Rheem® Professional Prestige® Combination Boiler

**Key Features**

- **Space Heating and Hot Water** — Efficient heating combined with continuous hot water all from one unit for space and cost savings
- **Perfect for Replacing a Boiler** — Compatible with any hydronic heat emitting devices including air handlers
- **Saves Space** — A single, compact combi boiler can replace a boiler AND tank water heater
- **Built-in Auto-Feeder** — Maintains hydronic loop pressure automatically between 12-30 psi
- **Outdoor Reset Sensor** — Tracks outdoor temperatures and overrides the heating set point as needed to keep the home comfortable when weather changes
- **Auto Boost Feature** — If the thermostat set point has not been achieved in a reasonable time, the combi will auto boost the hydronic loop to reach the desired temperature more quickly
- **Max Vent Lengths:**
  - 100' @ 3”
  - 50' @ 2”
  - Maximum equivalent venting lengths: see Installation Instructions for additional details.
- **Vent with Room Air** — Save time and money on installation
- **Auto Boost Feature**
- **Max Vent Lengths**: 100' @ 3", 50' @ 2"
- **Outdoor Reset Sensor** — Tracks outdoor temperatures and overrides the heating set point as needed to keep the home comfortable when weather changes
- **Auto Boost Feature** — If the thermostat set point has not been achieved in a reasonable time, the combi will auto boost the hydronic loop to reach the desired temperature more quickly

**Specifications**

<table>
<thead>
<tr>
<th>Rheem Model Number</th>
<th>RCBH199DVLN</th>
<th>RCBH199DVLP</th>
<th>RCBH180DVLN</th>
<th>RCBH180DVLP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gas Input Rate</strong></td>
<td>MAX</td>
<td>120,000 BTU/h</td>
<td>100,000 BTU/h</td>
<td>185,000 BTU/h</td>
</tr>
<tr>
<td><strong>Gas Input Rate</strong></td>
<td>MIN</td>
<td>18,000 BTU/h</td>
<td>18,000 BTU/h</td>
<td>18,000 BTU/h</td>
</tr>
<tr>
<td><strong>LPG Input Rate</strong></td>
<td>MAX</td>
<td>199,000 BTU/h</td>
<td>180,000 BTU/h</td>
<td>199,000 BTU/h</td>
</tr>
<tr>
<td><strong>LPG Input Rate</strong></td>
<td>MIN</td>
<td>18,000 BTU/h</td>
<td>18,000 BTU/h</td>
<td>18,000 BTU/h</td>
</tr>
<tr>
<td><strong>Heat Exchanger</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Flame Sensor</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Overheat Cut Off Limit Switch</strong></td>
<td></td>
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<tr>
<td><strong>Gas Leak Detector</strong></td>
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<tr>
<td><strong>Water Leak Detector</strong></td>
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<tr>
<td><strong>Exhaust Thermistor</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Pressure Sensor</strong></td>
<td></td>
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</tr>
</tbody>
</table>

**Installation Information**

- **Height**: 28.7”
- **Width**: 17.3”
- **Depth**: 14.8”
- **Weight**: 90 lbs.
- **Max. Vent Run**: 2" @ 300 ft.
- **Venting Materials**: Schedule 40 PVC, CPVC, PP
- **Power Supply**: 120V 60Hz 6’ power cord included
- **Max. Power Consumption**: 187W (71W + 116W Pump) for RCBH199DVLN
  - 180W (64W + 116W Pump) for RCBH180DVLN
- **Number of Bathrooms**: 2 - 2.5
- **Temperatures**:
  - Heating Mode: 70°F - 180°F
  - Domestic Hot Water: 90°F - 140°F
- **AFUE**: 0.95
- **Turndown Ratio (Heating)**: 6.7:1
- **Turndown Ratio (DHW)**: 11:1
- **Gallons Per Minute - GPM (Domestic Hot Water)**:
  - MAX GPM: 9.9 GPM
  - 45°F Rise: 7.7 GPM
  - 77°F Rise: 4.5 GPM
- **Minimum Flow Activation Flow**: 0.3 GPM
- **Minimum Continuous Flow Rate**: 0.4 GPM
- **Water Holding Capacity**: Under 2 Gallons
- **Water Pressure**: 150 psi / Heating 30 psi
- **Glycol Mix**: Up to 50%
- **Safety Devices**: Flame Sensor, Overheat Cut Off Limit Switch, Gas Leak Detector, Water Leak Detector, Exhaust Thermistor, Pressure Sensor, Heating Supply Thermistor

**Warranty**

- Residential – 10-Year Heat Exchanger, 5-Year Parts, 1-Year Labor
# Water Heater Flow Rate Curves

<table>
<thead>
<tr>
<th>Model Number</th>
<th>30°</th>
<th>40°</th>
<th>45°</th>
<th>50°</th>
<th>60°</th>
<th>70°</th>
<th>80°</th>
<th>90°</th>
<th>100°</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCBH199DVLN Water Flow (GPM)</td>
<td>9.9</td>
<td>8.6</td>
<td>7.7</td>
<td>7.0</td>
<td>5.8</td>
<td>4.9</td>
<td>4.3</td>
<td>3.8</td>
<td>3.2</td>
</tr>
<tr>
<td>RCBH180DVLN Water Flow (GPM)</td>
<td>9.0</td>
<td>8.3</td>
<td>7.5</td>
<td>6.5</td>
<td>5.4</td>
<td>4.6</td>
<td>4.0</td>
<td>3.6</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Above estimates are for sizing purposes only.

# RCBH Pressure Loss

# Venting

**Maximum Vent Length for Direct Vent (2 Pipe)**

<table>
<thead>
<tr>
<th>Number of Water Heaters Common Vented</th>
<th>PIPE SIZE</th>
<th>Equivalent Elbow Lengths in Ft. of Straight Pipe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2&quot;</td>
<td>3&quot;</td>
</tr>
<tr>
<td>2</td>
<td>3&quot;</td>
<td>45°</td>
</tr>
</tbody>
</table>

**Venting Materials Allowed:** Schedule 40 PVC, CPVC, PP

**Venting Materials Allowed:** Schedule 40 PVC, CPVC, PP

- 2" (Included)
- 3" (Included)
- (Included)
- (Included)

**Parts & Accessories**

<table>
<thead>
<tr>
<th>Condensate Neutralizer</th>
<th>Manifold Accessory</th>
<th>Vent Screens</th>
<th>Service Valves</th>
<th>CH Pressure Relief Valve (CH Line 3/4&quot; 30 psi)</th>
<th>Outdoor Temperature Sensor</th>
<th>Bracket and Anchors</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP12151 (Optional)</td>
<td>RTG20318 (Optional)</td>
<td>SP20895 - 2&quot; (Included)</td>
<td>RTG20202AB - Sold Separately</td>
<td>(Included)</td>
<td>(Included)</td>
<td>(Included)</td>
</tr>
</tbody>
</table>

*Check your local plumbing codes

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In keeping with its policy of continuous progress and product improvement, Rheem reserves the right to make changes without notice.

Rheem Water Heating  •  1115 Northmeadow Parkway, Suite 100  •  Roswell, Georgia 30076  •  www.rheem.com

Rheem Canada Ltd./Ltee  •  125 Edgeware Road, Unit 1  •  Brampton, Ontario L6Y 0P5  •  www.rheem.com

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