



# SMART

## Stainless Steel Indirect Fired Water Heaters

### Stainless Steel Indirect Fired Water Heaters

- Exclusive “Tank-in-Tank” Technology
- Abundant Domestic Hot Water at the Lowest Possible Cost
- 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

### Efficient and Dependable

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.

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.



# The SMART Choice in Domestic Hot Water

## 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.

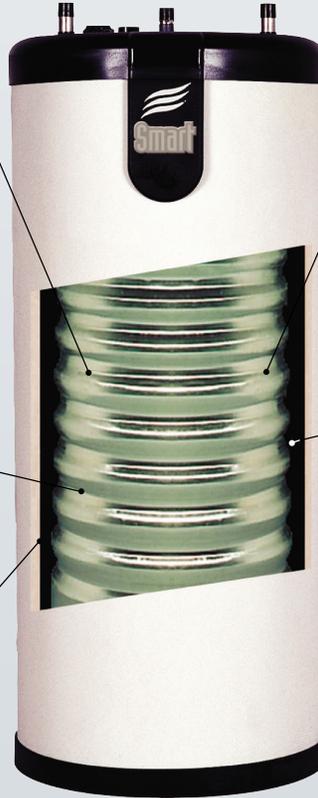
It's superior heat exchange surface (typically 1.5 to 2.5 times larger than a traditional coil) produces a larger volume of hot water in a short period of time. Thanks to this fast recovery, the storage capacity can be reduced, resulting in a reduced thermal loss.

## 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.



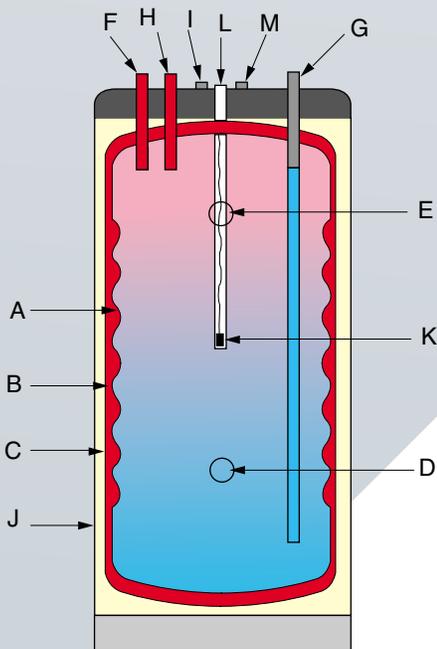
## Self Cleaning / Self - descaling

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.



## Construction Specification

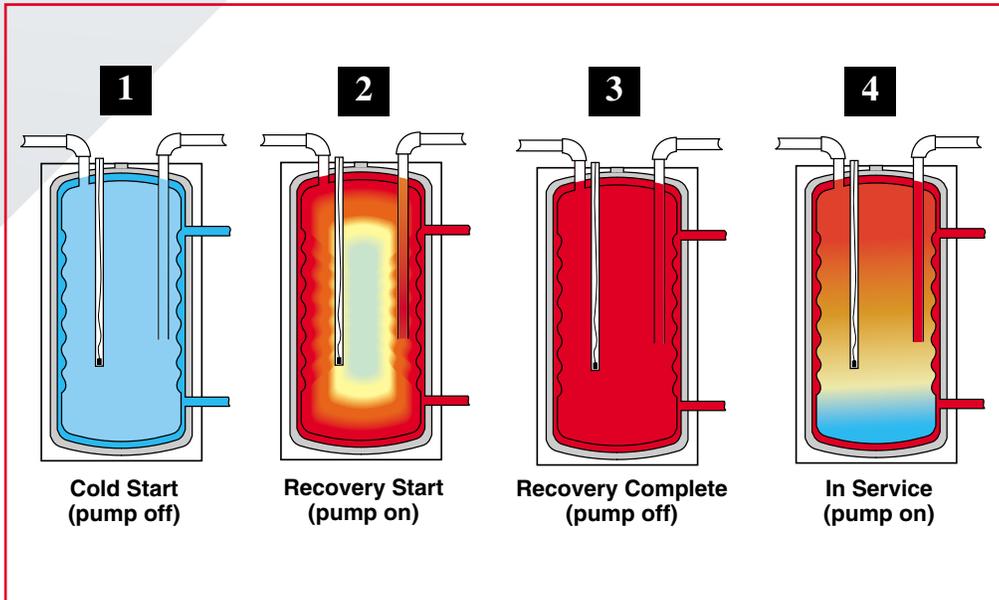
- |                               |                                   |
|-------------------------------|-----------------------------------|
| A. Inner stainless steel tank | H. Auxiliary connection           |
| B. Outer steel tank           | I. Thermostat control             |
| C. 2" Polyurethane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

