

# Residential Product Catalog





## Innovation Has A Name

The story is all in the details. Every water heater that carries the A. O. Smith name has a reputation to live up to, one that we've earned through decades of innovations. As an industry leader, we constantly look for new materials and develop new technologies that can improve energy efficiency. Even if it's as basic as a valve, we want to make sure every component passes the "best test." So, when you choose an A. O. Smith residential water heater, whether it's gas, electric or hybrid you can be confident that you are getting the best water heating solution regardless of the application—for today and for years to come. Innovation has a name . . . A. O. Smith.

All A. O. Smith residential water heaters meet the Federal Energy Efficiency Standards effective January 20, 2004, according to the National Appliance Energy Conservation Act (NAECA) of 1992 and meet the thermal efficiency and standby loss requirements of the U. S. Department of Energy and current edition of ASHRAE/IESNA 90.1. They also comply with the current edition of ICC Codes and the HUD Standards. Gas models meet American National Standards Institute Standards (ANSI Z21.10.1 - CSA 4.1) governing storage-type water heaters. Electric models are UL listed according to safety specifications outlined in Underwriters Laboratories, Inc. Standards for Safety (UL 174).



Low Lead Content

**CSA® - Low Lead Content**

This mark shown on a plumbing product signifies certification to California's legislative AB 1953 and Vermont's legislation Act 193 that limits the lead content in plumbing fixtures that come in contact with drinking water to a maximum of 0.25% lead.



**Blue Diamond® Glass Coating**

Provides superior corrosion resistance compared to industry-standard glasslining.



**ENERGY STAR®**

A. O. Smith offers a variety of models that are ENERGY STAR® qualified. Learn more at [www.energystar.gov](http://www.energystar.gov)



**DynaClean™ II Automatic Sediment-Cleaning System**

Automatic self-cleaning action greatly reduces sediment accumulation and maximizes hot water output. Conservationist® models are equipped with advanced DynaClean™ II, for maximum sediment-fighting power. ProMax® models feature the standard DynaClean design.



**Durable, Tamper-Resistant Brass Drain Valve**

Reliable, quality brass drain valve with "screw-slot" head to help prevent valve opening by curious youngsters. Standard on most other residential gas and electric models.



**PEX Dip Tubes**

A. O. Smith's PEX cross-linked polymer dip tubes are long-lasting with superior resistance to destructive thermal oxidation. Standard on all gas and electric models.



**T&P Relief Valve**

Every temperature and pressure relief valve is factory-supplied and matched to the heater to help ensure that every A. O. Smith residential water heater is installed properly.



**CoreGard™ – Advanced Anode Rod Protection... An Industry Standard!**

The anode rod is a highly effective corrosion fighting system which utilizes cathodic action to protect internal tank surfaces from corrosive elements. CoreGard adds a stainless steel core to magnesium or aluminum anodes for even longer life. Standard on Conservationist® and ProMax® models.



**Self-Powered Electronic Gas Valve**

Series 300 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.



**Green Choice® Low NOx Burner**

Patented "Eco-Friendly" burner design reduces NOx emissions by up to 33% and complies with requirements for low NOx emissions.

Enhanced Ultra-low NOx burner complies with SCAQMD Rule 1121 and other Air Quality Management districts with requirements for NOx emissions of less than 10 ng/j.



**Heat Trap Nipples**

Help manage standby heat loss. Factory-installed on most models.

**Innovative A. O. Smith water heaters are FVIR compliant**

A. O. Smith's 30, 40, and 50-gallon standard atmospheric gas and 40 and 50-gallon Power Vent, Direct Vent, Power Direct Vent and Mobile Home (atmospheric vent only) gas water heater models all meet "Flammable Vapor Ignition Resistant" (FVIR) requirements for the ANSI Z21.10.1-CSA 4.1 Standards associated with the accidental ignition of flammable vapors outside the water heater. A. O. Smith's FVIR compliant design provides an advanced level of protection and the industry's most contractor-friendly product.

# Residential Water Heater Selection Guide

To select the right A. O. Smith water heater for your home, you need to consider the size of your family and other factors that contribute to your First Hour Rating (FHR) Requirement. The charts below provides suggested A. O. Smith Residential Water Heater selection guidelines for several family sizes.

## TANK-TYPE MODELS

- 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).
- 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.

- 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.

FAMILY SIZE	FIRST HOUR RATING REQUIREMENTS
2 People	45 – 55 Gallons
3 People	55 – 65 Gallons
4 People	65 – 75 Gallons
5 People	75 – 85 Gallons
6 People	85 – 100 Gallons
7 or More People	100 or More Gallons

## HEAT PUMP MODELS

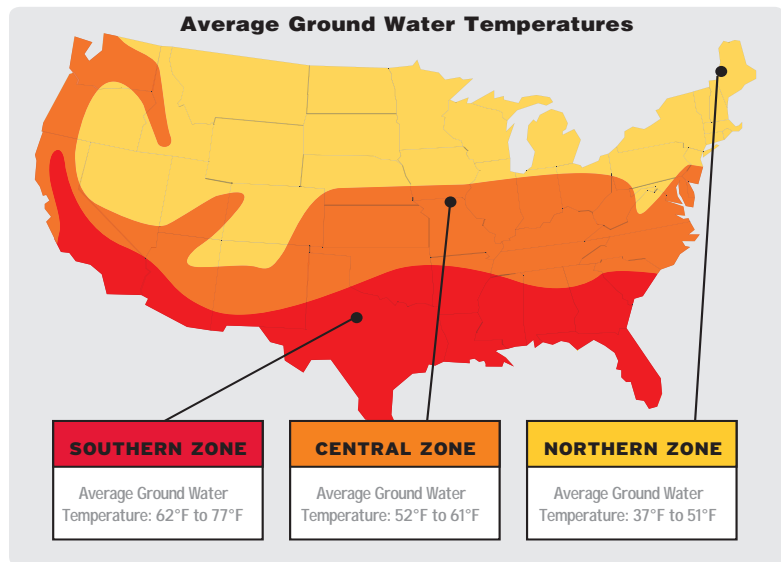
Electric Heat Pump Water Heaters operate at peak-efficiency when sized to allow slower reheating of water. For this reason, define water heating sizing based on "High Demand" criteria when determining First Hour Rating for an electric heat pump water heater.

## 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 your 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 much 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").

## MATCH THE UNIT TO YOUR NEEDS

Number of showers each A. O. Smith unit can handle, depending on ground water temperature

Warmer Climates 70°F Incoming Groundwater Temperature		Cooler Climates 40°F Incoming Groundwater Temperature	
Capacity – Number of Shower Heads			
110	3 Showers	2 Showers	2 Showers
310	3 Showers	2 Showers	2 Showers
320	3 Showers	2 Showers	2 Showers
510	4 Showers	3 Showers	3 Showers
520	4 Showers	3 Showers	3 Showers
710	4 Showers	3 Showers	3 Showers
910	6 Showers	4 Showers	4 Showers

Assuming the outgoing temperature is 105°F - Assuming a standard showerhead of 2.5 GPM



