



Product Brochure
Condensing Tankless Series

CONDENSING

TANKLESS GAS WATER HEATERS

The Next Level of Tankless

Ultra[™] High Efficiency Condensing Tankless Gas Water Heaters

- All models exceed ENERGY STAR[®] requirements
- Indoor direct vent with PVC piping and outdoor models
- Ruud exclusive water savings setting
- Built-in condensate neutralizer



Ruud.com

RELY ON RUUD.™



Ruud *ULTRA*™ Condensing Tankless

Preferred by contractors¹, Ruud® *Ultra*™ Series Condensing Tankless Water Heaters are packed with business-building features. Our industry-leading energy-efficient design delivers an estimated lifetime savings of up to \$1,000 on energy costs.²

Efficiency

- Up to .94 EF with stainless steel condensing heat exchanger
- Intelligent electronic controls designed to increase energy efficiency and safety

Performance

- **Exclusive! Water savings setting – upon activation, this setting can save homeowners up to 1,100 gallons of water per year³ by decreasing the flow of water through the pipes until the temperature reaches the heater’s set temperature**
- **Recirculation Pump Kit-Ready – Quickly pairs with our Recirculation Pump kit to provide instantaneous hot water at the tap⁴**
- Low flow fixture compatible – Industry-first minimum flow rate of .26 GPM and minimum activation flow rate of .40 GPM ensures the user will receive hot water even in low demand situations

Easy Installation and Service

- **Built-in condensate neutralizer**
- **1/2" Gas line compatibility on every model**
- **Exclusive! Maintenance Notice Setting alerts homeowner – flashing a warning code to call for service check**
- Self-diagnostic system for easy installation and service
- Digital display shows temperature setting and maintenance codes
- Two-pipe direct vent system designed for PVC pipe (up to 38 ft. of 3" PVC pipe or 5 ft. of 2" PVC pipe)

Technology

- **Hot-start programming helps minimize fluctuation in water temperature, referred to as “cold water sandwich”, during periods of frequent on/off operation**
- **Exclusive! Guardian OFW™ over-heat film wrap**
- EZ-Link™ cable available for higher demand applications to connect two tankless units to operate as one
- Manifold up to six units with an optional MIC-6 manifold control board
- Manifold up to 20 units with the optional MIC-185 plus the MICS-180 manifold control assembly



High-Altitude Compliant

- High-altitude capability – up to 8,400 ft. elevation above sea level⁵

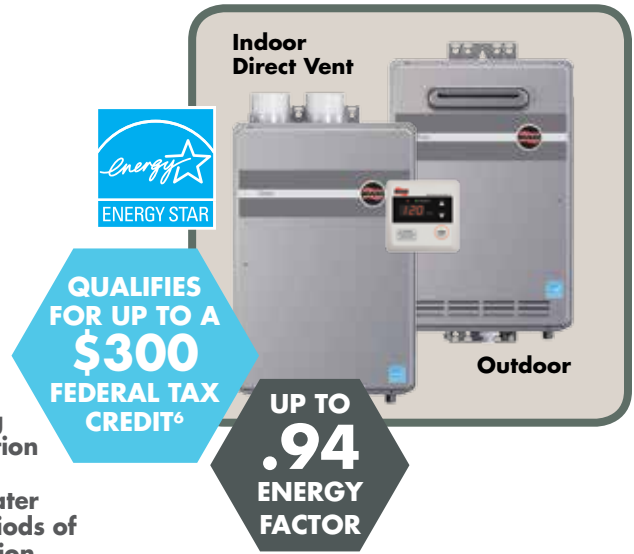
Plus...

