAPTER O-RING (OPTIONAL)	EPDM	
15	H8R711	HEAD ASSEMBLY SIDE PORT 300 PSI		
	H8R713	HEAD ASSEMBLY SIDE PORT 450 PSI		
NOT SHOWN	H8R001	SADDLE	RUBBER	
NOT SHOWN	H8R005	STRAP (L = 520 mm)	AISI 304 - RUBBER	

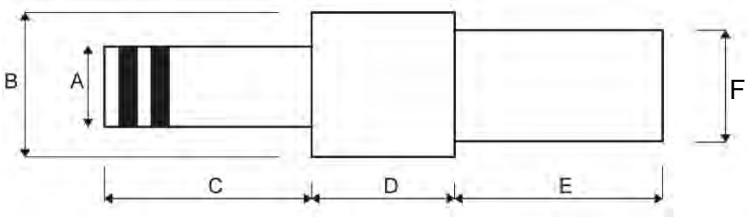
8” Side Port 600-1000-1200 Psi Vessels Spare Parts



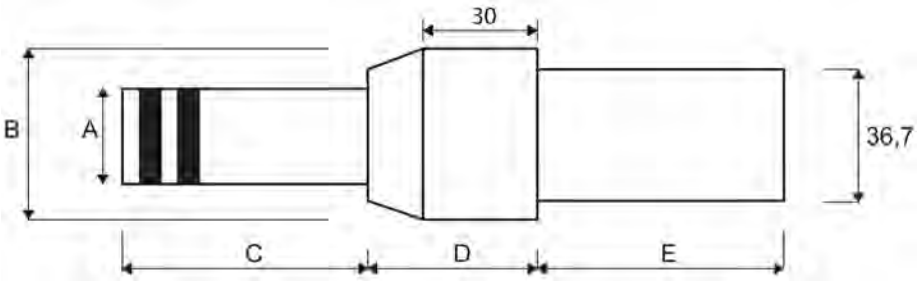
ITEM	REF.	DESCRIPTION	MATERIAL	
1	H8R081	PLUG	ABS	
2	H8R111	PWT SEAL	EPDM	
3	H8R203	LOCKING SEGMENT SCREW	AISI 304	
4	H8R031	SPRING PAD	AISI 304	
5	H8R045	LOCKING KIT (N.3 SEGMENTS)	AISI 304	
8		SEALING PLATE (PERMEATE PORT)	ABS	
9	FBEFR11	HEAD SEAL	EPDM	
10	H8R111	PWT SEAL	EPDM	
11	H8R073	THRUST CONE	ABS	
12 + 14	H8R603	1,125” ADAPTER	ABS	
	H8R613	1,5” ADAPTER (OPTIONAL)	ABS	
13	H8R651	1,125” ADAPTER PAD	ABS	
	H8R653	1,5” ADAPTER PAD (OPTIONAL)	ABS	
14	H8R113	1,125” ADAPTER O-RING	EPDM	
	H8R115	1,5” ADAPTER O-RING (OPTIONAL)	EPDM	
15	H8R715	HEAD ASSEMBLY SIDE PORT 600 PSI		
	H8R717	HEAD ASSEMBLY SIDE PORT 1000 PSI		
	H8R719	HEAD ASSEMBLY SIDE PORT 1200 PSI		
NOT SHOWN	H8R001	SADDLE	RUBBER	
NOT SHOWN	H8R009	STRAP (L = 580 mm)	AISI 304 - RUBBER	

8” Membrane Adapters

- suitable for 8” membranes;
- material PVC complete with o-rings.



REF.		MATE -RIAL	A *	B *	C *	D *	E *	F *	FOR MEMBR.	FOR VESSEL	REF. O-RING	
H8R601		ABS	28,3 (1,125”)	46	70	38	70	36,5	BW30-400 or similar	MWG	H8R113	
H8R611		ABS	38 (1,5”)	50	70	36	70	36,55	BW30LE440 or similar	MWG	H8R115	
H8R603		ABS	28,3 (1,125”)	46	70	38	53	36,5	BW30-400 or similar	MWG	H8R113	
H8R613		ABS	38 (1,5”)	50	70	36	53	36,55	BW30LE440 or similar	MWG	H8R115	
EA340		ABS	28,5 (1,125”)	48	65	45	67	36,7	BW30-400 or similar	Wave Cyber	EA354	
EA341		ABS	38 (1,5”)	58	50	45	67	36,7	BW30LE440 or similar	Wave Cyber	EA355	
EA025(*)		PVC	28,5 (1,125”)	48	65	27	73	36,7	BW30-400 or similar	Codeline Old Style	EA354	



REF.		MATE - RIAL	A *	B *	C *	D *	E *	FOR MEMBR.	FOR VESSEL	REF. O-RING	
EA023		PVC	28,5 (1,125”)	50	73	50	64	BW30-400 or similar	Bekaert Style	EA354	

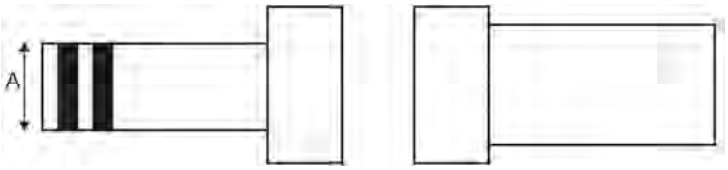
(*) Out-of-production, available till it will be out-of-stock

* Dimensions: mm (inch)

Blank Adapters

Blank Adapter Kit

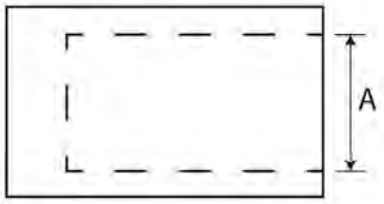
- suitable for 8” membranes;
- material PVC complete with o-rings.



REF.		A (mm)	A (inch)	FOR MEMBRANE	FOR VESSEL	O-RING REF.
EA026		28,5	1,125”	BW30-400 or similar	Wave Cyber	EA264
EA026A		28,5	1,125”	BW30-400 or similar	MWG	EA264

Blank Adapter

- Material PVC.



REF.		A (mm)	A (inch)	FOR MEMBRANE
EA028		28,5	1,125”	BW30-400 or similar

Closure disc for permeate connection for 8” vessels

- material PVC.

REF.	
EA350	

Victaulic Style Couplings

Cast Iron Victaulic Style Couplings – 1000 Psi

- complete with gaskets;
- max operating pressure 1000 psi (69 bar).

REF.	NOMINAL DIAMETER (inch)	NOMINAL DIAMETER (mm)	
EA030	1”	33,4	
EA032	1 ¼”	42,2	
EA031	1 ½”	48,3	
EA033	2”	60,3	
EA034	2 ½”	73,0	
EA035	3”	88,9	

Aisi 304 Victaulic Style Couplings – 1200 Psi

- complete with gaskets;
- max operating pressure 1200 psi (83 bar).

REF.	NOMINAL DIAMETER (inch)	NOMINAL DIAMETER (mm)	
EA190	¾”	26,7	
EA191	1”	33,4	
EA192	1 ¼”	42,2	
EA193	1 ½”	48,3	
EA194	2”	60,3	
EA195	2 ½”	73,0	
EA196	3”	88,9	

Aisi 304 Victaulic Style Couplings – 350 Psi

- complete with gaskets;
- max operating pressure 350 psi (23 bar).

REF.	NOMINAL DIAMETER (inch)	NOMINAL DIAMETER (mm)	
EA070	¾”	26,7	
EA071	1”	33,4	
EA072	1 ¼”	42,2	
EA073	1 ½”	48,3	
EA074	2”	60,3	
EA075A	2 ½”	73,0	
EA075	3” O. D.	76,1	
EA076	3”	88,9	

Nylon Victaulic Style Couplings – 300 psi

- Complete with gaskets in EPDM;
- Max operating pressure 300 psi (21 bar).

REF.	FOR OUR STUB PIPES	NOMINAL DIAMETER (inch)	NOMINAL DIAMETER (mm)	
EA550	---------	1”	33,4	
EA551	EA601	1 ¼”	42,2	
EA552	EA602	1 ½”	48,3	
EA553	EA603	2”	60,3	
EA554	EA604	2 ½”	73,0	
EA555	EA605	3”	88,9	
EA556	EA606	4”	114,3	

Nylon Victaulic Style Couplings – 150 psi

- Complete with gaskets in EPDM;
- Max operating pressure 150 psi (10 bar).

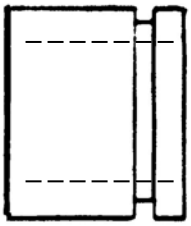
REF.	NOMINAL DIAMETER (inch)	NOMINAL DIAMETER (mm)	
EA557 (*)	6”	168,3	
EA558 (*)	8”	219,1	

(*) not available in stock.

Stub Pipes

Stub Pipes to Weld

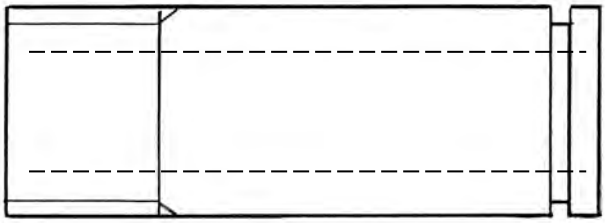
- Stub pipe with end part to weld;
- Material AISI 316;
- P max 600 psi (42 bar).



REF.	ANSI B36.10 SCHEDULE	DIAMETER (inch)	DIAMETER (mm)	LENGTH (mm)	
EA080	40	¾"	26,7	60	
EA081	40	1"	33,4	60	
EA082	40	1 ¼"	42,2	60	
EA083	40	1 ½"	48,3	60	
EA084	40	2"	60,3	80	
EA085A	40	2 ½"	73,0	90	
EA086	40	3"	88,9	100	

Threaded Stub Pipes

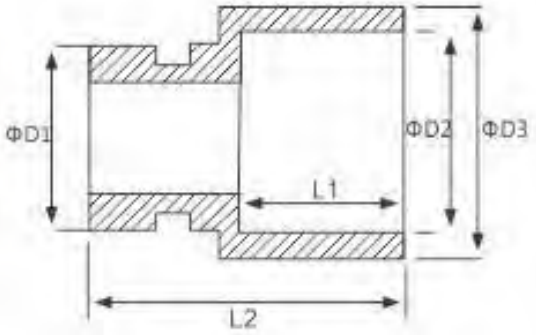
- Stub pipe with end part threaded;
- Material AISI 316;
- P max 600 psi (42 bar).



REF.	DIAMETER (inch)	LENGTH (mm)	
EA050	¾" BSPP male	65	
EA051	1" BSPP male	65	
EA052	1 ¼" BSPP male	80	
EA053	1 ½" BSPP male	100	
EA054	2" BSPP male	100	
EA055	2 ½" BSPP male (external diameter 76,1 mm)	100	

Stub Pipes to Glue

- Stub pipes with end part to glue and the other end part for Victaulic Style couplings;
- In PVC-U.
- PN = 4 bar.



REF.	FOR OUR VICTAULIC STYLE COUPLINGS	D1 (mm)	D2 (mm)	D3 (mm)	L1 (mm)	L2 (mm)	
EA601	EA551	42	32	40	22	64	
EA602	EA552	48	50	60	31	66	
EA603	EA553	60	63	74	38	76	
EA604	EA554	73	75	87	43	79	
EA605	EA555	89	90	104	51	85	
EA606	EA556	114	110	125	61	96	

R.O.PLUS Electric Control Panel for R.O. Systems

- With double conductivity meter (feed and permeate);
- In this way you can:
  - Command the high pressure pump and the two solenoid valves for feed interception and flushing;
  - Manage and program the most common measurement and signal instruments installed on the system, with highly flexible ways of working;
  - Manage and setting the automatic cleaning system;
- Conform to CE Directives;
- Microprocessor;
- LCD display 2 x 16 digit;
- Power supply 230VAC 50-60Hz;
- Available in ABS box with protection class IP65 (ref. DG101 and ref. DG103) or Rack version (ref. DG101R and ref. DG103R);
- Supplied without conductivity probes.

ABS box IP65

Operated functions:

- High pressure pump (max power 736 W);
- Feed electric valve;
- Fluxing electric valve;
- Cleaning electric valve;
- Pump for antiscaling.

Conductivity meter:

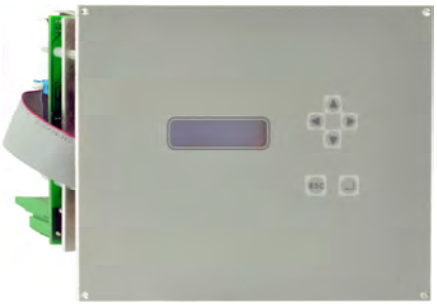
RO PLUS is available in the following 2 versions (supplied without conductivity probes)

Rack version

Height 180 mm
Width 220 mm
Depth 80 mm

VERSION 1: RO PLUS LC (ref. **DG101** ABS box IP65 and ref. **DG101R** Rack version)
With conductivity meter for feed 000 ÷ 9,99 mS/cm
and conductivity meter for permeate 00,0 ÷ 99,9 µS/cm

Warning: with this model you must use one Stainless Steel probe K=1 (ref. **DG121**) for feed and one Stainless Steel probe for permeate (ref. **DG122**), to buy separately.



VERSION 2: RO PLUS HC (ref. **DG103** ABS box IP65 and ref. **DG103R** Rack version)
With conductivity meter for feed 00,0 ÷ 9,99 mS/cm
and conductivity meter for permeate 00,0 ÷ 999 µS/cm

Warning: with this model you must use n.2 graphite probes K=1 (ref. **DG123**), one for the feed and one for the permeate, to buy separately.

The version is displayed turning on the instrument.

R.O.PLUS Electric Control Panel for R.O. Systems

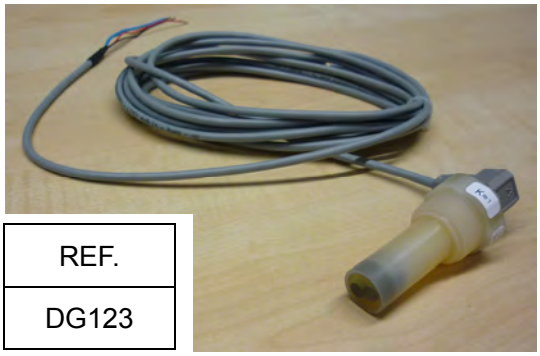
External input receivable:

- Low permeate storage tank level;
- High permeate storage tank level;
- Minimum pressure meter;
- Maximum pressure meter;
- Pretreatment (filter or softener) in service;
- Heat pump;
- Failed dosage alarm;
- Stand-by.

REF.
DG121

Alarms:

- High conductivity;
- Low pressure;
- High pressure;
- Heat pump;
- HIGH LOW CONTACT.



REF.
DG123

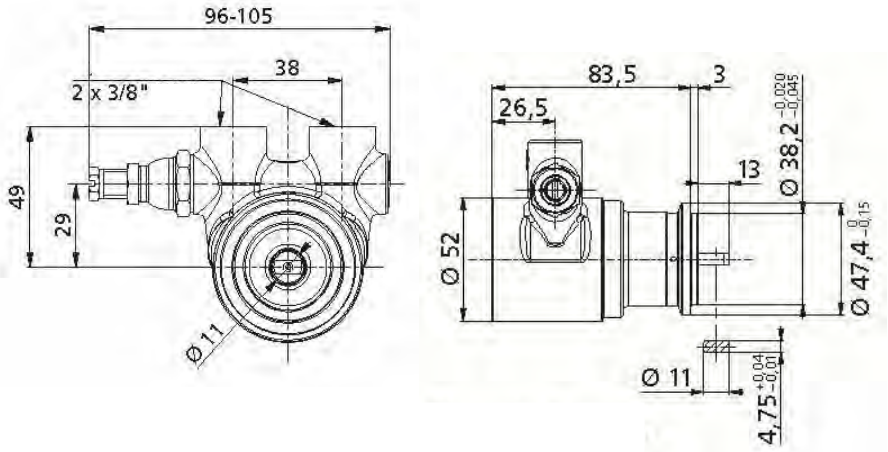
REF.
DG122

REF.	DESCRIPTION	
DG101	RO PLUS LC	
DG103	RO PLUS HC	
DG101R	RO PLUS LC Rack	
DG103R	RO PLUS HC Rack	
DG121	Inox probe K=1, ¾" connection	
DG122	Inox probe K=0.1, ¾" connection	
DG123	Graphite probe K=1, ¾" connection	

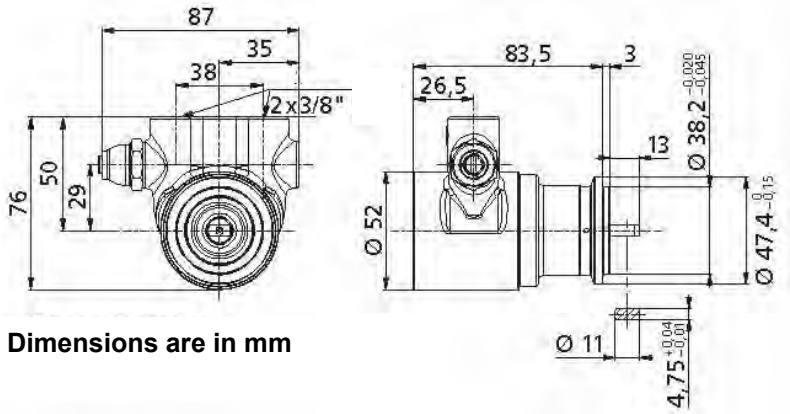
In-Out ⅜” Rotary Pumps for R.O.

- Rotary vane pumps for R.O. systems, direct connection V-band clamp to motor;
- Housing material brass or AISI 303, security by-pass on show models;
- IN-OUT connections ⅜” F BSPT (or NPT on demand);
- Conforms to D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- WRAS approved products (for UK);
- Conforms to NSF/ANSI standard 169.

Brass Pumps



Aisi 303 Pumps



Dimensions are in mm

In-Out ⅜” Rotary Pumps for R.O.

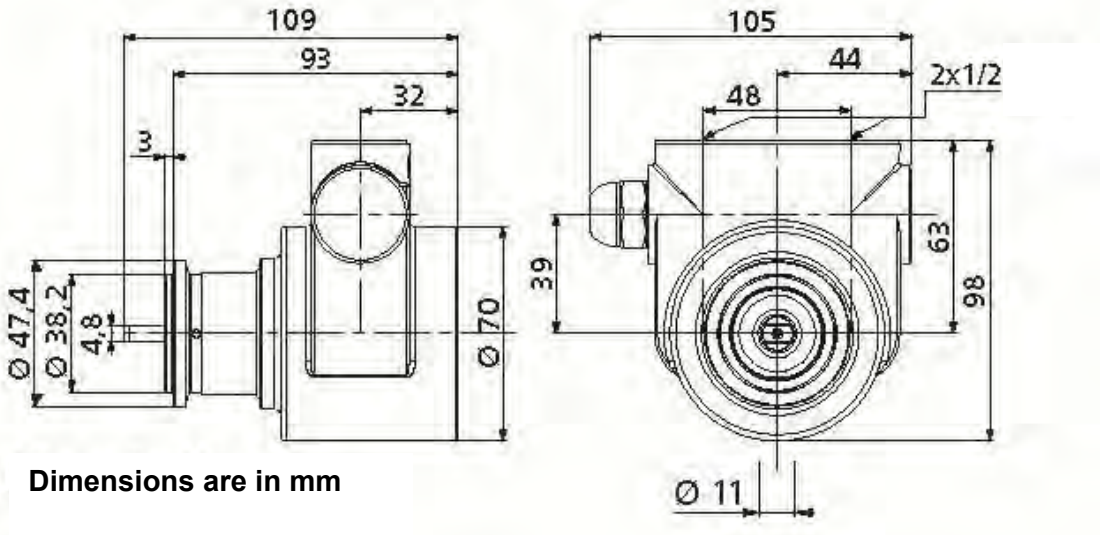
REF.	MODEL	CONNECTIONS	BY-PASS	MATERIAL	FLOW (**) @ 7 bar (l/h)	FLOW (**) @ 14 bar (l/h)	
DE804A	RO 50 OT	BSPT	w/ By-Pass	Brass	65	55	
DE805A	RO 150 OT	BSPT	w/ By-Pass	Brass	165	150	
DE806A	RO 200 OT	BSPT	w/ By-Pass	Brass	225	206	
DE807A	RO 300 OT	BSPT	w/ By-Pass	Brass	334	315	
DE808A	RO 400 OT	BSPT	w/ By-Pass	Brass	434	415	
DE827A	RO 300 AISI	BSPT	w/ By-Pass	AISI 303	334	315	
DE828A	RO 400 AISI	BSPT	w/ By-Pass	AISI 303	434	415	
DE811A	RO 200 OT	BSPT	w/o By-Pass	Brass	225	206	
DE812A	RO 300 OT	BSPT	w/o By-Pass	Brass	334	315	
DE813A	RO 400 OT	BSPT	w/o By-Pass	Brass	434	415	
DE832A	RO 300 AISI	BSPT	w/o By-Pass	AISI 303	334	315	
DE833A	RO 400 AISI	BSPT	w/o By-Pass	AISI 303	434	415	
DE804 (*)	RO 50 OT	NPT	w/ By-Pass	Brass	65	55	
DE805 (*)	RO 150 OT	NPT	w/ By-Pass	Brass	165	150	
DE806 (*)	RO 200 OT	NPT	w/ By-Pass	Brass	225	206	
DE807 (*)	RO 300 OT	NPT	w/ By-Pass	Brass	334	315	
DE808 (*)	RO 400 OT	NPT	w/ By-Pass	Brass	434	415	
DE827 (*)	RO 300 AISI	NPT	w/ By-Pass	AISI 303	334	315	
DE828 (*)	RO 400 AISI	NPT	w/ By-Pass	AISI 303	434	415	
DE811 (*)	RO 200 OT	NPT	w/o By-Pass	Brass	225	206	
DE812 (*)	RO 300 OT	NPT	w/o By-Pass	Brass	334	315	
DE813 (*)	RO 400 OT	NPT	w/o By-Pass	Brass	434	415	
DE832 (*)	RO 300 AISI	NPT	w/o By-Pass	AISI 303	334	315	
DE833 (*)	RO 400 AISI	NPT	w/o By-Pass	AISI 303	434	415	

(*) not available in stock.

(**) average flow rate with motor 1.450 rpm.

In-Out ½” Rotary Pumps for R.O.

- rotary vane pumps for R.O. systems, direct connection V-band clamp to motor;
- housing material brass or AISI 303;
- IN-OUT Gas connections ½” F BSPT (or NPT on demand);
- Conforms to D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- WRAS approved products (for UK);
- Conforms to NSF/ANSI standard 169.



Dimensions are in mm

In-Out ½" Rotary Pumps for R.O.

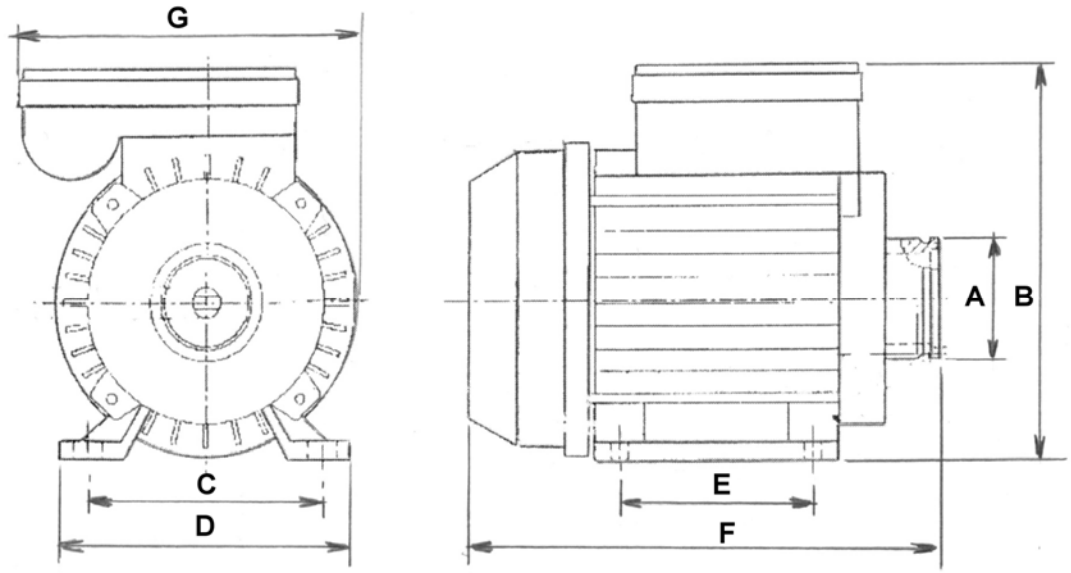
REF.	MODEL	CONNECTIONS	BY-PASS	MATERIAL	FLOW (**) @ 7 bar (l/h)	FLOW (**) @ 14 bar (l/h)	
DE809A	RO 600 OT	BSPT	w/ By-Pass	Brass	620	597	
DE810A	RO 800 OT	BSPT	w/ By-Pass	Brass	820	797	
DE814A	RO 1000 OT	BSPT	w/ By-Pass	Brass	1020	997	
DE817A	RO 600 OT	BSPT	w/o By-Pass	Brass	620	597	
DE818A	RO 800 OT	BSPT	w/o By-Pass	Brass	820	797	
DE819A	RO 1000 OT	BSPT	w/o By-Pass	Brass	1020	997	
DE801A	RO 600 AISI	BSPT	w/ By-Pass	AISI 303	620	597	
DE802A	RO 800 AISI	BSPT	w/ By-Pass	AISI 303	820	797	
DE803A	RO 1000 AISI	BSPT	w/ By-Pass	AISI 303	1020	997	
DE837A	RO 600 AISI	BSPT	w/o By-Pass	AISI 303	620	597	
DE838A	RO 800 AISI	BSPT	w/o By-Pass	AISI 303	820	797	
DE839A	RO 1000 AISI	BSPT	w/o By-Pass	AISI 303	1020	997	
DE809 (*)	RO 600 OT	NPT	w/ By-Pass	Brass	620	597	
DE810 (*)	RO 800 OT	NPT	w/ By-Pass	Brass	820	797	
DE814 (*)	RO 1000 OT	NPT	w/ By-Pass	Brass	1020	997	
DE817 (*)	RO 600 OT	NPT	w/o By-Pass	Brass	620	597	
DE818 (*)	RO 800 OT	NPT	w/o By-Pass	Brass	820	797	
DE819 (*)	RO 1000 OT	NPT	w/o By-Pass	Brass	1020	997	
DE801 (*)	RO 600 AISI	NPT	w/ By-Pass	AISI 303	620	597	
DE802 (*)	RO 800 AISI	NPT	w/ By-Pass	AISI 303	820	797	
DE803 (*)	RO 1000 AISI	NPT	w/ By-Pass	AISI 303	1020	997	
DE837 (*)	RO 600 AISI	NPT	w/o By-Pass	AISI 303	620	597	
DE838 (*)	RO 800 AISI	NPT	w/o By-Pass	AISI 303	820	797	
DE839 (*)	RO 1000 AISI	NPT	w/o By-Pass	AISI 303	1020	997	

(*) not available in stock.

(**) average flow rate with motor 1.450 rpm.

Motors Direct Connection for Rotary Pumps

- Single phase motors direct connection for rotary vane pumps;
- Complete with thermic protection (our ref. DE845 has an automatic reset thermal protection when the temperature decreases);
- Power supply 220V – 50 Hz.



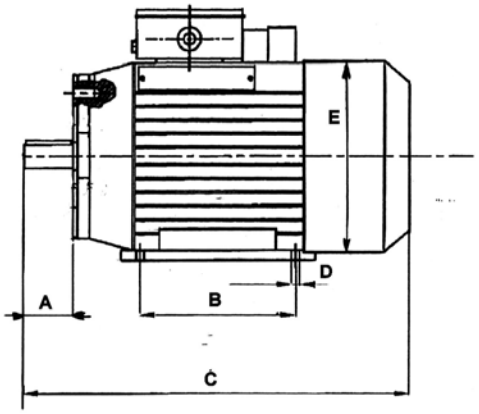
REF.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
DE850	47	156	97	120	80	200	138
DE845	44	205	*	172	*	241	*

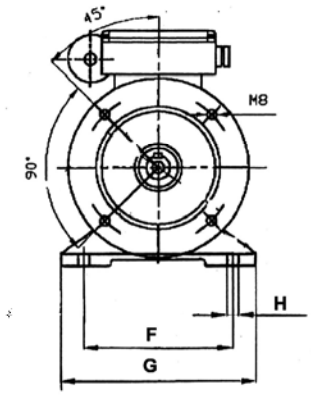
* Not applicable: for further details, please consult our Technical Department.

REF.	POWER (W)	ELECTRICAL INPUT (A)	RPM	IP PROTECTION	FOR PUMPS	
DE850	300	1,6	1.300	IP44	RO 200 RO 300	
DE845	550	4,2	1.360	IP55	RO 600 RO 800	

Motors for Rotary Pumps
for R.O. 300-400-600-800-1000

- range of single and three phase motors for application with rotary vane pumps, using coupling and adapter;
- 4 poles motor, power supply 220V – 50 Hz single phase, 380V – 50 Hz three phase;
- protection class IP55;
- for couplings and adapters see 06-04-08-EN data sheet.





REF.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)
0,5 CV	30	90	222	7	141	112	142	10
0,75 CV	40	100	255	10	157	125	160	13
1 CV	40	100	255	10	157	125	160	13

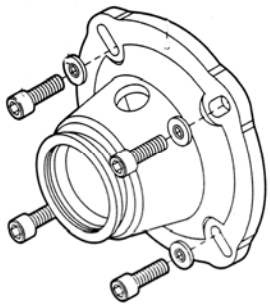
REF.	DE860	DE861	DE862	DE863	DE864	DE865
MODEL	0,5 CV-M71-MONO	0,75 CV-M80-MONO	1 CV-M80-MONO	0,5 CV-M71-TRI	0,75 CV-M80-TRI	1 CV-M80-TRI
POWER (CV)	0,5	0,75	1	0,5	0,75	1
POWER (W)	370	550	750	370	550	750
ELECTR. INPUT (A)	3,1	3,9	5,6	2,2	2,8	3,5
RPM	1360	1360	1370	1360	1360	1360
SINGLE PHASE/ THREE PHASE	SINGLE PHASE	SINGLE PHASE	SINGLE PHASE	THREE PHASE	THREE PHASE	THREE PHASE
FOR PUMP	RO 300 RO 400	RO 600 RO 800	RO 1000	RO 300 RO 400	RO 600 RO 800	RO 1000
ADAPTER REF	DE871	DE873	DE873	DE871	DE873	DE873
COUPLING REF.	DE872	DE874	DE874	DE872	DE874	DE874

NOTE: It's absolutely necessary to provide an adequate electric protection to avoid further overloaded.

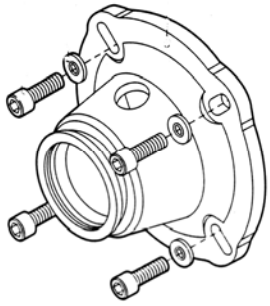
Adapter Couplings and Adapters for Rotary Pumps Models R.O. 300-400-600-800-1000

- for relative motors coupling see 06-04-07-EN data sheet.

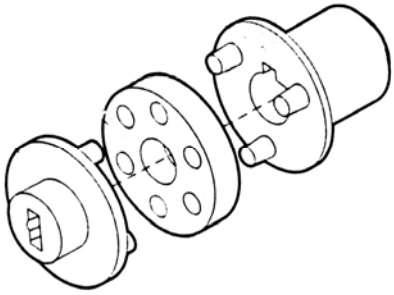
REF.	DESCRIPTION	
DE871	Adapter M71	



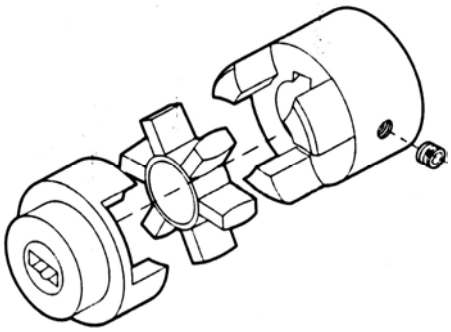
REF.	DESCRIPTION	
DE873	Adapter M80	



REF.	DESCRIPTION	
DE872	Coupling M71	

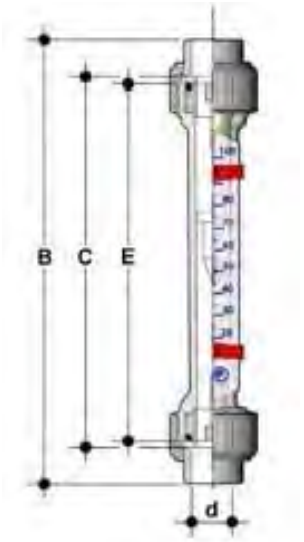


REF.	DESCRIPTION	
DE874	Coupling M80	



Flowmeters

- Flowmeters (the reading is taken in correspondence with the top edge of the float) with wide range of measuring scale and of end connections (d20 ÷ d75), good level of accuracy with simple operation and very limited maintenance;
- Standard fluid = water;
- Measuring tube in transparent PVC-U, Float in PP and O-ring in EPDM;
- Isolating or control valves may be mounted both upstream or downstream the flowmeter;
- Maximum working pressure with water up to 25°C = 10 bar;
- Maximum working pressure with water up to 60°C = 1,5 bar
- Temperature range = 5 ÷ 60°C.



FCIV

d	B	C	E
20	208	176	170
25	229	191	185
32	250	206	200

FSIV

d	B	C	E
40	408	356	350
63	432	356	350
75	444	356	350

REF.	MODEL	MEASURING RANGE (L/H)	CONNECTION	
DG030	FCIV	20 ÷ 200	d20	
DG032	FCIV	30 ÷ 350	d25	
DG034	FCIV	60 ÷ 600	d32	
DG036	FCIV	100 ÷ 1.000	d32	
DG038	FSIV	160 ÷ 1.600	d40	
DG040	FSIV	200 ÷ 2.500	d40	
DG042	FSIV	350 ÷ 3.500	d63	
DG044	FSIV	500 ÷ 5.000	d63	
DG046	FSIV	1.000 ÷ 8.000	d75	
DG048	FSIV	1.000 ÷ 10.000	d75	
DG050	FSIV	5.000 ÷ 25.000	d75	

ACCESSORIES:

- Threaded connections not included, to order separately;
- Material not available in stock.

REF.	DESCRIPTION	FOR FLOWMETER	
DG061	BFV THREADED COUPLING BSP 1/2" PVC-U	DG030	
DG063	BFV THREADED COUPLING BSP 3/4" PVC-U	DG032	
DG065	BFV THREADED COUPLING BSP 1" PVC-U	DG034 – DG036	
DG067	BFV THREADED COUPLING BSP 1 1/4" PVC-U	DG038 – DG040	
DG069	BFV THREADED COUPLING BSP 2" PVC-U	DG042 – DG044	
DG071	BFV THREADED COUPLING BSP 2 1/2" PVC-U	DG046 – DG048 –DG050	

Accessories and Spare Parts
2,5” WAVE CYBER Vessels

REF.	DESCRIPTION	
DE510 (*)	Plastic clip for 2,5” vessels	
DE420 (*)	Baffle 300 psi	
DE421 (*)	Head 300 psi	
DE422 (*)	Head seal	
DE423 (*)	Allen screw	
DE424 (*)	Baffle 1000 psi	
DE425 (*)	Head 1000 psi	
DE616 (*)	Adapter seal	

(*) Available till it will be out-of-stock

Accessories and Spare Parts
4” WAVE CYBER Vessels

REF.	DESCRIPTION	
DE610 (*)	Saddle and strap assembly	
DE613 (*)	Baffle	
DE614 (*)	Head ½” BSPP (300 psi) PP/FG	
DE618 (*)	Head ¾” BSPP (300 psi) PP/FG	
DE614A (*)	Head ½” BSPP (450 psi) nylon	
DE618A (*)	Head ¾” BSPP (450 psi) nylon	
DE615 (*)	Head seal	
DE616 (*)	Adapter seal	
DE617 (*)	Allen screw	

(*) Available till it will be out-of-stock

Spare Parts for 8” End Port
WAVE CYBER Vessels

REF.	DESCRIPTION	
EA392 (*)	Head Assembly H “E Series” 250-300 psi p/n 70531	
EA393 (*)	Head Assembly H “E Series” 400-450 psi p/n 70532	
EA394 (*)	Head Assembly H “E Series” 600 psi p/n 70533	
EA395 (*)	Head Assembly H “E Series” 1000-1200 psi p/n 70534	
EA371 (*)	Three-turn locking ring 150-600 psi	
EA371A (*)	Three-turn locking ring 1000-1200 psi	
EA372 (*)	Permeate port retaining ring	
EA375 (*)	Bearing plate 300 psi	
EA376 (*)	Bearing plate 400-450 psi	
EA377 (*)	Bearing plate 600 psi	
EA378 (*)	Bearing plate 1000 psi	
EA358 (*)	Head seal	
EA367 (*)	Permeate port H 300 psi	
EA368 (*)	Permeate port H 400-450 psi	
EA369 (*)	Permeate port H 600 psi	
EA370 (*)	Permeate port H 1000 psi	
EA356 (*)	PWT seal	
EA365 (*)	Thrust cone	
EA361 (*)	Feed / concentrate port 300 psi	
EA362 (*)	Feed / concentrate port 400-450 psi	
EA363 (*)	Feed / concentrate port 600 psi	
EA364 (*)	Feed / concentrate port 1000 psi	
EA379 (*)	Retaining ring 300 psi	
EA380 (*)	Retaining ring 400-450 psi	
EA381 (*)	Retaining ring 600 psi	
EA382 (*)	Retaining ring 1000 psi	
EA357 (*)	Feed / concentrate port seal	
EA373 (*)	Strap	
EA374 (*)	Saddle	
EA347 (*)	Permeate nut 1 ½” G	
EA348 (*)	Permeate adapter D32 to glue	
EA351 (*)	Permeate port H o-ring	
EA351A (*)	Permeate port H flat gasket	

(*) Available till it will be out-of-stock

Spare Parts for 8” Side Port
WAVE CYBER Vessels

REF.	DESCRIPTION	
EA492 (*)	Head Assembly H –“P Series” 300 psi p/n 70525	
EA493 (*)	Head Assembly H –“P Series” 450 psi p/n 70526	
EA494 (*)	Head Assembly H –“P Series” 600 psi p/n 70527	
EA495 (*)	Head Assembly H –“P Series” 1000 psi p/n 70528	
EA496 (*)	Head Assembly H –“P Series” 1200 psi p/n 70529	
EA371 (*)	Three-turn locking ring 150-600 psi	
EA371A (*)	Three-turn locking ring 1000-1200 psi	
EA372 (*)	Permeate port retaining ring	
EA471 (*)	Bearing plate 300 psi	
EA472 (*)	Bearing plate 450 psi	
EA473 (*)	Bearing plate 600 psi	
EA474 (*)	Bearing plate 1000 psi	
EA476 (*)	Permeate port H 300 psi	
EA477 (*)	Permeate port H 450 psi	
EA478 (*)	Permeate port H 600 psi	
EA479 (*)	Permeate port H 1000 psi	
EA358 (*)	Head seal	
EA356 (*)	PWT seal	
EA480 (*)	Thrust cone	
EA373 (*)	Strap	
EA374 (*)	Saddle	
EA347 (*)	Permeate nut 1 ½” G	
EA348 (*)	Permeate adapter D32 to glue	
EA351 (*)	Permeate port H o-ring	
EA351A (*)	Permeate port H flat gasket	

(*) Available till it will be out-of-stock

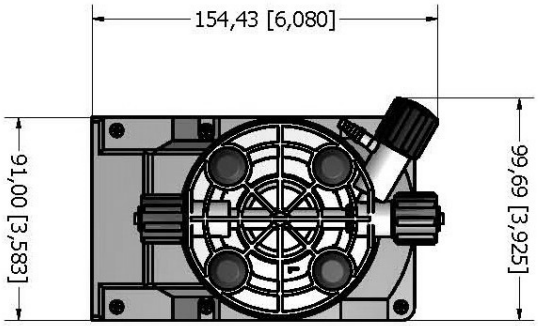
PL Series Metering Pumps Horizontal Mounting

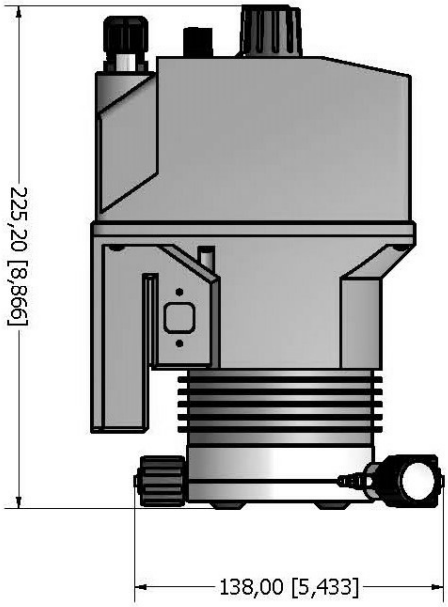
- PL series metering pumps horizontal mounting;
- Constant or proportional feeding, with pulse multiplier or pulse divider, dosage based on a mA signal or a digital signal (from 1 pulse/minute at 180 pulses/minute);
- Microprocessor technology;
- Manual stroke length adjustment;
- Body pump's in PVDF (and o-rings in VITON) or PP (and o-rings in EPDM), with manual venting;
- Black enclosure in PP material;
- Protection class IP65;
- Audible noise 73,4 dB(A);
- Environment temperature 10 ÷ 45°C;
- Chemical temperature 0 ÷ 50°C;
- Power supply 230Vac 50/60hz with European transformer;
- Each pump is shipped with a Kit Assembly, delayed fuse, level probe with axial foot filter (PVDF), 5 bar injection valve (PVDF), PVDF delivery hose (length 2 m), PVC suction hose (length 2 m), discharge hose (length 2 m), input signal cable (length 2,5 m);
- Conform with CE safety Directives;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- Available also the self-venting version (see the following table).

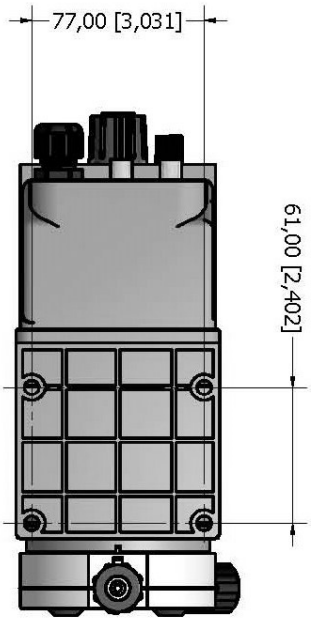
REF.	FLOW RATE	SELF-VENTING VERSION	PUMP HEAD	O-RING	
DG299	1 l/h at 18 bar	YES	PVDF	VITON	
DG300	2 l/h at 18 bar	NO	PVDF	VITON	
DG300A (*)	2 l/h at 18 bar	NO	PP	EPDM	
DG303	5,5 l/h at 8 bar	YES	PVDF	VITON	
DG304	8 l/h at 8 bar	NO	PVDF	VITON	
DG304A (*)	8 l/h at 8 bar	NO	PP	EPDM	

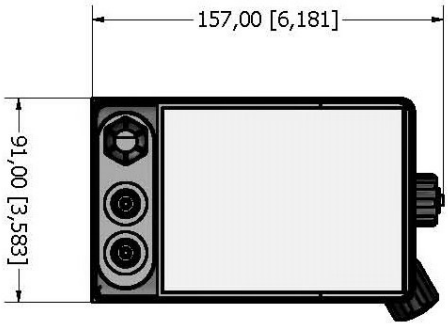
(*) suitable for alkaline liquid chemicals;
not available in stock – Delivery 3 weeks.

PL Series Metering Pumps Horizontal Mounting









Dimensions are in mm [inches]

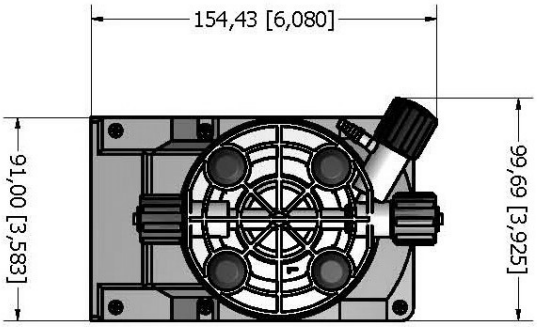
MF Series Metering Pumps Horizontal Mounting

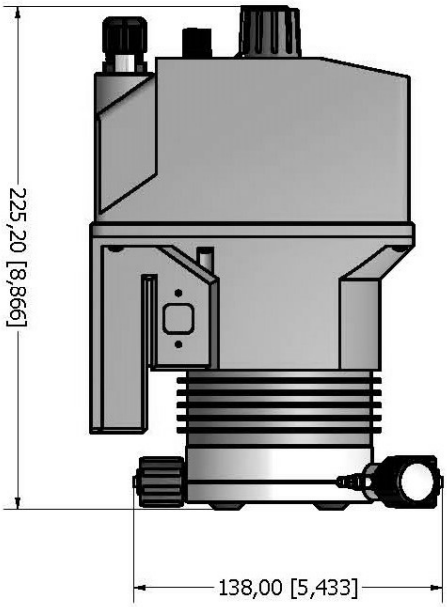
- MF series metering digital pumps horizontal mounting;
- Microprocessor technology (Constant, Divide, Multiply, PPM, Batch, Volt, mA, %, MLQ), stand-by and flow sensor input, alarm output and level control. Recovery fault mode, work-pause mode and upkeep mode (from 1 pulse/minute at 180 pulses/minute);
- Body pump's in PVDF (and o-rings in VITON) or PP (and o-rings in EPDM), with manual venting;
- Black enclosure in PP material, protection class IP65;
- Audible noise 73,4 dB(A);
- Environment temperature 10 ÷ 45°C, chemical temperature 0 ÷ 50°C;
- Power supply 230Vac 50/60hz with European transformer;
- Each pump is shipped with a Kit Assembly, delayed fuse, level probe with axial foot filter (PVDF), 5 bar injection valve (PVDF), PVDF delivery hose (length 2 m), PVC suction hose (length 2 m), discharge hose (length 2 m), input signal cable (length 2,5 m);
- Conform with CE safety Directives;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- Available also the self-venting version (see the following table).

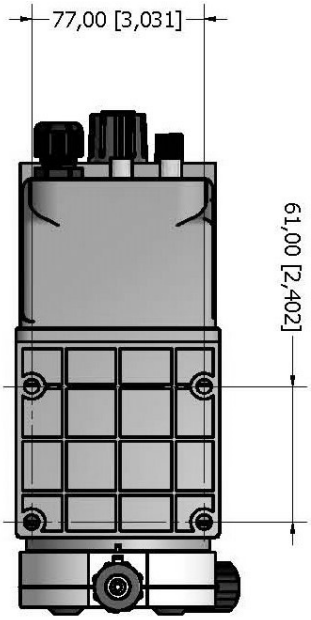
REF.	FLOW RATE	SELF-VENTING VERSION	PUMP HEAD	O-RING	
DG309	1 l/h at 18 bar	YES	PVDF	VITON	
DG310	2 l/h at 18 bar	NO	PVDF	VITON	
DG310A (*)	2 l/h at 18 bar	NO	PP	EPDM	
DG313	5,5 l/h at 8 bar	YES	PVDF	VITON	
DG314	8 l/h at 8 bar	NO	PVDF	VITON	
DG314A (*)	8 l/h at 8 bar	NO	PP	EPDM	

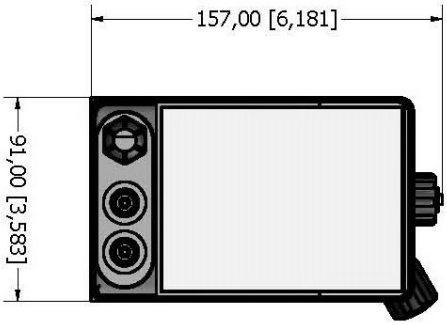
(*) suitable for alkaline liquid chemicals;
not available in stock – Delivery 3 weeks.

MF Series Metering Pumps Horizontal Mounting









Dimensions are in mm [inches]

MF Series Metering Pumps Vertical Mounting

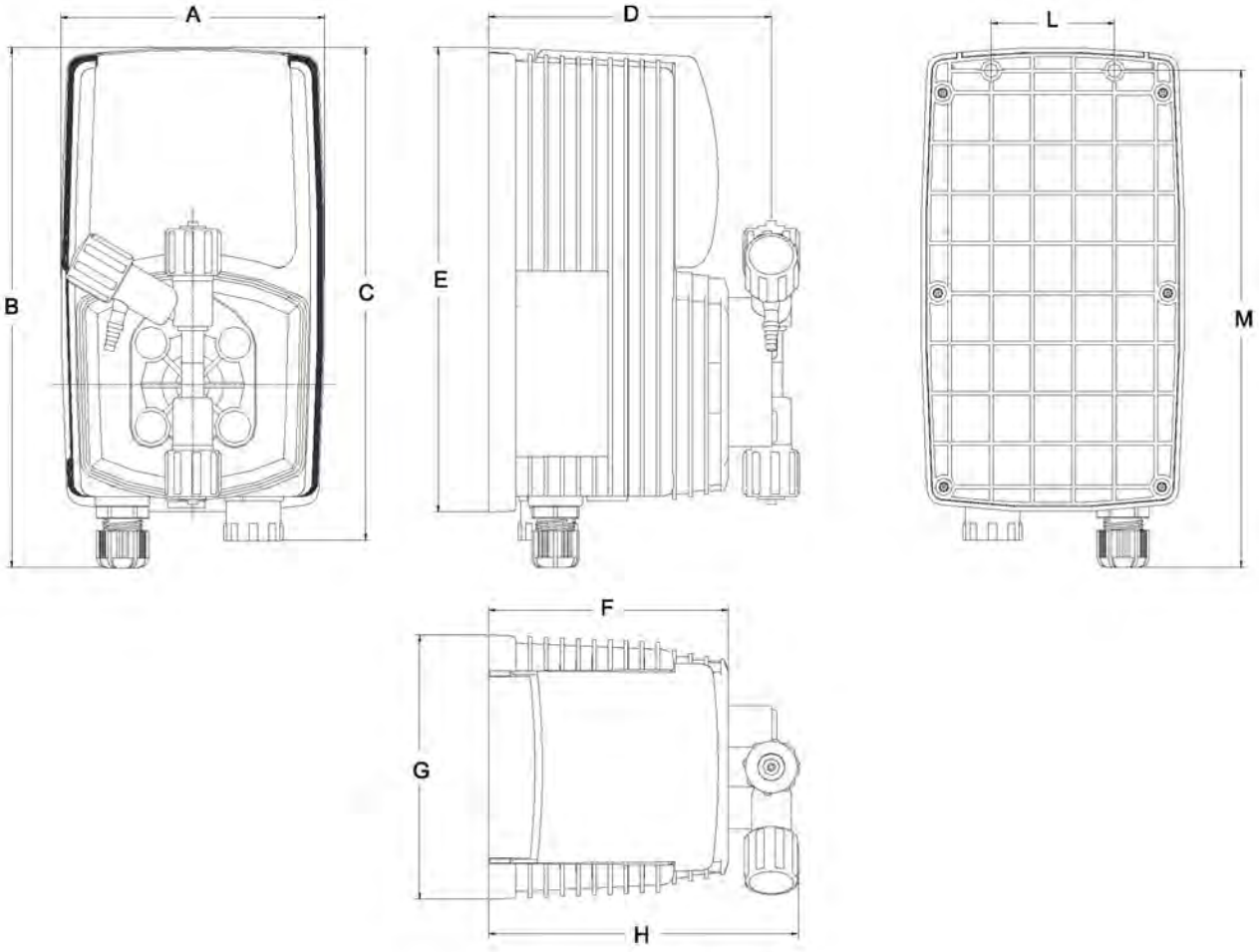
- MF series metering digital pumps vertical mounting;
- Microprocessor technology (Constant, Divide, Multiply, PPM, Batch, Volt, mA, %, ml/q), with level control. Recovery fault mode, work-pause mode and upkeep mode (from 1 pulse/hour at 180 pulses/minute);
- Body pump's in PVDF (and o-rings in VITON) or PP (and o-rings in EPDM), with manual venting;
- Black enclosure in PP material;
- Protection class IP65;
- Audible noise 70,4 dB(A);
- Environment temperature 10 ÷ 45°C;
- Chemical temperature 0 ÷ 50°C;
- Power supply 230Vac 50/60hz with European transformer;
- Each pump is shipped with a Kit Assembly, delayed fuse, level probe with axial foot filter (PVDF), 5 bar injection valve (PVDF), PVDF delivery hose (length 2 m), PVC suction hose (length 2 m), discharge hose (length 2 m), input signal cable (length 2,5 m);
- Conform with CE safety Directives;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- Available also the self-venting version (see the following table).

REF.	FLOW RATE	SELF-VENTING VERSION	PUMP HEAD	O-RING	
DG319	1 l/h at 15 bar	YES	PVDF	VITON	
DG320	2 l/h at 15 bar	NO	PVDF	VITON	
DG320A (*)	2 l/h at 15 bar	NO	PP	EPDM	
DG323	4 l/h at 7 bar	YES	PVDF	VITON	
DG324	6 l/h at 7 bar	NO	PVDF	VITON	
DG324A (*)	6 l/h at 7 bar	NO	PP	EPDM	

(*) suitable for alkaline liquid chemicals;
not available in stock – Delivery 3 weeks.

MF Series Metering Pumps Vertical Mounting

DIMENSIONI		
	mm	*inches*
A	106.96	4.21
B	210.44	8.28
C	199.44	7.85
D	114.50	4.50
E	187.96	7.40
F	97.00	3.81
G	106.96	4.21
H	125.47	4.93
L	50.00	1.96
M	201.00	7.91



CL Series Metering Pumps Vertical Mounting

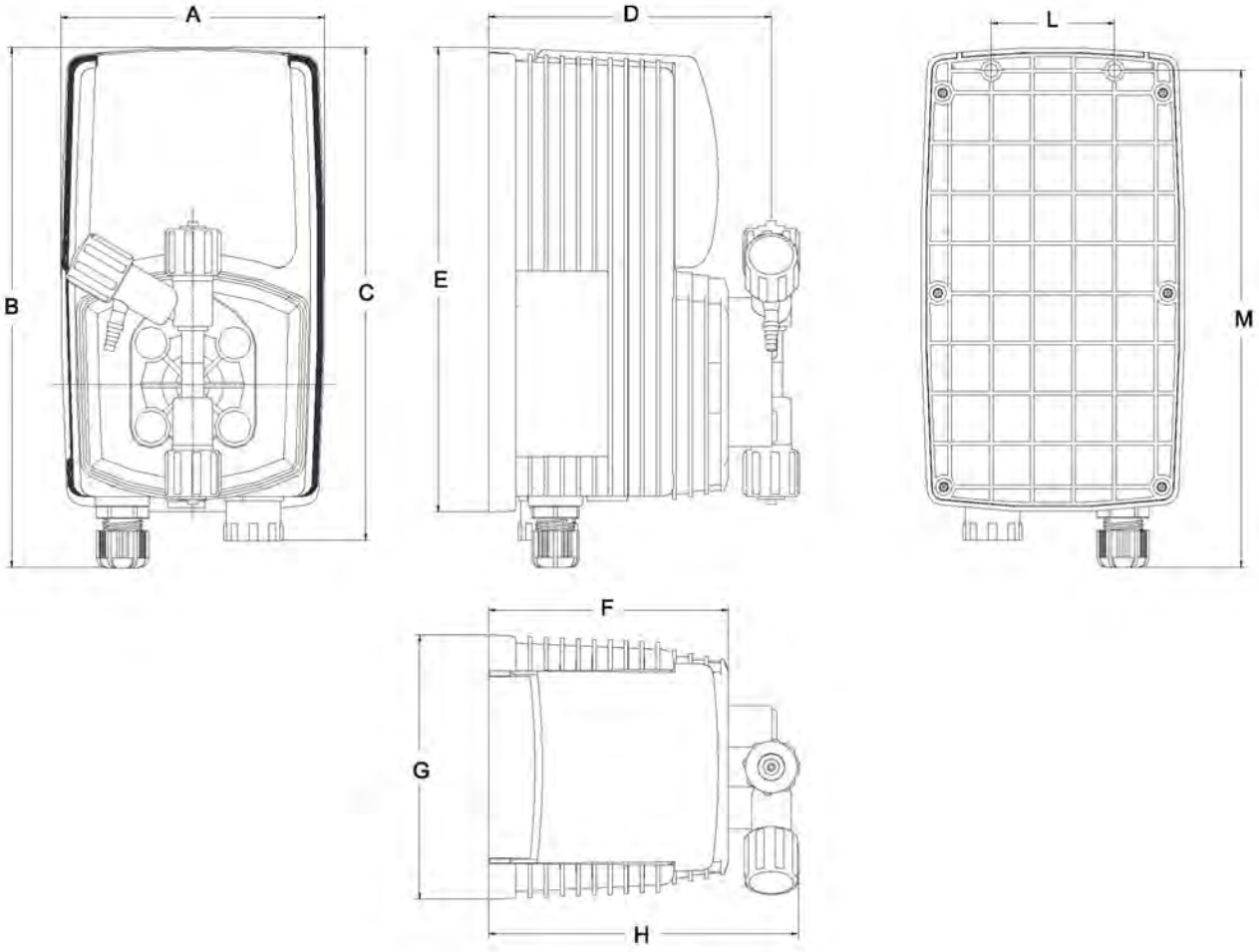
- CL series metering pumps vertical mounting;
- Microprocessor technology; constant pump with level control, flow rate control and 0-10% divider (from 1 pulse/minute at 180 pulses/minute);
- Body pump's in PVDF (and o-rings in VITON) or PP (and o-rings in EPDM), with manual venting;
- Black enclosure in PP material;
- Protection class IP65;
- Audible noise 74 dB(A);
- Environment temperature 10 ÷ 45°C;
- Chemical temperature 0 ÷ 50°C;
- Power supply 230Vac 50/60hz with European transformer;
- Each pump is shipped with a Kit Assembly, delayed fuse, level probe with axial foot filter (PVDF), 5 bar injection valve (PVDF), PVDF delivery hose (length 2 m), PVC suction hose (length 2 m), discharge hose (length 2 m), input signal cable (length 2,5 m);
- Conform with CE safety Directives;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- Available also the self-venting version (see the following table).

REF.	FLOW RATE	SELF-VENTING VERSION	PUMP HEAD	O-RING	
DG329	1 l/h at 15 bar	YES	PVDF	VITON	
DG330	2 l/h at 15 bar	NO	PVDF	VITON	
DG330A (*)	2 l/h at 15 bar	NO	PP	EPDM	
DG333	4 l/h at 7 bar	YES	PVDF	VITON	
DG334	6 l/h at 7 bar	NO	PVDF	VITON	
DG334A (*)	6 l/h at 7 bar	NO	PP	EPDM	

(*) suitable for alkaline liquid chemicals;
not available in stock – Delivery 3 weeks.

CL Series Metering Pumps Vertical Mounting

DIMENSIONI		
	mm	*inches*
A	106.96	4.21
B	210.44	8.28
C	199.44	7.85
D	114.50	4.50
E	187.96	7.40
F	97.00	3.81
G	106.96	4.21
H	125.47	4.93
L	50.00	1.96
M	201.00	7.91



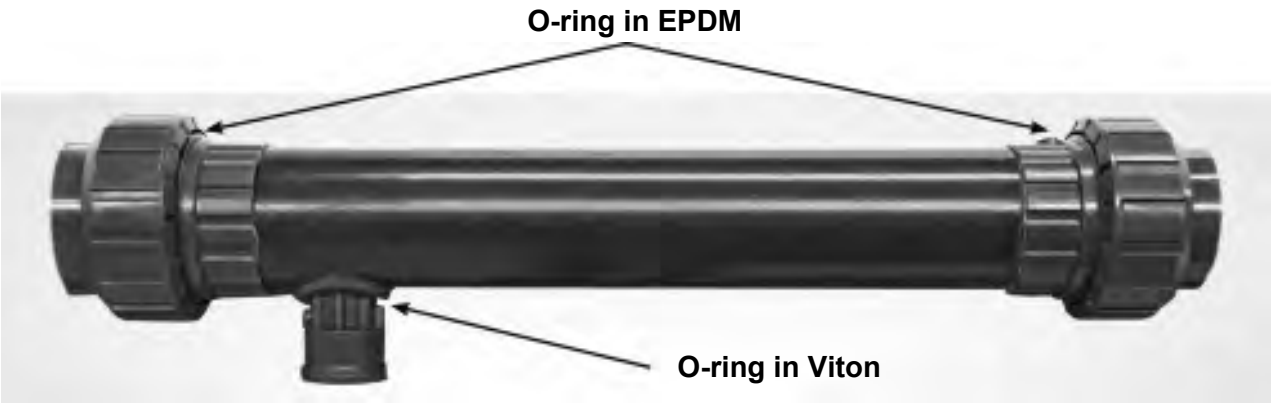
SPARE PARTS

REF.	DESCRIPTION	
DG452	5 m delivery hose in PVDF 6x4	
DG453	100 m hose in PVC 6x4	
DG454	100 m hose in PE 6x4	
DG460	Kit Assembly for pumps horizontal mounting, o-ring in VITON	
DG461 (*)	Kit Assembly for pumps horizontal mounting, o-ring in EPDM	
DG462	Kit Assembly for pumps vertical mounting, o-ring in VITON	
DG463 (*)	Kit Assembly for pumps vertical mounting, o-ring in EPDM	

(*) not available in stock.

STATIC MIXERS

- PVC-U static mixer filled with PP mixing elements;
- With injection valve 1/2" - 4x6 0,3 bar.



REF.	INSPECTIONABLE	FITTING	
DG470	YES	1 ¼”	
DG472	YES	1 ½”	
DG473	YES	2”	

ACCESSORIE

REF.	DESCRIPTION	
DG450	Fixing bracket for vertical pumps	

TURBINE PULSE EMITTER WATER METER

- Threaded pulse emitter water meter for cold and hot water, single (mod. 15 - 20 - 25 - 30 - 40) and multiple (mod. 50) jet counter with wet or dry dial;
- Thread sizes range: from ½" to 2";
- Brass case and head (except for 50 mm 2" model with cast iron case and head);
- Range temperature = 4 ÷ 30°C;
- Max operating pressure = 16 bar;
- Constant K = 4 pulses/liter;
- 2m cable length (RG58), equipped with BNC connector;
- Reed contact with 10^9 closing operations;
- Max voltage 250 VAC, 200 VDC;
- Max current 1 A;
- Max power 10 VA.

REF.	GAUGE (mm)	GAUGE (inches)	WITH DIAL …	
DG480	15	½	WET	
DG481	20	¾	WET	
DG482	25	1	WET	
DG483	30	1 ¼	WET	
DG484	40	1 ½	WET	
DG485	50	2	WET	
DG490 (*)	15	½	DRY	
DG491 (*)	20	¾	DRY	
DG492 (*)	25	1	DRY	
DG493 (*)	30	1 ¼	DRY	
DG494 (*)	40	1 ½	DRY	
DG495 (*)	50	2	DRY	

(*) not available in stock – Delivery 3 weeks.

ACCESSORY

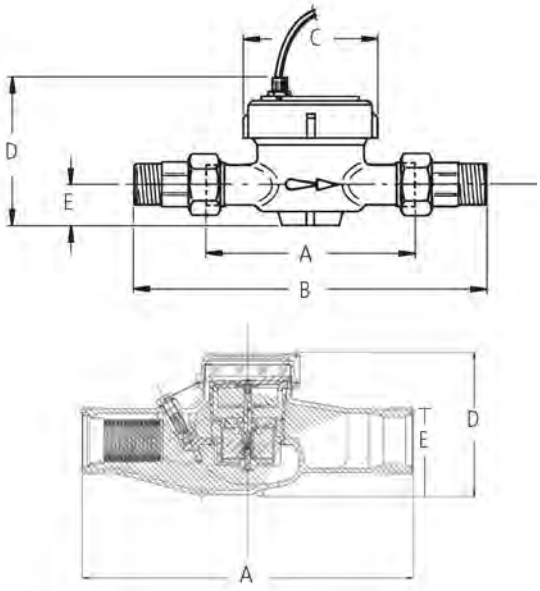
- KDPV Kit, Signal Splitter.

REF.	
DG467	

TURBINE PULSE EMITTER WATER METER

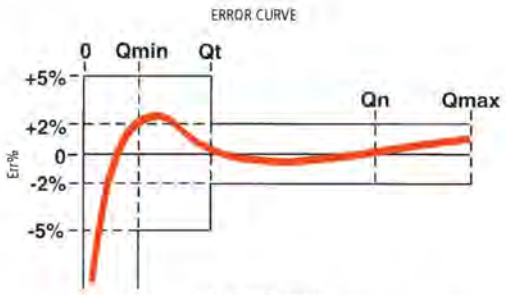
DIMENSIONS

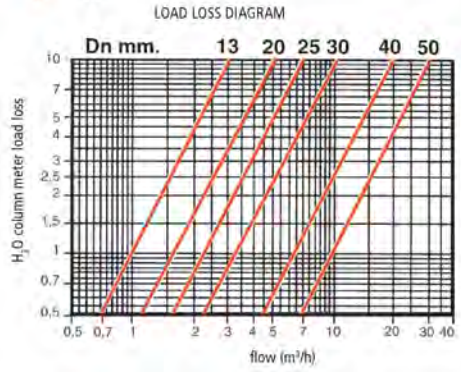
Gauge		mm / inch	15 / 1/2	20 / 3/4	25 / 1	30 / 1.1/4	40 / 1.1/2	50 / 2
Length withouth hose fittings	A	mm	110	130	160	160	200	300
Length with hose fittings	B	mm	190	228	260	280	340	460
Width	C	mm	80	80	100	100	110	108
Height	D	mm	110	110	132	132	137	130,5
Height from hose	E	mm	24	24	34	34	42	50,5
Weight with hose fitting		Kg	0,850	1,100	1,750	2,000	3,460	-
CEE approval number			B93 320 01	B93 320 02	B97 320 03	B97 320 04	B99 320 11	B02 320 13



FEATURES

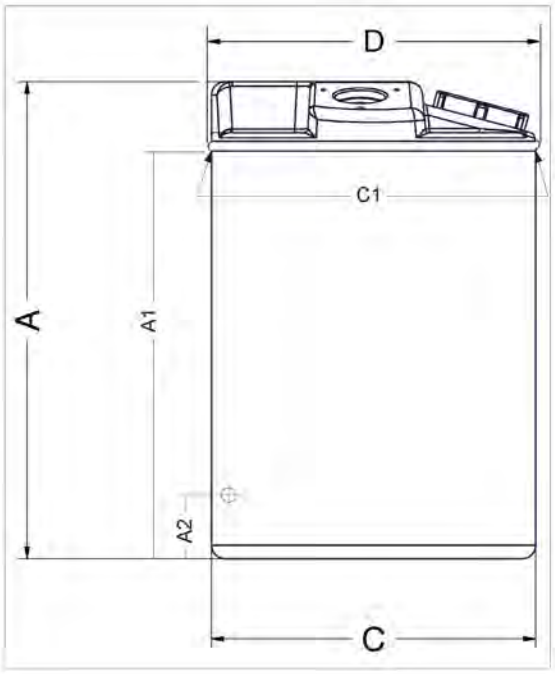
Gauge	mm / inch	15 / 1/2	20 / 3/4	25 / 1	30 / 1.1/4	40 / 1.1/2	50 / 2
Inertial breaking	l/h	10	15	20	20	25	50
Max temporary flow delivery	m³/h	3	5	7	10	20	30
Flow delivery with 10m of load loss	m³/h	3	5	7	10	20	30
Nominal flow rate	m³/h	1.5	2.5	3.5	5	10	15
First precision delivery ±5%	l/h	30	50	70	100	200	450
Second precision delivery ±2%	l/h	120	200	280	400	800	3000
Max operation pressure	bar	16	16	16	16	16	16
Minimum reading	l	0.1	0.1	0.1	0.1	0.1	0.5
Maximum reading	m³	10^5	10^5	10^5	10^5	10^5	10^6
Turbine revs per liter	g/l	34.8	22.5	11.7	11.7	4.5	3.16





Dosing Systems

- Suitable to be assembled with dosing pumps on catalogue;
- Each dosing system consisting in:
  - nr.1 tank in polyethylene (HDPE) for chemical mixing;
  - nr.1 suction lances with o-ring in VITON (optional in EPDM);
  - nr.1 manual stirrer;
- All dosing station components assembled on are enclosed into tank diameter;
- Stirrers screwed on thread metal insert are tilted for better central mixing;
- Stainless Steel (AISI 316) fixing screws with rubber cap;
- With level indicator;
- Tanks can be assembled with:
  - nr.1 metering pump (not included in the dosing system);
  - nr.1 manual stirrer;
  - nr.1 feed water valve;
  - nr.1 outgassing pump hose;
  - nr.1 outgassing valve (on the higher top side);
  - nr.1 bleed water valve (on the lower side);
  - nr.1 suction lance;
- Range temperature = 4 ÷ 40°C;
- On demand are available safety bunds.

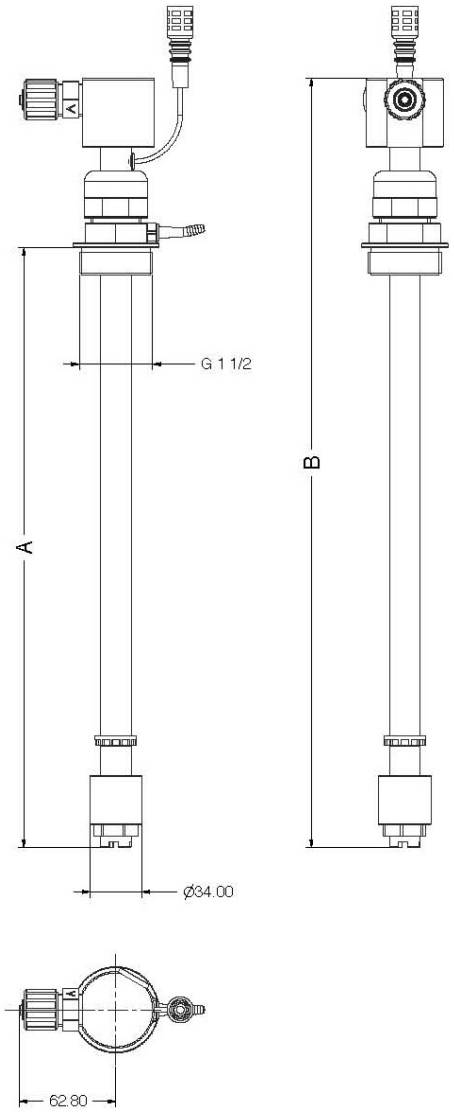


REF.	VOLUME (liters)	O-RING MATERIAL	A (mm)	A1 - FEED WATER VALVE HEIGHT (mm)	C (mm)	C1 (mm)	D (mm)	FEED WATER (mm)	
DG400	50	VITON	505	425	420	420	420	95	
DG400A (*)	50	EPDM	505	425	420	420	420	95	
DG402	120	VITON	735	650	475	485	495	650	
DG402A (*)	120	EPDM	735	650	475	485	495	650	
DG404	250	VITON	850	780	610	610	610	120	
DG404A (*)	250	EPDM	850	780	610	610	610	120	

(*) not available in stock – Delivery 3 weeks.

SUCTION LANCES FOR DOSING SYSTEMS

- For pumps up to 10 l/h;
- Level switch;
- Foot valve and foot filter;
- Adjustable height;
- 1 ½" pipe fitting;
- Lateral output (½" fitting);
- PVC body.



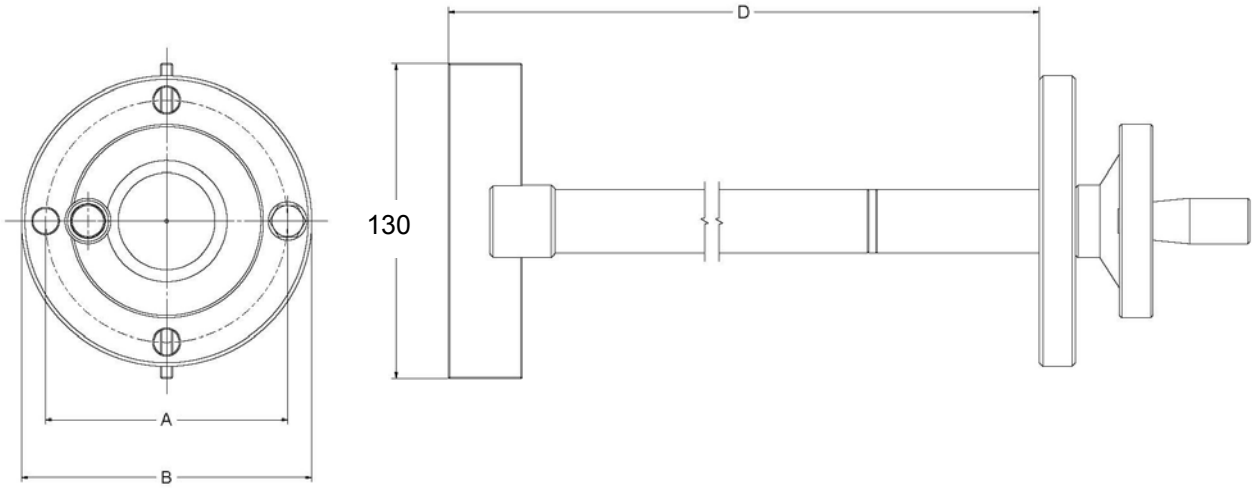
(*) suitable for alkaline liquid chemicals;
not available in stock – Delivery 3 weeks.

REF.	DOSING SYSTEM	O-RING MATERIAL	A (mm)	B (mm)	
DG430	DG400 – DG402	VITON	630	740	
DG430A (*)	DG400A – DG402A	EPDM	630	740	
DG434	DG404	VITON	1080	1190	
DG434A (*)	DG404A	EPDM	1080	1190	

MANUAL STIRRER FOR DOSING SYSTEM

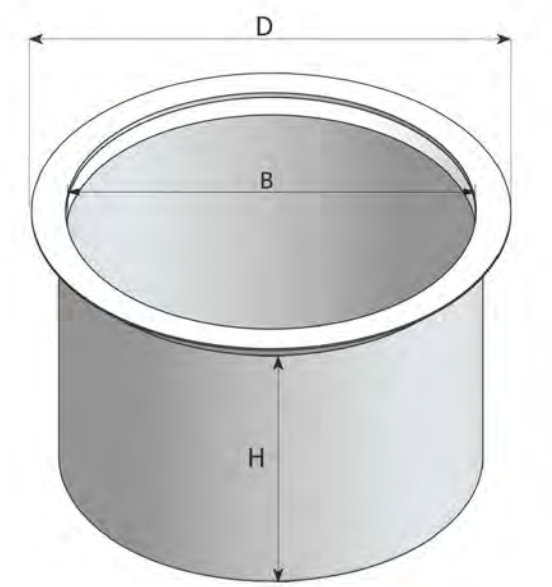
- PVC-U shaft;
- 2-blade impeller;
- Impeller diameter = 130 mm
- Holes diameter = 8,5 mm.

REF.	DOSING SYSTEM	A (mm)	Ø B (mm)	D (mm)	HOLES NUMBER AND POSITION	
DG440	DG400 DG400A	100	120	450	4 at 90°	
DG442	DG402 DG402A	125	145	650	3 at 120°	
DG444	DG404 DG404A	125	145	770	3 at 120°	



SAFETY BUNDS

- Material in polyethylene (HDPE), with reinforced collar for increasing security;
- Range temperature = 4 ÷ 40°C.

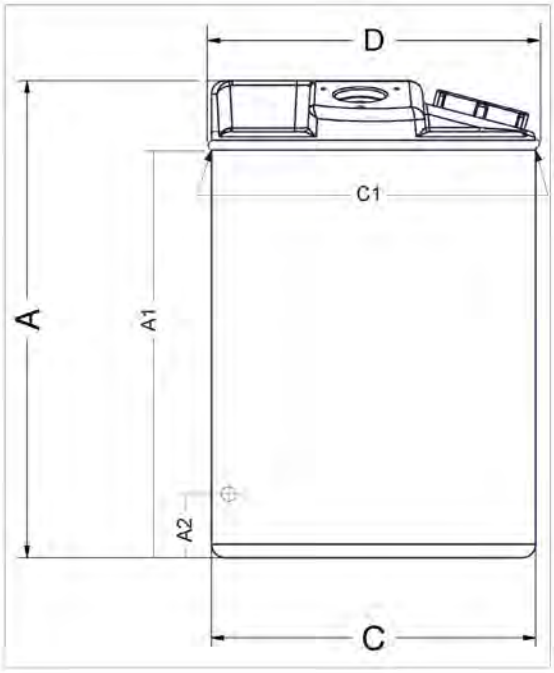


REF.	MODEL	VOLUME (liters)	B (mm)	D (mm)	H (mm)	
DG410 (*)	50	60	430	510	425	
DG412 (*)	120	120	520	545	615	
DG414 (*)	250	300	660	695	875	

(*) not available in stock – Delivery 3 weeks.

TANK FOR CHEMICAL

- Material in polyethylene (HDPE), suitable for chemical mixing;
- Tanks can be assembled with:
  - nr.1 metering pump (not included in the dosing system);
  - nr.1 manual stirrer;
  - nr.1 feed water valve;
  - nr.1 outgassing pump hose;
  - nr.1 outgassing valve (on the higher top side);
  - nr.1 bleed water valve (on the lower side);
  - nr.1 suction lance;
- Range temperature = 4 ÷ 40°C.



REF.	VOLUME (liters)	A (mm)	A1 - FEED WATER VALVE HEIGHT (mm)	C (mm)	C1 (mm)	D (mm)	FEED WATER (mm)	
DG420	50	505	425	420	420	420	95	
DG422	120	735	650	475	485	495	650	
DG424	250	850	780	610	610	610	120	

UV sterilizers and spare parts

EUROTROL®
WATER TREATMENT COMPONENTS

MWG®
ITALIAN WATER TECHNOLOGY

Engineered by Eurotrol S.p.A.

Residential U.V. Sterilizers Inox

- monolamp U.V. sterilizer of close construction in AISI 304 polished material for point-of-use treatment devices;
- conform with CE safety Directives;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- complete with n.2 diameter 2” fixing clips and with n.2 JACO ¼” elbows;
- power box with electronic circuit, cable and plug;
- failure led and alarm system;
- lamp quartz sheath;
- max operating pressure 7 bar;
- temperature 2 ÷ 40°C;
- power supply 230 V – 50 Hz;
- irradiation > 30 mJ/cm^2;
- lamp life 8.000 hours;
- protection class IP42;
- for relative spare parts see 07-02-01-EN data sheet.

REF.	MODEL	MAX FLOW (l/h)	LAMPS NUMBER	POWER (W)	CONNECTIONS	DIAMETER (mm)	LENGTH (mm)	
HA300	HR-60	240	1	10	¼” BSP M	50,8	260	
HA302	PC-1	240	1	10	¼” BSP M	50,8	268	

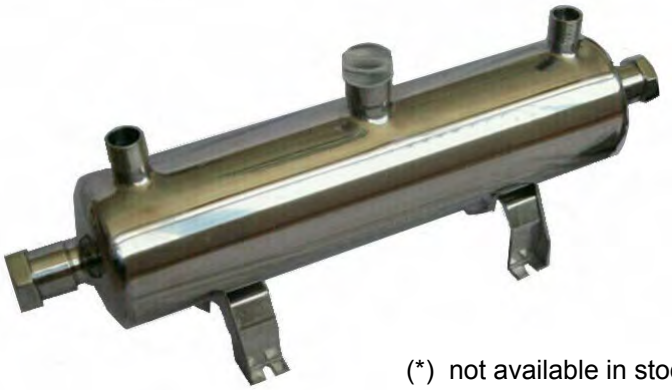
Residential U.V. Sterilizers W Series

- to be used for residential water disinfection systems;
- monolamp U.V. sterilizer of close construction in AISI 304 polished material;
- power box with electronic circuit, cable and plug;
- failure led and alarm system;
- conform with CE safety Directives;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- lamp quartz sheath;
- max operating pressure 7 bar;
- temperature 2 ÷ 40°C;
- power supply 230 V – 50 Hz;
- irradiation > 30 mJ/cm^2;
- lamp life 10.000 hours;
- protection class IP42;
- for relative spare parts see 07-02-01-EN data sheet.

REF.	MODEL	MAX FLOW (l/h)	LAMPS NUMBER	POWER (W)	CONNECTIONS	DIAMETER (mm)	LENGTH (mm)	
HA310	W-180	680	1	15	½" BSP M	63,5	364	
HA315	W-360	1360	1	21	½" BSP M	63,5	544	
HA320	W-480	1810	1	29	½" BSP M	63,5	694	
HA325	W-720	2720	1	40	¾" BSP M	63,5	924	

Industrial U.V. Sterilizers FC Series

- to be used for commercial and industrial water disinfection systems;
- monolamp U.V. sterilizer with polished AISI 304 sterilizing chamber (option in AISI 316L not available in stock) with inspection window and drain connection;
- electric box with electronic circuit, connection cable, operating time meter and switch;
- operating and failure led, with alarm system (excepted models FC-35 and FC-45);
- conform with CE safety Directives;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- lamp quartz sheath;
- max operating pressure 7 bar, temperature 2 ÷ 40°C;
- power supply 230 V – 50 Hz, irradiation > 40 mJ/cm^2 , lamp life 10.000 hours;
- protection class IP43;
- possibility of connection with shut down solenoid valve (only for models FC-35 and FC-45);
- for relative spare parts see 07-02-01-EN data sheet.



(*) not available in stock.

REF.	MOD.	AISI	MAX FLOW (l/h)	POWER (W)	CONNECTIONS	DIAMETER (mm)	LENGHT (mm)	
HA350	FC-8	304	1.810	29	¾" BSP M	114	710	
HA350A (*)	FC-8	316L	1.810	29	¾" BSP M	114	710	
HA355	FC-12	304	2.720	40	1" BSP M	133	940	
HA355A (*)	FC-12	316L	2.720	40	1" BSP M	133	940	
HA360	FC-15	304	3.400	65	1" BSP M	133	940	
HA360A (*)	FC-15	316L	3.400	65	1" BSP M	133	940	
HA365	FC-20	304	4.536	65	1 ½" BSP M	160	940	
HA365A (*)	FC-20	316L	4.536	65	1 ½" BSP M	160	940	
HA370	FC-24	304	5.443	85	1 ½" BSP M	160	940	
HA370A (*)	FC-24	316L	5.443	85	1 ½" BSP M	160	940	
HA375	FC-35	304	7.938	100	2" BSP M	160	1.235	
HA375A (*)	FC-35	316L	7.938	100	2" BSP M	160	1.235	
HA380	FC-45	304	10.200	120	2" BSP M	160	1.235	
HA380A (*)	FC-45	316L	10.200	120	2" BSP M	160	1.235	

Industrial Flanged Multilamp U.V. Sterilizers FC-D Series

- to be used for industrial water disinfection systems;
- multilamp U.V. sterilizer with polished AISI 304 sterilizing chamber (option in AISI 316L not available in stock) with inspection window and drain connection;
- electric box with electronic circuit, connection cable, operating time meter and switch;
- operating and service/failure led;
- conform with CE safety Directives;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- lamp quartz sheath;
- max operating pressure 7 bar;
- temperature 2 ÷ 40°C;
- power supply 230 V – 50 Hz;
- irradiation > 40 mJ/cm^2;
- lamp life 10.000 hours;
- protection class IP43;
- possibility of connection with shut down solenoid valve;
- for relative spare parts see 07-02-01-EN data sheet.

(*) not available in stock.

