

POLARIS

Polaris™ High-Efficiency Residential Gas Water Heater

The perfect choice for combination systems

Polaris™ has a high grade 444 stainless steel tank with brass connections for years of dependable, trouble-free service - no anode required. A submerged combustion chamber with spiral flue provides up to 96% thermal efficiency and ultra-low standby heat loss of approximately 1%.

SEALED COMBUSTION WITH WOVEN FIBRE PREMIX BURNER

- Metal fibre burner is designed for clean combustion in high-intensity blue flame mode
- Uniform combustion provides excellent heat transfer
- Manufactured of refractory steel that resists corrosion and provides excellent resistance to thermal and mechanical shock, even at extreme temperatures

WHISPER QUIET OPERATION

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

POWER DIRECT VENT USING 2" OR 3" PLASTIC PIPE

- Direct vents up to 120' using ULC S636 PVC or CPVC pipe either through the wall or through the roof
- Optional concentric vent kit available

SELF-DIAGNOSTIC CONTROL SYSTEM

- Three external LED lights indicate operational status of water heater
- A microprocessor monitors nine critical functions
- A LED troubleshooting light, visible through view port, signals heater operation status

FULL SERVICEABILITY FROM THE FRONT

- Removal of two front-located access panels exposes all serviceable components
- Modular components are easily removed

ENERGY STAR® QUALIFIED

- PR100-34-2NV model meets ENERGY STAR® requirements

OTHER FEATURES

- Thermistor temperature sensor
- 24-volt thermostat control
- Hot surface ignition
- Full flow brass drain valve
- Zero clearance to combustibles
- Factory installed T&P valve
- Factory provided condensate trap
- Multiple 1" brass tank connections

WARRANTY

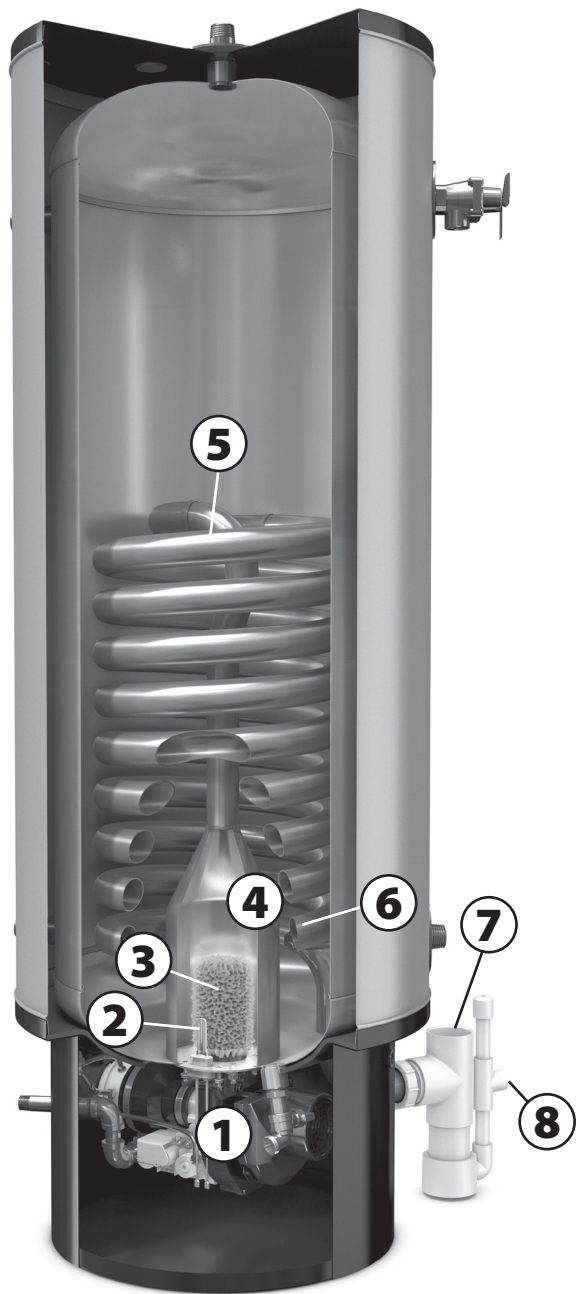
- 10 year limited tank warranty
- 1 year limited parts warranty



PR100-34-2NV model only

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UP TO 96% 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 fibre 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. Up to 96% of the heat from the flame is transferred to the water.
7. Combustion gases are vented through ULC S636 plastic pipe.
8. Condensation formed by cooled combustion air is captured by a condensate trap and drained through a drain line.

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.





THE BEST CHOICE FOR HOT WATER

Polaris is ideal for large homes. For dishwashing, showers, baths, clothes washing, or hot tubs, Polaris is the best choice. Polaris models heat up to 192 GPH at a 90°F temperature rise, compared to 41 GPH for standard gas water heaters.

FORCED AIR HYDRONIC HEAT

Polaris can be used to combine an air handler for comfortable forced air hydronic space heating with potable hot water. Hot water is circulated through a coil in the air handler. Air from the home is warmed as it is blown across the coil. Warmed air is returned to the home through air ducts. With up to 199,000 BTUs, Polaris can heat most homes, large or small.