- Digital remote control and 10 ft. of thermostat wire included
- Supplied with a 120-volt power cord (indoor models only)
- Freeze protection to -30°F
- EZ-Spec™ Sizing Software – advanced online tool that takes the guess work out of sizing tankless applications – available at www.ruud.com/tankless

Warranty

- 12-Year heat exchanger – residential, 5-year heat exchanger – commercial, 5-year parts and 1-year labor

See Warranty Certificate for complete information



Commercial Applications

The *Ultra*™ Condensing Tankless Series can be upgraded for high-temperature commercial use

- Temperature range is 85°F to 185°F

RUTGH-95 Upgrade Kits

- RTG20254A for RUTGH-95DVLN-1
- RTG20254B for RUTGH-95DVLP-1
- RTG20254C for RUTGH-95XLN-1
- RTG20254D for RUTGH-95XLP-1

RUTGH-90 Upgrade Kits

- RTG20255A for RUTGH-90DVLN-1
- RTG20255B for RUTGH-90DVLP-1
- RTG20255C for RUTGH-90XLN-1
- RTG20255D for RUTGH-90XLP-1

RUTGH-84 Upgrade Kits

- RTG20256A for RUTGH-84DVLN-1
- RTG20256B for RUTGH-84DVLP-1
- RTG20256C for RUTGH-84XLN-1
- RTG20256D for RUTGH-84XLP-1

Note: These upgrade kits are not compatible with previous models. See the Tankless Parts and Accessories Catalog for a complete listing.

¹ According to a 2015 survey of tankless contractors by Hanover Research on behalf of Ruud.

² Based on comparison of a Ruud® *Ultra*™ Condensing Tankless Water Heater (natural gas) with .94 EF and a 40-gallon standard residential natural gas tank-type water heater with a 0.62 EF; Savings claim based on difference in annual operating costs from DOE over the 12-year warranty period of the Ruud tankless unit; Savings higher for liquid propane models.

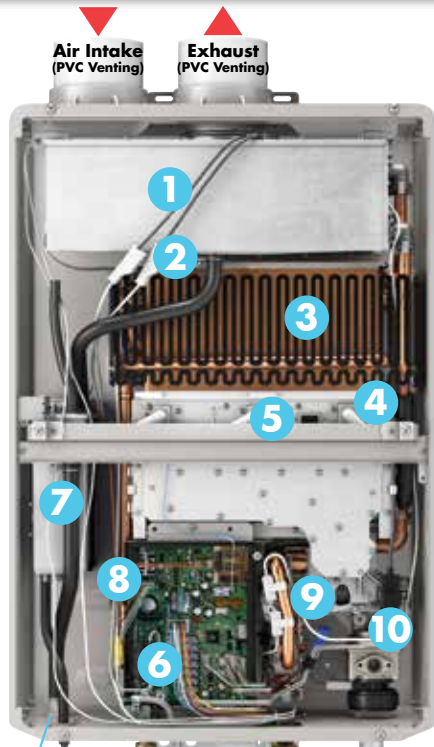
³ Savings based on DOE test procedures.

⁴ Pump kit designed for single unit applications only.

⁵ Contact customer service for exact altitude rating for each model.

⁶ Consult a tax professional regarding your individual tax situation and ability to claim a tax credit related to the purchase of qualifying Ruud products until December 31, 2016.

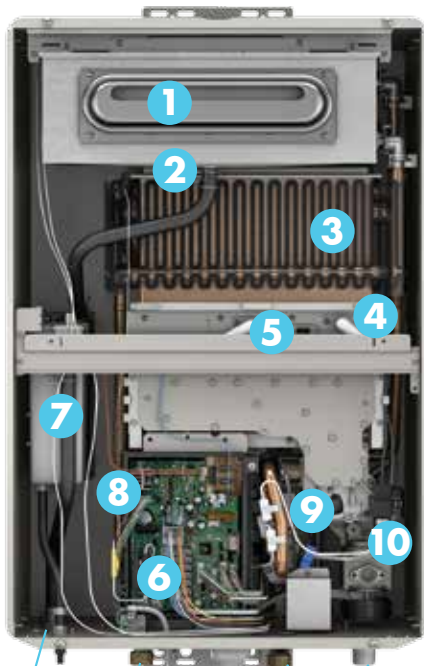
Superior Construction & Reliability



Indoor Direct Vent

- 1 Stainless Steel Secondary Heat Exchanger
- 2 All-Copper Primary Heat Exchanger
- 3 Over Heat Film Wrap
- 4 Electronic Spark Ignition
- 5 157,000 - 199,900 Btu/h Modulating Burner
- 6 Electronic Control Board
- 7 Condensate Reservoir
- 8 Variable Speed Fan
- 9 Water Flow Control System
- 10 Modulating Gas Valve

