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## Specifications

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The electric boiler shall be a DTH from THERMO 2000 Inc. ,model DTH \_\_\_\_\_ with a 36 US gallon capacity. The net capacity of the boiler is \_\_\_\_\_ BTU/HR or \_\_\_\_\_ kW at a voltage of 240V single-phase ( ) or 480V three-phase or 600V three-phase ( ) and a frequency of 60 hertz. The boiler must exhibit 100% efficiency. When required by law, the tank shall be manufactured according to the CSA B-51-03 standard and will bear a CRN number which meets section IV of the ASME Boiler and Pressure Vessel Code. The tank shall be made of ASME-certified steel. The tank shall have a maximum operating pressure of 30 psi and shall undergo a 60 psi hydrostatic test as per the ASME code. The boiler shall be equipped with a steel collector, located on top of the tank, to act as a boiler water outlet, and with a steel injector, located at the bottom of the tank, to act as a boiler water inlet. The tank shall be equipped with a ball valve for drainage. The boiler shall be wrapped in a 3 inch thick insulating jacket. The outer jacket shall be of 20-gauge thickness and epoxy-coated. The boiler shall be shipped from the plant equipped with a safety relief valve as per the ASME code, adjusted to a 30 psi setting, a thermomanometer and a kit of floor supports. Electrical connections will be made with 2-conductor cable in the case of the 240V models and 3-conductor cable for the 600V models. The square flange immersion heating elements are low-density with incoloy sheathing. Each element must be replaceable. The boiler must allow multi-stage capacity modulation and a pilot lamp is required on each stage. For the 240V models, heating element in the boiler must be controlled by an individual thermostat (aquastat) which closes the circuit at 9°F below the set point and opens the circuit at the set point. For the 480V & 600V models, each thermostat (aquastat), closing the circuit at 9°F below the set point and opening it at the set point, must control a resistive 50 amp secondary contactor able to perform 250 000 operations under full load and powering 3 elements. The boiler, whether a 240V , 480V or 600V model, is equipped with one or more resistive 50 amp main load contactors able to perform 250 000 operations under full load, closing the circuit when the boiler temperature is below the fixed set point of the high-limit temperature controller and opening it when the boiler temperature is above the fixed set point of the high-limit temperature controller. The control circuit must be equipped with the following items : 2 high-limit temperature controllers, protection fuses, a low-water cut-off controller for capacities above 119 kW. The boiler pressure vessel is protected by a 10-year warranty. The boiler shall be tested, certified and bear the CSA seal under CSA standard C22.2 No. 165-92.

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## Shop Drawing

