

Indirect Fired Water Heater

35-119 Gallon Capacities

Features

- **Heavy Duty Construction**
 - ✓ Hydrastone cement lining provides long tank life
 - ✓ Copper-silicon tappings cannot rust or corrode
 - ✓ High impact composite jacket cannot rust or corrode and eliminates damage
- **High Efficiency**
 - ✓ 2" thick polyurethane foam insulation reduces standby heat loss providing the industry's highest efficiency heater.
- **Advanced Heating Coil**
 - ✓ Heating coil can be easily removed for simple maintenance
 - ✓ Heavy gauge copper fin tube coil provides maximum heat transfer

Applications

- Residential
- Office Buildings
- Industrial Facilities
- Schools
- Commercial Buildings



TransFlow Model
(Top Mount Model TT70C Shown)

The Hubbell TransFlow Water heater uses Boiler Water as the source for heating potable water.



Utilize Existing Boiler Water Supply To Make Hot Water

The Hubbell T Model water heater utilizes an existing supply of boiler water to heat domestic potable water. The Transflow model storage tank is fitted with a specially designed, high efficiency heating coil which transfers heat from the boiler water to the domestic water in the tank. It's advanced design has no moving parts and does not require any electrical connections, while the high quality materials

used in construction of its tank and heating coil ensures long service life. When you specify and install a Hubbell Transflow water heater, you will have confidence in knowing that the owner will be provided with a quality product that is a trouble-free and long lasting source for hot water.

TransFlow Model Water Heater Specifications

Tank: Hydrastone Cement Lined Steel

Capacities: 35 thru 119 Gallons

Orientation: Vertical

Drain Size: 3/4" Hose Connection

Tank Rating: 150 psi WP, 300 psi TP

Coil Type: Removable

Coil Material: Copper Fin Tube

Coil Rating: 150 psi WP, 300 psi TP

Approvals: cULus, AHRI, IBR

Jacket: High Impact Colorized Composite

Color: White and Black

Thermostat

Operation Voltage: 24 Volt AC/DC (Constant)

Switching Relay: S.P.S.T, 120 Volt, 10 Amp max.

Temperature Range: 110 - 160°F

Differential: 2 - 20°F (Adjustable)

Tank Warranty (Residential)

Top Mount Model: 10 Years
Side Mount Model: 7 Years

Tank Warranty (Commercial)

