

## **RE•Series Tankless Water Heaters**

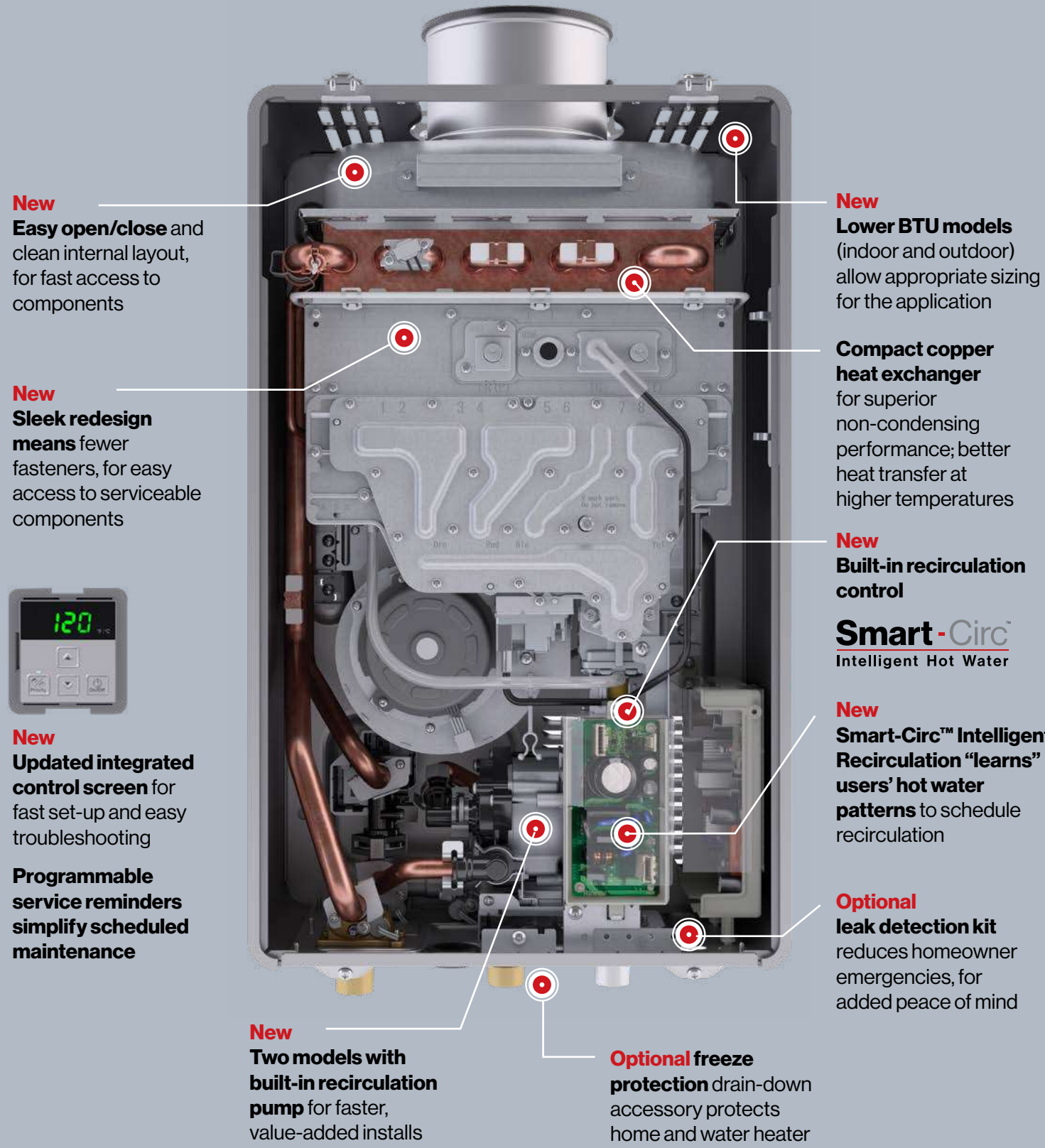
The First and Only Non-Condensing Unit with a Built-In Pump and Featuring Smart-Circ™ Intelligent Recirculation



