

## 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



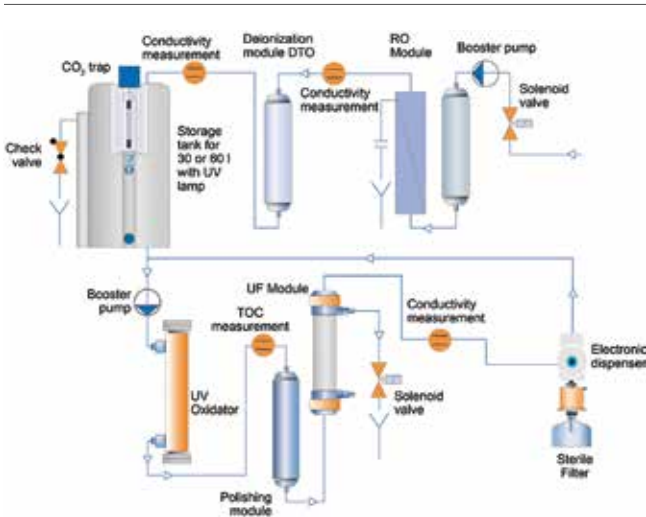
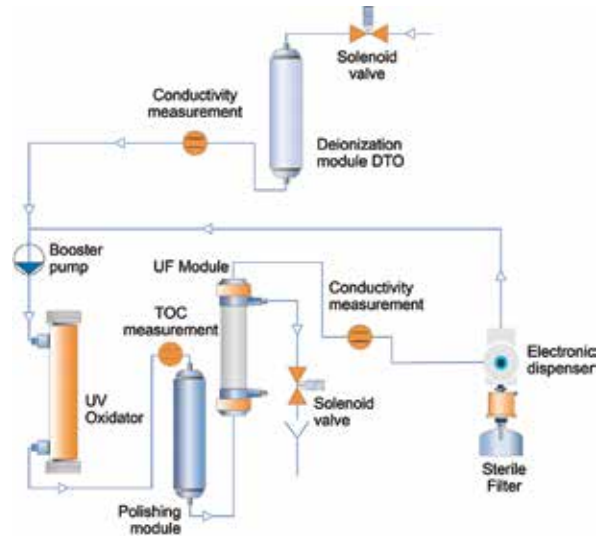


## ULTRA CLEAR™ ELECTRONIC DISPENSER MODELS

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

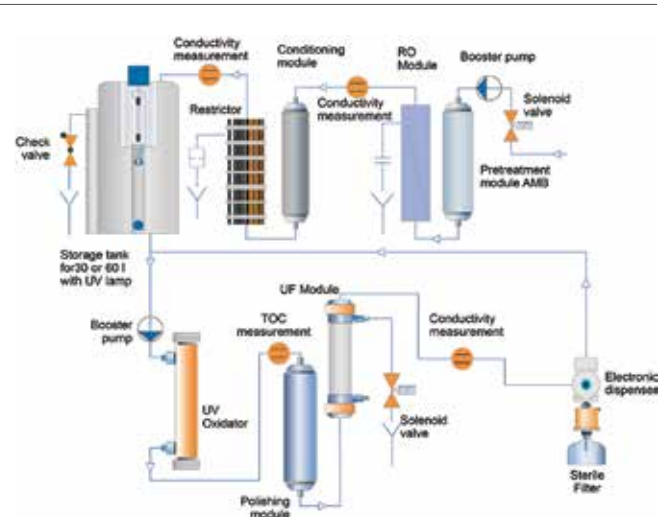
Designed for deionized water feed at conductivity <math> < 20 \mu\text{S}/\text{cm}</math>. The unit has an ultrapure water output capacity up to 2 l/min and delivers a water quality of 18.2 M $\Omega$ -cm (0.055  $\mu\text{S}/\text{cm}</math>). The water produced exceeds current quality standards.$



### 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
<b>Feed Water</b>											
Pressure (bar)	0.1 - 5		0.1 - 5			0.1 - 5			0.1 - 5		
Conductivity (µS/cm)	< 20		< 1400			< 1400			< 1400		
CO <sub>2</sub> (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		
<b>Pure Water</b>											
Flow rate (l/h)	-		10			10			20		
Conductivity (µS/cm)	-		< 2			< 2			< 0.2		
<b>Ultrapure Water</b>											
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		
<b>Measurements (W/H/D)</b>											
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
<b>Electric Connection</b>											
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 <sub>2</sub> 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 <sub>2</sub> 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.

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