



## Ruud® S/SR Series Super High Efficiency Condensing Tankless Gas Water Heater

### Easy Installation

- PVC Vent runs up to 70' (2"), 150' (3")
- Easy set up with full text digital display and no dip-switches
- Field gas convertible from natural gas to LP - conversion kit included

### Ready for Retrofits

- Allows flex venting through existing B-vent up to 50'
- 1/2" Gas line compatibility (subject to local code)

### Key Features

- Stainless steel Primary and Secondary heat exchangers provide increased efficiency and durability
- Hot-start programming™ ensures the unit is in a ready state between back-to-back usage, avoiding any cold water bursts – **Ruud® Exclusive!**
- Built-in Recirculation pump for instant hot water at the tap (SR models)
- Built-in EcoNet® wifi capability for direct control from your device (optional for S models)



### Specifications

Ruud Model Number		CRUTGH-S11i CRUTGH-SR11i
Gas Input Rate	MAX	199,900 BTU/h
	MIN	11,000 BTU/h
Uniform Energy Factor (UEF)		0.96
Gallons Per Minute (GPM)	MAX (35°F)	11.2
	45°F Rise	8.8
	67°F Rise	5.9
Number of Bathrooms <sup>1</sup>		🚿🚿🚿
Temp. Range		85°F - 140°F
Temp. Setting from Factory		120°F
Installation Type		Indoor
Fuel Type		Compatible with Natural Gas and LP (ships NG with LP conversion kit included)
Heat Exchanger Material		Primary: Stainless Steel – Secondary: Stainless Steel
Minimum Activation Flow		0.4 GPM
Minimum Continuous Flow		0.26 GPM
Maximum Altitude		10,200 ft.
Ultra Low NOx		Yes (SCAQMD compliant)
Warranty		15 Year Heat Exchanger - (w/ registration) 12 Year Heat Exchanger - (w/o registration) 5-Year Parts   1-Year Labor

Model Number	CRUTGH-S	CRUTGH-SR
Height	28-9/16"	
Width	17-5/16"	
Depth	13-11/16"	
Weight	77.6lbs	86lbs
Venting Diam. Allowed	2" / 3"	
Max. Single Vent Run (straight pipe)	70 ft (2")/ 150 ft (3")	
Venting Materials	ULC-S636 PVC, CPVC, PP	
Common Venting (max. units)	2 units <sup>3</sup>	
Flex Venting	Allowed: 2" up to 50'	
Manifold Controls (max. units)	Up to 20 units without external control required <sup>4</sup>	
Controls	Built-in digital display with full-text menus	
Power Supply	120V 60Hz	
Max. Power Consumption	85W (Normal use), 0.7Amps 132W (Anti freeze only), 1.1Amps 3.5W (Standby), 0.03Amps <sup>5</sup>	100W (Normal use), 0.83Amps 200W (Anti freeze), 1.67Amps 3.5W (Standby), 0.03Amps <sup>5</sup>
Gas Connection	3/4" NPT	
Hot Water Connection	3/4" NPT	
Cold Water Connection	3/4" NPT	
Condensate Connection	1/2" NPT	
Vent Connections Diameter	2" Band Connections (Adapter required to vent with 3" PVC from unit)	

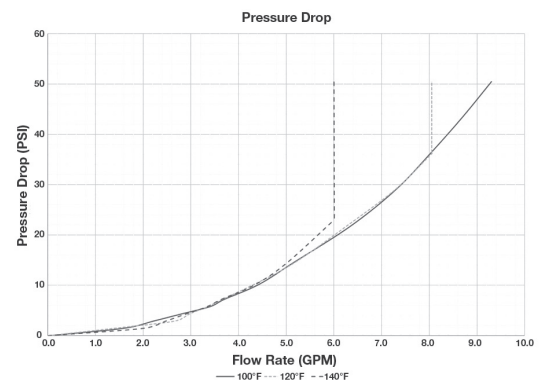
### CRUTGH-S/SR Models

Indoor Models  
11,000-199,900 BTU/h  
Natural Gas/LP Convertible



Clearances	
Top / Bottom	12"
Front	1/2" <sup>6</sup>
Sides	1/2"
Back / From Vent Pipe	0"

Recirculation Length (SR Models)	
Pipe Diameter	Max. Recirculation Loop
3/4"	400 ft.
1/2"	100 ft.

