



RESIDENTIAL PRODUCT CATALOG



COMMERCIAL-GRADE COMPONENTS



BLUE DIAMOND® GLASS COATING

A patented commercial-grade formula that provides superior tank protection and corrosion resistance compared to the industry standard glass lining. Blue Diamond glass coating blend is formulated in the same lab that creates the protection for our industry-leading commercial product line. Through our long history, we've learned that one size rarely fits all. That's why we customize our signature formula to best meet the needs of every water heater we produce, ensuring long life no matter which A. O. Smith model you choose.



ENHANCED-FLOW BRASS DRAIN VALVE

Our residential water heaters have a solid brass, tamper resistant, enhanced flow, ball type, drain valve.

Designed for easy operation, it uses a standard female hose fitting that allows for fast and easy draining during maintenance. The valve also includes an integral screwdriver slot featuring a 1/4 turn (open/close) radius, which not only permits full straight through water flow but also a quick and positive shut off.



SELF-CLEANING DIP TUBES

PEX cross-linked polymer dip tubes are long-lasting with superior resistance to destructive thermal deterioration and can withstand temperature excursions up to 400 degrees. PEX is the same material used in dip tubes found in our industry-leading commercial product line.



HEAT TRAP NIPPLES

Helps mitigate standby heat loss by reducing the amount of heat lost through the connected pipes. Factory-installed for faster installation.



COREGARD™ ANODE ROD

Feature a stainless steel center core that allows the anode to be secured in place, extending the life of the tank. Stainless steel core technology is the same that is used in our industry-leading commercial product line. ProLine® Master products have increased anode protection with either longer or multiple anodes, depending on model.



SELF-POWERED ELECTRONIC GAS VALVE

A. O. Smith gas water heaters are equipped with a self-powered electronic gas valve with intelligent control logic. The gas valve has an internal microprocessor that provides enhanced operating parameters and tighter differentials for precise sensing and faster heating response to optimize performance. The self-powered electronic gas valve uses a thermopile to generate the power needed to operate the electronic gas control without requiring an external power source. It also incorporates an LED Status Indicator that monitors system operation and service diagnostics.



COMMERCIAL-GRADE ELECTRIC ELEMENTS

ProLine® Master electric products are outfitted with longer-lasting stainless steel upper and lower elements that are modeled after those used in our industry-leading commercial line.

RESIDENTIAL WATER HEATER SELECTION GUIDE

SIMPLE TANK TYPE SIZING

1 Determine whether your family is low demand or high demand. You should consider your family to be high demand if...

- There are more than two full baths in the home.
- There are (or will be) teenagers living in the home. It's a fact: teenagers use more hot water for showering and washing clothes.
- You have an oversize whirlpool bath or other large tub. As a rule of thumb, the water heater tank capacity should be 100% of the bathtub capacity (example: 75-gallon tub/75-gallon water heater).

2 Locate your family size and determine the first hour rating requirement for your family. If you decide your family is high demand, consider moving up to the next first hour rating level.

3 Consult the heater options on the following pages for an A. O. Smith residential water heater with a first hour rating that meets your requirements.



To select the right A. O. Smith water heater, consider the size of your family and other factors that contribute to your First Hour Rating (FHR) Requirement. This chart provides suggested A. O. Smith residential water heater selection guidelines for several family sizes.

FAMILY SIZE	FIRST HOUR RATING REQUIREMENTS
2 People	38-49 Gallons
3 People	49-62 Gallons
4 People	62-74 Gallons
5 People	74-95 Gallons
6 People	95-124 Gallons
7 or More People	124 or more Gallons

