

Residential &
Commercial
Full Line

Product Catalog



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Commercial Water Heaters

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Residential Water Heaters

Our approach has always been the same: 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 innovation. As an industry leader, we consistently look for new materials and develop new technologies that can improve energy efficiency through innovation. So, when you choose an A. O. Smith residential water heater, you can be confident that you are getting the best—for today and for years to come.



Contractor Rewards

A. O. Smith Brings you the Contractor Rewards Program



Earn points by purchasing A. O. Smith water heaters.



- It's free and easy to participate.
- Enroll online at contractorrewards.com.
- Eligible products will have a yellow reward code label worth valuable points. Two ways to enter the codes:
 1. Download the smartphone app and scan the code
 2. Enter the code at contractorrewards.com
- Redeem your points on thousands of reward items.

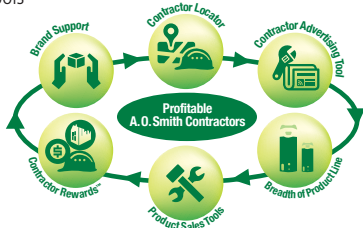
With over 300,000 merchandise items, your reward choices are endless.



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REWARDS.COM**
Your Business. Your Choices. Your Rewards.

A. O. Smith provides **6 key things** to help grow your business and become more profitable.

1. Contractor Locator
 - Get FREE sales leads when you participate* in Contractor Rewards
 - Placement level is dependent upon activity in Contractor Rewards
2. Contractor Advertising Tools
3. Breadth of Product Line
4. Product Sales Tools
5. Contractor Rewards™ Program
6. Brand Support



Visit hotwater.com/contractor to learn more.

*To be listed on the Contractor Locator you must meet the minimum threshold of codes entered at ContractorRewards.com

Residential Gas

VERTEX™ POWER VENT

MODEL GPHE-50

- ENERGY STAR® Qualified
- Fulfills homeowners' needs during peak demand periods
- 90% thermal efficiency
- Fully submerged coil heat exchanger maximizes heat transfer
- Intelli-Vent™ advanced electronic gas control allows for precise water temperature 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
- Maximum vent distances:
25 equivalent feet using 2" PVC pipe
65 equivalent feet using 3" PVC pipe
128 equivalent feet using 4" PVC pipe



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

*Available in natural gas only

Inlet and outlet connections: 3/4" male

Circulation loop connections: 3/4" female

6-year limited tank warranty

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



VERTEX™ 100 POWER DIRECT VENT

MODEL GDHE-50



- ENERGY STAR® Qualified
- 96% Thermal Efficiency
- Vents using PVC, CPVC or ABS pipe. Canadian installations require ULC S636 approved PVC or CPVC pipe for venting.
- 164-gallon first hour delivery
- 129-gallon recovery @ 90°F rise
- Advanced electronic control
- iCOMM™ compatible and can be monitored from remote locations. Call 1.888.WATER02 for more information.
- Top-fired low-NOx burner
- Available in Natural and Propane (LP) gas
- Maximum vent distance:
45 equivalent feet using
2" PVC pipe
128 equivalent feet using
3" PVC pipe

MODEL NUMBER	FIRST HOUR DELIVERY GALLONS	GALLON CAPACITY	BTU INPUT PER HOUR	RECOVERY GALLONS PER HOUR @ 90°F RISE	DIMENSIONS IN INCHES	
					HEIGHT	DIAMETER
GDHE-50	164	50	100,000	129	66-3/4	22

Inlet and outlet connections: 3/4" male
Circulation loop connections: 3/4" female
6-year limited tank and parts warranty



Residential Gas

EFFEX® HIGH EFFICIENCY SERIES 100

MODEL GAHH - 40

- All models are ENERGY STAR® Qualified
- .70 Energy Factor
- Powered Anode
- LCD User Interface
- Electronic Ignition
- FVIR Design
- Advanced Technology
- Patented "Eco-Friendly" burner design reduces NOx emissions up to 33% and complies with requirements for low NOx emissions of less than 40 ng/J



MODEL NUMBER	SERIES	FIRST HOUR RATING GALLONS	GALLON CAPACITY	ENERGY FACTOR	BTU INPUT PER HOUR	RECOVERY GALLONS PER HOUR @ 90° RISE
GAHH-40	102	70	40	.70	40,000	43
GAHH-50	100	81	50	.70	40,000	43

MODEL NUMBER	FOAM THICKNESS (INCHES)	DIMENSIONS IN INCHES		DRAFT HOOD OUTLET
		HEIGHT TO TOP OF DRAFT HOOD	DIAMETER	
GAHH-40	2	61-3/4	20	3 or 4
GAHH-50	2	60-5/8	22	3 or 4

Certified to 10,000 ft. elevations
Available in natural gas only



Residential Gas

HIGH EFFICIENCY

- All models are ENERGY STAR® Qualified
- Automatic Flue Damper
- Electronic Gas Control
- Advanced Diagnostics
- Electronic Ignition
- DynaClean™ Diffuser Dip Tube
- Patented “Eco-Friendly” burner design reduces NOx emissions up to 33% and complies with requirements for low NOx emissions of less than 40 ng/J
- CoreGard™ Anode Rod
- Brass Tamper-Resistant Drain Valve
- Blue Diamond® Glass Coating
- Flammable Vapor Ignition Resistant Design (FVIR)

MODEL GCF-40



SERIES 100

MODEL NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR	RECOVERY GALLONS PER HOUR @ 90° RISE
TALL MODELS					
GCF-40	67	.67	40	40,000	42
GCF-50	81	.67	50	40,000	42
SHORT MODELS					
GCFL-40	67	.67	40	40,000	42
GCFL-50	86	.67	50	40,000	42

MODEL NUMBER	DIMENSIONS IN INCHES		DRAFT HOOD OUTLET
	HEIGHT TO TOP OF DRAFT HOOD	DIAMETER	
TALL MODELS			
GCF-40	64-1/4	20	3 or 4
GCF-50	63-1/2	22	3 or 4
SHORT MODELS			
GCFL-40	54	22	3 or 4
GCFL-50	55-3/4	24	3 or 4

Models certified from sea level to 10,100 ft. elevations.
 GCFL-50 available in natural gas only
 Water connections - 3/4" on all models



STANDARD VENT CONSERVATIONIST®

MODEL XGV-40

- Intelligent Control Logic – Self-Powered electronic gas valve
- High energy factors – 2 Inch “Environmentally-Friendly” Non-CFC foam insulation reduces standby heat loss
- DynaClean™ II automatic sediment-cleaning system creates turbulence in tank for maximum protection against lime and sediment buildup
- Patented “Eco-Friendly” burner design reduces NOx emissions up to 33% and complies with requirements for low NOx emissions of less than 40 ng/J
- Blue Diamond® Glass Coating - Provides superior corrosion resistance compared to industry-standard glass lining
- Flammable Vapor Ignition Resistant (FVIR) Design
- Heat trap nipples reduce heat loss through outlet and inlet water connections (3/4” male)



SERIES 300/301

MODEL NUMBER	SERIES	FIRST HOUR RATINGS GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL †
TALL MODELS					
XGV-40	300	70	.63	40	40,000
XGV-50	300	88	.62	50	40,000

MODEL NUMBER	RECOVERY GALLONS PER HOUR @ 90° RISE	DIMENSIONS IN INCHES		DRAFT HOOD OUTLET
		HEIGHT TO TOP OF DRAFT HOOD	DIAMETER	
TALL MODELS				
XGV-40	41	61-3/4	20	3 or 4
XGV-50	41	61	22	3 or 4

† Propane Gas – 36,000 BTU input



Residential Gas

PROMAX® ULTRA-LOW NOx

MODEL GCNH-30

- 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 10 ng/J
- FVIR design with flame arrestor provides smooth ignition and safely combusts flammable vapors inside the sealed chamber
- Intelligent Control Logic – Self-Powered electronic gas valve
- DynaClean™ diffuser dip tube helps reduce lime and sediment buildup and PermaGlas® glass coating protects tank from buildup
- Exclusive CoreGard™ anode rod, made of aluminum with stainless steel core, protects against corrosion



SERIES 200

MODEL NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR	RECOVERY GALLONS PER HOUR @ 90° RISE
GCNH-30	50	.61	30	30,000	31
GCNH-40	65	.59	40	40,000	41
GCNH-50	75	.58	50	40,000	41
GCNT-50†	90	.59	50	50,000	52
GNR-40	70	.62	40	40,000	41
GNR-50	75	.62	50	40,000	41

MODEL NUMBER	DIMENSIONS IN INCHES		DRAFT HOOD OUTLET
	HEIGHT TO TOP OF DRAFT HOOD	DIAMETER	
GCNH-30	59-7/8	16	3 or 4
GCNH-40	62-1/8	18	3 or 4
GCNH-50	60-7/8	20	3 or 4
GCNT-50†	64	22	4
GNR-40	61-7/8	20	3 or 4
GNR-50	60-7/8	22	3 or 4

Covered by a 6-year tank and parts limited warranty
 † GCNT-50 comes standard with side tap connections for optional hydronic heating loop applications. Plugs are supplied loose and must be installed at installation if side taps are not used.



PROMAX® PLUS HIGH RECOVERY

MODEL GCVT-40

- 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)
- Piezo ignitor on FVIR models for easy “no-match” pilot ignition
- CoreGard™ aluminum anode rod with stainless steel core provides added protection against tank corrosion
- Patented “Eco-Friendly” burner design reduces NOx emissions up to 33% and complies with requirements for low NOx emissions of less than 40 ng/l



SERIES 100/101

MODEL NUMBER	SERIES	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	RECOVERY GALLONS PER HOUR @ 90° RISE
GCVT-40	300/301	75	.59	40	50,000	51
GCVT-50	300/301	90	.58	48	50,000	51
GCVX-50	100/101	93	.58	50	65,000	67
GCV-65	100/101	116	.57	65	65,000	67
FCG-75*	300/301	N/A	N/A	74	75,100	81
FCG-100*	300/301	N/A	N/A	98	75,100	81

MODEL NUMBER	DIMENSIONS IN INCHES		DRAFT HOOD OUTLET
	HEIGHT TO TOP OF DRAFT HOOD	DIAMETER	
GCVT-40	61-3/4	20	4
GCVT-50	60-7/8	20	4
GCVX-50	63-7/8	22	4
GCV-65	65	24	4
FCG-75*	61	26-1/2	4
FCG-100*	68-1/2	27-3/4	4

*Not equipped with FVIR
 6-year limited warranty on tank and parts
 8-year extended limited warranty available on 30-, 40- and 50-gallon models
 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® PLUS HIGH EFFICIENCY

MODEL GVR-40

- Models meet the thermal efficiency and standby loss requirements of the U.S. Department of Energy and current edition ASHRAE/IESNA 90.1
- Flammable Vapor Ignition Resistant (FVIR)
- 2 Inch “Environmentally-Friendly” Non-CFC foam insulation reduces standby heat loss
- Energy-saving external heat traps
- Piezo ignitor for easy “no-match” pilot ignition
- CoreGard™ aluminum anode rod with stainless steel core provides added protection against tank corrosion
- Patented “Eco-Friendly” burner design reduces NOx emissions up to 33% and complies with requirements for low NOx emissions of less than 40 ng/j



SERIES 200/201

MODEL NUMBER	SERIES	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	RECOVERY GALLONS PER HOUR @ 90° RISE
GVR-30	200/201	67	.62	30	35,500	36
GVR-40	200/201	70	.62	40	40,000	41
GVR-50	200/201	88	.62	50	40,000	41
GVRL-40	200/201	67	.62	40	40,000	41

MODEL NUMBER	DIMENSIONS IN INCHES		DRAFT HOOD OUTLET
	HEIGHT TO TOP OF DRAFT HOOD	DIAMETER	
GVR-30	61-1/2	18	3 or 4
GVR-40	61-3/4	20	3 or 4
GVR-50	61	22	3 or 4
GVRL-40	51-1/2	22	3 or 4

6-year limited warranty on tank and parts
8-year and 10-year extended limited warranty kits available on all models
For 10-year tank warranty, change “G” to “X” in model number (XVR-40)



Residential Gas

PROMAX®

MODEL GCV-30

- Intelligent Control Logic – Self-Powered electronic gas valve
- Flammable Vapor Ignition Resistance (FVIR)
- DynaClean™ diffuser dip tube reduces lime and sediment buildup
- Advanced PEX cross-linked polymer dip tube lasts longer than standard polymer dip tubes
- Patented “Eco-Friendly” burner design reduces NOx emissions up to 33% and complies with requirements for low NOx emissions of less than 40 ng/J
- Piezo ignitor for easy “no-match” pilot ignition
- CoreGard™ aluminum anode rod with stainless steel core provides added protection against tank corrosion



SERIES 300/301

MODEL NUMBER	SERIES	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	RECOVERY GALLONS PER HOUR @ 90° RISE
GCV-30	200/201	67	.61	30	35,500	36
GCV-40	200/201	70	.59	40	40,000	41
GCV-50	200/201	88	.58	50	40,000	41
GCVL-30	200/201	60	.61	30	35,500	36
GCVL-40	200/201	67	.59	40	40,000	41
GCVL-50	100/101	80	.58	50	40,000	41

MODEL NUMBER	DIMENSIONS IN INCHES		DRAFT HOOD OUTLET (INCHES)
	HEIGHT TO TOP OF DRAFT HOOD	DIAMETER	
GCV-30	61-1/2	16	3 or 4
GCV-40	61-3/4	18	3 or 4
GCV-50	60-3/4	20	3 or 4
GCVL-30	50	18	3 or 4
GCVL-40	51-1/2	20	3 or 4
GCVL-50	53-1/4	24	3 or 4

6-year limited warranty on tank and parts
 8-year & 10-year extended limited warranty kits available on all models
 For 10-year tank limited warranty, change “G” to “X” in model number (XCV-30)



Residential Gas

ENERGY-SAVER MANUFACTURED HOUSING

MODEL FMV-30



SERIES 300

- 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
- Atmospheric models have FVIR design
- Side-mounted cold water inlet, top-mounted hot water outlet
- Roof jack kits available for direct vent models, with intake air & exhaust vents
- Patented "Eco-Friendly" burner design reduces NOx emissions up to 33% and complies with requirements for low NOx emissions of less than 40 ng/J

MODEL NUMBER	SERIES	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL/PROPANE	RECOVERY GALLONS PER HOUR @ 90° RISE
STANDARD ATMOSPHERIC VENT						
FMV-30	300	52	.63	30	35,500/32,000	36
FMV-40	300	62	.59	40	35,500	41
DIRECT VENT MODELS						
FMD-30	102	54	.61	30	30,000	31
FMD-40	102	64	.59	40	32,000	33
FMD-50	102	77	.58	50	38,000	39

MODEL NUMBER	DIMENSIONS IN INCHES		DRAFT HOOD OUTLET (INCHES)
	HEIGHT TO TOP OF DRAFT HOOD	DIAMETER	
STANDARD ATMOSPHERIC VENT			
FMV-30	61-1/2	18	3 or 4
FMV-40	61-3/4	20	3 or 4
DIRECT VENT MODELS			
FMD-30	56	18	-
FMD-40	56-1/2	20	-
FMD-50	56	22	-

*Top-mounted cold water inlet



PROMAX® POWER VENT

MODEL GPVT-40

- All models are ENERGY STAR® qualified
- Features a 3-position (9, 12 and 3 o'clock) rotating blower
- Vents using PVC, CPVC, ABS and polypropylene pipe
- Vent lengths up to 125 equivalent feet with 3" diameter pipe and 180 equivalent feet with 4" diameter pipe
- Models up to 50,000 BTU are supplied with 2" termination elbow, plus 2", 3" and 4" screens
- Models over 50,000 BTU are supplied with 3" termination elbow, plus 3" and 4" screens
- All models have FVIR design
- Patented "Eco-Friendly" burner design reduces NOx emissions up to 33% and complies with requirements for low NOx emissions of less than 40 ng/J
- Dynaclean™ II dip tube
- 2-inch thick "Environmentally-friendly" foam insulation
- Blue Diamond® glass coating
- 6-year limited warranty on tank and parts
- 10-year extended limited warranty kits available on all models



SERIES 200/201



Residential Gas

MODEL NUMBER	SERIES	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	RECOVERY GALLONS PER HOUR @ 90° RISE
GPVL-40	200	73	.70	40	40,000	45
GPVT-40	200	90	.70	40	50,000	56
GPVL-50	200	90	.70	50	40,000	45
GPVT-50	200	96	.70	50	50,000	56
GPVX-50L	200	110	.70	50	62,000	69
GPVX-75L	200	155	.68	75	72,000	80

MODEL NUMBER	DIMENSIONS IN INCHES		DRAFT HOOD OUTLET (INCHES)
	HEIGHT TO TOP OF DRAFT HOOD	DIAMETER	
GPVL-40	59	22	2, 3, or 4
GPVT-40	68-1/2	20	2, 3, or 4
GPVL-50	60-1/8	24	2, 3, or 4
GPVT-50	68-1/8	22	2, 3, or 4
GPVX-50L	61-1/8	24	3 or 4
GPVX-75L	70-5/8	26	3 or 4

All models are Flammable Vapor Ignition Resistant (FVIR)
 All models are certified from sea level to 10,100 ft. elevations
 Side connections are standard on GPVX models
 Side connections are available on "GPVT" models.