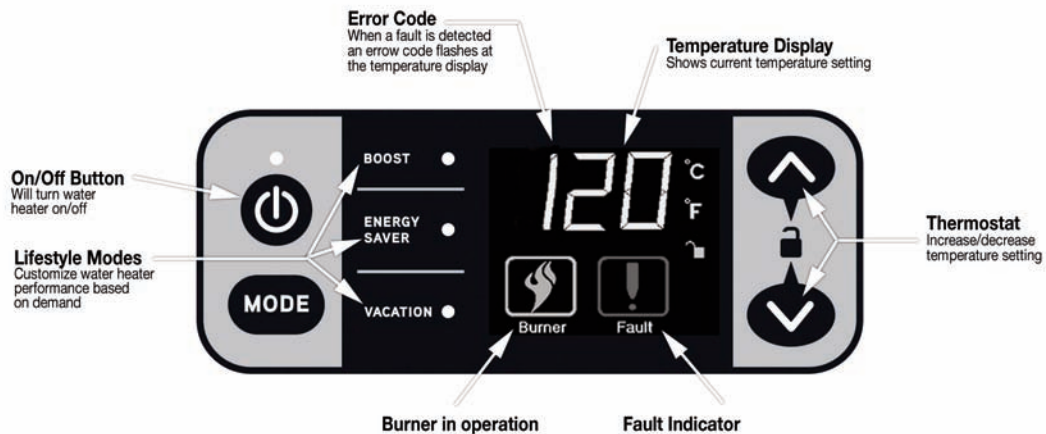
## NEXT Hybrid® High Efficiency Gas

NEXT Hybrid® is the new milestone in water heating — built for the way people ACTUALLY live and use hot water. The product combines the best features of tankless and conventional technologies to create a new category of water heating.

- Patented circulation system delivers 90% thermal efficiency, ensuring maximum heat transfer, saving money on operating costs compared to a standard 78% efficient conventional or 84% tankless gas water heater.
- 189-Gallon First Hour Delivery provides continuous hot water shower after shower when properly sized for your home.
- Multiple Lifestyle Modes — Energy-Saver, Vacation and Boost modes allow for simple, one-touch customization based on specific hot water needs.
- User-friendly integrated Temperature Controller with LED numeric display allows for precise temperature settings
- Easy installation — utilizes a 1/2 inch gas line found in most homes today and the same water and gas connections as conventional tank-type models.
- Power vent design
- Condensing design allows for PVC, CPVC or ABS pipe for venting (solid core only)

MODEL NUMBER	FIRST HOUR DELIVERY GALLONS	RECOVERY 90°F RISE GALLONS	BTU INPUT PER HOUR	MANIFOLD PRESSURE			ELECTRICAL CHARACTERISTICS		DIMENSIONS IN INCHES			VENT CONNECTION
				GAS TYPE	IN WC	kPA	VOLTS/Hz	AMPERES	HEIGHT	WIDTH	DEPTH	
HYB-90N	189	121	100,000	NAT	4.2	1.05	120/60	2.5	47-3/8	23-3/4	32	2 or 3

\*Available in natural gas only



4.3 GPM continuous flow, based on 65° F inlet water temperature and 110° F outlet water temperature.





## Vertex™ Power Vent Family-Friendly Hot Water, Earth-Friendly Efficiency

Through an inspired blend of innovation, efficiency and years of industry expertise, A. O. Smith has created a state-of-the-art product that provides a long-lasting supply of hot water during those times when everyone in your home needs it most. Simply put, Vertex™ delivers.

- Fulfills homeowners' needs during peak demand periods
- 90% Thermal efficiency
- Fully submerged coil heat exchanger maximizes heat transfer
- Advanced electronic gas control
- Easy installation
- Versatile power vent design
- 127-gallon first hour delivery
- 92-gallon recovery @ 90°F rise
- Recirculating side taps for combination systems
- Two heavy-duty commercial-grade anodes for better protection against corrosion
- Intelli-Vent™ gas control for more precise water temperature control

Intelli-Vent™ is a registered trademark of Emerson Electric Company.



## Vertex™ 100 Power Direct Vent

- 96% Thermal efficiency
- Vents up to 128 feet using PVC, CPVC or ABS pipe. Canadian installations require ULC S636 approved PVC or CPVC pipe for venting.
- Advanced electronic diagnostics control
  - iCOMM™ compatible and can be monitored from remote locations. Call 1.888.WATER02 for more information.
- 164-gallon first hour delivery
- 129-gallon recovery @ 90°F rise
- Top-fired low-NOx burner complies with ultra-low NOx standards
- Available in Propane (LP) gas



MODEL NUMBER	FIRST HOUR DELIVERY GALLONS	GALLON CAPACITY	BTU INPUT PER HOUR	RECOVERY 90°F RISE GALLONS	DIMENSIONS IN INCHES	
					HEIGHT	DIAMETER
GPHE-50*	127	50	76,000	92	70-5/8	22
GDHE-50	164	50	100,000	129	66-3/4	22



\*Available in natural gas only  
Inlet and outlet connections: 3/4" male  
Circulation loop connections: 3/4" female



## Effex® High Efficiency

Exclusive and patented pressurized combustion chamber with an advanced air intake blower delivers superior efficiency. Much like a turbo charger, the blower distributes an optimum air-to-gas mixture pushing exhaust gases through the highly restricted flue baffle. The end result is the most efficient atmospheric gas product on the market with a .70 Energy Factor (EF).

- .70 Energy Factor
- Powered Anode
- LCD User Interface
- Electronic Ignition
- FVIR Compliant Design
- Advanced Technology
- Models are ENERGY STAR® qualified

MODEL NUMBER	SERIES	FIRST HOUR DELIVERY GALLONS	GALLON CAPACITY	ENERGY FACTOR	BTU INPUT PER HOUR	RECOVERY AT 90°F RISE	FOAM THICKNESS (INCHES)	DIMENSIONS IN INCHES		DRAFT HOOD OUTLET
								HEIGHT TO TOP OF DRAFT HOOD	DIAMETER	
GAHH-40	102	70	40	.70	40,000	43	2	61-3/4	20	3 or 4
GAHH-50	100	81	50	.70	40,000	43	2	60-5/8	22	3 or 4



Available in Natural Gas Only  
 Models certified from sea level to 10,100 ft. elevations  
 ENERGY STAR® Qualified

# Residential Gas



## High Efficiency

Meets ENERGY STAR® requirements for the .67 EF tier II efficiency increase initiated September 1, 2010 and is eligible for most utility rebate programs based on Energy Factor (EF) Ratings.

- Automatic Flue Damper
- ENERGY STAR® Qualified
- Electronic Gas Control
- Diagnostics
- Electronic Ignition
- DynaClean™ Diffuser Dip Tube
- Green Choice® Gas Burner
- Coregard™ Anode Rod
- Durable, Brass Tamper-Resistant Drain Valve
- Blue Diamond® Glass Coating

MODEL NUMBER	SERIES	FIRST HOUR DELIVERY GALLONS	GALLON CAPACITY	ENERGY FACTOR	BTU INPUT PER HOUR	RECOVERY AT 90°F RISE	FOAM THICKNESS (INCHES)	DIMENSIONS IN INCHES		DRAFT HOOD OUTLET
								HEIGHT TO TOP OF DRAFT HOOD	DIAMETER	
<b>TALL MODELS</b>										
GCF-40	100	67	40	.67	40,000	42	2	64-1/4	20	3 or 4
GCF-50	100	81	50	.67	40,000	42	2	63-1/2	22	3 or 4
<b>SHORT MODELS</b>										
GCFL-40	100	67	40	.67	40,000	42	2	54	22	3 or 4



Models available in Natural and Propane (LP) Gas  
Models certified from sea level to 10,100 ft. elevations.  
ENERGY STAR® Qualified





