Rinnai

# SENSEI RX

# SERIES

Built for the PRO, by the PRO™

Featuring the **RXP Model** with **Built-in Pump** and

Smart-Circ Intelligent Recirculation



0.98 UEF

Energy Factor)

Rinnai





## Built for the PRO, by the PRO™

SENSEI®RX Series featuring Smart-Circ™ Intelligent Recirculation™, makes it easier than ever for PROs to sell, install, and service the best-performing condensing tankless water heater Rinnai has ever made. Now you can provide the latest in lifestyle comfort, smart-design, and built-in technology by installing the premium, unlimited hot water experience that only **SENSEI\*RX Series** can offer.

## SMART SENSE

Rinnai's proprietary Adaptive Gas Valve Technology adjusts to either Natural Gas or Liquid Propane Gas for optimal combustion - no conversion kit required.



SENSEI®RX Series Offers Natural Gas, Propane Gas, Indoor and Outdoor Capability all in One Model Stock your warehouse and vehicle with the one tankless model that really does it all!

## VERSA•VENT®

Outdoor Vent Cap (RXOVC) easily adapts to any SENSEI®RX Series model for outdoor installations providing the ultimate in SKU flexibility (sold separately).





## SMART CONNECT

Allows you to connect your smart phone or tablet to the SENSEI®RX Series via Bluetooth®. Use the Rinnai Central™ App for quick, simplified tankless water heater set-up and registration, significantly reducing your install time.





Provides an efficient flushing procedure to make periodic preventive maintenance a simple task to perform.



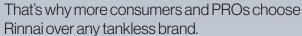
## Superior Performance Requires Superior Components<sup>™</sup>

Rinnai designs and manufactures most of the key components that go into the **SENSEI\*RX Series**, allowing for consistent control of quality, backed by the industry's best warranty.

Built for the PRO, by the PRO

Model shown: RXP199IN

**SENSEI'RX** 



#### Improved Turbo Fan™

Enables longer vent runs and flexible vent options

#### Industry leading

75 feet with 2"/4" concentric and 2" PVC/CPVC/PP. Up to 150 feet with 3"/5" concentric and 3" PVC/CPVC/PP.

# Enhanced Primary and Secondary Heat Exchangers

More efficient heat transfer and improved robust design with minimal joints.

The tube design is 444 Stainless Steel that provides added durability and heat resistance.

# Sets the standard for high efficiency tankless

(0.98 or 0.97 UEF on all models).

#### 4-Speed DC Recirculation Pump

Quieter operation in a compact size with higher head pressure for improved performance.

#### Retro-fit Internal Pump Kit

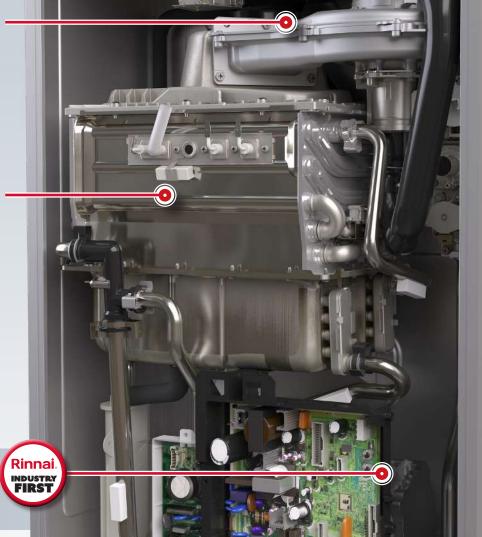
Adds Rinnai's advanced recirculation capability to non-pump models.

#### Weighs 58 lbs.

10 lbs. lighter than previous models.









# SENSEI RX

Built for the PRO, by the PRO™

## Set-up and Registration has Never Been More Convenient

**Download and Open the** Rinnai Central<sup>™</sup> App Open and create your PRO Account today to gain instant access to product information, training resources,

plus much more!

and set-up procedures...