PROMAX® ULTRA-LOW NOx POWER VENT

MODEL GPNH-40

- All models are ENERGY STAR® qualified
- Flammable Vapor Ignition Resistance (FVIR)
- Complies with the SCAQMD requirements of less than 10 ng/J for ultra-low NOx emissions
- Dynaclean™ Dip Tube
- Intelli-Vent™ Gas Control
- Power Vent Design
- 6-year limited warranty on tank and parts
- 10-year extended limited warranty kits available on all models



SERIES 100

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

MODEL NUMBER	SERIES	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	RECOVERY GALLONS PER HOUR @ 90° RISE
GPNH-40	100	69	.68	40	42,000	42.6
GPNH-50	100	81	.68	50	42,000	42.6

MODEL NUMBER	DIMENSIONS IN INCHES		VENT OPTIONS (INCHES)
	HEIGHT TO TOP OF DRAFT HOOD	DIAMETER	
GPNH-40	58-5/8	20	2 or 3
GPNH-50	57-7/16	22	2 or 3



PROMAX® POWER DIRECT VENT

MODEL GPD-40

- Two-pipe venting system allows combined horizontal and vertical venting and air intake runs up to 45 feet (including one 90° elbow)
- Vents using installer-friendly PVC, CPVC or ABS pipe. Canadian installations require ULC S636 approved PVC or CPVC pipe for venting.
- Advanced Intelli-Vent™ gas control valve with silicon nitride hot surface ignitor
- Quiet modular blower, with 110V/120V electrical system (rating 3 amps or less), with 6-foot cord, standard 3-prong male connector
- Patented “Eco-Friendly” burner design reduces NOx emissions up to 33% and complies with requirements for low NOx emissions of less than 40 ng/l
- FVIR design meets Phase III of the ANSI Z21.10.1-CSA 4.1 Standards



SERIES 200/201

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

MODEL NUMBER	SERIES	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	RECOVERY GALLONS PER HOUR @ 90° RISE
GPD-40	200/201	70	.60	40	40,000	41
GPD-50	200/201	87	.59	50	40,000	41
GPD-50	200/201	105	.58	50	65,000	64
GPD-75	100/101	130	.58	75	70,000	72

MODEL NUMBER	DIMENSIONS IN INCHES		VENT CONNECTION (INCHES)
	HEIGHT TO TOP OF BLOWER OUTLETS	DIAMETER	
GPD-40	57	21	3
GPD-50	66	21	3
GPD-50	69-1/2	21	3
GPD-75	71-1/2	26-1/4	3

6-year limited warranty on tank and parts
10-year extended “Stage II” limited warranty kits available on all models



PROMAX® DIRECT VENT

MODEL GDV-40

- 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
- Patented “Eco-Friendly” burner design reduces NOx emissions up to 33% and complies with requirements for low NOx emissions of less than 40 ng/J
- Heat trap nipples factory-installed (3/4” male connection)
- Piezo ignitor
- CSA certified and ASME rated T&P relief valve
- Tamper-resistant brass drain valve
- FVIR design
- CoreGard™ magnesium anode rod with stainless steel core provides added protection against tank corrosion
- 6-year limited warranty on tank and parts



SERIES 200

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

MODEL NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	RECOVERY GALLONS PER HOUR @ 90° RISE
GDV-40	73	.60	40	38,000	41
GDV-50	87	.59	50	42,000	45
GDVT-50	88	.68	50	50,000	55
GDV-75	131	.57	75	55,000	60

MODEL NUMBER	DIMENSIONS IN INCHES			VENT CONNECTION
	HEIGHT*	DIAMETER	DEPTH	
GDV-40	68	22-1/4	25-1/4	Co-Axial
GDV-50	76	22-1/4	25-1/4	Co-Axial
GDVT-50	76	22-1/4	25-1/4	Co-Axial
GDV-75	76	26-1/4	29-1/2	Co-Axial

*Recommended vent height to the center of the horizontal vent run
Co-Axial venting is a dual channel system featuring a smaller exhaust vent pipe inside a larger air intake pipe

All models are approved for installation from sea level to 7,700 ft. elevations



PROMAX® DIRECT VENT ULTRA-LOW NOx

MODEL GDNL-40



SERIES 100

- Ultra-Low NOx design - Complies with the SCAQMD requirements of less than 10 ng/J for ultra-low NOx emissions
- Side loop connections on the side of the heater are for hydronic heating applications
- 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
- Heat trap nipples factory-installed (3/4" male connection)
- Incorporates the Piezo ignitor for easy, "no-match" pilot ignition
- CoreGard™ magnesium 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 limited warranty on tank and parts

MODEL NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	RECOVERY GALLONS PER HOUR @ 90° RISE
GDNL-40	59	40	.59	36,000	39
GDNT-50	81	50	.58	38,000	41

MODEL NUMBER	DIMENSIONS IN INCHES		VENT CONNECTION (INCHES)
	HEIGHT*	DIAMETER	
GDNL-40	65-1/4	22	3"/5"
GDNT-50	73-1/2	22	3"/5"

These models come standard with side loop connections for hydronic heating applications

*To top of vent



Residential Gas

PROMAX® ULTRA-LOW NO_x HIGH RECOVERY

MODEL GCBN-75



SERIES 100

- Factory-Installed Blower
- Intelli-Vent™ Gas Control
- Rated as Category I Appliance
- Fully Automatic Control System
- Ultra-Low NO_x Emissions – Complies with SCAQMD Rule 1146.2 and other Air Quality Management Districts with similar requirements of 14 ng/J or 20 ppm
- Exclusive A. O. Smith CoreGard™ aluminum anode rod with stainless steel core protects tank against corrosion
- Side Loop Connections - this model comes standard with side loop connections for optional hydronic heating loop applications
- CSA Certified and ASME Rated T&P Relief Valve
- Maximum Hydrostatic Working Pressure: 150 PSI
- 80% Thermal Efficiency
- 6-year limited warranty on tank and parts

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

MODEL NUMBER	SERIES	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	RECOVERY GALLONS PER HOUR @ 90° RISE
GCBN-75	100	74	75,100	81

MODEL NUMBER	DIMENSIONS IN INCHES		VENT CONNECTION (INCHES)
	HEIGHT TO TOP OF BLOWER	DIAMETER	
GCBN-75	65-7/8	25-1/4	4

This model is not FVIR
Supplied with side loop connections standard
120VAC power required



PROMAX® ULTRA-LOW NO_x HIGH RECOVERY

MODEL GCN-100



SERIES 100

- Fully Automatic Controls with Safety Shutoff – Accurate, dependable control system required no electric connections. Fixed automatic gas shutoff device for added safety
- Heavy Gauge Steel Jacket – Finished with baked enamel over bonderized undercoat
- Glasslined Tank – Maximizes tank life
- Foam Insulation – Saves fuel, helps reduce standby heat loss
- Ultra-Low NO_x Emissions – Complies with SCAQMD Rule 1146.2 and other Air Quality Management Districts with similar requirements of 14 ng/J or 20 ppm
- Easy-to-Install – Completely factory-assembled. Only gas, water and vent connections need to be made. All connections are located in front and top of heaters for ease-of-installation and service.
- Draft Diverter - Low profile diverter furnished as standard equipment
- Maximum Working Pressure: 150 PSI
- Maximum Gas Inlet Pressure: 14" W.C.
- Anodic Protection – CoreGard™ Anode Rod
- CSA Certified and ASME Rated T&P Relief Valve
- 6-year limited warranty on tank and parts

MODEL NUMBER	SERIES	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	RECOVERY GALLONS PER HOUR @ 90° RISE
GCN-100	100	98	75,100	81

MODEL NUMBER	DIMENSIONS IN INCHES		VENT CONNECTION (INCHES)
	HEIGHT TO TOP OF BLOWER	DIAMETER	
GCN-100	70-1/2	27-3/4	4



PROMAX® SIDE LOOP (SL) MODELS

For recirculating hot water loop systems

A. O. Smith ProMax Side Loop (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
- “Patented “Eco-Friendly” burner design reduces NOx emissions up to 33% and complies with requirements for low NOx emissions of less than 40 ng/J
- CSA certified and ASME rated T&P relief valve
- Optional circulating loop connection assemblies available
- 6-year limited warranty on tank and parts



PROMAX® STANDARD VENT SIDE LOOP (SL)

MODEL GCVT-40L

- Standard models (equipped with advanced DynaClean™ automatic sediment cleaning system)
- 40, 50 and 65-Gallon models feature the FVIR Design
- Dual anode rods for superior protection against corrosion
- Piezo ignitor on FVIR models for easy “no-match” pilot ignition
- Patented “Eco-Friendly” burner design reduces NOx emissions up to 33% and complies with requirements for low NOx emissions of less than 40 ng/J



SERIES 100/101

MODEL NUMBER	SERIES	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	BTU OUTPUT PER HOUR NATURAL
GCVH-40L	300/301	70	.59	40	40,000	29,600
GCVT-40L	300/301	75	.60	40	50,000	35,500
GCVT-50L	300/301	90	.58	48	50,000	38,000
GCVX-50L	100/101	93	.58	50	65,000	50,050
GCV-65L	100/101	116	.57	65	65,000	50,050
FCG-75L	300/301	N/A	N/A	74	75,100	60,080

MODEL NUMBER	RECOVERY GALLONS PER HOUR @ 90° RISE	DIMENSIONS IN INCHES		DRAFT HOOD OUTLET (INCHES)
		HEIGHT	DIAMETER	
GCVH-40L	41	61-3/4	18	3 or 4
GCVT-40L	51	61-3/4	20	4
GCVT-50L	51	60-7/8	20	4
GCVX-50L	67	63-7/8	22	4
GCV-65L	67	65	24	4
FCG-75L	81	61	26-1/2	4



PROMAX® DIRECT VENT SIDE LOOP (SL)

MODEL GDV-40L

- Side-mounted taps designed for recirculating systems
- Closed-combustion Dual-channel vent system draws combustion air from outside, vents to outside the home
- No electrical power required
- Patented “Eco-Friendly” burner design reduces NOx emissions up to 33% and complies with requirements for low NOx emissions of less than 40 ng/J
- Piezo ignitor
- CoreGard™ aluminum anode rod with stainless steel core provides added protection against tank corrosion



SERIES 300/301

MODEL NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	BTU OUTPUT PER HOUR NATURAL
GDV-40L	73	.60	40	38,000	30,020
GDVT-50L	88	.58	50	50,000	39,000
GDV-75L	131	.57	75	55,000	41,800

MODEL NUMBER	RECOVERY GALLONS PER HOUR @ 90° RISE	DIMENSIONS IN INCHES			VENT CONNECTION
		HEIGHT*	DIAMETER	DEPTH	
GDV-40L	41	68	22-1/4	25-1/4	Co-Axial
GDVT-50L	55	76	22-1/4	25-1/4	Co-Axial
GDV-75L	60	76	26-1/4	29-1/2	Co-Axial

*Recommended vent height to the center of the horizontal vent run
Co-Axial venting is a dual channel system featuring a smaller exhaust vent pipe inside a larger air intake pipe

All models are approved for installation from sea level to 7,700 ft. elevations



PROMAX® POWER DIRECT VENT SIDE LOOP (SL)

MODEL GPD-40L



- Power direct vent system draws combustion air from outside; units vent to outside the home
- Quiet modular blower with 6-foot cord, standard 3-prong plug
- Advanced Intelli-Vent™ gas control valve with silicon nitride hot surface ignitor
- Side-mounted taps designed for recirculating systems
- Vents using installer-friendly PVC, CPVC or ABS pipe. Canadian installations require ULC S636 approved PVC or CPVC pipe for venting.
- Dual anode rods on 40 and 50-gallon models
- Heat trap nipples factory-installed on all models
- FVIR to meet Phase III of the ANSI Z21.10.1 – CSA 4.1 standards
- Patented “Eco-Friendly” burner design reduces NOx emissions up to 33% and complies with requirements for low NOx emissions of less than 40 ng/J

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

MODEL NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	BTU OUTPUT PER HOUR NATURAL
GPD-40L	70	.60	40	40,000	30,000
GPD-50L	105	.58	50	65,000	47,500
GPD-75L	130	.58	75	70,000	53,200

MODEL NUMBER	RECOVERY GALLONS PER HOUR @ 90° RISE	DIMENSIONS IN INCHES		VENT CONNECTION (INCHES)
		HEIGHT*	DIAMETER	
GPD-40L	41	57	21	3
GPD-50L	64	69-1/2	21	3
GPD-75L	72	71-1/2	26-1/4	3

*Height to top of blower outlets



TANKLESS GAS WATER HEATERS



INNOVATIVE TECHNOLOGY • EXCELLENT PERFORMANCE • SLEEK DESIGN



SAVE ENERGY.

- Energy-efficient, plentiful, and endless supply of hot water.



SAVE SPACE.

- Compact size and wall-mounted to free up valuable floor space.



SAVE MONEY.

- The smart choice that will save you a substantial amount of energy.

Tankless

ENDLESS HOT WATER

- Heating water only as it's being used means you will never run out of hot water again. After the few seconds it takes for the water to reach the designated set temperature, our water heaters will continually provide a steady flow of hot water for as long as your application needs it.

ENERGY CONSERVATION

- Provides you with continuous hot water... in one of the most energy-efficient ways possible. Conventional tank-type water heaters will heat and store a set volume of water, regardless of whether someone is using that hot water or not. Because our water heaters only activate when hot water is being used, no standby energy losses are incurred, providing efficient heating and conserving gas energy.

COMPACT SIZE

- On top of all this, an A. O. Smith tankless water heater takes up much less space than your conventional tank-type water heater or boiler. With no tank or boiler to steal valuable storage space, A. O. Smith's wall-mount design allows for additional storage and flexibility.

Tankless

TANKLESS NON-CONDENSING MODELS

- All models are ENERGY STAR® qualified
- Category III Stainless Steel Venting
- Low NOx Emissions
- Indoor and outdoor models include remote control, indoor models also feature an installed power cord
- Complies with Lead Free Standards
- 15-year limited warranty on heat exchanger / 5-year limited parts warranty



MODEL NUMBER*	TYPE	BTU INPUT NATURAL/PROPANE		HOT WATER OUTPUT (GPM)		
		MINIMUM	MAXIMUM	MAX.	45°F RISE	70°F RISE
ATI-110-N	Indoor	19,500	140,000	6.6	5.1	3.3
ATI-310-N	Indoor	11,000	190,000	8.0	6.9	4.4
ATI-510-N*	Indoor	11,000	199,000	10.0	7.2	4.7
ATO-110-N	Outdoor	19,500	140,000	6.6	5.1	3.3
ATO-310-N	Outdoor	11,000	190,000	8.0	6.9	4.4
ATO-510-N*	Outdoor	11,000	199,000	10.0	7.2	4.7

MODEL NUMBER*	ENERGY FACTOR (EF)	DIMENSIONS IN INCHES		
		HEIGHT	WIDTH	DEPTH
ATI-110-N	0.82	20-1/4	13-3/4	7-3/4
ATI-310-N	0.82	20-1/4	13-3/4	9-1/2
ATI-510-N*	0.82	20-1/4	13-3/4	9-1/2
ATO-110-N	0.82	20-1/4	13-3/4	7-3/4
ATO-310-N	0.82	20-1/4	13-3/4	9-1/2
ATO-510-N*	0.82	20-1/4	13-3/4	9-1/2

*Models can be installed in commercial applications, recirculation applications, and easy-link up to 4 units.