REF.	MODEL	AISI	MAX FLOW (l/h)	LAMP NUMBER	POWER (W)	CONNECTIONS	DIAMETER (mm)	LENGTH (mm)	
HA400	FC-70D	304	15.900	2	200	DN50 FLANGED	220	1.250	
HA400A (*)	FC-70D	316L	15.900	2	200	DN50 FLANGED	220	1.250	
HA410	FC-120D	304	27.250	3	360	DN65 FLANGED	273	1.250	
HA410A (*)	FC-120D	316L	27.250	3	360	DN65 FLANGED	273	1.250	
HA420	FC-180D	304	40.880	5	600	DN80 FLANGED	323	1.250	
HA420A (*)	FC-180D	316L	40.880	5	600	DN80 FLANGED	323	1.250	
HA430	FC-250D	304	56.780	7	840	DN100 FLANGED	400	1.250	
HA430A (*)	FC-250D	316L	56.780	7	840	DN100 FLANGED	400	1.250	

U.V. Sterilizers HR - PC - W - FC - FC/D
Spare Parts

REF.	DESCRIPTION	STERILIZERS UV	
HA500	LAMP UV - T5L10 W - D.18 x L.219 mm	HR-60 PC-1	
HA502	LAMP UV - T5L15 W - D.18 x L.310 mm	W-180	
HA504	LAMP UV - T5L21 W - D.18 x L.444 mm	W-360	
HA506	LAMP UV - T5L29 W - D.18 x L.630 mm	W-480 FC-8	
HA508	LAMP UV - T5L40 W - D.18 x L.850 mm	W-720 FC-12	
HA510	LAMP UV - T5L65 W - D.18 x L.850 mm	FC-15 FC-20	
HA512	LAMP UV - T5L85 W - D.18 x L.850 mm	FC-24	
HA514	LAMP UV - T6L100 W - D.23 x L.1160 mm	FC-35 2x FC-70D	
HA516	LAMP UV - T6L120 W - D.18 x L.1150 mm	FC-45 3x FC-120D 5x FC-180D 7x FC-250D	
HA530	LAMP UV - T5L10 W QUARTZ SHEATH D.24,5 x L.250 mm ONE OPEN END	HR-60	
HA531	LAMP UV - T5L10 W QUARTZ SHEATH D.24,5 x L.250 mm	PC-1	
HA532	LAMP UV - T5L15 W QUARTZ SHEATH D.24,5 x L.350 mm	W-180	
HA534	LAMP UV - T5L21 W QUARTZ SHEATH D.24,5 x L.530 mm	W-360	
HA536	LAMP UV - T5L29 W QUARTZ SHEATH D.24,5 x L.680 mm	W-480 FC-8	
HA538	LAMP UV - T5L40-65 W QUARTZ SHEATH D.24,5 x L.910 mm	W-720 FC-12 FC-15	
HA540	LAMP UV - T5L65W - T6L80W QUARTZ SHEATH D.30,0 x L.910 mm	FC-20 FC-24	
HA542	LAMP UV - T6L100-120 W QUARTZ SHEATH D.30,0 x L.1205 mm	FC-35 FC-45 2x FC-70D 3x FC-120D 5x FC-180D 7x FC-250D	

U.V. Sterilizers HR - PC - W - FC - FC/D
Spare Parts

REF.	DESCRIPTION	STERILIZERS UV	
HA550	QUARTZ O-RING SILICONE FOR TUBE D.24,5 mm	HR-60 PC-1 W-180 W-360 W-480 W-720	
HA550A	QUARTZ O-RING VITON FOR TUBE D.24,5 mm	FC-8 FC-12 FC-15	
HA552A	QUARTZ O-RING VITON FOR TUBE D.30,0 mm	FC-20 FC-24 FC-35 FC-45 FC-70D FC-120D FC-180D FC-250D	
HA560	ELECTRONIC BALLAST UV-3 230V/50Hz FOR LAMP 10 - 16 W	HR-60 PC-1 W-180	
HA562	ELECTRONIC BALLAST UV-6 90-264V/50-60Hz FOR LAMP 20 - 40 W	W-360 W-480 W-720	
HA563	INSIDE ELECTRONIC BALLAST UV-6 90-264V/50-60Hz FOR LAMP 20 - 40 W	FC-8 FC-12	
HA564	INSIDE ELECTRONIC BALLAST UV-8 90-264V/50-60Hz FOR LAMP 65 - 80 W	FC-15 FC-20 FC-24	
HA566	INSIDE ELECTRONIC BALLAST UV-12 100-240V/50Hz 100 - 120 W SINGLE-LAMP	FC-35 FC-45 FC-70D FC-120D FC-180D FC-250D	
HA570	ELECTRICAL PANEL COMPLETE	FC-8 FC-12	
HA572	ELECTRICAL PANEL COMPLETE	FC-15 FC-20 FC-24	
HA574	ELECTRICAL PANEL COMPLETE	FC-35 FC-45	
HA576	ELECTRICAL PANEL COMPLETE	FC-70D	
HA577	ELECTRICAL PANEL COMPLETE	FC-120D	
HA578	ELECTRICAL PANEL COMPLETE	FC-180D	
HA579	ELECTRICAL PANEL COMPLETE	FC-250D	

Old U.V. Sterilizers Spare Parts

REF.	DESCRIPTION	
HA055 (*)	Plastic Lamp UV 6 W D.16,0 x L.210 mm	
HA049 (*)	Lamp UV 6 W Inox 2+2 pin D.16,0 x L.225 mm	
HA051	Lamp 12 W D.18,0 x L.210 mm (green base)	
HA052	Lamp 16 W D.18,0 x L.330 mm	
HA053	Lamp 30 W D.18,0 x L.450 mm	
HA054	Lamp 40 W D.18,0 x L.850 mm	
HA056	Lamp 80 W D.18,0 x L.850 mm	
HA065 (*)	Quartz for plastic lamp 6 W UV D.22,0 x L.249 mm	
HA067 (*)	Quartz for lamp 6 W UV Inox D.22,0 x L.251 mm	
HA060	Quartz for lamp 10 W D.22,0 x L.204 mm	
HA061	Quartz for lamp 12 W D.22,0 x L.238 mm	
HA062	Quartz for lamp 16 W D.22,0 x L.370 mm	
HA063	Quartz for lamp 30 W D.22,0 x L.500 mm	
HA064	Quartz for lamp 40 W and 80 W D.22,0 x L.900 mm	
HA074	Quartz o-ring silicone D.22,0 mm	
HA069 (*)	Electronic Ballast UV 6 W plastic	
HA070 (**)	Transformer UV 12-16	
HA073 (**)	Power electrical board UV 30-40-240-340	
HA073A (**)	Power electrical board UV 440-540	

(*) available till it will be out-of-stock.

(**) not available in stock.

Industrial U.V. Sterilizers in HDPE

- Made in European Union (Italy); - To be used for industrial water disinfection systems;
- With reactor in HDPE, available on demand with sensor;
- Electric box with electronic circuit, connection cable, operating time meter and switch;
- Operating and failure led; - With lamp quartz sheath;
- Conform with CE safety Directives and D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- Available on request with UL certificate (for USA and Canada);
- Conform with EAC certificate for Russia and near-by Countries;
- Conform with Norwegian Restrictive Quality Certification for drinking water in Norway;
- Conform with a Norwegian certification of National Veterinary Institute, which gives the leading rules applied world wide in the sector of the fish farm;
- Max operating pressure 6 bar (4 bar for HA830 and HA832); - Temperature: 5 ÷ 35°C;
- UVC transmittance 99% - 1cm, UVC dose 400 J/m^2 ;
- Power supply 230 V – 50/60 Hz; Reactor protection class IP65;
- Control panel protection class IP54 (IP55 for models less than 15 m^3/h);
- Possibility of connection with shut down solenoid valve;
- Optional cleaning system.

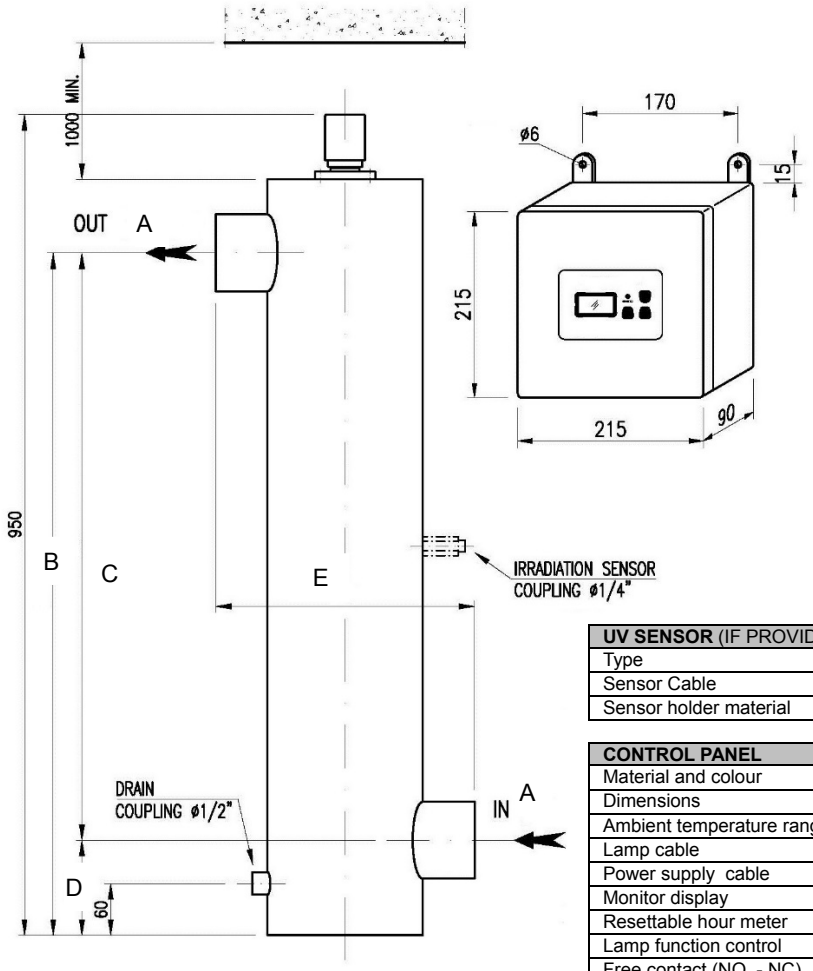
↑	From bottom to top.
↔	Both directions.

(*) not available in stock.

REF.	MAX FLOW RATE (m^3/h)	TOTAL CONSUMPTION (W)	No. LAMPS	LAMP POWER (W)	LIFESPAN OF LAMP	IN/OUT CONNECTIONS	SENSOR	MOUNTING	FLOW DIRECTION	
HA800N (*)	3	40	1	40	9.000	1 ½" F	NO	Vert.	↑	
HA800 (*)	3	40	1	40	9.000	1 ½" F	YES	Vert.	↑	
HA802N (*)	5	80	1	80	9.000	1 ½" F	NO	Vert.	↑	
HA802 (*)	5	80	1	80	9.000	1 ½" F	YES	Vert.	↑	
HA804N (*)	8	80	2	40	9.000	2 ½" F	NO	Vert.	↑	
HA804 (*)	8	80	2	40	9.000	2 ½" F	YES	Vert.	↑	
HA806N (*)	15	160	2	80	9.000	2 ½" F	NO	Vert.	↑	
HA806 (*)	15	160	2	80	9.000	2 ½" F	YES	Vert.	↑	
HA808 (*)	22	260	3	80	9.000	DN65	YES	Vert.	↑	
HA810 (*)	35	335	4	80	9.000	DN80	YES	Vert.	↑	
HA812 (*)	45	440	5	80	9.000	DN100	YES	Vert.	↑	
HA814 (*)	61	440	2	200	12.000	DN100	YES	Vert.	↑	
HA816 (*)	90	660	3	200	12.000	DN100	YES	Vert.	↑	
HA818 (*)	110	880	2	400	16.000	DN150	YES	Horiz.	↔	
HA820 (*)	150	1300	3	400	16.000	DN200	YES	Horiz.	↔	
HA822 (*)	250	1760	4	400	16.000	DN250	YES	Horiz.	↔	
HA824 (*)	340	2180	5	400	16.000	DN250	YES	Horiz.	↔	
HA826 (*)	470	3100	7	400	16.000	DN300	YES	Horiz.	↔	
HA828 (*)	600	3500	8	400	16.000	DN350	YES	Horiz.	↔	
HA830 (*)	830	4400	10	400	16.000	DN400	YES	Horiz.	↔	
HA832 (*)	980	5300	12	400	16.000	DN450	YES	Horiz.	↔	

Industrial U.V. Sterilizers in HDPE

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)	IN-OUT	B (mm)	C (mm)	D (mm)	E (mm)
HA800N	6	4	1 ½" F	807	727	80	200
HA800	6	4	1 ½" F	807	727	80	200
HA802N	6	4	1 ½" F	807	727	80	200
HA802	6	4	1 ½" F	807	727	80	200
HA804N	12,4	8	2 ½" F	790	680	110	300
HA804	12,4	8	2 ½" F	790	680	110	300
HA806N	12,4	11	2 ½" F	790	680	110	300
HA806	12,4	11	2 ½" F	790	680	110	300

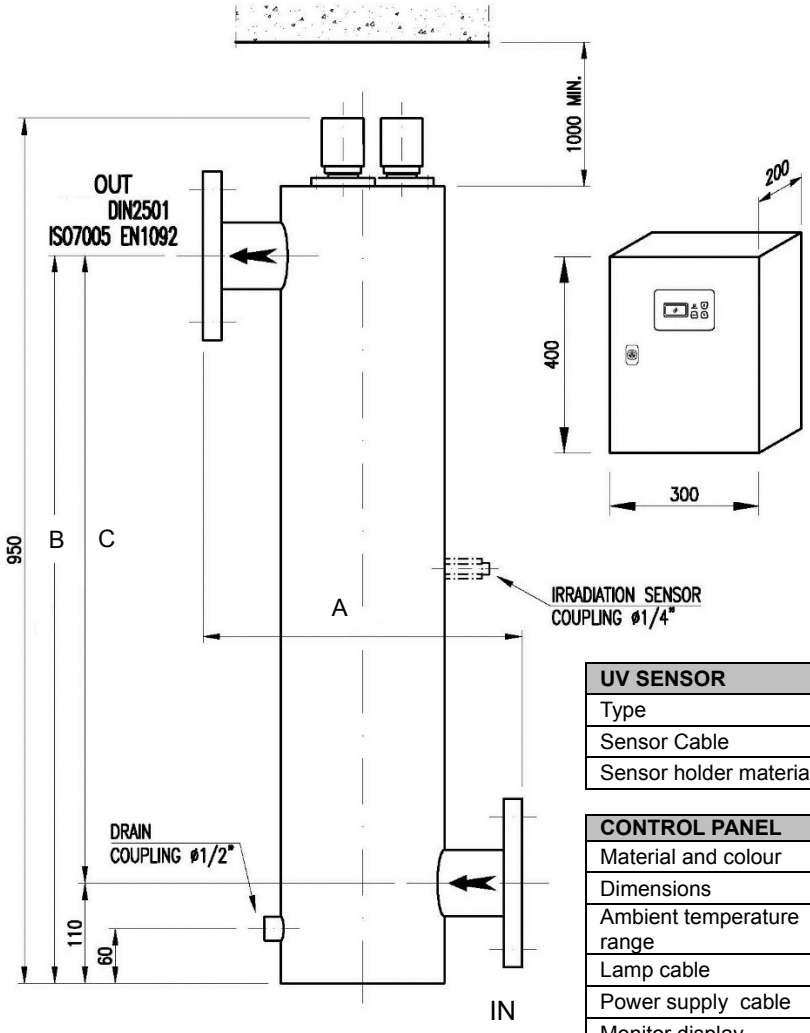


UV SENSOR (IF PROVIDED)	
Type	UVC selective sensor Mod. UV737TF
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Teflon

CONTROL PANEL	**LCD**
Material and colour	Black Polypropylene
Dimensions	215 x 215 x 90 mm
Ambient temperature range	5 – 45 °C
Lamp cable	1 m
Power supply cable	1 m
Monitor display	LCD
Resettable hour meter	Yes for lamp life control
Lamp function control	Si
Free contact (NO - NC)	Yes – general alarm (max 2 A)
230 V output (NO - NC)	Yes – general alarm (max 2 A)
Remote ON/OFF contact	Yes (settable)
ON/OFF Timer	Yes (settable)
Reactor temperature measurement and alarm	Yes (°C) – settable value (shut off for high temperature) on Models with Sensor
UV Irradiance measurement and alarm	Yes (% or W/m^2 optional) – settable value on Models with Sensor
4/20 mA output	Optional – for Irradiance and water temperature on Models with Sensor

Industrial U.V. Sterilizers in HDPE

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)	IN/OUT CONNECTIONS	A (mm)	B (mm)	C (mm)
HA808	12,7	11	Flange DN65	350	799	689
HA810	20,1	16	Flange DN80	400	790	680

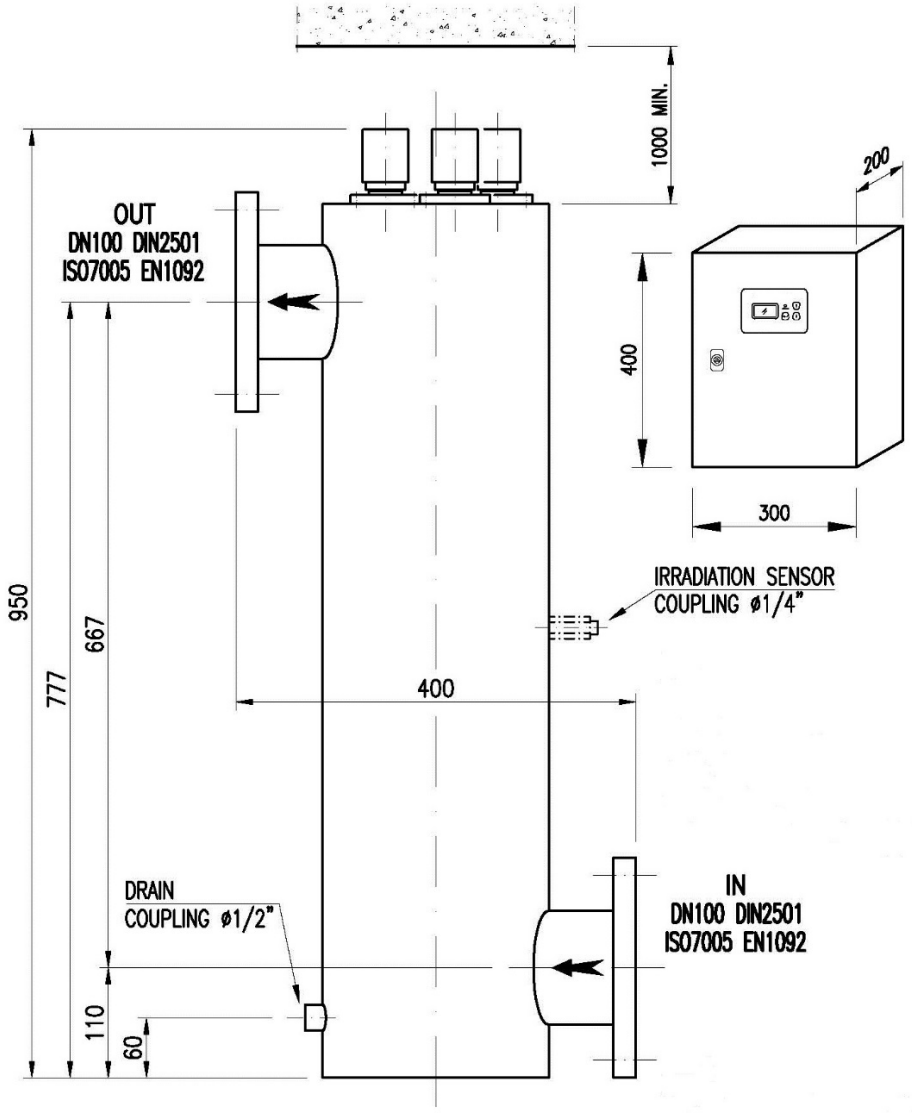


UV SENSOR	
Type	UVC selective sensor Mod. UV737TF
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Teflon

CONTROL PANEL	RACK LCD PLUS
Material and colour	Painted Steel – RAL 7035
Dimensions	400 x 300 x 200 mm
Ambient temperature range	5 – 45 °C
Lamp cable	1 m
Power supply cable	1 m
Monitor display	LCD
Resettable hour meter	Yes for lamp life control
Lamp function control	Si
Free contact (NO - NC)	Yes – general alarm (max 2 A)
230 V output (NO - NC)	Yes – general alarm (max 2 A)
Remote ON/OFF contact	Yes (settable)
ON/OFF Timer	Yes (settable)
Reactor temperature measurement and alarm	Yes (°C) – settable value (shut off for high temperature)
UV Irradiance measurement and alarm	Yes (% or W/m^2 optional) – settable value
4/20 mA output	Optional – for Irradiance and water temperature

Industrial U.V. Sterilizers in HDPE

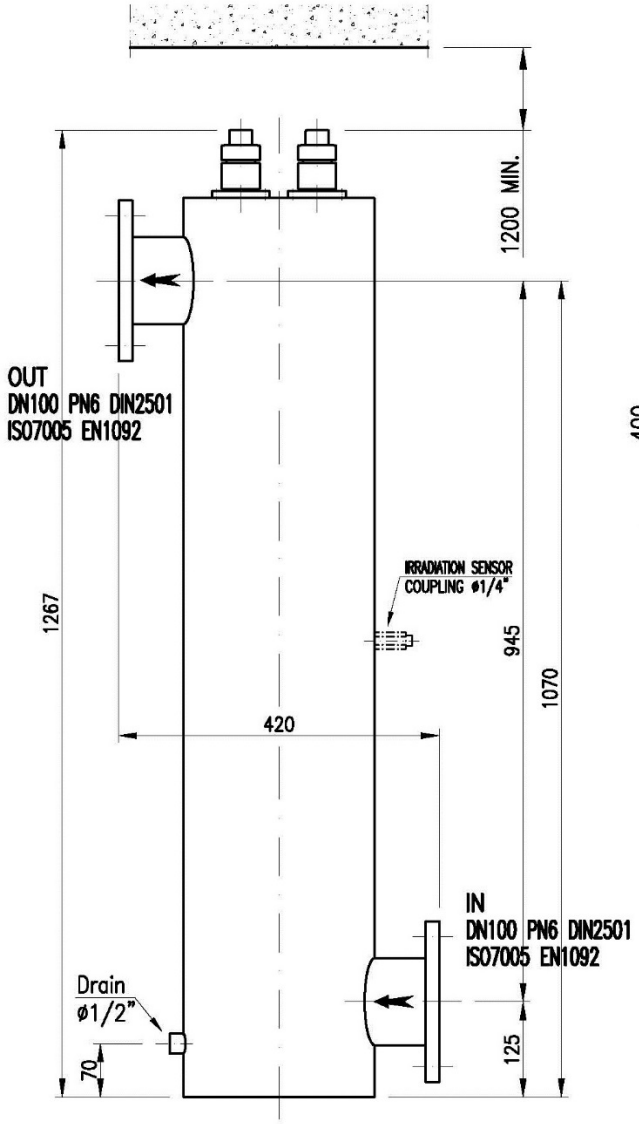
REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)
HA812	20,5	19

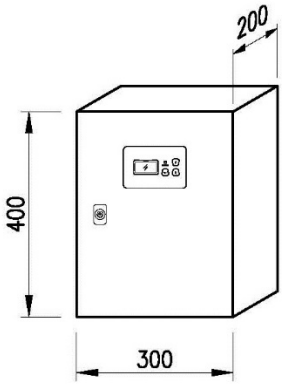


UV SENSOR	
Type	UVC selective sensor Mod. UV737TF
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Teflon

CONTROL PANEL	RACK LCD PLUS
Material and colour	Painted Steel – RAL 7035
Dimensions	400 x 300 x 200 mm
Ambient temperature range	5 – 45 °C
Lamp cable	1 m
Power supply cable	1 m
Monitor display	LCD
Resettable hour meter	Yes for lamp life control
Lamp function control	Si
Free contact (NO - NC)	Yes – general alarm (max 2 A)
230 V output (NO - NC)	Yes – general alarm (max 2 A)
Remote ON/OFF contact	Yes (settable)
ON/OFF Timer	Yes (settable)
Reactor temperature measurement and alarm	Yes (°C) – settable value (shut off for high temperature)
UV Irradiance measurement and alarm	Yes (% or W/m^2 optional) – settable value
4/20 mA output	Optional – for Irradiance and water temperature

Industrial U.V. Sterilizers in HDPE



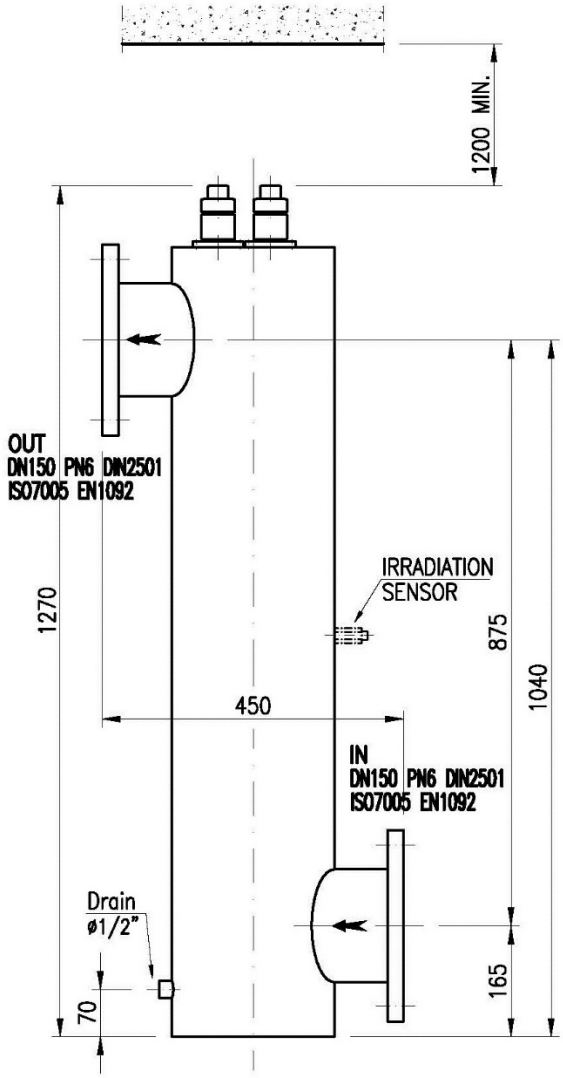


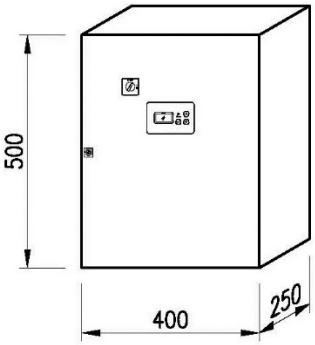
REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)
HA814	40	30

UV SENSOR	
Type	UVC selective sensor Mod. UV737TF
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Teflon

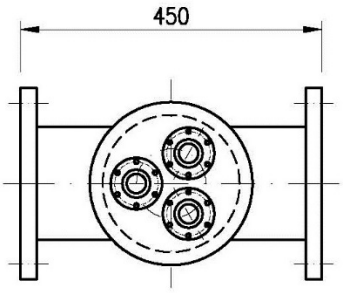
CONTROL PANEL	RACK LCD PLUS
Material and colour	Painted Steel – RAL 7035
Dimensions	400 x 300 x 200 mm
Ambient temperature range	5 – 45 °C
Lamp cable	1 m
Power supply cable	1 m
Monitor display	LCD
Resettable hour meter	Yes for lamp life control
Lamp function control	Si
Free contact (NO - NC)	Yes – general alarm (max 2 A)
230 V output (NO - NC)	Yes – general alarm (max 2 A)
Remote ON/OFF contact	Yes (settable)
ON/OFF Timer	Yes (settable)
Reactor temperature measurement and alarm	Yes (°C) – settable value (shut off for high temperature)
UV Irradiance measurement and alarm	Yes (% or W/m^2 optional) – settable value
4/20 mA output	Optional – for Irradiance and water temperature

Industrial U.V. Sterilizers in HDPE





REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)
HA816	40	30

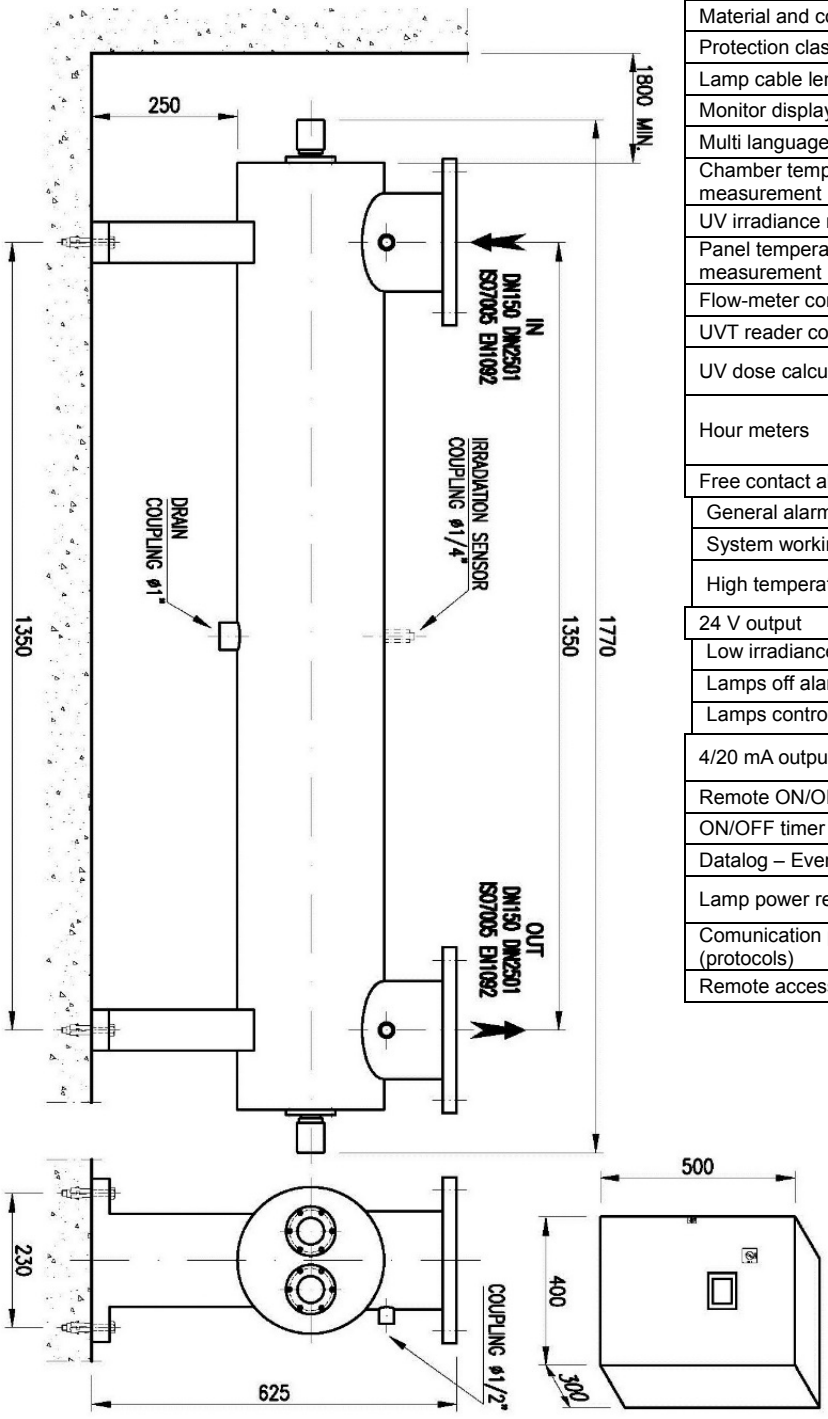


UV SENSOR	
Type	UVC selective sensor Mod. UV737TF
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Teflon

CONTROL PANEL	RACK LCD PLUS
Material and colour	Painted Steel – RAL 7035
Dimensions	400 x 300 x 200 mm
Ambient temperature range	5 – 45 °C
Lamp cable	1 m
Power supply cable	1 m
Monitor display	LCD
Resettable hour meter	Yes for lamp life control
Lamp function control	Si
Free contact (NO - NC)	Yes – general alarm (max 2 A)
230 V output (NO - NC)	Yes – general alarm (max 2 A)
Remote ON/OFF contact	Yes (settable)
ON/OFF Timer	Yes (settable)
Reactor temperature measurement and alarm	Yes (°C) – settable value (shut off for high temperature)
UV Irradiance measurement and alarm	Yes (% or W/m^2 optional) – settable value
4/20 mA output	Optional – for Irradiance and water temperature

Industrial U.V. Sterilizers in HDPE

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)
HA818	50	42

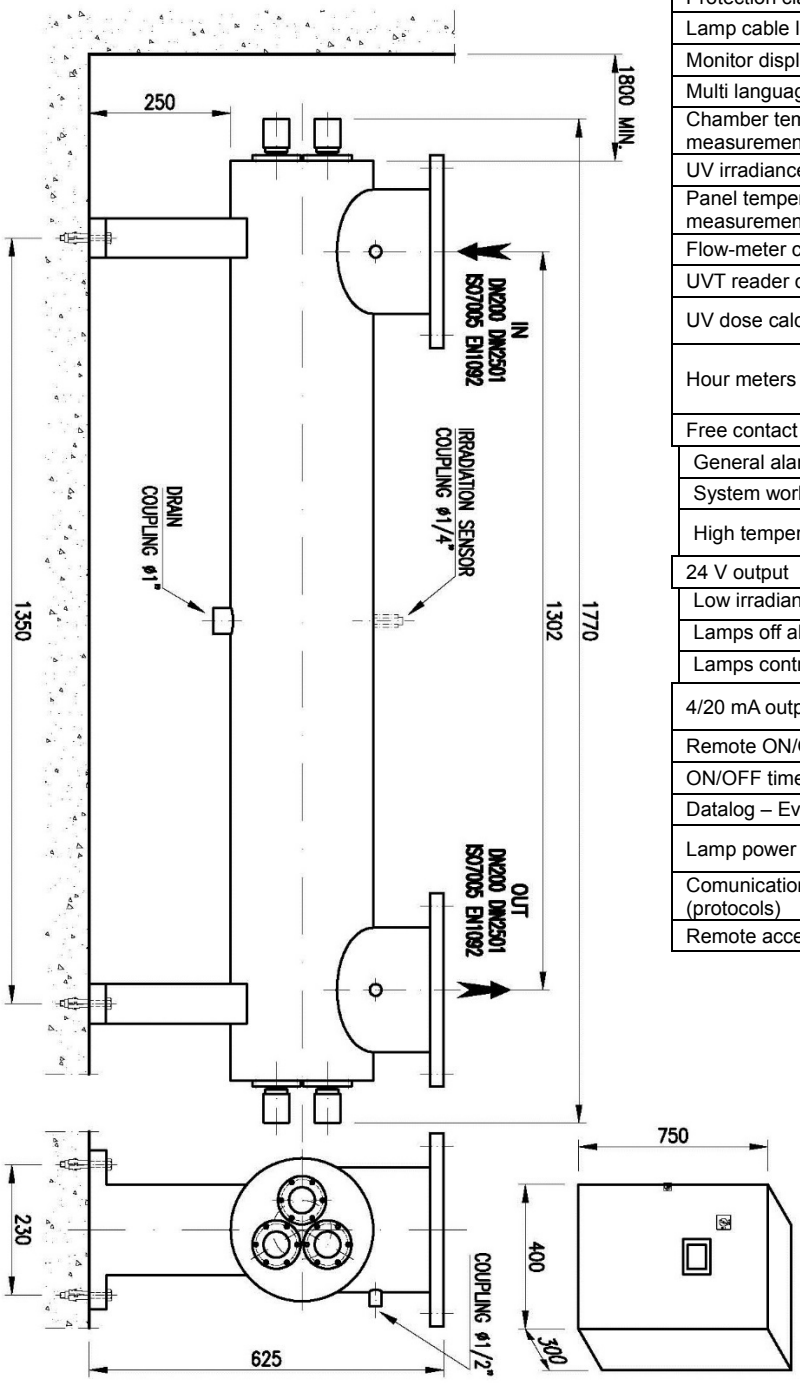


UV SENSOR	
Type	UVC selective sensor Mod. UV737TF
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Teflon

CONTROL PANEL	TC
Material and colour	Painted Steel – RAL 7035
Protection class	IP 54
Lamp cable length	2,5 m
Monitor display	Touch-Screen (65000 colours)
Multi language display	Yes
Chamber temperature measurement	Yes (°C)
UV irradiance measurement	Yes (% or W/m^2)
Panel temperature measurement	Yes (°C)
Flow-meter connection	Yes (4-20 mA)
UVT reader connection	Yes (4-20 mA)
UV dose calculation	Optional (only with external flow meter)
Hour meters	For total system life – Resettable for lamp life control
Free contact alarms (N/O)	Yes (max 1.3 A)
General alarm	Yes (settable contact working)
System working signal	Yes
High temperature alarm	Yes for panel and reactor (shut off for high temperature)
24 V output	Yes
Low irradiance alarm	Yes (settable value)
Lamps off alarm	Yes
Lamps control on/off	Yes
4/20 mA output	Yes for irradiance and temperature
Remote ON/OFF	Yes (settable contact working)
ON/OFF timer	Yes
Datalog – Events	Yes
Lamp power regulation	Manual or Automatic (dose or flow pacing)
Comunication ports (protocols)	CAN, Ethernet, USB, Seriale (Modbus, TCP/IP, CANopen)
Remote access	with specific App or WebGate

Industrial U.V. Sterilizers in HDPE

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)
HA820	52,3	42



UV SENSOR	
Type	UVC selective sensor Mod. UV737TF
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Teflon

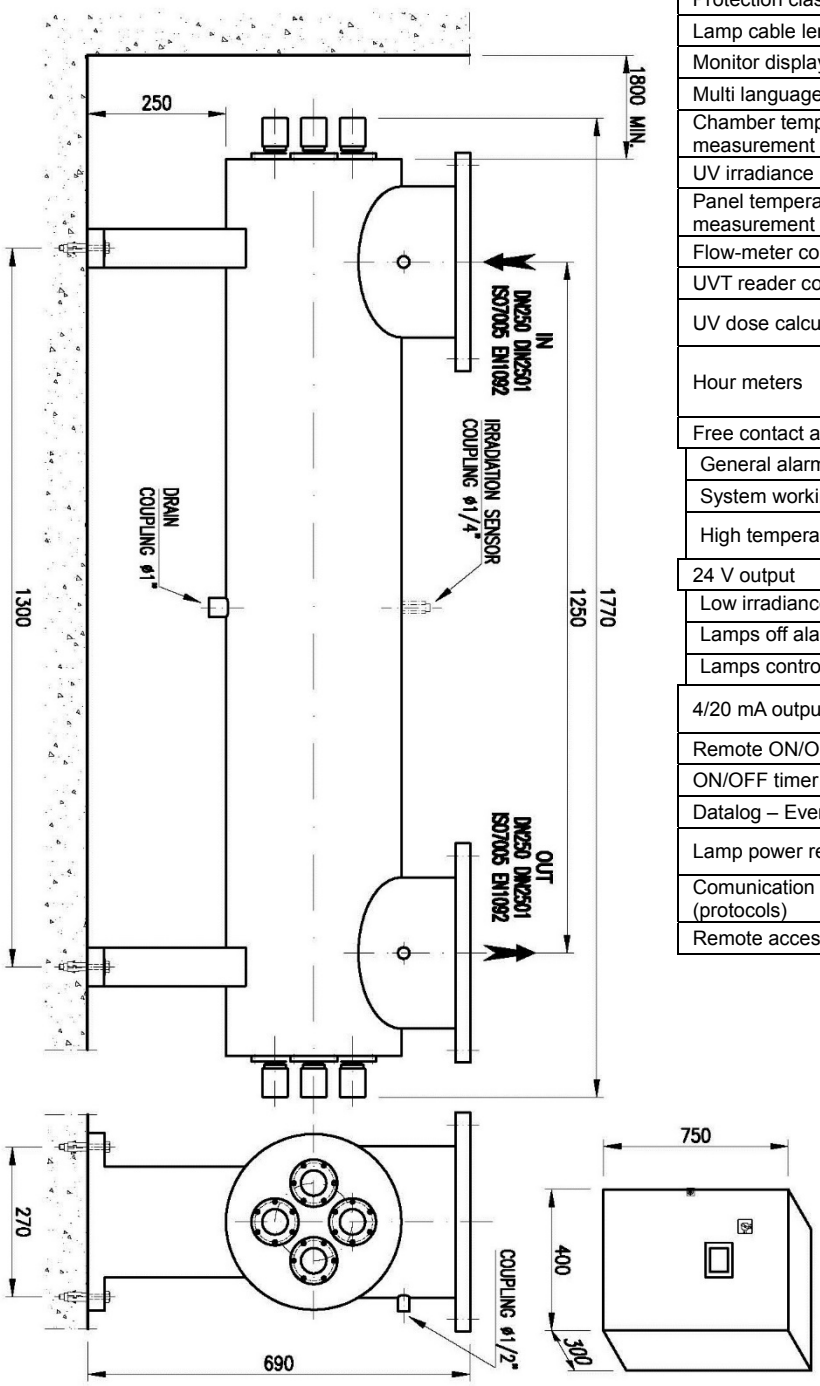
CONTROL PANEL	TC
Material and colour	Painted Steel – RAL 7035
Protection class	IP 54
Lamp cable length	2,5 m
Monitor display	Touch-Screen (65000 colours)
Multi language display	Yes
Chamber temperature measurement	Yes (°C)
UV irradiance measurement	Yes (% or W/m^2)
Panel temperature measurement	Yes (°C)
Flow-meter connection	Yes (4-20 mA)
UVT reader connection	Yes (4-20 mA)
UV dose calculation	Optional (only with external flow meter)
Hour meters	For total system life – Resettable for lamp life control
Free contact alarms (N/O)	Yes (max 1.3 A)
General alarm	Yes (settable contact working)
System working signal	Yes
High temperature alarm	Yes for panel and reactor (shut off for high temperature)
24 V output	Yes
Low irradiance alarm	Yes (settable value)
Lamps off alarm	Yes
Lamps control on/off	Yes
4/20 mA output	Yes for irradiance and temperature
Remote ON/OFF	Yes (settable contact working)
ON/OFF timer	Yes
Datalog – Events	Yes
Lamp power regulation	Manual or Automatic (dose or flow pacing)
Comunication ports (protocols)	CAN, Ethernet, USB, Seriale (Modbus, TCP/IP, CANopen)
Remote access	with specific App or WebGate

Industrial U.V. Sterilizers in HDPE

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)
HA822	84	52

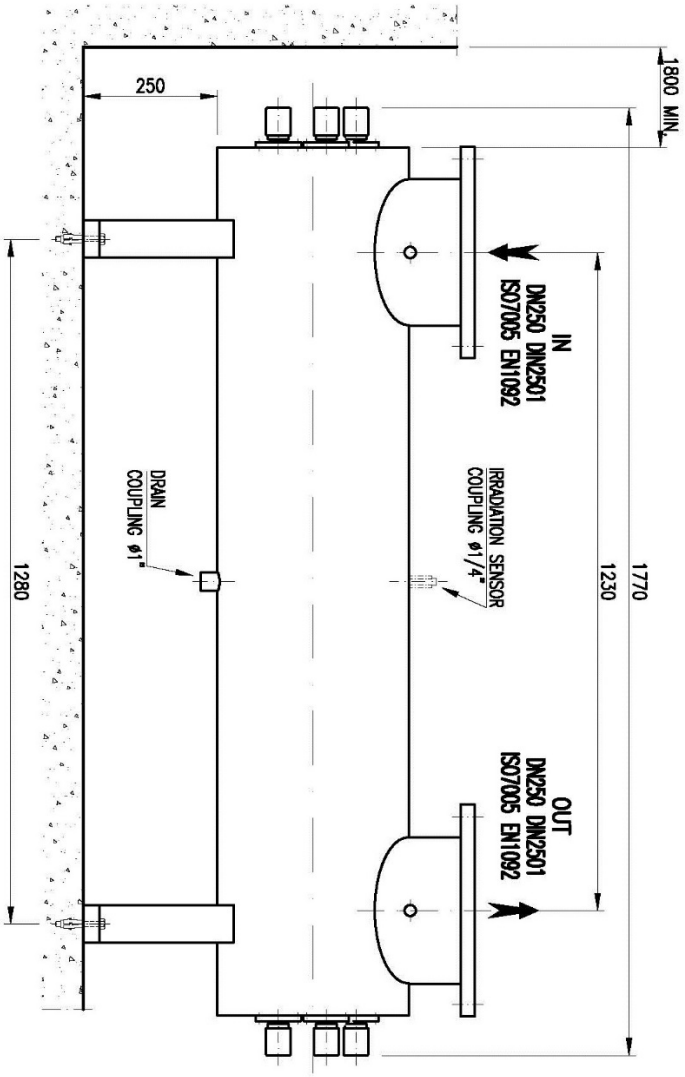
UV SENSOR	
Type	UVC selective sensor Mod. UV737TF
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Teflon

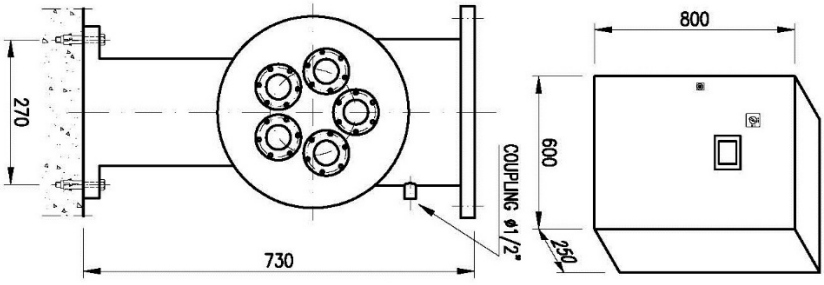
CONTROL PANEL	TC
Material and colour	Painted Steel – RAL 7035
Protection class	IP 54
Lamp cable length	2,5 m
Monitor display	Touch-Screen (65000 colours)
Multi language display	Yes
Chamber temperature measurement	Yes (°C)
UV irradiance measurement	Yes (% or W/m^2)
Panel temperature measurement	Yes (°C)
Flow-meter connection	Yes (4-20 mA)
UVT reader connection	Yes (4-20 mA)
UV dose calculation	Optional (only with external flow meter)
Hour meters	For total system life – Resettable for lamp life control
Free contact alarms (N/O)	Yes (max 1.3 A)
General alarm	Yes (settable contact working)
System working signal	Yes
High temperature alarm	Yes for panel and reactor (shut off for high temperature)
24 V output	Yes
Low irradiance alarm	Yes (settable value)
Lamps off alarm	Yes
Lamps control on/off	Yes
4/20 mA output	Yes for irradiance and temperature
Remote ON/OFF	Yes (settable contact working)
ON/OFF timer	Yes
Datalog – Events	Yes
Lamp power regulation	Manual or Automatic (dose or flow pacing)
Comunication ports (protocols)	CAN, Ethernet, USB, Seriale (Modbus, TCP/IP, CANopen)
Remote access	with specific App or WebGate



Industrial U.V. Sterilizers in HDPE

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)
HA824	101	80



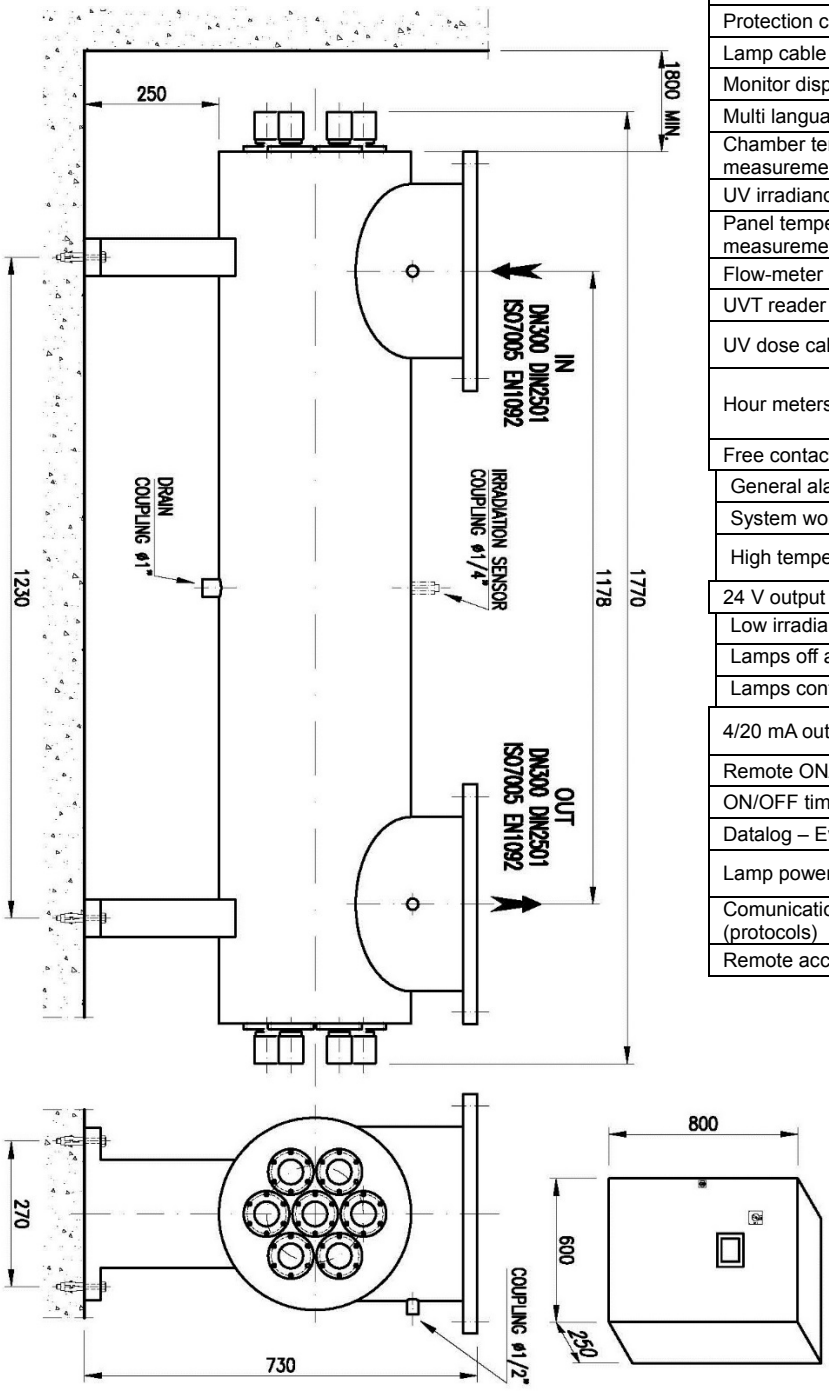


UV SENSOR	
Type	UVC selective sensor Mod. UV737TF
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Teflon

CONTROL PANEL	TC
Material and colour	Painted Steel – RAL 7035
Protection class	IP 54
Lamp cable length	2,5 m
Monitor display	Touch-Screen (65000 colours)
Multi language display	Yes
Chamber temperature measurement	Yes (°C)
UV irradiance measurement	Yes (% or W/m^2)
Panel temperature measurement	Yes (°C)
Flow-meter connection	Yes (4-20 mA)
UVT reader connection	Yes (4-20 mA)
UV dose calculation	Optional (only with external flow meter)
Hour meters	For total system life – Resettable for lamp life control
Free contact alarms (N/O)	Yes (max 1.3 A)
General alarm	Yes (settable contact working)
System working signal	Yes
High temperature alarm	Yes for panel and reactor (shut off for high temperature)
24 V output	Yes
Low irradiance alarm	Yes (settable value)
Lamps off alarm	Yes
Lamps control on/off	Yes
4/20 mA output	Yes for irradiance and temperature
Remote ON/OFF	Yes (settable contact working)
ON/OFF timer	Yes
Datalog – Events	Yes
Lamp power regulation	Manual or Automatic (dose or flow pacing)
Comunication ports (protocols)	CAN, Ethernet, USB, Seriale (Modbus, TCP/IP, CANopen)
Remote access	with specific App or WebGate

Industrial U.V. Sterilizers in HDPE

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)
HA826	104	100

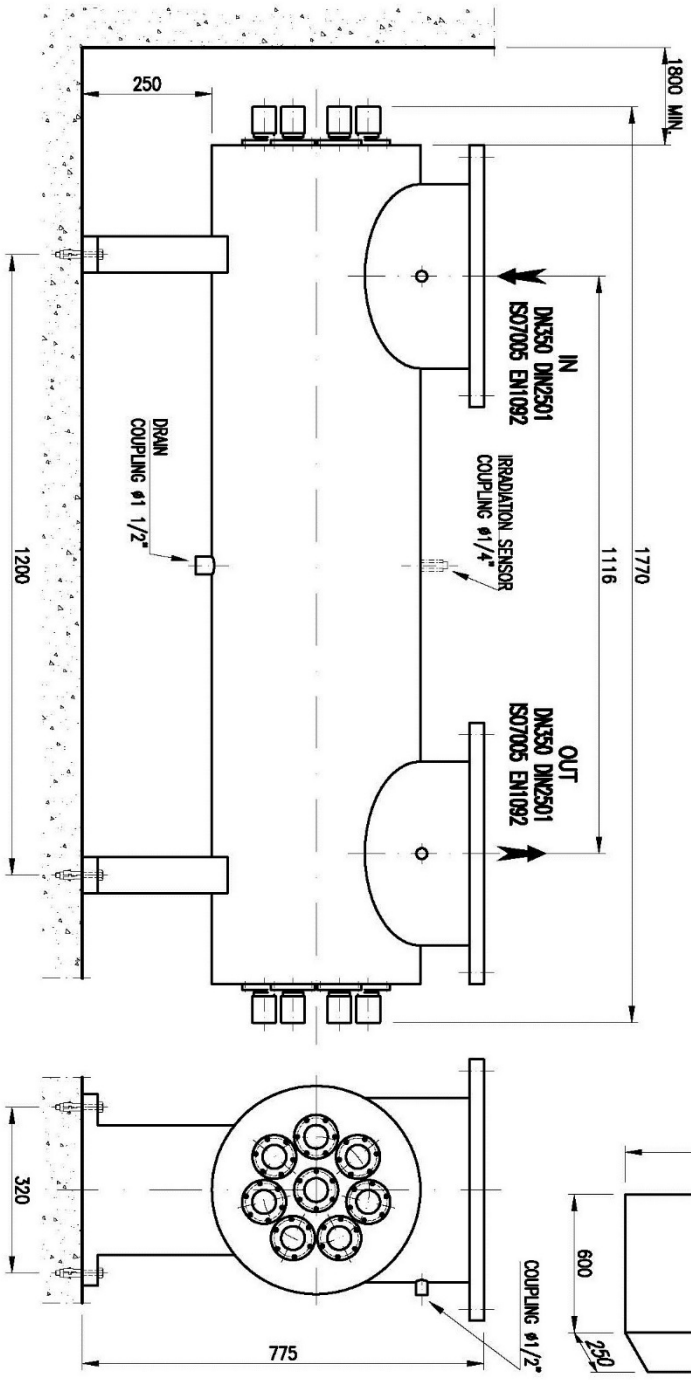


UV SENSOR	
Type	UVC selective sensor Mod. UV737TF
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Teflon

CONTROL PANEL	TC
Material and colour	Painted Steel – RAL 7035
Protection class	IP 54
Lamp cable length	2,5 m
Monitor display	Touch-Screen (65000 colours)
Multi language display	Yes
Chamber temperature measurement	Yes (°C)
UV irradiance measurement	Yes (% or W/m^2)
Panel temperature measurement	Yes (°C)
Flow-meter connection	Yes (4-20 mA)
UVT reader connection	Yes (4-20 mA)
UV dose calculation	Optional (only with external flow meter)
Hour meters	For total system life – Resettable for lamp life control
Free contact alarms (N/O)	Yes (max 1.3 A)
General alarm	Yes (settable contact working)
System working signal	Yes
High temperature alarm	Yes for panel and reactor (shut off for high temperature)
24 V output	Yes
Low irradiance alarm	Yes (settable value)
Lamps off alarm	Yes
Lamps control on/off	Yes
4/20 mA output	Yes for irradiance and temperature
Remote ON/OFF	Yes (settable contact working)
ON/OFF timer	Yes
Datalog – Events	Yes
Lamp power regulation	Manual or Automatic (dose or flow pacing)
Comunication ports (protocols)	CAN, Ethernet, USB, Seriale (Modbus, TCP/IP, CANopen)
Remote access	with specific App or WebGate

Industrial U.V. Sterilizers in HDPE

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)
HA828	130	165



UV SENSOR	
Type	UVC selective sensor Mod. UV737TF
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Teflon

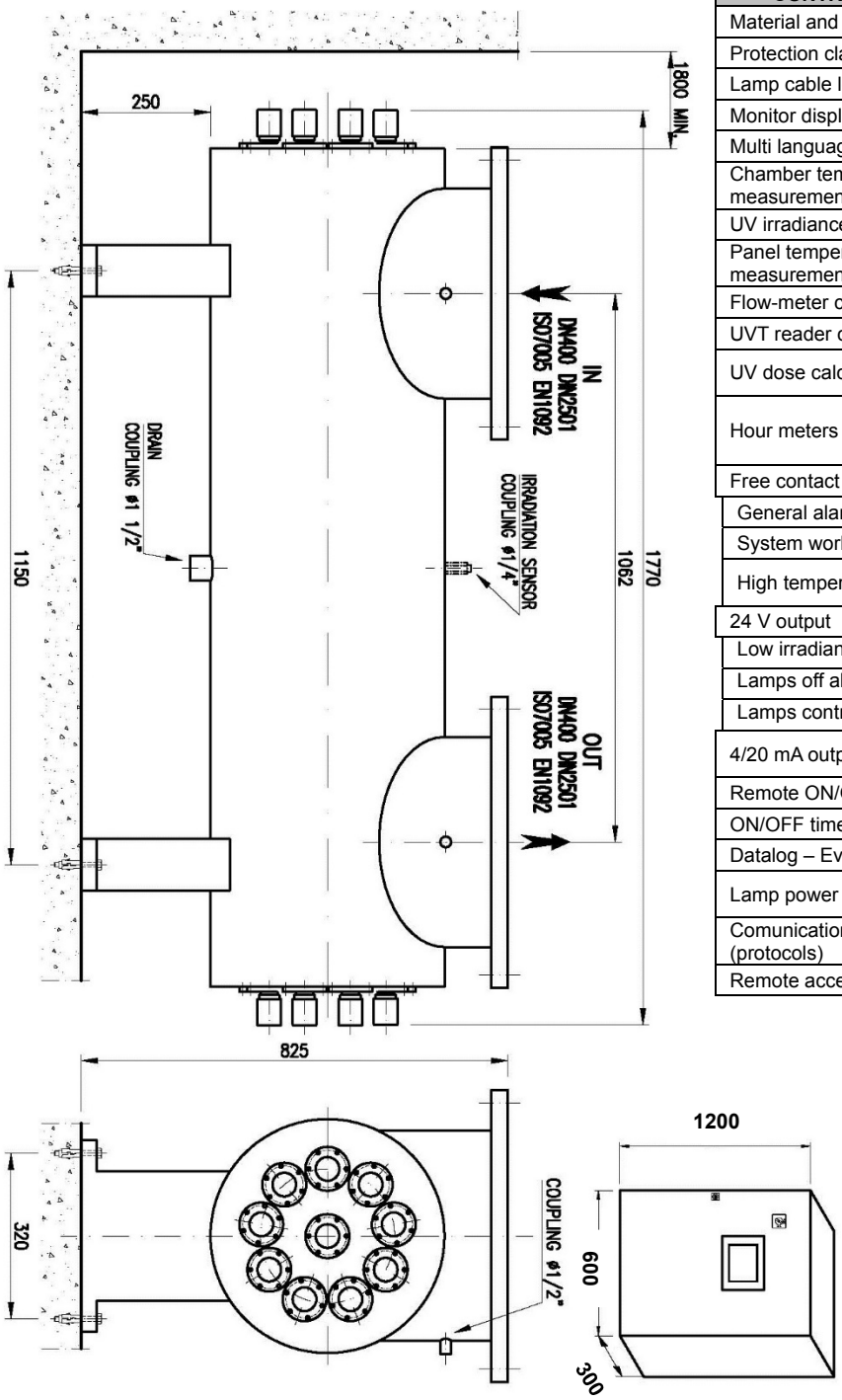
CONTROL PANEL	TC
Material and colour	Painted Steel – RAL 7035
Protection class	IP 54
Lamp cable length	2,5 m
Monitor display	Touch-Screen (65000 colours)
Multi language display	Yes
Chamber temperature measurement	Yes (°C)
UV irradiance measurement	Yes (% or W/m^2)
Panel temperature measurement	Yes (°C)
Flow-meter connection	Yes (4-20 mA)
UVT reader connection	Yes (4-20 mA)
UV dose calculation	Optional (only with external flow meter)
Hour meters	For total system life – Resettable for lamp life control
Free contact alarms (N/O)	Yes (max 1.3 A)
General alarm	Yes (settable contact working)
System working signal	Yes
High temperature alarm	Yes for panel and reactor (shut off for high temperature)
24 V output	Yes
Low irradiance alarm	Yes (settable value)
Lamps off alarm	Yes
Lamps control on/off	Yes
4/20 mA output	Yes for irradiance and temperature
Remote ON/OFF	Yes (settable contact working)
ON/OFF timer	Yes
Datalog – Events	Yes
Lamp power regulation	Manual or Automatic (dose or flow pacing)
Comunication ports (protocols)	CAN, Ethernet, USB, Seriale (Modbus, TCP/IP, CANopen)
Remote access	with specific App or WebGate

Industrial U.V. Sterilizers in HDPE

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)
HA830	165	180

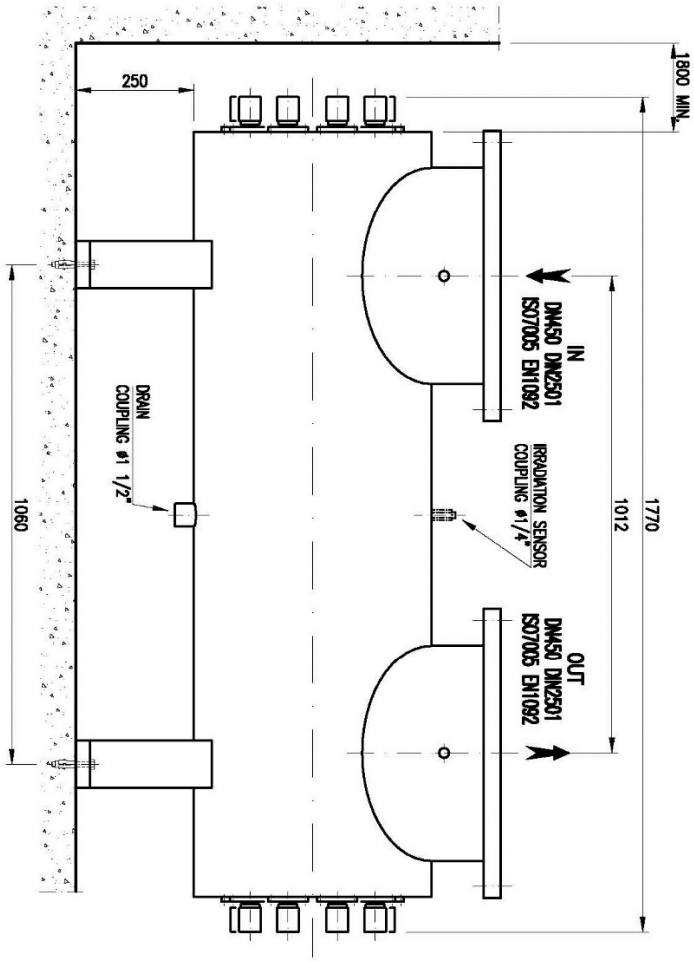
UV SENSOR	
Type	UVC selective sensor Mod. UV737TF
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Teflon

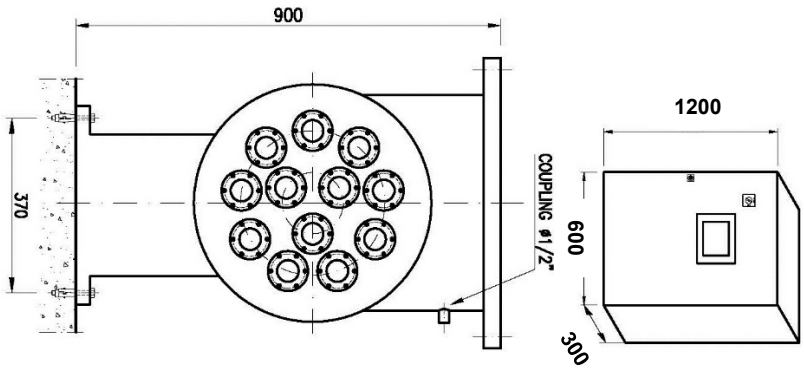
CONTROL PANEL	TC
Material and colour	Painted Steel – RAL 7035
Protection class	IP 54
Lamp cable length	2,5 m
Monitor display	Touch-Screen (65000 colours)
Multi language display	Yes
Chamber temperature measurement	Yes (°C)
UV irradiance measurement	Yes (% or W/m^2)
Panel temperature measurement	Yes (°C)
Flow-meter connection	Yes (4-20 mA)
UVT reader connection	Yes (4-20 mA)
UV dose calculation	Optional (only with external flow meter)
Hour meters	For total system life – Resettable for lamp life control
Free contact alarms (N/O)	Yes (max 1.3 A)
General alarm	Yes (settable contact working)
System working signal	Yes
High temperature alarm	Yes for panel and reactor (shut off for high temperature)
24 V output	Yes
Low irradiance alarm	Yes (settable value)
Lamps off alarm	Yes
Lamps control on/off	Yes
4/20 mA output	Yes for irradiance and temperature
Remote ON/OFF	Yes (settable contact working)
ON/OFF timer	Yes
Datalog – Events	Yes
Lamp power regulation	Manual or Automatic (dose or flow pacing)
Comunication ports (protocols)	CAN, Ethernet, USB, Seriale (Modbus, TCP/IP, CANopen)
Remote access	with specific App or WebGate



Industrial U.V. Sterilizers in HDPE

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)
HA832	214	220





UV SENSOR	
Type	UVC selective sensor Mod. UV737TF
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Teflon

CONTROL PANEL	TC
Material and colour	Painted Steel – RAL 7035
Protection class	IP 54
Lamp cable length	2,5 m
Monitor display	Touch-Screen (65000 colours)
Multi language display	Yes
Chamber temperature measurement	Yes (°C)
UV irradiance measurement	Yes (% or W/m²)
Panel temperature measurement	Yes (°C)
Flow-meter connection	Yes (4-20 mA)
UVT reader connection	Yes (4-20 mA)
UV dose calculation	Optional (only with external flow meter)
Hour meters	For total system life – Resettable for lamp life control
Free contact alarms (N/O)	Yes (max 1.3 A)
General alarm	Yes (settable contact working)
System working signal	Yes
High temperature alarm	Yes for panel and reactor (shut off for high temperature)
24 V output	Yes
Low irradiance alarm	Yes (settable value)
Lamps off alarm	Yes
Lamps control on/off	Yes
4/20 mA output	Yes for irradiance and temperature
Remote ON/OFF	Yes (settable contact working)
ON/OFF timer	Yes
Datalog – Events	Yes
Lamp power regulation	Manual or Automatic (dose or flow pacing)
Comunication ports (protocols)	CAN, Ethernet, USB, Seriale (Modbus, TCP/IP, CANopen)
Remote access	with specific App or WebGate

Industrial U.V. Sterilizers in AISI 316L
200 W Series

- Made in European Union (Italy);
- To be used for industrial water disinfection systems;
- Single-lamp or multi-lamp systems, with single lamp 200 W;
- With reactor in AISI 316L, with sensor;
- Electric box with electronic circuit, connection cable, operating time meter and switch;
- Operating and failure led;
- Conform with CE safety Directives and D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- Available on request with UL certificate (for USA and Canada);
- WRAS approved products (for UK);
- Conform with EAC certificate for Russia and near-by Countries;
- Conform with Polish Quality Certification for Poland;
- With lamp quartz sheath;
- Max operating pressure 10 bar; Temperature: 5 ÷ 50°C;
- UVC transmittance 98% - 1cm, UVC dose 400 J/m2 ;
- Power supply 230 V – 50/60 Hz and life span of lamp 12.000 hours;
- Reactor protection class IP65;
- Control panel protection class IP54;
- Possibility of connection with shut down solenoid valve;
- Optional cleaning system (manual or automatic);
- Vertical mounting (horizontal for automatic cleaning systems).

↑ From bottom to top.

↔ Both directions.

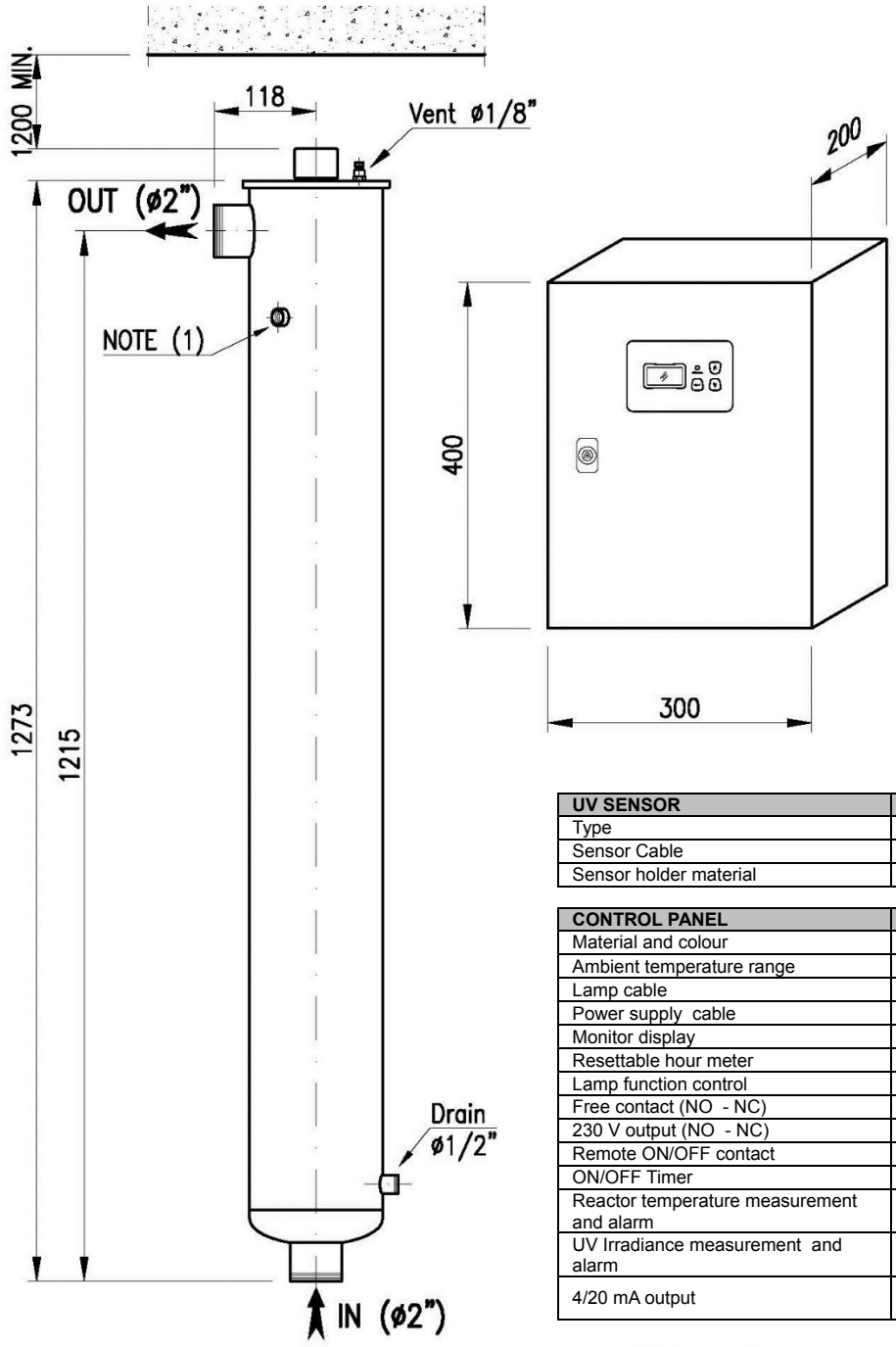
Temperature: 5 ÷ 50°C;

(*) not available in stock.

REF.	MAX FLOW RATE (m^3/h)	TOTAL CONSUMPTION (W)	No. LAMPS	LAMP POWER (W)	IN/OUT CONNECTIONS	CLEANING SYSTEM	FLOW DIRECTION	
HA840 (*)	24	222	1	200	2” M	NO	↑	
HA840M (*)	24	222	1	200	2” M	Manual	↑	
HA840A (*)	24	222	1	200	2” M	Automatic	↔	
HA842 (*)	60	444	2	200	DN80	NO	↑	
HA842M (*)	60	444	2	200	DN80	Manual	↑	
HA842A (*)	60	444	2	200	DN80	Automatic	↔	
HA844 (*)	96	666	3	200	DN100	NO	↑	
HA844A (*)	96	666	3	200	DN100	Automatic	↔	
HA846 (*)	125	888	4	200	DN150	NO	↑	
HA848 (*)	160	888	4	200	DN150	NO	↑	
HA848A (*)	160	888	4	200	DN150	Automatic	↔	

Industrial U.V. Sterilizers in AISI 316L
200 W Series

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)	IN-OUT
HA840	21,5	13	2" M
HA840M	21,5	13	2" M

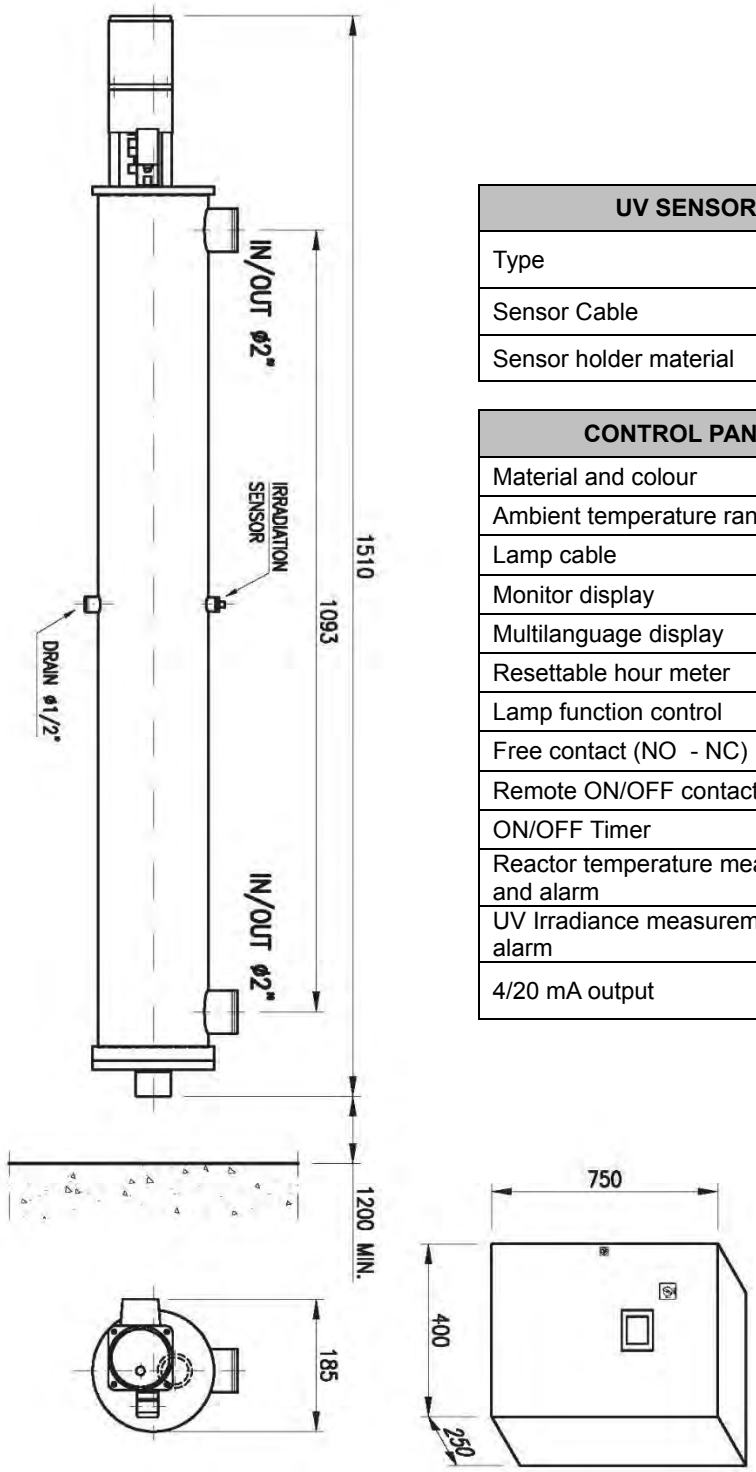


UV SENSOR	
Type	UVC selective sensor Mod. UV737
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Stainless steel 316L

CONTROL PANEL	RACK LCD PLUS
Material and colour	Black Painted Steel – RAL 7035
Ambient temperature range	5 – 45 °C
Lamp cable	2,5 m
Power supply cable	1 m
Monitor display	LCD
Resettable hour meter	Yes for lamp life control
Lamp function control	Yes
Free contact (NO - NC)	Yes – general alarm (max 2 A)
230 V output (NO - NC)	Yes – general alarm (max 2 A)
Remote ON/OFF contact	Yes (settable)
ON/OFF Timer	Yes (settable)
Reactor temperature measurement and alarm	Yes (°C) – settable value (shut off for high temperature)
UV Irradiance measurement and alarm	Yes (% or W/m2 optional) – settable value
4/20 mA output	Optional – for Irradiance and water temperature

Industrial U.V. Sterilizers in AISI 316L
200 W Series

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)	IN-OUT
HA840A	21,5	13	2” M

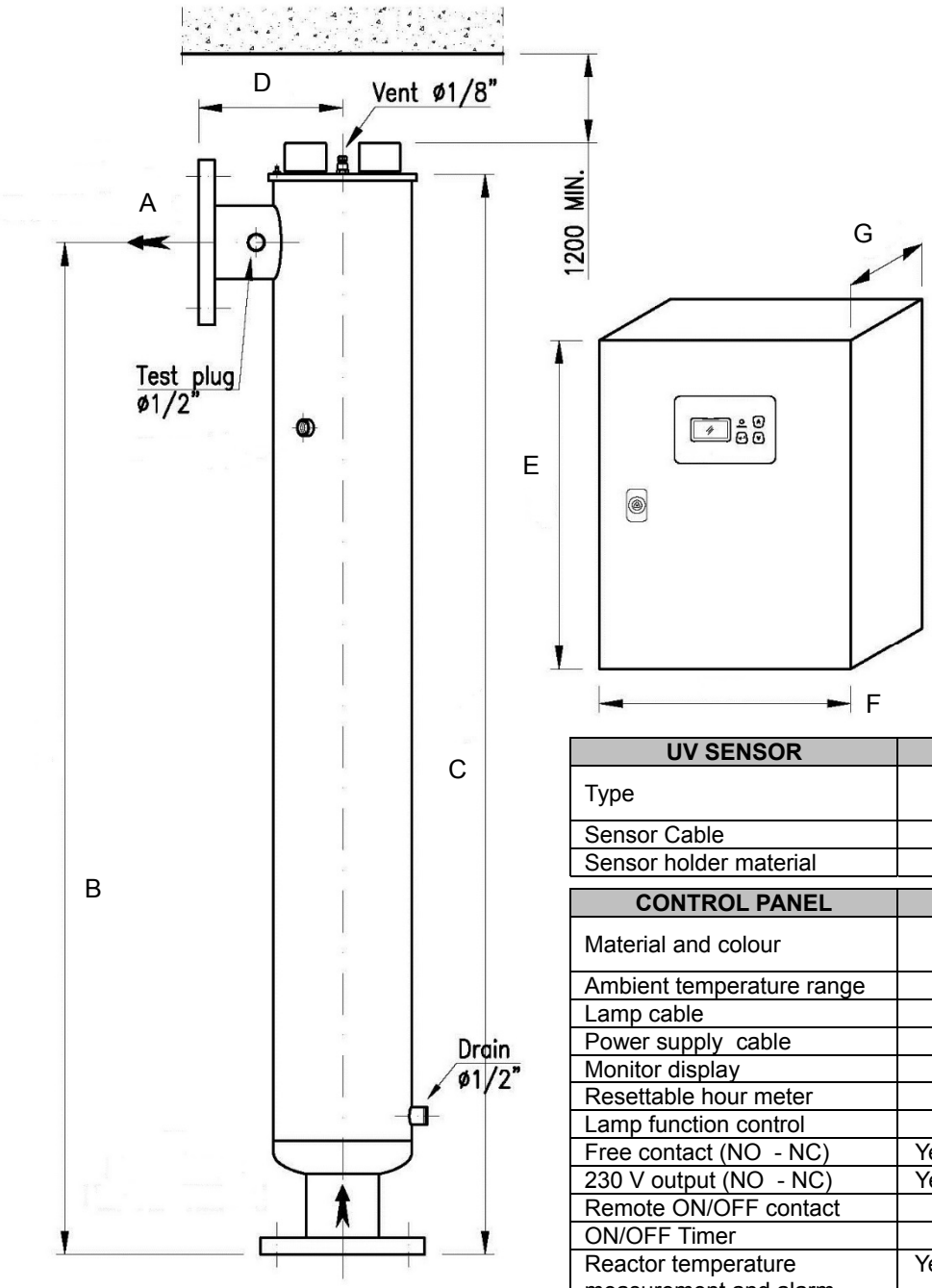


UV SENSOR	
Type	UVC selective sensor Mod. UV737
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Stainless steel 316L

CONTROL PANEL	TC
Material and colour	Black Painted Steel – RAL 7035
Ambient temperature range	5 – 45 °C
Lamp cable	4 m
Monitor display	TOUCH SCREEN (65.000 colors)
Multilanguage display	IT-EN-FR-ES
Resettable hour meter	Yes for lamp life control
Lamp function control	Yes
Free contact (NO - NC)	Yes – general alarm (max 1,3 A)
Remote ON/OFF contact	Yes (settable)
ON/OFF Timer	Yes
Reactor temperature measurement and alarm	Yes (°C) (shut off for high temperature)
UV Irradiance measurement and alarm	Yes (% or W/m^2)
4/20 mA output	Yes for irradiance and water temperature

Industrial U.V. Sterilizers in AISI 316L
200 W Series

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)	A IN-OUT	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
HA842	39	25	DN80	1230	1313	175	400	300	200
HA842M	39	25	DN80	1230	1313	175	400	300	200

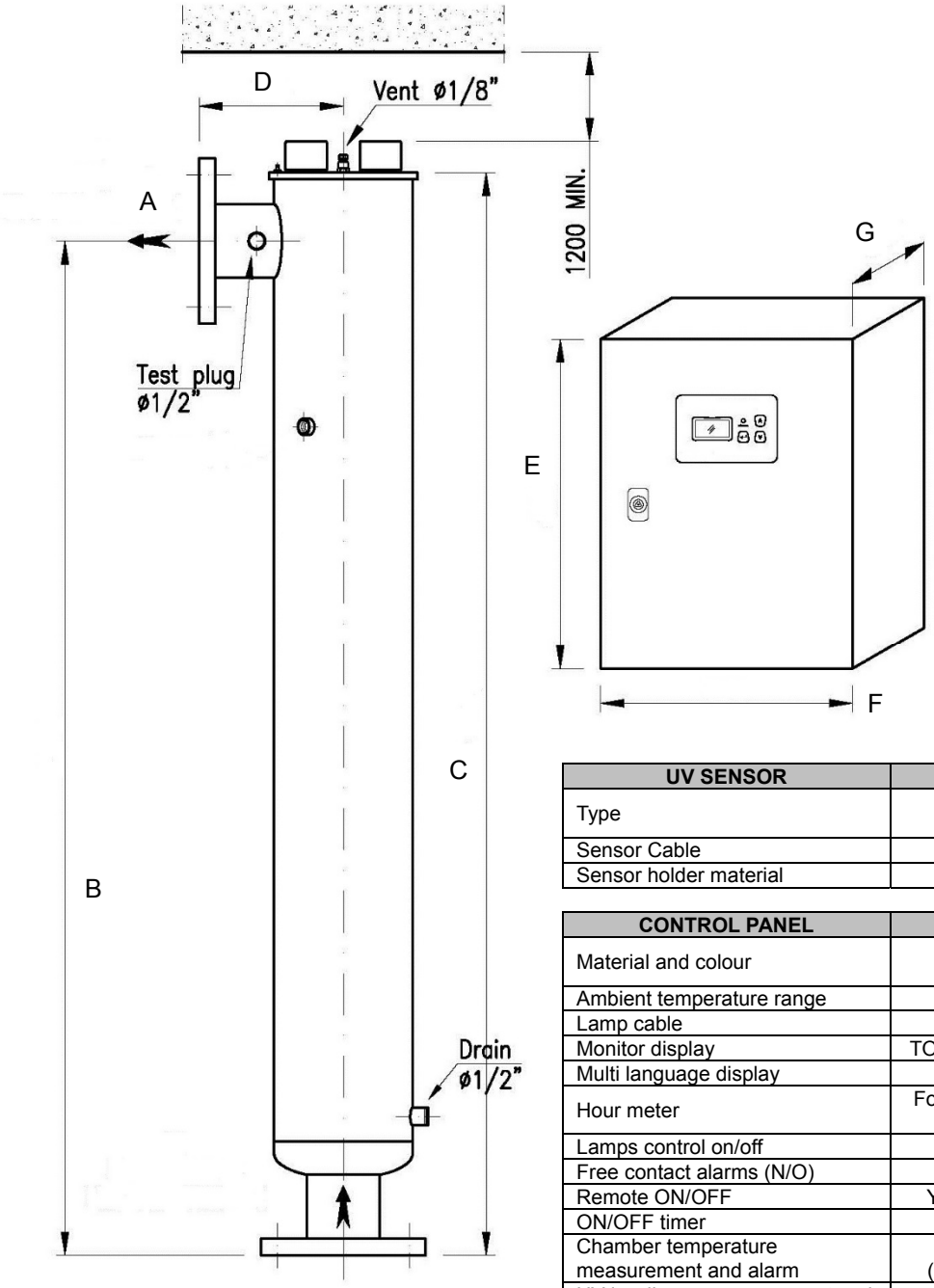


UV SENSOR	
Type	UVC selective sensor Mod. UV737
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Stainless steel 316L

CONTROL PANEL	RACK LCD PLUS
Material and colour	Black Painted Steel (RAL 7035)
Ambient temperature range	5 – 45 °C
Lamp cable	2,5 m
Power supply cable	1 m
Monitor display	LCD
Resettable hour meter	Yes for lamp life control
Lamp function control	Yes
Free contact (NO - NC)	Yes – general alarm (max 2 A)
230 V output (NO - NC)	Yes – general alarm (max 2 A)
Remote ON/OFF contact	Yes (settable)
ON/OFF Timer	Yes (settable)
Reactor temperature measurement and alarm	Yes (°C) – settable value (shut off for high temperature)
UV Irradiance measurement and alarm	Yes (% or W/m^2 optional) – settable value
4/20 mA output	Optional – for irradiance and water temperature

Industrial U.V. Sterilizers in AISI 316L
200 W Series

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)	A IN-OUT	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
HA844	50	31	DN100	1200	1321	210	500	400	250
HA846	47	37	DN150	1175	1321	210	750	400	250
HA848	70	48	DN150	1200	1346	235	750	400	250



UV SENSOR	
Type	UVC selective sensor Mod. UV737
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Stainless steel 316L

CONTROL PANEL	TC
Material and colour	Black Painted Steel (RAL 7035)
Ambient temperature range	5 – 45 °C
Lamp cable	4 m
Monitor display	TOUCH SCREEN (65.000 colors)
Multi language display	IT-EN-FR-ES
Hour meter	For total system life – Resettable for lamp life control
Lamps control on/off	Yes
Free contact alarms (N/O)	Yes (max 1.3 A)
Remote ON/OFF	Yes (settable contact working)
ON/OFF timer	Yes
Chamber temperature measurement and alarm	Yes (°C) (shut off for high temperature)
UV irradiance measurement and alarm	Yes (% or W/m^2)
4/20 mA output	Yes for irradiance and temperature

Industrial Flanged Multilamp U.V. Sterilizers in AISI 316L 400 W Series

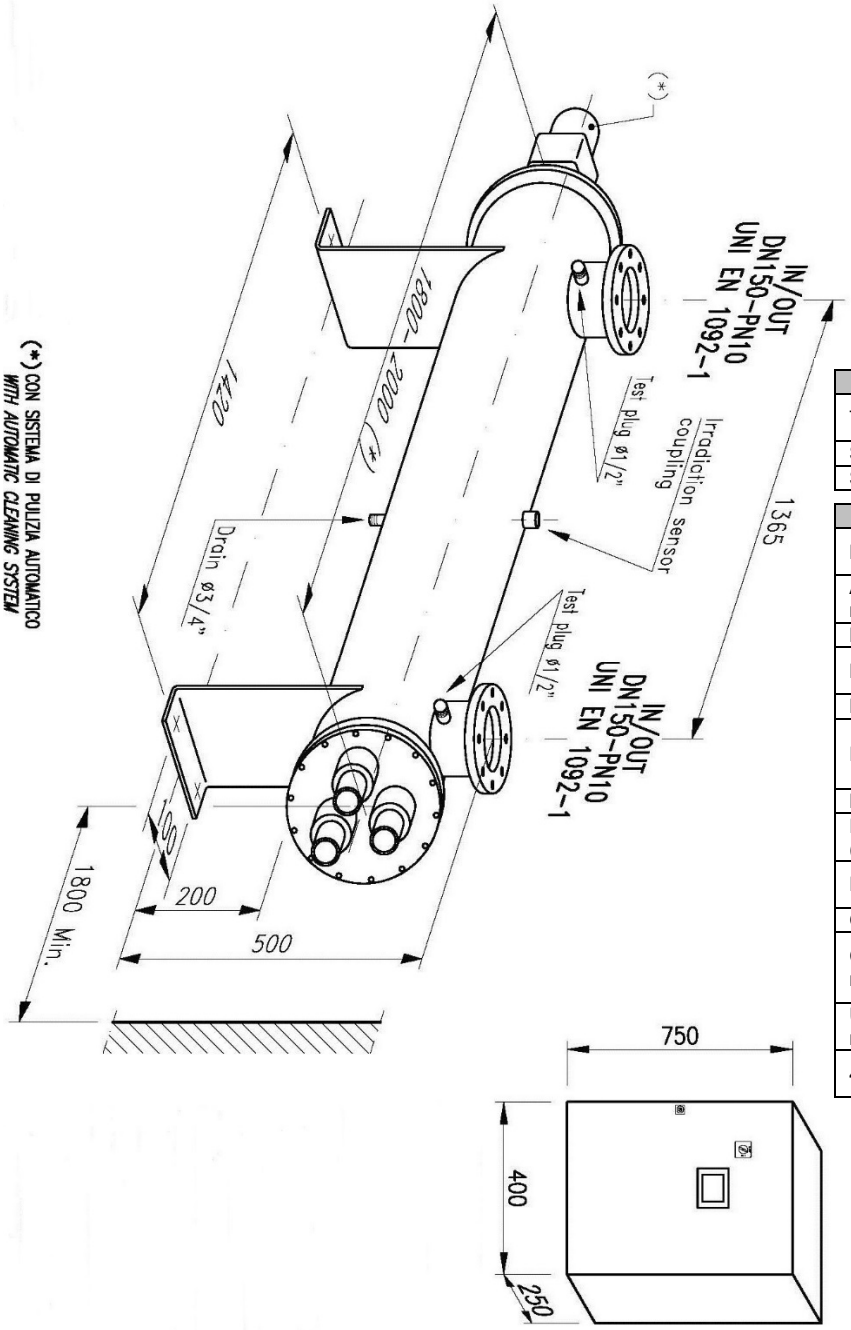
- Made in European Union (Italy);
- To be used for industrial water disinfection systems;
- Multi-lamp systems with single lamp 400 W;
- With reactor in AISI 316L, with sensor;
- Electric box with electronic circuit, connection cable, operating time meter and switch;
- Operating and failure led;
- Conform with CE safety Directives and D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- Available on request with UL certificate (for USA and Canada);
- WRAS approved products (for UK);
- Conform with EAC certificate for Russia and near-by Countries;
- Conform with Polish Quality Certification for Poland;
- Conform with a Norwegian certification of National Veterinary Institute, which gives the leading rules applied world wide in the sector of the fish farm;
- With lamp quartz sheath;
- Max operating pressure 10 bar;
- Temperature: 5 ÷ 50°C;
- UVC transmittance 97% - 1cm, UVC dose 400 J/m2 ;
- Power supply 230 V – 50/60 Hz and life span of lamp 16.000 hours;
- Reactor protection class IP65;
- Control panel protection class IP54;
- Possibility of connection with shut down solenoid valve;
- Alarm system;
- Horizontal mounting and flow both directions;
- Automatic cleaning systems.

