wasserLab

AUTWOMATIC PLUS RO / UV

from 3 to 40 l/h

OSMOTIZED WATER

Compact, versatile and efficient:
the equipment that fits all your needs

The Autwomatic Plus RO produces and dispenses Osmotized Water with production versions of 3, 5, 10, 20 and 40 liters per hour, guaranteeing the following quality:

OSMOTIZED WATER	
Conductivity	<98% Rejection of tap water
TOC[1]	<30 ppb
Bacterial count[1]	<0.01 cfu/ml
Particles > 0.22 µm/ml[1]	<1
Production flow rate	3 - 5 - 10 - 20 - 40 l/h

1. UV version: These values are typical and may vary depending on the nature and concentration of contaminants in the Tap water.

Versions

MODEL	REFERENCE	FLOW RATE PRODUCTION	CONSUMPTION RECOMMENDED
Autwomatic Plus RO 3	QRO03DP	3 l/h	30 l/day
Autwomatic Plus RO 5	QRO05DP	5 l/h	50 l/day
Autwomatic Plus RO 10	QRO10DP	10 l/h	100 l/day
Autwomatic Plus RO 20	QRO20DP	20 l/h	200 l/day
Autwomatic Plus RO 40	QRO40DP	40 l/h	400 l/day
Autwomatic Plus RO UV 3	QRO03DPUV	3 l/h	30 l/day
Autwomatic Plus RO UV 5	QRO05DPUV	5 l/h	50 l/day
Autwomatic Plus RO UV 10	QRO10DPUV	10 l/h	100 l/day
Autwomatic Plus RO UV 20	QRO20DPUV	20 l/h	200 l/day
Autwomatic Plus RO UV 40	QRO40DPUV	40 l/h	400 l/day

TANK OPTIONS[2]	REFERENCE
Pressurized 30 L	70220
Pressurized 50 L	70230

2. The system allows the combination of several tanks.

Osmotized Water applications

- Autoclave feed
- Washer-disinfector feeding
- Cleaning of laboratory equipment

Water purification process of Osmotized water

The equipment integrates various technologies to optimise the water purification process, through the following stages:

Pre-treatment

The equipment is designed with a pre-treatment system to guarantee the protection of the osmosis membrane, eliminating particles smaller than 1 micron, which contributes to the reduction of mineral incrustation, organic matter and chlorine removal.

The depth filter presents a high filtration capacity, with optimized retention of the colloids present in the water.

The granular bacteriostatic activated carbon is effective in removing free chlorine and minimising bacterial growth.

The polyphosphate-based anti-limescale agent protects against scaling by preventing the precipitation of calcium and magnesium salts inside the equipment, without releasing ions.

Technology that optimises the purification process

Reverse Osmosis

The high performance reverse osmosis system removes up to 99.95% of the organic matter present in the water and up to 98% of the Total Dissolved Solids (TDS). In addition, the equipment has an automatic backwash system, designed to prolong the life of the equipment.

Ultraviolet Lamp and 0.22 µm Final Filter (UV Version)

For a reduction of the microorganisms present in the water; the equipment incorporates a ultraviolet lamp that reduces this contamination.

