HUBBELL
a **nudyne** company

SIGNATURE SERIES
SH/H

ASME Packaged Electric Water Heater

15–1600 kW all voltages and phases, 80–10,000* gallon capacity, highly customizable

HydraStone™ cement lining provides superior protection and tank longevity

Heavy duty construction withstands demanding commercial/industrial use

All electrical operating controls are factory selected and wired to ensure reliable operation

- Designed and built to customer specifications
- Only high-grade materials used in construction to ensure long operating life
- Fully packaged water heater saves time and money during installation
- Full range of styles, sizes and optional features to meet your exact water heating needs
- Dual Fuel available: steam, gas, boiler water
- Highly efficient design lowers peak power demand and reduces operating costs

Applications

Schools, office buildings, prisons, stadiums, hotels, industrial facilities, nursing homes, hospitals and more.

A heavy duty storage electric water heater
The Signature SH/H is a fully packaged water heater designed to be a reliable and long-lasting source for hot water. Each component is carefully selected to ensure performance in even the most demanding application. Whether you are heating potable water in a commercial building or heating process water in an industrial application you can select a Hubbell Signature SH/H to do the job.

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.

*Larger capacities available

ASME · ETL Intertek · ISO 9001:2015 · MADE in the USA Buy American Act Compliant Contains Imported Components

hubbellheaters.com sales@hubbellheaters.com 203.378.2650

The Difference: HydraStone™ Cement Lining

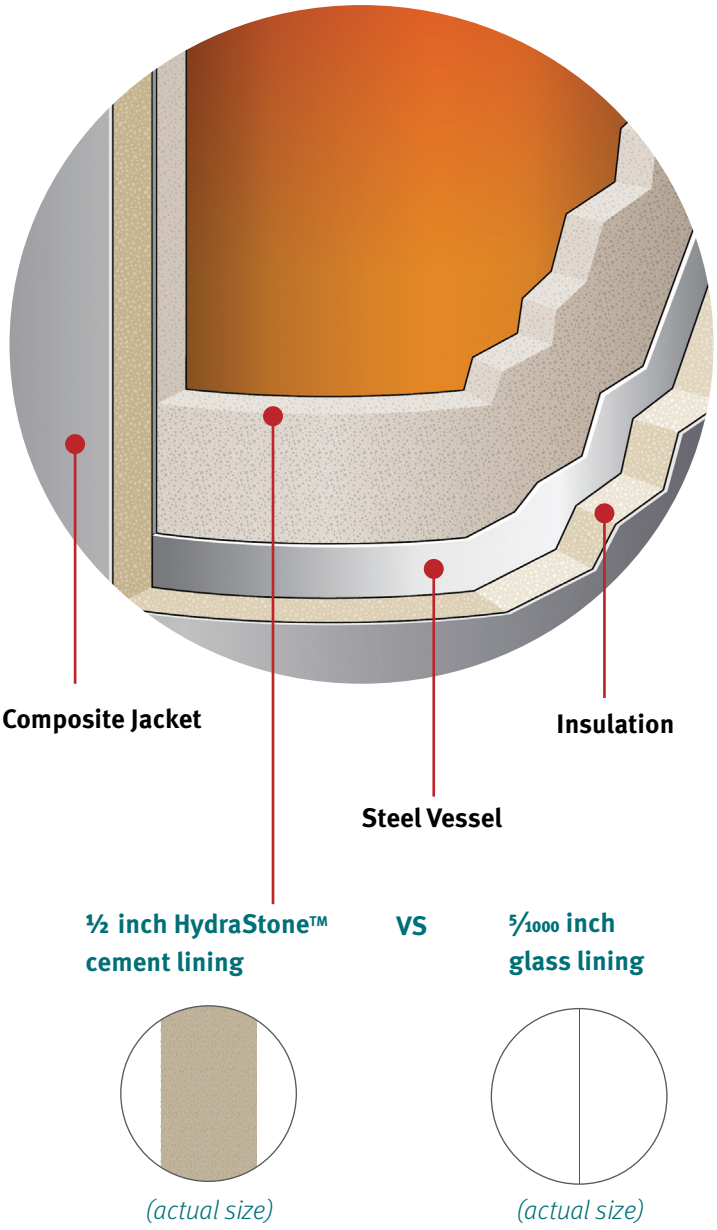
Cement lined tanks offer significant longevity, trouble-free operation and a lower lifetime cost.