Series 300/301

## Standard Vent Conservationist®

- “Environmentally-Friendly” non-CFC foam insulation reduces standby heat loss, includes external traps
- Intelligent control logic
- DynaClean™ II automatic sediment-cleaning system – creates turbulence in tank for maximum protection against lime and sediment buildup
- Blue Diamond® Glass Coating – Provides superior corrosion resistance compared to industry-standard glass lining
- “Flammable Vapor Ignition Resistant” (FVIR) Compliant Design
- Advanced PEX cross-linked polymer dip tube lasts longer than standard polymer dip tubes
- Self-Powered electronic gas valve
- Diagnostics
- Heat trap nipples reduce heat loss through outlet and inlet water connections (3/4" male)
- Our best CoreGard™ magnesium anode rod with stainless steel core provides added protection against tank corrosion
- Piezo ignitor for easy, “no-match” pilot ignition
- “Eco-Friendly” Green Choice® gas burner reduces NOx emissions by 33% compared to standard burners
- CSA Certified and ASME Rated T&P relief valve
- Durable, Tamper-resistant brass drain valve

MODEL NUMBER	SERIES	FIRST HOUR DELIVERY GALLONS	GALLON CAPACITY	ENERGY FACTOR	BTU INPUT PER HOUR NATURAL	RECOVERY 90°F RISE GALLONS	DIMENSIONS IN INCHES		DRAFT HOOD OUTLET
							HEIGHT TO TOP OF DRAFT HOOD	DIAMETER	
<b>TALL MODELS</b>									
XGV-40	300	70	40	.63	40,000	41	61-3/4	20	3 or 4
XGV-50	300	88	50	.62	40,000	41	61	22	3 or 4



## ProMax® Ultra-Low NOx

- Enhanced Ultra-low NOx burner complies with SCAQMD Rule 1121 and other Air Quality Management Districts with similar requirements for NOx emissions of less than 10ng/lj.
- Intelligent control logic
- Self-Powered electronic gas valve
- FVIR Compliant Design with flame arrestor that provides smooth ignition and safely combusts flammable vapors inside the sealed chamber
- Diagnostics
- DynaClean™ diffuser dip tube helps reduce lime and sediment buildup and PermaGlas® glass coating protects tank from corrosion
- Exclusive CoreGard™ anode rod, made of aluminum with stainless steel core, protects against corrosion
- Enhanced Green Choice® gas burner made of inconel alloy and stainless steel for long life and safety
- 10-year Warranty Kits available on all models

MODEL NUMBER	FIRST HOUR DELIVERY GALLONS	GALLON CAPACITY	ENERGY FACTOR	BTU INPUT PER HOUR NATURAL	RECOVERY 90°F RISE GALLONS	DIMENSIONS IN INCHES		DRAFT HOOD OUTLET
						HEIGHT TO TOP OF DRAFT HOOD	DIAMETER	
<b>TALL MODELS</b>								
GCNH-30	50	30	.61	30,000	31	59-7/8	16	3 or 4
GCNH-40	65	40	.59	40,000	41	62-1/8	18	3 or 4
GCNH-50	75	50	.58	40,000	41	60-7/8	20	3 or 4
GNR-40	70	40	.62	40,000	41	61-7/8	20	3 or 4
GNR-50	75	50	.62	40,000	41	60-7/8	22	3 or 4





## ProMax® Plus High Recovery

- Highest recoveries and first hour ratings – capacity/input combinations up to 98 gallons/75,100 BTU produce recoveries up to 81 gallons per hour, with deliverable hot water up to 150 gallons in the first hour
- “Flammable Vapor Ignition Resistant” (FVIR) Compliant Design
- DynaClean™ diffuser dip tube – reduces lime and sediment buildup
- Advanced PEX cross-linked polymer dip tube lasts longer than standard polymer dip tubes
- “Eco-Friendly” Green Choice® gas burner reduces NOx emissions by 33% compared to standard burners
- Piezo ignitor on FVIR-compliant models for easy, “no-match” pilot ignition
- CoreGard™ aluminum anode rod with stainless steel core provides added protection against tank corrosion
- CSA Certified and ASME Rated T&P relief valve
- Tamper-resistant brass drain valve
- 6-year warranty on tank and parts
- 8-year extended warranty available on 30, 40 and 50-gallon models

## ProMax® Plus High Efficiency

- High efficiency models meet the Federal Energy Efficiency and Standby loss requirements of the U.S. Department of Energy and current edition of ASHRAE/IESNA90.1.
- “Flammable Vapor Ignition Resistant” (FVIR) Compliant Design
- 2 Inch “Environmentally-Friendly non-CFC foam insulation reduces standby heat loss
- Energy-saving external heat traps
- DynaClean™ diffuser dip tube – reduces lime and sediment buildup
- Advanced PEX cross-linked polymer dip tube lasts longer than standard polymer dip tubes
- “Eco-Friendly” Green Choice® gas burner reduces NOx emissions by 33% compared to standard burners
- Piezo ignitor on FVIR-compliant models for easy, “no-match” pilot ignition
- CoreGard™ aluminum anode rod with stainless steel core provides added protection against tank corrosion
- CSA Certified and ASME Rated T&P relief valve
- Durable, Tamper-resistant brass drain valve
- 6-year warranty on tank and parts
- 8 and 10-year extended warranty kits available on all models

	MODEL NUMBER	SERIES	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	RECOVERY 90°F RISE GALLONS	DIMENSIONS IN INCHES		
								HEIGHT*	DIAMETER	DRAFT HOOD OUTLET
HIGH RECOVERY	GCVT-40	300/301	75	.59	40	50,000	51	61-3/4	20	4
	GCVT-50	300/301	90	.58	48	50,000	51	60-3/4	20	4
	GCVX-50	100/101	93	.58	50	65,000	67	63-7/8	22	4
	GCV-65	100/101	116	.57	65	65,000	67	65	24	4
	FCG-75**	300/301	N/A	N/A	74	75,100	81	61	26-1/2	4
	FCG-100**	300/301	N/A	N/A	98	75,100	81	68-1/2	27-3/4	4
HIGH EFFICIENCY	GVR-30	200/201	67	.62	30	35,500	36	61-1/2	18	3 or 4
	GVR-40	200/201	70	.62	40	40,000	41	61-3/4	20	3 or 4
	GVR-L-40	200/201	67	.62	40	40,000	41	51-1/2	22	3 or 4
	GVR 50	200/201	88	.62	50	40,000	41	61	22	3 or 4

\*Height to top of draft hood. \*\*Not equipped with FVIR.

For 10-year tank warranty, change “G” to “X” in model number (XCVT-40).  
On 75-gallon and 100-gallon models, change “F” to “P” in model number (PCG-75).





## ProMax®

- Intelligent control logic
- Self-Powered electronic gas valve
- Diagnostics
- “Flammable Vapor Ignition Resistant” (FVIR) Compliant Design
- DynaClean™ diffuser dip tube – reduces lime and sediment buildup
- Advanced PEX cross-linked polymer dip tube lasts longer than standard polymer dip tubes
- Piezo ignitor on FVIR-compliant models for easy, “no-match” pilot ignition
- “Eco-Friendly” Green Choice® gas burner reduces NOx emissions by 33% compared to standard burners
- CoreGard™ aluminum anode rod with stainless steel core provides added protection against tank corrosion
- Durable, Tamper-resistant brass drain valve
- CSA Certified and ASME Rated T&P relief valve
- 6-year warranty on tank and parts
- 8 and 10-year extended warranty kits available on all models

MODEL NUMBER	SERIES NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	RECOVERY 90°F RISE GALLONS	DIMENSIONS IN INCHES		
							HEIGHT*	DIAMETER	DRAFT HOOD OUTLET
GCV-30	300/301	67	.61	30	35,500	36	61-1/2	16	3 or 4
GCV-40	300/301	70	.59	40	40,000	41	61-3/4	18	3 or 4
GCV-50	300/301	88	.58	50	40,000	41	60-3/4	20	3 or 4
GCVL-30	300/301	60	.61	30	35,500	36	50	18	3 or 4
GCVL-40	300/301	70	.59	40	40,000	41	51-1/2	20	3 or 4
GCVL-50	100/101	80	.58	50	40,000	41	53-1/4	24	3 or 4



\*Height to top of draft hood.  
For 10-year tank warranty, change “G” to “X” in model number (XCV-30).