Top Mount Model: 5 Years
Side Mount Model: 3 Years

STANDARD EQUIPMENT

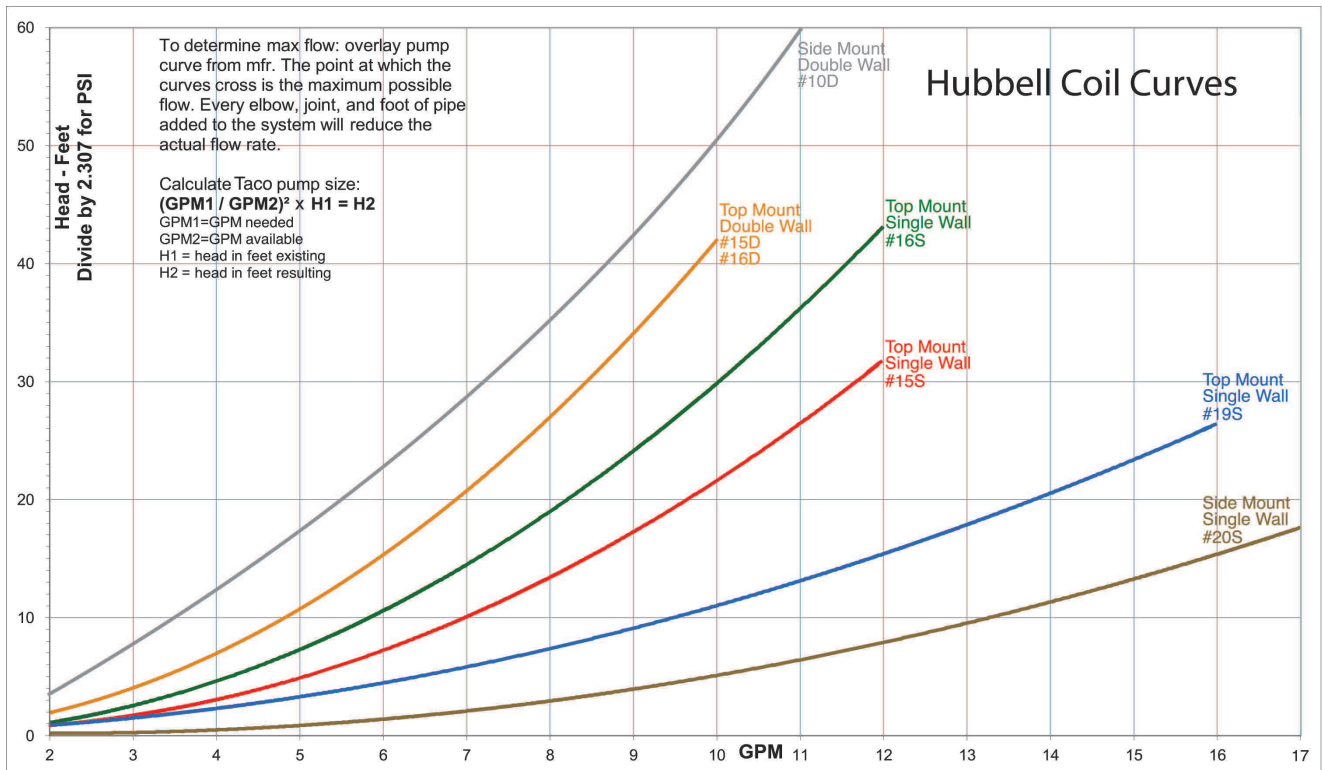
- 1/2" thick Hydrastone cement lined steel tank
- All copper-silicon non-ferrous tank openings
- Removable heating coil
- High efficiency copper fin tube heating coil
- Immersion adjustable electronic thermostat to control the flow of boiler water through the heating coil
- ASME rated temperature and pressure relief valve set at 150 psi, 210°F, 200,000 BTU max
- 2" thick polyurethane foam insulation meets or exceeds the requirements of ANSI, ASHRAE, IESNA 90.1-2007
- High impact colorized composite protective jacket

OPTIONAL EQUIPMENT

- 1. 1 1/2" Male NPT inlet and outlet water connections
- 2. Double wall copper heating coil with a leak detection port
- 3. Integrally welded seismic attachment points
- 4. Electric back-up heating element in various wattages in single or three phase voltages (consult factory).
- 5. Bulb and capillary mechanical thermostat (100-240°F) to accept 24-600 VAC operation voltage; SPST switch 120 Volt (16 Amp), 208 Volt (9 Amp), 240 Volt (8 Amp).

