



Rinnai®

THE BEGINNING OF ENDLESS HOT WATER RESIDENTIAL TANKLESS WATER HEATER GUIDE

WHOLE-HOUSE WATER HEATING SOLUTIONS



Voted #1
Builder Magazine's
"Most Popular Products"
Three Years In
A Row

why Rinnai?

AT RINNAI, IT'S THE TECHNOLOGY ON THE INSIDE THAT DELIVERS THE

Experience...

An endless supply of hot water throughout your home. No more cold showers or luke-warm baths.



...running the dishwasher, washing machine and taking a hot shower all at the same time.



...the significant energy savings from heating water only when you need it.

...the safety and convenience of digital temperature control at the touch of a button.



Experience...

the world of Rinnai tankless

Visit our website

www.foreverhotwater.com

- **Learn** how a Rinnai tankless water heater works
- **Discover** more about CO₂ and energy savings
- **Calculate** cost savings
- **Find** a preferred installer

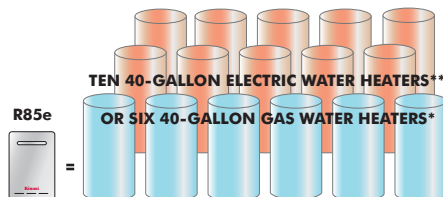
Never run out of hot water again.

The Rinnai tankless hot water heater is a state-of-the art, energy-efficient water heating system that uses a gas-powered heat exchanger to heat water. Compact in size, our innovative tankless technology heats water only as needed when water flow is detected, resulting in endless hot water. And unlike traditional tank systems, the Rinnai system can deliver hot water to multiple water sources simultaneously at a constant user-set temperature.

Rinnai efficiency at a glance

TANKLESS CAPACITY VS TANK CAPACITY

Endless hot water supply maintains consistent, safe temperature. One Rinnai delivers 240 gallons or more per hour with no recovery time.



Based on a 77° Rise continuous flow.

* Based on a 34,000 BTU input.

** Based on 4,500 watt elements.

ESTIMATED ANNUAL ENERGY COST COMPARISON*

Rinnai maintains efficiency for the life of the water heater.

Rinnai R85i NG	\$265 Estimated 20-year service life
Natural Gas 40-Gallon Tank**	\$326
Electric 40-Gallon Tank**	\$453

* Based Upon DOE Average Energy Costs for 2006

** Source: GAMA Consumers Directory of Certified Efficiency Ratings

WHOLE-HOUSE SIMULTANEOUS BATH USE - SIZING CHART

Simultaneously provides hot water for up to six plumbing fixtures and appliances.

Ground Water Temperature: 45° - 55° F

R53e	
R85i/e	
R98i/e	

* Based on 2.5 gpm shower head and 2.0 gpm faucet.

* Based on 120° F set temperature; with mixed temperature of shower heads and bathroom faucets to be 104° F. A residential-grade washing machine or dishwasher can be used instead of a shower. For sizing of large rain heads, body sprays or tubs over 60 gallons, contact Rinnai Application Engineers.

TANKLESS VS. TANK COMPARISON

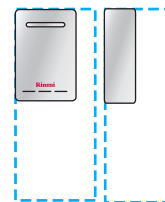
Significant space savings over conventional tank water heaters.

Dimensions:
14" W x 24" H x 9" D vs
approx. 20" Dia. x 47" H

Space Savings: Avg. 12-16 sq. ft.
Wall mounted vs 40-gallon tank

Weight Savings:

46 lbs. vs approx. 320 lbs. or more during use



Tomorrow's Innovation Today

At Rinnai the product we sell is technology. Technology that takes the form of a modulating gas valve that is the standard of the industry. This gas valve technology drives the superior, modulated, fuzzy-logic-based performance of our water heaters, ductless furnaces, and fireplaces. The result...gas powered heating products that deliver superior energy efficiency as well as long-term, maintenance-free reliability and up to 60% reduction in CO₂ emissions.

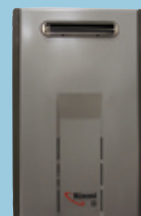
Modulating Gas Valve Technology - Rinnai's core competence, modulating gas valve technology, is the basis of the Rinnai product designs. This technology gives our products the ability to detect a small degree change and react on a continuous basis resulting in superior performance with maximum energy efficiency.

Heat Exchanger Technology - If the fuzzy logic is the "brain" of our products, the heat exchanger is the heart. Rinnai heat exchangers feature maximized surface area exposure to ensure efficient, optimal heat transfer.

The Total Package - Rinnai offers unparalleled service, support, and availability in the United States and Canada with application engineers and technicians available for proper sizing, basic system design and 24/7/365 direct technical support. And with over 1,900 distributor outlets throughout North America, you're assured availability for the Rinnai tankless heater you want from your local dealer.