## Energy-Saver Manufactured Housing

- All models meet HUD requirements for manufactured housing installation
- Available in standard-vent or direct-vent design
- Convertible gas control for natural gas or propane gas operation
- Side-mounted cold water inlet, top-mounted hot water outlet
- Roof jack kits available for direct-vent models, with intake air and exhaust vents
- Atmospheric models are FVIR compliant
- “Eco-Friendly” Green Choice® gas burner reduces NOx emissions by 33% compared to standard burners
- Aluminum anode rod helps protect against tank corrosion
- External heat traps
- CSA Certified and ASME Rated T&P relief valve
- “Environmentally-Friendly” non-CFC foam insulation reduces standby heat loss
- 6-year tank/2-year parts warranty

	MODEL NUMBER	SERIES NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL/PROPANE	RECOVERY 90°F RISE GALLONS	DIMENSIONS IN INCHES		
								HEIGHT*	DIAMETER	DRAFT HOOD OUTLET
STANDARD ATMOSPHERIC VENT MODELS	FMV-30	200	62	.61	30	35,500/32,000	36	61-1/2	16	3 or 4
	FMV-40	200	57	.59	40	35,500	41	61-3/4	18	3 or 4
DIRECT VENT MODELS	FMD-30	102	54	.61	30	30,000	31	56	18	-
	FMD-40	102	64	.59	40	32,000	33	56-1/2	20	-
	FMD-50	102	77	.58	50	38,000	39	56-1/2	22	-

FMV Shown

\*Height to top of draft hood.



## Specialty Vent

**Specialty vent gas water heaters** are an alternative to standard metal vent water heaters. They provide venting flexibility in replacement applications and offer useful choices for location of gas water heaters in new homes. Specialty-vent benefits include:

**Flexible Installation** – Horizontal venting options allow tremendous flexibility for placement of the water heater in the home. A. O. Smith's ProMax® power vent and power direct vent models offer various venting options and use inexpensive PVC, CPVC or ABS pipe. See specification sheets for venting distances.

**Direct-venting for proper combustion** – Insufficient indoor ventilation can deprive a gas water heater of enough air for proper operation. The power direct vent and direct vent water heaters have "two-pipe" systems that vent to and draw air from outside the home, eliminating concerns about indoor ventilation.

### ProMax® Power Direct Vent



- Two-pipe "closed combustion" system permits combined horizontal and vertical venting and air intake runs up to 45 feet (including one 90° elbow)
- Vents using PVC, CPVC or ABS pipe. Canadian installations require ULC S636 approved PVC or CPVC pipe for venting.
- Quiet modular blower, with 110V/120V electrical system (rating 3 amps or less), with 6-foot cord, standard 3-prong male connector
- Advanced Intelli-Vent™ gas control valve with silicon nitride hot surface ignitor
- "Eco-Friendly" Green Choice® gas burner reduces NOx emissions by 33% compared to standard burners
- FVIR Compliant Design meets the ANSI Z21.10.1 - CSA 4.1 Standards
- Heat trap nipples factory-installed (3/4" male connection)
- CoreGard™ aluminum anode rod with stainless steel core provides added protection against tank corrosion
- CSA Certified and ASME Rated T&P relief valve
- Durable, Tamper-resistant brass drain
- 6-year warranty on tank and parts
- 10-year extended "Stage II" warranty kits available on all models

MODEL NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	RECOVERY 90°F RISE GALLONS	DIMENSIONS IN INCHES		
						HEIGHT*	DIAMETER	VENT CONN.
GPD-40	70	.60	40	40,000	41	57	21	3
GPD-50	87	.59	50	40,000	41	66	21	3
GPDX-50	105	.58	50	65,000	64	69-1/2	21	3
GPD-75	130	.58	75	70,000	72	71-1/2	26-1/4	3

\*Height to top of blower outlets.

Intelli-Vent™ is a registered trademark of Emerson Electric Company.





## ProMax® Power Vent

- 40 and 50-gallon residential gas water heaters equipped with FVIR design
- Meets the ANSI Z21.10.1 - CSA 4.1 Standards for Flammable Vapor Ignition Resistance (FVIR)
- Vents using PVC, CPVC or ABS pipe. Canadian installations require ULC S636 approved PVC or CPVC pipe for venting
- Equipped with a nearly indestructible silicon nitride hot surface ignitor—no standing pilot
- Exclusive Power Vent blower specifically designed and manufactured by A. O. Smith
- Exclusive A. O. Smith CoreGard™ aluminum anode rod with stainless steel core protects tank against corrosion
- 6-year limited warranty on tank and parts
- 10-year extended warranty kits available on all models (excludes GPS-75)

MODEL NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	RECOVERY 90°F RISE GALLONS	R VALUE**	DIMENSIONS IN INCHES		
							HEIGHT*	DIAMETER	VENT OPT.
GPVH-40	69	.65	40	40,000	44	8	63	18-1/2	2, 3 or 4
GPVH-50	83	.65	50	40,000	44	8	65	20	2, 3 or 4
GPVR-40	70	.67	40	40,000	44	16	63	20-1/2	2, 3 or 4
GPVR-50	83	.67	50	40,000	44	16	65	22	2, 3 or 4
GPVT-40	80	.65	40	50,000	53	16	63	20-1/2	2, 3 or 4
GPVT-50	83	.65	50	50,000	53	16	65	22	2, 3 or 4
GPVX-50	114	.65	50	62,500	66	16	65	22	3 or 4
GPS-75*	N/A	N/A	74	80,000	86	12	66	25-1/2	3 or 4

Propane Inputs: GPVH-40, GPVH-50, GPVR-40, GPVR-50: 40,000 BTU, GPVT-40-50,000 BTU, GPVX-50: 55,000 BTU, GPS-75: 80,000 BTU  
 \* 74-gallon model is not FVIR construction  
 \*\* R8=1'; R12=1-1/2' and R16=2' foam capacity  
 Models with .67 EF are ENERGY STAR® Qualified



## ProMax® Ultra-Low NOx Power Vent

- All models are ENERGY STAR® Qualified
- FVIR Compliant Design
- Complies with the SCAQMD requirements of <10ng/J for ultra-low NOx emissions
- Dynaclean™ Dip Tube
- Intelli-Vent™ Gas Control
- Power Vent Design

MODEL NUMBER	HIGH CUBE TRAILER LOAD FACTOR	GALLON CAPACITY	ENERGY FACTOR	BTU INPUT PER HOUR NATURAL	RECOVERY 90°F RISE GALLONS	DIMENSIONS IN INCHES		
						HEIGHT*	DIAMETER	VENT CONN.
GNH-40	0.76	40	0.68	42,000	42.6	58-5/8	20	2 OR 3
GNH-50	0.76	50	0.68	42,000	42.6	57-7/76	22	2 OR 3

\*Height to top of blower outlets.

Intelli-Vent™ is a registered trademark of Emerson Electric Company.





