



John Wood®

Hot Water for Life™

PRODUCT GUIDE



ELECTRIC • GAS • OIL • TANKLESS

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Hot Water for Life

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Hot water for life

For over 50 years, our water heaters have been providing hot water to homes and businesses.

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How old is your water heater?
See if it's still under warranty

[Check the age of your heater](#)

Parts Catalogue
Looking for a specific model or part? Below are a few search options you can use to help you find exactly what you're looking for.

[Parts Catalogue](#)

We are leaders in residential water heaters.

<h3>Regional Tech Specialists</h3> <p>We're here to help you get exactly what you need. Our regional technical specialists have the expertise, knowledge and experience to ensure you get optimal performance from your product - in any climate or installation condition.</p>	<h3>Contractor Rewards</h3> <p>With Contractor Rewards you earn points from John Wood water heating products you install. Points you can use towards a new set of golf clubs, big screen TV, tools and more. It doesn't cost anything to join. It just pays off. Good energy in 2008. Join Rewards Today</p>	<h3>Online Support</h3> <p>You have access to valuable resources, right at your fingertips. 24 hours a day, 7 days a week - including warranty validators and claims, product resources, FAQs and a media centre.</p>	<h3>Reliable Products</h3> <p>Our high-quality, advanced manufacturing processes, including robotics, sequencing of critical components and reliability testing for cold of mass and harsh water conditions ensure proper form, fit and function in all our water heaters.</p>
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Visit **www.johnwoodwaterheaters.com** to access valuable information concerning John Wood® products and services such as:

- Parts Catalogue
- Warranty Validation
- ENERGY STAR® qualified products
- Information on products, including specifications and installation manuals
- Frequently Asked Questions
- Resource center for contractors which includes product images

Table of Contents

John Wood® Water Heaters	1
--------------------------	---

STORAGE-TYPE PRODUCTS

John Wood® Safety Systems	5
---------------------------	---

ProLine® XE Atmospheric Vent	6
------------------------------	---

ProLine® & ProLine® Master Atmospheric Vent	8
---	---

ProLine® XE Power Vent	10
------------------------	----

ProLine® XE Power Direct Vent	12
-------------------------------	----

ProLine® Direct Vent	14
----------------------	----

Envirosense® Power Direct Vent	16
--------------------------------	----

Envirosense® Power Vent	18
-------------------------	----

Polaris™	20
----------	----

ProLine® & ProLine® Master Electric	22
-------------------------------------	----

Space Saver® Electric	24
-----------------------	----

Oil Fired & Oil Burners	26
-------------------------	----

Storage Booster Tanks	28
-----------------------	----

Flow THRU®	29
------------	----

TANKLESS PRODUCTS

John Wood® powered by Takagi Tankless (Condensing)	34
--	----

John Wood® powered by Takagi Tankless (Non-Condensing)	36
--	----

John Wood® powered by Takagi Tankless (Concentric Vent)	38
---	----

Table of Contents

APPENDICES

Ohm's Law	43
Reference Guide for Water Heating	45
Exclusive Designs, Service & Support	50

John Wood® maintains a policy of ongoing product improvement. This may result in modification of features and/or specifications without notice.



John Wood[®]

Hot Water for Life[™]

RESIDENTIAL WATER HEATERS
WITH
**COMMERCIAL-GRADE
COMPONENTS**





John Wood®

DON'T WASTE YOUR ENERGY

WITH ANY OTHER POWER VENT

John Wood has the most complete line-up of Power Vent water heaters in their class and exceed ENERGY STAR® qualifications with up to an amazing 0.70 EF.

Learn more on Pages 10 and 11 in this catalogue.



Storage-Type



John Wood® Safety Systems

Flammable Vapour Ignition Resistant (FVIR) technology you can trust.

John Wood residential water heaters use one of three unique Flammable Vapour Ignition Resistant (FVIR) Safety Systems that reduce the risk of accidental fires caused by the ignition of flammable vapours from products such as gasoline, paint thinner and solvents: the Flame Guard® and Flame Safe™ Safety Systems and the Power Vent Safety System.

Flame Guard® Safety System Used on John Wood Atmospheric Vent Water Heaters



The Flame Guard® Safety System is a recognized and proven technology used on John Wood Atmospheric Vent water heaters. The award winning Flame Guard® Safety System protects the consumer by trapping burning vapours within the water heater combustion chamber through the patented "Flame-Trap." As long as the vapours are present and within the flammability range, they will continue to burn safely until they "burn themselves out."

Flame Safe™ Safety System Used on John Wood Direct Vent Water Heaters



Flame Safe™ technology - designed to protect the consumer against the ignition of flammable vapours.

Power Vent Safety System

The Safety System used on John Wood Power Vent water heaters features a flammable vapour sensor and air intake snorkel. This system not only shuts down the unit when flammable vapours are detected in the area of the water heater but elevates the air intake so that flammable vapours do not enter the combustion chamber and ignite before the sensor shuts down the water heater.

ProLine® XE Atmospheric Vent

ENERGY STAR® qualified



Features

- Flue damper for increased energy efficiency and performance
- 24 volt gas valve offers: Diagnostic capabilities, monitors damper to ensure proper operation and safety, spark ignition eliminates the need for a standing pilot
- Robust 1/4" pilot tubing
- Durable brass drain valve
- Turbulator dip tube reduces sediment build-up at bottom of the tank
- Glass-lined tank to prolong tank life and prevent corrosion
- Plugs into a standard 110/120V outlet (10 ft. power cord included)
- Combustion chamber is easy to access
- Conveniently located T&P and drain valve for ease of installation and serviceability
- Top mounted heavy duty anode rod for added tank protection



PERFORMANCE

Model	Series	Capacity	Input*	Maximum Certified Altitude	Recovery Rate at 90°F Temperature Rise	First Hour Rating	Energy Factor	Warranty Tank/Parts
		USG (L)	BTU/h	FT (M)	GPH (LPH)	GPH (LPH)		Years
NATURAL GAS								
JW640S40N-AV-ES2	100/101	40 (151)	40,000	10,100 (3,078)	41 (155)	67 (254)	0.67	6/6
JW640T40N-AV-ES2	100/101	40 (151)	40,000	10,100 (3,078)	41 (155)	67 (254)	0.67	6/6
JW650S40N-AV-ES2	100**	50 (189)	40,000	10,100 (3,078)	41 (155)	81 (307)	0.67	6/6
JW650T40N-AV-ES2	100/101	50 (189)	40,000	10,100 (3,078)	41 (155)	81 (307)	0.67	6/6

Propane models sub N with P. Natural gas models are series 100. Propane models are series 101.

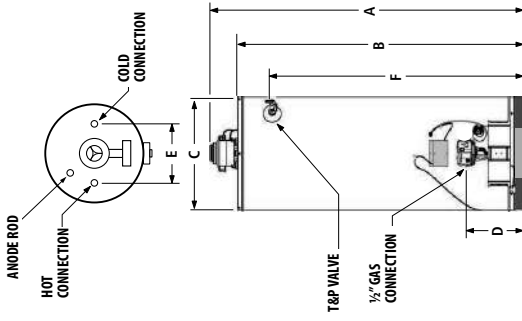
*Propane Gas – 36,000 for the 40 gallon models and 37,000 for the 50 gallon tall models.

**50 USG Short model is not available for Propane.

All models comply with national energy efficiency regulations.

DIMENSIONS & SHIPPING WEIGHT

Model	Installation Height	Height to Top of Tank	Tank Diameter	Height to Gas Inlet	Hot Connection to Cold Connection	Height to T&P	Drafthood Connector Diameter	Shipping Weight
	IN (CM)	IN (CM)	IN (CM)	IN (CM)	IN (CM)	IN (CM)	IN	LB (KG)
JW640S40N-AV-E52	54 (137)	47 ¾ (121)	22 (56)	13 (33)	8 (20)	41 (104)	3 or 4	149 (68)
JW640T40N-AV-E52	64 ¼ (163)	58 ¼ (148)	20 (51)	13 (33)	8 (20)	51 ¾ (131)	3 or 4	152 (51)
JW650S40N-AV-E52	55 ¾ (142)	49 ½ (126)	24 (61)	13 (33)	8 (20)	42 ½ (108)	3 or 4	183 (83)
JW650T40N-AV-E52	63 ½ (161)	57 ¼ (145)	22 (56)	13 (33)	8 (20)	50 ¼ (128)	3 or 4	167 (76)



Maximum Hydrostatic Working Pressure: 150 PSI

ProLine® & ProLine® Master Atmospheric Vent

Proven technology and exceptional reliability



Features

- Turbulator dip tube reduces sediment build-up at the bottom of the tank
- Thermopile design provides robust pilot to withstand down drafts and environmental conditions
- Gas valve offers easy temperature adjustments and has LED indicator light for operation, diagnostic and troubleshooting assistance
- Robust 1/4" pilot tubing
- The Flame Guard® Safety System protects the homeowner by trapping burning vapours within the water heater's easy to access combustion chamber
- Conveniently located T&P and drain valve for ease of installation and serviceability
- Piezoelectric ignitor allows for lighting of the pilot without matches
- Top mounted heavy duty anode rod for added tank protection
- 2 or 4 year tank warranty extension kits are available for 6 year models