(*) not available in stock.

REF.	MAX FLOW RATE (m^3/h)	TOTAL CONSUMPTION (W)	No. LAMPS	LAMP POWER (W)	IN/OUT CONNECTIONS	
HA860A (*)	150	1.300	3	400	DN150	
HA862A (*)	250	1.760	4	400	DN200	
HA864A (*)	300	2.180	5	400	DN200	
HA866A (*)	420	2.650	6	400	DN250	
HA868A (*)	600	3.500	8	400	DN250	
HA870A (*)	830	4.400	10	400	DN300	
HA872A (*)	980	5.300	10	400	DN350	

Industrial Flanged Multilamp
U.V. Sterilizers in AISI 316L 400 W Series

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)	IN-OUT
HA860A	56	50	DN150

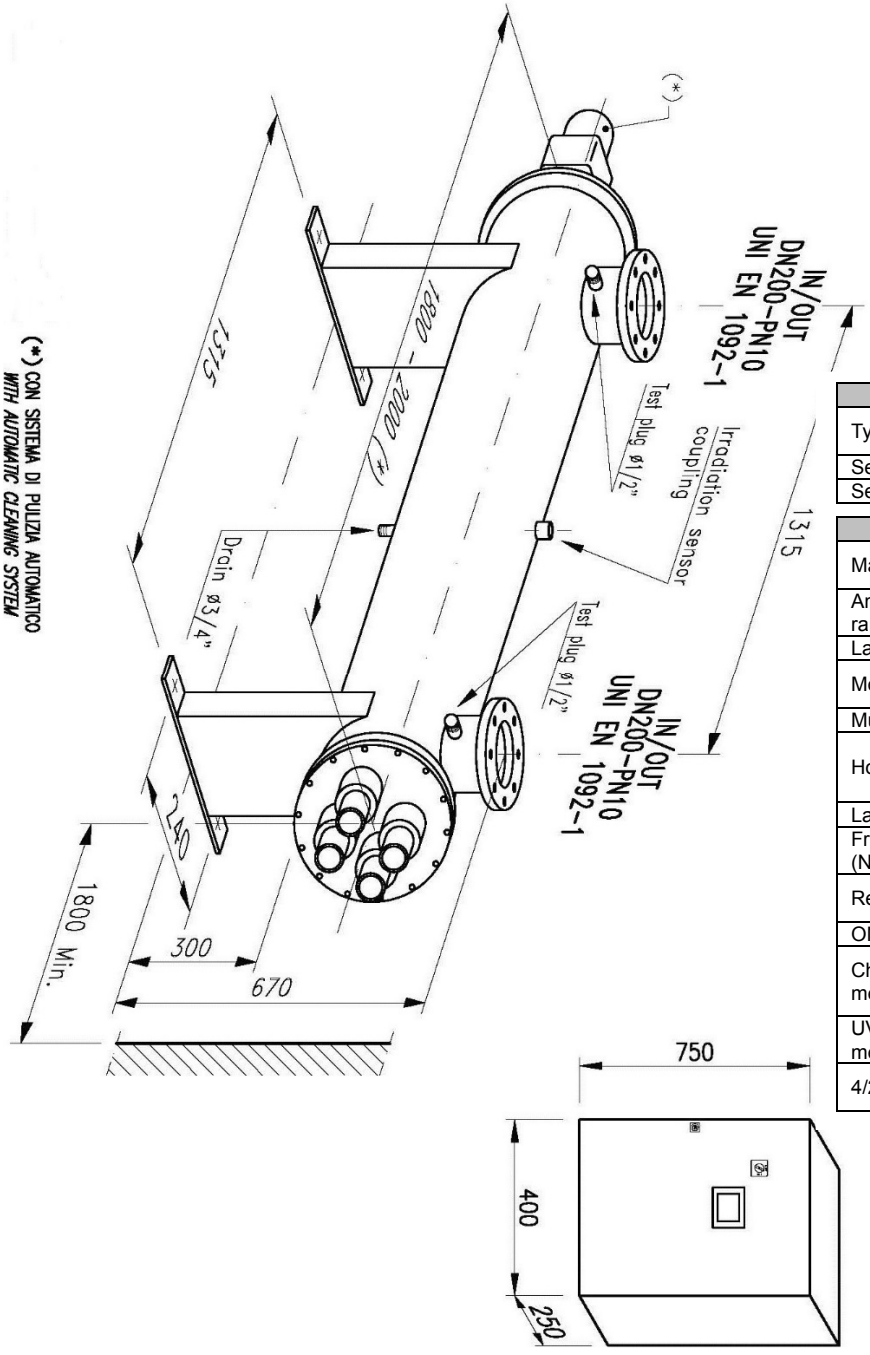


UV SENSOR	
Type	UVC selective sensor Mod. UV737
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Stainless steel 316L

CONTROL PANEL	TC
Material and colour	Black Painted Steel (RAL 7035)
Ambient temperature range	5 – 45 °C
Lamp cable	4 m
Monitor display	TOUCH SCREEN (65.000 colors)
Multi language display	IT-EN-FR-ES
Hour meter	For total system life – Resettable for lamp life control
Lamps control on/off	Yes
Free contact alarms (N/O)	Yes (max 1.3 A)
Remote ON/OFF	Yes (settable contact working)
ON/OFF timer	Yes
Chamber temperature measurement and alarm	Yes (°C) (shut off for high temperature)
UV irradiance measurement and alarm	Yes (% or W/m^2)
4/20 mA output	Yes for irradiance and temperature

Industrial Flanged Multilamp
U.V. Sterilizers in AISI 316L 400 W Series

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)	IN-OUT
HA862A	82	80	DN200

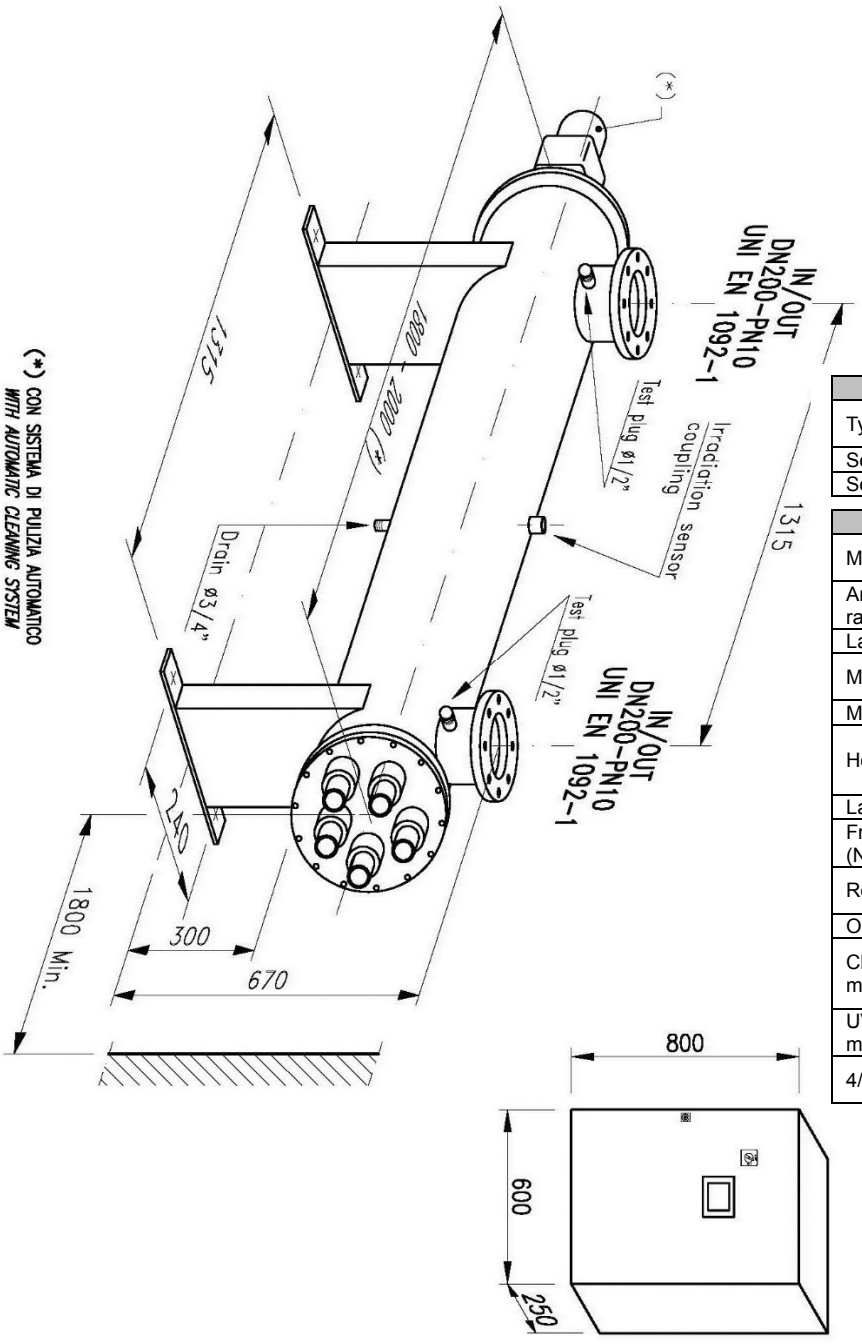


UV SENSOR	
Type	UVC selective sensor Mod. UV737
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Stainless steel 316L

CONTROL PANEL	TC
Material and colour	Black Painted Steel (RAL 7035)
Ambient temperature range	5 – 45 °C
Lamp cable	4 m
Monitor display	TOUCH SCREEN (65.000 colors)
Multi language display	IT-EN-FR-ES
Hour meter	For total system life – Resettable for lamp life control
Lamps control on/off	Yes
Free contact alarms (N/O)	Yes (max 1.3 A)
Remote ON/OFF	Yes (settable contact working)
ON/OFF timer	Yes
Chamber temperature measurement and alarm	Yes (°C) (shut off for high temperature)
UV irradiance measurement and alarm	Yes (% or W/m^2)
4/20 mA output	Yes for irradiance and temperature

Industrial Flanged Multilamp
U.V. Sterilizers in AISI 316L 400 W Series

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)	IN-OUT
HA864A	87	100	DN200

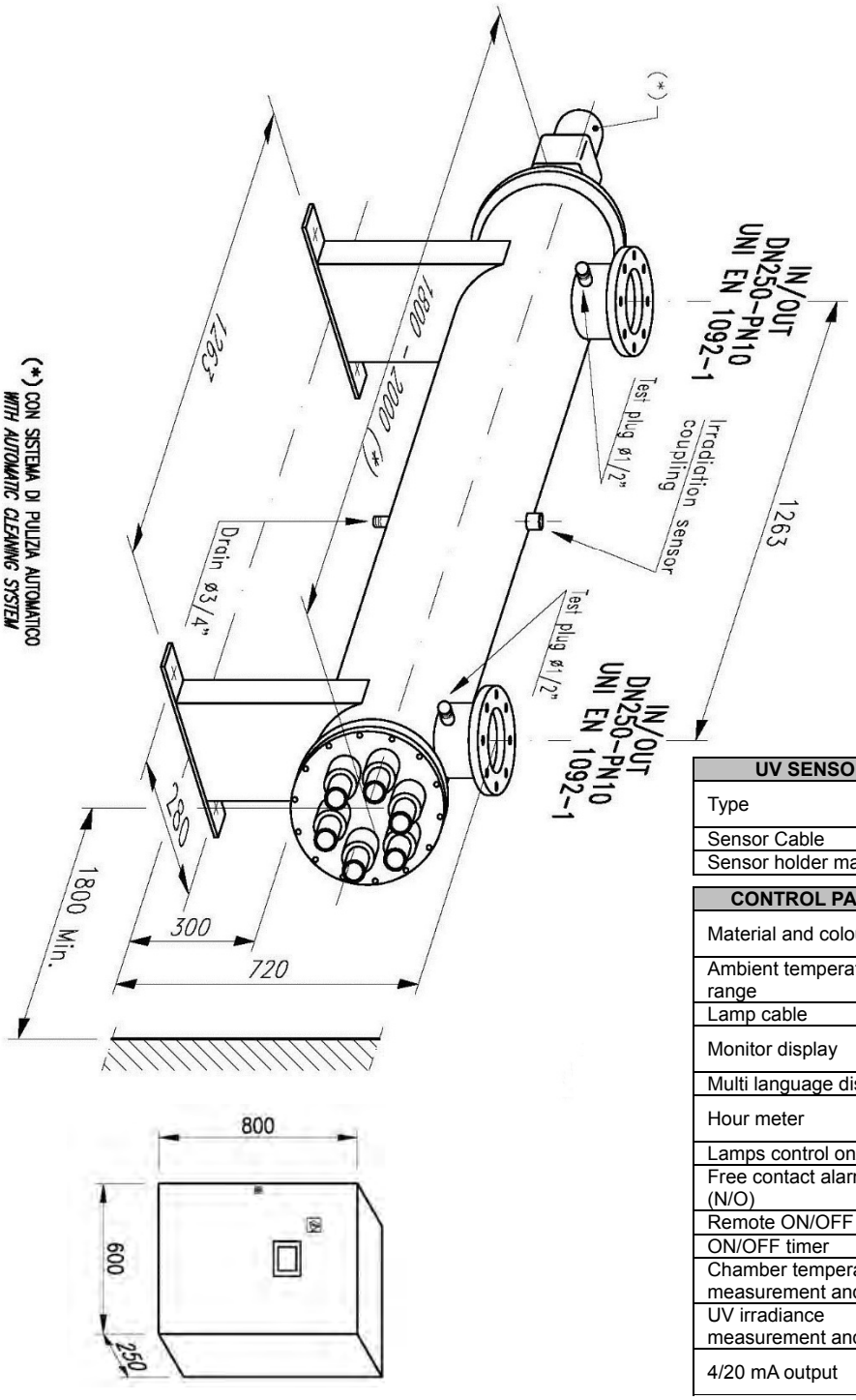


UV SENSOR	
Type	UVC selective sensor Mod. UV737
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Stainless steel 316L

CONTROL PANEL	TC
Material and colour	Black Painted Steel (RAL 7035)
Ambient temperature range	5 – 45 °C
Lamp cable	4 m
Monitor display	TOUCH SCREEN (65.000 colors)
Multi language display	IT-EN-FR-ES
Hour meter	For total system life – Resettable for lamp life control
Lamps control on/off	Yes
Free contact alarms (N/O)	Yes (max 1.3 A)
Remote ON/OFF	Yes (settable contact working)
ON/OFF timer	Yes
Chamber temperature measurement and alarm	Yes (°C) (shut off for high temperature)
UV irradiance measurement and alarm	Yes (% or W/m^2)
4/20 mA output	Yes for irradiance and temperature

Industrial Flanged Multilamp
U.V. Sterilizers in AISI 316L 400 W Series

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)	IN-OUT
HA866A	126	110	DN250

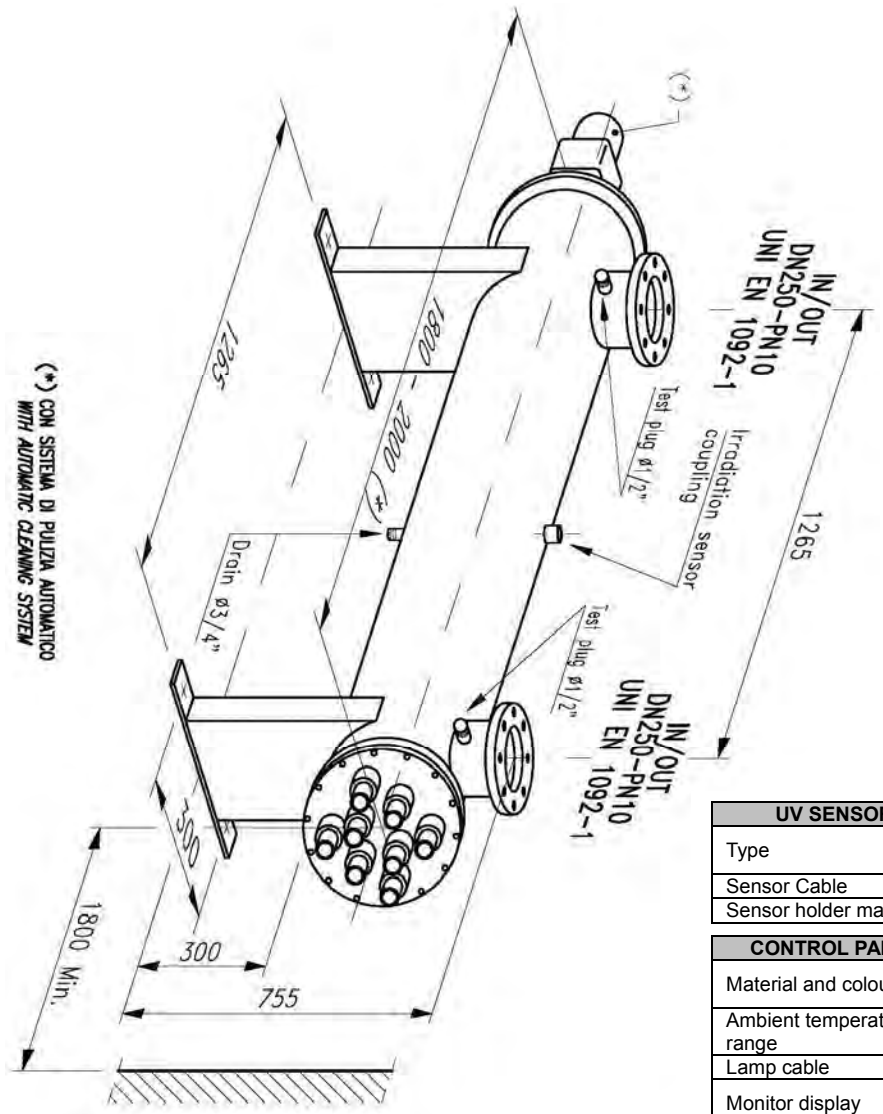


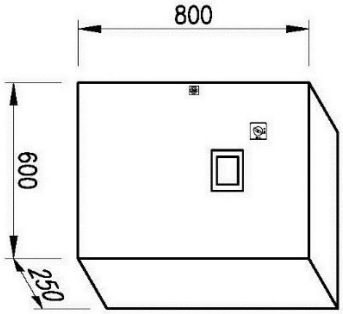
UV SENSOR	
Type	UVC selective sensor Mod. UV737
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Stainless steel 316L

CONTROL PANEL	TC
Material and colour	Black Painted Steel (RAL 7035)
Ambient temperature range	5 – 45 °C
Lamp cable	4 m
Monitor display	TOUCH SCREEN (65.000 colors)
Multi language display	IT-EN-FR-ES
Hour meter	For total system life – Resettable for lamp life control
Lamps control on/off	Yes
Free contact alarms (N/O)	Yes (max 1.3 A)
Remote ON/OFF	Yes (settable contact working)
ON/OFF timer	Yes
Chamber temperature measurement and alarm	Yes (°C) (shut off for high temperature)
UV irradiance measurement and alarm	Yes (% or W/m^2)
4/20 mA output	Yes for irradiance and temperature

Industrial Flanged Multilamp
U.V. Sterilizers in AISI 316L 400 W Series

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)	IN-OUT
HA868A	150	125	DN250



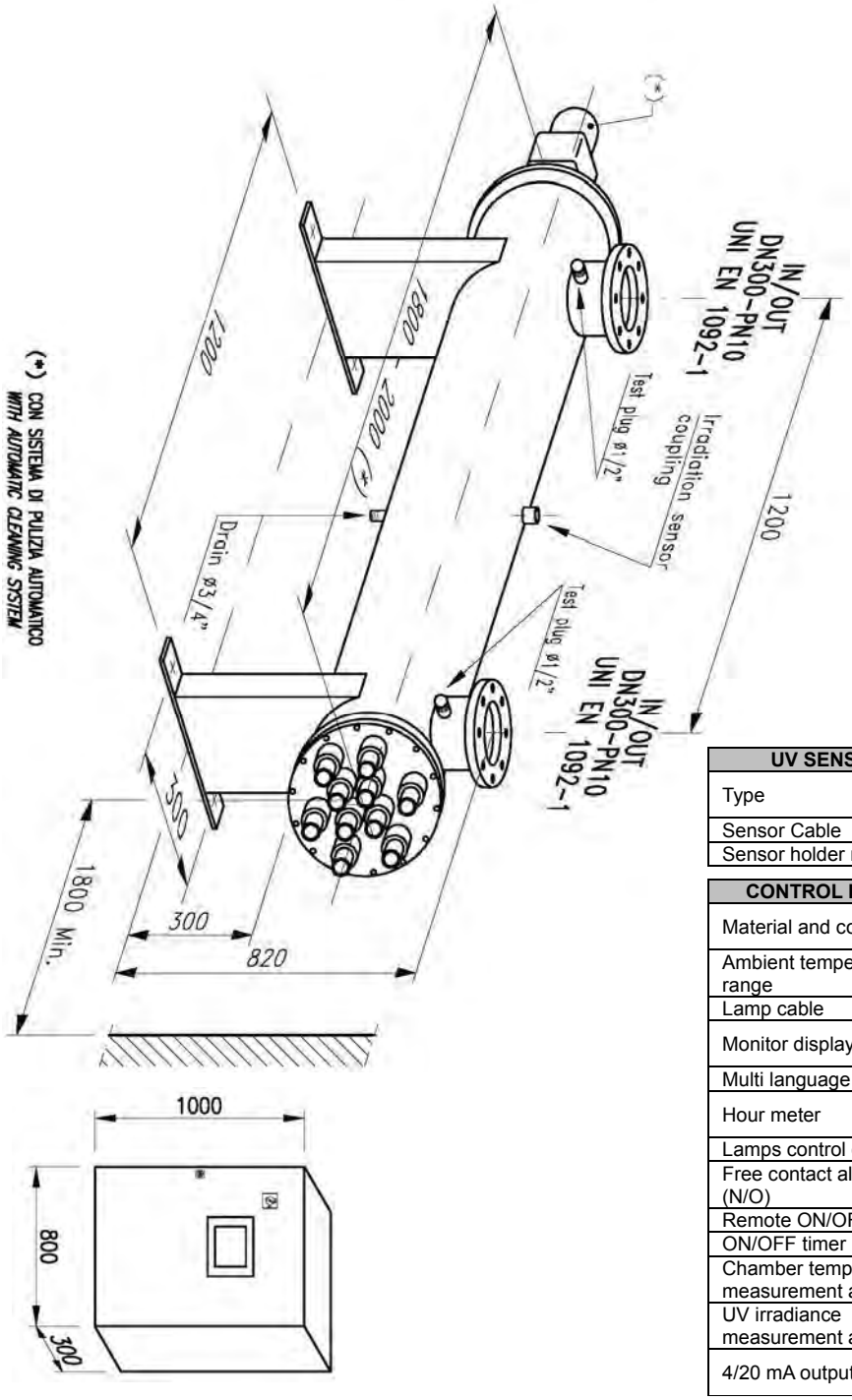


UV SENSOR	
Type	UVC selective sensor Mod. UV737
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Stainless steel 316L

CONTROL PANEL	TC
Material and colour	Black Painted Steel (RAL 7035)
Ambient temperature range	5 – 45 °C
Lamp cable	4 m
Monitor display	TOUCH SCREEN (65.000 colors)
Multi language display	IT-EN-FR-ES
Hour meter	For total system life – Resettable for lamp life control
Lamps control on/off	Yes
Free contact alarms (N/O)	Yes (max 1.3 A)
Remote ON/OFF	Yes (settable contact working)
ON/OFF timer	Yes
Chamber temperature measurement and alarm	Yes (°C) (shut off for high temperature)
UV irradiance measurement and alarm	Yes (% or W/m^2)
4/20 mA output	Yes for irradiance and temperature

Industrial Flanged Multilamp
U.V. Sterilizers in AISI 316L 400 W Series

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)	IN-OUT
HA870A	197	175	DN300

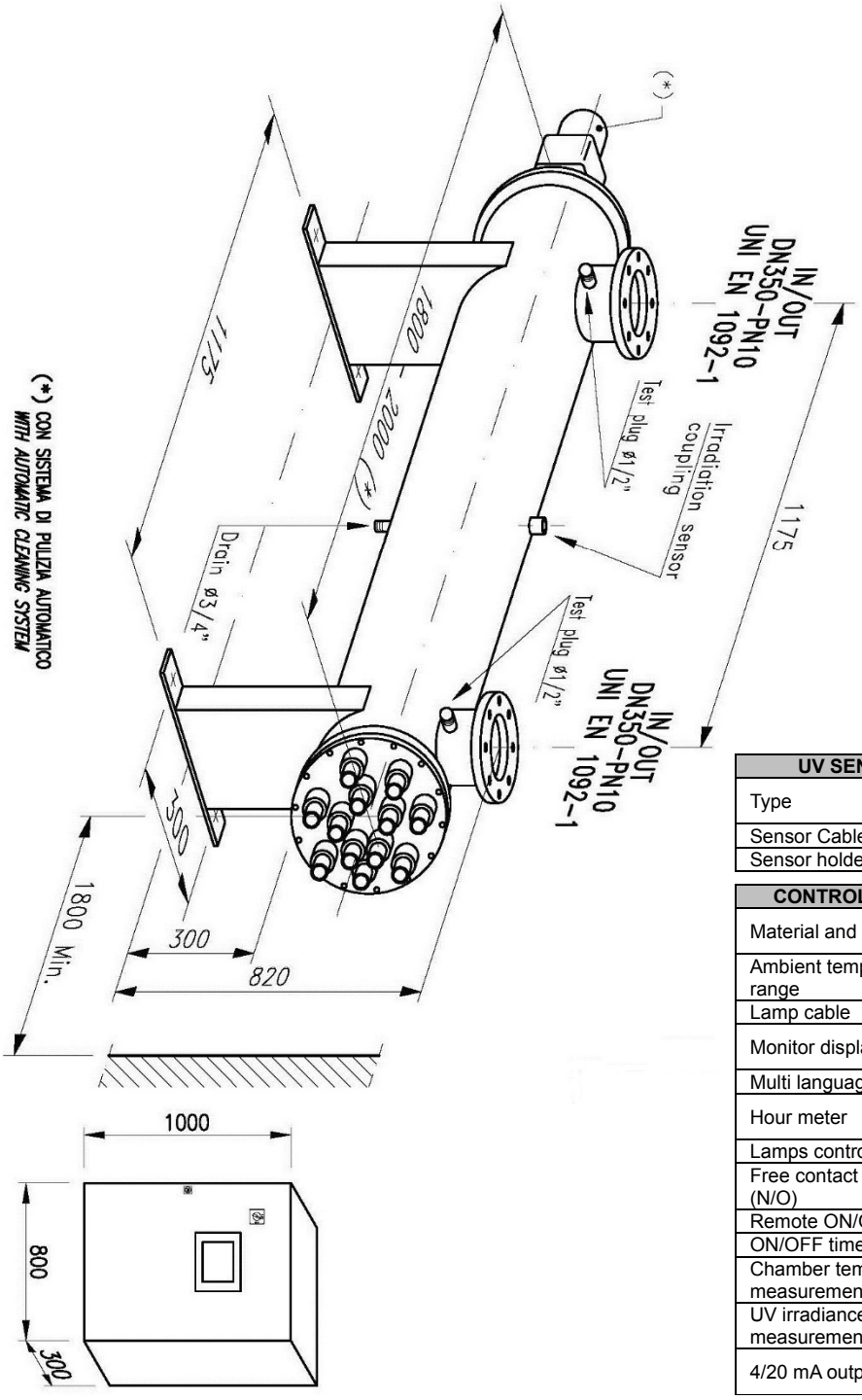


UV SENSOR	
Type	UVC selective sensor Mod. UV737
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Stainless steel 316L

CONTROL PANEL	TC
Material and colour	Black Painted Steel (RAL 7035)
Ambient temperature range	5 – 45 °C
Lamp cable	4 m
Monitor display	TOUCH SCREEN (65.000 colors)
Multi language display	IT-EN-FR-ES
Hour meter	For total system life – Resettable for lamp life control
Lamps control on/off	Yes
Free contact alarms (N/O)	Yes (max 1.3 A)
Remote ON/OFF	Yes (settable contact working)
ON/OFF timer	Yes
Chamber temperature measurement and alarm	Yes (°C) (shut off for high temperature)
UV irradiance measurement and alarm	Yes (% or W/m^2)
4/20 mA output	Yes for irradiance and temperature

Industrial Flanged Multilamp
U.V. Sterilizers in AISI 316L 400 W Series

REF.	REACTOR VOLUME (liters)	REACTOR WEIGHT (kg)	IN-OUT
HA872A	197	200	DN350



UV SENSOR	
Type	UVC selective sensor Mod. UV737
Sensor Cable	Shielded cable 4 meters
Sensor holder material	Stainless steel 316L

CONTROL PANEL	TC
Material and colour	Black Painted Steel (RAL 7035)
Ambient temperature range	5 – 45 °C
Lamp cable	4 m
Monitor display	TOUCH SCREEN (65.000 colors)
Multi language display	IT-EN-FR-ES
Hour meter	For total system life – Resettable for lamp life control
Lamps control on/off	Yes
Free contact alarms (N/O)	Yes (max 1.3 A)
Remote ON/OFF	Yes (settable contact working)
ON/OFF timer	Yes
Chamber temperature measurement and alarm	Yes (°C) (shut off for high temperature)
UV irradiance measurement and alarm	Yes (% or W/m^2)
4/20 mA output	Yes for irradiance and temperature

Filter housings, cartridges and polyphosphate feeders

EUROTROL®

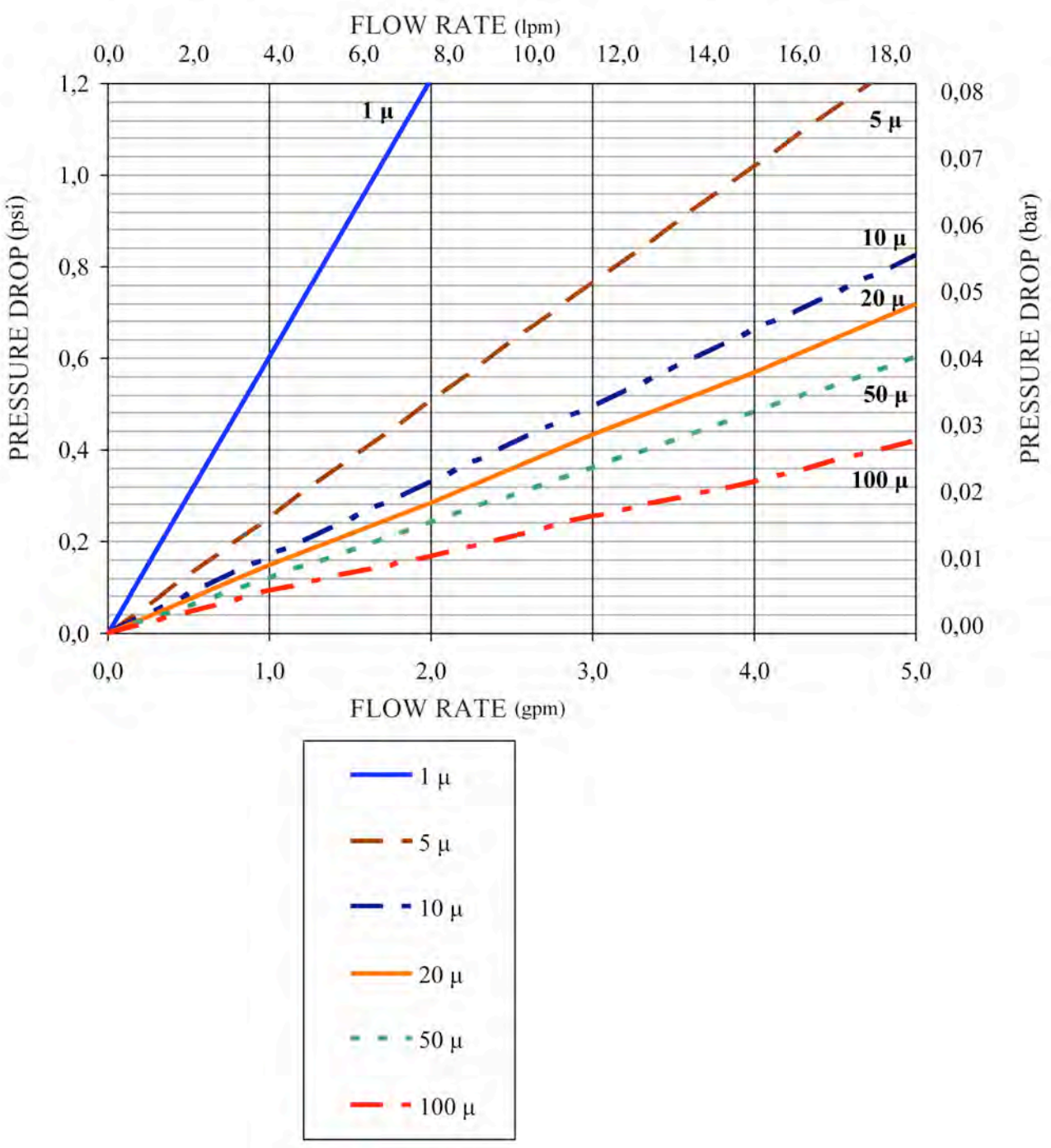
WATER TREATMENT COMPONENTS

PP String Wound Filtering Cartridges

- string wound filtering cartridges with core;
- string and core in polypropylene;
- double/triple retention capacity than a compact structure cartridge;
- dimensions external diameter 60 mm, internal diameter 28 mm;
- nominal length 10” or 20”;
- suggested filtering flow rate for 10” length: 18÷24 lpm;
- max filtering flow rate for 20” length : 30 lpm;
- max ΔP recommended 1 bar;
- max operating temperature = 60°C.

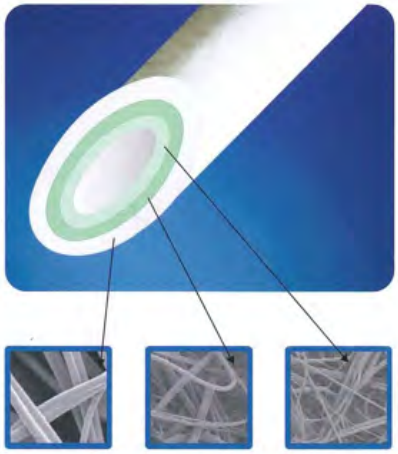
REF.	MODEL	NOMINAL LENGTH (inch)	LENGTH (mm)	MICRON	
FC100	DLSW-10-01	10”	251	1	
FC101	DLSW-10-05	10”	251	5	
FC102	DLSW-10-10	10”	251	10	
FC103	DLSW-10-20	10”	251	20	
FC104	DLSW-10-50	10”	251	50	
FC105	DLSW-10-100	10”	251	100	
FC110	DLSW-20-01	20”	505	1	
FC111	DLSW-20-05	20”	505	5	
FC112	DLSW-20-10	20”	505	10	
FC113	DLSW-20-20	20”	505	20	
FC114	DLSW-20-50	20”	505	50	
FC115	DLSW-20-100	20”	505	100	

Flow rate – pressure drop diagram (Per single 10-inch equivalent)



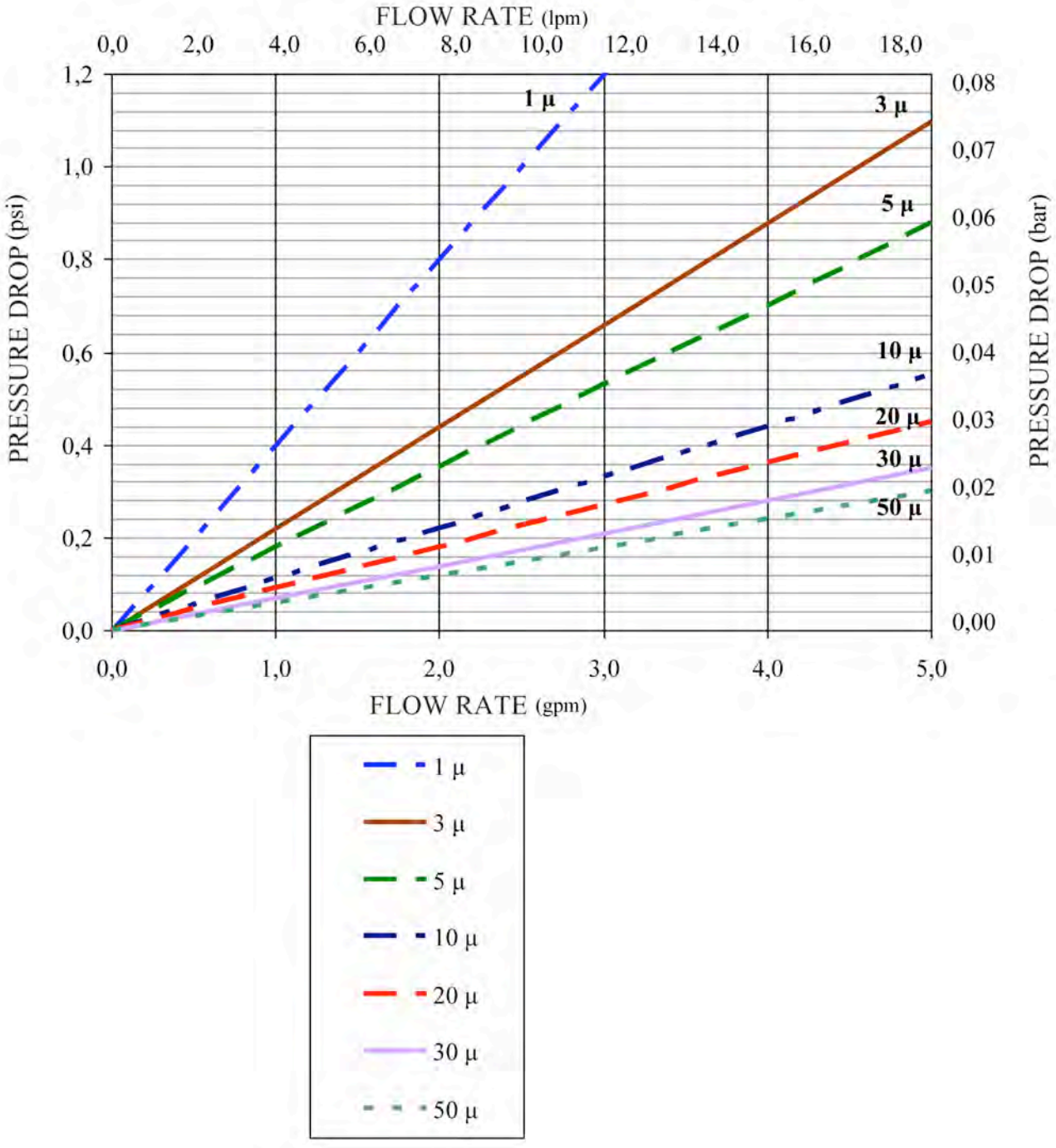
Melt Blown Filtering Cartridges

- Thermowelded polypropylene fibers cartridges with no lubricants or antistatic additives;
- Any migration into the filtered water;
- In compliance with DM 174/2004;
- Wide chemical compatibility;
- High retention capacity & filtration efficiency multilayer structure;
- Filtration efficiency 96 % minimum;
- High retention capacity extends cartridge life;
- External diameter 63 mm, internal 28 mm;
- Nominal length: 10” – 20” – 30” – 40”.
- Suggested filtration flow rate for 10” length: 15 ÷ 20 lpm;
- Max filtration flow rate for 40” length: 60 lpm;
- Max ΔP recommended 1,4 bar;
- Max operating temperature = 80°C.



REF.	MODEL	NOMINAL LENGTH (inch)	LENGTH (mm)	MICRON	
FC050	DLPP-01-10	10”	251	1	
FC051	DLPP-05-10	10”	251	5	
FC052	DLPP-10-10	10”	251	10	
FC053	DLPP-20-10	10”	251	20	
FC054	DLPP-30-10	10”	251	30	
FC055	DLPP-50-10	10”	251	50	
FC060	DLPP-01-20	20”	508	1	
FC061	DLPP-05-20	20”	508	5	
FC062	DLPP-10-20	20”	508	10	
FC063	DLPP-20-20	20”	508	20	
FC064	DLPP-30-20	20”	508	30	
FC065	DLPP-50-20	20”	508	50	
FC070	DLPP-01-30	30”	764	1	
FC071	DLPP-05-30	30”	764	5	
FC072	DLPP-10-30	30”	764	10	
FC073	DLPP-20-30	30”	764	20	
FC074	DLPP-30-30	30”	764	30	
FC075	DLPP-50-30	30”	764	50	
FC080	DLPP-01-40	40”	1018	1	
FC081	DLPP-05-40	40”	1018	5	
FC082	DLPP-10-40	40”	1018	10	
FC083	DLPP-20-40	40”	1018	20	
FC084	DLPP-30-40	40”	1018	30	
FC085	DLPP-50-40	40”	1018	50	

Flow rate – pressure drop diagram (Per single 10-inch equivalent)

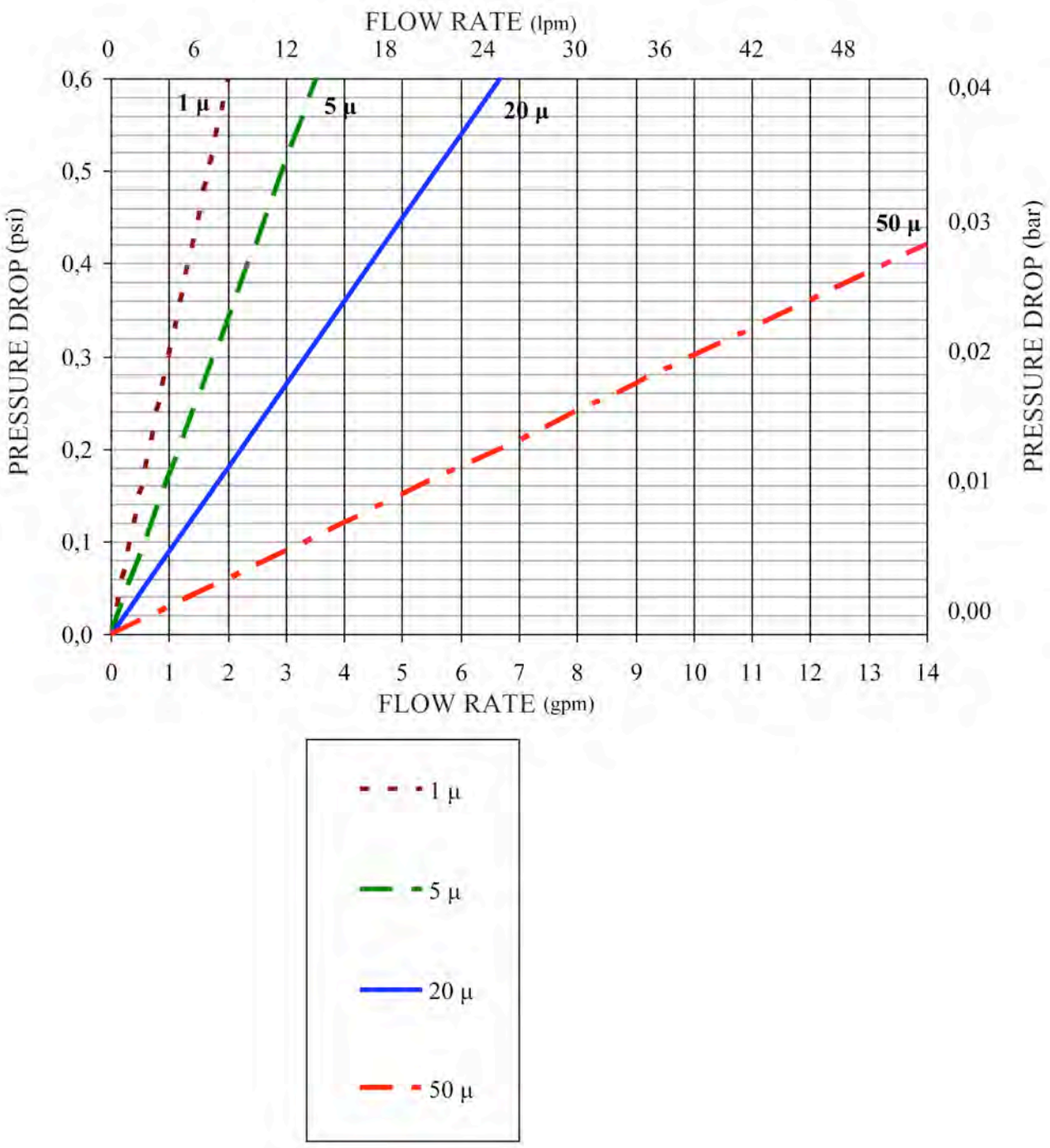


PP Big Sediment Filter Cartridges

- melt-blown polypropylene fibers;
- dimensions 114 mm external diameter;
- In compliance with DM 174/2004;
- dimensions 28 mm internal diameter.

REF.	MODEL	NOMINAL LENGTH (inch)	LENGTH (mm)	MICRON	
FA038	DLPPBB-1-10	10”	251	1	
FA034	DLPPBB-5-10	10”	251	5	
FA035	DLPPBB-20-10	10”	251	20	
FA036	DLPPBB-50-10	10”	251	50	
FA039	DLPPBB-1-20	20”	508	1	
FA028	DLPPBB-5-20	20”	508	5	
FA029	DLPPBB-20-20	20”	508	20	
FA037	DLPPBB-50-20	20”	508	50	

Flow – pressure drops diagram (Per single 10-inch equivalent)

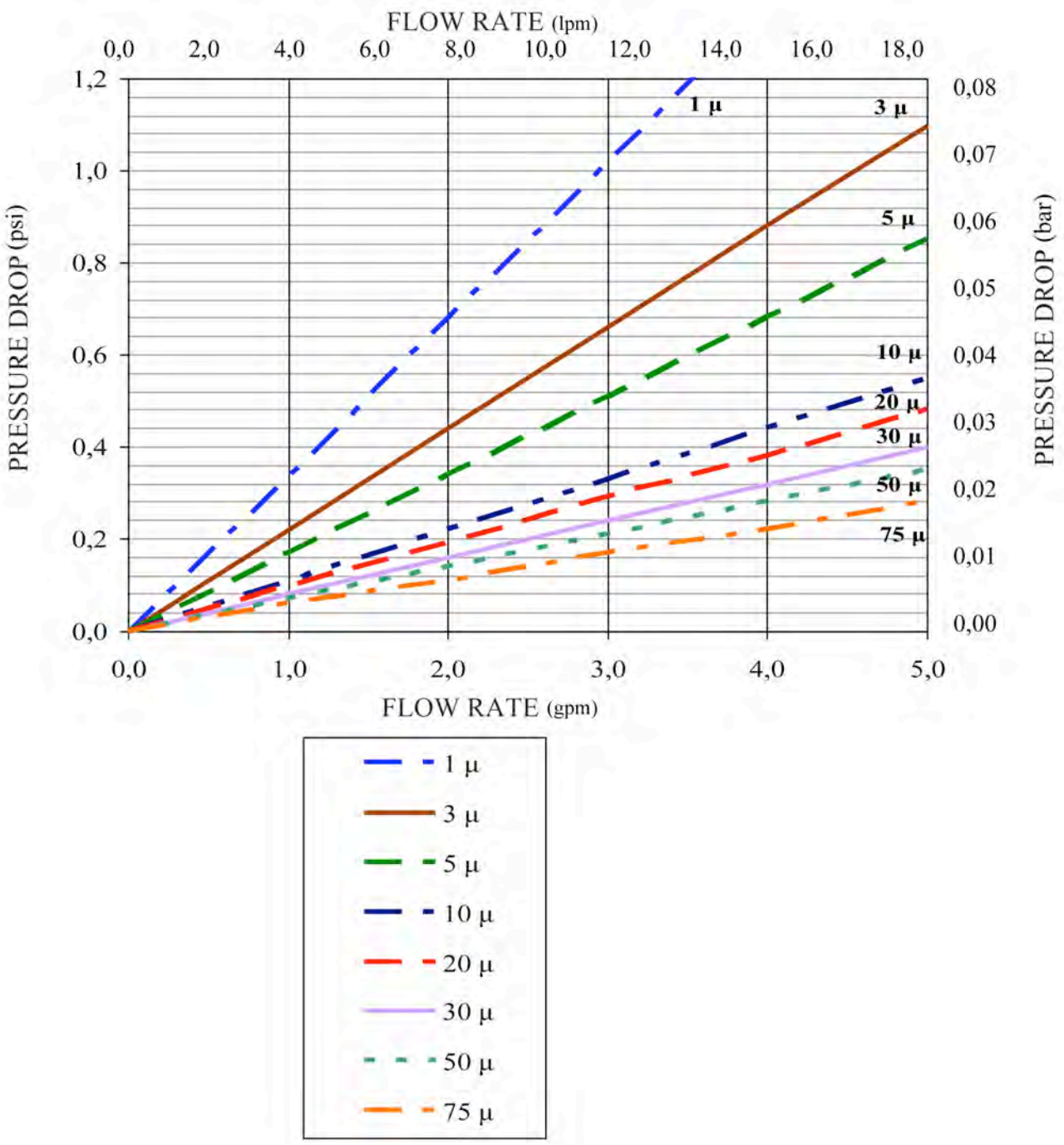


Purtrex Filtering Cartridges

- in melt-blown polypropylene fibers;
- any microfibers migration in filtered water;
- FDA materials compliant;
- graduated density from external to internal side improves filter efficiency;
- high retention capacity extends cartridge life;
- external diameter 63 mm, internal 28 mm;
- nominal length 10” – 20” – 30” – 40”.
- suggested filtration flow rate for 10” length: 15 ÷ 20 lpm;
- max filtration flow rate for 40” length: 60 lpm;
- max operating temperature = 80°C.

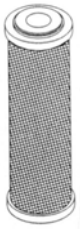
REF.	MODEL	NOMINAL LENGTH (inch)	LENGTH (mm)	MICRON	
FC010	PX 01 – 9 ⅞”	10”	251	1	
FC011	PX 03 – 9 ⅞”	10”	251	3	
FC012	PX 05 – 9 ⅞”	10”	251	5	
FC013	PX 10 – 9 ⅞”	10”	251	10	
FC014	PX 20 – 9 ⅞”	10”	251	20	
FC015	PX 30 – 9 ⅞”	10”	251	30	
FC016	PX 50 – 9 ⅞”	10”	251	50	
FC017	PX 75 – 9 ⅞”	10”	251	75	
FC020	PX 01 – 20”	20”	508	1	
FC021	PX 03 – 20”	20”	508	3	
FC022	PX 05 – 20”	20”	508	5	
FC023	PX 10 – 20”	20”	508	10	
FC024	PX 20 – 20”	20”	508	20	
FC025	PX 30 – 20”	20”	508	30	
FC026	PX 50 – 20”	20”	508	50	
FC030	PX 01 – 30”	30”	764	1	
FC031	PX 03 – 30”	30”	764	3	
FC032	PX 05 – 30”	30”	764	5	
FC033	PX 10 – 30”	30”	764	10	
FC034	PX 20 – 30”	30”	764	20	
FC035	PX 30 – 30”	30”	764	30	
FC036	PX 50 – 30”	30”	764	50	
FC040	PX 01 – 40”	40”	1018	1	
FC041	PX 03 – 40”	40”	1018	3	
FC042	PX 05 – 40”	40”	1018	5	
FC043	PX 10 – 40”	40”	1018	10	
FC044	PX 20 – 40”	40”	1018	20	
FC045	PX 30 – 40”	40”	1018	30	
FC046	PX 50 – 40”	40”	1018	50	

Flow – pressure drops diagram (Per single 10-inch equivalent)



Activated Carbon Filtering Cartridges

Carbon Block End Cap 70



- Extruded activated carbon of Bituminous origin;
- Recommended for pre-filtration applications and for Chlorine removal;

Dimensions: - external diameter = 64 mm (2 ½");
– internal diameter = 26 mm (1"); - end-cap diameter = 70 mm.

REF.	MODEL	NOMINAL LENGTH (inch)	LENGTH (mm)	MICRON	SUGGESTED FLOW RATE (l/h)	EXTRUDED ACTIVATED CARBON	CAP	
FA012	CBC 5"	5"	124	1	120	Bituminous	White	
FA013	EB-CB 9 ⅞"	10"	249	10	240	Bituminous	White	
FA014	CBC 20"	20"	508	10	480	Bituminous	White	

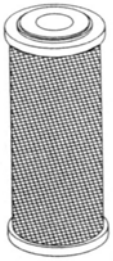
Carbon Block End Cap 65

- Extruded activated carbon of Bituminous origin;
- Recommended for pre-filtration applications and for Chlorine removal;

Dimensions: - external diameter = 62 mm;
– internal diameter = 30 mm; - end-cap diameter = 65 mm.

REF.	MODEL	NOMINAL LENGTH (inch)	LENGTH (mm)	MICRON	SUGGESTED FLOW RATE (l/h)	EXTRUDED ACTIVATED CARBON	CAP	
FA018	DLCTO651010	10"	249	10	240	Bituminous	White	
FA019	DLCTO651020	20"	508	10	480	Bituminous	White	

Big Carbon Block



- Bituminous carbon block.
- Suitable for pre-filtration applications and for Chlorine removal.

Dimensions: - external diameter = 108 mm (4 ¼");
– internal diameter = 25 mm (1"); - end-cap diameter = 113 mm.

REF.	MODEL	NOMINAL LENGTH (inch)	LENGTH (mm)	MICRON	SUGGESTED FLOW RATE (l/h)	
FA016	CBC 10 BIG	10"	254	5	800	
FA015	CBC 20 BIG	20"	508	5	1600	

Conform with CE safety Directives and D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;

Activated Carbon Filtering Cartridges

Wound PP & activated carbon

wound polypropylene cartridge with granular activated carbon inside;
10 micron;
external diameter 64 mm, internal 27 mm;
nominal length 10”;
length 251 mm.
medium flow = 800 l/h

REF.	
FA058	

Granular activated carbon

- PE container cartridge empty or with granular activated carbon;
- external diameter 72 mm;
- nominal length 10”;
- length 256 mm.

REF.	MODEL	DESCRIPTION	
FA007	GAC 10 N	WITH ACTIVATED CARBON	
FA008	10 N	EMPTY	

AISI 304 Cartridges for OTC Housings

AISI 304 Cartridges for OTC 12 Housings

- washable;
- to install with washable cartridge filters OTC 12 on catalogue (see 08-02-12-EN data sheet).

REF.	FILTRATION DEGREE (micron)	MATERIAL	
FB221	60	NYLON	

AISI 304 Cartridges for OTC 34 - 1 - 114 Housings

- washable;
- to install with:
  - washable cartridge filters OTC 34 – 1 - 114 on catalogue (see 08-02-12-EN data sheet);
  - 10” hot water filters (see 08-02-13-EN data sheet), except for nylon filtering cartridge REF. FB224.

REF.	FILTRATION DEGREE (micron)	MATERIAL	
FB224	60	NYLON	
FB225	25	AISI 304	
FB228	60	AISI 304	
FB231	100	AISI 304	
FB234	200	AISI 304	
FB237	300	AISI 304	

AISI 304 Cartridges for OTC 112 - 2 Housings

- washable;
- to install with washable cartridge filters OTC 112 – 2 on catalogue (see 08-02-12-EN data sheet).

REF.	FILTRATION DEGREE (micron)	MATERIAL	
FB226	25	AISI 304	
FB229	60	AISI 304	
FB232	100	AISI 304	
FB235	200	AISI 304	
FB238	300	AISI 304	

Filtering Cartridges

DOE Polyester Filtering Cartridges for MT, MD & OTS Housings

- In compliance with ACS (France), DM 174/2004 and DM25/2012 (Italy);
- Washable, with filtration degree 50 micron;
- External diameter 70 mm, internal 30 mm;
- Max operating temperature 45°C.

REF.	NOMINAL LENGTH (inch)	LENGTH (mm)	
FARP1050	10”	250	
FARP2050	20”	510	

DOE Nylon Filtering Cartridges for OTS Housings

- Washable, with filtration degree 60 micron;
- External diameter 62 mm, internal 27 mm.

REF.	MODEL	NOMINAL L. (inch)	LENGTH (mm)	
FA067	NL 60 - 9	10”	248	
FA068 (*)	NL 60 - 20	20”	505	

(*) This cartridge is not suitable for the MD and MT housings of our catalogue.

OR222 Nylon Filtering Cartridges for OTS Housings

- In compliance with ACS (France), DM 174/2004 and DM25/2012 (Italy);
- Washable, with filtration degree 60 micron;
- To fit into OTS brass head housings 1 ¼” – 1 ½” – 2” models (see 08-02-14-EN data sheet);
- External diameter 61 mm;
- With 222 O-rings;
- Max ΔP recommended 1,4 bar.

REF.	NOMINAL LENGTH (inch)	LENGTH (mm)	Flow @ Δp=0,2 bar (l/h)	
FB067	10”	250	1800	
FB068	20”	505	3600	

Filtering Cartridges

AISI 316 Filtering Cartridges for Hot Water Filter Housings

- Washable and suitable for Hot Water Filter Housings on catalog (see 08-02-13-EN data sheet);
- Dimensions external diameter 70 mm, internal 30 mm;
- Length 250 mm and nominal length 10”;
- in compliance with ACS (France), DM 174/2004 and DM25/2012 (Italy).

Ref. FAAL1070 FAAP1050

REF.	MODEL	MICRON	
FAAL1070	SMOOTH	70	
FAAP1050	PLEATED	50	

Nylon Mesh Filtering Cartridge with PP Reinforcement

- Washable cartridge with closing rings;
- Filtration degree 60 micron;
- Dimensions external diameter 62 mm, internal 27 mm;
- Length 250 mm and nominal length 10”;
- Nylon mesh spare (REF. FB222).

REF.	
FA060	

Wound Polypropylene Cartridge with AISI 316 Core for Hot Water Filters

- To install with our Hot Water Filters on catalogue (see 08-02-13-EN data sheet);
- dimensions external diameter 56 mm, internal 27 mm;
- length 250 mm, nominal length 10”;
- max operating temperature 80°C.

REF.	MODEL	MICRON	
FA071	PAX 05 – 9 ¾	5	
FA072	PAX 10 – 9 ¾	10	
FA073	PAX 20 – 9 ¾	20	
FA074	PAX 50 – 9 ¾	50	

Filtering Cartridges

Empty Cartridges

- plastic empty cartridge;
- external diameter 70 mm;
- useful to fill with polyphosphate crystals – activated carbon - resins.

REF.	NOMINAL LENGTH (inch)	LENGTH (mm)	VOLUME (litres)	
FAVP10	10”	252	0,6	
FAVP20	20”	510	1,2	

Anti-scale Cartridges with Polyphosphate Crystals.

- Plastic cartridge;
- External diameter 70 mm;
- Shipped with polyphosphate crystals 10 ÷ 20 mm;
- Maximum temperature = 35°C;
- Maximum total hardness = 50°f (500 ppm $CaCO_3$) ;
- The polyphosphate complies with the standard UNI EN 1208:2005.

REF	NOMINAL LENGTH (inch)	LENGTH (mm)	
FAPP1012	10”	252	
FAPP2012	20”	510	

PP Melt Blown 5” Filtering Cartridge

- melt blown polypropylene fibers cartridge;
- dimensions external diameter 64 mm, internal 25 mm.

REF.	MODEL	NOMINAL LENGTH (inch)	LENGTH (mm)	MICRON	
FA021	PP SED 05	5”	126	5	

MM Mini Three Pieces Filter Housings

- Made in European Union (Italy);
- Suitable for MINI filtering cartridges 5” length;
- Head and nut material ABS blue colour;
- IN/OUT connections ½” with brass inserts;
- Sump in SAN clear and O-ring in EPDM material;
- Max operating pressure 8 bar;
- Temperature range = 4 ÷ 45°C;
- DM 174 (Italy) dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- In compliance with DM 25 (Italy);
- With the sanitary certification ACS (France).

REF.	
FBMM0505T	

Cartridges to coupling (D.M. n.174 and ACS compliant):

MINI Wound PP Thread Filtering Cartridge

- Filtering degree 25 micron;
- Dimensions external diameter 45 mm, internal 18 mm;
- Length 5” (= 122 mm).

REF.	
FAMM0525	

Washable MINI Filtering Cartridge with Net in Polyester

- Washable MINI cartridge in Polyester;
- Filtering degree 50 micron;
- Dimensions external diameter 50 mm, internal 20 mm;
- Length 5” (= 122 mm).

REF.	
FAMM0550	

Accessories

REF.	DESCRIPTION	
FBMMR11	PLASTIC WRENCH FOR MM FILTER HOUSINGS	
FBMMR41	5" DIFFUSER TUBE FOR MM FILTER HOUSINGS	
FBMDR31	3/4" BSPP PLASTIC NIPPLE WITH O-RINGS FOR MD, MM & MT FILTER HOUSINGS	

Residential Cintropur Filters

- range of filters for drinking water entirely made in synthetic material;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- the particular centrifugal effect causes the precipitation of larger particles, while the final filtration is assured by the filter sleeve;
- the filters include the sleeve at 25 micron;
- also available sleeves at 1, 10, 50 and 100 micron as spare parts;
- wrench and two complete connections included;
- max operating pressure 10 bar;
- max operating temperature 50°C.

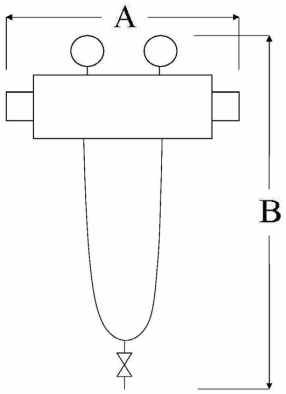
REF.	MODEL	CONNECTIONS (inch)	Flow m^3/h Δp 0,2 bar	HEIGHT (mm)	WIDTH (mm)	
FB400	NW 18 – ¾	¾”	3,5	240	270	
FB401	NW 25 – ¾	¾”	5,5	355	270	
FB402	NW 25 – 1	1”	5,5	355	270	
FB403	NW 32 – 1 ¼	1 ¼”	6,5	540	270	

Accessories and spare parts

REF.	DESCRIPTION	
FB470	Wrench	
FB471	Drain cock ¼”	
FB472	Pressure gauge 1-10 bar - ⅛”	
FB473	Wall bracket in PP	
FB444	Set of 5 sleeves 1 micron for NW25	
FB426	Set of 5 sleeves 10 micron for NW25	
FB427	Set of 5 sleeves 25 micron for NW25	
FB428	Set of 5 sleeves 50 micron for NW25	
FB429	Set of 5 sleeves 100 micron for NW25	
FB445	Set of 5 sleeves 1 micron for NW32	
FB432	Set of 5 sleeves 10 micron for NW32	
FB433	Set of 5 sleeves 25 micron for NW32	
FB434	Set of 5 sleeves 50 micron for NW32	
FB435	Set of 5 sleeves 100 micron for NW32	

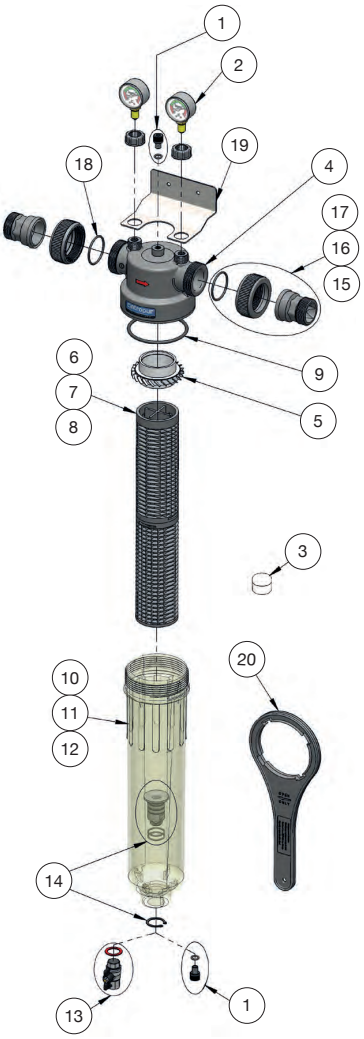
Commercial Cintropur Filters

- range of filters for drinking water entirely made in synthetic material;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for. human consumption;
- the particular centrifugal effect causes the precipitation of larger particles, while the final. filtration is assured by the filter sleeve;
- the filters include the sleeve at 25 micron;
- also available sleeves at 1, 5, 10, 50, 100, 150 and 300 micron as spare parts;
- wrench, pressure gauge and drain cock included;
- max operating pressure 10 bar;
- max pressure 16 bar;
- max operating temperature 50°C.



REF.	MODEL	Flow m^3/h Δp 0,2 bar	WEIGHT (kg)	CONN.	Ø OF PIPE	A (mm)	B (mm)	
FB404	NW 280– 1	7	2,2	1" BSPT	1"	284	472	
FB405	NW 340 – 1 1/4	10	2,7	1 ½" BSPT	1 1/4"	284	573	
FB406	NW 400 – 1 ½	12	2,9	1 ½" BSPT	1 ½"	284	675	

Commercial Cintropur Filters



Item..	Ref.	Description	
1	FB487C	NW280/340/400 air valve kit (with o-ring)	
2	FB492C	NW280/340/400 1/4" pressure gauges 0÷20 bar (2 pcs)	
3	FB450C	Grease for o-ring (20g)	
4	FB480C	NW280/340/400 filter hea	
5	FB483C	NW280/340/400 centrifugal vane	
6	FB452C	NW280 PVC filtering support armo	
7	FB453C	NW340 PVC filtering support armo	
8	FB454C	NW400 PVC filtering support armo	
9	FB486C	NW280/340/400 head o-ring	
10	FB465C	NW280 clear bowl	
11	FB488C	NW340 clear bowl	
12	FB489C	NW400 clear bowl	
13	FB471C	NW280/340/400 drain cock 1/2" + gasket	
14	FB491C	NW280/340/400 drain valve adapter + 2 o-ring + clips	
15	FB494C	NW280 set of 2 complete couplings 1" M	
16	FB495C	NW340 set of 2 complete couplings 1 1/4" M	
17	FB496C	NW400 set of 2 complete couplings 1 1/2" M	
18	FB499C	O-ring for NW280/340/400 connections	
19	FB497C	NW280/340/400 wall bracket in stainless steel	
20	FB479C	NW280/340/400 wrench	
Not Viewed	FB444C	N. 5 SPARE SLEEVES KIT 1 MICRON NW 280	
Not Viewed	FB437C	N. 5 SPARE SLEEVES KIT 5 MICRON NW 280	
Not Viewed	FB438C	N. 5 SPARE SLEEVES KIT 10 MICRON NW 280	
Not Viewed	FB439C	N. 5 SPARE SLEEVES KIT 25 MICRON NW 280	
Not Viewed	FB440C	N. 5 SPARE SLEEVES KIT 50 MICRON NW 280	
Not Viewed	FB441C	N. 5 SPARE SLEEVES KIT 100 MICRON NW 280	
Not Viewed	FB442C	N. 5 SPARE SLEEVES KIT 150 MICRON WASHABLE NW 280	
Not Viewed	FB443C	N. 5 SPARE SLEEVES KIT 300 MICRON WASHABLE NW 280	
Not Viewed	FB444D	N. 5 SPARE SLEEVES KIT 1 MICRON NW 340	
Not Viewed	FB437D	N. 5 SPARE SLEEVES KIT 5 MICRON NW 340	
Not Viewed	FB438D	N. 5 SPARE SLEEVES KIT 10 MICRON NW 340	
Not Viewed	FB439D	N. 5 SPARE SLEEVES KIT 25 MICRON NW 340	
Not Viewed	FB440D	N. 5 SPARE SLEEVES KIT 50 MICRON NW 340	
Not Viewed	FB441D	N. 5 SPARE SLEEVES KIT 100 MICRON NW 340	
Not Viewed	FB442D	N. 5 SPARE SLEEVES KIT 150 MICRON WASHABLE NW 340	
Not Viewed	FB443D	N. 5 SPARE SLEEVES KIT 300 MICRON WASHABLE NW 340	
Not Viewed	FB444E	N. 5 SPARE SLEEVES KIT 1 MICRON NW 400	
Not Viewed	FB437E	N. 5 SPARE SLEEVES KIT 5 MICRON NW 400	
Not Viewed	FB438E	N. 5 SPARE SLEEVES KIT 10 MICRON NW 400	
Not Viewed	FB439E	N. 5 SPARE SLEEVES KIT 25 MICRON NW 400	
Not Viewed	FB440E	N. 5 SPARE SLEEVES KIT 50 MICRON NW 400	
Not Viewed	FB441E	N. 5 SPARE SLEEVES KIT 100 MICRON NW 400	
Not Viewed	FB442E	N. 5 SPARE SLEEVES KIT 150 MICRON WASHABLE NW 400	
Not Viewed	FB443E	N. 5 SPARE SLEEVES KIT 300 MICRON WASHABLE NW 400	

Industrial Cintropur Filters

- range of filters for drinking water entirely made in synthetic material;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- the particular centrifugal effect causes the precipitation of larger particles, while the final filtration is assured by the filter sleeve;
- the filters include the sleeve at 25 micron;
- also available sleeves at 5, 10, 50, 100, 150 and 300 micron as spare parts;
- wrench, pressure gauge and drain cock included;
- max operating pressure 10 bar;
- max pressure 16 bar;
- max operating temperature 50°C.

REF.	MODEL	Flow m³/h Δp 0,2 bar	WEIGHT (kg)	CONN.	Ø OF PIPE	A (mm)	B (mm)	
FB408A	NW 500 – 2	18	6,4	2" BSPT	2"	363	770	
FB408TE	NW 500 – 2 TE	2	6,4	2" BSPT	2"	363	770	
FB409A	NW 650 – 2 ½	25	7,0	DN65	2 ½"	304	770	
FB410A	NW 800 – 3	32	7,4	DN80	3"	313	770	

Accessories:

ITEM	REF.	DESCRIPTION	
33	FB487	NW500/650/800 air valve kit (with o-ring)	
50	FB480A	NW500/650 head	
51	FB482A	NW800 head	
52	FB483A	Turbine + screw	
53	FB484A	Filtering support armor	
54	FB485A	Cap cartridge	
55	FB486A	Head o-ring	
56	FB488A	Clear bowl	
58	FB489A	Black bowl	
59	FB490A	Diffusor kit	
60	FB491A	Drain valve adapter with o-ring	
61	FB491B	Drain cock ¾”	
62	FB479	Wrench	
63	FB494A	Connection kit in plastic material + NW500 2” M adapter	
64	FB495A	NW650 DN65 flanged connection kit in plastic material	
65	FB496A	NW800 DN80 flanged connection kit in plastic material	
66	FB497A	Wall bracket in S.S.	
69	FB492	¼” pressure gauge 0 ÷ 20 bar	
70	FB499	O-ring for NW500/650 connections	
71	FB499A	O-ring for NW800 connections	
NOT VIEWED	FB498	NW650 DN65 gasket in EPDM material	
NOT VIEWED	FB498A	NW800 DN80 gasket in EPDM material	
NOT VIEWED	FB437	Set of 5 sleeves 5 micron	
NOT VIEWED	FB438	Set of 5 sleeves 10 micron	
NOT VIEWED	FB439	Set of 5 sleeves 25 micron	
NOT VIEWED	FB440	Set of 5 sleeves 50 micron	
NOT VIEWED	FB441	Set of 5 sleeves 100 micron	
NOT VIEWED	FB442	Set of 5 sleeves 150 micron washable	
NOT VIEWED	FB443	Set of 5 sleeves 300 micron washable	

MD Two Pieces Filter Housings
IN/OUT connections ¾”

- Made in European Union (Italy);
- Two pieces filter housings for standard filtering cartridges length 10” or 20”;
- Fixable head in material PP reinforced blue colour;
- Sump in PET;
- O-ring in EPDM;
- IN/OUT connections ¾” BSPP F;
- With air valve;
- Max operating pressure 8 bar;
- Temperature 4 ÷ 45°C;
- D.M. n.174/2004 compliant about materials suitable for contact with water for human consumption;
- D.M. n.25/2012 compliant about technical provisions for equipment intended for water treatment for human consumption;
- In compliance with the sanitary certification ACS (France).

REF.	MODEL	CARTRIDGE LENGTH (inch)	SUMP MATERIAL AND COLOUR	HEAD DIMENSION (mm)	TOTAL LENGTH (mm)	
FBMD1007T	MD1007T	10”	Clear	122	325	
FBMD1007B	MD1007B	10”	Blue	122	325	
FBMD2007T	MD2007T	20”	Clear	122	577	
FBMD2007B	MD2007B	20”	Blue	122	577	

Accessories

REF.	DESCRIPTION	
FBMDR11	PLASTIC WRENCH FOR MD FILTER HOUSINGS	
FBMDR21	BLUE BRACKET WITH SCREWS FOR MD AND MT FILTER HOUSINGS	
FBMDR31	3/4" BSPP PLASTIC NIPPLE W/ O-RINGS FOR MD, MM & MT FILTER HOUSINGS	

BG Plastic BIG Filter Housings

- Made in European Union (Italy);
- Suitable for 4 ½" diameter DOE high flow cartridges;
- Fixable head;
- Material in PP;
- O-ring in EPDM;
- complete with air valve
- Max operating pressure 8,3 bar;
- Temperature 4 ÷ 45°C;
- IN/OUT connections BSPP;
- D.M. n.174/2004 compliant about materials suitable for contact with water for human consumption;
- D.M. n.25/2012 compliant about technical provisions for equipment intended for water treatment for human consumption;
- With plastic wrench (ref. FBBGR11).

NOTE: a set pressure gauge installation is recommended.

REF.	MODEL	CARTRIDGE LENGTH (inch)	IN/OUT CONNECTIONS (inch)	HEAD DIMENSION (mm)	TOTAL LENGTH (mm)	
FBBG1010B	BG 1010	10"	1" F	190	360	
FBBG1015B	BG 1015	10"	1 ½" F	190	360	
FBBG2010B	BG 2010	20"	1" F	190	617	
FBBG2015B	BG 2015	20"	1 ½" F	190	617	

REF.	DESCRIPTION	
FBBGR11	PLASTIC WRENCH FOR BG FILTER HOUSINGS	

Cartridges to coupling

- BIG PP microfiber filtering cartridges, see 08-01-03-EN data sheet;
- BIG CARBON BLOCK filtering cartridges see 08-01-05-EN data sheet.

Accessories

REF.	DESCRIPTION	
FBBGR21	MOUNTING BRACKET FOR BG FILTER HOUSINGS, WITH SCREWS	
FBBGR31	1" BSPP NIPPLES WITH O-RINGS (PAIR) FOR BG AND MT FILTER HOUSINGS	

MT Three Pieces Filter Housings

- Made in European Union (Italy);
- Three pieces filter housings for standard filtering cartridges length 10” or 20”;
- Fixable head and nut in material PP reinforced blue colour;
- Sump in PET clear;
- O-ring in EPDM;
- IN/OUT connections BSPP F ¾” or 1”, with brass inserts;
- With air valve;
- Max operating pressure 8 bar;
- Temperature 4 ÷ 45°C;
- D.M. n.174/2004 compliant about materials suitable for contact with water for human consumption;
- D.M. n.25/2012 compliant about technical provisions for equipment intended for water treatment for human consumption;
- In compliance with the sanitary certification ACS (France).

(*) WARNING! FA064A and FA068 cartridges are not suitable for this housing.

REF.	MODEL	CARTRIDGE LENGTH (inch)	CONNECTIONS (inch)	HEAD DIMENSION (mm)	TOTAL LENGTH (mm)	
FBMT1007T	MT1007T	10”	¾”	133	315	
FBMT1010T	MT1010T	10”	1”	145	321	
FBMT2010T (*)	MT2010T	20”	1”	145	577	

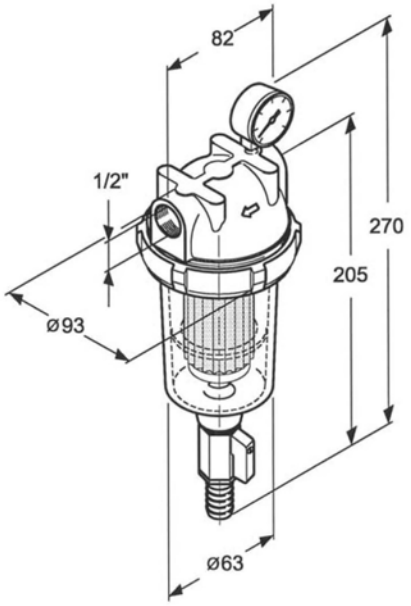
Accessories

REF.	DESCRIPTION	
FBMTR11	PLASTIC WRENCH FOR MT FILTER HOUSINGS	
FBMTR41	10" DIFFUSER TUBE FOR MT FILTER HOUSINGS	
FBMDR21	BLUE MOUNTING BRACKET FOR MD AND MT FILTER HOUSINGS WITH SCREWS	
FBMDR31	3/4" BSPP PLASTIC NIPPLE W/ O-RINGS FOR MD, MM & MT FILTER HOUSINGS	
FBBGR31	1" BSPP NIPPLES WITH O-RINGS (PAIR) FOR BG & MT FILTER HOUSINGS	

Self Cleaning Filters

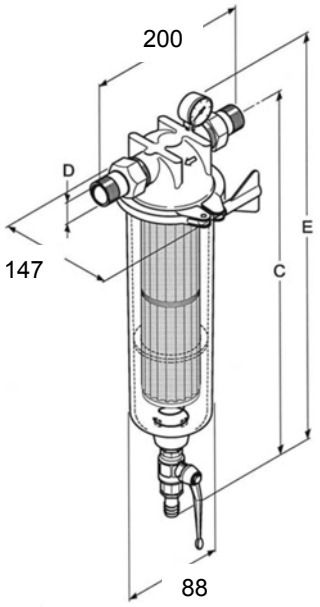
- range of sediment self clearing filters, chrome pleated brass head and trogamid sump, with pleated AISI 304 cartridge at 100 micron (on request available also at 25, 60, 200 and 300 micron);
- complete with manometer on inlet;
- opening the drain valve, a depression is created inside the sump, that lowers the cartridge and reverts the clearing water flow. Closing the valve, the cartridge rises and places the filter in service again. Repeat the action 4-5 times for about 10 seconds each time;
- easy cartridge disassembly in case of inspection or replacement;
- for ¾" ÷ 2" models, on demand available models with automatic cleaning controller (AOTC AUT Models);
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;

- IN/OUT connections ½" F;
- max operating pressure 16 bar;
- temperature 0 ÷ 40° C;
- max ΔP recommended 1 bar.



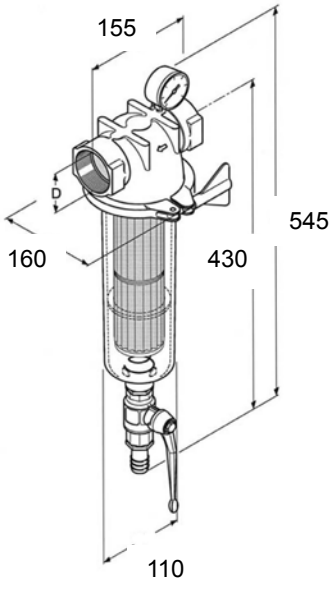
REF.	MODEL	IN-OUT connection	Flow @ Δp=0,2 bar (l/h)	
FB210B	AOTC 12	½" F	1500	

Self Cleaning Filters



REF.	MODEL	C	D IN-OUT connection GAS	E	Flow @ Δp=0,2 bar (l/h)	
FB211B	AOTC 34	365	¾"	460	3000	
FB211BT (*)	AOTC 34 AUT	365	¾"	460	3000	
FB212B	AOTC 1	365	1"	460	3500	
FB212BT (*)	AOTC 1 AUT	365	1"	460	3500	
FB213B	AOTC 114	375	1¼"	470	4500	
FB213BT (*)	AOTC 114 AUT	375	1¼"	470	4500	

- max operating pressure 10 bar;
- temperature 0 ÷ 40°C;
- max ΔP recommended 1 bar.

