Rheem | Boilers

Your Comfort, Perfectly

controlled.

FT™ Series Super High Efficiency
Condensing Combi Boilers



High Performance Combi Boilers for Heating and Hot Water with Advanced Controls

Rheem® FT™ Series Combi Boilers deliver high efficiency performance with 95% AFUE, 15 to 199 MBH, and a 10:1 turndown ratio. Featuring a 2-in-1 design for space and water heating, cascading capability, and an intuitive touchscreen with 4-zone control, they are ideal for residential new construction and retrofit applications.

Intuitive Touchscreen Display Controls:

- **Easy Setup & Maintenance:** Simplifies setup, diagnostics, maintenance and troubleshooting
- **4-Zone Control:** Manages up to four heating zones with individual temperature settings, no external controllers needed
- **System Monitoring:** Real-time operational data
- **Color-Coded Alerts:** Quick visual status notifications
- **Historical Error Logs:** Access to data for troubleshooting
- **USB Port:** Enables fast backups and software updates
- **Cascade Capability:** Control up to four boilers seamlessly

Maximum Performance:

- **95% AFUE:** Super High Efficiency for lower operating costs
- **ENERGY STAR® Certified**
- **Stainless Steel Fire Tube Heat Exchanger:** ASME rated for safety and quality; efficiently transfers heat from combustion gases to water
- **10:1 Turndown Ratio:** Increases boiler efficiency and life

Built-In Features:

- **Factory Installed Boiler Pump:** Saves installation time and costs
- **Combi Block:** Efficiently manages both space heating and domestic hot water production in one compact unit
- **Brazed Plate Heat Exchanger:** Transfers heat from the boiler to domestic hot water within the combi block
- **Moisture Free Zone (MFZ) Technology:** Protects components from corrosion
- **Outdoor Reset Control:** Adjusts water temperature with outdoor conditions
- **Safety Certified:** CSA/UL approved with **low water cutoff** and **high-limit protection**

Easy to Install & Service:

- **Industry-Leading High-Altitude Installation Approval:** Up to 12,000 Feet ASL[1]
- **4 Universal Shared Platform Parts:** (Fan, gas valve, integrated pump and diverting valve) Simplifies diagnosis and servicing
- **Modular Design:** Combi block components can be easily replaced
- **Extended Venting Lenghts:** Up to 50 ft (2") and 170 ft (3") options
- **Condensate System:** Draining system cleans as it heats
- **PVC/CPVC/PP** approved venting materials

Warranty

- **15-Year Heat Exchanger, 5-Year Parts, 1-Year Labor**

[1]Based on comparison of maximum published high-altitude installation ratings for major U.S. residential condensing boiler brands.

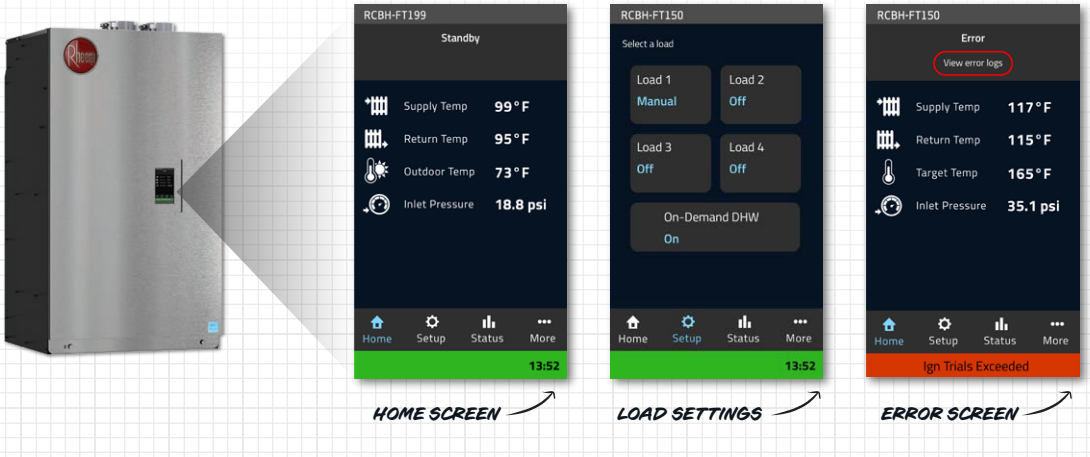


INTERIOR VIEW

1. Fan
2. Gas Valve
3. Fire Tube Heat Exchanger
4. Supply Water Pipe
5. Safety Ignition Module (SIM+)
6. Full Color Intuitive Touchscreen
7. Return Water Pipe
8. Domestic Hot Water Heat Exchanger & Pump

Control at Your Finger Tips

All **Rheem® FT™ Series Boilers** include a full color intuitive touchscreen display featuring the latest in controls technology and software.

