



Model MSE

Master Specification

SHIP NAME _____

ENGINEER / NAVAL ARCHITECT _____

SHIPYARD _____

CONTRACTOR / SHIP CHANDLER _____

General

Provide a quantity of _____ heavy-duty marine electric water heater(s) Model No. _____ as manufactured by HUBBELL Electric Heater Co., Stratford CT. The water heater shall be constructed specifically for shipboard installation utilizing deck and bulkhead mounting supports that are integrally welded to the pressure vessel. The entire water heater shall meet USCG regulations per 46 CFR 53.01-10 and be ABS Type Approved for marine use and shall be complete with all operating controls requiring only plumbing and electrical service connections. The tank shall be all welded steel commercial construction designed for 100 psi working pressure and contain _____ gallons of storage. The tank shall be lined with seamless Hydrastone cement to a minimum thickness of 1/2" on 100% of all interior tank surfaces. (**Optional Specification:** Tank to be fabricated from solid 90/10 copper-nickel tank or type 316L stainless steel. For this option no internal lining is required due to the non-ferrous materials used in construction of the pressure vessel.) The tank shall not require any type of anodic protection. The tank shall be designed and fabricated with non-ferrous copper-silicon threaded tappings and non-ferrous inlet and outlet piping for maximum corrosion resistance. Steel tank tappings will not be acceptable. The entire tank shall be insulated with a minimum of 2" thick polyurethane foam insulation and exceed the latest ASHRAE standard for stand-by heat loss. The complete heater shall be supplied with a high impact colorized composite protective jacket which cannot rust or corrode and does not require painting. The unit shall bear the ABS Type Approved mark certifying the entire water heater.

The heater shall be supplied with separate cold water and hot water connections. Water entering the cold water inlet shall be deflected by means of a baffle within the tank. Dip tubes shall not be accepted. The hot water outlet shall include a built-in heat trap to prevent hot water from radiating out from the heater during standby periods. A separate 3/4" FNPT connection shall be provided for mounting a combination safety temperature and pressure relief valve. A 3/4" GHT connection is supplied for draining. An ASME rated automatic reseating combination temperature and pressure safety valve set at 100 psi and 210°F shall be factory supplied.

Recovery

The heating element(s) shall be high quality incoloy sheathed immersion type and rated at a total of _____ KW that will heat _____ GPH of water at _____ °F rise (_____ to _____ °F).

Electric

The heater shall be designed to operate at _____ volts _____ phase _____ Hz (balanced) with all necessary operating controls factory mounted, wired and tested. Each circuit shall be independently operated through a definite purpose magnetic contactor rated for 200,000 cycles. Water temperature shall be controlled through an adjustable thermostat. An over-temperature manual reset hi-limit shall be factory installed to disconnect all conductors to the heating element(s) in the event of an over temperature condition in the pressure vessel.

In addition, the water heater shall be supplied with the following options:

- Option** _____
- Option** _____
- Option** _____

The water heater manufacturer shall warranty all electrical components against defects in workmanship and material for a period of one (1) year from date of start-up and the pressure vessel for a full five (5) years Non Pro Rated (**Optional Specification:** Full ten (10) years Non Pro-Rated Tank Warranty) from date of start-up, provided that the unit is started within three (3) months of date of shipment and installed and operated within the scope of the tank design and operating capability. Each water heater shall be shipped with a complete set of installation and operating instructions including spare parts list and approved drawings.

ISO 9001:2008



Committed to continuous improvements

Continuing research results in product improvement; therefore these specifications are subject to change without notice. For the most updated information, consult the factory.

Made in the U.S.A.



Hubbell™

Marine Products Division

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Rev A