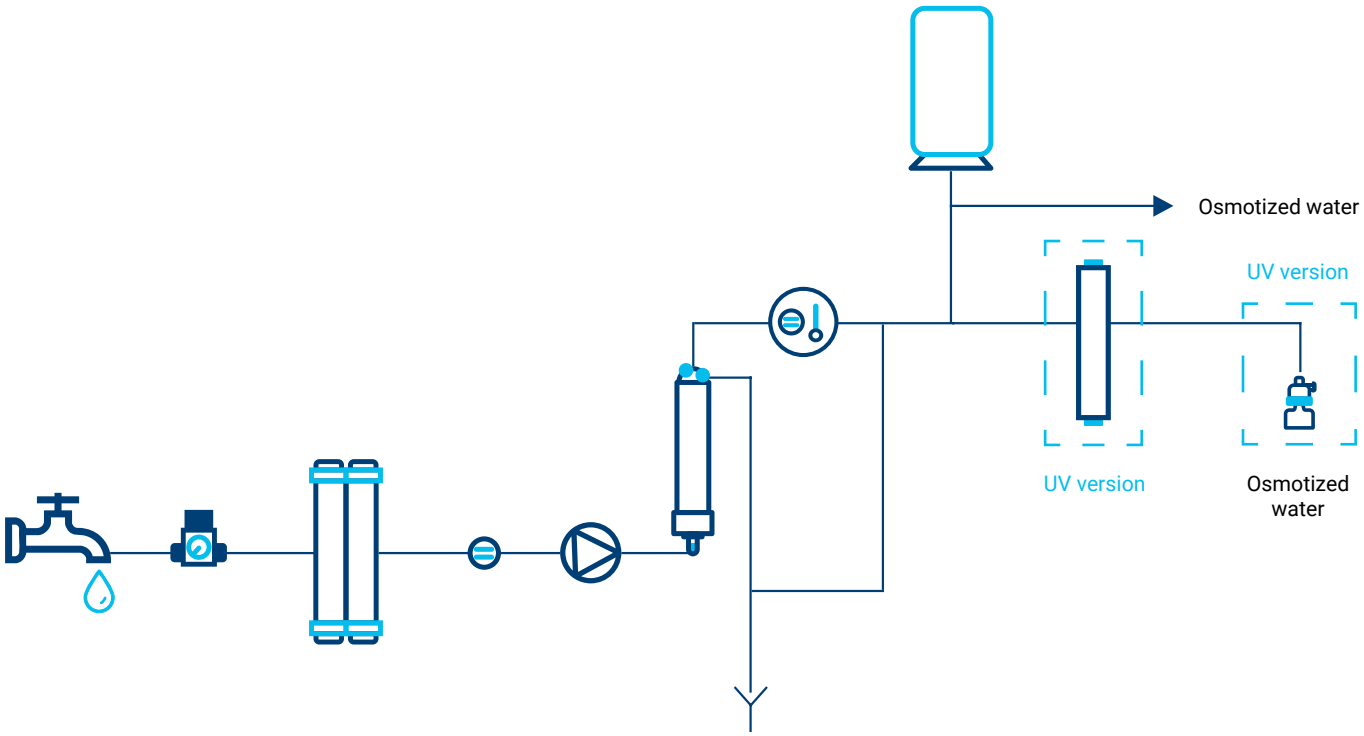
To meet even more stringent microbiological requirements (< 0.01 cfu/ml), the equipment incorporates a 0.22 µm in-line final filter. This additional filter ensures the retention of possible microorganisms that may be present in the final water, guaranteeing that the purified water meets high microbiological quality standards.

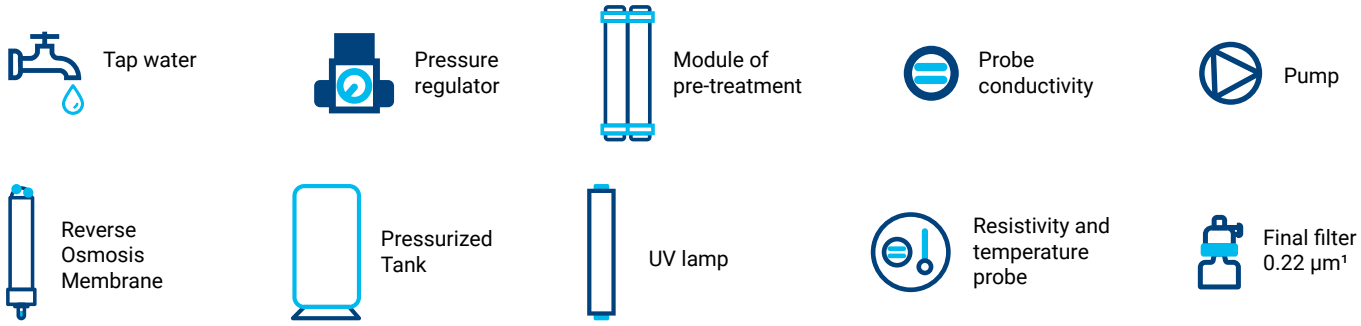
Storage in pressurized tanks

The Osmotized Water produced is stored in pressurized tanks of 30 or 50 liters, which protects the stored water from contact with air and contamination, ensuring that it is kept in optimal conditions. The use of this technology eliminates the need to recirculate the water and use UV lamps in the tank, ensuring that the quality of the purified water is maintained in ideal conditions and minimising the consumption of consumables.

