



Sole Source Specifications:
Thermo Scientific Barnstead GenPure Pro UV/UF - TOC
Type 1 Lab Water Purification System

Specifications

- Type 1 water purification system capable of delivering up to 200L per day of Type 1 water on demand using pretreated water as a feed source.
- Product water must have a resistivity of up to 18.2 megohms-cm, <5 ppb TOC (Total Organic Carbon), pyrogen (bacterial endotoxin) levels of less than 0.001 EU/ml and bacterial counts less than 1 CFU/ml.
- Product flow rate will be up to 2 liters per minute with a pressurized feed of <90 psi.

Physical Specifications:

- Dispensing will have an action radius of 24 in (60 cm). The dispensing arm will be height adjustable and extendable.
- Dispenser is available to be bench-top or wall-mounted.
- System will be available to be bench top or wall-mounted using screws included with the system.
- The water purification system will be sold with one part number which will include all consumables needed for immediate start-up.
- Installation and maintenance of the system should be simple and user-friendly.
- Cartridges will have quick-connections to remove the need for depressurizing the system for cartridge changes.
- Display must be tiltable for easy reading with illuminated display to show dispensing mode, TOC value, conductivity/resistivity, and the temperature measured for conductivity compensation.
- The display's background will turn red when an error is displayed for easy across-the-room identification of an error.
- RS232 interface will be available for data tracking to a printer or PC.
- System will ship standard with a leak detector and display an error if a leak occurs within the system.

Technology:

- The cartridge pack will be constructed utilizing non-pigmented polypropylene and semi-conductor grade mixed bed ion exchange resins.
- The unit will include a UV lamp that will emit both 185 nm and 254 nm wavelengths ensuring organic removal as well as maintaining a bacteria-free environment. The UV lamp is to be followed by an organic-free component of the pack ensuring that resistivity is increased and ultra low organic levels are maintained.
- The system will include an inline ultrafilter for the removal of pyrogens. The system must allow for an extended ultrafilter flush as well as a 1 minute ultrafilter flush, which is initiated by the controls. The unit must also automatically flush the ultrafilter.
- An absolute 0.2µm polysulfone membrane filter is required as the final purification step as the water is being dispensed. The final filter will be sterilizable using an autoclave.
- The conductivity measurement is performed with two high precision measuring cells. A fully automatic check and calibration will occur prior to each measurement via a built-in reference resistance. The cell constants are 0.01 cm⁻¹.
- Temperature measurements are made by a platinum chip sensor with ± 0.1° C accuracy.
- Continuous feed water monitoring alarms the user when feed water quality falls below the set point to prevent premature expiration of consumables.
- Real-time TOC measurement combined with continuous monitoring of the intensity of the UV lamp will remove the risk of false TOC values due to decreasing UV intensity. A fault message will alert the user when the UV lamp intensity is no longer sufficient for accurate TOC measurements.

Operation:

- The system is to include on/off as well as standby modes of operation.
- During standby, water will re-circulate within the system and that time span is user modified.
- The system will also automatically switch to Interval operation after it has been running for 2 hours.
- Real time clock and code-protected operating system prevents unauthorized changes to system settings.
- Digital microprocessor control automatically monitors and stores faults from the past four weeks.
- Installation and IQ/OQ validation protocols are available as needed.

Agency Certification:

CE and CSA

Warranty:

One year on parts and labor

Thermo Scientific Part Numbers:

System	Thermo Scientific Barnstead GenPure Pro UV/UF-TOC	50131922
	Ships with an xCAD remote dispenser (bench version), wall bracket, ultrapure polisher cartridge, sterile 0.2µm filter, pressure regulator, leak detector, UV lamp, and ultrafilter. 115-240V, 50/60Hz.	
Optional Accessories	Log printer for connection to RS232 port, 110V	AY1137X1
	Log printer for connection to RS232 port, 230V	09.2207
	Storage reservoir, 30L, to feed system	06.5038
	Storage reservoir, 60L, to feed system	06.5068
	Disinfection cartridge	09.2201
Replacement	Ultrapure water cartridge	09.2005
Consumables	0.2µm final filter	09.1003
	UV lamp	09.2002
	Ultrafilter	50133980