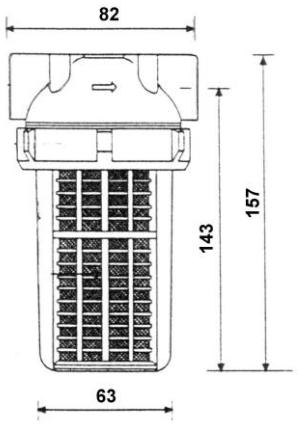


REF.	MODEL	D IN-OUT connection GAS	Flow @ Δp=0,2 bar (l/h)	
FB214B	AOTC 112	1½" F	10000	
FB214BT (*)	AOTC 112 AUT	1½" F	10000	
FB215B	AOTC 2	2" F	15000	
FB215BT (*)	AOTC 2 AUT	2" F	15000	

(*) not available in stock.

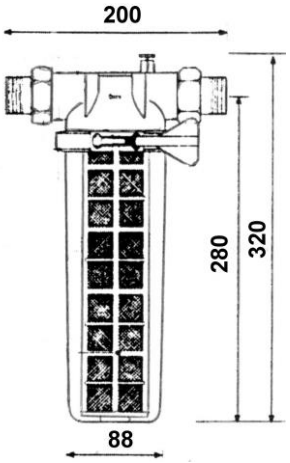
Filters with Washable Cartridge

- range of sediment filters, chrome pleated brass head and trogamid sump, complete with washable cartridge;
- available AISI 304 cartridges and versions with AISI 316 sump for temperature up to 80°C (only ¾" – 1" – 1 ¼" models): please see 08-01-07-EN data sheet.



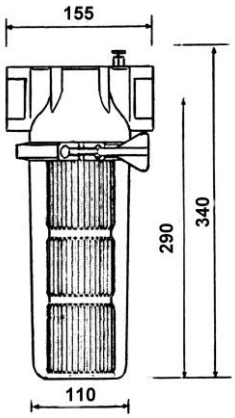
- max operating pressure 16 bar;
- temperature 0 ÷ 40° C;
- nylon cartridge 60 micron (REF. FB221).

REF.	MODEL	IN-OUT connection	Flow at Δp=0,2 bar (l/h)	
FB200	OTC 12	½" F	1200	



- max operating pressure 16 bar;
- temperature 0 ÷ 40° C;
- nylon cartridge 60 micron (REF. FB224).

REF.	MODEL	IN-OUT connection	Flow at Δp=0,2 bar (l/h)	
FB201	OTC 34	¾"	3000	
FB202	OTC 1	1"	3500	
FB203	OTC 114	1¼"	5000	

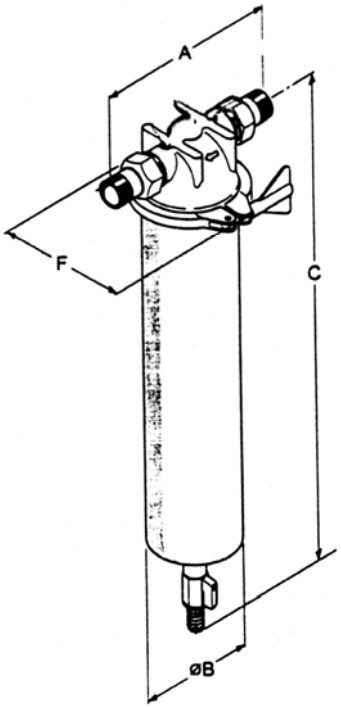


- max operating pressure 10 bar;
- temperature 0 ÷ 40° C;
- AISI 304 cartridge 100 micron (REF. FB232).

REF.	MODEL	IN-OUT connection	Flow at Δp=0,2 bar (l/h)	
FB204B	OTC 112	1½" F	10000	
FB205B	OTC 2	2" F	15000	

Hot Water Filters

- Filter housing brass chromium-pleated head with sump in AISI 304, for standard filtering cartridges external diameter max 67 mm, and nominal length 10” or 20”;
- Complete with internal tie-rod in AISI 304 to fit cartridges;
- Max operating temperature 80°C;
- Max operating pressure 16 bar;
- With air valve.



REF.	MODEL	CONNECTIONS (inch)	NOMINAL LENGTH (inch)	A (mm)	B (mm)	C (mm)	F (mm)	
FB217	OTC-HW 34	¾”	10”	200	88	375	147	
FB218	OTC-HW 1	1”	10”	200	88	375	147	
FB219	OTC-HW 114	1¼”	10”	200	88	385	147	
FB217A	OTC-HW 34-20	¾”	20”	200	88	630	147	
FB218A	OTC-HW 1-20	1”	20”	200	88	630	147	
FB219A	OTC-HW 114-20	1¼”	20”	200	88	640	147	

Cartridges to coupling:

- AISI 304 pleated filtering cartridges, REF. FB225, FB228, FB231, FB234 and FB237 (see 08-01-07-EN data sheet); Note: for MODEL 20”, you can’t put one 10” filtering cartridge on another;
- AISI 304 filtering cartridges, smooth or pleated (see 08-01-09-EN data sheet);
- Wound Polypropylene cartridges with AISI 316 core (see 08-01-09-EN data sheet).

Filter Housings Brass Head

- three pieces filter housings;
- head and nut material brass nickel-pleated, sump in SAN clear;
- max operating pressure 8 bar;
- max operating temperature 40° C;
- complete with air valve.

REF.	MODEL	CONNECTIONS (inch)	FOR CARTRIDGE	L (mm)	H (mm)	CARTRIDGE TYPE	
FB060	OTS 34- 9	¾”	10”	135	330	DOE	
FB061	OTS 1- 9	1”	10”	135	330	DOE	
FB062	OTS 1-20	1”	20”	135	600	DOE	
FB063	OTS 114-10	1 ¼”	10”	150	340	OR222	
FB064	OTS 114-20	1 ¼”	20”	150	620	OR222	
FB072	OTS 112-10	1 ½”	10”	150	340	OR222	
FB065	OTS 112-20	1 ½”	20”	150	620	OR222	
FB073	OTS 2-10	2”	10”	162	360	OR222	
FB066	OTS 2-20	2”	20”	162	640	OR222	

Suitable cartridges

- for cartridges for OTS filter housings, see 08-01-08-EN data sheet.

Accessories

Wrench

- galvanised steel material.

REF.	
FB069	

MWG AISI 316L Filter Housings

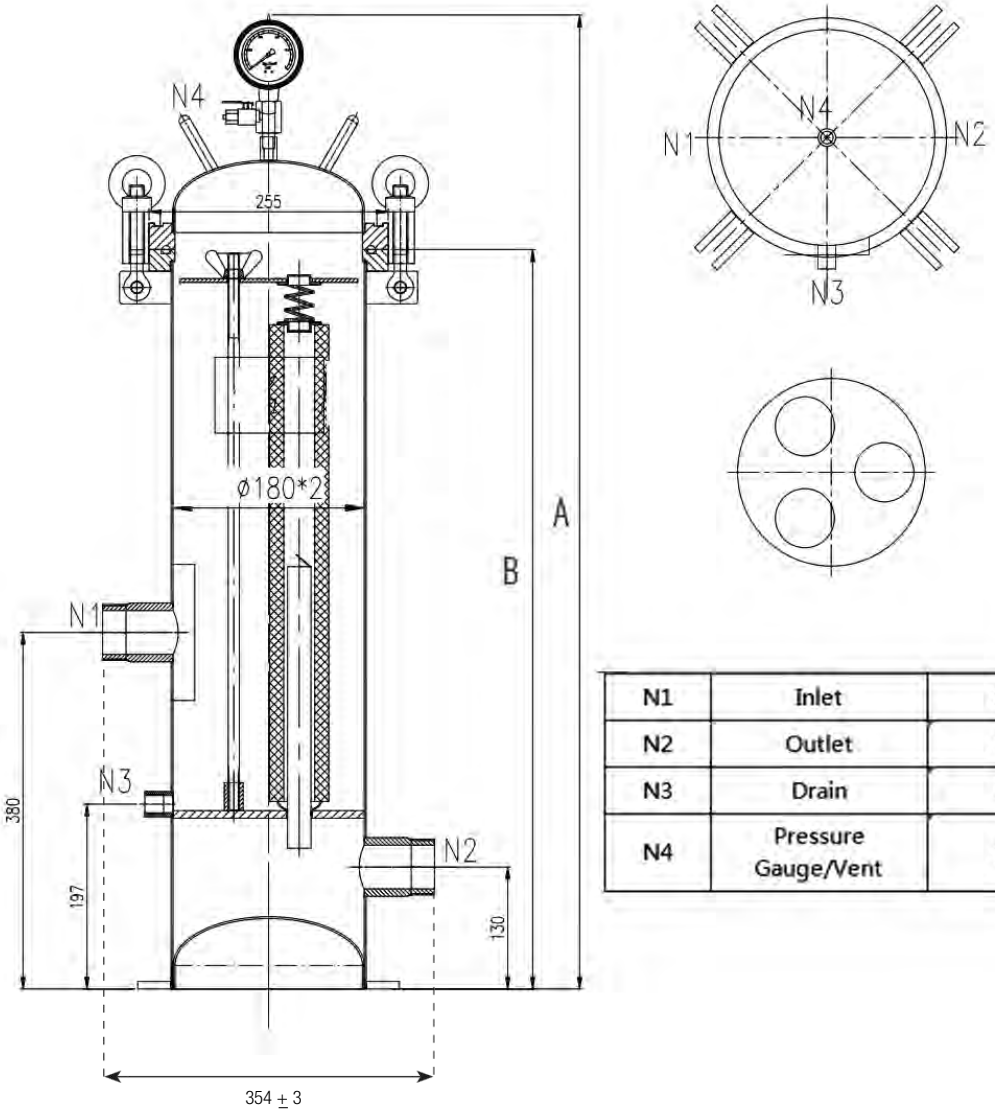
- Multicartridges filter housings flanged top opening AISI 316L for 3 cartridges, In/Out connections 2” BSP M or DN50 flange;
- ½” BSP F connection for drain filter;
- ¼” BSP F connection for air valve pressure gauge;
- High resistance and strength electrowelded construction, complete with AISI 316 fixing cartridges accessories, mechanical polishing outside treatment;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- D.M. n.174/2004 compliant about materials suitable for contact with water for human consumption;
- Max pressure @ 20°C = 10 bar;
- Max pressure @ 40°C = 9 bar;
- Max pressure @ 80°C = 8 bar;
- Hydraulic test pressure = 12 bar;
- Max temperature 80 °C;
- Gasket material EPDM (option in Viton not included, to order separately);
- Suitable for DOE cartridges;
- Cartridges dimensions: ID min/max 28÷30 mm, OD max 65 mm and length 20”-30”- 40”.

WARNING!
For these housings the suitable Carbon Block cartridges are FA018 and FA019.
The FA013 and FA014 cartridges of our catalogue are not suitable for these housings.

REF.	MODEL	CARTRIDGES NUMBER	IN/OUT CONNECTIONS	A (mm)	B (mm)	
FBS0320	FBS 3 x 20”	3 x 20”	2” BSP M	1038	788	
FBS0320FL (*)	FBS 3 x 20”	3 x 20”	DN50 Flange	1038	788	
FBS0330	FBS 3 x 30”	3 x 30”	2” BSP M	1292	1042	
FBS0330FL (*)	FBS 3 x 30”	3 x 30”	DN50 Flange	1292	1042	
FBS0340	FBS 3 x 40”	3 x 40”	2” BSP M	1546	1296	
FBS0340FL (*)	FBS 3 x 40”	3 x 40”	DN50 Flange	1546	1296	

(*) not available in stock – Minimum delivery 10-12 weeks.

FBS 3 x - - MODEL



N1	Inlet	2" BSP Male
N2	Outlet	2" BSP Male
N3	Drain	1/2" Female
N4	Pressure Gauge/Vent	1/4" Female

MWG AISI 316L Filter Housings

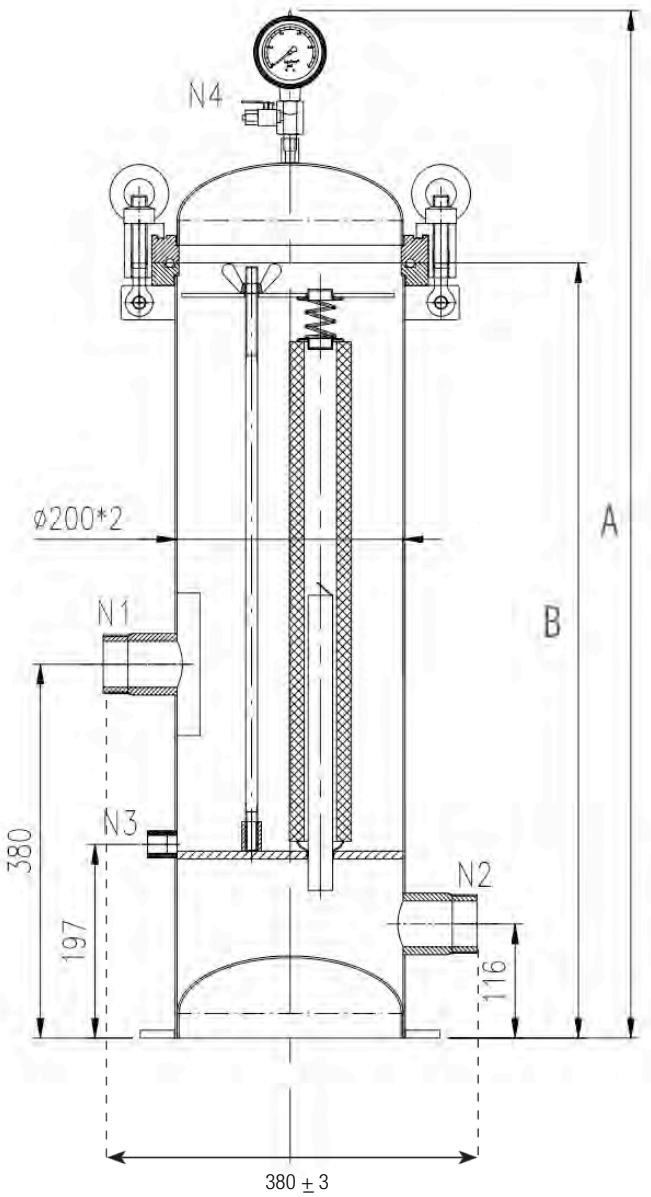
- Multicartridges filter housings flanged top opening AISI 316L for 5 cartridges, In/Out connections 2" BSP M or DN50 flange;
- ½" BSP F connection for drain filter;
- ¼" BSP F connection for air valve pressure gauge;
- High resistance and strength electrowelded construction, complete with AISI 316 fixing cartridges accessories, mechanical polishing outside treatment;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- D.M. n.174/2004 compliant about materials suitable for contact with water for human consumption;
- Max pressure @ 20°C = 10 bar;
- Max pressure @ 40°C = 9 bar;
- Max pressure @ 80°C = 8 bar;
- Hydraulic test pressure = 12 bar;
- Max temperature 80 °C;
- Gasket material EPDM (option in Viton not included, to order separately);
- Suitable for DOE cartridges;
- Cartridges dimensions: ID min/max 28÷30 mm, OD max 65 mm and length 20"- 30"- 40".

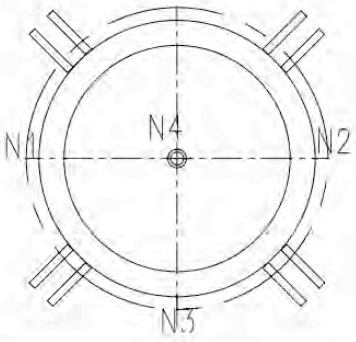
WARNING!
For these housings the suitable Carbon Block cartridges are FA018 and FA019.
The FA013 and FA014 cartridges of our catalogue are not suitable for these housings.

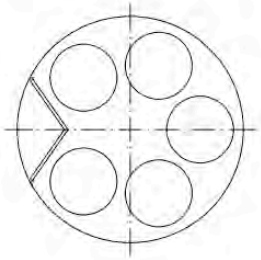
REF.	MODEL	CARTRIDGES NUMBER	IN/OUT CONNECTIONS	A (mm)	B (mm)	
FBS0520	FBS 5 x 20"	5 x 20"	2" BSP M	1045	788	
FBS0520FL (*)	FBS 5 x 20"	5 x 20"	DN50 Flange	1045	788	
FBS0530	FBS 5 x 30"	5 x 30"	2" BSP M	1042	1299	
FBS0530FL (*)	FBS 5 x 30"	5 x 30"	DN50 Flange	1042	1299	
FBS0540	FBS 5 x 40"	5 x 40"	2" BSP M	1553	1296	
FBS0540FL (*)	FBS 5 x 40"	5 x 40"	DN50 Flange	1553	1296	

(*) not available in stock – Minimum delivery 10-12 weeks.

FBS 5 x - - MODEL







N1	Inlet	2" BSP Male
N2	Outlet	2" BSP Male
N3	Drain	1/2" Female
N4	Pressure Gauge/Vent	1/4" Female

MWG AISI 316L Filter Housings

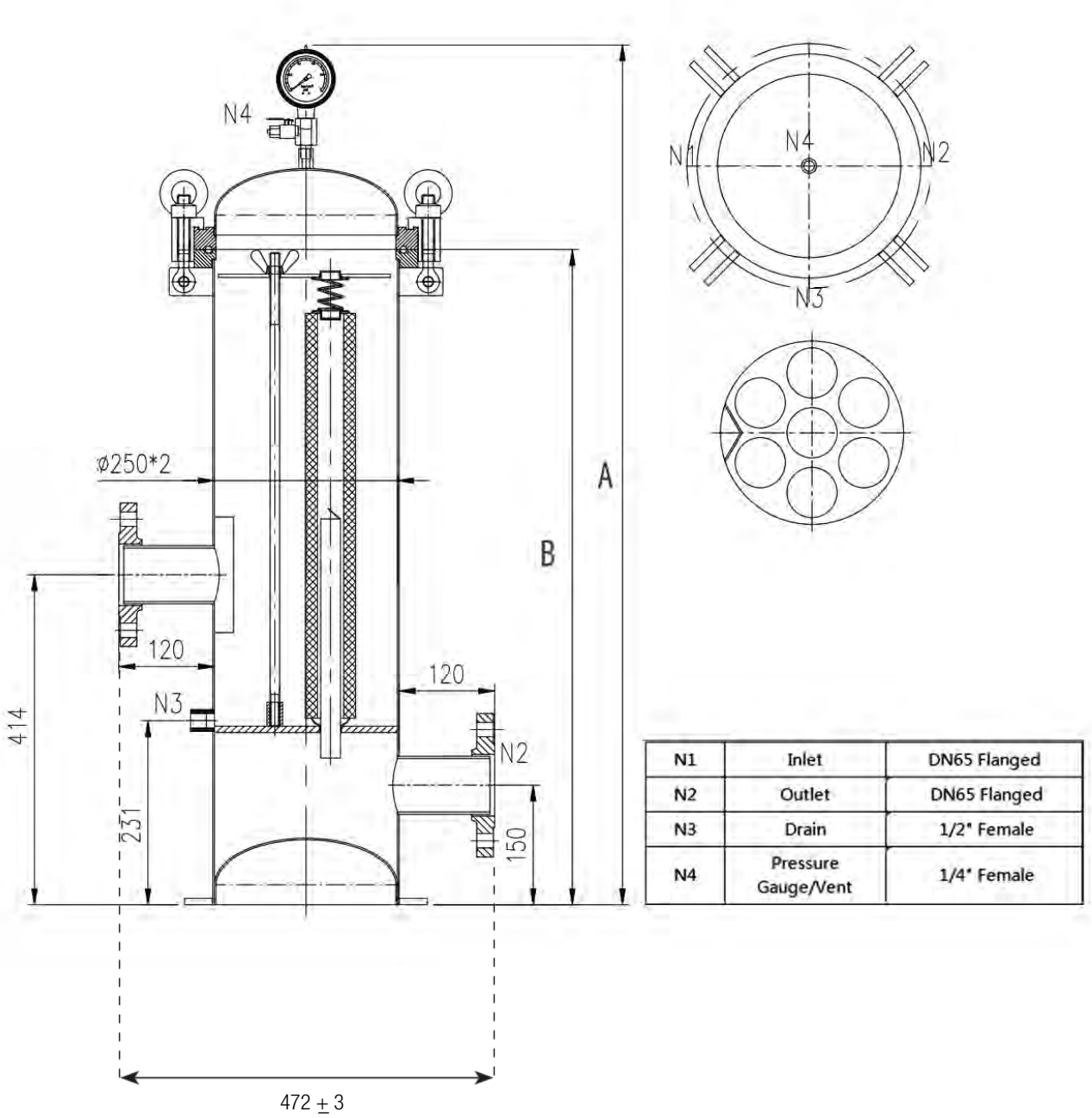
- Multicartridges filter housings flanged top opening AISI 316L for 7 cartridges, In/Out connections 2 ½" BSP M or DN65 flange;
- ½" BSP F connection for drain filter;
- ¼" BSP F connection for air valve pressure gauge;
- High resistance and strength electrowelded construction, complete with AISI 316 fixing cartridges accessories, mechanical polishing outside treatment;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- D.M. n.174/2004 compliant about materials suitable for contact with water for human consumption;
- Max pressure @ 20°C = 10 bar;
- Max pressure @ 40°C = 9 bar;
- Max pressure @ 80°C = 8 bar;
- Hydraulic test pressure = 12 bar;
- Max temperature 80 °C;
- Gasket material EPDM (option in Viton not included, to order separately);
- Suitable for DOE cartridges;
- Cartridges dimensions: ID min/max 28÷30 mm, OD max 65 mm and length 20"- 30"- 40".

WARNING!
For these housings the suitable Carbon Block cartridges are FA018 and FA019.
The FA013 and FA014 cartridges of our catalogue are not suitable for these housings.

REF.	MODEL	CARTRIDGES NUMBER	IN/OUT CONNECTIONS	A (mm)	B (mm)	
FBS0720 (*)	FBS 7 x 20"	7 x 20"	2 ½" BSP M	1079	822	
FBS0720FL	FBS 7 x 20"	7 x 20"	DN65 Flange	1079	822	
FBS0730 (*)	FBS 7 x 30"	7 x 30"	2 ½" BSP M	1076	1333	
FBS0730FL	FBS 7 x 30"	7 x 30"	DN65 Flange	1076	1333	
FBS0740 (*)	FBS 7 x 40"	7 x 40"	2 ½" BSP M	1330	1587	
FBS0740FL	FBS 7 x 40"	7 x 40"	DN65 Flange	1330	1587	

(*) not available in stock – Minimum delivery 10-12 weeks.

FBS 7 x - - MODEL



N1	Inlet	DN65 Flanged
N2	Outlet	DN65 Flanged
N3	Drain	1/2" Female
N4	Pressure Gauge/Vent	1/4" Female

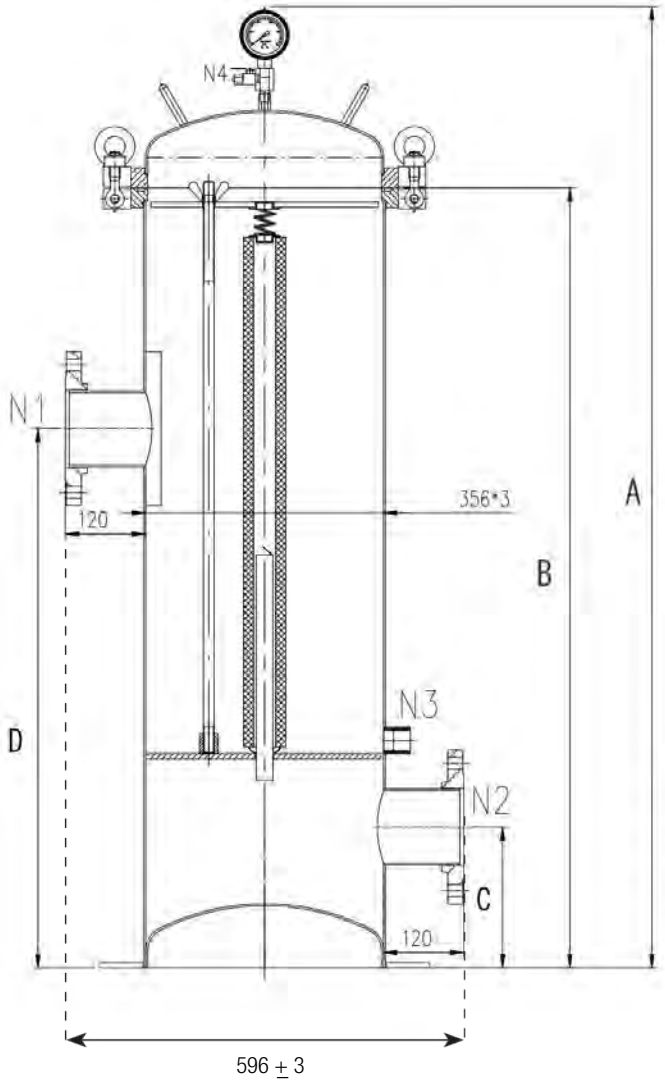
MWG AISI 316L Filter Housings

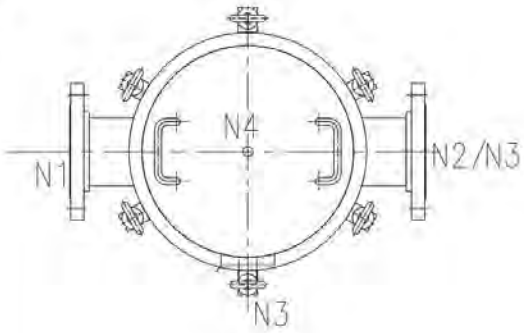
- Multicartridges filter housings flanged top opening AISI 316L for 15 cartridges, In/Out connections DN100;
- ½" BSP F connection for drain filter;
- ¼" BSP F connection for air valve pressure gauge;
- High resistance and strength electrowelded construction, complete with AISI 316 fixing cartridges accessories, mechanical polishing outside treatment;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- D.M. n.174/2004 compliant about materials suitable for contact with water for human consumption;
- Max pressure @ 20°C = 10 bar;
- Max pressure @ 40°C = 9 bar;
- Max pressure @ 80°C = 8 bar;
- Hydraulic test pressure = 12 bar;
- Max temperature 80 °C;
- Gasket material EPDM (option in Viton not included, to order separately);
- Suitable for DOE cartridges;
- Cartridges dimensions: ID min/max 28÷30 mm, OD max 65 mm and length 30"- 40".

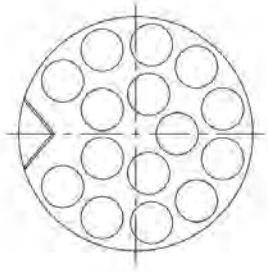
WARNING!
For these housings the suitable Carbon Block cartridges are FA018 and FA019.
The FA013 and FA014 cartridges of our catalogue are not suitable for these housings.

REF.	MODEL	CARTRIDGES NUMBER	IN/OUT CONNECTIONS	A (mm)	B (mm)	C (mm)	D (mm)	
FBS1530FL	FBS 15 x 30"	15 x 30"	DN100 Flange	1437	1166	211	806	
FBS1540FL	FBS 15 x 40"	15 x 40"	DN100 Flange	1661	1390	181	1030	

FBS 15 x - - MODEL







N1	Inlet	DN100 Flanged
N2	Outlet	DN100 Flanged
N3	Drain	1/2" Female
N4	Pressure Gauge/Vent	1/4" Female

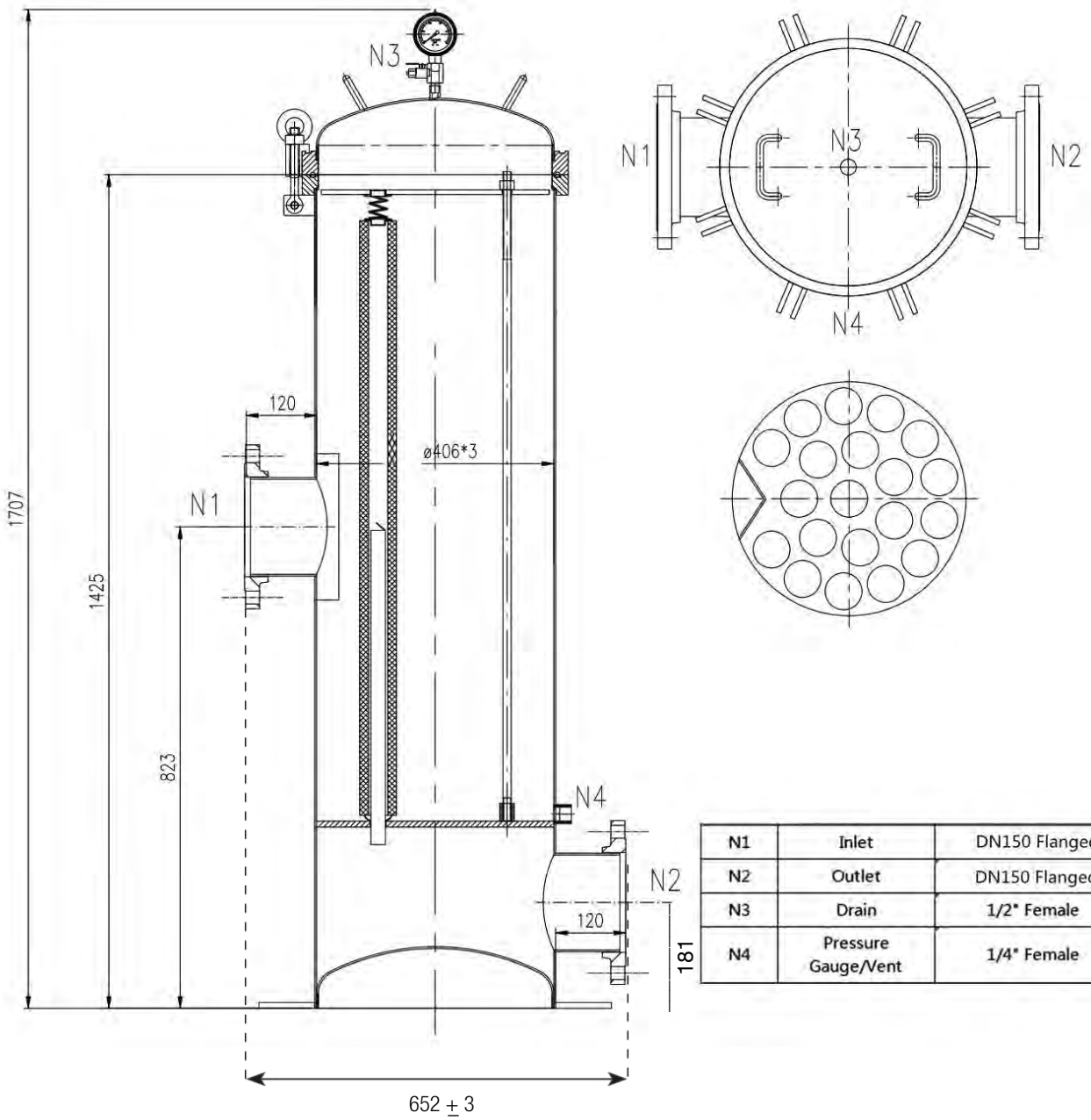
MWG AISI 316L Filter Housings

- Multicartridges filter housings flanged top opening AISI 316L for 20 cartridges, In/Out connections DN150;
- ½" BSP F connection for drain filter;
- ¼" BSP F connection for air valve pressure gauge;
- High resistance and strength electrowelded construction, complete with AISI 316 fixing cartridges accessories, mechanical polishing outside treatment;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- D.M. n.174/2004 compliant about materials suitable for contact with water for human consumption;
- Max pressure @ 20°C = 10 bar;
- Max pressure @ 40°C = 9 bar;
- Max pressure @ 80°C = 8 bar;
- Hydraulic test pressure = 12 bar;
- Max temperature 80 °C;
- Gasket material EPDM (option in Viton not included, to order separately);
- Suitable for DOE cartridges;
- Cartridges dimensions: ID min/max 28÷30 mm, OD max 65 mm and length 40".

WARNING!
For these housings the suitable Carbon Block cartridges are FA018 and FA019.
The FA013 and FA014 cartridges of our catalogue are not suitable for these housings.

REF.	MODEL	CARTRIDGES NUMBER	IN/OUT CONNECTIONS	
FBS2040FL	FBS 20 x 40"	20 x 40"	DN150 Flange	

FBS 20 x 40 MODEL



N1	Inlet	DN150 Flanged
N2	Outlet	DN150 Flanged
N3	Drain	1/2" Female
N4	Pressure Gauge/Vent	1/4" Female

AISI 316L Filter Housings

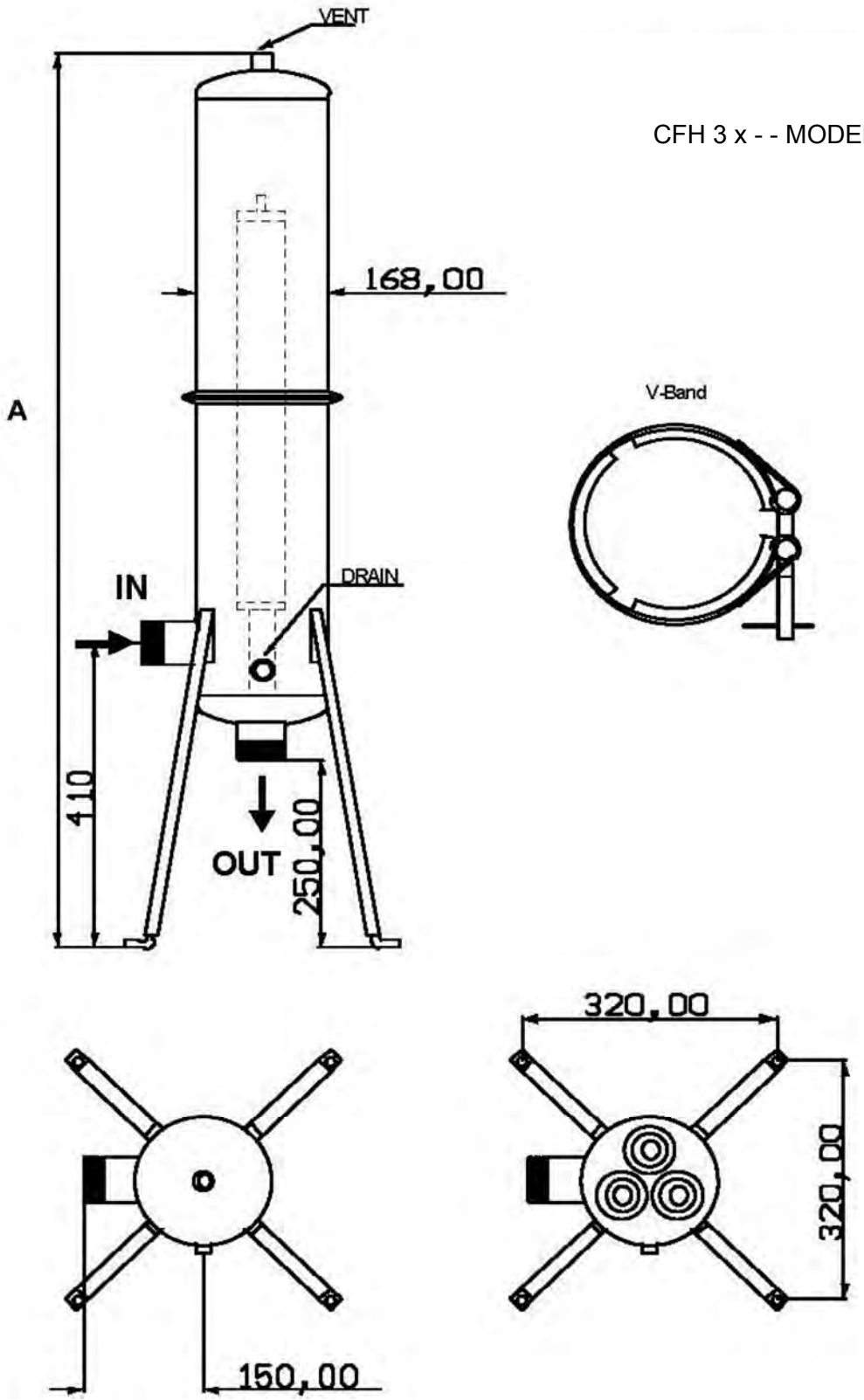
- Multicartridges filter housings flanged top opening AISI 316L for 3 cartridges, support legs, In/Out connections 2” BSP M or DN50 flange;
- Two ½” BSP connections for air valve pressure gauge and for drain filter;
- High resistance and strength electrowelded construction, complete with AISI 316L fixing cartridges accessories, glass blasted internal and outside treatment;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- D.M. n.174/2004 compliant about materials suitable for contact with water for human consumption;
- Max operating pressure @ 40°C = 8 bar;
- Max operating pressure @ 80°C = 2 bar;
- Hydraulic test pressure = 12 bar;
- Max operating temperature 80 °C;
- Gasket material EPDM;
- Suitable for DOE cartridges;
- Cartridges dimensions: ID min/max 26÷30 mm, OD max 65 mm and length 20”- 30”- 40”.

WARNING!
For these housings the suitable Carbon Block cartridges are FA018 and FA019.
The FA013 and FA014 cartridges of our catalogue are not suitable for these housings.

REF.	MODEL	CARTRIDGES NUMBER	IN/OUT CONNECTIONS	A (mm)	WEIGHT (kg)	
FB040 (*)	CFH 3 x 20”	3 x 20”	2” BSP M	1200	20	
FB040A (*)	CFH 3 x 20”	3 x 20”	DN50 Flange	1200	22	
FB041 (*)	CFH 3 x 30”	3 x 30”	2” BSP M	1500	21	
FB041A (*)	CFH 3 x 30”	3 x 30”	DN50 Flange	1500	23	
FB041/1 (*)	CFH 3 x 40”	3 x 40”	2” BSP M	1600	22	
FB041/1A (*)	CFH 3 x 40”	3 x 40”	DN50 Flange	1600	24	

(*) product on demand not available in stock – Delivery 2-3 weeks.

CFH 3 x - - MODEL



AISI 316L Filter Housings

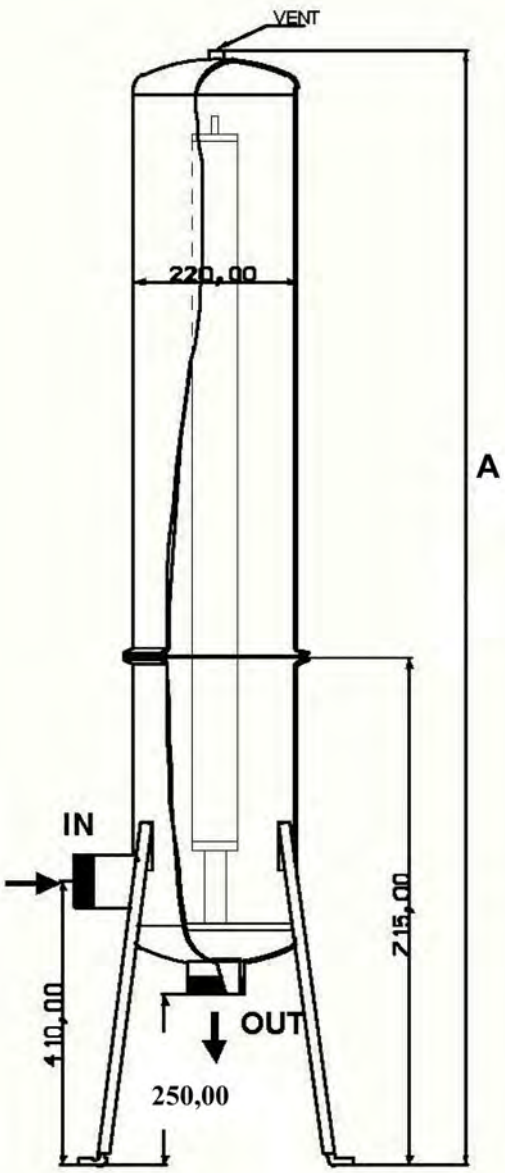
- Multicartridges filter housings flanged top opening AISI 316L for 7 cartridges, support legs, In/Out connections 2 ½" BSP M or DN65 flange;
- Two ½" BSP connections for air valve pressure gauge and for drain filter;
- High resistance and strength electrowelded construction, complete with AISI 316L fixing cartridges accessories, glass blasted internal and outside treatment;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- D.M. n.174/2004 compliant about materials suitable for contact with water for human consumption;
- Max operating pressure @ 40°C = 8 bar;
- Max operating pressure @ 80°C = 2 bar;
- Hydraulic test pressure = 12 bar;
- Max operating temperature 80 °C;
- Gasket material EPDM;
- Suitable for DOE cartridges;
- Cartridges dimensions: ID min/max 26÷30 mm, OD max 65 mm and length 20"- 30"- 40".

WARNING!
For these housings the suitable Carbon Block cartridges are FA018 and FA019.
The FA013 and FA014 cartridges of our catalogue are not suitable for these housings.

REF.	MODEL	CARTRIDGES NUMBER	IN/OUT CONNECTIONS	A (mm)	WEIGHT (kg)	
FB042 (*)	CFH 7 x 20"	7 x 20"	2 ½" BSP M	1190	27	
FB042A (*)	CFH 7 x 20"	7 x 20"	DN65 Flange	1190	30	
FB043 (*)	CFH 7 x 30"	7 x 30"	2 ½" BSP M	1495	29	
FB043A (*)	CFH 7 x 30"	7 x 30"	DN65 Flange	1495	32	
FB044 (*)	CFH 7 x 40"	7 x 40"	2 ½" BSP M	1610	34	
FB044A (*)	CFH 7 x 40"	7 x 40"	DN65 Flange	1610	37	

(*) product on demand not available in stock – Delivery 2-3 weeks.

CFH 7 x - - MODEL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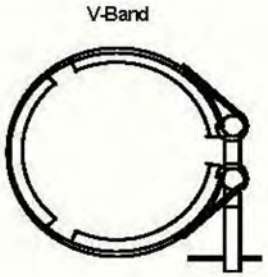
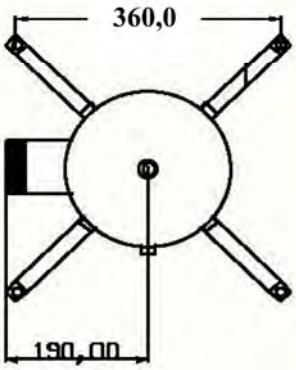
220,00
A
IN
OUT
110,00
215,00
250,00


V-Band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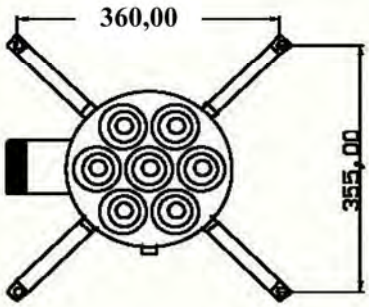

360,00
355,00

AISI 316L Filter Housings

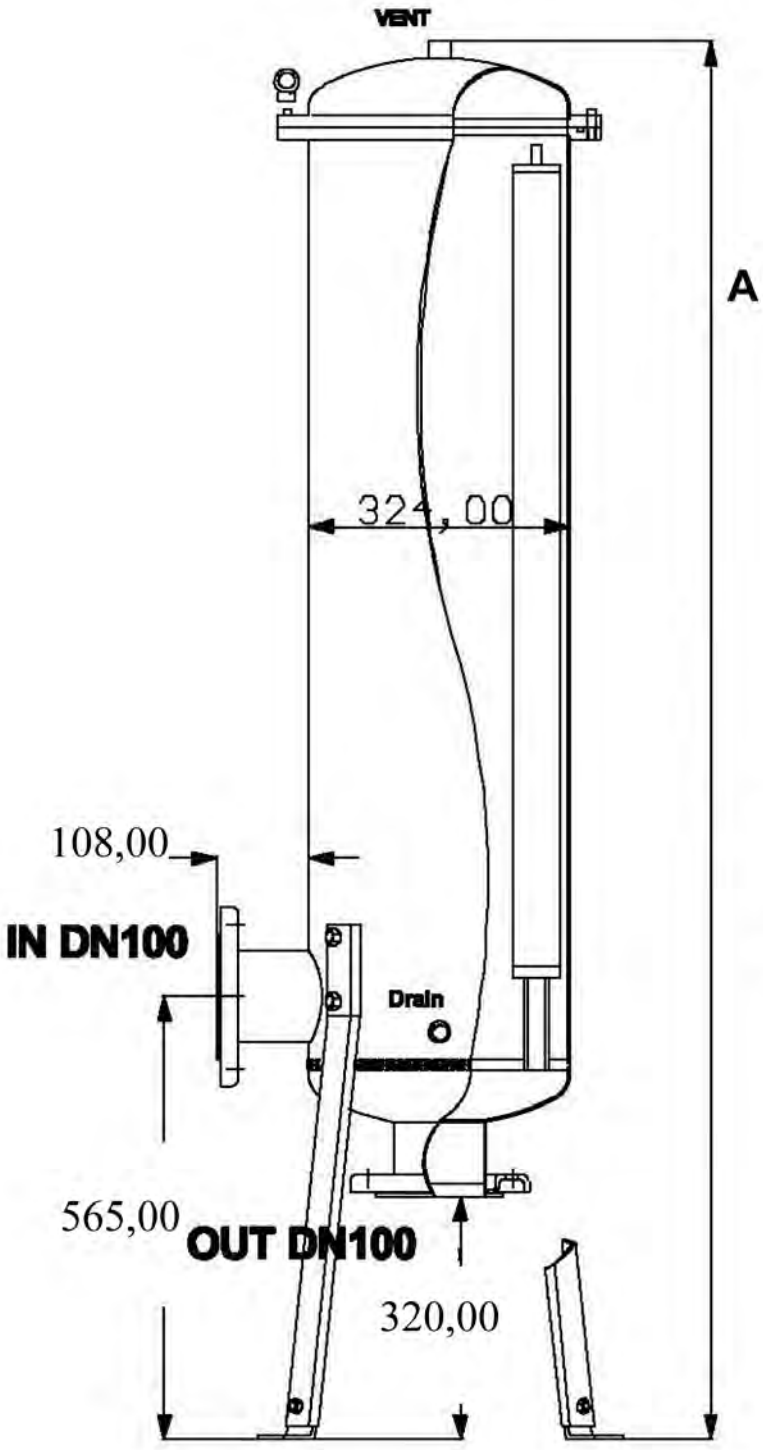
- Multicartridges filter housings flanged top opening AISI 316L for 15 cartridges, support legs, In/Out connections DN100;
- Two ½" BSP connections for air valve pressure gauge and for drain filter;
- High resistance and strength electrowelded construction, complete with AISI 316L fixing cartridges accessories, glass blasted internal and outside treatment;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- D.M. n.174/2004 compliant about materials suitable for contact with water for human consumption;
- Max operating pressure @ 40°C = 8 bar;
- Max operating pressure @ 80°C = 2 bar;
- Hydraulic test pressure = 12 bar;
- Max operating temperature 80 °C;
- Gasket material EPDM;
- Suitable for DOE cartridges;
- Cartridges dimensions: ID min/max 26÷30 mm, OD max 65 mm and length 30"- 40".

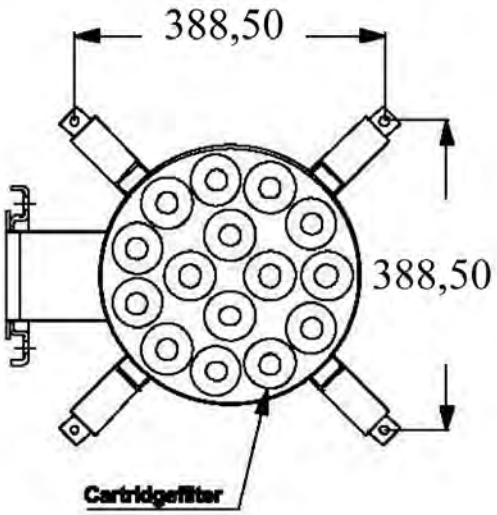
WARNING!
For these housings the suitable Carbon Block cartridges are FA018 and FA019.
The FA013 and FA014 cartridges of our catalogue are not suitable for these housings.

REF.	MODEL	CARTRIDGES NUMBER	IN/OUT CONNECTIONS	A (mm)	WEIGHT (kg)	
FB046 (*)	CFH 15 x 40"	15 x 40"	DN100 Flange	1750	80	

(*) product on demand not available in stock – Delivery 2-3 weeks.

CFH 15 x - - MODEL





AISI 316L Filter Housings

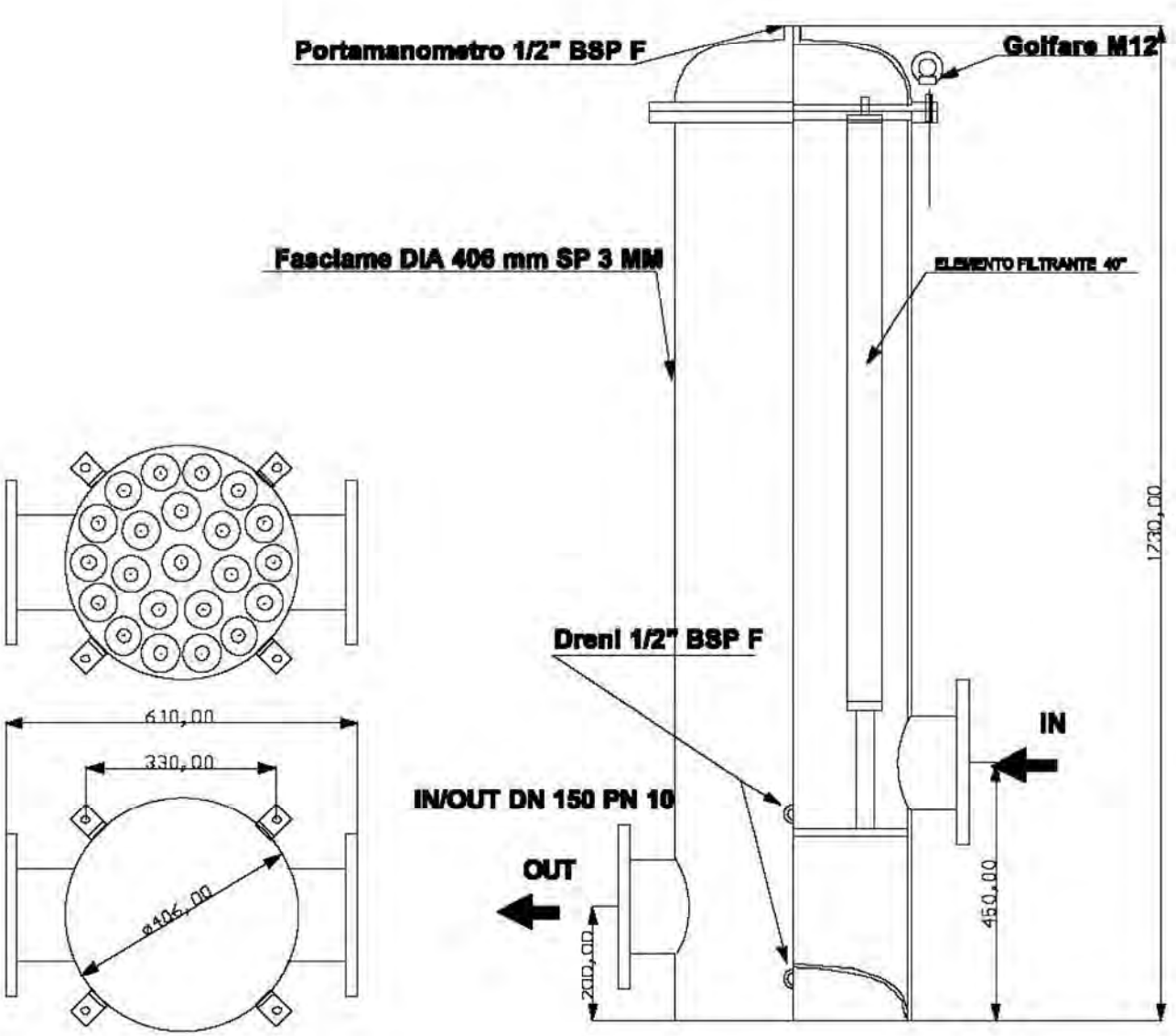
- Multicartridges filter housings flanged top opening AISI 316L for 22 cartridges, In/Out connections DN150;
- Three ½" BSP connections for air valve pressure gauge and for drain filter;
- High resistance and strength electrowelded construction, complete with AISI 316L fixing cartridges accessories, glass blasted internal and outside treatment;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- D.M. n.174/2004 compliant about materials suitable for contact with water for human consumption;
- Max operating pressure @ 40°C = 8 bar;
- Max operating pressure @ 80°C = 2 bar;
- Hydraulic test pressure = 12 bar;
- Max operating temperature 80 °C;
- Gasket material EPDM;
- Suitable for DOE cartridges;
- Cartridges dimensions: ID min/max 26÷30 mm, OD max 65 mm and length 40".

WARNING!
For these housings the suitable Carbon Block cartridges are FA018 and FA019.
The FA013 and FA014 cartridges of our catalogue are not suitable for these housings.

REF.	MODEL	CARTRIDGES NUMBER	IN/OUT CONNECTIONS	WEIGHT (kg)	
FB046/1 (*)	CFH 22 x 40"	22 x 40"	DN150 Flange	138	

(*) product on demand not available in stock – Delivery 2-3 weeks.

CFH 22 x 40 MODEL



Chemical High Resistance PVC-U Multicartridges Filter Housings HPCF Series

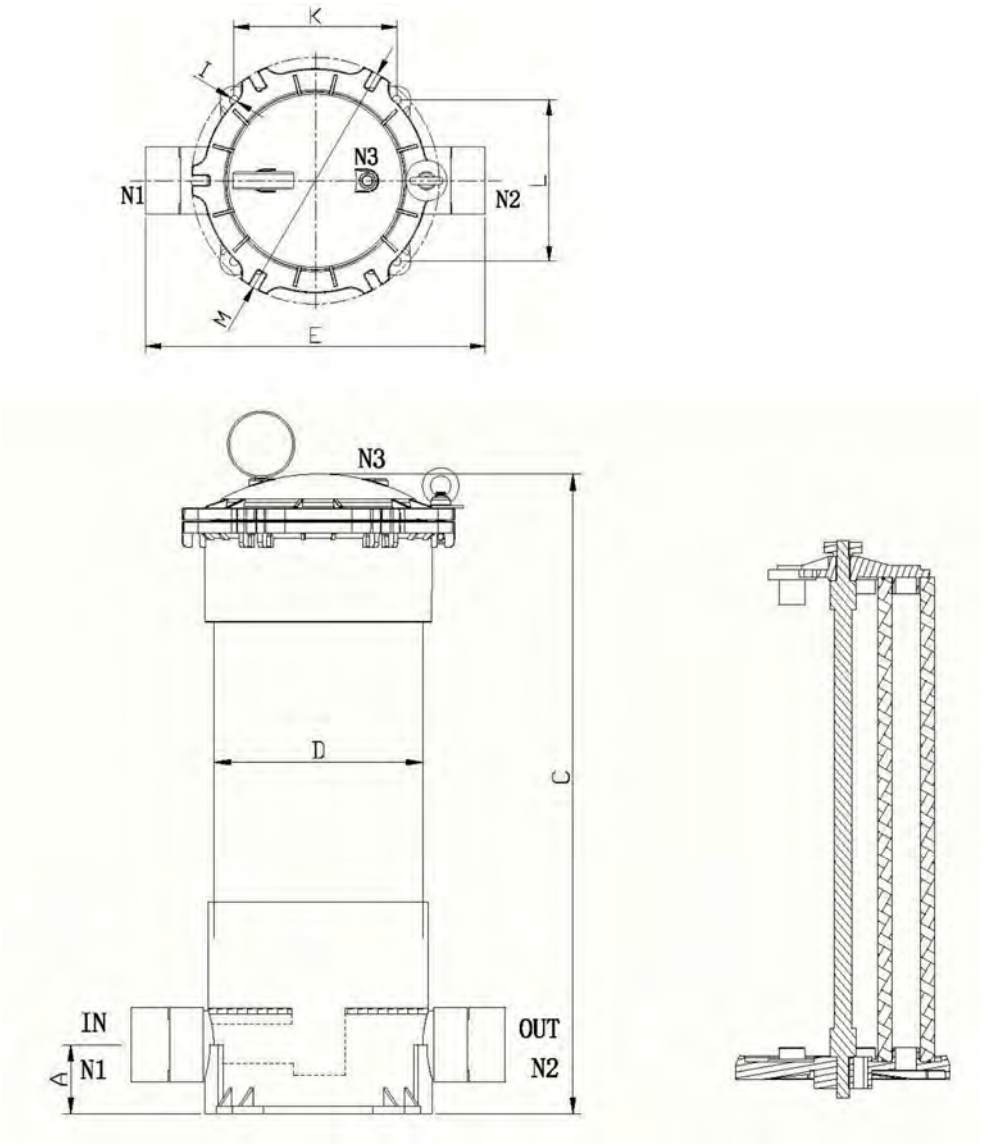
- PVC-U multicartridges filter housings for 5 cartridges flanged top opening;
- With three pieces in / out female socket weld connections;
- With two ¼" threaded connections for air valve pressure gauges and for drain filter;
- All filter housing internal material and all internal spare parts are in PVC-U for high chemical corrosion resistance;
- Opening gasket in EPDM material;
- Connection gasket in EPDM material;
- With aeration valve and pressure gauge;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- Design pressure = 6,0 bar @ 25°C;
- Hydraulic test pressure = 7,8 bar;
- Max Δp = 1,4 bar;
- Operating temperature = 5 ÷ 40 °C;
- In/Out connections DN50 / D. 63 mm;
- Suitable for DOE cartridges;
- Cartridges dimensions: ID 28÷30 mm, OD 65 mm and length 20"- 30"- 40".

WARNING!

The FA013 and FA014 cartridges of our catalogue are not suitable for these housings.

REF.	MODEL	CARTRIDGES NUMBER	WEIGHT (kg)	CAPACITY (litres)	NOMINAL FLOW RATE (lpm)	
FB560	HPCF/B-5DC2	n.5 2,5" x 20"	11,0	20,6	300	
FB561	HPCF/B-5DC3	n.5 2,5" x 30"	12,7	29,4	300	
FB562	HPCF/B-5DC4	n.5 2,5" x 40"	14,4	38,2	300	

Chemical High Resistance PVC-U
Multicartridges Filter Housings HPCF Series

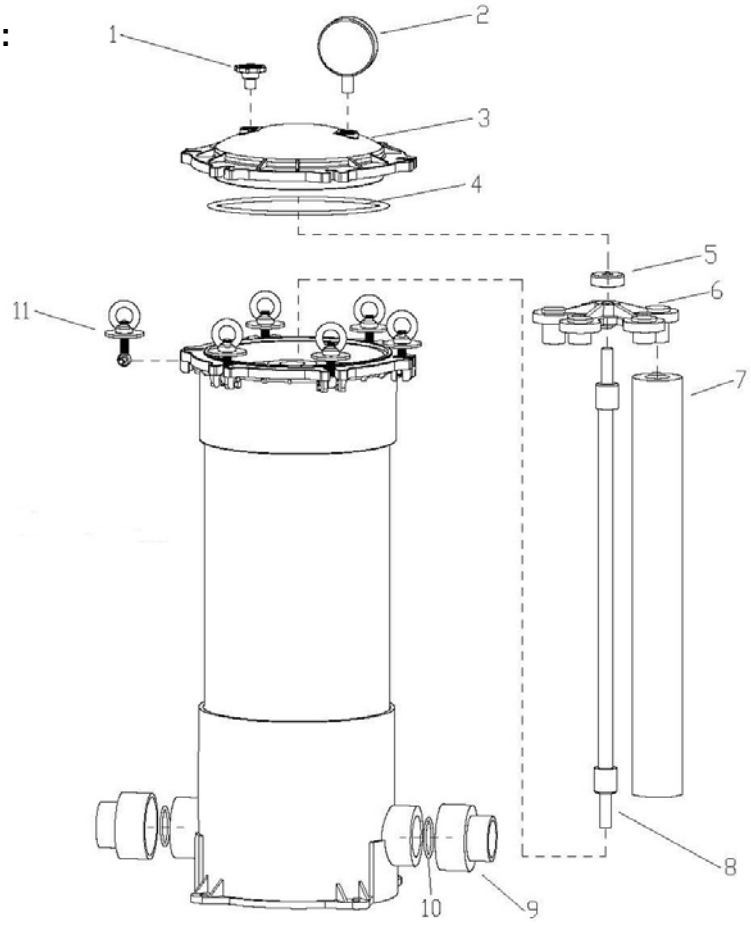


REF.	MODEL	A *	C *	D *	E *	I *	K *	L *	M *	N1 N2 *	N3
FB560	HPCF/B-5DC2	75	730	225	482	10	187,5	186	290	63	G ¼"
FB561	HPCF/B-5DC3	75	980	225	482	10	187,5	186	290	63	G ¼"
FB562	HPCF/B-5DC4	75	1230	225	482	10	187,5	186	290	63	G ¼"

* Dimensions are in mm.

Chemical High Resistance PVC-U Multicartridges Filter Housings HPCF Series

SPARE PARTS:



ITEM	REF.	DESCRIPTION	Q.TY	MATERIAL	
1	FB366	PURGE CAP	1		
2	FB367	PRESSURE GAUGE 0-10 BAR ¼"	1		
1+3+4	FB580	FLANGED TOP COVER + PURGE CAP + O-RING	1		
4	FB363	O-RING FOR FLANGED TOP COVER	1	EPDM	
5	FB574	CLOSURE CARTRIDGE NUT	3		
6	FB578	5DC CARTRIDGE FIXING STAR	1		
7		CARTRIDGE (NOT INCLUDED)			
8	FB575	ROD 20"	1		
	FB576	ROD 30"	1		
	FB577	ROD 40"	1		
10	FB371	T GASKET FOR MANIFOLD KIT D.63 MM	2		
9 + 10	FB572	MANIFOLD KIT D.63 MM WITH O-RING	2		
11	FB364	BOLT KIT M10	6	AISI	

Chemical High Resistance PVC-U Multicartridges Filter Housings HPCF Series

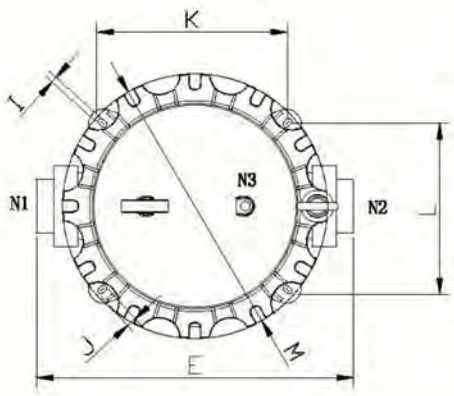
- PVC-U multicartridges filter housings for 9 cartridges flanged top opening;
- With three pieces in / out female socket weld connections;
- With two ¼" threaded connections for air valve pressure gauges and for drain filter;
- All filter housing internal material and all internal spare parts are in PVC-U for high chemical corrosion resistance;
- Opening gasket in EPDM material;
- Connection gasket in EPDM material;
- With aeration valve and pressure gauge;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- Design pressure = 6,0 bar @ 25°C;
- Hydraulic test pressure = 7,8 bar;
- Max Δp = 1,4 bar;
- Operating temperature = 5 ÷ 40 °C;
- In/Out connections DN80 / D. 90 mm;
- 1" BSPT M (+ F 20 mm to glue) drain connection;
- Suitable for DOE cartridges;
- Cartridges dimensions: ID 28÷30 mm, OD 65 mm and length 20"- 30"- 40".

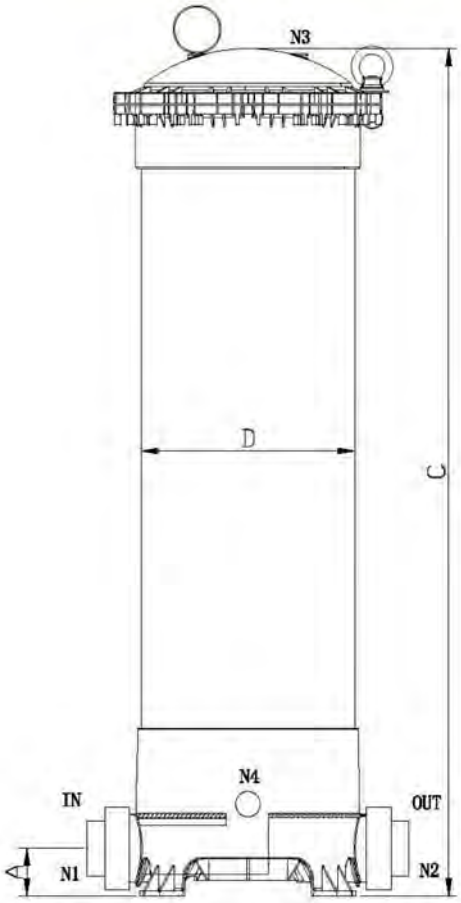
WARNING!

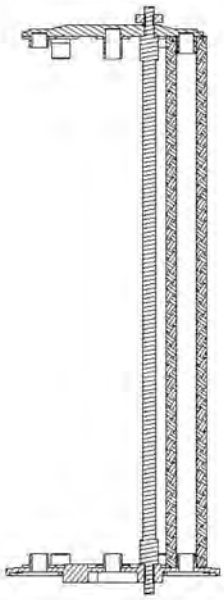
The FA013 and FA014 cartridges of our catalogue are not suitable for these housings.

REF.	MODEL	CARTRIDGES NUMBER	WEIGHT (kg)	CAPACITY (litres)	NOMINAL FLOW RATE (lpm)	
FB564	HPCF/B-9DC2	n.9 2,5" x 20"	20,0	39,7	250	
FB565	HPCF/B-9DC3	n.9 2,5" x 30"	23,0	57,0	350	
FB566	HPCF/B-9DC4	n.9 2,5" x 40"	26,0	74,3	550	

Chemical High Resistance PVC-U
Multicartridges Filter Housings HPCF Series





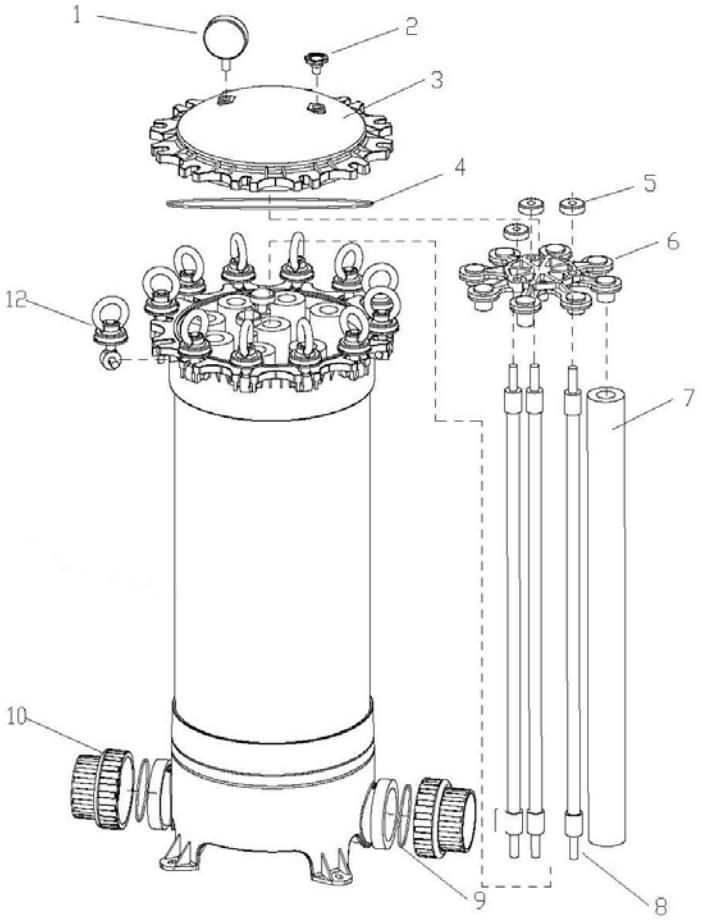


* Dimensions are in mm.

REF.	MODEL	A *	C *	D *	E *	I *	J *	K *	L *	M *	N1 N2 *	N3	N4
FB564	HPCF/B-9DC2	69	765	315	520	9	15	276	249	372	90	G ¼”	1”
FB565	HPCF/B-9DC3	69	1015	315	520	9	15	276	249	372	90	G ¼”	1”
FB566	HPCF/B-9DC4	69	1265	315	520	9	15	276	249	372	90	G ¼”	1”

Chemical High Resistance PVC-U Multicartridges Filter Housings HPCF Series

SPARE PARTS:



ITEM	REF.	DESCRIPTION	Q.TY	MATERIAL	
1	FB367	PRESSURE GAUGE 0-10 BAR ¼"	1		
2	FB366	PURGE CAP	1		
2+3+4	FB581	FLANGED TOP COVER + PURGE CAP + O-RING	1		
4	FB571	O-RING FOR FLANGED TOP COVER	1	EPDM	
5	FB574	CLOSURE CARTRIDGE NUT	3		
6	FB579	9DC CARTRIDGE FIXING STAR	1		
7		CARTRIDGE (NOT INCLUDED)			
8	FB575	ROD 20"	3		
	FB576	ROD 30"	3		
	FB577	ROD 40"	3		
9	FB583	T GASKET FOR MANIFOLD KIT D.90 MM	2		
9+10	FB573	MANIFOLD KIT D.90 MM WITH O-RING	2		
12	FB582	BOLT KIT M12	12	AISI	

High Flow PVC-U Single Cartridge Filter Housings PF Series

- PVC-U single cartridge filter housings, with flanged top opening, support legs, in/out female socket weld connections and two ¼" threaded connections for air valve pressure gauges and for drain filter;
- all filter housing internal material and all internal spare parts are in PVC-U for high chemical corrosion resistance;
- opening gasket in EPDM material;
- connection gasket in EPDM material;
- with aeration valve and pressure gauge;
- European 2014/68/EU Directive compliant for pressure equipment (PED);
- design pressure = 7,0 bar @ 25°C;
- hydraulic test pressure = 9,1 bar;
- max Δp = 1,4 bar;
- operating temperature = 5 ÷ 40 °C;
- In/Out flanged connections DN50;
- suitable for high flow "special pleated cartridges";
- cartridges dimensions: 6" x 20" and 6" x 40".

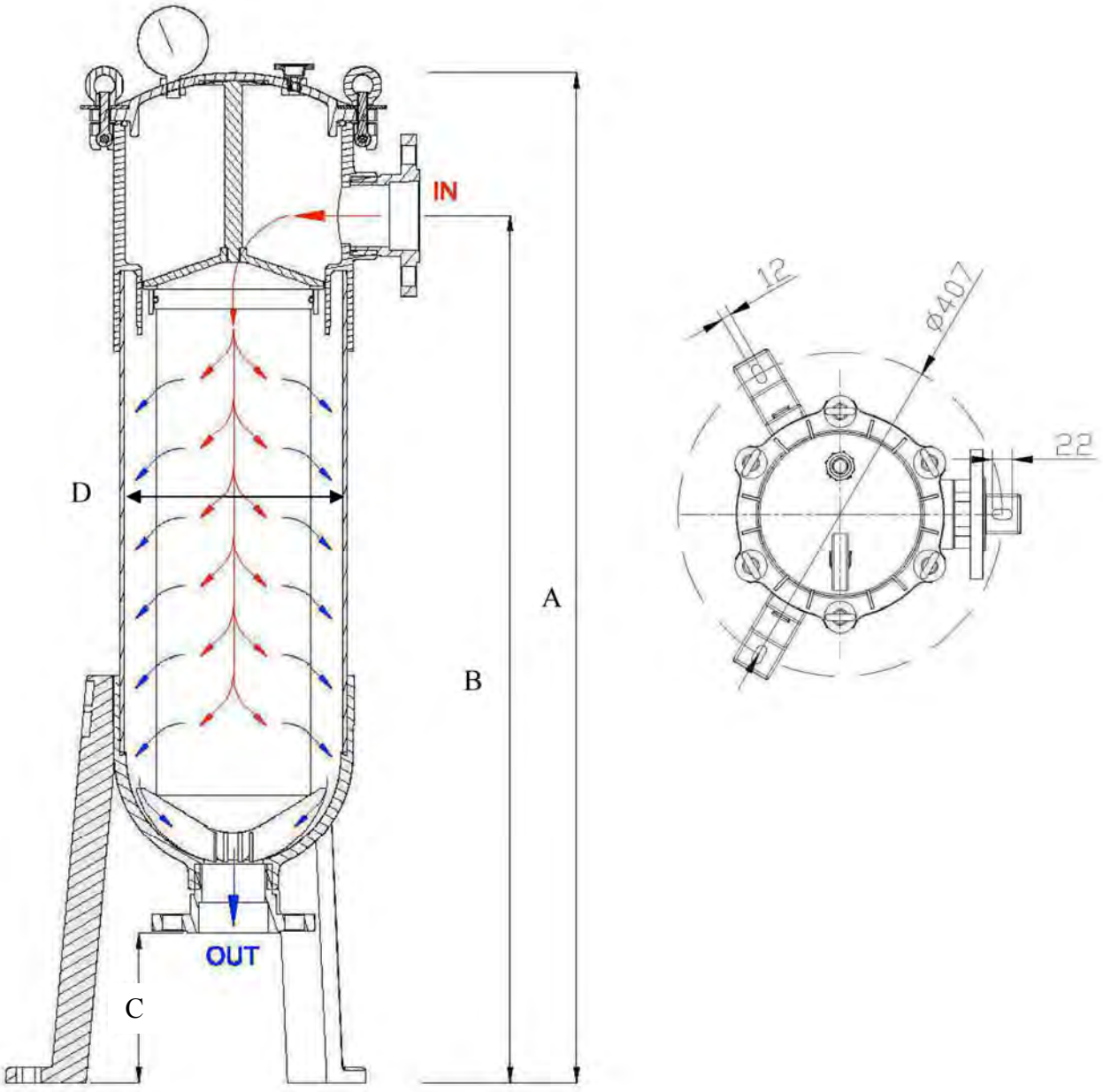
REF.	MODEL	CARTRIDGES NUMBER	WEIGHT (kg)	CAPACITY (litres)	NOMINAL FLOW RATE (lpm)	
FB360	PF20	n.1 6" x 20"	18,0	24,8	300	
FB361	PF40	n.1 6" x 40"	22,3	41,0	300	

Cartridge to coupling

- high flow "special pleated cartridges" single open-ended;
- filter media and support in PP, o-ring seal in EPDM;
- end caps in fiberglass reinforced PP;
- inside to outside flow pattern;
- external diameter = 6" (152 mm);
- recommended maximum ΔP 1,0 bar at 20°C.

REF.	MODEL	LENGTH (inch)	MICRON	NOMINAL FLOW RATE (lpm)	
FB376	DLHF620PP4.5E	20"	4,5	660	
FB379	DLHF620PP20E	20"	20	660	
FB381	DLHF620PP70E	20"	70	660	
FB382	DLHF620PP100E	20"	100	660	
FB386	DLHF640PP4.5E	40"	4,5	1300	
FB389	DLHF640PP20E	40"	20	1300	
FB391	DLHF640PP70E	40"	70	1300	
FB392	DLHF640PP100E	40"	100	1300	

High Flow PVC-U Single Cartridge Filter Housings PF Series

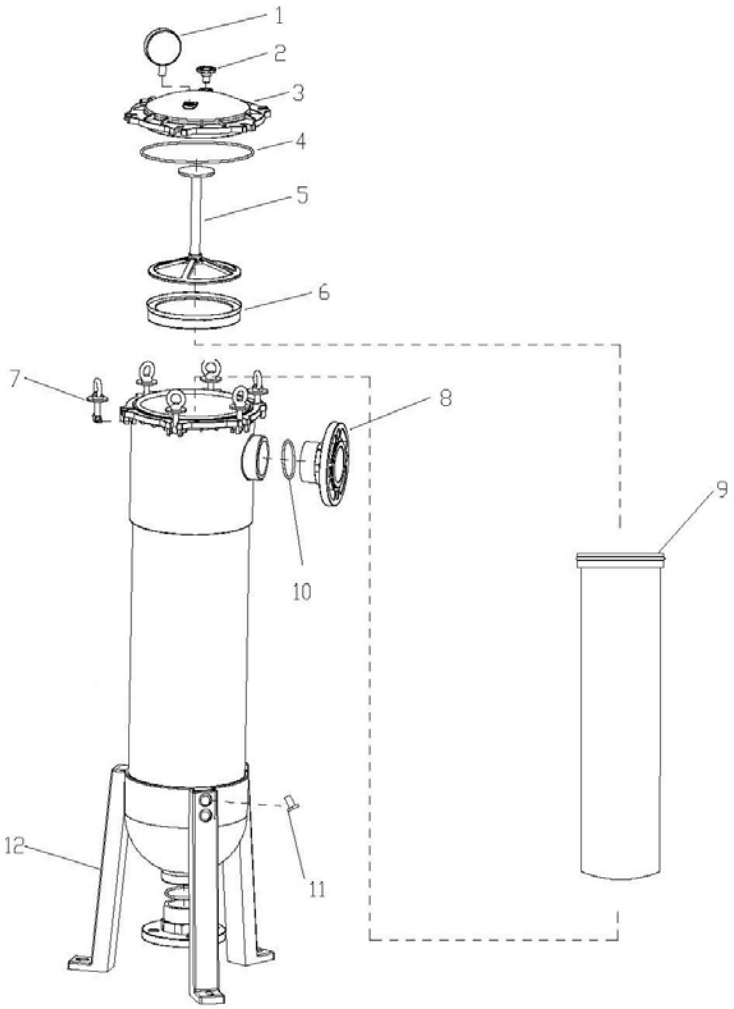


REF.	MODEL	A *	B *	C *	D *
FB360	PF20	1070	905	165	225
FB361	PF40	1560	1395	165	225

* Dimensions are in mm.

High Flow PVC-U Single Cartridge Filter Housings PF Series

SPARE PARTS:



ITEM	REF.	DESCRIPTION	Q.TY	MATERIAL	
1	FB367	PRESSURE GAUGE 0-10 BAR ¼"	1		
2	FB366	PURGE CAP	1		
2+3+4	FB580	FLANGED TOP COVER + PURGE CAP + O-RING	1		
4	FB363	O-RING FOR FLANGED TOP COVER	1	EPDM	
5	FB368	SPACER	1	PVC	
6	FB359	SINGLE CARTRIDGE SEAL RING	1		
7	FB364	BOLT KIT M10	6	AISI	
8	FB370	DN50 FLANGE	2		
9		SINGLE CARTRIDGE (NOT INCLUDED)			
10	FB362	O-RING DN50 FLANGE	2		
11	FB374	SUPPORT LEG FIXING SCREW	6		
12	FB373	SUPPORT LEG	3		

PVC-U Bag Filter System

- PVC-U bag filter housings, with flanged top opening, support legs, in/out female socket weld connections and two ¼" threaded connections for air valve pressure gauges and for drain filter;
- all filter housing internal material and all internal spare parts are in PVC-U for high chemical corrosion resistance;
- Opening gasket in EPDM material;
- Connection gasket in EPDM material;
- With aeration valve and pressure gauge;
- European 2014/68/EU Dir. compliant for pressure equipment (PED);
- Nominal flow rate = 300 lpm;
- Design pressure = 7,0 bar @ 25°C;
- Hydraulic test pressure = 9,1 bar;
- Max Δp = 1,0 bar;
- Operating temperature = 5 ÷ 40 °C;
- In/Out flanged connections DN50;
- Suitable for bag filter;
- Bag filters dimensions: 7" x 16" and 7" x 32".

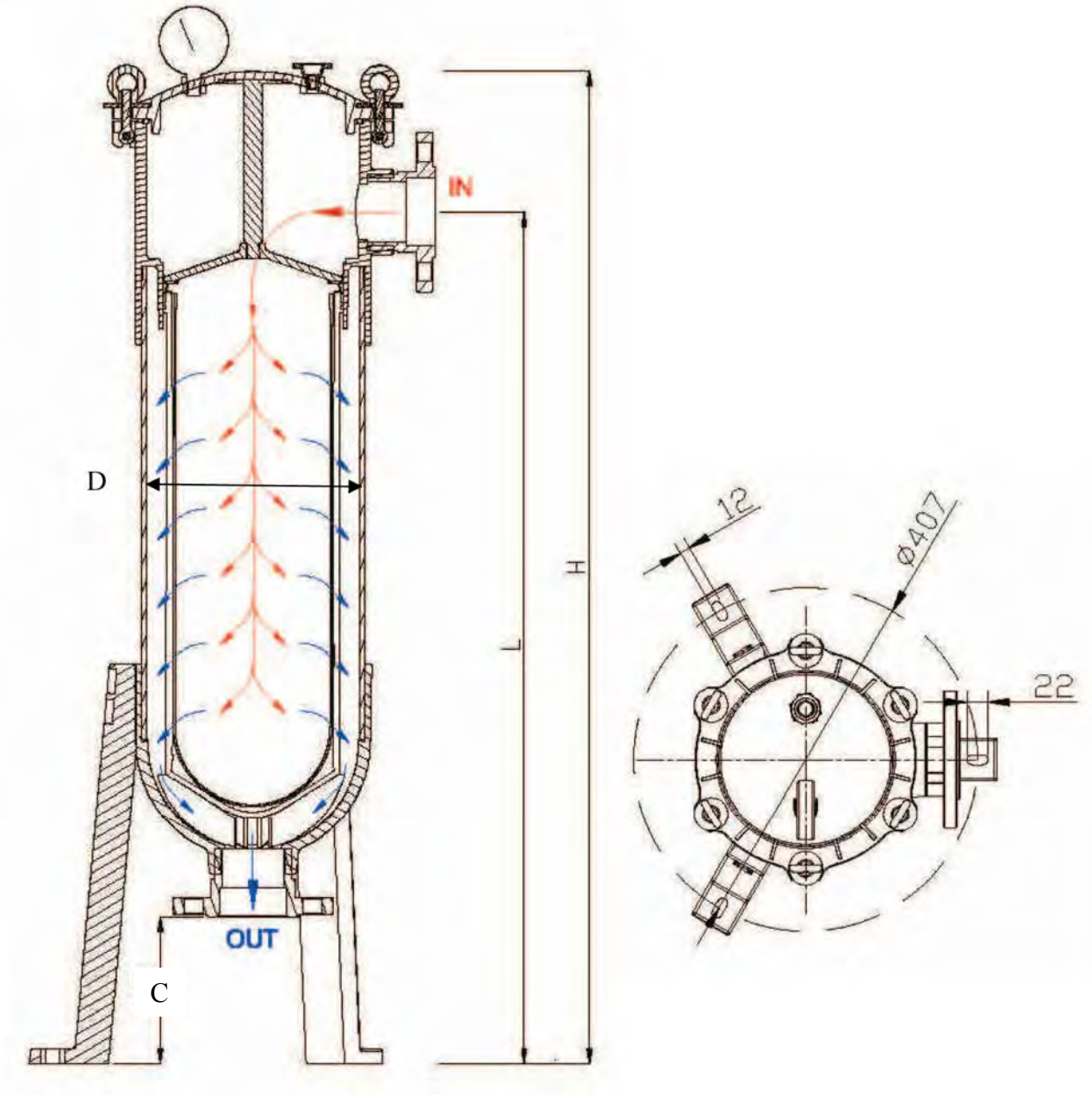
REF.	MODEL	BAG SIZE	WEIGHT (kg)	CAPACITY (litres)	NOMINAL FLOW RATE (lpm)	
FB355	HXP-BF-1-1-B	7" x 16"	15	17	300	
FB356	HXP-BF-1-2-B	7" x 32"	20	30	300	

Bag filters to coupling

- Inside to outside flow pattern;
- In PP material;
- External diameter = 7" (178 mm);
- Recommended maximum Δp = 1,0 bar at 20°C.

REF.	MODEL	LENGTH (inch)	MICRON	NOMINAL FLOW RATE (lpm)	
FB357A	BAG FILTER 1	16"	1	330	
FB357B	BAG FILTER 1	16"	5	330	
FB357C	BAG FILTER 1	16"	10	330	
FB357D	BAG FILTER 1	16"	25	330	
FB357E	BAG FILTER 1	16"	50	330	
FB357F	BAG FILTER 1	16"	100	330	
FB358A	BAG FILTER 2	32"	1	660	
FB358B	BAG FILTER 2	32"	5	660	
FB358C	BAG FILTER 2	32"	10	660	
FB358D	BAG FILTER 2	32"	25	660	
FB358E	BAG FILTER 2	32"	50	660	
FB358F	BAG FILTER 2	32"	100	660	

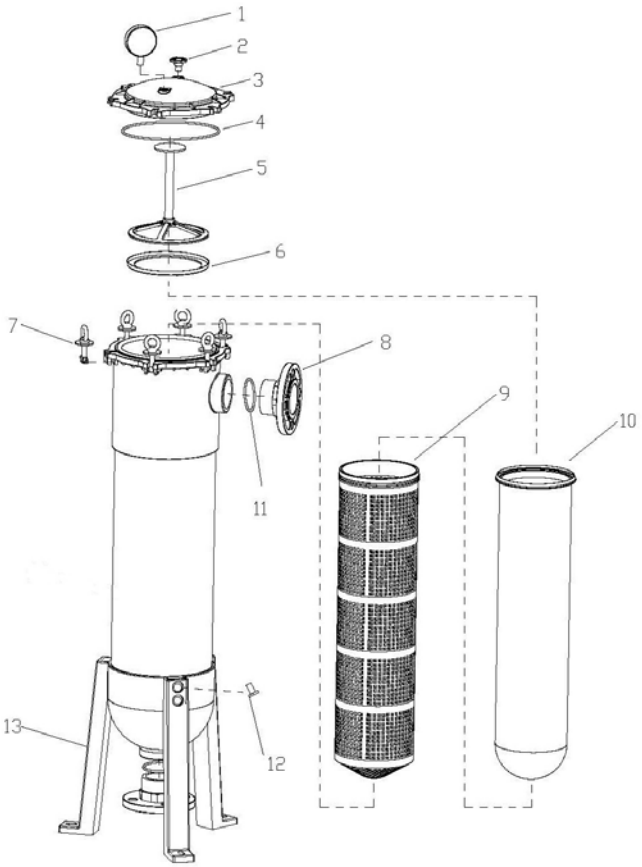
PVC-U Bag Filter System



REF.	MODEL	C *	D *	H *	L *
FB355	HXP-BF-1-1-B	165	225	845	685
FB356	HXP-BF-1-2-B	165	225	1225	1065

* Dimensions are in mm.

