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

## Dimensions/Weights

<table>
<thead>
<tr>
<th>Model</th>
<th>Max</th>
<th>Min</th>
<th>Heating Capacity (MBH)</th>
<th>Net AHRI Rating, Water (MBH)</th>
<th>AFUE %</th>
</tr>
</thead>
<tbody>
<tr>
<td>DXVLT-250</td>
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<td>10</td>
<td>273</td>
<td>239</td>
<td>94.0</td>
</tr>
</tbody>
</table>

* The DXVLT-250 and DXVLT-250P have an AFUE of 94.0% and an A-1272/A-007 heat exchanger but do not meet the 95% criteria for 2015 Most Efficient.

## General Information

- **Clearances:** (4) Required clearances measured from floor.
- **Service:** Proper operation clearance recommendations.
- **Combustion Air/Modulating Gas Vent Pipe Equiv:** 40 PVC (Schedule 40, Wall Thickness 0.280 in.).
- **Hot Water Piping:** See Local Code.
- **Connections:** Return/Supply Water, Gas In, Condensate Drain.
- **Water Content:** 0.059/5" x 0.060 - 1.1 Gallons, 150/090/099 - 1.8 Gallons.

## Standard Equipment

- **Watt Mouted:** Bracket included.
- **Boiler Control Module:** Automatic Line Voltage/Intermittent Direct Spark Ignition/Modulating with a 5:1 combustion turndown ratio. For multiple boiler applications it can stage up to 16 boilers.
- **Low Loss Interlock System:** All programming and test display, Optional Outdoor Temperature Sensor included.
- **Heat Exchanger:** High grade stainless steel (416) with Flame Sight Glass.
- **Boiler Primary Secondary Modulating Piping and Pumps:** Combustion: Gas Valve with Premix Venturi and Blower, Durable Stainless Steel Intermodal Modulating Burner with 0.1 in. diametric. Direct Spark Ignition, Flame Sensor and LP Combustion Air Included.
- **Electrical:** Detachable Low Voltage Terminal Strip, High Voltage Junction Box and Transformer.
- **Other:** Factory installed modulating Low Water Cut Out with 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 (Tasco 079 or Grundfos UP15-4SF).
- Condensing Water Kit (5" and 3") and System Sensor for Multiple Boiler Applications.

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**PN240005886 Rev 1/14**

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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

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**Innovative. Efficient. Dependable. Dunkirk.**

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**Dunkirk.com**
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 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.

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 build-up. This durable, efficient water heater is a great value.

Dependable

Dunkirk holds its 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 tests every single boiler and checks all of the electrical, plumbing, pressure vessel and combustion set up 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 15-year limited manufacturer’s warranty, we also back it up with an industry-leading first year $500 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 $5,000 annually to heat your home, you could save as much as $2,250 per year.

= That's $3,600 over 5 years!“

“Estimated based on federal “performance first rebate” 10% rebates and state tax credits. Actual rebates may vary.

H2O (40 gal)

Helix VLT 190 MBH

H2O VLT 290 MBH

Heat Exchanger

- 316L/444 stainless steel fin tube
- Vertically mounted self-cleaning
- 195 psi MMP
- Designed in the U.S. for the U.S.

Non-Metallic Flow Collector

- Corrosion resistant

Central Features

- Factory wired and installed
- Probe type with test button
- Meets code where required
- Provides added protection

- 11 Turn down ratio
- Easy to understand English text display
- Outdoor reset maximizes fuel economy
- Provides domestic hot water reheat demand
- 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
- Replacement parts with 1/4" piping connections and four pressure drops
- no high head pump required

Wall Mount Bracket

- Bracket included
- Wall mount installation saves space
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 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.

With the recent addition of a 290 MBH capacity, the Dunkirk Helix VLT offers even more application flexibility with six modulating capacities from 50 to 290 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 build-up. 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 tests every boiler and checks all of the electrical, plumbing, pressure vessel and combustion set-up 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 $500 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 $5,000 annually to heat your home, you could save as much as $2,250 per year.

= That’s $3,600 over 5 years!”

*L. Outdoor test conditions: temperature 70F, outdoor temperature 50F, system efficiency 85%.

