
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

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G.P.H.</td>
<td>MBH(2)</td>
<td>Steam MBH</td>
<td>Sq. Ft. Steam</td>
<td>Round</td>
<td>Square</td>
<td></td>
</tr>
<tr>
<td>ESC-3090S</td>
<td>0.90</td>
<td>126</td>
<td>106</td>
<td>80</td>
<td>333</td>
<td>6&quot;</td>
<td>8&quot;x8&quot;x15&quot;</td>
</tr>
<tr>
<td>ESC-4125S</td>
<td>1.25</td>
<td>175</td>
<td>147</td>
<td>110</td>
<td>458</td>
<td>6&quot;</td>
<td>8&quot;x8&quot;x15&quot;</td>
</tr>
<tr>
<td>ESC-5185S</td>
<td>1.85</td>
<td>259</td>
<td>216</td>
<td>162</td>
<td>675</td>
<td>8&quot;</td>
<td>8&quot;x8&quot;x15&quot;</td>
</tr>
<tr>
<td>ESC-6210S</td>
<td>2.10</td>
<td>294</td>
<td>247</td>
<td>185</td>
<td>771</td>
<td>8&quot;</td>
<td>8&quot;x8&quot;x15&quot;</td>
</tr>
</tbody>
</table>

(1) Burner input is based on an oil heating value of 140,000 Btu/gal.

(2) MBH = 1000 Btu per hour [Btu = British Thermal Unit].

(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.

(4) Heating Capacity and AFUE based on 13.0% CO2 with -0.02" W.C. draft over fire and #1 smoke or less. Tested in accordance with U.S. Department of Energy test procedures.

### General Information

#### Combustible Materials (Required)
- **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)

#### Connections (All Models)
- **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 ½" O.D. for longer runs.

#### Tankless Heater Capacities

<table>
<thead>
<tr>
<th>Model</th>
<th>Input Rate G.P.H.</th>
<th>Tankless Heater Number</th>
<th>Tankless Heater Capacity Intermittent Draw G.P.M.</th>
<th>To Water Line</th>
<th>To LWCO Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESC-3090ST</td>
<td>0.90</td>
<td>L-24</td>
<td>Avail. On Req.</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>ESC-4125ST</td>
<td>1.25</td>
<td></td>
<td>4.5</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>ESC-5185ST</td>
<td>1.85</td>
<td></td>
<td>4.5</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>ESC-6210ST</td>
<td>2.10</td>
<td></td>
<td>4.5</td>
<td>15</td>
<td>10</td>
</tr>
</tbody>
</table>

#### Dimensions/Weights

<table>
<thead>
<tr>
<th>No. of Sec.</th>
<th>A (Length of Flush Jacket)</th>
<th>B (Front of Jacket to Center Line of Flue Outlet)</th>
<th>C (Flue Outlet Diameter)</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>16.375&quot;</td>
<td>6.5&quot;</td>
<td>6&quot;</td>
<td>534 lbs.</td>
</tr>
<tr>
<td>4</td>
<td>20.25&quot;</td>
<td>8.5&quot;</td>
<td>6&quot;</td>
<td>688 lbs.</td>
</tr>
<tr>
<td>5</td>
<td>23.875&quot;</td>
<td>10.25&quot;</td>
<td>7&quot;</td>
<td>781 lbs.</td>
</tr>
<tr>
<td>6</td>
<td>27.5&quot;</td>
<td>8.3125&quot;</td>
<td>8&quot;</td>
<td>901 lbs.</td>
</tr>
</tbody>
</table>

#### Standard Equipment
- **Boiler Controls**: Honeywell Pressuretrol, Boiler Water Level Gauge Glass, and Steam Pressure Gauge.
- **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.

### Options
- Tankless Coil.

### Certifications
- [ASME](https://www.asme.org)
- [AHRI](https://www.ahri.org)

All ratings and specifications subject to change. 

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