SIMPLE TANKLESS SIZING



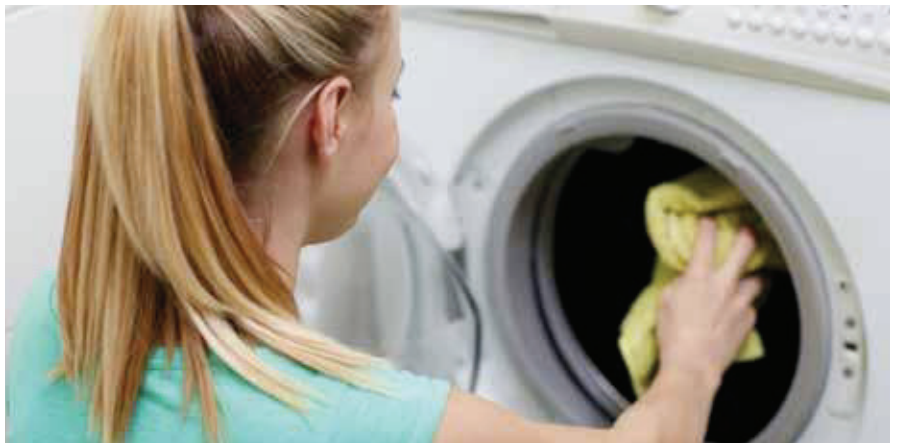
TANKLESS MODELS GROUND WATER TEMPERATURE FACTOR

The temperature of incoming ground water (cold water inlet temperature) varies greatly throughout the U.S. and also fluctuates with the changing of the seasons. The temperature of water as it enters the water heater will determine the amount of "temperature rise" required to achieve the desired hot water outlet temperature (120°F is recommended).

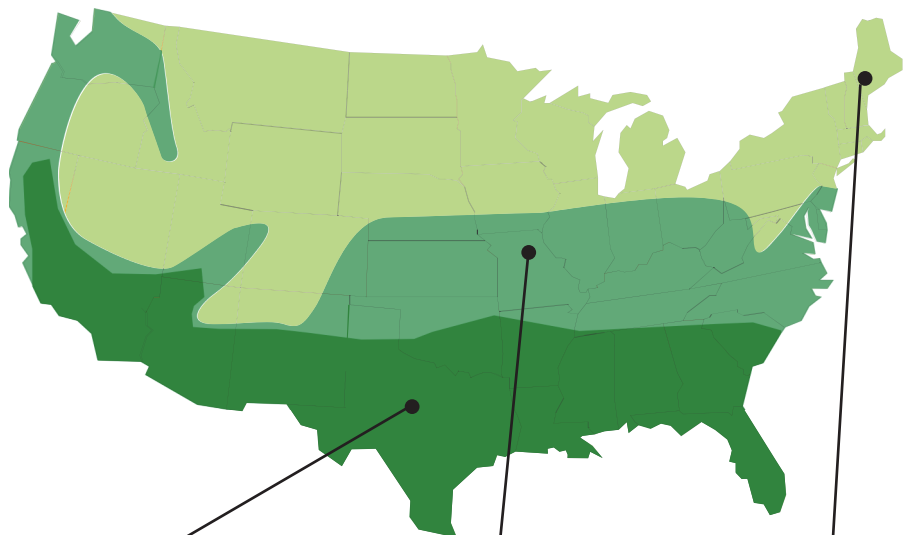
The best way to measure incoming ground water temperature is to use a thermometer to measure cold water temperature during the coldest season of the year. To simplify the process, use this map to determine whether your installation location is in the Southern Zone, Central Zone or Northern Zone.

PEAK HOT WATER DEMAND

The next step is to determine how many gallons per minute of hot water will be required during the busiest usage period (peak demand). Consider all appliances and fixtures that use hot water, including lavatory faucets, kitchen faucets, washing machines, dishwashers, showers and bathtubs. Be sure to determine how many appliances and fixtures will be used at the same time (peak demand).



AVERAGE GROUND WATER TEMPERATURE



SOUTHERN ZONE

Average Ground Water Temperature: 62°F to 77°F

CENTRAL ZONE

Average Ground Water Temperature: 52°F to 61°F

NORTHERN ZONE

Average Ground Water Temperature: 37°F to 51°F

Remember, these are general recommendations. Your A. O. Smith Water Heater Specialist can review your family's needs in even greater detail to make sure the model you choose will always provide enough hot water to meet the demand.

RESIDENTIAL GAS WATER HEATERS

PREMIUM FEATURES. COMMERCIAL-GRADE COMPONENTS.

PREMIUM FEATURES:



	PROLINE® GOOD	PROLINE® MASTER BETTER	PROLINE® XE BEST
OPERATING COST	\$\$\$	\$	\$
INSTALLATION SPACE REQUIRED	■ to ■ ■	■ ■	■ ■ ■
WARRANTY (YEARS)	6	8	6-10
Blue Diamond® Glass Coating	●	●	●
DynaClean™ Automatic Sediment-Cleaning System	●	●	●
Self-Powered Electronic Gas Valve	●	●	●
Heat Trap Nipples	●	●	●
Enhanced Flow Brass Drain Valve	●	●	●
CoreGard™ Advanced Anode Rod Protection	●	●	●
ENERGY STAR® Qualified*			●
Electronic User Interface*			●
Over 90% Condensing Efficiency*			●
Best In Class Material and Technology			●
Industry Leading Efficiency			●
Multiple Venting Options			●

*Select Heat Pump Water Heater models only.
Hot Water Output, Cost of Operation, & Installation Space Required estimated based on typical applications/installations.
For a more custom analysis of unique installations, visit hotwater.com and use our product selector tool.