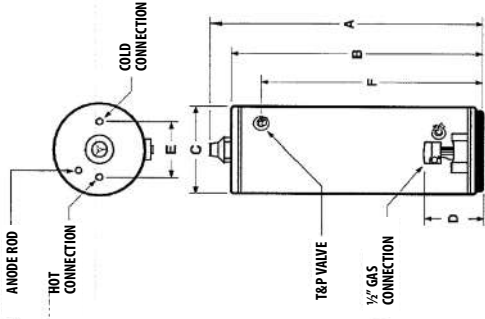
PERFORMANCE

Model	Series	Capacity	Input†	Maximum Certified Altitude	Recovery Rate at 90°F Temperature Rise	First Hour Rating	Energy Factor	Warranty Tank/Parts
		USG (L)	BTU/h	FT (M)	GPH (LPH)	GPH (LPH)		Years
NATURAL GAS								
AV30N	400/401	30 (114)	35,500	10,100 (3,078)	36 (136)	60 (227)	0.64	6/6
AV40N	400/401	40 (151)	40,000	10,100 (3,078)	41 (155)	67 (254)	0.62	6/6
AV40TN	400/401	40 (151)	40,000	10,100 (3,078)	42 (159)	70 (265)	0.62	6/6
AV50N	400/401	50 (189)	40,000	10,100 (3,078)	43 (163)	93 (352)	0.61	6/6
AV50TN	400/401	50 (189)	40,000	10,100 (3,078)	42 (159)	88 (333)	0.62	6/6
AV60N	400/401	60 (227)	52,200	10,100 (3,078)	54 (204)	104 (344)	0.59	6/6
AV75N*	400/401	75 (284)	75,100	7,700 (2,347)	80 (303)	N/A	N/A	6/6
NATURAL GAS								
AV40NM	400/401	40 (151)	40,000	10,100 (3,078)	41 (155)	67 (254)	0.62	8/8
AV50NM	400/401	50 (189)	40,000	10,100 (3,078)	43 (163)	93 (352)	0.61	8/8

Propane models sub N with P. Natural gas models are series 400. Propane models are series 401.

* Model has side connections

† Propane Gas – 36,000 for the 50 gallon short, 37,000 for the 50 gallon tall, & 36,000 for 40 gallon models and 32,000 input for 30 gallon models. All models comply with national energy efficiency regulations.



DIMENSIONS & SHIPPING WEIGHT										
Model	Installation Height	Height to Top of Tank	Tank Diameter	Height to Gas Inlet	Hot Connection to Cold Connection	Height to T&P	Draft Hood Connector Diameter	Shipping Weight		
	A IN (CM)	B IN (CM)	C IN (CM)	D IN (CM)	E IN (CM)	F IN (CM)	IN	LB (KG)		
AV30N	50 (127)	46 3/4 (118)	20 (51)	13 1/2 (34)	8 (20)	40 (102)	3 or 4	118 (53)		
AV40N / AV40NM	51 1/2 (131)	47 3/4 (121)	22 (56)	13 (33)	8 (20)	41 (104)	3 or 4	135 (61)		
AV40TN	61 3/4 (157)	58 1/4 (148)	20 (51)	13 (33)	8 (20)	51 3/4 (131)	3 or 4	150 (68)		
AV50N / AV50NM	53 1/4 (135)	49 1/2 (126)	24 (61)	13 (33)	8 (20)	42 1/2 (108)	3 or 4	175 (79)		
AV50TN	61 (155)	57 1/4 (145)	22 (56)	13 (33)	8 (20)	50 1/4 (128)	4	165 (75)		
AV60N	62 3/4 (159)	59 (150)	24 (61)	13 (33)	8 (20)	51 1/2 (131)	4	205 (93)		
AV75N	61 (155)	57 (145)	26 1/2 (67)	14 3/4 (37)	8 (20)	50 1/4 (128)	4	273 (124)		

ProLine® XE Power Vent

ENERGY STAR® qualified



Features

- Industry-leading energy efficient power vent, with up to a 0.70 EF
- ENERGY STAR® qualified (except 60 and 75 gallon models)
- State-of-the-art electronic gas control features advanced self-diagnostic capability that makes troubleshooting easy
- Ideal as a replacement water heater in a variety of installation applications due to 3-position rotatable blower
- Can be vented with 2", 3" or 4" ULC S636 PVC, CPVC or polypropylene pipe
- Vertical or horizontal venting configurations
- Convenient 3/4" side taps for combination applications on 50 USG high-input and 75 USG models
- 2 or 4 year tank warranty extension kits are available for 6 year models



PERFORMANCE

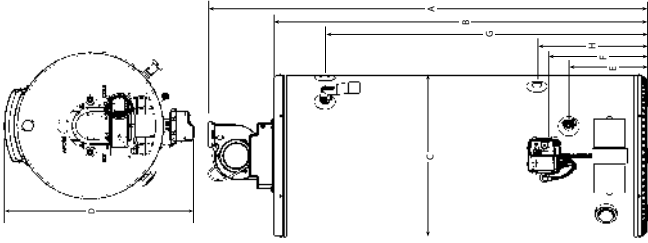
Model	Series	Capacity	Input	Maximum Certified Altitude	Recovery Rate at 90°F Temperature Rise	First Hour Rating	Energy Factor	Warranty Tank/ Parts
		USG (L)	BTU/h	FT (M)	GPH (LPH)	GPH (LPH)		Years
NATURAL GAS								
PV40N	200/201	40 (151)	40,000	10,100 (3,078)	44 (167)	73 (276)	0.70	6/6
PV40TN	200/201	40 (151)	50,000	10,100 (3,078)	50 (189)	90 (341)	0.70	6/6
PV50N	200/201	50 (189)	40,000	10,100 (3,078)	44 (167)	90 (341)	0.70	6/6
PV50TN	200/201	50 (189)	50,000	10,100 (3,078)	50 (189)	96 (363)	0.70	6/6
PV50HIN	200/201	50 (189)	62,000	10,100 (3,078)	69 (261)	110 (416)	0.70	6/6
PV60N	200/201	60 (227)	42,000	10,100 (3,078)	46 (174)	106 (401)	0.70	6/6
PV75N	200/201	75 (284)	72,000	10,100 (3,078)	80 (303)	155 (587)	0.68	6/6
NATURAL GAS								
PV50NM	200/201	50 (189)	40,000	10,100 (3,078)	44 (167)	90 (341)	0.70	8/8
PV50HINM	200/201	50 (189)	62,000	10,100 (3,078)	69 (261)	110 (416)	0.70	8/8

For propane models sub N with P. Natural gas models are series 200. Propane models are series 201. All models comply with national energy efficiency regulations.

DIMENSIONS & SHIPPING WEIGHT

Model	Installation Height	Height to Top of Tank	Tank Diameter	Overall Depth	Height to Drain Valve	Height to Gas Inlet	Height to T&P	Height to Upper Side Connection	Height to Lower Side Connection	Shipping Weight
	A IN (CM)	B IN (CM)	C IN (CM)	D IN (CM)	E IN (CM)	F IN (CM)	G IN (CM)	G IN (CM)	H IN (CM)	LB (KG)
NATURAL GAS										
PV40N	59 (150)	49 5/8 (126)	22 (56)	29 1/8 (74)	11 (28)	13 1/4 (34)	42 1/2 (108)	N/A	N/A	174 (79)
PV40TN	68 1/2 (174)	59 1/4 (150)	20 (51)	27 1/8 (69)	11 (28)	13 1/4 (34)	53 1/8 (135)	N/A	N/A	176 (80)
PV50N/PV50NM	60 1/8 (153)	50 3/4 (129)	24 (61)	31 1/8 (79)	11 (28)	13 1/4 (34)	43 3/4 (111)	N/A	N/A	198 (90)
PV50TN	68 1/8 (173)	58 3/4 (149)	22 (56)	29 1/8 (74)	11 (28)	13 1/4 (34)	51 3/4 (131)	N/A	N/A	192 (87)
PVHIN/PV50HINM*	61 1/8 (155)	52 (132)	24 (61)	31 1/8 (79)	11 (28)	13 1/4 (34)	44 1/2 (113)	44 1/2 (113)	15 1/4 (39)	212 (96)
PV60N	67 1/4 (171)	57 7/8 (147)	24 (61)	31 1/8 (79)	11 (28)	13 1/4 (34)	50 3/8 (128)	N/A	N/A	216 (98)
PV75N*	70 3/8 (179)	61 1/4 (156)	26 (66)	33 1/8 (84)	11 (28)	13 1/4 (34)	53 (135)	53 (135)	15 1/4 (39)	277 (126)