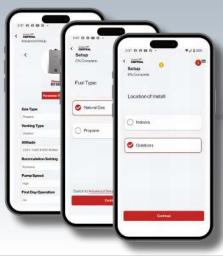


Push the Bluetooth button on the tankless controller with the Rinnai Central<sup>™</sup> app open to **SMART** CONNECT to your device.



Use the **Quick** Set-Up screen for speedy unit configuration without removing the cover!

Use **PRO-files**™ to pre-load and save all parameter settings in app for future installs.



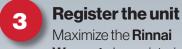
#### **Fuel Type** SMART&SENSE"

lets you select the fuel source (no orifice change required).

### Indoors / Outdoors

**VERSA-VENT** cap allows any unit to install

outdoors (purchased separately)



Warranty by registering the SENSEI®RX.







### Lifestyle Comfort Options with SENSEI®RXP - Recirculation models



## Recirculation Schedule Based on Usage Patterns

Smart-Circ™ Extraordinary Convenience Out of the Box

Smart - Circ Intelligent Recirculation

Smart-Circ

Smart-Circ™ starts learning "users" hot water patterns from the first day and automatically schedules recirculation to provide hot water when they need it. Leverages last 7 days of hot water usage to continuously update hot water recirculation schedule. Users enjoy continuous hot water during regular demand periods, while saving energy and money.





#### **Recirculation Schedule Based on User Control**

Hot Water Recirculation Scheduling at Your Fingertips



After downloading the **Rinnai Central** app and connecting to the **RWM200 Wireless Module** (sold separately), Homeowners can experience the ultimate in accessibility, convenience, and control:

- Activate recirculation schedule (pump-enabled models only)
- · Adjust Water temperature
- · Check real-time water heater status
- · Receive maintenance alerts
- Activate vacation mode to save energy when away for extended periods

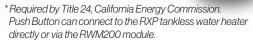


RWM200 Wireless Module

## Smart Home Automation Smart Home Routines for Convenient Control

- Voice Activation with amazon alexa
- Adjust Water Temperature
- Turn on/off Recirculation
- Schedule Recirculation
- Push Button available for On-Demand Recirculation\*



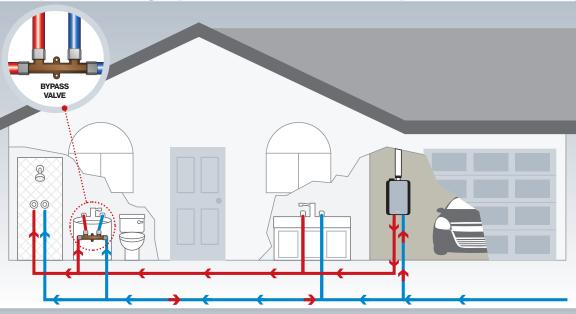






## Turn Any Plumbing System into a Recirc System

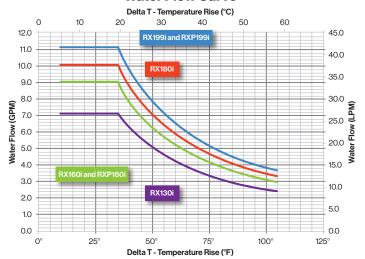
Regardless of whether an existing plumbing system has a dedicated return line, faster hot water can be enjoyed using a Thermal Bypass Valve accessory when installing tankless models featuring a built-in pump with recirculation technology.