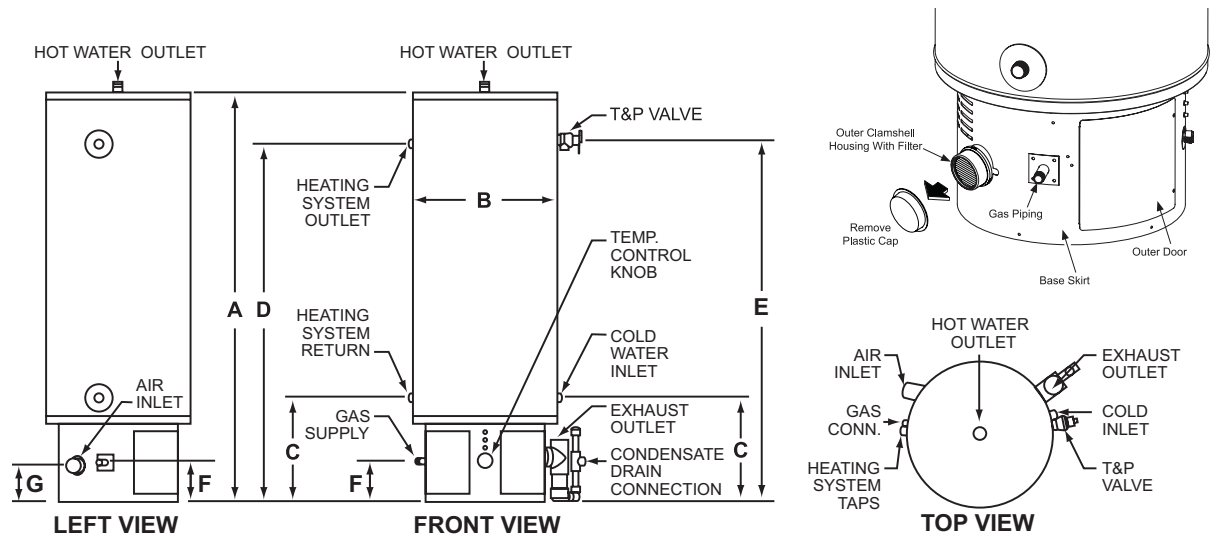
RADIANT HYDRONIC HEAT

Polaris works great for homeowners who prefer radiant hydronic heat. With radiant floor hydronic systems, potable hot water is circulated through tubes under the floor. The floor absorbs heat from the tubes and radiates it into the room. With radiant baseboard heat, potable hot water is circulated through finned tube baseboard. Heat rises from the baseboard heaters, warming the home. All water components must be approved for use with potable water.



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PERFORMANCE

Model	Series	Capacity		Maximum Certified Altitude	Input	Recovery Rate at 90°F Temperature Rise	Thermal Efficiency	BC Compliant
		USG	L	FT (M)	BTU/h	GPH (LPH)		
NATURAL GAS								
PR100-34-2NV*	N/A	34	129	11,000 (3,353)	100,000	129 (488)	96%	√
PR130-34-2NV*	N/A	34	129	11,000 (3,353)	130,000	168 (636)	96%	√
PR150-34-2NV*	N/A	34	129	11,000 (3,353)	150,000	192 (727)	95%	√
PR130-50-2NV*	N/A	50	189	11,000 (3,353)	130,000	166 (628)	95%	√

For propane models sub N for P. Input, output and recovery may vary depending upon air inlet and exhaust outlet installations, consult manual for details.

*Model has side connections.

DIMENSIONS & SHIPPING WEIGHT

Model	Height to Top of Tank	Tank Diameter	Height to Heating System Return	Height to Cold Water Inlet	Height to Heating System Outlet	Height to T&P	Height to Gas Supply	Height to Air Inlet	Water Connections	Gas Connections	Vent Diameter	Shipping Weight
	A IN (CM)	B IN (CM)	C IN (CM)	C IN (CM)	D IN (CM)	E IN (CM)	F IN (CM)	G IN (CM)	IN NPT	IN NPT	IN	LB (KG)
NATURAL GAS												
PR100-34-2NV*	48 ½ (123)	22 (56)	15 ¾ (40)	15 ¾ (40)	40 ½ (103)	41 (104)	6 ⅞ (16)	6 ⅞ (16)	1	½	2 or 3	150 (68)
PR130-34-2NV*	48 ½ (123)	22 (56)	15 ¾ (40)	15 ¾ (40)	40 ½ (103)	41 (104)	6 ⅞ (16)	6 ⅞ (16)	1	½	2 or 3	150 (68)
PR150-34-2NV*	48 ½ (123)	22 (56)	15 ¾ (40)	15 ¾ (40)	40 ½ (103)	41 (104)	6 ⅞ (16)	6 ⅞ (16)	1	½	2 or 3	150 (68)
PR130-50-2NV*	62 ½ (159)	22 (56)	15 ¾ (40)	15 ¾ (40)	54 ½ (138)	55 (140)	6 ⅞ (16)	6 ⅞ (16)	1	½	2 or 3	176 (80)

OPTIONAL KITS

Description	Part Number
2" Concentric vent kit	6911088
3" Concentric vent kit	6911089