



## Point-Of-Use Steam Fired Water Heater

65–119 Gallon Capacity

HydraStone™ cement lining provides long tank life

Copper-silicon alloy tappings cannot rust or corrode

High impact composite jacket cannot rust or corrode and minimizes damage during installation and transit

2" thick polyurethane foam insulation reduces heat loss

- Copper fin tube heating coil provides highly efficient heat transfer
- Steam operating controls are factory sized and selected for efficient installation and operation
- Numerous options available for specialized applications

### Applications

Schools, office buildings, hotels, hospitals, process systems, industrial facilities.



PS

SYNERGY STEAM SERIES

### Compact steam fired water heater

The Hubbell Synergy Steam PS is a point-of-use storage water heater that utilizes steam to heat domestic water. Its compact design takes up minimal floor space. The Hubbell PS is constructed for demanding commercial and industrial applications. The heavy-duty HydraStone cement lined storage vessel and copper-silicon threaded tank openings help to ensure longevity and efficiency. As an option, the PS is available with electric back up in case of steam failure.

### 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.



## The Difference: HydraStone™ Cement Lining

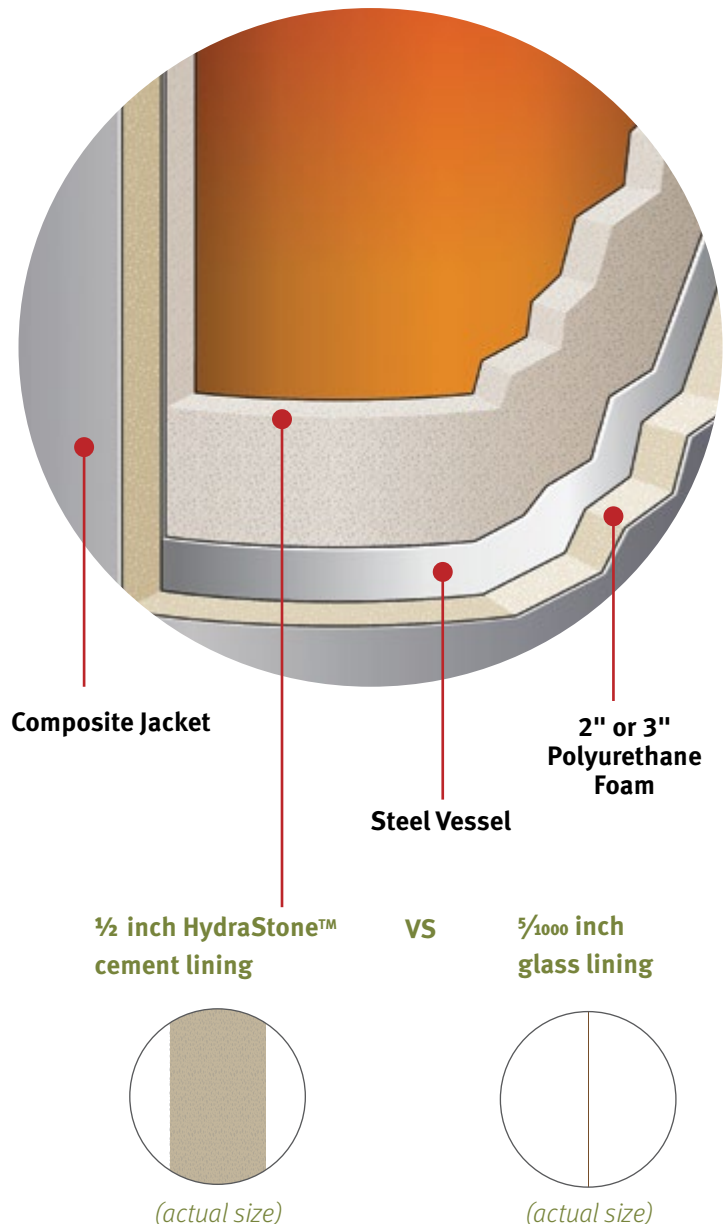
**Cement lined tanks offer significant longevity, trouble-free operation and a lower lifetime cost.**

**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 1/2 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 copper-silicon tank tappings** which are impervious to the corrosive effects of hot water. Glass-lined tanks have regular steel tappings which are vulnerable to corrosion.



