

WATER PURIFICATION

LABORATORY WATER PURIFICATION SYSTEM BOECOpure PLUS

The all-rounder for H₂O pure type ASTM I + ASTM II

If both, pure and ultra pure water in small quantities is required, BOECOpure PLUS is the perfect system.

The ability to provide both types from a single system results from the combination of ultramodern purification technologies. These also make it possible to connect the system directly to a drinking water tap.

A press on the dispenser button activates dispensing of ultrapure water type ASTM I via the digital dispenser control. The recirculation of the pure water held in the installed 10 litre tank keeps it permanently at type ASTM II quality.

Features:

- » OptiFill dispenser is standard
- » TapWater set for direct connection to a drinking water tap
- » 10-litre pure water tank has a pressure outlet
- » Tank volume display in percent
- » Simple and economical filter replacement
- » Leakage sensor is standard
- » Type ASTM I dispensing performance is 1,6 / 2 l/min.
- » Type ASTM II draw-off is up to 6 l/h / 12 l/h
- » Ready-to use, including filter cartridges
(Pre-treatment cartridge with RO membrane and ultrapure water cartridge)

The BOECOpure PLUS UV is supplemented with UV-oxidation, 185/254 nm. The BOECOpure PLUS UV/UF is supplemented with an ultrafilter and UV-oxidation, 185/254 nm.

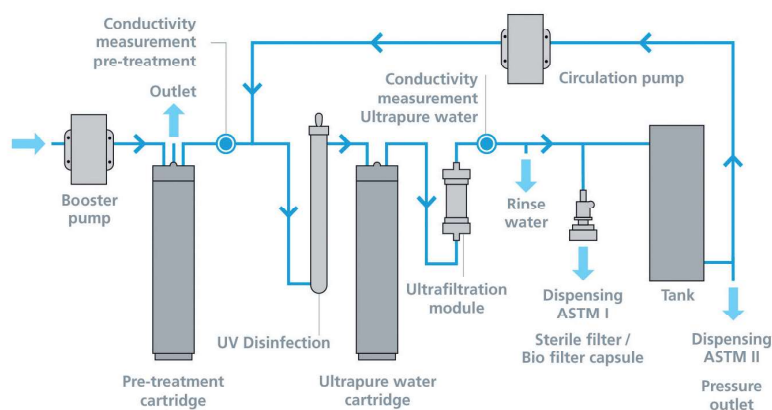
ASTM Type I Ultrapure water applicable for

Molecular biology, microbiology, PCR, inorganic and organic trace analysis
HPLC, ICP, TOC-analysis

ASTM Type II pure water applicable for

Rinsing laboratory glassware, preparing and diluting buffers, reagents, tissue culture media and dyes.
Sample preparation for analytical methods such as flame AAS

BOECOpure PLUS UV/UF Flow chart



BOECOpure PLUS

OPTIFILL DISPENSER

Specification BOECOpure PLUS:	Standard	UV	UV/UF
ASTM II			
Pure water performance at 15°C:	6 l/h	6 or 12 l/h	6 l/h
Conductivity:		0.067-0.1 µS/cm	
Resistance:		15-10 MΩ x cm	
Pure water tank pressurized outlet		yes	
ASTM I			
Conductivity:		0.055 µS/cm	
Resistance:		18.2 MΩ x cm	
TOC Value*:	5-10 ppb	1-5 ppb	1-5 ppb
Dispensing performance:	up to 2 l/min	up to 2 l/min	up to 1.6 l/min
Bacterial ** content:		< 1 CFU/ml	
Particles ** content:		< 1 ml	
Endotoxines*			0.001 EU/ml
Feedwater requirements			
Drinking water acc. to DIN 2000			
Feedwater temperature:		+ 2°C up to + 35°C	
Manganese and iron content:		< 0,05 mg/l	
Free chlorine content:		< 1 mg/l	
Silt density index (SDI):		max. 3	
Technical data			
Operating pressure in bar, min./max.		0,5-6 bar	
Supply voltage:		100-240 V / 50-60 Hz	
Connected load:		0.1 kW	
Connector size:		8 mm hose	
Ambient temperature:		+ 2°C up to + 35°C	
Dimensions ***, W x D x H:		390 x 725 x 615 mm	
Weight:		20/21 kg	

*in dependence on the feedwater quality **with sterilizing filter 0,2 µm ***with OptiFill Dispenser