Hydraulic system diagrams

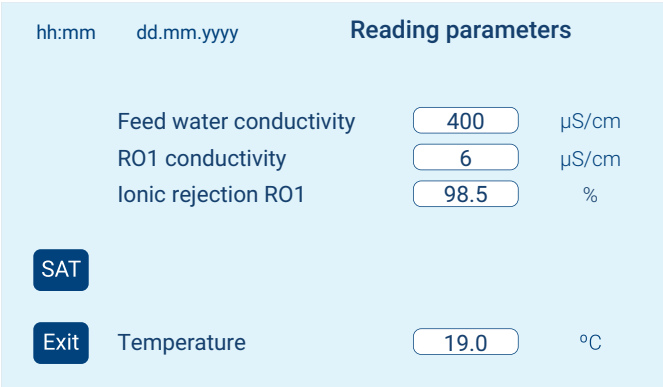
Autwomatic Plus RO / UV

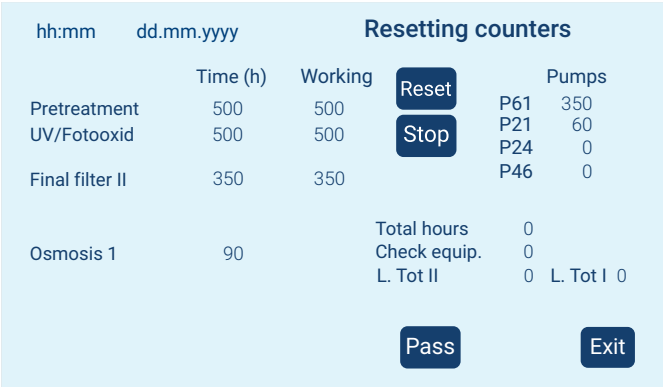


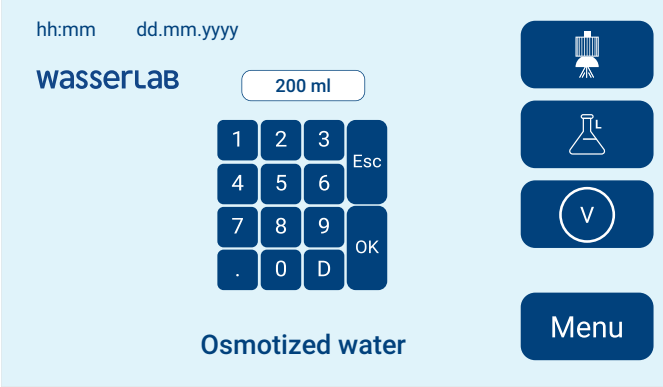


1. Optional in Autwomatic Plus RO.

Operation and monitoring







1. Dispensing

The equipment is designed to operate automatically, ensuring that the tank is always kept full, thanks to its automatic stop system. In addition, its design ensures easy and accessible operation for the user.

It incorporates a 4.3 inch touch screen, which facilitates the dispensing of purified water in various ways, adapting to the user's needs.

Available options are:

- Manual dispensing
- Dispensing by volume[1]
- Dispensing by time

1. Accuracy not suitable for flush volumes.

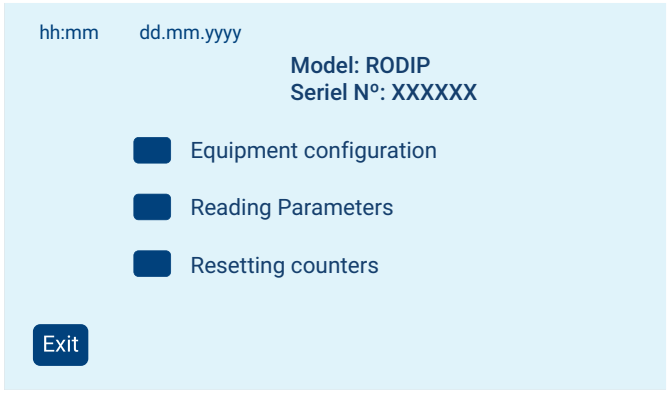
2. Monitoring

This comprehensive monitoring system allows detailed tracking of key aspects of the process, ensuring that the equipment is operating within ideal parameters and guaranteeing the quality of the water produced.

- Conductivity measurements (at 25ºC):
  - Tap water from the equipment feed (µS/cm).
  - Permeate water from the reverse osmosis module (µS/cm).
- Water temperature (ºC)
- Percentage performance of the reverse osmosis module.
- Control of operating parameters:
  - Working hours of the different components of the system.
  - Liters produced during the purification process.

3. Customization and Security

The system offers customization options, allowing to adjust the type of dispensing and conductivity settings according to the user's needs. In addition, to guarantee security and access control, the equipment has a custom password that allows the user to access specific menus and functions, ensuring that only authorised persons can make adjustments or modifications to the system.



