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

### Dimensions/Weights

<table>
<thead>
<tr>
<th>Dimensions/Weights</th>
<th>Model</th>
<th>Boiler Input Rate (MBH)</th>
<th>Heating Capacity (MBH)</th>
<th>Net AHRI Rating, Water (MBH)</th>
<th>AFUE %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Max.</td>
<td>Min.</td>
<td>40</td>
<td>40</td>
</tr>
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<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>DXTT-050</td>
<td>50</td>
<td>10</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>DXTT-075</td>
<td>75</td>
<td>15</td>
<td>60</td>
<td>60</td>
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<tr>
<td></td>
<td>DXTT-100</td>
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<tr>
<td></td>
<td>DXTT-150</td>
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<td>30</td>
<td>139</td>
<td>121</td>
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<tr>
<td></td>
<td>DXTT-150H</td>
<td>150</td>
<td>30</td>
<td>139.5</td>
<td>121.5</td>
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<tr>
<td></td>
<td>DXTT-200</td>
<td>200</td>
<td>40</td>
<td>185</td>
<td>161</td>
</tr>
<tr>
<td></td>
<td>DXTT-200H</td>
<td>200</td>
<td>40</td>
<td>185.5</td>
<td>161.5</td>
</tr>
<tr>
<td></td>
<td>DXTT-295</td>
<td>295</td>
<td>60</td>
<td>273</td>
<td>239</td>
</tr>
</tbody>
</table>

1. The DXTT-200 and DXTT-295 have an AFUE of 94% and are ENERGY STAR® rated products but they do not meet the 95% unrated for 2013 New Efficient.

2. N. A. (Not Available) unless noted.

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

4. Heat AHRI Ratings based on piping and purge adherence of 1.15. Contact Technical Support before selecting boiler for installations having stress piping and purge requirements, such as a remote system operation, above ground piping systems, etc.

### 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>Combustion Air &amp; Vent Pipe Equivalent Length (Schedule 40 PVC)</th>
<th>Combustible Materials Required</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min. Length</td>
<td>0’ (0 cm)</td>
<td>0’ (0 cm)</td>
</tr>
<tr>
<td>Max. Length</td>
<td>0’ (0 cm)</td>
<td>0’ (0 cm)</td>
</tr>
</tbody>
</table>

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

- Top: 0’ (0 cm)
- Left Side: 0’ (0 cm)
- Right Side: 0’ (0 cm)
- Front: 0’ (0 cm)
- Back: 0’ (0 cm)
- Bottom: 10’ (302 cm)

### Certification

- NSF (National Sanitation Foundation)
- UL (Underwriters Laboratories)
- Intertek (formerly TUV)
Innovative

Because we know what it takes to make a good thing even better...

Dunkirk is proud to bring you the most efficient, forward-thinking home heating solutions available today like the Dunkirk Helix VLT. Dunkirk’s “Vertical Laser Tube,” modulating condensing boiler features a revolutionary, vertically mounted hiweld 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.

With the recent addition of a 299 MBH capacity, the Dunkirk Helix VLT offers even more application flexibility with six modulating capacities from 50 to 299 MBH. Plus all Helix VLT models can now be vented using PVC, CPVC or Polypropylene.

Consider pairing a Dunkirk Helix VLT with an H2O Series Stainless Steel Indirect Water Heater for a perfect home heating match!

Dunkirk H2O Indirect Water Heaters are available in 30 to 150 gallon capacities and feature 316L stainless steel construction and top connections for an easy installation. The H2O is so well insulated that water will lose only a half-degree for every hour on standby. The H2O’s smooth coil design prevents sediment buildup. This durable, efficient water heater is a great value.

Dependable

Dunkirk holds our products to the highest quality standards and we stand behind them...

Each Helix VLT boiler produced is subjected to a rigorous set of quality control checks before it leaves our factory. Dunkirk test fires each boiler and checks all of the electrical, plumbing, pressure vessel and combustion setup parameters – fine-tuning the product’s performance prior to approving the unit for shipment. We even include the final computer generated results for your professional contractor to reference while completing your installation.

Since we go the extra mile to deliver a quality product we offer not only a 10 year limited manufacturer’s warranty, we also back it up with an industry-leading first year 8500 Heat Exchanger Labor Warranty.