* Model has side connections



ProLine[®] XE Power Direct Vent

ENERGY STAR[®] qualified



Features

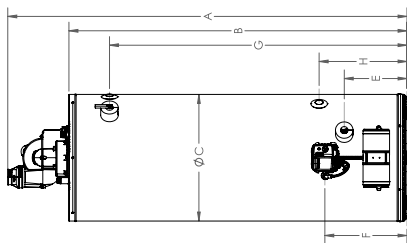
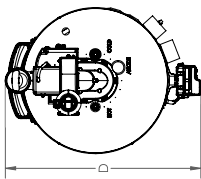
- ENERGY STAR[®] qualified (except 75 gallon model)
- Sealed combustion chamber design, eliminating the need for a FV sensor
- Ultra-quiet blower
- Convenient 3/4" side water connections for combination applications on high input 50 USG and 75 USG units
- Can be vented with 2", 3" or 4" ULC S636 PVC, CPVC or polypropylene pipe up to 180 equivalent feet (see installation manual for full details)
- Zero clearance to combustibles
- Factory-installed heat trap nipples
- 2 or 4 year tank warranty extension kits are available



PERFORMANCE

Model	Series	Capacity	Input	Maximum Certified Altitude	Recovery Rate at 90°F Temperature Rise	First Hour Rating	Energy Factor	Warranty Tank/Parts
		USG (L)	BTU/h	FT (M)	GPH (LPH)	GPH (LPH)		Years
NATURAL GAS								
PDV40N	300/301	40 (151)	40,000	10,100 (3,078)	45 (170)	71 (269)	0.71	6/6
PDV50N	300/301	50 (189)	45,000	10,100 (3,078)	50 (189)	93 (352)	0.70	6/6
PDV50HIN	300/301	50 (189)	62,000	10,100 (3,078)	73 (276)	100 (379)	0.71	6/6
PDV75N	300/301	75 (284)	72,000	10,100 (3,078)	82 (310)	154 (583)	0.69	6/6

For propane models sub N for P. Natural gas models are series 300. Propane models are series 301. All models comply with national energy efficiency regulations.



DIMENSIONS & SHIPPING WEIGHT

Model	Installation Height	Height to Top of Tank	Tank Diameter	Overall Depth	Height to Drain Valve	Height to Gas Inlet	Height to T&P	Height to Upper Side Connection	Height to Lower Side Connection	Vent Diameter	Shipping Weight
	IN (CM)	IN (CM)	IN (CM)	IN (CM)	IN (CM)	IN (CM)	IN (CM)	IN (CM)	IN (CM)	IN	LB (KG)
NATURAL GAS											
PDV40N	58 1/4 (148)	49 1/2 (126)	22 (56)	29 7/8 (76)	11 (28)	13 3/4 (34)	42 3/4 (108)	N/A	N/A	2, 3 or 4	174 (79)
PDV50N	67 1/2 (171)	58 7/8 (150)	22 (56)	29 7/8 (76)	11 (28)	13 3/4 (34)	51 3/4 (131)	N/A	N/A	2, 3 or 4	192 (87)
PDV50HIN*	68 7/8 (175)	60 1/4 (153)	22 (56)	29 7/8 (76)	11 (28)	13 3/4 (34)	52 3/4 (134)	52 3/4 (134)	15 1/4 (39)	3 or 4	200 (91)
PDV75N*	70 7/8 (179)	60 1/2 (154)	26 (66)	33 7/8 (86)	11 (28)	13 3/4 (34)	53 (134)	53 (134)	15 1/4 (39)	3 or 4	277 (126)

*Model has side connections.

ProLine® Direct Vent

A unique balanced flue design



Features

- Thermopile design provides robust pilot to withstand down drafts and environmental conditions
- LED indicator light lets you know when pilot is in operation and provides diagnostic capabilities
- Easy temperature adjustment
- Use outside air for combustion
- Meet latest NRCan energy efficiency standards
- No external power supply required
- 90" coaxial vent supplied with water heater
- Factory-installed plastic-lined nipples with heat traps
- Sealed combustion chamber design, eliminating the need for a flammable vapour sensor
- Flame Safe™ FVIR technology
- 2 or 4 year tank warranty extension kits are available



PERFORMANCE

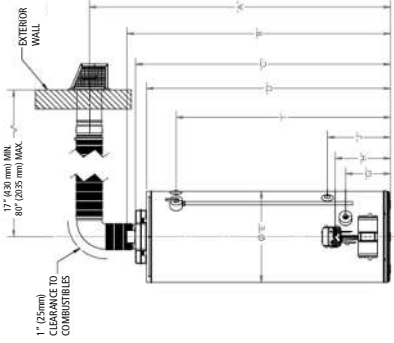
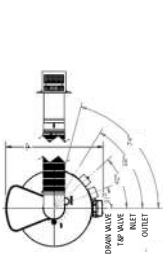
Model	Series	Capacity	Input	Maximum Certified Altitude	Recovery Rate at 90° F Temperature Rise	First Hour Rating	Energy Factor	Warranty Tank/ Parts
		USG (L)	BTU/h	FT (M)	GPH (LPH)	GPH (LPH)		Years
DV40N	300/301	40 (151)	38,000	7,700 (2,347)	42 (159)	72 (273)	0.63	6/6
DV50N	300/301	50 (189)	40,000	7,700 (2,347)	43 (163)	91 (344)	0.62	6/6
DV50HIN	300/301	50 (189)	47,000	7,700 (2,347)	51 (193)	92 (348)	0.61	6/6

For propane models sub N with P. Natural gas models are series 300. Propane models are series 301. All models comply with national energy efficiency regulations.

DIMENSIONS & SHIPPING WEIGHT

Model	Height to Center of Vent	Height to Top of Flue Outlet	Height to Top of Air Box	Height to Top of Heater	Diameter	Overall Depth	Height to Drain	Height to Gas Inlet	Height to T&P	Height to Side Tap (Hot Out)	Height to Side Tap (Cold In)	Shipping Weight
	A IN (CM)	B IN (CM)	C IN (CM)	D IN (CM)	E IN (CM)	F IN (CM)	G IN (CM)	H IN (CM)	I IN (CM)	I IN (CM)	J IN (CM)	LB (KG)
DV40N	64 (163)	54 ³ / ₈ (138)	52 ¹ / ₂ (134)	49 ⁵ / ₈ (126)	22 (56)	29 (74)	10 ³ / ₄ (27)	13 ¹ / ₄ (34)	42 ³ / ₈ (108)	N/A	N/A	178 (81)
DV50N	73 (185)	63 ⁵ / ₈ (162)	61 ³ / ₄ (157)	58 ⁷ / ₈ (150)	22 (56)	29 (74)	10 ³ / ₄ (27)	13 ¹ / ₄ (34)	51 ⁵ / ₈ (132)	N/A	N/A	200 (91)
DV50HIN*	74 (188)	64 ³ / ₈ (164)	62 ⁷ / ₈ (160)	60 (152)	22 (56)	29 (74)	10 ³ / ₄ (27)	13 ¹ / ₄ (34)	52 ³ / ₄ (134)	52 ³ / ₄ (134)	15 ¹ / ₄ (39)	215 (98)

*Model has side connections.



Envirosense® Power Direct Vent

96% Thermal Efficiency



50 Gallon Model Shown

Features

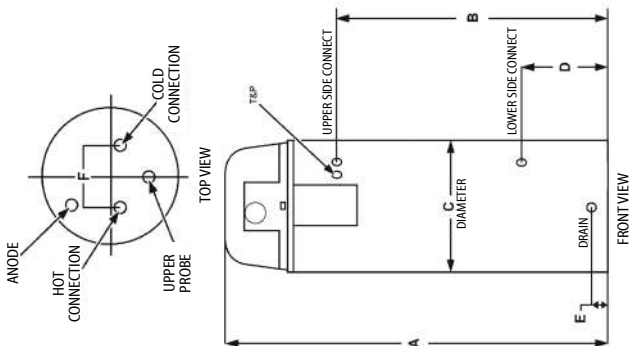
- Power Direct Vent design for installation versatility vents up to 128 equivalent feet using ULC S636 PVC, CPVC or polypropylene pipe (See manual for complete details)
- ENERGY STAR® qualified
- Side water connections for recirculating systems
- Advanced electronic control with touch screen display
- Glass-lined tank with two magnesium anode rods
- Fully submerged, spiral-shaped condensing heat exchanger
- Concentric vent kits and condensate neutralizer kits available
- Approved for one-pipe (PV) or two-pipe (PDV) venting



PERFORMANCE

Model	Series	Capacity		Maximum Certified Altitude FT (M)	Input BTU/h	Recovery Rate at 90°F Temperature Rise GPH (LPH)	Thermal Efficiency	Warranty Tank/Parts
		USG	L					Years
NATURAL GAS								
6G50100NPDVH02	300/301	50	189	10,100 (3,078)	100,000	128 (485)	96%	6/6
6G75100NPDVH02	300/301	75	284	10,100 (3,078)	100,000	128 (485)	96%	6/6

For propane models sub N with P. Natural gas models are serie 300. Propane models are series 301. All models comply with national energy efficiency regulations.



DIMENSIONS & SHIPPING WEIGHT											
Model	Height to Top of Tank	Height to T&P	Height to Upper Side Connection	Tank Diameter	Height to Lower Side Connection	Height to Drain Valve	Outlet to Inlet	Top Water Connections	Side Water Connections	Gas Connection	Shipping Weight
	IN (CM)	IN (CM)	IN (CM)	IN (CM)	IN (CM)	IN (CM)	IN (CM)	IN NPT	IN NPT	IN NPT	LB (KG)
NATURAL GAS											
6G50100NPDVH02*	66 3/4 (170)	49 1/4 (125)	49 1/4 (125)	22 (56)	15 3/4 (40)	3 (8)	8 (20)	3/4	3/4	1/2	255 (116)
6G75100NPDVH02*	65 1/4 (166)	45 5/8 (116)	45 5/8 (116)	27 3/4 (71)	16 (41)	3 3/4 (10)	8 (20)	1	3/4	1/2	382 (173)

*Model has side connections.

