

Solar Water Heater

65-119 Gallon Capacity

Features

- **Heavy Duty Construction**
 - ✓ Hydrastone cement lining provides longer tank life
 - ✓ Copper-silicon tapings cannot rust or corrode
 - ✓ High impact composite jacket cannot rust or corrode and eliminates damage during transit and installation
- **High Efficiency**
 - ✓ 2" thick polyurethane foam insulation meets or exceeds the latest requirements of ANSI/ASHRAE/IESNA
 - ✓ Built-in heat trap lowers operating costs
- **Advanced Heating Coil**
 - ✓ Fully removable coil for simple maintenance
 - ✓ Copper fin tube design provides maximum heat transfer

Applications

- Residential
- Industrial Facilities
- Schools
- Any system which utilizes solar collectors/panels



Model SLN



A Highly Efficient Water Heater Utilizes Solar Energy

The Hubbell model SLN solar water heater operates by transferring heat from an existing solar collector system to your domestic potable water system. The Model SLN storage tank is fitted with a coil that accepts heated solar collector water and transfers that heat to the domestic water in the tank. The solar collector water and potable water remain as two separate systems that do not mix, only the heat

energy is transferred. The highly efficient Model SLN is a long lasting water heater that has no moving parts and does not require any electrical connections. When you specify and install a Hubbell Model SLN solar water heater, you will have confidence in knowing the owner will be provided with a quality product that is a trouble-free and long lasting source for hot water.

Model SLN Water Heater Specifications

Tank: Hydrastone Cement Lined Steel
Capacities: 65 - 119 Gallons
Orientation: Vertical
Inlet Size: 3/4" Female NPT
Outlet Size: 3/4" Male NPT
Drain Size: 3/4" GHT Hose Connection
Relief Valve
 Opening: 3/4" Female NPT
 Type: T&P, 210°F, 150 psi
Tank Rating: 150 psi WP, 300 psi TP

Standby Heat Loss: 0.39°F/Hr Typical

Coil Construction

Type: Removable
 Material: Copper Fin Tube
 Rating: 150 psi WP, 300 psi TP

Warranty (Residential):

Tank: 7 Years Non Pro-Rated
 Coil: 7 Years Non Pro-Rated

Warranty (Commercial):

Tank: 5 Years Non Pro-Rated
 Coil: 5 Years Non Pro-Rated

Jacket:

High Impact Colored Composite

Insulation:

2" Polyurethane Foam

Color:

White and Black

Optional Equipment

- 1. Double wall heating coil with a leak detection port
- 2. 1 1/2" Male NPT inlet and outlet water connections
- 3. Electric heating element for back-up heating, please specify wattage and voltage.
- 4. Integrally welded seismic attachment points
- 5. 3" Polyurethane foam insulation
- 6. Secondary heating coil (Coil S13 only) located in upper portion of tank for auxiliary heating.

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

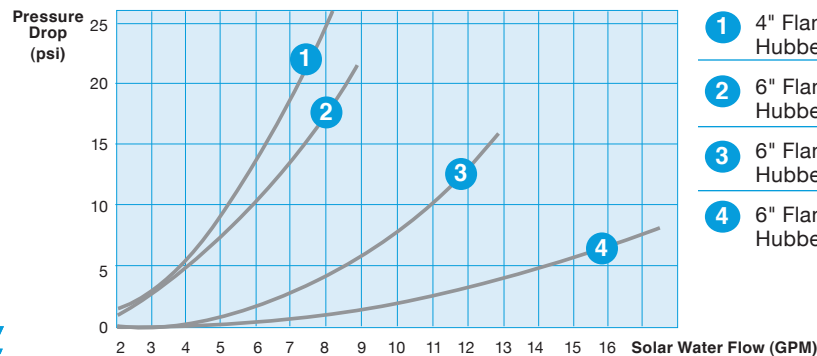
Back-up Electric Heating Element Selection Chart

Voltage	Phase	KW Ratings Available
120	1	1.5, 2
208, 240, 277, 480	1	3, 4, 4.5, 5, 6
208 thru 600	3	6, 8, 10, 12, 15, 20

