



## Shipboard Electric Water Heater

20–119 gallon capacity, three phase voltages up to 58kW, single phase voltages over 12kW

HydraStone cement lining provides longer tank life

American Bureau of Shipping (ABS) Type Approval is available as an option.

Heavy-duty legs secure the tank to deck

Removable side-sway bulkhead attachment points provide added mounting integrity (standard on 30 gallons and above)

Mounting systems are integrally welded

- Polyurethane foam insulation reduces heat loss
- Built-in heat trap lowers operating costs
- Built to meet your exact needs
- Numerous options available for specialized applications
- Full five (5) year Non Pro-rated tank warranty is standard
- Full ten (10) year Non Pro-rated tank warranty can be specified for extended protection



SEAFARE SERIES

MSE

### A long lasting, trouble-free water heater

The Hubbell Seafare MSE water heater is specifically designed for marine use and is in USCG conformance and offers ABS certification. By utilizing deck and removable bulkhead mounting supports, the water heater is securely fastened to the ship structure. The tank is constructed of steel and internally lined with HydraStone™ cement to ensure tank longevity. The lining, copper-silicon threaded tank openings and a built-in heat trap device all ensure an energy efficient water heater.

### Over 100 years of water heating expertise

Hubbell water heaters are the right choice for your commercial and industrial applications. We have water heating solutions for most energy sources with storage capacities from 1–10,000 gallons — all designed, engineered, and manufactured for reliability and longevity coupled with unparalleled support and service.

**NOTE:** Manufactured in an ISO 9001:2015 facility. ASME option available upon request. ABS option available upon request. BABA & BAA compliance is available upon request.



## Heater Specifications

<b>Tank</b>	HydraStone Cement Lined Steel
<b>Capacities</b>	20–119 gallons
<b>Orientation</b>	Vertical
<b>Voltages</b>	208–600 Volt
<b>Phases</b>	1Φ or 3Φ
<b>Inlet Size</b>	Below 40 kW: ¾" Female NPT 40 kW and over: 1-½" Male NPT
<b>Outlet Size</b>	Below 40 kW: ¾" Male NPT 40 kW and over: 1-½" Male NPT
<b>Drain Size</b>	¾" GHT
<b>Relief Valve Size</b>	¾" Female NPT
<b>Relief Valve Type</b>	T&P, 210°F, 150 psi
<b>Thermostat Range</b>	Surface: 110–170°F Immersion: 100–190°F
<b>Hi-Limit</b>	190°F Manual Reset
<b>Design WP</b>	150 psi
<b>Design TP</b>	300 psi
<b>Elements</b>	Incoloy Sheathed
<b>Insulation</b>	2" Polyurethane Foam on 20 gallon 3" Polyurethane Foam on 30 gallon and above
<b>Tank Warranty</b>	
<b>Standard</b>	5 year Non Pro-Rated
<b>Optional</b>	10 year Non Pro-Rated
<b>Electrical Warranty</b>	1 Year
<b>Jacket</b>	High Impact Colorized Composite
<b>Finish</b>	White and Black
<b>Marine Classification</b>	Optional ABS Certification

## Standard Equipment

- ½" thick HydraStone cement lining
- Removable bulkhead attachment points on 30 gallon and above
- Heavy-duty Integrally welded leg supports for deck mounting
- Magnetic contactor(s) are heavy duty resistive load type rated for 200,000 cycles
- Low voltage control circuit (fused) transformer (Units over 240 volt)
- Power circuit fuse protection (units over 48 amp)
- Non-ferrous solid copper-silicon threaded openings for maximum corrosion resistance
- Incoloy sheathed immersion heating elements
- Built-in heat trap to improve operating efficiency (¾" inlet/outlet models only)
- Surface thermostat 110–170°F range
- Immersion thermostat (100–190°F) furnished as standard when required due to high recovery versus storage ratio
  - On 80–119 gallon heaters over 15 kW
- Hi-limit cut out safety feature with manual reset button
  - Surface standard on heaters less than 40 kW
  - Immersion standard on heaters 40 kW and above
- 1-½" Male NPT inlet/outlet connections (standard on heaters 40 kW and above)
- ASME/CSA rated temperature and pressure relief valve set at 150 psi, 210°F
- 3" thick polyurethane foam insulation
- High impact non-corroding colorized composite protective jacket
- Cold water inlet diffuser with drain valve



