



LABOSTAR® PRO TWF ULTRA PURE WATER SYSTEM

FROM TAP WATER TO ULTRAPURE WATER- ONLY ONE INNOVATIVE STEP

The LaboStar® PRO TWF systems produce ultrapure water straight from your drinking water supply. This equipment incorporates a pre-filtration unit and a reverse osmosis membrane. The pure water collects in an integrated tank and is finally circulated through the polishing module by a circulation pump. The user can extract either Type III water from the built-in 7 l storage tank or Type I water from the dispenser with a quality of 0.055 $\mu\text{S}/\text{cm}$, equivalent to 18.2 $\text{M}\Omega\text{-cm}$, and TOC of between 1 and 10 ppb, depending on the system type.

The RO water quality is displayed as well. The LaboStar PRO TWF equipment can cost-effectively produce small amounts of analytical-grade water. The water quality exceeds all relevant standards including ASTM Type I, CLSI and ISO 3696 Type I. System can be upgraded with 30 or 60 l storage tank.

A conductivity sensor constantly measures the product water purity in the recirculation loop. A positively charged 0.2 μm sterile filter at the dispenser removes bacteria and endotoxins, eliminating the need for an expensive ultra-filter. An uncharged 0.2 μm sterile filter is also available. LaboStar PRO TWF systems are delivered with the first set of modules and filters.

Benefits

- Upgrade with 30 or 60 l storage tank possible, manual dispense via tap
- Delivers two types of water: type III from the tank and type I from the dispenser
- Two different sterile filters available (with and without endotoxin retention)
- Easy module change due to quick-fit couplers
- Low acquisition costs
- Scope of supply includes consumables
- Made in Germany

Typical Applications LaboStar PRO TWF

- General analysis
- Standard buffer
- AAS, GC, IC, ICP
- Type III water
- QC Food Industry
- Pyrogen sensitive applications
- Cell and tissue culture

Typical Applications LaboStar PRO TWF UV

- Micro- und molecular biology
- PCR, HPLC
- TOC analysis
- Type III water

SPECIFICATIONS

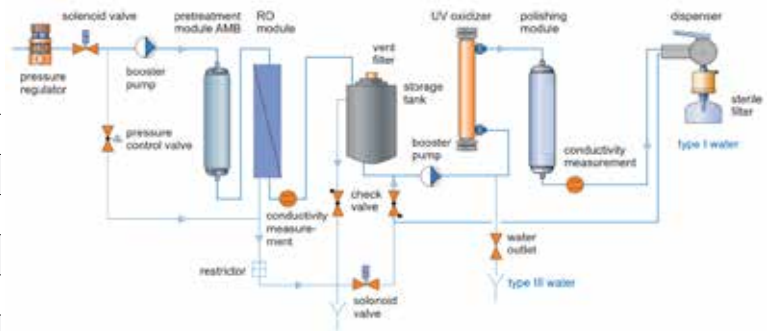
Pure water specifications		LaboStar PRO TWF	LaboStar PRO TWF UV
Delivery flow rate	l/h	10	10
Ion retention rate	%	96 max.	96 max.
Bacteria retention rate	%	> 99	> 99
Particle retention rate	%	> 99	> 99
Ultrapure water specifications			
Delivery flow rate	l/min	1.2	1.2
Conductivity	µS/cm	0.055	0.055
Resistivity	MΩ-cm	18.2	18.2
TOC	ppb	5 - 10	1 - 5
Bacteria	cfu/ml	< 0.1*	< 0.1*
Endotoxins	EU/ml	< 0.001**	< 0.001**
Particles > 0.2 µm	per ml	< 1	< 1
Feed water specifications			
Feed water pressure	bar	3 - 5	3 - 5
Conductivity	µS/cm	< 2000	< 2000
Silt density index	SDI	< 12***	< 12***
TOC	ppb	< 1000	< 1000
Free Chlorine	mg/l	< 0.5	< 0.5
CO ₂	mg/l	< 15	< 15
Water temperature	°C	5 - 30	5 - 30
Ambient temperature	°C	5 - 35	5 - 35
Power requirements			
Power consumption	W	270	270
Power supply	V/Hz	100 - 240 V/ 50 - 60 Hz	100 - 240 V/ 50 - 60 Hz
Weight, net	kg	20.0	21.2
Weight, with packaging	kg	24.0	25.2
Dimensions (H x W x D)	mm	535 x 400 x 520	535 x 400 x 520
Item code		W3T324337	W3T324338

* when sterile filter W3T199279 or W3T199209 is used (see accessories) with bubble point test: pressure > 50 psi/3.45 bar (with water) resp. 16 psi/1.10 bar (with 50% IPA)

** incl. charged sterile filter (the water was free of any detectable RNase or DNase)

*** with a pre-filter

RNase and DNase free water with the use of filter W3T199279
(RNase < 0.05 pg/ml; DNase < 10 pg/ml)



CONSUMABLES & ACCESSORIES

Item Number	Description	Change Frequency*
W3T197613	Pre-treatment module AMB	6 - 12 months
W2T558521	UV replacement bulb	12 months
W3T197694	Polishing Module MFIID	6 - 12 months
W3T199853	Polishing Module ILT	6 - 12 months
W3T199279	Sterile filter 0.2 µm with endotoxin retention (pack of 3)	6 months
W3T199209	Sterile filter 0.2 µm without endotoxin retention (pack of 3)	6 months
W3T199768	Disinfection kit (pack of 3)	-
W3T197620	RO Replacement module 10 l/h	2 - 3 years
W3T199880	Vent Filter for the tank	
W3T199556	Wall bracket f. LaboStar Pro TWF	
W3T324494	30 l Storage tank for LaboStar Pro TWF	
W3T324495	60 l Storage tank for LaboStar Pro TWF	
W3T314413	Degasing unit up to 150 l/h	

* Change intervals possibly shorter, depending on feed water and consumption.



LENNTECH
WATER TREATMENT SOLUTIONS

info@lenntech.com Tel. +31-152-610-900
www.lenntech.com Fax. +31-152-616-289

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