For Propane (LP), change the "N" to "P" in the model number when ordering: Example: ATI-110-P



Tankless

TANKLESS ULTRA-LOW NOx NON-CONDENSING MODELS

- Complies with Ultra-Low NOx Regulations
- All models are ENERGY STAR® qualified
- Category III Stainless Steel Venting
- Indoor and outdoor models include remote control, indoor models also feature an installed power cord
- Complies with Lead Free Standards
- 15-year limited warranty on heat exchanger / 5-year limited parts warranty



MODEL NUMBER*	TYPE	BTU INPUT NATURAL/PROPANE		HOT WATER OUTPUT (GPM)		
		MINIMUM	MAXIMUM	MAX.	45°F RISE	70°F RISE
ATI-110U-N	Indoor	15,000	140,000	6.6	5.1	3.3
ATI-310U-N	Indoor	15,000	190,000	8.0	6.9	4.4
ATI-510U-N*	Indoor	15,000	199,000	10.0	7.2	4.7
ATO-110U-N	Outdoor	15,000	140,000	6.6	5.1	3.3
ATO-310U-N	Outdoor	15,000	190,000	8.0	6.9	4.4
ATO-510U-N*	Outdoor	15,000	199,000	10.0	7.2	4.7

MODEL NUMBER*	ENERGY FACTOR (EF)	DIMENSIONS IN INCHES		
		HEIGHT	WIDTH	DEPTH
ATI-110U-N	0.82	20-1/4	13-3/4	9-1/2
ATI-310U-N	0.82	20-1/4	13-3/4	9-1/2
ATI-510U-N*	0.82	20-1/4	13-3/4	9-1/2
ATO-110U-N	0.82	20-1/4	13-3/4	9-1/2
ATO-310U-N	0.82	20-1/4	13-3/4	9-1/2
ATO-510U-N*	0.82	20-1/4	13-3/4	9-1/2

Ultra-Low NOx models are available in Natural Gas only
*Models can be installed in commercial applications, recirculation applications, and easy-link up to 4 units



Tankless

TANKLESS HIGH EFFICIENCY CONDENSING MODELS

- All models are ENERGY STAR® qualified
- Ultra-Low NOx Condensing Technology Provides Significant Energy Cost Savings - Unprecedented 0.95 Energy Factor
- Durable HRS35 Commercial-Grade Copper Primary Heat Exchanger
- Type 316L Stainless Steel Secondary Heat Exchanger
- Electronic Ignition - No Pilot Light
- Indoor Model has Built-in Temperature Controller and Diagnostics
- Complies with Lead Free Standards
- Can be vented in PVC, ABS, CPVC, Polypropylene and Stainless Steel
- 15-year limited warranty on heat exchanger / 5-year limited parts warranty



MODEL NUMBER*	TYPE	BTU INPUT NATURAL/PROPANE		HOT WATER OUTPUT (GPM)		
		MINIMUM	MAXIMUM	MAX.	45°F RISE	70°F RISE
ATI-240H-N	Indoor	15,000	160,000	6.6	6.6	4.3
ATI-340H-N	Indoor	15,000	180,000	8.0	7.6	4.9
ATI-540H-N	Indoor	15,000	199,000	10.0	8.4	5.4
ATO-240H-N	Outdoor	15,000	160,000	6.6	6.6	5.3
ATO-340H-N	Outdoor	15,000	180,000	8.0	7.6	4.9
ATO-540H-N	Outdoor	15,000	199,000	10.0	8.4	5.4

MODEL NUMBER*	ENERGY FACTOR (EF)	DIMENSIONS IN INCHES		
		HEIGHT	WIDTH	DIAMETER
ATI-240H-N	0.95	23-5/8	17-3/4	11-1/4
ATI-340H-N	0.95	23-5/8	17-3/4	11-1/4
ATI-540H-N	0.95	23-5/8	17-3/4	11-1/4
ATO-240H-N	0.95	23-5/8	17-3/4	11-1/4
ATO-340H-N	0.95	23-5/8	17-3/4	11-1/4
ATO-540H-N	0.95	23-5/8	17-3/4	11-1/4













*For Propane, change the N to P. Example ATI-240H-P.



Tankless

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 50°F Incoming Groundwater Temperature	
	Capacity – Number of Shower Heads			
AT10-110/U	2 Showers		1 Shower	
AT10-310/U	3 Showers		2 Showers	
AT10-240H	2 Showers		1 Shower	
AT10-340H	3 Showers		2 Showers	
AT10-540H	4 Showers		3 Showers	
AT10-510/U	4 Showers		2 Showers	

Assuming the set point temperature is 120°F

Flow Rate Guide

Temperature Rise vs. Gallons Per Minute

TEMP RISE	110/U SERIES	310/U SERIES	510/U SERIES	240H SERIES	340H SERIES	540H SERIES
30°	6.6	8.0	10.0	6.6	8.0	10.0
35°	6.6	8.0	9.3	6.6	8.0	10.0
40°	5.7	7.8	8.1	6.6	8.0	9.5
45°	5.1	6.9	7.2	6.6	7.6	8.4
50°	4.6	6.2	6.5	6.1	6.8	7.6
55°	4.2	5.7	5.9	5.5	6.2	6.9
60°	3.8	5.2	5.4	5.1	5.7	6.3
65°	3.5	4.8	5.0	4.7	5.3	5.8
70°	3.3	4.4	4.7	4.3	4.9	5.4
75°	3.1	4.1	4.3	4.1	4.6	5.0
80°	2.9	3.9	4.1	3.8	4.3	4.7
85°	2.7	3.7	3.8	3.6	4.0	4.4
90°	2.5	3.5	3.6	3.4	3.8	4.2
95°	2.4	3.3	3.4	3.2	3.6	4.0
100°	2.3	3.1	3.3	3.0	3.4	3.8

Flow rate is determined by Temperature Rise. To determine your temperature rise, subtract the incoming water temperature from the set output temperature. All units are factory set to 120 or 122°F but can be changed.

Residential Hybrid Electric

VOLTEX® HYBRID HEAT PUMP

MODEL PHPT-80



- ENERGY STAR® qualified
- Voltex provides the same amount of hot water at less than half the operating costs of a standard electric water heater
- Increased storage allows Heat Pump to operate more frequently, boosting savings
- “Environmentally-Friendly” R134a Refrigerant
- Multiple Operating Modes to optimize savings and performance
- User-Friendly LCD Touch Pad Control
- Water temperature set point range 95°F to 150°F (35°C to 66°C), with child resistant temperature set point Safety Lock
- Advanced Diagnostics in plain English text – stores last four error messages
- Maintenance free Powered Anode for protection in any water conditions
- Easy-to-remove, washable Air Filter
- Long lasting Incoloy backup Heating Elements
- 2 Inch thick “Environmentally-Friendly” Non-CFC Foam Insulation reduces standby heat loss

MODEL NUMBER	GALLON CAPACITY	ENERGY FACTOR BY MODE			1ST HOUR RATING GALLON BY MODE		
		EFF	HYBRID	ELECT	EFF	HYBRID	ELECT
PHPT-80	80	2.30	2.33	.85	70	84	76

MODEL NUMBER	STANDARD VOLTAGE	NO. OF ELEMENTS	STANDARD INPUT (kW) UPPER/LOWER	HEIGHT (INCHES)	DIAMETER (INCHES)
PHPT-80	240	2	4500/2000	81 1/2	24 1/2



Residential Hybrid Electric

VOLTEX® HYBRID HEAT PUMP

MODEL SHPT-50



- All models are ENERGY STAR® qualified
- 2.75 Energy Factor - means more savings - lower annual cost of operation than convention 50-gallon water heaters and other heat pump water heaters
- Up to 66% more efficient than standard electric water heaters
- 67.7 Gallons First hour recovery- more hot water meets UPC sizing requirements for 3 bedroom
- User-Friendly LCD Interface - features three operating modes to optimize savings & performance and vacation setting
- Washable reusable air filter
- Eligible for local utility rebates and incentives
- Equipped with our "SmartPort" capability for future home management and utility smart grid features
- 10-Year limited tank and parts warranty

MODEL NUMBER	GALLON CAPACITY	ENERGY FACTOR BY MODE			1ST HOUR RATING GALLON BY MODE		
		EFF	HYBRID	ELECT	EFF	HYBRID	ELECT
SHPT-50	50	2.78	2.75	.89	42.1	67.5	59.1

MODEL NUMBER	STANDARD VOLTAGE	NO. OF ELEMENTS	STANDARD INPUT (kW) UPPER/LOWER	HEIGHT (INCHES)	DIAMETER (INCHES)
SHPT-50	240	2	4500/4500	63	22

240 VAC, single phase power, minimum 25 amp breaker, maximum 30 amp breaker



Residential Electric

CONSERVATIONIST®

MODEL PXHT-40

- Our most efficient electric models, for maximum savings on operating costs
- “Environmentally-Friendly” 3 Inch thick Non-CFC insulation reduces standby heat loss
- 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
- 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
- Tamper-resistant brass drain valve
- CSA Certified and ASME rated T&P relief valve
- Extra warranty protection – 10 year limited warranty on the tank and parts
- Factory-installed heat trap nipples (3/4" male connection)



MODEL NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GAL. CAP.	ELEMENT WATTAGE		DIMENSIONS IN INCHES	
				STD. 240V UPPER/LOWER	MAX. 240V UPPER/LOWER	HEIGHT	DIAMETER
TALL MODELS							
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
SHORT MODELS							
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® HIGH EFFICIENCY

MODEL ECRT-40



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

MODEL NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GAL. CAP.	ELEMENT WATTAGE		DIMENSIONS IN INCHES	
				STD. 240V UPPER/LOWER	MAX. 240V UPPER/LOWER	HEIGHT	DIAMETER
TALL MODELS							
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
SHORT MODELS							
ECRS-50	62	.93	50	4500	6000	49	23

For 10-year tank warranty, change "E" to "P" in model number (PCRT-40)

*Models not available with top T&P



PROMAX®

- 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.
- 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 limited warranty on tank and parts, 10-year extended limited tank warranty available on all models
- 8 and 10-Year extended limited warranty available on 30 thru 120-gallon models

MODEL ECT-30



MODEL ECLN-40



Residential Electric

MODEL NUMBER	SERIES	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY
TALL MODELS				
ECT-30	200	43	.93	30
ECT-40	200	52	.92	40
ECT-52	210	60	.91	50
ECT-55	210	67	.90	55
ECT-66	210	72	.88	66
ECT-80	210	81	.86	80
ECT-120	200	112	.81	119
SHORT MODELS				
ECS-30	200	43	.93	30
ECS-40	200	52	.92	40
ECS-50	210	62	.90	50
LOWBOY MODELS				
ECL-30	200	41	.93	30
ECLB-30**	100	40	.93	28
ECLN-40	200	48	.92	38
ECLB-40**	200	48	.93	38
ECL-50	210	55	.91	50

MODEL NUMBER	ELEMENT WATTAGE		DIMENSIONS IN INCHES	
	STD. 240V UPPER/LOWER	MAX. 240V UPPER/LOWER	HEIGHT	DIAMETER
TALL MODELS				
ECT-30	4500	6000	46-1/2	18
ECT-40	4500	6000	59-1/2	18
ECT-52	4500	6000	54	20
ECT-55	4500	6000	60-1/4	20
ECT-66	4500	6000	60-1/4	20-1/2
ECT-80	4500	6000	60-1/2	22-1/2
ECT-120	4500	6000	64-1/4	28
SHORT MODELS				
ECS-30	4500	6000	36-1/2	20-1/2
ECS-40	4500	6000	44	20-1/2
ECS-50	4500	6000	48	21-1/2
LOWBOY MODELS				
ECL-30	4500	6000	30	22
ECLB-30**	4000	6000	30	20
ECLN-40	4500	6000	31-1/4	23
ECLB-40**	4500	6000	32-1/2	24
ECL-50	4500	6000	34	26-1/2

For 10-year tank warranty, change "E" to "P" in model number (PCT-40)
 PCLN-40, PCL-50, ECT-120 and ECLB-30 are not available with top T&P

All water connections are 3/4" NPT

**Heater ships with supplied insulation blanket

PROMAX® SPECIALTY ELECTRIC

- **Compact Designs** –Feature side-mounted plumbing and electrical connections with nipples installed at the factory, as well as convenient plugged top plumbing connection for versatility. Available in 6 thru 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.



Table Top



Compact



Point-of-Use

Residential Electric

MODEL NUMBER	FIRST HOUR RATING GALLONS	ENERGY FACTOR	GALLON CAPACITY	RECOVERY GALLONS PER HOUR @ 90° RISE	R VALUE
TABLE TOP					
ESTT-30	42	.89	27	21	12
ESTT-40	52	.88	40	21	12
COMPACT					
EJC-6	N/A	N/A	6	8	8
EJC-10	N/A	N/A	10	8	8
EJCS-20	N/A	N/A	19	11	8
EJCT-20	N/A	N/A	19.9	11	8
LOWBOY					
ECJ-30	37	.93	30	21	16
ECJN-40	43	.92	38	21	12
POINT-OF-USE					
EJC-2	N/A	N/A	2.5	7	8

MODEL NUMBER	ELEMENT WATTAGE		DIMENSIONS IN INCHES		
	STANDARD	MAXIMUM	HEIGHT	WIDTH	DEPTH
TABLE TOP	240V	240V			
ESTT-30	4500	6000	36	21	25
ESTT-40	4500	6000	36	24	25
COMPACT	120V	240V		DIAMETER	
EJC-6	1650	3000	15-1/4	14-1/4	10-3/4 [†]
EJC-10	1650	6000	18-1/4	16	12-1/4 [†]
EJCS-20	2500	6000	24-3/4	18	18-5/8 [†]
EJCT-20	2500	6000	31-5/8	16	25-3/4 [†]
LOWBOY	240V	240V		DIAMETER	
ECJ-30	4500	6000	30	22	22-3/4 [†]
ECJN-40	4500	6000	31-1/2	23	25-5/8 [†]
POINT-OF-USE	120V	240V		WIDTH	
EJC-2	1500	N/A	13-3/4*	13-3/4	11

†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 WATER HEATER

MODEL
MHEW2-30L-035DV



- Dual Heating Elements – Screw-in, direct immersion, 3500 watt, 240 volt heating elements for maximum efficiency. Also available configured for dual 3000 watt, 120 volt applications.
- 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
- Brass Tamper-Resistant Drain Valve
- 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
- 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 Meets the current edition of the National Appliance Energy Conservation Act (NAECA). All models are certified at 300 PSI test pressure and 150 PSI working pressure



Residential Electric

MODEL NUMBER	SERIES	GALLON CAPACITY	GPH RECOVERY 90°F RISE	FIRST HOUR RATING	ENERGY FACTOR (EF)
MHEW2-30L-035DV	100	28	16	40	0.93
MHEW2-30H-035DV	100	30	16	43	0.93
MHEW2-40R-035DV	100	40	16	50	0.92
MHEW2-30L-030DV	100	28	14	40	0.93
MHEW2-30H-030DV	100	30	14	43	0.93
MHEW2-40R-030DV	100	40	14	50	0.92

MODEL NUMBER	ELEMENT WATTAGE UPPER/LOWER	JACKET DIAMETER (INCHES)	HEIGHT TO TOP OF HEATER (INCHES)	HEIGHT TO SIDE T&P (INCHES)
MHEW2-30L-035DV	3500/3500	22	28-3/4	22-1/2
MHEW2-30H-035DV	3500/3500	18	45	38-1/2
MHEW2-40R-035DV	3500/3500	20	47-1/4	40-3/4
MHEW2-30L-030DV	3000/3000	22	28-3/4	22-1/2
MHEW2-30H-030DV	3000/3000	22	28-3/4	22-1/2
MHEW2-40R-030DV	3000/3000	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.