## kW and Amperage Selection Charts

### 20 Gallon kW and Amperage

(Amperage shown in chart below indicates available models)

kW	Recovery (GPH)	1 Phase Voltages				3 Phase Voltages				
		208	240	277	480	208	240	380	480	600
13	53			47				20	16	13

### 30 and 40 Gallon kW and Amperage

(Amperage shown in chart below indicates available models)

kW	Recovery (GPH)	1 Phase Voltages				3 Phase Voltages				
		208	240	277	480	208	240	380	480	600
12.5	51		52				30			12
13	53			47				20	16	13
14	57				29					
15	62	72				42				
16	66		67				39			
17	70			61				26	20	16
20	82		83				48			
21	86			76					25	20
26	107									25
27	111			97					33	

### 30U, 40U and 50U Gallon kW and Amperage

(Amperage shown in chart below indicates available models)

kW	Recovery (GPH)	1 Phase Voltages				3 Phase Voltages				
		208	240	277	480	208	240	380	480	600
12.5	51				26					12
13	53			47					16	13
14	57	67	58			39	34			
15	62				31					
16	66			58				24	19	
17	70	82				47				
19	78		79	69			46	29	23	
23	94		96				55			

## 55 and 65 Gallon kW and Amperage

(Amperage shown in chart below indicates available models)

kW	Recovery (GPH)	1 Phase Voltages				3 Phase Voltages				
		208	240	277	480	208	240	380	480	600
12.5	51		52		26		30			12
13	53			47				20	16	13
14	57	67	58		29	39	34			
15	62	72			31	42				
16	66		67	58	33		39	24	19	
17	70	82		61		47		26	20	16
18	74	87				50				
19	78		79	69	40		46	29	23	
20	82		83				48	30		
21	86	101		76		58			25	20
23	94		96				55			
24	98		100				58	37		
25	103				52					
26	107									25
27	111			97					33	
29	119	139	121			81	70			
31	127				65					
32	131			116				49	39	
35	144	168				97				
38	156		158	137			92	58	46	
46	189		192				111			



## 80, 100 and 120 Gallon kW and Amperage

(Amperage shown in chart below indicates available models)

