

Culligan[®] MATRIX

ION EXCHANGE WATER SOFTENERS

FOR COMMERCIAL AND INDUSTRIAL USE



CULLIGAN: BETTER WATER. PURE AND SIMPLE.

CE *Equipment according to CE Directives in force*

ION EXCHANGE WATER SOFTENERS

WATER SOFTENING is the process of removing the hardness, caused by Calcium and Magnesium salts, and exchanging them with Sodium salts, which do not deposit scale. To obtain the exchange the water flows through a bed of resin that has been previously charged with Sodium Chloride (table salt).

The **Cullex Culligan exchange resin** is suitable for contact with food, has high resistance to mechanical shock, long life, high exchange capacity and low consumption of salt.

The closely controlled resin bead size minimises the pressure loss.

All Culligan softeners are completely automatic, and the different working phases (service, backwash and regeneration) are controlled by an electro-mechanical or electronic control board, that activates a valve or a group of valves, depending on the model.

The automatic phases may also be controlled by a metering device (optional) that activates the regeneration phase according to the quantity of water dispensed.

In the **“Duplex” version** the stand-by softener is automatically connected to service when the first softener exhausts its exchange capacity, allowing it to regenerate, while the combined unit provides a continuous flow of softened water.

The **“Extra Recharge”** device makes it possible to manually activate the recharge without disturbing the automatic phases of the working cycle.

Each Culligan softener may be equipped on request with an automatic disinfection system.

NOTE: with the use of appropriate selective resins, the Ultra Line softener may be converted into a Nitrate removal unit, whose choice and size must be decided at the headquarters.

MAIN APPLICATIONS

- Food, ceramic, pharmaceutical and textile industries
- Cooling systems
- Professional kitchens
- Hotels
- Restaurants
- Bakeries
- Professional cleaners
- Low pressure boilers
- Car washes
- Chicken and animal breeding



ULTRA LINE HA/HB

For industrial uses.



The tank is made of steel and it is protected internally by a food-grade layer of epoxy resins of controlled thickness and covered externally by a layer of enamel paint. The harness is in corrosion-proof PVC Noryl. Ultra Line HA softeners are available in tanks ranging from 500- to 1200-mm in diameter. For tanks with 950- to 1400-mm diameter it is available also a HB version, with larger harness, in order to facilitate higher service flow rates.

ULTRA LINE HB

For industrial uses.



The tank is made of steel and it is protected internally by a food-grade layer of epoxy resins of controlled thickness and covered externally by a layer of enamel paint. The cycles are controlled by diaphragm valves, made of epoxy painted cast-iron. Ultra Line HB softeners are available in tanks ranging from 1500- to 2500-mm in diameter.

HI-FLO 3e

For professional and light industrial uses.



The tank is made in fibreglass and it is protected internally by a food-grade layer of epoxy resins.

It is equipped with alternating regeneration device, which allows a continuous softened water flowing to service, thanks to the volumetric duplex alternator.

Regeneration can take place according to different criteria: time control, through an electronic board which activates the regeneration at preset timing; volumetric control, through a device complete with a stainless steel counter, which starts the regeneration depending on water consumption. The start of the regeneration can be immediate or delayed (domestic volume).

The electronic board allows an easy and flexible operation, as well as storage and retrieval of important information about the operation of the unit.

ACCESSORIES

The regeneration can be programmed either on a time-clock or on a volume basis. In volumetric mode a water meter measures the volume of treated water, and an electronic control board starts regeneration once the preset volume is reached. For Ultra Line series two control boards are available: one for the control of a single softener (PLF 2K model) and the other for the control of two alternating softeners (PLM 2K model).



TECHNICAL SPECIFICATIONS

MODEL	FITTINGS in-out Ø ins	OPERATING PRESSURE max bar	EXCHANGE CAPACITY max* m ³ · °f	SERVICE FLOW RATE max m ³ /h	OVERALL DIMENSIONS			SHIPPING WEIGHT Resin tank kg
					resin tank		Salt tank	
					Ø mm	height mm	Ø mm	
HI-FLO 3e								
HB 175	2	8.5	1164	17.7	533	1346	762	252
HB 200	2	8.5	1361	18.3	533	1575	762	308
HB 300	2	8.5	1944	19.3	610	1829	762	424
HB 480	2	8.5	2916	22.7	762	1829	1066	644
HB 600	2	8.5	4074	22.7	914	1829	1066	894
ULTRA LINE HA								
HA 200/HA 230 Δ	1 ½	7	1188/1359	18	500	1915	715	395/425
HA 290/HA 320 Δ	2	7	1698/1869	26	600	1930	850	570/600
HA 430/HA 510 Δ	2	7	2550/3060	30	750	1980	1025	860/930
HA 770/HA 850 Δ	2	7	4587/5097	34	950	2056	1070	1470/1550
HA 1200/HA 1400 Δ	2	7	7136/8325	34	1200	2172	1580	2240/2420
ULTRA LINE HB								
HB770/HB 850 Δ	2½	7	4587/5097	50	950	2056	1070	1480/1550
HB 1200/HB 1400 Δ	2½	7	7136/8325	50	1200	2172	1580	2250/2430
HB 1550 Δ	2½	7	8825	60	1400	2392	1580	2580
HB 1700/HB 2100	4	7	10430/11390	114	1500	2620	1580	3355/3644
HB 2500/HB 3000	4	5	16050/18480	114	1800	2660	BRINE MAKER ▲	4500/4790
HB 4500	6	5	28500	227	2100	3030		7300
HB 6600	6	5	42900	227	2500	3100		10485

* The exchange capacity is measured on the treatment of water having 40 °f (400 ppm as CaCO₃) total hardness and 500 ppm salinity, oil-free, transparent, without turbidity, and dispensed with the expected capacity for continuous service; it may vary depending on other parameters, such as Chloride content, the hydraulic pressure available, the discontinuous drawing of treated water, the purity and type of regenerant used.

Δ Models with plastic material harness.

▲ Brine Maker dimensions are indicated on the drawings.

Operating temperature: 1 - 40 °C.

Power supply: 110/230/24 V - 50/60 Hz for Ultra Line; 230/24 V - 50/60 Hz for Hi-Flo 3e

Installed power: 20 W.

QUALITY SYSTEM CERTIFIED ACCORDING TO UNI EN ISO 9001:2008 NORM

Culligan reserves the right to change any technical or design specifications for the models shown in this brochure.

Culligan Guarantee – Any manufacturing defects and corrosion are covered by the Culligan guarantee's norms.

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