

Barnstead Smart2Pure water purification system

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



Applications Include:

Modular 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

Barnstead 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

Barnstead Smart2Pure 12 offers reservoir options, either 30 or 60 L

- 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 UV system	Smart2Pure UV/UF system
Type 1 Water		
Applications	Inorganic and organic trace analysis, HPLC, ICP-MS, IC, TOC analysis	Molecular biology, PCR, DNA, monoclonal antibodies, cell culture media
Resistivity at 25 °C, MΩ.cm	18.2	18.2
Conductivity, μS/cm	0.055	0.055
TOC value, ppb	1-5	1-5
RNase, ng/ml	n/a	<0.003
DNase, pg/μl	n/a	<0.4
Bacterial content, CFU/mL	<0.01	<0.01
Particles, μm/mL	<1	<1
Endotoxines, EU/mL	n/a	<0.001
Flow rate, L/min	Up to 1	Up to 1
Type 2 Water		
Pure water production at 15 °C, L/h	12	12
Resistivity at 25 °C, MΩ.cm	15-10	15-10
Conductivity, μS/cm	0.067-0.1	0.067-0.1

Feed Water Requirements*	
Source	Tap water
pH range	4-11
Temperature, C°	2-35
Conductivity (μS/cm), maximum	1200
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 BarnsteadSmart2Pure system on the benchtop or mount it directly to the wall, as shown by the Thermo Scientific MicroPure, for more bench space

Barnstead Smart2Pure water purification system (continued)



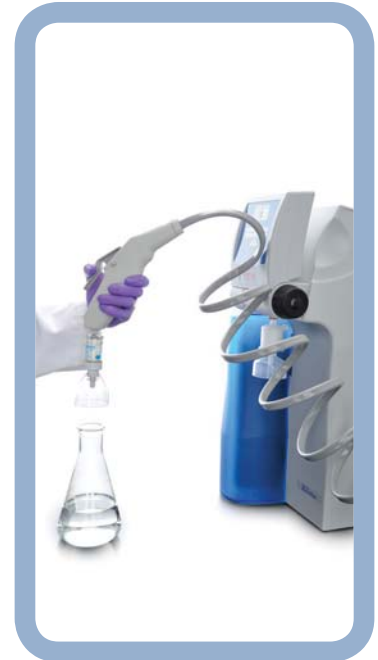
Economical Design

The RO membrane 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

	30 L	60 L
Tank Choose a tank to meet your capacity needs	50155497	50155501
Required Accessories		
Sterile overflow for reservoir	06.5001	06.5001
CO ₂ adsorber + sterile filter, 0.2 µm	06.5002	06.5002
Optional Accessories		
Wall mounting bracket	06.5015	06.5016

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	90-240 V, 50/60 Hz	0.06 kW	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 UV	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, UV lamp and/or UF filter where applicable. The 3 and 6 lph models also include an internal 6 L tank with vent filter.	3 L/hr	50129872	50129688
	6 L/hr	50129885	50129887
Required Accessories			
Double cartridge pretreatment system A 5 µm filter with activated carbon cartridge and a hardness stabilizer cartridge ship complete with two 10 inch filter housings to control chlorine, organic impurities and hardness.		09.4000	09.4000
Optional Accessories			
Wall mounting bracket		09.2212	09.2212
Qualification documents (IQOQ)		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

System Options for Smart2Pure 12	Smart2Pure 12 UV	Smart2Pure 12 UV/UF
Smart2Pure System 12 L/hr* Systems include an RO/pretreatment cartridge, an ultrapure polisher cartridge, sterile 0.2 µm filter, UV lamp and/or UF filter where applicable	50129890	50129845
Required Accessories		
Smart2Pure Reservoir Choose a reservoir that fits your needs	See "Storage Reservoir Options"	
Double cartridge pretreatment system A 5 µm filter with activated carbon cartridge and a hardness stabilizer cartridge ship complete with two 10 inch filter housings to control chlorine, organic impurities and hardness.	09.4000	09.4000
Optional Accessories		
Wall mounting bracket for the system	09.2212	09.2212
Qualification documents (IQOQ)	IQQDOCE50133912	IQQDOCE50133912
Pressure Regulator Recommended where incoming feed pressure is above the specified range	50155462	50155462
Hand Dispenser Kit Hand dispenser with 3 meter cord that connects to tank. Ships with a 0.2 micron final filter.	50138221	50138221

Replacement Consumables - Smart2Pure 3, 6, 12 L/hr

RO membrane with integrated pretreatment	3 L/hr	09.2003	09.2003
	6 L/hr	09.2006	09.2006
	12 L/hr	09.2012	09.2012
Ultrapure polisher cartridge		09.1020	09.1020
Sterile 0.2 µm filter for system		09.1003	09.1003
Ultrafilter		n/a	50133981
System UV-lamp		09.1002	09.1002
Cleaning solution		CMX25	CMX25
Activated carbon cartridge with 5 µm prefilter		06.5201	06.5201
Hardness stabilizing cartridge		06.5452	06.5452
Sterile vent filter for tank	3 L and 6 L/hr	22.0091	22.0091

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