**Proudly assembled at our  
new manufacturing facility  
in Griffin, Georgia, USA.**

# RE•Designed for the Way You Work

**RE•SERIES™**  
Rinnai Efficiency Series



**New**  
**Easy open/close** and clean internal layout, for fast access to components

**New**  
**Sleek redesign** means fewer fasteners, for easy access to serviceable components



**New**  
**Updated integrated control screen** for fast set-up and easy troubleshooting

**Programmable service reminders** simplify scheduled maintenance

**New**  
**Two models with built-in recirculation pump** for faster, value-added installs

**Optional freeze protection** drain-down accessory protects home and water heater

**New**  
**Lower BTU models** (indoor and outdoor) allow appropriate sizing for the application

**Compact copper heat exchanger** for superior non-condensing performance; better heat transfer at higher temperatures

**New**  
**Built-in recirculation control**

**Smart-Circ™**  
Intelligent Hot Water

**New**  
**Smart-Circ™ Intelligent Recirculation** “learns” users’ hot water patterns to schedule recirculation

**Optional leak detection kit** reduces homeowner emergencies, for added peace of mind

NOTE: Model shown includes pump.

## The Most Advanced Non-Condensing Tankless Water Heater

For more than 100 years, Rinnai has set the standard for innovation. And now we’re raising the bar again. A completely revamped line of advanced non-condensing tankless water heaters is unlike anything else on the market, delivering a level of installation ease, serviceability, reliability and usability never before seen. All with an eye toward helping you work smarter, faster, and more successfully. All from the **first major brand manufactured in the U.S.**, creating jobs, boosting our local economy and breaking new ground in tankless water heating.



**REP199e**  
Non-condensing Tankless Water Heater with Built-in Recirculating Pump

**REP199i**  
Non-condensing Tankless Water Heater with Built-in Recirculating Pump

### Smart Design

Newly designed from the inside out, Rinnai’s RE-Series makes tankless water heating even smarter. We made improvements with an eye to speeding installation, enhancing serviceability, and boosting your profitability.

- **Clean internal layout**, new wiring harness, and fewer fasteners make it easy to see and access components
- **Safety handle and seating bracket** for heat exchanger and combustion system protect components
- **LED screen** lets you set maintenance/service reminders, provides error codes, and alerts for lime scale flush
- **New sliding wall bracket** allows a single installer to hang and slide unit horizontally to align with venting before securing to drywall

Homeowners still enjoy a continuous supply of hot water, and you save time on installation, maintenance and service.



### Smart Technology

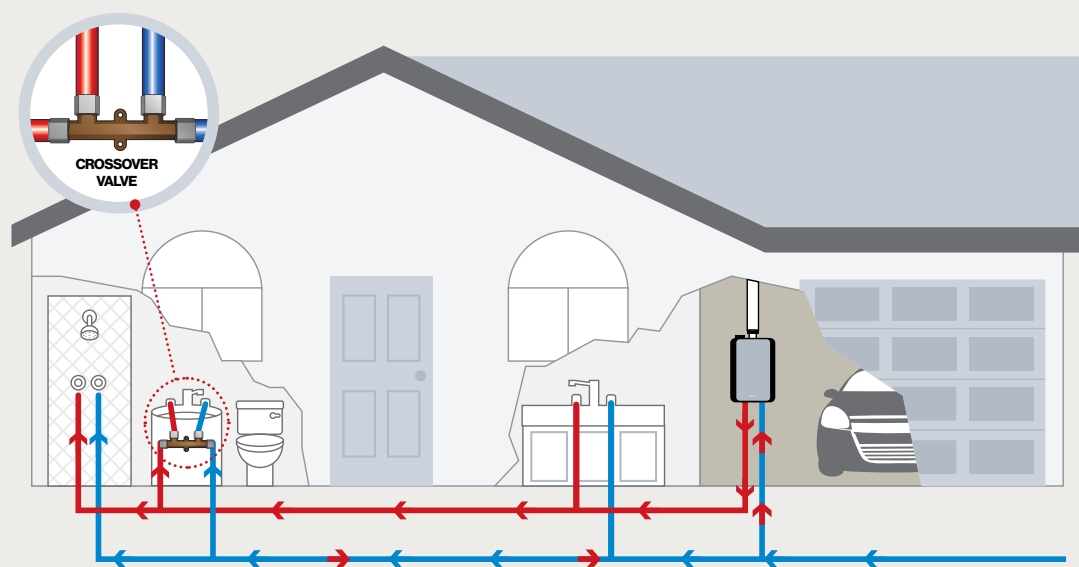
The new Rinnai RE-Series is the **first and only non-condensing tankless water heater** with features such as:

- **Built-in recirculation control** for faster and less expensive installation of recirculation equipment
- **Recirculation-ready models** available with a built-in pump, works with either a dedicated return line or cross-over valve
- **Smart-Circ™ Intelligent Recirculation** that “learns” a user’s hot water usage patterns over a seven-day period, to schedule the pump and tankless recirculation patterns
- **Tested and approved for use** with cleaner-burning hydrogen-enriched natural gas
- **Multimedia technical support** with so many smart features, it’s never been easier for you to sell Rinnai non-condensing tankless water heating. And it’s never been easier for your homeowners to manage their hot water.

