

# Autoclave Installation & Utility Overview:

**GENERAL GUIDELINES** 

# Setting the unit in place:

- Service access should be 12" minimum, 18-24" recommended, each side and back
- Utility connections should be provided in the same room within 5 feet of unit

#### **Water Connections:**

- Backflow preventers are not provided by CSS.
- Cold water, 45 PSI dynamic min, ¾"-1" NPT; 12 GPM capacity min, with shut off valve and union
  - General water quality must meet requirements in Table 3 under "General Vacuum Device and Quench"
  - Generator water quality for Carbon Steel Boiler must meet requirements in Table 3 under "Carbon Steel Steam Generators".
    - If building cold water does not meet these specifications, a separate treated/filtered water line may be
      provided to the electric steam generator: 45 PSI dynamic min, ½" NPT with shut off valve and union

Table 3: Nominal Water Quality Requirements

	Carbon Steel		General	
Characteristic	Steam Generators <sup>10</sup>		Vacuum Device & Quench	
	Recommended	Maximum	Recommended	Maximum
	Condition	Condition	Condition	Condition
Temperature [°F (°C)]	As Supplied	140 (60)	40-60 (4-16)	70 (21)
Total Hardness (mg/L)	17	85	10-85	171
Alkalinity (mg/L)	50-180	350	50-180	350
Total Dissolved Solids (mg/L)	50-150	250	50-200	500
pН	7.5-8.5	7.5-9.0	6.8-7.5	6.5-9.0
Total Silica (mg/L)	0.1-1.0	2.5	0.1-1.0	2.5
Resistivity (Ω/cm) <sup>11</sup>	2,000-6,000	26,000	N/A	N/A

<sup>10)</sup> Stainless-steel generators require deionized water with resistivity ≥ 1MΩ/cm.

- Required Water Quality for Stainless Steel Boilers:
  - De-ionized Water with Resistivity > 1 M $\Omega$ /cm , 45 PSI dynamic min, ½" NPT with shut off valve and union

#### **Drain Connection:**

Waste connection needs 2-1/2 " air gap at 2-1/2" floor drain, 1-1/2" copper drain, sweat connection

## **Steam Connections:**

- For Direct steam units: 50-80 PSI dynamic, min capacity 180 lbs/hr, ¾" NPT with shut off valve and union
  - Drip leg (with trap) 18" under steam connection, supplied by facility
  - Steam should be condensate free and between 97% to 100% saturated

## Electrical (job specific):

- Unit controls: 110V±5%/60Hz or 220V±5%/50Hz, Single Phase, 20 amp min, 3 prong receptacle, dedicated
- Electric Steam Generator (if ordered): Disconnect located by unit, follow local codes and CSD-1 requirements, 208V/240V/380V/480V, amp draw and phase per product specification sheet
- Vacuum Pump (if ordered): Disconnect located by unit, follow all local codes, 208V/240V/480V, amp draw and phase per product specification sheet
- Water booster pump for ejector (if ordered): 110V/220V, single phase
- SteriNET Connex (if ordered) requires either an Ethernet port with internet connection or a dedicated, non-extension analog phone line.

#### Air Connections & Ventilation:

- Air-Over-Pressure (if ordered): Compressed air, 50 PSIG Dynamic minimum, 10 SCFM, 99% Dry & Oil Free
- 3AV & 26AV models (optional): Compressed air. 50 PSIG Dynamic minimum, 10 SCFM, 99% Dry & Oil Free
- Please provide adequate ventilation for heat and steam capture around the sterilizer. Inadequate ventilation may interfere with facility fire detection and suppression equipment.

### Chilled Water (if applicable):

- On units ordered with either WaterEco Gravity Plus or WaterEco Vacuum Plus a facility chilled water system is required
  - Chilled Water Feed: 1" NPT, 20 psi dynamic min, 50°F Max temp, 6-8 GPM capacity, insulated line with ball valve, and union is located within 5' of the sterilizer
  - Chilled Water Return: 1" NPT, -5 psi drop on return side, +15°F rise, 6-8 GPM capacity, insulated line with ball valve, and union is located within 5' of the sterilizer





<sup>11)</sup> If water supplied is greater than 26,000  $\Omega$ /cm contact Consolidated for recommendation.