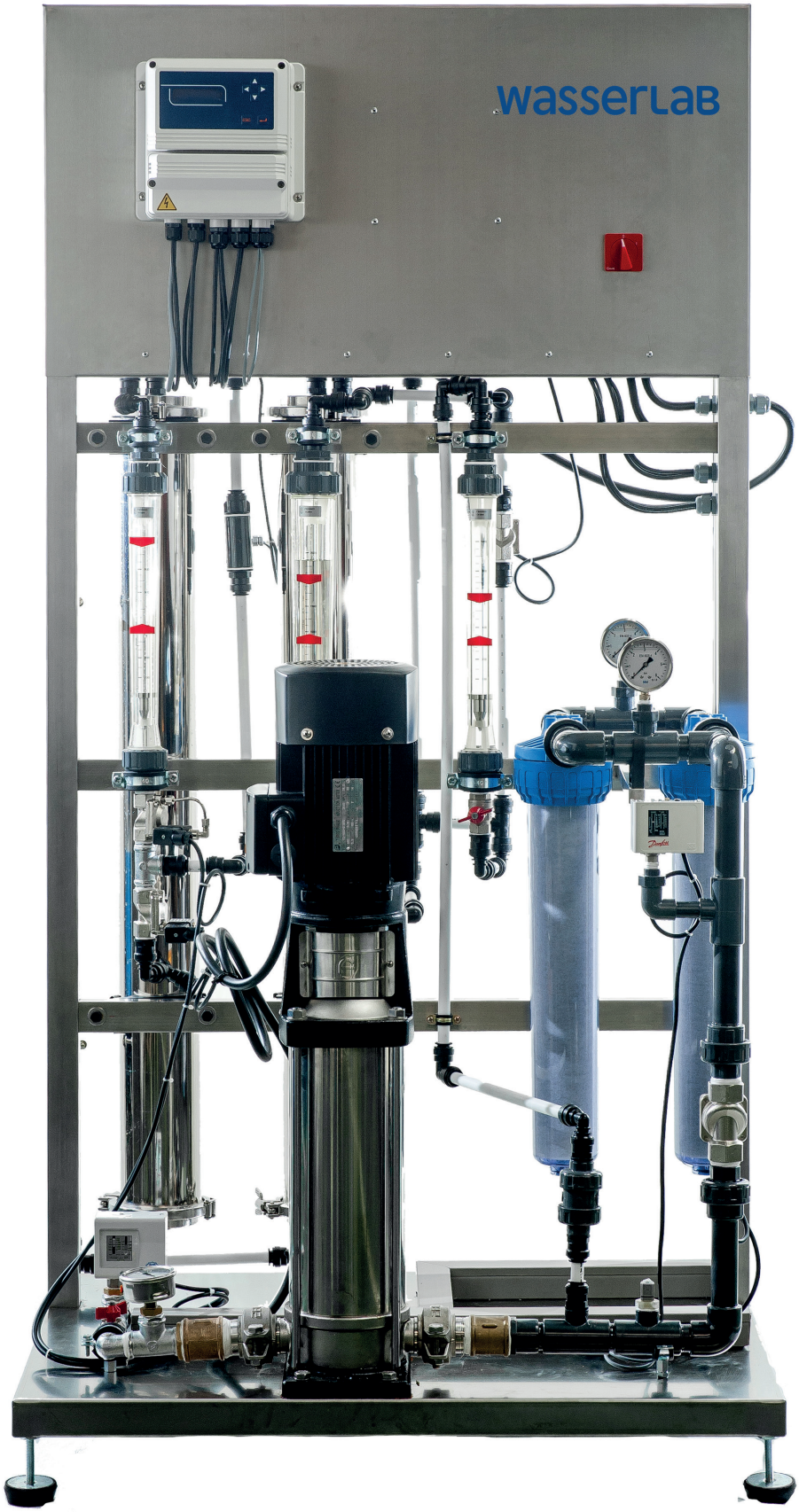


wasserlab

PROCESS RO 200 - 400

Industrial equipment for Osmosis Water Production.
200 and 400 l/h

Applications:

- Centralized distribution loop supply.
- Process water for applications in biotechnology, clinical analysis, cosmetics, chemical, food, energy and other related industries.

Custom design of the installation according to your requirements

Technology designed to minimize energy and water consumption

The equipment PROCESS RO 200 - 400 produces Osmotized Water in 200 and 400 liters/hour production versions with the following quality:

Conductivity	<98% tap water rejection
TOC[1]	<30 ppb
Bacterial count[1]	≤0.01 cfu/ml
Particles >0.22 µm/ml[1]	<1
Production flow rate[2]	200 - 400 l/h

UV version: These values are typical and may vary depending on the nature and concentration of contaminants in the feed water.
2. Nominal flow rates +-10% between 10 and 35°C. Additional deviation of -3% for each degree Celsius in the range 10 °C to 5 °C.