Code	Description
BOE 8210051	BOECOpure PLUS Standard, 6 l/h Typical application: AAS, IC, ICP, buffers and media preparation
BOE 8210052	BOECOpure PLUS UV, 6 l/h
BOE 8210102	BOECOpure PLUS UV, 12 l/h Typical application: Ultra-trace analysis, ICP-MS, HPLC, TOC
BOE 8210053	BOECOpure PLUS UV/UF, 6 l/h Typical application: Life science and microbiology, cell culture media

Accessories / Consumables

Code	Description
BOE 8210005	Pre-treatment cartridge with RO-membrane, 6 l/h
BOE 8210010	Pre-treatment cartridge with RO-membrane, 12 l/h
BOE 8010003	Ultrapure water cartridge
BOE 19111300	Sterile filter capsule 0,2 µm
BOE 8510400	Sterile tank ventilation filter
BOE 8110200	Replacement UV-lamp
BOE 8010051	Replacement Ultrafilter
BOE 8210300	Wall-mount
BOE 16500031	Storage tank, 30 liter, with sterile overflow, sterile vent filter and pressure pump
BOE 16500061	Storage tank, 60 liter, with sterile overflow, sterile vent filter and pressure pump

Optional

The Pre-treatment pack for BOECOpure PLUS protects the reverse osmosis module against particulates, dirt, and colloids. For the complete pack the filter housing and prefilter have to be ordered.

Code	Description
BOE 16531110	Filter housing 10" without Pre-filter
BOE 16511100	Pre-filter insert 1 µm, 10"





OPTIFILL DISPENSER

LABORATORY WATER PURIFICATION SYSTEM

BOECOpure PLUS standard xs basic

BOECOpure PLUS UV xs basic

The simple solution for H₂O pure type ASTM I + ASTM II

The BOECOpure PLUS standard xs is an extremely compact system and the best choice when small volumes of both pure water and ultrapure water are required. It offers great flexibility and can be directly connected to the drinking water supply.

The standard OptiFill dispenser is a flexible extraction solution for a kind of laboratory vessels. The ergonomic shape of it enables onehanded use of it for both system operation and the monitoring of all quality parameters.

The dispensing of pure water and ultrapure water from a single system is made possible by the need-filling combination of ultra-modern purification technologies.

Features:

- » Reliable ASTM I + II water quality supply
- » Tap water set for direct drinking water connection
- » Optifill dispenser as standard:
 - » enables one handed dispenser operation
 - » is detachable and ergonomically shaped
 - » can be turned by 170 degrees/80 cm in diameter and is height adjustable
- » Simple and economical filter replacement
- » Clear view of controls with graphics display
- » Leak detector is included as a standard
- » Supply including all mandatory filters and consumables for start-up and operation)

The BOECOpure PLUS UV is supplemented with UV-oxidation, 185/254 nm.

ASTM Type I Ultrapure water applicable for

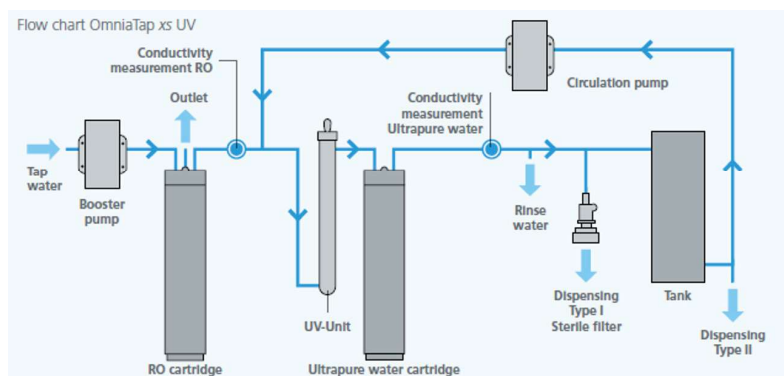
Molecular biology, microbiology, PCR, inorganic and organic trace analysis
HPLC, ICP, TOC-analysis

ASTM Type II pure water applicable for

Rinsing laboratory glassware, preparing and diluting buffers, reagents, tissue culture media and dyes.

