DWB Series
Gas-Fired, Wall Hung
Modulating Hot Water Boiler
(Available in both Combi & Space Heating-Only Models)

- 85% AFUE efficiency
- Inducer fan and gas valve modulate for operation between 33% and 100% of capacity for fuel economy.
- Chimney or Horizontal Vent
- Advanced Controls — Digital Display with temperature indication, diagnostics and status symbols showing: Heating mode, Burner On and Burner Modulation Level
- Durable Lightweight One Piece Steel Jacket
- 10-Year Limited Copper Heat Exchanger Warranty
- 2-Year Limited Parts Warranty

Combination (Combi) — Heating and Domestic Hot Water (Model CCB–150)
- Available in 150 MBH
- Advanced Controls — additional DHW mode
- Stainless Steel Brazed Plate Heat Exchanger for potable domestic hot water

Space Heating—Only
(Model CHB–130 & CHB–100)
- Available in 2 sizes: 100 and 130 MBH
- Dedicated DWH connections for adding an Indirect Water Heater
Innovative.

Modern doesn’t mean complicated...

Some of the best ideas actually are pretty simple, like the new Dunkirk DWB. The DWB Series is a “best of both worlds” alternative to large conventional cast iron boilers and more expensive wall hung condensing boilers. DWB saves on living space, is lightweight and wall hung.

The Dunkirk DWB Series is ideal for both heating only and “combi” or combination heating and domestic hot water applications including:

- Single Family Homes
- Apartments/Multi-Family Dwellings with Individual Appliances
- Retro-fits for High Temperature Systems

The DWB’s special copper heat exchanger design with a protective high temperature coating ensures years of reliable operation. The DWB is much smaller and lighter yet transfers heat seven times faster than cast iron.

Copper makes the DWB a compact, lightweight wall hung unit that saves valuable space and protects the boiler from basement flooding by getting it up off the floor.

Efficient.

Modulation –

The DWB’s advanced control system gives you what you want when you need it. Your heating systems’ boiler is sized to keep you warm during the coldest days of the year. But in the shoulder months all that fuel is not required to keep you warm and comfortable. The DWB’s advanced modulating control system measures how much fuel is required based on load conditions (how cold it is outside) and delivers only what is needed. This is modulation and it burns less fuel, saves you money and is good for the environment.

The DWB boiler is 85% efficient, however the actual efficiency of a boiler is dependent upon the heating system it is matched with. If your home was designed to minimize the amount of heat emitters (baseboard, radiators etc.) then it was likely designed to run at high temperature water supply which is ideal for a non-condensing boiler.

Conversely, if your home was designed for maximum heat emitters, then it was designed to operate at low temperature water supply and should be matched with a condensing boiler like the Dunkirk Helix VLT 95% model to maximize efficiency. Make sure to consult with your professional contractor to match the right boiler to your heating system to maximize efficiency and make the best choice for your home.

Dependable.

The DWB Series features proven copper heat exchanger technology that has been in use for decades and reliable direct spark ignition. Dunkirk’s quality construction is backed by a full 10 year limited copper heat exchanger warranty and a 2 year limited parts warranty.
The DWB is a **practical, affordable, modern approach** to residential heat and domestic hot water.
Dunkirk DWB Series Gas-Fired Hot Water Boiler

### Dimensional Diagram

**DWB Combi Unit (CCB-150) Shown**

See IOM for dimensions on other models.

**TOP**

Width 17-23/32”

**FRONT**

**SIDE**

Depth 13”

Tested for 43.5 psi. ASME Working Pressure

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<table>
<thead>
<tr>
<th>Dimensional Diagram</th>
<th>Model</th>
<th>Input Rate (MBH) (1)</th>
<th>Heating Capacity (MBH) (1)</th>
<th>Net AHRI Rating, Water (MBH) (2)</th>
<th>Vent Diameter</th>
<th>AFUE %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CCB-150</td>
<td>150</td>
<td>127</td>
<td>110</td>
<td>4”</td>
<td>3”</td>
</tr>
<tr>
<td></td>
<td>CHB-130</td>
<td>130</td>
<td>110</td>
<td>96</td>
<td>4”</td>
<td>3”</td>
</tr>
<tr>
<td></td>
<td>CHB-100</td>
<td>100</td>
<td>85</td>
<td>73</td>
<td>4”</td>
<td>3”</td>
</tr>
</tbody>
</table>

* Horizontal Venting requires field supplied appliance adapter for the boiler flue outlet.