Versions

MODEL	REFERENCE	WATER QUALITY	WATER FLOW PRODUCTION	CONSUMPTION RECOMMENDED
PROCESS RO 200	PRO200DA	Osmotized water	200 l/h	2.000 liters / day
PROCESS RO 400	PRO400DA	Osmotized Water	400 l/h	4.000 liters / day

All versions can be fitted with UV lamp and 0.22 µm final filter.

Modular System made up of the following components:

Pre-treatment

In this phase, particles of a size equal to or larger than 1 micron, 99.99% of the hypochlorite and most of the organic matter present in the Tap Water are removed.

The system consists of two elements, a Mineral Filter to retain suspended solids and an automatic dechlorinator for the elimination of chlorine and organic matter.

	Mineral Filter	Declorinator
Equipment 200 l/h	Ref. FSA6073 (30 kg)	Ref. DCL6072 (50 L)
Equipment 400 l/h	Ref. FSA6066 (70 kg)	Ref. DCL6081 (80 L)

Both elements consist of a fibreglass-reinforced polyester bottle with an internal water distributor.

A timer controls the automatic flushing without interrupting the water supply.

Reverse Osmosis

A high performance reverse osmosis membrane system removes up to 99.95% of organic matter (over 150 Daltons) from the water and 94-99% of Total Dissolved Solids (TDS).

316 stainless steel frame and high pressure pump.

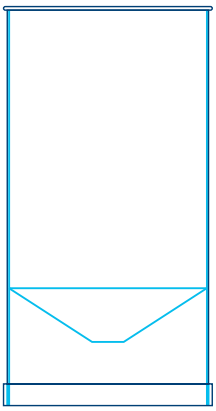
Recovery of reject water

The system recovers between 30% and 40% of the reject water, improving system conversion and optimizing water consumption.

Storage

The Osmotized Water produced is accumulated in an atmospheric tank with a conical bottom for easy emptying, cleaning and sanitization.

The size is adjusted to the requirements of the process, and filling is controlled by an automatic level float system.



UV Lamp and 0.22 µm Final Filter (UV version)

To guarantee microbiological control of the purified water, the equipment is equipped with an Ultraviolet lamp that performs bacteriostatic and germicidal functions, emitting a wavelength of 254 nm.

To meet even more stringent microbiological requirements (<0.01 cfu/ml), the system incorporates a 0.22 µm in-line Final Filter to retain microorganisms that may be present in the final water, ensuring that the purified water meets high microbiological quality standards.

Automation and Monitoring

It is equipped with a microprocessor that starts or stops the equipment automatically, depending on the volume of water accumulated in the tank.

