



RELY ON



# COMMERCIAL TANKLESS WATER HEATER

Technical Sales Guide

# Ruud Commercial Tankless

Ruud Commercial Tankless Water Heaters are designed to deliver continuous, dependable hot water, save money, and optimize space to help keep businesses up and running. With manifold capabilities in available models that can connect up to 32 units, Ruud Commercial is ready to handle any project scope. Each unit is designed for both indoor and outdoor applications, requiring only a conversion kit for outdoor installations.



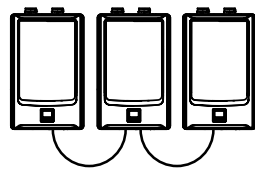
# Why Ruud Commercial Tankless?

Delivering Energy Savings, Flexibility & Support

- Thermal efficiency of up to 98%
- 11,000–199,900 BTU per unit
- Built-in maximum temperature setting of 185°F
- Multiple Venting Options: Inline or back-to-back common venting configurations. Common vent length up to 170'
- Integrated Full-text Digital Display means no more dip switches to adjust.
- Built-in Wi-Fi allows for easy temperature and settings adjustments.
- Manifold control models for expanding up to 6,396,800 BTU/h systems (32 units linked)
- Options for factory configured, pre-plumbed systems.
- A single product designed for both Natural Gas and LP applications, complete with an included gas conversion kit. Suitable for indoor or outdoor use with an available outdoor conversion kit.

**SIMPLER  
INSTALLS,  
EASIER  
SERVICE**

## RUUD EXCLUSIVE ADVANTAGES



### Manifold Ready

Every Ruud Commercial model comes with built in manifold capability with up to 32 units in a daisy chain method.



### Tankless Support

Count on Ruud for dedicated, personalized service and system solutions. Our sales and service teams are true partners committed to providing concierge-level service for all commercial applications.



### Best-in-Class Common Venting Lengths

Inline or back-to-back common venting configurations with PVC or Polypropylene saves time and money. Features best in class common vent length with up to 170' allows for venting of up to 8 units with 6" vent pipe.



### Additional Advantages

Integrated Full-text Digital Display means no more dip switches to have to adjust. Built in Wi-Fi to adjust temperature and settings.

## Ruud® Models

**RUTGH-CS**

**RUTGH-CSR11i** with Built-In Recirculation Pump

**RTGH-SX** Outdoor Conversion Kit

All models are shipped from factory programmed for Natural Gas and include LP gas conversion kit.

All models include integrated Wi-Fi.



SAVE  
TIME  
INSTALL  
MORE



**1 PVC Venting Compatible**  
Vent individual units with PVC venting in 2", 3", 4" and 6" venting, saving time and money.

Available Centrotherm Polypropylene venting for easy configuration.