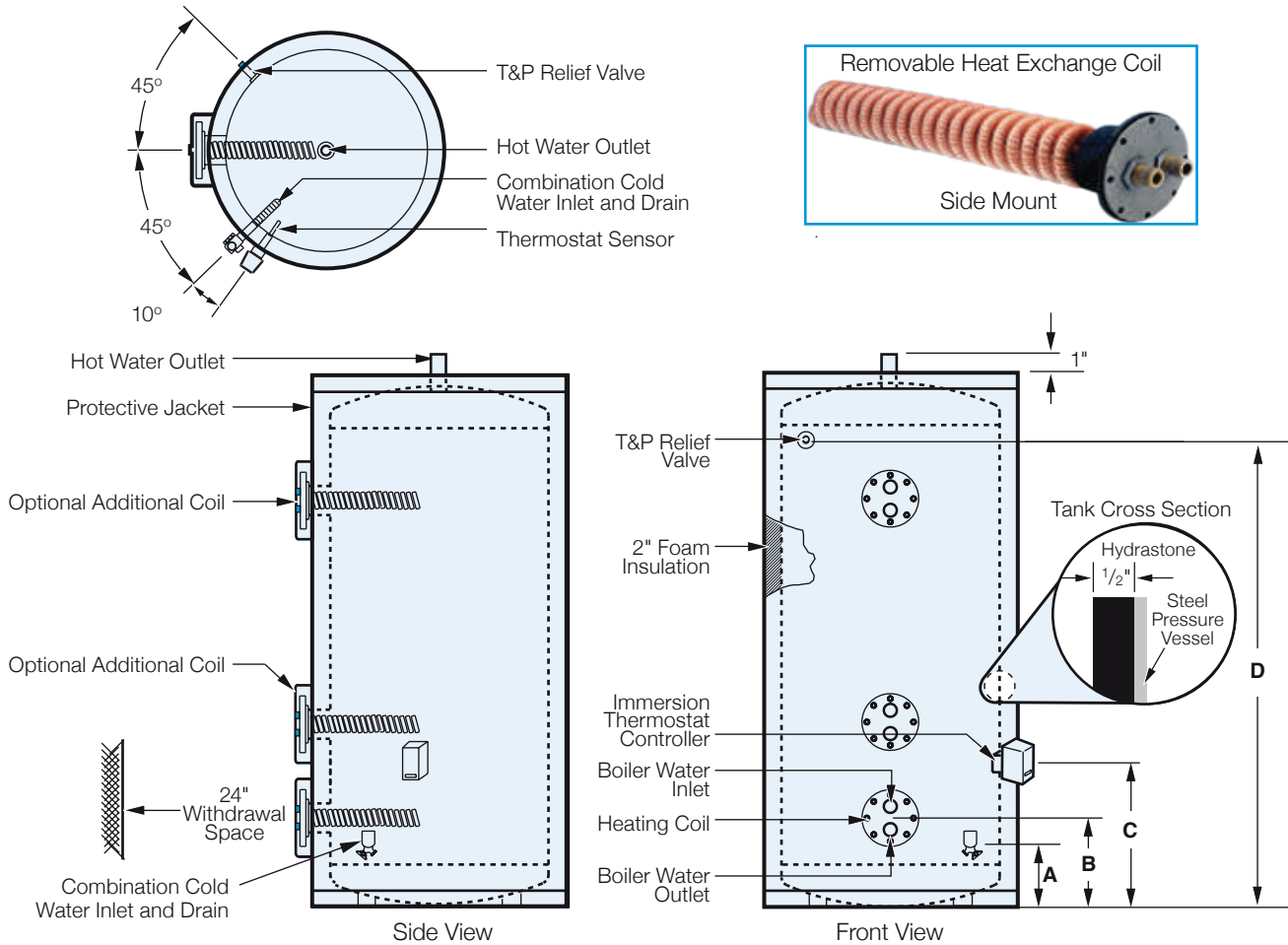
Please note: Optional equipment may impact overall dimensions and weight. Please request submittal drawing from factory.

Coil Pressure Drop Chart



SIDE MOUNT COIL

Outline Dimensions



Overall Dimensions

Base Model	Storage Capacity (Gallons)	Standby Heat Loss °F/Hour	Dimensions (Inches)						Inlet/Outlet Size (NPT)	Shipping Weight (Lbs)
			Overall Diameter	Overall Height	Inlet "A"	Coil "B"	Thermostat "C"	T&P Valve "D"		
TS65	65	0.44	26	48	8	10	14	40	3/4"	308
TS80	80	0.41	26	58	8	10	14	51	3/4"	338
TS80C	80	0.41	26	58	8	10	14	51	1-1/2"	340
TS120	119	0.39	28	69.25	8	11	17	62	3/4"	420
TS120C	119	0.39	28	69.25	8	11	17	62	1-1/2"	425

Heating Coil Selection Chart with Recovery Ratings

Base Model	Storage Capacity (Gallons)	Coil Position	Coil Type	Coil Model No.	Coil Connection Size (NPT)	1st Hour Rating (Gallons)	Continuous Demand Rating (Gal/Hr)	Boiler Water Flow Rate (GPM)
TS65	65	Side	Single Wall	20S	1"	295	235	13
			Double Wall	10D	3/4"	Consult Factory	Consult Factory	11
TS80 TS80C	80	Side	Single Wall	20S	1"	307	235	13
			Double Wall	10D	3/4"	Consult Factory	Consult Factory	11
TS120 TS120C	119	Side	Single Wall	20S	1"	339	235	13
			Double Wall	10D	3/4"	Consult Factory	Consult Factory	11