## ProMax® Direct Vent

- One-pipe/dual-channel system permits horizontal venting and air intake on all models up to 80" (inches) from outside wall
- No electrical power needed
- "Eco-Friendly" Green Choice® gas burner reduces NOx emissions by 33% compared to standard burners
- Heat trap nipples factory-installed (3/4" male connection)
- Piezo ignitor
- CoreGard™ magnesium anode rod with stainless steel core provides added protection against tank corrosion
- CSA Certified and ASME Rated T&P relief valve
- Durable, Tamper-resistant brass drain valve
- 6-year warranty on tank and parts

MODEL NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	RECOVERY 90°F RISE GALLONS	DIMENSIONS IN INCHES		
						HEIGHT*	DIAMETER	VENT CONN.
GDV-40	73	.62	40	38,000	41	68	22-1/4	Co-Axial
GDV-50	87	.60	50	42,000	45	76	22-1/4	Co-Axial
GDVT-50	88	.59	50	50,000	55	76	22-1/4	Co-Axial
GDV-75	131	.57	75	55,000	60	76	26-1/4	Co-Axial

\*Recommended vent height to the center of the horizontal vent run.







All ProMax SL water heaters are equipped with side-mounted recirculating taps.

## ProMax® Side Loop (SL) For recirculating hot water loop systems

A. O. Smith ProMax SL gas water heaters are designed with side-mounted recirculating taps for installations with combination space heating/water heating applications (such as with air handlers) or any system requiring a recirculating hot water loop.

ProMax SL water heaters are available in Standard Vent, Direct Vent, Power Vent and Power Direct Vent models. All models include the following features:

- Tamper-resistant brass drain valve
- High-temperature DynaClean™ diffuser dip tube reduces lime and sediment buildup
- “Eco-Friendly” Green Choice® gas burner reduces NOx emissions by 33% compared to standard burners
- CSA Certified and ASME Rated T&P relief valve
- Optional circulating loop connection assemblies available
- 6-year warranty on tank and parts

## Standard Vent Side Loop (SL)

- Standard models (equipped with advanced DynaClean™ automatic sediment cleaning system)
- FVIR compliant on 40, 50 and 65-gallon models
- Dual anode rods for superior protection against corrosion
- Piezo ignitor on FVIR compliant models for easy “no-match” pilot ignition

MODEL NUMBER	SERIES NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	RECOVERY 90°F RISE GALLONS	DIMENSIONS IN INCHES		
							HEIGHT*	DIAMETER	DRAFT HOOD OUTLET
GCVH-40L	300/301	70	.59	40	40,000	41	61-3/4	18	3 or 4
GCVT-40L	300/301	75	.60	40	50,000	51	61-3/4	20	4
GCVT-50L	300/301	90	.58	48	50,000	51	60-3/4	20	4
GCVX-50L	100/101	93	.58	50	65,000	67	63-7/8	22	4
GCV-65L	100/101	116	.57	65	65,000	67	65	24	4
FCG-75L	300/301	N/A	N/A	74	75,100	81	61	26-1/2	4



# Residential Gas



## ProMax® Direct Vent Side Loop (SL)

- Dual-channel vent system – draws combustion air from outside, vents to outside the home
- No electrical power required

MODEL NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	RECOVERY 90°F RISE GALLONS	DIMENSIONS IN INCHES		
						HEIGHT*	DIAMETER	VENT CONN.
GDV-40L	73	.62	40	38,000	41	68	22-1/4	Co-Axial
GDVT-50L	88	.59	50	50,000	55	76	22-1/4	Co-Axial
GDV-75L	131	.57	75	55,000	60	76	26-1/4	Co-Axial

\*Recommended vent height to the center of the horizontal vent run.



## ProMax® Power Vent Side Loop (SL)

- 40 and 50-gallon residential gas water heaters are designed to meet ANSI Z21.10.1-CSA 4.1 Standards for Flammable Vapor Ignition Resistance (FVIR)
- Vents using PVC, CPVC or ABS pipe. Canadian installations require ULC S636 approved PVC or CPVC pipe for venting.
- Equipped with a nearly indestructible silicon nitride hot surface ignitor—no standing pilot
- Exclusive Power Vent blower specifically designed and manufactured by A. O. Smith
- Exclusive A. O. Smith CoreGard™ aluminum anode rod with stainless steel core protects tank against corrosion
- 6-year limited warranty on tank and parts

MODEL NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	RECOVERY 90°F RISE GALLONS	DIMENSIONS IN INCHES		
						HEIGHT**	DIAMETER	VENT CONN.
GPVT-40L	80	.65	40	50,000	53	63	20-1/2	2, 3 or 4
GPVT-50L	83	.65	50	50,000	53	65	22	2, 3 or 4
GPVX-50L	114	.65	50	62,500	65	65	22	3 or 4
GPS-75L*	N/A	N/A	74	80,000	86	66	25-1/2	3 or 4

\*74-gallon model is not FVIR construction  
\*\*Height to vent connection





## ProMax® Power Direct Vent Side Loop (SL)

- Closed-combustion two-pipe system draws combustion air from outside, vents to outside the home
- Vents using PVC, CPVC or ABS pipe. Canadian installations require ULC S636 approved PVC or CPVC pipe for venting.
- Quiet modular blower with 6-foot cord, standard 3-prong plug
- Advanced Intelli-Vent™ gas control valve with silicon nitride hot surface ignitor
- Dual anode rods on 40 and 50-gallon models
- Heat trap nipples standard on all models
- FVIR Compliant Design meets ANSI Z21.10.1 - CSA 4.1 Standards

MODEL NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	BTU OUTPUT PER HOUR NATURAL	RECOVERY 90°F RISE GALLONS	DIMENSIONS IN INCHES		
							HEIGHT*	DIAMETER	VENT CONN.
GPD-40L	70	.60	40	40,000	30,000	41	57	21	3
GPDX-50L	105	.58	50	65,000	47,500	64	69-1/2	21	3
GPD-75L	130	.58	75	70,000	53,200	72	71-1/2	26-1/4	3

\*Height to top of blower outlets.



Intelli-Vent™ is a registered trademark of Emerson Electric Company.

## Tankless Innovation

### A. O. Smith's complete line of tankless gas water heaters

Trust the innovation leader to give you more choices in tankless water heating. The comprehensive line of A. O. Smith tankless water heaters supplies endless hot water (when properly sized for your application) at preset temperatures. All residential models are ENERGY STAR® qualified and feature improved flow rates. Condensing models provide the highest energy efficiency, saving money in both residential and commercial applications. All commercial models feature HRS35 commercial-grade copper heat exchangers, providing extra protection against corrosion.