**2 Common Vent Compatible**  
Vent up to 12 units together to save space and reduce outside wall penetrations.

**3 Half-Inch Gas Line Compatible**  
Saves money and time on installation to an existing system.

**4 Integrated Full Text Display**  
Easy configuration and manifold programming

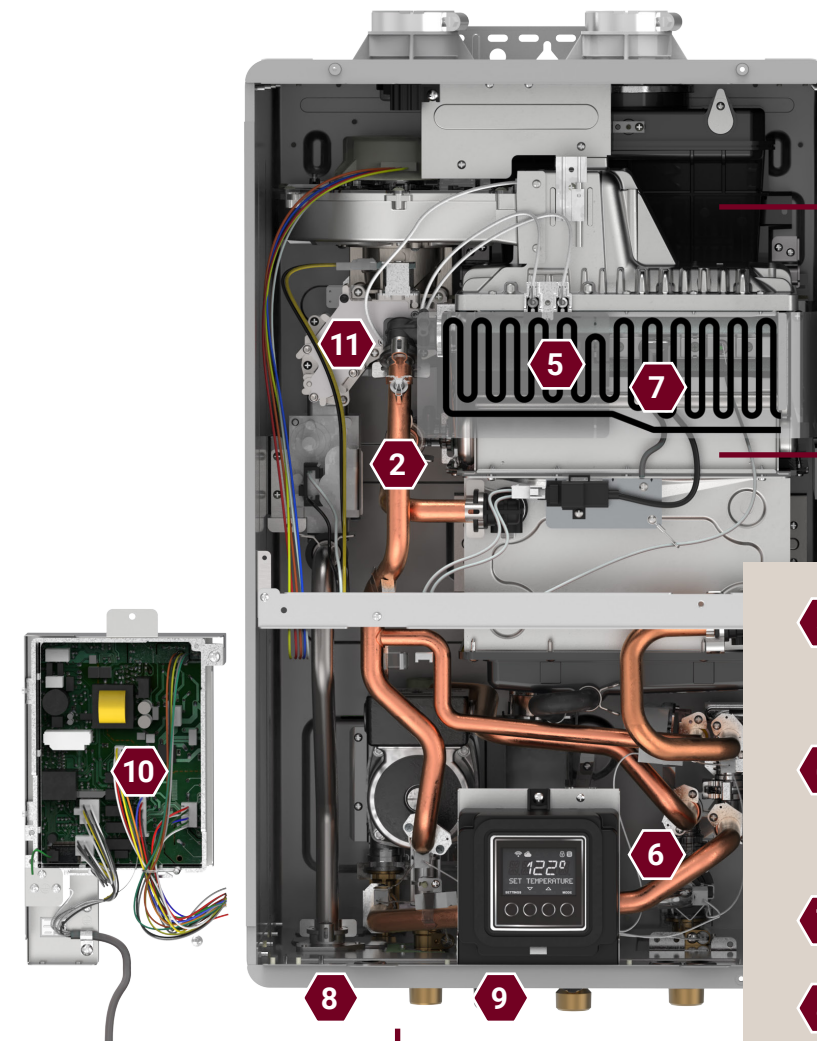
**3**  
**4**  
Option for Dedicated Return Line (SR-Series only)



Standard indoor unit with conversion kit installed



Quick Hang System (included)



Air Filter

Dual Station Steel Heat Exchanger

**8**  
**9**  
Built-in Recirculation (CSR models)

- 5 Overheat Film Wrap – Ruud® Exclusive**  
In the event the system overheats, Ruud's exclusive Overheat Film Wrap will immediately shut the unit down to prevent damage.
- 6 Low Flow Activation**  
Minimum flow rate of .26 GPM and activation flow rate of .40 GPM ensures hot water in low-demand situations.
- 7 Pre-Mix Modulating Burner**  
Tight control over burner energy efficiency.
- 8 Easy to Connect 32 Units**  
Models include manifold control to easily connect up to 32 units with RJ25 communication cable.
- 9 Built-in Wi-Fi**  
Get important alerts and control settings with your smart phone.
- 10 Hot Start Programming™ - Ruud® Exclusive**  
No need for a buffer tank! Eliminates cold water bursts for continuous hot water even in stop and start situations.
- 11 Field Gas Convertible**  
Field gas conversion kit to easily convert from Natural Gas to Liquid Propane (and back) if needed.

# Ruud Modular Rack System

Ruud® Tankless Modular Rack Systems are ideal for commercial projects and applications. The newly expanded commercial tankless line delivers maximum efficiency, advanced features, and the versatility that every business needs.

The modular systems provide flexibility and scalability, allowing businesses to choose the best configuration for their specific requirements.



## KEY ADVANTAGES:

### Maneuverability

Fits, fully assembled, through standard 32-inch doorways and on elevators.

### Versatility

Suitable for a wide range of commercial settings such as hotels, restaurants, hospitals, and multi-family residences. Ruud Modular Rack Systems can be tailored to meet specific hot water needs and can be installed both indoors and outdoors, providing flexibility to suit various operational requirements.

### Durable Construction

The racks are constructed of powder-coated galvanized steel to withstand the most demanding commercial environments and provide a secure mounting surface.

### Connectivity

Built-in Wi-Fi with EcoNet® allows for easy temperature and settings adjustments, plus the ability to track energy usage, get alerts, notifications and error code settings all from your phone.