Sample preparation for analytical methods such as flame AAS

BOECOpure PLUS UV/UF Flow chart



Specification BOECOpure PLUS:	Standard xs ^{basic}	UV xs ^{basic}	xs ^{touch} UV-TOC/UF
ASTM II			
Pure water performance at 15°C (l/h):	5	5	8
Conductivity at 25°C (µS/cm):	0.067-0.1	0.067-0.1	0.067-0.1
Resistance at 25°C (MΩ x cm):	15 up to 10	15 up to 10	15 up to 10

ASTM I			
Conductivity at 25°C (µS/cm):	0.055	0.055	0.055
Resistance at 25°C (MΩ x cm):	18.2	18.2	18.2
TOC Value* (ppb):	< 10	< 5	< 5
Dispensing performance (l/min.):	up to 2	up to 2	up to 2
Bacterial ** content (KBE/ml):	< 0,01	< 0,01	< 0,01
Particles ** content < 0.2 µ (1/ml):	< 1ml	< 1	< 1
Pyrogens (Endotoxins) *** (EU/ml):	-	-	< 0.001
RNase *** (pg/ml)	-	-	< 1
DNase *** (pg/m)	-	-	< 5
Proteases *** (µg/m)	-	-	< 0.15

*in dependence on the feedwater quality and regular disinfection

**with sterilizing filter 0,2 µm (Capsule BOE 19100300 or Bio filter capsule BOE 19102100)

*** With ultrafilter/bio filter capsule

Feedwater requirements

Drinking water acc. to DIN 2000			
Feedwater temperature (°C):	+ 2 up to + 35	+ 2 up to + 35	+ 2 up to + 35
Feedwater pressure (bar):	0,5 up to 6	< 0,5 up to 6	0,5 up to 6 bar
Conductivity at 25°C (µS/cm):	< 2000	< 2000	< 2000
Colloid index SDI:	< 10	< 10	< 10
Free chlorine (ppm):	< 3	< 3	< 3
TOC-Value (ppm):	< 1	< 1	< 1
Hardness [as CaCo3]*:	< 300	< 300	< 300
pH range:	4 up to 10	4 up to 10	4 up to 10

* For higher values, pre-treatment must be carried out upstream

Technical data

Electrical connection (Volt/Hz):	90-240 / 50-60	90-240 / 50-60	90-240 / 50-60
Total connected load (W):	120	120	120 W
Port size - tap water:	R ¾ - female	R ¾ - female	R ¾ - female
Ambient temperature (°C):	+ 2 up to + 35	+ 2 up to + 35	+ 2 up to + 35
Dimensions, (W x D x H mm):	253 x 530 x 520	253 x 530 x 520	253 x 530 x 520*
Weight dry (kg):	19	19	19

*with OptiFill^{touch} dispenser

Code	Description
BOE 8211051	BOECOpure PLUS Standard xs basic Typical application: AAS, IC, ICP, buffers and media preparation
BOE 8211052	BOECOpure PLUS UV xs basic Typical application: Ultra-trace analysis, ICP-MS, HPLC, TOC

Accessories / Consumables

Code	Description
BOE 19200007	RO cartridge xs 5 l/h
BOE 19200103	Ultrapure water cartridge xs 055
BOE 19100300	Sterile filter capsule 0,2 µm
BOE 19111300	Sterile filter capsule 0,2 µm
BOE 19102100	Bio filter capsule
BOE 19200305	Wall mounting BOECOpure PLUS xs
BOE 19200091	Disinfection unit BOECOpure PLUS xs
BOE 19200057	Disinfectant BOECOpure PLUS

Optional

The Pre-treatment pack for BOECOpure PLUS protects the reverse osmosis module against particulates, dirt, and colloids. For the complete pack the filter housing and prefilter have to be ordered.

Code	Description
BOE 16531110	Filter housing 10" without Pre-filter
BOE 16511100	Pre-filter insert 1 µm, 10"



OPTIFILLTOUCH
DISPENSER

LABORATORY WATER PURIFICATION SYSTEM BOECOpure PLUS xstouch UV-TOC/UF

The all-rounder for H₂O pure type ASTM I + ASTM II

The BOECOpure PLUS xstouch is an extremely compact system to produce ultrapure water fulfilling highest demands of analytical and life sciences laboratories and can be directly connected to the drinking water supply.

Scroll and swipe to the next function with the intuitive Optifilltouch display and integrated monitoring unit. Adjustable limit values for conductivity and TOC, as well as data output via USB increase process reliability under consideration of highest sustainability.

Save valuable space in your lab. Configure and place the production unit under the bench and position your Optifilltouch dispenser and monitoring unit practical on a bench or space-saving on a wall.

Retractable and pivotable with a flexible connection for the most comfortable supply of ultrapure water to any vessel.

