### SMARTER & EASIER WITH 95% AFUE EFFICIENCY

## CONDENSING BOILERS

### DCC COMBI DCB HEATING

### with ARTIFICIAL INTELLIGENCE



#### [AI] CONTROL

Self-Monitoring Self-Adjusting Self-Commissioning\*

\* Simply press two buttons to set up combustion. Analyzer not required, but recommended.





Innovative. Efficient. Dependable. Dunkirk. www.dunkirk.com

**Dunkírk** 

Dunkirk

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\*Unit must be registered within 60 days from the date of original installation. All terms of Trinity Extended Service Agreement apply.

# **Dunkírk**

Added protection for you and your family.

## INTELLIGENT TECHNOLOGY

The DCC is an intelligent condensing approach to residential heat and domestic hot water.



**SMARTCHOICE**. [for contractors and homeowners]

The Dunkirk High Efficiency Condensing Boiler uses **[A]** ControlTechnology. The **[A]** Control self commissions and continuously calibrates to ensure clean burning and optimum efficiency.

The **[AI]** Control measures water temperature, fluegas 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.

Dunkirk prides 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.

### [AI] CONTROL

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

## MODULATING TECHNOLOGY

The **[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 **[Al]** Control decreases the gas input to **only use the amount of fuel necessary.** 

### SelfMONITORING SelfADJUSTING SelfCOMMISSIONING

**[AI]** modulation **saves energy** by reducing the amount of gas used. Homeowners enjoy comfort, energy savings, and **lower utility bills.** 

**OPTIMUM** 

**EFFICIENCY** 



### Everyone enjoys the comfort.

**Homeowners** enjoy comfort, energy savings, and lower utility bills.

**Contractors** enjoy the comfort of satisfied customers.

REFER TO SPECIFICATIONS FOR CAPACITY AND FIRING RATE INFORMATION.

## DID YOU KNOW..

...that the typical gas-fired water heater is wasting energy by constantly maintaining the temperature of the water in the tank?

It's true. So why spend money continually heating water that you're not even using? There is a **better modern solution** when replacing your heating boiler. Consider a **DCC combination boiler** or, "combi boiler."

#### The benefits of the DCC combi boiler include:

- the highest efficiency level at 95% AFUE.
- space savings/wall mounted.
- the ability to both heat your home as well as provide your domestic hot water needs.
- eliminates the wasted energy associated with traditional gas water heaters.
- MONEY SAVINGS. 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.

The DCC combi boiler provides both your home heating needs and your domestic hot water needs in one super-efficient on-demand appliance.

## AT A GLANCE...

### MODELS: DCC205 DCC150 DCB165 DCB125

- 95% AFUE
- Featuring [AI] Control Technology Recognizes Natural or LP Gas
   -No field conversion kit required
   -Self-Monitors and adjusts for fuel savings
   -Automatic Commissioning Combustion
- 7:1 Turndown Modulation Ratio in DHW Mode
- 5.5:1 Turndown Modulation Ratio in Heating Mode
- Primary/Secondary LABOR SAVER™ Manifold Included
- Warranty Coverage -FREE 2-Year Parts & Labor Limited Warranty\* -10-Year Limited Heat Exchanger
- Innovative American Manufacturing

### **EXCEPTIONAL SUPPORT**

When it comes to support, Dunkirk offers service that's beyond compare.

Our US-based support team is here for you AND your customers.

Our **Dealer Portal** offers a variety of resources, including tutorial videos and product specifications to help you every step of the way, from installation to maintenance to repair.



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TAKE ADVANTAGE OF

**WITH 95% AFUE** 

#### LABOR SAVER<sup>™</sup> MANIFOLD

#### SAVE TIME & INCREASE PRODUCTIVITY with our LABOR SAVER™ MANIFOLD.

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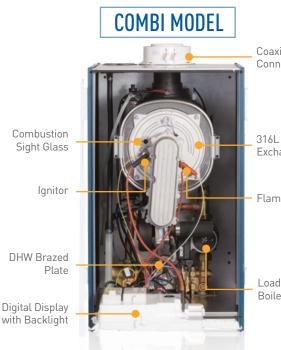
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Dunkirk condensing boilers come with a **FREE LABOR SAVER™ MANIFOLD, WARRANTY**, and **SUPPORT** matched by no other manufacturer.