Heating Coil Selection Chart with Recovery Ratings

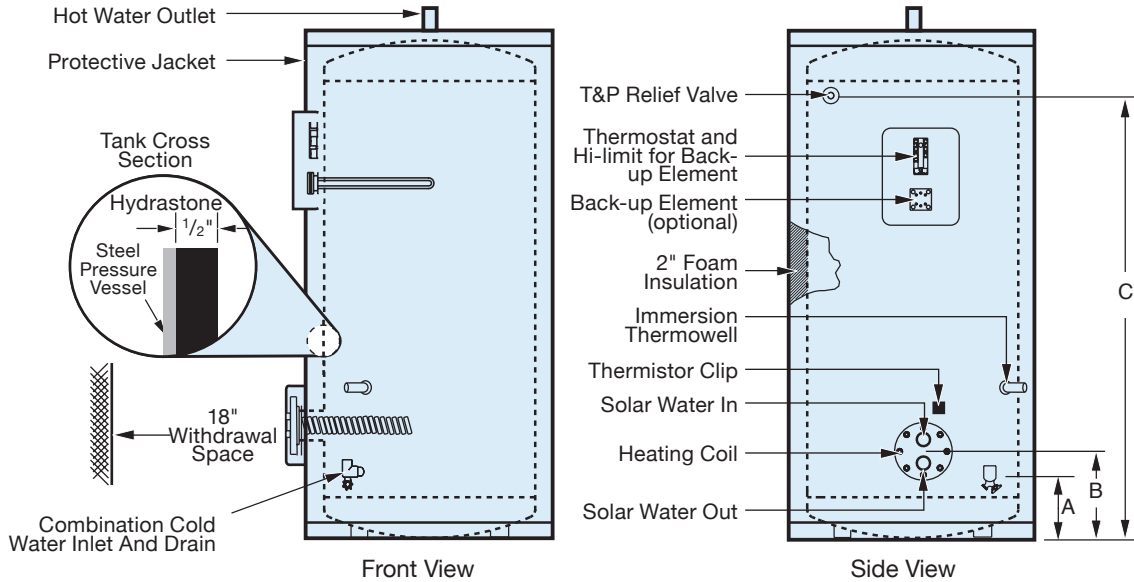
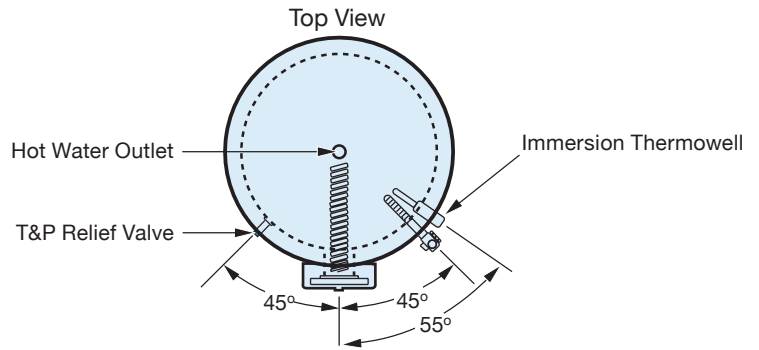
Base Model	Storage Capacity (Gallons)	Coil Model	Coil Type	Coil Connection Size (NPT)	1st Hour Ratings (Gallons)	Continuous Demand Rating (Gal/Hr)	Solar Flow Rate (GPM)
SLN65	65	S13	Single Wall	3/4"	162	98	3.5
		S15	Single Wall	3/4"	210	150	8
		S20	Single Wall	1"	295	235	14
		D10	Double Wall	1/2"	120	60	3.5
SLN80	80	S13	Single Wall	3/4"	175	98	3.5
		S15	Single Wall	3/4"	222	150	8
		S20	Single Wall	1"	307	235	14
		D10	Double Wall	1/2"	132	60	3.5
SLN120	119	S13	Single Wall	3/4"	211	98	3.5
		S15	Single Wall	3/4"	254	150	8
		S20	Single Wall	1"	339	235	14
		D10	Double Wall	1/2"	164	60	3.5

Recovery ratings based upon the supply of 180°F solar water to the heating coil to heat domestic potable water from 58-135°F