Envirosense® Power Vent

94% Thermal Efficiency



50 Gallon Model Shown

Features

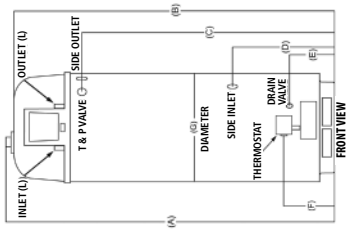
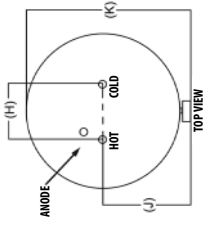
- Power Vent design for installation versatility that vents up to 125 equivalent feet using ULC S636 PVC, CPVC or polypropylene pipe (See manual for complete details)
- Side-mounted taps for recirculating systems
- Intelli-Vent™ gas control with silicon nitride hot surface igniter
- Commercial-grade glass lining with two magnesium anode rods
- Available in Natural Gas only
- Diffuser dip tube helps reduce lime and sediment build-up to, maximize hot water output



PERFORMANCE

Model	Series	Capacity		Maximum Certified Altitude	Input	Recovery Rate at 90°F Temperature Rise	Thermal Efficiency	Warranty Tank/Parts
		USG	L	FT (M)	BTU/h	GPH (LPH)		Years
NATURAL GAS								
6G5076NVC02	120	50	189	5,300 (1,615)	76,000	96 (364)	94%	6/6

All models comply with national energy efficiency regulations.



DIMENSIONS & SHIPPING WEIGHT														
Model	Installation Height	Height to Top of Tank	Height to T&P	Height to Upper Side Connection	Height to Lower Side Connection	Height to Drain Valve	Height to Thermostat	Tank Diameter	Hot Connection to Cold Connection	Water Connection Depth From Front of Tank	Overall Depth	Top Water Connections	Side Water Connections	Shipping Weight
	IN(CM)	B IN(CM)	C IN(CM)	C IN(CM)	D IN(CM)	E IN(CM)	F IN(CM)	G IN(CM)	H IN(CM)	J IN(CM)	K IN(CM)	IN NPT	IN NPT	LB (KG)
NATURAL GAS														
665076NVC02*	71 (180)	68 5/8 (174)	52 (132)	52 (132)	21 (53)	9 1/8 (23)	12 (30)	22 (56)	8 (20)	15 3/4 (40)	27 (69)	3/4	3/4	225 (102)

Natural gas only.

*Model has side connections.



Features

- High grade stainless steel tank with brass connections for years of dependable service – no anode required
- A submerged combustion chamber with spiral flue provides up to 96% thermal efficiency and ultra-low standby heat loss of approximately 1%
- Whisper quiet operation
- Self-diagnostic control system
- Fully serviceable from the front
- Direct vents up to 120' using ULC S636 PVC or CPVC pipe either through the wall or through the roof
- The perfect choice for combination systems
- Modulating burner maintains high efficiency operation at lower input rates.



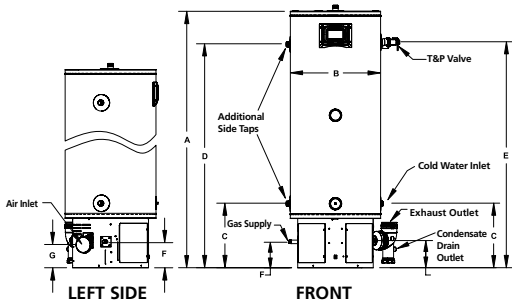
PR34-100 N
model only

PERFORMANCE

Model	Series	Capacity		Maximum Certified Altitude	Input	Recovery Rate at 90°F Temperature Rise	Thermal Efficiency	Warranty Tank/ Parts
		USG	L	FT (M)	BTU/h	GPH (LPH)		Years
NATURAL GAS								
PR34-100 N	200/201	34	129	7,700 (2,437)	100,000	129 (488)	96%	10/1
PR34-130 N	200/201	34	129	7,700 (2,437)	130,000	168 (636)	96%	10/1
PR34-150 N	200/201	34	129	7,700 (2,437)	150,000	190 (719)	94%	10/1
PR50-130 N	200/201	50	189	7,700 (2,437)	130,000	165 (625)	95%	10/1
PR50-150 N	200/201	50	189	7,700 (2,437)	150,000	190 (719)	95%	10/1
PR50-175 N	200/201	50	189	7,700 (2,437)	175,000	222 (840)	96%	10/1
PR50-199 N	200/201	50	189	7,700 (2,437)	199,000	253 (958)	96%	10/1

For propane models sub N with P. Natural gas models are series 200. Propane models are series 201.

All models comply with national energy efficiency regulations. Input, output and recovery may vary depending upon air inlet and exhaust outlet installations, consult manual for details.



DIMENSIONS & SHIPPING WEIGHT												
Model	Height to Top of Tank	Tank Diameter	Height to Lower Side Connection	Height to Cold Water Inlet	Height to Upper Side Connection	Height to T&P	Height to Gas Supply	Height to Air Inlet	Water Connections	Gas Connections	Vent Diameter	Shipping Weight
	A IN (CM)	B IN (CM)	C IN (CM)	C IN (CM)	D IN (CM)	E IN (CM)	F IN (CM)	G IN (CM)	IN NPT	IN NPT	IN	LB (KG)
NATURAL GAS												
PR34-100N	48 1/2 (123)	22 (56)	15 3/4 (40)	15 3/4 (40)	40 1/2 (103)	41 (104)	6 3/8 (16)	6 3/8 (16)	1	1/2	2 or 3	150 (68)
PR34-130N	48 1/2 (123)	22 (56)	15 3/4 (40)	15 3/4 (40)	40 1/2 (103)	41 (104)	6 3/8 (16)	6 3/8 (16)	1	1/2	2 or 3	150 (68)
PR34-150N	48 1/2 (123)	22 (56)	15 3/4 (40)	15 3/4 (40)	40 1/2 (103)	41 (104)	6 3/8 (16)	6 3/8 (16)	1	1/2	2 or 3	150 (68)
PR50-130N	62 3/8 (158)	22 (56)	15 3/4 (40)	15 3/4 (40)	54 1/2 (138)	55 (140)	6 3/8 (16)	6 3/8 (16)	1	1/2	2 or 3	176 (80)
PR50-150N	63 3/4 (162)	22 (56)	15 3/4 (40)	15 3/4 (40)	55 3/4 (142)	56 1/4 (143)	6 3/8 (16)	6 3/8 (16)	1	1/2	2 or 3	180 (82)
PR50-175N	63 3/4 (162)	22 (56)	15 3/4 (40)	15 3/4 (40)	55 3/4 (142)	56 1/4 (143)	6 3/8 (16)	6 3/8 (16)	1	1/2	3	180 (82)
PR50-199N	63 3/4 (162)	22 (56)	15 3/4 (40)	15 3/4 (40)	55 3/4 (142)	56 1/4 (143)	6 3/8 (16)	6 3/8 (16)	1	1/2	3	180 (82)

Electric

Unique features and a broad range of models and sizes



Features

- Meets and exceeds NRCan energy efficiency standards
- Wide variety of models available to meet energy efficiency compliance standards nationwide
- Patented Styropour® base for added energy efficiency
- Exclusive TankSaver® design to prolong tank life
- Glass-lined tank for longer life
- Factory-installed plastic-lined nipples
- Thermostatically controlled, long life elements
- Brass drain valve
- Quick recovery models available, suitable for the builder market
- CFC-free foam insulation
- Conveniently located T&P and drain valve for ease of installation and serviceability
- Removable anode
- 2 or 4 year tank warranty extension kits are available for 6 year models



