WPS-1200 Water Purification Systems

Consolidated offers two water systems as part of the WPS-1200 line. The WPS-1200-RO reverse osmosis water purification system produces Type IV laboratory-grade water ideal for steam sterilizers and glassware washers per ASTM D1193-06. This robust system includes an RO module and a reservoir tank. Each module consists of two pre-treatment filters and a reverse osmosis filter. The pre-treatment filters remove particles larger than 5 microns, free chlorine, chloramines, and other undesirable traits. The reverse osmosis membrane filter removes greater than 90% of inorganic ions, hardness, and dissolved solids, as well as other particles and microorganisms.

If deionized water is required, the WPS-1200-DI system incorporates extra filtration to produce deionized water with >1 megohm•cm resistivity for clean steam or other high-purity applications.

WPS-1200 Benefits

- Improves equipment life and performance by removing at least 90% of all dissolved solids that cause scale build-up.
- Designed specifically for autoclaves and glassware washers.
- Reduction of scale build up translates to increased uptime as well as reduced maintenance and energy costs.
- Designed to be very low maintenance and easy to use with a low cost of ownership.
- System includes a pressurized storage tank.
- Tank is floor standing and can be mounted remotely.
- 100% seamless composite construction with durable, high density polyethylene inner liner.

WPS-1200 Features

- Filters have a special 1/4 turn quick change design that allows simple, quick and clean filter replacement. Filters can be easily changed in minutes without the use of tools or the need for a service call.
- Flexible design allows system to be installed integral to the sterilizer[1] or on a nearby wall.
- Pressurized storage allows purified water to be used for general lab use.
- Environmentally safe; 100% lead-free.
- Color indicator on DI filter signals when to change the filter.

[1] *Increases the footprint of the sterilizer.*

Why Purify Your Water?

Many steam sterilizers use an electric steam generator to create the required steam. When the steam is created, salts and minerals from the feed water are left behind. If hard tap water is used to generate the steam, over time these mineral deposits will accumulate and coat the generator heating elements, continually decreasing the functionality of the generator until it stops working. Consolidated's Water Purification Systems will remove these contaminants and help ensure maximum uptime.

Water Feed Requirements, Carbon-Steel Steam Generators

The table below shows the recommended feed water requirements for a standard steel boiler. If water quality fails to meet maximum condition requirements listed below, then your water will require purification by the WPS-1200-RO. If you are unsure of your facility's water quality, please contact Consolidated to arrange for an initial assessment.

Characteristic	Recommended Condition	Maximum Condition
Temperature	As Supplied	140° F (60° C)
Total Hardness	0–17 mg/L	85 mg/L
Alkalinity	50–180 mg/L	350 mg/L
Total Dissolved Solids	0–150 mg/L	250 mg/L
pH	7.5–8.5	7.5–9.0
Total Silica	0.1–1.0 mg/L	2.5 mg/L
Resistivity	2,000–6,000 ohm•cm	26,000 ohm•cm*

** If water supplied is greater than 26,000 ohm•cm contact Consolidated for recommendation.*

Water Feed Requirements, Stainless Steel Generators

Stainless-steel generators require deionized water with >1 megohm•cm. The WPS-1200-DI system provides high-purity water that meets this requirement.

Model WPS-1200-RO System with RO module and tank shown.

CONSOLIDATED STERILIZER SYSTEMS

WPS-1200
Water Purification Systems

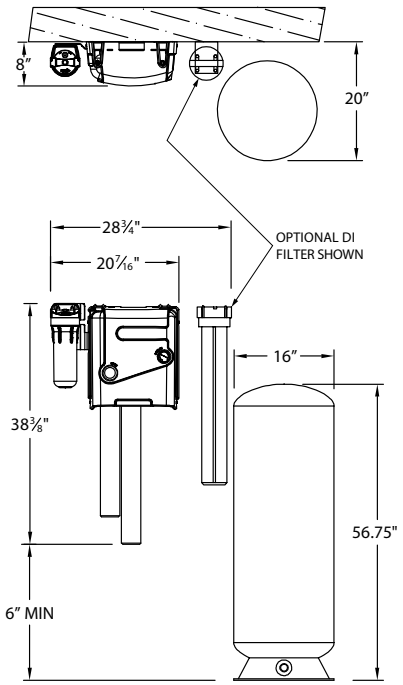
Specificaitons	Model WPS-1200-RO	Model WPS-1200-DI
Production Water Quality	Type IV (ASTM D1193-06)	DI >1 megohm•cm
Application	For steam sterilizers with carbon steel steam generators	For steam sterilizers with stainless steel steam generators (i.e. clean steam)
Dimensions	38.38" H x 20.44" W x 8" D 97.5 x 51.9 x 20.3 cm	38.38" H x 28.75" W x 8" D 97.5 x 73.0 x 20.3 cm
Required Clearance	Add 6" (15.25 cm) on all sides for cover removal and service access.	
Operating Weight (not including storage tank)	40 lbs 18 kg	54 lbs 24.5 kg
Daily Production Rate*	350 gpd / 14.5 gph nominal 1,324 lpd / 55.2 lph	350 gpd / 14.5 gph nominal 1,324 lpd / 55.2 lph
Sterilizer Size (volumetric)	up to 42.4 cu.ft. 1200 liters	up to 42.4 cu.ft. 1200 liters
Tank		
Tank Dimensions	56.75" H x 16" D 144 cm x 41 cm	
Required Clearance	Add 4" (10.16 cm) for plumbing exit	
Tank Weight (fully loaded)	210 lbs 95.3 kg	
Tank Volume	40 gallons, 22 gallons usable 83.3 liters usable	
Water		
Facility Supplied Connection	1/2" NPT Ball Valve; 50 – 80 PSIG Dynamic; 1 GPM; 40-100°F (4.4-37.8°C)	
Drain Connection	1/4" (.64 cm) OD tube connection; Floor drain or Floor Sink, Gravity Flow	
Electrical		
	120VAC/60Hz; NEMA 5-15P Plug Branch Circuit Protection 20 Amp Ground Fault	

**Feed water temperature, feed water quality and age of filters affects production rate. Incoming water must meet water quality requirements,*

Water Feed Requirements, WPS-1200

The table below shows the recommended feed water requirements for the WPS-1200-RO. If water quality fails to meet maximum condition requirements listed below, or if you are unsure of your facility's water quality, please contact Consolidated to discuss available options.

Characteristic	Recommended Condition
Total Dissolved Solids (TDS)	0-1500 PPM
pH	7.5-9
Chlorine	0-3 PPM
Chloramines	0-3 PPM
Turbidity	0-1 NTU
Iron	0-1 PPM
Hardness	<225 PPM (13 Grains/Gal)



WPS-1200 Maintenance

- Proper pre-treatment is required to control scale formation and/or fouling (recommended preventive maintenance involves pre-treatment filter cartridge changes every 6 months[2]).
- Change RO cartridges regularly (recommended 2-3 year preventive maintenance program[2]).

[2] *Feed water quality and usage affects filter life and replacement frequency.*

3 ENTERPRISE RD. SUITE C | BILLERICA, MA 01821

P: 617.782.6072 | **F:** 617.787.5865 | INFO@CONSTERIL.COM | **CONSTERIL.COM**

Featuring Green Technology for Energy Savings and Minimal Environmental Impact