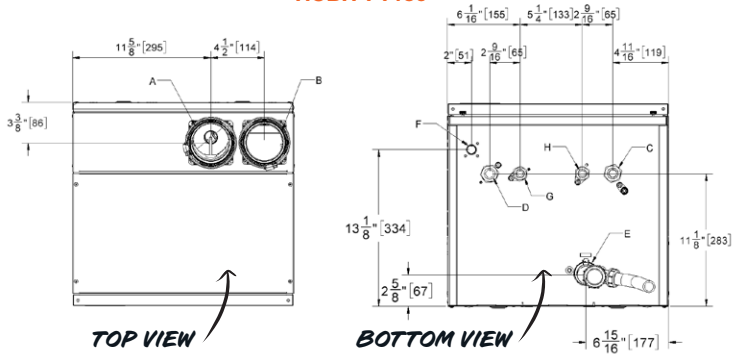


Dimensions & Specifications

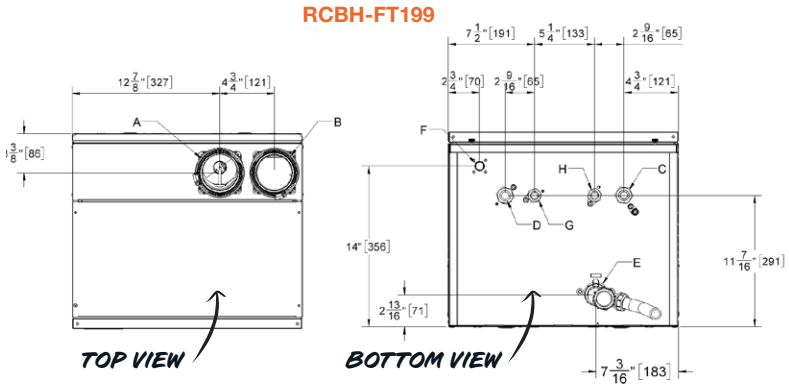


DIMENSIONS

RCBH-FT150

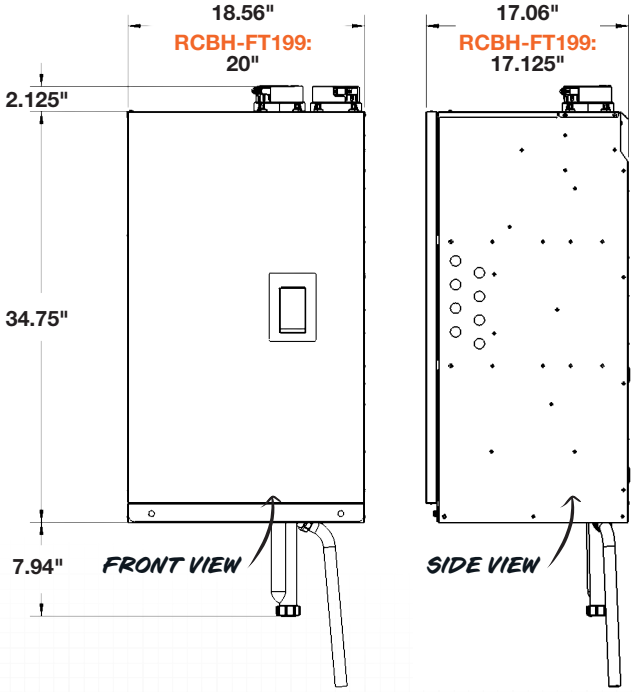


RCBH-FT199



RCBH-FT150: 18.56"
RCBH-FT199: 20"

RCBH-FT150: 17.06"
RCBH-FT199: 17.125"



SPECIFICATIONS

PIPING CONNECTIONS			
MODEL NO.		RCBH-FT150	RCBH-FT199
A	Flue Outlet	3" PVC/CPVC or PP (80mm)	
B	Combustion Air Inlet	3" PVC/CPVC or PP (80mm)	
C	Return Water Inlet (Tepid)	1" NPT-M	
D	Supply Water Outlet (Hot)	1" NPT-M	
E	Condensate Outlet	3/4" Hose	
F	Gas Inlet	1/2" NPT-F	
G	DHW Outlet (Hot Water)	3/4" NPT-M	
H	DHW Inlet (Cold Water)	3/4"NPT-M	