Rinnai offers one of the best product warranties in the industry. The heat exchanger is fully warranted for 10 years, all other parts are covered for five years. The Designer PLUS Series enhanced warranty is 12 years/6 years.





R85e PLUS



R85e



R53i



R42i



R98i

BENEFITS ON THE OUTSIDE.



Rinnai models are available in natural gas or propane gas units that deliver up to 9.8 gallons per minute (GPM) of endless hot water with 15,000 to 237,000 BTU heating capacity (R98 models). They feature a direct energy-saving electronic ignition. No more energy-wasting pilot lights. Interior mount units require no indoor make-up air and vent directly to the outside atmosphere. Rinnai also offers exterior mount units that can be installed without additional venting components.

Designer PLUS Series

The new Designer PLUS Series features a modern cutting-edge design with a silver metallic powder-coated paint that allows you to showcase your tankless water heater anywhere in your home. There's no need to hide it in a mechanical or utility room. Available in 5.3 GPM and 8.5 GPM models, the PLUS Series has all the features of our standard units and more.



R85i PLUS

Digital Controllers

Rinnai's leading-edge technology in tankless water heaters also extends to the most useful, unique, and diverse line of digital temperature controllers in the industry. From basic temperature control to system troubleshooting to an automatic bath-fill function, Rinnai's remote controllers will give you maximum performance and enjoyment from your tankless water heater system.



*MC-91 Digital Temperature Controller



MC-502RC Wireless Remote Controller



MC-100V Digital Temperature Controller



BC-100V Digital Controller with Bath-Fill Function

Controllers Features and Options

Model	Temp. Control	System Analysis	In-Use Indicator	Call Button	Clock	Bath-Fill	Sound Adjust	Wireless
MC-91	●	●	●					
MC-100V	●	●	●	●	●		●	
BC-100V	●	●	●	●	●	●	●	
MC-502RC	●	●	●					●

* Standard controller shipped with each unit. Optional controllers available.

safety + convenience

PLUS Series Residential Model(s)

	R85i PLUS	R85e PLUS
Dimensions	9" D x 14" W x 24" H	9" D x 14" W x 24" H
Weight	49 lbs	46 lbs
Maximum/Minimum Gas Rate (Input BTU's)	180,000 /15,000	199,000 /15,000
Hot Water Capacity Range	0.6 to 8.5 GPM	0.6 to 8.5 GPM
Maximum Hot Water Capacity (35°F Rise)	8.5 GPM	8.5 GPM
Maximum Hot Water Capacity (50°F Rise)	5.8 GPM	6.6 GPM
Temperature Range With Remote Key Pads Connected	MC-100V-1, MC-91-1, BC-100V-1 and MC-502RC: 98° - 140° F	

R42e Residential Model

	R42e
Dimensions	8" D x 14" W x 22" H
Weight	32 lbs
Maximum/Minimum Gas Rate (Input BTU's)	120,000 /17,000
Hot Water Capacity Range	0.6 to 4.2 GPM
Maximum Hot Water Capacity (35°F Rise)	4.2 GPM
Maximum Hot Water Capacity (50°F Rise)	3.8 GPM
Temperature Range With Remote Key Pads Connected	MC-100V-1, MC-91-1, BC-100V-1 and MC-502RC: 98° - 140° F

R53 Residential Model(s)

	R53i	R53e
Dimensions	9" D x 14" W x 24" H	8" D x 14" W x 22" H
Weight	49 lbs	34 lbs
Maximum/Minimum Gas Rate (Input BTU's)	180,000 /15,000	150,000 /19,000
Hot Water Capacity Range	0.6 to 5.3 GPM	0.6 to 5.3 GPM
Maximum Hot Water Capacity (35°F Rise)	5.3 GPM	5.3 GPM
Maximum Hot Water Capacity (50°F Rise)	5.3 GPM	4.8 GPM
Temperature Range With Remote Key Pads Connected	MC-100V-1, MC-91-1, BC-100V and MC-502RC: 98° - 140° F	

R70e Residential Model

	R70e
Dimensions	9" D x 14" W x 24" H
Weight	46 lbs
Maximum/Minimum Gas Rate (Input BTU's)	199,000 /15,000
Hot Water Capacity Range	0.6 to 7.0 GPM
Maximum Hot Water Capacity (35°F Rise)	7.0 GPM
Maximum Hot Water Capacity (50°F Rise)	6.5 GPM
Temperature Range With Remote Key Pads Connected	MC-100V-1, MC-91-1, BC-100V-1 and MC-502RC: 98° - 140° F

R85 Residential Model(s)

	R85i	R85e
Dimensions	9" D x 14" W x 24" H	9" D x 14" W x 24" H
Weight	49 lbs	46 lbs
Maximum/Minimum Gas Rate (Input BTU's)	180,000 /15,000	199,000 /15,000
Hot Water Capacity Range	0.6 to 8.5 GPM	0.6 to 8.5 GPM
Maximum Hot Water Capacity (35°F Rise)	8.5 GPM	8.5 GPM
Maximum Hot Water Capacity (50°F Rise)	5.8 GPM	6.6 GPM
Temperature Range With Remote Key Pads Connected	MC-100V-1, MC-91-1, BC-100V and MC-502RC: 98° - 140° F	