# RE•Series

## How We Improved on a Legend

Regardless of the plumbing configuration, Rinnai can now provide faster hot water with select non-condensing tankless models featuring a built-in pump with recirculation technology.



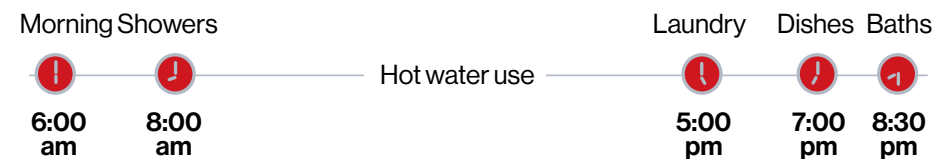
# Smart-Circ™ Intelligent Recirculation

## Extraordinary Convenience. Unbeatable Efficiency.

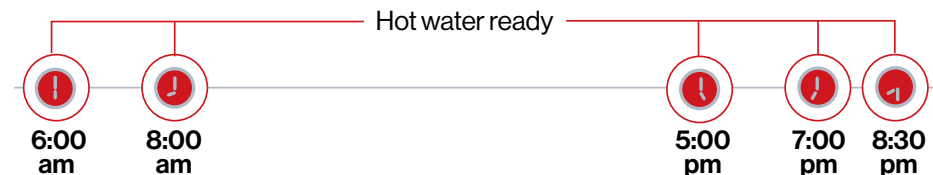
With Smart-Circ™ installation just got easier. External controllers are no longer needed to ensure your customers have hot water when they need it. Smart-Circ™ “learns” users’ hot water patterns over a seven-day period, then schedules pump and tankless recirculation patterns accordingly. Users enjoy instant hot water during regular demand periods, while saving energy and money.

**Smart-Circ™**  
Intelligent Hot Water

### Day 1

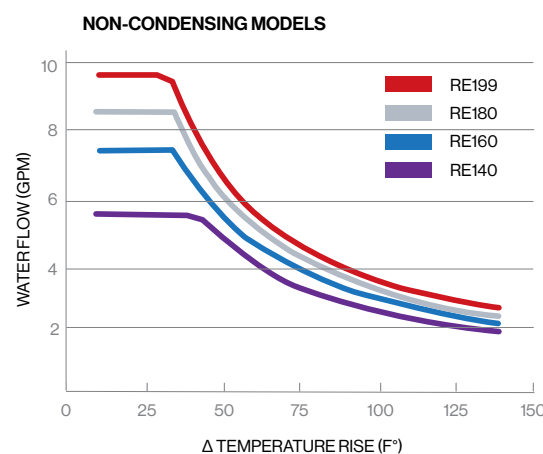
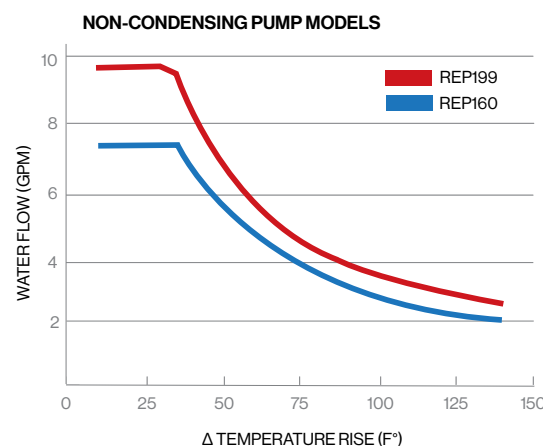


### Days 2-7



### You're all set!

Hot water will be ready for you based on the previous day's schedule. As hot water events are added throughout the week, scheduled recirculation adjusts accordingly.