# SMART - Leader in Energy Efficiency

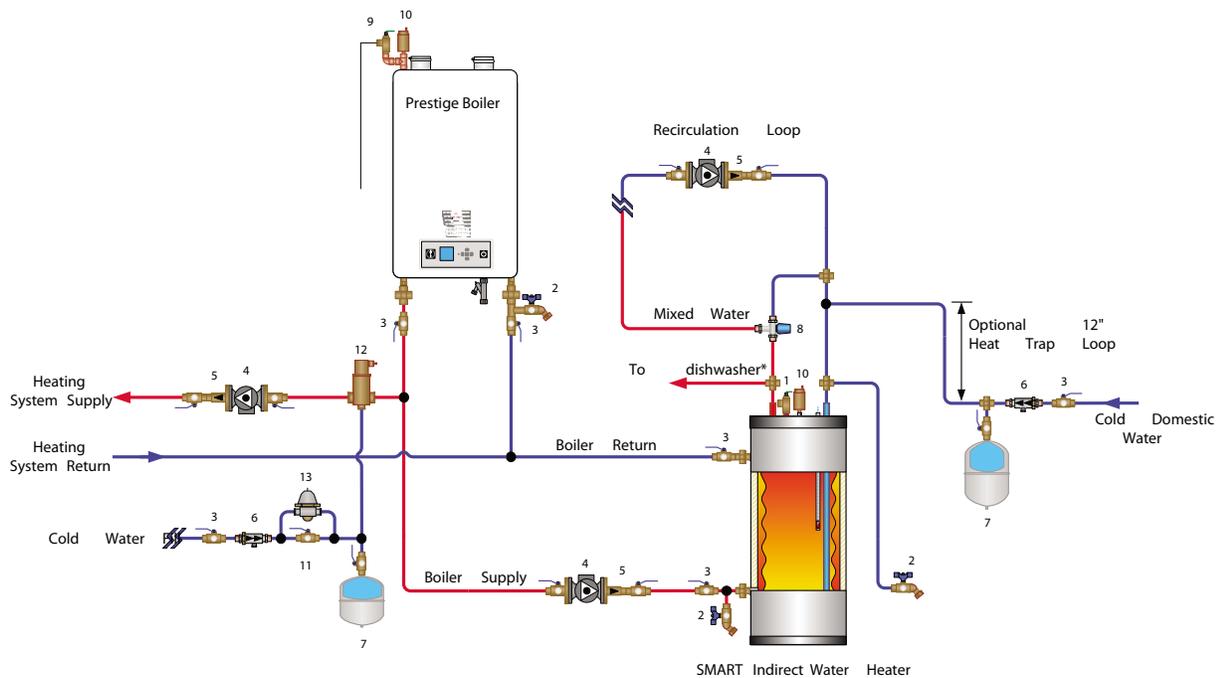
## How it Works

### 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 preset mark, the boiler and circulator shut off.



## Installation with Prestige Condensing Boiler



- |                                        |                          |                             |
|----------------------------------------|--------------------------|-----------------------------|
| 1. Temperature & Pressure Relief Valve | 6. Backflow Preventer    | 10. Air Vent                |
| 2. Drain                               | 7. Expansion Tank        | 11. Automatic Fill Valve    |
| 3. Shut-off Valve                      | 8. Mixing Valve          | 12. Air Separator           |
| 4. Circulator                          | 9. Pressure Relief Valve | 13. Pressure Reducing Valve |
| 5. Flow Check Valve                    |                          |                             |

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

# Smart

## Performance Specifications

SMART Series Model	Boiler Output Btu/hr	1st Hour Recovery	Continuous Flow (gal.)	Peak Flow (gal/10mi)
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

## Connections/Dimensions/Data

Water Heater Model	Boiler Supply/Return	Domestic Inlet/Outlet	3rd Domestic Connection*	Heating Water Capacity (gal.)	Domestic Water Capacity (gal.)	Heat Surface (sq. ft.)	Empty Weight (lbs.)
Smart 30	1"	3/4"	3/4"	5	28	13	115
Smart 40	1"	3/4"	3/4"	6	36	16	135
Smart 50	1 - 1/4"	3/4"	3/4"	8	46	20	165
Smart 60	1 - 1/4"	3/4"	3/4"	8	56	24	190
Smart 80	1 - 1/2"	1 - 1/2"	1 - 1/2"	14	70	28	271
Smart 100	1 - 1/2"	1 - 1/2"	1 - 1/2"	25	95	36	362
Smart 120	2"	1 - 1/2"	1 - 1/2"	43	119	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.

## Couple to High Efficiency Condensing Gas Boiler Family

- 439 Stainless Steel Fire Tube Heat Exchanger
- ASME Stamped Heat Exchanger
- 95% AFUE
- Turndown ratios up to 5.5:1
- Low Pressure Drop with Proven Performance
- 7 Models from 80 to 399 MBH
- 10 Year Limited Heat Exchanger Warranty
- 2 Year Control & Blower Warranty



Triangle Tube reserves the right to make product changes or improvements at any time without notice.



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