PERFORMANCE

Model	Series	Capacity			Elements (Upper and Lower)		Standby Loss WATTS	First Hour Rating GPH (LPH)	Warranty Tank/Parts Years
		IG	USG	L	WATTS	VOLTS			
TOP ENTRY									
E50TE-30208	250	40	50	182	3000	208	53	60 (227)	6/6
E50TE-30240	250	40	50	182	3000+	240	53	60 (227)	6/6
E50TE-38240	250	40	50	182	3800++	240	53	60 (227)	6/6
E50TE-45208	250	40	50	182	4500	208	53	60 (227)	6/6
E50TE-45240	250	40	50	182	4500+++	240	53	60 (227)	6/6
E50TE-55208	250	40	50	182	5500	208	53	60 (227)	6/6
E50TE-60240	250	40	50	182	6000++++	240	53	60 (227)	6/6
E80TE-30208	250	60	80	287	3000	208	78	81 (307)	6/6
E80TE-30240	250	60	80	287	3000+	240	78	81 (307)	6/6
E80TE-38240	250	60	80	287	3800++	240	78	81 (307)	6/6
E80TE-45208	250	60	80	287	4500	208	78	81 (307)	6/6
E80TE-45240	250	60	80	287	4500+++	240	78	81 (307)	6/6
E80TE-55208	250	60	80	287	5500	208	78	81 (307)	6/6
E80TE-60240	250	60	80	287	6000++++	240	78	81 (307)	6/6
TOP ENTRY									
E50TEM-30240*	250	40	50	182	3000+	208	53	60 (227)	8/8
E50TEM-38240*	250	40	50	182	3800++	240	53	60 (227)	8/8
E80TEM-45240*	250	40	50	182	4500+++	240	78	81 (307)	8/8
BOTTOM ENTRY									
E50BE-30208	250	40	50	182	3000	208	65	60 (227)	6/6
E50BE-30240	250	40	50	182	3000+	240	65	60 (227)	6/6
E50BE-45208	250	40	50	182	4500	208	65	60 (227)	6/6
E50BE-45240	250	40	50	182	4500+++	240	65	60 (227)	6/6
E80BE-30208	250	60	80	287	3000	208	80	81 (307)	6/6
E80BE-30240	250	60	80	287	3000+	240	80	81 (307)	6/6
E80BE-45208	250	60	80	287	4500	208	80	81 (307)	6/6
E80BE-45240	250	60	80	287	4500+++	240	80	81 (307)	6/6

* Model has incoloy elements

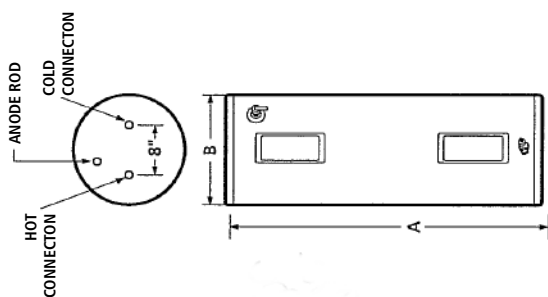
All models comply with national energy efficiency regulations.

+ Model is dual-rated. At 208V wattage is 2253.

++ Model is dual-rated. At 208V wattage is 2854.

+++ Model is dual-rated. At 208V wattage is 3380.

++++ Model is dual-rated. At 208V wattage is 4507.



DIMENSIONS & SHIPPING WEIGHT

Model	Height to Top of Tank A	Diameter B	Shipping Weight
	IN (CM)	IN (CM)	LB (KG)
TOP ENTRY			
E50TE-30208	48 ¾ (124)	22 (56)	125 (57)
E50TE-30240 / E50TEM-30240	48 ¾ (124)	22 (56)	125 (57)
E50TE-38240 / E50TEM-38240	48 ¾ (124)	22 (56)	125 (57)
E50TE-45208	48 ¾ (124)	22 (56)	125 (57)
E50TE-45240	48 ¾ (124)	22 (56)	125 (57)
E50TE-55208	48 ¾ (124)	22 (56)	125 (57)
E50TE-60240	48 ¾ (124)	22 (56)	125 (57)
E80TE-30208	60 ½ (154)	24 (61)	170 (77)
E80TE-30240	60 ½ (154)	24 (61)	170 (77)
E80TE-38240	60 ½ (154)	24 (61)	170 (77)
E80TE-45208	60 ½ (154)	24 (61)	170 (77)
E80TE-45240 / E80TEM-45240	60 ½ (154)	24 (61)	170 (77)
E80TE-55208	60 ½ (154)	24 (61)	170 (77)
E80TE-60240	60 ½ (154)	24 (61)	170 (77)
BOTTOM ENTRY			
E50BE-30208	48 (122)	22 (56)	122 (55)
E50BE-30240	48 (122)	22 (56)	122 (55)
E50BE-45208	48 (122)	22 (56)	122 (55)
E50BE-45240	48 (122)	22 (56)	122 (55)
E80BE-30208	60 ½ (154)	24 (61)	170 (77)
E80BE-30240	60 ½ (154)	24 (61)	170 (77)
E80BE-45208	60 ½ (154)	24 (61)	170 (77)
E80BE-45240	60 ½ (154)	24 (61)	170 (77)

Space Saver® Electric

Put hot water right where you need it



Features

- Designed for installation in cottages, offices, mobile homes and other applications where space is limited
- Meets NRCan energy efficiency standards
- Personnel protector covers elements and controls for added safety



PERFORMANCE

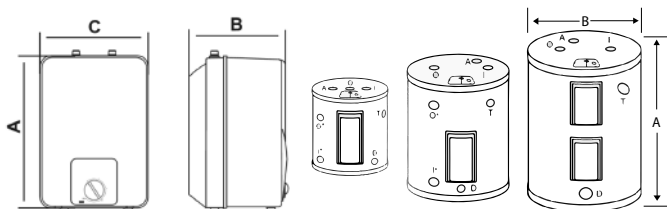
Model	Series	Capacity			Input		Recovery Rate at 90°F Temperature Rise	Standby Loss	Warranty Tank/Parts
		IG	USG	L	WATTS	VOLTS	GPH (LPH)	WATTS	Years
TOP ENTRY SINGLE ELEMENT MODELS									
SS025SE15	100	2	2.5	9	1440	120*	7 (26)	N/A	6/1
SS045E15	100	3	4	15	1440	120*	7 (26)	N/A	6/1
BOTTOM ENTRY SINGLE ELEMENT MODELS									
SS065EB15	N/A	5	6	23	1500	120	7 (26)	N/A	6/1
SS065EB30	N/A	5	6	23	3000+	240	14 (53)	N/A	6/1
SS125EB15	N/A	9	12	43	1500	120	7 (26)	N/A	6/1
SS125EB30	N/A	9	12	43	3000+	240	14 (53)	N/A	6/1
SS620SSEB-15K	100	14	19	65	1500	120	7 (26)	51	6/1
SS620SSEB-30	100	14	19	65	3000+	240	14 (53)	51	6/1
SS630SSEBN-15K	100	22	30	108	1500	120	7 (26)	48	6/1
SS630SSEBN-30	100	22	30	108	3000+	240	14 (53)	48	6/1
TOP ENTRY DOUBLE ELEMENT MODELS									
SS640SDE3-15K	100	30	40	143	1500	120	7 (26)	54	6/1
SS640SDE3-30X	100	30	40	143	3000	208	14 (53)	54	6/1
SS640SDE3-30	100	30	40	143	3000+	240	14 (53)	54	6/1
LOWBOY TOP ENTRY DOUBLE ELEMENT MODELS									
SS630LDE-45X	250	22	30	108	4500++	208	20 (76)	53	6/1
SS630LDE-45	250	22	30	108	4500++	240	20 (76)	53	6/1
SS640LDE-45X	250	30	40	143	4500++	208	20 (76)	62	6/1
SS640LDE-45	250	30	40	143	4500++	240	20 (76)	62	6/1
SS650LDE-45	250	40	50	182	4500++	240	20 (76)	64	6/1

*Model is dual-rated. At 208V wattage is 2253.

++Model is dual-rated. At 208V wattage is 3380.

*Plug-in model. All models except LOWBOY TOP ENTRY DOUBLE ELEMENT MODELS comply with national energy efficiency regulations. SS630LDE-45 and SS640LDE-45 are ON/QC compliant.

Top Entry Single Element Model



***Note: 6, 12 and 19 USG models have side connections on left hand side.

DIMENSIONS & SHIPPING WEIGHT

Model	Height	Diameter*	Width	Shipping Weight
	A IN (CM)	B IN (CM)	C IN (CM)	LB (KG)
PLUG IN SINGLE ELEMENT MODEL				
SS02SSE15	14 ½ (37)	10 ¾ (26)	11 ¾ (30)	17 (8)
SS04SE15	19 ¼ (49)	10 ¾ (26)	11 ¾ (30)	20 (9)
BOTTOM ENTRY SINGLE ELEMENT MODELS				
SS06SEB15	15 ¼ (39)	14 ¼ (36)	N/A	35 (16)
SS06SEB30	15 ¼ (39)	14 ¼ (36)	N/A	35 (16)
SS12SEB15	22 ¾ (58)	16 (41)	N/A	55 (25)
SS12SEB30	22 ¾ (58)	16 (41)	N/A	55 (25)
SS620SSEB-15K	25 ½ (65)	20 (51)	N/A	65 (30)
SS620SSEB-30	25 ½ (65)	20 (51)	N/A	65 (30)
SS630SSEBN-15K	30 (76)	22 (56)	N/A	101 (46)
SS630SSEBN-30	30 (76)	22 (56)	N/A	101 (46)
TOP ENTRY DOUBLE ELEMENT MODELS				
SS640SDE3-15K	50 (127)	20 (51)	N/A	103 (47)
SS640SDE3-30X	50 (127)	20 (51)	N/A	103 (47)
SS640SDE3-30	50 (127)	20 (51)	N/A	103 (47)
LOWBOY TOP ENTRY DOUBLE ELEMENT MODELS				
SS630LDE-45X	31 (79)	22 (56)	N/A	96 (44)
SS630LDE-45	31 (79)	22 (56)	N/A	96 (44)
SS640LDE-45X	33 ½ (85)	24 (61)	N/A	113 (51)
SS640LDE-45	33 ½ (85)	24 (61)	N/A	113 (51)
SS650LDE-45	34 (86)	26 ½ (67)	N/A	164 (74)

*Depth on model SS02SSE15 and SS04SE15.

