
**Helix VLT**

96% AFUE Residential Gas Modulating Condensing Boiler

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### Dunkirk VLT Natural or Propane Gas-Fired Modulating Condensing Hot Water Boiler

#### Dimensions/Weights

<table>
<thead>
<tr>
<th>Model</th>
<th>Boiler Input Rate (MBH) (1)</th>
<th>Heating Capacity (MBH) (2)</th>
<th>Net I=B=R Rating, Water (MBH) (3)</th>
<th>AFUE % (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DKVLT-050</td>
<td>50</td>
<td>46</td>
<td>40</td>
<td>96.0</td>
</tr>
<tr>
<td>DKVLT-075</td>
<td>75</td>
<td>69</td>
<td>60</td>
<td>96.0</td>
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<tr>
<td>DKVLT-100</td>
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<td>91</td>
<td>79</td>
<td>96.0</td>
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<tr>
<td>DKVLT-150</td>
<td>150</td>
<td>139</td>
<td>121</td>
<td>96.0</td>
</tr>
<tr>
<td>DKVLT-200</td>
<td>200</td>
<td>185</td>
<td>161</td>
<td>96.0</td>
</tr>
</tbody>
</table>

(1) Heating Capacity and AFUE (Annual Fuel Utilization Efficiency) are based on DOE (Department of Energy) test procedures.

(2) Net I=B=R Ratings based on piping and pickup allowance of 1.15. Contact Technical Support before selecting boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.

#### General Information

- **Clearances** (4) Required distances measured from boiler.
- **Connections**
  - Return/Supply Water
  - Gas In
  - Condensate Drain

#### Connections

- **Return/Supply Water**
- **Gas In**
- **Condensate Drain**

#### Electrical

- 120 Volts AC, 60 hertz, 1 phase, Less than 12 amps (15 amp circuit recommended)

#### Water Content

- 050/075/100: 1.1 Gallons
- 150/200: 1.8 Gallons

#### Standard Equipment

- Mounting Wall: Wall Bracket included.
- Boiler Control Module: Automatic Low Voltage/Intermittent Power Reset. Controls up to 16 boilers for multiple boiler applications.
- User Display interface: Easy programming with text display. Outdoor Temperature Sensor included.
- Heat Exchanger: High grade 210L-444 Stainless Steel Fin Coil with Flame Sight Glass.
- Built-in Primary/Secondary Manifold Piping and Pump.
- Combustion: Gas Valve with Premix Venturi and Blower, Durable Stainless Steel Mesh Modulating Burner with 5:1 turn down ratio, Direct Spark Igniter, Flame Sensor and LP Conversion Kit included.
- Electrical: Detachable Low Voltage Terminal Strip, High Voltage Junction Box and Transformer.
- Other: Factory installed probe-type Low Water Cut Off with test feature, 30 PSI Safety Relief Valve, Boiler Drain Valve and Condensate Drain with built in trap.

#### Options

- Central Heating Pump (Taco 001 or Grundfos UP15-42F), Concentric Vent Kit (2" and 3"), System Sensor (For Multiple Boiler Applications)

#### Certifications

- **PN 24000996 Rev. 10/11**

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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

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INNOVATIVE — Because we wouldn’t have it any other way...

The fact is Dunkirk has been designing, manufacturing, and marketing residential condensing boilers longer than any other North American company. We were the first to introduce 95% efficient condensing boilers. Unlike most North American boiler companies, Dunkirk designed a heat exchanger for our demanding American condensing boiler customers. Our American craftsmen are certified to test and apply the crucial ASME mark for safe condensing boiler pressure vessels in our factory. Simply put - if you want the most advanced boiler available from an American manufacturer, you want Dunkirk.

Introducing the latest in condensing boiler technology.

Dunkirk’s new Helix VLT “Vertical Laser Tube,” condensing boiler features a revolutionary, vertically mounted, helical fin tube heat exchanger, made of 316L/444 stainless steel. This self cleaning design features wide, smooth waterways that help remove hard water deposits and prevent scaling.

Dunkirk understands that there are more important things in life to spend your money on than heating bills; that’s why we’re proud to bring you the most efficient, forward-thinking home heating solutions available today.

EFFICIENT — Just look at what you could be saving annually...

The Dunkirk VLT’s original design incorporates easy maintenance, durability and safety to make the most of your home heating investment. The self cleaning heat exchanger features wide smooth waterways that help remove hard water deposits and prevent scaling. A corrosion resistant CPVC flue collector adds to the longevity of the boiler. The VLT’s sealed housing reduces noise for quiet comfort in any living space. Since most municipal codes require heating systems to incorporate a Low Water Cut Off (LWCO) to guard against unsafe operation, the Dunkirk VLT features a built-in LWCO.

DEPENDABLE — Dunkirk holds our boilers to the highest quality standards and we stand behind our products...