## Flow Rate vs DELTA T Table and Chart

Model	RXP199	RXP160	RX199	RX180	RX160	RX130
Max. BTUH	199,000	160,000	199,000	180,000	160,000	130,000
Recovery Efficiency*	97%	97%	97%	97%	97%	97%
Temperature Rise (°F)	GPM	GPM	GPM	GPM	GPM	GPM
105	3.7	3.0	3.7	3.3	3.0	2.4
100	3.9	3.1	3.9	3.5	3.1	2.5
95	4.1	3.3	4.1	3.7	3.3	2.7
90	4.3	3.5	4.3	3.9	3.5	2.8
85	4.6	3.7	4.6	4.1	3.7	3.0
80	4.8	3.9	4.8	4.4	3.9	3.2
75	5.2	4.2	5.2	4.7	4.2	3.4
70	5.5	4.5	5.5	5.0	4.5	3.6
67	5.8	4.7	5.8	5.2	4.7	3.8
65	6.0	4.8	6.0	5.4	4.8	3.9
60	6.5	5.2	6.5	5.8	5.2	4.2
55	7.0	5.7	7.0	6.4	5.7	4.6
50	7.8	6.2	7.8	7.0	6.2	5.1
45	8.6	6.9	8.6	7.8	6.9	5.6
40	9.7	7.8	9.7	8.8	7.8	6.3
35	11.1	8.9	11.1	10.0	8.9	7.1
30	11.1	9.0	11.1	10.0	9.0	7.1
25	11.1	9.0	11.1	10.0	9.0	7.1
20	11.1	9.0	11.1	10.0	9.0	7.1
15	11.1	9.0	11.1	10.0	9.0	7.1
10	11.1	9.0	11.1	10.0	9.0	7.1

#### **Water Flow Curve**



Note: Maximum flow rates may vary based on set temperature, Delta T and altitude



<sup>\*</sup>Recovery Efficiency ratings per AHRI Directory.



#### **Tankless vs Tank**

#### Rinnai<sub>®</sub> **Average Household High Hot Water Usage** Consumes 64 Gallons Every year American home owners spend \$400 to \$600, of Hot Water Per Day on average, to heat water for bathing, washing & cleaning." (23,000 gallons per year) **TANKLESS** TANK WATER Over **HEATERS HEATERS** 20 Years Traditional hot hot water water storage heater system tank system n the Heat Exchange **EARS** on Parts RS Reasonable Labor

Tankless water heaters are much more energy efficient; no hot water is stored

24-34% more efficient than tanks.\*

Tank water heaters are susceptible to standby heat loss and a continously heated tank means water is heated all day long, 24/7, for less efficiency.

#### · COST

**EFFICIENCY** •

Tankless water heaters have lower operational costs and last much longer than tank water heaters, which can offset installation costs.

Tank water heaters have a lower purchase price but are more expensive to operate since they must constantly keep water heated 24/7

#### · LIFESPAN ·

With periodic maintenance, tankless water heaters can last for 20+ years.3

Traditional tank water heaters have a lifespan of 10-15 years."

#### • SIZE • SPACE •

Tankless water heaters are about the size of a small suitcase and are wall mounted for significant space savings.

Traditional tank water heaters require much more area for installation than tankless units potentially reducing net living or storage space.

#### • BOTTOM LINE •

- · Up to 34% more energy efficient\*
- Compact space saving design
- Longer lifespan
- · Unlimited hot water capacity

- · Heats water even when not being used
- Takes up valuable space
- Shorter lifespan
- · 40-60 gallon capacity

#### \*As based on the average operating costs, efficiency and lifespans of tankless vs. storage water heaters per the Department of Energy (energy.gov).

Rinnai LMS Class **Enrollment Guide** 

https://bit.ly/42ITiaQ

#### **Rinnai Technical Training Department**

Rinnai offers many NO COST training options for PROs, either on-line, in the field or at Rinnai's Peachtree City, Georgia, USA corporate office. The training levels range from an introduction to tankless technology to advanced live technical training where you gain hands-on experience in the installation and troubleshooting of Rinnai products. For more information, contact your local Rinnai representative or enroll today at the Rinnai Online Training Center.



**Training Help** Email: training@rinnai.us







Be the PRO in the know

There are a lot of tankless myths out there being spread by people unfamiliar with the technology. Luckily, plenty of PROs know

about these misconceptions and are here

to tell the Tankless Truths.

