

# High Efficiency Wall Mounted Modulating Condensing Boiler

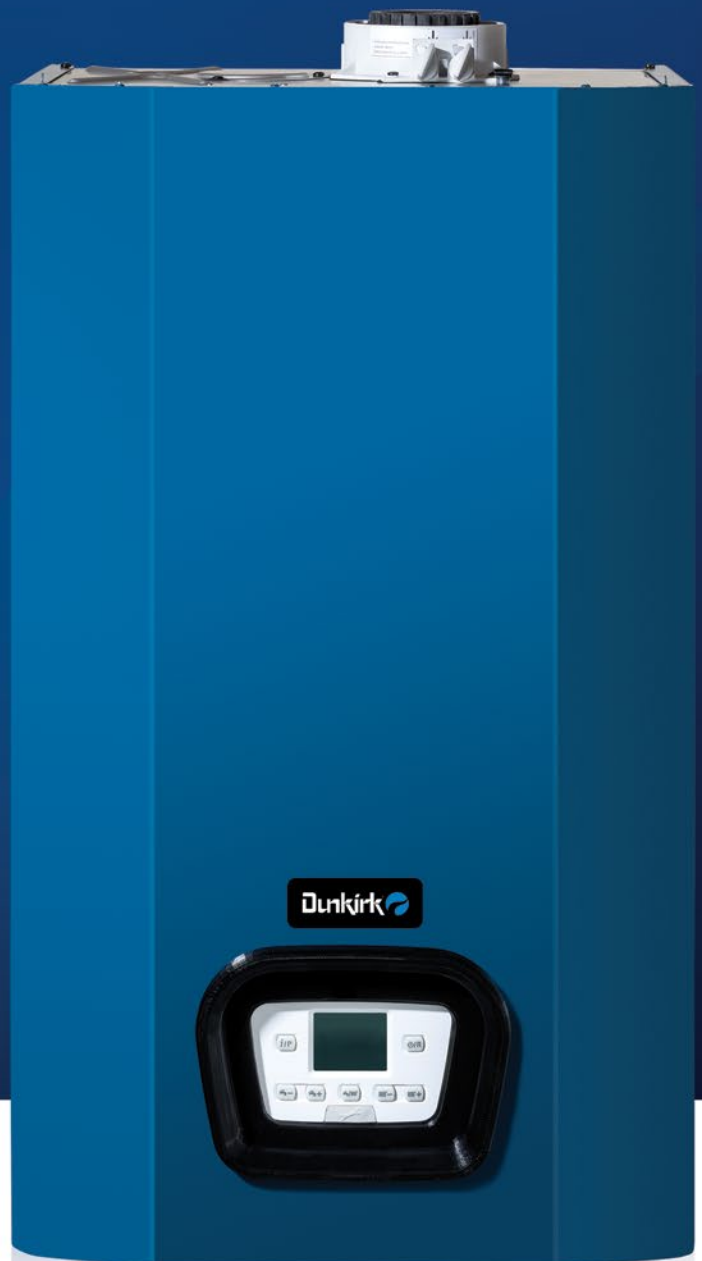
*(Combi & Space Heating Models)*

## AI [Artificial Intelligence] Control Technology

- Automatically sets up the boiler during initial startup
- Recognizes Natural or LP Gas
- Continuously monitors combustion and adjusts gas and air flow to optimize combustion and fuel savings
- User Interface displays temperature status symbols and self diagnostics
- Stainless steel burner
- Stainless steel heat exchanger
- Connections for an Indirect Tank

## Combi Model

- 153,000 BTU/hr DHW input
- Stainless steel domestic hot water heat exchanger with 3.5 GPM flow rate @70° F rise





► **Innovative.**

**Dunkirk [Artificial Intelligence] Control Technology...**

The Dunkirk DCB High Efficiency Condensing Boiler uses **[AI]** Control Technology. The **[AI]** Control self commissions and continuously calibrates to ensure maximum efficiency at all times. The DCB boiler is the clear choice for consumers looking for the next level in innovative technology.

The **[AI]** control measures water temperature, flue gas temperature, flame signal and pressure that can impact the boiler operation and CO levels. The **[AI]** control will automatically shut down operation should these values exceed normal operating levels. This provides added protection for you and your family.

Here at Dunkirk, we pride ourselves on safety. Though the **[AI]** control indirectly monitors CO levels and acts accordingly, it is not a replacement for a CO Detector in your home.

► **Efficient.**

**Modulation Ratio** (7:1 DHW mode, 5.7:1 Heating mode)

**[AI]** Control automatically modulates the gas input to the burner. During times when the domestic hot water or heating demand is high, the control increases the amount of gas in order to meet the requirement. During times when the load demand is less, the **[AI]** control decreases the gas input to only use the amount of fuel necessary.