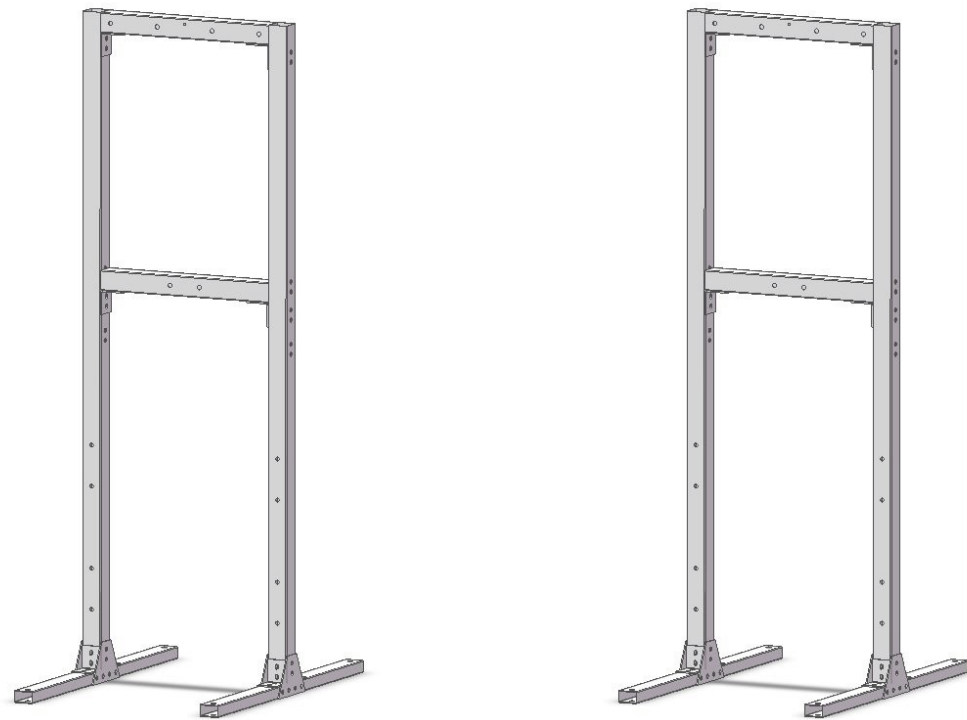
# Modular Rack System Solution

## Modular Rack System + Manifold Kits

Part Number	Part Description
AP24551	Modular Rack Kit
AP24552	Modular Rack Add-on Kit

The Modular Rack system can accommodate any number of units in both side-by-side or back-to-back orientations. Assembly begins with a Modular Rack Kit which can accommodate a single unit in side-by-side installations or two units in back to back installations. Modular Rack Add-on Kits can then be added as required for additional units.

An optional Tankless Modular Rack Manifold Kit provides all the water and gas piping required to easily connect multiple tankless water heaters together for large DHW demands. The Tankless Modular Rack Manifold can accommodate up to eight tankless water heaters configured in side-by-side or back-to-back orientation.



## Manifold Kits

Part Number	Part Description
AP24557	2 Side-by-Side (2SS)
AP24555	3 Side-by-Side (3SS)
AP24554	4 Side-by-Side (4SS)
AP24556	2 Back-to-Back (2BB)
AP24553	4 Back-to-Back (4BB)

The Modular Rack Manifold Kit provides all the water and gas piping required to easily connect multiple Tankless Water Heaters together for large demands.

- The Modular Rack Manifold System can accommodate up to eight Tankless Water Heaters configured in a side by side or back to back orientation. Side by side configurations can be mounted on a wall or on the optional Modular Rack. Back to back configurations require the use of the Modular Rack. Tankless.
- Water Heater Cascade Systems consisting of greater than four units will require the use of two manifolds connected together as indicated in the table below.

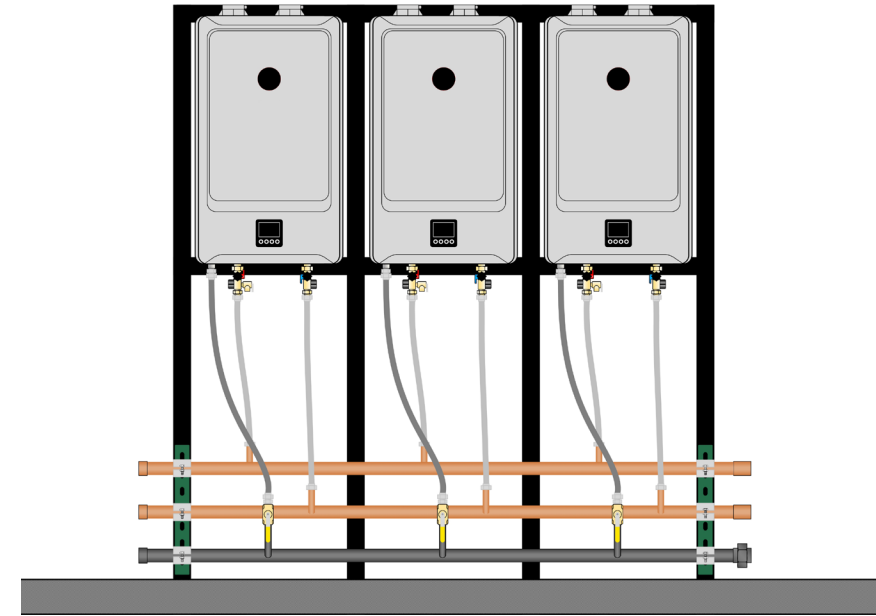


Figure 1: Tankless Water Heater Cascade System using the Modular Rack & Manifold System