FLOW RATE VS. DELTA Δ TABLE (INDOOR MODELS)

|                      | RE199 / REP199 | RE180   | RE160 / REP160 | RE140   |
|----------------------|----------------|---------|----------------|---------|
| Max. BTUH            | 199,000        | 180,000 | 160,000        | 140,000 |
| Recovery Efficiency* | 83%            | 83%     | 83%            | 83%     |
| Temperature Rise (F) | GPM            | GPM     | GPM            | GPM     |
| 140                  | 2.4            | 2.1     | 1.9            | 1.7     |
| 135                  | 2.4            | 2.2     | 2.0            | 1.7     |
| 130                  | 2.5            | 2.3     | 2.0            | 1.8     |
| 125                  | 2.6            | 2.4     | 2.1            | 1.9     |
| 120                  | 2.8            | 2.5     | 2.2            | 1.9     |
| 115                  | 2.9            | 2.6     | 2.3            | 2.0     |
| 110                  | 3.0            | 2.7     | 2.4            | 2.1     |
| 105                  | 3.1            | 2.8     | 2.5            | 2.2     |
| 100                  | 3.3            | 3.0     | 2.7            | 2.3     |
| 95                   | 3.5            | 3.1     | 2.8            | 2.4     |
| 90                   | 3.7            | 3.3     | 3.0            | 2.6     |
| 85                   | 3.9            | 3.5     | 3.1            | 2.7     |
| 80                   | 4.1            | 3.7     | 3.3            | 2.9     |
| 75                   | 4.4            | 4.0     | 3.5            | 3.1     |
| 70                   | 4.7            | 4.3     | 3.8            | 3.3     |
| 67                   | 4.9            | 4.5     | 4.0            | 3.5     |
| 65                   | 5.1            | 4.6     | 4.1            | 3.6     |
| 60                   | 5.5            | 5.0     | 4.4            | 3.9     |
| 55                   | 6.0            | 5.4     | 4.8            | 4.2     |
| 50                   | 6.6            | 6.0     | 5.3            | 4.6     |
| 45                   | 7.3            | 6.6     | 5.9            | 5.2     |
| 40                   | 8.3            | 7.5     | 6.6            | 5.3     |
| 35                   | 9.4            | 8.5     | 7.4            | 5.3     |
| 30                   | 9.7            | 8.5     | 7.4            | 5.3     |
| 25                   | 9.7            | 8.5     | 7.4            | 5.3     |
| 20                   | 9.7            | 8.5     | 7.4            | 5.3     |
| 15                   | 9.7            | 8.5     | 7.4            | 5.3     |
| 10                   | 9.7            | 8.5     | 7.4            | 5.3     |

\*Recovery Efficiency ratings per AHRI Directory.

## What about usage changes?



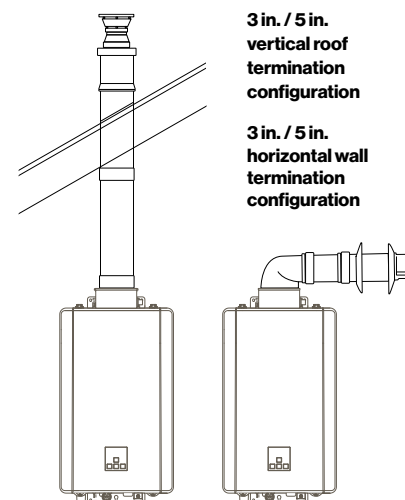
Smart-Circ™ does not distinguish between weekday and weekend patterns.



Unusual activity – like when users have guests – will set a usage pattern continuing 7 days after usage returns to normal.



To achieve scheduled recirculation or on-demand operation, control•r™ Wi-Fi module is required (sold separately). control•r Wi-Fi module overrides Smart-Circ™ recirculation patterns.















### Optimized Concentric Venting for Non-Condensing Models

Rinnai Tankless Water Heaters were the first to use a unique concentric venting system – featuring an inner pipe for exhaust and an outer pipe for fresh air from outdoors. The result is a direct-vent, sealed combustion system that requires only one penetration through the wall or roof.

**New for 2022. Telescoping vent elbow** ensures safer, easier installation and fits different wall depths.

Venting available in vertical and horizontal configurations. Concentric structure allows hot exhaust to exit through interior pipe, while fresh air enters through the outer layer.