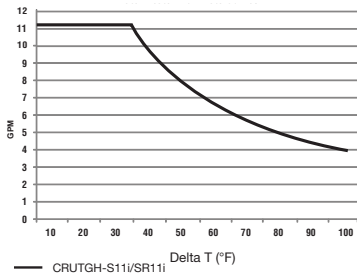


<sup>1</sup>Based on simultaneous showers using 2.5 GPM flow rate pre-mixed with cold water line. Flow rates vary depending on temperature of incoming cold water and water heater set temperature. Refer to flow rate curves for accurate sizing. <sup>2</sup>For indoor application, this is the temperature of outdoor intake air. <sup>3</sup>External check valve required for installation. <sup>4</sup>Manifolds with standard RJ25 communication cables. <sup>5</sup>If anti freeze is on and combustion is on, total W will be 217W (85+132). <sup>6</sup>Recommended 24" clearance for service.

# CRUTGH-S/SR Tankless Water Heaters



## Water Heater Flow Rate Curves



Model Number	Temperature Rise (°F)									
	35°	45°	50°	60°	67°	70°	80°	90°	100°	
CRUTGH-S11i/SR11i Water Flow (GPM)	11.2	8.8	7.9	6.6	5.9	5.6	4.9	4.4	3.9	

Above estimates are for sizing purposes only.

## Venting

SINGLE UNIT: MAX. EQUIVALENT VENT LENGTHS - STRAIGHT PIPE		
Number of 90° Elbows	Max Length 2" straight pipe	Max. length 3" straight pipe
0	70 ft. (21.3 m)	150 ft. (45.7 m)
1	64 ft. (19.5 m)	145 ft. (44.2 m)
2	58 ft. (17.7 m)	140 ft. (42.7 m)
3	52 ft. (15.8 m)	135 ft. (41.1 m)
4	46 ft. (14.0 m)	130 ft. (39.6 m)
5	40 ft. (12.2 m)	125 ft. (38.1 m)
6	34 ft. (10.4 m)	120 ft. (36.6 m)

	Equivalent Ft. of Elbows	
	2" Pipe	3" Pipe
90° Elbow	6 ft (1.83 m)	5 ft (1.52 m)
45° Elbow	3 ft. (0.9 m)	2.5 ft. (0.75 m)

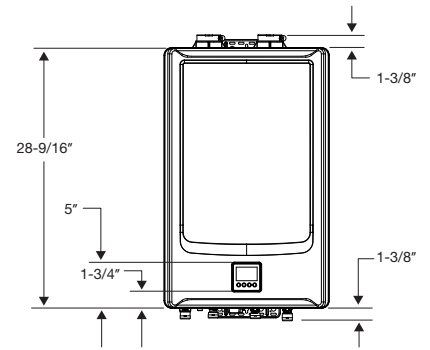
Venting Materials Allowed: ULC-S636 PVC, CPVC, PP

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

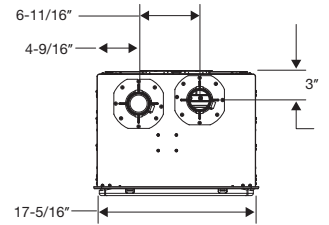
COMMON VENTING	
# of Water Heaters	3" Common Vent
2	60 ft.

SINGLE UNIT: Max. Flex Venting	
Max Length 2" flex vent	
50 ft.	

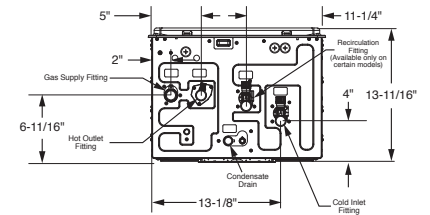
## Dimensions



## TOP VIEW



## BOTTOM VIEW



Hanging bracket, bird screens, LP gas conversion kit are included with water heater.

## Parts and Accessories

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