## Heater Specifications

|                        |                                 |
|------------------------|---------------------------------|
| Tank                   | Carbon Steel                    |
| Lining                 | HydraStone™ Cement              |
| Capacities             | 65–119 gallons                  |
| Orientation            | Vertical                        |
| Connection Sizes       |                                 |
| Inlet/Outlet           | 1-½" Male NPT                   |
| Return Line            | ¾" Female NPT                   |
| Drain                  | ¾" GHT                          |
| Relief Valve           | ¾" Female NPT                   |
| Relief Valve Type      | T&P, 210°, 150 psi              |
| Pressure rating (tank) | 150 psi WP, 225 psi TP          |
| Coil Construction      |                                 |
| Material               | Copper Fin Tube                 |
| Type                   | Single Wall                     |
| Rating                 | 150 psi WP, 300 psi TP          |
| Max Input              | 199,900 BTU/HR                  |
| Temperature Regulator  | On/Off Steam Valve              |
| Temperature Range      | 100–170°F                       |
| Main Trap Type         | F & T Cast Iron                 |
| Drip Trap Type         | Thermostatic                    |
| Strainer Type          | Y Cast Iron 20 Mesh Screen      |
| Insulation             | 2" Polyurethane Foam            |
| Warranty               |                                 |
| Tank                   | 3 year Non Pro-Rated            |
| Coil                   | 1 year Non Pro-Rated            |
| Jacket                 | High Impact Colorized Composite |
| Color                  | White and black                 |

## Steam Operating Controls Sizing

| Steam Pressure    | Control Valve | Steam Strainer | Drip Trap | Main Trap |
|-------------------|---------------|----------------|-----------|-----------|
| <b>0–10 psi</b>   | 1"            | 1"             | ½"        | ¾"        |
| <b>11–25 psi</b>  | ¾"            | ¾"             | ½"        | ¾"        |
| <b>26–125 psi</b> | ½"            | ½"             | ½"        | ¾"        |

**Note:** Steam operating controls are factory selected and supplied and shipped loose for in the field installation. Steam controls include the following: steam control valve, steam strainer, drip trap and main trap.