MHEW models are available only in above configurations; Premium Component Package, and other element configurations are not available due to element size or other restrictions.

3500 watt models operate on 240VAC, 3000 watt models operate on 120VAC

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



Pump Tanks

MODEL NUMBER	VOLUME (GALLON)	CONN NPT SIZE	OVERALL HEIGHT (INCHES)	TO CENTER OF WATER INLET (INCHES)	DIAMETER (INCHES)	WEIGHT (LBS.)
PMI AND PM SERIES (FREE-STANDING)						
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	43
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
HORIZONTAL MODELS						
PMH-7	7.3	3/4 (M)	12-7/8	6-3/4	11	15
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 Pre-charge 38 PSI

PUMP TANKS

MODEL PMC-5

- Interior epoxy coating is permanently bonded to the tank shell for ultimate protection on the water side of the tank
- Durable butyl rubber parabolic 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 or 1-year limited warranty on potable expansion tanks
- 1-year limited warranty on hydronic expansion tanks



Pump Tanks

MODEL NUMBER	MAX. (PSIG) WORKING PRESSURE	TANK VOLUME (GALLONS)	MAX. ACCEPTED VOLUME (GALLONS)		
			20 PSI	40 PSI	60 PSI
PMC-SERIES (POTABLE EXPANSION TANKS - 5-YEAR LIMITED WARRANTY)					
PMC-2	150	1.96	1.53	1.27	1.03
PMC-5	150	4.55	3.75	3.05	2.19
PMC-10	150	9.25	7.8	6.55	5.25
TW-SERIES (POTABLE EXPANSION TANKS - 1-YEAR LIMITED WARRANTY)					
TW-5	150	2.10	1.53	1.27	1.03
TW-12	150	4.40	3.75	3.05	2.19
PMET-SERIES (HYDRONIC EXPANSION TANKS)					
PMET-2	100	1.96	1.53	N/A	N/A
PMET-5	100	4.55	3.75	N/A	N/A
PMET-7	100	7.3	4.6	N/A	N/A
PMET-14	100	14.6	10.5	N/A	N/A

MODEL NUMBER	CONN NPT SIZE	OVERALL HEIGHT (INCHES)	DIAMETER (INCHES)	WEIGHT (LBS.)
PMC-SERIES (POTABLE EXPANSION TANKS - 5-YEAR LIMITED WARRANTY)				
PMC-2	3/4	10-3/16	8-1/4	5
PMC-5	3/4	14-3/4	11	9
PMC-10	3/4	15-3/4	15-3/8	20
TW-SERIES (POTABLE EXPANSION TANKS - 1-YEAR LIMITED WARRANTY)				
TW-5	3/4	12-1/2	8-3/8	5
TW-12	3/4	14-3/4	11-3/8	8
PMET-SERIES (HYDRONIC EXPANSION TANKS)				
PMET-2	1/2	10-3/16	8-1/4	5
PMET-5	1/2	14-3/4	11	9
PMET-7	1/2	21-1/16	11	12
PMET-14	1/2	21-5/8	15-3/8	22

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

Reputations aren't built overnight. The A. O. Smith story started in 1936 when we produced our first water heater. Since then, plumbing professionals have been relying on us more than any other manufacturer because we consistently provide new and improved hot water solutions for their customers. Through an inspired blend of **innovation, experience, teamwork and technology**, we have once again created a full line of state-of-the-art commercial water heaters that combine incredible performance with great energy ratings.



iCOMM™ REMOTE MONITORING SYSTEM

iCOMM REQUIREMENTS

- Facility must have “always on” internet (wired or wireless)
- iCOMM compatible water heaters (see next page for compatible models)
- *Annual iCOMM subscription
- For information and ordering call 1-888-WATER02 or visit www.aosmithconnect.com



iCOMM FEATURES

- Provides remote monitoring via www.aosmithconnect.com
- E-mail and text messaging of fault conditions
- Graphs unit performance and operational history
- BACnet compatibility with building management systems

HARDWARE

MODEL NUMBER	ITEM	DESCRIPTION
ICMA	iCOMM Communications Module	Main communications board required for any iCOMM installation.
IMDA	iCOMM Multi-Device Adapter	Needed if more than one water heater will be connected to the control module. Order 1 MDA for each water heater installed.
IABA	iCOMM Alarm Box	Accessory alarm box that includes an audible alarm and alarm light.

continued

iCOMM™ REMOTE MONITORING SYSTEM

COMPATIBLE PRODUCTS INCLUDE:

- Cyclone® Xi (BTH and BTX100 models)
- Custom® Xi (DSE models)
- Gold Xi (DVE models)
- Genesis® Domestic Water Heaters and Boilers manufactured between July 2009 and January 2014 (GB/GW models)
- VF™ Variable Fire Domestic Water Heaters and Boilers manufactured between July 2009 and January 2014 (VB/VW models)



***iCOMM™ Subscription (required) per iCOMM Communications Module**

Note - iCOMM subscription is required to utilize any and all functions of the iCOMM remote monitoring system. End user responsible for paying and maintaining annual subscription. Installation and subscription service fees are net prices paid directly by the end user. No distributor discount applicable.

For information and ordering call 1.888.WATER02 or visit www.aosmithconnect.com

iCOMM™ *Elite* REMOTE MONITORING SYSTEM

Complete Coverage, Total Peace

What is iCOMM™ Elite?

iCOMM™ Elite utilizes the latest technology in commercial water heating to allow us to interact with, proactively manage and monitor your A. O. Smith water heaters from anywhere in the world via the Internet. With this newly redesigned industry-exclusive service, A. O. Smith can monitor your water heaters around the clock, alert you instantly in case of a problem, and begin fixing any potential problems immediately. How is that for ultimate peace of mind?

Who is iCOMM Elite Designed For?

Any commercial water heater customers, ranging from small businesses with one water heater to national chain operations with thousands of locations.

Elite Compatible Units Include:

- Cyclone® Xi
- Custom Xi (DSE models)
- Gold Xi (DVE models)

Valet Service on Any Warranty Claim!

Should you experience problems with any products that are still under warranty—it's time for the VIP treatment. We will do everything to get you back on track, and we mean everything. Our complete valet service includes a call before the service, handling all the logistics, repairing the product, and of course, superior service throughout the process.

For information and ordering call 1.888.WATER02 or visit www.aosmithconnect.com

Get iCOMM™ *Elite* in 3 Easy Steps

1.

Confirm you have a compatible unit.

2.

Verify that you have an Internet connection in the same room as the water heater(s).

3.

Call 1-888-WATER02 to purchase and arrange installation.

iCOMM™ Subscription (required) per iCOMM Communication Module

Note - iCOMM subscription is required to utilize any and all functions of the iCOMM remote monitoring system or the "iCOMM Elite service". End user responsible for paying and maintaining annual subscription. Installation and subscription service fees are net prices paid directly by the end user. No distributor discounts are applicable.

BUILDING MANAGEMENT SYSTEM BACnet and MODBUS INTERFACE

Introducing the BMS gateway for control of A. O. Smith Water Heaters

Models:

ETH-1000
Ethernet connection

XLTR-1000
Serial RS-485 connection



ICC ENERGY MANAGEMENT INTERFACES			
PROTOCOL	PART #	CONNECTION TYPE	APPLICATION
BACnet	9910093000	Serial (RS485)	Commercial Gas - Cyclone BTH & BTX-100
	9910094000		Commercial Electric - DSE, DVE, DHE 150kW or less
	9910099000	Ethernet (IP)	Commercial Gas - Cyclone BTH & BTX-100
	9910100000		Commercial Electric - DSE, DVE, DHE 150kW or less
Modbus	9910096000	Serial (RS485)	Commercial Gas - Cyclone BTH & BTX-100
	9910097000		Commercial Electric - DSE, DVE, DHE 150kW or less
	9910102000	Ethernet (IP)	Commercial Gas - Cyclone BTH & BTX-100
	9910103000		Commercial Electric - DSE, DVE, DHE 150kW or less

- Heater connection wiring supplied with unit.
- For questions on this product Call 888-928-3702 Opt 1
- RTU and serial connect via RS-485
- Ethernet and IP connect via RJ-45

Connect your A. O. Smith water heater to your building management system using the new Millennium control from ICC* (Industrial Control Communications, Inc.)

- Works with Cyclone, McBee DVE, Renton DSE/DVE/DHE 150kW or less
- Use the ICC Control to enable/disable the water heater
- Change Temperature Set points and differentials
- Two models with four different configurations to connect to BACnet and Modbus
- Ethernet and Serial RS-485 versions available
- 2 wire or 4 wire RS-485 Network
- Power can be supplied via the USB cable, as a 7-24 VDC input on the main terminal Block, or via IEEE 802.3af Power over Ethernet (PoE on ETH-1000 only)
- Configure protocols, network characteristics, and client/server object definitions
- Graphically interact with the internal database in real-time via USB connection
- Automatically discover and configure IP settings Ethernet gateways connected to the current subnet
- Update Firmware

CONSERVATIONIST® BPD GAS POWER DIRECT VENT MODELS

MODEL BPD-75

- 80% Thermal Efficiency
- DynaClean™ II automatic sediment-cleaning system
- Quiet modular blower
- Solid brass drain valve
- CSA certified and ASME rated T&P relief valve
- Maximum hydrostatic working pressure: 150 PSI
- 3-year limited tank warranty



MODEL NUMBER	GALLON CAPACITY	BTU INPUT PER HOUR		FIRST HOUR DELIVERY RATING	
		NATURAL	PROPANE (LP)	NATURAL	PROPANE (LP)
BPD-75	75	70,000	65,000	117	112

MODEL NUMBER	RECOVERY GPH/°F TEMP. RISE						DIMENSIONS IN INCHES		APPROX. SHIPPING WEIGHT (LBS)
	40		100		140		HEIGHT	DIAMETER	
	NAT	LP	NAT	LP	NAT	LP			
BPD-75	161	148	64	59	46	42	69-5/8	26	352



BTF-80 TANK-TYPE

MODEL BTF-80

- Non-CFC “Environmentally-Friendly” foam insulation reduces standby heat loss
- Hot surface ignition
- Intelli-Vent™ control
- Glasslined tank
- Screw-in replaceable anode
- High input, low-NOx burner
- Turbo Shot™ combustion system
- Powered venting
- CSA certified and ASME rated T&P relief valve



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

MODEL NUMBER	GALLON CAPACITY	BTU INPUT PER HOUR	FIRST HOUR DELIVERY RATING	RECOVERY			DIMENSIONS IN INCHES		APPROX. SHIPPING WEIGHT (LBS)
				GPH/°F	TEMP. RISE		HT.*	DIA.	
BTF-80	74	80,000	78	194	78	55	66-5/16	25-3/8	340

*Height to top of draft hood



CONSERVATIONIST® BT GAS MODELS

MODEL BT-80

- 80% Thermal Efficiency
- CoreGard™ anode rod
- PermaGlas® glasslining
- Fully automatic controls
- Compact design
- Plastic leg construction
- Piezo ignitor
(natural gas models only)
- Burner head mounted pilot
(natural gas models only)
- CSA certified and ASME rated
T&P relief valve
- 3-year limited tank warranty



MODEL NUMBER	GALLON CAPACITY	BTU INPUT PER HOUR	FIRST HOUR DELIVERY RATING	RECOVERY GPH/°F TEMP. RISE			DIMENSIONS IN INCHES		APPROX. SHIPPING WEIGHT (LBS)
				40	100	140	HT.*	DIA.	
BT-65	65	65,000*	109	158	60	45	65	24	215
BT-80	74	75,100	125	182	73	52	61	27-3/4	275
BT-100	98	75,100	142	182	73	52	68-1/2	27-3/4	350

*Propane Model rated at 55,000 BTU



INDUCED DRAFT LOW NO_x BTN POWER VENT

MODEL BTN-80

- 80% Thermal Efficiency
- Complies with SCAQMD rule 1146.2 and other Air Quality Management Districts with similar requirements of 14 ng/J or 20 ppm
- Category 1 appliance
- Factory-mounted, pre-wired blower
- PermaGlas® glasslined tank
- Intelli-Vent™ gas control valve
- Certified for use on combustible flooring
- Handhole clean-out
- 3-year limited tank warranty



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

MODEL NUMBER	GAL. CAP.	BTU INPUT PER HOUR	FIRST HOUR DELIVERY RATING	RECOVERY GPH/°F TEMP. RISE			DIMENSIONS IN INCHES		APPROX. SHIPPING WEIGHT (LBS)
				40	100	140	HT.*	DIA.	
BTN-80	74	80,000 (Nat)	137	193	77	55	66-5/16	25-3/8	300
BTN-80	74	76,000 (LP)	126	184	74	53	66-5/16	25-3/8	300
BTN-100	98	90,000 (Nat)	175	218	87	62	71-1/4	26-1/2	350
BTN-100	98	80,000 (LP)	156	193	77	55	71-1/4	26-1/2	350

*Height to top of the draft hood



CONSERVATIONIST® BLN ULTRA-LOW NOx SINGLE FLUE

MODEL BLN-80



- Factory-Installed Blower
- Intelli-Vent™ Gas Control
- Fully Automatic Control System
- CSA Certified and ASME Rated T&P Relief Valve
- Complies with California SCAQMD Rule 1146.2 and other Air Quality Management Districts with similar NOx emission requirements of 14 ng/J or 20 ppm
- Meets the thermal efficiency and standby loss requirements of the U.S. Department of Energy and current edition of ASHRAE/IESNA 90.1
- Category 1 Appliance using standard Metal "B" Vent
- 3-year limited tank warranty / 1-year limited parts warranty

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

MODEL NUMBER	GAL. CAP.	BTU INPUT PER HOUR	RECOVERY GPH/°F TEMP. RISE			DIMENSIONS IN INCHES		APPROX. SHIPPING WEIGHT (LBS)
			40	100	140	HEIGHT*	DIAMETER	
BLN-80	74	75,100	182	73	52	65-7/8	25-1/4	300

*Height to top of blower



CONSERVATIONIST® BL ULTRA-LOW NOx SINGLE FLUE

MODEL BL-100

- Fully Automatic Control with Safety Shutoff
- Heavy Gauge Steel Jacket
- Glasslined Tank - Maximizes tank life
- CSA Certified and ASME Rated T&P Relief Valve
- Complies with California SCAQMD Rule 1146.2 and other Air Quality Management Districts with similar NOx emission requirements of 14 ng/J or 20 ppm
- Meets the thermal efficiency and standby loss requirements of the U.S. Department of Energy and current edition of ASHRAE/IESNA 90.1
- Category 1 Appliance using standard Metal "B" Vent
- 3-year limited tank warranty / 1-year limited parts warranty



MODEL NUMBER	GAL. CAP.	BTU INPUT PER HOUR	RECOVERY GPH/°F TEMP. RISE			DIMENSIONS IN INCHES		APPROX. SHIPPING WEIGHT (LBS)
			40	100	140	HEIGHT*	DIAMETER	
BL-100	98	75,100	184	74	53	70-1/2	30-15/16	350

*Height to top of blower



MASTER-FIT® BTR

MODEL BTR-120

- 80% Thermal Efficiency
- Factory-installed draft diverter and flue damper (BTR 120-390 models)
- BTR-500 models feature induced draft design and no damper
- Three water connection options
- PermaGlas® Ultra Coat™ glasslining
- Optional power vent kit systems
- Intermittent electronic ignition
- The Eliminator™ self-cleaning system
- CSA certified and ASME rated T&P relief valve
- Maximum hydrostatic working pressure: 160 PSI
- Fully automatic control system
- Handhole clean-out
- 3-year limited tank warranty



ASME
(Optional)



