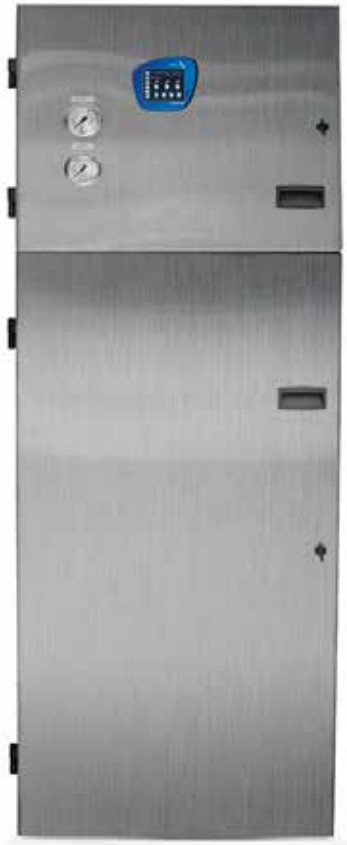
# INDUSTRIAL SPRING SYSTEM

Cat. No. SPRING 200



LIGHTWATER
ultrapure

**The device is supplied with tap water.**

Degrees of water purification:

- filtration on sediment filters:
  cascade filtration on 20 µm and 5µm high efficiency sediment filters,
- filtration on carbon filters:
  filtration on granular activated carbon to remove organic compounds, chlorine and chlorine derivatives,
- softening process (option):
  automatic softening station - rinsing and regeneration of the bed is carried out automatically,
  compact construction - corrosion resistant ion exchange column (fiberglass tank) placed inside the salt casing, high capacity for removing hardness ions,
- reverse osmosis station:
  efficiency: 150 - 250 $dm^3$ / h (depending on the model), retention degree 96-99%, recovery rate 60%, high pressure pump, retentate and permeate rotameters,
- demineralization on a mixed ion exchange bed - ion exchange column with a capacity of 25 $dm^3$,
- UV lamp 185 / 254nm or 254 nm (option),
- 0.45 / 0.2µm microfiltration capsule (option).

- Automatic and maintenance-free operation of the device.
- Retention rate is 96-99%.
- Conductivity of purified water <0.06 µS / cm.
- Water intake point - second purity class according to ISO 3696: 1999.
- Possibility of installing an additional water intake point - first class of purity according to ISO 3696: 1999 and in accordance with FP.
- Possibility to install an additional water intake point - third purity class according to ISO 3696: 1999.
- Tank for storing purified water (capacity to choose).
- Automatic system shutdown when the tank is full or when the water intake is closed.
- Can be connected to a dishwasher, autoclave, analyzer, etc.
- Possibility of creating a water distribution network with intake points covering several rooms or floors in a building.
- Control water intake points.
- Automatic membrane rinsing (possibility of individual setting of the period and time of membrane rinsing).
- Forced flushing of membranes (service).
- System designed for cold water supply: 5-40°C.
- Possibility of self-service by the User (without having to call the service).
- Power supply: 230V / 50Hz.
- Stainless steel frame.

**Functions monitoring system operation:**

- The device is equipped with a microprocessor control and measuring system having:
  - color graphic display with Touch Panel function,
  - conductivity meter measuring the conductivity and temperature of tap water,
  - conductivity meter measuring the conductivity and temperature of purified water after reverse osmosis,
  - conductivity meter measuring the conductivity and temperature of demineralized water,
  - conductivity measurement in µS / cm or MOhm units,
  - automatic temperature compensation,
  - continuous control and preview of the degree of retention (degree of retention) of RO membranes,
  - clock displaying date and time,
  - alarm informing about mechanical and carbon filter replacement,
  - alarm informing about replacement of the RO module,
  - alarm informing about exchange of ion exchange bed,
  - alarm informing about replacing the UV lamp radiator (option),
  - alarm informing about the replacement of the microfiltration capsule (option),
  - information on the tank filling level on the device display,
  - preview of service dates,
  - menu in Polish,
  - built-in RS 232 interface for communication with a computer ensuring the possibility of individual adjustment of service frequency and alarm levels,
  - built-in USB connector for communication with a computer ensuring the possibility of individual adjustment of service frequency and alarm levels,
  - computer program enabling individual settings of alarm thresholds and data archiving.

**Functions securing the system operation**:

-Interruption of system operation with:

- low feed water pressure (no feed water),
- a full tank / closed water intake point.

- Thermal protection of the osmotic module, automatic stopping of the system operation at the supply water temperature below 4°C or above 40°C.
- Ability to stop the system when any alarm occurs.
- System autostart capability.
- Preview of monitoring messages / alarms.

**Purified Water Parameters:**

Purified water in the device meets the requirements of ISO 3696: 1999 for first, second and third degree water.
The water obtained meets the microbiological and physicochemical requirements of FP for purified production water *.

* system equipped with a UV lamp and a microfiltration capsule

**Additional equipment / services:**

tank for storing purified water:

- pressure - option: 80 l, 110 l, 230 l, 320 l or 450 l,
- pressureless - capacity to be agreed (on request),
  - compact device housing made of stainless acid-resistant steel (all system components, except for the tank, installed inside the housing),
  - tank housing made of stainless acid-resistant steel,
  - adjustment of conductivity value from 0.06 µS / cm to 15 µS / cm,
  - purified water recirculation,
  - full DQ, IQ, OQ, PQ qualification procedure with documentation,
  - cooperation with building management systems (BMS).

**Required connections at the installation site:**

- cold tap water connection ¾„or 1",
- drain to sewage system (sewage grate),
- 230V socket.

*the life of the insert may change depending on the flow, its characteristics and the level and type of tap water pollution.

** the volume of purified water depends on the quality of the feed water, the maximum amount of salts dissolved in the feed water - 1200 mg / l