CRUTGH Series Tankless Water Heaters



Ruud® CRUTGH Series Super High Efficiency Condensing Tankless Gas Water Heaters

Easy Installation

- PVC Vent runs up to 60' (2"), 150' (3")
- Enhanced design is up to 20% smaller and lighter making one-person installs even easier

Ready for Retrofits

- Industry Best! 1/2" side to side clearance allows you to safely work in spaces the competition can't
- 1/2" Gas line compatibility (subject to local code)

Key Features

- Ruud® Exclusive! Hot-start Programming™ ensures the unit is in a ready state between back-to-back usage, minimizing any cold water bursts
- Built-in Wi-Fi with EcoNet® capability for direct control from your device (on select models)
- LeakGuard® All-inclusive leak detection and prevention system that detects any leak that comes from the unit (on select models)



CRUTGH Series Models

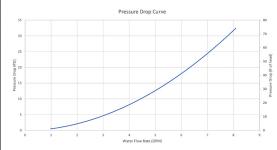
Indoor Models 11,000-199,900 BTU/h Natural Gas and Liquid Propane Models*

*Swap P for N in model number for Liquid Propane model





| Clearances | | | | |
|-----------------------|-------|--|--|--|
| Top / Bottom | 12" | | | |
| Front | 1/2"5 | | | |
| Sides | 1/2" | | | |
| Back / From Vent Pipe | 0" | | | |



¹ Based on simultaneous showers using 2.5 GPM flow rate pre-mixed with cold water line. Flow rates vary depending on temperature of incoming cold water and water heater set temperature. Refer to flow rate curves for accurate sizing. ²For indoor application, this is the temperature of outdoor intake air. ³ Manifolds with standard RJ11 communication cables. ⁴ If anti freeze is on and combustion is on, total W will be 217W (65+132). ° Recommended 24* clearance for service.

Specifications

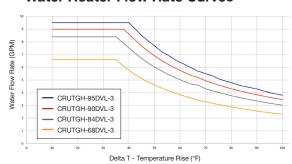
| Ruud Mode | el Number | CRUTGH- 68DVLN-3 | CRUTGH- 84DVLN-3 | CRUTGH- 90DVLN-3 | CCRUTGH-95DVLN-3 CRUTGH-95DVELN-3 (Wi-Fi Model) | | |
|-----------------------|---------------------------------------|---|---------------------|---------------------|---|--|--|
| Gas Input MAX | | 120,000 BTU/h | 157,000 BTU/h | 180,000 BTU/h | 199,900 BTU/h | | |
| Rate | MIN | 11,000 BTU/h | 11,000 BTU/h | 11,000 BTU/h | 11,000 BTU/h | | |
| Uniform Energy | Factor (UEF) | 0.90 | • | 0.93 | | | |
| Gallons | MAX (35°F) | 6.6 | 8.4 | 9.0 | 9.5 | | |
| Per Minute | 45°F Rise | 5.1 | 6.7 | 7.7 | 8.5 | | |
| (GPM) | 67°F Rise | 3.4 | 4.6 | 5.2 | 5.7 | | |
| Number of E | Bathrooms¹ | 2.5 | 3 | 3 - 4 | 4 | | |
| Temp. F | Range | | 100° | F - 140°F | | | |
| Temp. Setting | from Factory | | - | 120°F | | | |
| High Temp. Availa | | | | No | | | |
| Freeze Pr | otection | | -30°F Air Inta | ıke², -4°F Ambient | | | |
| Installation | on Type | | Į, | ndoor | | | |
| Heat Exchang | ger Material | Pr | imary: Copper – S | econdary: Stainles | s Steel | | |
| Minimum Act | ivation Flow | | 0. | 4 GPM | | | |
| Minimum Con | tinuous Flow | 0.26 GPM | | | | | |
| Maximum | Altitude | 7,800 ft. | | | | | |
| Warra | | 15 year Heat Exchanger 5-Year Parts 1-Year Labor | | | | | |
| Heig | | 23.7" | | | | | |
| Wid | | 17.7" | | | | | |
| Dep | | 9.8" | | | | | |
| Weight | · · · · · · · · · · · · · · · · · · · | | | 52.9 | | | |
| Venting Diar | | | 2 | 2" / 3" | | | |
| Max. Single (straigh | t pipe) | 60 ft (2") / 150 ft (3") | | | | | |
| Venting M | | ULC-636 PVC, CPVC, Polypropylene | | | | | |
| Manifold ((max. ı | | 6 Units ³ | | | | | |
| Cont | rols | Built-in digital display | | | | | |
| Power S | Supply | 120V 60Hz | | | | | |
| Max. P Consun | | 85W (Normal use), 0.7 Amps 132W (Antifreeze), 1.1 Amps 3.5W (Standby), 0.03 Amps ⁴ | | | | | |
| Gas Con | nection | 3/4" NPT | | | | | |
| Hot Water C | onnection | 3/4" NPT | | | | | |
| Cold Water | Connection | 3/4" NPT | | | | | |
| Condensate | Connection | N= 111 1 | | | | | |
| Vent Con | | 2" Band Connections (Adapter required to vent with 3" PVC from unit) | | | | | |

All models are available in Natural Gas or Propane (LP). For Propane replace the N with P for LP model.