CLASSIFIED
UL
WATER QUALITY



Commercial Gas

MODEL NUMBER	GALLON CAPACITY	BTU INPUT PER HOUR	FIRST HOUR DELIVERY RATING	RECOVERY GPH/°F TEMP. RISE		
				40	100	140
BTR-120	71	120,000	166	291	116	83
BTR-154	81	154,000	206	373	149	107
BTR-180	81	180,000	231	434	175	124
BTR-197	100	199,000	263	482	193	132
BTR-198	100	199,000	263	482	193	132
BTR-199	81	199,000	250	482	193	132
BTR-200(A)*	100	199,000	263	482	193	132
BTR-250(A)*	100	250,000	312	606	242	173
BTR-251(A)	65	251,000	289	608	243	174
BTR-275(A)*	100	275,000	337	667	267	90
BTR-305(A)	65	305,000	342	739	296	211
BTR-365(A)	85	365,000	414	885	354	243
BTR-400(A)	100	390,000	448	945	378	270
BTR-500(A)**	85	500,000	545	1212	485	346

MODEL NUMBER	DIMENSIONS IN INCHES		APPROXIMATE SHIPPING WEIGHT (LBS)	
	HEIGHT***	DIAMETER	STANDARD	ASME
BTR-120	69-3/4	27-3/4	400	-
BTR-154	73	27-3/4	470	-
BTR-180	67-1/2	27-3/4	470	-
BTR-197	75	27-3/4	603	-
BTR-198	75	27-3/4	603	-
BTR-199	67-1/2	27-3/4	470	-
BTR-200(A)*	72	30-1/4	630	725
BTR-250(A)*	72	30-1/4	630	725
BTR-251(A)	75	27-3/4	750	862
BTR-275(A)*	72	30-1/4	630	725
BTR-305(A)	75	27-3/4	750	862
BTR-365(A)	79-1/2	27-3/4	725	833
BTR-400(A)	75-1/2	30-1/4	760	874
BTR-500(A)**	82-1/4	27-3/4	820	856

*BTR-250(A), BTR-251(A) and BTR-275(A) models shipped with a 8" to 6" vent reducer
Certified for both 6" or 8" vent

BTR-120 models are approved for 5" venting using a 6" to 5" reducer

**Induced Draft Design, Category I Venting

***Height to top of vent connection

MASTER-FIT® BTR GAS BOOSTER MODELS

MODEL BTR-151

- 80% Thermal Efficiency
- Built-in Induced draft blower
- Rated as Category 1 appliance
- Ideal for restaurant dishwasher applications
- Low storage/high output



MODEL NUMBER	GALLON CAPACITY	BTU INPUT PER HOUR	FIRST HOUR DELIVERY RATING	RECOVERY GPH/°F TEMP. RISE		
				40	100	140
BTR-151(A)	32	150,000	167	364	145	104
BTR-201(A)	32	199,900	216	485	194	139

MODEL NUMBER	DIMENSIONS IN INCHES		APPROXIMATE SHIPPING WEIGHT (LBS)	
	HEIGHT*	DIAMETER	STANDARD	ASME
BTR-151(A)	45	27-3/4	460	440
BTR-201(A)	45	27-3/4	460	440

Certified for both 6" or 8" vent
*Height to top of vent connection



MASTER-FIT® BTL ULTRA-LOW NOX

MODEL BTL 120-250(A)

- All Models 82% Thermal Efficiency
- Complies with California SCAQMD Rule 1146.2 and other Air Quality Management Districts with similar requirements of 20 ppm or 14 ng/J Low NOx requirements
- Rated Category 1 Appliance
- Top, Front and Rear Plumbing Connections
- Uses Standard Double Wall Type B Vent
- All Models AHRI Certified
- No Draft Hood or Barometric Damper
- CSA Certified and ASME Rated T&P Relief Valve
- Meets the thermal efficiency and standby loss requirements of the U.S. Department of Energy and current edition of ASHRAE/IESNA 90.1
- Handhole Cleanout
- Eliminator™ Self-Cleaning Feature
- 3-year limited tank warranty



GAS-FIRED



CLASSIFIED



Commercial Gas

MODEL NUMBER	GALLON CAPACITY	BTU INPUT PER HOUR NATURAL	FIRST HOUR DELIVERY RATING	RECOVERY GPH/°F TEMP. RISE		
				40	100	140
BTL-120	81	120,000	166	298	119	85
BTL-154	81	154,000	206	383	153	109
BTL-180	93	180,000	231	447	179	128
BTL-199	93	199,000	263	494	198	141
BTL-250	93	250,000	263	621	248	177
BTL-275	85	275,000	250	678	271	194
BTL-310	85	310,000	263	765	306	218
BTL-366	85	366,000	312	903	361	258
BTL-400	85	390,000	289	962	385	275
BTL-250(A)	93	250,000	337	621	248	177
BTL-275(A)	85	275,000	342	678	271	194
BTL-310(A)	85	310,000	414	765	306	218
BTL-366(A)	85	366,000	448	903	361	258
BTL-400(A)	85	390,000	545	962	385	275

MODEL NUMBER	DIMENSIONS IN INCHES		APPROXIMATE SHIPPING WEIGHT (LBS)
	HEIGHT*	DIAMETER	
BTL-120	68-1/4	27-3/4	750
BTL-154	68-1/4	27-3/4	750
BTL-180	76	27-3/4	835
BTL-199	76	27-3/4	835
BTL-250	76	27-3/4	835
BTL-275	76	27-3/4	850
BTL-310	76	27-3/4	850
BTL-366	76	27-3/4	850
BTL-400	76	27-3/4	850
BTL-250(A)	76	27-3/4	880
BTL-275(A)	76	27-3/4	900
BTL-310(A)	76	27-3/4	900
BTL-366(A)	76	27-3/4	900
BTL-400(A)	76	27-3/4	900

*Height to vent

Electrical characteristics—120V-60 Hz A. C., 5.0A

(A) after model number designates ASME construction
LEG KITS FOR UL SANITATION TO MEET NSF-5 (increases overall height by 3")

BTL models not available in LP gas

BTL models for sale in California only

INDUCED DRAFT LOW NO_x BTN GAS MODELS

MODEL BTN-120

- 80% Thermal Efficiency
- Built-in induced draft blower
- Rated as Category 1 appliance
- Three water connection options
- PermaGlas® Ultra Coat™ glasslining
- Digital control with silicon nitride hot surface ignitor
- CSA certified and ASME rated T&P relief valve
- Intermittent electronic ignition with solid-state ignition control
- Maximum hydrostatic working pressure: 160 PSI
- Handhole clean-out
- Plug kits to seal unused water connections
- Models comply with California Energy Commission (CEC) and Texas low NO_x and other Air Quality Management Districts with NO_x emission requirements of less than 40 ng/J
- 3-year limited tank warranty



ASME
(Optional)



Meets: SCAQMD
Rule 1146.2
California State



Commercial Gas

MODEL NUMBER	GALLON CAPACITY	BTU INPUT PER HOUR	FIRST HOUR DELIVERY RATING	RECOVERY GPH/°F TEMP. RISE		
				40	100	140
BTN-120	71	120,000	166	288	115	82
BTN-154	81	154,000	206	369	148	106
BTN-180	99	180,000	245	432	173	123
BTN-199C	99	199,000	482	477	191	136
BTN-199	99	199,000	262	477	191	136
BTN-200(A)	100	199,000	266	477	191	136
BTN-250(A)	100	250,000	312	600	240	171
BTN-270(A)	100	275,000	337	659	264	188
BTN-310(A)*	100	310,000	371	743	297	212
BTN-366(A)	85	366,000	415	878	351	251
BTN-400(A)	85	390,000	436	935	374	267

MODEL NUMBER	DIMENSIONS IN INCHES		APPROXIMATE SHIPPING WEIGHT (LBS)	
	HEIGHT***	DIAMETER	STANDARD	ASME
BTN-120	63	27-3/4	520	-
BTN-154	68	27-3/4	550	-
BTN-180	72	27-3/4	550	-
BTN-199C	72	27-3/4	550	-
BTN-199	72	27-3/4	620	-
BTN-200(A)	72	27-3/4	660	710
BTN-250(A)	72	27-3/4	660	710
BTN-270(A)	72	27-3/4	660	710
BTN-310(A)*	73	27-3/4	720	830
BTN-366(A)	73	27-3/4	770	880
BTN-400(A)	73	27-3/4	830	880

*Models meet 82% TE Utility rebate
BTN-199C models are available for use in California only

CYCLONE® Xi BTH AND BTX GAS MODELS



- Up to 96% Thermal Efficiency
- Wide breadth of product from 100,000 BTU to 500,000 BTU
- Submerged combustion chamber, with helical heat exchanger coil
- PermaGlas® Ultra Coat™ glasslining
- Advanced Electronic control system with LCD display
- iCOMM™ Compatible and can be monitored from remote locations. Call 1.888.WATER02 for more information
- Various venting options offers unrivaled installation versatility
- Space-saving design for installation flexibility
- Powered anodes (except BTX-100)
- Revolutionary heat exchanger and burner systems
- All models are ENERGY STAR® Qualified
- BACnet and Modbus compatible with ICC interface
- BTX-100 is not available ASME
- All models are available in Natural Gas and Propane (LP)



(For 120, 150, 199 & 250 Models)



(For 300, 400 & 500 Models)



Meets SCAQMD Rule 1146.2
Lithium and Lead



ASME
(Optional)



Low Lead Content

Commercial Gas

MODEL NUMBER	GALLON CAPACITY	FIRST HOUR DELIVERY RATING	RECOVERY CAPACITY GPH 100°F RISE	VENT SIZE
BTX-100	50	164	116	2
BTH-120	60	180	138	3
BTH-150	100	243	173	3
BTH-199	100	300	230	3
BTH-250	100	358	288	3
BTH-300	130	440	349	4
BTH-400	130	557	465	4
BTH-500	130	667	576	4
BTH-120A	60	180	138	3
BTH-150A	100	243	173	3
BTH-199A	100	300	230	3
BTH-250A	100	358	288	3
BTH-300A	130	440	349	4
BTH-400A	130	557	576	4
BTH-500A	130	667	576	4

MODEL NUMBER	INPUT BTU/HR *NATURAL GAS	DIMENSIONS IN INCHES		APPROXIMATE SHIPPING WEIGHT (LBS)
		HEIGHT	DIAMETER	
BTX-100	100,000	66-3/4	22	255
BTH-120	120,000	55-1/2	27-3/4	460
BTH-150	150,000	75-1/2	27-3/4	555
BTH-199	199,000	75-1/2	27-3/4	555
BTH-250	250,000	75-1/2	27-3/4	555
BTH-300	300,000	75-1/2	33-1/8	855
BTH-400	399,900	75-1/2	33-1/8	855
BTH-500	499,900	75-1/2	33-1/8	855
BTH-120A	120,000	55-1/2	27-3/4	490
BTH-150A	150,000	75-1/2	27-3/4	595
BTH-199A	199,000	75-1/2	27-3/4	595
BTH-250A	250,000	75-1/2	27-3/4	595
BTH-300A	300,000	75-1/2	33-1/8	855
BTH-400A	399,900	75-1/2	33-1/8	855
BTH-500A	499,900	75-1/2	33-1/8	855

Concentric vent capable – BTH-120 - BTH-300(A) - Kit # 9006328005
 BTH-400(A) and BTH-500(A) - Kit # 9006144005

CYCLONE® HE BTX-80

MODEL BTX-80

- 90% Thermal Efficiency
- Helical coil heat exchanger
- Versatile power vent design
- Modular blower
- High output with small footprint
- PermaGlas® Ultra Coat™ glasslining
- Intelli-Vent™ gas control
- Side-mounted hot and cold recirculating taps
- Two heavy-duty anode rods



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

MODEL NUMBER	GAL. CAP.	BTU INPUT PER HOUR	FIRST HOUR DELIVERY RATING	RECOVERY GPH/°F TEMP. RISE			DIMENSIONS IN INCHES		APPROX. SHIPPING WEIGHT (LBS)
				40	100	140	HT.*	DIA.	
BTX-80	50	76,000	127	206	83	59	68-1/4	22	210

*Height to top of blower
Available in Natural Gas only



CONSERVATIONIST® HIGH-VOLUME POWERED BURNER

MODEL BTP-150-140

- 80% Thermal Efficiency
- Powered gas burner
- Fully automatic controls with safety shutoff
- Blue Diamond® glasslining provides superior resistance compared to industry-standard glasslining
- Heavy-duty jacket
- Maximum hydrostatic working pressure, all models 160 PSI
- Professional Start-Up Included - Required for activating warranty and assuring maximum operating performance
- Meets thermal efficiency and standby loss requirements of the U. S. Department of Energy and current edition of ASHRAE/IESNA 90/1 and ANSI Z21.10.3 - CSA 4.3 Standards
- Optional low NOx burners (available on 300,000 BTU to 2 million BTU)
- 3-year limited tank warranty



continued

ASME



Complies with
SCAQMD
Rule 1146.2
California Air Resources Board



Commercial Gas

MODEL NUMBER	GAL. CAP.	BTU INPUT PER HOUR NATURAL	FIRST HOUR DELIVERY RATING	VENT SIZE	RECOVERY GPH/°F TEMP. RISE		
					80	100	140
BTP-150-140	150	140,000	256	5	170	136	97
BTP-150-199	150	199,000	313	6	241	193	138
BTP-150-255	150	255,000	367	6	359	247	176
BTP-150-270	150	270,000	382	6	327	262	187
BTP(N)-150-400†	150	400,000	507	7	485	387	277
BTP(N)-150-540†	150	540,000	644	8	654	524	374
BTP-150-720	150	720,000	818	10	873	698	499
BTP-200-300	200	300,000	451	6	364	291	208
BTP-200-600	600	600,000	722	8	737	582	416
BTP(N)-200-800†	200	800,000	936	10	970	776	554
BTP(N)-200-1000†	200	1,000,000	1130	10	1212	970	693
BTP(N)-200-1250†	200	1,250,000	1372	12	1515	1212	866
BTP-200-1500†	200	1,500,000	1615	12	1818	1455	1039
BTP-300-300	300	300,000	531	6	364	291	208
BTP-300-600	300	600,000	822	8	727	582	416
BTP(N)-300-800†	300	800,000	1016	10	970	776	554
BTP(N)-300-1000†	300	1,000,000	1210	10	1212	970	693
BTP(N)-300-1250†	300	1,250,000	1452	12	1515	1212	866
BTP(N)-300-1500†	300	1,500,000	1695	12	1816	1455	1039

MODEL NUMBER	MOTOR HP 120V 60HZ 1 PHASE	DIMENSIONS IN INCHES			APPROX. SHIPPING WEIGHT (LBS)
		HEIGHT	DIAMETER	DEPTH	
BTP-150-140	1/17 HP 2.5 AMPS	82-1/4	36-1/2	48	1292
BTP-150-199	1/17 HP 2.5 AMPS	82-1/4	36-1/2	48	1292
BTP-150-255	1/17 HP 2.5 AMPS	82-1/4	36-1/2	48	1292
BTP-150-270	1/4 HP 4.6 AMPS	82-1/4	36-1/2	57-1/2	1397
BTP(N)-150-400†	1/4 HP 4.6 AMPS	82-1/4	36-1/2	57-1/2	1397
BTP(N)-150-540†	1/4 HP 4.6 AMPS	82-1/4	36-1/2	57-1/2	1505
BTP-150-720	1/3 HP 5.5 AMPS	82-1/4	36-1/2	57-1/2	1510
BTP-200-300	1/4 HP 4.6 AMPS	84-1/2	44-3/4	66-1/2	2098
BTP-200-600	1/4 HP 4.6 AMPS	84-1/2	44-3/4	66-1/2	2098
BTP(N)-200-800†	1/3 HP 5.5 AMPS	84-1/2	44-3/4	66-1/2	2103
BTP(N)-200-1000†	1/3 HP 5.5 AMPS	84-1/2	44-3/4	66-1/2	2103
BTP(N)-200-1250†	1/2 HP 7.4 AMPS	83-3/4	44-3/4	66-1/2	2467
BTP-200-1500†	1/2 HP 7.4 AMPS	83-3/4	44-3/4	81-1/2	2675
BTP-300-300	1/4 HP 4.6 AMPS	92	44-3/4	66-1/2	2150
BTP-300-600	1/4 HP 4.6 AMPS	92	44-3/4	66-1/2	2150
BTP(N)-300-800†	1/3 HP 5.5 AMPS	92	44-3/4	66-1/2	2308
BTP(N)-300-1000†	1/3 HP 5.5 AMPS	92	44-3/4	66-1/2	2308
BTP(N)-300-1250†	1/2 HP 7.4 AMPS	92	44-3/4	66-1/2	2584
BTP(N)-300-1500†	1/2 HP 7.4 AMPS	92	44-3/4	81-1/2	2774

