



High to Mid-Efficiency Residential
& Commercial Heating Solutions

Innovative. Efficient. Dependable. Dunkirk.

Boilers and Indirect Water Heaters



Helix VLT Series
Gas-Fired
Condensing Boiler

UP TO
95%
AFUE



DXL Series
Gas-Fired
Boiler

UP TO
83.5%
AFUE



Excelsior
EXB Series
Oil-Fired Boiler

UP TO
86.5%
AFUE



H₂O Series
Indirect Water
Heater



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Dunkirk Gas-Fired Condensing Boilers represent the optimum combination of high efficiency, innovative technology, and simplicity of design.

The Value of High Efficiency Heating

Now more than ever, homeowners are concerned about making sure their heating systems are as efficient, reliable and affordable as possible. With efficiencies as high as 95% AFUE, Dunkirk gas-fired condensing boilers dramatically reduce fuel consumption, providing substantial annual fuel savings for homeowners.

Helix VLT Stainless Steel Wall Mounted Modulating Condensing Boiler

The Dunkirk Helix VLT Modulating Condensing Boiler features a revolutionary, vertically mounted, helical fin tube heat exchanger, made of 316L/444 stainless steel.

The Helix VLT 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 non-metallic 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.

Tested for Dependability

Each VLT boiler manufactured undergoes a rigorous set of quality control checks (electrical, plumbing, pressure vessel and combustion set up parameters) prior to shipping. Computer generated test results are included with the boiler for installation reference.

Helix VLT Features

- Up to 95% AFUE
 - Sealed Combustion
 - Outdoor Temperature Reset*
 - Available in 50, 75, 100, 150, 200 & 299 MBH capacities
 - Built-In Primary/Secondary Piping
 - Built-In LWCO
 - 5:1 Turn Down Ratio
 - Approved for PVC, CPVC and Polypropylene venting.
- * 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 up to 40% on heating bills each year. (Individual savings may vary.)

Q95M-200 Q90-200 Series II Q90-100 Series IV

High-Tech Heat Exchangers

The Q95M-200 and Q90-200 Series II and Q90-100 Series IV boilers feature cast aluminum heat exchangers which transfer heat three times faster with greater thermal conductivity than conventional cast iron. Cast aluminum produces enormous gains in heat-up speed and operating efficiency. Also, the packaged boilers are light weight for easier installation.

Safe, Economical CPVC and PVC Vent Pipe

Cooled flue gas can be safely vented through inexpensive readily available and easy to install PVC, after appropriate length of manufacturer provided CPVC. The air intake also utilizes PVC pipe.

Sealed Combustion, Direct-Vent System

Unlike conventional residential atmospheric and induced draft boilers, the Q95M-200, Q90-200 Series II and Q90-100 Series IV boilers draw fresh air from outdoors for combustion, instead of using air from inside the home, making them run quieter than a traditional boiler.

Environmentally Friendly

The direct-vent systems of the Q95M-200, Q90-200 Series II and Q90-100 Series IV boilers feature premix gas burners and low flame temperature which reduces CO and NOx emissions (acid rain and smog components).

DKVLT

MODULATING GAS-FIRED STAINLESS STEEL BOILERS



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.

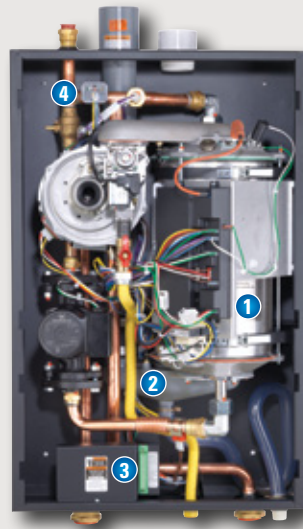


Wall Mount Bracket
Bracket included.

Wall mount installation saves space.



DKVLT 299 MBH



DKVLT 50-200 MBH

1 **Control** features simple text display, outdoor reset, priority domestic hot water and integrated multiple boiler control for up to 16 modules.



1 **Stainless Steel Heat Exchanger**

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



DKVLT 50-200 MBH



DKVLT 299 MBH

2 **Flue Collector**
Corrosion resistant, non-metallic.

3 **Electrical Connections**
Simplified electrical connections with removable terminal block.

