



SUBMITTAL : ECO-HZ455GLNST

**455 Gallon Horizontal Tank**

Job Name	Location
Purchaser	Engineer
Submitted to	Reference <input type="checkbox"/> Approval <input type="checkbox"/> Construction <input type="checkbox"/>
Unit Designation	Schedule #

Specifications	
Performance per GS5-45HPC & GS5-45HPC-D unit	
Capacity per Heat Pump	4.5kw or 15,400 Btu/h
Recovery per HP @ 90°F Rise	20.6 Gallons per Hour
Storage Tank	
ECO-HZ455GLNST	
Tank Volume Actual/Nominal	455 / 504 Gallons
Pressure Relief Valve (Psig & °F)	125 Psig
Temperature Sensor location	Thermowell
Installed Tank Weight (lbs)	774lbs
Shipping Tank Weight (lbs)	1049lbs
Anodes	3 x Magnesium
Tank Connection Sizes	
Cold Water Inlet	2 1/2" NPT
Hot Water Outlet	2 1/2" NPT
Cold Water to Heat Pump	1 1/4" NPT
Hot Water Return from HP	1 1/4" NPT
Pipe Size - Tank to Heat Pump	
Cold Water pipe - Tank to HP	Based on # of GS5 units
Hot Water pipe - HP to Tank	Based on # of GS5 units
Max Pipe Length inc	66ft
Max Vertical Separation of	23ft
Approvals	
Tank	ASME
Warranty	
Tank	5 Years

Construction

The tank shall be manufactured from carbon steel with a baked on Ultonium porcelain enamel lining. Tank outer shell shall be covered with a spray on foam insulation with an acrylic top coat to allow both interior and exterior installation.

Tank shall have SANCO2 on the Insulation top coat

Insulation

A minimum of 2" of insulation shall be sprayed onto the tank for an insulation level of R16 to meet ASHRAE 90.1b (2010) requirements and complies with California Title 24 requirements

Connections

Connections to the Hot and Cold building supplies shall be 2 1/2" NPT Female type

Cold Water Inlet Connection to the Horizontal Tank shall be located on the bottom of the Tank and the Hot Water Outlet shall be at the top of the Horizontal Tank

This is to provide stratification on the Tank water storage Connection to Cold supply from the tank to the Heat Pump shall be 1 1/4" NPT female type

Connection to Hot return from the Heat Pump to the tank shall be 1 1/4" NPT female type

Controls

The tank shall be supplied with a Temperature sensor well for field installation so that Tank Temperature sensors are able to be inserted

Each Heat Pump connected to the Storage Tank shall require a 91101-45190 temperature sensor to be field installed in the Sensor well and wired directly to the Heat Pump. Up to 6 x 91101-45190 sensors shall be used. If the ECO-CMB-BAC Multi Unit Controller shall be used it shall have 3 x Tank Temperature sensors to provide detailed readings

All sensors shall be field installed to the Storage Tank

Pressure and Temperature Relief

Tank shall be supplied with a field installed, ASME approved Pressure relief valve

Valve Setting shall be at 125 Psig

Relief Valve shall be piped to a suitable location in case of hot water discharge

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Storage Tank Dimensions
