Smart Series

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 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 more hot water in a short period of time. Thanks to this fast recovery, the storage capacity can be reduced without sacrificing performance.

Stainless Steel Tank Construction
The inner domestic storage tank is constructed of durable, corrosion resistant stainless steel that does not require a protective anode.

Optimal Insulation
SMART Series, is insulated with 2" of injected polyurethane foam, resulting in a stand by heat loss of less than 1°F/hr.

Self Cleaning / Self-descaling
The inner, domestic tank is suspended within the outer tank so it is free to expand and contract as necessary. Moreover, the corrugations amplify the movement and prevents 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 storage of domestic water at higher temperatures preventing bacteria growth.

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

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

Performance Specifications

<table>
<thead>
<tr>
<th>SMART Series Model</th>
<th>Boiler Output Btu/hr</th>
<th>1st Hour Recovery Gal/hr</th>
<th>Continuous Flow Gal/hr</th>
<th>Peak Flow Gal/10min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smart 30</td>
<td>87,000</td>
<td>140</td>
<td>115</td>
<td>40</td>
</tr>
<tr>
<td>Smart 40</td>
<td>112,000</td>
<td>180</td>
<td>150</td>
<td>50</td>
</tr>
<tr>
<td>Smart 50</td>
<td>140,000</td>
<td>220</td>
<td>185</td>
<td>65</td>
</tr>
<tr>
<td>Smart 60</td>
<td>270,000</td>
<td>410</td>
<td>360</td>
<td>100</td>
</tr>
<tr>
<td>Smart 80</td>
<td>300,000</td>
<td>460</td>
<td>400</td>
<td>125</td>
</tr>
<tr>
<td>Smart 100</td>
<td>337,000</td>
<td>525</td>
<td>450</td>
<td>150</td>
</tr>
<tr>
<td>Smart 120</td>
<td>420,000</td>
<td>650</td>
<td>560</td>
<td>190</td>
</tr>
</tbody>
</table>

Conditions:
-200° boiler water supply
-90° temperature rise

Connections/Dimensions/Data

<table>
<thead>
<tr>
<th>Water Heater Model</th>
<th>Boiler Supply/Return</th>
<th>Domestic Inlet/Outlet</th>
<th>3rd Domestic Connection*</th>
<th>Heating Water Capacity (gal.)</th>
<th>Domestic Water Capacity (gal.)</th>
<th>Heat Surface (sq. ft.)</th>
<th>Empty Weight (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smart 30</td>
<td>1&quot;</td>
<td>3/4&quot;</td>
<td>3/4&quot;</td>
<td>5</td>
<td>28</td>
<td>13</td>
<td>115</td>
</tr>
<tr>
<td>Smart 40</td>
<td>1&quot;</td>
<td>3/4&quot;</td>
<td>3/4&quot;</td>
<td>6</td>
<td>36</td>
<td>16</td>
<td>135</td>
</tr>
<tr>
<td>Smart 50</td>
<td>1 - 1/4&quot;</td>
<td>3/4&quot;</td>
<td>3/4&quot;</td>
<td>8</td>
<td>46</td>
<td>20</td>
<td>165</td>
</tr>
<tr>
<td>Smart 60</td>
<td>1 - 1/4&quot;</td>
<td>3/4&quot;</td>
<td>3/4&quot;</td>
<td>8</td>
<td>56</td>
<td>24</td>
<td>190</td>
</tr>
<tr>
<td>Smart 80</td>
<td>1 - 1/2&quot;</td>
<td>1 - 1/2&quot;</td>
<td>1 - 1/2&quot;</td>
<td>14</td>
<td>70</td>
<td>28</td>
<td>271</td>
</tr>
<tr>
<td>Smart 100</td>
<td>1 - 1/2&quot;</td>
<td>1 - 1/2&quot;</td>
<td>1 - 1/2&quot;</td>
<td>25</td>
<td>95</td>
<td>36</td>
<td>362</td>
</tr>
<tr>
<td>Smart 120</td>
<td>2&quot;</td>
<td>1 - 1/2&quot;</td>
<td>1 - 1/2&quot;</td>
<td>43</td>
<td>119</td>
<td>42</td>
<td>479</td>
</tr>
</tbody>
</table>

(*) 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
- 5 Year Limited Warrant on Parts

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