4 **Low Water Cut Off**
Factory wired and installed, probe-type low water cut off with test button

STANDARD EQUIPMENT

- **Wall Mounting:** Bracket included.
- **Boiler Control Module:** Automatic Line 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 text display. Outdoor Temperature Sensor included
- **Heat Exchanger:** High grade 316L/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 007 or Grundfos UP15-42F)
- Concentric Vent Kit (2" and 3")
- System Sensor (For Multiple Boiler Applications)

SPECIFICATIONS

- Gas Fired Direct Vent Condensing Hot Water Boiler
- Uses natural or LP gas
- Clearance for Combustible Materials: 0" clearance to Rear, Top, Front, Left Side, Right Side and Base. See local code for Hot Water Piping.
- Clearance for Service: 14" clearance to Top, 6" to Front, 0" to Back, Left and Right Sides, 12" to Bottom, 6" to Combustion Air/Vent Piping, 6" to Hot Water Piping
- Water content in Heat Exchanger: 050/075/100 – 1.1 gal., 150/200/299 – 1.8 gal.

CONNECTIONS

- 120 Volts AC, 60 hertz, 1 phase, less than 12 amps (15 amp circuit recommended)
- Vent pipe and air intake pipe (schedule 40 PVC)
 - 2" pipe: 6 ft. min. (050/075/100)
 - 2" pipe: 100 ft. max. (050), 50 ft. max. (075/100)
 - 3" pipe: 6 ft. min. (075/100/150/200/299)
 - 3" pipe: 100 ft. max. (075/100/150/200), 25 ft. (299)
 - 4" pipe: 6 ft. min. (299)
 - 4" pipe: 100 ft. max. (299)
- Water In/ Out 1-1/4" NPT
- Gas In (050/075/100) 1/2" NPT
- Gas In (150/200/299) 3/4" NPT
- Condensate Drain 3/4" NPT

RATINGS & SPECIFICATIONS

MODEL	INPUT (MBH)		HEATING CAPACITY (MBH)	AHRI NET RATING (MBH)	AFUE (%)	SHIPPING WEIGHT (LBS.)
	MAX.	MIN.				
DKVLT-050	50	10	46	40	95.0	91
DKVLT-075	75	15	69	60	95.0	91
DKVLT-100	100	20	91	79	95.0	91
DKVLT-150	150	30	139	121	95.0	182
DKVLT-200*	200	40	185	161	94.0	182
DKVLT-299*	299	60	273	239	94.0	225

* Note: The DKVLT-200 and DKVLT-299 have an AFUE of 94% and are ENERGY STAR rated products, but they do not meet the 95% criteria for 2013 Most Efficient.

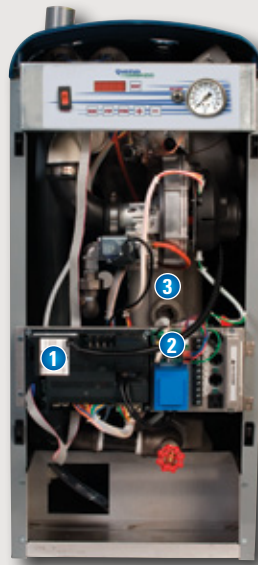


Q95M-200

MODULATING GAS-FIRED CAST ALUMINUM BOILERS



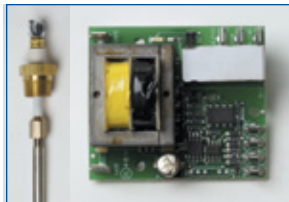
UP TO
92.5^{0/0}
AFUE



- 1 Modulating Control**
Advanced microprocessor control monitors supply and return water temperature, adjusting boiler output to match building load.
- 2 Low Water Cut-Off**
For safe reliable operation.
- 3 Cast Aluminum Mono Block**
A one piece heat exchanger eliminates section interface leaks and incorporates wide water ways that reduce pressure drop and the need for high head pumps.
- Outdoor Temperature Reset Sensor (Not Shown)**
Further optimizes fuel usage based on outdoor conditions.



Easily accessible front mount controls.



Factory installed, probe type, LWCO accurately senses water level to help prevent dry firing. Meets local codes requirements.