†Models with an (N) are available in low NOx (include the "N" in the model number when ordering)

continued

Commercial Gas

MODEL NUMBER	GAL. CAP.	BTU INPUT PER HOUR NATURAL	FIRST HOUR DELIVERY RATING	VENT SIZE	RECOVERY GPH/°F TEMP. RISE		
					80	100	140
BTP-400-600	400	600,000	902	8	727	582	416
BTP(N)-400-800†	400	800,000	1096	10	970	776	554
BTP(N)-400-1000†	400	1,000,000	1290	10	1212	970	693
BTP(N)-400-1250†	400	1,250,000	1532	12	1515	1212	866
BTP(N)-400-1500†	400	1,500,000	1775	12	1816	1455	1039
BTP(N)-400-1750†	400	1,750,000	2017	14	2121	1697	1212
BTP(N)-400-2000†	400	2,000,000	2259	14	2424	1939	1385
BTP-500-2250	500	2,250,000	2582	16	2727	2182	1558
BTP-500-2500	500	2,500,000	2824	16	3030	2424	1732
BTP-600-720	600	720,000	1178	10	873	698	499
BTP(N)-600-1000†	600	1,000,000	1450	10	1212	970	693
BTP(N)-600-1250†	600	1,250,000	1692	12	1515	1212	866
BTP(N)-600-1500†	600	1,750,000	1935	12	1816	1455	1039
BTP(N)-600-1750†	600	1,750,000	2177	14	2121	1697	1212
BTP(N)-600-2000†	600	2,000,000	2419	14	2424	1939	1385
BTP-600-2250	600	2,250,000	2662	16	2727	2182	1558
BTP-600-2500	600	2,500,000	2904	16	3030	2424	1732

MODEL NUMBER	MOTOR HP 120V 60HZ 1 PHASE	DIMENSIONS IN INCHES			APPROX. SHIPPING WEIGHT (LBS)
		HEIGHT	DIAMETER	DEPTH	
BTP-400-600	1/4 HP 4.6 AMPS	89	55	76-1/2	3207
BTP(N)-400-800†	1/3 HP 5.5 AMPS	89	55	76-1/2	3212
BTP(N)-400-1000†	1/3 HP 5.5 AMPS	89	55	76-1/2	3212
BTP(N)-400-1250†	1/3 HP 5.5 AMPS	89	55	76-1/2	3212
BTP(N)-400-1500†	1/2 HP 7.4 AMPS	89	55	91-1/2	3402
BTP(N)-400-1750†	1/2 HP 7.4 AMPS	89	55	91-1/2	3528
BTP(N)-400-2000†	1/2 HP 7.4 AMPS	96-1/4	55	91-1/2	3669
BTP-500-2250	3/4 HP 10.2 AMPS	108	55	91-1/2	4277
BTP-500-2500	3/4 HP 10.2 AMPS	108	55	91-1/2	4419
BTP-600-720	1/3 HP 5.5 AMPS	114	55	76-1/2	3667
BTP(N)-600-1000†	1/3 HP 5.5 AMPS	114	55	76-1/2	3667
BTP(N)-600-1250†	1/3 HP 5.5 AMPS	114	55	76-1/2	3667
BTP(N)-600-1500†	1/2 HP 7.4 AMPS	114	55	91-1/2	3837
BTP(N)-600-1750†	1/2 HP 7.4 AMPS	114	55	91-1/2	3837
BTP(N)-600-2000†	1/2 HP 7.4 AMPS	114	55	91-1/2	3837
BTP-600-2250	3/4 HP 10.2 AMPS	114	55	91-1/2	4477
BTP-600-2500	3/4 HP 10.2 AMPS	114	55	91-1/2	4619

†Models with an (N) are available in low NOx (include the "N" in the model number when ordering)

CONSERVATIONIST® POWERED BURNER

MODEL BTP-139

- 80% Thermal Efficiency
- UL® listed powered burner
- Optional ASME construction
- Handhole clean-out(s)
- Fully automatic controls
- Barometric draft damper
- Professional Start-Up Included -
Required for activating
warranty and assuring
maximum operating
performance
- Flame inspection port
- Low NOx burner
- 3-year limited tank warranty



MODEL NUMBER	GAL. CAP.	FIRST HOUR DELIVERY RATING	RECOVERY CAPACITY GPH 100°F RISE	VENT SIZE	INPUT BTU/HR. NATURAL GAS	DIMENSIONS IN INCHES		APPROX. SHIPPING WEIGHT (LBS)
						HT.	DIA.	
BTP-139	86	196	136	6	140,000	74 3/4	27 3/4	556
BTP-199	86	253	193	6	199,000	74 3/4	27 3/4	545
BTP-270	86	268	262	8	270,000	74 3/4	27 3/4	547
BTP-370	75	412	359	8	370,000*	74 3/4	27 3/4	634
BTP-139A	86	196	136	6	140,000	74 3/4	27 3/4	658
BTP-199A	86	253	193	6	199,000	74 3/4	27 3/4	635
BTP-270A	86	322	262	8	270,000	74 3/4	27 3/4	632
BTP-370A	75	412	359	8	370,000*	74 3/4	27 3/4	731
BTP(V)-540A*	85	583	523	9	540,000	93	29 1/2	950
BTP(V)-650A*	85	690	630	9	650,000	93	29 1/2	950
BTP(V)-740A*	85	778	718	9	740,000	93	29 1/2	950

*Available with optional horizontal sidewall or sealed direct vent termination kits (specified at time of order)



CONSERVATIONIST® DURACLAD OIL-FIRED TANK-TYPE

MODEL COF-199



- 80% Thermal Efficiency
- UL® listed oil burner
- Single-stage oil pump
- Solenoid oil valve
- 3/4" drain valve
- Handhole clean-out(s)
- Barometric draft regulator
- Intermittent ignition
- Flame observation port
- Professional Start-Up Included - Required for activating warranty and assuring maximum operating performance
- 3-year limited tank warranty

MODEL NUMBER	GALLON CAPACITY	BTU INPUT PER HOUR	FIRST HOUR DELIVERY RATING	RECOVERY GPH/°F TEMP. RISE		
				40	100	140
COF-199	86	199,000	253	482	193	138
COF-245	86	245,000	298	594	238	170
COF-315	84	315,000	364	764	305	218
COF-385	75	385,000	426	933	373	267
COF-455	75	455,000	494	1103	441	315
COF-700	69	700,000	727	1697	679	485

MODEL NUMBER	DIMENSIONS IN INCHES			APPROXIMATE SHIPPING WEIGHT (LBS)	
	HEIGHT	DIAMETER	DEPTH	STANDARD	ASME
COF-199	74-3/4	24-3/4	37	553	NA
COF-245	74-3/4	24-3/4	37	554	NA
COF-315	74-3/4	24-3/4	37	554	657
COF-385	74-3/4	24-3/4	37	624	742
COF-455	74-3/4	24-3/4	37	700	747
COF-700	79-1/2	24-3/4	37	739	822

*Based on No. 2 fuel oil. All models have 1/8 HP motor
Add "S" to the end of the model number for standard (COF-199S) and "A" to the end of the model number for ASME (COF-700A) tanks.

ASME
Available on
COF-315 and higher



HEAVY-DUTY OIL-FIRED

MODEL COF-150-140

- 80% Thermal Efficiency
- COF (oil-fired models)
- COBT (combination gas/oil-fired models)
- Fully automatic controls with safety shutoff
- Blue Diamond® glasslining provides superior corrosion resistance compared to industry-standard glasslining
- Heavy-duty jacket
- Maximum hydrostatic working pressures, 160 PSI on all models
- Professional Start-Up Included - Required for activating warranty and assuring maximum operating performance
- Two layers of high-temperature ceramic fiber insulation in combustion chamber
- Flame inspection port opening
- Mounted on rugged iron skids
- ASME stamping
- Low-water cutoff
- 3-year standard limited warranty



Commercial Gas

MODEL NUMBER	GAL. CAP.	BTU INPUT PER HOUR	OIL FLOW RATE	FIRST HOUR DELIVERY RATING	RECOVERY GPH/°F TEMP. RISE		
					80	100	140
COF-150-140	150	140,000	1	241	170	136	97
COF-150-199	150	199,000	1.4	298	241	193	138
COF-150-255	150	255,000	1.8	352	359	247	176
COF-150-270	150	270,000	1.9	367	327	262	187
COBT-150-350	150	350,000	2.2	444	848	339	242
*COF/COBT-150-400	150	400,000	2.8	452	485	387	277
COF/COBT-150-540	150	540,000	3.8	629	654	524	374
COF/COBT-150-720	150	720,000	5.1	803	873	698	416
*COF/COBT-200-300	221	300,000	2.1	446	354	291	208
COF/COBT-200-600	221	600,000	4.2	737	727	582	416
COF/COBT-200-800	221	800,000	5.7	931	970	776	554
COF/COBT-200-1000	201	1,000,000	7.1	1111	1212	970	866
COF/COBT-200-1250	201	1,250,000	8.9	1353	1515	1212	866
COF/COBT-200-1500	201	1,500,000	10.7	1560	1818	1455	1039
*COF/COBT-300-300	300	300,000	2.1	501	364	291	208
COF/COBT-300-600	300	600,000	4.2	792	727	582	416
COF/COBT-300-800	300	800,000	5.7	986	970	776	554
COF/COBT-300-1000	300	1,000,000	7.1	1180	1212	970	693
COF/COBT-300-1250	300	1,250,000	8.9	1422	1515	1212	866

MODEL NUMBER	COBT MOTOR HP 1 Ø 120V	COF MOTOR HP 1 Ø 120V	VENT SIZE	DIMENSIONS IN INCHES			APPROX. SHIPPING WEIGHT (LBS)	
				HEIGHT	DIA.	DEPTH		
COF-150-140	1/3 HP, 5.5 AMPS	1/7 HP, 4.4 AMPS	5	82-1/4	36-1/2	47	1292	
COF-150-199			6	82-1/4	36-1/2	47	1292	
COF-150-255			6	82-1/4	36-1/2	47	1292	
COF-150-270			6	82-1/4	36-1/2	57-1/2	1397	
COBT-150-350		1/4 HP, 4.6 AMPS	7	82-1/4	36-1/2	57-1/2	1397	
*COF/COBT-150-400			7	82-1/4	36-1/2	57-1/2	1397	
COF/COBT-150-540			8	82-1/4	36-1/2	57-1/2	1505	
COF/COBT-150-720			10	82-1/4	36-1/2	57-1/2	1510	
*COF/COBT-200-300		1/3 HP, 5.5 AMPS	6	84-1/2	44-3/4	66-1/2	2098	
COF/COBT-200-600			8	84-1/2	44-3/4	66-1/2	2098	
COF/COBT-200-800			10	84-1/2	44-3/4	66-1/2	2103	
COF/COBT-200-1000			10	84-1/2	44-3/4	66-1/2	2103	
COF/COBT-200-1250		3/4 HP, 10.2 AMPS	12	84-3/4	44-3/4	66-1/2	2467	
COF/COBT-200-1500			12	84-3/4	44-3/4	81-1/2	2675	
*COF/COBT-300-300		1/3 HP, 5.5 AMPS	1/4 HP, 4.6 AMPS	6	92	44-3/4	66-1/2	2150
COF/COBT-300-600				8	92	44-3/4	66-1/2	2150
COF/COBT-300-800	1/3 HP, 5.5 AMPS		10	92	44-3/4	66-1/2	2308	
COF/COBT-300-1000			10	92	44-3/4	66-1/2	2308	
COF/COBT-300-1250			12	92	44-3/4	66-1/2	2584	

*COBT models are 350,000 BTU

continued

Commercial Gas

MODEL NUMBER	GAL. CAP.	BTU INPUT PER HOUR	OIL FLOW RATE	FIRST HOUR DELIVERY RATING	RECOVERY GPH/°F TEMP. RISE		
					80	100	140
COF/COBT-300-1500	300	1,500,000	10.7	1665	1816	1455	1039
COF/COBT-400-600	411	600,000	4.2	870	727	582	416
COF/COBT-400-800	411	800,000	5.7	1064	970	776	554
COF/COBT-400-1000	411	1,000,000	7.1	1258	1212	970	693
COF/COBT-400-1250	411	1,250,000	8.9	1500	1515	1212	866
COF/COBT-400-1500	397	1,500,000	10.7	1733	1816	1455	1039
COF/COBT-400-1750	397	1,750,000	12.5	1975	2121	1697	1212
COF/COBT-400-2000	397	2,000,000	14.2	2217	2424	1939	1385
COF/COBT-500-2250	375	2,250,000	16.0	2445	2727	2182	1558
COF/COBT-500-2500	375	2,500,000	17.8	2687	3030	2424	1732
COF/COBT-600-720	594	720,000	5.1	1114	873	698	499
COF/COBT-600-1000	594	1,000,000	7.1	1386	1212	970	693
COF/COBT-600-1250	594	1,250,000	8.9	1627	1515	1212	866
COF/COBT-600-1500	594	1,500,000	10.7	1871	1816	1455	1039
COF/COBT-600-1750	594	1,750,000	12.5	2116	2121	1697	1212
COF/COBT-600-2000	594	2,000,000	14.3	2355	2424	1939	1385
COF/COBT-600-2250	575	2,250,000	16.0	2585	2727	2182	1558
COF/COBT-600-2500	575	2,500,000	17.8	2827	3030	2424	1732

MODEL NUMBER	COBT MOTOR HP 1 Ø 120V	COF MOTOR HP 1 Ø 120V	VENT SIZE	DIMENSIONS IN INCHES			APPROX. SHIPPING WEIGHT (LBS)
				HEIGHT	DIA.	DEPTH	
COF/COBT-300-1500	3/4 HP, 10.2 AMPS		12	92	44-3/4	81-1/2	2774
COF/COBT-400-600	1/3 HP, 5.5 AMPS	1/4 HP, 4.6 AMPS	8	89	55	76-1/2	3207
COF/COBT-400-800		1/3 HP, 5.5 AMPS	10	89	55	76-1/2	3212
COF/COBT-400-1000			10	89	55	76-1/2	3212
COF/COBT-400-1250			12	89	55	76-1/2	3212
COF/COBT-400-1500			12	89	55	91-1/2	3402
COF/COBT-400-1750	3/4 HP, 10.2 AMPS		14	89	55	91-1/2	3528
COF/COBT-400-2000			14	96-1/4	55	91-1/2	3669
COF/COBT-500-2250	1 HP, 16 AMPS		16	108	55	91-1/2	4277
COF/COBT-500-2500			16	108	55	91-1/2	4419
COF/COBT-600-720	1/3 HP, 5.5 AMPS	1/4 HP, 4.6 AMPS	10	114	55	76-1/2	3667
COF/COBT-600-1000		1/3 HP, 5.5 AMPS	10	114	55	76-1/2	3667
COF/COBT-600-1250			12	114	55	76-1/2	3667
COF/COBT-600-1500			12	114	55	91-1/2	3837
COF/COBT-600-1750	3/4 HP, 10.2 AMPS		14	114	55	91-1/2	3837
COF/COBT-600-2000			14	114	55	91-1/2	3837
COF/COBT-600-2250	1 HP, 16 AMPS		16	114	55	91-1/2	4477
COF/COBT-600-2500			16	114	55	91-1/2	4619

*COBT models are 350,000 BTU

Tankless

TANKLESS NON-CONDENSING MODELS

- All models are ENERGY STAR® qualified
- Category III Stainless Steel Venting
- Low NOx and Ultra-Low NOx Emissions
- Indoor and outdoor models include remote control, indoor models also feature an installed power cord
- Complies with Lead Free Standards
- 10-year limited warranty on heat exchanger / 5-year limited parts warranty



