

Thermo Scientific Barnstead Smart2Pure water purification system

All in one! The Barnstead Smart2Pure system is a compact system which converts tap water into both ASTM Type I and II water. The Smart2Pure 3 and 6 feature a built-in 6 L reservoir to store the Type 2 water. The Smart2Pure 12 offers the choice of a 30 or 60 L reservoir for customizable storage capacity.



APPLICATIONS INCLUDE:

Molecular Biology and Microbiology

- Cell and tissue culture
- PCR, DNA sequencing
- Electrophoresis

Analytical Chemistry

- HPLC
- GC, GC-MS, ICP-MS, AA
- TOC Measurements, IC

Routine Laboratory Work

- Preparing and diluting buffers and reagents
- Rinsing lab glassware
- Supplying autoclaves and other small lab equipment

Powerful performance

- Based on your requirements, choose from capacities of 3, 6 or 12 L/hr

Lasting economy

- Water purification progresses through independent cartridges with Aquastop quick-connect for fast replacement

Module 1 – Combination of pretreatment and the reverse osmosis membrane

Module 2 – Polishing cartridge contains high-quality ultrapure resin for consistent purity and long cartridge life

Easy-to-operate

- Dispensing is easy and features variable speed to control flow
- The display can be tilted for optimal reading
- Optional UV bulb and ultrafilter to customize ultrapure water quality

Placement options

- Position on laboratory bench
- Mount it on the wall

Smart2Pure 3 and 6 features smart, integrated 6 L reservoir

- Constructed with pigment-free materials
- Conical bottom outlet allows for complete draining and efficient cleaning and disinfection

Smart2Pure 12 offers reservoir options, either 30 or 60L

- Large opening for easy and effective cleaning by hand
- Sterile venting filter/reservoir overflow protects against contamination by microorganisms
- CO₂ adsorber prevents TOC value increases from drawn-in CO₂
- Polyethylene reservoir is opaque to light
- Recirculation pump protects the high purity water from bacterial growth during standstills and maintains the low conductivity value
- Wall-mount optional for simple space-savings
- Conical bottom outlet allows for complete draining and efficient cleaning and disinfection

compact
dual quality system

Quick Look Comparison				
	Smart2Pure system	Smart2Pure UV system	Smart2Pure UF system	Smart2Pure UV/UF system
Type 1 Water				
Applications	AA, IC, ICP, standard buffer	Inorganic and organic trace analysis, HPLC, ICP-MS, IC, TOC analysis	Microbiology, IVF, monoclonal antibodies	Molecular biology, PCR, DNA, monoclonal antibodies, cell culture media
Resistivity at 25°C, MΩ.cm	18.2	18.2	18.2	18.2
Conductivity, μS/cm	0.055	0.055	0.055	0.055
TOC value, ppb	5-10	1-5	5-10	1-5
RNase, ng/ml	n/a	n/a	n/a	<0.003
DNase, pg/μl	n/a	n/a	n/a	<0.4
Bacterial content, CFU/mL	<1	<1	<1	<1
Particles, μm/mL	<1	<1	<1	<1
Endotoxines, EU/mL	n/a	n/a	<0.001	<0.001
Flow rate, L/min	1	1	1	1
Type 2 Water				
Pure water production at 15°C, L/h	3, 6 or 12	3, 6 or 12	3, 6 or 12	3, 6 or 12
Resistivity at 25°C, MΩ.cm	15-10	15-10	15-10	15-10
Conductivity, μS/cm	0.067-0.1	0.067-0.1	0.067-0.1	0.067-0.1

Feed Water Requirements*

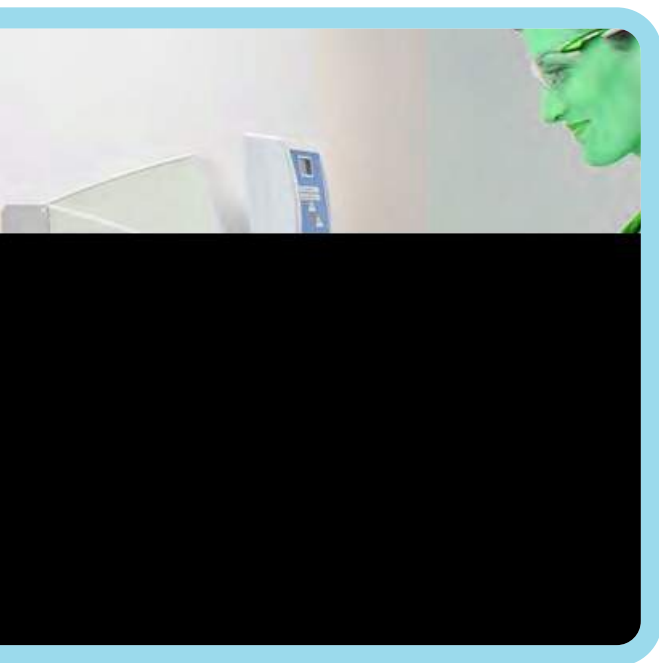
Source	Tap water
pH range	4-11
Temperature, C°	2-35
Pressure, psi (bar)	1.4-87 (1-6)

* Please see user manual for complete list of feed water requirements

Space-Saving Design
Simply stand the Smart2Pure system on the benchtop or mount it directly to the wall, as shown by the Thermo Scientific MicroPure, for more bench space

