Up to 96% Thermal Efficiency
Vertex™ The “peak demand” water heater.

With more bathrooms, higher-demand appliances, radiant floor heating and more, today’s home market demands advanced water heating performance. Now, A. O. Smith brings plumbing contractors a better way to meet growing demand.

The Vertex high-efficiency family combines an advanced internal heat exchanger with input up to 100,000 BTU, inspired by A. O. Smith’s time-tested Cyclone commercial design. The result:

- Up to 96% money-saving thermal efficiency heats more water for less energy
- Hot water output exceeds larger, less efficient 75-gallon units
- Continuous hot water means homeowners can always get “one more hot shower”
- Installs easily with standard gas and water connections
- Vents using PVC pipe, providing tremendous flexibility, and eliminates the effort and expense of metal venting required with some water heaters
- The Vertex 100 features an LCD with an easy-to-navigate menu providing unit operating information, diagnostics and precise temperature control
- iCOMM™ Compatible - Can be monitored from remote locations. For more information call 1.888.WATER02 (Vertex 100 only).

The name Vertex means “the highest point,” a standard of excellence A. O. Smith has achieved once again.

Compare the extraordinary output of Vertex to other conventional models.
Add it all up and it’s easy to see the Vertex difference.

**Commercial Grade PermaGlas® Ultra Coat™ Glass Lining** protects the tank and helical heat exchanger against corrosion and leaks.

**Two Heavy-Duty Commercial-Grade Anode Rods** provide even more protection against corrosion.

**Long-Lasting PEX Cross-Linked Polymer Diffuser Dip Tube** withstands long-term exposure to water up to 400°F.

**Helical Internal Heat Exchanger** is completely surrounded by water in the tank, providing a greater heat transfer surface.

**Condensate Outlet** conveniently located for piping of flue condensate to floor drain or outside of home.

**Eco-Friendly Green Choice® Gas Burner Design** reduces NOx emissions and complies with 2012 Ultra-Low NOx emission standards.

The Vertex 100 LCD digital control panel displays easy-to-understand system diagnostics, precise temperature control, and performance history.
Easy to install. Easy to maintain.

The Vertex family provides all the hot water of a larger water heater in a standard footprint, making it the natural choice for replacement when upgrading your water heater. The versatile design allows combined vertical or horizontal vent runs of up to 128 equivalent feet. Both give more precise control of the water temperature and easy-to-understand system diagnostics.

Performance, efficiency and ease of installation—the Vertex provides the best of all worlds for high-demand applications.

<table>
<thead>
<tr>
<th>Model</th>
<th>Gallon Capacity</th>
<th>First Hour Rating (Gallons)</th>
<th>BTU/Hr. Input</th>
<th>Recovery in GPH @ 90°F Rise (Natural)</th>
<th>Height (Inches)</th>
<th>Diameter (Inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPHE-50</td>
<td>50</td>
<td>127</td>
<td>76,000</td>
<td>92</td>
<td>70 7/8</td>
<td>22</td>
</tr>
<tr>
<td>GDHE-50</td>
<td>50</td>
<td>164</td>
<td>100,000</td>
<td>129</td>
<td>66 7/8</td>
<td>22</td>
</tr>
</tbody>
</table>