Our H2O Single Coil Indirect Water Heaters feature a limited lifetime warranty and optional Comfort Plus Parts & Labor warranties are available for all our products.

Efficient

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

Add up the savings with a Helix VLT:

- Up to 95% AFUE
- Sealed Combustion
- Outdoor Temperature Reset*

The increased efficiency of the VLT could save you up to 45% on your heating bill each year. If you pay $1,500 annually to heat your home, you could save as much as $725 per year.

= That’s $3,600 over 5 years!!**

* Factory standard feature; Temperature Reset reduces water supply temperature for fast possible fuel economy based on actual input temperature.
** Individual savings may vary.
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Dunkirk H2O Indirect Water Heaters are available in 30 to 150 gallon capacities and feature 316L stainless steel construction and top connections for an easy installation. The H2O is so well insulated that water will lose only a half-degree for every hour on standby. The H2O’s smooth coil design prevents sediment build-up. This durable, efficient water heater is a great value.

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- Sealed Combustion
- Outdoor Temperature Reset

The increased efficiency of the VLT could save you up to 45% 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!*®

* Assumes standard heater. Temperature Reset requires water supply temperature for best possible fuel economy based on insured model characteristics.
® Individual savings may vary.

Dunkirk installed both primary and secondary piping work. Aside the actual unit, I could believe it’s made in an assembly as piping your Supply and Return with one piece, not two, because the other is installed in the Helix already, right in the boiler?

- Sean McCormick
  NMC Plumbing & Heating
  Rochester, NY

Helix VLT 50-200 MBH
- Heat Exchanger
- Integral Condensate Trap
- Helix VLT 299 MBH
- Heat Exchanger
- Integral Condensate Trap

- 316L-444 stainless steel fin tube
- Vertically mounted
- Self-cleaning
- 150 psi MAP
- Designed in the U.S., for the U.S.

Non-Metallic Pipe Collector
- Large diameter
- Quick connect to condensate drain or pump
- Corrosion resistant

LWCU
- Factory wired and installed
- Probe type with test button
- Meets code where required
- Provides added protection
- 5:1 Turn down ratio
- Easy to understand English text display
- Outdoor reset maximizes fuel economy
- Priority domestic hot water meets changing demands
- Integrated multiple boiler control eliminates the need for costly multiple boiler controls

Quick Connect
- Simplified electrical connection and removable terminal block make wiring easy

Top Connections
- Approved for PVC, CPVC and Polypropylene venting

Bottom Connections
- Replacement ready with 1-1/4” piping connections and low pressure drop – no high head pump required

Wall Mount Bracket
- Bracket included
- Wall mount installation saves space
## Dunkirk VLT Natural or Propane Gas-Fired Modulating Condensing Hot Water Boiler

### Dimensions/Weights

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<th>AFUE %</th>
</tr>
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<tbody>
<tr>
<td>DXVT-050</td>
<td>50</td>
<td>10</td>
<td>46</td>
<td>40</td>
</tr>
<tr>
<td>DXVT-075</td>
<td>75</td>
<td>15</td>
<td>69</td>
<td>60</td>
</tr>
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<td>DXVT-100</td>
<td>100</td>
<td>20</td>
<td>91</td>
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<td>40</td>
<td>185</td>
<td>161</td>
</tr>
<tr>
<td>DXVT-295</td>
<td>295</td>
<td>60</td>
<td>273</td>
<td>239</td>
</tr>
</tbody>
</table>

1. The DXVT-295 and DXVT-295 are non-ASHRAE 90.1 compliant products that do not meet the IECC or HBE requirements for commercial and industrial applications.
2. Max. Btu/hr and Drn. Temp. limited to the max.
3. Heating Capacity and AFUE (Annual Fuel Utilization Efficiency) are based on AHRI (American Homeowners Radio) test procedures.
4. Net AHRI Ratings based on piping and fuel adjustment of 1.15. Contact Technical Support before selecting boiler for installations having unusual piping and fuel requirements. Each installation should be evaluated for its unique piping, design, and fuel requirements.

