

## DEMINERALIZER FOR LABORATORY AND INDUSTRY



## APPLICATIONS

**EL-TS BASE VERSION**

Feeding of glass items washers  
 Feeding of steam generators  
 Feeding of thermostatic baths  
 Feeding of ultra-pure water systems  
**Autoclaves, boilers in general**  
 INDUSTRIAL USES

**EL-TS DEMI VERSION**

Generalised laboratory uses  
 Glass works rinsing  
 Reagents preparation/dilution  
 Colorimetric and qualitative analyses  
 Feeding of thermostatic baths  
 INDUSTRIAL USES

**TS DEMI 2 VERSION**

HPLC chromatography  
 Reagents preparation/dilution  
 Colorimetric and qualitative analyses  
 Spectro-phot. Analysis atomic absorption  
 INDUSTRIAL USES  
**As described for the DEMI version**

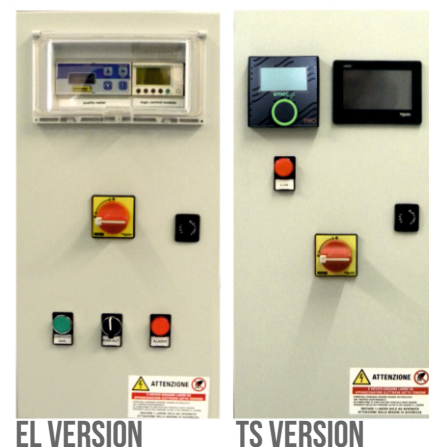
## Quality, technology, versatility

The RO 30 demineralizer is designed to produce deionized water with a high degree of purity for technical uses. The production costs of deionized water are reduced by up to 50% compared to normal resin deionizers, thanks to the use of high-quality reverse osmosis modules with high salt rejection (> 99%, operating pressure 10-16 bar). All the devices are mounted on a stainless steel frame and can be paneled on request. The water obtained can be considered excellent not only from the saline point of view but also from the organic aspect. RO 30 can adapt to the purity needs of the user, thanks to 3 versions with different degrees of purity and the possibility of regulating the conductivity of the output water as desired (optional). RO 30 is managed by an electronic control unit made in an IP 55 container, with PLC technology, both for the sequence and for the self-diagnosis of the operating phases, and is able to directly control all the functions of the appliance: management of the overpressure pump and solenoid valve, in-line detection of the conductivity of the water produced, with a digitally operated and readable conductivity meter, possibility of manual or automatic operation with 2 level sensors in the accumulation tank (minimum and maximum), or finally production in timed cycles (TS version only).

**Alarms: water quality, machine block due to minimum network pressure, pump thermal block.**

### OPERATIONAL CHARACTERISTICS OF THE ELECTRONIC CONTROL PANEL

|  | EL | TS |
|--|----|----|
| Management of basic operating functions (load, overpressure pump)                  | ✓  | ✓  |
| Operatives functions MAN e AUTO  | ✓  | ✓  |
| Operative function TIMER   |    | ✓  |
| Function flux membranes programmable OPT.  | ✓  | ✓  |
| IN-LINE check of water quality   | ✓  | ✓  |
| Water quality remote control with analog signal                                    |    | ✓  |
| Water quality remote control with MODBUS signal                                    |    | ✓  |
| Remote control of other parameters for. (different. alarms, funct. variables.)OPT. |    | ✓  |
| General alarm signal remote control - clean contact OPT.                           | ✓  | ✓  |
| Display of operating function messages on LCD display                              | ✓  |    |
| Display of operating function messages on TOUCH SCREEN                             |    | ✓  |



### TECHINCAL FEATURES

|                                      |       |            |
|--------------------------------------|-------|------------|
| - HOURLY FLOW                        | lt/h  | 30         |
| - DAILY PRODUCTION                   | lt    | 300-400    |
| - min. feed pressure                 | bar   | 2,5        |
| - max feed pressure                  | bar   | 4,5        |
| - temperature of water to be treated | °C    | 5-35       |
| - hidraulic connection               | IN    | pipe PE 10 |
|                                      | OUT   | pipe PE 6  |
|                                      | DRAIN | pipe PE 8  |
| - operative pressure RO elements     | bar   | 14-15      |
| - electric power                     | V     | 220 ac     |

### QUALITY STANDARD

|                         |  |
|-------------------------|--|
| - <b>Base version</b>   | purified water (usually<br>El.Spec.Conductivity 5-20 mcrS/cm<br>produced only with reverse osmosis<br>system.  |
| - <b>Demi version</b>   | conform ISO 3696: grade 3<br>conform ASTM: Type 4<br>conform NCCLS: Type 3<br><b>Typical El. Spec. Conductivity: 0,2-3 microS/cm</b>   |
| - <b>Demi 2 version</b> | conform ISO 3696: grade 2<br>conform ASTM: Type 2<br>conform NCCLS: Type 2<br><b>Typical El. Spec. Conductivity: 0,1-1 microS/cm</b><br><b>Typical El. Spec. Resistivity: 10 MOhm.cm</b> |

### TECHINCAL SPECIFICATIONS WATER TO BE TREATED

|                            |        |     |
|----------------------------|--------|-----|
| maximum permissible values |        |     |
| TDS                        | ppm    | 300 |
| Total Hardness             | °F     | 30  |
| Iron                       | ppb    | 100 |
| Manganese                  | ppb    | 5   |
| Chlor                      | ppm    | 0,1 |
| SDI                        |        | <5  |
| Total bacteria             | UFC/ml | <5  |

It may still be necessary to dose liquid antiscal at the discretion of the manufacturer

### DIMENSIONS

|        |        |
|--------|--------|
| Length | cm 53  |
| Width  | cm 64  |
| Height | cm 137 |



### OPTIONAL ACCESSORIES

1 - Function Flow meter, managed directly by the PLC, to achieve precision fill. The external signal is provided by a pulse-counter teflon; starting the machine is in manual. The setting of the volume is easily adjustable with or without a pc.

2 - Storage tank in PE HD internal or external. with anti-dust system, whose water level is regulated by N°2 magnetic sensors, a maximum (block) and a minimum (restart production). Third sensor can be installed to indicate a level below the minimum due to it being accidental implantation.