SPARE PARTS:



ITEM	REF.	DESCRIPTION	Q.TY	MATERIAL	
1	FB367	PRESSURE GAUGE 0-10 BAR ¼"	1		
2	FB366	PURGE CAP	1		
2+3+4	FB580	FLANGED TOP COVER + PURGE CAP + O-RING	1		
4	FB363	O-RING FOR FLANGED TOP COVER	1	EPDM	
5	FB368	SPACER	1	PVC	
6	FB359A	BAG FILTER SEAL RING	1		
7	FB364	BOLT KIT M10	6	AISI	
8	FB370	DN50 FLANGE	2		
9	FB383	16" FILTER SUPPORT ARMOR	1	PVC	
	FB383A	32" FILTER SUPPORT ARMOR	1	PVC	
10		BAG FILTER (NOT INCLUDED)			
11	FB362	DN50 FLANGE O-RING	2		
12	FB374	SUPPORT LEG FIXING SCREW	6		
13	FB373	SUPPORT LEG	3		

High Flow Single 20” Cartridge MWG
EuroFlow Filter Housings EF Series

- Single cartridge filter housings with fiberglass reinforced plastic pressure vessels;
- White painted, UVA-ray proof material;
- Suitable for industrial applications, for high chemical corrosion resistance;
- Compact and modular design;
- Ease of installation and maintenance;
- O-ring in EPDM;
- Max operating pressure 150 psi (10 bar);
- Max Δp = 2 bar;
- Operating temperature 5 ÷ 49 °C; Chemical washing temperature 0 ÷ 66 °C
- Operating pH range 3 ÷ 11; CIP Chemical washing pH range 2 ÷ 12;
- 15 minutes Chemical washing pH range 1 ÷ 12;
- With 3” DN80 Victaulic In/Out coupling connections and stub pipes in PVC-U PN = 4 bar;
- Straps and saddles included;
- 2014/68/EU Directive compliant for pressure equipment (PED);
- Suitable for high flow “special pleated cartridges”, with guiding ring;
- Cartridges dimensions: 6” x 20”.

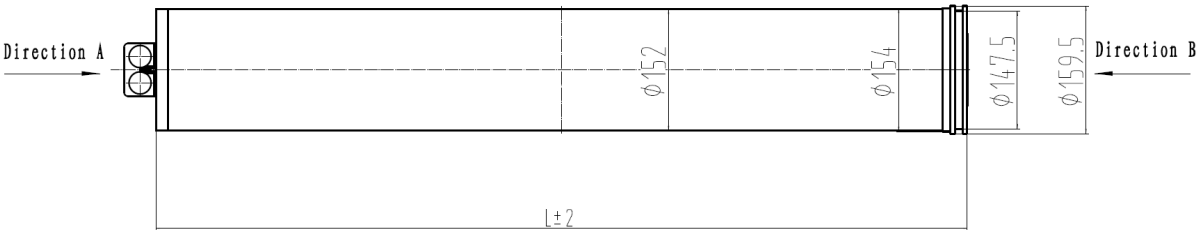
REF.	MODEL	CARTRIDGES NUMBER	WEIGHT (kg)	CAPACITY (liters)	NOMINAL FLOW RATE (lpm)	
FBEF20S3	EF20	n.1 6” x 20”	24	25	330	

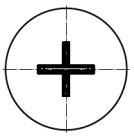
High Flow Single 20” Cartridge MWG
EuroFlow Filter Housings EF Series

Cartridge to coupling

- High flow 6 layers “special pleated cartridges” single open-ended;
- Filter media and support in PP, o-ring seal in EPDM;
- End caps in fiberglass reinforced PP;
- Inside to outside flow pattern;
- External diameter = 6” (152 mm);
- Recommended maximum ΔP 1,0 bar at 20°C.
- T max = 80°C.
  Membrane area = 2,1m^2

REF.	LENGTH	MICRON	NOMINAL FLOW RATE (lpm)	
FAEF2001	20”	1	330	
FAEF2005	20”	5	330	
FAEF2010	20”	10	330	
FAEF2020	20”	20	330	
FAEF2050	20”	50	330	
FAEF20C1	20”	100	330	
FAEF20CL	20”	150	330	
FAEF20C2	20”	200	330	



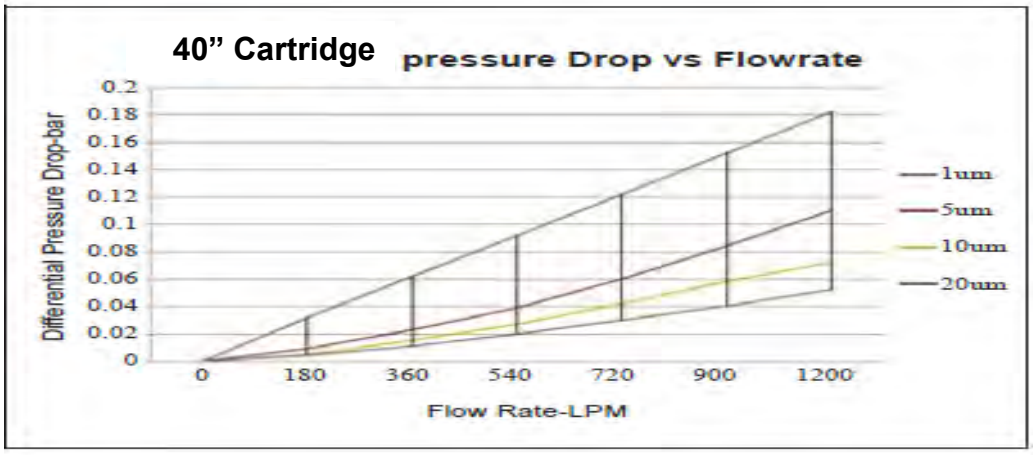


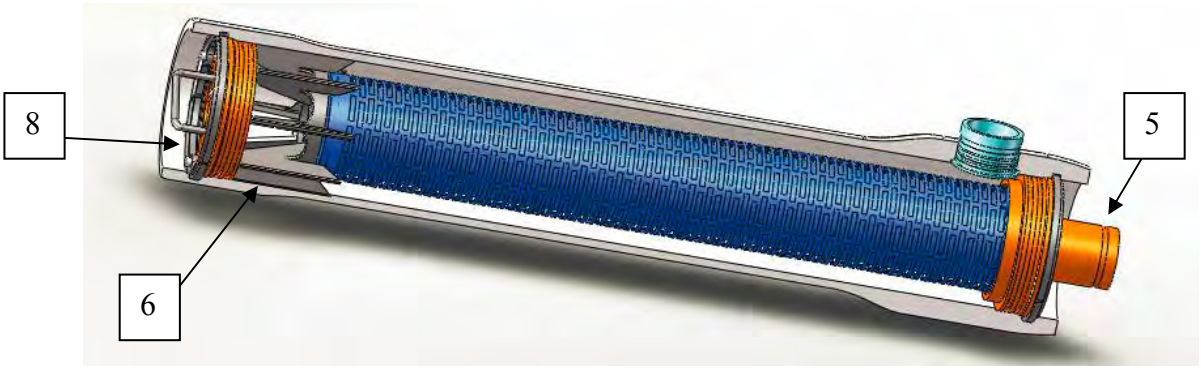
Direction A

Direction B

Ref.	L (MM)
20”	508
40”	1016

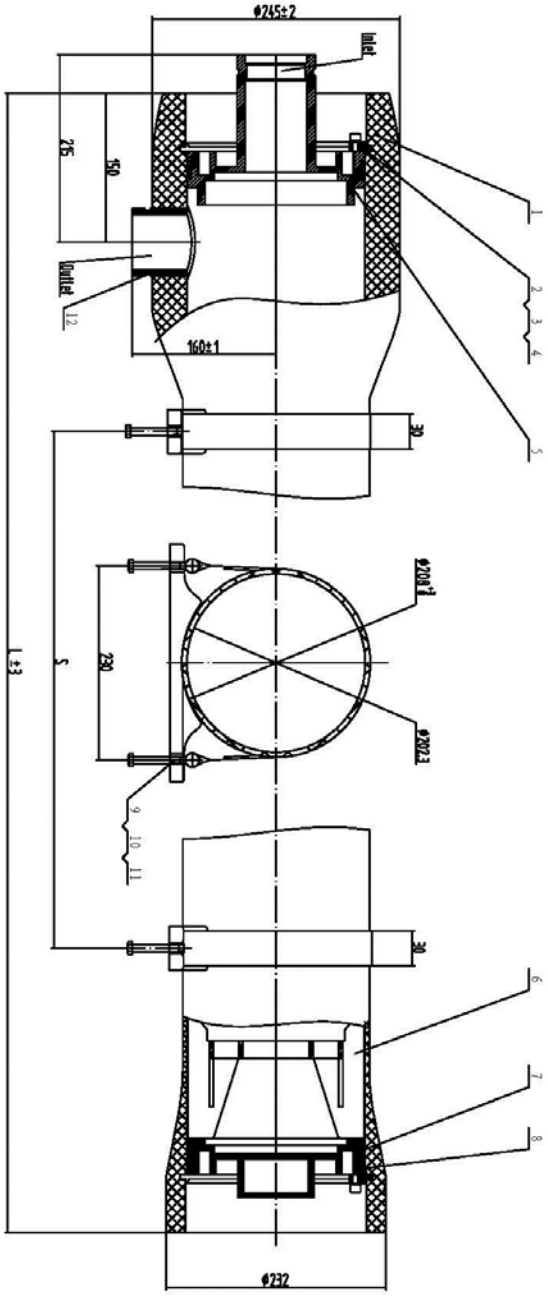
High Flow Single 20” Cartridge MWG
EuroFlow Filter Housings EF Series

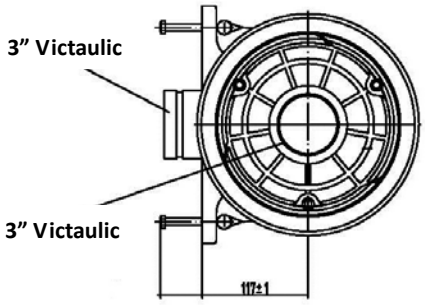




ITEM	REF.	DESCRIPTION	Q.TY	MATERIAL	NOTE	
2+3+4	FBEFR27	LOCKING KIT SEGMENT	6	AISI 304	M8x16	
5	FBEFR23	END CAP WITH CONNECTION	1	ABS		
6	FBEFR15	THRUST CONE	1	ABS		
7	FBEFR11	O-RING	3	EPDM	190x5,3	
8	FBEFR21	HANDLED CLOSURE	1	ABS		
9+10	FBEFR13	STRAP	2	AISI 304 - Rubber		
11	H8R001	SADDLE	2	Rubber		
NOT SHOWN	FBEFR17	GUIDING RING	1			
NOT SHOWN	EA555	3” 300 PSI VICTAULIC COUPLING	2	NYLON		
NOT SHOWN	EA605	DN80-DN90 COUPLING ADAPTOR	2	PVC-U		

High Flow Single 20” Cartridge MWG
EuroFlow Filter Housings EF Series





REF.	MODEL	L *	S *
FBEF20S3	EF20	792	350

* Dimensions are in mm.

REF.
FBEFR15

REF.
FBEFR17

High Flow Single 40” Cartridge MWG
EuroFlow Filter Housings EF Series

- Single cartridge filter housings with fiberglass reinforced plastic pressure vessels;
- White painted, UVA-ray proof material;
- Suitable for industrial applications, for high chemical corrosion resistance;
- Compact and modular design;
- With n.1 aeration valve and n.1 drain connection;
- Ease of installation and maintenance;
- O-ring in EPDM;
- Max operating pressure 150 psi (10 bar);
- Max Δp = 2 bar;
- Operating temperature 5 ÷ 49 °C; Chemical washing temperature 0 ÷ 66 °C
- Operating pH range 3 ÷ 11; CIP Chemical washing pH range 2 ÷ 12;
- 15 minutes Chemical washing pH range 1 ÷ 12;
- With 3” DN80 Victaulic In/Out coupling connections and stub pipes in PVC-U PN = 4 bar;
- Straps and saddles included;
- 2014/68/EU Directive compliant for pressure equipment (PED);
- D.M. n.174/2004 compliant about materials suitable for contact with water for human consumption;
- Suitable for high flow “special pleated cartridges”, with guiding ring;
- Cartridges dimensions 6” x 40”.

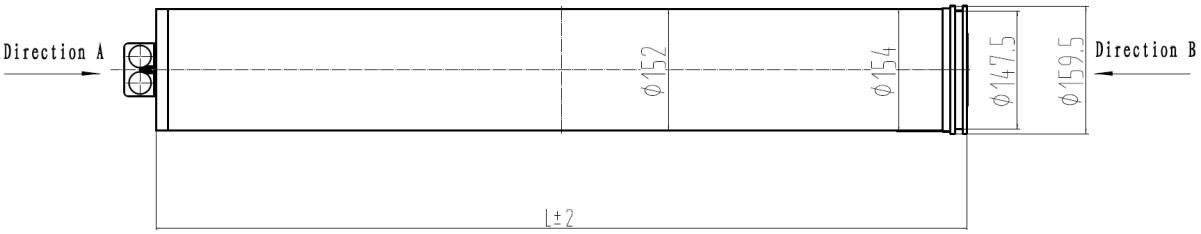
REF.	MODEL	CARTRIDGES NUMBER	WEIGHT (kg)	CAPACITY (liters)	NOMINAL FLOW RATE (lpm)	
FBEF40S3	EF40	n.1 6” x 40”	27	41	660	

High Flow Single 40” Cartridge MWG
EuroFlow Filter Housings EF Series

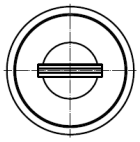
Cartridge to coupling

- High flow 6 layers “special pleated cartridges” single open-ended;
- Filter media and support in PP, o-ring seal in EPDM;
- End caps in fiberglass reinforced PP;
- Inside to outside flow pattern;
- External diameter = 6” (152 mm);
- Recommended maximum ΔP 1,0 bar at 20°C.
- T max = 80°C.
  Membrane area = 4,5m^2

REF.	LENGTH	MICRON	NOMINAL FLOW RATE (lpm)	
FAEF4001	40”	1	660	
FAEF4005	40”	5	660	
FAEF4010	40”	10	660	
FAEF4020	40”	20	660	
FAEF4050	40”	50	660	
FAEF40C1	40”	100	660	
FAEF40CL	40”	150	660	
FAEF40C2	40”	200	660	



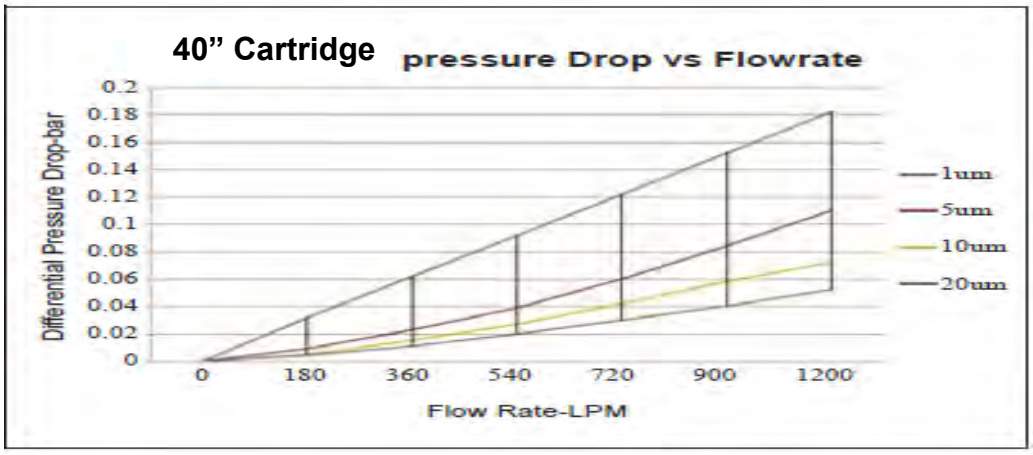
Direction A

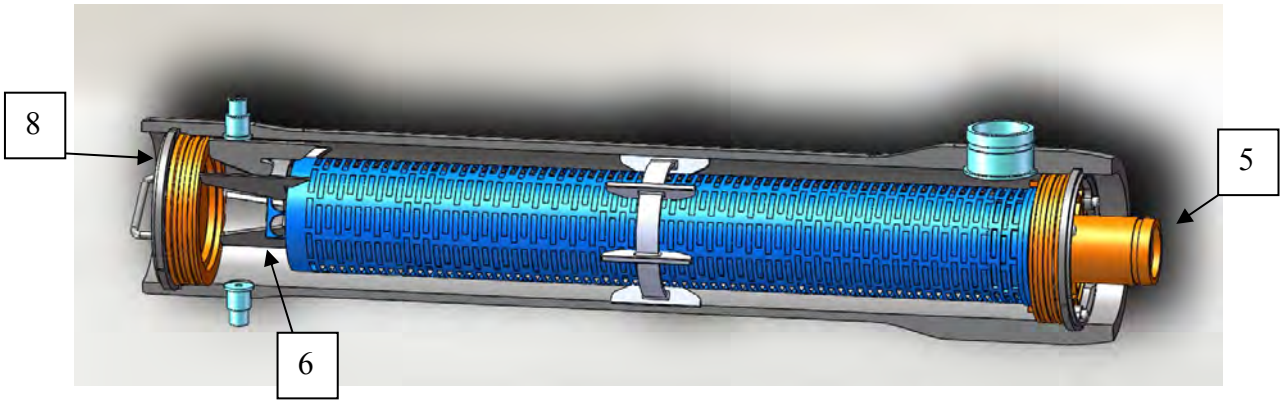


Direction B

Ref.	L (MM)
20”	508
40”	1016

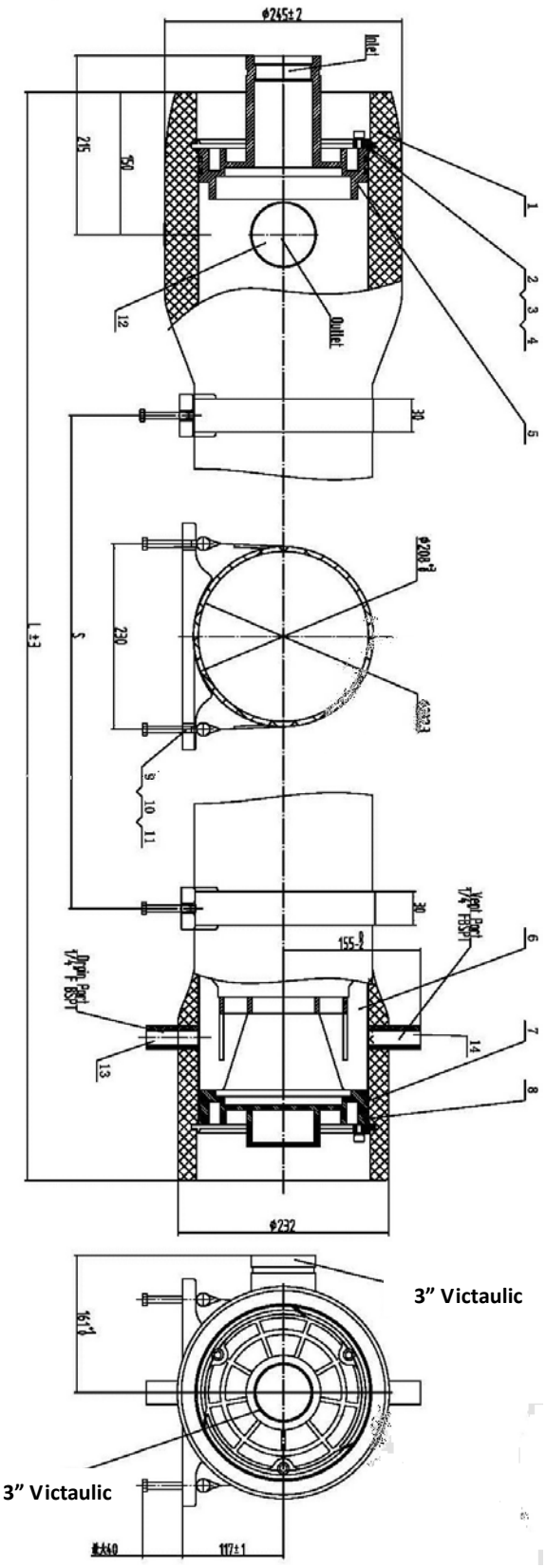
High Flow Single 40” Cartridge MWG
EuroFlow Filter Housings EF Series





ITEM	REF.	DESCRIPTION	Q.TY	MATERIAL	NOTE	
2+3+4	FBEFR27	LOCKING KIT SEGMENT	6	AISI 304	M8x16	
5	FBEFR23	END CAP WITH CONNECTION	1	ABS		
6	FBEFR15	THRUST CONE	1	ABS		
7	FBEFR11	O-RING	3	EPDM	190x5,3	
8	FBEFR21	HANDLED CLOSURE	1	ABS		
9+10	FBEFR13	STRAP	2	AISI 304 - Rubber		
11	H8R001	SADDLE	2	Rubber		
NOT SHOWN	FBEFR17	GUIDING RING	1			
NOT SHOWN	EA555	3” 300 PSI VICTAULIC COUPLING	2	NYLON		
NOT SHOWN	EA605	DN80-DN90 COUPLING ADAPTOR	2	PVC-U		

High Flow Single 40” Cartridge MWG
EuroFlow Filter Housings EF Series



REF.	MODEL	L *	S *
FBEF40S3	EF40	1300	580

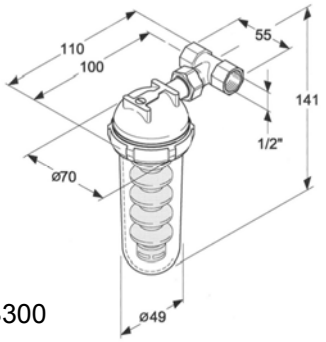
* Dimensions are in mm.

REF.
FBEFR15

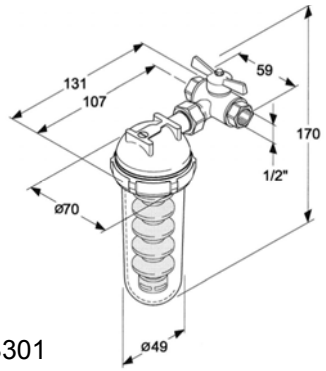
REF.
FBEFR17

Poliphosphate Proportioning Feeders

- proportional dosage to water flow through Venturi system;
- neutralizes the precipitation of calcium and magnesium carbonate up to 70°C making a protective coat over metallic share in contact with water;
- average dosage 3 ppm of P_2O_5;
- chrome pleated brass head, trogamid sump;
- each feeder includes a polyphosphate package.
- IN-OUT connections ½" F;
- max operating pressure 10 bar;
- max operating temperature 40°C;
- flow rate 1.500 l/h;
- N.2 PF/H polyphosphate refills 80 g for hard water.



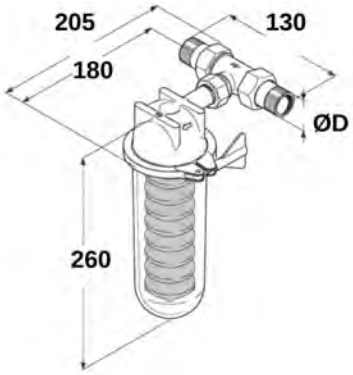
REF. FB300



REF. FB301

REF.	MODEL	BY-PASS OPTION	
FB300	DP 12 OR	WITHOUT BY-PASS	
FB301	DP 12 OR BP	WITH BY-PASS	

- max operating pressure 10 bar;
- max operating temperature 40°C;
- N.2 PF/H polyphosphate refills 400 g for hard water.



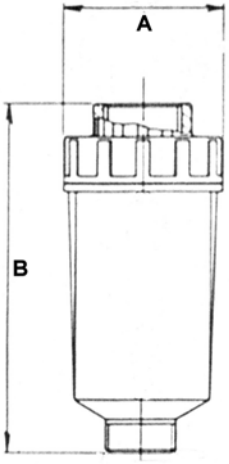
REF.	MODEL	IN-OUT CONNECTIONS	FLOW (l/h)	
FB302	DP 34 OR	¾" M	2500	
FB303	DP 1 OR	1" M	3500	
FB304	DP 114 OR	1¼" M	4400	

Available polyphosphate packages as spare.
NOTE: PF/H type for hard water (> 15°F)
PF/S type for soft or softened (3 ÷ 15° F)

REF.	DESCRIPTION	PACKAGE (g)	
FB340	Polyphosphate PF/H for hard water	160	
FB341	Polyphosphate PF/H for hard water	400	
FB342	Polyphosphate PF/H for hard water	1000	
FB343	Polyphosphate PF/S for soft or softened	160	
FB344	Polyphosphate PF/S for soft or softened	400	
FB345	Polyphosphate PF/S for soft or softened	1000	

Polyphosphate Crystals Feeder

- polyphosphate crystals feeder antiscale;
- particular suitable for washing machines – dish washers – boilers;
- initial filling of polyphosphate included;
- max operating pressure 7 bar;
- max operating temperature 35°C.



REF.	CONNECTIONS (inch)	A (mm)	B (mm)	POLYPHOSPHATE FILLING (g)	
FBDC07	¾"	68	130	160	

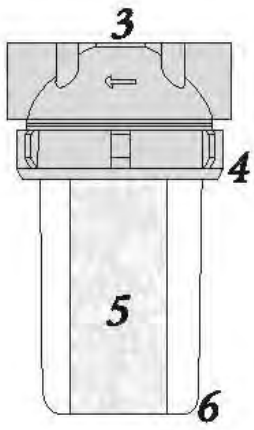
Polyphosphate Crystals

- based on a mixture of selected high polymerization metaphosphates, in transparent vitreous state white colour;
- typical composition: P_2O_5 > 60% and Na_2O = 30% av.;
- to be used as antiscaling and corrosion inhibitor with water for potable and industrial applications;
- slow dissolution crystals, proportional to crystal size, temperature, pH and water hardness.

REF.	DIMENSIONS (mm)	PACKAGE (kg)	
FB350	5 ÷ 15	25	
FB351	10 ÷ 20	25	

Polyphosphate Feeders with Cartridges

- Particular suitable for washing machines – dish washers – boilers;
- Chrome pleated brass head (item 3 and 4);
- IN/OUT connections ½";
- Grilamid sump (item 6);
- Supplied with the first charge of polyphosphate (170 g);
- Operating flow rate 1200 l/h;
- Max operating temperature= 20°C;
- Max operating pressure = 16 bar;
- Test pressure = 50 bar;
- Empty weight 1.2 kg;
- Conform with the Italian DM25/2012 and DM174/2004;
- The presence of silicate ensures greater protection of metal parts against corrosion;
- The spherical shape of the polyphosphate in our FB701 allows a greater regularity of the product consumption and consequently a more regular dosage.



REF.	MODEL	
FB700 (*)	DP 12 WITH CARTRIDGE	
FB701 (*)	DP 12 SPHERICAL WITH CARTRIDGE	

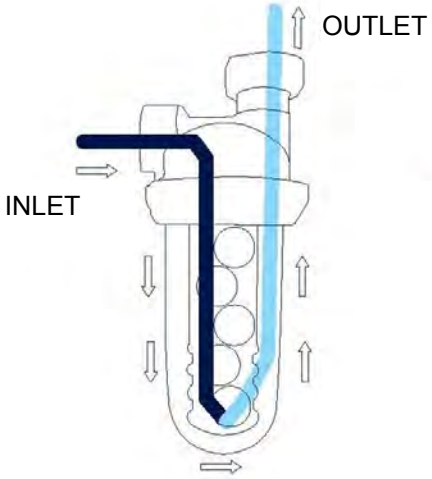
(*) not available in stock.

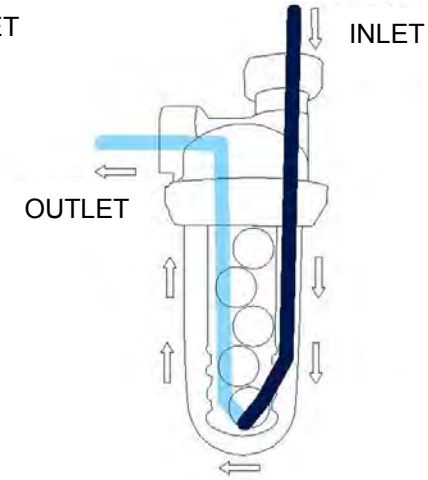
Spare Parts and Accessories

ITEM	REF.	DESCRIPTION	
5	FB730 (*)	CARTRIDGE FOR FB700	
5	FB731 (*)	CARTRIDGE FOR FB701	
NOT SHOWN	FB317A (*)	WRENCH FOR FB700 AND FOR FB701	

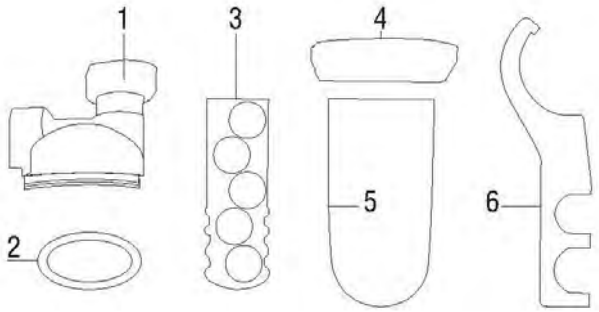
Polyphosphate Feeders with Cartridges

- Particular suitable for washing machines – dish washers – boilers;
- Chrome pleated brass head (item 1 and 4), Grilamid sump (item 5);
- ½" inlet and ½"outlet can be either vertical or horizontal connection: a kit provides a reduction from ¾" to ½";
- Supplied with the first charge of polyphosphate (item 3);
- Operating flow rate 1200 l/h;
- Max operating temperature = 40°C;
- Max operating pressure = 10 bar, Test pressure = 30 bar;
- Empty weight 700 g;
- Conform with the Italian DM25/2012 and DM174/2004;
- Available on demand a wrench (our ref. FB317) to facilitate the disassembly of the housing.





REF.	MODEL	
FB702 (*)	DP 12 34 WITH CARTRIDGE	



(*) not available in stock.

Spare Parts and Accessories

ITEM	REF.	DESCRIPTION	
3	FB732 (*)	N.2 CARTRIDGES FOR FB702	
6	FB317 (*)	WRENCH DP 12	

Ion exchange resins and filtering media

EUROTROL®

WATER TREATMENT COMPONENTS

MWG Resin

- Gel Strong Acid Cation Exchange Resin;
- Light coloured;
- Gel type Strongly Acidic unifunctional cross linked polystyrene structure containing Sulphonic Acid groups. It is a high capacity gel type resin with excellent physical and chemical properties;
- It is specially designed for the treatment of potable water. The resin is extremely robust and has excellent physical and chemical characteristics;
- Due to its high exchange capacity, it is recommended where hardness of Calcium and Magnesium salts are high. The resin is primarily used in industrial water softening application in Na+ form;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- Shipped in 25 liter bags.

Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Polystyrene
Functional Group	$R\text{-}(SO_3)^-M^+$
Ionic Form, as shipped	Sodium (Na^+)
Physical Form and Appearance	Spherical Beads
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,7 max.
Water Retention, Na^+ form	47 ÷ 53%
Swelling $Na^+ \rightarrow H^+$	10% max.
Shipping Weight, Na^+ form	820 g/l (50 lbs/cu.ft, approx.)
Total Exchange Capacity, Na^+ form	1,9 eq/l min.
pH Range	0 ÷ 14

REF.	
RA600	

MWG Resin

Suggested Operating Conditions	
Maximum Temperature	140ºC (284ºF) max.
Minimum Bed Depth	0,75 m (30 inches)
Backwash Rate	40% bed expansion
Regeneration Regenerant Concentration Flow Rate Contact Time	 10% NaCl or saturated salt water 2 ÷ 8 BV/h (0,25 ÷ 1,00 gpm/cu.ft) At least 30 Minutes
Displacement Rinse Rate	Same as Regenerant Flow Rate
Displacement Rinse Volume	2 BV (15 gallons/cu.ft)
Fast Rinse Rate	Same as Service Flow Rate
Fast Rinse Volume	5 BV (37,5 gallons/cu.ft)
Service Flow Rate	15 ÷ 30 BV/h (1,85 ÷ 3,70 gpm/cu.ft)

Pure Resin PC002

- Gel Strong Acid Cation Exchange Resin;
- Light coloured;
- Gel type sulfonated polystyrene cation resin supplied in the sodium form as moist, tough uniform spherical beads.
- Well suited for industrial, commercial or residential softening applications;
- High capacity and good physical stability.
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- NSF/ANSI 44&61 certified;
- Shipped in 25 liter bags.

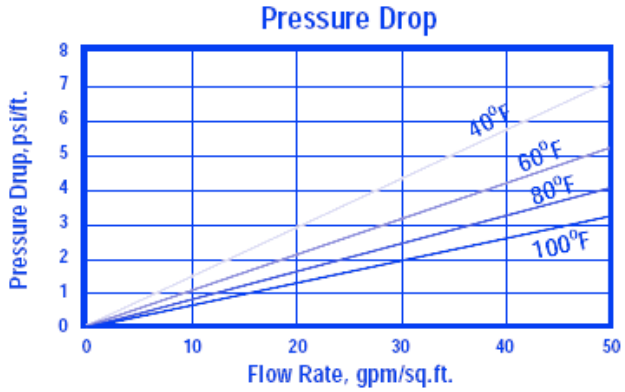
Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Polystyrene crosslinked with 7% DVB
Functional Group	$R\text{-}(SO_3)^-M^+$
Ionic Form, as shipped	Sodium (Na^+)
Physical Form and Appearance	Clear Spherical Beads
Sphericity	95% min.
Screen Size Range --- U.S. Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 max.
Water Retention, Na^+ form	45 ÷ 50%
Swelling $Na^+ \rightarrow H^+$ $Ca^{2+} \rightarrow Na^+$	10% max. 5% max.
Shipping Weight, Na^+ form	770 ÷ 870 g/l (50 lbs/cu.ft, approx.)
Total Exchange Capacity, Na^+ form	1,9 eq/l min.
pH Range	0 ÷ 14

REF.	
RA300	

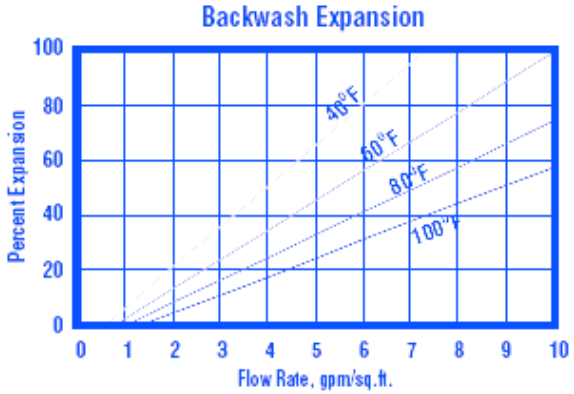
Pure Resin PC002

Suggested Operating Conditions	
Maximum Temperature Na^+ form H^+ form	 120ºC (248ºF) max. 100ºC (212ºF) max.
Minimum Bed Depth	0,6 m (24 inches)
Backwash Rate	25 ÷ 50% bed expansion
Regeneration Regenerant Concentration Flow Rate Contact Time	 8 ÷ 20% NaCl or saturated salt water 2 ÷ 4 BV/h (0,25 ÷ 0,50 gpm/cu.ft) At least 30 Minutes
Displacement Rinse Rate	Same as Regenerant Flow Rate
Displacement Rinse Volume	1 ÷ 2 BV (7,5 ÷ 15 gallons/cu.ft)
Fast Rinse Rate	Same as Service Flow Rate
Fast Rinse Volume	3 ÷ 4 BV (22,5 ÷ 30 gallons/cu.ft)
Service Flow Rate	10 ÷ 50 BV/h (1,25 ÷ 6,25 gpm/cu.ft)

Hydraulic Properties



Pressure Drop: The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate at various temperatures.



Backwash: After each cycle the resin bed should be backwashed at a rate that expands the bed 25 to 50 percent. That will remove any foreign matter and reclassify the bed. The graph above shows the expansion characteristics of Pure PC002 in the sodium form.

Pure Resin PC003

- Gel Strong Acid Cation Exchange Resin;
- High capacity premium grade bead form, conventional gel polystyrene sulphonate cation exchange resin supplied in the sodium or hydrogen form;
- Intended for use in all water softening, dealcalisation, deionization and chemical processing applications, such as the following:
- In H form (PC003H), can be used in multiple and mixed bed demineralizers with strong base;
- Anion exchangers such as Pure PA101, PA102 and PA103 in OH- form.
- Well suited for industrial, commercial or residential softening applications because of its high capacity and good physical stability;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- NSF/ANSI 44&61 certified;
- Shipped in 25 liter bags.

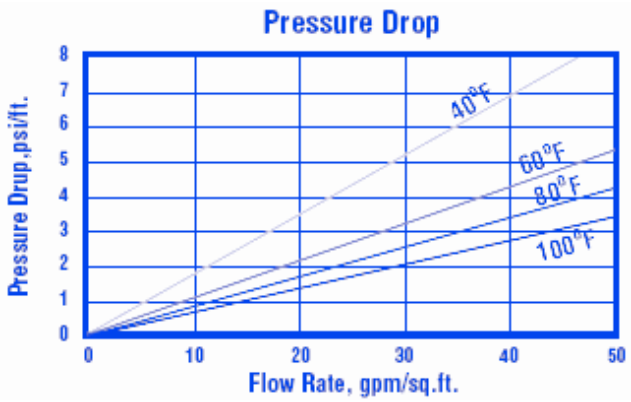
Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Polystyrene crosslinked with 8% DVB
Functional Group	$R\text{-}(SO_3)^-M^+$
Ionic Form, as shipped	Na^+ / H^+
Physical Form and Appearance	Clear Spherical Beads
Sphericity	95% min.
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 max.
Water Retention, Na^+ form H^+ form	43 ÷ 48% 50 ÷ 56%
Swelling $Na^+ \rightarrow H^+$ $Ca^{2+} \rightarrow Na^+$	10% max. 5% max.
Shipping Weight, Na^+ form H^+ form	780 ÷ 880 g/l (51 lbs/cu.ft, approx.) 770 ÷ 870 g/l (50 lbs/cu.ft, approx.)
Total Exchange Capacity, Na^+ form H^+ form	2,0 eq/l min. 1,9 eq/l min.
pH Range	0 ÷ 14

REF.	
RA310	

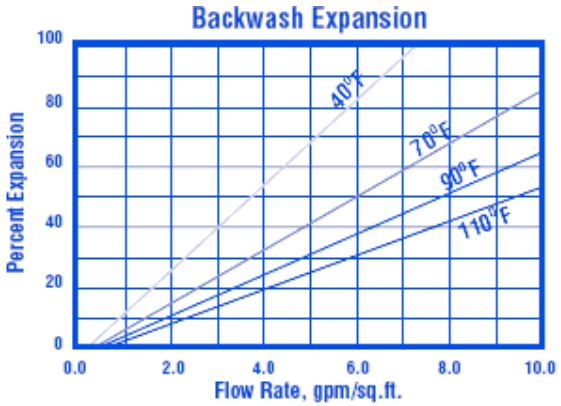
Pure Resin PC003

Suggested Operating Conditions	
Maximum Temperature Na^+ form H^+ form	 150ºC (300ºF) max. 100ºC (212ºF) max.
Minimum Bed Depth	0,6 m (24 inches)
Backwash Rate	25 ÷ 50% Bed Expansion
Regeneration Sodium Cycle Hydrogen Cycle Flow Rate	 8 ÷ 20% NaCl 5 ÷ 10% HCl, 2-8% H_2SO_4 2 ÷ 7 BV/h (0,25 ÷ 0,90 gpm/cu.ft)
Displacement Rinse Rate	Same as Regenerant Flow Rate
Displacement Rinse Volume	1,4 ÷ 2,0 BV (10 ÷ 15 gallons/cu.ft)
Fast Rinse Rate	Same as Service Flow Rate
Fast Rinse Volume	4 ÷ 8 BV (30 ÷ 60 gallons/cu.ft)
Service Flow Rate	10 ÷ 50 BV/h (1,25 ÷ 6,25 gpm/cu.ft)

Hydraulic Properties



Pressure Drop: The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate at various Temperatures.



Backwash: After each cycle the resin bed should be backwashed at a rate that expands the bed 25 to 50 percent. That will remove any foreign matter and reclassify the bed. The graph above shows the expansion characteristics of Pure PC003 in the sodium form.

Pure Resin PC003 UN-NA

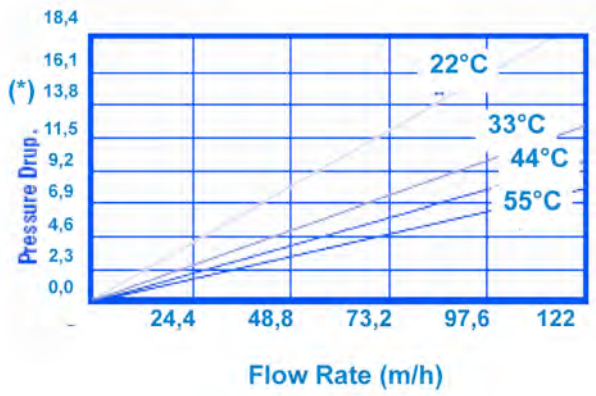
- Gel Strong Acid Cation Exchange Resin with high uniformity coefficient;
- High capacity premium grade bead form, conventional gel polystyrene sulphonate cation exchange resin supplied in the sodium or hydrogen form;
- Intended for use in all water softening, dealcalisation, deionization and chemical processing applications, such as the following:
- In H form (PC003HUN), can be used in multiple and mixed bed demineralizers with strong base;
- Anion exchangers such as Pure PA101, PA102 and PA103 in OH- form.
- Well suited for industrial, commercial or residential softening applications because of its high capacity and good physical stability;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- NSF/ANSI 44&61 certified;
- Shipped in 25 liter bags.

Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Polystyrene crosslinked with 8% DVB
Functional Group	$R\text{-}(SO_3)^-M^+$
Ionic Form, as shipped	Na^+
Physical Form and Appearance	Clear Spherical Beads
Sphericity	95% min.
Screen Size Range US Standard Screen	25 ÷ 35 mesh, wet
Particle Size Range	0,5 ÷ 0,84 mm ≥ 95%
Uniformity Coefficient	1,20 max.
Water Retention, Na^+ form H^+ form	43 ÷ 48% 47 ÷ 54%
Swelling $Na^+ \rightarrow H^+$ $Ca^{2+} \rightarrow Na^+$	10% max. 5% max.
Shipping Weight, Na^+ form H^+ form	780 ÷ 880 g/l (51 lbs/cu.ft, approx.) 770 ÷ 870 g/l (50 lbs/cu.ft, approx.)
Total Exchange Capacity, Na^+ form H^+ form	2,0 eq/l min. 1,9 eq/l min.
pH Range	0 ÷ 14

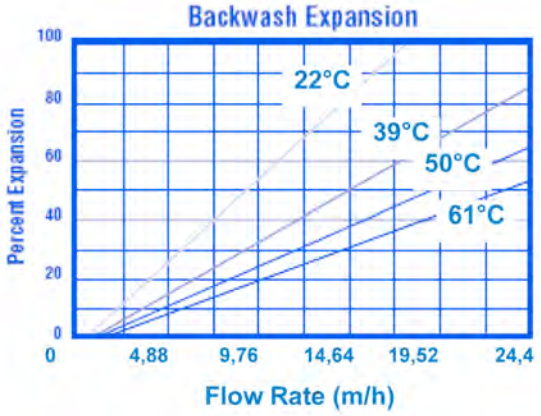
REF.	
RA312	

Pure Resin PC003 UN-NA

Suggested Operating Conditions	
Maximum Temperature Na^+ form H^+ form	 150ºC (300ºF) max. 100ºC (212ºF) max.
Minimum Bed Depth	0,6 m (24 inches)
Backwash Rate	25 ÷ 50% Bed Expansion
Regeneration Sodium Cycle Hydrogen Cycle Flow Rate	 8 ÷ 20% NaCl 5 ÷ 10% HCl, 2-8% H_2SO_4 2 ÷ 7 BV/h (0,25 ÷ 0,90 gpm/cu.ft)
Displacement Rinse Rate	Same as Regenerant Flow Rate
Displacement Rinse Volume	1,4 ÷ 2,0 BV (10 ÷ 15 gallons/cu.ft)
Fast Rinse Rate	Same as Service Flow Rate
Fast Rinse Volume	4 ÷ 8 BV (30 ÷ 60 gallons/cu.ft)
Service Flow Rate	10 ÷ 50 BV/h (1,25 ÷ 6,25 gpm/cu.ft)
Hydraulic Properties	



(*) = m of water / m of bed



Backwash: After each cycle the resin bed should be backwashed at a rate that expands the bed 25 to 50 percent. That will remove any foreign matter and reclassify the bed. The graph above shows the expansion characteristics of Pure PC003UN in the sodium form.

Pure Resin PC003 IND-2

- Gel Strong Acid Cation Exchange Resin, with indicator high purity premium grade bead form, high capacity;
- Conventional gel polystyrene sulphonate cation exchange resin supplied in the hydrogen form;
- It can be well used in multiple and mixed bed demineralizers to inform customer when the resin is exhausted or not;
- Shipped in 25 liter bags.

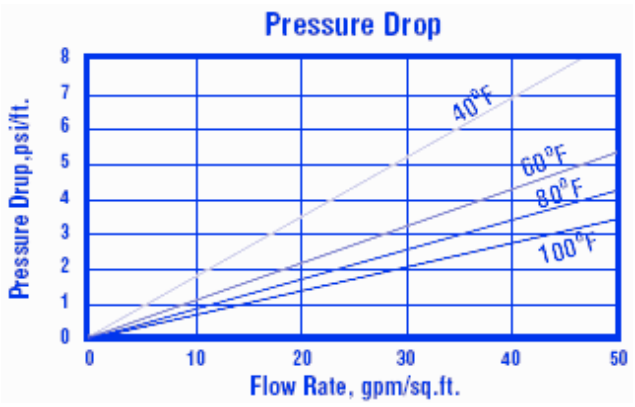
Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Polystyrene crosslinked with DVB
Functional Group	$R\text{-}(SO_3)^-M^+$ (color : Violet → Yellow)
Ionic Form, as shipped	Na^+ / H^+
Physical Form and Appearance	Clear Spherical Beads
Sphericity	95% min.
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 max.
Water Retention, Na^+ form H^+ form	43 ÷ 48% 47 ÷ 54%
Swelling $Na^+ \rightarrow H^+$ $Ca^{2+} \rightarrow Na^+$	10% max. 5% max.
Shipping Weight, Na^+ form H^+ form	780 ÷ 880 g/l (51 lbs/cu.ft, approx.) 770 ÷ 870 g/l (50 lbs/cu.ft, approx.)
Total Exchange Capacity, Na^+ form H^+ form	2,0 eq/l min. 1,9 eq/l min.
pH Range	0 ÷ 14

REF.	
RA316	

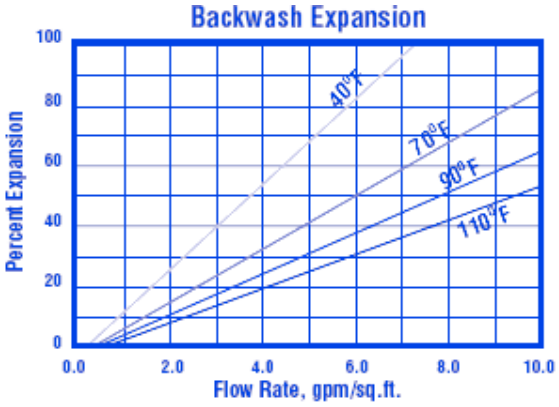
Pure Resin PC003 IND-2

Suggested Operating Conditions	
Maximum Temperature Na^+ form H^+ form	 120ºC (248ºF) max. 100ºC (212ºF) max.
Minimum Bed Depth	0,6 m (24 inches)
Backwash Rate	25 ÷ 50% Bed Expansion
Regeneration Sodium Cycle Hydrogen Cycle Flow Rate	 10 ÷ 15% NaCl 10% HCl, 1-8% H_2SO_4 2 ÷ 7 BV/h (0,25 ÷ 0,90 gpm/cu.ft)
Displacement Rinse Rate	Same as Regenerant Flow Rate
Displacement Rinse Volume	1,4 ÷ 2,0 BV (10 ÷ 15 gallons/cu.ft)
Fast Rinse Rate	8 ÷ 40 BV/h (1 ÷ 5 gpm/cu.ft)
Fast Rinse Volume	3 ÷ 10 BV (22,5 ÷ 75 gallons/cu.ft)
Service Flow Rate	4 ÷ 8 BV/h (0,5 ÷ 1 gpm/cu.ft)

Hydraulic Properties



Pressure Drop: The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate at various Temperatures.



Backwash: After each cycle the resin bed should be backwashed at a rate that expands the bed 25 to 50 percent. That will remove any foreign matter and reclassify the bed. The graph above shows the expansion characteristics of Pure PC003 IND-2.

Pure Resin PC100NA

- Macroporous Strong Acid Cation Exchange Resin;
- Macroporous poly (styrene sulphonate) cation exchange resin with excellent resistance to both osmotic and thermal shock;
- Supplied as spherical beads;
- Used for water softening with high level of DVB;
- Also widely used in mixed bed demineralizers where high hydraulic demands exist and high resistance to mechanical thermal and oxidative stresses are required, such as condensate polishing, chemical processing, hydrometallurgy, sugar treatment;
- D.M. n.174/2004 compliant about materials suitable for contact with water for human consumption;
- Shipped in 25 liter bags.

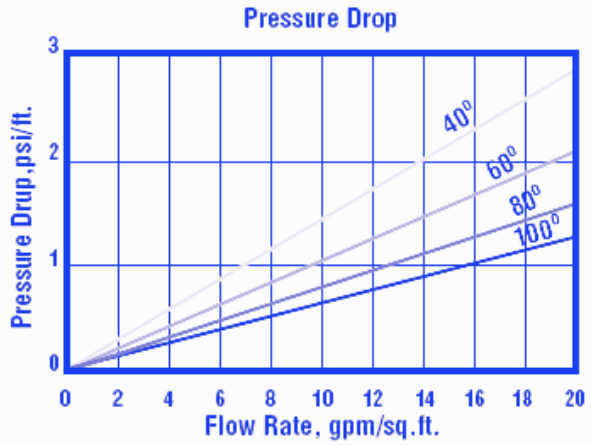
Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Polystyrene crosslinked with 8% DVB
Functional Group	$R\text{-}(SO_3)^-M^+$
Ionic Form, as shipped	Na^+
Physical Form and Appearance	Clear Spherical Beads
Sphericity	95% min.
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 max.
Water Retention	45 ÷ 55%
Swelling $Na^+ \rightarrow H^+$	10% max.
Shipping Weight	760 ÷ 830 g/l (50 lbs/cu.ft, approx.)
Total Exchange Capacity	1,8 eq/l min.
pH Range	0 ÷ 14

REF.	
RA318	

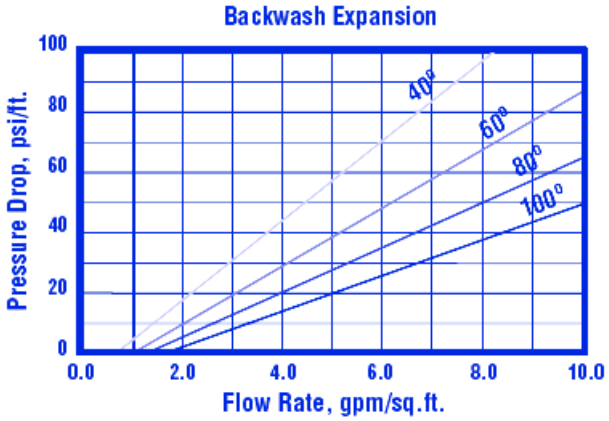
Pure Resin PC100NA

Suggested Operating Conditions	
Maximum Temperature	150ºC (300ºF) max.
Minimum Bed Depth	0,6 m (24 inches)
Backwash Rate	25 ÷ 50% Bed Expansion
Regeneration Flow Rate Contact Time	8 ÷ 20% NaCl 2 ÷ 7 BV/h (0,25 ÷ 0,90 gpm/cu.ft) At least 20 Minutes
Displacement Rinse Rate	Same as Regenerant Flow Rate
Displacement Rinse Volume	1,4 ÷ 2,0 BV (10 ÷ 15 gallons/cu.ft)
Fast Rinse Rate	Same as Service Flow Rate
Fast Rinse Volume	4 ÷ 8 BV (30 ÷ 60 gallons/cu.ft)
Service Flow Rate	10 ÷ 50 BV/h (1,25 ÷ 6,25 gpm/cu.ft)

Hydraulic Properties



Pressure Drop: The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate at various temperatures.



Backwash: After each cycle the resin bed should be backwashed at a rate that expands the bed 25 to 50 percent. That will remove any foreign matter and reclassify the bed. The graph above shows the expansion characteristics of Pure PC100.

Pure Resin PC100H

- Macroporous Strong Acid Cation Exchange Resin;
- Macroporous poly (styrene sulphonate) cation exchange resin with excellent resistance to both osmotic and thermal shock;
- Supplied as spherical beads;
- Used for water softening with high level of DVB;
- Also widely used in mixed bed demineralizers where high hydraulic demands exist and high resistance to mechanical thermal and oxidative stresses are required, such as condensate polishing, chemical processing, hydrometallurgy, sugar treatment;
- Shipped in 25 liter bags.

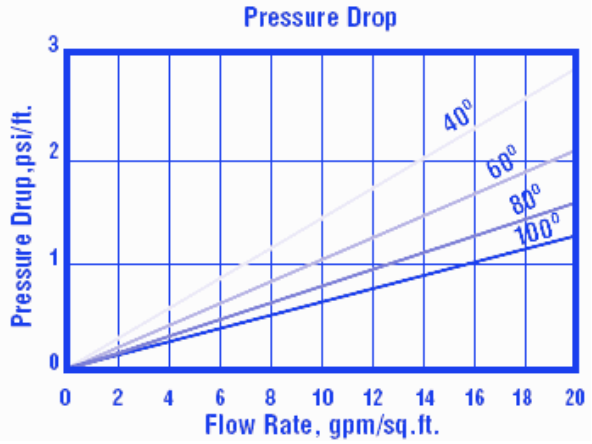
Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Polystyrene crosslinked with 8% DVB
Functional Group	$R\text{-}(SO_3)^-M^+$
Ionic Form, as shipped	H^+
Physical Form and Appearance	Clear Spherical Beads
Sphericity	95% min.
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 max.
Water Retention	50 ÷ 60%
Swelling $Na^+ \rightarrow H^+$	10% max.
Shipping Weight, Na^+ form	760 ÷ 830 g/l (50 lbs/cu.ft, approx.)
Total Exchange Capacity	1,7 eq/l min.
pH Range	0 ÷ 14

REF.	
RA320	

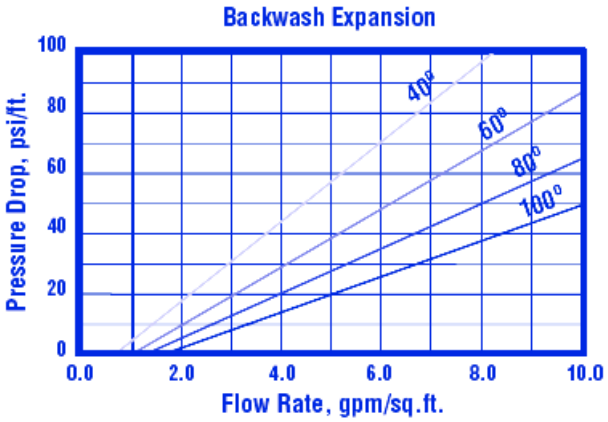
Pure Resin PC100H

Suggested Operating Conditions	
Maximum Temperature	120ºC (248ºF) max.
Minimum Bed Depth	0,6 m (24 inches)
Backwash Rate	25 ÷ 50% Bed Expansion
Regeneration Flow Rate Contact Time	5 ÷ 10% HCl, 2 ÷ 8% H_2SO_4 2 ÷ 7 BV/h (0,25 ÷ 0,90 gpm/cu.ft) At least 20 Minutes
Displacement Rinse Rate	Same as Regenerant Flow Rate
Displacement Rinse Volume	1,4 ÷ 2,0 BV (10 ÷ 15 gallons/cu.ft)
Fast Rinse Rate	Same as Service Flow Rate
Fast Rinse Volume	4 ÷ 8 BV (30 ÷ 60 gallons/cu.ft)
Service Flow Rate	10 ÷ 50 BV/h (1,25 ÷ 6,25 gpm/cu.ft)

Hydraulic Properties



Pressure Drop: The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate at various temperatures.



Backwash: After each cycle the resin bed should be backwashed at a rate that expands the bed 25 to 50 percent. That will remove any foreign matter and reclassify the bed. The graph above shows the expansion characteristics of Pure PC100.

Pure Resin PC200FD

- Macroporous Weak Acid Cation Exchange Resin;
- Macroporous poly-acrylic weak acid cation resin;
- It can be supplied in the hydrogen (H+) form or sodium (Na+) as spherical beads;
- In H cycle is used for dealcalisation, deionization and chemical processing applications;
- Supplied in sodium cycle for use in applications such as softening and heavy metal cations removal. This requires a two stage regeneration process using a strong acid first and then a neutralization rinse to put the resin into the sodium form and is especially effective in high solids softening applications;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- Shipped in 25 liter bags.

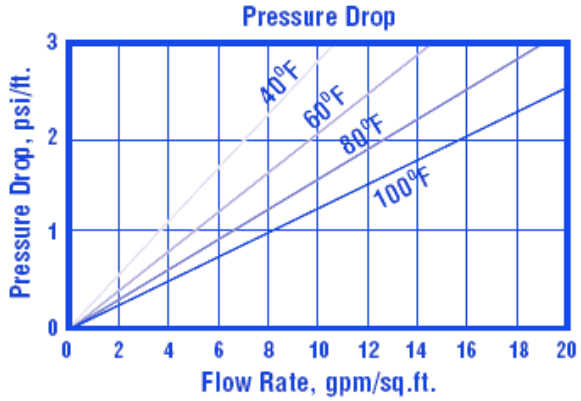
Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Acrylic-Divinylbenzene
Functional Group	$R\text{-}(COOH)^-$
Ionic Form, as shipped	H^+
Physical Form and Appearance	Clear Spherical Beads
Sphericity	95% min.
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 max.
Water Retention, H^+ form	45 ÷ 50%
Swelling $Na^+ \rightarrow H^+$	65% max.
Shipping Weight, H^+ form	720 ÷ 800 g/l (46 lbs/cu.ft, approx.)
Total Exchange Capacity, H^+ form	4 eq/l min.
pH Range	4 ÷ 14

REF.	
RA330	

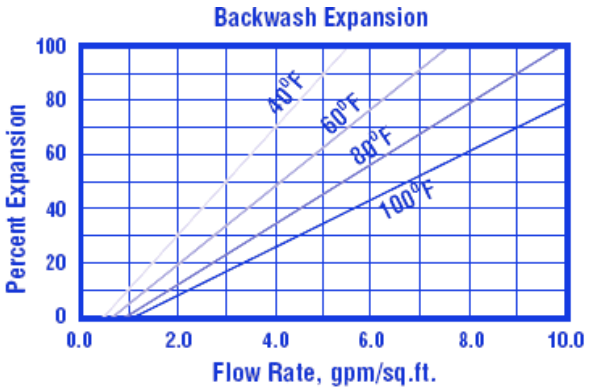
Pure Resin PC200FD

Suggested Operating Conditions	
Maximum Temperature, H^+ form	120ºC (248ºF) max.
Minimum Bed Depth	0,8 m (30 inches)
Backwash Rate	50 ÷ 75% Bed Expansion
Regeneration, Hydrogen Cycle Flow Rate Contact Time	5 ÷ 10% HCl, 0,5 ÷ 1% H_2SO_4 2 ÷ 7 BV/h 8 ÷ 20 BV/h At least 30 Minutes
Displacement Rinse Rate	Same as Regenerant Flow Rate
Displacement Rinse Volume	1,4 ÷ 2 BV (10 ÷ 15 gallons/cu.ft)
Fast Rinse Rate	Same as Service Flow Rate
Fast Rinse Volume	4,5 ÷ 8 BV (35 ÷ 60 gallons/cu.ft)
Service Flow Rate	16 ÷ 40 BV/h (2 ÷ 5 gpm/cu.ft)

Hydraulic Properties



Pressure Drop: The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate at various temperatures.



Backwash: After each cycle the resin bed should be backwashed at a rate that expands the bed 25 to 50 percent. That will remove any foreign matter and reclassify the bed. The graph above shows the expansion characteristics of Pure PC200FD.

Pure Resin PA103OH

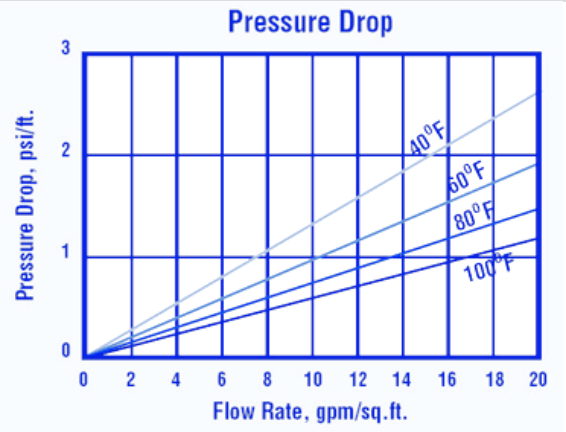
- REF. RA340;
- Gel Strong Base Anion Exchange Resin;
- It is a Type II, gel strong-base anion exchange resin, with high capacity and excellent regeneration efficiency;
- Supplied as spherical beads in the hydroxyl form;
- It removes all ions including silica and CO_2, anyway, it operates best on waters having a high percentage of strong acids (FMA);
- Intended for use in all type of dealcalisation, demineralization, deionization and chemical processing applications;
- Shipped in 25 liter bags.

Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Polystyrene crosslinked with divinylbenzene
Functional Group	$R\text{-}N(CH_3)_2\,(C_2O_4H)^+$
Ionic Form, as shipped	Hydroxyl (OH^-)
Physical Form and Appearance	Clear Spherical Beads
Sphericity	95% min.
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 max.
Water Retention, Cl^- form	45 ÷ 51%
Swelling $Cl^- \rightarrow OH^-$	15% max.
Weight, Cl^- form	680 ÷ 760 g/l (44 lbs/cu.ft, approx.)
Total Exchange Capacity, Cl^- form	1,3 eq/l min.
pH Range	0 ÷ 14

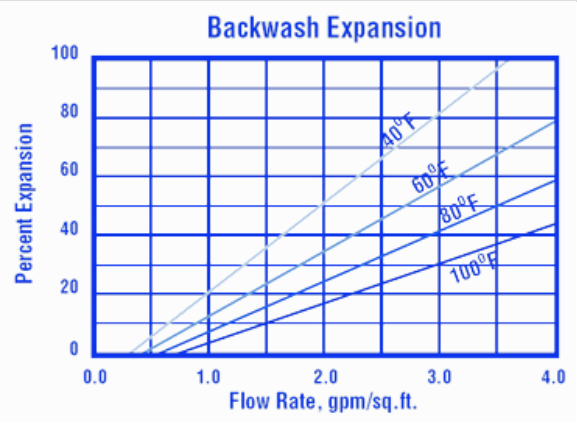
REF.	
RA340	

Pure Resin PA103OH

Suggested Operating Conditions	
Maximum Temperature, Cl^- form OH^- form	60ºC (140ºF) max. 40ºC (105ºF) max.
Minimum Bed Depth	0,6 m (24 inches)
Backwash Rate	50 ÷ 75% Bed Expansion
Regeneration, Regenerant Concentration Flow Rate Contact Time	2 ÷ 6% NaOH 2 ÷ 4 BV/h (0,25 ÷ 0,50 gpm/cu.ft) At least 60 Minutes
Displacement Rinse Rate	Same as Regenerant Flow Rate
Displacement Rinse Volume	1,4 ÷ 2 BV (10 ÷ 15 gallons/cu.ft)
Fast Rinse Rate	Same as Service Flow Rate
Fast Rinse Volume	4 ÷ 8 BV (30 ÷ 60 gallons/cu.ft)
Service Flow Rate	10 ÷ 50 BV/h (1,25 ÷ 6,25 gpm/cu.ft)
Hydraulic Properties	



Pressure Drop: The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate at various temperatures.



Backwash: After each cycle the resin bed should be backwashed at a rate that expands the bed 50 to 75 percent. That will remove any foreign matter and reclassify the bed. The graph above shows the expansion characteristics of Pure PA103.

Pure Resin PA101 IND-1

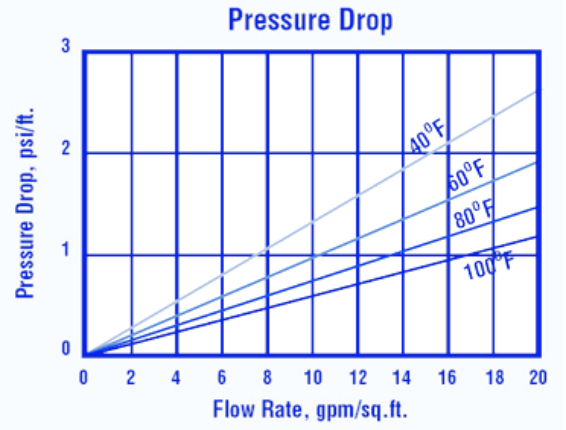
- Gel Strong Base Anion Exchange Resin, with indicator;
- It is a Type I, gel strong-base anion exchange resin with both high operating capacity and the ability to achieve low residual silica levels;
- Supplied as spherical beads in the hydroxyl form;
- It can be well used in multiple and mixed bed demineralizers to inform customer when the resin is exhausted or not;
- Shipped in 25 liter bags.

Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Polystyrene crosslinked with divinylbenzene
Functional Group	$R\text{-}N(CH_3)_3^+$ (color : Blue → Yellow)
Ionic Form, as shipped	Hydroxyl (OH^-)
Physical Form and Appearance	Clear Spherical Beads
Sphericity	95% min.
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 max.
Water Retention, Cl^- form	55 ÷ 65%
Swelling $Cl^- \rightarrow OH^-$	20 ÷ 30%
Weight, Cl^- form	660 ÷ 710 g/l (43 lbs/cu.ft, approx.)
Total Exchange Capacity, Cl^- form	1,0 eq/l min.
pH Range	0 ÷ 14

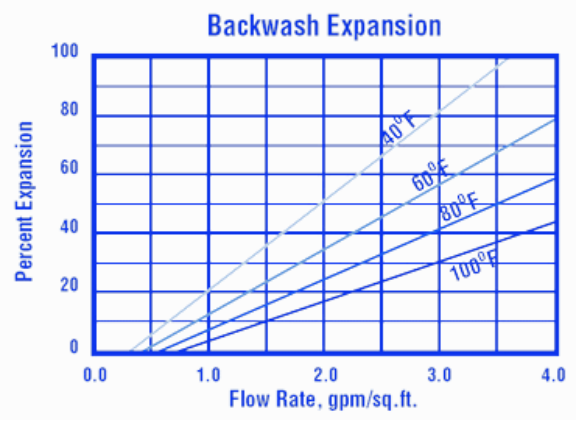
REF.	
RA338	

Pure Resin PA101 IND-1

Suggested Operating Conditions	
Maximum Temperature, Cl^- form OH^- form	100ºC (212ºF) max. 60ºC (140ºF) max.
Minimum Bed Depth	0,6 m (24 inches)
Backwash Rate	50 ÷ 75% Bed Expansion
Regeneration, Regenerant Concentration Flow Rate Contact Time	2 ÷ 6% NaOH 2 ÷ 8 BV/h (0,25 ÷ 1,00 gpm/cu.ft) At least 60 Minutes
Displacement Rinse Rate	Same as Regenerant Flow Rate
Displacement Rinse Volume	1,4 ÷ 2 BV (10 ÷ 15 gallons/cu.ft)
Fast Rinse Rate	Same as Service Flow Rate
Fast Rinse Volume	4,9 ÷ 8 BV (35 ÷ 60 gallons/cu.ft)
Service Flow Rate	4 ÷ 8 BV/h (0,5 ÷ 1,0 gpm/cu.ft)
Hydraulic Properties	



Pressure Drop: The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate at various temperatures.



Backwash: After each cycle the resin bed should be backwashed at a rate that expands the bed 50 to 75 percent. That will remove any foreign matter and reclassify the bed. The graph above shows the expansion characteristics of Pure PA101 IND-1.

Pure Resin PA201(CL)

- Macroporous Strong Base Anion Exchange Resin;
- It is a Type II, gel strong-base anion exchange resin;
- Supplied wet as spherical beads in the chloride form;
- It has a high operating capacity, especially on high-FMA feedwaters, as well as a high reversible sorptive capacity for complex organic materials, such as the fulvic and humic acids which occur in many surface water supplies;
- It is recommended for use in waters with low silica loads. For high silica waters, a type I anion resin such as Pure PA200 is recommended;
- Shipped in 25 liter bags.

Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Macroporous polystyrene crosslinked with divinylbenzene
Functional Group	$R\text{-}N(CH_3)_2(C_2H_4OH)^+$
Ionic Form, as shipped	Chloride (Cl^-)
Physical Form and Appearance	Opaque light yellowish spherical beads
Sphericity	95% min.
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 max.
Water Retention, Cl^- form	47 ÷ 57%
Swelling $Cl^- \rightarrow OH^-$	10% max.
Weight, Cl^- form	660 ÷ 730 g/l (43 lbs/cu.ft, approx.)
Total Exchange Capacity, Cl^- form	1,2 eq/l min.
pH Range	0 ÷ 14

REF.	
RA342	

Pure Resin PA201(CL)

Suggested Operating Conditions	
Maximum Temperature, Cl^- form OH^- form	60ºC (140ºF) max. 40ºC (105ºF) max.
Minimum Bed Depth	0,8 m (2,6 ft)
Backwash Rate	50 ÷ 75% Bed Expansion
Regeneration, Regenerant Concentration	2 ÷ 5% NaOH
Service/fast rinse	5 ÷ 50 m/h (2 ÷ 20 gpm/ft^2)
Co-current regeneration/displacement rinse	1 ÷ 10 m/h (0,4 ÷ 4 gpm/ft^2)
Total rinse requirement	3 ÷ 5 Bed volumes
Temperature	Ambient up to 35°C (95°F) for silica removal

Pure Resin PA200

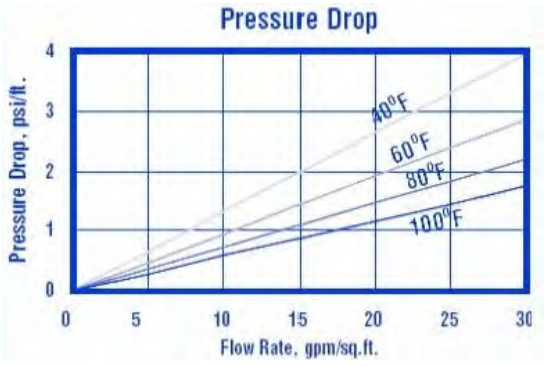
- It is a Type I, Macroporous Strong Base Anion Exchange Resin supplied in chloride or hydroxide and has high capacity, shock resistant with high physical stability;
- It is widely used in multiple and mixed bed demineralizers, wherever complete ion and organic removal are required;
- It is also intended for use in all types of deionization systems, condensate polishing and chemical processing applications;
- Shipped in 25 liter bags.

Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Macroporous polystyrene crosslinked with divinylbenzene
Functional Group	R-N$(CH_3)_3$ + X
Ionic Form, as shipped	Chloride (Cl^-)
Physical Form and Appearance	Opaque light yellowish spherical beads
Sphericity	95% min.
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 max.
Water Retention, Cl^- form	50 ÷ 60%
Swelling $Cl^- \rightarrow OH^-$	20 ÷ 30%
Weight, Cl^- form	660 ÷ 730 g/l (43 lbs/cu.ft, approx.)
Total Exchange Capacity, Cl^- form Total Exchange Capacity, OH^- form	1,15 eq/l min. 0,92 eq/l min.
pH Range	0 ÷ 14

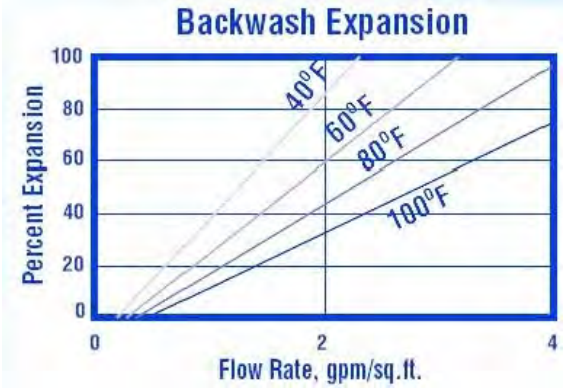
REF.	
RA341	

Pure Resin PA200

Suggested Operating Conditions	
Maximum Temperature, Cl^- form OH^- form	80ºC (170ºF) max. 60ºC (140ºF) max.
Minimum Bed Depth	0,6 m (24”)
Backwash Rate	50 ÷ 75% Bed Expansion
Regeneration, Regenerant Concentration	4 ÷ 6% NaOH
Service/Fast Rinse	2 ÷ 8 BV/h (0,25 ÷ 1,0 gpm/ft^2)
Contact Time	Minimum 60 minutes
Displacement Rinse Rate	Same as Regenerant Flow Rate
Displacement Rinse Volume	1,4 ÷ 2,0 BV (10 ÷ 15 gallons/cu.ft)
Fast Rinse Rate	Same as Service Flow Rate
Fast Rinse Volume	4,6 ÷ 8 BV (35 ÷ 60 gallons/cu.ft)
Service Flow Rate	16 ÷ 32 BV/h (2,0 ÷ 4,0 gpm/cu.ft)
Hydraulic Properties	



Pressure Drop: The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate at various Temperatures.



Backwash: After each cycle the resin bed should be backwashed at a rate that expands the bed 50 to 75 percent. That will remove any foreign matter and reclassify the bed. The graph above shows the expansion characteristics of Pure PA200.

Pure Resin PA300

- Macroporous Weak Base Anion Exchange Resin;
- It is a macroporous polystyrene weak-base anion exchange resin having tertiary amine functionality;
- It has superior kinetics and greater resistance to oxidation and osmotic shock, high chemical and physical stability;
- Intended primarily for use in multiple bed demineralizers;
- It can be used in a two-bed system following a strong acid cation exchanger such as Pure PC003 where weak acid ions (silica and carbon dioxide) do not have to be removed;
- It can also be used in a separate bed, ahead of the strong base exchanger to remove organics and strong acid ions;
- Shipped in 25 liter bags.

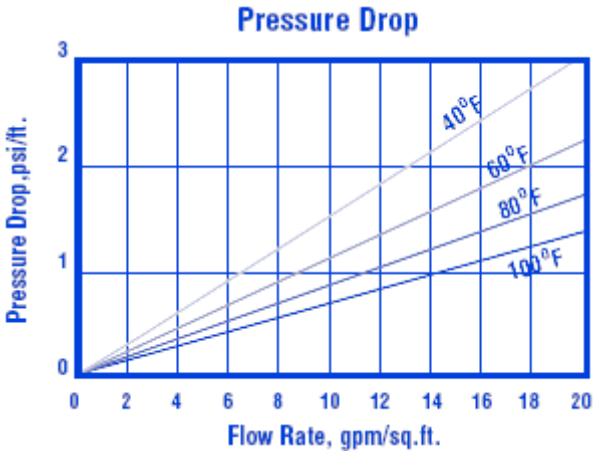
Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Macroporous Polystyrene with DVB
Functional Group	R-N-$(CH_3)_2^+$
Ionic Form, as shipped	Free Base
Physical Form and Appearance	Spherical Beads
Sphericity	95% min.
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 max.
Water Retention, Free Base	50 ÷ 60%
Swelling $Na^+ \rightarrow Cl^-$	25% max.
Shipping Weight	650 ÷ 720 g/l (42 lbs/cu.ft, approx.)
Total Exchange Capacity, Free Base	1,4 eq/l min.
pH Range	0 ÷ 14

REF.	
RA350	

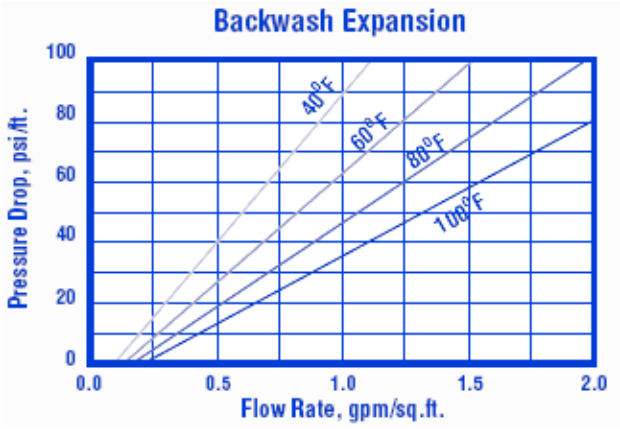
Pure Resin PA300

Suggested Operating Conditions	
Maximum Temperature Free Base	100ºC (212ºF) max.
Minimum Bed Depth	0,6 m (24 inches)
Backwash Expansion	50 ÷ 75%
Regeneration Regenerant Concentration Flow Rate Contact Time	 2 ÷ 6% NaOH 2 ÷ 8 BV/h (0,25 ÷ 1,0 gpm/cu.ft) At least 60 Minutes
Displacement Rinse Rate	Same as Regenerant Flow Rate
Displacement Rinse Volume	1,4 ÷ 2 BV (10 ÷ 15 gallons/cu.ft)
Fast Rinse Rate	Same as Service Flow Rate
Fast Rinse Volume	4,9 ÷ 8 BV (35 ÷ 60 gallons/cu.ft)
Service Flow Rate	16 ÷ 32 BV/h (2,0 ÷ 4,0 gpm/cu.ft)

Hydraulic Properties



Pressure Drop: The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate at various temperatures.



Backwash: After each cycle the resin bed should be backwashed at a rate that expands the bed 50 to 75 percent. That will remove any foreign matter and reclassify the bed. The graph above shows the expansion characteristics of Pure PA300.

Pure Resin PA202

- Nitrate Selective Resin;
- Macroporous strong base anion exchange resin supplied in the chloride form as moist, tough, spherical beads, specially designed for the removal of nitrates from water;
- The macroporous matrix and special ion exchange group functionality imparts ideal nitrate selectivity to Pure PA202 making this resin particularly suitable for nitrate removal even when moderate to high sulphate concentrations are present;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- Shipped in 25 liter bags.

Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Macroporous, Styrene with DVB
Functional Group	$R\text{-}N\text{-}R_3^+ Cl^-$
Ionic Form, as shipped	Cl^-
Physical Form and Appearance	Clear Spherical Beads
Sphericity	95% min.
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Uniformity Coefficient	1,6 max.
Water Retention, Cl^- form	52 ÷ 56%
Shipping Weight	680 ÷ 730 g/l (42 ÷ 45,5 lbs/cu.ft, approx.)
Total Exchange Capacity	1,0 eq/l min.
Max Operating Temperature	100°C (212°F) max.
pH Range	0 ÷ 14

REF.	
RA360	

Pure Resin PA202

Suggested Operating Conditions	
Maximum Operating Temperature	100ºC (212ºF) max.
Working Exchange Capacity @ 25°C	≥ 0,3 meq/l (wet)
Concentration of Regenerate Solution	NaCl: 8 ÷ 10%
Consumption of Regenerate	NaCl (8 ÷ 10%) Vol. : Resin Vol. = 2÷3 : 1
Flow Rate of Regenerate Solution	4 ÷ 6 (m/hr)
Regenerate Contact time	30 ÷ 60 (minute)
Rinse Flow Rate	15 ÷ 25 (m/hr)
Rinse Time (minute)	25 (approx.)
Operating Flow Rate	15 ÷ 25(m/hr)

Pure Resin PMB101-2

- Mixed Bed Resin;
- It is a high capacity mixed bed ion exchange resin consisting of a mixture of a gel, Type I strong base anion resin and a gel strong acid cation resin for direct water purification;
- The conductivity is around 0,1 us/cm;
- Suitable for use in regenerable or non-regenerable cartridges, for deionization with high silica removal efficiency and refine water for electrical home applications;
- Shipped in 25 liter bags.

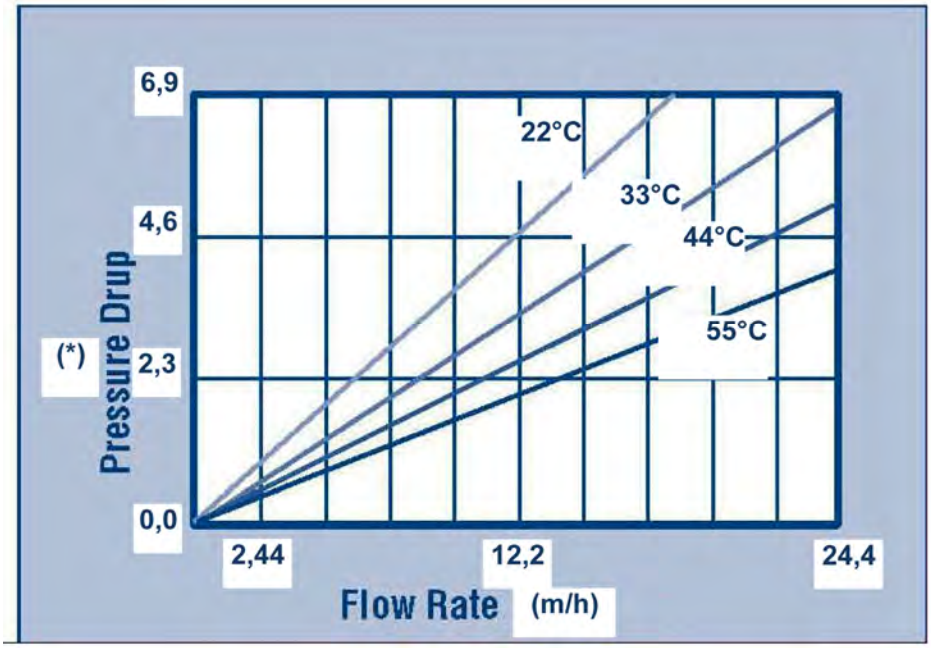
Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Gel polystyrene crosslinked with DVB
Functional Group: Cation Anion	$R\text{-}SO_3^- H^+$ $R_4\text{-}N\text{-}OH^-$
Ionic Form, as shipped	H^+ / OH^-
Physical Form and Appearance	Spherical Beads
Sphericity	95% min.
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Volume Ratio (as shipped) Cation Anion	 40% PC003H 60% PA101OH
Total Exchange Capacity, Cation (in Na^+ form) Cation (in H^+ form) Anion (in Cl^- form) Anion (in OH^- form)	 2,0 eq/l min. 1,9 eq/l min. 1,3 eq/l min. 1,0 eq/l min.
Water Retention, H^+ form OH^- form	45 ÷ 50% 53 ÷ 60%
Shipping Weight (Approx.)	700 ÷ 740 g/l (44 ÷ 46 lbs/cu.ft, approx.)
Max temperature	60°C (140°F)
pH Range	0 ÷ 14

REF.	
RA370	

Pure Resin PMB101-2

Suggested Operating Conditions	
Minimum Bed Depth	0,6 m (24 inches)
Service Flow Rate	20 ÷ 60 BV/h (2,5 ÷ 7,5 gpm/cu.ft)
Limitations	Extended exposure to strong oxidizers, such as chlorine, hydrogen peroxide and concentrated nitric acid, degrade the structural backbone of the resin and should be avoided

Hydraulic Properties



(*) = m of water / m of bed

Pure Resin PMB102-2

- Mixed Bed Resin;
- It is a high capacity mixed bed ion exchange resin consisting of a mixture of a gel, Type I strong base anion resin and a gel strong acid cation resin for direct water purification;
- The conductivity is around 0,1 us/cm;
- Suitable for use in regenerable or non-regenerable cartridges, for deionization with high silica removal efficiency and applications for treatment of the R.O. permeate;
- Shipped in 25 liter bags.

