

# Rinnai



## Infinity Enviro

Continuous Flow Hot Water



 **Infinity**

# Engineering Excellence

10 Years after revolutionising the Australian water heating market with the Rinnai Infinity, Rinnai launched Australia's first ever 7 star equivalent Continuous Flow Water Heater using highly efficient condensing technology.

Fast forwarding to today, Rinnai continues to push the envelope of efficiency and comfort with its new Enviro Continuous Water Heater that offers a greater range, lower carbon footprint, reduced running cost, and improved safety features.

Encased in a sleek contemporary design, the new range of Enviros are also highly durable, easy to install and therefore the obvious choice for your hot water needs.





Infinity Enviro 16



Infinity Enviro 26



Infinity Enviro+ 32

# Condensing Technology



## What is high efficiency gas condensing technology?

In standard continuous flow water heaters water vapour from the gas combustion process escapes unused in the form of exhaust gas product through the water heaters flue outlet. Flue exhaust gas temperatures in standard continuous flow water heaters can be up to 200°C.

In Rinnai's condensing continuous flow water heaters the residual heat contained in the flue exhaust gases from gas combustion is recycled, recirculated and used to preheat the incoming cold water. The water vapour contained in the flue exhaust gas products is cooled down below the condensation temperature and produces liquid condensate that releases heat during the transformation. This additional heat gain is transferred into the water being heated as part of the overall heating system. Flue gas exhaust temperatures in Condensing Continuous Flow Water Heaters can be as low as 35°C.

## What are the benefits of condensing technology?

Rinnai's Condensing Continuous Flow Water Heaters utilise almost all the energy contained in the exhaust gases – up to 97%.

This additional benefit and use of recycled energy translates into lower running cost and reduced combustion emissions.

Thermal efficiency of standard Continuous Flow Water Heaters do not compare with condensing technology, typically this is 80%. Comparing this to 97% for Condensing Continuous Flow Water Heaters makes Rinnai's range of Condensing Continuous Flow Water Heaters the number one choice for saving money on running cost and reducing your carbon footprint.

# Hot Water Systems

Annual running cost and carbon emissions compared

## Rinnai's commitment to environmental sustainability

2020 marks 100 years of Rinnai Corporation supplying reliable, safe and energy efficient gas appliances to the world. Over the past decade, energy efficiency has become a key focus for Rinnai when developing products for the home. As well as benefiting the end consumer through lower running cost Rinnai Corporation has also committed to supporting environmental sustainability activities throughout the world, an example of this is their partnership with the Blue and Green Project.

	Hot Water System	Estimated Annual running Costs	Estimated Energy Usage	Estimated CO <sup>2</sup> Emissions per year <sup>(3)</sup>	Estimated Carbon Neutrality per year <sup>(4)</sup>
	Electric Storage Tank	\$1150 <sup>(1)</sup>	4600 kWh/Y	3772 kgs	56 Trees
	Gas Storage Tank (4 Star)	\$558 <sup>(2)</sup>	22800 MJ/Y	1171kgs	17 Trees
	Gas Storage Tank (5 Star)	\$497 <sup>(2)</sup>	20300 MJ/Y	1043kgs	15 Trees
	Continuous Flow Water Heater	\$460 <sup>(2)</sup>	18800 MJ/Y	966 kgs	14 Trees
	Condensing Continuous Flow Water Heater	\$408 <sup>(2)</sup>	16650 MJ/Y	856 kgs	12 Trees

