

# Dunkirk® | ESC Series IV

Innovative. Efficient. Dependable. Dunkirk.

## ESC IV

82% AFUE Oil Fired Steam Boiler

- Available in 4 sizes from 106 MBH to 247 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.
- Patented Protective Heat Shield Baffle to protect the casting above the water line.
- Honeywell Pressure Control, Boiler Water Level Gauge Glass, and Steam Pressure Gauge.
- Electronic Low Water Cut Off.
- Atmospheric Chimney Vent Boiler.
- Textured paint Jacket with compact footprint.
- Cast Iron swing door and large flueways allow for easy cleaning and servicing.
- 12 Year Limited Warranty (Residential Applications).



# Dunkirk ESC Series IV Residential Oil Fired Steam Boiler

Dimensional Diagram	Model	AHRI Oil Burner Input <sup>(1)</sup>		Htg. Cap. MBH <sup>(4)</sup>	Net AHRI Ratings <sup>(3)</sup>		Min. Nat. Draft Chimney Size		Pump Press. PSI	Nozz. Furn.	AFUE % <sup>(4)</sup>	
		G.P.H.	MBH <sup>(2)</sup>		Steam MBH	Sq. Ft. Steam	Round	Square				
<p><b>Front View</b></p>	Without Tankless	ESC-3090S	0.90	126	106	80	333	6"	8"x8"x15'	150	0.75-60"B	82.0%
		ESC-4125S	1.25	175	147	110	458	6"	8"x8"x15'	140	1.10-60"B	82.0%
		ESC-5185S	1.85	259	216	162	675	8"	8"x8"x15'	150	1.50-70"B	82.0%
		ESC-6210S	2.10	294	247	185	771	8"	8"x8"x15'	145	1.75-70"B	82.0%
	With Tankless	ESC-3090ST	0.90	126	106	80	333	6"	8"x8"x15'	150	0.75-60"B	82.0%
		ESC-4125ST	1.25	175	147	110	458	6"	8"x8"x15'	140	1.10-60"B	82.0%
		ESC-5185ST	1.85	259	216	162	675	8"	8"x8"x15'	150	1.50-70"B	82.0%
		ESC-6210ST	2.10	294	247	185	771	8"	8"x8"x15'	145	1.75-70"B	82.0%
<p>(1) Burner input is based on an oil heating value of 140,000 Btu/gal.</p> <p>(2) MBH = 1000 Btu per hour [Btu = British Thermal Unit].</p> <p>(3) Net AHRI Steam Ratings based on piping and pick-up allowance of 1.333. Consult manufacturer before selecting boiler for installations having unusual piping and pick-up requirements, such as intermittent system operation, extensive piping, etc.</p> <p>(4) Heating Capacity and AFUE based on 13.0% CO<sub>2</sub> with -0.02" W.C. draft over fire and #1 smoke or less. Tested in accordance with U.S. Department of Energy test procedures.</p>												
<p><b>General Information</b> (See Installation, Operation and Maintenance Manual for complete instructions)</p>												
<p><b>Side View</b> A.S.M.E. Pressure Relief Valve</p>	Clearances Required distances measured from boiler.	Top		24" (610 mm)								
		Left Side (Control Side)		6" (152 mm)								
		Right Side		24" (610 mm)								
		Front		24" (610 mm)								
		Back		24" (610 mm)								
		Flue Connector		9" (229 mm)								
<b>Connections (All Models)</b>		Supply Tapping Two 2" NPT, Return Tapping 1-1/2", Oil Line 3/8" O.D. copper tubing for runs of 50 feet or less, and 1/2" O.D. for longer runs.										
<b>Electrical</b>		120 Volts AC, 60 hertz, 1 phase, Less than 12 amps (15 amp circuit recommended).										
<b>Tankless Heater Capacities</b>	<b>Model</b>	<b>Input Rate G.P.H.</b>	<b>Tankless Heater Number</b>	<b>Tankless Heater Capacity Intermittent Draw G.P.M.</b>	<b>Boiler Water Content (Gallons)</b>							
					<b>To Water Line</b>	<b>To LWCO Line</b>						
	ESC-3090ST	0.90	L-24	Avail. On Req.	11	8						
	ESC-4125ST	1.25		4.5	13	9						
	ESC-5185ST	1.85		4.5	15	10						
ESC-6210ST	2.10	4.5		15	10							
<b>Dimensions/Weights</b>	<b>No. of Sec.</b>	<b>A (Length of Flush Jacket)</b>		<b>B (Front of Jacket to Center Line of Flue Outlet)</b>		<b>C (Flue Outlet Diameter)</b>		<b>Weight</b>				
	3	16.375"		6.5"		6"		534 lbs.				
	4	20.25"		8.5"		6"		688 lbs.				
	5	23.875"		10.25"		7"		781 lbs.				
	6	27.5"		8.3125"		8"		901 lbs.				
<b>Standard Equipment</b>		Boiler Controls: Honeywell Pressuretrol, Boiler Water Level Gauge Glass, and Steam Pressure Gauge. Heat Exchanger: Cast Iron Heat Exchanger with Cast Iron Push Nipples, Swing Door. Combustion: Beckett Oil Burner, Target Wall/Liner. Electrical: Wiring Harness, Burner Electric Disconnect. Safety: Electronic Low Water Cut Off. Other: Crated Boiler, Flush Jacket, ASME Relief Valve, Drain Valve, Plastic Cover, Two 2" Supply Tappings, 1-1/2" Return Tapping and Skim Port. For Tankless Heater Units: Add Tankless Hot Water Coil and 4006 Limit Control.										
<b>Options</b>		Taco or Grundfos; Tankless Coil.										
<b>Certifications</b>												

All ratings and specifications subject to change.

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Contractor Assistance: 800.325.5479



P.O. Box 4729  
 Utica, New York 13504  
 tel: 315.797.1310 • fax: 315.797.3762  
 www.dunkirk.com

