

# TITAN™ POWERED BURNER

## Low-NOx Commercial Gas Water Heaters

For medium-demand commercial applications, State Titan™ (GPG and GPV) commercial gas water heaters offer precise powered-burner performance, plus flexible venting options including conventional atmospheric venting, sidewall venting or direct venting. Professional start-up service is also available from State on these Titan units to help ensure optimum performance.



### Powered Gas Low-NOx Burner (Natural Gas Only)

- Premix burner operation includes internal Flue Gas Recirculation (FGR)
- Safety features: Internal blocked flue sensor, separate pilot system, internal thermal cutoff and anti-flashback barrier

### Three Venting Options

- Conventional atmospheric vertical venting on GPG models, with barometric draft regulating damper. Order Vent Kit Part # 170777-005
- Horizontal atmospheric sidewall venting or direct venting on GPV models
  - For sidewall venting order Vent Kit Part # 192049-000
  - For direct-venting order Vent Kit Part # 192050-002

### Automatic Controls

- Safety shut-off, high-temperature limit control
- Dual thermostat for accurate temperature adjustment from 120°F to 180°F

### Patented “Dome Design” Combustion

- Draft-equalizing dome balances pressure inside combustion chamber for optimum flue loading and efficient heat transfer

### Adjustable Damper for High-Altitude Installations

- Air intake damper easily reset for high-altitude installation by authorized start-up agent

### ASME Tank Construction – Rated Working Pressure 160 psi

### Factory-Installed AGA/ASME Temperature and Pressure Relief Valve

### Glass-Lined Tank

- With multiple anode rods for long-term protection against corrosion

### Flame Inspection Port

### Handhole Cleanout

- For easy removal of sediment from tank bottom

### Meets ASHRAE/IESNA 90.1-1999 Requirements

- Also meets SCAQMD low-NOx Rule 1146.2

### Three-Year Limited Tank Warranty

- For complete warranty information, consult written warranty shipped with water heater, or contact State Water Heaters

For Additional Technical Information,  
**PHONE 800-365-0024**

STATE WATER HEATERS  
500 Tennessee Waltz Parkway, Ashland City, TN 37015  
[www.statewaterheaters.com](http://www.statewaterheaters.com)

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## Low-NOx Commercial Gas Water Heaters

### CAPACITY, INPUT AND OUTPUT

MODEL NUMBER	BTU INPUT PER HOUR	Gallons or Litres	TANK SIZE	FIRST HOUR RATING 100° F RISE	GPH or LPH	RECOVERY-GALLONS PER HOUR AT °F TEMPERATURE RISE		
						40°F	100°F	140°F
						4°C	56°C	78°C
GPG85 540 NEA GPV85 540 NEA	540,000	U.S. Gallons Litres	85 321.7	583 2206.7	GPH LPH	1309 4954.6	523 1979.6	374 1415.6
GPG85 650 NEA GPV85 650 NEA	650,000	U.S. Gallons Litres	85 321.7	690 2611.7	GPH LPH	1579 5976.5	630 2384.6	450 1703.3
GPG85 740 NEA GPV85 740 NEA	740,000	U.S. Gallons Litres	85 321.7	778 2944.7	GPH LPH	1794 6790.3	718 2717.6	512 1937.9

Based on 80% Thermal Efficiency obtained in State engineering laboratories.  
To compensate for effects of high altitude above 2,000 feet, recovery ratings should be reduced 5% for every 1,000 feet above sea level.  
Current Draw (120V, 60Hz, 1 Phase): 6.0 Amps

### DIMENSIONS AND WEIGHT – ALL MODELS

Inches or CM	DIMENSIONS									GAS CONN.***	SHIPPING WEIGHT
	A	B	C	D	E	F	G	H	I		
Inches	80-3/4	73	32-1/4	9	26-1/2	26-1/2	93	29-1/2	48-1/2	1"	950 Lbs.
CM	205.1	185.4	81.9	22.9	67.3	67.3	236.2	74.9	123.2	-	431.8 Kg

\*D dimension is for atmospheric vent size (GPG models).

\*\*E dimension is for direct and sidewall vent size (GPV models).

\*\*\*Minimum gas supply pipe is 1-1/4". See Reference Manual, Table 7 for gas supply pipe size.