The type of protective lining is the single most important feature when determining the quality of any water heater. The ability of a lining to protect the steel tank is primarily based on its thickness and complete coverage of all steel surfaces.

A glass lined tank uses only 5/1000 inches of glass (the thickness of a sheet of paper) which does not cover all internal surfaces. To compensate, all glass lined tanks require a sacrificial anode rod which must be periodically inspected and replaced.

Our tanks are lined with a minimum of ½ inches of high density HydraStone cement — 100 times thicker than glass lining. Full coverage is achieved by injecting the precise amount of HydraStone cement into each tank and then centrifugally spinning it at 250 RPM to ensure complete and uniform coverage. This process provides maximum protection from the corrosive effects of hot water. Additionally, cement lined tanks do not require a sacrificial anode, eliminating periodic inspections and replacement costs associated with glass lined tanks.

Our water heater tanks are constructed with solid non-ferrous stainless steel tank tappings which are impervious to the corrosive effects of hot water. Glass-lined tanks have regular steel tappings which are vulnerable to corrosion.



Standard Equipment

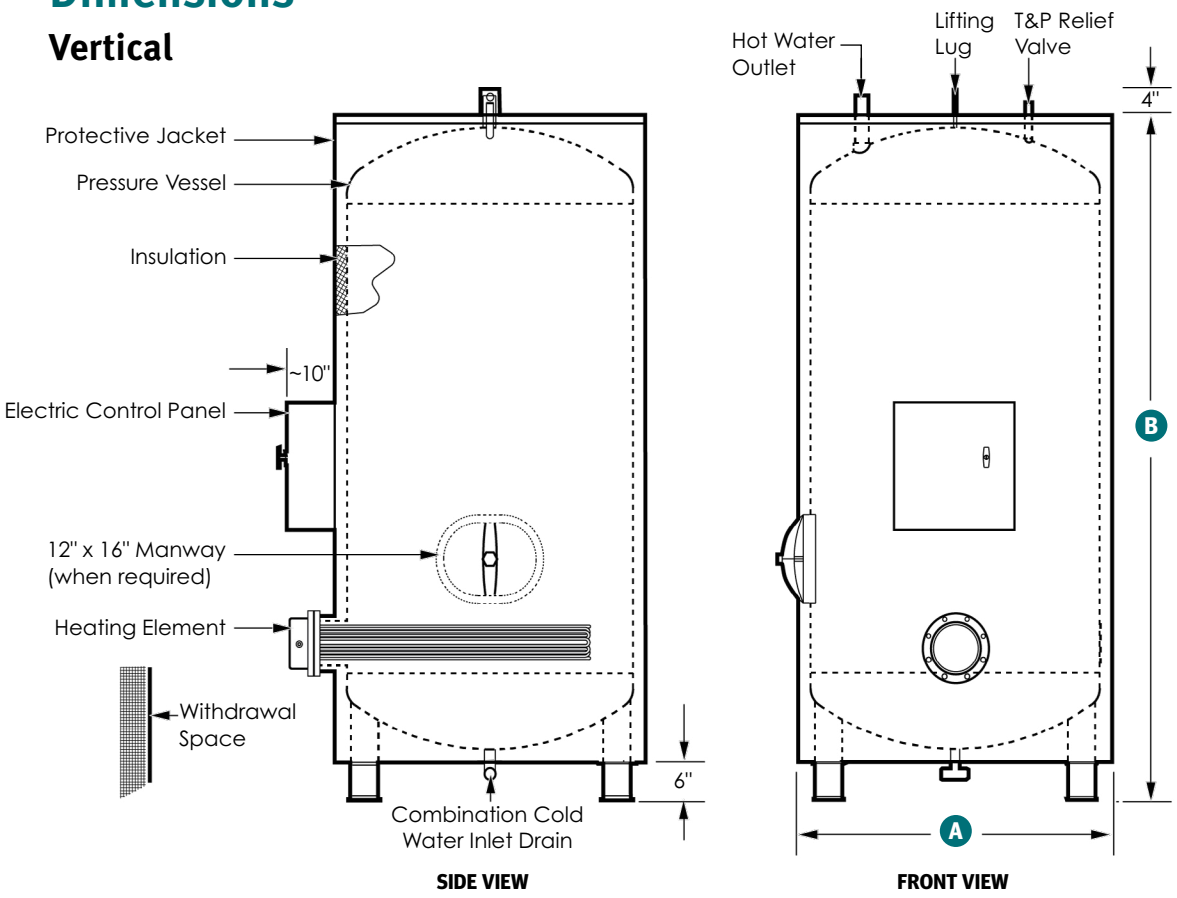
GENERAL
Pressure vessels 500 gal or less come with 2" thick polyurethane foam insulation, and a composite jacket. Stainless steel vessels 500 gal or less come with 2" thick fiberglass and galvanneal jacket
Pressure vessels greater than 500 gal come with 3" fiberglass insulation and a stainless steel jacket
Entire vessel is supported on heavy duty integrally welded steel supports for sturdy floor mounting
Full five (5) year Non Pro-Rated tank warranty and one (1) year electrical component warranty
Bronze ASME rated combination temperature and pressure safety relief valve set at the vessel working pressure and 210°F