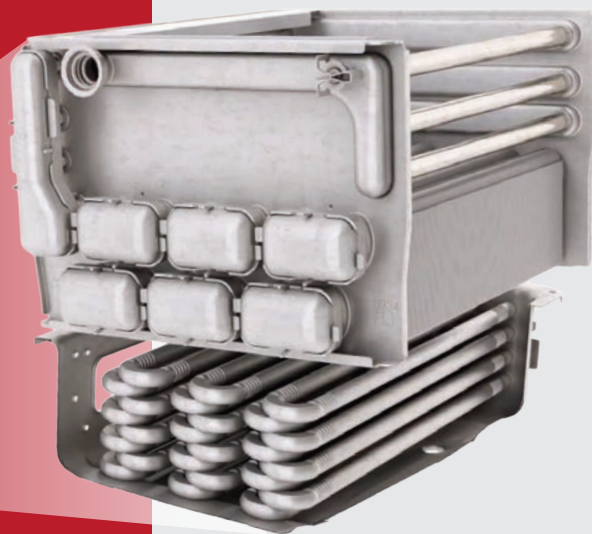
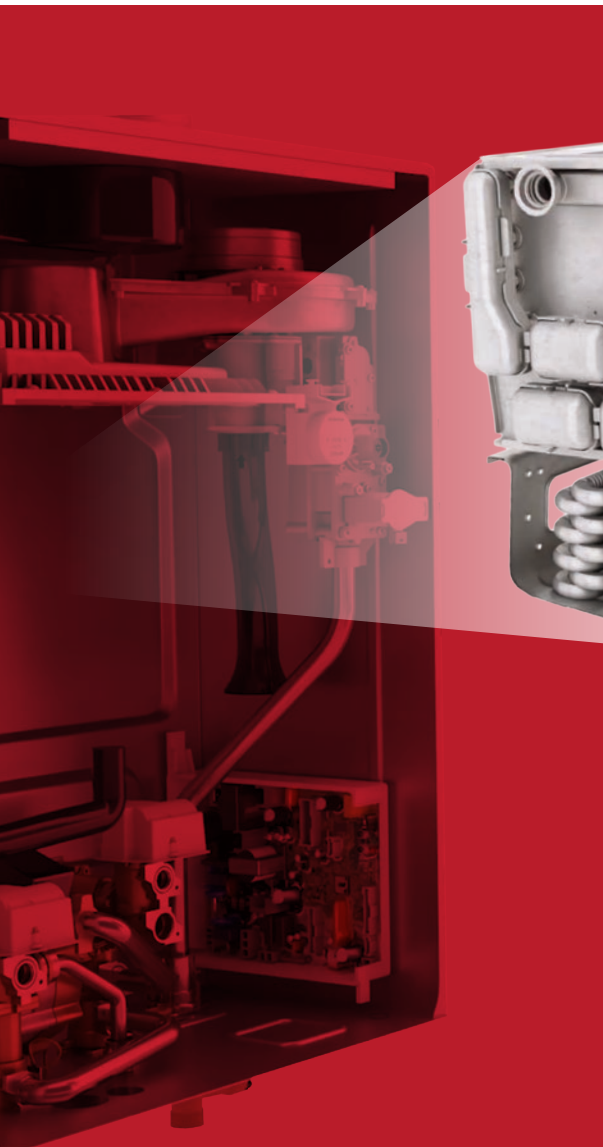
(1) Based on 200L at 60°C per day and \$0.25 per kW tariff

(2) Based on \$0.0245 per MJ tariff

(3) See 'National Greenhouse Accounts Factors' July 2018. Refer to table 5 for electricity emissions and table 2 for natural gas emissions.

(4) Based on 15 trees needed for carbon sequestration per tonne of CO<sub>2</sub> ([carbonneutral.com.au/faqs](http://carbonneutral.com.au/faqs))

# How it works



## Infinity Enviro+ 32

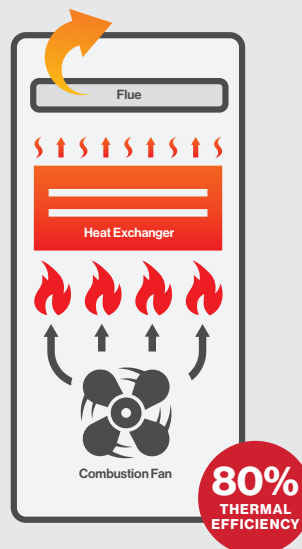
### Stainless Steel Heat exchanger

Designed and engineered using advanced thermal modelling software, Rinnai's new stainless steel Continuous Flow Heat Exchanger has been optimised for performance and space thus ensuring longevity and worry free operation.

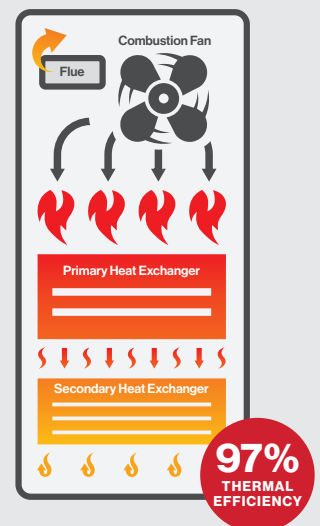
### Single vs Dual Heat Exchanger

Rinnai was the first to pioneer Dual Heat Exchangers in the quest to drive down energy consumption and running costs. Rinnai's ongoing development in this field has led to minimised pay back periods through ongoing running cost savings.

#### Single Heat Exchanger



#### Dual Heat Exchanger



# Enviro<sup>+</sup> 32

## Components

### 1. Gas Burner

Ground breaking surface burner technology, optimised for energy efficiency and longevity. An Australian first in Continuous Flow Water Heaters.

### 2. Heat Exchangers

Compact stainless steel construction, designed to maximise heat transfer through retention and recirculation whilst minimising water pressure loss and improving hot water delivery performance.