**Tankless** 

**TRUTHS** 

To learn about all the Tankless Truths, click on the link below of scan the

Tankless Truths QR Code.

https://www.rinnai.us/tanklesstruths

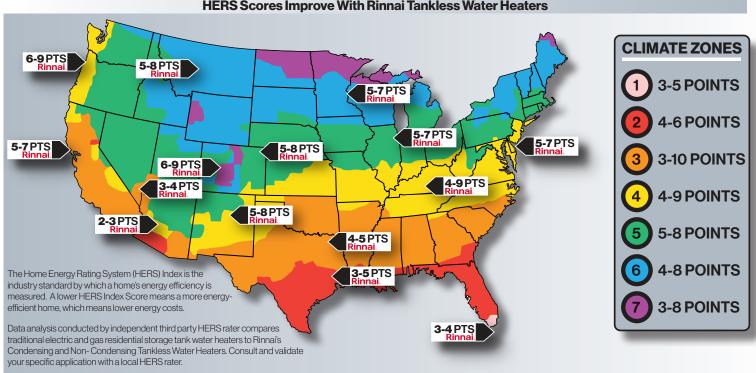
**SCAN ME** 

Rinnai LMS Class **Schedules** 

https://bit.ly/443HWcX







For more information specific to your zone or city, visit: <u>hersindex.com</u>

## REDUCE YOUR SKUs from 24 MODELS to 6!

## **Model Chart and Specifications**

SENSEI®RX SERIES Condensing Tankless Water Heaters











to 6!		B				
MODEL	RXP199IN	RXP160IN	RX199IN	RX180IN	RX160IN	RX130IN
Built-in Pump	Ye	es	No			
Smart - Circ Intelligent Recirculation	Yes Smart-Circ capable with installation of pump or pump accessory kit		essory kit			
Product Dimensions W,H,D inches (mm)	18.5 X 30.1 X 11.4 (470 X 765 X 290)					
Product Weight (lbs / kg)	58 (26)	57 (26)	55 (25)	55 (25)	54 (24)	54 (24)
Installation Type	Indoor Units (Includes optional outdoor installations with use of the Rinnai outdoor vent cap accessory)					
UEF	0.98	0.97	0.98	0.98	0.97	0.97
Min./Max. Btu	15,000/199,000	15,000/160,000	15,000/199,000	15,000/180,000	15,000/160,000	15,000/130,000
Temperature Setting*	Minimum: Normal Operation: 98°F (37°C) (Crossover Mode: 120°F (49°C)) Maximum: Default: 120°F (49°C) with Parameter Adjustment: 140°F (60°C)					
Minimum Activation Rate	0.26 GPM (0.5 L/MIN)					
Flow Rate (Min-Max)	0.13-11.1 GPM (0.5-42 L/MIN)	0.13-9.0 GPM (0.5-34 L/MIN)	0.13-11.1 GPM (0.5-42 L/MIN)	0.13-10.0 GPM (0.5-38 L/MIN)	0.13-9.0 GPM (0.5-34 L/MIN)	0.13-7.1 GPM (0.5-27 L/MIN)
Controller (Standard)	INTEGRATED					
Controllers (Optional)	MC-601; for scheduled recirculation use MC-195T-US or RWM200 Wireless Module					
Certifications	AHRI, CSA, ENERGY STAR®					
Warranty (Residential)**	Limited 15-year on heat exchanger, 5-year on parts, 1-year on labor. Register within 90 days and receive an additional 4 years of labor coverage for free (\$250 value).					
Mobile Home Certified	Yes					
Thermal Bypass Crossover Valve in Box	Yes No					
High Altitude Approved	UP TO 10,200 FT. (3,109 M)					
Venting Options	Concentric/PVC/CPVC/PP  Vent Cap (Outdoor Only)					
Ultra Low NOx	Yes					
Residential Rack Compatible	Yes RTBRACKA, RTBRACKS, RTBRACKEXT					
1/2" Gas Line Compatible†	Yes					
Wi-Fi Capable	Yes (Homeowners can use a RWM200 Wireless Module with Rinnai Central App)					

 $<sup>^*</sup>$ To achieve temperatures over 140° F (60° C), consult the Operation and Installation Manual.