STANDARD EQUIPMENT

- **Boiler Control Module:** Microprocessor based Modulating Control, Hi-Limit Control.
- **User Display Interface:** Temperature Display. Outdoor temperature sensor with cover included.
- **Heat Exchanger:** Cast Aluminum Monoblock.
- **Combustion:** Modulating Automatic Gas Valve, Modulating Burner, Direct Spark Igniter, LP Conversion Kit included. Modulating Blower, Manual Reset Casting Temperature Switch, Air Proving/Blocked Vent Safety Assembly, Air Purge Vent.
- **Electrical:** Service Switch, Service Receptacle Outlet.
- **Other:** Circulator (Taco 007 or Grundfos), Manual Reset Low Water Cutoff, Pressure Gauge, 30 PSI Safety Relief Valve, Integral Condensate Trap, Combination Painted Metal and Durable Plastic Jacket.

OPTIONS

- Concentric Vent Kit
- AMB Multiple Boiler Control – outdoor reset, priority override, lead boiler run time rotation. Available in two sizes to allow stage firing of up to 8 boilers.

SPECIFICATIONS

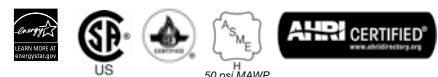
- Gas Fired Direct Vent Condensing Hot Water Boiler
- Uses natural or LP gas
- May be installed on combustible flooring (No Carpets)
- Clearance to Combustibles: 1" Top, Left, Right, Bottom, 0" Front, 6" Back, 0" Combustion Air/Vent Piping.
- Service Clearances: 8" Top, 24" Left and Front, 0" Right, Back and Bottom.
- Option of Left, Right, or Rear Exit for return plumbing and gas piping
- Water content in Heat Exchanger is 2.6 gallons.

CONNECTIONS

- 120 Volts AC, 60 hertz, 1 phase, less than 12 amps
- Vent pipe and air intake pipe
 - Vent Pipe - first 2.5 feet is schedule 80 2" CPVC (provided), then schedule 40 3" PVC
 - Air intake – schedule 40 3" PVC
- Water In/ Out. 1-1/4" NPT
- Gas In 1/2" NPT
- Condensate Drain. 1/2" PVC
- Vent length runs – minimum of 15 ft. with a maximum of 100 equivalent ft.

RATINGS & SPECIFICATIONS

INPUT (MBH)	HEATING CAPACITY (MBH)	AHRI RATING (MBH)	AFUE (%)	FLUE DIAMETER	SHIPPING WEIGHT (LBS.)
Max 200	182	158	92.5	3"	284
Min 80	75	65	92.5	3"	284



Q90-200 Series II

GAS-FIRED CAST ALUMINUM HOT WATER BOILERS



- High Efficiency Cast Aluminum Monoblock Heat Exchanger with low pressure drop.
- Fuel Smart Hydrostat Control: 3 functions in 1 Control.
 - Temperature Limit Control with easy dial settings and function indicator lights.
 - Low Water Cut-Off (LWCO), protects the boiler from damaging low water conditions.
 - Boiler Reset, lowers the boiler temperature to save fuel without sacrificing comfort. Set-up is quick with no need to install an outdoor sensor, just dial in the number of heating zones.
- Integrated Microprocessor Control.
- Sealed Combustion, Direct Vent Forced Draft System.
- Utilizes CPVC, PVC and is now approved for Polypropylene venting.
- Integral Combustible Floor Plate.
- Casting Temperature Safety Switch & Air Flow Pressure Switches.
- Limited 15 Year Warranty.

STANDARD EQUIPMENT

- **Boiler Control Module:** Integrated Microprocessor Control, Hi-Limit Control, Boiler Reset Control, Automatic Reset LWCO, Diagnostic Indicator Lights.
- **Heat Exchanger:** Cast Aluminum Monoblock.
- **Combustion:** Completely installed and wired safety control system with Stainless Steel Pre-Mix Gas Burner, Automatic Gas Valve, Hot Surface Igniter, Forced Draft Blower, Air Vent.
- **Electrical:** Transformer, Service Switch & Outlet.
- **Other:** Assembled boiler with pre-painted steel jacket, Combination Temperature/Pressure Gauge, 30 psi ASME Relief Valve, Casting Temperature Safety Switch, Air Flow Pressure Switches, Boiler Drain.

SPECIFICATIONS

- Gas-fired, Direct-vent Condensing Hot Water Boiler
- May be installed on combustible flooring (No Carpets)
- Clearance to Combustibles: 1" Top/Right/Base & Back, 0" for Vent and Air Intake pipes
- Servicing Clearance: 24" Front/Left, 8" Top.

