

Ultra Clear™ TP ED: Ultrapure Water System with Electronic Dispenser

The Ultra Clear™ TP ED series comes with an electronic dispenser allowing precise and volume-controlled dispensing of your ultra pure water for flows up to 2 l/min.

The software is intuitive and makes dispensing easy without any delay. A printer and Modbus interface integrates the data transfer into your existing system.

SET TO MEET THE HIGHEST REQUIREMENTS

- The **installation** is simple. All units are delivered from the factory ready for operation, including the first set of modules and filters, as well as all necessary connection hoses.
- A **7" multi-color touch display** for simple and intuitive operation. You have everything at a glance and the display shows all important parameters and change intervals.
- **Easy access** to all modules so you can change them without a service technician when needed.
- Made with **components** that boast a long service life and are individually monitored by our software. You can produce ultrapure water at low cost.
- **Only one highly efficient UV lamp** is used for TOC oxidation and monitoring, which significantly reduces your costs.
- An integrated, **user-guided disinfection** mode increases the service life of your system.
- All systems can be expanded with **optional accessories**.
- **Our reliable service and maintenance contracts** protect your device for years to come.



TYPICAL APPLICATIONS

- HPLC
- IC
- GC and GC/MS
- TOC analysis
- ICP and ICP/MS
- DNA sequencing
- RNase- and DNase-free
- DNA free
- PCR
- IVF
- 2D electrophoresis
- Critical cell and tissue culture
- Pyrogen sensitive applications



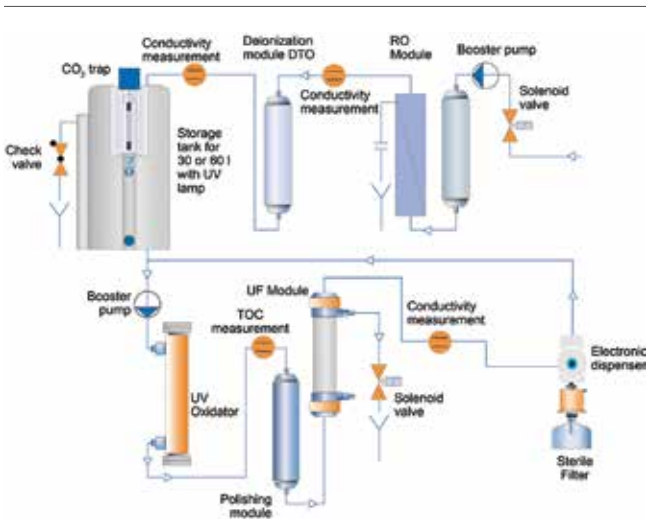
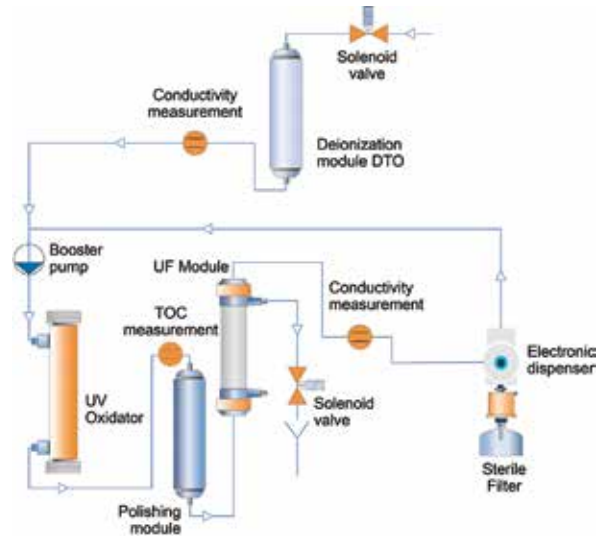


ULTRA CLEAR™ ELECTRONIC DISPENSER MODELS

| | | |
|-----------|--|----------|
| W3T276073 | Ultra Clear TP ED UV TM | Polisher |
| W3T276074 | Ultra Clear TP ED UV UF TM | Polisher |
| W3T276075 | Ultra Clear TP ED 10 TWF 30 UV TM | TWF |
| W3T276076 | Ultra Clear TP ED 10 TWF 30 UV UF TM | TWF |
| W3T276077 | Ultra Clear TP ED 10 TWF 60 UV TM | TWF |
| W3T276078 | Ultra Clear TP ED 10 TWF 60 UV UF TM | TWF |
| W3T276079 | Ultra Clear TP ED 20 TWF EDI 30 UV TM | TWF EDI |
| W3T276080 | Ultra Clear TP ED 20 TWF EDI 30 UV UF TM | TWF EDI |
| W3T276081 | Ultra Clear TP ED 20 TWF EDI 60 UV TM | TWF EDI |
| W3T276082 | Ultra Clear TP ED 20 TWF EDI 60 UV UF TM | TWF EDI |
| W3T276084 | Ultra Clear TP ED 20 TWF EDI 80 UV UF TM | TWF EDI |