<sup>\*\*</sup>For complete information and details regarding Rinnai's warranty, visit rinnai.us.

<sup>†</sup>For complete information on gas sizing for Rinnai Tankless Water Heaters, consult the Operation and Installation Manual.

## **Accessories for SENSEI®RX**

Numerous optional accessories are available for purchase for your Rinnai Tankless Water Heater. Listed below are some commonly purchased accessories. For a complete list of accessories, visit <a href="https://www.rinnai.us">www.rinnai.us</a> For questions, or to purchase an accessory, contact your local Rinnai dealer/distributor or Rinnai Customer Care at 1-800-621-9419.

	or Kinnai Customer Care at 1-800-621-9419.				
Product/Part#	Product Description				
Isolation Valve Kit MIVK-T-LW	Isolation valves provide the ability to isolate the water heater from the structure's plumbing system and allow quick and easy access to flush the heat exchanger. Rinnai strongly recommends use of these valves for service and maintenance.				
Outdoor Vent Cap RXOVC	Allows the water heater to be installed outdoors.				
BLE Recirculation Push Button RPB200	Mounted in a convenient location, i.e. near a kitchen or bathroom sink, the BLE push buttons works with the SENSEI®RXP tankless water heater or Wireless Module to activate the recirculation system by pushing the button.	Rinnai			
Dedicated Return & Isolation Valve Kit 107000639	Valve kit including tee, drain valve, pressure relief valve, check valve & isolation valves (cold & hot) to simplify set-up of a dedicated recirculation line.				
Internal Add-on Recirculation Conversion Kit RX2RXPCK	Allows a non-pump RX model to be converted to a RXP internal pump model.				
Condensate Neutralizer 804000074	Neutralizes the condensate generated by the water heater.	Was the			
Wireless Module RWM200	Controls On-Demand recirculation, remotely adjust temperatures, and communicates with the service provider portal. The module and MC-195T-US controller are not compatible accessories and must not be installed together.				
Additional Controller MC-601	Additional controllers are available for user convenience.	4 . 4			
Additional Controller MC-195T-US	Additional controllers are available for user convenience.				

Accessories for SENSEI®RX				
Product/Part#	Product Description			
ScaleCutter 103000038	Prevents the formation of scale buildup in the water heater extending product life while improving performance.			
ScaleCutter Refill Cartridge 103000039	Refill cartridge for the ScaleCutter filter assembly.			
Drain Down Kit 104000059	Provides freeze protection by immediately draining the water heater upon loss of power.			
Room Air Screen 108000104 for 2" 108000105 for 3"	Recommended room air screen for use in room air applications only.			
EZConnect™ Cable REU-EZC-3	Electronically connects two water heaters and allows them to function as one hot water source.			
OPU Switch REU-OPU3	Normally Closed (NC) switch that connects to the tankless water heater PC Board. When used with a hydronic air handler, the switch gives priority to domestic hot water during high demand.			
RTBRACKA	Tankless Floor Standing Rack, standard height			
RTBRACKS	Tankless Floor Standing Rack, low profile			
RTBRACKEXT	Rack Extension Kit, add-on			
Recess Box RGBCTWHRX	Allows a water heater to be recessed into a wall. A vent adapter is provided with the recess box.			
Pipe Cover PCD11-SHS	Encloses the piping below the water heater for aesthetic purposes.			