### 3. Printed Circuit Board

Encapsulated in a special epoxy and able to withstand the harsh Australian conditions our intelligent PCBs are built to last.

### 4. Touch Button Controller

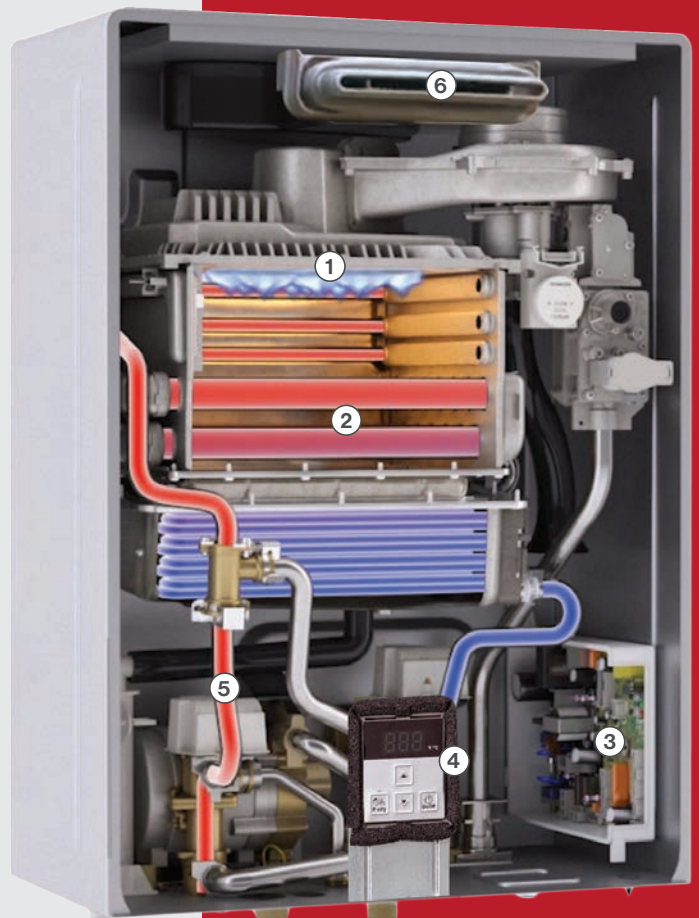
This easily accessible controller makes commissioning quick and easy. During operation the delivery temperature and system status is displayed.

### 5. Connected Pipe Work

Same as the Heat Exchangers the internal connecting pipes are fabricated from the same durable and corrosion resistant stainless steel thus ensuring life long durability.

### 6. Flue Terminal

The Flue Terminal is cleverly constructed to expel combustion product safely while trapping and recirculating as much heat as possible to the heat exchangers.



# Enviro Compared



Hot Water System	Enviro 16	Enviro 26	Enviro 32
Thermal Efficiency (%)	92% THERMAL EFFICIENCY	92% THERMAL EFFICIENCY	97% THERMAL EFFICIENCY
Number of Bathrooms	1 Bathrooms	2 Bathrooms	3+ Bathrooms
Flow rate L/Minute	16L/M	26L/M	32L/M
Star rating	> 7 Star <sup>(1)</sup>	> 7 Star <sup>(1)</sup>	< 7 Star <sup>(1)</sup>
Estimated Annual Energy Consumption (\$) <sup>(2)</sup>	\$405	\$410	\$445
Anti-frost operation	-20oC	-30oC	-30oC
1.5L per minute minimum operating flow rate	•	•	•
Natural gas and LPG models available	•	•	•
Enhanced electronic controlled safety and energy usage monitoring	•	•	•
Market leading quality. All components designed, controlled, manufactured and assembled in Rinnai's own state of the art production facilities.	•	•	•
Durable and improved resistance to corrosion making it ideal for coastal environments	•	•	•
Puretemp™ temperature stability control, provides quick flow and precise outlet water temperatures	•	•	•
Enhanced Combustion Technology (ECT), ensuring maximum comfort with extra low flow (WELS) shower heads and bathroom tap ware.	•	•	•
Durable and modern slimline case construction	•	•	•
Built in pressure relief valve	•	•	•
Quick commissioning and direct neutralised condensate drainage	•	•	•
50°C compliant models available, perfect for retrofits. This can be adjusted for true 50°C at the point of use	•	•	•
In-built condensate neutraliser	•	•	•
Internal installation with Heavy Duty appliance option			•
Quick and easy gas conversion in just 3 steps with Rinnai's gas conversion kit.			•
Outlet temperature setting up to 75°C			•
Built in appliance controller that displays set water temperatures, any system faults and allows for quick setting changes.			•
Lowest combustion NOx levels in the market			•
Reliable operation at low or with poor gas supply pressures			•
Innovative top down burner technology			•
Simple high altitude adjustment up to 2000m			•
Dual stainless steel primary and secondary heat exchanges			•

(1) Equivalent star rating, refer to the [energyrating.com.au](http://energyrating.com.au) site for more information

(2) Based on \$0.0245 per MJ tariff using 200L of hot water per day



# Market leading warranty

Our commitment to producing exceptionally engineering, high quality products is supported by our market leading warranty offering and ensures your ultimate protection and peace of mind.