Condensate Neutralizer Discharge Outlet 3/4" Hot Water Outlet External Connection for Remote Control Cable 3/4" Cold Water Inlet 3/4" Gas Connection



Outdoor

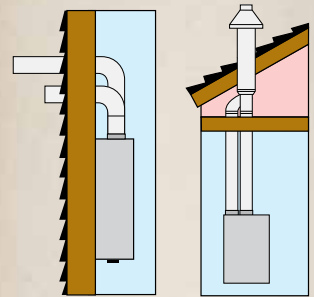
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Condensate Neutralizer Discharge Outlet 3/4" Hot Water Outlet External Connection for Remote Control Cable 3/4" Cold Water Inlet 3/4" Gas Connection

Venting Options and Installations



PVC Vent System

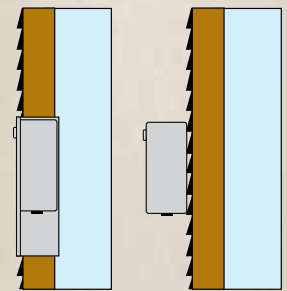


Indoor horizontal vent termination

Indoor vertical vent termination

All indoor tankless units must be vented vertically or horizontally to the outdoors using manufacturer approved venting material. See the installation instructions for each specific model.

Outdoor



Outdoor* recess box installation

Outdoor* installation

*Outdoor units do not require venting materials.

Venting details, including clearances and diagrams can be found in the "Use & Care Manual" of Ruud indoor tankless water heaters.

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800.621.5622





Ruud ULTRA™ Specifications

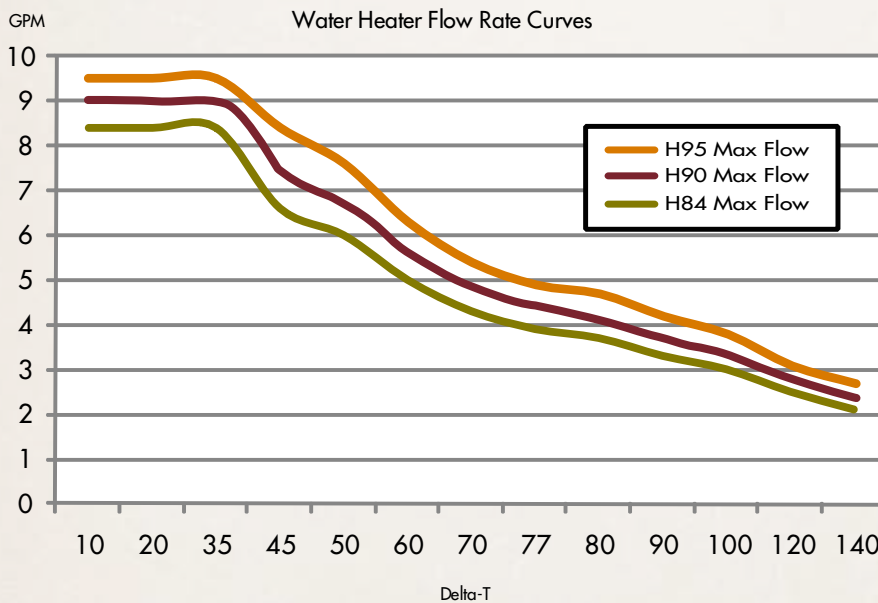
DESCRIPTION			FEATURES						ROUGHING IN DIMENSIONS (SHOWN IN INCHES)						ENERGY INFO.		
MODEL NUMBER	GAS INPUT BTU/H	TYPE	TEMP. RANGE	MIN. FLOW/ACTIVATION GPM	GPM @ 77° RISE MAX.	GPM @ 45° RISE MAX.	MAX. GPM	CONNECTION		HEIGHT	WIDTH	DEPTH	VENT DIAM.	SHIP. WEIGHT (LBS.)	ENERGY FACTOR	RECOVERY EFFICIENCY	EST. YEARLY ENERGY COST NAT/LP
								WATER	GAS								
Ruud Ultra™ RUTGH-95 for 3 Bathroom Homes*																	
RUTGH-95DVLN-1	11,000-199,900	Indoor Direct Vent	85° to 140° F	0.26/0.40	4.9	8.4	9.5	3/4	3/4	27-1/2	18-1/2	9-3/4	2" or 3" PVC 2-Pipe	82	.94	94%	\$174/421
RUTGH-95XLN-1	11,000-199,900	Outdoor	85° to 140° F	0.26/0.40	4.9	8.4	9.5	3/4	3/4	27-1/2	18-1/2	9-3/4	N/A	82	.94	94%	\$174/421
Ruud Ultra™ RUTGH-90 for 2-3 Bathroom Homes*																	
RUTGH-90DVLN-1	11,000-180,000	Indoor Direct Vent	85° to 140° F	0.26/0.40	4.4	7.5	9.0	3/4	3/4	27-1/2	18-1/2	9-3/4	2" or 3" PVC 2-Pipe	82	.93	93%	\$176/425
RUTGH-90XLN-1	11,000-180,000	Outdoor	85° to 140° F	0.26/0.40	4.4	7.5	9.0	3/4	3/4	27-1/2	18-1/2	9-3/4	N/A	82	.93	93%	\$176/425
Ruud Ultra™ RUTGH-84 for 2-3 Bathroom Homes*																	
RUTGH-84DVLN-1	11,000-157,000	Indoor Direct Vent	85° to 140° F	0.26/0.40	3.9	6.6	8.4	3/4	3/4	27-1/2	18-1/2	9-3/4	2" or 3" PVC 2-Pipe	82	.92	92%	\$178/430
RUTGH-84XLN-1	11,000-157,000	Outdoor	85° to 140° F	0.26/0.40	3.9	6.6	8.4	3/4	3/4	27-1/2	18-1/2	9-3/4	N/A	82	.92	92%	\$178/430