VESSEL CONSTRUCTION
All welded carbon steel vessel designed and built in strict accordance with the ASME Code and stamped, certified and registered with the National Board of Boiler and Pressure Vessel Inspectors
All internal tank surfaces are lined with a minimum of ½" thick HydraStone cement for superior protection and tank longevity
Designed for 150 psi working pressure and hydrostatically tested at 225 psi (1-½ times the WP)

ELECTRICAL OPERATING CONTROLS
All electrical operating controls are factory sized, selected, wired, tested and mounted in a NEMA 1 enclosure to ensure safe and reliable operation
A power distribution block is supplied for single point electrical connection
Power fuses rated at a maximum of 60 Amps protect each heating element branch circuit per NEC and UL requirements. Each branch circuit has a maximum rating of 48 Amps
Heavy duty definite purpose magnetic contactor with integrally mounted power fuse block assembly switches power on/off to each branch circuit
Fully adjustable thermostat maintains accurate water temperature and is sized by the factory to control the appropriate number of heating element circuits
A transformer provides fused 120V to the control circuit
A fully adjustable (100-240°F) immersion safety hi-limit device with manual reset interrupts power to the control circuit in the event of over-temperature water in the storage tank
Safety door interlock mechanism interrupts power to the control circuit upon opening the electrical control panel

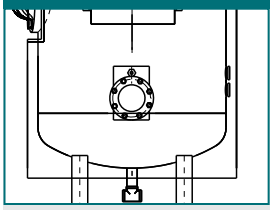
Dimensions

Vertical

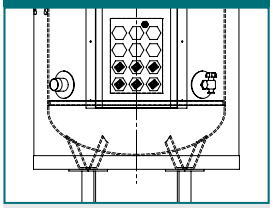


Note: Hubbell utilizes both flanged elements or grouped screw plug elements depending on total applied kW and specific application.

