

# THE SMART CHOICE

in Domestic Hot Water



## Smart Series

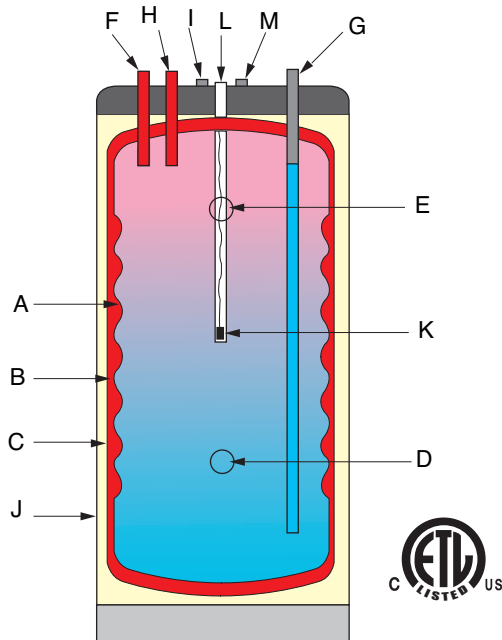
### Stainless Steel Indirect Fired Water Heaters

- » Exclusive “Tank-in-Tank” Technology
- » Abundant Domestic Hot Water at the Lowest Possible Cost
- » A Limited Residential Lifetime Warranty
- » 2” of Polyurethane Foam Insulation
- » Self Cleaning/Self Descaling Heat Exchanger
- » Lowest Pressure Drop in the Industry
- » 7 Sizes to Choose From

“Tank-in-Tank” Technology

# Construction Specifications

## SMART Series



- A. Inner stainless steel tank
- B. Outer steel tank
- C. 2" Polyurethane insulation
- D. Boiler water connection
- E. Boiler water connection
- F. Hot water outlet
- G. Cold water inlet
- H. Auxiliary connection
- I. Thermostat control
- J. Plastic jacket
- K. Thermostat remote sensing bulb
- L. Air vent connection
- M. Electrical wiring plug

Smart Series is tested in accordance with the standard (ANSI/UL-174) (CAN/CSA-C22.2 NO. 110-M90) and is certified by ETL.

## Superior Design "Tank-in-Tank" Technology

### Superior Heat Exchange Surface Area

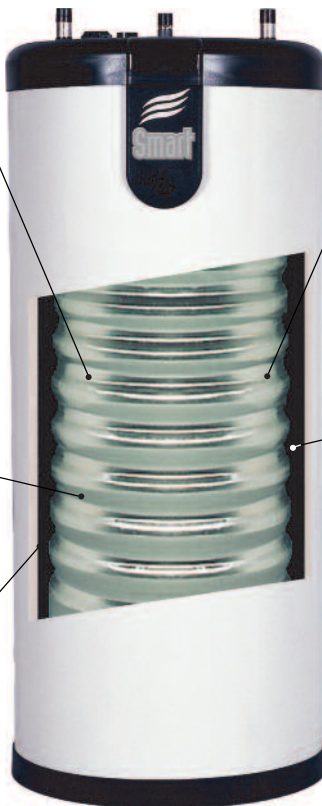
The domestic storage tank is constructed of stainless steel and is surrounded by boiler water in the outer tank, resulting in a full "wrap around" heat exchanger. It's superior heat exchange surface (typically 1.5 to 2.5 times larger than a traditional coil) produces a larger volume of hot water in a short period of time. Thanks to this fast recovery, the storage capacity can be reduced, resulting in a reduced thermal loss.

### Stainless Steel Tank Construction

The inner domestic storage tank is constructed of durable, corrosion resistant stainless steel.

### Optimal Insulation

SMART Series, is insulated with 2" of injected polyurethane foam, resulting in a stand by heat loss of less than 1% Hr.



### Self Cleaning / Self - descaling

The inner, domestic tank is suspended within the outer tank so it is free to expand and contract as the pressure varies during hot water draws. Moreover, its corrugations amplify the movement and prevents the lime build up on the heat exchanger; thus maintaining its performance during the SMART Series life span.

### Anti-Bacteria Growth / Maintenance Free

The "Tank-in-Tank" design allows us to store domestic water at higher temperatures preventing bacteria growth. Additionally, constructed of high quality stainless steel, SMART Series does not require a protective anode.

