

HIGH-EFFICIENCY COMMERCIAL 100-GALLON GAS WATER HEATER

3-Year Tank Warranty

1-Year Parts Warranty

- **Stainless Steel Tank with Submerged Combustion**

High grade 444 stainless steel tank for years of dependable, trouble-free service - no anode required. Submerged combustion chamber with spiral flue for 95-96% thermal efficiency and ultra-low standby heat loss.

- **Sealed Combustion with Woven Fiber Premix Burner**

Metal fiber burner is manufactured of refractory steel that resists corrosion, thermal and mechanical shock, even at extreme temperatures. Meets Low NOx requirements for California and Texas.

- **Whisper Quiet Operation**

Ultra quiet blower and burner minimize noise. Requires 120 volt 60Hz power supply. Draws less than 5 Amps.

- **Power/Direct Vent Using 3" Plastic Pipe**

Direct vents up to 120' using PVC, CPVC, or ABS pipe. Vents Thru-the-Wall or Thru-the-Roof. Optional concentric vent kit available for use Thru-the-Roof or Wall.

- **Plug-and-Play Technology**

No special adjustments are required at initial startup. Connect air inlet, exhaust outlet, water, electricity, and gas. Set the temperature and the system functions properly.

- **External Temperature Adjustment Knob Up to 185°F**

- **Self-Diagnostic Control System**

Three external LED lights indicate operational status of water heater. Microprocessor monitors nine critical functions. An LED trouble-shooting light, visible through view port, signals heater operation status.

- **Cleanout**

Allows easy access for cleaning and inspection of tank.

- **Multiple Tank Connections - 1-1/2" Water and Space Heating Connections**

- **CSA International Certified to ANSI Z21.10.3/CSA 4.3**

- **Other Features**

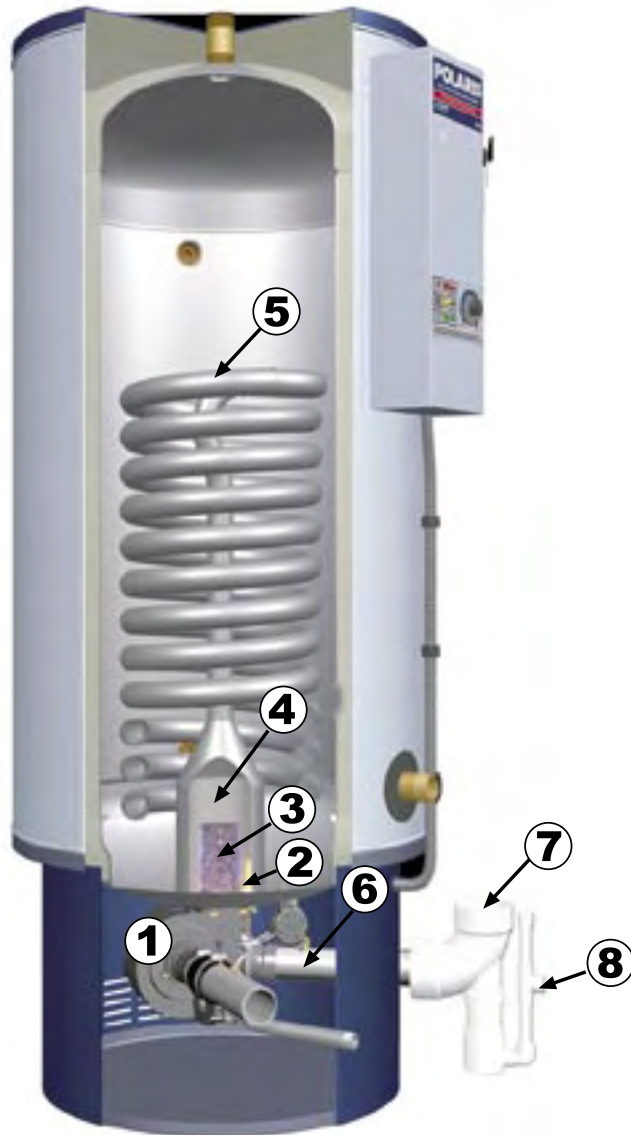
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|--------------------------------------|-------------------------------------|
| - Thermister Temperature Sensor | - 24-Volt Thermostat Control |
| - Hot Surface Ignition | - Full Flow Drain Valve |
| - ASHRAE 90.1-1999 Compliant | - Zero Clearance to Combustibles |
| - Factory Installed T&P Valve | - Factory Provided Condensate Trap |
| - Complies with California Title 24 | - Lightweight with Small Footprint |
| - Full Serviceability from the Front | - Factory Provided Air Inlet Filter |