CRUTGH Series Tankless Water Heaters



Water Heater Flow Rate Curves

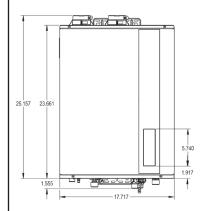


Water Flow (GPM)

| Temperature Rise (°F) | | | | | | | | | |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|
| Model Number | 35° | 45° | 50° | 60° | 67° | 70° | 80° | 90° | 100° |
| CRUTGH-95DVL-3 | 9.5 | 8.5 | 7.7 | 6.4 | 5.7 | 5.5 | 4.8 | 4.3 | 3.8 |
| CRUTGH-90DVL-3 | 9.0 | 7.7 | 6.9 | 5.8 | 5.2 | 4.9 | 4.3 | 3.8 | 3.5 |
| CRUTGH-84DVL-3 | 8.4 | 6.7 | 6.0 | 5.0 | 4.6 | 4.3 | 3.8 | 3.3 | 3.0 |
| CRUTGH-68DVL-3 | 6.6 | 5.1 | 4.6 | 4.6 | 3.4 | 3.3 | 2.9 | 2.6 | 2.3 |

Above estimates are for sizing purposes only.

Dimensions



Venting

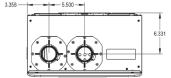
| SINGLE UNIT: MAX. EQUIVALENT VENT LENGTHS - STRAIGHT PIPE | | | | |
|--|-----------------------------|---------------------------------|--|--|
| Number of 90 Elbows | Max Length 2" straight pipe | Max. length 3" straight pipe | | |
| 0 | 60 ft. (18.3 m) | 150 ft. (45.7 m) | | |
| 1 | 54 ft. (16.5 m) | 144 ft. (43.9 m) | | |
| 2 | 48 ft. (14.6 m) | 138 ft. (42.7 m) | | |
| 3 | 42 ft. (12.8 m) | 132 ft. (40.2 m) | | |
| 4 | 36 ft. (11.0 m) | 126 ft. (38.4 m) | | |
| 5 | 30 ft. (9.1 m) | 120 ft. (36.6 m) | | |
| 6 | 24 ft. (7.3 m) | 114 ft. (34.7 m) | | |

| LENGTHS - STRAIGHT PIPE | | | |
|-------------------------|--------------------------------|---------------------------------|--|
| Number of 90 Elbows | Max Length 2" straight pipe | Max. length 3" straight pipe | |
| 0 | 60 ft. (18.3 m) | 150 ft. (45.7 m) | |
| 1 | 54 ft. (16.5 m) | 144 ft. (43.9 m) | |
| 2 | 48 ft. (14.6 m) | 138 ft. (42.7 m) | |
| 3 | 42 ft. (12.8 m) | 132 ft. (40.2 m) | |
| 4 | 36 ft. (11.0 m) | 126 ft. (38.4 m) | |
| 5 | 30 ft. (9.1 m) | 120 ft. (36.6 m) | |
| 6 | 24 ft. (7.3 m) | 114 ft. (34.7 m) | |

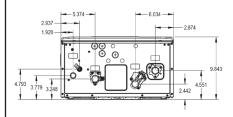
| Equivalent Ft. of Elbows | | | |
|--------------------------|---------------|---------------|--|
| 2" Pipe 3" Pipe | | 3" Pipe | |
| 90° Elbow | 6 ft (1.83 m) | 6 ft (1.83 m) | |
| 45° Elbow | 3 ft. (0.9 m) | 3 ft. (0.9 m) | |

Venting Materials Allowed: ULC-636 PVC, CPVC, Polypropylene





BOTTOM VIEW



| Min. Vent Length Straight Pipe | | |
|--------------------------------|---------------------------|--|
| Number of 90° Elbows | Min. Length 2" 3" pipe | |
| 1 | 1.0 ft (0.3 m) | |

Hanging bracket included with water heater.

Parts & Accessories

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.