

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 I storage tank or Type I water from the dispenser with a quality of 0.055 μ S/cm, equivalent to 18.2 $M\Omega$ -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 I storage tank.

A conductivity sensor constantly measures the product water purity in the recirculation loop. A positively charged 0.2 μ m sterile filter at the dispenser removes bacteria and endotoxins, eliminating the need for an expensive ultra-filter. An uncharged 0.2 μ m 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 I 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

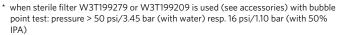
- General analysis
- Standard buffer
- AAS, GC, IC, ICP
- Type III water
- QC Food Industry
- Pyrogen sensitive applications
- Cell and tissue culture

Typical Applications LaboStar PRO TWF UV

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

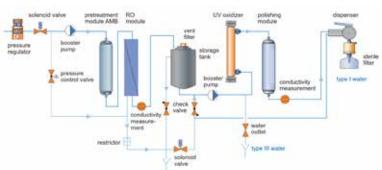
SPECIFICATIONS

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 specificat	ions		
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



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

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 MFIIID	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 Storage tank for LaboStar Pro TWF	
W3T324495	60 Storage tank for LaboStar Pro TWF	
W3T314413	Degasing unit up to 150 l/h	

 $^{^{\}star}$ Change intervals possibly shorter, depending on feed water and consumption.



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^{***} with a pre-filter