### Innovative Technology

- Condensing models feature 316L stainless steel secondary heat exchanger, providing additional protection against corrosion
- Increased flow rates provide continuous hot water (up to 14.5 GPM)
- Improved scale-reduction software
- Whole house water heating solution
- All models include internal freeze protection and multiple safety features
- Direct vent conversion kits available for indoor installations
- Applicable for residential hydronic heating applications

### Excellent Performance

- Complete range of models from 140,000 to 380,000 BTU to cover every application
- Residential warranty: 12-year limited warranty on heat exchanger/5-year parts
- Commercial warranty: 5-year limited warranty on heat exchanger/5-year parts
- Complies with lead plumbing law

### Energy Efficiency

- All residential models are ENERGY STAR® qualified
- Condensing models provide the highest energy efficiency with 0.91 EF (Energy Factor)
- Eligible for Federal Tax Credit – visit [www.hotwater.com](http://www.hotwater.com) for more information



Non-Condensing Models

MODEL NUMBER*	TYPE	BTU INPUT NATURAL/PROPANE		ENERGY FACTOR (EF)	HOT WATER OUTPUT (GPM)			DIMENSIONS IN INCHES		
		MINIMUM	MAXIMUM		MAXIMUM	45°F RISE	70°F RISE	HEIGHT	WIDTH	DIAMETER
ATI-110-N	Indoor	19,500	140,000	0.82	6.6	5.1	3.3	20-1/2	13-3/4	6-3/4
ATI-310-N	Indoor	11,000	190,000	0.82	8.0	6.9	4.4	20-1/2	13-3/4	8-1/2
ATI-510-N**	Indoor	11,000	199,000	0.82	10.0	7.2	4.7	20-1/2	13-3/4	8-1/2
ATO-110-N	Outdoor	19,500	140,000	0.82	6.6	5.1	3.3	20-1/2	13-3/4	6-3/4
ATO-310-N	Outdoor	11,000	190,000	0.82	8.0	6.9	4.4	20-1/2	13-3/4	8-1/2
ATO-510-N**	Outdoor	11,000	199,000	0.82	10.0	7.2	4.7	20-1/2	13-3/4	8-1/2

\*\*Models can be installed in light duty commercial applications

\*\*Models include remote control and Easy-Link up to 4 units

\*For Propane (LP), change the "N" to "P" in the model number when ordering: Example: ATI-510-P



continued on next page



**Condensing Models**

MODEL NUMBER*	TYPE	BTU INPUT NATURAL/PROPANE		ENERGY FACTOR (EF)	HOT WATER OUTPUT (GPM**)			DIMENSIONS IN INCHES		
		MINIMUM	MAXIMUM		MAXIMUM	45°F RISE	70°F RISE	HEIGHT	WIDTH	DIAMETER
ATI-320H-N	Indoor	13,000	180,000	0.91	8.0	7.3	4.7	25-3/5	18-1/2	12-2/5
ATO-320H-N	Outdoor	13,000	180,000	0.91	8.0	7.3	4.7	25-3/5	18-1/2	12-2/5
ATI-520H-N	Indoor	13,000	199,000	0.91	9.0	8.1	5.2	25-3/5	18-1/2	12-2/5
ATO-520H-N	Outdoor	13,000	199,000	0.91	9.0	8.1	5.2	25-3/5	18-1/2	12-2/5

\*For Propane (LP), change the "N" to "P" in the model number when ordering: Example: ATI-520H-P  
15-150 psi Water Pressure. 40 psi or above recommended for maximum flow.

\*\*Current numbers based on factory testing; 0.4 GPM required for continuous fire after initial ignition.



**Heavy-Duty Commercial Gas Models**

MODEL NUMBER*	BTU INPUT NATURAL/PROPANE		THERMAL EFFICIENCY NG/LP	HOT WATER OUTPUT (GPM)			DIMENSIONS IN INCHES		
	MINIMUM	MAXIMUM		MAXIMUM	45°F RISE	70°F RISE	HEIGHT	WIDTH	DIAMETER
ATIO-710-N	24,000	240,000	82%/84%	9.0	8.5	5.5	23-3/5	18-1/2	8-9/10
ATIO-710-AN**	24,000	240,000	82%/84%	9.0	8.5	5.5	23-3/5	18-1/2	8-9/10
ATIO-910-N	15,000	380,000	80%/82%	14.5	13.5	8.7	25-19/64	24-4/5	11-4/5
ATIO-910-AN**	15,000	380,000	80%/82%	14.5	13.5	8.7	25-19/64	24-4/5	11-4/5

\*For Propane (LP), change the "N" to "P" in the model number when ordering: Example: ATIO-710-P  
\*\*ASME Models



**MATCH THE UNIT TO YOUR NEEDS**

Number of showers each A. O. Smith unit can handle, depending on ground water temperature

Warmer Climates 70°F Incoming Groundwater Temperature		Cooler Climates 40°F Incoming Groundwater Temperature	
Capacity - Number of Shower Heads			
110	3 Showers	2 Showers	2 Showers
310	3 Showers	2 Showers	2 Showers
320	3 Showers	2 Showers	2 Showers
510	4 Showers	3 Showers	3 Showers
520	4 Showers	3 Showers	3 Showers
710	4 Showers	3 Showers	3 Showers
910	6 Showers	4 Showers	4 Showers

Assuming the outgoing temperature is 105°F - Assuming a standard showerhead of 2.5 GPM

**FLOW RATE GUIDE**

Temperature Rise vs. Gallons Per Minute

Temp Rise	110	310	320H	510	520H	710	910
30	6.6	8.0	8.0	10.0	9.0	9.0	14.5
35	6.6	8.0	8.0	9.3	9.0	9.0	14.5
40	5.7	7.8	8.0	8.1	9.0	9.0	14.5
45	5.1	6.9	7.3	7.2	8.1	8.5	13.5
50	4.6	6.2	6.5	6.5	7.3	7.7	12.1
55	4.2	5.7	6.0	5.9	6.7	7.0	11.0
60	3.8	5.2	5.5	5.4	6.1	6.4	10.1
65	3.5	4.8	5.0	5.0	5.6	5.9	9.3
70	3.3	4.4	4.7	4.7	5.2	5.5	8.7
75	3.1	4.1	4.4	4.3	4.9	5.1	8.1
80	2.9	3.9	4.1	4.1	4.6	4.8	7.6
85	2.7	3.7	4.0	3.8	4.3	4.5	7.1

# Residential Hybrid Electric



## Voltex® Hybrid Electric Heat Pump Water Heaters

Voltex® Hybrid water heaters are the most versatile, energy-efficient option for the consumer who is looking to go green and save some green. Voltex can provide the same amount of hot water as a conventional electric water heater at less than half the cost.

- ENERGY STAR® Qualified
- Energy Saving Heat Pump Technology Can Reduce Operating Costs by More Than 50%
- Increased Storage Allows Heat Pump to Operate More Frequently, Boosting Savings
- Environmentally-Friendly R134a Refrigerant
- Multiple Operating Modes to Optimize Savings & Performance
- User-Friendly LCD Touch Pad Control with plain English text and intuitive status icons provides easy interaction
- Water Temperature Set Point Range 95°F to 150°F (35°C to 66°C), with Child Resistant Safety Lock
- Advanced Diagnostics convey error messages in plain English – Stores Last Four Error Messages
- Maintenance Free Powered Anode protects the tank from corrosion in any water conditions
- Easy-to-Remove, Washable Air Filter
- Long Lasting Incoloy Backup Heating Elements
- 2 Inch “Environmentally-Friendly” Non-CFC Foam Insulation reduces standby heat loss
- 10-Year Limited Tank and Parts Warranty

MODEL NUMBER	GALLON CAPACITY	ENERGY FACTOR BY MODE			1ST HOUR RATING GALLON BY MODE			STANDARD VOLTAGE	NO. OF ELEMENTS	STANDARD INPUT (KW) UPPER/LOWER	HEIGHT (INCHES)	DIAMETER (INCHES)
		EFFICIENCY	HYBRID	ELECTRIC	EFFICIENCY	HYBRID	ELECTRIC					
PHPT-60	60	2.40	2.33	.88	51	68	66	240	2	4500/2000	67-1/3	24-1/2
PHPT-80	80	2.30	2.33	.85	70	84	76	240	2	4500/2000	81-1/2	24-1/2

240 VAC Single phase power, 25 amp breaker







## Conservationist®

The top-of-the-line Conservationist electric water heater is fully loaded with all A. O. Smith's leading innovations. For consumers looking for maximum energy savings and excellent output, the Conservationist is the model of choice.