MODEL CHART AND SPECIFICATIONS  
**NON-CONDENSING TANKLESS WATER HEATERS**

| RE-Series                               |   |   |   |  |   |   |   | RE-Series with Built-In Recirculation Pump  |   |   |   |   |
|---|---|---|---|--|---|---|---|---|---|---|---|---|
|   |  |  |  |  |  |  |  |  |  |  |  |  |
| Model                                   | RE199i  | RE199e  | RE180i  | RE180e   | RE160i  | RE160e  | RE140i  | RE140e  | REP199i   | REP199e   | REP160i   | REP160e   |
| Dimensions - w, h, d<br>Inches (mm)     | 14.1 x 24.6 x 11.1<br>(357 x 626 x 283)   | 14.1 x 24.6 x 11.1<br>(357 x 626 x 283)   | 14.1 x 24.6 x 11.1<br>(357 x 626 x 283)   | 14.1 x 24.6 x 11.1<br>(357 x 626 x 283)  | 14.1 x 24.6 x 11.1<br>(357 x 626 x 283)   | 14.1 x 24.6 x 11.1<br>(357 x 626 x 283)   | 14.1 x 24.6 x 11.1<br>(357 x 626 x 283)   | 14.1 x 24.6 x 11.1<br>(357 x 626 x 283)   | 14.1 x 24.6 x 10.8<br>(357 x 626 x 274)   | 14.1 x 24.6 x 11.1<br>(357 x 626 x 283)   | 14.1 x 24.6 x 10.8<br>(357 x 626 x 274)   | 14.1 x 24.6 x 11.1<br>(357 x 626 x 283)   |
| Weight (lbs / kg)                       | 42.1 lbs (19.1 kg)  | 42.1 lbs (19.1 kg)  | 42.1 lbs (19.1 kg)  | 42.1 lbs (19.1 kg)   | 38.5 lbs (17.5 kg)  | 38.3 lbs (17.4 kg)  | 38.5 lbs (17.5 kg)  | 38.3 lbs (17.4 kg)  | 50 lbs (22.7 kg)  | 50.2 lbs (22.8 kg)  | 47 lbs (21.3 kg)  | 46.7 lbs (21.2 kg)  |
| Installation Type                       | Indoor  | Outdoor   | Indoor  | Outdoor  | Indoor  | Outdoor   | Indoor  | Outdoor   | Indoor  | Outdoor   | Indoor  | Outdoor   |
| Min./Max. BTU<br>(Natural Gas)          | 10,400 / 199,000  | 10,400 / 199,000  | 10,400 / 180,000  | 10,400 / 180,000   | 10,400 / 160,000  | 10,400 / 160,000  | 10,400 / 140,000  | 10,400 / 140,000  | 10,400 / 199,000  | 10,400 / 199,000  | 10,400 / 160,000  | 10,400 / 160,000  |
| Min./Max. BTU<br>(Propane)              | 10,400 / 199,000  | 10,400 / 199,000  | 10,400 / 180,000  | 10,400 / 180,000   | 10,400 / 160,000  | 10,400 / 160,000  | 10,400 / 140,000  | 10,400 / 140,000  | 10,400 / 199,000  | 10,400 / 199,000  | 10,400 / 160,000  | 10,400 / 160,000  |
| Uniform Energy Factor/<br>Energy factor | 0.82  | 0.82  | 0.82  | 0.82   | 0.81  | 0.81  | 0.81  | 0.81  | 0.82  | 0.82  | 0.81  | 0.81  |
| Temp. Range<br>Residential              | 98°F-140°F (37°C-60°C)  | 98°F-140°F (37°C-60°C)  | 98°F-140°F (37°C-60°C)  | 98°F-140°F (37°C-60°C)   | 120°F-140°F (49°C-60°C)   | 120°F-140°F (49°C-60°C)   | 120°F-140°F (49°C-60°C)   | 120°F-140°F (49°C-60°C)   | 120°F-140°F (49°C-60°C)   | 120°F-140°F (49°C-60°C)   | 120°F-140°F (49°C-60°C)   | 120°F-140°F (49°C-60°C)   |
| Min. Activation Rate                    | 0.13 GPM  | 0.13 GPM  | 0.13 GPM  | 0.13 GPM   | 0.26 GPM  | 0.26 GPM  | 0.26 GPM  | 0.26 GPM  | 0.26 GPM  | 0.26 GPM  | 0.26 GPM  | 0.26 GPM  |
| Flow Rate<br>(70°/50° Temp. Rise)       | 0.13-9.8 GPM<br>(0.5-37 L/min)  | 0.13-9.8 GPM<br>(0.5-37 L/min)  | 0.13-8.5 GPM<br>(0.5-32 L/min)  | 0.13-8.5 GPM<br>(0.5-32 L/min)   | 0.26-6.6 GPM<br>(1.0-25 L/min)  | 0.26-6.6 GPM<br>(1.0-25 L/min)  | 0.26-5.3 GPM<br>(1.0-20 L/min)  | 0.26-5.3 GPM<br>(1.0-20 L/min)  | 0.26-7.9 GPM<br>(1.0-30 L/min)  | 0.26-7.9 GPM<br>(1.0-30 L/min)  | 0.26-6.6 GPM<br>(1.0-25 L/min)  | 0.26-6.6 GPM<br>(1.0-25 L/min)  |
| Ultra Low NOx                           | Yes   |   |   |  |   |   |   |   | Yes   |   |   |   |
| Warranty<br>(Residential)*              | Limited 15-year on heat exchanger, 5-year on parts, 1-year on labor               |   |   |  |   |   |   |   |   |   |   |   |
| Warranty<br>(Commercial)*               | Limited 8-year on heat exchanger, 5-year on parts, 1-year on labor                |   |   |  |   |   |   |   |   |   |   |   |
| Mobile Home<br>Certified                | Yes   |   |   |  |   |   | Yes   |   |   |   |   |   |
| Valves Shipped in Box                   | No  |   |   | No   |   |   | No  | No  | Yes   | Yes   | Yes   | Yes   |
| High Altitude<br>Approved               | Up to 10,200 feet   |   |   |  |   |   |   |   | Up to 10,200 feet   |   |   |   |
| Certifications                          | AHRI and CSA  |   |   |  |   |   |   |   | AHRI and CSA  |   |   |   |
| Venting Options                         | Concentric  | None  | Concentric  | None   | Concentric  | None  | Concentric  | None  | Concentric  | None  | Concentric  | None  |
| Controller (Standard)                   | Built in  |   |   |  |   |   |   |   |   |   |   |   |
| Controllers (Optional)**                | MC-601-BK, MC-601-W, MC-195T-US, MCC-601, control+r™                              |   |   |  |   |   |   |   | MC-601-BK, MC-601-W, MC-195T-US, control+r™   |   |   |   |
| Wi-Fi Capable                           | Yes   |   |   |  |   |   | Yes   |   |   |   |   |   |

