



90% THERMAL EFFICIENCY ENDLESS HOT WATER VERSATILE POWER-VENT DESIGN

Today's homes demand more hot water than ever before, and the 90% efficient Vertex power-vent gas water heater offers unprecedented levels of performance to meet the need. The 50-gallon Vertex delivers hot water output that rivals a 75-gallon atmospheric gas water heater. In fact, the fully condensing Vertex design is so advanced, it can deliver "endless hot water for showers"...a continuous flow of over 3 gallons per minute.* Yet Vertex is easy to install, with height, diameter and installation requirements similar to standard power-vent units.

HELICAL INTERNAL HEAT EXCHANGER

- Positioned in the center of the tank, surrounded by water to virtually eliminate radiant heat loss from the chamber
- Achieves 90% thermal efficiency which saves money on operating costs compared to a standard 78% efficient gas water heater
- Spiral heat exchanger reduces scale and sediment from forming on water-side surface, which can reduce energy efficiency over time

POWER VENTS USING PVC PIPE

- Combined vertical and horizontal vent runs terminating through an outside wall, using Schedule 40 PVC pipe or ULC S636 approved PVC (Canada)
 - 2" pipe, vents up to 25 equivalent feet
 - 3" pipe, vents up to 65 equivalent feet
 - 4" pipe, vents up to 128 equivalent feet

MODULAR BLOWER

- Equipped with 120 volt, 60 Hz electrical system (rating 5 amps or less), 6-foot cord with standard 3-prong connector
- 2" PVC pipe, elbows and condensate drain supplied to connect heat exchanger outlet to blower
- PVC Vent Attenuation Assembly (VAA) supplied

SIDE-MOUNTED HOT AND COLD RECIRCULATING TAPS

- Allows Vertex to be installed as part of combination space heating/water heating applications or any system requiring a recirculating hot water loop, including radiant floor heating

INTELLI-VENT™™™ GAS CONTROL

- Equipped with nearly indestructible silicon nitride hot surface ignitor — no standing pilot
- Advanced electronics for more precise control of water temperature and easy to understand system diagnostics

COMMERCIAL GRADE GLASS LINING

- A. O. Smith PermaGlas® Ultra Coat™ process provides superior protection against corrosion
- Protects all interior tank surfaces including inside and outside of helical heat exchanger

TWO HEAVY-DUTY ANODE RODS

- Provide maximum protection against corrosion

GREEN CHOICE® GAS BURNER

- Patented "Eco-Friendly" design reduces NOx emissions by up to 33% and meets less than 40ng/j requirements for low NOx

CSA CERTIFIED AND ASME RATED T&P RELIEF VALVE

MAXIMUM HYDROSTATIC WORKING PRESSURE: 150 PSI

* 3.07 GPM continuous flow, based on 65°F inlet water temperature, 110°F outlet temperature.

**Intelli-Vent is a registered trademark of Emerson Electric Company

GPHE-50



VERTEX™ 90% THERMAL EFFICIENCY POWER-VENT

CODES AND STANDARDS

- Design-certified by UL (Underwriters Laboratories) according to ANSI Z21.10.3 - CSA 4.3 Standards
- Meets or exceeds the thermal efficiency and standby loss requirements of the U. S. Department of Energy and current edition of ASHRAE/IESNA 90.1

SIX-YEAR LIMITED TANK AND PARTS WARRANTY

- For complete warranty details, consult written warranty shipped with heater or contact A. O. Smith

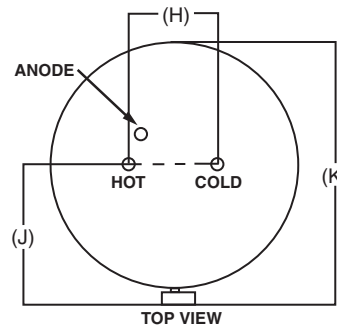
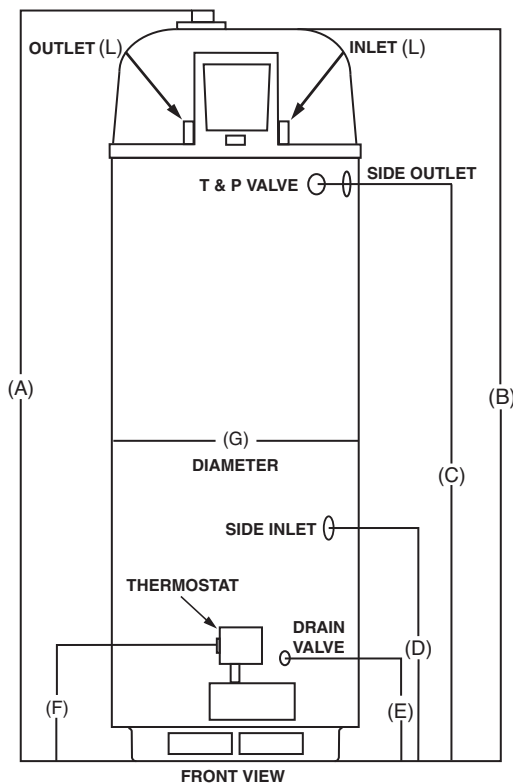
MODEL NUMBER	BTU INPUT PER HOUR	GALLON/LITRE CAPACITY	FIRST HOUR DELIVERY GALLONS/LITRES	RECOVERY 90°F RISE GALLONS PER HOUR	SHIPPING WEIGHT LBS/KG
GPHE-50	76,000	50 / 189	127 / 481	92	210 / 95

* Natural gas only

DIMENSIONS IN INCHES/CM

MODEL	A	B	C	D	E	F	G	H	J	K
GPHE-50	70-5/8 / 179	68-1/4 / 173	52 / 132	21 / 53	9-1/8 / 23	12 / 30	22 / 56	8 / 20	15-3/4 / 40	27 / 68

Inlet and outlet connections: 3/4" male
Circulation loop connections: 3/4" female



* INSTALL IN ACCORDANCE WITH LOCAL CODES