1. Input rating for sea level to 2000 ft. (610m) above sea level. United States, over 2000 ft (610m) above sea level. Reduce input rate 4% for every 1000 ft (304m) above sea level.

2. Net AHRI Water Ratings shown based on piping and pickup allowance of 1.15. Consult manufacturer before selecting boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.

3. Boiler is provided with a 3” vent connection. A 3” x 4” increaser must be field supplied for chimney vent applications. This does not infer that the connection to the chimney will always be 4”. Please refer to IOM, National Fuel Gas Code, ANSI Z223.1/NFPA54, or applicable provisions of the local building codes for details concerning proper chimney connections.

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#### General Information
(See Installation, Operation and Maintenance Manual for complete instructions)

**Clearances**

(4) Required distances measured from boiler jacket.

(5) Service, proper operation clearance recommendation.

<table>
<thead>
<tr>
<th>Top</th>
<th>Combustible Materials (Required) (4)</th>
<th>Service (4) (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16” (41 cm)</td>
<td>16” (41 cm)</td>
</tr>
<tr>
<td>Left Side</td>
<td>0” (0 cm)</td>
<td>1” (3 cm)</td>
</tr>
<tr>
<td>Right Side</td>
<td>0” (0 cm)</td>
<td>1” (3 cm)</td>
</tr>
<tr>
<td>Front</td>
<td>0” (0 cm)</td>
<td>1” (3 cm)</td>
</tr>
<tr>
<td>Back</td>
<td>0” (0 cm)</td>
<td>0” (0 cm)</td>
</tr>
<tr>
<td>Bottom</td>
<td>0” (0 cm)</td>
<td>12” (30 cm)</td>
</tr>
<tr>
<td>Combustion Air/Piping</td>
<td>0” (0 cm)</td>
<td>3/8” (1 cm)</td>
</tr>
<tr>
<td>Vent Piping</td>
<td>6” (15 cm)</td>
<td>6” (15 cm)</td>
</tr>
</tbody>
</table>

**Connections**

CCB-150

Return/Supply Water 1”, Gas In 3/4” NPT, Domestic Hot Water Inlet/Outlet 3/4” NPT

ChB-130 & ChB-100

Return/Supply Water 1”, Gas In 3/4” NPT, Indirect Tank 3/4” NPT

**Electrical**

120 Volts AC, 60 hertz, 1 phase, Less than 12 amps (15 amp circuit recommended)

**Water Content**

CCB-150 - .396 Gallons, ChB-130 - .317 Gallons, ChB-100 - .211 Gallons

**Dimensions/Weights**

<table>
<thead>
<tr>
<th>Model</th>
<th>Width</th>
<th>Height</th>
<th>Depth</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCB-150</td>
<td>17-23/32”</td>
<td>27-9/16”</td>
<td>13”</td>
<td>78</td>
</tr>
<tr>
<td>CHB-130</td>
<td>15-3/4”</td>
<td>27-9/16”</td>
<td>13”</td>
<td>69</td>
</tr>
<tr>
<td>CHB-100</td>
<td>15-3/4”</td>
<td>27-9/16”</td>
<td>13”</td>
<td>65</td>
</tr>
</tbody>
</table>

**Standard Equipment**

Boiler Control Module: High Limit/Electronic Ignition Control.

User Display Interface: Digital Temperature Display with diagnostics and programmable settings.

Heat Exchanger: Copper Fin Tube.

(CC-150 combination boiler includes a stainless steel brazed plate heat exchanger - 3.6 gpm at 70°F Temperature Rise, 6.3 gpm at 40°F Temperature Rise)

Valve: 3-Way Water Diverting Valve.

Combustion: Completely Installed and Wired Modulating Gas Control System (100% to 33%) with Stainless Steel Burners and Manifold consisting of: Automatic Modulating Gas Valve, Direct Spark Ignition Control, 100% Shut Off, Combination Spark Electrode/Flame Sensor.

Safety: Pressure Switch (vent safety shutoff).

Other: Assembled Boiler with Jacket, Induced Draft Fan, Combination Temperature/Pressure Gauge, Circulator Pump, Gas Shut Off Valve and Field installed - 30lb. ASME Relief Valve.

**Options**

LP Gas Conversion Kit, Horizontal Vent Termination Concentric Kit, Indirect Hot Water Tank Sensor, Outdoor Air Temperature Reset Sensor.

**Certifications**

Tested for 43.5 psi. ASME Working Pressure