



## Model ME

# 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 entire water heater shall conform to USCG regulations per 46 CFR 53.01-10 and be ABS Type Approved for marine use. The water heater shall be constructed specifically for shipboard installation by utilizing deck and bulkhead mounting supports that are integrally welded to the pressure vessel. The water heater 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 alloy or type 304 or 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 that exceeds 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 for marine use.

The cold water inlet shall be 3/4" Female NPT ( **Optional Specification:** *1 1/2" Male NPT* ) and include a non-corrosive strata-flow diffuser, which prevents incoming cold water from mixing too rapidly with hot water in the tank. A 3/4" hose connection drain is supplied. The hot water outlet shall be 3/4" male NPT ( **Optional Specification:** *1 1/2" Male NPT* ) and shall include a factory installed built-in heat trap to prevent water from radiating through the piping during stand-by periods. A separate 3/4" Female NPT tapping is to be provided for relief valve installation. An ASME rated automatic reseating combination temperature and pressure safety relief valve set at 100 psi and 210 °F shall be factory supplied.

### Electric

The heating elements shall be high quality copper sheath electric immersion type. The marine water heater shall be dual element design consisting of an upper and lower element rated at \_\_\_\_\_ watts each (Note: 6, 10, & 19 gallon models have single lower element only). Dual element water heaters are interlock wired for non-simultaneous element operation ( **Optional Specification:** *elements to be wired for simultaneous operation.* ) The heater shall be designed to operate at \_\_\_\_\_ volts, single phase. ( **Optional Specification:** *wired for three phase open delta operation with elements operating simultaneously.* )

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.



**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.



## Marine Products Division

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