

# R 20 UF

Catalogue no. 20DR-TOC-UF





### Technical specification:

- Fed by tap water.
- Purification process stages:
  - sediment pre-filter 5 $\mu$ m,
  - integrated module (sediment-carbon-softening),
  - reverse osmosis,
  - demineralization on an spectrally clean ion-exchange TOC bed,
  - UV lamp 185/254 nm,
  - ultrafiltration UF,
  - microfiltration capsule 0,45/0,2 $\mu$ m.
- System efficiency: min. 20 dm<sup>3</sup>/h.
- Purified water conductivity < 0,055  $\mu$ S/cm.
- Automated and unattended system performance.
- Water collection point – first purity class (ISO 3696:1999, EP, ASTM, FP) compliant with a microfiltration capsule 0,45/0,2 $\mu$ m.
- 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 10 dm<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,  $\varnothing$  250 mm

### Monitoring functions:

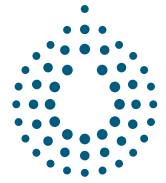
- The device is equipped with a microprocessor 24V automatics, that includes:
  - Color display screen with a Touch Panel function,
  - Conductometer measuring water pressure: feed, processed by reverse osmosis, and ultrapure (in  $\mu$ S/cm or MOhm),
  - Reading values compensated and uncompensated 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,
  - Alarm informing about necessity to replace an ultrafiltration module,
  - 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 < 0,1 cfu/ml,
- particles > 0.2µm < 1/ml,
- conductivity < 0,055 µS/cm,
- resistance 18,2 MOhm\*cm.
- endotoxins < 0,001 EU/ml,
- RNases < 0,004 ng/ml,
- DNases < 4 pg/µl.

### 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 H7 TOC*	Capsule microfiltration	UV lamp 185/ 254 nm**	Ultrafiltration module UF
R20 UF	+	+	+	+	+	+
Lifetime	6 months	6 months*	2000dm <sup>3</sup>	12 months*	12 months	12 months
Cataloge no.	EO-005-10	EO-MA-12	EJ-2000-1	EM-SP-20	EUV-185-254-0	EU-HLP-01

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

\*\*Lifetime 12 months or 8500 hour