CONNECTIONS

- 120 Volts AC, 60 hertz, 1 phase, less than 12 amps
- Vent pipe and air intake pipe
 - Vent Pipe – first 5 feet is schedule 80 - 2" CPVC (provided), then schedule 40 - 2 or 3" PVC
 - Air intake – schedule 40 - 3" PVC
- Water In/ Out 1-1/4" NPT
- Gas In 1/2" NPT
- Condensate Drain 1/2" PVC

RATINGS & SPECIFICATIONS

MODEL	INPUT (MBH)	HEATING CAPACITY (MBH)	AHRI NET RATING (MBH)	AFUE (%)	SHIPPING WEIGHT (LBS.)
Q90-125	125	113	98	90.0	284
Q90-150	150	134	117	90.0	284
Q90-175	175	158	137	90.0	284
Q90-200	200	180	157	90.0	284



Q90-100 Series IV

GAS-FIRED CAST ALUMINUM HOT WATER BOILERS



- High Efficiency Cast Aluminum Heat Exchanger with low pressure drop.
- Hot Surface Ignition (HSI) Boiler Control
- Hydrolevel Combination High Limit and Low Water Cut Off Control with boiler water temperature reset feature
- Small compact design is ideal for low clearance/limited space installations
- Stainless Steel Premix Burner for Corrosion resistance
- Sealed Combustion – now approved for Polypropylene venting
- Induced Draft Blower with adjustable exhaust (front, right side or rear)
- Easy to Install & Service:
 - Choice of multiple supply and return locations (front, right side or rear)
 - Leveling Legs
 - Junction Box provided
 - Removable control panel for quick access.
 - Low profile condensate trap provides easy plumbing of condensate drain lines
- Limited 15 Year Warranty.

STANDARD EQUIPMENT

- **Boiler Control Module:** HSI Integrated Boiler Control
- **Combination Hydrolevel High Limit and LWCO** with boiler water temperature reset feature
- **Heat Exchanger:** Cast Aluminum Heat Exchanger
- **Combustion:** Stainless Steel Premix Burner
- **Induced Draft Blower** with adjustable exhaust (front, right side or rear), Inducer Motor Assembly, includes 5" schedule 80 2" CPVC and CPVC Tee
- **Electrical:** Junction Box, Transformer and Wiring Harness.
- **Textured painted steel jacket**
- **Other:** Temperature/Pressure Gauge, 30 PSI Safety Relief Valve, Pressure Switch(es), Low Profile Condensate Trap, Air Vent and Leveling Legs

SPECIFICATIONS

- Gas-fired, Direct-vent Condensing Hot Water Boiler
- Clearance to Combustibles: 1" Top/Left/Base/Front/Back, 1" Right Side, 0" for Vent and Air Intake Pipes
- Service Clearances: 24" Front, 8" Top

CONNECTIONS

- 120 Volts AC, 60 hertz, 1 phase, less than 12 amps
- Refer to IOM and vent pipe manufacturer's instructions for equivalent vent lengths and alternate venting materials.
- Water In/ Out..... 1-1/4" NPT
- Gas In..... 1/2" NPT
- Condensate Drain..... 1/2" NPT

RATINGS & SPECIFICATIONS

MODEL	INPUT (MBH)	HEATING CAPACITY (MBH)	AHRI NET RATING (MBH)	AFUE (%)	SHIPPING WEIGHT (LBS.)
Q90-50	50	45	39	90.0	220
Q90-75	75	68	59	90.0	220
Q90-100	100	90	78	90.0	220



DXL Series

GAS-FIRED CAST IRON WATER BOILER



UP TO
83.5%
AFUE

- 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.
- Advanced Fuel Smart Hydrostat Control: 3 Functions in 1 Control
 - Temperature limit with LED display and easy dial settings. Diagnostic and function indicator lights.
 - Low Water Cut-Off (LWCO), protects the boiler from damaging low water conditions.
 - Boiler Reset, lowers the boiler temperature to save fuel by turning on the burner only when needed. Setup is quick with no need to install an outdoor sensor; just dial in the number of heating zones.