Oil-Fired

Models for virtually every application



Features

- Glass-lined inner tank and sacrificial magnesium anodes extend tank life
- Universal mounting design fits most burners
- Ceramic fibre combustion chamber maximizes heat retention
- Supplied with a blocked flue safety switch
- Suitable for combination applications, potable water and space heating



Oil burners designed by Beckett™

- Easy to install
- AFG Burner comes with Beckett Clean Cut Fuel Unit, Beckett R7184 Series 5 Primary Control, self-centering Nozzle Line Electrode Assembly and one piece Flame Retention Head

PERFORMANCE

Model	Series	Capacity	Input	Standard Firing Rate	Recovery Rate at 90°F Temperature Rise	First Hour Rating	Energy Factor	Warranty Tank/Parts*
		USG (L)	BTU/h	USG/h	GPH (LPH)	GPH (LPH)		Years
CENTER-FLUE								
JW6 F307	400	32 (121)	84,000 - 105,000	0.60 - 0.75	120 (454)	113 (428)	0.62	6/1*
JW6 F507	400	50 (189)	105,000	0.75	126 (477)	145 (549)	0.62	6/1*
DIRECT VENT**								
JW6 F307V	400	32 (121)	91,000	0.65	103 (390)	113 (428)	0.62	6/1*

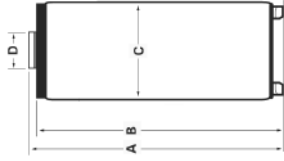
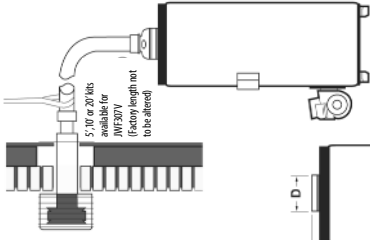
*Burners are sold separately and warrantied by the burner manufacturer.

**Direct vent models must use vent kit and burner supplied by John Wood®. Burner must be model specified with pre-purge and post-purge features.

All models comply with national energy efficiency regulations.

DIMENSIONS & SHIPPING WEIGHT

Model	Installation Height		Height to Top of Tank		Tank Diameter	Vent Diameter	Tube Insertion Length	Water Connection	Shipping Weight
	A IN (CM)	B IN (CM)	B IN (CM)	C IN (CM)	D IN (CM)	IN (CM)	IN (NPT)	LB (KG)	
CENTER-FLUE									
JW6 F307	52 ¾ (134)	50 ¾ (129)		20 (51)	6 (15)	4 ¾ (12)	¾	172 (78)	
JW6 F507	60 ½ (154)	58 ½ (149)		22 (56)	6 (15)	5 ¾ (15)	¾	214 (97)	
DIRECT VENT									
JW6 F307V	52 ¾ (134)	50 ¾ (129)		20 (51)	6 (15)	4 ¾ (12)	¾	172 (78)	



OIL BURNERS, VENT KITS & GASKETS

Part Number	Description
DIRECT VENT	
GSW2001	Beckett oil burner for JW6 F307V, single aquastat
GSW2002	Beckett oil burner for JW6 F307V, dual aquastat
100092474	10' vent kit, includes termination, cage and adapter
100092475	20' vent kit, includes termination, cage and adapter
100092507	3" clamp and teflon gasket
100092508	6" clamp and teflon gasket

OIL BURNERS, VENT KITS & GASKETS

Part Number	Description
CENTER-FLUE	
GSW1801	Beckett oil burner, for model JW6 F307, single aquastat
GSW1802	Beckett oil burner, for model JW6 F307, dual aquastat
GSW1901	Beckett oil burner for JW6 507, single aquastat
GSW1902	Beckett oil burner for JW6 507, dual aquastat

Storage Booster Tanks

Exclusive, patented innovation

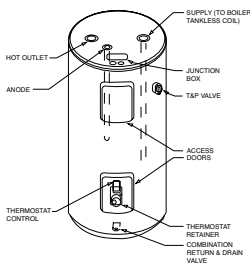
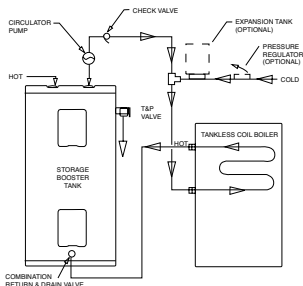


Features

- Available in 40, 50, and 80 gallon capacities to meet the hot water requirements of modern households
- Glass-lined inner tanks for long life
- Automatic temperature control through adjustable thermostat
- 6-year tank warranty
1-year parts warranty

DIMENSIONS & SHIPPING WEIGHT

Model	Capacity	Water Connections	Height to Top of Tank	Tank Diameter	Height to T&P	Approximate Shipping Weight
	USG (L)	IN (NPT)	IN (CM)	IN (CM)	IN (CM)	LB (KG)
JWSB-40	40 (151)	¾	40 (102)	20 ½ (52)	37 ¾ (96)	103 (47)
JWSB-50	50 (189)	¾	48 (122)	21 ½ (55)	40 ½ (103)	123 (56)
JWSB-80	80 (303)	¾	60 ½ (154)	22 ½ (57)	52 (132)	175 (79)



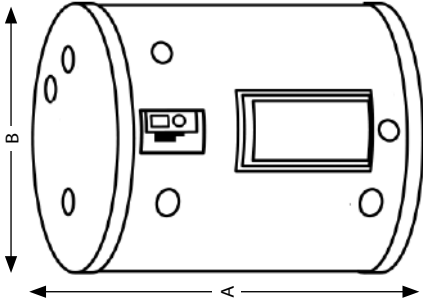
Flow THRU®

Storage tanks specifically designed to complement our series of tankless water heaters



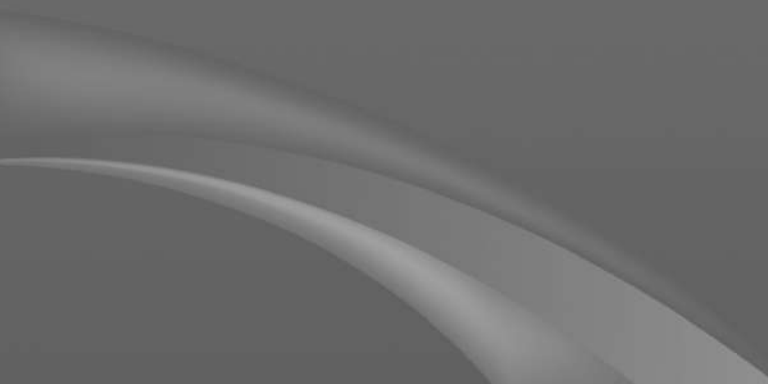
Features

- Exclusive TankSaver® design works to prolong tank life
- Factory-installed dielectric nipples for ease of installation
- T&P valve conveniently located on the side
- Top access junction box for convenient electrical hook-up
- Equipped with an adjustable thermostat, pre-wired and ready for connection to a circulator pump
- 6-year tank warranty
1-year parts warranty



SPECIFICATIONS							
Model	Series	Capacity		Height A IN (CM)	Diameter B IN (CM)	Water Connections IN NPT	Shipping Weight LB (KG)
		USG	L				
GST 20	200	19	67	25 1/2 (65)	19 (48)	3/4	65 (29)
GST 30	200	30	108	31 1/2 (80)	22 (56)	3/4	94 (43)

Tankless





Powered by  **TAKAGI**

The John Wood powered by Takagi condensing tankless water heaters provide endless hot water *. The durable primary heat exchanger is made of commercial-grade copper while the secondary heat exchanger is made of Type 316L stainless steel, preventing corrosion and prolonging the life of the heater. These direct vent models combine durability and versatility in an easy-to-install space-saving design.



Features of Condensing Tankless Models:

- Integrated temperature and error display
- Advanced safety features
- ENERGY STAR® qualified with a 0.95 EF
- ULC S636 PVC, CPVC, polypropylene pipe or Cat. III/IV stainless steel venting
- Internal freeze protection system
- New 540P model with integrated recirculation pump

*When sized appropriately

John Wood® powered by Takagi Tankless

High-efficiency condensing models



Features

- ENERGY STAR® qualified
- 0.95 Energy Factor
- Durable primary heat exchanger is made of commercial-grade copper while the secondary heat exchanger is made of Type 316L stainless steel, preventing corrosion and prolonging the life of the heater
- Available inputs: up to 199,000 BTU
- New 540P model with integrated recirculation pump
- Can be vented using ULC S636 PVC, CPVC, polypropylene pipe or Cat. III/IV stainless steel
- Factory-installed power cord and integrated controls
- Concentric vent kit available
- Fully modulating
- Easy-link up to 4 units with no additional accessories (JWT-540 model only)
- Multi-link up to 20 units with a multi-unit controller (JWT-540H model only)
- 15-year limited warranty on heat exchanger in residential applications
- 5-year limited warranty on heat exchanger in commercial applications
- 5-year limited warranty on all parts



Flow Rate Guide

Temperature Rise vs. Gallons per minute

Temperture Rise (°F)	JWT-240H	JWT-340H	JWT-540H JWT-540P
30	6.6	8.0	10.0
35	6.6	8.0	10.0
40	6.6	8.0	9.5
45	6.6	7.6	8.4
50	6.1	6.8	7.6
55	5.5	6.2	6.9
60	5.1	5.7	6.3
65	4.7	5.3	5.8
70	4.3	4.9	5.4
75	4.1	4.6	5.0
80	3.8	4.3	4.7
85	3.6	4.0	4.4
90	3.4	3.8	4.2
95	3.2	3.6	4.0
100	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°F or 122°F but can be changed. Flow rates are based on default set temperatures.