The DCC Combi model adjusts the firing rate from a high of 153 MBH, down to a low of 22 MBH during a call for DHW. During a call for central heating, both the DCC and the DCB models adjust the firing rate from a high of 125 MBH down to a low of 22 MBH.

**[AI]** modulation saves energy by reducing the amount of gas used. Homeowners enjoy comfort, energy savings, and lower utility bills! By automatically modulating the gas input to the heating level that is needed, the boiler system operates at optimum efficiency, resulting in savings for you.

**Control Display**

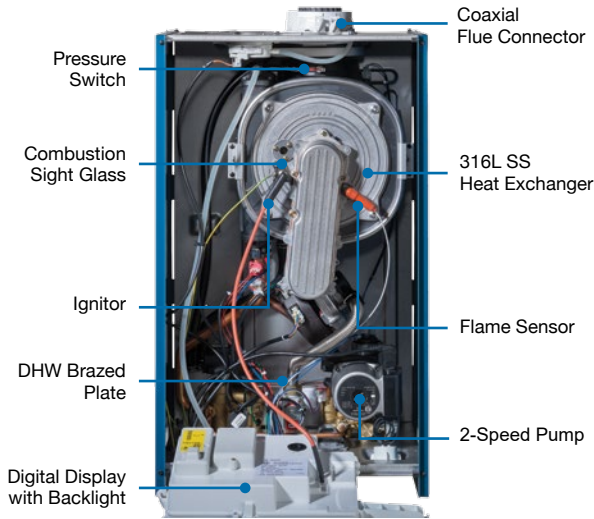


- Digital Control with Graphic Display
- Boiler Status
- Temperature Display
- Diagnostics
- Automatically Adjusts for Fuel Type and Continuous Calibration

# The DCB is an *Intelligent Condensing approach* to residential heat and domestic hot water.



## Combi Model



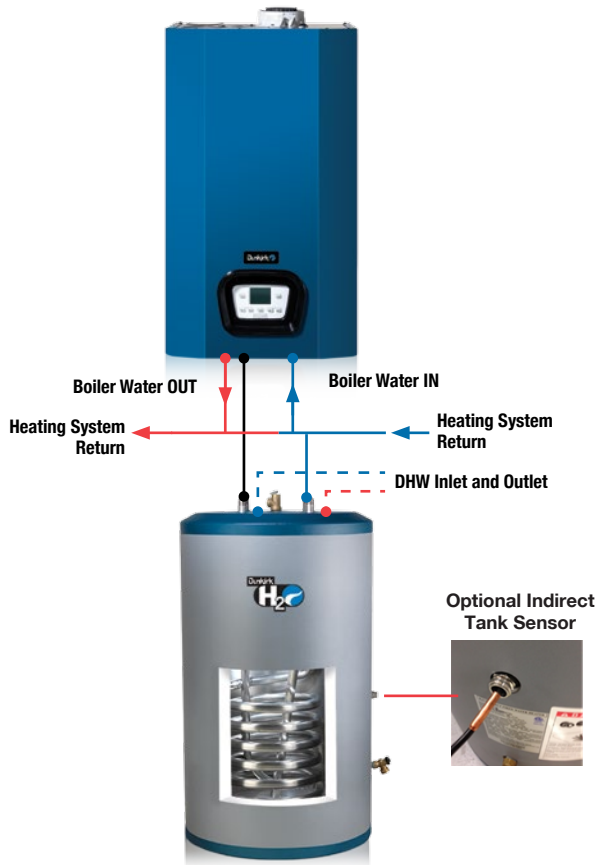
- 7:1 Gas Modulation in Combi Mode
- 5.7:1 Gas Modulation in Heating Mode
- Auto Commissioning and Continuous Calibration functions optimize combustion and result in lower fuel bills
- Features 316L Stainless Steel Heat Exchanger and Burner
- Features such as, high limit sensors, pressure relief valve, low water sensor, and system pressure gauge ensure safety and top performance of the unit
- Control Panel features a backlit digital display that indicates boiler status, temperature, and diagnostics
- Pre-heat function
- Built in 2-speed Pump contributes to savings in electrical usage

## Heating Only Model



## Heating Model with Optional Indirect Tank

Our [AI] control technology is programmed to recognize an Indirect Tank. Dunkirk H2O Indirect Hot Water Heaters are available in 30 to 115 gallon capacities and feature 316L stainless steel construction and top connections for an easy installation.