- Atmospheric Chimney Vent Boiler with Integral Draft Diverter. The Integral Draft Hood reduces the overall height and footprint of the boiler making it ideal for low clearance/space limited installations.
- Textured paint Jacket with easy service access.
- Cast to Last Warranty – 20 year non-prorated limited warranty



STANDARD EQUIPMENT

- **Boiler Control Module:** Recessed Fuel Smart Hydrostat Temperature Limit, LWCO and Boiler Reset Control with Circulator Relay and Domestic Hot Water Input Override.
- **User Display Interface:** Temperature LED display with dial-type settings and diagnostic indicator lights.
- **Heat Exchanger:** Cast Iron Sections with Cast Iron Push Nipples.
- **Combustion:** Completely Installed and Wired Gas Control System with Burners and Manifold consisting of Stainless Steel Burners, Automatic Redundant Combination Gas Valve, 24 Volt Intermittent Pilot Control, Continuous Retry 100% Shut-Off, Combination Pilot Burner/Electrode/Sensor.
- **Electrical:** 24v Transformer
- **Safety:** Flame Roll-Out Safety Shut-Off and Manual Reset Blocked Vent Safety Shut-Off.
- **Other:** Boiler Jacket, Integral Draft Diverter, Combination Temperature/Pressure Gauge, Circulator Pump, 3/4" Drain Valve, 30 lb. ASME Relief Valve.

OPTIONS

- Central Heating Pump (Taco, Grundfos, or Less Pump)
- LP Conversion Kit
- Combustible Floor Plate
- Fill-Trol.

SPECIFICATIONS

- Gas-Fired Atmospheric Chimney Vent Boiler with Integral Draft Diverter
- Uses natural or LP gas (Use LP Conversion Kit)
- Clearance for Combustible Materials: Top 18", Left Side 3", Right Side (Control Side) 9", Front – Alcove*, Back 4", Flue Connector 6"
 - * Definition of Alcove is three-sided space with no wall in front of boiler. ANSI standard for alcove is 18 inches from appliance to leading edge of side walls as shown in IOM.
- Water content in heat exchanger: 050 - 2.4 gal., 75/100 - 4.0 gal., 125/150 - 5.6 gal., 170/200 - 7.2 gal.

CONNECTIONS

- 120 Volts AC, 60 hertz, 1 phase, less than 12 amps (15 amp circuit recommended)
- Water In/Out. 1-1/4" NPT
- Gas In (All Capacities) 1/2" NPT

RATINGS & SPECIFICATIONS							
MODEL	STANDARD INPUT RATE (MBH) ⁽¹⁾	HIGH ALTITUDE INPUT RATE (MBH) ⁽¹⁾	HEATING CAPACITY (MBH) ⁽¹⁾	NET AHRI RATING WATER (MBH) ⁽²⁾	AIR CUSHION TANK ⁽³⁾	NO. OF BURNERS	AFUE %
DXL-50	50	45	42	37	15	1	83.5%
DXL-75	75	67.5	63	55	15	2	83.1%
DXL-100	100	90	83	72	30	2	83.0%
DXL-125	125	112.5	104	90	30	3	82.0%
DXL-150	150	135	124	108	30	3	83.0%
DXL-170	170	153	139	121	30	4	82.0%
DXL-200	200	180	165	143	30	4	82.0%

(1) Input rating for sea level to 2,000 ft. (610m) above sea level. United States, over 2000 ft. (610m) above sea level. Reduce input rate 4% for every 1000 ft. (304m) above sea level.

(2) Net AHRI Water Ratings shown based on piping and pickup allowance of 1.15. Consult manufacturer before selecting boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.

For forced hot water systems where boiler and all piping within area to be heated, boiler may be selected on basis of its heating capacity.

(3) Recommended tank sizes for non-ferrous baseboard or radiant panel systems. Increase size for cast iron baseboard and radiation.



WPSB Series II

GAS-FIRED CAST IRON WATER BOILER



UP TO
84.1%
AFUE

- Available in 7 sizes from 75 to 299 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.
- Advanced Fuel Smart Hydrostat Control: 3 Functions in 1 Control – Temperature limit with LED display and easy dial settings. Diagnostic and function indicator lights.
 - Low Water Cut-Off (LWCO), protects the boiler from damaging low water conditions.
 - Boiler Reset, lowers the boiler temperature to save fuel by turning on the burner only when needed. Set-up is quick with no need to install an outdoor sensor; just dial in the number of heating zones.
- Atmospheric Chimney Vent Boiler with Integral Draft Hood and Vent Damper. The Integral Draft Hood reduces the overall height and footprint of the boiler making it ideal for low clearance/space limited installations.
- Textured paint Jacket.
- Cast to Last Warranty – 20 year non-prorated limited warranty