Features:

- » Reliable ASTM I + II water quality supply
- » Optifilltouch dispenser as standard:
 - » enables one handed dispenser operation
 - » Colour-touch-display with intuitive menu navigation
 - » is detachable and ergonomically shaped
 - » can be turned by 170 degrees/80 cm in diameter and is height adjustable
- » Simple and economical filter replacement
- » Real time TOC monitoring
- » Residual cartridge volume display
- » USB-Port for data in- and output
- » Leak detector is included as a standard
- » Supply including all mandatory filters and consumables for start-up and operation

The BOECOpure PLUS xstouch UV-TOC/UF is supplemented with UV-oxidation, 185/254 nm.

ASTM Type I Ultrapure water applicable for

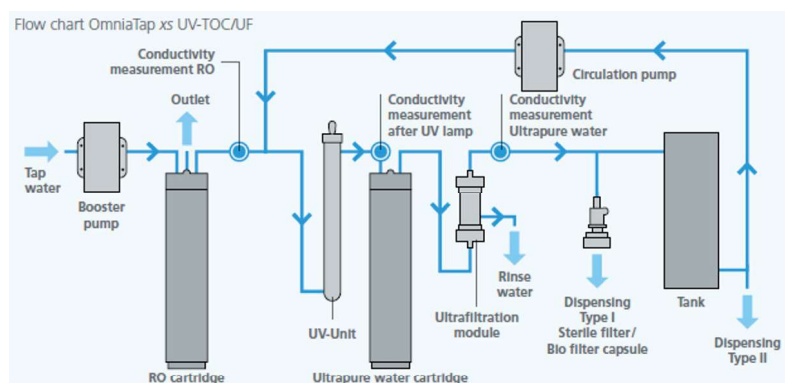
Life science and microbiology and cell culture media

ASTM Type II pure water applicable for

Rinsing laboratory glassware, preparing and diluting buffers, reagents, tissue culture media and dyes.

Sample preparation for analytical methods such as flame AAS

BOECOpure PLUS UV/UF Flow chart



ASTM II

Pure water performance at 15°C (l/h):	8
Conductivity at 25°C (µS/cm):	0.067-0.1
Resistance at 25°C (MΩ x cm)::	15 up to 10

ASTM I

Conductivity at 25°C (µS/cm):	0.055
Resistance at 25°C (MΩ x cm):	18.2
TOC Value* (ppb):	< 5
Dispensing performance (l/min):	up to 2
Bacterial ** content (KBE/ml):	< 0,01
Particles ** content < 0.2 µ (1/ml):	< 1
Pyrogens (Endotoxins) *** (EU/ml):	< 0.001
RNase *** (pg/ml)	< 1
DNase *** (pg/ml)	< 5
Proteases *** (µg/ml)	< 0.15

*in dependence on the feedwater quality and regular disinfection

**with sterilizing filter 0,2 µm (Capsule BOE 19100300 or Bio filter capsule BOE 19102100)

***with ultrafilter/bio filter capsule

Feedwater requirements

Drinking water acc. to DIN 2000

Feedwater temperature (°C):	+ 2 up to + 35
Feedwater pressure (bar):	0.5 up to 6
Conductivity at 25°C (µS/cm):	< 2000
Colloid index SDI:	< 10
Free chlorine (ppm):	< 3
TOC-Value (ppm):	< 1
Hardness [as CaCo3]*:	< 300
pH range:	4 up to 10

* For higher values, pre-treatment must be carried out upstream

Technical data

Electrical connection (Volt/Hz):	90-240 / 50-60
Total connected load (W):	120
Port size - tap water:	R ¾ - female
Ambient temperature (°C):	+ 2 up to + 35
Dimensions* (W x D x H mm):	253 x 530 x 520
Weight dry (kg):	19

*with OptiFill^{touch} dispenser

Code	Description
BOE 8211085	BOECOpure PLUS xs ^{touch} UV-TOC/UF
	Typical application:
	Life science and microbiology, cell culture media

Accessories / Consumables

Code	Description
BOE 19200008	RO cartridge BOECOpure Plus ^{xs}
BOE 19200103	Ultrapure water cartridge BOECOpure Plus ^{xs} 055
BOE 19100300	Sterile filter capsule 0,2 µm
BOE 19102100	Bio filter capsule
BOE 19200305	Wall mounting BOECOpure PLUS ^{xs}
BOE 19200091	Disinfection unit BOECOpure PLUS ^{xs}
BOE 19200057	Disinfectant BOECOpure PLUS

Optional

The Pre-treatment pack for BOECOpure PLUS protects the reverse osmosis module against particulates, dirt, and colloids. For the complete pack the filter housing and prefilter have to be ordered.

Code	Description
BOE 16531110	Filter housing 10" without Pre-filter
BOE 16511100	Pre-filter insert 1 µm, 10"