PROLINE® ATMOSPHERIC VENT



Dynaclean™ Diffuser Dip Tube

Coregard™ Anode Rod

Push-Button Piezo Ignitor

Enhanced-Flow Brass Drain Valve

Heat Trap Nipple

Blue Diamond® Glass Coating

Code Compliance

- Meets UBC, CEC and HUD National Codes.
- Meets the efficiency requirements of the U.S. Department of Energy and current edition of ASHRAE/IES 90.1.

Design-Certified by CSA Group

- Certified at 300 psi test pressure and 150 psi working pressure. Listed according to ANSI Z21.10.1-CSA 4.1 standards governing storage tank-type gas water heaters.

6-Year Limited Tank and Parts Warranty

- For complete information, consult written warranty or go to hotwater.com.



Model Number	Nominal Gallon Capacity	Rated Storage Volume	First Hour Rating (Gallons)	UEF	BTU Input Natural Gas	BTU Input Propane Gas	Recovery 90°F Rise Gallon Per Hour	Dimensions in Inches				Approx. Shipping Weight (lbs)
								Height to Top of Draft Hood	Height to Top of Tank	Diameter	Draft Hood Outlet	
Tall Models												
†GCB-30	30	29	69	0.61	35,500	32,000	37	61-1/2	58	16	3 or 4	123
GCR-30	30	29	69	0.60	35,500	32,000	37	61-1/2	58	18	3 or 4	132
‡GCRH-40	40	38	65	0.61	35,500	N/A	38	61-3/4	58-1/4	20	3 or 4	138
†GCB-40	40	38	78	0.65	40,000	36,000	42	61-3/4	58-1/4	18	3 or 4	130
GCR-40*	40	38	80	0.66	40,000	36,000	42	61-3/4	58-1/4	20	3 or 4	138
GCG-50*	50	48	81	0.62	40,000	37,000	41	60-3/4	57-1/4	21	3 or 4	148
GCR-50*	50	48	84	0.62	40,000	37,000	43	60-3/4	57-1/4	22	3 or 4	165
GCRT-50*	50	48	89	0.61	50,000	45,000	54	60-3/4	57-1/4	22	4	165
†GCRX-50*	50	49	99	0.61	60,000	54,000	65	65-1/2	61	22	4	190
GCRX-55*	55	55	83	0.62	60,000	54,000	65	59-3/4	55-1/4	24	4	185
Short Models												
†GCBL-30	30	28	68	0.58	35,500	32,000	37	50	46-1/2	18	3 or 4	110
GCR-30	30	28	66	0.59	35,500	32,000	36	50	46-1/2	20	3 or 4	118
†GCBL-40	40	38	68	0.57	40,000	36,000	41	51-1/2	48	20	3 or 4	134
GCR-40	40	38	67	0.59	40,000	36,000	41	51-1/2	48	22	3 or 4	135
GCR-50	50	50	81	0.62	40,000	40,000	43	53-1/4	49-3/4	24	3 or 4	177

Water connection is 3/4" on all models.

*For optional side-mounted recirculating taps, add "L" to the suffix (example: GCR-40L).

† Models ship with supplied insulation blanket.

For 10-year tank and 10-year parts warranty, change "G" to "X" in model number (example: XCR-30).

‡ LP models not available on GCRH-40.

All models approved for installation from sea level to 10,100 ft. elevation.

RESIDENTIAL ELECTRIC WATER HEATERS

PREMIUM FEATURES. COMMERCIAL-GRADE COMPONENTS.

PREMIUM FEATURES:



	PROLINE® GOOD	PROLINE® MASTER BETTER	PROLINE® XE BEST
OPERATING COST	\$\$\$	\$\$	\$
INSTALLATION SPACE REQUIRED	■ to ■ ■	■ ■	■ ■ ■
WARRANTY (YEARS)	6	8	6-10
Blue Diamond® Glass Coating	●	●	●
DynaClean™ Automatic Sediment-Cleaning System	●	●	●
Heat Trap Nipples	●	●	●
Enhanced Flow Brass Drain Valve	●	●	●
CoreGard™ Advanced Anode Rod Protection	●	●	●
ENERGY STAR® Qualified*			●
Electronic User Interface*			●
Industry Leading Efficiency*			●

*Select Heat Pump Water Heater models only.
Hot Water Output, Cost of Operation, & Installation Space Required estimated based on typical applications/installations.
For a more custom analysis of unique installations, visit hotwater.com and use our product selector tool.