STANDARD EQUIPMENT

- **Boiler Control Module:** Fuel Smart Hydrostat Temperature Limit, LWCO and Boiler Reset Control with Circulator Relay and Domestic Hot Water Input Override.
- **User Display Interface:** Temperature LED Display with dial-type settings and diagnostic indicator lights
- **Heat Exchanger:** Cast Iron Sections with Cast Iron Push Nipples.
- **Combustion:** Completely Installed and Wired Gas Control System consisting of: Titanium Composite Burners, Gas Manifold with Orifices, Automatic Redundant Combination Gas Valve, 24 Volt with Pilot Filter and Regulator Intermittent Pilot Control, Continuous Retry 100% Shut Off, Combination Pilot Burner/Electrode/Flame Sensor.
- **Safety:** Flame Roll-Out Safety Shut-Off (Fuse Link) and Blocked Vent Safety Shut-Off Manual Reset Disc Thermostat (Spill Switch) with Spare Fuse Link included.
- **Other:** Assembled Boiler with Insulated Jacket, Integral Draft Diverter, Vent Damper, Combination Temperature/Pressure Gauge, Circulator Pump Wired with 5' Harness for Supply or Return Field Mounting, 3/4" Drain Valve, 30 lb. ASME Relief Valve.

OPTIONS

- Natural Gas and Propane (DP) models available
- Combustible Floor Plate
- Fill-Trol

SPECIFICATIONS

- Gas-Fired Atmospheric Chimney Vent Boiler with Integral Draft Hood and Vent Damper Uses natural or LP gas
- Clearance for Combustible Materials: Top 6", Left Side 6", Right Side (Control Side) 7", Front – Alcove*, Back 6", Flue Connector 6"
 - * Definition of Alcove is three-sided space with no wall in front of boiler. ANSI standard for alcove is 18 inches from appliance to leading edge of side walls as shown in IOM.
- Water content in heat exchanger: WPSB-3 - 6.3 gal., WPSB-4 - 8.1 gal., WPSB-5 - 9.9 gal., WPSB-6 - 11.7 gal., WPSB-7 - 13.5 gal., WPSB-8 - 15.3 gal., WPSB-9 - 17.2 gal.

CONNECTIONS

- 120 Volts AC, 60 hertz, 1 phase, less than 12 amps (15 amp circuit recommended)
- Water In/Out 1-1/4" NPT
- Gas In (All Capacities) 1/2" NPT

RATINGS – NATURAL GAS (D) / PROPANE (DP)

MODEL	INPUT RATE (MBH) ⁽¹⁾	HEATING CAPACITY (MBH) ⁽¹⁾	NET AHRI RATING, WATER (MBH) ⁽²⁾	AFUE %
WPSB-3D/DP	75/70	63/59	55/51	84.0%
WPSB-4D/DP	112/105	94/88	82/77	84.0%
WPSB-5D/DP	150/140	126/118	110/103	84.1%
WPSB-6D/DP	187/175	157/147	137/128	84.1%
WPSB-7D/DP	225/210	188/176	163/153	84.0%
WPSB-8D/DP	262/245	220/206	191/179	83.9%
WPSB-9D/DP	299/280	251/235	218/204	83.7%

(1) Input rating for sea level to 2,000 ft. (610m) above sea level. United States, over 2000 ft (610m) above sea level. Reduce input rate 4% for every 1000 ft (304m) above sea level.

(2) Net AHRI Water Ratings shown based on piping and pickup allowance of 1.15. Consult manufacturer before selecting boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.

For forced hot water systems where boiler and all piping within area to be heated, boiler may be selected on basis of its heating capacity.



XEB Series II

GAS-FIRED CAST IRON WATER BOILER



UP TO
84.4%
AFUE

- Available in 6 sizes from 42 MBH to 225 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.
- Honeywell High Limit/Electronic Ignition Control.
 - Recessed under the boiler's protective jacket
 - Digital temperature display and diagnostics
 - Plug in connection for the inducer fan
 - Plug in connection for the system pump
- Induced Draft Fan – allows flue gases to be pulled through the boiler and exhausted through a chimney or side-wall vent.
- Textured paint Jacket. Small compact design is ideal for low clearance installations.
- Cast to Last Warranty – 20 year non-prorated limited warranty



Control monitors the water temperature and delays the burner starting until residual heat has been transferred. This maximizes efficiency by turning on the burner only when needed.