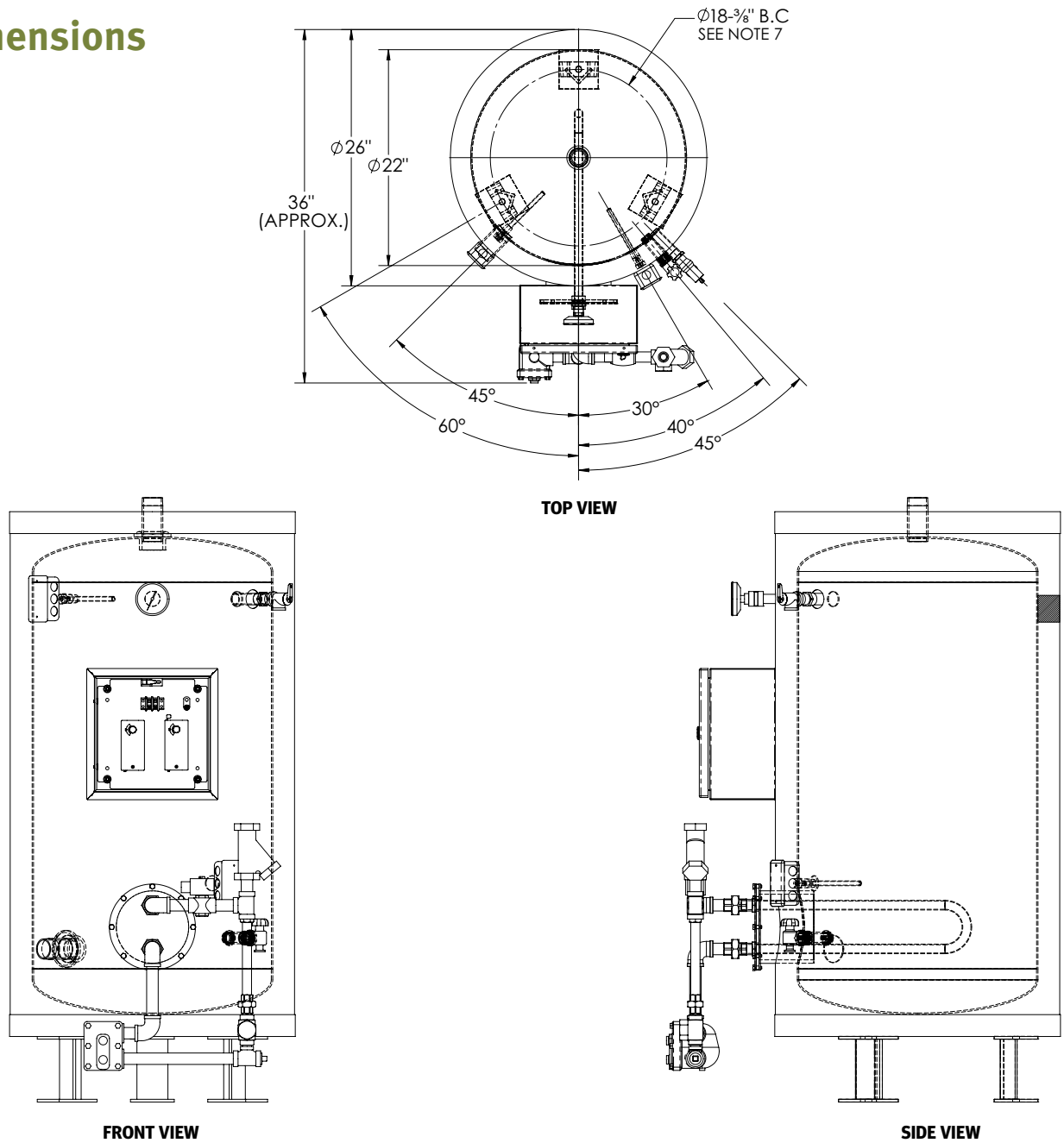


## Recovery Ratings and Heating Coil Selection

| Wall Type     | Gallons Per Hour (GPH) Heated at 100°F ΔT (40°–140°F) |       |        |        |        |        |        |
|---------------|---|-------|--------|--------|--------|--------|--------|
|               | Steam Pressure  |       |        |        |        |        |        |
|               | 2 PSI   | 5 PSI | 10 PSI | 15 PSI | 20 PSI | 25 PSI | 30 PSI |
| <b>SINGLE</b> | 143   | 157   | 171    | 189    | 203    | 217    | 227    |

**Note:** Maximum steam consumption is 211 Lbs/Hr for all of the above recoveries.

## Dimensions



## Synergy Steam PS Outline Dimensions

| Base Model   | Storage Capacity (Gallons) | Overall Diameter (Inches) | Overall Height (Inches) | Floor to: (Inches) |        |        |              |      | Shipping Weight (lbs) |
|--------------|----------------------------|---------------------------|-------------------------|--------------------|--------|--------|--------------|------|-----------------------|
|              |                            |                           |                         | Inlet              | Outlet | Return | Relief Valve | Coil |                       |
| <b>PS65</b>  | 65                         | 26                        | 54                      | 14                 | Top    | 15     | 46           | 16   | 395                   |
| <b>PS80</b>  | 80                         | 26                        | 64                      | 14                 | Top    | 15     | 57           | 16   | 470                   |
| <b>PS100</b> | 100                        | 26                        | 76                      | 14                 | Top    | 15     | 68           | 16   | 485                   |
| <b>PS120</b> | 119                        | 28                        | 76                      | 14                 | Top    | 15     | 68           | 17   | 555                   |

## kW and Amperage Selection Charts

### XX Gallon kW and Amperage Chart

(Amperage shown in chart below indicates available models)