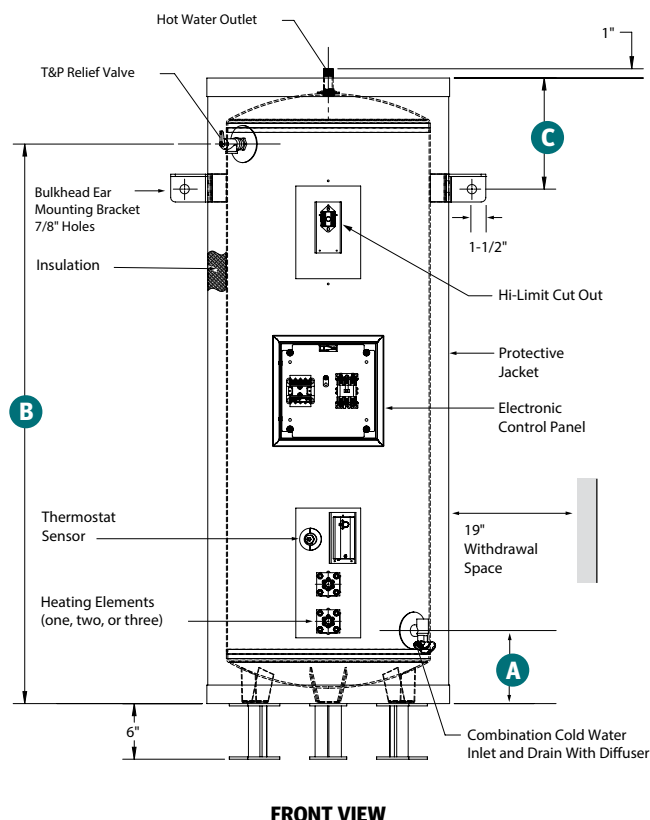
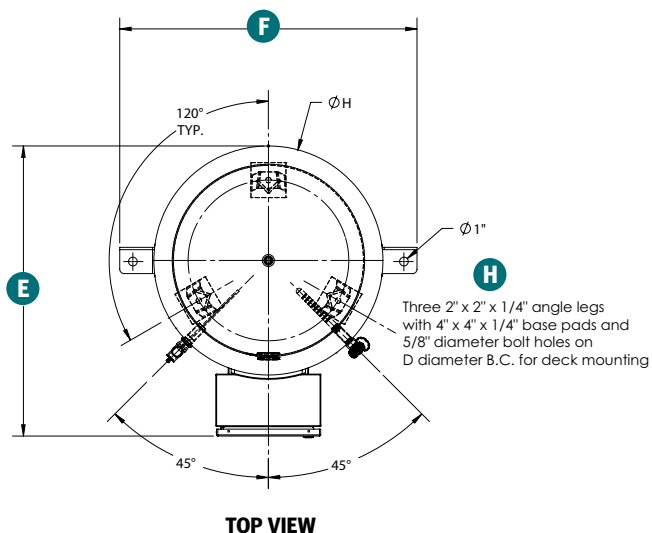
kW	Recovery (GPH)	1 Phase Voltages				3 Phase Voltages				
		208	240	277	480	208	240	380	480	575
12.5	51		52		26		30	19		12
13	53			47	27			20	16	13
14	57	67	58		29	39	34			
15	62	72	63		31	42	36			
16	66		67	58	33		39	24	19	
17	70	82		61		47		26	20	16
18	74	87				50				
19	78		79	69	40		46	29	23	18
20	82		83	72	42		48	30	24	
21	86	101		76		58			25	20
22	90									
23	94	111	96			64	55	35		
24	98		100		50		58			
25	103			90	52			38	30	24
26	107									25
27	111	130		97		75			33	
29	119	139	121		60	81	70			
30	123		125				72	46		
31	127				65					30
32	131	154		116		89		49	39	
35	144	168				97				
36	148		150				87	55		
38	156		158	137	79		92	58	46	
39	160									38
41	168			148					49	
43	176	207	179			119	104			
46	189		192		96		111			
48	197			173				73	58	
52	213	250				145				
57	234		238	206			137		69	
58	238							88		

### Notes:

1. Units 40 kW and over are supplied with 1-1/2" Male NPT inlet/outlet connections and immersion hi-limit.
2. For alternative voltages, including 220, 415, 440, 460 volt, please consult factory for available kW selection.

## Dimensions

**Note:** On models with 1-1/2" inlet and outlet connections, the cold water inlet is located 45° left of front center line, the drain valve is located 45° right of front center line and the relief valve is located 55° right of front center line.