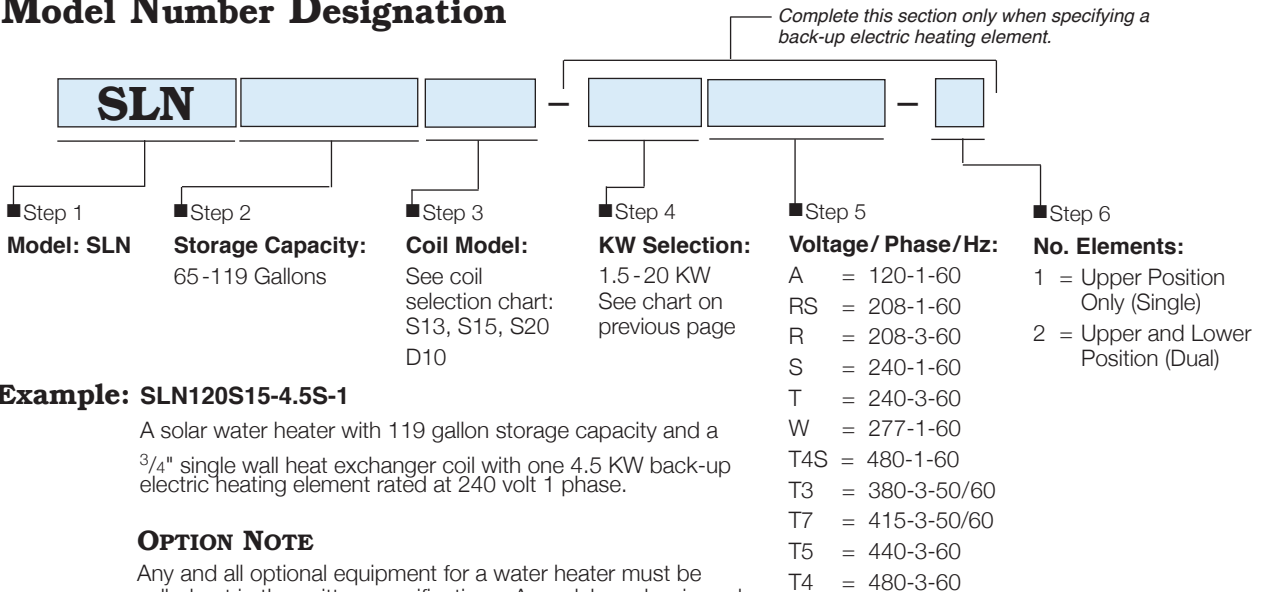
- 1** 4" Flange, Single Wall 3/4" In/Out, Hubbell Coil Model No. S13
- 2** 6" Flange, Double Wall 1/2" In/Out, Hubbell Coil Model No. D10
- 3** 6" Flange, Single Wall 3/4" In/Out, Hubbell Coil Model No. S15
- 4** 6" Flange, Single Wall 1" In/Out, Hubbell Coil Model No. S20

Outline Dimensions



Base Model	Storage Capacity (Gallons)	Dimensional Data (Inches)						Shipping Weight (lbs.)
		Overall Diameter	Overall Height	Inlet "A"	Coil "B"	T&P Valve "C"	Outlet	
SLN65	65	26	48	8	10	40	Top	310
SLN80	80	26	58	8	11	51	Top	340
SLN120	119	28	69.5	8	11	61	Top	420

Model Number Designation



Example: SLN120S15-4.5S-1

A solar water heater with 119 gallon storage capacity and a 3/4" single wall heat exchanger coil with one 4.5 KW back-up electric heating element rated at 240 volt 1 phase.

OPTION NOTE

Any and all optional equipment for a water heater must be called out in the written specifications. A model number in and of itself does not reflect any optional equipment selected.

Master Specification: Model SLN

JOB NAME _____

ENGINEER _____

REPRESENTATIVE _____

CONTRACTOR _____

GENERAL

Provide a quantity of _____ Solar water heater(s) Model No. _____ as manufactured by HUBBELL Electric Heater Co., Stratford, CT. The entire unit is to be complete with all operating controls and is ready for plumbing service connections. The tank shall be all welded steel commercial construction designed for 150 psi working pressure and contain _____ gallons of storage. The tank is to be lined with seamless Hydrastone cement to a minimum thickness of 1/2" on 100% of all interior tank surfaces and does not require any type of anodic protection. The tank shall be fabricated with non-ferrous copper-silicon threaded tappings and non-ferrous inlet and outlet piping for maximum corrosion resistance. Steel tank tappings shall not be acceptable. The entire tank is to be insulated with a minimum of 2" (**Optional Specification:** 3") 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 UL listing mark certifying the entire water heater.

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 connection 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 150 psi and 210°F shall be factory supplied.

HEATING COIL

The tank shall be supplied with a heating coil which transfers heat from the solar panel system to the domestic water. Solar panel water shall be in the tubes, and domestic water in the tank. The heating coil shall be of single wall (**Optional Specification:** double wall) copper construction for maximum heat transfer efficiency and coil longevity. The heating coil shall be fully removable from the tank to allow for periodic inspection and maintenance without the need to move or lift the storage tank from its installed position. A mounting clip and immersion thermowell are supplied for installation of a thermistor (by others) for sensing the water temperature in the tank.

OPTION – BACK-UP HEATER

The Solar water heater will be supplied with a back-up heater. The back-up heater shall be a single electric immersion heating element (**Optional Specification:** 119 gallon models only: a dual upper and lower element) rated at _____KW each and designed to operate at _____ volts _____ phase _____ Hz with all necessary operating controls factory mounted wired and tested. The heating element(s) shall be copper or incoloy sheath electric immersion type sized to obtain the rated recovery. Water temperature shall be controlled through an adjustable 110-170°F snap action surface thermostat. An over-temperature manual reset Hi-Limit shall be factory installed to disconnect all conductors to the heating element in the event of an over-temperature condition in the pressure vessel.

WARRANTY

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 including the heating coil for a full seven (7) years Non Pro-Rated for residential applications and five (5) years for commercial applications 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 improvement...

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