Accessories for SENSEI®RX				
Product/Part#	Product Description			
Single Unit Standoff Brackets 109001376	The Single Unit Standoff Brackets create 1.5 inches (38mm) of clearance between the water heater and the wall allowing pipe runs directly behind the tankless unit. Top and bottom bracket included.			
Venting Laser Guide Kit 103000121	Helps identify hole location on the wall or ceiling when using Concentric or PVC venting with Rinnai TWH or Boiler units.			
Gas Conversion Kit 104000330	Kit contains gas conversion manual and conversion rating plate label (adheres to water heater to display new gas type)-for post install conversions).	Water Heater Certified for use in the United States and Canada Models. [RX130] Conversion Kit #: [104000333] for [NATURAL] Gas Gas Supply Pressure Min. [3.5"WC. (0.87KPa). Max. [10.5"WC. (2.61kPa) Manifold Pressure [0.7"WC. (-0.04kPa)] Non-Adjustable) Input Bating, Refer to input aris information on the existing rating plate. This water heater was converted on		
Tankless Battery Back-Up System R-UPS500A	Battery Backup System 500A	Sample rating Flate Label		

# **Tankless Water Heater Series Reference Guide**

DLY ASSEMA	RE • SERIES" NON-CONDENSING TECHNOLOGY		
PROUDLY ASSEMBLING	RE	<b>REP</b> (with built-in pump)	
Z CHIAN, GEORGIA			
	REMODELS	REP MODELS	
UEF (Uniform Energy Factor)*	0.81 - 0.82	0.81-0.82	
Wi-Fi Capable	✓	✓	
Natural Gas or Propane	✓	✓	
Indoor and Outdoor installation	✓	✓	
Smart - Circ Intelligent Recirculation		/	
Thermal Bypass Valve included			
Isolation Valves included		✓	
Smart Home Automation**	<b>√</b>	<b>✓</b>	

SENSEI'RX CONDENSING TECHNOLOGY			
RX	<b>RXP</b> (with built-in pump)		
	MONE AT A BERGERY		
RX MODELS	RXPMODELS		
0.97 - 0.98	0.97 - 0.98		
✓	✓		
✓	✓		
✓	✓		
Smart-Circ capable with installation of pump or pump accessory kit	✓		
	✓		
/	<b>✓</b>		

- As based on the 2017 DOE new metric for communicating the energy efficiency of residential water heaters.
  Rinnai RWM200 Wireless module necessary (module sold separately). When used on models with Smart-Circ™ for scheduled or on demand recirculation, the Wireless module overrides Smart-Circ™ recirculation patterns.
  Amazon, Alexa, and all related logos are trademarks of Amazon.com, Inc. or its affiliates.





Venting Components for SENSEI®RX 2"/4" Condensing Concentric Vent System				
	Part Number	Product Description		
A 22	229031	12", 2"/4" Condensing Horizontal Termination Kit (PPtI)		
	229032	21", 2"/4" Condensing Horizontal Termination Kit (PPtI)		
43	229033	2"/4" Condensing Horizontal Termination (2 wallplates) (PPtI)		
į	224359	2"/4" Condensing Roof Discharge, 20" Above Roof (PPtI)		
	229318	10", 2"/4" Condensing Vent Pipe Extension (PPtl)		
	229319	19.5", 2"/4" Condensing Vent Pipe Extension (PPtI)		
_	229320	39", 2"/4" Condensing Vent Pipe Extension (PPtI)		
	185348NPP	2"/4" Condensing Roof Terminal Extension Kit		
0	229208	2"/4" Condensing 45 Deg Elbow (Qty: 2) (PPtl)		
	229233	2"/4" Condensing 90 Deg Elbow (PPtI)		
0	229252	2"/4" Condensing 90 Deg Starter Elbow 3"/5" to 2"/4" (PPtl)		
	227413	2"/4" Condensing Starter Straight/ Vertical 3"/5" to 2"/4" (PPtl)		
	224055	2"/4" Thimble (1 piece per box)		
O	169044	Pipe Clamp Universal - Plastic		
0	169013	2"/4" Pipe Clamp - Metal		
•	224056	2"/4" Vent Support Bracket- Metal		
	710265	2"/4" Wall Plate White		
	710192	2"/4" Wall Plate Black		
	711262	2"/4" Wall Plate Gray		
00	188481	2"/4" Retrofit Wall Plate White (for 3/5 opening)		
	188485	2"/4" Retrofit Wall Plate Black (for 3/5 opening)		
	188486	2"/4" Retrofit Wall Plate Gray (for 3/5 opening)		
9	710202NPP	2"/4" Condensing 90 Degree Diverter Nose		