STANDARD EQUIPMENT

- **Boiler Control Module:** Recessed Honeywell Control (High Limit/Electronic Ignition Control).
- **User Display Interface:** Digital Temperature Display.
- **Heat Exchanger:** Cast Iron Sections with Cast Iron Push Nipples.
- **Combustion:** Completely Installed and Wired Gas Control System with Titanium Composite Burners and Manifold consisting of: Automatic Redundant Combination Gas Valve, 24 Volt Intermittent Pilot Control, Continuous Retry 100% Shut Off, Combination Pilot Burner/Electrode/Flame Sensor.
- **Electrical:** 24 Volt Transformer, Service Switch.
- **Safety:** Flame Roll-Out Safety Shut-Off (Fuse Link) and Pressure Switch (vent safety shutoff) with Spare Fuse Link included.
- **Other:** Assembled Boiler with Insulated Jacket, Induced Draft Fan, Combination Temperature/ Pressure Gauge, Circulator Pump, 3/4" Drain Valve, 30 lb. ASME Relief Valve.

OPTIONS

- Natural Gas or Propane
- Combustible Floor Plate
- Fill-Trol
- Thimble
- Sidewall Vent Hood

SPECIFICATIONS

- Gas-Fired Atmospheric Chimney Vent Boiler with Induced Draft Fan
- Uses natural or LP gas
- Clearance for Combustible Materials: Top 6", Left Side 6", Right Side (Control Side) 8", Front – Alcove*, Back 6", Flue Connector 6"
 - * Definition of Alcove is three-sided space with no wall in front of boiler. ANSI standard for alcove is 18 inches from appliance to leading edge of side walls as shown in IOM.
- Water content in heat exchanger: XEB-2 - 1.75 gal., XEB-3 - 3.00 gal., XEB-4 - 4.25 gal., XEB-5 - 5.50 gal., XEB-6 - 6.75 gal., XEB-7 - 8.00 gal.

CONNECTIONS

- 120 Volts AC, 60 hertz, 1 phase, less than 12 amps (15 amp circuit recommended)
- Water In/Out 1-1/4" NPT
- Gas In (All Capacities) 1/2" NPT

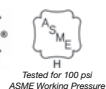
RATINGS & SPECIFICATIONS

MODEL	INPUT RATE (MBH) ⁽¹⁾	HEATING CAPACITY (MBH) ⁽¹⁾	NET AHRI RATING, WATER (MBH) ⁽²⁾	VENT DIAMETER		AFUE %
				TO CHIMNEY ⁽³⁾ (CATEGORY I)	HORIZONTAL VENT (CATEGORY III)	
XEB-2	42	36	31	4"	3"	84.4%
XEB-3	75	63	55	4"	3"	83.4%
XEB-4	112	94	82	4"	3"	83.0%
XEB-5	150	125	109	4"	3"	82.7%
XEB-6	187	155	135	4"	4"	82.3%
XEB-7	225	186	162	4"	4"	82.0%

(1) Input rating for sea level to 2,000 ft. (610m) above sea level. United States, over 2000 ft (610m) above sea level. Reduce input rate 4% for every 1000 ft (304m) above sea level.

(2) Net AHRI Water Ratings shown based on piping and pickup allowance of 1.15. Consult manufacturer before selecting boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc. For forced hot water systems where boiler and all piping within area to be heated, boiler may be selected on basis of its heating capacity.

(3) Boiler is provided with a 3" x 4" increaser for chimney vent applications. This does not infer that the connection to the chimney will always be 4". Please refer to IOM, National Fuel Gas Code, ANSI Z223.1/NFPA54, or applicable provisions of the local building codes for details concerning proper chimney connections.



PSB Series

GAS-FIRED CAST IRON STEAM BOILER



- Available in 9 sizes from 75 to 299 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.
- LWCO (Probe Type), Pressure High Limit Control, Pressure Gauge, Gauge Glass.
- Atmospheric Chimney Vent Boiler with Integral Draft Hood and Vent Damper. Low profile compact design makes it ideal for low clearance installations.
- Brass/copper pig tail siphon for long life.
- Textured paint jacket.
- 12 Year Cast to Last Limited Warranty (Residential Applications).