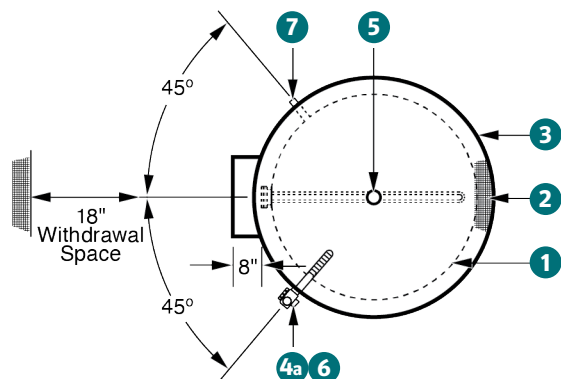


## Seafare MSE Dimensional Data

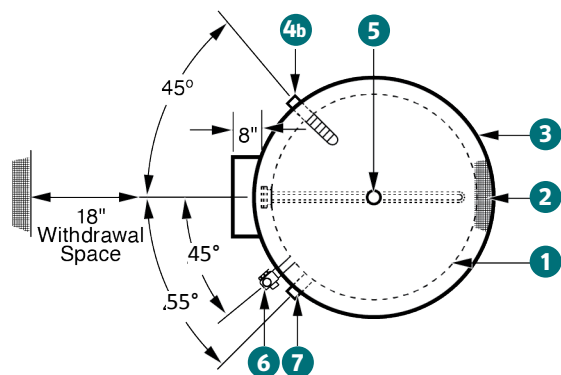
Storage Capacity	Maximum kW Input	Dimensions (Inches)								Shipping Weight (lbs.)
		Overall Diameter	Overall Height	Deck to Inlet A	Deck to T&P B	Bulkhead Mounting Dimension C	Bolt Circle D	Total with Control Panel E	Total with Mounting Brackets F	
19	10	20	38.75	13.5	32.75	None	13.38	28	28	195
30	15	22	47.63	13.5	40.25	12	13.38	30	30	225
40	15	22.75	63.25	13.5	56	12	13.38	30.75	30.75	315
50	58	25	56.75	13.5	48.88	12	15	33	33	330
65	58	28	53.25	13.88	45.88	12	18.38	36	36	395
80	58	28	64.25	13.88	55.88	12	18.38	36	36	430
100	58	28	74.5	13.88	66.38	12	18.38	36	36	460
119	58	30	74.75	13.88	66.38	12	19.38	38	38	510
30U	23	25	34.75	13.88	31.38	None	15	33	33	225
40U	38	28	39	13.5	31.38	None	18.38	36	36	320
50U	38	30	36.25	13.88	33.63	None	19.38	38	38	325

■ = Undercounter

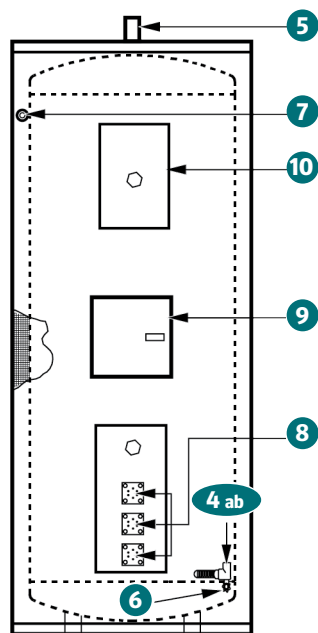




**TOP VIEW – 3/4" INLET/OUTLET MODELS**



**TOP VIEW – 1 1/2" INLET/OUTLET MODELS**



**FRONT VIEW**

### Diagram Key

Number	Description
1	HydraStone cement lined tank
2	Polyurethane foam insulation
3	Corrosion resistant jacket
4A	Cold water inlet 3/4" models
4B	Cold water inlet 1-1/2" models
5	Hot water outlet
6	Drain connection 3/4" GHT
7	Relief valve connection 3/4"
8	Heating element(s)
9	Electrical control panel
10	Hi-limit /upper panel

### Formulas to Solve For:

#### Recovery

$$\text{GPH} \times \text{ } ^\circ\text{F}\Delta\text{T} \times 0.00244 = \text{kW}$$

$$\text{kW} \times 410 \div \text{GPH} = \text{ } ^\circ\text{F}\Delta\text{T}$$

$$\text{kW} \times 410 \div \text{ } ^\circ\text{F}\Delta\text{T} = \text{GPH}$$

Note: 1 kW will heat 4.1 GPH at a 100 °FΔT

#### Electrical

$$\frac{\text{kW} \times 1000}{\text{Volts}} \div 1.73 = \text{Amps } 3 \phi$$

$$\frac{\text{kW} \times 1000}{\text{Volts}} = \text{Amps } 1 \phi$$

#### Notes:

1. Storage tank rated for 150 psi WP
2. ASME rated T&P relief valve shipped loose
3. Built-in heat trap supplied in hot water outlet (3/4" inlet/outlet models only)
4. All electrical controls are factory wired and tested
5. Exact size and location of electrical control panel varies depending upon model