### SUGGESTED SPECIFICATION

Water heater(s) shall be State Model \_\_\_\_\_ or equal, with maximum storage capacity of 85 gallons, an input rating of \_\_\_\_\_ BTU/Hr., a recovery rating of \_\_\_\_\_ GPH at 100°F temperature rise, and minimum thermal efficiency of 80%. Heater(s) shall meet ASHRAE/IESNA 90.1-1999 requirements for thermal efficiency and standby loss, and meet SCAQMD R1146.2 low-NOx requirements. In addition, heater(s) shall: 1) Include a powered gas burner, redundant main gas valves, gas pressure regulator and flame inspection port. 2) Include a high-temperature limit control, dual-bulb thermostat for accurate temperature control and anti-stacking compensation and a factory-installed AGA rated temperature and pressure relief valve. 3) Be equipped with 1-1/2" NPT water inlet and outlet and a boiler-type handhole cleanout. 4) Shall be constructed and stamped in accordance with ASME Boiler and Pressure Vessel Code and be so marked for a maximum working pressure of 160 psi. 5) Have a glass-lined steel tank with multiple anodes for corrosion protection, and polyurethane foam insulation. 6) Tank shall have a 3-year limited warranty against corrosion as outlined in the written warranty.

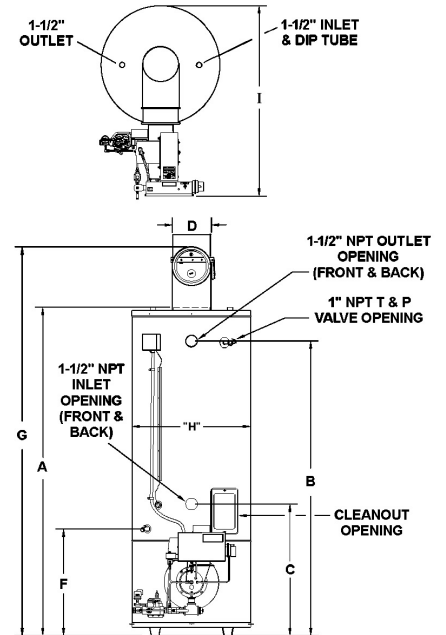
Venting: GPG heater(s) shall be supplied with a Barometric Draft Regulator for conventional atmospheric venting. GPV heater(s) shall be supplied with an optional vent kit allowing for horizontal sidewall venting or direct venting.

Burner and Controls: Burner(s) shall be pre-mix design, with internal FGR and thermal cutoff, separate spark pilot ignition system, integral blocked flue sensor, glass view port, main gas regulator, automatic gas valve, manual test cock and manual gas shutoff. Burner(s) must be factory-installed, tested and started by an Authorized State Start-up Agent before being placed into operation.

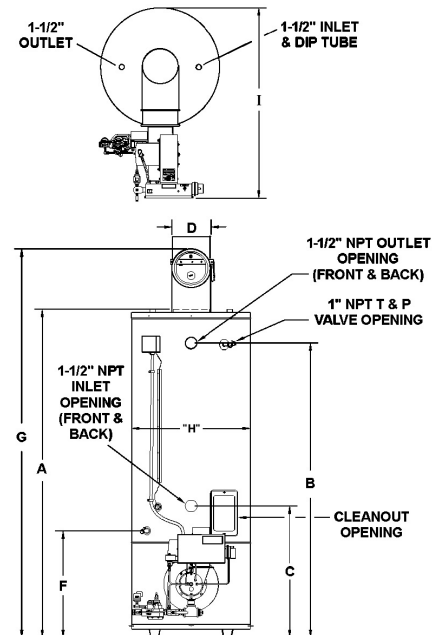
For complete information on limited warranties, consult written warranty, or contact the State Customer Care Center, 1-800-365-0024.

State Industries, Inc. reserves the right to make product changes or improvements without prior notice.

### STANDARD BAROMETRIC DRAFT CONTROL GPG MODELS



### STANDARD BAROMETRIC DRAFT CONTROL GPG MODELS



For Additional Technical Information,  
PHONE 800-365-0024

STATE WATER HEATERS  
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www.statewaterheaters.com

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