\* For complete information and details regarding Rinnai's warranty, visit [rinnai.us](http://rinnai.us).  
 \*\* To achieve temperatures over 140° F (60° C), an MCC-91 commercial controller must be purchased separately.  
 For complete information on gas sizing for Rinnai Tankless Water Heaters, consult the Operation and Installation Manual.



**Rinnai Manufacturing**  
Griffin, Georgia

# First Major Tankless Brand to Manufacture in the US

Rinnai established its US operations in 1974 and introduced Tankless Water Heating to the North American Market in 2000. In 2018 Rinnai manufactured its first tankless water heater in the United States in Griffin, Georgia. Our new manufacturing facility was completed in 2021 with production of the new RE Series tankless water heaters beginning in 2022. Rinnai continues to make significant investments in expanding its operations and product portfolio, focusing on its brand promise of **Creating a healthier way of living®**.



**Water Heating Solutions**



**Home Heating Solutions**



**Commercial Water Heating Solutions**

## Every. Detail. Matters.<sup>SM</sup>

You don't become a market leader without thinking through every single detail. Then overthinking it. Then rethinking it. Every small detail matters. A lot. From flexible venting to customizable solutions and maximum ROI, we've thought through all the possible barriers and potential problems before they exist. Simply put, we're not just in the business of tankless water heaters. We're in the business of solving problems. That means we won't relax. Ever. We just can't. We'll keep rethinking every single tiny detail, innovating, and improving our products, services, and programs.

Learn more about Rinnai high-performance Tankless Water Heaters, Hybrid Water Heating Systems, Boilers, Vent-Free Fan Convectors, EnergySaver® Direct Vent Wall Furnaces, Hydronic Air Handlers and Infrared Radiant Heaters.

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**Rinnai America Corporation**  
103 International Drive | Peachtree City, GA 30269  
1-800-621-9419 | rinnai.us

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