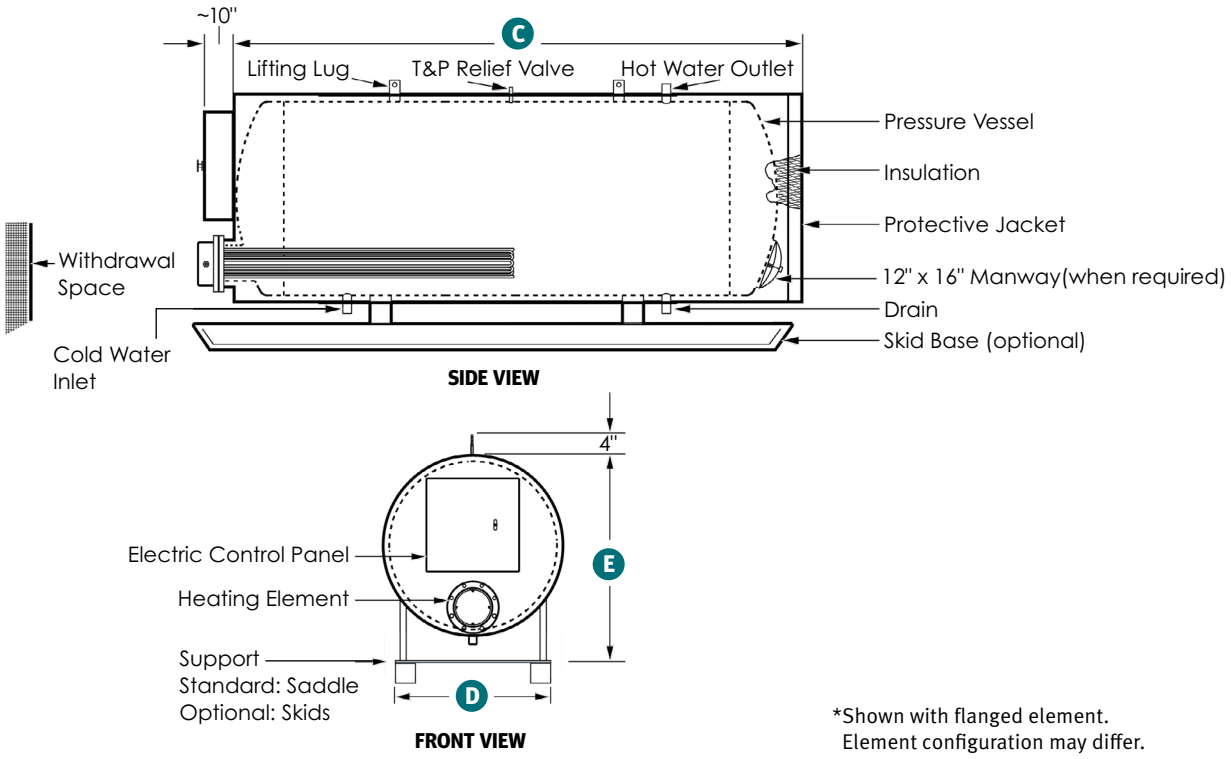
Flanged Elements



Grouped Screw Plug Elements



Horizontal



*Shown with flanged element. Element configuration may differ.

All information is subject to change without notice. Consult factory for submittal drawings.