CLEARANCE FROM BOILER CABINET		
SURFACE	MIN. DISTANCE FROM COMBUSTIBLE SURFACES	RECOMMENDED DISTANCE FOR INSTALLATION AND SERVICE
Front	2”	24"
Rear Flue Connection	0”	0"
Left Side	0”	4" (allow acces to water connections)
Right Side	1”	4” (allow acces to" water connections)
Top	2”	6" (for vent connection)
Bottom	0” (clearance for pipes)	12" (for condensate trap and piping)

VENTING	MAXIMUM EQUIVALENT LENGTHS	
SCHED. 40; RIGID PP	RCBH-FT150	RCBH-FT199
2”	50’ (max.)	Not Permitted
3”	170’ (max.)	100’ (max.)
90° Vent Elbow	Each 90° elbow is equivalent to 8 feet	
90° Long Sweep Elbow	Each 90° elbow is equivalent to 5 feet	
45° Elbow	Each 45° elbow is equivalent to 3 feet	
PP 87-90° Elbows	Each 87-90° elbow is equivalent to 8 feet	
2” Stainless Steel Sidewall Terminal	Not Permitted	Not Permitted
3” Stainless Steel Sidewall Terminal - Exhaust Vent	Allow 20’	
3” Stainless Steel Sidewall Terminal - Air Intake	No Allowance Required	
Flexible PP 3” Flexible	Limited to 45’ (max.)	Limited to 30’ (max.)

Technical Information

MODEL NO.	RCBH-FT150	RCBH-FT199
CSA Input (Nat. Gas or Propane) - MBH	15-150	20-199
CSA Input (Nat. Gas or Propane) - kW	4.4-44	5.9-58.3
CSA Output - MBH	14.3-138.5	19.1-183.7
CSA Output - kW	4.2-40.6	5.6-53.8
DHW - CSA Input (Nat. Gas or Propane) - MBH	15-150	20-199
DHW - CSA Input (Nat. Gas or Propane) - kW	4.4-44	5.9-58.3
AFUE	95%	95%
Min. Gas Supply Pressure (Nat. Gas or Propane) - Inch w.c.	4	4
Max. Gas Supply Pressure (Nat. Gas or Propane) - Inch w.c.	14	14
Ambient Temperature - Low	32°F/0°C	32°F/0°C
Ambient Temperature - High	122°F/50°C	122°F/50°C
Max. Relative Humidity (Non-Condensing)	90%	90%
Min. Water Temperature	34°F/1°C	34°F/1°C
Max. Water Temperature (Electronic Hi-Limit)	190°F/88°C	190°F/88°C
Max. ΔT - Supply/Return (Electronic Fence)	40°F/22.2°C	40°F/22.2°C
Max. Water Temperature Lockout Limit	201°F/94°C	201°F/94°C
Power Use (120 Vac/60 Hz) @ Full Fire - Watts (w/ pump)	94.8	106.9
Weight (Empty) - lbs/Kg	100/45.4	113/51.3
Pressure Vessel Water Content - USG/Liters	2.79/10.56	3.51/13.29
Max. Boiler Flow Rate - US gpm	19	25
Min. Boiler Flow Rate - US gpm	3	4
Max. Boiler Operating Water Pressure* - psig	50	50
Min. Boiler Water Pressure - psig	8	8
Max. DHW Water Pressure - psig	150	150
Min. DHW Water Pressure - psig	40	40
DHW Delivery at 70°F/39°C Temperature Rise - US gpm	4.1	5.5
Relief Valve Pressure (Supplied) - psig	30	30
Approved Installation Altitude - ASL	0-12,000’	0-12,000’
Venting 2"	50’	N/A
Venting 3"	170’	100’
Ultra Low NOx	Meets 14 ng/J NOx requirements – SCAQMD Rule 1146.2 compliant	



	DELIVERY RATE	
TEMP. RISE	RCBH-FT150 GPM	RCBH-FT99 GPM
50	5.5	—
55	5.0	—
60	4.6	—
65	4.2	5.6
70	4.1	5.5
75	3.7	4.9
80	3.5	4.6
85	3.2	4.3
90	3.1	4.1
100	2.8	3.7
110	2.5	3.3
120	2.3	3.1
130	2.1	2.8
140	2.0	2.6

Accessories



P-267 Floor Stand



P-1632 Parts Kit

SCAN TO LEARN MORE
or visit **Rheem.com/Boilers**

CONTACT US

Customer Service, Warranty and Parts
800.621.5622

Technical Service
833.212.9276

Plumber Support Group
866.339.2388

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