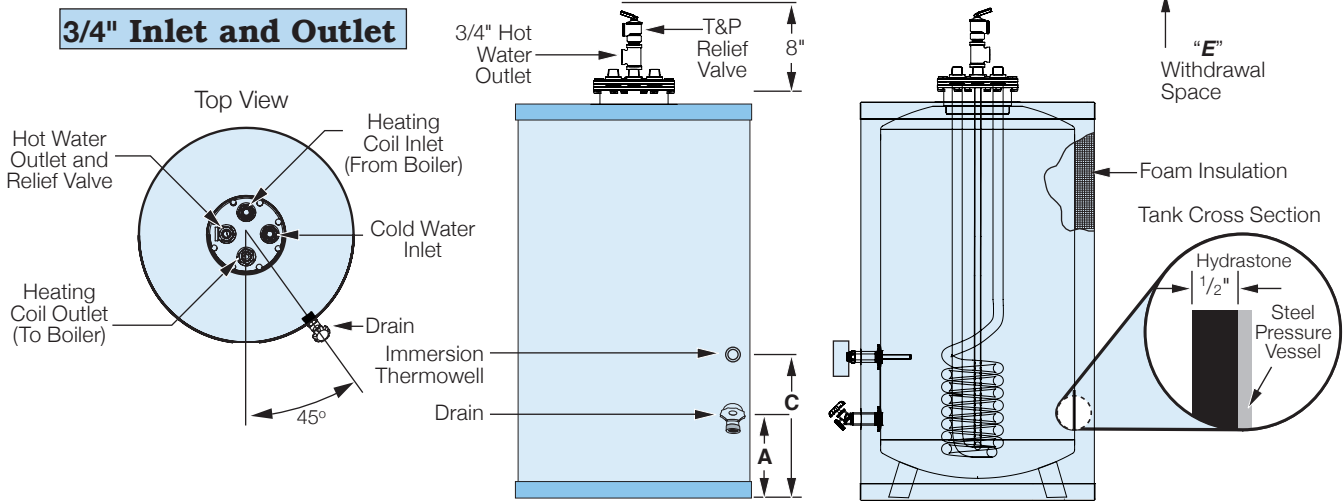
Recovery ratings based upon the supply of 200°F boiler water to a single heating coil to heat domestic potable water from 50-140°F. For 180°F boiler water reduce recovery ratings by 25%.

Recovery ratings based upon one heating coil installed in tank. For additional coils, use the continuous demand rating.