## Seafare MSE Model Number Designation

MODEL	MODEL NUMBER	STYLE	See charts on pages 3-5		TANK	VOLTAGE / PHASE	OPTIONAL EQUIPMENT
			UPPER kW	LOWER kW			
MSE 3" Foam Insulation	20*	Leave blank for standard	Element bank 0–57 kW (typically 0) Not available in 19 Gallon capacity heaters	Element bank 12.5–58 kW  (Undercounter models 30U, 40U and 50U 12.5–23 kW)	SL = HydraStone cement lined	RS = 208/1 S = 240/1 W = 277/1 T4S = 480/1  R = 208/3 T = 240/3 T3 = 380/3 T7 = 415/3 T5 = 440/3 T4 = 480/3 T6 = 600/3	Write/type optional equipment code in the gray box below in alphabetical order. For multiple options separate codes with a dash (–).
	30	A = ASME**  H = Horizontal			CN = Solid 90/10 Copper Nickel  SS = Stainless steel 316L  CN and SS tanks come standard with galvanneal jacket and fiber-glass insulation.		
	40						
	55						
	65						
	80						
	100						
	120						
	30U						
	40U						
50U							

### Example: MSE120–0–45SLT4

Hubbell model MSE marine water heater with a storage capacity of 119 Gallons with 45 KW in the lower element bank. Storage tank is lined with HydraStone cement and the electrical controls operate at 480 V, 3 phase, 60 Hz power.

### Important notes:

\*20 gallon comes with 2" foam insulation

\*\*ASME models have slightly different dimensions, consult factory

## Optional Equipment *Optional equipment must be called out in the written specifications, use the codes below.*

### Controller

- C1** Immersion Thermostat (100°F - 190°F)
- C2** Low Range Immersion Thermostat (30°F - 110°F)
- C3** Immersion Adjustable Safety Hi-Limit Cutout with Manual Reset (100°F - 240°F)
- C5** Low Water Cutoff
- C10** Fused Power Circuits
- C15** Non-Fused Disconnect Switch
- C16** Fused Disconnect Switch
- C20** Enable/Disable Relay (Specify Voltage)
- C21** Dry Contact for Remote Alarm Capability (Specify Condition)
- C30** Heating Elements Wired for Simultaneous Operation
- C31** Leak Detection - Includes Sensor Pad and Dry Contact for BMS Notification
- C35** BACnet Communication Module with T1000 Digital Controller

**Please note:** Optional equipment may impact overall dimensions and weight. Please request submittal drawing from factory.

### Electrical

- E1** Fused Low Voltage Transformer

### General

- G1** Combination Temperature & Pressure Gauge: 3.5" Dial, 70°F - 250°F, 0 - 200 PSI, Tank Mounted
- G9** Explosion Resistant Construction (Specify Class, Division, Group, and Temperature Class)
- G25** Outdoor Weather Package (304 SS Jacket and 6" Legs, NEMA 4X Electrical Housing)

### Vessel

- V4** 2" Polyurethane Foam Insulation
- V5** Optional 200 PSI Working Pressure. If other than 200, Use Code -V5-XX and Specify Pressure
- V10** 1-1/2" Male NPT Inlet and Outlet Water Connections
- V11** 2" Inlet/Outlet Connections
- V15** Additional 3/4" FNPT Tappings
- V16** Additional 1-1/2" FNPT Tappings
- V36** ABS Tier 5 Certification

## Available Accessories *(Fill out form below to order accessories.)*

**10-year Warranty:** 10-year non pro-rated tank warranty, specify part number "VESSEL WARRANTY"

Accessories Name

Part #

H1091-D-20260128