| kW  | Recovery @100°dT | 1 Phase Voltages |     |     |     |     | 3 Phase Voltages – Balanced (lower element only) |     |     |     |     |
|-----|------------------|------------------|-----|-----|-----|-----|--|-----|-----|-----|-----|
|     |                  | 120              | 208 | 240 | 277 | 480 | 208  | 240 | 380 | 480 | 600 |
| 0.5 | 2                | 4                | 2   |     |     |     |  |     |     |     |     |
| 1   | 4                |                  | 5   | 4   | 4   |     |  |     |     |     |     |
| 1.5 | 6                | 13               | 7   | 6   | 5   |     |  |     |     |     |     |
| 2   | 8                | 17               | 10  | 8   | 7   | 4   | 6  |     |     |     |     |
| 2.5 | 10               | 21               | 12  | 10  | 9   | 5   |  |     |     |     |     |
| 3   | 12               |                  | 14  | 13  |     | 6   | 8  | 7   | 5   |     |     |
| 3.5 | 14               |                  | 17  | 15  | 13  | 7   |  |     |     |     |     |
| 4   | 16               |                  | 19  | 17  | 14  | 8   | 11   | 10  | 6   | 5   |     |
| 4.5 | 18               |                  | 22  | 19  | 16  | 9   |  |     |     |     |     |
| 5   | 21               |                  | 24  | 21  | 18  | 10  | 14   | 12  | 8   | 6   |     |
| 6   | 25               |                  | 29  | 25  | 22  | 13  | 17   | 14  |     |     | 6   |
| 7   | 29               |                  |     |     | 25  | 15  |  |     | 11  | 8   |     |
| 8   | 33               |                  | 38  | 33  | 29  | 17  | 22   | 19  | 12  | 10  | 8   |
| 9   | 37               |                  | 43  |     |     |     | 25   |     |     |     |     |
| 10  | 41               |                  |     | 42  |     | 21  |  | 24  | 15  |     | 10  |
| 11  | 45               |                  | 53  |     | 40  |     | 31   |     |     | 13  |     |
| 12  | 49               |                  |     | 50  |     |     |  | 29  | 18  |     |     |
| 13  | 53               |                  |     |     |     | 27  |  |     |     |     | 13  |
| 14  | 57               |                  | 67  | 58  | 51  |     | 39   | 34  |     | 17  |     |
| 15  | 62               |                  |     |     |     | 31  |  |     |     |     |     |
| 16  | 66               |                  |     |     | 58  |     |  |     | 24  | 19  |     |
| 17  | 70               |                  | 82  |     |     |     | 47   |     |     |     |     |
| 19  | 78               |                  |     | 79  | 69  |     |  | 46  | 29  | 23  |     |
| 23  | 94               |                  |     | 96  |     |     |  | 55  |     |     |     |

## Synergy Steam PS Model Number Designation

| MODEL     | STORAGE CAPACITY (GAL) | TANK TYPE   | WALL TYPE              | STEAM SUPPLY PRESSURE | kW SELECTION   | VOLTAGE/ PHASE   | OPTIONAL EQUIPMENT  |
|-----------|------------------------|---|------------------------|-----------------------|--|--|---|
| <b>PS</b> | 65–120                 | <b>SL</b> = HydraStone cement lined<br><b>SS</b> = 316L stainless steel | <b>S</b> = Single wall | 0–125 psi             | 1.5–23 kW<br><i>(complete only when specifying a back-up electric heating element)</i> | <b>A</b> = 120/1<br><b>RS</b> = 208/1<br><b>S</b> = 240/1<br><b>W</b> = 277/1<br><b>R</b> = 208/3<br><b>T</b> = 240/3<br><b>T3</b> = 380/3<br><b>T7</b> = 415/3<br><b>T5</b> = 440/3<br><b>T4</b> = 480/3<br><b>T6</b> = 600/3 | Write/type optional equipment code in the gray box below in alphabetical order. For multiple options separate codes with a dash (–) |

|    |  |    |   |   |  |   |  |   |  |
|----|--|----|---|---|--|---|--|---|--|
| PS |  | SL | – | S |  | – |  | – |  |
|----|--|----|---|---|--|---|--|---|--|

### Example: PS120SL-S15

Is a Hubbell Synergy steam fired water heater with a 119 gallon cement lined steel storage vessel. Heating coil is rated to heat 189 GPH from 40–140°F when supplied with 15 psi steam to the control valve. No electric back up heat provided.

## Optional Equipment

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

### Controls

- C60** Single solenoid safety system closes the supply to the heating coil
- C61** Double solenoid safety system closes the supply to the coil and opens the hot water outlet to drain

**\*Please note:** 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"

*(Fill out form below to order accessories.)*

|                               |                     |
|-------------------------------|---------------------|
| <b>Accessories Name</b> _____ | <b>Part #</b> _____ |
|-------------------------------|---------------------|

Units over 200,000 BTU, see ST model brochure

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