PERFORMANCE & DIMENSIONS

Model	Application	Input	Flow Rate GPM at 70°F Rise	Energy Factor	Height	Width	Depth	Shipping Weight
		BTU/h			IN (CM)	IN (CM)	IN (CM)	LB (KG)
NATURAL GAS								
JWT-240H-DV-N	Residential	15,000 - 160,000	4.3	0.95	23 ⁷ / ₈ (60)	17 ³ / ₄ (45)	11 ¹ / ₄ (29)	71 (32)
JWT-340H-DV-N	Residential	15,000 - 180,000	4.9	0.95	23 ⁷ / ₈ (60)	17 ³ / ₄ (45)	11 ¹ / ₄ (29)	71 (32)
JWT-540H-DV-N	Residential	15,000 - 199,000	5.4	0.95	23 ⁷ / ₈ (60)	17 ³ / ₄ (45)	11 ¹ / ₄ (29)	71 (32)
JWT-540P-N	Residential	15,000 - 199,000	5.4	0.95	23 ⁷ / ₈ (60)	17 ³ / ₄ (45)	11 ¹ / ₄ (29)	71 (32)
PROPANE								
JWT-240H-DV-P	Residential	13,000 - 160,000	4.3	0.95	23 ⁷ / ₈ (60)	17 ³ / ₄ (45)	11 ¹ / ₄ (29)	71 (32)
JWT-340H-DV-P	Residential	13,000 - 180,000	4.9	0.95	23 ⁷ / ₈ (60)	17 ³ / ₄ (45)	11 ¹ / ₄ (29)	71 (32)
JWT-540H-DV-P	Residential	13,000 - 199,000	5.4	0.95	23 ⁷ / ₈ (60)	17 ³ / ₄ (45)	11 ¹ / ₄ (29)	71 (32)
JWT-540P-P	Residential	15,000 - 199,000	5.4	0.95	23 ⁷ / ₈ (60)	17 ³ / ₄ (45)	11 ¹ / ₄ (29)	71 (32)



Non-condensing models



Features

- Heat exchanger (510 model) is constructed of commercial-grade copper
- Built-in freeze protection
- Advanced safety features help prevent scalding dangers
- Factory-installed power cord
- Easy-link up to 4 units with no additional accessories (JWT-510 model only)
- 15-year limited warranty on heat exchanger in residential applications
- 5-year limited warranty on heat exchanger in commercial applications
- 5-year limited warranty on all parts



Flow Rate Guide

Temperature Rise vs. Gallons per minute

Temperature Rise (°F)	JWT-110	JWT-310	JWT-510
30	6.6	8.0	10.0
35	6.6	8.0	9.3
40	5.7	7.8	8.1
45	5.1	6.9	7.2
50	4.6	6.2	6.5
55	4.2	5.7	5.9
60	3.8	5.2	5.4
65	3.5	4.8	5.0
70	3.3	4.4	4.7
75	3.1	4.1	4.3
80	2.9	3.9	4.1
85	2.7	3.7	3.8
90	2.5	3.5	3.6
95	2.4	3.3	3.4
100	2.3	3.1	3.3

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°F or 122°F but can be changed. Flow rates are based on default set temperatures.

PERFORMANCE & DIMENSIONS

Model	Application	Input Range	Flow Rate GPM at 70°F Rise	Energy Factor	Height	Width	Depth	Shipping Weight
		BTU/h						
NATURAL GAS								
JWT-110-N	Residential	19,500 - 140,000	3.3	0.82	20 ¼ (52)	13 ¾ (35)	7 ¾ (20)	33 (15)
JWT-310-N	Residential	11,000 - 190,000	4.4	0.82	20 ¼ (52)	13 ¾ (35)	9 ½ (24)	38 (17)
JWT-510-N	Residential	11,000 - 199,000	4.7	0.83	20 ¼ (52)	13 ¾ (35)	9 ½ (24)	39 (18)
PROPANE								
JWT-110-P	Residential	19,500 - 140,000	3.3	0.83	20 ¼ (52)	13 ¾ (35)	7 ¾ (20)	33 (15)
JWT-310-P	Residential	11,000 - 190,000	4.4	0.82	20 ¼ (52)	13 ¾ (35)	9 ½ (24)	38 (17)
JWT-510-P	Residential	11,000 - 199,000	4.7	0.82	20 ¼ (52)	13 ¾ (35)	9 ½ (24)	39 (18)

John Wood® powered by Takagi Tankless

Non-condensing concentric vent models



Features

- Concentric vent design
- Field convertible from natural gas to propane
- Maximum flow rates up to 10.0 GPM
- Copper heat exchanger: 25x better heat transfer than stainless steel
- Easy-Link up to 4 units with no additional parts or accessories needed (JWT-510C only)
- Multi-link up to 20 units with a Multi-Unit Controller (JWT-510C only)
- Built-in freeze protection
- 15-year limited warranty on heat exchanger in residential applications
- 5-year limited warranty on heat exchanger in commercial applications
- 5-year limited warranty on all parts



(510C-NI models only)



ANSI Z21.10.3

Flow Rate Guide

Temperature Rise vs. Gallons per minute

Temperature Rise (°F)	JWT-110C	JWT-310C	JWT-510C
30	6.6	8.0	10.0
35	6.6	8.0	9.3
40	5.7	7.8	8.1
45	5.1	6.9	7.2
50	4.6	6.2	6.5
55	4.2	5.7	5.9
60	3.8	5.2	5.4
65	3.5	4.8	5.0
70	3.3	4.5	4.7
75	3.1	4.1	4.3
80	2.9	3.9	4.1
85	2.7	3.7	3.8
90	2.5	3.5	3.6
95	2.4	3.3	3.4
100	2.3	3.1	3.3

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°F or 122°F but can be changed. Flow rates are based on default set temperatures.

PERFORMANCE & DIMENSIONS

Model	Application	Input Range	Flow Rate GPM at 70°F Rise	Energy Factor	Height	Width	Depth	Shipping Weight
		BTU/h			IN (CM)	IN (CM)	IN (CM)	LB (KG)
NATURAL GAS								
JWT-110C-NI	Residential	15,000 - 140,000	3.3	0.82	20 ½ (53)	13 ¾ (35)	10 ½ (27)	51 (23)
JWT-310C-NI	Residential	15,000 - 190,000	4.5	0.82	20 ½ (53)	13 ¾ (35)	10 ½ (27)	51 (23)
JWT-510C-NI	Residential	15,000 - 199,000	4.7	0.82	20 ½ (53)	13 ¾ (35)	10 ½ (27)	51 (23)

Appendices

Appendices

Reference Calculations and Conversions for Electricity

Ohm's Law

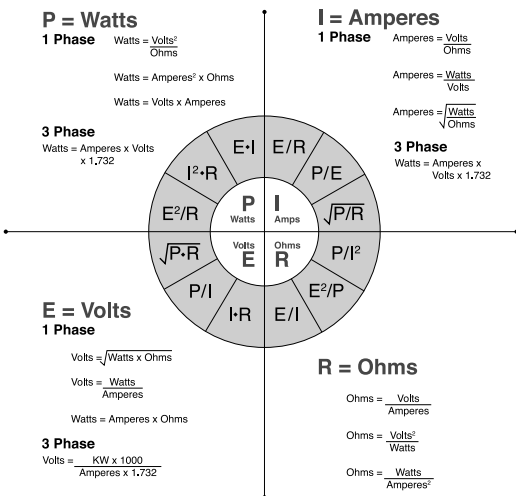
Ohm's Law defines the relationships between (P) power, (E) voltage, (I) current, and (R) resistance. One ohm is the resistance value through which one volt will maintain a current of one ampere.

(I) Current is what flows on a wire or conductor like water flowing down a river. Current flows from points of high voltage to points of low voltage on the surface of a conductor. Current is measured in (A) amperes or amps.

(E) Voltage is the difference in electrical potential between two points in a circuit. It's the push or pressure behind current flow through a circuit, and is measured in (V) volts.

(R) Resistance determines how much current will flow through a component. Resistors are used to control voltage and current levels. A very high resistance allows a small amount of current to flow. A very low resistance allows a large amount of current to flow. Resistance is measured in ohms.

(P) Power is the amount of current times the voltage level at a given point measured in wattage or watts.



Appendices

Reference Guide for Water Heating

One US gallon of fresh water weighs 8.333 lb.

Water expands 4.34% heated from 40° to 212° F.

