

# R 20

Catalogue no. 20DR-TOC-00



**HYDROLAB**<sup>®</sup>

**Technical specification:**

- Fed by tap water.
- Purification process stages:
  - sediment pre-filter 5µm,
  - integrated module (sediment-carbon-softening),
  - reverse osmosis,
  - demineralization on an spectrally clean ion-exchange TOC bed,
  - UV lamp 254 nm,
  - microfiltration capsule 0,45/0,2µm.
- System efficiency: min. 20 dm<sup>3</sup>/h.
- Purified water conductivity < 0,055 µS/cm.
- Automated and unattended system performance.
- Water collection point – first purity class (ISO 3696:1999,EP, ASTM, FP) compliant with a microfiltration capsule 0,45/0,2µm.
- Mobile, adjustable inox arm holding water collection points – available adjustment ranges: up/down, front/back, left/right.
- The possibility of installing additional water intake point for general-purpose water (third class; ISO 3696:1999).
- Equipped with a 10dm<sup>3</sup> pressure tank for third class.
- Can be connected to other devices.
- Automatic shutdown when the tank is full or the filtrate valve is closed.
- Automatic ultrapure water recirculation between water collections (modes: continuous or periodic).
- Maintenance procedures may be performed by the user (easy disposable materials replacement).
- Flow rating of clear water min. 1 l/min.
- Intended to be fed by cold water: 5-40°C.
- Installation may be performed by the user.
- Acid-proof stainless steel (inox) housing.

**Dimensions:** 275x470x570 mm

Tank 10l: h. 390 mm, Ø 250 mm

**Monitoring functions:**

- The device is equipped with a microprocessor 24V automatics, that includes:
  - Color display screen with a Touch Panel function,
  - Conductometer measuring water pressure: feed, processed by reverse osmosis, and ultrapure (in µS/cm or MOhm),
  - Reading values compensated and uncompensated thermally,
  - Clock displaying date and time,
  - Actual system status information,
  - Alarm informing about necessity to replace initial cleaning modules,
  - Alarm informing about necessity to replace a UV lamp radiator,
  - Alarm informing about necessity to replace RO module,
  - Alarm informing about necessity to replace an ion-exchange module,
  - Alarm informing about necessity to replace a microfiltration capsule,
  - Membrane module retention level information,
  - Service dates display,
  - Tank fill level,
  - Menu in English, Russian, Germany, Spanish or Croatian on display,
  - RS 232 connector for service frequency and alarm levels adjustment,
  - USB connector for service frequency and alarm levels adjustment,
- Built-in feed water manometer.

**Protection functions:**

- Automatic pump shutdown when:
  - the feed water pressure is too low (lack of feed water) – low pressure sensor,
  - the tank is full – high pressure sensor.
- Thermal osmotic module performance protection, automatic system shutdown then the feed water temperature is below 4°C or above 40°C.
- Optional system shutdown if any alarm occurs.
- Optional system automatic start.
- System messages/monitoring alarms display.

**Purified water parameters:**

- Purified water fits the ISO 3696: 1999, EP, the ASTM, and the CLSI standards for the first purity class.
- Obtained water is microbiologically and physicochemically compliant with the FP standard for the purified production water.
- Obtained water may be used for: instrumental analyses AAS, ICP/MS, IC, HPLC, GC, bacteria cultures, biochemical analyses.

**Purified water parameters:**

- bacteria < 1 cfu/ml,
- particles > 0.2µm < 1/ml,
- conductivity < 0,055 mS/cm,
- resistance 18,2 MOhm\*cm.

**Required connections in the installation place:**

- cold tap water connection ½" or ¾",
- drainage,
- 230 V power socket.

Model	Sediment prefilter 5µm	Module A2	Module H6 TOC*	Capsule microfiltration	UV lamp radiator 254 nm**
R 20	+	+	+	+	+
lifetime	6 months	6 months	6 months	12 months	12 months
cat no	EO-005-10	EO-MA-12	EJ-5000-1	EM-SP-20	EUV-254-HLP

\*If feed water parameters are different (hard water) the shell life of the spare parts might be shorter!

\*\*Lifetime 12 months or 8500 hour