PROLINE® STANDARD ELECTRIC



Enhanced Heating Elements

- Dual 4500 watt elements for fast recovery and reliable operation.
- Incoloy stainless steel lower element lasts longer than standard copper element.

Dynaclean™ Diffuser Dip Tube

Coregard™ Anode Rod

Blue Diamond® Glass Coating

Enhanced-Flow Brass Drain Valve

Code Compliance

- Meets UBC, CEC and HUD National Codes.
- Meets the efficiency requirements of the U.S. Department of Energy and current edition of ASHRAE/IES 90.1.
- Complies with the Federal Energy Conservation Standards effective April 16, 2015, in accordance with the Energy Policy and Conservation Act (EPCA), as amended.

Approved for Manufactured Housing

- All residential electric water heaters are compliant with HUD standards for mobile homes/manufactured housing.

Design-Listed by Underwriters Laboratories

- Certified at 300 psi test pressure and 150 psi working pressure.
- Listed according to UL 174 standards governing storage tank-type electric water heaters.

6-Year Limited Tank and Parts Warranty

- For complete information, consult written warranty or go to hotwater.com.



Model Number	Nominal Capacity	Rated Storage Volume	First Hour Rating (Gallons)	UEF	Recovery @ 90°F Rise Gallon Per Hour	Element Wattage 240V			Dimensions in Inches			Approx. Shipping Weight (lbs)
						Standard	Minimum	Maximum	Height to Top of Tank	Height to T&P	Diameter	
Tall Models												
ENT-30†	30	27	48	0.89	21	4500	1000	6000	46-1/2	39-1/2	19	95
ENT-40†	40	36	53	0.92	21	4500	3500	6000	61-1/4	53-1/4	18	118
ENT-50†	50	46	62	0.92	21	4500	@ 3000	6000	60-1/2	51-1/4	20-1/2	134
ENT-50W†	50	46	45	0.88	11	-	1000	2500	60-1/2	51-1/4	20-1/2	134
ENT-55†	55	55	72	0.93	21	4500	2500	6000	56-1/2	48-1/2	24	145
Short Models												
ENSB-30*	30	27	50	0.90	21	4500	1000	6000	39	30-1/2	20	95
ENS-30†	30	27	47	0.89	21	4500	1000	6000	39-3/4	30-1/2	22	94
ENS-40†	40	37	55	0.92	21	4500	@ 4500	6000	49-3/4	40-3/4	20-1/2	109
ENS-40W†	40	37	41	0.88	18	-	1000	4000	49-3/4	40-3/4	20-1/2	109
ENS-50†	50	46	57	0.92	21	4500	2500	6000	49-1/4	40-3/8	23	161
Lowboy Top Connect Models												
ENL-20	19.9	19	N/A	N/A	21	4500	1000	6000	30	21-1/4	20	65
ENLB-30*†	28	26	43	0.89	21	4500	1000	6000	30	21-3/4	20	96
ENL-30†	28	26	44	0.90	21	4500	1000	6000	31 1/4	21-3/4	24	115
ENL-36†	36	33	51	0.92	21	4500	@ 4500	6000	32	24	24	118
ENL-36W†	36	33	37	0.89	18	-	1000	4000	32	24	24	118
ENL-40†	38	35	50	0.89	21	4500	1000	6000	33 1/2	24	26	118
ENLB-40*†	38	35	51	0.92	21	4500	@ 4500	6000	32	24	23	118
ENLB-40W*†	38	35	38	0.90	18	-	1000	4000	32	24	23	118
ENLB-50*†	48	44	60	0.93	21	4500	@ 4000	6000	34	25	26-1/2	172
ENLB-50W*†	48	44	40	0.91	16	-	1000	3500	34	25	26-1/2	172
ENL-50†	51	48	54	0.92	21	4500	4000	6000	36	25	26-1/2	172

Male 3/4" water connections on 8" center. *Models ship with supplied insulation blanket.

†For 10-year tank and 10-year parts warranty, change "E" to "P" in the model number (example: ENT-30 becomes PNT-30).

ENL-20 is a single element configuration only. Models requiring a lower wattage than what is listed in the minimum wattage column and showing the @ symbol, will change to a "W" suffix model number.

"W" suffix models are available down to 1kW. (example: ENS-40 using 4,000 watt elements or less will become "ENS-40W").

Top T&P is not available on the 10 year lowboy models.

Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement.