

# RO 1500 EL

DEMINERALIZATOR FOR INDUSTRIAL USES

INDUSTRIAL LINE



## APPLICATIONS

### BASE VERSION

- Food industry
- Fine chemical Industry (detergent)
- Agriculture. Preparing water poor of salt
- Industrial laundries
- Autoclaves, boilers in general
- **Industrial uses preparation of process water**

### BiOs VERSION

- Pharmaceutical industry
- Galvanic industry
- Rinse raw product in general
- Rinse glassware and optical lenses
- Preparation industrial reagents
- **Industrial uses preparation of process water**

### BiOs-Edi VERSION

- Electronic Industry
- Fine galvanic industria
- Production chemical reagents for laboratory
- **Medical industry**
- Industrial uses prep. water of process
- **As indicated for version BiOs**

## Quality and technology at the service of industries.

The demineralizer **RO 1500** is designed to produce deionized water of high purity for industrial technical uses. The high technology applied and the excellent quality of the components guarantee reliability and durability.

## Three versions to suit every need.

**RO 1500** is produced in three versions to meet every need of pure water in modern industry:

**BASE VERSION** - Produced water with single shift to **Reverse Osmosis**. The quality of the membranes used ensures a maximum reduction of 99%, a project with average recovery of 40-50%. The water produced may be defined **PURIFIED WATER**.

**BIOS version** - Produced water with double shift to **Reverse Osmosis (Bi osmosis)**. After the first pass the water is stored in a tank where it performs a series of instrumental controls, to then be sent automatically to the second passage. This system guarantees a maximum reduction of 99.5% with an average recovery of 40-45%. The water produced is usually complies with the requirements of **European Pharmacopoeia (EU)**.

**El. Spec. conductivity. typical: 0.8-4.2 microS/cm**

**BIOS version-EDI** - Produced water with proceedings **Bi osmosis** and further purification with **cEDI system**. cEDI (Continuous electrodeionization) is an innovative system which consists in passing the water through ion exchange resins, while a controlled electric current operates a continuous regeneration of the resins themselves, so that these do not undergo a progressive depletion with the need to periodic replacement. The result is demineralized water with high degree of purity and extremely low operating costs. In reference to the common standards of purity, the water produced can be judged to conform to **ISO 3696 grade 2. El. Spec. resistivity at 25 °C - 10-18 MOhm.cm**



## Automation and control.

All versions of **RO 1500** are equipped with an **electronic control unit to the PLC** interfaced with the PC (in TS models is also present a TOUCH SCREEN panel), that manages all the operating steps and functional checks and in particular:



- Manual operation
- Automatic operation
  - Filling of a storage tank with 2 level sensors (min and max)
  - Fill up the volume (through an integrated flow meter – optional)
- Control of the ON-line water quality by means of digital instruments
  - Quality of produced water (standard on all models)
  - Water Quality first stage (standard on BIOS and BIOS versions EDI)
  - PH water first stage (standard on BIOS-EDI version)
  - Feed water quality (optional)
- Control of the operational flows
  - Integrated Magnetics gauges in the control PLC (standard on BIOS-EDI version)
  - Mechanical direct reading flowmeters (standard on BASIC and BIOS versions)
- Check the pressure
  - Low-pressure feed water with automatic block for lack of water
  - Maximum operating pressure with automatic lock (std on BiOS and BiOS versions EDI)
  - Feed water pressure transducer with analog (std on BIOS-EDI version)
  - Operating pressures analog transducer (std on BIOS-EDI version)
  - Feed water and operating pressure with mechanical gauges (Standard on BASIC and BIOS versions).
- General alarm integrated into the PLC
  - red flashing light and dedicated message on the display PLC or TS



### TECHNICAL FEATURES

- HOURLY PRODUCTION	lt/h	1500
- DAILY PRODUCTION	lt	15000-18000
- min. feed pressure	bar	2,5
- max.feed pressure	bar	4,5
- temperature of water to be treated	°C	5-35
- hidraulic connection	IN	tubo 1"
	OUT	tubo 1/2"
	DRAIN	tubo 3/4"
- operative pressure RO elements	bar	9-11
- electric power	V	380

### TECHNICAL SPECIFICATION OF WATER FEED

max permissible values

TDS	ppm	500
Total Hardness	°F	30
Iron	ppm	0,1
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

	V.BASE	V.BiOS	V.BiOs-EDI
Lenght	cm 160	cm 320	cm 320
Width	cm 87	cm 120	cm 120
Height	cm 140	cm 140	cm 140