- *Highest Energy Factors make the Conservationist qualified for utility rebates*
- *Our most efficient electric models, for maximum savings on operating costs with 3 Inch "Environmentally-Friendly" Non-CFC foam insulation to reduce standby heat loss*
- *Factory-installed heat trap nipples (3/4" male connection) for installation ease and to reduce standby heat loss*
- *Blue Diamond® Glass Coating – Provides superior corrosion resistance compared to industry-standard glass lining*
- *4500W Phoenix™ low-watt density Incoloy steel upper and lower heating elements – designed to operate more efficiently and last 2-3 times longer than standard copper elements*
- *Durable, Tamper-resistant brass drain valve*
- *CSA Certified and ASME rated T&P relief valve*
- *Extra warranty protection – 10 years on the tank and parts*

MODEL NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	ELEMENT WATTAGE		DIMENSIONS IN INCHES	
				STD. 240V UPPER/LOWER	MAX. 240V UPPER/LOWER	HEIGHT	DIAMETER
<b>TALL MODELS</b>							
PXHT-40	56	.95	40	4500	5500	60-1/2	20
PXHT-52	60	.95	50	4500	5500	57	22-1/2
PXHT-66	72	.95	66	4500	5500	62	24
PXHT-80	81	.95	80	4500	5500	62	26
<b>SHORT MODELS</b>							
PXHS-40	52	.95	40	4500	5500	47	22-1/2
PXHS-50	62	.95	50	4500	5500	50	24

Water connections: 3/4" male NPT on all models.  
Top-mounted T&P valve not available.





## ProMax® Plus High Efficiency

ProMax Plus High Efficiency is a great combination of value and savings, meeting energy efficiency requirements for most electric utility rebate programs.

- Meets energy efficiency requirements for most electric utility programs, ENERGY STAR® Home Program recommendations and meets the standby loss requirements of the U.S. Department of Energy and current edition of ASHRAE/IESNA 90.1
- 2-1/2 Inch "Environmentally-Friendly" Non-CFC foam insulation reduces standby heat loss
- Energy-saving external heat traps (3/4" male connection) installed
- DynaClean™ diffuser dip tube reduces lime and sediment buildup, maximizes tank life
- Durable, tamper-resistant brass drain valve
- CSA Certified and ASME rated T&P relief valve
- 6-year warranty on tank and parts, 10-year tank warranty available on all models
- 8-year and 10-year extended warranties available on 40 through 80-gallon models

MODEL NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	ELEMENT WATTAGE		DIMENSIONS IN INCHES	
				STD. 240V UPPER/LOWER	MAX. 240V UPPER/LOWER	HEIGHT	DIAMETER
<b>TALL MODELS</b>							
ECRT-40	54	.93	40	4500	6000	60	19
ECRT-52*	60	.93	50	4500	6000	56-1/2	21-1/2
ECRT-66	76	.92	66	4500	6000	61	23
ECRT-80*	87	.93	80	4500	6000	61-1/2	25
<b>SHORT MODELS</b>							
ECRS-50	62	.93	50	4500	6000	49	23

For 10-year tank warranty, change "E" to "P" in model number (PCRT40).  
\*Models not available with top T&P.





## ProMax®

A terrific value for homes that need an economical water heater that will perform exceptionally well for years.

- Tall, Short and Lowboy (top connect) models available
- Thick, "Environmentally-Friendly" Non-CFC foam insulation reduces standby heat loss
- DynaClean™ diffuser dip tube reduces lime and sediment buildup
- Durable, tamper-resistant brass drain valve
- CSA Certified and ASME rated T&P relief valve
- Factory-installed heat trap nipples (3/4" male connection)
- 6-year warranty on tank and parts, 10-year tank warranty available on all models
- 8-year and 10-year extended warranty available on 30-through 120-gallon models

MODEL NUMBER	SERIES	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	ELEMENT WATTAGE		DIMENSIONS IN INCHES	
					STD. 240V UPPER/LOWER	MAX. 240V UPPER/LOWER	HEIGHT	DIAMETER
<b>TALL MODELS</b>								
ECT-30	200	43	.93	30	4500	6000	46-1/2	18
ECT-40	200	52	.92	40	4500	6000	59-1/2	18
ECT-52	210	60	.91	50	4500	6000	54	20
ECT-55	210	67	.90	55	4500	6000	60-1/4	20
ECT-66	210	72	.88	66	4500	6000	60-1/4	20-1/2
ECT-80	210	81	.86	80	4500	6000	60	22-1/2
ECT-120	200	112	.81	119	4500	6000	64-1/4	28
<b>SHORT MODELS</b>								
ECS-30	200	43	.93	30	4500	6000	36-1/2	20-1/2
ECS-40	200	52	.92	40	4500	6000	44	20-1/2
ECS-50	210	62	.90	50	4500	6000	48	21-1/2
<b>LOWBOY MODELS</b>								
ECL-30	200	41	.93	30	4500	6000	30	22
ECLN-40	200	48	.92	38	4500	6000	31-1/2	23
ECLB-40**	200	48	.93	38	4500	6000	32-1/2	24
ECL-50	210	55	.91	50	4500	6000	34	26-1/2

For 10-year tank warranty, change "E" to "P" in model number (PCT-40)  
 PCLN-40 and PCL-50 are not available with top T&P  
 All water connections are 3/4" NPT  
 \*\*Heater ships with supplied insulation blanket



# Residential Electric



Table Top



Lowboy/Compact



Point-of-Use

## ProMax® Specialty Electric

To make the most out of limited space or deliver small amounts of hot water for small-demand applications, A. O. Smith offers ProMax Specialty Electric options. 6-year tank and parts warranty on all models.

- **Compact Designs**—Feature side-mounted plumbing and electrical connections with factory-installed nipples as well as convenient plugged top plumbing connection for versatility. Available in 6 through 20-gallon capacity with a single heating element.
- **Lowboy Side Connect**—Compact design, with side-mounted plumbing and electrical connections, for installation under a counter or in other tight spaces. Single heating element.
- **Point-of-Use**—Designed for low-demand, point-of-use applications such as office lavatories or buildings with remote restrooms. 2 1/2-gallon capacity, equipped with single heating element and 110V/120V cord set with 3-prong plug. Includes integrated wall-mounted bracket for easy installation and top-plumbed for confined installations.

MODEL NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	ELEMENT WATTAGE		RECOVERY 90°F RISE	R VALUE	DIMENSIONS IN INCHES		
				STANDARD	MAXIMUM			HEIGHT	DIAMETER	DEPTH
<b>TABLE TOP MODELS</b>				<b>240V</b>	<b>240V</b>					
ESTT-30	42	.89	27	4500	6000	21	12	36	21	25
ESTT-40	52	.88	40	4500	6000	21	12	36	24	25
<b>COMPACT MODELS</b>				<b>120V</b>	<b>240V</b>					
EJC-6	N/A	N/A	6	1650	3000	8	8	15-1/4	14-1/4	10-3/4 <sup>†</sup>
EJC-10	N/A	N/A	10	1650	6000	8	8	18-1/4	16	12-1/4 <sup>†</sup>
EJCS-20	N/A	N/A	19	2500	6000	11	8	24-3/4	18	15-5/8 <sup>†</sup>
EJCT-20	N/A	N/A	19.9	2500	6000	11	8	31-5/8	16	25-3/4 <sup>†</sup>
<b>LOWBOY SIDE-CONNECT MODELS</b>				<b>240V</b>	<b>240V</b>					
ECJ-30	37	.93	30	4500	6000	21	16	30	22	22-3/4 <sup>†</sup>
ECJN-40	43	.92	38	4500	6000	21	12	31-1/2	23	25-5/8 <sup>†</sup>
<b>POINT-OF-USE MODELS</b>				<b>120V</b>	<b>120V</b>					
EJC-2	N/A	N/A	2.5	1500	1500	7	8	13-3/4*	13-3/4	11



<sup>†</sup>Depth dimension is floor to T&P Valve and floor to hot water outlet. Dimension from floor to cold water inlet on all lowboy side-connect models is 3-1/2".

