RO 90 EL

demineralizer for laboratory and industry

INDUSTRIAL LINE

APPLICATIONS

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

DEMI VERSION

Generalised laboratory uses

Glass works rinsing

Reagents preparation/dilution

Colorimetric and qualitative analyses

Feeding of thermostatic baths

INDUSTRIAL USES

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 demineralizer RO 90 is designed to produce deionized water of high purity, for technical uses. The deionized water production costs are reduced by up to 50% compared to normal deionizers resin, thanks to the use of reverse osmosis membranes with high salt rejection of high quality (> 99%, operating pressure 14-16 bar). All devices are mounted on stainless steel frame and on request can be paneled. The water obtained can be considered excellent not only in the salt but also in terms the organic aspect.

RO 90 can adapt to the needs of the user purity, thanks to 3 versions with different degrees of purity and the ability to adjust at will the conductivity output (optional).

RO 90 is operated by an electronic control unit realized in container IP 65, interfaced with the PLC technology with the PC it is for the sequence for the self-diagnosis of the operating steps, and is able to directly control all the functions of: pump management overpressure and solenoid valve, alarm and machine shutdown for a minimum pressure in the network, on-line detection of the produced water conductivity (conductivity or resistivity choice in the TS-demi2 model) via the interface using a conductivity meter to read in digital operation and reading on line, alarm water quality, possibility of manual operation or management level in the storage tank 2 in floating (minimum and maximum level), or finally dosage to volume (optional).

A visual signal shows the various types of alarm: quality water with the consequent need to change resins (in demi and demi 2 versions) or exhaustion membranes (in the basic version); cartridge needs replacing pre-filter sediment or post-filter 0.2 microns if any.

OPERATIONAL CHARACTERISTICS OF THE CONTROL PANEL

- Direct management inputs: 2 floats (min and max) start / stop manual, low pressure shutdown
- Direct management of the operating elements: solenoid valve inlet, booster pump and (optional) flushing system programmable membrane
- View messages and data on the LCD or touch screen

versioni EL BASE E demi

versione TS-demi2

TECHINCAL FEATURES

- HOURLY FLOW	lt/h	90
- DAILY PRODUCTION	lt	900-1200
- 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 1/2"
	OUT	pipe PE 10
	DRAIN	pipe PE 10
- operative pressure RO elements	bar	14-15
- electric power	V	220 ac

QUALITY STANDARD

- **Base version** purified water (usually El.Spec.Conducivity 5-20 mcrS/cm produced only with reverse osmosis system.

- **Demi version** conform ISO 3696: grade 3
conform ASTM: Type 4
conform NCCLS: Type 3

Typical El. Spec. Conducivity: 0,2-3 microS/cm

- **Demi 2 version** conform ISO 3696: grade 2
conform ASTM: Type 2
conform NCCLS: Type 2

Typical El. Spec. Conducivity: 0,1-1 microS/cm
Typical El. Spec. Resistivity: 10 MOhm.cm

TECHINCAL SPECIFICATIONS WATER TO BE TREATED

maximum permissible values

TDS	ppm	500
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 archieve precision fill. The external signal is provided by a pulse-counter teflon; starting the machine is in manual. The setting of the volume is easly 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 il being accidental implantation.