TOP MOUNT COIL

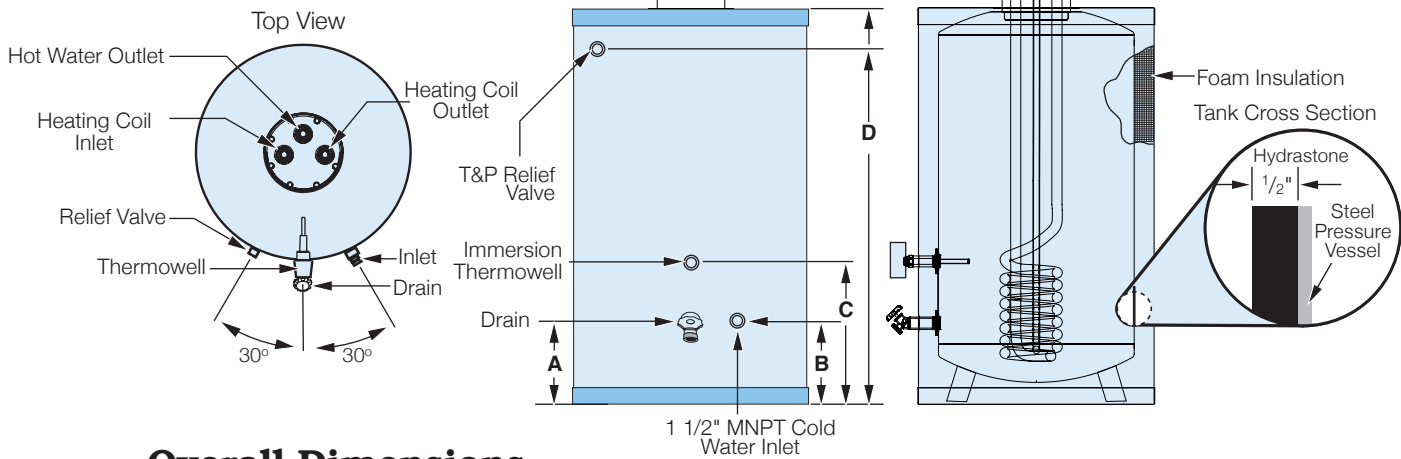
Outline Dimensions

3/4" Inlet and Outlet



1 1/2" Inlet and Outlet

Model TT70C Only



Overall Dimensions

Base Model	Storage Capacity (Gallons)	Standby Heat Loss °F/Hour	Dimensions (Inches)						Relief Valve Size	Inlet / Outlet Size (NPT)	Withdrawal Space "E"	Shipping Weight (lbs.)
			Overall Diameter	Overall Height	Drain "A"	Inlet "B"	Thermostat "C"	T&P Valve "D"				
TT35	35	0.72	22.75	39	8	Top	14	Top	3/4"	3/4"	36"	185
TT50	50	0.56	26	40	8	Top	14	Top	3/4"	3/4"	36"	238
TT70	70	0.45	28	46.5	8	Top	14	Top	3/4"	3/4"	41"	290
TT70C	70	0.45	28	46.5	8	8	14	38.5	3/4"	1-1/2"	41"	290

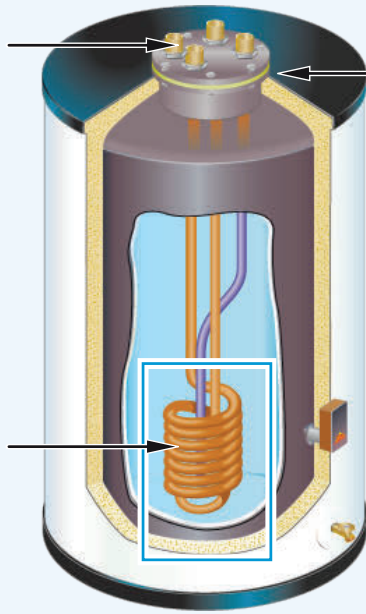
Heating Coil Selection Chart with Recovery Ratings

Base Model	Storage Capacity (Gallons)	Coil Position	Coil Model Number	Coil Type	Coil Connection Size (NPT)	1st Hour Rating (Gallons)	Continuous Demand Rating (Gal/Hr)	Boiler Water Flow Rate (GPM)
TT35	35	Top	15S	Single Wall	3/4"	230	203	6
			15D	Double Wall	3/4"	Consult Factory	Consult Factory	4
TT50	50	Top	15S	Single Wall	3/4"	250	214	6
			15D	Double Wall	3/4"	Consult Factory	Consult Factory	4
TT70	70	Top	16S	Single Wall	3/4"	335	271	6
			16D	Double Wall	3/4"	Consult Factory	Consult Factory	4
TT70C	70	Top	19S	Single Wall	1"	385	321	13

Recovery ratings based upon the supply of 200°F boiler water to the heating coil to heat domestic potable water from 50-140°F. For 180°F boiler water reduce recovery ratings by 25%.

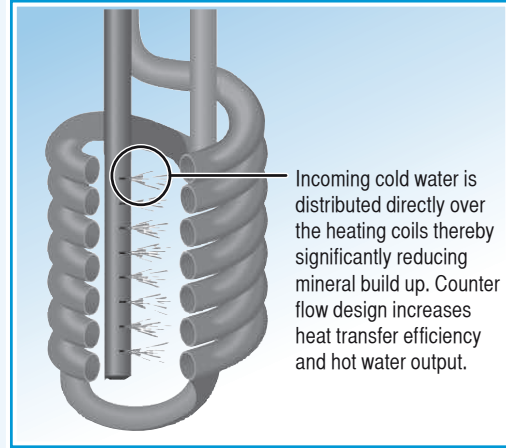
Heating Coil Design — Top Mount Coil

Plumbing connections located in flange simplifies installation and improves tank longevity