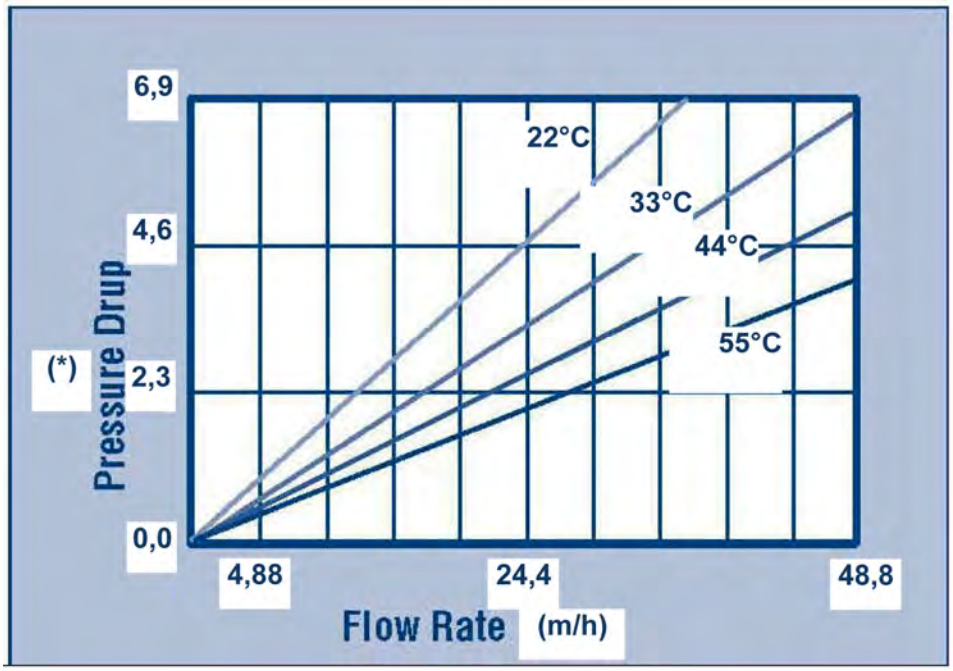
Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Gel polystyrene crosslinked with DVB
Functional Group: Cation Anion	$R\text{-}SO_3^-\ H^+$ $R_4\text{-}N\text{-}OH^-$
Ionic Form, as shipped	H^+ / OH^-
Physical Form and Appearance	Spherical Beads
Sphericity	95% min.
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Volume Ratio (as shipped) Cation Anion	 40% PC003H 60% PA102OH
Total Exchange Capacity, Cation (in Na^+ form) Cation (in H^+ form) Anion (in Cl^- form) Anion (in OH^- form)	 2,0 eq/l min. 1,9 eq/l min. 1,3 eq/l min. 1,0 eq/l min.
Water Retention, H^+ form OH^- form	45 ÷ 50% 48 ÷ 58%
Shipping Weight (Approx.)	700 ÷ 740 g/l (44 ÷ 46 lbs/cu.ft, approx.)
Max temperature: Non-regenerative bed Regenerative bed	 100°C (212°F) 60°C (140°F)
pH Range	0 ÷ 14

REF.	
RA372	

Pure Resin PMB102-2

Suggested Operating Conditions	
Minimum Bed Depth	0,6 m (24 inches)
Service Flow Rate	20 ÷ 60 BV/h (2,5 ÷ 7,5 gpm/cu.ft)
Limitations	Extended exposure to strong oxidizers, such as chlorine, hydrogen peroxide and concentrated nitric acid, degrade the structural backbone of the resin and should be avoided

Hydraulic Properties



(*) = m of water / m of bed

Pure Resin PMB101-3

- Mixed Bed Resin;
- It is a high capacity mixed bed ion exchange resin consisting of a mixture of a gel, Type I strong base anion resin and a gel strong acid cation resin for direct water purification;
- The conductivity is around 0,06 us/cm;
- Suitable for use in regenerable or non-regenerable cartridges, for deionization with high silica removal efficiency and ultrapure water production applications;
- Shipped in 25 liter bags.

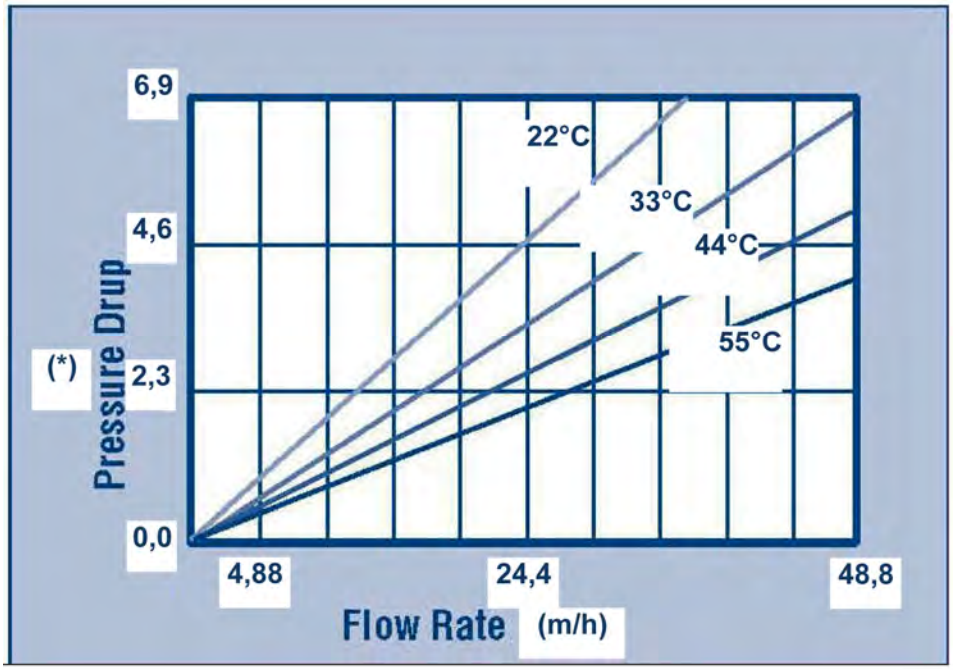
Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Gel polystyrene crosslinked with DVB
Functional Group: Cation Anion	$R\text{-}SO_3^-\ H^+$ $R_4\text{-}N\text{-}OH^-$
Ionic Form, as shipped	H^+ / OH^-
Physical Form and Appearance	Spherical Beads
Sphericity	95% min.
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Volume Ratio (as shipped) Cation Anion	 40% PC003H 60% PA101OH
Total Exchange Capacity, Cation (in Na^+ form) Cation (in H^+ form) Anion (in Cl^- form) Anion (in OH^- form)	 2,0 eq/l min. 1,9 eq/l min. 1,3 eq/l min. 1,0 eq/l min.
Water Retention, H^+ form OH^- form	45 ÷ 50% 53 ÷ 60%
Shipping Weight (Approx.)	700 ÷ 740 g/l (44 ÷ 46 lbs/cu.ft, approx.)
Max temperature: Non-regenerative bed Regenerative bed	 100°C (212°F) 60°C (140°F)
pH Range	0 ÷ 14

REF.	
RA374	

Pure Resin PMB101-3

Suggested Operating Conditions	
Minimum Bed Depth	0,6 m (24 inches)
Service Flow Rate	20 ÷ 60 BV/h (2,5 ÷ 7,5 gpm/cu.ft)
Limitations	Extended exposure to strong oxidizers, such as chlorine, hydrogen peroxide and concentrated nitric acid degrade the structural backbone of the resin and should be avoided.

Hydraulic Properties



(*) = m of water / m of bed

Pure Resin PMB101 IND-2

- Mixed Bed Resin;
- It is a high capacity indicated mixed bed ion exchange resin consisting of a mixture of a gel, Type I strong base anion resin and a gel strong acid cation resin for direct purification of water;
- The conductivity is 0,1 us/cm max.;
- Suitable for use in regenerable or non-regenerable cartridges, for deionization with high silica removal efficiency and refine water for electrical home applications;
- It changes color from violet to yellow on exhaustion which contains an indicator showing when the resin is exhausted and can no longer treat the water;
- Shipped in 25 liter bags.

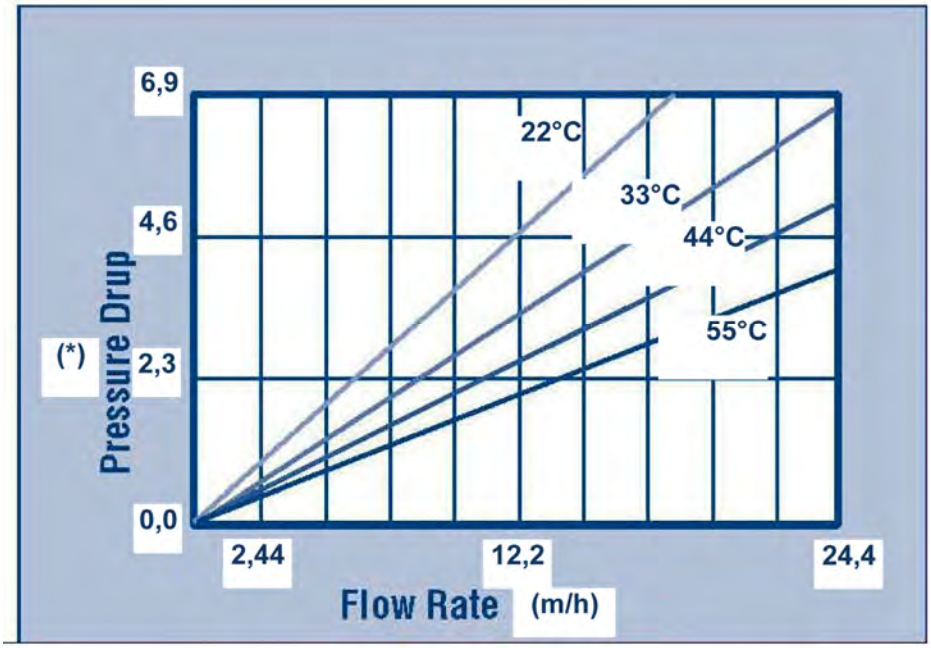
Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Gel polystyrene crosslinked with DVB
Functional Group: Cation Anion	$R\text{-}SO_3^- H^+$ (color: Violet → Yellow) $R_4 N^+OH^-$
Ionic Form, as shipped	H^+ / OH^-
Physical Form and Appearance	Spherical Beads
Sphericity	95% min.
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Volume Ratio (as shipped) Cation Anion	 40% PC003H 60% PA101OH
Total Exchange Capacity, Cation (in Na^+ form) Anion (in Cl^- form)	 2,0 eq/l min. 1,3 eq/l min.
Water Retention, H^+ form OH^- form	45 ÷ 50% 53 ÷ 60%
Shipping Weight (Approx.)	700 ÷ 740 g/l (44 ÷ 46 lbs/cu.ft, approx.)
Max temperature: Non-regenerative bed Regenerative bed	 100°C (212°F) 60°C (140°F)
pH Range	0 ÷ 14

REF.	
RA378	

Pure Resin PMB101 IND-2

Suggested Operating Conditions	
Minimum Bed Depth	0,6 m (24 inches)
Service Flow Rate	20 ÷ 60 BV/h (2,5 ÷ 7,5 gpm/cu.ft)
Limitations	Extended exposure to strong oxidizers, such as chlorine, hydrogen peroxide and concentrated nitric acid, degrade the structural backbone of the resin and should be avoided

Hydraulic Properties



(*) = m of water / m of bed

Pure Resin PMB101 IND-3

- Mixed Bed Resin;
- It is a high capacity indicated mixed bed ion exchange resin consisting of a mixture of a gel, Type I strong base anion resin and a gel strong acid cation resin for direct purification of water;
- The conductivity is 0,1 us/cm max.;
- Suitable for use in regenerable or non-regenerable cartridges, for deionization with high silica removal efficiency and refine water for electrical home applications;
- It changes color from blue to yellow on exhaustion which contains an indicator showing when the resin is exhausted and can no longer treat the water;
- Shipped in 25 liter bags.

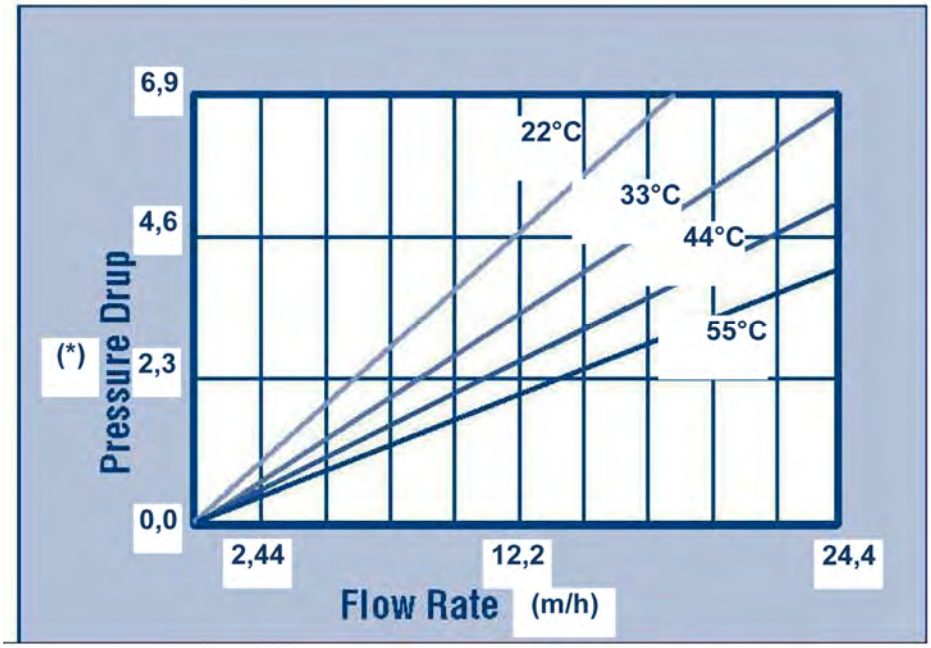
Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Gel polystyrene crosslinked with DVB
Functional Group: Cation Anion	$R\text{-}SO_3^-\ H^+$ $R_4\ N^+OH^-$ (color: Blue → Yellow)
Ionic Form, as shipped	H^+ / OH^-
Physical Form and Appearance	Spherical Beads
Sphericity	95% min.
Screen Size Range US Standard Screen	16 ÷ 50 mesh, wet
Particle Size Range	+1,2 mm < 5%, - 0,3 mm < 1%
Volume Ratio (as shipped) Cation Anion	 40% PC003H 60% PA101OH
Total Exchange Capacity, Cation (in Na^+ form) Anion (in Cl^- form)	 2,0 eq/l min. 1,3 eq/l min.
Water Retention, H^+ form OH^- form	45 ÷ 50% 53 ÷ 60%
Shipping Weight (Approx.)	700 ÷ 740 g/l (44 ÷ 46 lbs/cu.ft, approx.)
Max temperature: Non-regenerative bed Regenerative bed	 100°C (212°F) 60°C (140°F)
pH Range	0 ÷ 14

REF.	
RA380	

Pure Resin PMB101 IND-3

Suggested Operating Conditions	
Minimum Bed Depth	0,6 m (24 inches)
Service Flow Rate	20 ÷ 60 BV/h (2,5 ÷ 7,5 gpm/cu.ft)
Limitations	Extended exposure to strong oxidizers, such as chlorine, hydrogen peroxide and concentrated nitric acid, degrade the structural backbone of the resin and should be avoided

Hydraulic Properties



(*) = m of water / m of bed

Pure Resin PS400

- Selective removal of polyvalent ions;
- Macroporous Weak Acid Cation Exchange Resin;
- it is based on the iminodiacetatic acid functional group, which has chelating properties for heavy metal ions even against high concentrations of calcium;
- It finds use in processes for extraction and recovery of metals from ores, galvanic plating solutions, picking baths and effluents;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- Shipped in 25 liter bags.

Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Macroporous, Styrene / DVB
Functional Group	Iminodiacetatic
Ionic Form, as shipped	Na^+
Physical Form and Appearance	Milky White Spherical Beads
Sphericity	95% min.
Screen Size Range US Standard Screen	16 ÷ 40 mesh, wet
Particle Size Range	0,40 ÷ 1,25 mm ≥ 95
Uniformity Coefficient	1,6 max.
Water Retention, Na^+ form	52 ÷ 58%
Reversible Swelling $H^+ \rightarrow Na^+$	40% max.
Shipping Weight	720 ÷ 780 g/l (45 lbs/cu.ft, approx.)
Total Exchange Capacity, Na^+ form	≥ 1.95 meq/g (Chelated Cu^{2+})
pH Range	3 ÷ 12

REF.	
RA376	

Pure Resin PS400

Suggested Operating Conditions	
Maximum Temperature, H^+ form	100ºC (212ºF) max.
Operating Flow Rate	15 ÷ 45 (m/hr)
Method of Regeneration	pass 1 eq/l HCl 2~4 BV in 1~1,5 hours, rinse with DI water or soft water until pH = 3~4; pass 1 eq/l NaOH 2~4 BV in 1,5~2 hours, rinse with DI water or soft water until pH = 9

Greensand Plus

- filter media used for removing soluble iron, manganese, hydrogen sulphide, arsenic and radium from well water supplies;
- the Manganese Greensand Plus has a manganese dioxide coated surface that acts as a catalyst in the oxidation-reduction of iron and manganese;
- the silica sand core allows to better withstand operating conditions in waters that are low in silica, TDS and hardness;
- a pre-filtration with sand and anthracite is recommended;
- the Manganese Greensand Plus can be used in CR (continuous regeneration) or IR (intermittent regeneration) and requires no changes in backwash rate or times or chemical feeds;
- the removal of iron and manganese can be made by using oxidant as chlorine, even in the presence of manganese;
- not shipped in regenerated form; prior to use it is necessary to regenerate with a solution of potassium permanganate contacting the bed for a minimum of 4 hours. A regeneration level of 4 g of potassium permanganate per liter is recommended. Before placing in service the filter must be rinsed of all remaining traces of potassium permanganate;
- dosage Cl_2 (mg/l) = 1 mg/l Fe + 3 mg/l Mn + 6 mg/l H_2S + 8 mg/l NH_3 for service flow rate continuous;
- available in 14,2 liters bags.

Physical properties		**Operating conditions**	
Colour	black	pH range	6,2 ÷ 8,8
Specific gravity (g/l)	2400	Service flow rate continuous / intermittent ($m^3/h\ m^2$)	12 ÷ 29
Bulk density (g/l)	1410	Backwash flow rate @13°C ($m^3/h\ m^2$)	30
Effective size (mm)	0,30 ÷ 0,35	Backwash bed expansion (%)	35 ÷ 40
Uniform coefficient	1,6	Pressure drop (psi)	10 ÷ 18

Recommended Operating Guidelines	
Intermittently Regeneration (IR)	
Minimum bed depth (mm)	750 single media; 380 each for dual media beds
Backwash Duration	10 minutes (until water is clear)
Regenerant Dosage 6,5% Bleach	65 liters / m^3 diluted in approx. 25 liters of water injected over 30 ÷ 40 minutes
Regenerant Dosage 12% Bleach	25 liters / m^3 diluted in approx. 25 liters of water injected over 30 ÷ 40 minutes

Recommended Operating Guidelines	
Continuous Regeneration (CR)	
Minimum bed depth (mm)	500 Greensand Plus and 380 Anthracite
Backwash Duration	10 minutes (until water is clear)

REF.	
RA074	

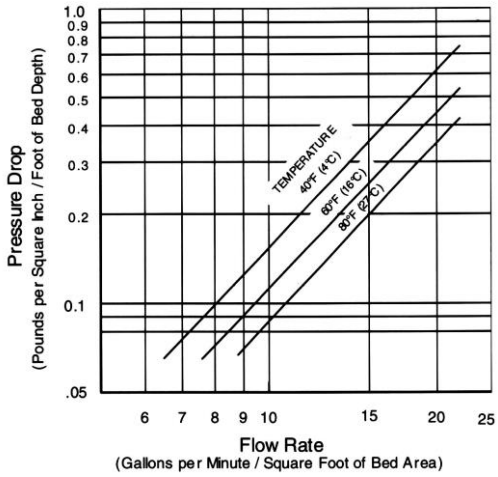
MTM

- MTM consist of a light weight granular core with a coating of manganese dioxide, and is used for reducing iron, manganese and hydrogen sulphide from water. Its active surface coating oxidizes and precipitate soluble iron and manganese, and hydrogen sulphide is oxidized to a sulphur. The precipitates are filtered out in the granular bed and removed by backwashing;
- compared to other iron removal medias, MTM has many advantages: pH level as low as 6,2 can be treated, dissolved oxygen is not essential, the media light weight reduces backwash water requirements;
- chlorine can be beneficial in extending filter run times;
- MTM requires intermittent or continuous regeneration to maintain its oxidizing capacity, with a weak solution of potassium permanganate;
- regeneration $KMnO_4$ solution from 1,5 to 2 g per liter MTM;
- a new bed should be regenerated at the start up;
- CAUTION: operating the filter after its oxidizing capacity is exhausted will reduce its service life and may cause staining;
- influent limitations: none oil and polyphosphates;
- available in 28,3 liters bags.

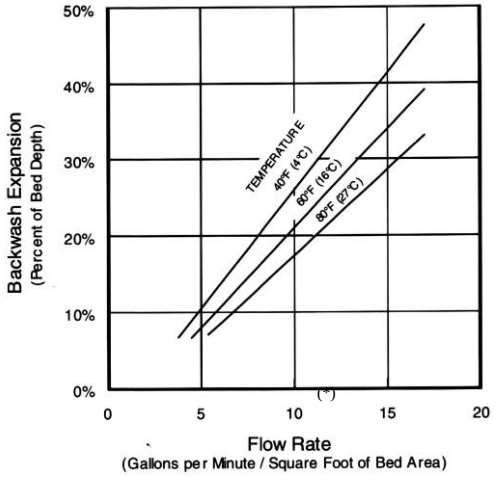
PHYSICAL PROPERTIES		OPERATING CONDITIONS	
Colour	dark brown	Bed depth (mm)	600 ÷ 900
Specific gravity (g/l)	2000	Service flow rate ($m^3/h\ m^2$)	8 ÷ 13
Bulk density (g/l)	715	Backwash flow rate ($m^3/h\ m^2$)	20 ÷ 24
Effective size (mm)	0,45	Backwash bed expansion (%)	20 ÷ 40
		Capacity per liter (g)	1,4 Fe or 0,7 Mn
		pH range	6,2 ÷ 8,5

REF.	
RA071	

SERVICE FLOW – PRESSURE DROP



BACKWASH BED EXPANSION



(*) Note: a “Gallon per Minute / Square Foot of Bed Area” is equal to 2,44448 m/h.

BIRM

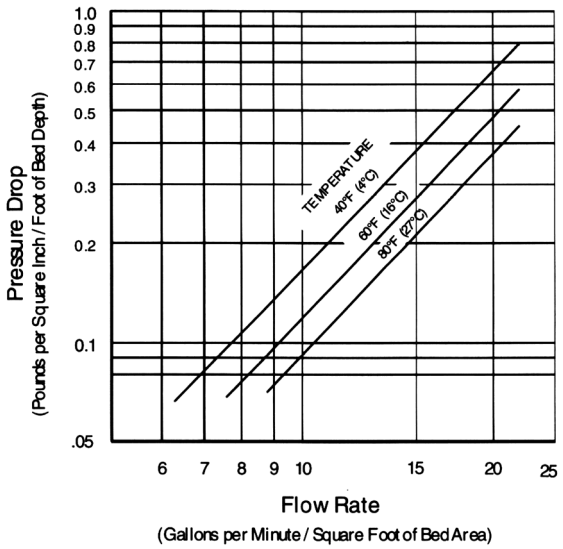
- Granular filter media used for the reduction of iron and manganese dissolved in the water. In ground water the dissolved iron is usually in the ferrous bicarbonate state and is not filterable; BIRM acts as an insoluble catalyst to enhance the reaction between dissolved oxygen and iron compounds, producing ferric hydroxide which precipitates and may be easily filtered;
- the physical characteristics of BIRM provide an excellent filter media which is easily cleaned by backwashing to remove the precipitant;
- BIRM is not consumed in the iron removal operation;
- available in 28,3 liters bags;
- following are the conditions necessary for a good efficiency of the BIRM:
  - no Oil, Hydrogen Sulphide and Polyphosphates in the water;
  - pH 6,8 ÷ 9,0 (if water contains also manganese pH has to be 8,0 ÷ 8,5);
  - dissolved oxygen content must be equal to at least 15% of the iron content and 29% of the manganese content;
  - alkalinity should be greater than two times the combined sulphate and chloride concentration;
  - less than 5 ppm TOC.

CAUTION: chlorination greatly reduces BIRM activity.

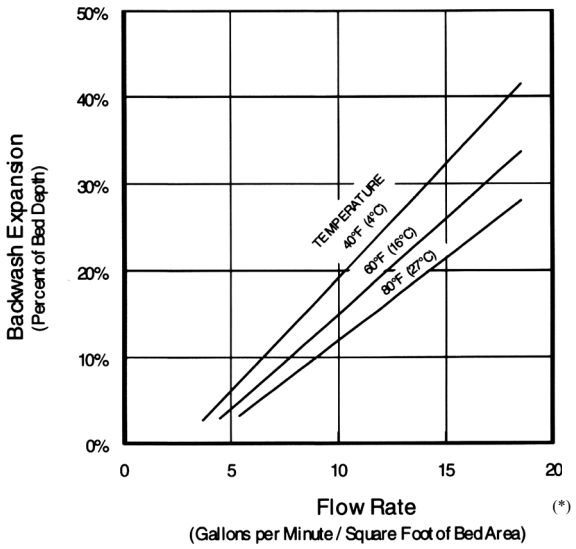
PHYSICAL PROPERTIES		OPERATING CONDITIONS	
Colour	black	Bed depth (mm)	750 ÷ 900
Specific gravity (g/l)	2000	Service flow rate ($m^3/h\ m^2$)	9 ÷ 13
Bulk density (g/l)	560 ÷ 640	Backwash flow rate ($m^3/h\ m^2$)	24 ÷ 30
Mesh Size	12 x 50	Backwash bed expansion (%)	20 ÷ 40
Effective Size (mm)	0,48		
Uniformity Coefficient	2,7		

REF.	
RA072	

SERVICE FLOW – PRESSURE DROP



BACKWASH BED EXPANSION



(*) Note: a “Gallon per Minute / Square Foot of Bed Area” is equal to 2,44448 m/h.

PYROLUSITE

- PYROLUSITE is manganese dioxide (MnO_2) of very good quality and pureness obtained by washing, drying and screening of mineral selected for the specific catalytic activity;
- used as catalyser for the reduction of iron and manganese dissolved in the water, by sand filters, mixed 20÷50 % with sand 0,4÷0,8 / 0,7÷1,2 mm;
- does not require a compulsory regeneration with $KMnO_4$, but you can do a continuous chlorination or a chlorination during the backwash;
- PYROLUSITE complies the standard UNI ISO EN 13752 “Products for potable water treatment”;
- hardness 3° ÷ 5° Mosh;
- available in 25 kg bags.

Physical Properties	
Colour	brown
Bulk density (g/l)	2000
Effective size (mm)	0,3 ÷ 0,8
Mn (%)	80

Operating Conditions	
Composition	Mixed 20÷50 % with sand 0,4÷0,8 / 0,7÷1,2 mm
Suggested filtration speed (m/h)	≤ 10
Max backwash speed ($m^3/h\ m^2$)	25
Min contact time (min)	6
Range pH	6,5 ÷ 8,5

REF.	
RA069	

Activated Carbon

- RA201, RA202, RA206, RA208, RA212, RA212A, RA214 e RA214A activated carbon are suitable for treatment of water intended for human consumption), except RA204;
- In granular form;
- Suitable for Chlorine, chemical oxidants, chlorinated compounds and organic contaminants dissolved in water;
- activated carbon require periodic backwashing to eliminate accumulated suspended matters and to regrade the filter bed;
- a good backwashing of the AC filter bed of the start-up is required.
- Mainly bituminous origin coal activated carbons are carefully selected, with a thermal activation process at strictly controlled temperature to obtain a large surface area and a mesoporous structure allowing the adsorption of high molecular weight organic compounds in particular hydrocarbons, atrazine, surfactants;
- Mainly vegetal (coconut base) activated carbons are suitable for applications that need good resistance to the attrition and mechanical shocks; they have a microporous structure allowing the adsorption of low molecular weight organic compounds in particular trichloroethylene, tetrachloroethylene.

REF.	TYPE	ORIGIN	SIZE (mm)	BULK DENSITY (g/l)	BET (m^2/g)	IODINE NUMBER (mg/g)	ASH CONTENT (%)	WEIGHT (kg)	VOLUME (liters)	PACKAGING	
RA204	SC45 cylindrical	Mineral	4	530	700	750	12	25	47	bag	
RA201	GAC 8x30	Mineral	0,6 ÷ 2,4	480	1100	1000	12	25	52	bag	
RA202	GAC 12x40	Mineral	0,4 ÷ 1,7	480	1100	1000	12	25	52	bag	
RA212 (*)	Norit GAC 8x30	Mineral	0,6 ÷ 2,4	500	1100	950	12	25	50	bag	
RA212A (*)	Norit GAC 8x30	Mineral	0,6 ÷ 2,4	500	1100	950	12	500	1000	Big bag	
RA214 (*)	Norit GAC 12x40	Mineral	0,4 ÷ 1,7	500	1100	950	12	25	50	bag	
RA214A (*)	Norit GAC 12x40	Mineral	0,4 ÷ 1,7	500	1100	950	12	500	1000	Big bag	
RA206	GAC 8x30	Vegetal	0,6 ÷ 2,4	500	1250	1100	3	25	50	bag	
RA208	GAC 12x40	Vegetal	0,4 ÷ 1,7	500	1250	1100	3	25	50	bag	

Operating conditions	
Bed depth (mm) (dechlorination)	650 ÷ 750
Service flow rate (m^3/h m^2) (dechlorination)	12 ÷ 15
Backwash flow rate (m^3/h m^2)	24 ÷ 30
Backwash bed expansion (%)	30 ÷ 40

(*) not available in stock.

Acid Washed Activated Carbon

- High quality granular activated carbon produced by physical activation of selected raw material of mineral origin;
- It is further washed with acid in order to reduce the ash content;
- Particularly effective for the removal of organic pollutants, dyes, pesticides, chlorinated and aromatic solvents, phenols, tannins, chlorine derivatives and compounds that cause bad smells and tastes in drinking water;
- Suitable for different applications such as the purification of water intended for human consumption, the purification of wastewater, of process and condensates. It is also used in the purification and discoloration processes of intermediates chemical and food products;
- It is in conformity with the rule UNI ISO EN 12915 “Chemicals used for treatment of water intended for human consumption”;
- It can be thermally reactivated once its adsorbing capacity is exhaust;
- Available in 25 kg bags.

GENERAL PROPERTIES			
Iodine number	Astm D 4607	mg / g	1.000
Moisture as packed	Astm D 2867	%	2
Size	Astm D 2862	Mesh	12 x 30
Size distribution	12 Mesh 30 Mesh	%	5 5
Methylene blue index	Cefic Dab VI	ml	18
CCl_4 adsorption	Astm D 3467	%	60
Surface area (B.E.T.)	Astm D 3663	m^2/g	1.100
Bulk density	Astm D 2854	kg/m^3	460
Density after back-washing and draining		kg/m^3	420
Iron (acid extraction)		ppm	300
Hardness	Astm D 3802	%	95
Ash content	Astm D 2866	%	8
pH	Astm D 3838	-	neutral

REF.	
RA222 (*)	

(*) not available in stock.

Filter Sand and Gravel

- REF. RA049, RA050, RA051, RA052 and RA053;
- filter sand and gravel shape of alluvium origin, uncrushed;
- high contents of silica, selected for specific use in water filtration for potable and industrial application;
- hardness 7° Mosh.

REF.	SIZE (mm)	BAG WEIGHT (kg)	
RA049	0,4 ÷ 0,8	25	
RA050	0,8 ÷ 1,2	25	
RA051	1,0 ÷ 2,0	25	
RA053	2,0 ÷ 3,0	25	
RA052	3,0 ÷ 5,0	25	

Physical properties	
Colour	white
Specific gravity (g/l)	2650
Bulk density (g/l)	1500
SiO_2 content	> 96 %
Humidity	0,3 % max
Melting point	1700 g/c
pH	8

Operating conditions	
Bed depth (mm) (sand filter)	450 ÷ 750
Service flow rate ($m^3/h\ m^2$)	8 ÷ 12
Backwash flow rate ($m^3/h\ m^2$)	30 ÷ 42
Backwash bed expansion (%)	5 ÷ 10

Anthracite

- granular anthracite selected per gradation, hardness and purity for specific use in potable and industrial water filtration;
- the high filtering efficiency of anthracite is due to its angular shape, that allows high filtering speed, longer filter runs and less head loss;
- excellent media with density lower than sand, the anthracite is usually used in multimedia filters;
- the ANTHRACITE complies the standard UNI ISO EN 12909 “Products used for treatment of water intended for human consumption”;
- minimum carbon contents 90%, low silica, hardness 3° Mosh average.

REF.	SIZE (mm)	WEIGHT (kg)	PACKAGE	
RA060	0,6 ÷ 1,0	25	Bag	
RA061	2,0 ÷ 3,0	25	Bag	
RA061A (*)	2,0 ÷ 3,0	1000	Big bag	

(*) not available in stock.

Physical properties	
Bulk density (g/l)	950
Absolute density (g/l)	1400
Humidity packaging	2 % max
Ashes	4 % (±2)
Substances volatiles	3 % (±1)
Sulphur	0,5 % max
pH	8 ÷ 10

Operating conditions:

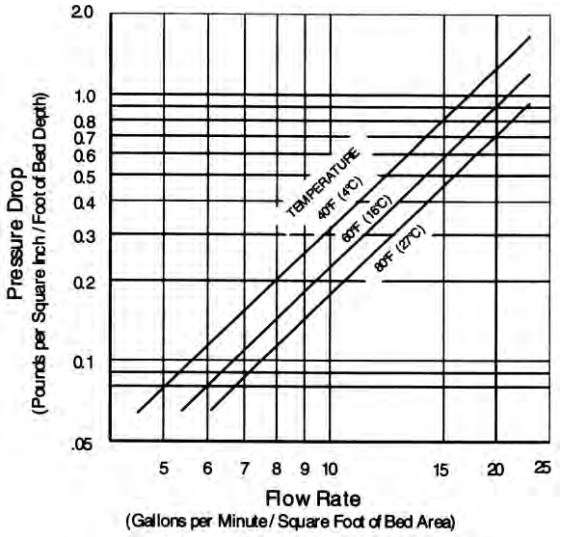
- monolayer bed depth 600 ÷ 900 mm;
- top bed depth in multilayer beds 250 ÷ 450 mm;
- service flow rate following specific conditions;
- backwash flow rate 28 ÷ 35 $m^3/h\ m^2$;
- bed expansion 20 ÷ 30%.

Calcite

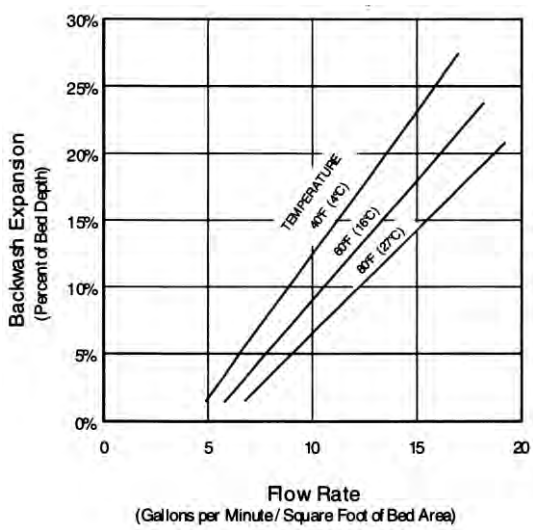
- CALCITE is a natural crushed and screened calcium carbonate media which is used to neutralize low pH waters;
- acidic water slowly dissolves the calcium carbonate to raise the pH which reduces the potential leaching of copper, lead and other metals found in typical plumbing systems;
- one of the advantages of CALCITE is its self-limiting property, that corrects pH only enough to reach a non corrosive equilibrium;
- of course CALCITE will increase the hardness of the water;
- periodic backwashing of the bed is necessary to keep in working order the system;
- the CALCITE bed will have to be periodically replenished as the CALCITE is depleted;
- gravel support bed is recommended;
- available in 15,6 liters bags.

Physical properties		**Operating conditions**	
Colour	white	Bed depth (mm)	600 ÷ 750
Specific gravity (g/l)	2700	Service flow rate ($m^3/h\ m^2$)	7 ÷ 15
Bulk density (g/l)	1450	Backwash flow rate ($m^3/h\ m^2$)	20 ÷ 30
Effective size (mm)	0,4 ÷ 1,1	Backwash bed expansion (%)	≥ 50
Composition	$CaCO_3$ 95% min. $MgCO_3$ 3% max.	pH range	5,0 ÷ 7,0

REF.	
RA073	



Service flow – pressure drop



Backwash bed expansion

(*) Note: a “Gallon per Minute / Square Foot of Bed Area” is equal to 2,44448 m/h .

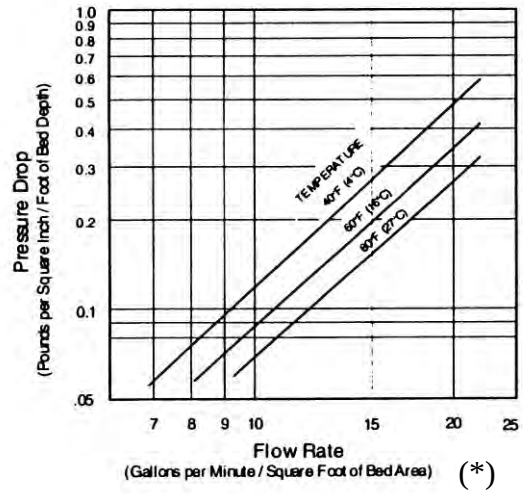
Filter AG

- Filter-Ag is a non-hydrous silicon dioxide media which can be used as highly efficient filter media for the reduction of suspended matter. Its fractured edges and irregular surface provides an high surface area and complex flow path for efficient filtration;
- less pressure loss through a bed of Filter-Ag than through most other filter medias;
- light weight requires lower backwash rates than other filter medias;
- upon installation allow bed to soak overnight before backwashing;
- available in 28,3 liters bags.

Physical properties		Operating conditions	
Colour	light grey	Bed depth (mm)	600 ÷ 900
Specific gravity (g/l)	2250	Service flow rate ($m^3/h\ m^2$)	12 ÷ 13
Bulk density (g/l)	380 ÷ 420	Backwash flow rate ($m^3/h\ m^2$)	20 ÷ 24
Effective size (mm)	0,5 ÷ 2,0	Backwash bed expansion (%) of bed depth	20 ÷ 40
		Freeboard of bed depth (%)	≥ 50

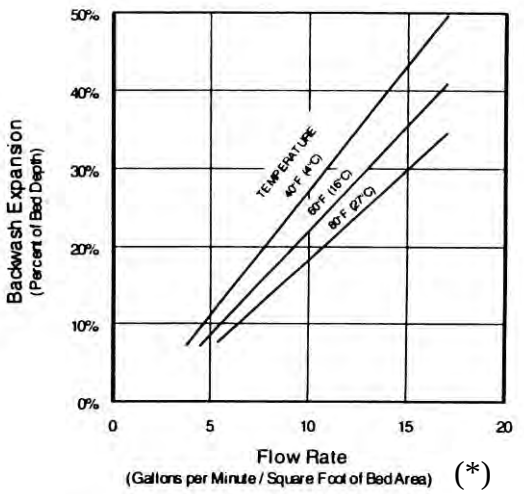
REF.	
RA059	

Service flow – pressure drop



(*)

Backwash bed expansion



(*)

(*) Note: a “Gallon per Minute / Square Foot of Bed Area” is equal to 2,44448 m/h .

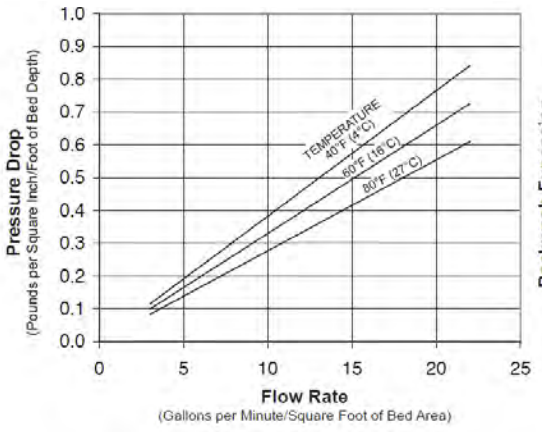
Filter AG Plus

- Filter-Ag Plus is a clinoptilolite natural media with a large surface area and microporous structure which can be used as highly efficient filter media for the reduction of suspended matter. Its irregular surface and 3 micron void spaces provides a surface area over 100 times greater than silica sand;
- its low pressure drop, high service flow rates and high bed loadings combined with lower backwash frequency allow economy in equipment downsizing and reduced pumping requirements;
- utilizing deep bed filtration can tipically reduce suspended solids down to 5 micron or less range;
- Filter Ag Plus can be applied to systems designed for either pressure or gravity flow;
- available in 28,3 liters bags.

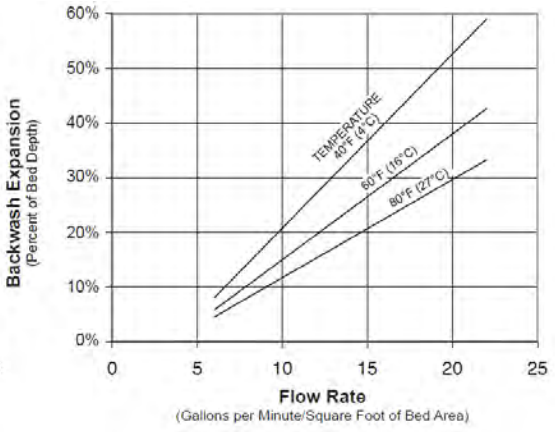
Physical properties		Operating conditions	
Colour	White to off white	Bed depth (mm)	600 ÷ 1200 (900 for optimal filtration)
Specific gravity (g/l)	2200	Service flow rate ($m^3/h\ m^2$)	30 ÷ 50
Bulk density (g/l)	800	Backwash flow rate ($m^3/h\ m^2$)	35 ÷ 45
Effective size (mm)	0,55	Backwash bed expansion (%) of bed depth	30 ÷ 40
		Freeboard of bed depth (%)	≥ 50

REF.	
RA058	

Service flow – pressure drop



Backwash bed expansion



(*) Note: a “Gallon per Minute / Square Foot of Bed Area” is equal to 2,44448 m/h .

GFH (Granular Ferric Hydroxide)

- Granular ferric hydroxide GFH is an adsorbent for selective removal of arsenic (both arsenite and arsenate), phosphate, vanadium, antimony, lead, uranium, molybdenum and other heavy metals from natural water;
- Preoxidation is not required for arsenic removal applications;
- Once the media has exhausted its adsorption capacity, it is removed from the vessel and replaced with new media;
- The simplicity of this process is very attractive for small installations and wellhead applications;
- Active substance $Fe(OH)_3$ + β-FeOOH;
- Dry solids content 58% (± 10%);
- Conform with the rule EN 15029;
- NSF/ANSI 61 certified.

Requirements for raw water

- Free of turbidity
- Positive redox potential
- No calcium precipittion

REF.	WEIGHT (kg)	PACKAGING	
RA068	30	Drum	
RA068B (**)	800	Big bag	

(**) not available in stock.

Physical properties (with water content 45%):	
Density of grains (g/l)	1590
Bulk density (g/l) backwashed	1150 (± 10%)
Particle size range (mm)	0,2 ÷ 2,0
Specific surface (m^2/g) (BET method)	approx 300
Porosity of grains (%)	72 ÷ 77
Bulk porosity (%)	22 ÷ 28
Iron content, relative to dry solids	600g / Kg (± 10%)

Operating conditions	
Bed depth (m)	0,6 ÷ 1,6
Specific flow rate ($m^3/h\ m^2$)	5 ÷ 20
Contact time (minutes)	3 ÷ 6
Backwash flow rate ($m^3/h\ m^2$)	26
Expansion free volume (%) of bed depth	50
Pressure loss max (bar)	0,5
Operation temperature max (°C)	60
AsO_4^{3-} Arsenic adsorption density in the drinking water processing (g/kg)	1 ÷ 5 (***)

(***) the adsorption density depends on pH and water chemistry.

Ecomix

- ECOMIX is a granular filtering media, suitable for remove natural organic matter, hardness, iron, manganese and ammonia in a wide pH range and without any oxidant products dosage;
- ECOMIX is a homogeneous mixture of five high quality ion-exchange and adsorption materials of natural and synthetic origin;
- you can use ECOMIX as a ion-exchange resin and regenerate it with sodium chloride (NaCl);
- wide range of raw water as indicated in the “Limit Concentration Table” below;
- ECOMIX can treat water with high concentration of Fe and Mn, and with max TDS = 4000 mg/l;
- to calculate filter capacity, one should only consider water hardness and ion-exchange capacity (don’t consider Fe and Mn data);
- NSF/ANSI 44, 61 & 372 certified;
- shipping weight 0,75 kg / liter;
- available in 12,0 liters bags.

REF.	TYPE	ION EXCHANGE CAPACITY (eq/l)	ION EXCHANGE CAPACITY (g $CaCO_3$/l)	DOSE OF REGENERANT (g NaCl 100% per liter)	
RA080	Ecomix - A	0,75	35	100	
RA081	Ecomix - C	0,65	30	100	

- ECOMIX A is preferred when the contaminants to be removed are mainly hardness and iron;
- ECOMIX C is preferred when the contaminants to be removed are mainly organic matter.

WARNING: if you use only a part of the product contained in a bag, you have make sure that all the contents are mixed, in order to homogenize the product before spilling. ECOMIX is a mixture of five materials with different specific weight and different particle size, which if not well mixed tends to stratify.

Ecomix

Limit Concentration Tables

RA080	Hardness (ppm CaC O_3)	Fe (mg/l) (ppm)	Mn (mg/l) (ppm)	COD (ppm O_2)	Ammonia (mg/l) (ppm)	TDS (ppm)
Raw water concentration limits	< 750	< 15	< 3	< 20	< 4	< 4000
Quality of purified water	≤ 20	< 0,3	< 0,1	< 10	< 0,5	No changes

RA081	Hardness (ppm CaC O_3)	Fe (mg/l) (ppm)	Mn (mg/l) (ppm)	COD (ppm O_2)	Ammonia (mg/l) (ppm)	TDS (ppm)
Raw water concentration limits	< 750	< 10	< 3	< 20	< 4	< 4000
Quality of purified water	≤ 20	< 0,3	< 0,1	< 4	< 0,5	No changes

OPERATING CONDITIONS		UNIT OF MEASUREMENT
Maximum operating temperature	40	°C
pH range	5 ÷ 9	
Minimum bed depth	500	mm
Optimum bed depth	800	mm
Service flow rate	20 ÷ 25	$m^3/h\ m^2$
Backwash flow rate (15÷20 min)	10 ÷ 15	$m^3/h\ m^2$
Regeneration flow rate (45÷65 min)	3 ÷ 5	$m^3/h\ m^2$
Active chlorine	< 1	mg/l (ppm)
Free bed volume	≥ 40	%

COMMONLY USED PRESSURE VESSELS:

(*) for Ecomix A

	8x35	8x44	10x35	10x54	12x52	13x54	14x65	16x65	21x60
Volume of Ecomix (liters)	16	20	24	36	48	60	72	96	144
Flow Capacity (m^3/h)	0,8	0,8	1,2	1,2	1,6	2,0	2,5	3,0	5,5
IX Capacity (kg $CaCO_3$) (*)	0,56	0,7	0,8	1,3	1,7	2,1	2,5	3,3	5,0
Salt Requirement (kg)	1,6	2,0	2,4	3,6	4,8	6,0	7,2	9,6	14,4
Backwash Flow Rate (m^3/h)	0,4	0,4	0,6	0,6	0,9	1,1	1,2	1,6	2,7

Corosex

- Corosex is designed for use in filters to neutralize acidity by increasing the pH value;
- By neutralizing the free carbon dioxide in water, Corosex can correct acidic water conditions and render it less corrosive. Corosex, being a highly reactive magnesium oxide, is used most effectively where pH correction is substantial or high flow conditions are in use. pH correction and media consumption are affected by a number of water chemical variables. Being soluble to acidity, Corosex will slowly dissolve and will need to be replenished periodically;
- On a per weight basis, magnesium oxide can neutralize five times more acidity than can calcium carbonate. This results in greatly reduced chemical usage for the same pH correction. Please note; under certain low flow conditions, Corosex may overcorrect and create a highly basic (high pH) condition;
- Under certain hardness conditions, pH correction can cause hardness minerals to precipitate out of solution, resulting in cementing or solidification of the Corosex mineral bed. Upflow service is generally recommended with hardness exceeding 9 °F. Always use an in-line filter ahead of an upflow system to prevent plugging of the lower distribution screen;
- As Corosex's magnesium oxide neutralizes the water, it will increase hardness and a softener may become necessary after the neutralizing filter;
- Corosex can be effectively combined with Calcite to combine the high flow neutralization properties of Corosex, along with the slower reacting low flow properties of Calcite, reducing potentially high basic properties due to overcorrection;
- High degree of activity and speed of correction allowing high flow;
- High capacity...less chemical usage;
- NSF/ANSI 60 certified;
- Available in 18,7 liters bags.

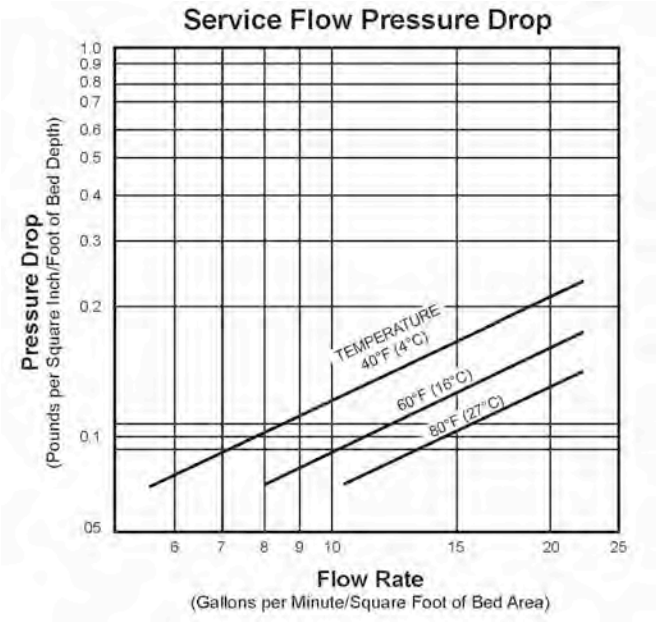
REF.	
RA075	

Corosex

Physical properties	
Colour	Brownish white
Specific gravity (g/l)	3600
Bulk density (g/l)	1200
Effective size (mm)	1,4
Uniformity coefficient	1,7
Composition	MgO 97% min.
Mesh size	6 x 16

Operating conditions	
Bed depth (mm)	600 ÷ 750
Service flow rate ($m^3/h\ m^2$)	12 ÷ 15
Backwash flow rate ($m^3/h\ m^2$)	25 ÷ 30
Backwash bed expansion (%)	≥ 50
pH range	4,5 ÷ 6,0

- Downflow service is generally satisfactory on waters with a hardness of less than 9 °F or where it's combined with Calcite at least 50-50. Upflow service is generally recommended with hardness exceeding 9 °F to prevent cementing of the Corosex bed;
- Use distributors designed for upflow applications;
- A gravel support bed is recommended;
- Backwash frequently to prevent possible cementing;
- Max usage 100 mg/l.



Backwash Bed Expansion

Due to Corosex's high density and large particle size, a new bed is difficult to expand, but it is still imperative to backwash in order to keep the bed clean. Over time, as the media is consumed, the particle size will decrease and backwash bed expansion will begin to occur.

(*) Note: a "Gallon per Minute / Square Foot of Bed Area" is equal to 2,44448 m/h .

Residential R.O. components

EUROTROL®

WATER TREATMENT COMPONENTS

RESIDENTIAL

RO elements for residential use (1.8 inch diameter)

CSM®

SPECIFICATIONS:

General Features

Model Name	Permeate Flow Rate GPD (L/day)	Salt Rejection %
RE1810-30	30 (114)	98.0%
RE1810-50	50 (189)	98.0%
RE1812-35	35 (132)	98.0%
RE1812-50	50 (189)	98.0%
RE1812-60	60 (227)	98.0%
RE1812-80	80 (303)	98.0%

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

   - **200 mg/L NaCl solution at 60 psig (0.41 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

2. Dry type elements are vacuum leak tested using the San Diego Protocol.
3. Permeate flow rate for each element may vary but will be no more than 15%.
4. Dry elements are packaged in a polyethylene bag
   ¤ *Wet* elements are packaged in a polyethylene bag containing SB(4g/L) + HCl(0.51g/L) solution.

Membrane type: Thin-Film Composite
Membrane material: Polyamide (PA)
Element configuration: Spiral-Wound, Tape Wrapping

Dimensions

Model Name	A	B	C	D	E
RE1810-30	0.67 (17mm)	0.55 (14mm)	10.08 (256mm)	0.98 (25mm)	1.77 (45mm)
RE1810-50					
RE1812-35	0.67 (17mm)	0.87 (22mm)	11.73 (298mm)	0.98 (25mm)	1.77 (45mm)
RE1812-50					
RE1812-60					
RE1812-80					

*All measurement are in inches

1,8” Residential CSM Membranes

These model names are tested and certified under NSF/ANSI standard 58, material requirement only (excluding RE1810-30)

RESIDENTIAL

RO elements for residential use (1.8 inch diameter)

CSM®

APPLICATION DATA:

Operating Limits	· Max. Operating Pressure	125 psi (0.86 MPa)
	· Max. Feed Flow Rate	2 gpm (0.45 m³/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

REF.	MODEL NAME	
	RE1810-30	
	RE1812-35	
MCRE1812-50	RE1812-50	
MCRE1812-60	RE1812-60	
MCRE1812-80	RE1812-80	

1,8” Residential CSM Membranes

RESIDENTIAL

High recovery & High rejection RO element for residential use

CSM®

SPECIFICATIONS:

General Features

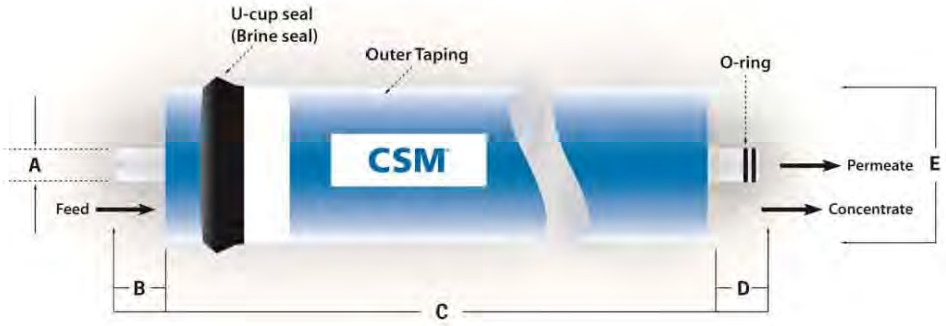
Model Name	Permeate Flow Rate GPD (L/day)	Salt Rejection (%)	Pressure / Recovery
RE1812-HR+	80 (302.8)	99.0 (min. 97.5)	60psig / 30%
	105 (397.5)	96.0 (min. 95.0)	80psig / 60%

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:
   • 200 mg/L NaCl solution , 77 °F (25 °C), pH 6.5–7.0
2. All elements are vacuum leak tested using the CSM integrity test.
3. Permeate flow rate for each element may vary +15/ -15%.
4. Elements can be supplied as dry or wet-type. Wet-tested elements are soaked in a preservative solution (1.0% food grade SBS) and vacuum sealed in a poly bag. All elements are individually boxed.

Membrane type: Thin-Film Composite
Membrane material: Polyamide (PA)
Element configuration: Spiral-Wound, Tape Wrapping

Dimensions

Model Name	A	B	C	D	E
RE1812-HR+	0.67 inch (17mm)	0.87 inch (22 mm)	11.73 inch (298 mm)	0.87 inch (22 mm)	1.77 inch (45 mm)



1,8” Residential CSM Membranes

RESIDENTIAL

High recovery & High rejection RO element for residential use

CSM®

APPLICATION DATA:

Operating Limits	· Max. Operating Pressure	150 psi (1.03 MPa)
	· Max. Feed Flow Rate	2 gpm (0.45 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	3.0
	· Max. Chlorine Concentration	< 0.1 mg/L

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight.
- When running the system for the first time, the permeate should be discarded continuously at least 1 hour.
- Keep elements moistly at all times after initial wetting.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing from biological growth.
- Keep elements moistly at all times after initial wetting.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty. For additional information on use of approved chemicals please contact your nearest CSM representative.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

REF.	MODEL NAME	
MCRE1812-HR+	RE1812-HR+	

2” - 2,8” Residential CSM Membranes

RESIDENTIAL

RO elements for residential use (2.0 and 2.8 inch diameters)

CSM®

SPECIFICATIONS:

General Features

Model Name	Permeate Flow Rate GPD (L/day)	Salt Rejection (%)
RE2012-100	100 (397)	98.0
RE2812-300	300 (1,136)	96.0

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

   - **200 mg/L NaCl solution at 60 psig (0.41 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

2. Minimum salt rejection is 96.0%.
3. Permeate flow rate for each element may vary but will be no more than 15%.
4. Wet elements are packaged in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution.

Membrane type: Thin-Film Composite
Membrane material: Polyamide (PA)
Element configuration: Spiral-Wound, Tape Wrapping

Dimensions

Model Name	A	B	C	D	E
RE2012-100	0.67 (17)	0.5 (12)	11.7 (298)	0.9 (23)	1.9 (48)
RE2812-300	0.67 (17)	0.9 (22)	11.7 (298)	0.9 (22)	2.9 (74)

*All measurements are in inches (millimeters)

2” - 2,8” Residential CSM Membranes

RESIDENTIAL

RO elements for residential use (2.0 and 2.8 inch diameters)

CSM®

APPLICATION DATA:

Operating Limits	· Max. Operating Pressure	125 psi (0.86 MPa)
	· Max. Feed Flow Rate	2 gpm (0.45 m³/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- When running the system for the first time, the permeate should be discarded continuously at least 1 hour.
- Keep elements moistly at all times after initial wetting.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing from biological growth.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

REF.	MODEL NAME	
MCRE2012-100	RE2012-100	
MCRE2812-300	RE2812-300	

2” Residential CSM Membranes

SPECIFICATIONS:

General Features

Model Name	Active Membrane Area ft² (m²)	Permeate Flow Rate GPD (L/day)	Salt Rejection (%)
RE2012-150	6.4 (0.59)	150 (567.8)	98.0

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

   - **200 mg/L NaCl solution at 60 psig (0.41 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

2. Minimum salt rejection is 96.0%.
3. Dry type elements are vacuum leak tested using the CSM integrity test.
4. Permeate flow rate for each element may vary but will be no more than 15%.
5. Dry elements are packaged in a polyethylene bag.

Membrane type: Thin-Film Composite
Membrane material: Polyamide (PA)
Element configuration: Spiral-Wound, Tape Wrapping

Dimensions

Model Name	A	B	C	D	E
RE2012-150	0.67 (17)	0.5 (12)	11.7 (298)	0.9 (23)	1.9 (48)

*All measurements are in inches (millimeters).

2” Residential CSM Membranes

RESIDENTIAL

High flux RO elements for residential use

CSM

APPLICATION DATA:

Operating Limits	· Max. Operating Pressure	150 psi (1.03 MPa)
	· Max. Feed Flow Rate	2 gpm (0.45 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight.
- When running the system for the first time, the permeate should be discarded continuously at least 1 hour.
- Keep elements moistly at all times after initial wetting.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing from biological growth.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty. For additional information on use of approved chemicals please contact your nearest CSM representative.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

REF.	MODEL NAME	
MCRE2012-150	RE2012-150	

2” Residential CSM Membranes

SPECIFICATIONS:

General Features

Model Name	Permeate Flow Rate GPD (L/day)	Salt Rejection (%)	Pressure / Recovery
RE2012-400	**400 (1514)**	**96.0** (min. 95.0)	**80psig / 30%**

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

   • 200 mg/L NaCl solution , 77 °F (25 °C), pH 6.5–7.0

2. Wet type elements are vacuum leak tested using the CSM integrity test.
3. Permeate flow rate for each element may vary but will be no more than 15%.
4. Wet elements are packaged in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution.

Membrane type: Thin-Film Composite
Membrane material: Polyamide (PA)
Element configuration: Spiral-Wound, Tape Wrapping

Dimensions

Model Name	A	B	C	D	E
RE2012-400	0.67 (17mm)	0.5 (12mm)	11.73 (298mm)	0.91 (23mm)	1.89 (48mm)

*All measurements are in inches (millimeters).

2” Residential CSM Membranes

RESIDENTIAL

High recovery & High rejection RO element for residential use

CSM®

APPLICATION DATA:

Operating Limits	· Max. Operating Pressure	150 psi (1.03 MPa)
	· Max. Feed Flow Rate	2 gpm (0.45 m³/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	3.0
	· Max. Chlorine Concentration	< 0.1 mg/L

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight.
- When running the system for the first time, the permeate should be discarded continuously at least 1 hour.
- Keep elements moistly at all times after initial wetting.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing from biological growth.
- Keep elements moistly at all times after initial wetting.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty. For additional information on use of approved chemicals please contact your nearest CSM representative.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

REF.	MODEL NAME	
MCRE2012-400	RE2012-400	

2” Residential CSM Membranes

RESIDENTIAL

Low pressure grade RO elements for residential use

CSM®

SPECIFICATIONS:

General Features

Model Name	Permeate Flow Rate GPD (L/day)	Salt Rejection %
RE2010-LP	30 (114)	93.0%
RE2012-LP	50 (189)	93.0%
RE2012-LPF	60 (227)	93.0%

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

   - **100 mg/L NaCl solution at 20 psig (0.14 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

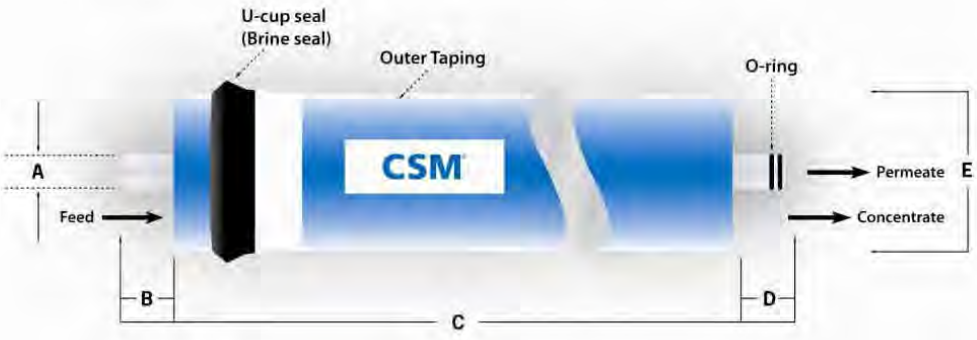
2. Dry type elements are vacuum leak tested using the San Diego Protocol.
3. Permeate flow rate for each element may vary but will be no more than 15%.
4. Dry elements are packaged in a polyethylene bag
   ¤ Wet elements are packaged in a polyethylene bag containing SB(4g/L) + HCl(0.51g/L) solution.

Membrane type: Thin-Film Composite
Membrane material: Polyamide (PA)
Element configuration: Spiral-Wound, Tape Wrapping

Dimensions

Model Name	A	B	C	D	E
RE2010-LP	0.67	0.55	10.08	0.98	1.91
RE2012-LP	0.67	0.47	11.73	0.91	1.91
RE2012-LPF	0.67	0.47	11.73	0.91	1.91

*All measurement are in inches



RESIDENTIAL

Low pressure grade RO elements for residential use

CSM®

APPLICATION DATA:

Operating Limits	· Max. Operating Pressure	125 psi (0.86 MPa)
	· Max. Feed Flow Rate	2 gpm (0.45 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

REF.	MODEL NAME	
	RE2010-LP	
MCRE2012-LP	RE2012-LP	
MCRE2012-LPF	RE2012-LPF	

3” Residential CSM Membranes

RESIDENTIAL

RO elements for residential use

CSM®

SPECIFICATIONS:

General Features

Model Name	Permeate Flow Rate GPD (L/day)	Salt Rejection (%)
RE3012-500	500 (1,893)	97.0

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

   - **200 mg/L NaCl solution at 80 psig (0.55 MPa) applied pressure**
   - **40% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

2. Minimum salt rejection is 95.0%.
3. Dry type elements are vacuum leak tested using the CSM integrity test.
4. Permeate flows for warranty evaluation may vary +25/-15%.
5. Dry elements are packaged in a polyethylene bag
   ¤ *Wet* elements are packaged in a polyethylene bag containing storage solution.

Membrane type: Thin-Film Composite
Membrane material: Polyamide (PA)
Element configuration: Spiral-Wound, Tape Wrapping

Dimensions

Model Name	A	B	C	D	E
RE3012-500	0.67 (17)	0.39 (10)	11.7 (298)	0.79 (20)	2.95 (75)

*All measurement are in inches(millimeters)

3” Residential CSM Membranes

RESIDENTIAL

RO elements for residential use

CSM®

APPLICATION DATA:

Operating Limits	· Max. Operating Pressure	150 psi (1.03 MPa)
	· Max. Feed Flow Rate	2 gpm (0.45 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag of wet element is damaged, a new preservative solution must be added and air-tight sealed to prevent drying and biological growth.
- When running the system for the first time, the permeate should be discarded continuously at least 1 hour.
- Keep elements moistly at all times after initial wetting.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing from biological growth.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

REF.	MODEL	
MCRE3012-500	RE3012-500	

RESIDENTIAL

Tankless RO elements for residential use

CSM®

SPECIFICATIONS:

General Features

Model Name	Permeate Flow Rate GPD (L/day)	Salt Rejection (%)
RE3512-TK	600 (2,271)	95.0

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

   - **200 mg/L NaCl solution at 60 psig (0.41 MPa) applied pressure**
   - **30% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

2. Minimum salt rejection is 93.0%.
3. Dry type elements are vacuum leak tested using the CSM integrity test.
4. Permeate flow rate for each element may vary but will be no more than 15%.
5. Dry elements are packaged in a polyethylene bag.

Membrane type: Thin-Film Composite
Membrane material: Polyamide (PA)
Element configuration: Spiral-Wound, Tape Wrapping

Dimensions

Model Name	A	B	C	D	E
RE3512-TK	0.67 (17)	0.31 (8)	11.73 (298)	0.63 (16)	3.35 (85)

*All measurements are in inches (millimeters).

RESIDENTIAL

Tankless RO elements for residential use

CSM®

APPLICATION DATA:

Operating Limits	· Max. Operating Pressure	150 psi (1.03 MPa)
	· Max. Feed Flow Rate	5 gpm (1.14 m^3/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight.
- When running the system for the first time, the permeate should be discarded continuously at least 1 hour.
- Keep elements moistly at all times after initial wetting.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing from biological growth.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty. For additional information on use of approved chemicals please contact your nearest CSM representative.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

REF.	MODEL NAME	
MCRE3512-TK	RE3512-TK	

1,8” - 2” Residential CSM Membranes

RESIDENTIAL

NF elements for residential use

CSM®

SPECIFICATIONS:

General Features

Model Name	Permeate Flow Rate GPD (L/day)	Salt Rejection %
NE1812	80 (379)	40.0–60.0%
NE2010	90 (341)	40.0–60.0%

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

   - **250 mg/L NaCl solution at 60 psig (4.14 MPa) applied pressure**
   - **15% recovery**
   - **77 °F (25 °C)**
   - **pH 6.5–7.0**

2. Dry type elements are vacuum leak tested using the San Diego Protocol.
3. Permeate flow rate for each element may vary but will be no more than 15%.
4. All elements are packaged in a polyethylene bag containing 1.0% SBS (sodium bisulfite) solution.

Membrane type: Thin-Film Composite
Membrane material: Polyamide (PA)
Element configuration: Spiral-Wound, Tape Wrapping

Dimensions

Model Name	A	B	C	D	E
NE1812	0.67	0.87	11.73	0.87	1.77
NE2010	0.67	0.63	10.08	0.87	1.91

*All measurement are in inches

1,8” - 2” Residential CSM Membranes

RESIDENTIAL

NF elements for residential use

CSM®

APPLICATION DATA:

Operating Limits	· Max. Operating Pressure	125 psi (0.86 MPa)
	· Max. Feed Flow Rate	2 gpm (0.45 m³/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0
	· Max. Chlorine Concentration	< 0.1 mg/L

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

REF.	MODEL NAME	
MCNE1812	NE1812	
	NE2010	

1,8” - 2” Residential CSM Membranes

RESIDENTIAL
UF elements for residential use

CSM®

SPECIFICATIONS:

General Features

Model Name	Permeate Flow Rate GPD (L/day)	Molecular Weight Cut Off
UE1810	200 (757)	100K
UE1812	250 (946)	100K
UE2010	450 (1,703)	100K

1. The stated product performance is based on data taken after 30 minutes of operation at the following test conditions:

   - **Pure water (2 MΩ) at 20 psig applied pressure**
   - **100% recovery**
   - **77 °F (25 °C)**

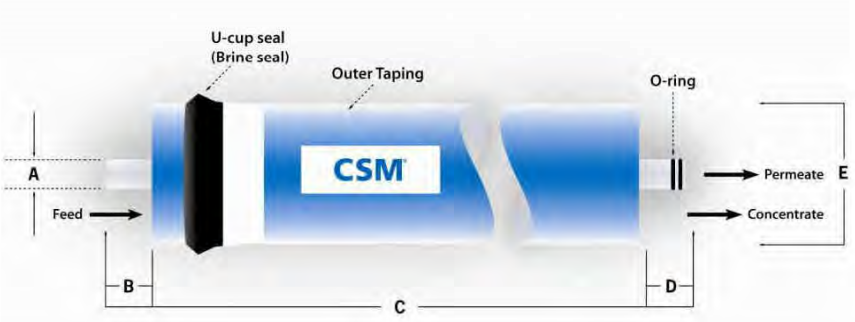
2. Dry type elements are vacuum leak tested using the San Diego Protocol.
3. Permeate flow rate for each element may vary but will be no more than 15%.
4. Dry elements are packaged in a polyethylene bag
   ¤ Wet elements are packaged in a polyethylene bag containing SB(4g/L) + HCl(0.51g/L) solution.

Membrane type: Thin-Film Composite
Membrane material: Polysulfone (PSF)
Element configuration: Spiral-Wound, Tape Wrapping

Dimensions

Model Name	A	B	C	D	E
UE1810	0.67	0.55	10.08	0.98	1.77
UE1812	0.67	0.55	11.02	0.79	1.77
UE2010	0.67	0.55	10.08	0.98	1.91

*All measurement are in inches



NSF

These model names are tested and certified under NSF/ANSI standard 58, material requirement only (excluding UE1812)

1,8” - 2” Residential CSM Membranes

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APPLICATION DATA:

Operating Limits	· Max. Operating Pressure	125 psi (0.86 MPa)
	· Max. Feed Flow Rate	2 gpm (0.45 m³/hr)
	· Max. Operating Temperature	113 °F (45 °C)
	· Operating pH Range	2.0–11.0
	· Max. Turbidity	1.0 NTU
	· Max. SDI (15 min)	5.0

GENERAL HANDLING PROCEDURES

- Elements contained in the boxes must be kept dry at room temperature (7–32°C; 40–95°F) and should not be stored in direct sunlight. If the polyethylene bag is damaged, a new preservative solution (sodium bisulfite) must be added and air-tight sealed to prevent drying and biological growth.
- Permeate from the first hour of operation should be discarded to flush out the preservative solution.
- Elements should be immersed in a preservative solution during storage, shipping and system shutdowns to prevent biological growth and freezing. The standard storage solution contains 1% by weight sodium bisulfite or sodium metabisulfite (food grade). For short term storage (i.e. one week or less) 1% by weight sodium metabisulfite solution is adequate for preventing biological growth.
- Keep elements moist at all times after initial wetting.
- Only use chemicals compatible with the membrane elements and components. Use of such chemicals may void the element limited warranty.
- Permeate pressure must always be equal or less than the feed/concentrate pressure. Damage caused by permeate back pressure voids the element limited warranty.

REF.	MODEL NAME	
	UE1810	
MCUE1812 (*)	UE1812	N.A.
	UE2010	

(*) available till it will be out-of-stock.

Vessel for Residential Elements

1,8”- 2” membranes

- material PP white;
- connections ⅛” NPT F;
- max pressure 125 psi (8,6 bar);
- double o-ring;
- permeate tube seat diameter = 0,67”;
- nominal dimension 1812 - 2012.

REF.	
DE010	

Membranes coupling:

- CSM 1,8” - 2” residential membranes, see 10-01-01-EN, 10-01-02-EN, 10-01-03-EN, 10-01-04-EN 10-01-07-EN and 10-01-08-EN data sheets.

Single mounting clips for vessel residential 1,8” - 2” membranes

- material PP;
- white colour.

REF.	
DE034	

2,8” - 3” membranes

- material PP white;
- connections:
  - feed, permeate and concentrate ⅜” NPT F (please, use our fittings ref. AV153 or elbows ref. AV159);
- max pressure 125 psi (8,6 bar);
- permeate tube seat diameter = 0,67”;
- nominal dimension 2812 - 3012.

REF.	
DE007	

Membranes coupling:

- CSM 2,8” residential membranes, see 10-01-02-EN and 10-01-05-EN data sheets.

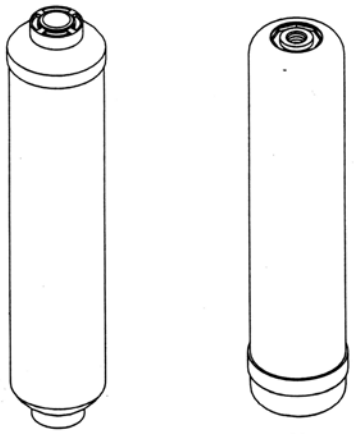
Single mounting clips for vessel residential 2,8” - 3” membranes

- material PP;
- white colour.

REF.	
DE006	

In-Line Cartridges

- IN LINE cartridges ¼" NPT F connections;
- Max pressure = 100 psi (7 bar);
- Max temperature = 35°C;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption.



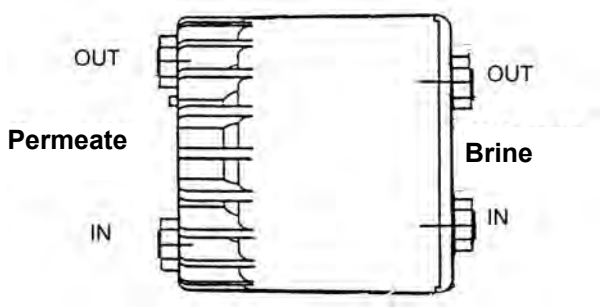
REF.	DIAMETER (inch)	LENGTH (inch)	VERSION	FLOW (gpm)	
DE028	2"	10"	Coconut Shell Activated Carbon	0,75	
DE029	2"	10"	Sediment	0,75	
DE030	2 ½"	11"	Coconut Shell Activated Carbon	1,00	
DE031	2 ½"	11"	Sediment	1,00	

R.O. compact assembly and accessories

REF.	DESCRIPTION	
DE100	Compact assembly empty	
DE101	Special membrane 50 GPD	
DE102A	Sediment / Carbon Block Prefilter cartridge	
DE103	GAC Postfilter cartridge	

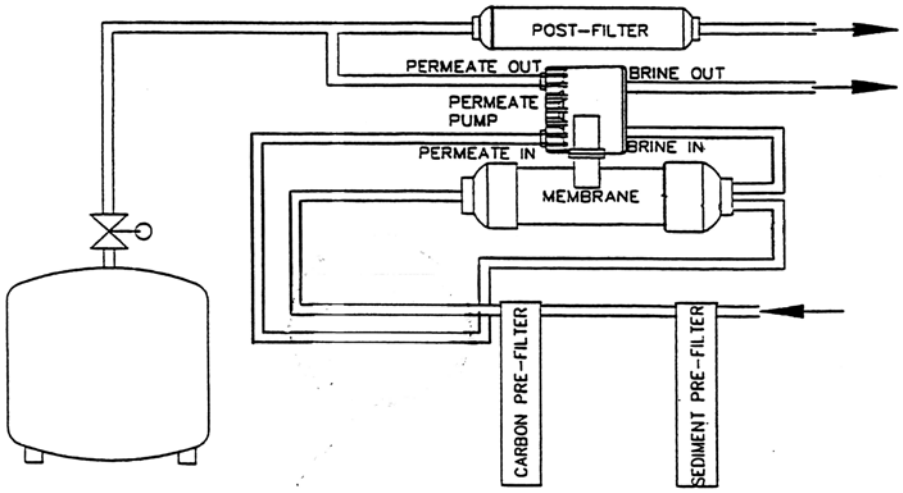
Permeate Pump for Residential R.O. Systems

- using the energy of the brine water of the R.O. system to pump the permeate into the pressure tank, increases the net operating pressure on the membrane and eliminate the negative effect of the pressure on the storage tank;
- hydraulic pump, does not require electricity;
- for residential R.O. systems with pressurized storage tank and membrane from 35 to 100 GPD;
- the permeate pump can increase up to 5 time the system recovery, reducing the water consumption and the refill time of the storage tank;
- no shut-off valve is needed;
- materials polypropylene/ EPDM;
- max operating pressure 6,8 bar;
- connections for ¼" tubing;
- max drain flow rate 0,8 l/min.



REF.	
DE120	

Typical system layout

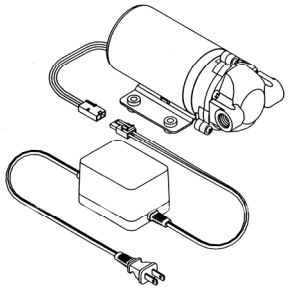


ATTENTION

Install the pump horizontal with both outlet ports in the highest position so that any air purges out automatically.
The concentrate flow restrictor has to be installed before the permeate pump inlet.

ACCESSORIE		
REF.	DESCRIPTION	
DE121	SINGLE MOUNTING CLIP	

Booster Pump for Residential R.O.

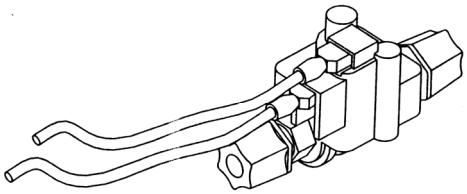


- booster pump and relevant accessories for residential R.O. Systems.
- membrane booster pump with transformer;
- transformer power supply 220 V – 50 Hz;
- IN/OUT connections ⅜" F.

REF.	MODEL	POWER SUPPLY	FLOW (liters/min) 60 psi	100 psi	
DE130	E36	24 VAC	0,8	0,6	

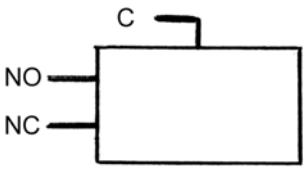
Accessories:

High/low pressure switch



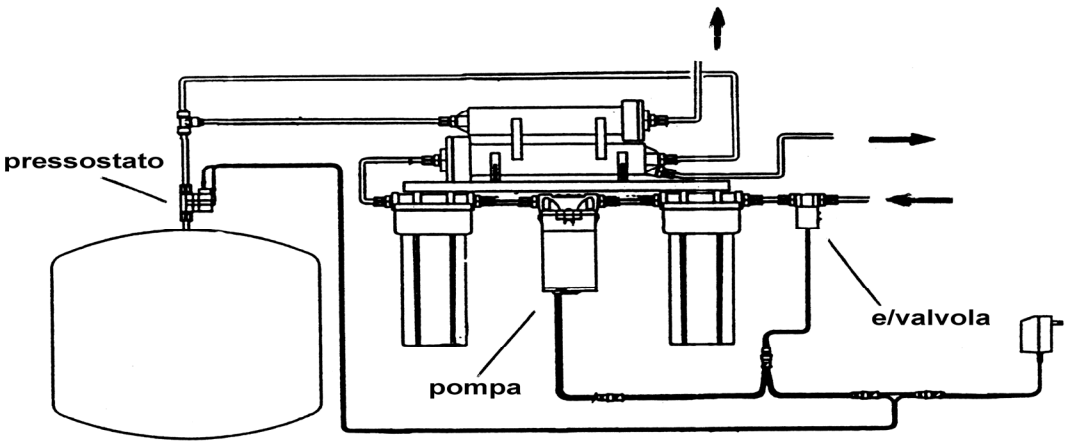
- pressure 30 – 50 psi;
- connections ¼" tube.

REF.	
DE140	



- to use as high pressure switch contacts C and NC;
- to use as low pressure switch contacts C and NO.

Typical system layout



MWG High Pressure Switch

- Pressure switch contact NO;
- Connection ¼" G;
- Body material in Stainless Steel;
- Diaphragm in NBR;
- Max Voltage = 42 V;
- Max Current = 4 A;
- Max operating pressure = 150 bar;
- Operating temperature range = - 40 ÷ + 100°C;
- Class protection IP54;
- Conform with CE safety Directives;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption.

REF.	DESCRIPTION	TOLERANCE	
DH571	MWG HIGH PRESSURE SWITCH 1-10 BAR	± 0,5 bar	
DH573	MWG HIGH PRESSURE SWITCH 10-20 BAR	± 1 bar	
DH575	MWG HIGH PRESSURE SWITCH 20-50 BAR	± 2 bar	

MWG Booster Pumps for Residential R.O.

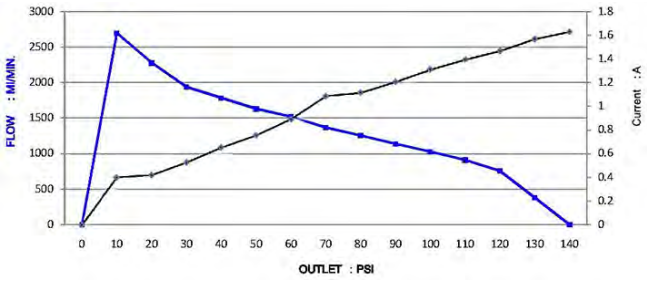
- MWG booster pumps for residential R.O. Systems;
- Membrane booster pumps without transformer (to order separately);
- IN/OUT connections ⅜" F;
- Conform with CE safety Directives;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption.

REF.	MODEL	POWER SUPPLY	TRANSFORMER REF.	INLET PRESSURE (psi)	WORKING PRESSURE RANGE (psi)	FLOW @ 70 psi (l/min)	RATED CURRENT (A)	CURRENT @ 70 psi (A)	
DH501	M100G	24 VDC	DH531	30	60 ÷ 80	≥ 1,1	1,8	≤ 1,2	
DH503	L200G	24 VDC	DH533	30	60 ÷ 80	≥ 1,6	2,2	≤ 1,6	
DH505	L400G	24 VDC	DH535	30	70 ÷ 90	≥ 2,6	3,6	≤ 2,5	

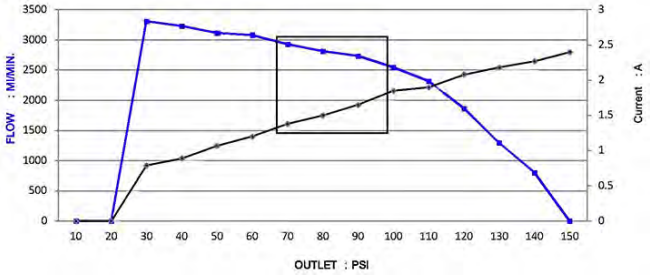
TRANSFORMERS

REF.	MODEL	
DH531	24VDC 2,0A	
DH533	24VDC 2,5A	
DH535	24VDC 4,0A	

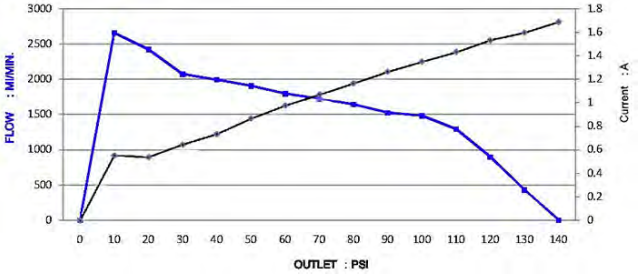
DH501



DH505



DH503



Two-Way Solenoid Valves for R.O. Systems

- two-way solenoid valve NC direct acting;
- body material plastic;
- connections ¼” NPT;
- power supply 24 VAC;
- orifice diameter 2,5 mm.

REF.	
DE142	

- two-way solenoid valve NC direct acting;
- body material brass.

Ref. DE144

Ref. DE147

REF.	CONNECTIONS (inch)	POWER SUPPLY	ORIFICE DIAMETER (mm)	
DE144 (*)	¼”	24 VDC	3,0	
DE147	⅜”	220 VAC	4,5	

(*) available till it will be out-of-stock

MWG Two -Way Solenoid Valves for R.O. Systems

- Two-way solenoid valve NC direct acting;
- Body material plastic;
- Seals in EPDM;
- Spring in SS304;
- Range water temperature = 4°C ÷ 120°C;
- Range ambient temperature = -10°C ÷ +40°C;
- Range pressure = 0 ÷ 8 bar;
- Class protection IP65;
- Connections ¼" NPT;
- Orifice diameter 2,5 mm;
- Conform with CE safety Directives;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption.

REF.	POWER SUPPLY	
DH601	24 V DC	
DH603	24 V AC	

MWG Two -Way Solenoid Valves for R.O. Systems

- Two-way solenoid valve NC direct acting;
- Body material brass;
- Seals in EPDM;
- Range water temperature = 4°C ÷ 120°C;
- Class protection IP65;
- G thread connections;
- Conform with CE safety Directives;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption.

REF.	CONNECTIONS (inch)	POWER SUPPLY	ORIFICE DIAMETER (mm)	MAX OPERATING PRESSURE (bar)	
DH611	¼”	24 V DC	3	6	
DH615	⅜”	220 V AC	5	5	

- Two-way solenoid valve NC indirect acting;
- Body material brass;
- Seals in EPDM;
- Range water temperature = 4°C ÷ 120°C;
- Class protection IP65;
- G thread connections;
- Conform with CE safety Directives;
- D.M. n.174 dated 06/04/2004 compliant about materials suitable for contact with water for human consumption.