This water heater has been tested and classified by Underwriter's Laboratories to the ANSI/NSF 5 Standard.

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POLARIS®



95% Efficient

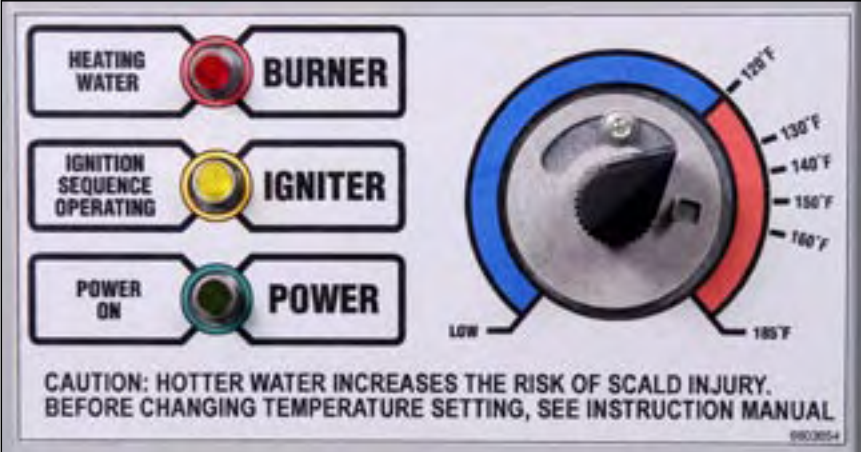
1. The quiet, brushless DC blower prepurges the submerged combustion chamber for 8 seconds and turns off.
2. The hot surface igniter is energized and glows red hot.
3. The blower turns on, precisely mixing air and gas for combustion. The mixture is forced through the metal fiber burner and is ignited by the hot surface igniter. A blue flame is evenly distributed across the entire burner, resulting in clean combustion with low nitrous oxide emissions.
4. The combustion chamber wall transfers high temperature heat from the flame to the water.
5. The blower pushes hot combustion gases through the spiral coil, which scrubs the remaining heat from the hot gases.
6. As combustion gas exits the bottom of the spiral coil, it is barely warm to the touch. Over 95% of the heat from the flame is transferred to the water.
7. Combustion gases are vented through PVC, CPC or ABS plastic pipe.
8. Condensation formed by cooled combustion air is captured by a condensate trap and drained through a drain line.



This water heater design has been tested by CSA International and complies with ANSI Z21.10.1, Section 2.35 Flammable Vapor Resistance

The Quiet Way to Efficiently Heat Water

An ultra quiet radial blower is combined with a submerged burner for whisper quiet operation. Indicator lights illuminate when the power is on and when the igniter and burner are operating.