#### **Venting Components for SENSEI®RX** 3"/5" Condensing Concentric Vent System **Part Number Product Description** 223174PP 8.7", 3"/5" Condensing Horizontal Termination Kit 223176PP 12", 3"/5" Condensing Horizontal Termination Kit 21", 3"/5" Condensing Horizontal Termination Kit 223177PP 223186PP 19", 3"/5" Condensing Horizontal Termination Diverter Nose Kit 184162PP 3"/5" Condensing Roof Discharge Termination Kit, 20" Above Roof 185344PP 3"/5" Condensing Roof Termination Extension Kit 185346PP 3"/5" Condensing Termination Extension 224087PP 10", 3"/5" Condensing Vent Pipe Extension 224079PP 19.5", 3"/5" Condensing Vent Pipe Extension 224080PP 39", 3"/5" Condensing Vent Pipe Extension 224077PP 3"/5" Condensing 45 Deg Elbow (Qty:2) 224078PP 3"/5" Condensing 90 Deg Elbow



## **Venting Components for SENSEI®RX**

Roof Flashing	Part Number	Product Description		
	189958	Universal Shingle Roof Flashing 1/2 to 16/12 pitch		
	50171949	Tile/Shingle Roof Flashing, 1/12 to 6/12		
	50171954	Tile/Shingle Flashing, 8/12 to 16/12		
	50171961	Tile/Shingle Flashing, 6/12 to 12/12		
	242141	Flashing for Metal Roof		
	146141	Roof Flashing Assembly-Flat Roof		
Other Accessories	Part Number	Product Description		
	224045	3 in. / 5 in. Thimble (1 piece per box)		
	710342	3 in. / 5 in. Rubber Wall Plate White		
	710602	3 in. / 5 in. Rubber Wall Plate Black		
	711390	3 in. / 5 in. Rubber Wall Plate Gray		
	224049	3 in. / 5 in. Vent Support Bracket		
-	102000012	3 in. / 5 in. Horizontal Flashing Panel		
0	169043	3"/5" Pipe Clamp - Metal		
6	169044	Pipe Clamp Universal-Plastic		
	224042	Universal Bug Guard		

IPEX Concentric termination for 2" and 3" PVC Venting				
	196005PVC	IPEX 2" Concentric Condensing Vent Termination 2x16		
	196105PVC	IPEX 2" Concentric Condensing Vent Termination 2x28		
	196125PVC	IPEX 2" Concentric Condensing Vent Termination 2x40		
	196984PVC	IPEX 2" Condensing Low Profile Vent Termination		
	196116PVC	IPEX 3" Concentric Condensing Vent Termination		
	196985PVC	IPEX 3" Condensing Low Profile Vent Termination		
	224008PPS	IPEX 2" to 3" PP Condensing Increaser/ adaptor		
	108000105	3" Mesh Metal, SS screen for PVC intake		

# Rinnai

## **Over 100 Years of Smart Comfort**



With headquarters in Japan and a global network of subsidiaries and sales offices, Rinnai has enhanced the way businesses and residences heat their water.

Dedicated to a smarter kind of comfort. our value-added products continue to stav in step with demands of a changing world.





## **Proudly assembling Tankless Water** Heaters at our state-of-the-art factory located in Griffin, Georgia, USA

Rinnai established its US operations in 1974 and introduced Tankless Water Heating to the North American Market in 1999.



RE•SERIES™ Non-Condensing Tankless Water Heaters beginning in 2022.

Rinnai continues to make significant investments in expanding its operations and product portfolio.







## Creating a healthier way of living®

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

#### rinnai.us | rinnai.ca

Rinnai America Corporation | 103 International Drive | Peachtree City, Georgia 30269 | rinnai.us | rinnai.ca | 1 \* 800 \* 621 \* 9419











Rinnai supports our Military and First Responders