

Bell & Gossett™

ENGINEERING SPECIFICATION FOR Bell & Gossett Shell & Tube HEAT EXCHANGER

Furnish and install approximately where shown on plans and with manufacturer's recommendations, SU Steam to Liquid Instantaneous Water Heater(s), according to the following specifications:

1. TYPE:

Shell and Tube, U-Bend removable tube bundle.

2. MATERIALS:

Front Head: CAST IRON

Baffles: STEEL

Tie Rods/Spacers: STEEL

Shell: STEEL

Gasket Material: COMP.FIBER

Tubesheet: STEEL

Tubes: COPPER (Diameter: 3/4 in)

Tube Gauge: 20 BWG

3. CONSTRUCTION: (*)

A manufacturers' data report for pressure vessels, form No. U-1 as required by the provisions of the ASME Code Rules, is to be furnished to the engineer for the owner upon request. This form must be signed by an authorized inspector, holding a National Board commission, certifying that construction conforms to the latest ASME Code for pressure vessels for:

Tube side 150 PSIG design pressure at 375 deg. F

Shell side 150 PSIG design pressure at 375 deg. F

as detailed in form No. U-1. The ASME "U" symbol should also be stamped on the Heat Exchanger(s). In addition, each unit is registered with the National Board of Boiler and Pressure Vessel Inspectors.

4. OPERATING CONDITIONS:

	Tube Side	Shell Side
Fluid Circulated:	Water	Steam
Total Flow:	85 GPM	
Total Flow:	41858 lb/hr	997 lb/hr
Inlet Temperature:	147.0 °F	226.4 °F
Outlet Temperature:	170.0 °F	226.4 °F
Maximum Pressure Drop:	6.5 PSI	3.94 PSI

Tubeside velocity shall be no more than 6.29 ft/s.

Total Actual Fouling shall be 0.000568 hr,ft²,°F/Btu.

Shell diameter shall be no less than 6.63 in.

Maximum bundle length shall be no more than 60 in.

Minimum tube surface shall be no less than 22.6 ft².

5. MANUFACTURER:

The heat exchanger shall be Bell & Gossett Shell & Tube Model SU-65-2.

CAUTION: A properly sized relief valve must be installed on the heated liquid side to protect heat exchangers from possible damage due to volumetric expansion.

*Compliance with this part of the specification will insure acceptance of the vessel by any state or local jurisdiction in the United States.