O-ring gasket design provides reliable and trouble free sealing

Heating surface area predominately located in the coldest part of the tank for greater temperature differentials resulting in significantly improved heat transfer

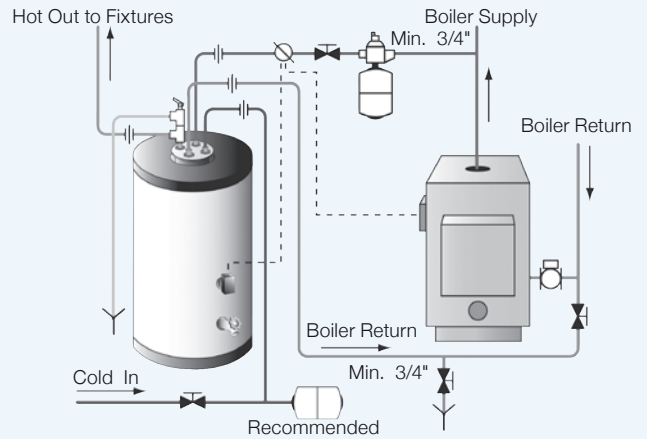


Incoming cold water is distributed directly over the heating coils thereby significantly reducing mineral build up. Counter flow design increases heat transfer efficiency and hot water output.

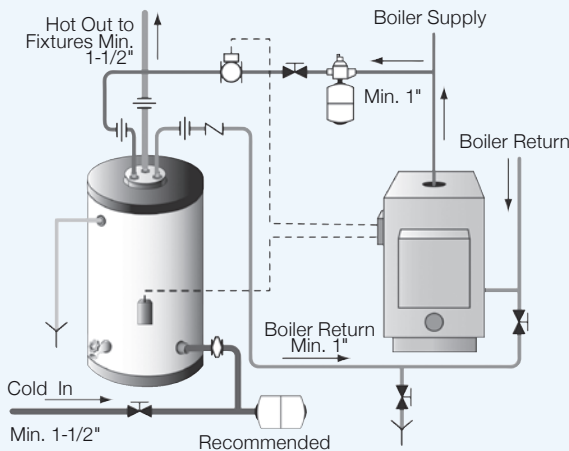
Top Mount Coil – Typical Installation

Installation Key	
	Shut-off Valve
	Flow Check Valve
	Circulation Pump
	Drain
	Union
	T&P/Relief Valve & Brass "T"
	Zone Valve
	Expansion Tank
	Dielectric Union
	Air Scoop with Expansion Tank