Each VLT boiler produced is subjected to a rigorous set of quality control checks before it leaves our factory. Dunkirk checks all of the electrical, plumbing, pressure vessel and combustion set up parameters prior to approving a VLT for shipment. We even include the final computer generated results for your professional contractor to reference while completing your installation. Every Dunkirk VLT is backed by a 15 year limited manufacturer’s heat exchanger warranty, and the availability of optional Comfort Plus Parts & Labor Extended Warranties ensure you peace of mind for years to come.

Home heating goes well beyond the initial cost of the system. Your boiler selection impacts your monthly bills. Efficiency, ease of maintenance, and longevity all add up. Spikes in utility rates or costly maintenance and repairs can easily derail the best financial plan.

The new VLT features an Energy Star Rated 96% AFUE. Just add up the savings:

-96% AFUE
-Sealed Combustion
-“Outdoor Temperature Reset

(A factory standard Outdoor Temperature Reset adjusts water supply temperature for best possible fuel economy based on actual seasonal conditions.)

The increased efficiency of the VLT could save you up to 40% on your heating bill each year. If you pay $1,800 annually to heat your home, you could save as much as $720 per year.

That’s $3,600 over 5 years!

(Individual savings may vary).

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<table>
<thead>
<tr>
<th>Model</th>
<th>Width (A)</th>
<th>Height (B)</th>
<th>Depth (C)</th>
<th>Bracket (D)</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>DKVLT-050</td>
<td>20”</td>
<td>31”</td>
<td>14”</td>
<td>28”</td>
<td>111 lbs</td>
</tr>
<tr>
<td>DKVLT-075</td>
<td>23”</td>
<td>42”</td>
<td>16”</td>
<td>40”</td>
<td>~182 lbs</td>
</tr>
<tr>
<td>DKVLT-100</td>
<td>23”</td>
<td>42”</td>
<td>16”</td>
<td>40”</td>
<td>~182 lbs</td>
</tr>
<tr>
<td>DKVLT-150</td>
<td>23”</td>
<td>42”</td>
<td>16”</td>
<td>40”</td>
<td>~182 lbs</td>
</tr>
<tr>
<td>DKVLT-200</td>
<td>23”</td>
<td>42”</td>
<td>16”</td>
<td>40”</td>
<td>~182 lbs</td>
</tr>
</tbody>
</table>

### General Information

**Clearances (4)** Required distances measured from boiler.

**Service, proper operation clearance recommendation.**

**Combustion Air & Vent Pipe Equivalent Length (Schedule 40 PVC)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Min. Length</th>
<th>Max. Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>DKVLT-050</td>
<td>6 Ft.</td>
<td>100 Ft.</td>
</tr>
<tr>
<td>DKVLT-075/100</td>
<td>6 Ft.</td>
<td>50 Ft.</td>
</tr>
<tr>
<td>DKVLT-150/200</td>
<td>6 Ft.</td>
<td>100 Ft.</td>
</tr>
</tbody>
</table>

Notes:
- 1 - 90° Elbow = 5 Ft. (1.6 m), 1 - 45° Elbow = 3.5 Ft. (1.1 m), 1 - 2” x 3” Adapter = 0 Ft. (0 m), Concentric Vent Kit = 5 Ft. (1.6 m) equivalent length.

### Connections

- **050/075/100**
  - Return/Supply Water: 1-1/4” NPT, 1/2” NPT, 3/4” NPT
  - Gas In: 1-1/4” NPT
  - Condensate Drain: 1/2” NPT

- **150/200**
  - Return/Supply Water: 1-1/4” NPT, 3/4” NPT
  - Gas In: 3/4” NPT
  - Condensate Drain: 3/4” NPT

### Electrical

- 120 Volts AC, 60 hertz, 1 phase, Less than 12 amps (15 amp circuit recommended)

### Water Content

- 050/075/100: 1.1 Gallons
- 150/200: 1.8 Gallons

### Standard Equipment

- Mounting Wall: Wall Bracket included.
- Boiler Control Module: Automatic Low Voltage/Intermittent Power Reset. Controls up to 16 boilers for multiple boiler applications.
- User Display Interface: Easy programming with test display. Outdoor Temperature Sensor included.
- Heat Exchanger: High grade 220L/444 Stainless Steel Fin Coil with Flame Sight Glass.
- Built-in Primary-Secondary Manifold Piping and Pump.
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### Options

- Central Heating Pump (Taco 007 or Grundfos UP15-42F), Concentric Vent Kit (2” and 3”), System Sensor (For Multiple Boiler Applications)

### Certifications

- [IC](https://www.ic.org), [BRB](https://www.brb.org), [CSA](https://www.csa.org), [UL](https://www.ul.com), [FM](https://www.fmsafetystandards.com), [CUT](https://www.cut-standards.org), [ADMA](https://www.adma-certification.org), [ISO](https://www.iso.org), [CSTB](https://www.cstb.org)