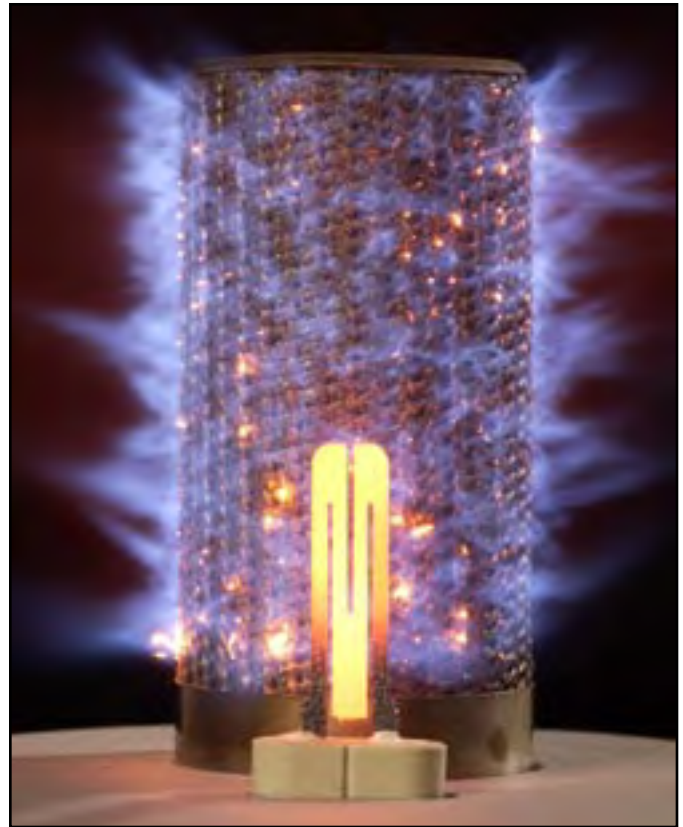


Woven Metal Burner

- Produces low NOx emissions
- Resistant to thermal and mechanical shocks
- Woven material provides even heat distribution through uniform combustion
- Protects from flashback

Whisper Quiet Blower

A high capacity, quiet, brushless, DC motor is combined with an integrated gas/air control safety system resulting in excellent combustion with flexible venting options.



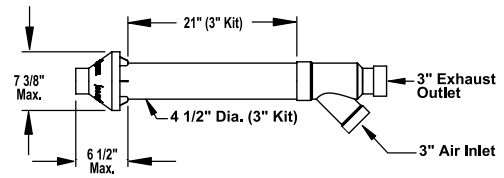
Easy to Install and Service

- All gas valve and blower adjustments are factory preset.
- High altitude installations do not require adjustments or derating in the field.
- When optional concentric vent is used, only one hole is cut in the wall or roof.
- A self-diagnostic control automatically monitors all critical water heater functions and indicates the status of each using a flash code sequence.

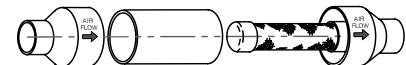
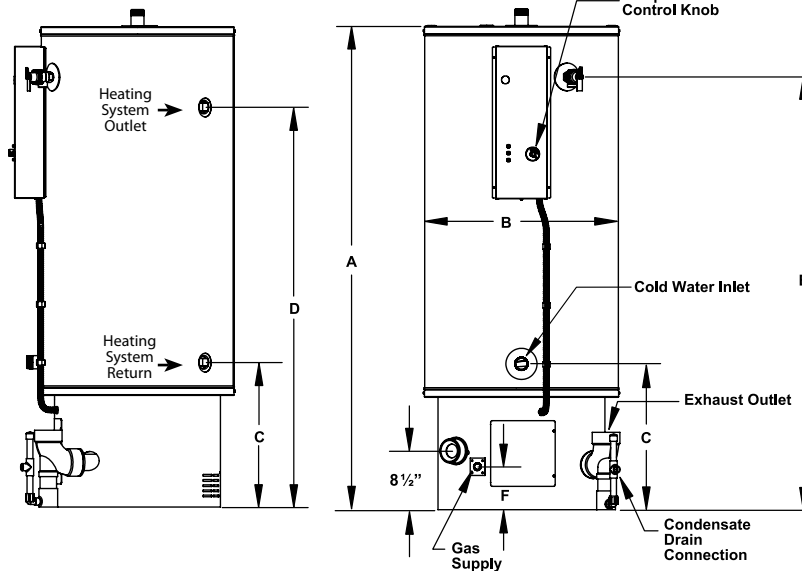
POLARIS®

NOTE: Water quality will vary from location to location and may contain contaminants that reduce the life or performance of the water heater. Use water quality survey kit #6903791 to help determine the need for water treatment.