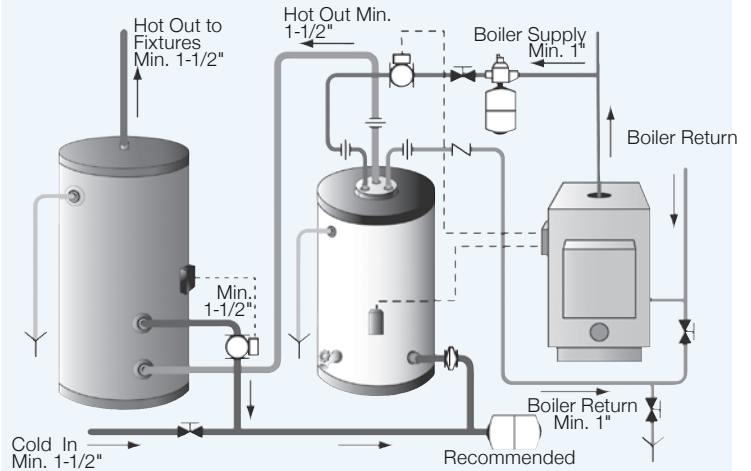
Residential



Commercial

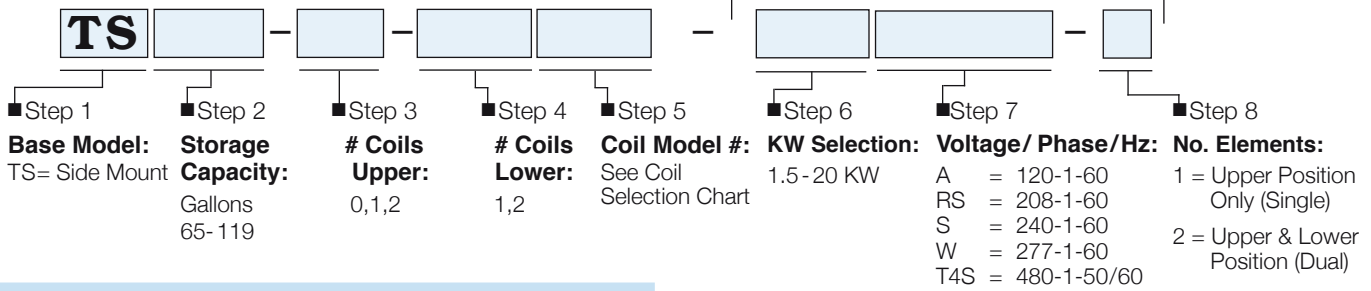


Commercial with Additional Storage



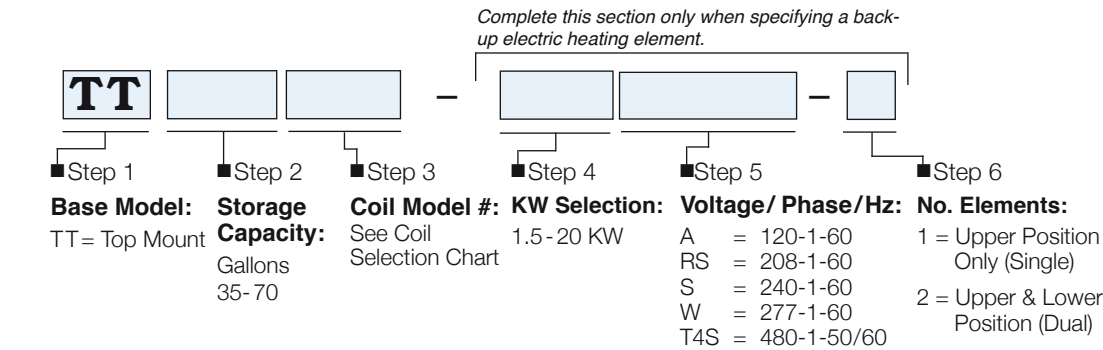
Model TS Number Designation

SIDE MOUNT



Model TT Number Designation

TOP MOUNT



Master Specification: TransFlow Model

JOB NAME _____

ENGINEER _____

REPRESENTATIVE _____

CONTRACTOR _____

GENERAL Provide a quantity of _____ Transflow 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 requires only plumbing and electrical service connections. The tank shall be all welded steel commercial construction designed for 150 psi working pressure and contain _____ gallons of storage. The tank shall be lined with seamless Hydrastone cement to a minimum thickness of 3/4" on 100% of all interior tank surfaces and does 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 is to be insulated with a minimum of 2" 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 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). A separate 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 fitted with a heating coil which transfers heat from the boiler water to the domestic water. Boiler 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 fine tube construction for maximum heat transfer efficiency and coil longevity. The 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.

BACK-UP ELECTRIC The 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 overtemperature condition in the pressure vessel.

THERMOSTAT The tank shall be fitted with an immersion 110-160°F adjustable electronic temperature controller to control the flow of boiler water through the heating coil. The temperature controller requires a constant 24 volt power supply to operate. The switching relay is a S.P.S.T. 120 volt 10 Amp Max relay which opens or closes the control circuit to the circulation pump or zone valve (by others) in order to regulate the flow of boiler water through the coil and thereby maintain the desired water temperature in the tank.

WARRANTY The water heater manufacturer shall warranty all 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 five (5) years from date of start-up, (residential applications seven (7) years) 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.

Hubbell TM

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.

MADE IN THE USA
By American AF Compliant
Major Canadian Importers Companies

CERTIFIED
ISO 9001

The Electric Heater Company ■ P.O. Box 288 ■ Stratford, CT 06615-0288 ■ Phone: 203-378-2659 ■ Fax: 203-378-3593
info@hubbellheaters.com ■ www.hubbellheaters.com

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