Modular Rack Manifold Kit Configurations		
Tankless Water Heaters	Side-by-Side Orientation	Back-to-Back Orientation
2	2SS	2BB
3	3SS	4BB*
4	4SS	4BB
5	3SS & 2SS	4BB & 2BB*
6	4SS & 2SS	4BB & 2BB
7	4SS & 3SS	4BB & 4BB
8	4SS & 4SS	4BB & 4BB

\* Installer must cap unused manifold connections.

Multiple unit installs must be manifolded using RJ25 communication cables. See accessory section for part numbers.

# How to Build Your Modular Rack System

## Size Your System

For help sizing your system—reach out to Application Consulting Team

Our team of application engineers offers collaborative hands-on support to find the solution that meets the needs of your hot water project. We provide product application sizing and design solutions within 48 hours.



Scan to fill out the form to get started

### TANKLESS MULTI-UNIT FLOW RATES

Use the chart below to determine the expected gallons per minute (GPM) based on the number of units connected and temperature rise requirements.

Manifold QTY	Total System BTU	Total System GPM - Per Temp Rise											
		Temp Rise	35	45	50	60	70	80	90	100	110	120	140
		GPM / Unit	11.2	8.8	7.9	6.6	5.6	4.9	4.4	3.9	3.6	3.3	2.8
1	199,900	11.2	8.8	7.9	6.6	5.6	4.9	4.4	3.9	3.6	3.3	2.8	
2	399,800	22.4	17.6	15.8	13.2	11.2	9.8	8.8	7.8	7.2	6.6	5.6	
3	599,700	33.6	26.4	23.7	19.8	16.8	14.7	13.2	11.7	10.8	9.9	8.4	
4	799,600	44.8	35.2	31.6	26.4	22.4	19.6	17.6	15.6	14.4	13.2	11.2	
5	999,500	56	44	39.5	33	28	24.5	22	19.5	18	16.5	14	
6	1,199,400	67.2	52.8	47.4	39.6	33.6	29.4	26.4	23.4	21.6	19.8	16.8	
7	1,399,300	78.4	61.6	55.3	46.2	39.2	34.3	30.8	27.3	25.2	23.1	19.6	
8	1,599,200	89.6	70.4	63.2	52.8	44.8	39.2	35.2	31.2	28.8	26.4	22.4	
9	1,799,100	100.8	79.2	71.1	59.4	50.4	44.1	39.6	35.1	32.4	29.7	25.2	
10	1,999,000	112	88	79	66	56	49	44	39	36	33	28	
11	2,198,900	123.2	96.8	86.9	72.6	61.6	53.9	48.4	42.9	39.6	36.3	30.8	
12	2,398,800	134.4	105.6	94.8	79.2	67.2	58.8	52.8	46.8	43.2	39.6	33.6	
13	2,598,700	145.6	114.4	102.7	85.8	72.8	63.7	57.2	50.7	46.8	42.9	36.4	
14	2,798,600	156.8	123.2	110.6	92.4	78.4	68.6	61.6	54.6	50.4	46.2	39.2	
15	2,998,500	168	132	118.5	99	84	73.5	66	58.5	54	49.5	42	
16	3,198,400	179.2	140.8	126.4	105.6	89.6	78.4	70.4	62.4	57.6	52.8	44.8	
17	3,398,300	190.4	149.6	134.3	112.2	95.2	83.3	74.8	66.3	61.2	56.1	47.6	
18	3,598,200	201.6	158.4	142.2	118.8	100.8	88.2	79.2	70.2	64.8	59.4	50.4	
19	3,798,100	212.8	167.2	150.1	125.4	106.4	93.1	83.6	74.1	68.4	62.7	53.2	
20	3,998,000	224	176	158	132	112	98	88	78	72	66	56	
21	4,197,900	235.2	184.8	165.9	138.6	117.6	102.9	92.4	81.9	75.6	69.3	58.8	
22	4,397,800	246.4	193.6	173.8	145.2	123.2	107.8	96.8	85.8	79.2	72.6	61.6	
23	4,597,700	257.6	202.4	181.7	151.8	128.8	112.7	101.2	89.7	82.8	75.9	64.4	
24	4,797,600	268.8	211.2	189.6	158.4	134.4	117.6	105.6	93.6	86.4	79.2	67.2	
25	4,997,500	280	220	197.5	165	140	122.5	110	97.5	90	82.5	70	
26	5,197,400	291.2	228.8	205.4	171.6	145.6	127.4	114.4	101.4	93.6	85.8	72.8	
27	5,397,300	302.4	237.6	213.3	178.2	151.2	132.3	118.8	105.3	97.2	89.1	75.6	
28	5,597,200	313.6	246.4	221.2	184.8	156.8	137.2	123.2	109.2	100.8	92.4	78.4	
29	5,797,100	324.8	255.2	229.1	191.4	162.4	142.1	127.6	113.1	104.4	95.7	81.2	
30	5,997,000	336	264	237	198	168	147	132	117	108	99	84	
31	6,196,900	347.2	272.8	244.9	204.6	173.6	151.9	136.4	120.9	111.6	102.3	86.8	
32	6,396,800	358.4	281.6	252.8	211.2	179.2	156.8	140.8	124.8	115.2	105.6	89.6	