H2O (40 gal)

Helix VLT 190 MBH

Heat Exchanger

- 39L/444 stainless steel fin tube
- Vertically mounted
- Self-cleaning
- 190 psig MWP
- Designed in the U.S.

Integral Condensate Trap
- Large diameter
- Quick connect to condensate drain or pump

Non-Metallic Flow Collector
- Corrosion resistant

Quick Connect

- Factory wired and installed
- Pro-Rel type with test button
- Alerts code when required
- Provides added protection
- 5.1 Turn down ratio
- Easy to understand English text display
- Outdoor vent maximizes flue efficiency
- Priority domestic hot water reheat demand
- Integrated multiple boiler control eliminates the need for costly multiple boiler controls

Top Connections

- Approved for PVC, CPVC and Polypropylene venting

Bottom Connections

- Replacement-noisy with 1-1/4”spigot connections and four pressure drops
- no hot water 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

<table>
<thead>
<tr>
<th>Dimensions/Weights</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width (in)</td>
<td>43</td>
</tr>
<tr>
<td>Height (in)</td>
<td>30</td>
</tr>
<tr>
<td>Depth (in)</td>
<td>18.3</td>
</tr>
<tr>
<td>Max. Weight</td>
<td>122 lbs</td>
</tr>
<tr>
<td>Min. Weight</td>
<td>61 lbs</td>
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## Model Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Boiler Input Rate (MBH)</th>
<th>Heating Capacity (MBH)</th>
<th>Net AHRI Rating/Net Water (MBH)</th>
<th>AFUE %</th>
</tr>
</thead>
<tbody>
<tr>
<td>DXVLT-025</td>
<td>50</td>
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<td>DXVLT-299</td>
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<td>273</td>
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</tr>
</tbody>
</table>

* The DXVLT-025 and DXVLT-075 have an AFUE of 95% and an EER/DHWH heat rate of 84,000 Btu/hr/natural gas.

## General Information

### Clearance Requirements

- Top: 0" (0 cm) | 14" (36 cm)
- Left: 0" (0 cm) | 0" (0 cm)
- Right: 0" (0 cm) | 0" (0 cm)
- Front: 0" (0 cm) | 0" (10 cm)
- Back: 0" (0 cm) | 0" (0 cm)
- Bottom: 0" (0 cm) | 12" (30 cm)

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

<table>
<thead>
<tr>
<th>2&quot; Pipe</th>
<th>3&quot; Pipe</th>
<th>4&quot; Pipe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min. Length</td>
<td>6 FT (1.8 m)</td>
<td>6 FT (1.8 m)</td>
</tr>
<tr>
<td>Max. Length</td>
<td>150 FT (45.7 m)</td>
<td>150 FT (45.7 m)</td>
</tr>
</tbody>
</table>

### Connections

- Return/Supply Water: 1-1/4" NPT (3/4" NPT)
- Gas In: 1-1/4" NPT (3/4" NPT)
- Condenser Drain: 3/4" NPT (1/2" NPT)

## Water Content

| Water Content | 0.09% to 0.10% | 1.1 Gallons |

## Standard Equipment

- Bolted Control Module: Automatic Line Voltage/Intermittent Direct Spark Ignition Modulating with a 0-10 V control input and relay output. For multiple boiler applications, the control module can step up to 6 boilers.
- Low Voltage Interface: Easy programming with settings display and Outdoor Temperature Sensor included.
- Heat Exchanger: High grade Stainless Steel with Flame Sight Glass.
- Bolted Primary/Secondary Manifold: Piping and Piping Connections.
- Combustion: Gas Valve with Premix Vent and Blower, Durable Stainless Steel Mesh Modulating Burner with 0.1 in. diameters, Direct Spark Ignition, Flame Sensor and LP Low Pressure Sensor Available.
- Electrical: Delicate Low Voltage Terminal Strip, High Voltage Junction Box, Transformer.
- Other: Factory installed low head Low Water Cut Off with float switch, 30 PSI Safety Relief Valve, Boiler Drain Valve and Condensate Drain with built-in trap.

## Options

- Central Heating Pumps available for 50 to 200 MBH only (Decoder 007 or Decoders L15-45S, Central Kit with 3 and 5, System Sensor (For Multiple Boiler Applications))