**ULTRA-LOW NOx
MODELS**

MODEL NUMBER*	TYPE	BTU INPUT NATURAL/PROPANE		HOT WATER OUTPUT (GPM)		
		MINIMUM	MAXIMUM	MAX.	45°F RISE	70°F RISE
ATI-510-N*	Indoor	11,000	199,000	10.0	7.2	4.7
ATO-510-N*	Outdoor	11,000	199,000	10.0	7.2	4.7
ULTRA-LOW NOx						
ATI-510U-N*	Indoor	15,000	199,000	10.0	7.2	4.7
ATO-510U-N*	Outdoor	15,000	199,000	10.0	7.2	4.7

MODEL NUMBER*	ENERGY FACTOR (EF)	DIMENSIONS IN INCHES		
		HEIGHT	WIDTH	DEPTH
ATI-510-N*	0.82	20-1/4	13-3/4	9-1/2
ATO-510-N*	0.82	20-1/4	13-3/4	9-1/2
ULTRA-LOW NOx				
ATI-510-N*	0.82	20-1/4	13-3/4	9-1/2
ATO-510-N*	0.82	20-1/4	13-3/4	9-1/2

*Models can be installed in residential applications, recirculation applications, 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
Ultra-Low NOx models are available in Natural Gas only



Tankless

TANKLESS HIGH EFFICIENCY CONDENSING MODELS

- All models are ENERGY STAR® qualified
- Ultra-Low NOx Condensing Technology Provides Significant Energy Cost Savings - Unprecedented 0.95 Energy Factor
- Durable HRS35 Commercial-Grade Copper Primary Heat Exchanger
- Type 316L Stainless Steel Secondary Heat Exchanger
- Electronic Ignition - No Pilot Light
- Indoor Model has Built-in Temperature Controller and Diagnostics
- Complies with Lead Free Standards
- Can be Vented in PVC, ABS, CPVC, Polypropylene and Stainless Steel
- 10-year limited warranty on heat exchanger / 5-year limited parts warranty



MODEL NUMBER*	TYPE	BTU INPUT NATURAL/PROPANE		HOT WATER OUTPUT (GPM)		
		MINIMUM	MAXIMUM	MAX.	45°F RISE	70°F RISE
ATI-540H-N	Indoor	15,000	199,000	10.0	8.4	5.4
ATO-540H-N	Outdoor	15,000	199,000	10.0	8.4	5.4

MODEL NUMBER*	ENERGY FACTOR (EF)	DIMENSIONS IN INCHES		
		HEIGHT	WIDTH	DIAMETER
ATI-540H-N	0.95	23-5/8	17-3/4	11-1/4
ATO-540H-N	0.95	23-5/8	17-3/4	11-1/4

*For Propane, change the N to P Example: ATI-540H-P



TANKLESS HEAVY-DUTY MODELS

- HRS35 Commercial-Grade Copper Heat Exchanger (non-ASME models)
- ASME Models Available
- Category III Stainless Steel Venting - 4" for 710 models and 5" for 910 models
- Vertical or Horizontal Venting Installation
- Power Vent Design
- Electronic Ignition
- Low NOx Emissions
- Combined Indoor/Outdoor models
- Easy-Link up to 4 Units
- Multi-Link up to 20 Units (710 Models only)
- Multi-Link Up to 10 Units (910 Models)
- 10-year limited warranty on heat exchanger / 5-year limited parts warranty

MODEL 710



MODEL 910



MODEL NUMBER	FUEL TYPE	BTU INPUT NATURAL/PROPANE		HOT WATER OUTPUT (GPM)		
		MINIMUM	MAXIMUM	MAX.	45°F RISE	70°F RISE
ATIO-710-N	Convertible	24,000	240,000	9.0	8.5	5.5
ATIO-710-AN*	Convertible	24,000	240,000	9.0	8.5	5.5
ATIO-910-N	Convertible	15,000	380,000	14.5	13.5	8.7
ATIO-910-AN*	Convertible	15,000	380,000	14.5	13.5	8.7

MODEL NUMBER	THERMAL EFFICIENCY NG / LP	DIMENSIONS IN INCHES		
		HEIGHT	WIDTH	DEPTH
ATIO-710-N	82% / 84%	23-3/5	18-1/2	10
ATIO-710-AN*	82% / 84%	23-3/5	18-1/2	10
ATIO-910-N	80% / 82%	24-7/8	25-1/4	12-1/4
ATIO-910-AN*	80% / 82%	24-7/8	25-1/4	12-1/4

For Propane, change the N to P Example: ATIO-710-P
*ASME models



AIR-TO-WATER ELECTRIC HEAT PUMPS

MODEL AWH

Air-to-water heat pump water heaters remove unwanted heat and humidity from the surrounding air and use it to heat water. The refrigeration-based system produces cool, dehumidified air for spot cooling or to reduce the load on air conditioning systems.



- High Efficiency water heating
- “Environmentally-Friendly” green technology uses non-ozone depleting R-134a refrigerant
- Simplified installation
- Efficient scroll compressor
- Sanitary hot water for commercial or industrial use
- Coefficient Performance (COP) between 3.9 and 4.2 for water heating
- Standard 208/230 VAC, Tri-phase power (Optional 460 VAC, Tri-phase)
- Maximum 140°F final tank temperature at common indoor temps
- Accessories Include:
 - Digital temp controller with tank probe
 - Metal mesh cleanable filter
 - Corrosive duty package; 316 stainless steel cabinet, polyurethane coated evaporator coil and blower housing. Recommended for coastal areas.



Commercial Electric

MODEL NUMBER	kW	PERFORMANCE				
		WATER HEATING CAPACITY BTU/HR*	COOLING CAPACITY BTU/HR*	AIR VOLUME CFM**	C.O.P.	G.P.M.
AWH-35	10.4	35,500	27,500	1040	3.9	7
AWH-55	17.0	58,000	45,500	1650	4.1	11
AWH-75	22.3	76,000	59,000	2150	3.9	15
AWH-100	28.7	98,000	78,000	3200	4.2	20
AWH-115	33.1	113,000	89,000	3200	4.2	23
AWH-140	41.6	142,000	110,000	3800	3.9	28
AWH-170	50.1	171,000	133,000	4900	3.9	34

MODEL NUMBER	DIMENSIONS IN INCHES				APPROXIMATE SHIPPING WEIGHT (LBS)
	INLET/OUTLET (FPT)	WIDTH	DEPTH	HEIGHT	
AWH-35	1.0"	40"	26"	24.75"	315
AWH-55	1.0"	47"	32"	28.5"	405
AWH-75	1.5"	57"	32"	28.5"	485
AWH-100	1.5"	63"	38"	42.5"	660
AWH-115	1.5"	63"	38"	42.5"	665
AWH-140	2.0"	63"	38"	42.5"	725
AWH-170	2.0"	75"	46"	42.5"	880

*Performance rating at 75° F, 55% Relative Humidity and 100°F incoming water temperature

**Blower design at 0.35" external static pressure

C.O.P. coefficient of performance

All models standard 208/230V, Tri-phase, 60 Hz.

Optional 460v Tri-phase 60Hz

Optional 240v Single Phase 60Hz (available on AHW-35 and AHW-55 only)

DEN/DEL ELECTRIC DURA-POWER™

MODEL DEN-80D

- Upright and lowboy models
- Zinc-plated copper sheath heating elements standard
- Standard voltages for easy installation
- Factory-installed terminal block
- Factory-wired controls
- Glasslined tank
- Maximum hydrostatic working pressure: 150 PSI
- 3-year limited tank warranty



MODEL NUMBER	GAL. CAP.	KILOWATTS MAXIMUM	DIMENSIONS IN INCHES		APPROX. SHIPPING WEIGHT (LBS)
			HT.	DIA.	
DEL-6S	6	2.5	15-1/2	14-1/4	35
DEL-10S	10	6	18-1/4	18	54
DEL-15S	15	6	26	18	58
DEL-20S	20	6	22-1/4	21-3/4	73
DEL-30D	30	12	30-7/8	21-3/4	100
DEL-40D	40	12	32-1/4	24	125
DEL-50D	50	12	32-1/4	26-1/2	166
DEN-30D	30	10	34-1/2	20-1/2	98
DEN-40D	40	12	45-1/8	20-1/2	113
DEN-52D	50	12	54-7/8	20-1/2	131
DEN-66D	66	12	60-3/4	21-3/4	176
DEN-80D	80	12	59-3/8	24	211
DEN-120D	119	12	62-7/16	29-3/8	326

S= Single Element D= Dual Elements

Dual element models wired for 3-phase 208/240/480 volt. Field convertible to 1-phase.



Commercial Electric

ELEMENT AVAILABILITY CHART (LIGHT DUTY COMMERCIAL ELECTRIC)

Input	120 V	208V	240V	277V	480V
1500	Yes	Yes	Yes	Yes	--
2000	Yes	Yes	Yes	Yes	Yes
2500	Yes	Yes	Yes	Yes	Yes
3000	Yes	Yes	Yes	Yes	Yes
3500	-	-	Yes	-	-
4000	-	Yes	Yes	Yes	Yes
4500	-	Yes	Yes	Yes	Yes
5000	-	(Yes)	Yes	Yes	Yes
5500	-	(Yes)	Yes	-	Yes
6000	-	Yes ^t	(Yes)	Yes	Yes

6 gallon model not available above 3.0 kW
6/10/15/20 gallon model all A6 circuit (2 wire) only

^t = Non simultaneous circuit only

() = Simultaneous only in 3 Ph

GOLD Xi AND GOLD SERIES

Gold Xi (DVE) Features

- Advanced Electronic Control— Plain English text and animated icons display diagnostics
- iCOMM™ Compatible and can be monitored from remote locations. Call 1.888.WATER02 for more information.
- Economy Mode Operation— Lowers the operating set point and reduces operating costs
- Thermostatic linear sequencing control helps reduce current surges and provides accurate control of water temperature
- Immersion-style thermostats

MODEL DVE
52, 80, 120



Gold Xi (DVE) and Gold Series (DRE) Features

- 24K patented Goldenrod® elements standard
- Maximum hydrostatic working pressure: 150 PSI
- Power-circuit fusing for system protection
- 208V, 240V and 480V voltages for easy installation
- Factory-installed terminal block
- Factory-wired circuit controls
- Glasslined tank
- BACnet and Modbus compatible with ICC interface
- 3-year limited warranty

MODEL DRE
52, 80, 120



Commercial Electric

MODEL NUMBER	GAL. CAP.	KILOWATTS MAXIMUM	DIMENSIONS IN INCHES		APPROXIMATE SHIPPING WEIGHT (LBS)	
			HT.	DIA.	STD.	ASME
DVE/DRE-52	50	54*	55-3/4	21-3/4	265	316
DVE/DRE-80	80	54	60-1/4	25-1/2	280	325
DVE/DRE-120	119	54	62-1/4	29-1/2	390	416

* DRE-52 is maximum 36kW
See specification sheets or contact your local rep for optional kW's available

ASME/CRN
(optional)



HEAVY-DUTY CUSTOM Xi

MODELS DSE-5
THROUGH DSE-120

- Advanced Electronic Control—Provides precise temperature control and plain English text with animated icons display
- iCOMM™ Compatible and can be monitored from remote locations. Call 1.888.WATER02 for more information.
- Low-Water Cutoff—Remote electronic immersion-type probe to prevent energizing of the elements, eliminating accidental dry firing
- Incoloy-sheath heating elements standard
- Heavy-duty magnetic contactors
- Factory-wired, 120V circuit controls
- Power-circuit fusing for system protection
- Glass-lined tank, with ASME construction
- CSA certified and ASME rated T&P relief valve
- Brass drain valve
- BACnet and Modbus compatible with ICC interface
- 3-year limited warranty



ASME

Commercial Electric

MODEL NUMBER	GAL. CAP.	MAXIMUM		DIMENSIONS IN INCHES		APPROX. SHIPPING WEIGHT (LBS)
		KILOWATTS	IMMERSION HEATERS	HEIGHT	DIAMETER	
DSE-5	5	3	1	20-1/2	16-1/4	82
DSE-10	10	6	1	26-1/2	18-3/4	106
DSE-20	20	18	2	27-1/4	20-1/2	130
DSE-30	30	24	2	35-3/4	20-1/2	150
DSE-40	40	36	2	45-3/4	20-1/2	190
DSE-50	50	90	5	54-3/4	20-1/2	221
DSE-65	65	90	5	50-1/2	26-1/2	267
DSE-80	80	90	5	49-1/4	28	285
DSE-100	100	90	5	58-1/4	28	354
DSE-120	119	90	5	63-1/4	30	420

HEAVY-DUTY CMC/SU BOOSTER ELECTRIC DURA-POWER™ MODELS

MODEL
CMC-6 THRU 18



- Incoloy-sheath heating elements standard
- A. O. Smith Goldenrod® elements optional
- Standard voltages for easy installation
- Immersion thermostat for efficient control
- Power-circuit fusing for system protection
- Heavy-duty magnetic contactors
- Factory-wired 120V circuit controls

MODEL NUMBER	GAL. CAP.	NO. OF IMMERSION HEATERS	INLET/OUTLET	DIMENSIONS IN INCHES			APPROX. SHIPPING WEIGHT (LBS)
				HT.	WIDTH	DEPTH	
CMC-6 thru 18	5	1	3/4	13-3/4	13	21-3/4	80
CMC-20 thru 54	5	2*	3/4	12	18	22-1/2	96
SU-6 thru 18	20	1	3/4	25	22-1/4	23	200
SU-20 thru 54	20	2*	3/4	25	22-1/4	23	200

*CMC-54 and SU-54 have three immersion heaters.

ASME



HEAVY-DUTY PREMIUM ELECTRIC DVE/DHE DURA-POWER™ MODELS

MODELS DVE-400 AND DHE-300



- **ADVANCED ELECTRONIC CONTROL** (All models 150kW and lower) – A. O. Smith's new propriety electronic water heater control, provides precise + or - 1°F temperature control, that is ideal for industrial and food service applications where exact temperatures of hot water are needed.
- **iCOMM™ Compatible** and can be monitored from remote locations. Call 1.888.WATER02 for more information.
- **Progressive Modulating-** Sizes the input of available elements to match current load conditions. Rotates and lead lags element loads to provide long life and equal wear.
- **SOLID STATE MODULATING STEP CONTROL** (All Models 180kW and up) – Solid state electronic control device that modulates input to match load through progressive sequencing of steps (up to 20 steps with maximum of one per contactor).
- Heavy-duty Incoloy-sheath heating elements
- 240V, 480V and 600V
- Factory-installed terminal block
- Heavy-duty magnetic contactors
- Factory-wired, 120V circuit controls
- Power-circuit fusing
- Low-water cutoff
- Glass-lined tank (standard)
- Handhole clean-out(s)
- Color-coded circuitry
- CSA certified and ASME rated T&P relief valve



ASME



Commercial Electric

VERTICAL ELECTRIC STORAGE HEATERS

MODEL NUMBER	GALLON CAPACITY	MAXIMUM kW INPUT	DIMENSIONS IN INCHES		
			HEIGHT	WIDTH	DEPTH
DVE-140	140	120	83-1/2	30	37
DVE-150T	150	150	83-1/2	30	37
DVE-150S	150	150	59-1/2	36	43
DVE-200	200	180	79-1/2	36	43
DVE-250	250	240	93	36	43
DVE-300	300	300	83-1/2	42	49
DVE-350	350	330	95-1/2	42	49
DVE-400	400	390	102-1/2	42	49
DVE-500	500	480	97	48	55
DVE-600	600	600	112	48	55
DVE-700	700	690	124	48	55
DVE-800	800	780	116	54	61
DVE-1000	1000	990	116	60	67
DVE-1250	1250	1200	143	60	67
DVE-1500	1500	1500	155	60	67
DVE-2000	2000	1980	183	66	73
DVE-3000	3000	3000	217	72	79
DVE-5000	5000	3000	309	78	85
DVE-7500	7500	3000	330	90	97
DVE-10,000	10,000	3000	358	102	109

Complete model number includes the desired kW at the end (example: DVE-140-120)

Minimum installation clearances required: 30" from front, 12" from top and 24" from right side

150 gallon available in both tall (T) and short (S) models

BACnet and Modbus connectivity available with the ICC Gateway device on models with 150 kW or less