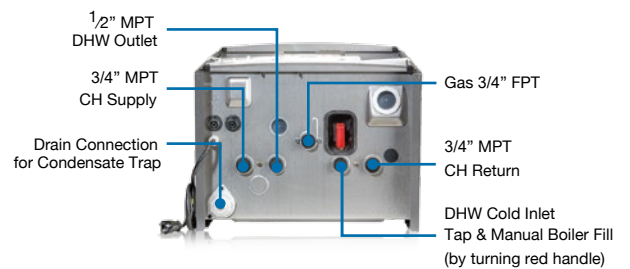
## Top of Boiler - Both Models



## Bottom of Boiler - Heating Only Model









## Bottom of Boiler - Combi Model



The piping connections on the boiler are all straight thread and not tapered. The required adapters are supplied with the boiler for field installation.

The DCB is the ideal choice for efficiency, affordability, and reliability for domestic hot water applications.

# DCB High Efficiency Wall Hung Modulating Condensing Hot Water Boiler

Dimensional Diagram	Model	Input Rate (MBH) 0-2000 ft.	Heating Capacity (MBH) 0-2000 ft.	Net Rating, Water (MBH) <sup>(1)</sup> 0-2000 ft.	Vent Diameter O.D. Coaxial <sup>(2)</sup>	Vent Diameter 2-pipe <sup>(2)</sup>	AFUE	
<p><b>DCB Unit</b></p> <p>See IOM for dimensions on other models.</p> <p><b>TOP</b></p> <p>Width 17-23/32"</p> <p>Depth 9 - 9/32"</p> <p><b>FRONT</b></p> <p>Height 30"</p>  	Space Heating Only	DCB-125 Heating Only	125,000	113,000	98,000	3.93"	3"	95%
	Combi	DCC-150 Heating Mode	125,000	113,000	98,000	3.93"	3"	95%
		DCC-150 DHW Mode	153,000	136,000	N/A			
<p>(1) Net 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.</p> <p>(2) Refer to IOM and vent pipe manufacturer's instructions for equivalent lengths and approved venting materials.</p>								
<b>General Information</b> (See Installation, Operation and Maintenance Manual for complete instructions)								
<p><b>Clearances</b></p> <p>(2) Required distances measured from boiler.</p> <p>(3) Service, proper operation clearance recommendation.</p>	<b>Top</b>	<b>Combustible Materials (Required)</b> <sup>(2)</sup>		<b>Service</b> <sup>(2) (3)</sup>				
		0" (0 cm)		8.66" (22 cm)				
	<b>Left Side</b>	1.77" (4.5 cm)		1.77" (4.5 cm)				
	<b>Right Side</b>	1.77" (4.5 cm)		1.77" (4.5 cm)				
	<b>Front</b>	1.57" (4.0 cm)		17.71" (45 cm)				
	<b>Back</b>	0" (0 cm)		0" (0 cm)				
	<b>Bottom</b>	0" (0 cm)		9.84" (25 cm)				
<b>Combustion Air/ Vent Piping</b>	0" (0 cm)		N/A					
<b>Connections DCC-150 &amp; DCB-125</b>	3/4" SWT Adapters Heating System Supply & Return, Gas Connection 3/4" FPT							
<b>Connections DCC-150 DHW</b>	1/2" SWT Adapters Domestic Hot Water (DHW) Inlet & Outlet							
<b>Electrical</b>	120 Volts AC, 60 hertz, 1 phase, Less than 12 amps (15 amp circuit recommended)							
<b>Water Content</b>	125/150: 0.95 Gallons							
<b>Dimensions/ Weights</b>	<b>Model</b>	<b>"Width"</b>	<b>"Height"</b>	<b>"Depth"</b>	<b>"Weight"</b>			
	DCC-150	17-23/32"	30"	13-19/32"	103			
	DCB-125 Heating Only	17-23/32"	30"	13-19/32"	102			
<b>Standard Equipment</b>	<p>-Boiler Control Module: High Limit/Electronic Ignition Control.</p> <p>-User Display Interface: Digital Temperature Display with diagnostics and programmable settings.</p> <p>-Heat Exchanger: Stainless Steel</p> <p>-3-Way Water Diverting Valve</p> <p>-Combustion: Automatically modulating gas valve with 5.7:1 Turndown for Heating Mode &amp; 7:1 for DHW Mode, Stainless Steel Burner, Direct Spark Ignition, Separate Flame Sensor, 100% shutoff</p> <p>-Other: Assembled Boiler with Jacket, Induced Draft Fan, Circulator Pump, 30psi Relief Valve, Low Water Pressure Switch, Air Pressure Switch, Temperature/Pressure Gauge</p> <p>DCC-150 DHW Model: Stainless Steel Brazed Plate Heat Exchanger</p>							
<b>Options</b>	Outdoor Temperature Sensor, Indirect Tank Sensor, Floor Stand Kit							
<b>Certifications</b>	    <p>Tested for 43.5 psi. ASME Maximum Allowable Working Pressure</p>							

All ratings and specifications subject to change.

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