REF.	CONNECTIONS (inch)	POWER SUPPLY	ORIFICE DIAMETER (mm)	MAX OPERATING PRESSURE (bar)	
DH621	⅜”	220 V AC	10	16	
DH623	½”	220 V AC	15	16	
DH625	¾”	220 V AC	20	16	
DH627	1”	220 V AC	25	16	
DH629	1 ¼”	220 V AC	35	16	
DH631	1 ½”	220 V AC	35	16	
DH633	2”	220 V AC	50	16	

Valves for Residential R.O. and Filtration System

Saddle Valve

- saddle valve self piercing for residential R.O and filtration systems;
- suitable for copper piping;
- connection for ¼” tubing;
- material brass with aluminium clamp.

REF.	
DE041	

Needle Valves

- needle valve for residential R.O and filtration systems;
- for tube ½” M/F or ⅜” M/F;
- connection for ¼” or ⅜” or 5/16” flexible tubing;
- material brass.

REF.	TUBE (inch)	FLEXIBLE TUBING (inch)	
DE039	½” M/F	¼”	
DE050	½” M/F	⅜”	
DE050A	½” M/F	5/16”	
DE039A	⅜” M/F	¼”	

Drain and Diverter Valves for R.O. Systems

- suitable for residential R.O and filtration systems.

Drain Clamp

- material ABS black.

REF.	CONNECTION (inch)	
DE040	¼" tubo	
DE049	¼" F NPT	

Diverter Valve with Swivel Collar

- connection for ¼" tubing;
- material chrome pleated brass.

REF.	
DE042	

ADAPTER 15/16" – 27 X 55⁄64" – 27

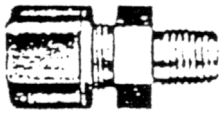
- length 8 mm;
- material chrome pleated brass.

REF.	
DE043	

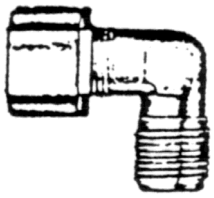
Jaco Style Fittings

- Range of polypropylene fittings, white colour, for residential R.O. and filtration systems.

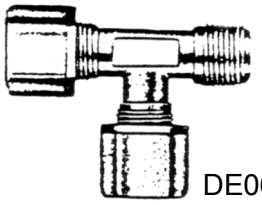
STRAIGHT			
REF.	THREADED CONNECTION (inch)	FOR TUBE (inch)	
DE063	⅛"	¼"	
DE064	¼"	¼"	
DE068	¼" F	¼"	
DE069	⅜"	¼"	



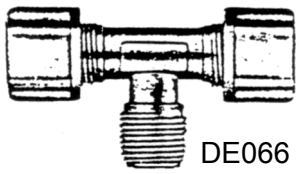
ELBOWS			
REF.	THREADED CONNECTION (inch)	FOR TUBE (inch)	
DE060	⅛"	¼"	
DE062	⅛" F	¼"	
DE061	¼"	¼"	
DE070	⅜"	¼"	



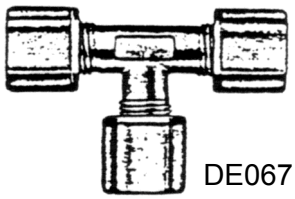
TEES				
REF.	¼" THREAD POSITION	THREADED CONNECTION (inch)	FOR TUBE (inch)	
DE065	LATERAL	¼"	¼"	
DE066	CENTRAL	¼"	¼"	
DE067	-	-	¼"	



DE065



DE066

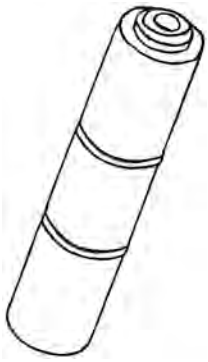


DE067

BULKHEAD UNION		
REF.	FOR TUBE (inch)	
DE085 (*)	¼"	

(*) available till it will be out-of-stock.

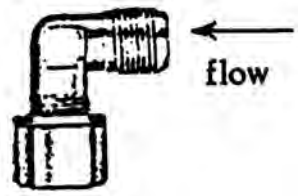
In-Line Flow Restrictors



- Quick connections ¼" tube.

REF.	Flow @ 60 psi (gpd)	Flow @ 60 psi (ml/min)	
DE105	60	150	
DE106	115	300	
DE107	150	400	
DE108	208	550	
DE109	227	600	
DE110	300	800	

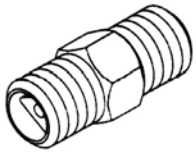
JACO Style Check Valve



- Jaco style elbow ⅛" x ¼" tube complete with AISI check-valve.

REF.	
DE079	

S.S. Check Valve



- Stainless steel check valve ⅛" x ⅛".

REF.	
DE048	

Storage Tanks for R.O. Systems

PP Storage Tanks

- pressurized storage tank for treated water;
- white colour;
- connection ¼" NPT;
- min. operating pressure 1 bar.

REF.	CAPACITY (liters)	MATERIAL	DIAMETER (mm)	HEIGHT (mm)	MAX PRESSURE (bar)	
DE032	12	PP / acciaio	240	370	7,0	
DE051	15	PP	260	400	3,5	

Steel Storage Tanks

- pressurized storage tank for R.O water;
- material painted steel, white colour;
- connection 1" BSPP female;
- with threaded extension M 1" x ¼", with elbowed ball valve with connection ⅜" tubing;
- min. operating pressure 1 bar;
- max operating pressure 7 bar.

REF.	CAPACITY (liters)	DIAMETER (mm)	HEIGHT (mm)	
DE096	41	390	575	
DE097	75	390	770	

Valves – Flow Meter

Elbowed Ball Valve

- material white plastic;
- connections ¼” F NPT x ¼” tubing.

REF.	
DE052	

Automatic Shut-Off Valve

- material white ABS;
- connections ¼” tubing;
- max pressure 125 psi (8,5 bar).

REF.	
DE038	

Mechanical Flow Meter

- adjustable setting;
- automatic shut-off based on volume;
- capacity 7000 litres;
- connections ¼” NPT;
- operating pressure 1 ÷ 8,5 bar;
- material ABS, black colour.

REF.	
DE080	

Clips - Valves - Tubing

Single Mounting Clips

- PP material;
- white colour.

REF.	DIAMETER (inch)	DIAMETER (mm)	
DE033	2”	50	
DE034	2 ½”	60	
DE006	3”	90	

Double Mounting Clips

- PP material;
- white colour.

REF.	DIAMETER (inch)	DIAMETER (mm)	
DE035	2” x 2 ½”	50 x 60	
DE036	2 ½” x 2 ½”	60 x 60	

Flexible ¼” Tubing

- hanks of 50 m (100 m only for DE081).

REF.	DIAMETER (inch)	DIAMETER (mm)	
DE082	PVC	White	
DE083	PE	Blue	
DE084	PE	Black	
DE086	PE	Red	
DE081	PE	Clear	

Needle Valve In-Line Style

(*) available till it will be out-of-stock.

- brass material.

REF.	TUBE CONNECTIONS	
DE098 (*)	¼”	
DE098A (*)	⅜”	

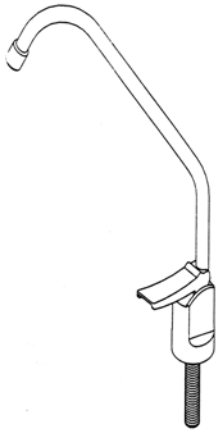
Insert for Flexible ¼” Tubing

- CELCON material.

REF.	
DE059	

Faucet

Long Reach Faucet



- material chrome pleated;
- connection for ¼” tubing;
- complete with installation kit;
- threaded tube length 50 mm.

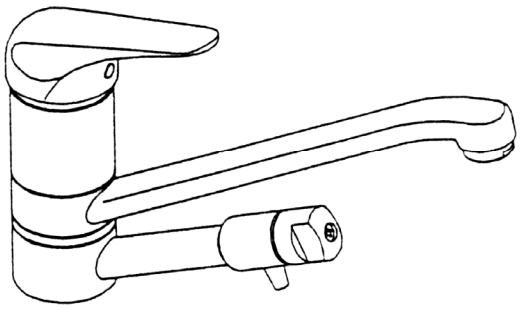
REF.	
DE037	

Quarter-Turn faucet

- metal and plastic chrome material;
- connection for ¼” tubing;
- complete with installation kit;
- threaded tube length 71 mm;
- wetted materials suitable for drinking water use;
- conform to the requirements of NSF/ANSI 61.

REF.	
DE116	

Single Handle Faucet with Drinking Nozzle



- monobloc, material chrome pleated;
- adjustable necks;
- hot and cold water connections ½” with needle valves;
- treated water connection ¼” tube;
- complete with installation kit.

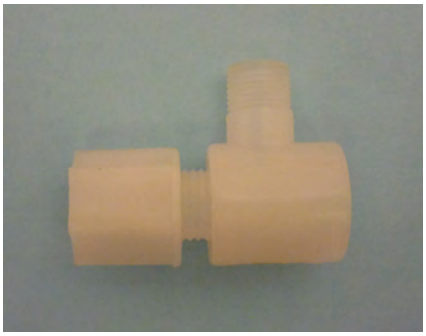
REF.	
DE087	

Pressure Gauge

- pressure set 0 ÷ 10 bar;
- connection ⅛” M;
- diameter 25 mm.

REF.	
DE077	

3 Ways Adapter for Pressure Gauge



- plastic material;
- connections ⅛”F x ⅛”M x ¼” tube.

REF.	
DE078	

Check Valve in Line

- plastic material;
- ¼” tube quick connections.

REF.	
DE089	

MD, DD and TD two Pieces Filter Housings IN/OUT connections ¼" for R.O. Systems

REF.
FBMD1002T

REF.
FBMD1002W

REF.
FBDD1002W

REF.
FBTD1002W

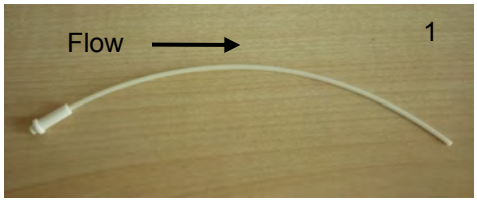
- Made in European Union (Italy);
- Suitable for residential R.O. and filtration systems;
- Two pieces filter housings for standard filtering cartridges length 10"
- Total height 325 mm;
- Fixable head (single, double or triplex) in material PP reinforced white colour;
- Sump in PET clear or white, O-ring in EPDM;
- IN/OUT connections 1/4" BSPP F;
- With air valve;
- Max operating pressure 8 bar, temperature 4 ÷ 45°C;
- D.M. n.174/2004 compliant about materials suitable for contact with water for human consumption;
- D.M. n.25/2012 compliant about technical provisions for equipment intended for water treatment for human consumption;
- In compliance with the sanitary certification ACS (France).
- Designed for the following single, double or triple brackets (also ideal for 2 + 1 application), with fixing screws.

REF.	MODEL	CARTRIDGE LENGTH (inch)	SUMP MATERIAL AND COLOUR	HEAD DIMENSION (mm)	TOTAL LENGTH (mm)
FBMD1002T	MD1002T	Single	Clear	122	12,35
FBMD1002W	MD1002W	Single	White	122	12,35
FBDD1002W	DD1002W	Duplex	White	228	26,34
FBTD1002W	TD1002W	Triplex	White	336	36,96

Accessories

REF.	DESCRIPTION	
FBMDR11	PLASTIC WRENCH FOR MD FILTER HOUSINGS	
FBMDR22	WHITE BRACKET WITH SCREWS FOR MD AND MT FILTER HOUSINGS	
FBMDR24	WHITE BRACKET WITH SCREWS FOR DD AND DT TWO FILTER HOUSINGS	
FBMDR26	WHITE BRACKET WITH SCREWS FOR TD AND TT THREE FILTER HOUSINGS	

Flow Restrictor Linear Type

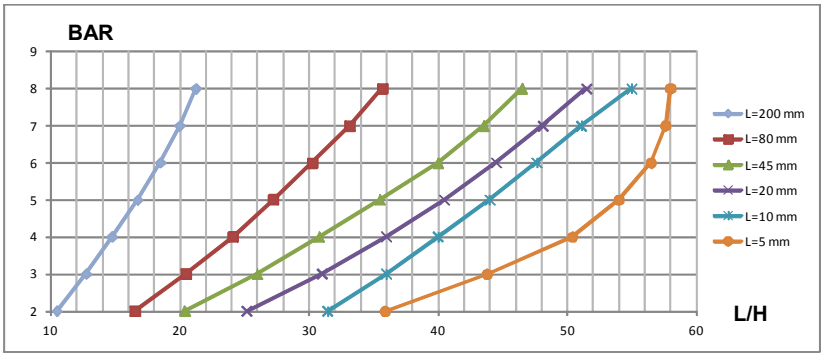


- capillary adjusting flow system with insertion in tube ¼" diameter (Øe=6,35 mm);
- 200 mm standard length; you can change the length as required (please see the diagram below);
- PP material insert: PE material capillary tube;
- range of operating pressure 2 ÷ 8 bar.

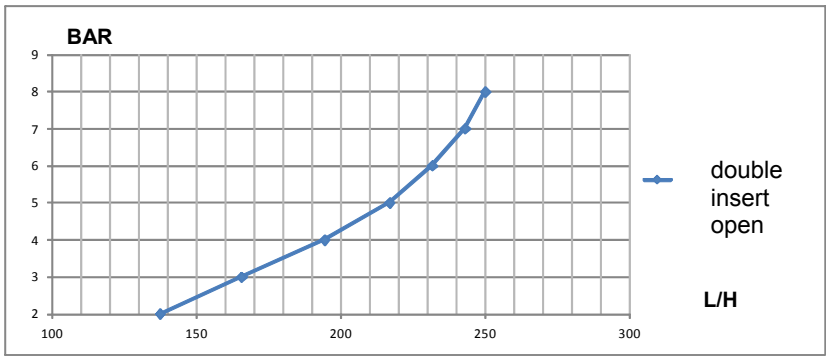
ITEM	DESCRIPTION	REF.	
1	FLOW RESTRICTOR LINEAR TYPE; L = 200 MM	DE122	
2	FLOW RESTRICTOR FRT-14P INSERT	DE124	
3	CAPILLARY TUBE (25 M ROLL)	DE125	
4	FLOW RESTRICTOR JACO DOUBLE INSERT OPEN	DE123	

WARNING: it is essential that the cutting of the capillary be net and tube perfectly circular (you can use an awl in order to restore the circular form), otherwise the flow rate value can be greatly altered. Observe the flow direction as shown in Picture n.1.

Flow restrictor linear type



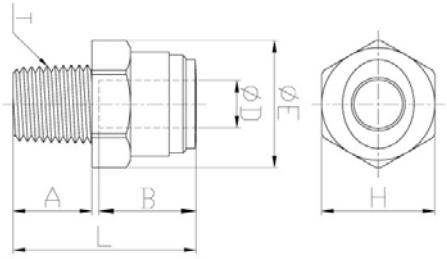
Flow restrictor Jaco ¼" double insert open



- Suitable for residential R.O. and filtration systems;
- Designed for water, food and air contact but can be used with selected gases, vacuum & other liquids;
- DM 174 (Italy) dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- In compliance with the sanitary certification ACS (France);
- In acetal resin grey color, non-toxic and NSF approved material;
- Pressure max 16 bar @ 25°C.

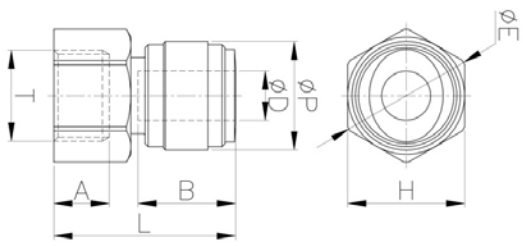
MALE CONNECTOR NPTF

REF.	T NPT THREADED CONNECTION (inch)	Ø D CONNECTION (inch)	A (mm)	B (mm)	Ø E (mm)	H (mm)	L (mm)	
DH005	1/8"	1/4"	9,1	16,9	17,8	15,8	27,0	
DH006	1/4"	1/4"	13,2	16,9	17,8	15,8	27,0	
DH007	3/8"	1/4"	13,8	16,9	21,4	19,0	26,1	
DH012	1/8"	3/8"	9,1	20,2	23,0	20,6	30,4	
DH013	1/4"	3/8"	13,2	20,2	23,0	20,6	34,3	
DH014	3/8"	3/8"	13,8	20,2	23,0	20,6	29,9	



FEMALE ADAPTER NPTF

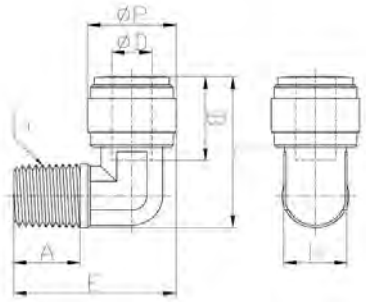
REF.	T NPT THREADED CONNECTION (inch)	Ø D CONNECTION (inch)	Ø P (mm)	A (mm)	B (mm)	Ø E (mm)	H (mm)	L (mm)	
DH021	1/8"	1/4"	15,5	11,5	16,9	19,0	17	30,9	
DH022	1/4"	1/4"	15,5	11,5	16,9	21,5	19	30,9	
DH023	1/4"	3/8"	20,0	11,5	20,2	21,5	19	34,2	



- Suitable for residential R.O. and filtration systems;
- Designed for water, food and air contact but can be used with selected gases, vacuum & other liquids;
- DM 174 (Italy) dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- In compliance with the sanitary certification ACS (France);
- In acetal resin grey color, non-toxic and NSF approved material;
- Pressure max 16 bar @ 25°C.

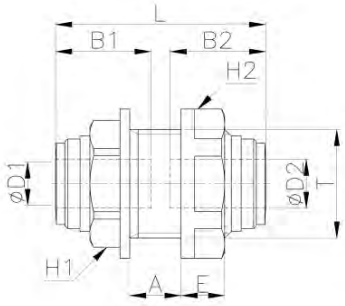
MALE ELBOW NPT

REF.	T NPT THREADED CONNECTION (inch)	Ø D CONNECTION (inch)	Ø P (mm)	A (mm)	B (mm)	E (mm)	H (mm)	L (mm)	
DH033	1/8"	1/4"	15,5	9,1	16,9	26,4	11,0	25,6	
DH034	1/4"	1/4"	15,5	13,2	16,9	31,9	11,0	27,0	
DH035	3/8"	1/4"	15,5	13,8	16,9	32,7	11,0	28,9	
DH038	1/4"	3/8"	20,0	13,2	20,2	35,2	14,3	31,8	
DH039	3/8"	3/8"	20,0	13,8	20,2	35,8	14,3	33,9	



BULKHEAD CONNECTOR

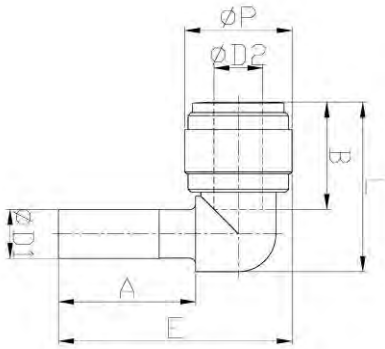
REF.	T	Ø D_1 CONNECTION (inch)	Ø D_2 CONNECTION (inch)	B_1 (mm)	B_2 (mm)	H_1 (fixed)	H_2 (mm)	L (mm)	
DH052	M17	1/4"	1/4"	16,9	16,9	19	21	35,7	
DH054	M24	3/8"	3/8"	20,2	20,2	24	25,5	42,4	



- Suitable for residential R.O. and filtration systems;
- Designed for water, food and air contact but can be used with selected gases, vacuum & other liquids;
- DM 174 (Italy) dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- In compliance with the sanitary certification ACS (France);
- In acetal resin grey color, non-toxic and NSF approved material;
- Pressure max 16 bar @ 25°C.

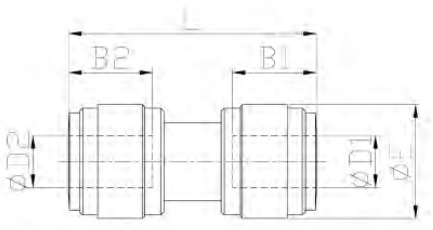
UNION ELBOW TUBE WITH STEM

REF.	Ø D 1 CONNECTION (inch)	Ø D 2 CONNECTION (inch)	Ø P (mm)	A (mm)	B (mm)	E (mm)	L (mm)	
DH063	¼"	¼"	15,5	21,0	16,9	34,8	25,1	
DH065	⅜"	⅜"	20,0	24,8	20,2	43,2	31,4	
DH067	⅜"	¼"	17,6	22,5	17,5	38,3	27,7	



UNION CONNECTOR

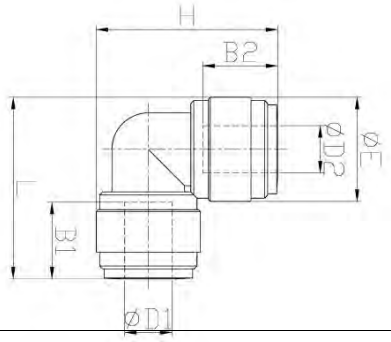
REF.	Ø D 1 CONNECTION (inch)	Ø D 2 CONNECTION (inch)	B 1 (mm)	B 2 (mm)	Ø E (mm)	L (mm)	
DH073	¼"	¼"	16,9	16,9	15,5	36,2	
DH075	⅜"	⅜"	20,2	20,2	20,0	42,9	
DH079	⅜"	¼"	20,2	16,9	20,0	42,1	



- Suitable for residential R.O. and filtration systems;
- Designed for water, food and air contact but can be used with selected gases, vacuum & other liquids;
- DM 174 (Italy) dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- In compliance with the sanitary certification ACS (France);
- In acetal resin grey color, non-toxic and NSF approved material;
- Pressure max 16 bar @ 25°C.

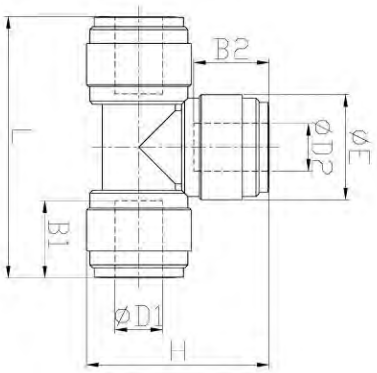
UNION ELBOW

REF.	Ø D 1 CONNECTION (inch)	Ø D 2 CONNECTION (inch)	B 1 (mm)	B 2 (mm)	Ø E 1 (mm)	Ø E 2 (mm)	L (mm)	H (mm)	
DH083	¼"	¼"	16,9	16,9	15,5	15,5	28,8	28,8	
DH085	⅜"	⅜"	20,2	20,2	20,0	20,0	35,9	35,9	



UNION T

REF.	Ø D 1 CONNECTION (inch)	Ø D 2 CONNECTION (inch)	Ø D 3 CONNECTION (inch)	B 1 (mm)	B 2 (mm)	B 3 (mm)	Ø E (mm)	L (mm)	H (mm)	
DH093	¼"	¼"	¼"	16,9	16,9	16,9	15,5	42,0	28,8	
DH095	⅜"	⅜"	⅜"	20,2	20,2	20,2	20,0	51,8	35,9	



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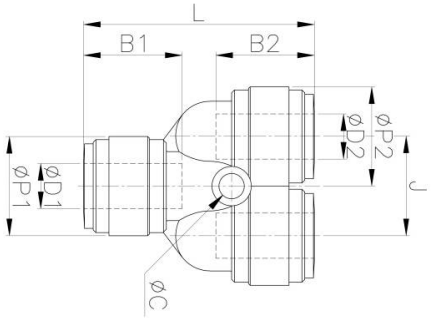
- DM 174 (Italy) dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- In compliance with the sanitary certification ACS (France);
- In acetal resin grey color, non-toxic and NSF approved material;
- Pressure max 16 bar @ 25°C.

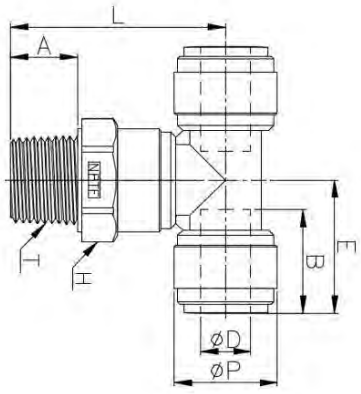
TWO WAY DIVIDER

REF.	Ø D 1 CONNECTION (inch)	Ø D 2 CONNECTION (inch)	B 1 (mm)	B 2 (mm)	Ø P 1 (mm)	Ø P 2 (mm)	L (mm)	J (mm)	C (mm)	
DH103	1/4"	1/4"	16,9	16,9	15,5	15,5	38,8	15,5	3,3	
DH105	3/8"	3/8"	20,2	20,2	20,0	20,0	46,4	20,0	4,5	



MALE SWIVEL TEE NPTF

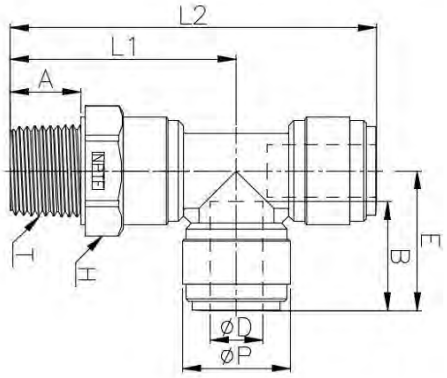
REF.	T NPT THREADED CONNECTION (inch)	Ø D CONNECTION (inch)	Ø P (mm)	A (mm)	B (mm)	E (mm)	H (mm)	L (mm)	
DH112	1/4"	1/4"	15,5	13,2	16,9	21,0	17,46	36,9	
DH114	3/8"	3/8"	20,0	13,0	20,2	25,9	21,4	41,8	



- Suitable for residential R.O. and filtration systems;
- Designed for water, food and air contact but can be used with selected gases, vacuum & other liquids;
- DM 174 (Italy) dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- In compliance with the sanitary certification ACS (France);
- In acetal resin grey color, non-toxic and NSF approved material;
- Pressure max 16 bar @ 25°C.

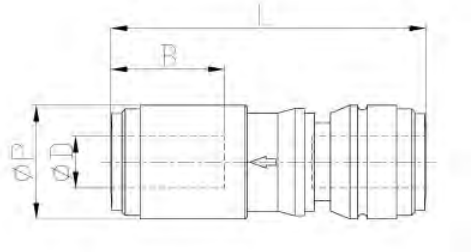
MALE SWIVEL RUN TEE NPTF

REF.	T NPT THREADED CONNECTION (inch)	Ø D CONNECTION (inch)	Ø P (mm)	A (mm)	B (mm)	E (mm)	H (mm)	L_1 (mm)	L_2 (mm)	
DH122	¼"	¼"	15,5	13,2	16,9	21,0	17,46	36,9	57,9	
DH124	⅜"	⅜"	20,0	13,0	20,2	25,9	21,4	41,8	67.7	



CHECK VALVES

REF.	Ø D CONNECTION (inch)	Ø P (mm)	B (mm)	L (mm)	
DH131	¼"	15,5	16,1	45,5	
DH133	⅜"	20,0	19,5	57,8	



- Suitable for residential R.O. and filtration systems;
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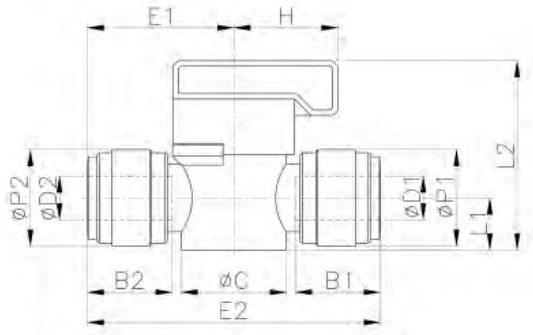
- DM 174 (Italy) dated 06/04/2004 compliant about materials suitable for contact with water for human consumption;
- In compliance with the sanitary certification ACS (France);
- In acetal resin grey color, non-toxic and NSF approved material;
- Pressure max 16 bar @ 25°C.

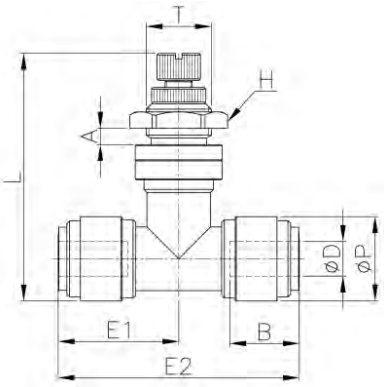
2 WAYS HAND VALVES

REF.	Ø D 1 CONNECTION (inch)	Ø D 2 CONNECTION (inch)	B 1 (mm)	B 2 (mm)	Ø P 1 (mm)	Ø P 2 (mm)	L 1 (mm)	L 2 (mm)	E (mm)	Ø C (mm)	
DH141	1/4"	1/4"	16,1	16,1	15,5	15,5	9,5	34,5	51,7	19,2	
DH143	3/8"	3/8"	20,2	20,2	20,0	20,0	12,5	42,3	63,2	24,2	



BULKHEAD FLOW REGULATORS

REF.	Ø D CONNECTION (inch)	T	Ø P (mm)	A (mm)	B (mm)	E 1 (mm)	E 2 (mm)	H (mm)	L min (mm)	L max (mm)	
DH157	1/4"	M12	15,5	5,0	16,9	22,2	44,4	16	45,5	50,4	
DH158	3/8"	M15	20,0	6,0	19,8	26,1	52,1	19	52,7	58,4	



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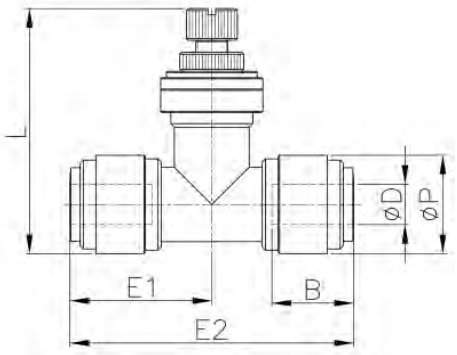
- In compliance with the sanitary certification ACS (France);
- In acetal resin grey color, non-toxic and NSF approved material;
- Pressure max 16 bar @ 25°C.

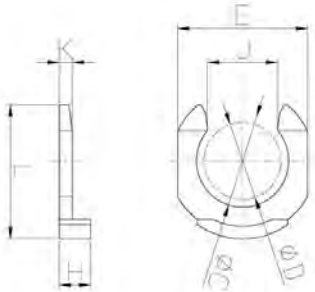
FLOW REGULATORS

REF.	Ø D CONNECTION (inch)	Ø P (mm)	B (mm)	L min (mm)	L max (mm)	E 1 (mm)	E 2 (mm)	
DH167	¼"	15,5	16,9	45,5	42,7	22,2	44,4	
DH168	⅜"	20,0	19,8	57,8	49,7	26,1	52,1	



LOCKING CLIPS

REF.	Ø D CONNECTION (inch)	Ø C (mm)	E (mm)	L (mm)	H (mm)	J (mm)	K (mm)	
DH193	06 - ¼"	8,0	11,6	11,6	3,1	6,4	1,3	
DH195	10 - ⅜"	11,8	16,0	16,4	3,4	9,2	1,4	



PRF-RO Reverse Osmosis System

- Suitable for residential and commercial application use;
- Compact and reliable system that better suits the flow requirements of small and mid-sized businesses;
- No storage tank needed;
- Works with Line Pressure;
- No Pump or Electricity;
- Very easy installation with quick connections;
- Virtually Maintenance Free (change cartridges fast and easy);
- Consisting of Nr.1 Carbon Pre-Filter, Nr.2 R.O. Membrane Elements and Nr.1 Carbon Post-Filter.

OPERATING CONDITIONS	MINIMUM	MAXIMUM
Inlet Pressure	2,8 bar (40 psi)	5,5 bar (80 psi)
Inlet Temperature (°C)	4	38
Inlet TDS (mg/l)	50	2.000
Inlet Hardness (°F)	0	20
Inlet Chlorine (mg/l)	0	1,0
Inlet Iron (mg/l)	0	0,1
Inlet Manganese (mg/l)	0	0,05

Salt Rejection: Minimum 90%, Medium 93%.

TUBING/FITTING DIMENSIONS	
Inlet Tubing (natural tubing)	½"
Concentrate Tubing (black tubing)	⅜"
Permeate Tubing (blue tubing)	⅜"
Drain Tubing (red tubing) for airgap installation	½"
Drain connection	⅜" or ½"
Carbon Post-Filter	⅜" quick disconnect fittings

Filter/Membrane Performance Specifications:

Filter Type	Length (mm)	Diameter (mm)	Flow Rate (lpm)	Flow Rate (gpm)	Average Life (months)
Carbon Pre-Filter	432	74	14,20	3,75	6 (or 19.000 liters)
RO Element	476	80	(*) 0,95	(*) 0,25	24 ÷ 48
Carbon Post-Filter	254	51	2,80	0,75	6 (or 19.000 liters)

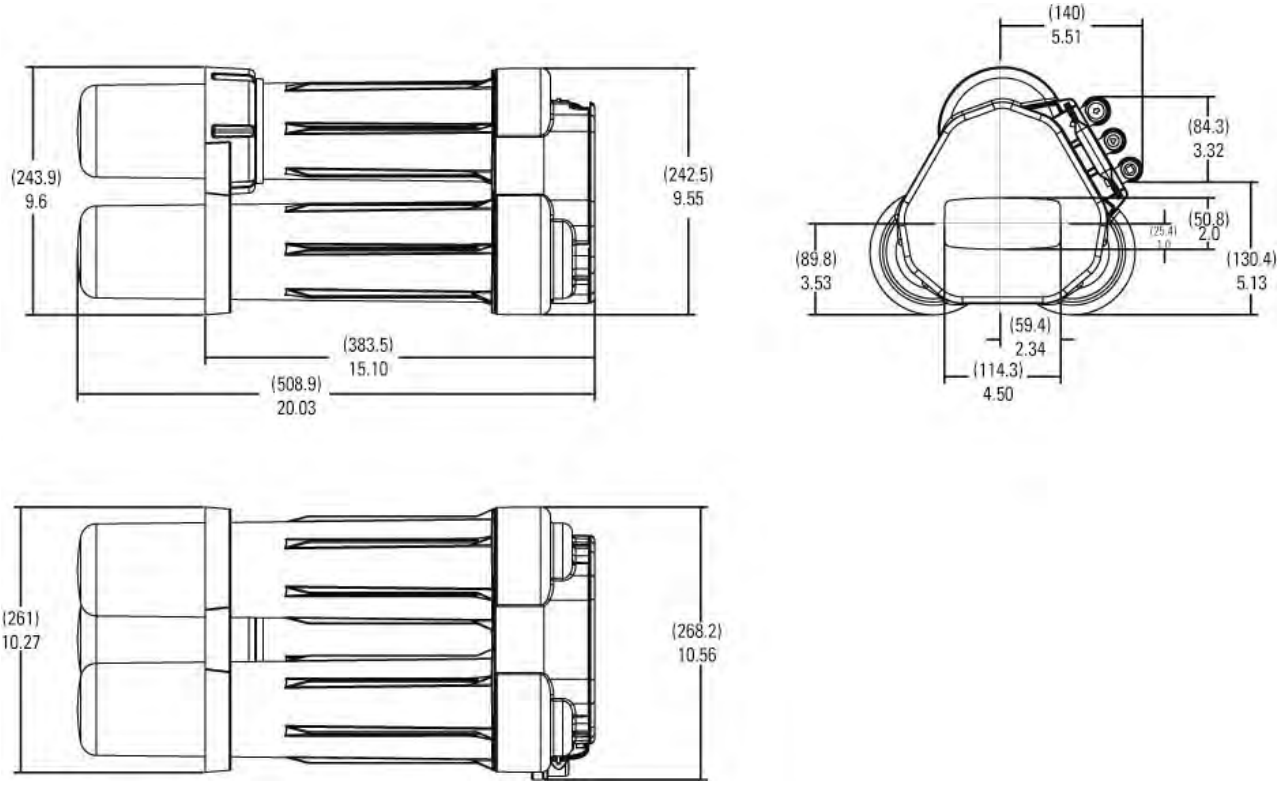
(*) @ 3,44 bar T=25°C 750 mg/l NaCl 25% recovery 1 ppm Chlorine inlet

Ref.	P. N.	Description	
DE904	4000462	Kit R.O. PRF-RO System with faucet	
DE906 (*)	4000575	Kit R.O. PRF-RO System without faucet	

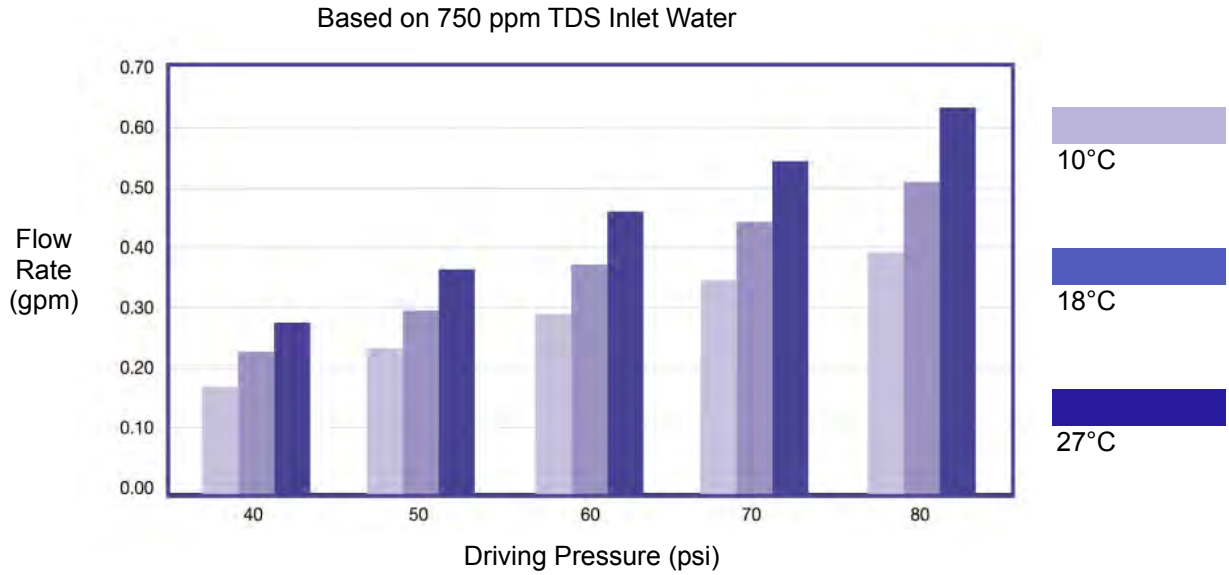
(*) available till it will be out-of-stock.

PRF-RO Reverse Osmosis System

Outline Dimensions in Inches (mm):



Performance – Flow Rate Characteristics (*)



Flow Adjustment Based on TDS

(*) Estimated flow based on internal test data. Actual performance may vary.

PRF-RO Reverse Osmosis System

Spare parts of PRF-RO Reverse Osmosis System:

Ref.	P. N.	Description	
DE920	4000569	PRF-RO Membrane	
DE923	3038333	Carbon pre-filter	
DE924	1266690	Sediment pre-filter 10 micron	
DE926	255526-09	Carbon post-filter	
DE930	1239705	Sump	
DE932	1240326	Sump o-ring	
DE935	4000445	PRF-RO complete manifold	
DE937	3038021	PRF-RO Support Leg	
DE938	1240564	Drain boa kit	
DE941	3038026	Locking bar disconnect	
DE942	3020487	Air-gap faucet kit	
DE945	4000330	PRF-RO kit connection fittings	
DE946	1255736	Tubing install kit	
DE950 (*)	1240620	⅜” black tubing 152 m	
DE951 (*)	1240621	⅜” blue tubing 152 m	
DE952 (*)	1240622	½” natural tubing 76 m	
DE953 (*)	1240623	½” red tubing 76 m	
DE954	1264462	Fitting elbow concentrate ⅜” black	
DE955	12400117	Fitting elbow feed ½” white	
DE956	12400118	Fitting elbow permeate ⅜” blue	
DE960	3002791	Tds and temperature meter	
DE961	4000454	PRF-RO retro fit kit	

(*) N.A. = Not Available.

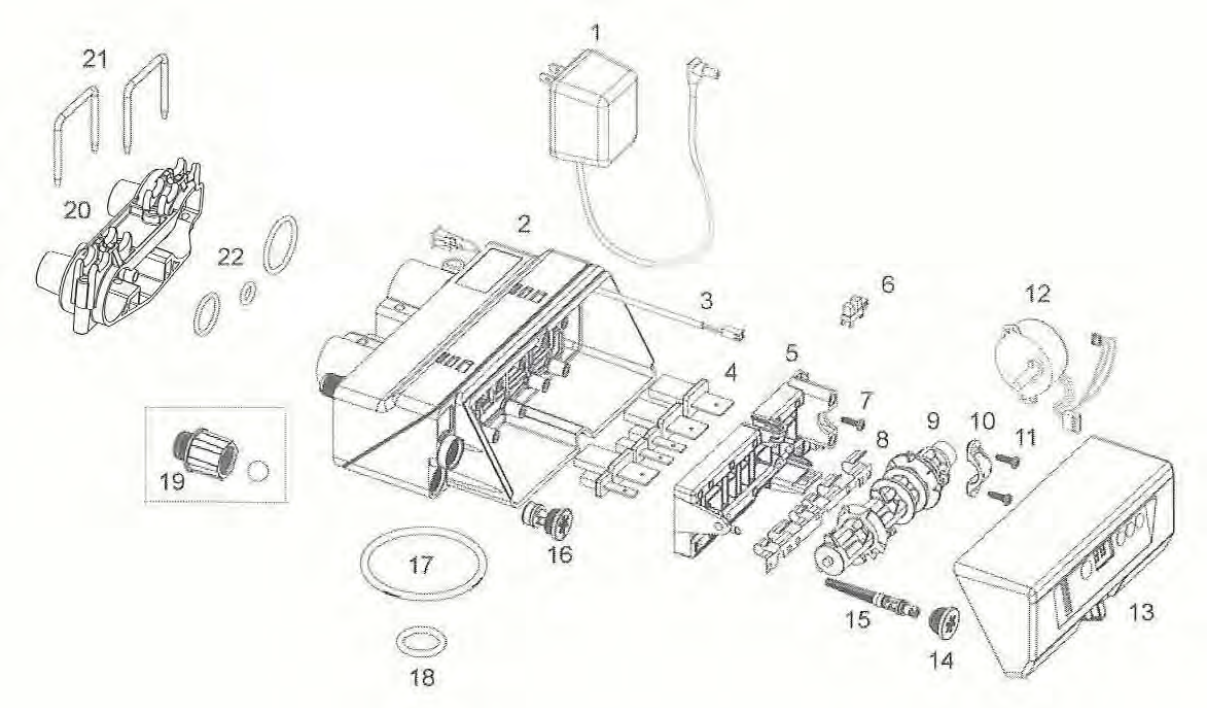
Autotrol valves spare parts price list

EUROTROL®
WATER TREATMENT COMPONENTS

Autotrol®
Distribuzione esclusiva per l'Italia

INDEX

368/604 VALVE EXPLODED VIEW

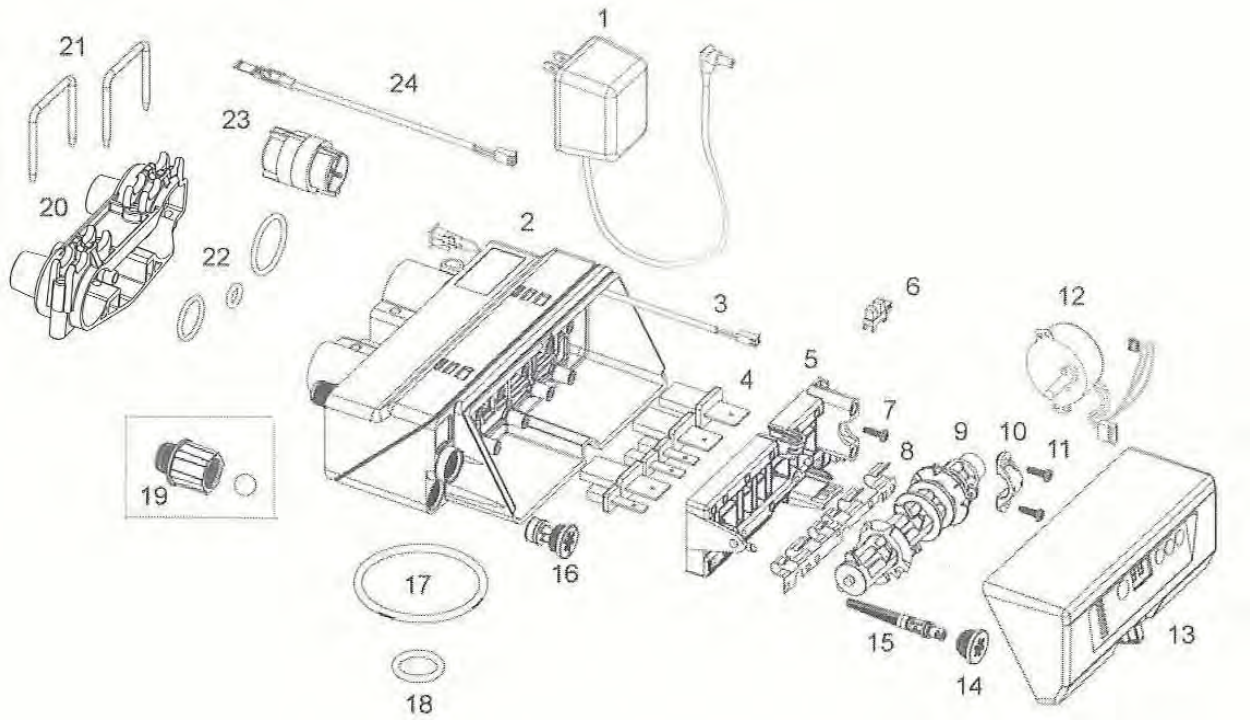


368/604 VALVE PARTS LIST

Number	Ref.	P.N.	Description	
1	AW500	1000814	European Transformer 230/12V	
1	AW501	1000813	British Transformer	
1	AW502	1000811	American transformer 120/12V	
2+4+5+7+8			368 Valve Body Assembly	
3	AW260	3022576	Optic Sensor Power Cable	
4	AW250	3007947	Valve Disc Kit	
5	AW251	3022012	Top Plate	
6	AW129	1235373	Optic Sensor	
7	AW174	3030450	Top Plate Screw No 8 x 9/16”	
8	AW252	3022017	Spring	
9	AW253	3022014	Camshaft, 7 Cycle	
10	CD100	1000589	Pillow Block Cap	
11	AW174	3030450	Top Plate Screw No 8 x 9/16”	
12	AW254	3026537	12 Volt Motor/Cable Assembly	
13	AW280	4001737	604 Control	
14	AW107	1000269	Injector / Backwash 00-open Cap with o-ring	
15	AW266	3025326	“E” Injector, Yellow, 6-inch tank / Screen Assembly	
15	AW267	3025327	“F” Injector, Peach, 7-inch tank / Screen Assembly	
15	AW268	3025328	“G” Injector, Tan, 8-inch tank / Screen Assembly	
15	AW269	3025329	“H” Injector, Lt Purple 9-inch tank / Screen Assembly	
16	AW115	1000221	Brine Refill Control Assembly 0.14 Gpm	
17	AW172	3029969	O-ring tank	
18	AW169	3030918	O-ring 1,05”	
19	AV146	3031526	Kit Drain Line Flow Control 0,9 gpm	
19	AV147	3031527	Kit Drain Line Flow Control 1,2 gpm	
19	AV148	3031528	Kit Drain Line Flow Control 1,6 gpm	
19	AV149	3031529	Kit Drain Line Flow Control 2,0 gpm	
20	AW255	3027832	Manifold ¾” BSPT, Inlet / Outlet	
21	AW256	3027831	Retainer Manifold	
22	AW257	3031825	Kit o-ring Manifold	
*	AV185	3022042	Blending Kit	

* Not shown

368/606 VALVE EXPLODED VIEW

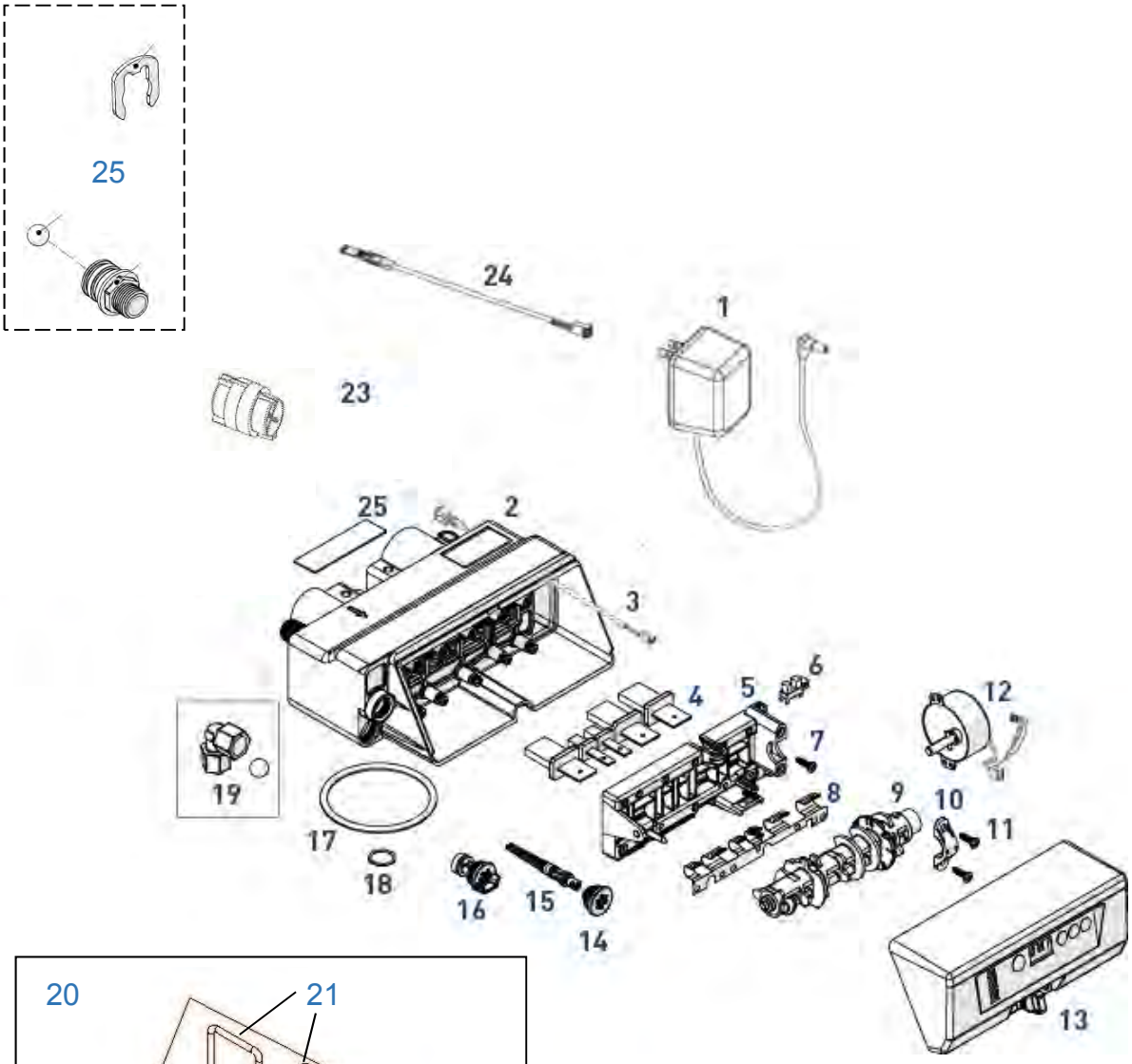


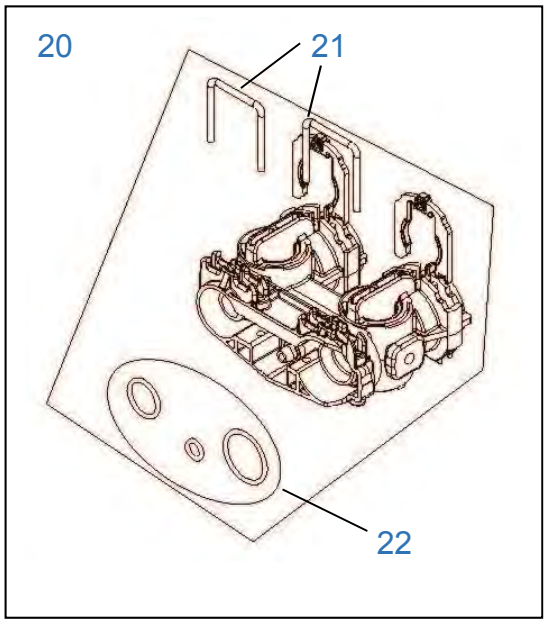
368/606 VALVE PARTS LIST

Number	Ref.	P.N.	Description	
1	AW500	1000814	European Transformer 230/12V	
1	AW501	1000813	British Transformer	
1	AW502	1000811	American transformer 120/12V	
2+4+5+7+8			368 Valve Body Assembly	
3	AW260	3022576	Optic Sensor Power Cable	
4	AW250	3007947	Valve Disc Kit	
5	AW251	3022012	Top Plate	
6	AW129	1235373	Optic Sensor	
7	AW174	3030450	Top Plate Screw No 8 x 9/16”	
8	AW252	3022017	Spring	
9	AW253	3022014	Camshaft, 7 Cycle	
10	CD100	1000589	Pillow Block Cap	
11	AW174	3030450	Top Plate Screw No 8 x 9/16”	
12	AW254	3026537	12 Volt Motor/Cable Assembly	
13	AW281	3031824	606 Control	
14	AW107	1000269	Injector / Backwash 00-open Cap with o-ring	
15	AW266	3025326	“E” Injector, Yellow, 6-inch tank / Screen Assembly	
15	AW267	3025327	“F” Injector, Peach, 7-inch tank / Screen Assembly	
15	AW268	3025328	“G” Injector, Tan, 8-inch tank / Screen Assembly	
15	AW269	3025329	“H” Injector, Lt Purple 9-inch tank / Screen Assembly	
16	AW115	1000221	Brine Refill Control Assembly 0.14 Gpm	
17	AW172	3029969	O-ring tank	
18	AW169	3030918	O-ring 1,05”	
19	AV146	3031526	Kit Drain Line Flow Control 0,9 gpm	
19	AV147	3031527	Kit Drain Line Flow Control 1,2 gpm	
19	AV148	3031528	Kit Drain Line Flow Control 1,6 gpm	
19	AV149	3031529	Kit Drain Line Flow Control 2,0 gpm	
20	AW255	3027832	Manifold ¾” BSPT, Inlet / Outlet	
21	AW256	3027831	Retainer Manifold	
22	AW257	3031825	Kit o-ring Manifold	
23	AW258	3027839	Meter Assembly	
24	AW259	3027837	Meter Cable	
*	AV185	3022042	Blending Kit	

* Not shown

368/606B VALVE EXPLODED VIEW



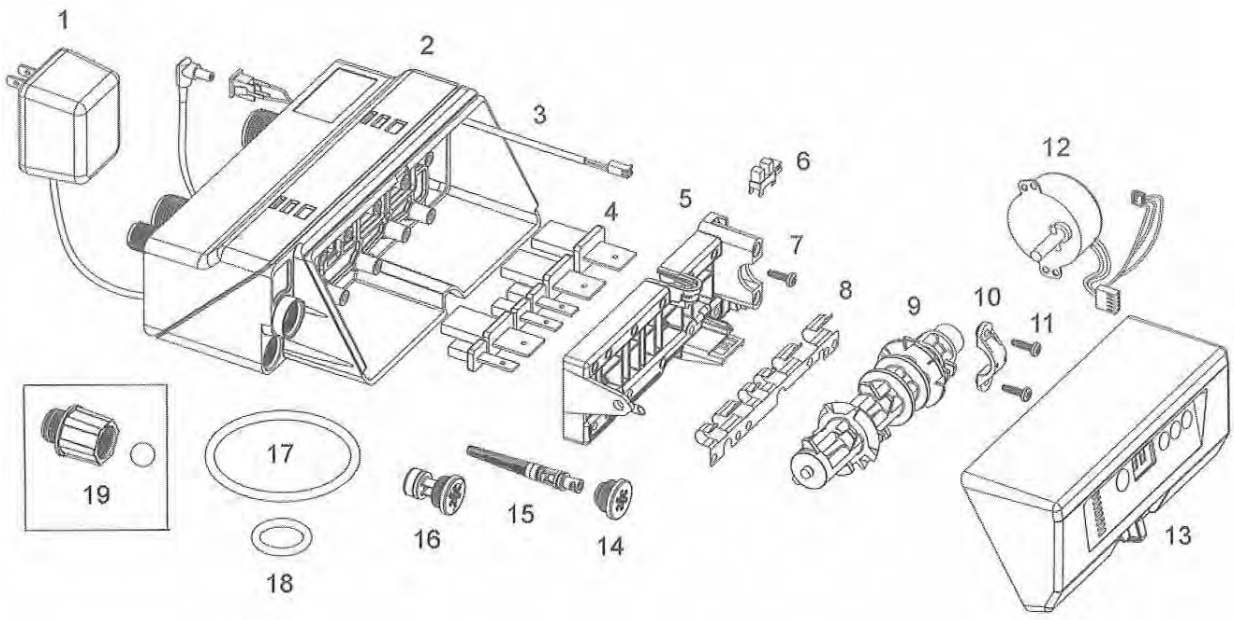


368/606B VALVE EXPLODED VIEW

Number	Ref.	P.N.	Description	
1	AW500	1000814	European Transformer 230/12V	
1	AW501	1000813	British Transformer	
1	AW502	1000811	American transformer 120/12V	
2+4+5+7+8			368 Valve Body Assembly	
3	AW260	3022576	Optic Sensor Power Cable	
4	AW250	3007947	Valve Disc Kit	
5	AW251	3022012	Top Plate	
6	AW129	1235373	Optic Sensor	
7	AW174	3030450	Top Plate Screw No 8 x 9/16”	
8	AW252	3022017	Spring	
9	AW253	3022014	Camshaft, 7 Cycle	
10	CD100	1000589	Pillow Block Cap	
11	AW174	3030450	Top Plate Screw No 8 x 9/16”	
12	AW254	3026537	12 Volt Motor/Cable Assembly	
13	AW281	3031824	606 Control	
14	AW107	1000269	Injector / Backwash 00-open Cap with o-ring	
15	AW266	3025326	“E” Injector, Yellow, 6-inch tank / Screen Assembly	
15	AW267	3025327	“F” Injector, Peach, 7-inch tank / Screen Assembly	
15	AW268	3025328	“G” Injector, Tan, 8-inch tank / Screen Assembly	
15	AW269	3025329	“H” Injector, Lt Purple 9-inch tank / Screen Assembly	
16	AW115	1000221	Brine Refill Control Assembly 0.14 Gpm	
17	AW172	3029969	O-ring tank	
18	AW169	3030918	O-ring 1,05”	
19	AV174		Elbow draiv fitting1/2F	
20	AW290	4000886	Bypass 368	
21	AW256	3027831	Retainer Manifold	
22	AW257	3031825	Kit o-ring Manifold	
23	AW258	3027839	Meter Assembly	
24	AW259	3027837	Meter Cable	
25	AV146B	4001297	External Backwash Control 368 Bypass 0.9 gpm # 06	
25	AV147B	4001298	External Backwash Control 368 Bypass 1.2 gpm # 07	
25	AV148B	4001299	External Backwash Control 368 Bypass 1.6 gpm # 08	
25	AV149B	4001300	External Backwash Control 368 Bypass 2.0 gpm # 09	
26	AW275	4001606	Kit ¾” BSPT Connectors	
*	AV185	3022042	Blending Kit	

* Not shown

366/604 VALVE EXPLODED VIEW

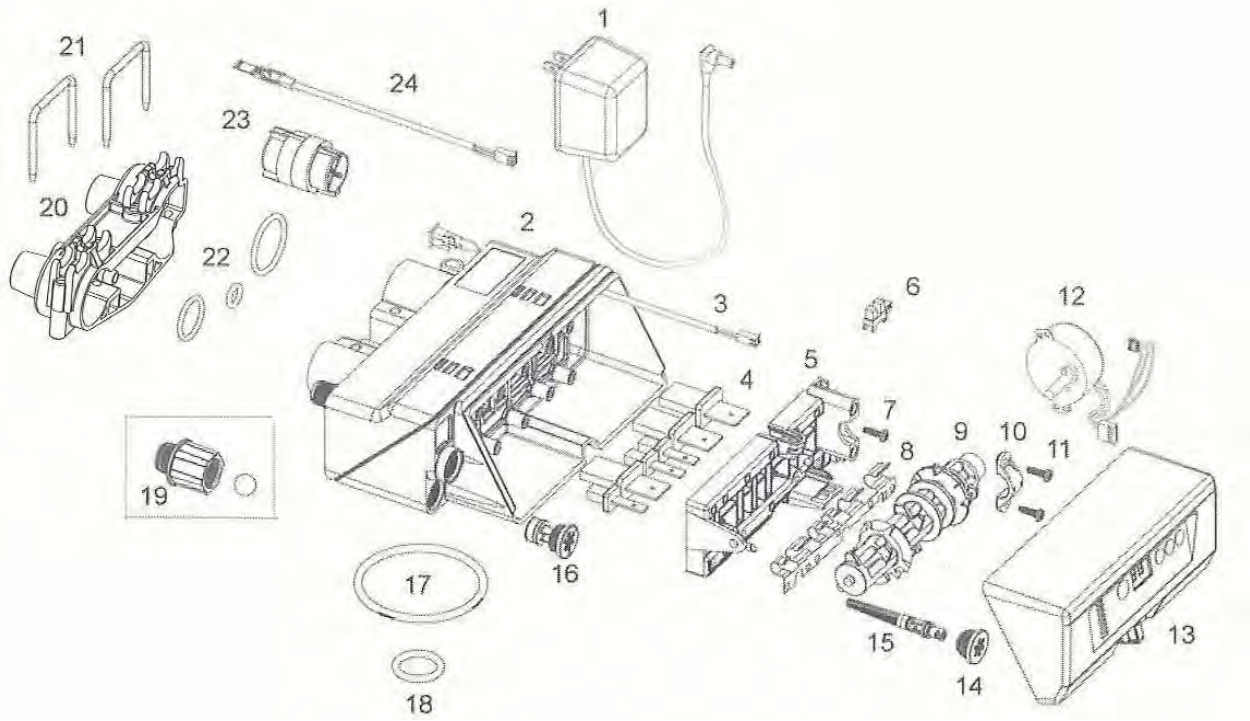


366/604 VALVE PARTS LIST

Number	Ref.	P.N.	Description	
1	AW500	1000814	European Transformer 230/12V	
1	AW501	1000813	British Transformer	
1	AW502	1000811	American transformer 120/12V	
2+4+5+7+8	AW261	3025678	366 Valve Body Assembly	
3	AW260	3022576	Optic Sensor Power Cable	
4	AW250	3007947	Valve Disc Kit	
5	AW251	3022012	Top Plate	
6	AW129	1235373	Optic Sensor	
7	AW174	3030450	Top Plate Screw No 8 x 9/16”	
8	AW252	3022017	Spring	
9	AW253	3022014	Camshaft, 7 Cycle	
10	CD100	1000589	Pillow Block Cap	
11	AW174	3030450	Top Plate Screw No 8 x 9/16”	
12	AW254	3026537	12 Volt Motor/Cable Assembly	
13	AW280	4001737	604 Control	
14	AW107	1000269	Injector / Backwash 00-open Cap with o-ring	
15	AW266	3025326	“E” Injector, Yellow, 6-inch tank / Screen Assembly	
15	AW267	3025327	“F” Injector, Peach, 7-inch tank / Screen Assembly	
15	AW268	3025328	“G” Injector, Tan, 8-inch tank / Screen Assembly	
15	AW269	3025329	“H” Injector, Lt Purple 9-inch tank / Screen Assembly	
16	AW115	1000221	Brine Refill Control Assembly 0.14 Gpm	
17	AW172	3029969	O-ring tank	
18	AW169	3030918	O-ring 1,05”	
19	AV146	3031526	Kit Drain Line Flow Control 0,9 gpm	
19	AV147	3031527	Kit Drain Line Flow Control 1,2 gpm	
19	AV148	3031528	Kit Drain Line Flow Control 1,6 gpm	
19	AV149	3031529	Kit Drain Line Flow Control 2,0 gpm	
*	AV185	3022042	Blending Kit	

* Not shown

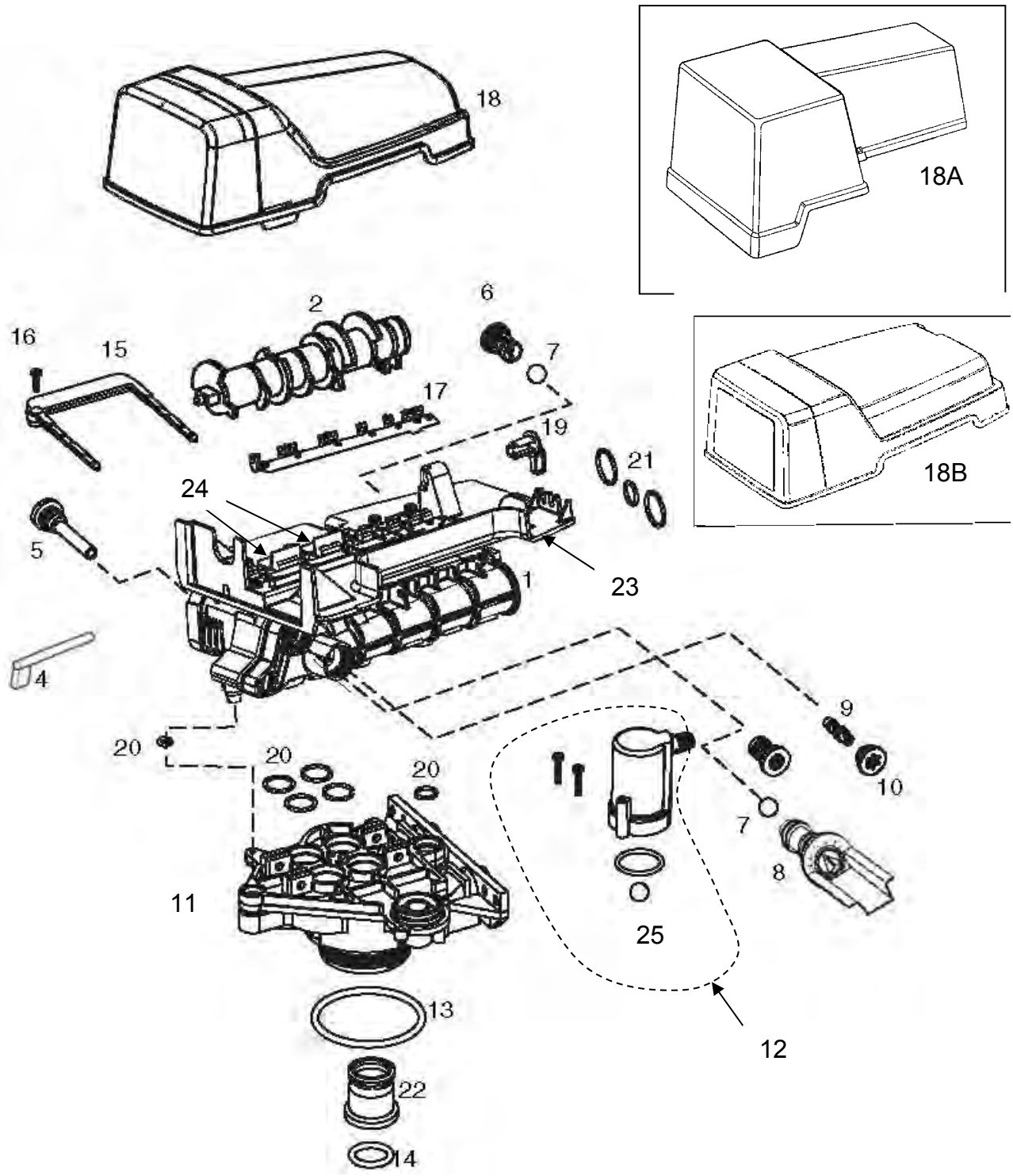
367/606 VALVE EXPLODED VIEW



367/606 VALVE PARTS LIST

Number	Ref.	P.N.	Description	
1	AW500	1000814	European Transformer 230/12V	
1	AW501	1000813	British Transformer	
1	AW502	1000811	American transformer 120/12V	
2+4+5+7+8	AW262	3031018	367 Valve Body Assembly	
3	AW260	3022576	Optic Sensor Power Cable	
4	AW250	3007947	Valve Disc Kit	
5	AW251	3022012	Top Plate	
6	AW129	1235373	Optic Sensor	
7	AW174	3030450	Top Plate Screw No 8 x 9/16”	
8	AW252	3022017	Spring	
9	AW253	3022014	Camshaft, 7 Cycle	
10	CD100	1000589	Pillow Block Cap	
11	AW174	3030450	Top Plate Screw No 8 x 9/16”	
12	AW254	3026537	12 Volt Motor/Cable Assembly	
13	AW281	3031824	606 Control	
14	AW107	1000269	Injector / Backwash 00-open Cap with o-ring	
15	AW266	3025326	“E” Injector, Yellow, 6-inch tank / Screen Assembly	
15	AW267	3025327	“F” Injector, Peach, 7-inch tank / Screen Assembly	
15	AW268	3025328	“G” Injector, Tan, 8-inch tank / Screen Assembly	
15	AW269	3025329	“H” Injector, Lt Purple 9-inch tank / Screen Assembly	
16	AW115	1000221	Brine Refill Control Assembly 0.14 Gpm	
17	AW172	3029969	O-ring tank	
18	AW169	3030918	O-ring 1,05”	
19	AV146	3031526	Kit Drain Line Flow Control 0,9 gpm	
19	AV147	3031527	Kit Drain Line Flow Control 1,2 gpm	
19	AV148	3031528	Kit Drain Line Flow Control 1,6 gpm	
19	AV149	3031529	Kit Drain Line Flow Control 2,0 gpm	
20	AW255	3027832	Manifold ¾” BSPT, Inlet / Outlet	
21	AW256	3027831	Retainer Manifold	
22	AW257	3031825	Kit o-ring Manifold	
23	AW258	3027839	Meter Assembly	
24	AW259	3027837	Meter Cable	
*	AV185	3022042	Blending Kit	

* Not shown



NOTE: 18A and 18B are old models not compatible with the current plate.

Number	Ref.	P.N.	Description	
*	AW164		Valve Body with L top plate	
1+17+19+ +23+24	AW164A	1000232	Valve Body with L top plate 255 series 400 NEW STYLE	
2	AW150	1031950	Camshaft Standard one piece	
2	AW151	1033024	Camshaft Standard segmented	

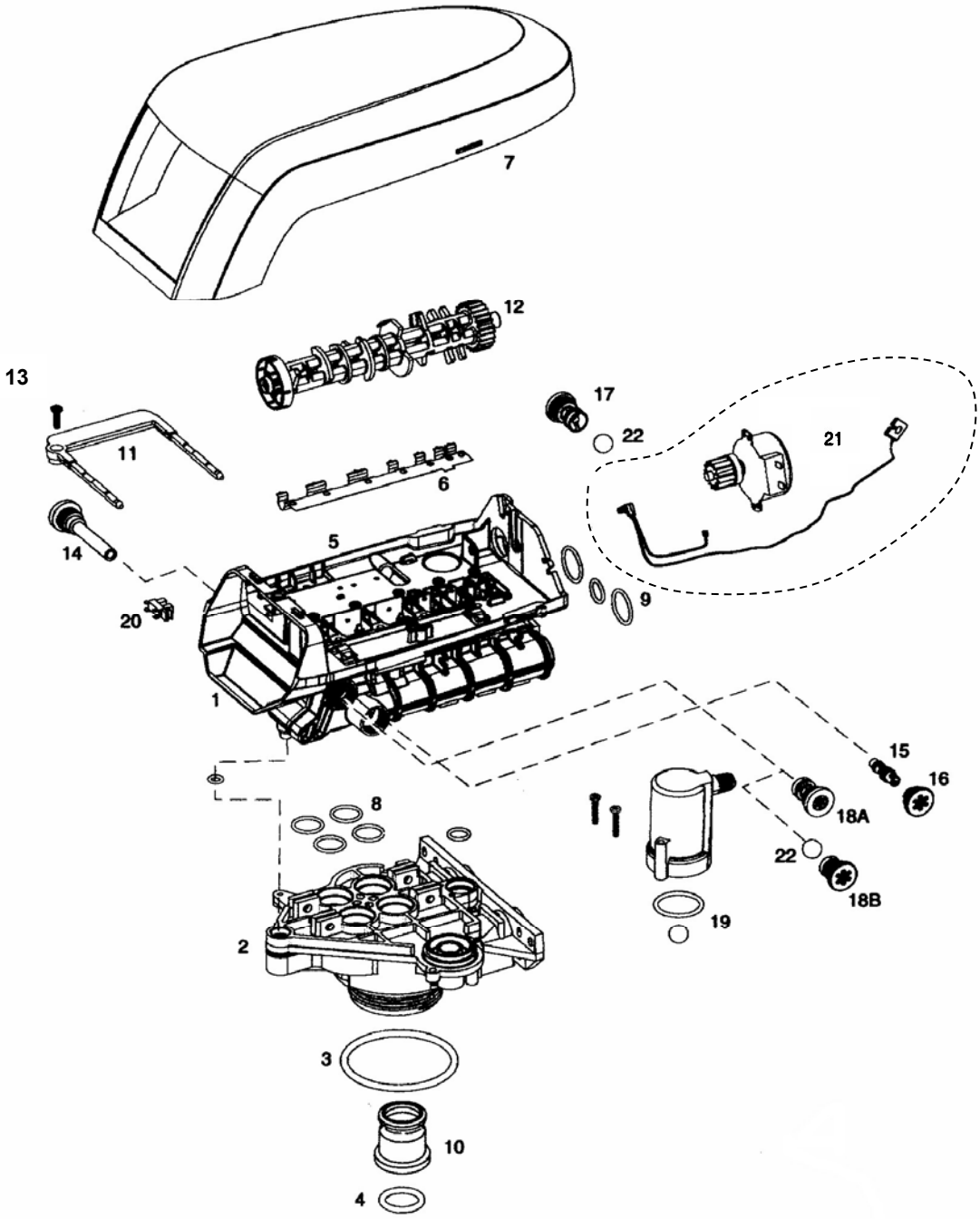
255-440i/450i/460i/460TC VALVE EXPLODED VIEW & PARTS LIST

Number	Ref.	P.N.	Description	
2	AW152	1033025	Camshaft Extra Salt	
2	AW153	1033026	Camshaft Long Rinse	
2	AW154	1032969	Camshaft Water Saver	
3	AW146	1030501	Camshaft Bearing for cover L-Lid	
4	AW185	1031391	Timer Locking Pin	
5	AW125	1000226	Screen/Cap Assembly with O-ring	
6	AW100	1000209	Drain Control Assembly No 7 for 7” tank	
6	AW101	1000210	Drain Control Assembly No 8 for 8” tank	
6	AW102	1000211	Drain Control Assembly No 9 for 9” tank	
6	AW103	1000212	Drain Control Assembly No 10 for 10” tank	
6	AW104	1000213	Drain Control Assembly No 12 for 12” tank	
6	AW105	1000214	Drain Control Assembly No 13 for 13” tank	
6	AW106	1000215	Drain Control Assembly No 14 for 14” tank	
7	AW139	1030502	Flow Control Ball	
8	AW110	1034261	Brine Refill Control 10 lbs Salt – type A	
8	AW111	1034263	Brine Refill Control 19 lbs Salt – type B	
9	AW130	1032970	A Injector - White w/O-ring	
9	AW131	1032971	B Injector - Blue w/O-ring	
9	AW132	1032972	C Injector - Red w/O-ring	
10	AW107	1000269	Injector / Backwash 00-open Cap with o-ring	
11	AW170	1033784	Tank Adapter Assembly	
12	AW190	1032417	Air-check Kit ¼” male	
13	AW172	3029969	O-ring 3-1/8 x 3-1/2 x 3/16 BN	
14	AW169	3030918	O-ring 1,05”	
15	AW173	1031405	Locking Bar	
16	AW174	3030450	Top Plate Screw No 8 x 9/16”	
17	AW163	1235341	Spring One Piece, 255 Valve	
*	AW181	1001580	Valve Disc Spring (OLD STYLE)	
18	AW141A	3019870	I-Lid Cover NEW STYLE	
18A	AW141	1032565	Standard Cover 440i-450i (L-Lid) OLD STYLE	
18B	AW142	1000062	I-Lid Cover OLD STYLE	
19	AW146A	3019873	Lever Locking Cam (I-Lid) NEW STYLE	
*	AW147	1000297	Extended Connector (for use with I-lid cover) OLD STYLE	
*	AW191	1033066	New to Old Air Check Adapter	
20	AW195	1001404	O-ring Set	
21	AW196	1040459	O-ring Set	
*	AW197		O-ring Set w/screws and nuts	
22	AW171	1001986	13/16 Rubber Insert (Optional)	
*	AW160	1033067	Top Plate 255 series 400 OLD STYLE	
23	AW160A	3019871	Top Plate 255 series 400 NEW STYLE	
24	AW180	1000250	Disc Valves kit	
25	AW140	1030528	Air-check ball	
*	AV037	1239760	Blending Kit for 255 and 268 valves	
*	AV059	1239753	Top Plate Mount Switch Kit 0.1 A	
*	AV069	1239754	Top Plate Mount Switch Kit 5 A	
17+18+19+23	AW211	3034598	Upgrade kit 255 400 series NEW STYLE	

* Not shown

*** Out-of-production, available till it will be out-of-stock

VALVE EXPLODED VIEW & PARTS LIST

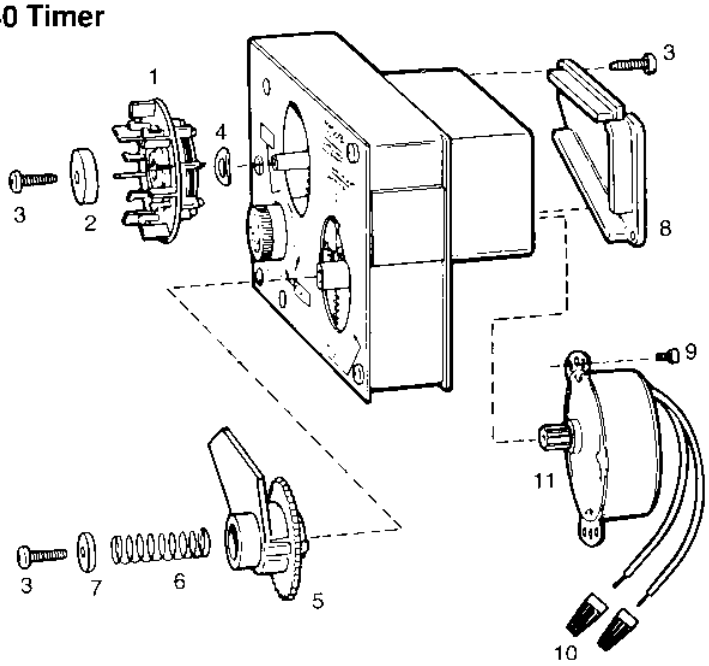


Number	Ref.	P.N.	Description	
1+5+6	AW168	1244650	255/700 Valve Assembly w/o Flow Controls	
2	AW170	1033784	255 Tank Adapter New Style	
3	AW172	3029969	O-ring BN	
4	AW169	3030918	O-ring 1,05”	
5	AW162	1235340	Top plate, 255 Valve, 700/860 Series Controller	
6	AW163	1235341	Spring One Piece, 255 Valve	
7	AW148	1236246	Standard Cover 255-268 Valve, 700/860 Series	
*	AW145	1242234	255 Slim Cover	
8	AW195	1001404	O-ring set	
9	AW196	1040459	O-ring set	

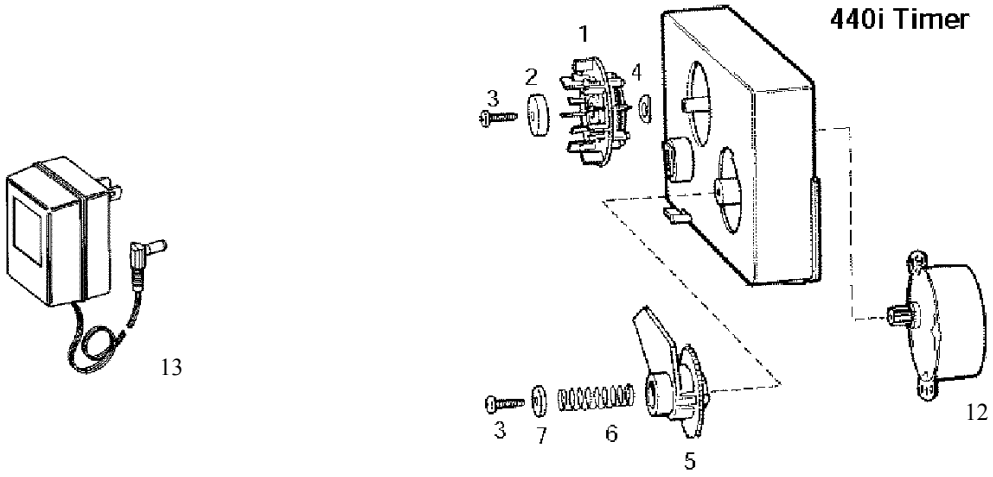
Number	Ref.	P.N.	Description	
10	AW171	1001986	13/16 Rubber Insert (Optional)	
*	AW180	1000250	Valve Disk Kit	
*	AV037	1239760	Blending Kit for 255 and 268 valves	
11	AW173	1031405	Locking Bar	
12	AW149	1235353	Cam 255/700-860 Series Valve, STD, Black	
13	AW174	3030450	Top Plate Screw No 8 x 9/16”	
14	AW125	1000226	Screen/Cap Assembly with O-ring	
15	AW133	1035730	E injector – Yellow	
15	AW134	1035731	F injector – Peach	
15	AW135	1035732	G injector – Tan	
15	AW136	1035733	H injector – Light Purple	
15	AW137	1035734	J injector – Light Blue	
15	AW138	1035735	K injector – Pink	
15	AW348	1035736	L injector – Orange	
15	AW349	1035737	M injector – Brown	
15	AW350	1035738	N injector – Green	
15	AW351	1035739	Q injector – Purple	
15	AW352	1035884	R injector – Dark grey	
16	AW107	1000269	Injector / Backwash 00-open Cap with o-ring	
17	AW100	1000209	Drain Control Assembly No 7 for 7” tank	
17	AW101	1000210	Drain Control Assembly No 8 for 8” tank	
17	AW102	1000211	Drain Control Assembly No 9 for 9” tank	
17	AW103	1000212	Drain Control Assembly No 10 for 10” tank	
17	AW104	1000213	Drain Control Assembly No 12 for 12” tank	
17	AW105	1000214	Drain Control Assembly No 13 for 13” tank	
17	AW106	1000215	Drain Control Assembly No 14 for 14” tank	
18A	AW116	1000222	Brine Refill Control 0.33 gpm old style	
18B	AW118	1243511	Brine Refill Control 0.33 gpm (requires ball)	
19	AW190	1032417	Air-check Kit ¼” male	
20	AW129	1235373	Optic Sensor	
21	AW126	1238861	Motor w/Spacer & Pinion & Cable 700 Series Controller	
22	AW139	1030502	Flow Control Ball	
*	AW191	1033066	New to Old Style Air-check Adapter	
*	AW140	1030528	Air-check Ball	
*	AW128	1035446	Turbine cable 255-268-278/700	
*	AX040	1244336	Kit Chlorine Generator 255/268 Logix	
*	AW124	3029962	Motor Locking Pin	
*	AV057	1239711	Front Mount Switch Kit 0.1 A	
*	AV058	1239752	Front Mount Switch Kit 5 A	
*	AV059	1239753	Top Plate Mount Switch Kit 0.1 A	
*	AV069	1239754	Top Plate Mount Switch Kit 5 A	
*	AV036	1263718	Kit remote Logix control with 3 m cable	
*	AV036A	1256257	Kit remote Logix control with terminal blocks	
*	AV023	1242411	Extension cord for cabinets	
*	AV023A	1239979	Logix impulse Kit	
*	AW500	1000814	European Transformer 230/12V	
*	AW501	1000813	British Transformer	
*	AW502	1000811	American transformer 120/12V	

* Not shown N.A. = Not available.