1 BTU = Amount of heat required to raise the temperature of 1 lb. of water 1° F.

$$\text{Recovery GPH} = \frac{\text{KW} \times 3412}{8.33 \times \Delta T}$$

(Electric)

$$\text{Recovery GPH} = \frac{\text{Input} \times \text{Efficiency}}{8.33 \times \Delta T}$$

(Gas)

$$\text{Req. BTU Input} = \frac{\text{Water Heater Capacity} \times 8.33 \times \Delta T}{\% \text{ Efficiency}}$$

First Hour Draw (FHD)

$$\text{FHD} = (\text{Storage} \times \% \text{ Efficiency}) + \text{Recovery}$$

% of hot and cold water needed to be mixed to obtain a desired temperature

$$\text{Hot water percentage} = \frac{M-C}{H-C}$$

$$\text{Cold water percentage} = \frac{H-M}{H-C}$$

Water C = Cold Water Temperature

H = Hot Water Temperature

M = Mixed Water Temperature

$$\% \text{ Efficiency} = \frac{\text{GPH} \times 8.33 \times \text{Temp. Rise}}{\text{BTU/Hr. Input}}$$

Appendices

Reference Guide for Water Heating

$$\text{BTU/Output} = \text{GPH} \times 8.33 \text{ lbs./Gal.} \times \text{Temp. Rise}$$

$$\text{BTU/Input} = \frac{\text{GPH} \times 8.33 \times \text{Temp. Rise}}{\% \text{ Efficiency}}$$

$$\text{KW} = \frac{\text{GPH} \times 8.33 \times \text{Temp. Rise}}{3413}$$

Temperatures

To convert from degrees Centigrade (C) to degrees Fahrenheit (F) multiply the number of degrees C by 9/5 (or 1.8) and add 32.

To convert from degrees Fahrenheit (F) to degrees Centigrade (C) first subtract 32 from the number of degrees F then multiply the remainder by 5/9 (or 0.556).

Gas/Oil

Gas		BTU
1 lb. of Butane	=	21,300
1 Gal. of Butane	=	102,600
1 Cu. Ft. of Butane	=	3,260
1 Cu. Ft. of Manufactured	=	530
1 Cu. Ft. of Mixed	=	850
1 Cu. Ft. of Natural	=	1,075
1 lb. of Propane	=	21,600
1 Gal. of Propane	=	91,700
1 Cu. Ft. of Propane	=	2,570

Appendices

Reference Guide for Water Heating

Oil vs. Electric vs. Propane vs. Natural Gas

Oil	1 litre = 36,515 BTUs* Example Price = 60.0¢/litre
Electric	1 Kilowatt Hour = 3,413 BTUs* Example Price = 10.1¢/KW (kilowatt)
Propane	1 litre = 24,197 BTUs* Example Price = 63.0¢/litre
Natural Gas	1 M ³ 35,310 BTUs* Example Price = 44.0¢/M ³ (cubic metre)**

Formula
$$\frac{\text{BTUs per Unit} \times \text{Efficiency}}{\text{Cost per Unit}}$$

Example:
$$\text{Propane} = \frac{24,197 \times 92\%}{0.63} = 35335 \text{ BTUs per } \$1.00$$

GST is extra on all prices.

* Information supplied by The Ontario Ministry of Energy.

** This price reflects delivery charge and monthly administration charge to service your account.

Formulas and Facts

- 1 gallon of water weighs 8.33 lbs.
- 1 gallon of water has a volume of 231 cubic inches
- 1 cubic foot of water weighs 62.38 lbs. and contains 7.48 gallons of water
- 100 feet of 3/4" copper pipe contains 2.5 gallons of water; 1" pipe contains 4.3 gallons
- 8.33 BTU will raise 1 gallon of water 1°F at 100% efficiency (electricity)

Appendices

Reference Guide for Water Heating

- 11 BTUs are required to raise 1 gallon of water 1°F at 70% efficiency (gas)
- 3,412 BTUs equal 1 kilowatt hour (KW)
- 1 KW will raise 410 gallons of water 1°F at 100% efficiency
- 1 BTU x 0.293 = watts
- 1 KW = 1000 watts
- 2.42 watts are required to raise 1 gallon of water 1°F
 - 1 KW will raise 10.25 gallons of water 40°F at 100% efficiency
 - 1 KW will raise 6.8 gallons of water 60°F at 100% efficiency
 - 1 KW will raise 5.1 gallons of water 80°F at 100% efficiency
 - 1 KW will raise 4.1 gallons of water 100°F at 100% efficiency

Formula for mixing hot water

$$\frac{M-C}{H-C} = \text{Percent of hot water required to produce desired mixed temperature}$$

Where M = mixed water temperature; C = cold water temperature;
H = hot water temperature

For example: How much of a shower is hot water and how much is cold water?

My shower temperature is 105°F, my water heater thermostat is set on 120°F and the cold water inlet temperature is 50°F.

$$\frac{105 - 50 = 55}{120 - 50 = 70} = 79\% \text{ of the shower is } 120^\circ \text{ hot water}$$

This formula for mixing hot water is important when explaining a NOT ENOUGH HOT WATER trouble call and the water heater is functioning properly.

Appendices

Reference Guide for Water Heating

ELECTRIC	GAS
Energy Costs:	Energy Costs:
KW x fuel costs = energy costs	Cubic feet x fuel costs = energy costs
100 x 0.05 = \$5.00	100 x 0.75 = \$7.50
<p>To obtain gallons per hour (GPH) recovery</p> $\frac{\text{WATTS}}{2.42 \times (\text{temp rise } ^\circ\text{F})}$	<p>To obtain gallons per hour (GPH) recovery</p> $\frac{\text{HOURLY INPUT (BTUs)}}{11.0 \times (\text{temp rise } ^\circ\text{F})}$
<p>I have a 30-gallon electric heater, non-simultaneous operation, 4,500 watt elements. What is the recovery GPH if my cold water is 40°F and my thermostat is set to 120°F?</p> $\frac{4,500}{2.42 \times 80} = 23 \text{ gallons per hour}$	<p>I have a 30-gallon gas heater, rated at 40,000 BTUs. What is the recovery GPH if my cold water is 40°F and my thermostat is set to 120°F?</p> $\frac{40,000}{11.0 \times 80} = 45 \text{ gallons per hour}$
<p>Temperature Rise (°F)</p> $\frac{\text{WATTS}}{2.42 \times \text{GPH}}$	<p>Temperature Rise (°F)</p> $\frac{\text{HOURLY INPUT (BTUs)}}{11.0 \times \text{GPH}}$
<p>I have a 30-gallon electric heater, non-simultaneous operation, 4,500 watt elements. What is the maximum temperature rise if the heater can recover 23 gallons per hour?</p> $\frac{4,500}{2.42 \times 23 \text{ rise}} = 80^\circ \text{ temp}$	<p>I have a 30-gallon gas heater, rated at 40,000 BTUs. What is the maximum temperature rise if the heater can recover 45 gallons per hour?</p> $\frac{40,000}{11.0 \times 45 \text{ rise}} = 80^\circ \text{ temp}$

Appendices

Reference Guide for Water Heating

Oil		BTU
1 Gal. #1 Fuel	=	136,000
1 Gal. #2 Fuel	=	138,500
1 Gal. #3 Fuel	=	141,000
1 Gal. #5 Fuel	=	148,500
1 Gal. #6 Fuel	=	152,000

1 lb. of Gas = 28" Water Column

1 lb. of Gas = 16 oz.

100 Cu. Ft. = 1 therm.

Conversions

Multiply	By	To Obtain
BTU/HR	0.293	W
Ft.	0.3048	m
Ft./min., fpm	0.00508	m/s
Ft. ²	0.0929	m ²
Ft. ³	0.0283	m ³
Gallon (U.S. 231 in ³)	3.79	L
Gallon	0.00379	m ³
Horsepower (boiler)	9.81	KW
Inch	25.4	mm
Mile	1.61	km
Pound lb. (mass)	0.454	kg
Psi	6.89	kPa

Appendices

Exclusive Designs, Built-to-Last

John Wood® Water Heaters are designed and built with features to ensure maximum quality, safety and reliability. Our heaters are thoroughly factory tested, field-proven and meet or exceed industry standards.

TankSaver®

The exclusive TankSaver® design prolongs tank life. TankSaver® impedes corrosion by guarding metal tank openings from exposure to water and keeping them watertight. The durable construction virtually eliminates rust.

Certified Hydrostatic Tests

Design test pressure - 300 psi. Maximum working pressure - 150 psi.

NRCan Standard

All John Wood water heaters meet or exceed NRCan energy efficiency standards.

Coast-to-Coast Service & Support

In order to bring you unsurpassed quality and reliability after you've purchased a John Wood product, we've created a number of service and support resources to help take you through installation and beyond. Operating hours are 8:00 a.m. to 6:00 p.m. EST for our Technical Support call centre (1-888-479-8324), which is staffed by technical experts who provide in-depth product support and troubleshooting advice. We offer a wide-range of hands-on training programs from basic refresher courses to product-specific programs. Our spare parts inventory carries a comprehensive supply of parts to help make repairs fast and easy.



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Tel.: 1-888-479-8324

Sales & Customer Service:

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