THE POLISHER MODELS

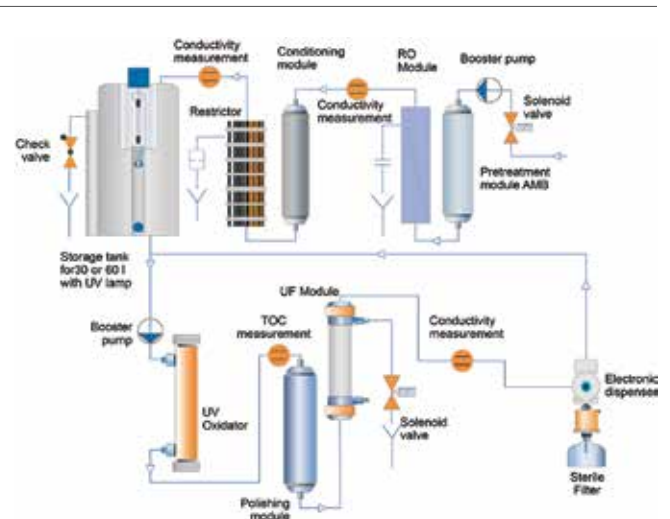
Designed for deionized water feed at conductivity <math> < 20 \mu\text{S}/\text{cm}</math>. The unit has an ultrapure water output capacity up to 2 l/min and delivers a water quality of 18.2 M Ω -cm (0.055 $\mu\text{S}/\text{cm}</math>). The water produced exceeds current quality standards.$



THE TWF MODELS

The Ultra Clear TP ED TWF is an ultrapure water system available with all options, which is connected directly to the drinking water network (Tap Water Feed).

The reverse osmosis stage works extremely water-saving with a recovery rate of > 30 %. The following ion exchange module (DI) provides water with <math> < 2 \mu\text{S}/\text{cm}</math> from the tank.



THE TWF EDI MODELS

They represent the highest expansion stage of the TWF series through the use of IONPURE® EDI cell.

The residual deionization of the RO permeate is at the highest and constant level. When fed into the tank, the quality is between 0.06 and 0.2 $\mu\text{S}/\text{cm}</math>.$

With this system, we offer a compact, economically affordable and sustainable solution to produce two water qualities.