\*Unit must be registered within 60 days from the date of original installation. All terms of Trinity Extended Service Agreement apply.

## A CLOSER LOOK...





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## Coaxial Flue Connector HEATING ONLY MODEL

316L SS Heat Exchanger

Flame Sensor

Load Matching Boiler Pump



- 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
- Preheat function
- Built in load matching Pump contributes to savings in electrical usage

## HEATING MODEL WITH OPTIONAL INDIRECT HOT WATER HEATER



Our **[AI]** control is programmed to recognize an indirect tank, with no need for a separate relay. 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.

## STANDARD EQUIPMENT

**Heat Exchanger:** 316L Stainless Steel Burner. DCC-205 and DCC-165 are also equipped with a stainless steel brazed plate heat exchanger

#### Primary/Secondary LABOR SAVER™ Manifold

**Boiler Control Module:** High Limit/Electronic Ignition Control

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

Adaptive Combustion: Automatically modulating gas valve with 5.5:1 Turndown for Heating Mode and 7:1 for DHW Mode. Stainless Steel Burner, Direct Spark Ignition, Separate Flame Sensor, 100% shutoff

**Other:** Assembled Boiler with Jacket, Induced Draft Fan, High limit sensors, 30psi Relief Valve, Low Water Pressure Switch, and Temperature/Pressure Gauge. Built-in Load Matching Pump

### **LEARN MORE!**

You can learn more about the DCC/DCB and our full line of products, services, training and support by visiting our website, or check out our Facebook page.



LABOR SAVER<sup>™</sup> MANIFOLD INCLUDED

### **OPTIONAL** EQUIPMENT:

Outdoor Temperature Sensor, Indirect Tank Sensor, Floor Stand Kit

SHOWN ON OPTIONAL FLOOR STAND.



INDIRECT TANK SENSOR



OUTDOOR TEMPERATURE RESET

## PHYSICAL DATA

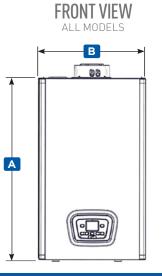


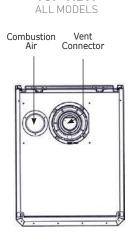
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#### **PRODUCT DIMENSIONS**

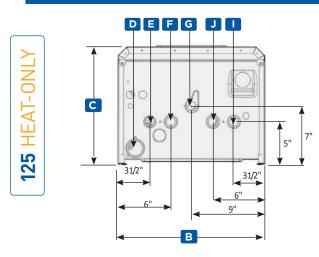
|   | DIMENSIONS                 | 125 & 150             | 205 & 165          |
|---|----------------------------|-----------------------|--------------------|
| Α | HEIGHT                     | 30" [763mm]           | 30" [763mm]        |
| В | WIDTH                      | 17 3/4" [450mm]       | 17 3/4" [450mm]    |
| С | DEPTH                      | 13 9/16" [345mm]      | 21 1/2" [571]      |
| D | CONDENSATE TRAP CONNECTION | 13/16" [21mm] ID Hose | 3/4" [19.1mm] NPT  |
| Ε | SYSTEM SUPPLY              | 3/4" [19.1mm]         | 1" [25.4mm]        |
| F | DHW OUTLET (125 OPTIONAL)  | 1/2" [15.9mm]         | 3/4" [19.1mm]      |
| G | GAS CONNECTION             | 3/4" 19.1mm]          | 3/4" [19.1mm]      |
| Η | DHW (COLD WATER) INLET     | 1/2" [15.9mm]         | 3/4" [19.1mm]      |
|   | SYSTEM RETURN              | 3/4" 19.1mm]          | 1" [25.4mm]        |
| J | BOILER FILLING CONNECTION  | 1/2" [15.9mm]         | External to Boiler |
|   | PRIMARY WATER CONTENT      | 1 gal [3.60L]         | 1 1/4 gal [4.73L]  |