Commercial Electric

HORIZONTAL ELECTRIC STORAGE HEATERS

MODEL NUMBER	GALLON CAPACITY	MAXIMUM kW INPUT	DIMENSIONS IN INCHES		
			HEIGHT	WIDTH	DEPTH
DHE-200	200	180	38-1/2	77	36
DHE-250	250	240	38-1/2	91	36
DHE-300	300	300	44-1/2	81	42
DHE-350	350	330	44-1/2	93	42
DHE-400	400	390	44-1/2	100	42
DHE-500	500	480	51	94	48
DHE-600	600	600	51	109	48
DHE-700	700	690	51	121	48
DHE-800	800	780	57	111	54
DHE-1000	1000	990	61	111	60
DHE-1250	1250	1200	61	138	60
DHE-1500	1500	1500	61	150	60
DHE-2000	2000	1980	70	177	66
DHE-3000	3000	3000	76	211	72
DHE-5000	5000	3000	82	296	78
DHE-7500	7500	3000	94	317	90
DHE-10,000	10,000	3000	106	345	102

Complete model number includes the desired kW at the end, minimum installation

Clearances required: 30" from front, 12" from top and 24" from right side

BACnet and Modbus connectivity available with the ICC Gateway device on models with 150 kW or less

BURKAY® HW GAS DOMESTIC WATER HEATERS AND BOILERS

MODEL HW-120M



- 82% Thermal Efficiency
- 100% all non-ferrous waterways
- Low-profile diverter
- Copper coil combustion chamber
- Copper heat exchanger
- Burkay® burner maximizes efficiency
- Slow opening redundant gas valves
- Thermal balancer
- Automatic safety controls and electronic ignition
- 5-year heat exchanger limited warranty (domestic hot water supply)
- 10-year heat exchanger limited warranty (hydronic heating applications)



Commercial Boilers

MODEL NUMBER	INPUT BTU/HOUR*	OUTPUT BTU/HOUR	TEMP RISE°F GPH		
			40	100	140
HW-120M	120,000	99,840	300	120	86
HW-160M	160,000	128,320	385	154	110
HW-200M	199,000	162,185	487	195	139
HW-225M	225,000*	180,900	543	217	155
HW-300	300,000	247,200	742	297	212
HW-399	399,000	322,790	969	388	277
HW-420	420,000	344,400	1034	413	295
HW-520	520,000	429,000	1288	515	368
HW-670	660,000	543,800	1632	656	466

MODEL NUMBER	DIMENSIONS IN INCHES				APPROX. SHIPPING WEIGHT (LBS)
	VENT DIAMETER	HEIGHT	DIAMETER	DEPTH	
HW-120M	6	49-3/8	20-3/4	26-11/16	120
HW-160M	7	50-1/8	20-3/4	26-11/16	154
HW-200M	7	53-1/4	20-3/4	26-11/16	165
HW-225M	7	60	20-3/4	26-11/16	175
HW-300	8	65	25-1/4	29-5/8	240
HW-399	10	57-1/8	27	31-1/2	291
HW-420	10	57-1/8	27	31-1/2	291
HW-520	10	68-5/16	27	36-1/2	361
HW-670	12	67	27	38-1/4	361

*Available in natural gas only

Commercial Water Heaters

BURKAY® GENESIS® DOMESTIC WATER HEATER

MODELS
GWH0400 THRU GWH2100



- 85% Thermal efficiency
- Electronic Control with precise temperature management
- Stage gas firing system - prevents short cycling and ensures smooth operation, saves fuel and extends product life
- Low NOx operation
- Copper Finned-Tube Heat Exchanger
- Space-saving design - optional stack rack allows one unit to be stacked on top of another, doubling output within the footprint of a single unit
- Meets ASHRAE/IESNA 90.1-2004
- Multiple venting options
- Factory start-up included
- 5-year heat exchanger limited warranty

Burkay
GENESIS®



Commercial Water Heaters

MODEL NUMBER	INPUT MBH	OUTPUT MBH	GPH @ 100°F RISE	VENT/INTAKE CONNECTIONS	LOAD FACTOR	APPROX. SHIPPING WEIGHT (LBS)
GWH0400N	399	339	412	6"	1.01	454
GWH0500N	500	425	515	6"	1.19	467
GWH0650N	650	553	670	8"	1.58	551
GWH0750N	750	638	773	8"	1.58	611
GWH1000N	990	842	1,020	10"	3.33	843
GWH1250N	1,260	1,071	1,298	12"	3.33	939
GWH1450N	1,440	1,224	1,484	12"	3.33	1,035
GWH1800N	1,800	1,530	1,855	12"/14"	5	1,168
GWH2100N	2,070	1,760	2,133	12"/14"	5	1,285

Authorized Factory Start-Up Included - required to activate warranty. (U.S. Only)
Consult Local Representative.

VARIABLE FIRE (VF™) HIGH-EFFICIENCY WATER HEATERS

MODELS VWH



- Up to 87% Thermal efficiency
- Advanced Modulating Control with venturi-mixing gas/air ratio system
- Small footprints, zero clearance to combustibles on sides of unit
- Category II and IV listed - Requires the use of AL29-4C a vent material that resists the effects of corrosive condensates
- Complies with SCAQMD Rule 1146.2 and other Air Quality Management Districts with similar requirements for low NOx emissions
- Capable of firing from 100% to 25% (or a 4:1 turndown ratio) of the rated input, based on the current system demand
- Meets thermal efficiency and standby loss requirements of the U.S. Department of Energy and current edition of ASHRAE/IESNA 90.1
- Professional Start-Up Included - Required for activating warranty and assuring maximum operating performance
- 5-year heat exchanger limited warranty



Commercial Water Heaters

MODEL NUMBER	BTU/HR NATURAL GAS INPUT	BTU/HR NATURAL GAS OUTPUT	RECOVERY 100°F RISE GPH
VWH0500	500,000	425,000	573
VWH0750N	750,000	637,500	622
VWH1000N	999,999	849,999	671
VWH1500N	1,500,000	1,275,000	1,117
VWH2000N	2,000,000	1,700,000	1,186

MODEL NUMBER	VENT SIZE (INCHES)	AIR INTAKE SIZE	LOAD FACTOR	APPROX. SHIPPING WEIGHT (LBS)
VWH0500	4"	5"	2.78	573
VWH0750N	5"	5"	2.78	622
VWH1000N	6"	6"	2.78	671
VWH1500N	6"	6"	2.78	1,117
VWH2000N	8"	8"	2.78	1,186

XP DOMESTIC WATER HEATERS

MODELS XWH

- Up to 99% in Low Temperature Applications
- Super Alloy Metal Fiber Burners
- 20:1 Turndown models
2 million btuh and up,
10:1 turndown models
1.7 million btuh and down
- ASME Rated Relief Valve
- 160 lb. ASME Working Pressure
- Factory-Installed Bronze Circulating Pump
- Adjustable Pump Delay
- Honeywell Sola Control with color touch screen LCD Display
- Multi-burner Sequencing models 2 million btuh and up have 4 burners; models 1.7 million btuh and down have 2 burners
- Redundant flow and low water protection - Factory installed LWCO and flow switch(s)
- Manual Reset High Limit
- 316L Stainless steel heat exchanger(s)
- Professional Start-Up Included - Required for activating warranty and assuring maximum operating performance
- 5-year heat exchanger limited warranty



XP

CRN ASME

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Commercial Water Heaters

MODEL NUMBER	BTU/HR NATURAL GAS INPUT	RECOVERY CAPACITIES		
		GPH TEMP RISE @ 40°F	GPH TEMP RISE @ 100°F	GPH TEMP RISE @ 140°F
SINGLE HEAT EXCHANGER				
XWH-1000	920,000	2662	1065	761
XWH-1300	1,300,000,	3742	1497	1069
XWH-1700	1,700,000	4904	1962	1401
DOUBLE HEAT EXCHANGER				
XWH-2000	1,999,900	5794	2317	1655
XWH-2600	2,600,000	7501	3000	2143
XWH-3400	3,400,000	9891	3956	2826

MODEL NUMBER	VENT CONNECTION (INCHES)	HEIGHT*	WIDTH	DEPTH	APPROX. SHIPPING WEIGHT (LBS)
SINGLE HEAT EXCHANGER					
XWH-1000	6	55-1/2	37	67	865
XWH-1300	8	55-1/2	38	68	1065
XWH-1700	8	55-1/2	37	76	1140
DOUBLE HEAT EXCHANGER					
XWH-2000	8	86-1/4	36	78	1485
XWH-2600	8	86-1/4	37	80	1830
XWH-3400	10	86-1/4	37	91	2175

All dimensions in inches
* To top of air intake

AC-U-TEMP COMPLETE HOT WATER SUPPLY SYSTEMS

- Standard tank sizes from 80 to 1000-gallons

- Ac-u-Temp system eliminates costly field errors

- Simplifies installation

- Standard Ac-U-Tanks are factory jacketed and insulated

- All systems are built to order

- Multi-heater systems for 50%-100% back-up

- Multi-tank systems available

- Superior I-beam skid

- Factory hydrostatic and fire-tested before shipping

- ASME relief valve 125#

- Tank temperature sensor

- Tank thermometer

- Isolation valves

- Custom tank sizes to 10,000 gallons

- 5-year limited heat exchanger warranty and 5-year limited tank warranty



Commercial Electric Boilers

DURA-POWER™ NW ELECTRIC BOILERS

MODEL NW-37



- ASME code construction
- Incoloy immersion heaters
- Control and power circuit fusing
- Pilot switch and light
- Heavy-duty UL-rated magnetic contactors rated for 100,000
- Low-water cutoff
- 120V control circuit
- Modulating step control
- 1-year limited tank warranty

See heater specification sheet for additional features and options

MODEL NUMBER	GAL. CAP.	KILOWATTS MAXIMUM	HEIGHT**	WIDTH	DEPTH	INLET AND OUTLET*	BOILER DRAIN
NW-37	37	180	42	32	30	3	1
NW-60	60	300	57	32	30	3	1
NW-96	96	480	69-1/2	36	38	4	1-1/4
NW-150	150	720	69-1/2	54	44	5	1-1/2
NW-220	220	1140	71	60	50	5	1-1/2
NW-334	334	1740	99	60	50	6	2
NW-400	400	2100	90-1/2	66	56	8	2
NW-500	500	2580	90-1/2	72	62	8	2
NW-670	670	3300	96-1/2	78	68	8	2

NOTE: For boilers 3400 kW to 6000 kW, consult factory

*All fittings under 4" will be threaded type. All fittings 4" and larger will be flanged

**Where overall height is a problem, a larger diameter vessel with a reduced height may be furnished



STEAM OR BOILER HOT WATER HWG GENERATOR SYSTEMS

- All HWG systems are fiberglass insulated and jacketed
- Integral bronze circulator pump
- Both steam and boiler water units are custom built to meet your specifications and are completely assembled with components sized, piped, and checked before shipping
- ASME rated
- Cathodic protection
- Custom sizes available up to 12,000 gallons
- Available in vertical or horizontal models
- 5-year limited tank warranty and 1-year limited coil warranty

Contact your local A. O. Smith representative for specification information.

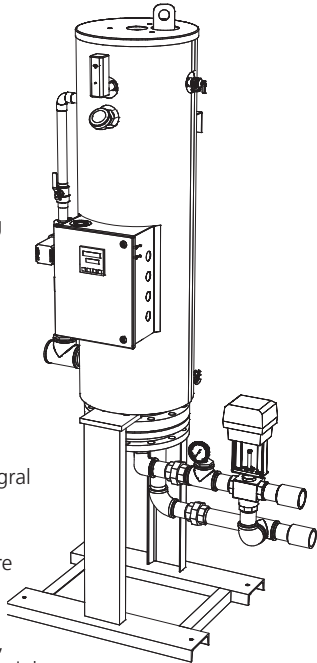


ASME



SEMI-INSTANTANEOUS HWI WATER HEATERS

- A. O. Smith's HWI models are available for operation with steam or boiler water as the energy source. They are factory assembled with components sized, piped and checked at the factory before shipment. HWI models are all space saving vertical models.
- Code Listing - The system will employ an ASME "U" code shell. fitted with an ASME "U" code 3/4" diameter copper tube heat exchanger.
- Integral Pump - The HWI system will employ an integral bronze circulator pump.
- Steam Units - Steam trim consists of temperature control valve, inlet and auxiliary steam traps, inlet and auxiliary strainers, steam pressure gauge with siphon, vacuum breaker and air vent.
- Boiler Units - Boiler water trim includes temperature control valve and boiler water temperature gauge.



CONTROL FEATURES

- Single Point Wiring – Single 120V connection, controls including integral circulation
- On/Off Switch – Allows local on/off for service
- Temperature Readout – LED readout of water temperature
- PID Temperature Control – Modulates electrical control valve
- High Temperature Limit – Closes main valve under over temperature condition
- Remote Temperature Signal
- 2-Wire RS485 – Communication (MODBUS or ASCII)

See heater specification sheet for more features and options.

CUSTOM SMALL AND LARGE VOLUME STORAGE TANKS (T, TL, TN, TJ, TJV, TJH, TJVT)

- Glasslined per ASME, HLW procedures
- Horizontal or vertical mounting options available
- High-density, fiberglass insulated jackets or bare steel tanks
- Cement or epoxy linings available
- ASME construction
- Anodic protection
- Black steel, stainless and silicon-bronze tank constructions available
- Meets R12.5 minimum thermal insulation requirements of the U.S. Department of Energy and current edition of ASHRAE/IESNA 90.1
- 5-year limited tank warranty



ASME



Commercial Storage Tanks

BARE (UNINSULATED) STORAGE TANKS

MODEL NUMBER	GALLON	APPROXIMATE OVERALL DIMENSIONS DIAMETER x LENGTH	WORKING PRESSURE (PSI)
T-80 STD	80	20 x 62-1/8	150
T-80 ASME	80	26-1/2 x 54-57/64	150
T-120 STD	120	24 x 65	150
T-140 ASME	140	24 x 76-1/4	125
T-200 STD	200	30 x 72	150
T-200 ASME	200	30 x 72	125
T-250 ASME	250	30 x 84	125
T-350 STD	350	36 x 87-1/2	125
T-350 ASME	350	36 x 87-1/2	125
T-400 ASME	400	36 x 97-1/8	125
TL-500 ASME	500	36 x 121-3/4	125
TN-500 ASME	500	42 x 88	125
T-500 ASME	500	48 x 73	125
T-750 ASME	750	48 x 105-7/8	125
T-1000 ASME	1000	48 x 137-3/4	125

VERTICAL JACKETED (INSULATED) STORAGE TANKS

MODEL NUMBER	GALLON	APPROXIMATE OVERALL DIMENSIONS DIAMETER x LENGTH	WORKING PRESSURE (PSI)
TJ-80 STD	80	25-1/4 X 63	150
TJ-80 ASME	80	26-1/2 X 54-57/64	160
TJV-120 ASME	119	28 X 61-3/4	160
TJV-120 M	119	28 X 61-3/4	160
TJV-140 ASME	140	30 X 87	125
TJV-200 ASME	200	36 X 83	125
TJV-200 M	175	32 X 77	125
TJV-250 ASME	250	36 X 96	125
TJV-350 ASME	350	42 X 99	125
TJV-400 ASME	400	42 X 105	125
TJVT-500 ASME	500	48 X 100	125
TJV-500 ASME	500	54 X 84	125
TJV-750 ASME	750	54 X 116	125
TJV-1000 ASME	1000	54 X 148	125
T-1000 ASME	1000	48 x 137-3/4	125

HORIZONTAL JACKETED (INSULATED) STORAGE TANKS

MODEL NUMBER	GALLON	APPROXIMATE OVERALL DIMENSIONS DIAMETER x LENGTH	WORKING PRESSURE (PSI)
TJH-200 ASME	200	36 X 77	125
TJH-250 ASME	250	36 X 90	125
TJH-350 ASME	350	42 X 93	125
TJH-400 ASME	400	42 X 99	125
TJHF-500 ASME	500	40 X 94	125
TJH-500 ASME	500	54 X 79	125
TJH-750 ASME	750	54 X 110	125
TJH-1000 ASME	1000	54 X 143	125

All dimensions in inches



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