Dimensions

Actual Storage Capacity	Water Heater Overall Dimensions (Inches)								
	Vertical		Horizontal						
	Diameter "A"	Height "B"	Length "C"	Width "D"	Height "E"	Vessel Diameter x Length	Nominal Storage Capacity (Gallons)	Inlet Outlet Sizing (NPT)	Approx. Shipping Weight (Lbs.)
80*	26	64	60	26	32	22 x 54	90	1 ½	700
120*	28	75	71	28	34	24 x 65	130	1 ½	900
150*	30	78	75	30	36	26 x 68	160	1 ½	1100
175	34	73	67	34	40	30 x 63	195	1 ½	1500
200	34	82	76	34	40	30 x 72	220	1 ½	1700
225	34	89	83	34	40	30 x 79	245	1 ½	1750
250	40	74	68	40	46	36 x 64	285	1 ½	1850
275	40	80	74	40	46	36 x 70	310	1 ½	2000
300	40	88	82	40	46	36 x 78	345	1 ½	2180
325	40	92	86	40	46	36 x 82	360	1 ½	2300
350	40	94	88	40	46	36 x 84	370	1 ½	2500
375	46	81	75	46	52	42 x 71	425	1 ½	2600
400	46	85	79	46	52	42 x 75	450	1 ½	2700
450	46	93	87	46	52	42 x 83	500	1 ½	3000
500	52	82	76	52	58	48 x 72	565	2	3225
600	52	95	89	52	58	48 x 85	665	2	3650
700	52	107	101	52	58	48 x 97	755	2	4000
800	52	119	113	52	58	48 x 109	850	2	4300
900	52	132	126	52	58	48 x 122	940	2	4800
1000	52	145	139	52	58	48 x 135	1060	2	5200
1250	58	149	143	58	64	54 x 139	1380	2	5600
1500	58	174	168	58	64	54 x 164	1625	2	6000
1750	64	168	162	64	70	60 x 158	1935	3	7400
2000	64	185	179	64	70	60 x 175	2145	3	8100
2500	76	169	163	76	82	72 x 159	2800	3	8200
3000	76	197	191	76	82	72 x 187	3300	3	8300
3500	88	174	168	88	94	84 x 164	3935	6 FLG.	8900
4000	88	195	189	88	94	84 x 185	4440	6 FLG.	9800
4500	N/A	N/A	178	94	100	96 x 160	5015	6 FLG.	10700
5000	N/A	N/A	200	94	100	96 x 175	5485	6 FLG.	11600

Notes: All dimensions are approximate and subject to change. Please reference the submittal drawing for actual dimensions. The tank selections above are shown for convenience. A full selection of storage capacities are available by entering the desired capacity into the model number.

* 80, 120 and 150 gallon tanks do not come equipped with a manway. Please consult factory if desired on these sizes.

All information is subject to change without notice. Consult factory for submittal drawings.

Recovery Ratings and Amperage

		Gallons Per Hour (GPH) Heated at Various Temperature Rises					Amperage Rating At Various Voltages				
kW Input	**BTU/HR Rating**	**60°FΔ**	**80°FΔ**	**100°FΔ**	**120°FΔ**	**140°FΔ**	**208V3Φ**	**240V3Φ**	**380V3Φ**	**415V3Φ**	**480V3Φ**
15	51,195	103	77	62	51	44	42	36	23	21	18
20	68,260	137	103	82	68	59	56	48	30	28	24
25	85, 325	171	128	103	85	73	69	60	38	35	30
30	102,390	205	154	123	103	88	83	72	46	42	36
35	119,455	239	179	144	120	103	97	84	53	49	42
40	136,520	273	205	164	137	117	111	96	61	56	48
45	153,585	308	231	185	154	132	125	108	68	63	54
50	170,650	342	256	205	171	146	139	120	76	70	60
55	187,715	376	282	226	188	161	153	132	84	77	66
60	204,780	410	308	246	205	176	167	145	91	84	72
65	221,845	444	333	267	222	190	181	157	99	91	78
70	238,910	478	359	287	239	205	195	169	106	97	84
75	255,975	513	384	308	256	220	208	181	114	104	90
80	273,040	547	410	328	273	234	222	193	122	111	96
85	290,105	581	436	349	290	249	236	205	129	118	102
90	307,170	615	461	369	308	264	250	217	137	125	108
95	324,235	649	487	390	325	278	264	229	145	132	114
100	341,300	683	513	410	342	293	278	241	152	139	120
110	375,430	752	564	451	376	322	306	265	167	153	132
120	409,560	820	615	492	410	351	333	289	183	167	145
125	426,625	854	641	513	427	366	347	301	190	174	151
150	511.950	1025	769	615	513	439	417	361	228	209	181
175	597,275	1196	897	718	598	513	486	421	266	244	211
200	682,600	1367	1025	820	683	586	556	482	304	279	241
225	767,925	1538	1153	923	769	659	625	542	342	313	271
250	853,250	1708	1281	1025	854	732	695	602	380	348	301
275	938,575	1879	1409	1128	940	805	764	662	418	383	331
300	1,023,900	2050	1538	1230	1025	879	834	723	456	418	361
325	1,109,225	2221	1666	1333	1110	952	903	783	494	453	391
350	1,194,550	2392	1794	1435	1196	1025	973	843	532	487	421
375	1,279,875	2563	1922	1538	1281	1098	1042	903	570	522	452
400	1,365,200	2733	2050	1640	1367	1171	1112	963	608	557	482
450	1,535,850	3075	2306	1845	1538	1318	1251	1084	685	627	542
500	1,706,500	3417	2563	2050	1708	1464	1390	1204	761	696	602
1000	3,412,000	6833	5125	4100	3417	2929	2779	2408	1521	1393	1204
1200	4,094,400	8200	6150	4920	4100	3514	3335	2890	1825	1671	1445
1400	4,776,800	9567	7175	5740	4783	4100	3891	3372	2130	1950	1686
1600	5,459,200	10933	8200	6560	5467	4686	4446	3854	2434	2229	1927

