

# Dunkirk® | EW II Series II

Innovative. Efficient. Dependable. Dunkirk.

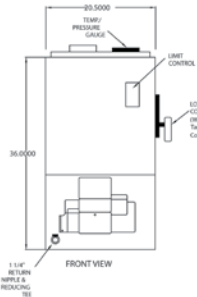


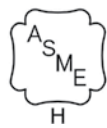

## Empire Water II

Up to 86.5% AFUE High Efficiency Oil Fired Hot Water Boiler

- Available in 8 sizes from 91 to 245 Mbh.
- Dependable Cast Iron Heat Exchanger with Cast Iron Push Nipples. The Sections and Push Nipples expand at the same rate when heated. By using similar materials instead of less expensive gaskets the boiler maintains a water tight seal over time.
- Honeywell 2012 Compliant High Limit and Circulator Relay Control.
  - Digital Temperature Display and Diagnostics.
- Less Coil: Control monitors water temperature and delays the burner starting until and residual heat has been transferred. Thermal purge logic measures rate of temperature change inside the boiler and delays burner firing accordingly. This maximizes efficiency by turning on the burner only when needed.
- With Coil: Low Limit Control seeks maximum temperature to satisfy domestic hot water call bypassing thermal purge logic.
- Atmospheric Chimney Vent Boiler.
- Optional Tankless Heater Coil.
- Textured paint Jacket.
- 20 Year Non-Prorated Warranty (Residential Applications).



# Dunkirk EW II Series II Oil-Fired Hot Water Boiler

Dimensions/Weights	Model	No. of Sec.	Input		Heating Capacity (MBH) <sup>(1) (2)</sup>	Net AHRI Rating, Water (MBH) <sup>(1) (5)</sup>	Minimum Chimney Size/Height	AFUE % <sup>(2)</sup>																								
			G.P.H. <sup>(3)</sup>	MBH <sup>(1)</sup>																												
	*3EW.65	3	0.65	91	80	70	8" x 8" x 15'	86.3%																								
	*3EW.75	3	0.75	105	92	80	8" x 8" x 15'	85.2%																								
	3EW.100	3	1.00	140	120	104	8" x 8" x 15'	84.0%																								
	*4EW.90	4	0.90	126	111	97	8" x 8" x 15'	86.0%																								
	*4EW1.25	4	1.25	175	151	131	8" x 8" x 15'	85.0%																								
	4EW1.50	4	1.50	210	179	156	8" x 8" x 15'	84.0%																								
	*5EW1.20	5	1.20	168	147	128	8" x 8" x 15'	86.5%																								
	5EW1.75	5	1.75	245	210	183	8" x 8" x 15'	84.3%																								
	<p>*Indicates an ENERGYSTAR rated product.</p> <p>(1) Mbh = 1,000 BTU per hour [BTU = British Thermal Unit]</p> <p>(2) Heating Capacity based on 13% CO<sub>2</sub> with a 0.02" w.c. draft over fire, and a #1 smoke or less. Testing was done in accordance with the D.O.E. (Department of Energy) test procedure.</p> <p>(3) G.P.H. = Gallons per hour oil at 140,000 BTU per gallon</p> <p>(4) A.F.U.E. = Annual Fuel Utilization Efficiency based upon D.O.E. test procedure.</p> <p>(5) Net AHRI Water Ratings 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><b>General Information</b> (See Installation, Operation and Maintenance Manual for complete instructions)</p> <table border="1"> <thead> <tr> <th rowspan="7">Clearances <sup>(6)</sup> Required distances measured from boiler.   <sup>(7)</sup> Service, proper operation clearance recommendation.</th> <th></th> <th>Combustible Materials (Required) <sup>(6)</sup></th> <th>Servicing <sup>(7)</sup></th> <th rowspan="7">Flue to Combustible Clearance</th> </tr> </thead> <tbody> <tr> <td>Top</td> <td>6" (15.2 cm)</td> <td>18" (45.7 cm)</td> <td rowspan="6">18" (45.7 cm)</td> </tr> <tr> <td>Left Side</td> <td>24" (61 cm)</td> <td>24" (61 cm)</td> </tr> <tr> <td>Right Side</td> <td>6" (15.2 cm)</td> <td>24" (61 cm)</td> </tr> <tr> <td>Front</td> <td>18" (45.7 cm)</td> <td>No Requirement</td> </tr> <tr> <td>Back</td> <td>6" (15.2 cm)</td> <td>No Requirement</td> </tr> <tr> <td>Bottom</td> <td>Non-Combustible</td> <td>No Requirement</td> </tr> </tbody> </table>									Clearances <sup>(6)</sup> Required distances measured from boiler. <sup>(7)</sup> Service, proper operation clearance recommendation.		Combustible Materials (Required) <sup>(6)</sup>	Servicing <sup>(7)</sup>	Flue to Combustible Clearance	Top	6" (15.2 cm)	18" (45.7 cm)	18" (45.7 cm)	Left Side	24" (61 cm)	24" (61 cm)	Right Side	6" (15.2 cm)	24" (61 cm)	Front	18" (45.7 cm)	No Requirement	Back	6" (15.2 cm)	No Requirement	Bottom	Non-Combustible	No Requirement
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<b>Connections</b>		Return/Supply Water 1-1/4" NPT																														
<b>Electrical</b>		120 Volts AC, 60 hertz, 1 phase, Less than 12 amps (15 amp circuit recommended)																														
<b>Water Content</b>		3EW - 9.6 Gallons, 4EW - 11.6 Gallons, 5EW - 13.7 Gallons																														
<b>Standard Equipment</b>		<p>Boiler Control Module: Boilers without Tankless Heater Coil - Honeywell Combination High Limit Control and Circulator Relay. Boilers with Tankless Heater Coil - Honeywell Combination High Limit and Circulator Relay and Low Limit Control.</p> <p>Heat Exchanger: Cast Iron Sections with Cast Iron Push Nipples and Swing Door.</p> <p>Combustion: Completely installed and wired Beckett AFG Series Oil Burner (3 &amp; 4 Section F Head; 5 Section MD Head) equipped with Nozzle, Primary Control, CAD Cell, PSC Motor, Interrupted Duty Ignition and Clean Cut Pump; Flue Brush; Swing Fire Door with Insulation (Vacuum Formed Ceramic Fiber), Target Wall (Vacuum Formed Refractory Ceramic Fiber); Dura Blanket Insulation Chamber. Chamber, and Barometric Draft Control 6".</p> <p>Other: Assembled Cast Iron Boiler with Insulated Jacket, Combination Temperature/Pressure Gauge, Circulator Pump wired with 5' harness for supply or return mounting in the field, 3/4" Boiler Drain Valve, 30 psi ASME Relief Valve, extra Boiler Tap for Expansion Tank or Air Elimination.</p>																														
<b>Options</b>		Beckett or Riello Burner, Manual Reset High Limit with plug-in Molex connector, and Direct Vent.																														
<b>Certifications</b>		    <p>Maximum Allowable Working Pressure 50 psi.</p>																														
<b>Models</b>	<b>Dimensions</b>			<b>Wgt. (lbs.)</b>																												
	<b>A</b>	<b>B</b>	<b>C</b>																													
3EW	14-1/2"	6"	8"		470																											
4EW	17-3/4"	6"	9-5/8"		545																											
5EW	21"	6"	11-1/2"	630																												

All ratings and specifications subject to change.

PN 240009785 Rev. 9/12

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