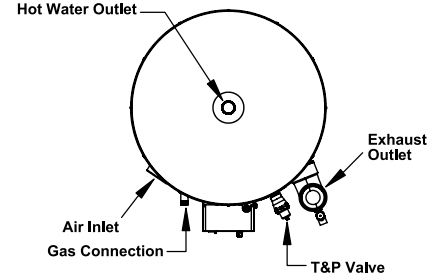
NOTE: PIPING DIAGRAMS AVAILABLE –
CALL 423-232-2477



Concentric Vent Kit #6910543



Air Inlet Filter Kit #6910614
installed to prevent entry of
debris through the intake air pipe.



Commercial Gas Polaris®

MODEL NUMBER	GAL CAP.	INPUT BTU PER HR.	GPH RECOVERY 100° RISE	EXTERIOR		VENT DIAM.	1-1/2" WATER CONNECTIONS		T&P HEIGHT E	3/4" GAS SUPPLY F	THERMAL EFFICIENCY	APPROX SHIP WEIGHT
				A	B		C	D				
PGC3 100-199-3NV	100	199,000	230	70	28	3	23-1/4	56-1/4	63	6-3/8	96	468

For propane, substitute "P" for "N" in the model number. 3" Concentric Vent Part #6910543. Specifications are subject to change without notice in accordance with our policy of continuous improvement. Input, output and recovery may vary depending upon air inlet and exhaust outlet installations. Length and number of bends in inlet and outlet pipes may reduce input and output. Consult installation, operation and service manual for details. Dimensions on all charts shown in inches.

Specification

Commercial gas-fired water heater(s) shall be a direct/power vent Polaris model _____ as manufactured by American Water Heater Company and shall have a 3-year limited tank warranty and a 1-year limited parts warranty, as outlined in the written warranty. Units shall be designed to burn _____ (natural/propane) gas and be CSA International certified to the latest edition of ANSI standard Z21.10.3/CSA 4.3. Water heater(s) shall have a nominal storage capacity of _____ gallons and a recovery rate of _____ GPH @ 100°F rise with a rated input of _____ BTU/Hr. Water heater(s) shall be condensing type with a minimum thermal efficiency of 95-96%, power vented with PVC, ABS, or CPVC pipe. Water heater(s) shall have combined vent capabilities of up to 120' to the exhaust outlet with up to 120' to the air inlet. Water heater(s) shall have a low noise combustion system with a woven fiber steel burner capable of low NOx (less than 40 ng/j) in the blue flame mode and shall be manufactured of refractory steel, resistant to thermal and mechanical shock. The gas valve shall be a Honeywell CV1-r1 series gas valve with a matching 45.900 series venturi manifold using a 1:1 air/gas ratio. The combustion system shall be factory adjusted and require no field adjustment on startup. The tank shall be constructed of 444 stainless steel with a submerged combustion chamber and rated for 150 PSI working pressure and 300 PSI test pressure. The tank shall be surrounded by two inches of non-CFC foam insulation covered by an enamel coated metal jacket. Operating controls shall have a 24-volt integrated control circuit, an immersed thermistor temperature sensor, a recycling energy cut-off switch, external temperature adjustment up to 185°F and shall have LED lights that continuously indicate the operational status of the water heater(s). A microprocessor shall automatically monitor nine critical operating functions and signal the status of each. A factory installed temperature and pressure relief valve shall be provided on all models.

Order Entry and Sales

P.O. Box 4056, 500 Princeton Road
Johnson City, TN 37602-4056
(800) 937-1037
(800) 581-7224 fax

Product Service and Support

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