

SPECIFICATION TEMPLATE

1. GENERAL

Furnish and install as shown on the plans_(QTY)_electric hot water boiler(s), fabricated per these specifications, including all accessories and construction features as described herein. Boilers shall be completely factory assembled and pre-tested prior to shipment. Boilers shall be UL labeled and comply with CSD-1. Boiler shall include an ASME Section IV pressure vessel which has been fabricated under inspection by an authorized inspector holding a National Board commission and subsequently stamped and National Board registered.

2. RATINGS

Boilers shall each be PRECISION Compac Model No _____ rated _____ KW, designed and fabricated for a balanced 3-phase, 3-wire, delta load at ___volts, 3-phase, ___ hertz. The boilers shall be designed for ___ GPM with a discharge temperature of _____ °F with entering water at _____ °F.

3. PRESSURE VESSEL

The pressure vessel and all trim shall be as set forth in the ASME Code, including ASME "HV" stamped safety relief valve sized as required. The vessel shall be provided with a threaded 3" (4" flanged) inlet and a threaded 3" (4" flanged) outlet, plus safety valve and drain nozzle as required. The pressure vessel shall be housed in a 16-gauge steel enclosure allowing 4 inches of insulation space around the vessel and filled with 4 inches of 3/4 pound-density fiberglass insulation. The electric panel and vessel shall be mounted on a common, structural steel base with overall dimensions of the unit not to exceed ___"D x ___"W x ___"H.

4. INTERNAL POWER DISTRIBUTION

The power distribution shall be through cable connection to mechanical lugs. Power shall be fed through current limiting fuses to magnetic contactors, and then to the heating element circuits. Contactors shall be 3-pole magnetic contactors tested by UL for 500,000 cycles at full load. The coil voltage shall be 120-volts. Internal wiring shall be in accordance with NEC/NFPA Article 424-G and UL Subject 834.

5. HEATING ELEMENTS

Elements shall be individually mounted in steel flanges. The flange size shall not exceed 2-1/2 inches square, with a maximum of three single-bend U-shaped element blades per flange. Element sheath material shall be Incoloy; element watt density shall be 75 WSI.

6. CONTROLS

The control circuit shall be 120-volt single-phase, one side grounded. Control voltage shall be provided by an integral control circuit transformer, fused on both legs of the primary, with a control circuit fuse on the ungrounded leg of the secondary. The controls shall include an ON/OFF switch, temperature controller, solid state step control with _____ steps, indicator lights and manual limiting switches for each stage of heating, a low water cut-off with test/reset buttons, and one auto reset and one manual reset high limit temperature switch.

7. MANUFACTURER

Boilers shall be PRECISION Model _____ or approved equivalent. Alternate bids shall indicate any deviations from these specifications, and shall state price additions or deductions for substitution of said alternates.