## Venting Solutions

Common venting saves space and materials while reducing outer wall penetrations.

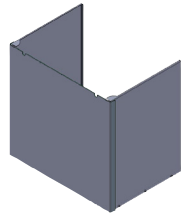
- Inline or back-to-back common venting configurations with PVC or Polypropylene saves time and money
- A common vent length up to 170' allows for venting of up to 8 units with 6" piping. Best in class among leading competitors.
- Max Common vent up to 12 units
- Room air or direct vent
- Pre-designed and configured PPs header kits available - 6" diameter

**BEST IN CLASS COMMON VENTING LENGTH**

Venting Options	Exhaust Vent Material	Intake Vent Material	Max. Vent Length			
			Number of Water Heaters	3" Common Vent	4" Common Vent	6" Common Vent
Common Venting System	PP & PVC	PP & PVC	2	60' (18.3 m)	150' (45.7 m)	170' (51.8 m)
			3	40' (12.2 m)	150' (45.7 m)	170' (51.8 m)
			4	30' (9.1 m)	70' (21.3 m)	170' (51.8 m)
			5	25' (7.6 m)	45' (13.7 m)	170' (51.8 m)
			6	N/A	35' (10.7 m)	170' (51.8 m)
			7	N/A	30' (9.1 m)	170' (51.8 m)
			8	N/A	25' (7.6 m)	170' (51.8 m)
			9	N/A	N/A	95' (29 m)
			10	N/A	N/A	95' (29 m)
			11	N/A	N/A	50' (15.2 m)
			12	N/A	N/A	50' (15.2 m)



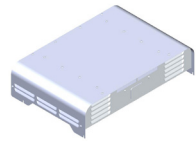
# Ruud Parts & Accessories



## Cosmetic Pipe Covers

Enhances the installation of the water heater, providing protection from tampering and weather.

- **RTG20322** – Fits RTGH-CS/R series indoor or outdoor models



## Outdoor Conversion Kit

Minimize SKUS with one product that can be installed either indoor or outdoor with an outdoor conversion kit. Display cover protects outdoor unit from weather and tampering.

- **RTGH-SX** – Outdoor Kit



## Flush Kit

Connects to the service valves for an easy way to flush and de-scale your tankless water heater.

- **RTG20214** – Includes pump, hoses and 5-gallon bucket



## AllClear® Water Treatment System

Combat hard water and scale build up for use with one or two unit systems.

- **RTG20251** – AllClear water treatment system
- **RTG20252** – Replacement cartridge



## Service Valves

Webstone®-Brand Tankless Service Valves

- **RTG20220AB** – Clean Brass for Low Lead Code - Includes cold and hot water set and pressure relief valve



## Condensate Neutralizer

For managing condensate run-off from venting.

- **RTG20329AR** – Single-unit Condensate Neutralizer
- **RTG20372** – Multi-unit Condensate Neutralizer



## RJ25 Communication Cables

Additional cable lengths for connecting translators between units or WiFi module to translator where additional length is required.