### General Information

<table>
<thead>
<tr>
<th>Section</th>
<th>Combustible Materials (Required)</th>
<th>Service (Option)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top</td>
<td>0’ (0 cm)</td>
<td>14’ (26 cm)</td>
</tr>
<tr>
<td>Left Side</td>
<td>0’ (0 cm)</td>
<td>0’ (0 cm)</td>
</tr>
<tr>
<td>Right Side</td>
<td>0’ (0 cm)</td>
<td>0’ (0 cm)</td>
</tr>
<tr>
<td>Front</td>
<td>0’ (0 cm)</td>
<td>6’ (16 cm)</td>
</tr>
<tr>
<td>Back</td>
<td>0’ (0 cm)</td>
<td>0’ (0 cm)</td>
</tr>
<tr>
<td>Bottom</td>
<td>0’ (0 cm)</td>
<td>12’ (22 cm)</td>
</tr>
<tr>
<td>Combustion Air Vent Pipe</td>
<td>0’ (0 cm)</td>
<td>6’ (16 cm)</td>
</tr>
<tr>
<td>Hot Water Piping</td>
<td>See Local Code</td>
<td>6’ (16 cm)</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>2’ Pipe 050</th>
<th>2’ Pipe 075/100</th>
<th>3’ Pipe 075/100</th>
<th>3’ Pipe 100/200</th>
<th>3’ Pipe 200</th>
<th>4’ Pipe 200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min. Length</td>
<td>6’ (1.8 m)</td>
<td>6’ (1.8 m)</td>
<td>6’ (1.8 m)</td>
<td>6’ (1.8 m)</td>
<td>6’ (1.8 m)</td>
</tr>
<tr>
<td>Max. Length</td>
<td>100’ (30.5 m)</td>
<td>100’ (30.5 m)</td>
<td>100’ (30.5 m)</td>
<td>120’ (36.6 m)</td>
<td>150’ (45.7 m)</td>
</tr>
</tbody>
</table>

### Connections

<table>
<thead>
<tr>
<th>Return/Supply Water</th>
<th>Gas In</th>
<th>Condensate Drain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2”NPT</td>
<td>1/2”NPT</td>
<td>3/4”NPT</td>
</tr>
<tr>
<td>3/4”NPT</td>
<td>3/4”NPT</td>
<td>3/4”NPT</td>
</tr>
</tbody>
</table>

### Water Content

- 050/075/100: 1.1 Gallons
- 150/200/300: 1.8 Gallons
- 200/300: 2.3 Gallons
- 300/400: 3.0 Gallons
- 400/500: 3.7 Gallons
- 500/600: 4.4 Gallons
- 600/700: 5.1 Gallons
- 700/800: 5.8 Gallons
- 800/900: 6.5 Gallons
- 900/1000: 7.2 Gallons
- 1000/1100: 7.9 Gallons
- 1100/1200: 8.6 Gallons
- 1200/1300: 9.3 Gallons
- 1300/1400: 10.0 Gallons

### Electrical

- 120 Volts AC, 60 hertz, 1 phase, less than 12 amps (10 amp circuit recommended)

### Standard Equipment

- Wall Mounted: Braced Included
- Boiler Control Module: Automatic/Low Voltage/Intermittent Direct Spark Ignition/Modulating with a 5:1 combustion turn down ratio. For multiple boiler applications - the control module can stage up to 16 boilers.
- User Display Interface: Easy programming with test display. Outdoor Temperature Sensor included.
- Heat Exchanger: High grade 316L Stainless Steel Fin Coil with Flame Sight Glass.
- Built-in Primary/Secondary Manifold Piping and Pump
- Combustion: Gas Valve with Premix Venturi and Bower, Durable Stainless Steel Mesh Modulating Burner with 5:1 turn down ratio. Direct Spark Ignition, Flame Sensor and LP Conversion Kit Included
- Electric: 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 available for 50 to 200 MBH only ( Taco-507 or Grundfos UP15-40B, Concentric Vent Kit (2” and 3”), System Sensor (For Multiple Boiler Applications)

### Certifications

- NSF, ASME
- UL
- Audited: 100 psi MAWP
- ULC: 30 psi

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PN2400008986 Rev 8/13

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**Helix VLT**

- Gas-Fired, Wall Hung Modulating Condensing Boiler
- Up to 95% AFUE
- Built-In Primary/Secondary Piping cuts installation time in half
- Built-In Low Water Cut Off
- 5:1 Turn Down Ratio
- Innovative Heat Exchanger
  - Low Maintenance, Self-Cleaning
  - Designed in the U.S., for the U.S.
  - 150 psi MAWP