R98 Residential Model(s)*

	R98i	R98e
Dimensions	9" D x 18½" W x 24¼" H	9¼" D x 18½" W x 24¼" H
Weight	55 lbs	55 lbs
Maximum/Minimum Gas Rate (Input BTU's)	237,000 /19,000	237,000 /19,000
Hot Water Capacity Range	0.6 to 9.8 GPM	0.6 to 9.8 GPM
Maximum Hot Water Capacity (35°F Rise)	9.8 GPM	9.8 GPM
Maximum Hot Water Capacity (50°F Rise)	8.0 GPM	8.0 GPM
Temperature Range With Remote Key Pads Connected	MC-100V-1, MC-91-1, BC-100V and MC-502RC: 98° - 140° F	

* ASME accredited units available.



Local Trained Installers

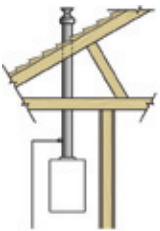
We've trained and registered more than 80,000 independent installers across the nation.

Flexible Installation Options

Rinnai tankless water heaters can be installed virtually anywhere:

- Interior Mount
- Recessed Option
- Exterior Mount
- Parallel Installation

Sealed combustion, concentric venting allows installation in enclosed spaces, such as utility closets.



Interior Roof or Wall Venting

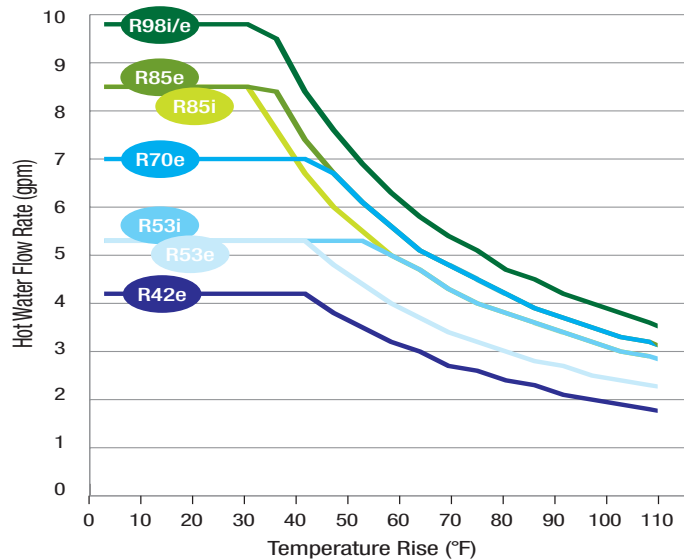


Exterior Wall Mount



Recessed Installations

Tankless Water Heater Flow Chart – Hot Water Flow Curve



HOT WATER FLOW CHART							
TEMPERATURE RISE (°F)	RINNAI RESIDENTIAL (GPM)						
	R42e	R53e	R53i	R70e	R85i	R85e	R98(i/e)
105	1.8	2.3	2.9	3.2	2.9	3.2	3.6
100	1.9	2.4	3.0	3.3	3.0	3.3	3.8
95	2.0	2.5	3.2	3.5	3.2	3.5	4.0
90	2.1	2.7	3.4	3.7	3.4	3.7	4.2
85	2.3	2.8	3.6	3.9	3.6	3.9	4.5
80	2.4	3.0	3.8	4.2	3.8	4.2	4.7
75	2.6	3.2	4.0	4.5	4.0	4.5	5.1
70	2.7	3.4	4.3	4.8	4.3	4.8	5.4
65	3.0	3.7	4.7	5.1	4.7	5.1	5.8
60	3.2	4.0	5.0	5.6	5.0	5.6	6.3
55	3.5	4.4	5.3	6.1	5.5	6.1	6.9
50	3.8	4.8	5.3	6.7	6.0	6.7	7.6
45	4.2	5.3	5.3	7.0	6.7	7.4	8.4
40	4.2	5.3	5.3	7.0	7.6	8.4	9.5
35	4.2	5.3	5.3	7.0	8.5	8.5	9.8
30	4.2	5.3	5.3	7.0	8.5	8.5	9.8

Rinnai is continually updating and improving products; therefore, specifications are subject to change without prior notice. Local, state, provincial and federal codes must be adhered to prior to and upon installation.

FOR MORE INFORMATION ON RINNAI PRODUCTS

ADDITIONAL RINNAI LITERATURE AVAILABLE

RESIDENTIAL TANKLESS WATER HEATERS



INTELLIGENT FIREPLACES



DIRECT-VENT DUCTLESS FURNACES



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