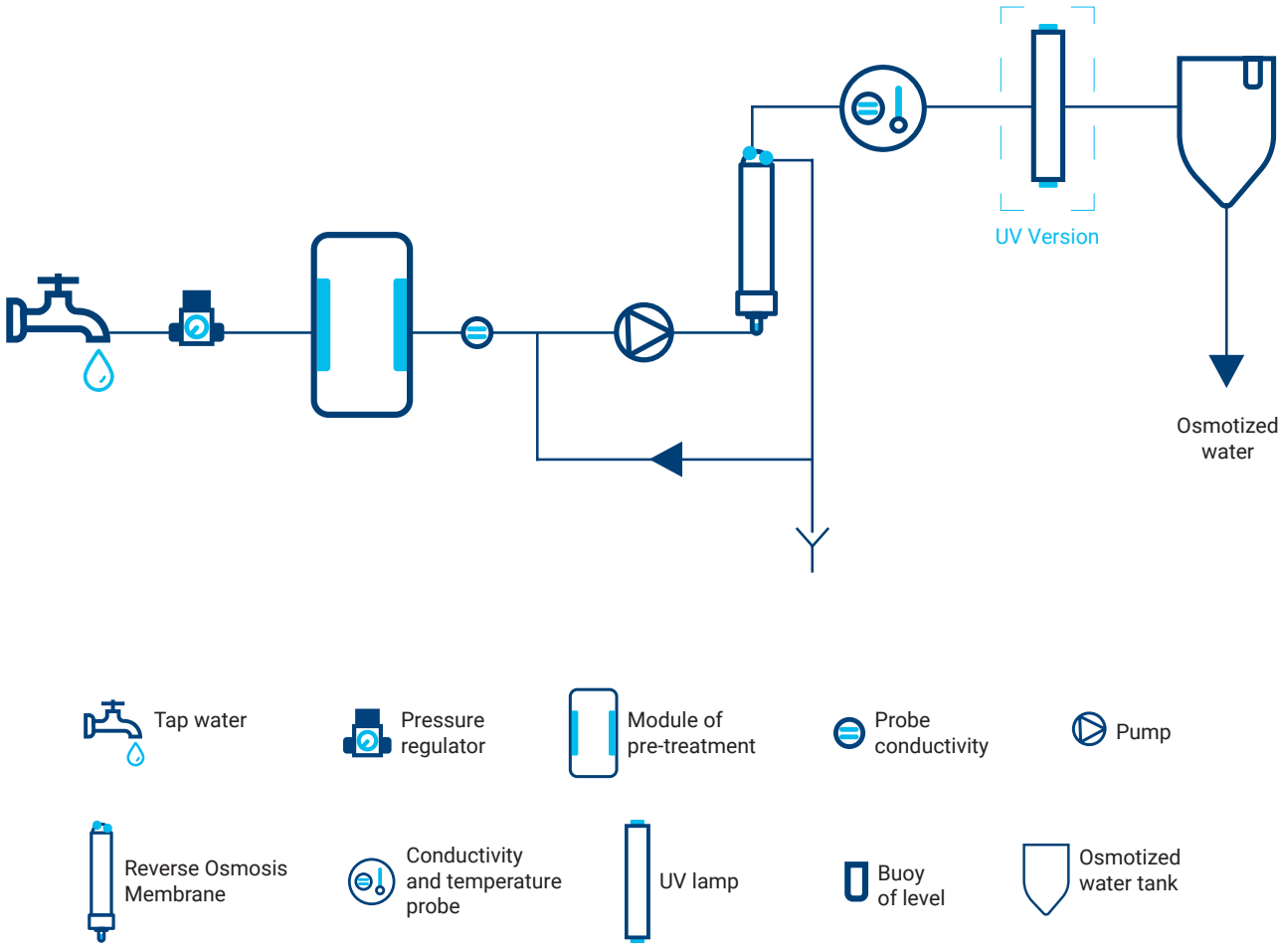
The microprocessor constantly monitors all the parameters of the purification process:

- The working pressure of the Reverse Osmosis module.
- Hours of real operation of the equipment.
- Measurement of the conductivity of the feed water (µS/cm).
- Reverse osmosis module permeate water conductivity measurement (µS/cm).
- Water temperature (ºC).

Maintenance and Calibration

The software allows the adjustment and calibration of the conductivity meter by means of a certified standard traceable to the national standards of the German Deutscher Kalibrierdienst (DKD).

Hydraulic system diagram



Installation Requirements

Electrical:

- **One power socket** CETAC Three-phase 380 V-3F, 3-pole + Neutral + earth 16 A.
- **Three power sockets** 230 VAC.
- **One protection panel.**
- **Earth connection** at a maximum of 2 meters from the equipment.

Tap Water:

- **Source:** Tap water or pre-treated water
- **Flow rate:** >10 l/min
- **Tap water connection:** 3/8" male gas thread
- **Nearby drain** (maximum 3 meters) with flow rate >10 l/min.
- **Pressure:** >2.5 bar
- **Conductivity:** <2.000 µS/cm
- **pH:** 4 - 10
- **Hardness[1]:** <300 ppm $CaCO_3$
- **Turbidity:** <1 NTU
- **TOC:** <50 ppb
- **CO_2:** <30 ppm
- **Silica:** <30 ppm
- **Free chlorine:** <1.5 ppm
- **SDI:** <7
- **Temperature:** 5 - 35ºC

1. If the hardness value exceeds 300 ppm $CaCO_3$, a water softener must be installed.

Specifications:

Dimensions / weights:

- **Mineral Filter:**
  - Ref. FSA6073: 26 x 108 cm (dia. x height) / 30 kg.
  - Ref. FSA6066: 34 x 160 cm (dia. x height) / 70 kg.
- **Declorinator:**
  - Ref. DCL6072: 26 x 160 cm (dia. x height) / 50 kg.
  - Ref. DCL6081: 34 x 160 cm (dia. x height) / 80 Kg.
- **Osmosis Equipment:** 170 x 90 x 70 cm (H/W/D/D) / 120 kg.

Noise level: < 50 dB.

Consumption and power:

	Equipment 200 l/h	Equipment 400 l/h
Consumption	2.5 kW	2.5 kW
Power	6.25 A	6.25 A

wasserLab

Water Purification Systems

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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