5. Data Output

The equipment is designed to allow the extraction of operating data to an external memory (USB). The report generated includes detailed records on the quality and quantity of water dispensed, as well as maintenance notices and changes made to consumables, providing a useful tool for monitoring and controlling system performance.

4. Automatisms

The system is equipped with a microprocessor that manages the automatic start and stop of the equipment, depending on the volume of water accumulated in the tank. In addition, it has several automated systems to guarantee optimum performance and prolong the useful life of the equipment, such as:

- Automatic shutdown due to water cut-off, to avoid operation without supply.
- Flushing of the osmosis membrane, which helps to maintain the efficiency of the filtration process.

These automated systems contribute to efficient operation and low maintenance, ensuring the constant quality of the purified water.

6. Mobile phone notification (optional)

The system can send alarm notifications directly to mobile phones, allowing real-time alerts on different problems or irregularities in the operation of the equipment.

Easy and efficient maintenance:

A SIMPLE AND FAST PROCESS

Preventive maintenance, sanitization and calibration

Ease of maintenance and control of the system

The system has been carefully designed for ease of maintenance, allowing the user to perform tasks easily and efficiently. The replacement of consumables is carried out quickly, thanks to a quick-connect system with anti-drip technology built into the cartridges.

The service life of the consumables depends on several factors, such as the quality of the incoming water, including its turbidity, hardness and conductivity, as well as the amount of water dispensed over time.

The integrated software is configured to perform scheduled self-checks, ensuring constant and effective monitoring of the system's operation. This control ensures continuous monitoring of the equipment components and the values related to the quality of the water produced.

In addition, the system issues warnings to notify the user about the need to change consumables, water cuts or possible malfunctions of the measuring probes, allowing an early intervention in case of incidents.

System Sanitization

The system is designed to facilitate the sanitization of the equipment through a semi-automatic process, which ensures a thorough and effective cleaning of all its components. During sanitization, the equipment performs a series of automated steps that include the circulation of disinfectant solutions through critical parts of the system, such as membranes and filters. User intervention is limited to initiating and monitoring the process, following clear instructions provided by the system. This sanitization process is designed to remove microorganisms, bacteria and other contaminants that may have accumulated in the equipment, ensuring that the system continues to operate at maximum efficiency and that the water produced always maintains the highest quality standards. The function also helps to extend the life of the equipment by preventing the build-up of impurities that can affect its performance.

Flexibility to offer solutions that ADAPT TO EACH LABORATORY

Additional system functionalities

Optional additional Osmotized Water outlet

Manual dispenser (Ref. W-DIS007)

Additional mechanically operated osmotized water outlet, especially convenient for filling carafes and dispensing a few meters away from the main equipment.

Adapting to the needs of the available space

Wall bracket (Ref. 10261)

Base designed to allow safe and stable installation of the equipment directly on the wall. Its robust structure guarantees a firm mounting, optimising the use of space and ensuring that the equipment is well fixed and accessible. Ideal for environments where space in the work area needs to be freed up.

Compact Module (Ref. 10092)

A functional and compact design cabinet, it offers a solution for housing the equipment and its components in an orderly and efficient manner. Perfect for environments where equipment needs to be kept protected and in place, while ensuring accessibility and ease of use.

Compact Module

Equipment can be integrated into furniture

The equipment is designed to be fully integrated into laboratory furniture, optimising the available space and leaving the laboratory work bench free for other tasks. Its minimalist design adapts perfectly to laboratory work environments, offering an aesthetic and functional solution that maximises efficiency without compromising system performance. We work with leading furniture brands.

Design and Installation of Distribution Loops

We design and install distribution loops, interconnected systems that guarantee an efficient distribution of purified water between different points, adapted to the specific needs of each project.

IQOQ Qualifiable Equipment for the Pharmaceutical Sector

The equipment is designed to be qualified in the processes of **IQOQ (Installation and Operational Qualification)** required in the pharmaceutical sector. It complies with industry specific regulatory standards, ensuring its suitability for use in regulated environments, where traceability, quality and process validation are critical to ensure compliance with current regulations.

Declaration of Product Use: WEEE Directive

In accordance with European Union legislation, this product will be considered **Waste Electrical and Electronic Equipment (WEEE)** once it reaches the end of its useful life.

For detailed information on the recycling and proper disposal of this product, please contact our website.