## Product Specifications

Model No.	Dimension	Height	Boiler/Supply Return	Domestic Inlet/Outlet	3rd Domestic Connection*	Domestic Capacity (gal.)	Heating Water Capacity (gal.)	Heat Surface (sq. ft.)	Empty Weight (lbs)
Smart 30	22" dia.	38"	1"	3/4"	3/4"	28	5	13	115
Smart 40	22" dia.	46"	1"	3/4"	3/4"	36	6	16	135
Smart 50	22" dia.	57"	1 1/4"	3/4"	3/4"	46	8	20	165
Smart 60	22" dia.	66"	1 1/4"	3/4"	3/4"	56	8	24	190
Smart 80	26" dia.	61"	1 1/2"	1 1/2"	1 1/2"	70	14	28	271
Smart 100	26" dia.	78"	1 1/2"	1 1/2"	1 1/2"	95	25	36	362
Smart 120	32" dia.	72"	2"	1 1/2"	1 1/2"	119	43	42	479

(\*) This fitting can be used as a return connection if circulated domestic water is required or can be used as a connection for the T&P Relief Valve.

## Performance

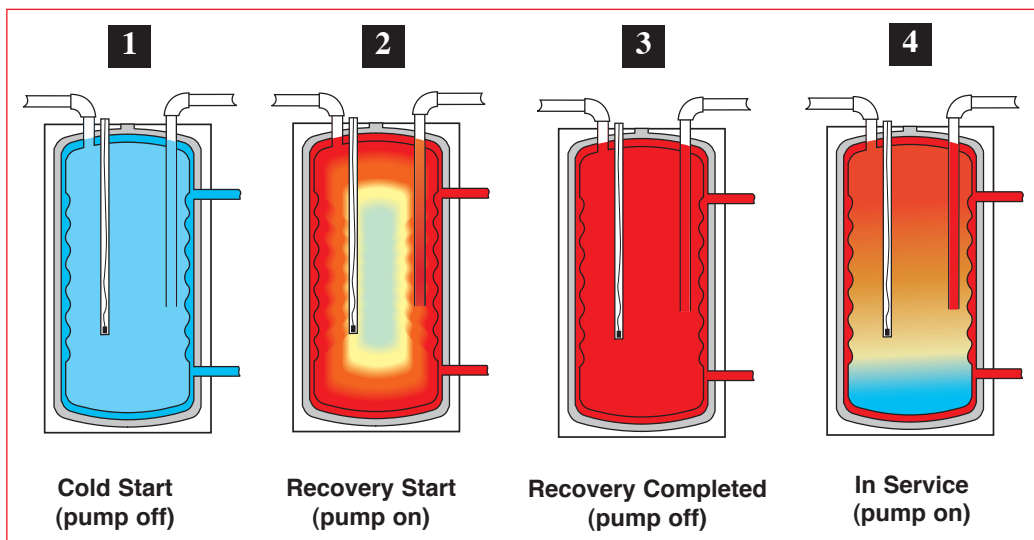
Model No.	Boiler Output Btu/hr	1st Hour Recovery (gal.)	Continuous Flow (gal.)	Peak/Flow Gal/10 min.
Smart 30	87,000	140	115	40
Smart 40	112,000	180	150	50
Smart 50	140,000	220	185	65
Smart 60	270,000	410	360	100
Smart 80	300,000	460	400	125
Smart 100	337,000	525	450	150
Smart 120	420,000	650	560	190

### Conditions:

- 200° boiler water supply
- 90° temperature rise

## How it Works

Smart Series operating cycle



When the thermostat in the inner tank calls for heat, the boiler and circulator start. Boiler water is circulated around the outer tank and heats the domestic water in the inner tank. After transferring its heat, boiler water is returned to the boiler to be re-heated. When the thermostat in the inner tank reaches its pre-set mark, the boiler and circulator shut off.