440 Timer



440i Timer



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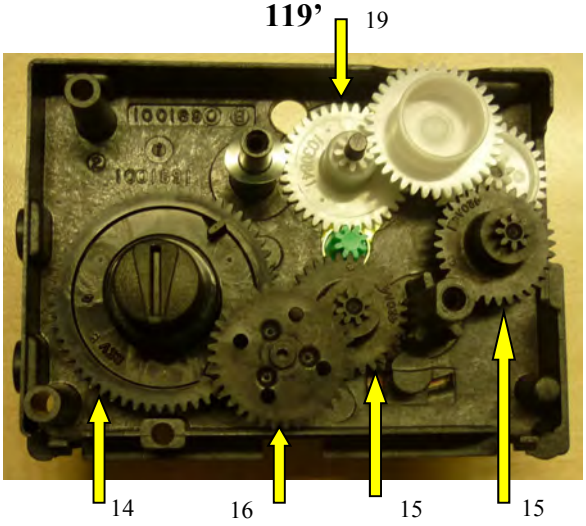

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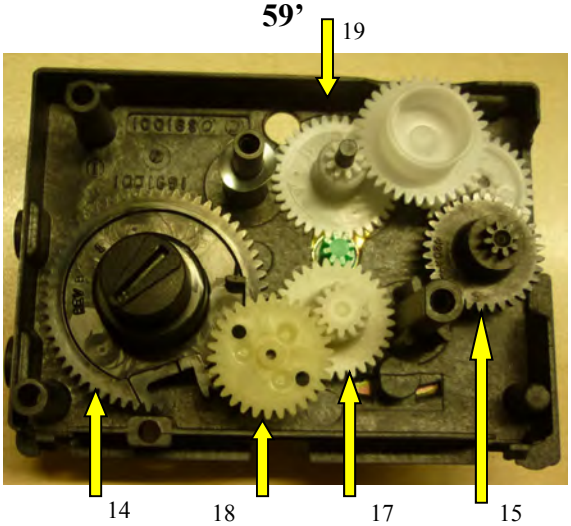


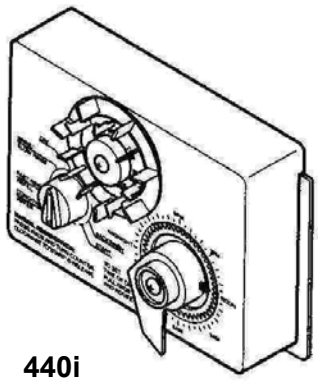
Number	Ref.	P.N.	Description	
1	AW400	1031740	Skipper Wheel Assembly – 6 Day	
1	AW401	1031742	Skipper Wheel Assembly – 7 Day	
2	AW411	1030659	Washer	
3	AW451	3030002	Motor Cap Screw	
4	AW412	3030003	Bowed Washer	
5	AW402	1031756	Tripper Arm Assembly	
6	AW413	1030830	Spring	
7	AW414	1030821	Retainer	
8	AW450	1031751	Motor Cap (440-450)	
9	AW452	1005615	Motor fastening Screw	
10	AW410	1007416	Wire Nut	
11	AW430	1030846	Motor 115V.60 Hz (440-450)	
11	AW420	1000377	Motor 230V.50 Hz (440-450)	
11	AW421	3003134	Motor 24V.50 Hz (440-450)	
11	AW431	1030850	Motor 24V.60 Hz (440-450)	
11		1031557	Motor 200V.60 Hz (440-450)	
11	AW422	1008205	Motor 12V.50 Hz (440)	
11	AW432	1008206	Motor 12V.60 Hz (440)	
12	AW423	1001568	Motor 12V.50 Hz (440i)	
12	AW433	1001569	Motor 12V.60 Hz (440i)	
12	AW424	1000098	Motor 9V.50 Hz (460i – 460tc)	
12	AW434		Motor 9V.60 Hz (460i – 460tc)	
13	AW500	1000814	European Transformer 230/12V	
13	AW501	1000813	British Transformer	
13	AW502	1000811	American transformer 120/12V	
*	AW403	1001582	Red Start Button (440)	
*	AW404	1031558	Red Start Button (450-460)	
14	AW405	1001833	Output Connector w/Black Start Button 440i	
*	AW406	1001000	Black Start Button (460i – 460tc)	
*	AW408	1031496	Output Connector 440	
*	AW409	1000094	Timer Window 460i – 460tc	
*	AW453	1005120	Cable press w/cable (440)	
15	AW454	1031554	Black gear 119’ A (INF. #8) [420A4]	
16	AW455	1030844	Black gear 119’ B [420A44]	
17	AW456	1030842	White gear 59’ A (INF. #13) [420A4]	
18	AW457	1030843	White gear 59’ B [420A42]	
*	AW458	1031555	Black gear 90’ A (INF. #10)	
*	AW459	1030845	Black gear 90’ B	
*	AW031	1004501	Retaining ring 440 (20E)	
19	AW449	1030841	White gear for timer 440i	

* Not shown *** Out-of-production, available till it will be out-of-stock N.A. = Not available.

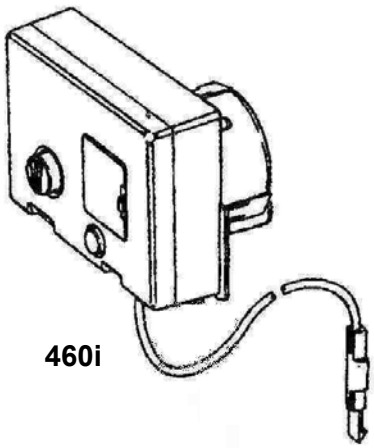
SERIES 400 TIMER LIST

Number	Ref.	P.N.	Description	
*	AW460	1051826	Timer 440i 7GG 119’ 12V.50 Hz ITA	
*	AW461	44IL12L56R	Timer 440i 6GG 119’ 12V.50 Hz ITA	
*	AW462	1051827	Timer 440i 7GG 59’ 12V.50 Hz ITA	
*	AW463		Timer 440i 6GG 59’ 12V.50 Hz ITA	
*	AW464	1040779	Timer 440i 7GG 119’ 12V.60 Hz US.	
*	AW465		Timer 440i 6GG 119’ 12V.60 Hz US.	
*	AW466	44ILE2L67R59	Timer 440i 7GG 59’ 12V.60 Hz US.	
*	AW467		Timer 440i 6GG 59’ 12V.60 Hz US.	
*	AW468	3031461	Timer 440i 7GG 119’ 12V.50 Hz for filtration	
*	AW474	1051828	Timer 440i 7GG 119’ 12V.50 Hz E.	
*	AW475		Timer 440i 6GG 119’ 12V.50 Hz E.	
*	AW476	44ILE2L57R59	Timer 440i 7GG 59’ 12V.50 Hz E.	
*	AW477		Timer 440i 6GG 59’ 12V.50 Hz E.	
*	AW482	4000610	Timer 460tc 118’ 12V.50 Hz symbols	
*	AW483	4000611	Timer 460tc 59’ 12V.50 Hz symbols	
*	AW484		Timer 460tc 118’ 12V.60 Hz US.	
*	AW485		Timer 460tc 59’ 12V.60 Hz US.	
*	AW490	1262929	Timer 450i 119’ 24V.50 Hz	
*	AW491		Timer 450i 119’ 24V.60 Hz US.	
*	AW480	1030007	Timer 460i 119’ 12V.50 Hz symbols	
*	AW481	1051811	Timer 460i 59’ 12V.50 Hz symbols	
*	AW486	1030000	Timer 460i 119’ 12V.60 Hz US.	
*	AW487		Timer 460i 59’ 12V.60 Hz US.	

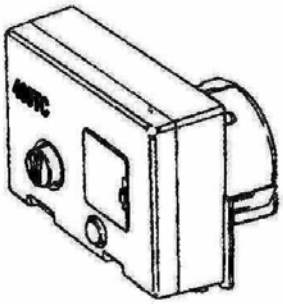
* Not shown



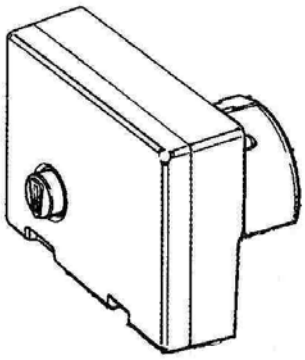
440i



460i



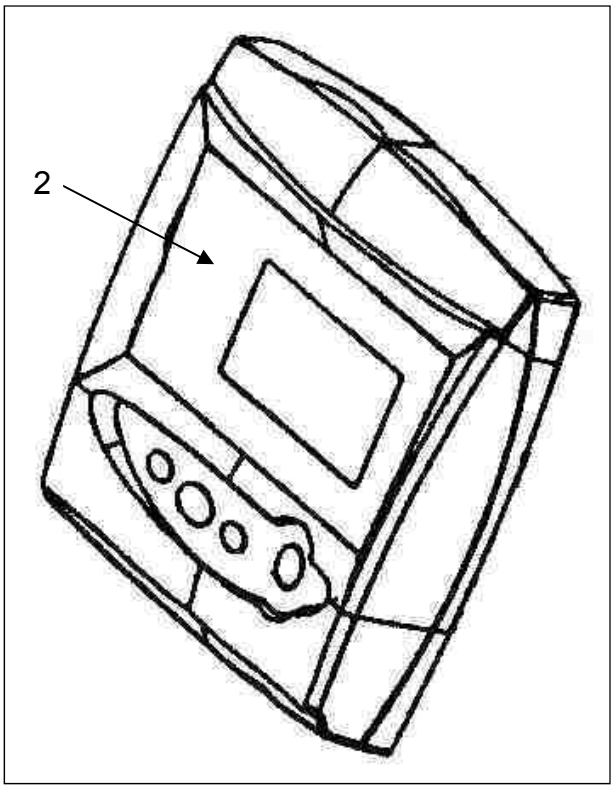
460tc

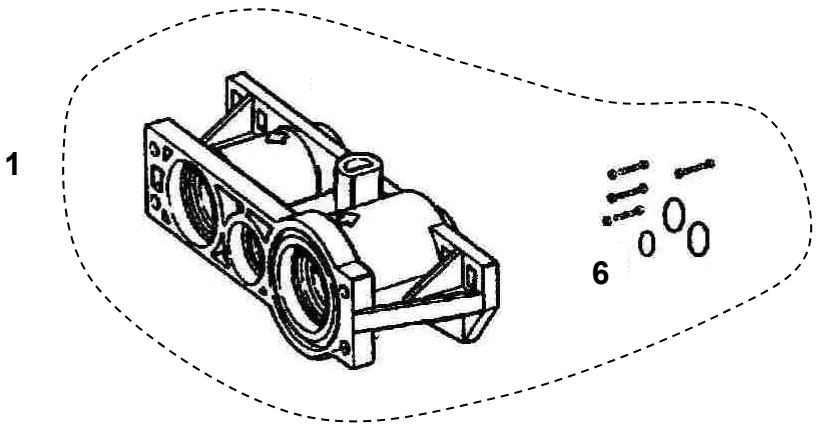


450i

Number	Ref.	P.N.	Description	
1	AW511E		740C Timer w/check salt 12V 50Hz w/Symbol Label	
1	AW514E		760C Timer w/check salt 12V 50Hz w/Symbol Label	
1	AW517E		740F Timer w/check salt 12V 50Hz w/Symbol Label	
1	AW524E		760F Timer w/check salt 12V 50Hz w/Symbol Label	
1	AW512E		742C Timer w/check salt 12V 50Hz w/Symbol Label	
1	AW515E		762C Timer w/check salt 12V 50Hz w/Symbol Label	
1	AW518E		742F Timer w/check salt 12V 50Hz w/Symbol Label	
1	AW525E		762F Timer w/check salt 12V 50Hz w/Symbol Label	
1	AW505E		764C Timer w/check salt 12V 50Hz w/Symbol Label	
*	AW504	1254886	Blank secondary controller	

* Not shown

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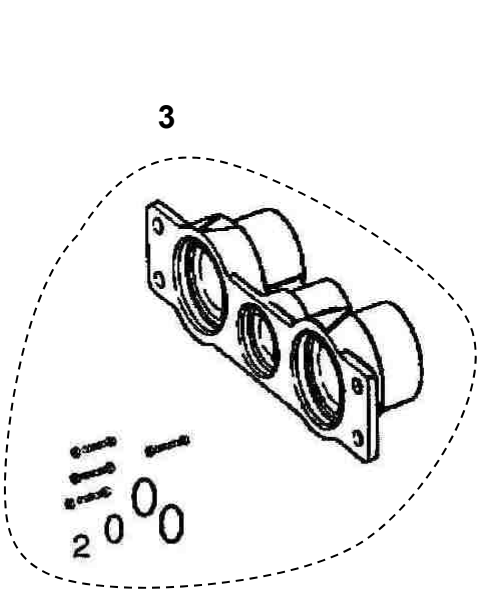
6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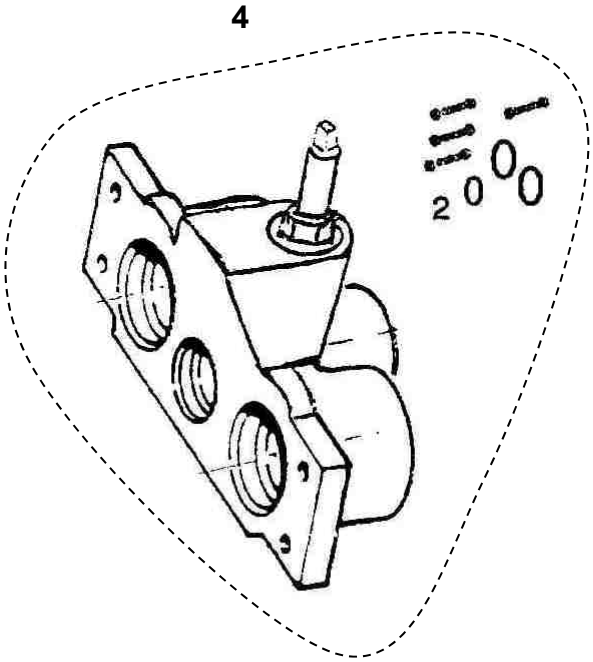
2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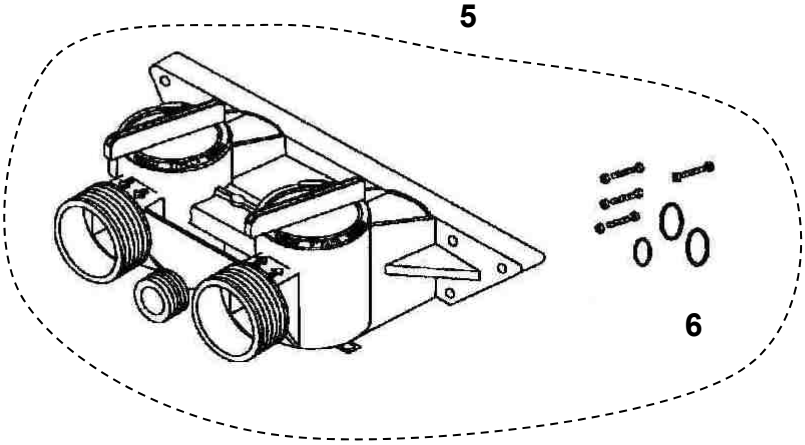
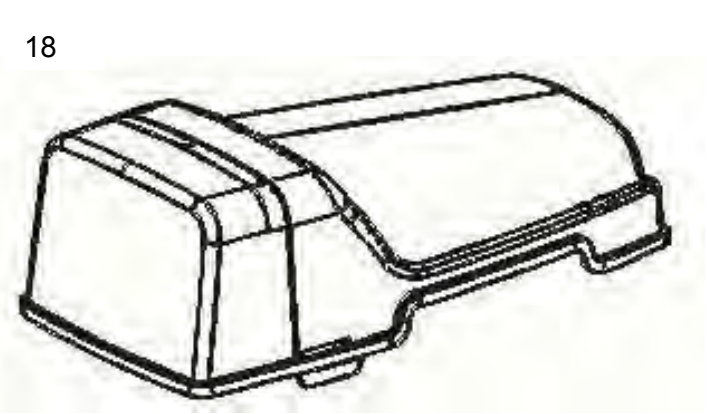

5
6

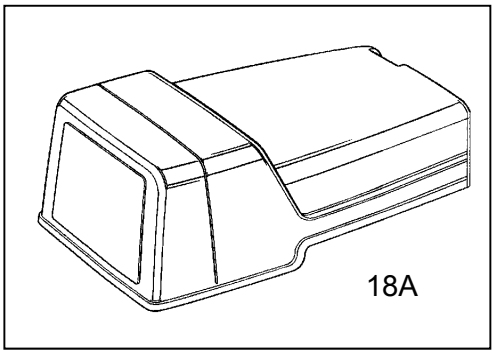
METER, MANIFOLD, 256 BYPASS SPARE PARTS

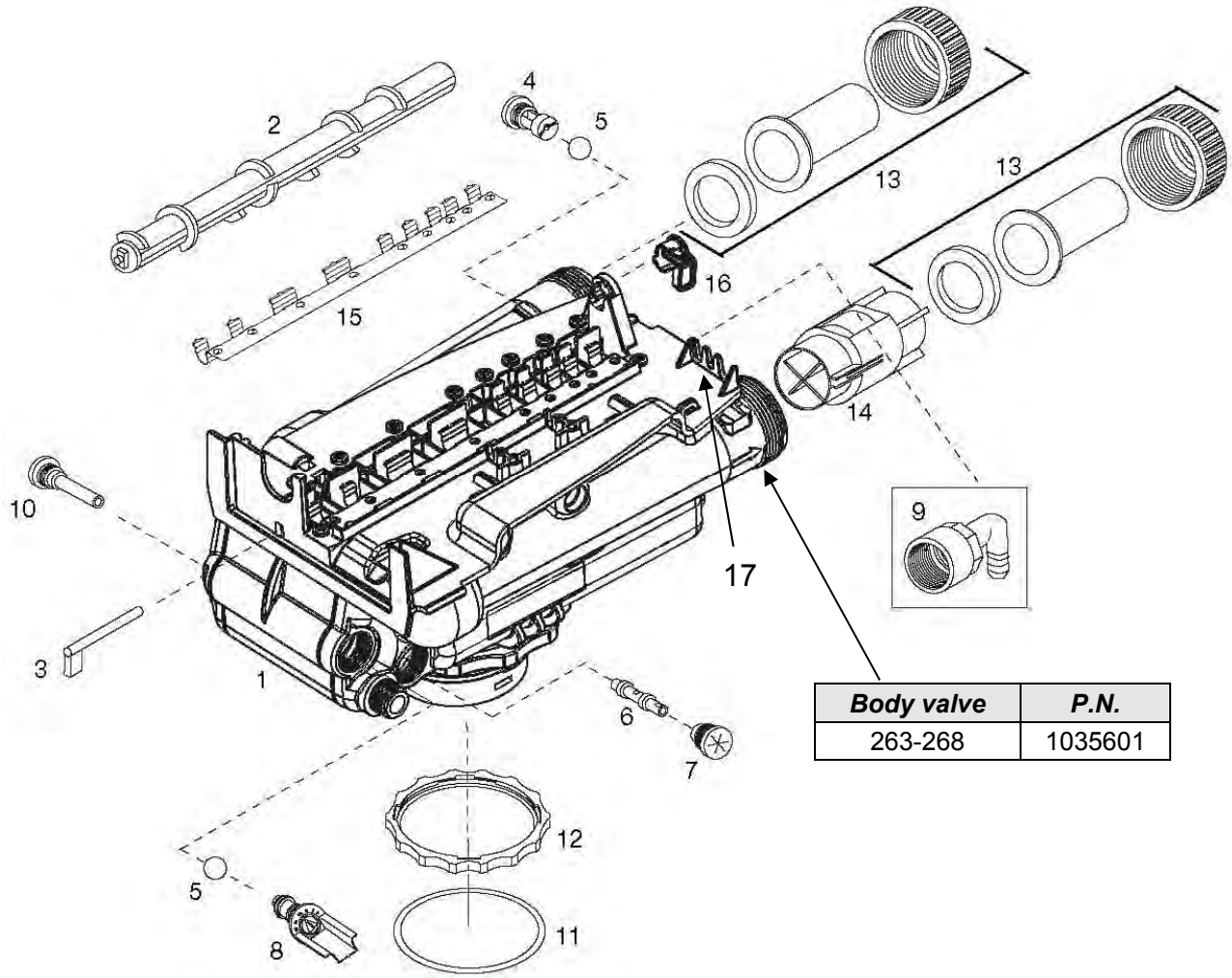
Number	Ref.	P.N.	Description	
1	AW201	1032350	Meter Adapter Kit	
2	AW197		O-ring Kit brass w/screws and nuts	
3	AV015		Piping Boss brass ¾”	
3	AV016		Piping Boss brass 1”	
3	AV010		Piping Boss Kit brass ¾”	
3	AV011		Piping Boss Kit brass 1”	
*	AV013	1040283	Piping Boss Kit noryl ¾”	
4	AV006		Piping Boss brass ¾” mixer	
4	AV017		Piping Boss brass 1” mixer	
*	AV007		Piping Boss Kit brass ¾” mixer	
*	AV012		Piping Boss Kit brass 1” mixer	
*	AV001		Piping Boss Kit noryl ¾” with turbine	
*	AV001A		Piping Boss Kit noryl ¾” without turbine	
*	AV022		Piping Boss Kit noryl 1” with turbine	
*	AV022A		Piping Boss Kit noryl 1” without turbine	
5	AV026	1040769	Bypass 256 w/O-ring, screws and nuts	
*	AW202	1033057	Flow meter (255-168)	
6	AW197N	1040524	O-ring Kit noryl w/screws and nuts	

* Not shown

263-268-268F A/400 VALVE EXPLODED VIEW







Body valve	*P.N.*
263-268	1035601

NOTE: 18A is an old model not compatible with the current plate.

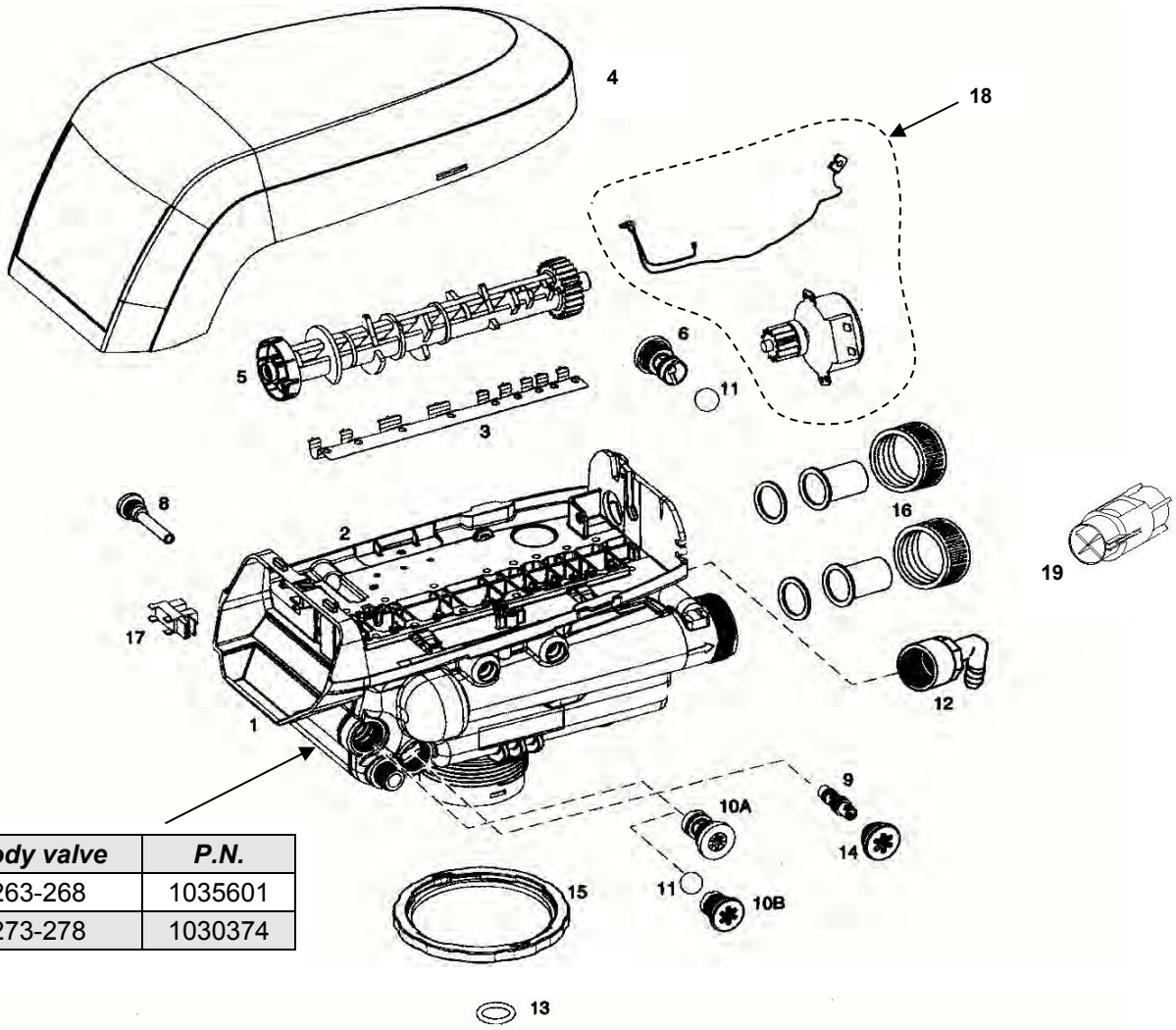
Number	*Ref.*	*P.N.*	*Description*	
1+12+15+ +16+17	AW166	1263715	Valve Assembly 263-268/400 w/o Flow Controls	
2	AW315	1035625	Camshaft 440i 460i standard	
2	AW316	1035627	Camshaft 440i 460i Extra Salt	
2	AW317	1030376	Camshaft FA 440i	
2	AW318	1035624	Camshaft 263	

263-268-268F A/400 VALVE EXPLODED VIEW

Number	Ref.	P.N.	Description	
3	AW185	1031391	Timer Locking Pin	
4	AW100	1000209	Drain Control Assembly No 7 for 7” tank	
4	AW101	1000210	Drain Control Assembly No 8 for 8” tank	
4	AW102	1000211	Drain Control Assembly No 9 for 9” tank	
4	AW103	1000212	Drain Control Assembly No 10 for 10” tank	
4	AW104	1000213	Drain Control Assembly No 12 for 12” tank	
4	AW105	1000214	Drain Control Assembly No 13 for 13” tank	
4	AW106	1000215	Drain Control Assembly No 14 for 14” tank	
5	AW139	1030502	Flow Control Ball	
6	AW130	1032970	A Injector – White	
6	AW131	1032971	B Injector – Blue	
6	AW132	1032972	C Injector – Red	
6	AW304	1030272	D Injector – Green	
7	AW107	1000269	Injector / Backwash 00-open Cap with o-ring	
*	AW306	1032978	Blank injector with for per 263	
8	AW110	1034261	Brine Refill Control 10 lbs Salt – type A	
8	AW111	1034263	Brine Refill Control 19 lbs Salt – type B	
8	AW308	1030334	Plugged Refill Control for 263	
9	AV175	1002449	Drain Fitting Elbow (¾” Hose Barbed)	
10	AW125	1000226	Screen & Cap Assembly with O-ring	
11	AW172	3029969	O-ring 3-1/8 x 3-1/2 x 3/16 BN	
12	AW319	1035622	Tank Ring	
13	AV030		¾” BSPT Brass Pipe Adapter Kit	
13	AV031		1” BSPT Brass Pipe Adapter Kit	
13	AV032	1001615	32 mm PVC Tube Adapter Kit	
13	AV038		1 ¼” BSPT Brass Pipe Adapter Kit	
14	AW328	1033444	Turbine Assembly	
15	AW360	1235339	Valve Disc Spring, One Piece	
*	AW181	1001580	Valve Disc Spring (OLD STYLE)	
16	AW146A	3019873	Lever Locking Cam (I-Lid) NEW STYLE	
17	AW325A	3019872	Top Plate Performa 400 NEW STYLE	
*	AW325	1035629	Top Plate Performa 400 OLD STYLE	
18	AW141A	3019870	I-Lid Cover NEW STYLE	
18A	AW142	1000062	I-Lid Cover OLD STYLE	
*	AW329	1041174	Standard Valve Disc Kit	
*	AW309	1035778	Performa Camshaft 400 Clip	
15+16+17+18	AW212	3034599	Upgrade kit 263-268 400 series NEW STYLE	
*	AV037	1239760	Blending Kit for 255 and 268 valves	
*	AV065	1041116	Kit Switch Performa 400 0.1 Amp	
*	AV066	1041117	Kit Switch Performa 400 5 Amp	
*	AV039		Bypass 1265 1”	
*	AV040		Bypass 1265 1 ¼”	
*	AW174	3030450	Top Plate Screw No 8 x 9/16”	

* Not shown *** Out-of-production, available till it will be out-of-stock N.A. = Not available.

LOGIX 263-268-278 VALVE EXPLODED VIEW



Body valve	P.N.
263-268	1035601
273-278	1030374

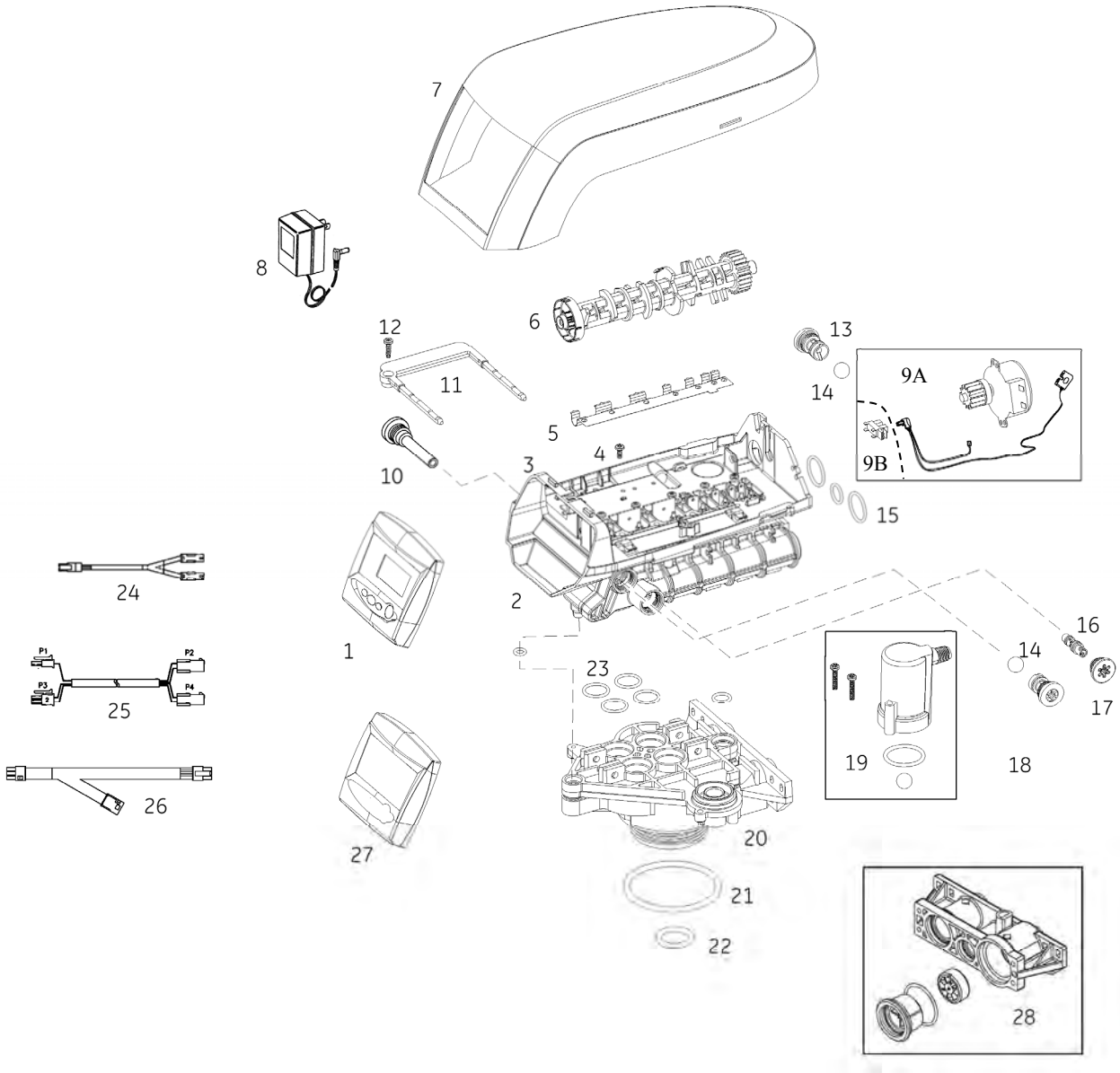
Number	Ref.	P.N.	Description	
1+2+3+13	AW362	1255104	263-268/700 Valve Assembly w/o Controls	
1+2+3+13	AW363	1255105	278/700 Valve Assembly w/o Controls	
2	AW359	1235338	Top Plate 268/700	
3	AW360	1235339	Valve Disc Spring, One Piece	
4	AW148	1236246	Cover 255-268 700/860 Valve	
5	AW358	1235352	Standard Cam 263-268/700-860 Valve black	
5	AW361	1237405	Standard Cam 278/700-800 Valve brown	
6	AW100	1000209	Drain Control Assembly No 7 for 7” tank	
6	AW101	1000210	Drain Control Assembly No 8 for 8” tank	
6	AW102	1000211	Drain Control Assembly No 9 for 9” tank	
6	AW103	1000212	Drain Control Assembly No 10 for 10” tank	
6	AW104	1000213	Drain Control Assembly No 12 for 12” tank	
6	AW105	1000214	Drain Control Assembly No 13 for 13” tank	
6	AW106	1000215	Drain Control Assembly No 14 for 14” tank	
6	AV044	1030355	Drain Line Flow Control Assembly 05 gpm	
6	AV045	1030356	Drain Line Flow Control Assembly 06 gpm	
6	AV046	1030357	Drain Line Flow Control Assembly 07 gpm	
6	AV047	1030358	Drain Line Flow Control Assembly 08 gpm	
6	AV048	1030359	Drain Line Flow Control Assembly 09 gpm	

LOGIX 263-268-278 VALVE EXPLODED VIEW

Number	Ref.	P.N.	Description	
6	AV049	1030360	Drain Line Flow Control Assembly 10 gpm	
6	AV141	1000406	Drain Line Flow Control Assembly 12 gpm	
6	AV142	1000407	Drain Line Flow Control Assembly 15 gpm	
6	AV144	1000409	Drain Line Flow Control Assembly 20 gpm	
8	AW125	1000226	Screen/Cap Assembly with O-ring	
9	AW133	1035730	E injector – Yellow	
9	AW134	1035731	F injector – Peach	
9	AW135	1035732	G injector – Tan	
9	AW136	1035733	H injector – Light Purple	
9	AW137	1035734	J injector – Light Blue	
9	AW138	1035735	K injector – Pink	
9	AW348	1035736	L injector – Orange	
9	AW349	1035737	M injector – Brown	
9	AW350	1035738	N injector – Green	
9	AW351	1035739	Q injector – Purple	
9	AW352	1035884	R injector – Dark grey	
10A	AW116	1000222	Brine Refill Control 0.33 gpm old style	
10B	AW118	1243511	Brine Refill Control 0.33 gpm (requires ball)	
10B	AW327	1000519	Brine Refill Control 1.30 gpm (requires ball)	
11	AW139	1030502	Flow Control Ball	
11	AW308	1030334	Plugged Refill Control for 263	
12	AV175	1002449	Drain Fitting Elbow ¾”	
13	AW169	3030918	O-ring 1,05”	
14	AW107	1000269	Injector / Backwash 00-open Cap with o-ring	
15	AW319	1035622	Tank Ring	
16	AV030		¾” BSPT Brass Pipe Adapter kit	
16	AV031		1” BSPT Brass Pipe Adapter Kit	
16	AV032	1001615	32 mm PVC Tube Adapter Kit	
16	AV038		1 ¼” BSPT Brass Pipe Adapter Kit	
17	AW129	1235373	Optic Sensor	
18	AW126	1238861	Motor w/Spacer & Pinion & Cable 700 Series Controller	
*	AW172	3029969	O-ring tank	
*	AW329	1041174	Valves Disk Kit	
*	AV037	1239760	Blending Kit for 255 and 268 valves	
*	AW128	1235446	Turbine cable 255-268-278/700	
19	AW328	1033444	Turbine Assembly	
*	AX040	1244336	Kit Chlorine Generator 255/268 Logix	
*	AW124	3029962	Motor Locking Pin	
*	AV057	1239711	Front Mount Switch Kit 0.1 A	
*	AV058	1239752	Front Mount Switch Kit 5 A	
*	AV059	1239753	Top Plate Mount Switch Kit 0.1 A	
*	AV069	1239754	Top Plate Mount Switch Kit 5 A	
*	AV036	1263718	Kit remote Logix control with 3 m cable	
*	AV036A	1256257	Kit remote Logix control with terminal blocks	
*	AV023	1242411	Extension cord for cabinets	
*	AV023A	1239979	Logix impulse Kit	

* Not shown *** Out-of-production, available till it will be out-of-stock

255/764 VALVE EXPLODED VIEW & PARTS LIST



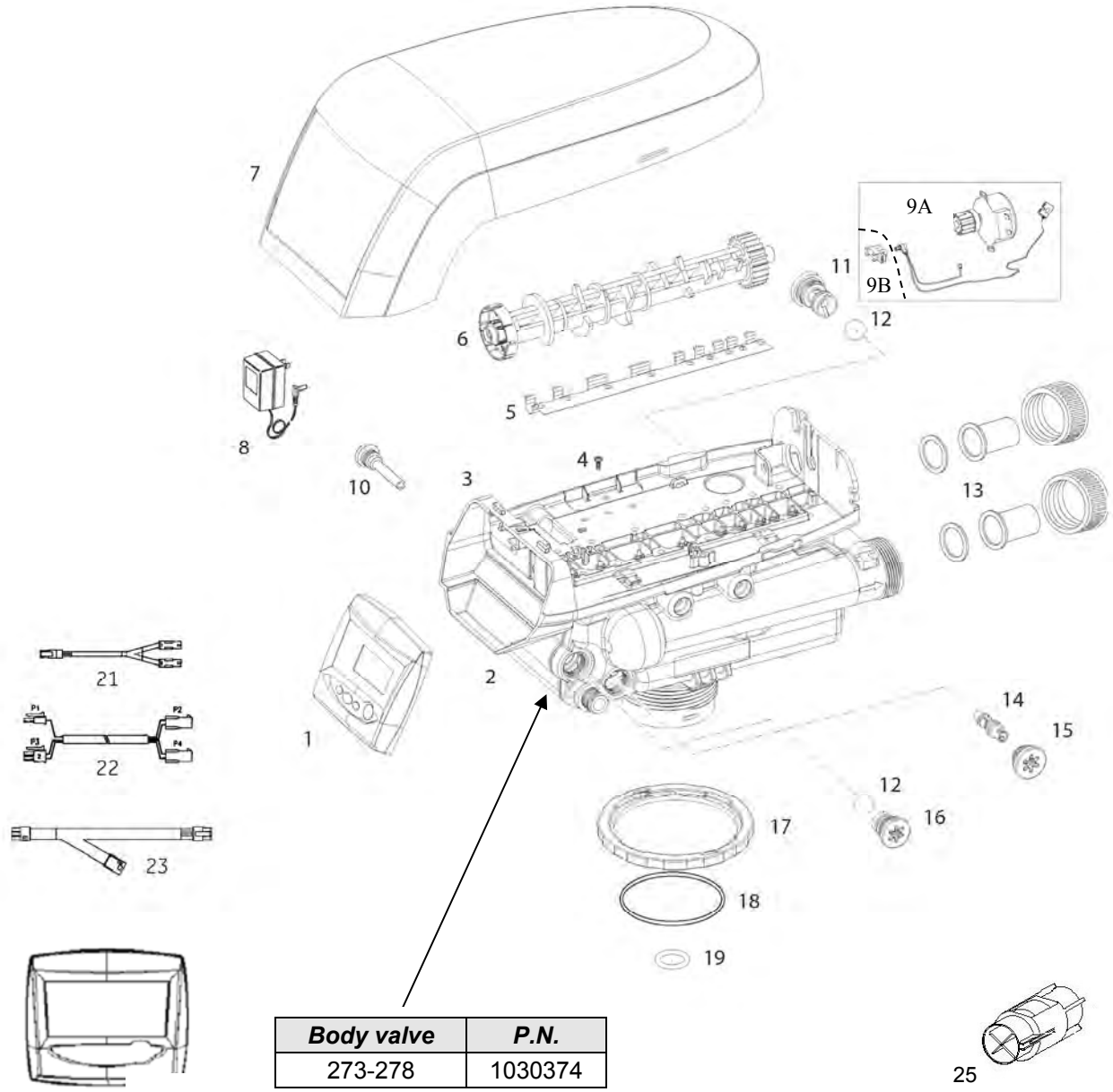
Number	Ref.	P.N.	Description	
1	AW505E		764C Timer w/check salt 12V 50Hz w/Symbol Label	
2+3+4+5	AW168	1244650	255/700 Valve Assembly w/o Flow Controls	
3	AW162	1235340	Top plate, 255 Valve, 700/860 Series Controller	
4 -12	AW174	3030450	Top Plate Screw No 8 x 9/16”	
5	AW163	1235341	Spring One Piece, 255 Valve	
6	AW149	1235353	Cam 255/700-860 Series Valve, STD, Black, L mode	

255/764 VALVE EXPLODED VIEW & PARTS LIST

Number	Ref.	P.N.	Description	
6	AW177	1236251	Cam 255/700-860 Series valve, TWIN, Tan, A-P mode	
7	AW148	1236246	Standard Cover 255-268 Valve, 700/860 Series	
8	AW500	1000814	European Transformer 230/12V	
8	AW501	1000813	British Transformer	
8	AW502	1000811	American transformer 120/12V	
9A	AW126	1238861	Motor w/Spacer& Pinion & Cable 700 Series Controller	
9B	AW129	1235373	Optic Sensor	
10	AW125	1000226	Screen/Cap Assembly with O-ring	
11	AW173	1031405	Locking Bar	
13	AW100	1000209	Drain Control Assembly No 7 for 7” tank	
13	AW101	1000210	Drain Control Assembly No 8 for 8” tank	
13	AW102	1000211	Drain Control Assembly No 9 for 9” tank	
13	AW103	1000212	Drain Control Assembly No 10 for 10” tank	
13	AW104	1000213	Drain Control Assembly No 12 for 12” tank	
13	AW105	1000214	Drain Control Assembly No 13 for 13” tank	
13	AW106	1000215	Drain Control Assembly No 14 for 14” tank	
14	AW139	1030502	Flow Control Ball (if used)	
15	AW196	1040459	O-ring Set	
16	AW133	1035730	E injector – Yellow	
16	AW134	1035731	F injector – Peach	
16	AW135	1035732	G injector – Tan	
16	AW136	1035733	H injector – Light Purple	
16	AW137	1035734	J injector – Light Blue	
16	AW138	1035735	K injector – Pink	
16	AW348	1035736	L injector – Orange	
16	AW349	1035737	M injector – Brown	
16	AW350	1035738	N injector – Green	
16	AW351	1035739	Q injector – Purple	
16	AW352	1035884	R injector – Dark grey	
17	AW107	1000269	Injector / Backwash 00-open Cap with o-ring	
18	AW118	1243511	Brine Refill Control 0.33 gpm (requires ball)	
19	AW190	1032417	Air-check Kit ¼” male	
20	AW170	1033784	255 Tank Adapter New Style	
21	AW172	3029969	O-ring tank	
22	AW169	3030918	O-ring 1,05”	
23	AW195	1001404	O-ring set	
24	AW365	3016715	Y sensor cable connector TWIN	
25	AW366	3016775	Interconnecting cable twin	
26	AW367	3020228	Remote Start / Lockout (only L mode)	
27	AW504	1254886	Blank secondary controller	
28	AW201	1032350	Meter Adapter Kit	
*	AW124	3029962	Motor Locking Pin	
*	AW128	1035446	Turbine cable 255-268-278/700	

* Not shown

278/764 VALVE EXPLODED VIEW AND PARTS LIST



Body valve	P.N.
273-278	1030374

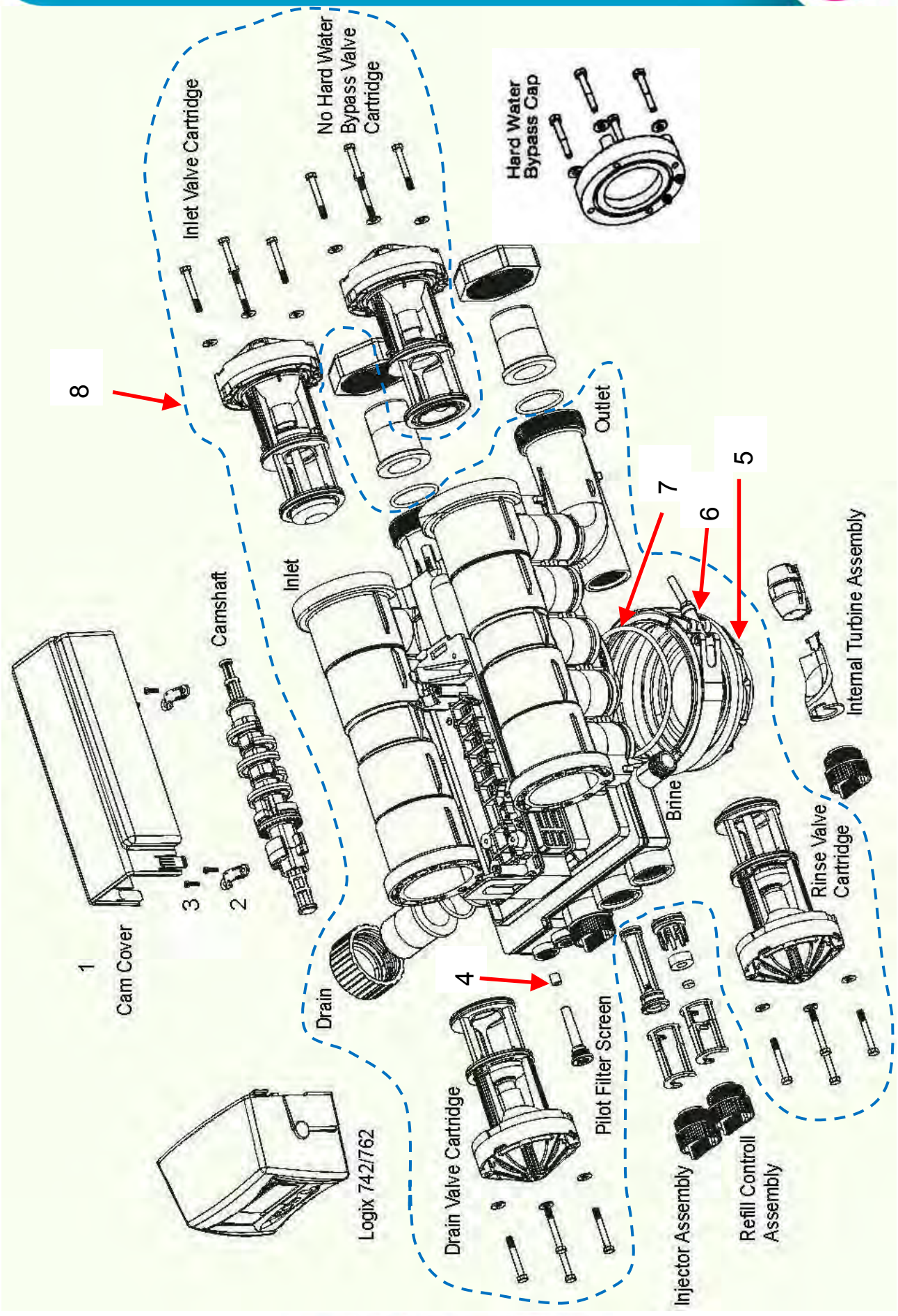
Number	Ref.	P.N.	Description	
1	AW505E		764C Timer w/check salt 12V 50Hz w/Symbol Label	
2+3+4+ +5+19	AW363	1255105	278/700 Valve Assembly w/o Controls	
3	AW359	1235338	Top Plate 268/700	
4	AW174	3030450	Top Plate Screw No 8 x 9/16”	
5	AW360	1235339	Valve Disc Spring, One Piece	
6	AW361	1237405	Standard Cam 278/700-800 Series Valve, Brown	

278/764 VALVE EXPLODED VIEW AND PARTS LIST

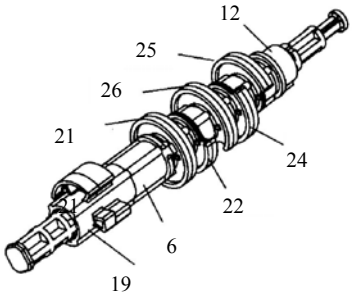
Number	Ref.	P.N.	Description	
6	AW364	1237406	Twin cam 278/700, Tan	
7	AW148	1236246	Cover 255-268 700/860 Valve	
8	AW500	1000814	European Transformer 230/12V	
8	AW501	1000813	British Transformer	
8	AW502	1000811	American transformer 120/12V	
9A	AW126	1238861	Motor w/Spacer & Pinion & Cable 700 Series Controller	
9B	AW129	1235373	Optic Sensor	
10	AW125	1000226	Screen/Cap Assembly with O-ring	
11	AW100	1000209	Drain Control Assembly No 7 for 7” tank	
11	AW101	1000210	Drain Control Assembly No 8 for 8” tank	
11	AW102	1000211	Drain Control Assembly No 9 for 9” tank	
11	AW103	1000212	Drain Control Assembly No 10 for 10” tank	
11	AW104	1000213	Drain Control Assembly No 12 for 12” tank	
11	AW105	1000214	Drain Control Assembly No 13 for 13” tank	
11	AW106	1000215	Drain Control Assembly No 14 for 14” tank	
12	AW139	1030502	Flow Control Ball	
13	AV031		1” BSPT Brass Pipe Adapter Kit	
13	AV032	1001615	32 mm PVC Tube Adapter Kit	
13	AV038		1 ¼” BSPT Brass Pipe Adapter Kit	
13	AW183		32 mm PVC Tube Adapter Kit	
14	AW133	1035730	E injector – Yellow	
14	AW134	1035731	F injector – Peach	
14	AW135	1035732	G injector – Tan	
14	AW136	1035733	H injector – Light Purple	
14	AW137	1035734	J injector – Light Blue	
14	AW138	1035735	K injector – Pink	
14	AW348	1035736	L injector – Orange	
14	AW349	1035737	M injector – Brown	
14	AW350	1035738	N injector – Green	
14	AW351	1035739	Q injector – Purple	
14	AW352	1035884	R injector – Dark grey	
15	AW107	1000269	Injector / Backwash 00-open Cap with o-ring	
16	AW118	1243511	Brine Refill Control 0.33 gpm (requires ball)	
16	AW327	1000519	Brine Refill Control 1.30 gpm (requires ball)	
17	AW319	1035622	Tank Ring	
18	AW172	3029969	O-ring tank	
19	AW169	3030918	O-ring 1,05”	
21	AW365	3016715	Y sensor cable connector TWIN	
22	AW366	3016775	Interconnecting cable twin	
23	AW367	3020228	Remote Start / Lockout (only L mode)	
24	AW504	1254886	Blank secondary controller	
*	AW124	3029962	Motor Locking Pin	
*	AW128	1235446	Turbine cable 255-268-278/700	
25	AW328	1033444	Turbine Assembly	

* Not shown

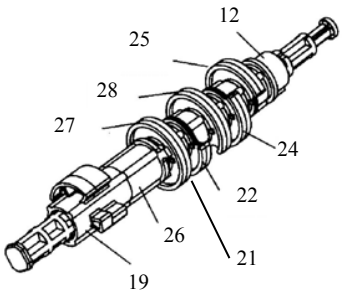
MAGNUM VALVE 700 SERIES
EXPLODED VIEW



Number	Ref.	P.N.	Description	
1	CD140	1000343	Cam Cover	
2	CD100	1000589	Pillow Block Cap	
3	CD109	3030505	Screw (long)	
4	CD144	3025780	Internal Pilot System Check Valve	
5	CD171	3024790	AISI 304 Magnum Adapter	
6	CD173	3024785	AISI 304 Clamp	
7	CD174	3026486	Clamp o-ring	
*	CD166	3007801	1 ½" HWB Magnum Valve body w/o camshaft & reg.	
*	CD167	3007803	1 ½" NHB Magnum Valve body w/o camshaft & reg.	
*	CD168	3007805	2" IT HWB Magnum Valve body w/o camshaft & reg.	
8	CD169	3007806	2" IT NHB Magnum Valve body w/o camshaft & reg.	



A) CAMSHAFT ASSEMBLY
SOFTENER/FILTER LOGIX

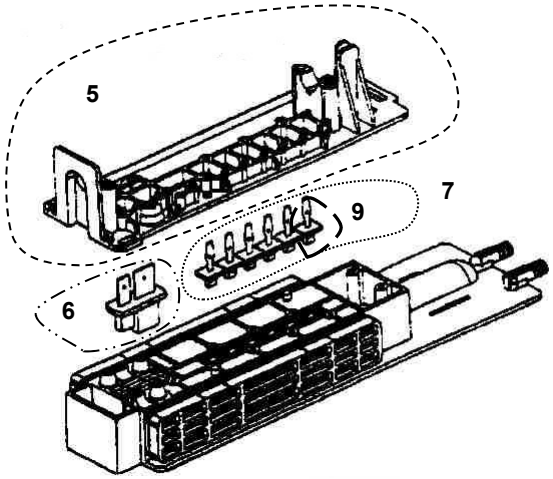


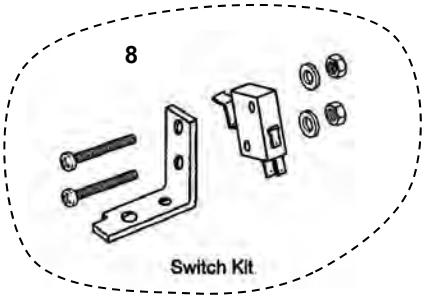
B) CAMSHAFT ASSEMBLY
TWIN LOGIX

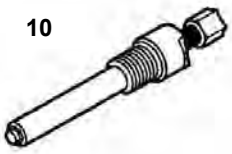
Number	Ref.	P.N.	Description	
A)	CD125	1267726	Logix Camshaft Assembly	
consisting of				
19		1000499	Brine Cam - TAN	
6		1000462	Standard Cam - BLACK	
21		1001620	Pilot Cam # 1 - TAN	
22		1001621	Pilot Cam # 2 - BLU	
26		1267724	Pilot Cam # 3 - GREY	
24		1001623	Pilot Cam # 4 - YELLOW	
25		1001624	Pilot Cam # 5 - ORANGE	
12		1000469	Pilot Cam # 6 - RED	
B)	CD126	1001751	Logix TWIN Camshaft Assembly	
consisting of				
19		1000499	Brine Cam - TAN	
26		1034356	Spacer Cam - BLACK	
27		1233554	Standard Cam - TAN	
21		1001620	Pilot Cam # 1 - TAN	
22		1001621	Pilot Cam # 2 - BLU	
28		1001622	Pilot Cam # 3 - GREEN	
24		1001623	Pilot Cam # 4 - YELLOW	
25		1001624	Pilot Cam # 5 - ORANGE	
12		1000469	Pilot Cam # 6 - RED	

N.A. = Not available.

MAGNUM VALVE 700 SERIES
SPARE PART S



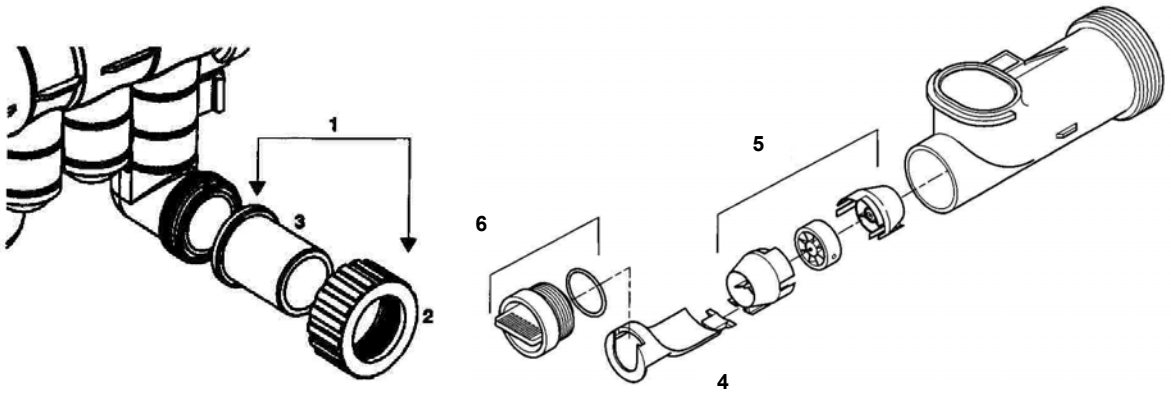




Number	*Ref.*	*P.N.*	*Description*	
5	CD141	1000339	Top Plate	
*	AW174	3030450	Top Plate Screw No 8 x 9/16”	
*	CD109	3030505	Screw (long)	
6	CD143	1000391	Brine Flapper Valve	
9	CD142	1000328	Single Pilot Flapper Valve	
*	AW181	1001580	Valve Disc Spring	
6 + 7	CD020	1040692	Kit Flapper	
*	CD161	1010162	O-Ring Tank Adaptor	
*	CC115	1000553	Cam Pilot Auxiliary Twin	
*	CC116	1000554	Cam Pilot Auxiliary Single	
*	CC117	1041064	Breakaway Cam Kit for Auxiliary Output	
8	CC119	3019468	Kit 1 Switch .1 Amp	
8	CC120	3019469	Kit 1 Switch 5 Amp	
*	CC123	3019466	Kit 3 Switch .1 Amp	
*	CC124	3019467	Kit 3 Switch 5 Amp	
*	CC125	1041065	10-feet Switch Cable Assembly (3 meters length)	
*	CC126	1041066	20-feet Switch Cable Assembly (6 meters length)	
10	CC130	1040668	External Pilot Feed Adapter (separate source)	
11	AW125	1000226	Pilot Screen w/Cap and O-ring	
*	CC131	1034312	Twin parallel Interface Cable (10 feet-3 m)	
*	CC132	1035587	Triple parallel Interface Cable (10 feet-3 m)	
*	CC133	1035593	Extension cable interconnection	
12	CD144	3025780	Internal Pilot System Check Valve	10,37

* Not shown N.A. = Not available.

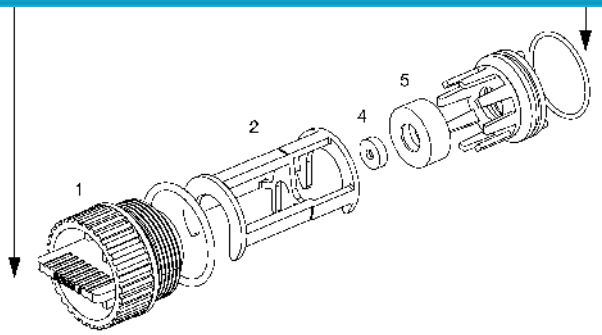
MAGNUM VALVE INSTALLATION ADAPTER PARTS



Number	Ref.	P.N.	Description	
1	CC080	3023673	Magnum Cv 1.5” BSPT Stainless Steel Adapter Kit	
1	CC081	1001656	Magnum Cv D.50 mm PVC Adapter Kit	
1	CC082	3023674	Magnum Cv 2” BSPT Stainless Steel Adapter Kit	
1	CC083	1040785	Magnum Cv Plus 2” PVC D. 63 mm Adapter Kit	
2	CD151	1000356	1 ½” Noryl Adapter Nut	
2	CD152	1030664	2” SS Adapter Nut	
3	CD149		1” CPVC Adapter	
3	CD153	3014556	1 ½” Stainless Steel BSP Adapter	
3	CD163		1 ½” BSPT Female Adapter mat .AVP galvanized	
3	CD154	3014559	2” Stainless Steel BSPT Adapter	
3	CD155	1030577	32 mm metric CPVC Adapter	
3	CD156	1000359	50 mm metric CPVC Adapter	
3	CD157	1030667	63 mm Metric CPVC Adapter	
4	CD067	1000074	Insert, Corner 2”	
5	CD068	1232965	Assembly, Turbine 2” Elbow	
6	CD099	1040688	Assembly, Plug	
*	CD158	3029966	1 ½” Adapter O-ring	
*	CD159	3029964	2” Adapter O-ring	
*	CD160		1” Plane gasket	
*	CD161	1010162	4” Tank Adapter O-ring	
*	CD162	1030891	Gasket for 2” Turbine	
*	CC084	1040921	Side Mount Adapter	
*	CD069	1033358	2” Flow meter Body	
*	CD070	1033237	1” Flow meter w/ Stainless Steel BSPT Adapter	
*	CD071	1033238	1” Flow meter w/ 32 mm metric CPVC Adapter	
*	CD072	3023537	2” Flow meter w/ Stainless Steel BSPT Adapter	
*	CD073	1034081	2” Flow meter w/ 63 mm metric CPVC Adapter	
*	CD074	1001466	Turbine cable 3 meters length	
*	CD075	1233616	IT Turbine cable 0.3 meters length	
*	CD076	1233615	IT Twin Turbine cable 3 meters length	

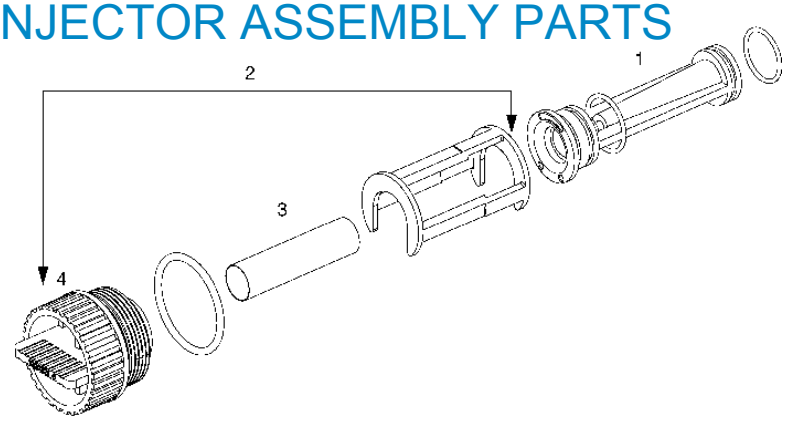
* Not shown *** Out-of-production, available till it will be out-of-stock N.A. = Not available.

MAGNUM REFILL CONTROL ASSEMBLY PARTS



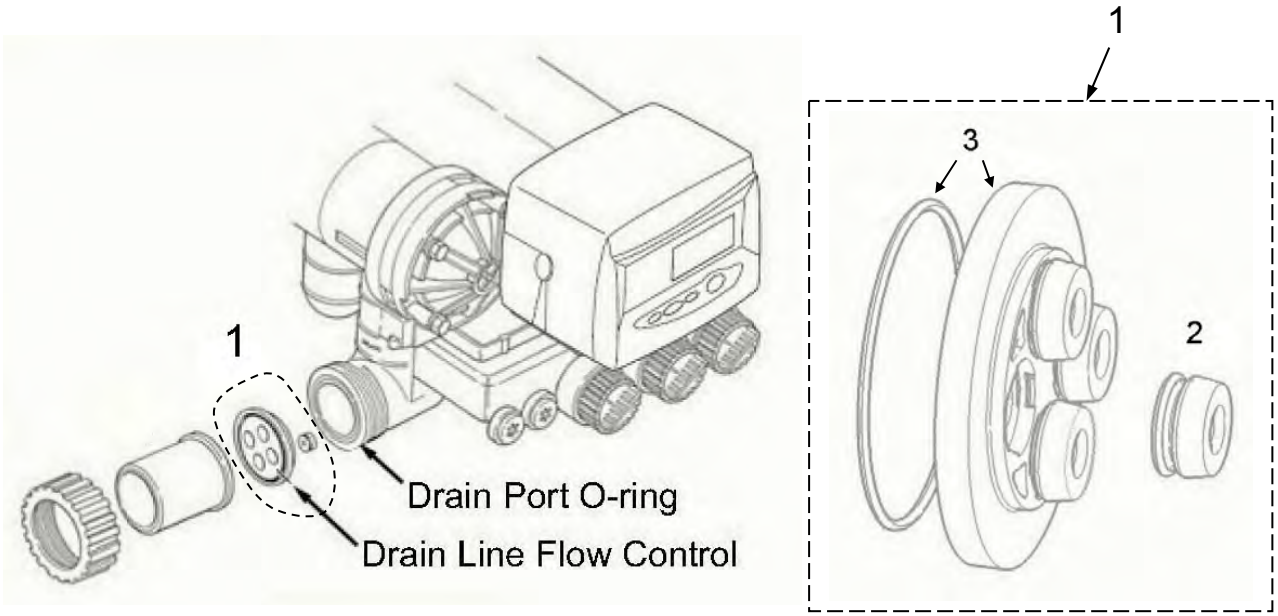
Number	Ref.	P.N.	Description	
1	CD099	1040688	Flow Control Plug	
3	CD089	1040687	Refill Control Assembly w/o Refill Control	
4	CD081	1000421	Refill Flow Control for 14” tank – 0,7 GPM	
4	CD082	1000422	Refill Flow Control for 16” tank – 0,8 GPM	
4	CD083	1000423	Refill Flow Control for 18” tank – 1,0 GPM	
4	CD084	1000424	Refill Flow Control for 21” tank – 1,4 GPM	
4	CD085	1000425	Refill Flow Control for 24” tank – 2,0 GPM	
4	CD086	1000426	Refill Flow Control for 30” tank – 3,0 GPM	
4	CD087	1000427	Refill Flow Control for 36” tank – 5,0 GPM	
5	CD080	1000479	Refill Flow Control Cage	

MAGNUM INJECTOR ASSEMBLY PARTS



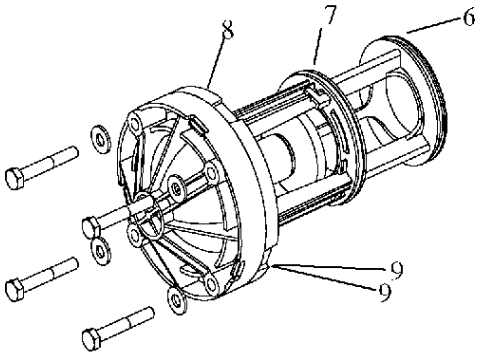
Number	Ref.	P.N.	Description	
1	CD091	1040670	Injector for 14” Tank - 0.5 GPM	
1	CD092	1040671	Injector for 16” (40,6 cm) Tank – 0,5 GPM	
1	CD093	1040672	Injector for 18” (45,7 cm) Tank – 0,6 GPM	
1	CD094	1040673	Injector for 21” (53,3 cm) Tank – 0,9 GPM	
1	CD095	1040674	Injector for 24” (61,0 cm) Tank – 1,4 GPM	
1	CD096	1040675	Injector for 30” (76,2 cm) Tank – 2,0 GPM	
1	CD097	1040676	Injector for 36” (91,4 cm) Tank – 3,3 GPM	
1	CD097A	1000491	Injector for 42” (106,7 cm) Tank – 4,2 GPM	
1	CD098	1040669	Blank Injector	
2	CD088	1040677	Injector Assembly (Less injector)	
3	CD090	1000322	Injector Screen	
4	CD099	1040688	Plug for injector, Refill & Pressure regulator ports	

MAGNUM DRAIN LINE FLOW CONTROL PART LIST

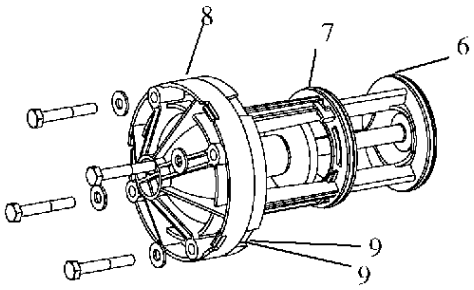


Number	Ref.	P.N.	Description	
1	CC101	1040720	Flow Control Disk 05 gpm	
1	CC102	1040721	Flow Control Disk 06 gpm	
1	CC103	1040723	Flow Control Disk 08 gpm	
1	CC104	1040725	Flow Control Disk 10 gpm	
1	CC105	1040728	Flow Control Disk 13 gpm	
1	CC114	1040729	Flow Control Disk 14 gpm	
1	CC106	1040740	Flow Control Disk 15 gpm	
1	CC107	1040745	Flow Control Disk 20 gpm	
1	CC108	1040747	Flow Control Disk 22 gpm	
1	CC109	1040730	Flow Control Disk 25 gpm	
1	CC110	1040735	Flow Control Disk 30 gpm	
1	CC111	1040750	Flow Control Disk 35 gpm	
1	CC112	1040755	Flow Control Disk 40 gpm	
1	CC113	1040742	Flow Control Disk 17 gpm	
2	CD101	1040756	Flow Control Insert 05 gpm blue	
2	CD102	1040757	Flow Control Insert 06 gpm red	
2	CD103	1040758	Flow Control Insert 07 gpm light brown	
2	CD104	1040759	Flow Control Insert 08 gpm green	
2	CD105	1040760	Flow Control Insert 09 gpm white	
2	CD106	1040761	Flow Control Insert 10 gpm brick red	
2	CD107	1040763	Blank Flow Control Insert black	
2	CD180		Drain line flow control inserts kit (it includes n.1 CD102, n.1 CD103, n.1 CD104, n.1 CD105 and n.4 CD106)	
3	CD108	1040762	Flow Control Disk w/O-ring	

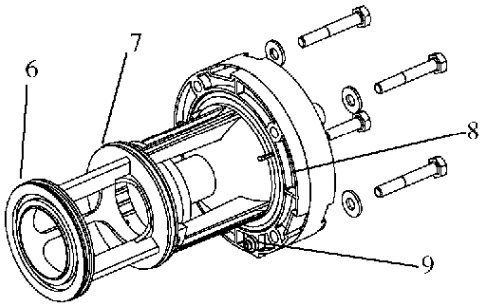
* Not shown



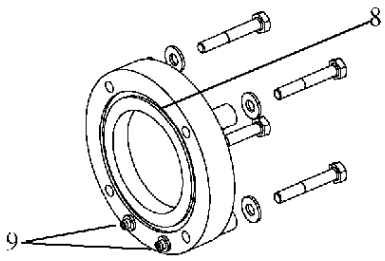
1 - Drain Valve Cartridge



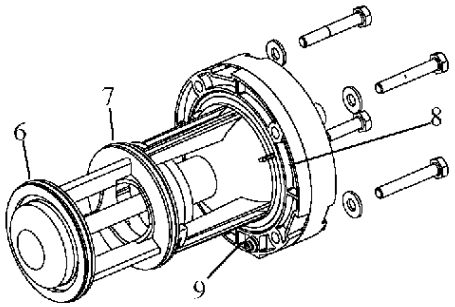
2 - Rinse Valve Cartridge



3 - No Hard Water Bypass Valve Cartridge



4 - Hard Water Bypass Cap

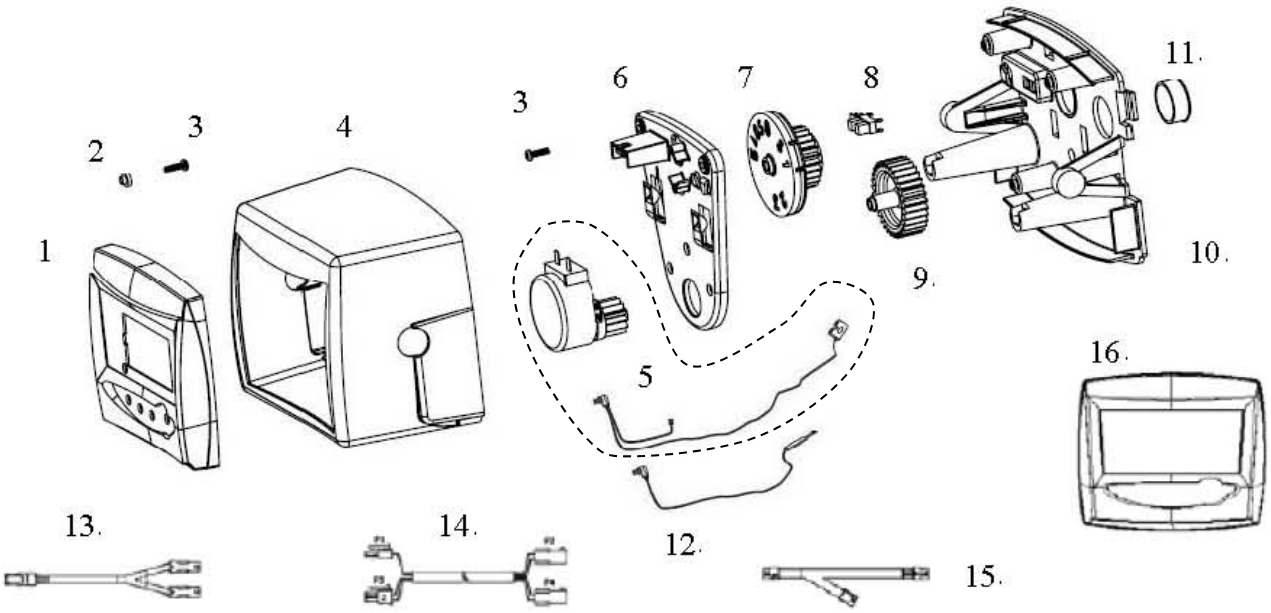


5 - Inlet Valve Cartridge

Number	*Ref.*	*P.N.*	*Description*	
1-3	CD111	1000366	Drain Valve/No Hard Water Bypass Valve Cartridge	
2	CD112	1000365	Rinse Valve Cartridge	
4	CD114	1000336	Hard Water Bypass Cap	
5	CD113	1000317	Inlet Valve Cartridge	
6	CD118	1010157	O-ring # 6	
7	CD119	1010158	O-ring # 7	
8	CD120	3030497	O-ring # 8	
9	CD124	1010116	O-ring – 2 pcs	
*	CD116	1040690	O-ring kit (includes 1x #8, 2x #9)	
*	CD115	1040689	O-ring kit (includes 1x#6, 1x#7, 1x#8, 2x#9)	
*	CD117	3030517	Washer, Plain,.250",TYPE "A"-N – 4 pcs	

* Not shown

MAGNUM 298-293 LOGIX CONTROLLER



Number	Ref.	P.N.	Description	
1	AW512E		742C Timer w/check salt 12V 50Hz w/Symbol Label	
1	AW515E		762C Timer w/check salt 12V 50Hz w/Symbol Label	
1	AW518E		742F Timer w/check salt 12V 50Hz w/Symbol Label	
1	AW525E		762F Timer w/check salt 12V 50Hz w/Symbol Label	
1	AW505E		764C Timer w/check salt 12V 50Hz w/Symbol Label	
2	CD135	3030921	Bushing Logix Mount (2 pcs required)	
3	CD136	3030001	Screw (2 pcs required)	
4	CD137	1262674	Cover Logix Magnum	
5	AW126	1238861	Motor w/Spacer& Pinion & Cable 700 Series Controller	
6		1262673	Gear Plate Logix Magnum Control	
7	CD139	1262581	Drive Gear Logix Magnum Control	
8	AW129	1235373	Optic Sensor	
9	CD128	1262672	Idle Gear Logix Magnum Control	
10		1262580	Timer Back Plate	
11		1239647	Bushing Cable	
12	CD131	1266722	Turbine Cable Logix Lg = 0.8 m	
12	CD132	1266723	Turbine Cable Logix Lg = 3 m	
12	CD133	1266724	Turbine Cable Logix Lg = 7.5 m	
13	AW365	3016715	Y sensor cable connector TWIN	
14	AW366	3016775	Interconnecting cable twin	
15	AW367	3020228	Remote Start / Lockout (only L mode)	
16	AW504	1254886	Blank secondary controller	
*	CD138	1233809	Logix Magnum Control Mech. Assembly (5-6-7-8-9-10-11)	
*	AW500	1000814	European Transformer 230/12V	
*	AW501	1000813	British Transformer	
*	AW502	1000811	American transformer 120/12V	
*	AV036	1263718	Logix controller Cable Remote Kit lg = 3 m	
*	AV036A	1256257	Logix controller Terminal Board Remote Kit	
*	AV023A	1239979	Impulse Start Cable quadripin connector 700 series	

Number	Ref.	P.N.	Description	
*	AA199E		Upgrade kit U255-740C SYMBOL	
*	AA099E		Upgrade kit U255-742C SYMBOL	
*	AC199E		Upgrade kit U255-760C SYMBOL	
*	AC099E		Upgrade kit U255-762C SYMBOL	
*	AF049E	3022343E	Upgrade kit U255-764C TW SYMBOL	
*	AM199E		Upgrade kit U268-740C SYMBOL	
*	AM066E		Upgrade kit U268-742C SYMBOL	
*	AP199E		Upgrade kit U268-760C SYMBOL	
*	AP039E		Upgrade kit U268-762C SYMBOL	
*	AR109E		Upgrade kit U278-762C SYMBOL	
*	AN079E	3022345E	Upgrade kit U278-764C TW SYMBOL	
*	CD024E		Upgrade kit Magnum U298-742 SYMBOL	
*	CD025E		Upgrade kit Magnum U293-742F SYMBOL	
*	CD026E		Upgrade kit Magnum U298-762 SYMBOL	
*	CD027E		Upgrade kit Magnum U293-762F SYMBOL	
*	CD028E		Upgrade kit Magnum U298-764 TW SYMBOL	
*	CD029E		Upgrade kit Magnum U298-764 MULTITANK SYMBOL	

* Not shown

*** Out-of-production, available till it will be out-of-stock

N.A. = Not available.

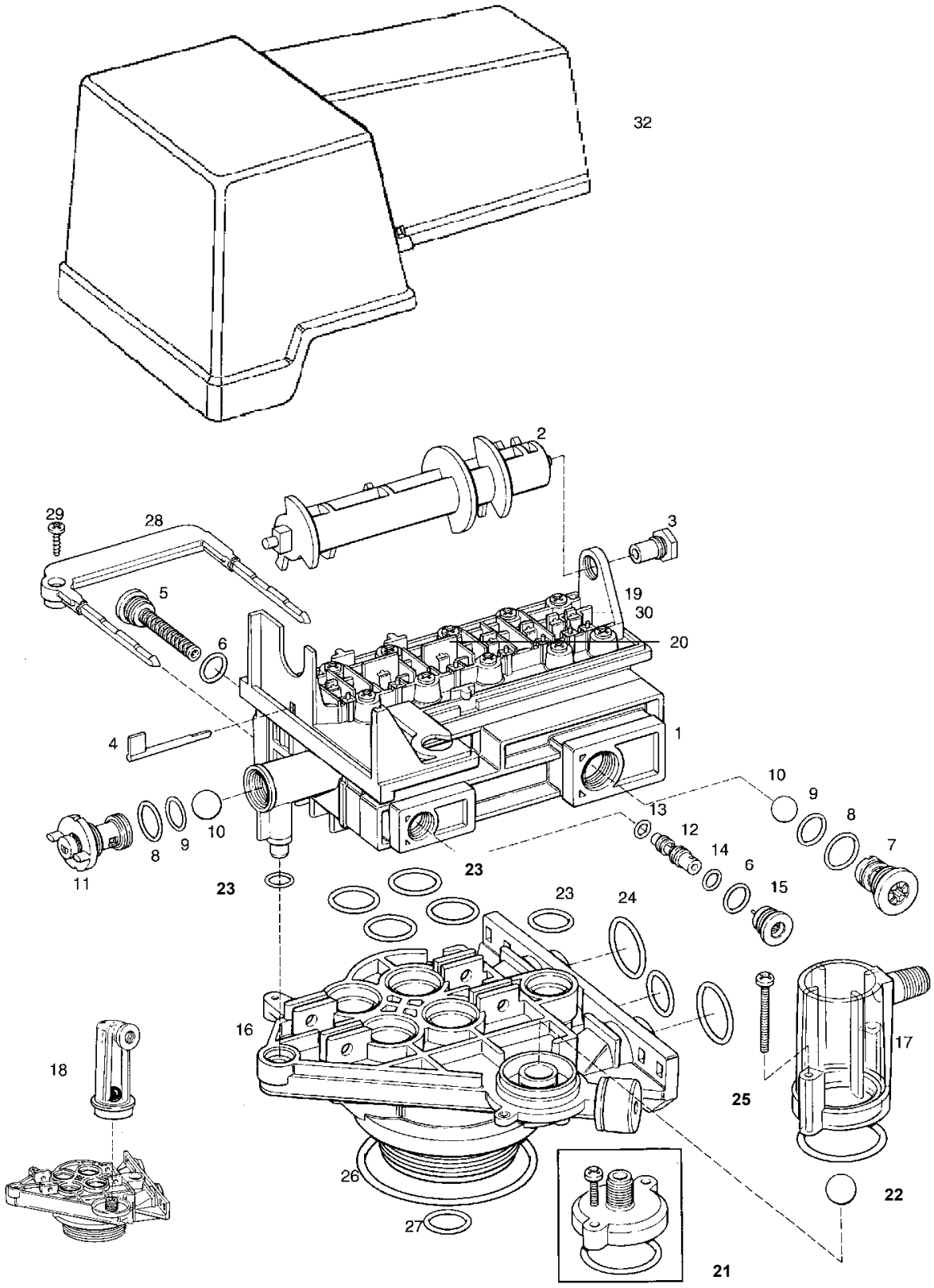
Number	Ref.	P.N.	Description	
*	AW030	1030933	Flow Control Ball	
*	AW040	1033441	Cap	
*	AW041	1034117	Injector A	
*	AW042	1034118	Injector B	
*	AW043	1034119	Injector C	
*	AW044	1033437	Backwash 08	
*	AW045	1033438	Backwash 09	
*	AW046	1033439	Backwash 10	
*	AW047	1033440	Backwash 12	
*	AW048	1034110	Check Valve	
*	AW049	1034185	O-ring Set	
*	AW049EP		O-ring Set EPDM	
*	AW050	1033268	O-ring Set	
*	AW050EP		O-ring Set EPDM	

* Not shown

*** Out-of-production, available till it will be out-of-stock

N.A. = Not available.

155 VALVE EXPLODED VIEW



155 VALVE SPARE PARTS LIST

Number	Ref.	P.N.	Description	
1		155 A77	Valve Assembly w/o Flow Controls	
2	AW150	1031950	Camshaft Standard one piece	
2	AW151	1033024	Camshaft Standard segmented	
2	AW152	1033025	Camshaft Extra Salt	
2	AW153	1033026	Camshaft Long Rinse	
3	AW146	1030501	Camshaft Bearing for cover L-Lid	
4	AW185	1031391	Timer Locking Pin	
5	AW013	1032991	Screen/Cap Assembly with O-ring	
6	AW034	3030527	O-ring	
7	AW014	1000208	Drain Control Assembly No 6 for 6” tank	
7	AW100	1000209	Drain Control Assembly No 7 for 7” tank	
7	AW101	1000210	Drain Control Assembly No 8 for 8” tank	
7	AW102	1000211	Drain Control Assembly No 9 for 9” tank	
7	AW103	1000212	Drain Control Assembly No 10 for 10” tank	
7	AW104	1000213	Drain Control Assembly No 12 for 12” tank	
7	AW105	1000214	Drain Control Assembly No 13 for 13” tank	
8	AW033	1010110	3F O-ring backwash 1/16 x 11/16 x 11/16	
9	AW032	3030218	2F O-ring backwash 1/16 x 11/16 x 13/16	
10	AW139	1030502	Flow Control Ball	
11	AW110	1034261	Brine Refill Control 10 lbs Salt – type A	
11	AW111	1034263	Brine Refill Control 19 lbs Salt – type B	
12	AW130	1032970	A Injector - White w/O-ring	
12	AW131	1032971	B Injector - Blue w/O-ring	
12	AW132	1032972	C Injector - Red w/O-ring	
13	AW035	3030525	26F O-ring 1/16 x ¼ x ⅜	
14	AW036	1010104	27F O-ring 1/16 x 5/16 x 7/16	
15	AW009	1032985	Injector Cap with O-ring	
16	AW170	1033784	Tank Adapter Assembly	
17	AW190	1032417	Air Check kit	
18	AW020	1231264	Old Model Air check	
19	AW160	1033067	Top Plate 155-255	
20	AW025	1033013	Disc Valves kit	
21	AW191	1033066	New to Old Air Check Adapter	
22	AW140	1030528	Air-check ball	
23	AW195	1001404	O-ring Set	
24	AW196	1040459	O-ring Set	
25	AW175		Inox Screw length 75 mm (for electrode adapter)	
25	AW176		Vite inox 8-32 UNC lg. 55 mm	
*	AW197		O-ring Set w/screws and nuts	
26	AW172	3029969	O-ring tank	
27	AW169	3030918	O-ring 1,05”	
28	AW173	1031405	Locking Bar	
29	AW174	3030450	Top Plate Screw No 8 x 9/16”	
30	AW181	1001580	Valve Disc Spring	
32	AW141	1032565	Standard Cover 440i-450i (L-Lid) OLD STYLE	

N.A. = Not available.

- Any other conditions different from the following will be valid, if accepted in writing.
- Sending the order, the Buyer knows and accepts the general sale's conditions.
- The prices are ex-warehouse, packing included.
- Catalogs and technical sheets can be modified in any moment.
- Eventual delays in delivery do not justify the order's cancellation neither any indenisation.
- Any risk during the delivery is taken by the Buyer. The Buyer has to check quantities and conditions at the reception of the goods; eventual complaints have to be made in writing within 8 days from reception.
- The products are guaranteed for a period of 12 months from the date of delivery, except the normal wear.
  The goods considered defective, after our written authorization, have to be returned at Buyer's freight together with the information about the defect.
- We can accept return of material for any different reason than warranty claim only by previous authorization and within 90 days from invoice date. The value of goods will be decreased by 20% from purchase price for all the products except for cabinets that will be decreased by 30%.
- We can't accept return of material indicated in this catalogue as "not available in stock".
- The eventual cancellation of an order of material "not available in stock" must be done within 3 working days from the order date.
- In case of delay in payments interest are due. The delay will cause the suspension of the guarantee and further supplies. The property of the delivered goods will remain to us until the complete payment of the invoices.
- We will not accept orders for net amount lower than 250 EURO.
- In case of controversy the Law – court of Milan (Italy) will be competent.

Italian Family Company

EUROTROL®

WATER TREATMENT COMPONENTS

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