Quality Assurance to Facilitate GLP and cGMP Compliance

The system has been designed and manufactured to facilitate its integration into regulated working environments such as GLP (Good Laboratory Practices) and cGMP (current Good Manufacturing Practices). Some of its outstanding features include:

- Manufactured under the standards **ISO 9001:2015 and ISO 14001,** ensuring that the product meets the highest standards of quality and environmental management.
- **CE marking:** The equipment has passed rigorous safety and electromagnetic compatibility tests (emission and immunity), carried out by an external accredited centre, which certifies its compliance with European safety and performance standards.
- **Calibration certificate:** The equipment is delivered factory calibrated, guaranteeing its accuracy from the first moment of use. It also allows the adjustment and recalibration of the conductivity meter by means of a certified standard, traceable to the national standards of the Deutscher Kalibrierdienst (DKD) of Germany, ensuring the reliability and accuracy of the measurements over time.

Installation Requirements

- **Alternating current socket** 110 / 120 / 230 V - 50 - 60 Hz. with earth connection at a maximum of 2 meters from the equipment.
- **Tap water connection** (maximum 3 meters).
- **Connection:** 3/8" male gas thread.
- **Drainage** (maximum 3 meters).
- **Tap water quality:**
  - Conductivity: <2.000 µS/cm
  - pH: 4 - 10
  - Hardness: <300 ppm $CaCO_3$
  - Turbidity: <1 NTU
  - CO_2: <30 ppm
  - Silica: <30 ppm
  - TOC: <50 ppb
  - Free chlorine: <1.5 ppm
  - SDI: <7
  - Temperature: 5 - 35 ºC
- **Pressure:** 2 - 6 bar.
- **Installation space** for the equipment and its elements, guaranteeing an accessible work area for handling.

Specifications:

Dimensions:

- Equipment Autwomatic Plus RO / UV: 60 x 36 x 49 cm (height / width / depth).
- 30 liters tanks: 60 cm height x 40 cm diameter.
- 50 liters tanks: 80 cm height x 40 cm diameter.
- Compact Module: 96 x 46 x 60 (height / width / depth).

Weight: 35 Kg.

Power consumption: 0.6 A (230 VAC) - 1.2 A (110 VAC).

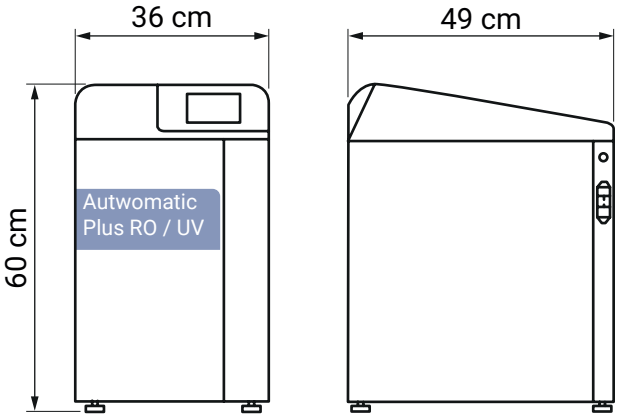
Power: 136 VA (230 VAC) - 136 VA (110 VAC).

Noise level: <50 dB.

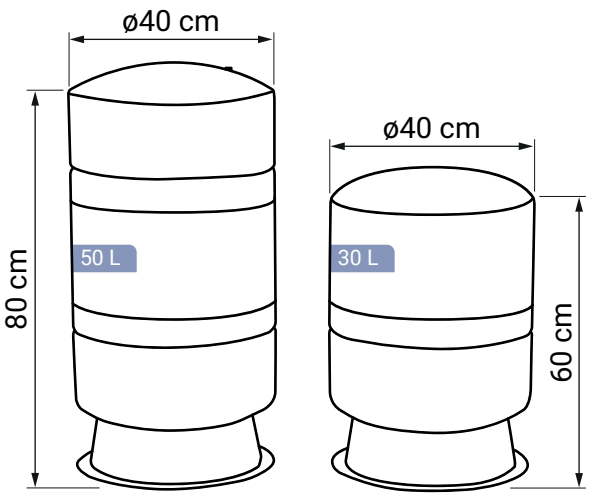
Communication port: USB.

Language Software: Spanish, English, French, Portuguese and Italian.

Equipment



Tanks



Wasserlab®

We are manufacturers of **water purification equipment** with an extensive track record in the installation of solutions in **multiple sectors.**

We offer **personalised advice** in the selection of equipment and we provide **comprehensive technical support** to guarantee optimum operation.

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