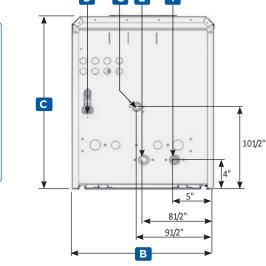


**TOP VIEW** 

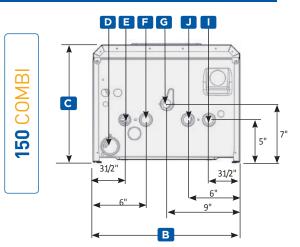
#### **BOTTOM VIEWS**

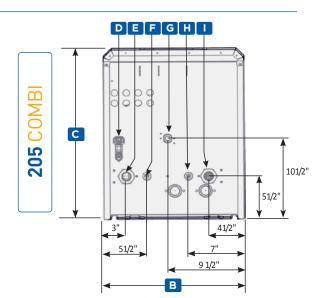






**165 HEAT-ONLY** 







## **PRODUCT SPECIFICATIONS**

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|       |         | H         | MESTIC<br>FER MODE |   |
|-------|---------|-----------|--------------------|---|
|       |         | INPUT MBH |                    | FLOW RATE<br>(Based on 70°<br>Temperate rise) |
|       | MODEL   | МАХ       | MIN                | Gallons<br>per minute                         |
| СОМВІ | DCC-150 | 153       | 22                 | 3.5   |
| сомы  | DCC-205 | 205       | 29.5               | 5.0   |
|       |         |           |                    |   |

|        |         |           |      | IN SPA<br>HEATING          |                      |                                    |
|--------|---------|-----------|------|----------------------------|----------------------|------------------------------------|
|        |         | INPUT MBH |      | AHRI C                     | ERTIFIED R           | ATINGS                             |
|        | MODEL   | МАХ       | MIN  | Heating<br>Capacity<br>MBH | Efficiency<br>AFUE % | Net<br>Water<br>MBH <sup>[1]</sup> |
| СОМВІ  | DCC-150 | 125       | 22   | 113                        | 95                   | 98                                 |
| 001121 | DCC-205 | 164       | 29.5 | 153                        | 95                   | 133                                |
| HEAT   | DCB-125 | 125       | 22   | 113                        | 95                   | 98                                 |
| ONLY   | DCB-165 | 164       | 29.5 | 153                        | 95                   | 133                                |
|        |         |           |      |                            |                      |                                    |

(1) Net Water Rating shown based on piping and pickup allowance of 1.15. Consult manufacturer before selecting boilers for installation having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.

|       |         | VENT MATERIAL / SIZE<br>In Inches (mm) |  |                               |
|-------|---------|--|--|-------------------------------|
|       |         |  |  |                               |
|       | MODEL   | COAXIAL <sup>[2]</sup>                 | 2-PIPE<br>POLYPROPYLENE <sup>[2]</sup> | 2-PIPE<br>CPVC <sup>[2]</sup> |
| СОМВІ | DCC-150 | 2/4" (60mm/100mm)                      | 3" (80mm)                              | 3"                            |
| CONDI | DCC-205 | 3/5" (80mm/125mm)                      | 2"or 3" (60mm or 80mm)                 | 2" or 3"                      |
| HEAT  | DCB-125 | 2/4" (60mm/100mm)                      | 3" (80mm)                              | 3"                            |
| ONLY  | DCB-165 | 3/5" (80mm/125mm)                      | 2"or 3" (60mm or 80mm)                 | 2" or 3"                      |
|       |         |  |  |                               |

(2) Refer to IOM and vent pipe manufacturer's instructions for equivalent lengths and approved venting materials

|                               | BOILER<br>CLEARANCES                    | ,  |
|-------------------------------|---|--|
| DIMENSION                     | Combustible<br>Materials <sup>(3)</sup> | Manufacturer<br>Recommended for<br>SERVICE <sup>(3)</sup> <sup>(4)</sup> |
| TOP                           | 0" (0cm)                                | 8-5/8" (220mm)   |
| LEFT                          | 1-3/4" (45mm)                           | 1-3/4" (45mm)  |
| RIGHT                         | 1-3/4" (45mm)                           | 1-3/4" (45mm)  |
| FRONT                         | 0" (0cm)                                | 17-3/4" (450mm)  |
| BACK                          | 0" (0cm)                                | 0" (0cm)   |
| BOTTOM                        | 0" (0cm)                                | *9-13/16" (250mm)  |
| COMBUSTION<br>AIR/VENT PIPING | 0" (0cm)                                | 6" (160mm)   |

(3) Required distance measured from boiler jacket.

(4) Service, proper operation clearance recommendation.

\* Allowance for piping at the bottom of the boiler not included.





**CERTIFICATIONS** 

All specifications subject to change without notice. © 2018 ECR International, Inc. PN 240011408 Rev. FM [4/6/2018]

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