For Infinity Enviro and Enviro+ models the standard warranty is 12 years for the primary heat exchanger and 3 years parts and labour. The new condensing models have been added to Rinnai's extended warranty program, extending the warranty on the primary heat exchangers by a further 13 years taking it to a total of 25 years.

This is subject to terms and conditions outlined in the warranty booklet.



# Accessories



## Universal

- Temperature display
- Priority transfer button
- Preheat system function (where installed)



## Deluxe

- Temperature display and clock
- Priority transfer button
- Preheat system function (where installed)
- Bath fill and Shower set function



## Wireless

The wireless controller has all the features of the Universal Controller but adds an element of portability and ease of retrofitting, both unique to Rinnai. The wireless controller also has a child lock to ensure safety for younger family members.

## Metal Recess Box

Enviro 16/26 only (RBOX07L)

Built into the wall the metal recess box is designed to house and hide the pipework but also create a smooth and clean finish to the installation.



## Full Metal Recess Box

Enviro 32 only (RBOX05)

This recess box allows for the entire water heater to be hidden from view. Made from corrosion resistant materials that can also be painted.



## Pipe Cover

Enviro 16/26 only (PCD08)

Colour matched to enhance the installation by hiding unsightly pipework and complement its existing surroundings.



## Flue Diverter

Enviro 16/26 only (SFD04)

Directing the flue gases sideways means your Rinnai Infinity unit may be installed into areas with restricted ventilation like balconies.



## Security Bracket (SECBKT)

Secure your investment with a quick and easy to install security bracket.

# Technical Information

Model		Enviro 16	Enviro 26	Enviro* 32
Bathrooms <sup>^</sup>		1	1 - 2.5	2.5+
Installation		External	External	External
Heating Capacity L/Min	Raised at 20°C	20	26	37
	Raised at 25°C	16	26	32
	Raised at 40°C	10	16	20
Height (inc. brackets)		565	565	721
Width		351	351	470
Depth (inc. brackets)		191	191	276
Weight		16kg	18kg	29kg
Main Gas Rate		110MJ/h	175MJ/h	209MJ/h
Cold Water Connection (mm)		15 (1/2")	20 (3/4")	20 (3/4")
Hot Water Connection (mm)		15 (1/2")	20 (3/4")	20 (3/4")
Gas Connection (mm)		20 (3/4")	20 (3/4")	20 (3/4")
Minimum Operating Flow (L/Min)		1.5	1.5	1.5
Factory Pre-set Temperature (°C)		50*/60	50*/60	60
Combustion NOx Levels (ppm)		40	40	35
Colour		Silver	Silver	Silver
Ignition		Direct electronic ignition with automatic flame sensing		
Gas Type		NG / LPG		
Electrical Supply		AC 240V 50 Hz		
Water Controllers		Up to 4 Water Controllers can be installed		
Heat Exchanger Warranty		Up to 25 years*		
Parts and Labour Warranty		3 Years (5 Years if two or more Water Controllers are installed in domestic applications)		

<sup>^</sup> Sizing assumes AAA or \*3 star outlets. For non WELS rated or WELS rated fixtures with higher flow outlets (AA, A, 2 star or 1 star rated) a larger size appliance or additional appliance may be required to deliver adequate performance. This is a guide only, special site and location factors may affect this. Half a bathroom refers to a guest shower or powder room that is not used all the time. For more information, consult with your hot water specialist<sup>5</sup>

\*Adjustable up to 53°C. For 60°C plus installations a tempering valve in accordance with AS3500.4 is required.

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Capacities tested in accordance with AS/NZS 5263.1.2. With our policy of continuous improvement, we reserve the right to change, or discontinue at any time, specifications or designs without notice.

Note: All images contained within this brochure are for illustrative purposes only, the colours and finishes of the products featured are as close to the respective product range as photographic lighting and printing processes allow.

**Rinnai Australia Pty Ltd**

ABN 74 005 138 769

100 Atlantic Drive,  
Keysborough, Victoria 3173

For further information  
call 1300 555 545 or visit  
[rinnai.com.au](http://rinnai.com.au)

**TOTAL HOME COMFORT**



HOT WATER



HEATING



COOLING

**Rinnai**