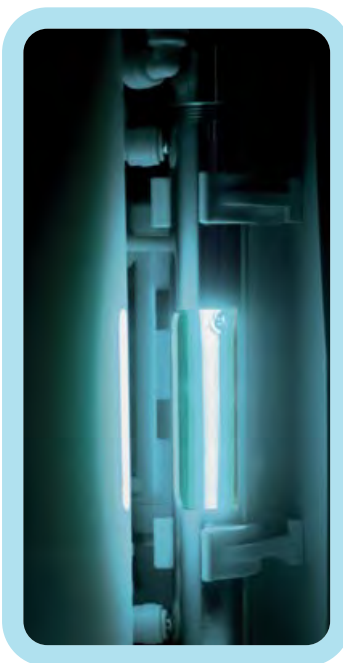


Thermo Scientific Barnstead Smart2Pure water purification system (continued)



Economical Design

The RO membrane with pretreatment cartridge is separate from the DI cartridge, ensuring you only replace each cartridge as needed



UV-Oxidation 185/254 nm

Optional UV-oxidation for reducing the content of microorganisms and their metabolites



Flexible

Gain increased flexibility by adding a hand dispenser with 3 meter cord



Flexible Storage

Store high purity water safely and conveniently in either a 30 or 60 L reservoir (only for Smart2Pure 12)

Product Specifications – Storage Reservoirs		
Volume	Material	Dimensions H x D in (mm)
30 L	Polyethylene, ultrapure water resistant, opaque to light	23.5 x 15 (598 x 380)
60 L		35.9 x 15 (912 x 380)

Storage Reservoir Options for Smart2Pure 12 System Only	30L	60L
Tank Choose a tank to meet your capacity needs	06.5040	06.5070
Required Accessories		
Sterile overflow for reservoir	06.5001	06.5001
CO₂ adsorber + sterile filter, 0.2 µm	06.5002	06.5002
Optional Accessories		
UV lamp assembly for the tank, 230V, 50Hz Ships complete with assembly and UV lamp	06.5006	06.5006
Wall mounting bracket	06.5015	06.5016
Replacement Consumables		
Replacement UV lamp (reservoir), 230V, 50Hz	09.5002	09.5002

Product Specifications - Smart2Pure 3, 6, 12 L/hr					
Flow rate	Operating pressure min/max	Electrical requirements	Power consumption	Feed water connector	Dimensions W x D x H in (mm)
up to 1 L/min	29-87 psi 2-6 bar	90-240V, 50/60Hz	0.06kW	3/4" NPT	12 x 15.7 x 21.5 (305 x 400 x 545)

System Options for Smart2Pure	Permeate flow at 15°C	Smart2Pure Standard	Smart2Pure UV	Smart2Pure UF	Smart2Pure UV/UF
Smart2Pure System 3 and 6 L/hr* All systems include an RO/pretreatment cartridge, ultrapure polisher cartridge, sterile 0.2 µm filter, pressure regulator, UV lamp and/or UF filter where applicable. The 3 and 6 lph models also include an internal 6L tank with vent filter.	3 L/hr	50129869	50129872	50129870	50129688
	6 L/hr	50129873	50129885	50129874	50129887

Required Accessories					
Pretreatment filter Required to prolong cartridge life. Ships with a filter housing and 1µm filter.		09.4003	09.4003	09.4003	09.4003

Optional Accessories					
Wall mounting bracket		09.2212	09.2212	09.2212	09.2212
Qualification documents (IQOQ)		IQQDOCE50133911	IQQDOCE50133911	IQQDOCE50133911	IQQDOCE50133911
Hand Dispenser Kit Hand dispenser with 3 meter cord that connects to tank. Ships with a 0.2 micron final filter.		50138221	50138221	50138221	50138221

System Options for Smart2Pure 12	Smart2Pure 12 Standard	Smart2Pure 12 UV	Smart2Pure 12 UF	Smart2Pure 12 UV/UF
Smart2Pure System 12 L/hr* Systems include an RO/pretreatment cartridge, an ultrapure polisher cartridge, sterile 0.2 µm filter, pressure regulator, UV lamp and/or UF filter where applicable	50129888	50129890	50129889	50129845

Required Accessories				
Smart2Pure Reservoir Choose a reservoir that fits your needs	See "Storage Reservoir Options"			

Pretreatment filter Required to prolong cartridge life Ships with a 10 inch filter housing and 1 µm filter	09.4003	09.4003	09.4003	09.4003
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Optional Accessories				
Wall mounting bracket for the system		09.2212	09.2212	09.2212
Qualification documents (IQOQ)		IQQDOCE50133912	IQQDOCE50133912	IQQDOCE50133912
Hand Dispenser Kit Hand dispenser with 3 meter cord that connects to tank. Ships with a 0.2 micron final filter.		50138221	50138221	50138221

Replacement Consumables - Smart2Pure 3, 6, 12 L/hr					
RO membrane with integrated pretreatment	3 L/hr	09.2003	09.2003	09.2003	09.2003
	6 L/hr	09.2006	09.2006	09.2006	09.2006
	12 L/hr	09.2012	09.2012	09.2012	09.2012
Ultrapure polisher cartridge		09.1020	09.1020	09.1020	09.1020
Sterile 0.2 µm filter for system		09.1003	09.1003	09.1003	09.1003
Ultrafilter		n/a	n/a	50133981	50133981
System UV-lamp		n/a	09.1002	n/a	09.1002
Cleaning solution	Europe/Asia Pacific	09.2202	09.2202	09.2202	09.2202
	North America/ Latin America	CMX25	CMX25	CMX25	CMX25
1 micron prefilter for 09.4003		06.5101	06.5101	06.5101	06.5101
Sterile vent filter for tank	3 L and 6 L/hr	22.0091	22.0091	22.0091	22.0091



TYPE 2

pure

water purification systems

Pure water for a wide range of applications

Type 2 pure water is an essential part of creating consistently pure chemical reagents, microbiological buffers and media.

Type 2 water is also recommended as a pretreatment for Type 1 ultrapure systems.