*Based on simultaneous showers using 2.5 gallons per minute. Flow rates vary depending on temperature of cold water supply. Estimated energy cost based on a national average fuel cost of \$1.09/therm for natural gas and \$2.41/gallon for LP. Energy factor determined by the U.S. Department of Energy (DOE) test procedures. All models are available in Natural Gas and Propane (LP). For Propane replace the N with P when ordering. SCAQMD 1146.2 compliant. Factory set maximum temperature is 120° F. See Use and Care Manual for setting. Consult factory for information on sizing the application. Vent Termination Kits are required for Direct Vent models. Contact your distributor for details. Proper gas pressure must be ensured to supply tankless gas water heaters – up to 199,900 Btu/h for RUTGH-95 models, up to 180,000 Btu/h for RUTGH-90 models, up to 157,000 Btu/h for RUTGH-84 models. (Consult your gas supplier)



Model Number	Temperature Rise (° F)									
	35°	45°	50°	60°	70°	77°	80°	90°	100°	
RUTGH-95 Water Flow (GPM)	9.5	8.4	7.6	6.3	5.4	4.9	4.7	4.2	3.8	
RUTGH-90 Water Flow (GPM)	9.0	7.5	6.8	5.6	4.8	4.4	4.2	3.8	3.4	
RUTGH-84 Water Flow (GPM)	8.4	6.6	6.0	5.0	4.3	3.9	3.7	3.3	3.0	

Above estimates are for sizing purposes only.



Maximum Vent Length (intake/outlet):

Number of 90° Elbows	Maximum Length of 2" Straight Pipe	Maximum Length of 3" Straight Pipe
0 or 1	5.0 ft. (1.5 m)	38.0 ft. (11.6 m)
2	3.5 ft. (1.0 m)	36.5 ft. (11.1 m)
3	2.0 ft. (0.6 m)	35.0 ft. (10.6 m)
4	Not Available	33.5 ft. (10.2 m)
5	Not Available	32.0 ft. (9.8 m)
6	Not Available	30.5 ft. (9.3 m)

Parts and Accessories

Venting & terminations – 2" or 3" PVC, recess boxes, pipe covers, extra remote controls, EZ-Link™ cable, manifolds and cables, service valve kits, service parts, flush kits, recirculation pump kits and AllClear™ water treatment system.

For more information on Tankless parts and accessories, see the Parts and Accessories Catalog or call 866-720-2076.

In keeping with its policy of continuous progress and product improvement, Ruud reserves the right to make changes without notice.

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