Point-of-Use models have 1/2" inlet and outlet connections.

\* Height is to top of case. Add 2-3/4" to allow for T&P valve.



## Mobile Home Electric Models

These electric water heaters are designed for modular housing applications. Available in 3 sizes to fit various applications; 30-gallon lowboy for limited height spaces, a 30-gallon tall model to fit narrow spaces and a 40-gallon regular model for unrestricted space when additional capacity is required.

- *Dual Heating Elements – Screw-in, direct immersion, 3500 watt, 240 volt heating elements for maximum efficiency*
- *2 Inch “Environmentally-Friendly” Non-CFC Foam Insulation – Reduces Standby heat loss*
- *CSA Certified and ASME Rated T&P Relief Valve – Conveniently located on the side of the tank to facilitate piping to a drain or external to the building*
- *Side Water Connections – For ease of installation in Mobile Home Applications*
- *Anode Rod – Top-mounted, heavy-duty anode for added tank protection, extending the life of the tank*
- *Built-In Electric Junction Box – Top-located, convenient junction box, ready for 1/2” or 3/4” conduit*
- *Thermostat/High Limit Control – Combination control allows adjustment of water temperature while providing overheat protection*
- *Durable, Tamper-Resistant Brass Drain Valve*
- *Code Approvals – Listed to UL 174. Meets HUD mobile home installation and BOCA Codes. Meets the standby loss requirements of the U. S. Department of Energy and current edition of ASHRAE/IESNA 90.1 and the Federal Energy Efficiency Standards effective January 20, 2004, according to the National Appliance Energy Conservation Act (NAECA) of 1992. All models are certified at 300 PSI test pressure and 150 PSI working pressure.*

MODEL NUMBER	SERIES	GALLON CAPACITY	GPH RECOVERY 90°F RISE	FIRST HOUR RATING	ENERGY FACTOR (EF)	ELEMENT WATTAGE UPPER/LOWER	JACKET DIAMETER (INCHES)	HEIGHT TO TOP OF HEATER (INCHES)	HEIGHT TO SIDE T&P (INCHES)
MHEW2-30L-035D	100	28	16.1	40	0.93	3500/3500	22	28-3/4	22-1/2
MHEW2-30H-035D	100	30	16.1	43	0.93	3500/3500	18	45	38-1/2
MHEW2-40R-035D	100	40	16.1	50	0.92	3500/3500	20	47-1/4	40-3/4

Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement. Dimensions on all charts shown in inches.

All models are wired for non-simultaneous element operation. 3/4" water connections. Available with side T&P only.



# Pump & Expansion Tanks

## Pump Tanks



- Multiple head construction adds structural strength and more capacity within the same diameters
- Interior epoxy coating is permanently bonded to the tank shell for ultimate protection on the water side of the tank
- Durable butyl diaphragm ensures long life
- Positive lock retention system controls compression in the diaphragm connection, eliminating air loss or water leaks in tank
- Electrostatically applied powder-coated exterior for maximum sunlight (UV) resistance with zinc phosphate undercoat for highest corrosion resistance
- Corrosion-resistant metal air valve
- Welded steel base
- 5-year limited warranty



MODEL NUMBER	VOL. (GALL.)	CONN NPT SIZE	OVERALL HEIGHT (IN.)	TO CENTER OF WATER INLET (IN.)	DIAMETER (IN.)	WEIGHT (LBS.)
<b>PMI AND PM SERIES (FREE-STANDING)</b>						
PMI-2	2.0	3/4 (M)	10-3/16	–	8-1/4	5
PMI-5	4.6	3/4 (M)	14-3/4	–	11	9
PMI-7	7.3	3/4 (M)	21-1/16	–	11	12
PMI-14	13.9	1 (M)	21-1/4	2	15-3/8	24
PM-14	13.9	1 (F)	24-3/4	2	15-3/8	24
PM-20	19.9	1 (F)	31-3/8	2	15-3/8	34
PM-26	26.9	1 (F)	39-9/16	2	15-3/8	40
PM-32	31.8	1 (F)	47-1/4	2	15-3/8	52
PM-45	45.2	1-1/4 (F)	36-9/16	2-1/2	22	65
PM-65	65.1	1-1/4 (F)	48-5/8	2-1/2	22	90
PM-85	84.9	1-1/4 (F)	60-11/16	2-1/2	22	114
PM-86	83.5	1-1/4 (F)	46	2-1/2	26	116
PM-119	115.9	1-1/4 (F)	61-5/16	2-1/2	26	161
<b>SHORT MODELS</b>						
PMH-7	7.3	3/4 (M)	12-7/8	6-3/4	11	12
PMH-14	13.9	1 (M)	18-3/8	8-3/4	15-3/8	24
PMH-20	19.9	1 (M)	18-3/8	8-3/4	15-3/8	34

NOTE: M-Male Connection  
F-Female Connection  
All models 38 PSI pre-charge





## Expansion Tanks

- Interior epoxy coating is permanently bonded to the tank shell for ultimate protection on the water side of the tank
- Durable butyl diaphragm ensures long life
- Positive lock retention system controls compression in the diaphragm connection, eliminating air loss or water leaks in tank
- Corrosion-resistant metal air valve
- 5-year limited warranty on potable expansion tanks
- 1-year limited warranty on hydronic expansion tanks



MODEL NUMBER	MAX (PSIG) WORKING PRESSURE	TANK VOLUME (GALS.)	MAX. ACCEPTED VOLUME (GALS.)			CONN. NPT SIZE	OVER-ALL HEIGHT (IN.)	DIA. (IN.)	WEIGHT (LBS.)
			20 PSI	40 PSI	60 PSI				
<b>PMECT-SERIES (POTABLE EXPANSION TANKS - 5-YEAR LIMITED WARRANTY)</b>									
PMC-2	150	1.96	1.53	1.27	1.03	3/4	10-3/16	8-1/4	5
PMC-5	150	4.55	3.75	3.05	2.19	3/4	14-3/4	11-3/8	9
PMC-10	150	9.25	7.8	6.55	5.25	3/4	15-3/4	15-3/8	20
<b>TW-SERIES (POTABLE EXPANSION TANKS - 1-YEAR LIMITED WARRANTY)</b>									
TW-5	150	2.10	1.53	1.27	1.03	3/4	10-3/16	8-1/4	5
TW-12	150	4.40	3.75	3.05	2.19	3/4	14-3/4	11-3/8	9
<b>PMET-SERIES (HYDRONIC EXPANSION TANKS)</b>									
PMET-2	100	1.96	1.53	N/A	N/A	1/2	10-3/16	9	5
PMET-5	100	4.55	3.75	N/A	N/A	1/2	14-3/4	11	9
PMET-7	100	7.3	4.6	N/A	N/A	1/2	21-1/16	11	12
PMET-14	100	14.6	10.5	N/A	N/A	1/2	21-5/8	15-3/8	22

All PMC models 38 PSI pre-charge  
All PMET models 12 PSI pre-charge



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*A. O. Smith reserves the right to make product changes  
or improvements at any time without notice.*