SPECIFICATIONS

| | W3T276073 | W3T276074 | W3T276075 | W3T276076 | W3T276077 | W3T276078 | W3T276079 | W3T276080 | W3T276081 | W3T276082 | W3T276084 | |
|-----------------------------|-------------------|-----------|-------------------|-----------|-----------|-------------------|-----------|-----------|-------------------|-----------|-----------------|----|
| Feed Water | | | | | | | | | | | | |
| Pressure (bar) | 0.1 - 5 | | 0.1 - 5 | | | 0.1 - 5 | | | 0.1 - 5 | | | |
| Conductivity (µS/cm) | < 20 | | < 1400 | | | < 1400 | | | < 1400 | | | |
| CO ₂ (mg/l) | < 15 | | < 15 | | | < 15 | | | < 10 | | | |
| Silica (mg/l) | < 15 | | < 15 | | | < 15 | | | < 10 | | | |
| TOC (ppb) | < 50 | | - | | | - | | | - | | | |
| Feed water quantity l/h | 60 - 120 | | 25 - 30 | | | 25 - 30 | | | 50 - 70 | | | |
| Temperature (°C) | 5 - 35 | | 5 - 35 | | | 5 - 35 | | | 5 - 30 | | | |
| SDI | < 3 | | < 3 | | | < 3 | | | < 3 | | | |
| Free Chlorine (mg/l) | < 0.1 | | < 0.1 | | | < 0.1 | | | < 0.1 | | | |
| Iron (mg/l) | < 0.1 | | < 0.1 | | | < 0.1 | | | < 0.1 | | | |
| Manganese (mg/l) | < 0.05 | | < 0.05 | | | < 0.05 | | | < 0.05 | | | |
| pH value | 3 - 9 | | 3 - 9 | | | 3 - 9 | | | 3 - 9 | | | |
| Pure Water | | | | | | | | | | | | |
| Flow rate (l/h) | - | | 10 | | | 10 | | | 20 | | | |
| Conductivity (µS/cm) | - | | < 2 | | | < 2 | | | < 0.2 | | | |
| Ultrapure Water | | | | | | | | | | | | |
| Flow rate (l/min) | up to 2 | | up to 2 | | | up to 2 | | | up to 2 | | | |
| Conductivity (µS/cm) | 0.055 | | 0.055 | | | 0.055 | | | 0.055 | | | |
| Resistivity (MΩ-cm) | 18.2 | | 18.2 | | | 18.2 | | | 18.2 | | | |
| TOC (ppb) | < 3 | | < 3 | | | < 3 | | | < 3 | | | |
| DNase, RNase, DNA | - | free | - | free | - | free | - | free | - | free | free | |
| Bacteria (CFU/ml) | < 0.1 | | < 0.1 | | | < 0.1 | | | < 0.1 | | | |
| Endotoxins (EU/ml) | - | < 0.001 | - | < 0.001 | - | < 0.001 | - | < 0.001 | - | < 0.001 | < 0.001 | |
| Particles > 0.2 µm/ml | < 1 | | < 1 | | | < 1 | | | < 1 | | | |
| Measurements (W/H/D) | | | | | | | | | | | | |
| System (mm) | 340 × 535 × 550 | | 340 × 535 × 550 | | | 340 × 535 × 550 | | | 340 × 535 × 550 | | | |
| 30 l tank (mm) | - | | 300 × 770 × 310 | | | - | | | 300 × 770 × 310 | | | |
| 60 l tank (mm) | - | | - | | | 560 × 770 × 310 | | | - | | 560 × 770 × 310 | |
| 80 l tank (mm) | - | | - | | | - | | | - | | 800 × 350 × 500 | |
| Total weight (kg) | 23 | | 30.5 | | | 31.5 | | | 33 | | 34 | 47 |
| Electric Connection | | | | | | | | | | | | |
| Voltage/Hz (V/Hz) | 100 - 240/50 - 60 | | 100 - 240/50 - 60 | | | 100 - 240/50 - 60 | | | 100 - 240/50 - 60 | | | |
| Power consumption (W) | 225 | | 225 | | | 225 | | | 225 | | | |



OPTIONAL ACCESSORIES

| Item No. | Description | |
|-----------|---|------------------|
| W2T897953 | AQUASTOP 230 VAC/50 - 60 Hz | Leakage detector |
| W3T197588 | Solenoid valve 220 V/50 Hz; NC; DN10; 3/4" i/a | |
| W3T199991 | Wall bracket for 30 l tank | |
| W3T197563 | Wall bracket for 60 l tank | |
| W3T314413 | CO ₂ Degassing system | |
| W3T403968 | Flushing filter/backflow preventor combination 3/4" | |
| W3T199279 | 0.2 µm Sterile filter, with Endotoxin retention (pack of 3 filters) | |
| W3T199768 | Disinfection kit (3 syringes) | |



CONSUMABLES

| Description | Polisher | TWF | TWF EDI | Change Frequency** |
|--|-----------|---------------|---------------|------------------------|
| Pre-treatment module AMB | — | W3T197613 | | 6 - 12 months |
| Pre-treatment module DTO | W3T197621 | | — | 6 - 12 months |
| Conditioning module | — | W3T199848 | | * |
| Polishing module MFIID | W3T197694 | | | 6 - 12 months |
| 0.2 µm Sterile filter (pack of 3 filters) | W3T199209 | | | max. 6 months |
| Replacement UV for TOC oxidation chamber | W2T558521 | | | 1 year (max. 8000 hrs) |
| Replacement UV for storage tank | — | W2T558519 | | 1 year (max. 8000 hrs) |
| Replacement CO ₂ cartridge | — | W3T199197 | | 1 year |
| RO module | — | 1 x W3T197620 | 2 x W3T197620 | 2 - 3 years |
| Ultrafiltration module (for UF systems only) | W3T197614 | | | 18 - 36 months |
| IONPURE® EDI cell | — | W2T228723 | | 5 years |

* Change frequency depends on the incoming water quality and the amount of water withdrawn.

** All change intervals are average rates and may vary.

We recommend regular service and usage of original spare parts.