Notes:

1. The kW selections above are shown for convenience. A full selection of kW ratings from 15 to 1600 kW is available by entering the desired kW into the model number.
2. For alternative voltages, including 220, 277, 440, 460, 575 and 600 volt please consult factory for full kW selection.

Sizing Information
Variables to Solve For

Solve for the unknown using the formulas below.

kW Requirement:

_____GPH x _____°FΔT x 0.00244 = _____kW

Temperature Rise:

_____kW x 410 ÷ _____GPH = _____°FΔT

Flow Rate:

_____kW x 410 ÷ _____°FΔT = _____ GPH

Electrical

1 PHASE: kW x 1000 ÷ Voltage = Amps 1Φ
3 PHASE: kW x 1000 ÷ Voltage ÷ 1.73 = Amps 3Φ

Example

150 kW at 480V 3Φ
150 x 1000 ÷ 480 ÷ 1.73 = 180 Total Amp Draw
180 ÷ 48 Amps max circuit rating = 3.75
Round up the number of circuits to 4

Note: Each branch circuit is rated at a maximum of 48 Amps and each circuit is typically operated as an independent temperature step.

Metric Conversions

Liters x 0.2641 = Gallons
Gallons x 3.79 = Liters
Gallons x 0.003785 = m3
m3 x 264.2 = Gallons
1°C ΔT = 1.8°F ΔT
°F = (°C x 1.8) + 32
°C = (°F - 32) x 0.556
psi x 0.06896 = Bar
Bar x 14.5 = psi
psi x 6.86 = kPa
kPa x 0.1456 = psi
Lbs x 0.4536 = Kg
Kg x 2.2 = Lbs
Watts/Sq.Cm. x 6.4 = Watts/Sq.In.
Watts/Sq.In. x 0.155 = Watts/Sq.Cm.

Signature SH and H Model Number Designation

MODEL	MODEL NUMBER	UPPER kW*	LOWER kW*	TANK	VOLTAGE / PHASE	OPTIONAL EQUIPMENT
SH = Vertical **H** = Horizontal*	80 - 10,000**	0 -1600 kW	5 -1600 kW	**SL** = Cement lined steel **CN** = Solid 90/10 copper-nickel **SS** = Solid stainless steel 316L	**RS** = 208/1 **S** = 240/1 **W** = 277/1 **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 (–). **Please contact the Hubbell sales team to discuss your specific needs.**

			–		–								–	

*Horizontal model is not available with upper kW and not available with the option of PBA.
**Above 10,000 available, consult sales team

Example: SH350-0-90SLT4-C35

Vertical 350 gallon storage capacity water heater with a 90 kW heating element. Tank is cement lined. Power required is 480 VAC, 3 phase, with optional BACnet communication module with T1000 digital controller.

Optional Equipment

NOTE: The Hubbell Signature SH is a very customizable water heater. There are many available options, contact the Hubbell sales team, sales@hubbellheaters.com or (203) 378-2650, to discuss your specific needs.

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

Available Accessories

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

All information is subject to change without notice. Consult factory for submittal drawings.

H1031-E-20250112