## Energy Efficiency

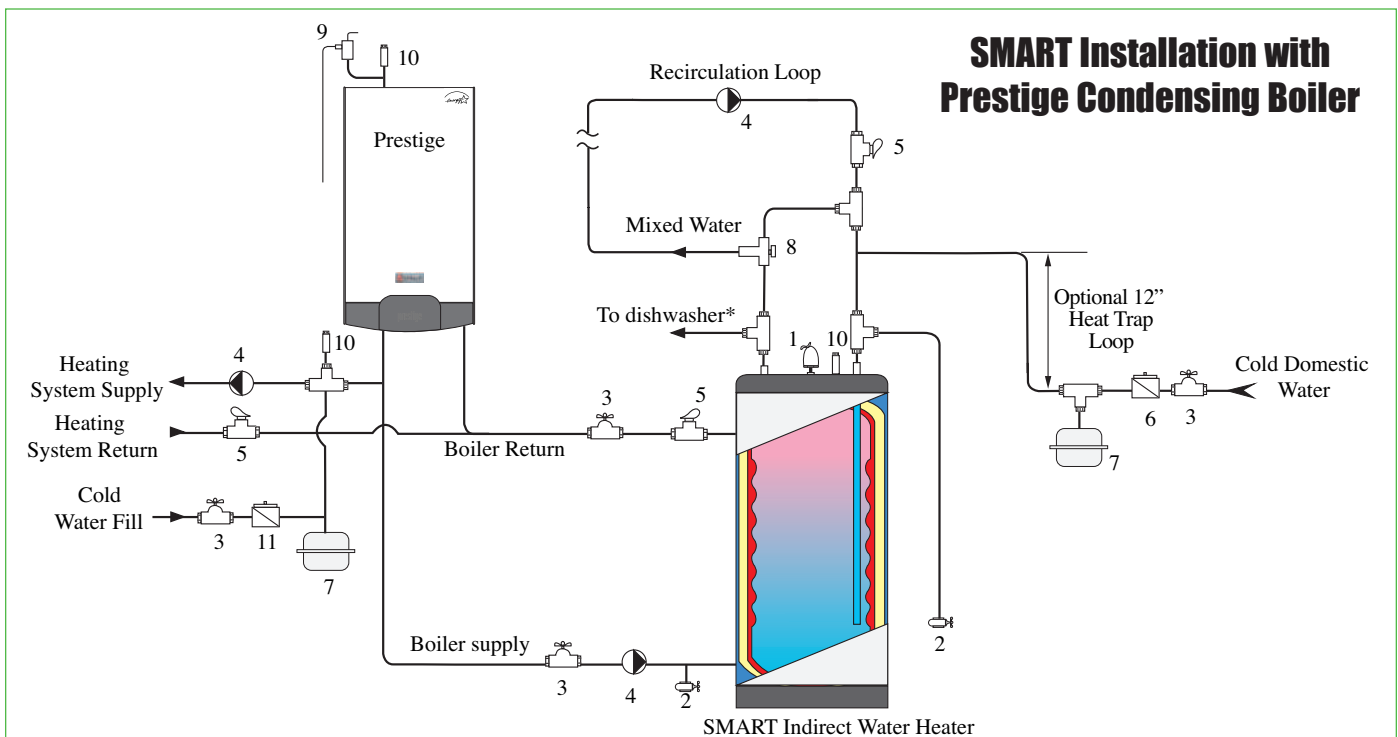
The Stainless Steel Indirect Fired Water Heater is heated by the hot water from your boiler. As your home is being heated, your domestic hot water is being heated at the same time, thereby, consuming less fuel and conserving energy. Combine this with a recovery rate that is up to **three times faster** than conventional gas or electric water heaters, and The SMART Series Indirect Fired Water Heater heats more hot water with less fuel for the energy conscious consumer.

## Long Term Dependability

The average life span of a SMART Series Indirect Fired Water Heater exceeds 20 years! That is two or three times the average life of a conventional gas, oil or electric water heater.



## Installation



(\*) Optional devices may be required by local codes.

- |  |   |                          |
|--|---|--------------------------|
| 1. Temperature & Pressure Relief Valve | 5. Flow Check Valve                                 | 9. Pressure Relief Valve |
| 2. Drain                               | 6. Backflow preventer or pressure reducing valve(*) | 10. Air Vent             |
| 3. Shut-off Valves                     | 7. Expansion Tank                                   | 11. Automatic Fill Valve |
| 4. Circulator                          | 8. Mixing Valve                                     |                          |



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