- **RCPN-AMP03-0013111101-0003** – 48" Long
- **RCPN-AMP03-0013111101-0002** – 72" Long
- **RCPN-AMP03-0013111101-0004** – 240" Long

# Built-in EcoNet® Wi-Fi Technology

## Ultimate Control From Anywhere

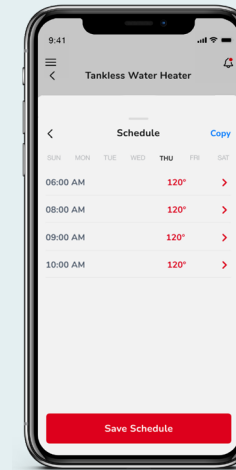
You can monitor and optimize Ruud Commercial Tankless units from your phone. Built-in EcoNet® Wi-Fi Technology allows complete control of your water heating from adjusting water temperature and tracking energy usage to setting recirculation modes. All to help keeping the hot water flowing in your business.



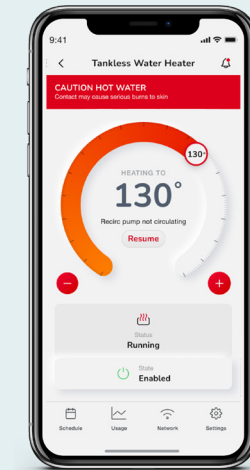
OVERVIEW DASHBOARD



ON DEMAND PUMP CONTROL



SCHEDULING



ALERTS, NOTIFICATIONS AND ERROR CODE SETTINGS



# Why Ruud Commercial?

## Application Consulting

Put the power of our portfolio to work for you. Ruud Commercial Water is your source for any commercial hot water need. If you need assistance with sizing or product selection our teams of application engineers are ready to assist you.



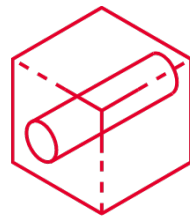
### Project Consulting

Collaborate with experts who will provide specialized solutions tailored to meet your needs.



### Equipment Selection

We develop and maintain product application sizing charts for all commercial products.



### Piping Diagrams

2D and 3D support with creation of project quotes showing relevant specifications.



### Sizing Reports

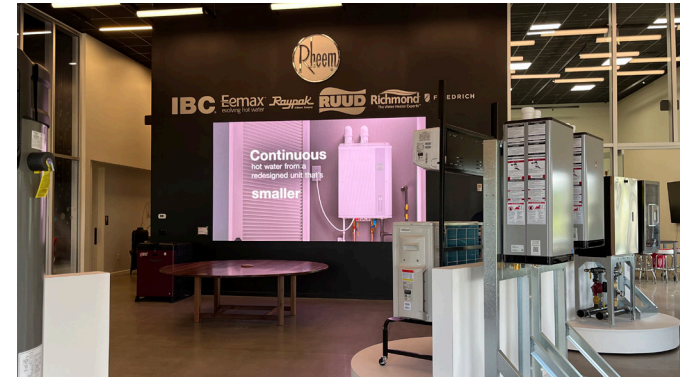
Product application sizing and design solutions within 48 hours.



Scan code and contact us now to get started.

## Product Training

Take advantage of training from our experts.



### INNOVATION LEARNING CENTERS

Ruud's Innovation Learning Centers (ILCs) offer comprehensive in-person training with live demonstration labs in a focused learning environment.



### ONLINE TRAINING RESOURCES

Our training and technical materials are designed to enhance your knowledge, and bring your skills and your business to the next level.



### FIELD TRAINING

We offer training at job sites and customer locations throughout the country. These classes can focus on installations, product knowledge and service tear-downs.





## Contact Us

Customer Service, Warranty, Parts .....	800.621.5622
Technical Support – Tankless Gas .....	866.720.2076
Plumber Business Support .....	1.866.339.2388
Plumber Business Support Email.....	PlumberBusinessSupport@Ruud.com
Sizing & Selection Support – Ruud Engineering.....	commercial.application@Ruud.com

RELY ON



Visit us online at [Ruud.com](http://Ruud.com) or see your local distributor.

*All Ruud Tankless Water Heaters meet or exceed ANSI requirements and have been tested according to D.O.E. procedures. Units meet or exceed the energy efficiency requirements of NAECA, ASHRAE, standard 90, ICC Code and all state energy efficiency performance criteria. All units meet or exceed SCAQMD rule 1146.2 for California Emission Requirements. In keeping with its policy of continuous progress and product improvement, Ruud reserves the right to make changes without notice.*