STANDARD EQUIPMENT

- **Boiler Control Module:** Electronic Low Water Cut-Off with 3/4" Probe, Pressure Limit Control, Steam Pressure Gauge and Glass Water Level Gauge.
- **Heat Exchanger:** Cast Iron Sections with Cast Iron Push Nipples.
- **Combustion:** Completely installed and wired gas control system consisting of: Titanium Composite Burners, Gas Manifold with Orifices, Automatic Redundant Combination Gas Valve, 24 Volt, with Pilot Filter and Regulator, Intermittent Pilot Control, Continuous Retry 100% Shut-Off; Combination Pilot Burner/Electrode/Flame Sensor and Integral Draft Diverter.
- **Electrical:** 24 Volt Transformer.
- **Safety:** Flame Roll-Out Safety Shut-Off Fuse Link (Roll-Out Switch) and Blocked Vent Safety Shut-Off Manual Reset Disc Thermostat (Spill Switch) with Spare Fuse Link included.
- **Other:** Assembled Boiler with Insulated Jacket, 3/4" Boiler Drain Valve, 15 psi ASME Pop Safety Valve, (2) 2 1/2" Supply Tappings and (2) 2 1/2" Return Tappings (2) 2 1/2" Square Head Pipe Plugs - to plug unused supply and return tappings.

SPECIFICATIONS

- Gas-Fired Atmospheric Chimney Vent Boiler with Integral Draft Hood and Vent Damper
- Uses natural or LP gas
- Clearance for Combustible Materials: Top 6", Left Side 7", Right Side (Control Side) 6", Front - Alcove*, Back 6", Flue Connector 6"
 - * Definition of Alcove is three-sided space with no wall in front of boiler. ANSI standard for alcove is 18 inches from appliance to leading edge of side walls as shown in IOM.
- Water content in heat exchanger: WPSB-3 - 6.3 gal., WPSB-4 - 8.1 gal., WPSB-5 - 9.9 gal., WPSB-6 - 11.7 gal., WPSB-7 - 13.5 gal., WPSB-8 - 15.3 gal., WPSB-9 - 17.2 gal.

CONNECTIONS

- 120 Volts AC, 60 hertz, 1 phase, less than 12 amps (15 amp circuit recommended)
- Return/Supply Tappings 2-1/2" NPT
- Gas In (075/112.5/150) 1/2" NPT
- Gas In (187.5/225/262.5/299) 3/4" NPT

OPTIONS

- Both Natural Gas and LP models available.
- Electronic Water Feeder
- Combustible Floor Plate.

RATINGS & SPECIFICATIONS

MODEL	INPUT RATE NAT./LP (MBH) ⁽¹⁾	HEATING CAPACITY NAT./LP (MBH) ⁽¹⁾	NET AHRI RATING ⁽²⁾ NAT./LP			NO. OF SEC.	VENT PIPE SIZE	AFUE %
			STEAM (PPF)	STEAM (SQ. FT.)	STEAM (MBH)			
PSB-3D	75/70	62/58	1.33	196/183	47/44	3	5"	82.7%
PSB-4D	112.5/105	91/85	1.33	283/267	68/64	4	6"	82.0%
PSB-5D	150/140	122/86	1.33	383/358	92/86	5	6"	82.0%
PSB-6D	187.5/175	153/143	1.33	479/446	115/107	6	7"	82.0%
PSB-7D	225/210	183/171	1.33	571/533	137/128	7	7"	82.0%
PSB-8D	262.5/245	214/200	1.33	671/625	161/150	8	7"	82.0%
PSB-9D	299/280	245/229	1.33	767/717	184/172	9	7"	82.0%

Heating Capacity and AFUE are based on DOE (Department of Energy) test procedures.

(1) Input rating for sea level to 2,000 ft. above sea level. Altitudes over 2000 ft. above sea level, reduce input rate 4% for every 1000 ft.
 (2) Net AHRI steam ratings shown are based on a piping and pickup allowance of 1.333. Consult manufacturer before selecting a boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.



D248 Water

COMMERCIAL GAS-FIRED CAST IRON WATER BOILER



- Available in 28 sizes from 300 to 3,000 Mbh.
- D248 Series Boiler Bases are pre-assembled at the factory with burner manifold, burner orifices, gas valves and electronic ignition installed, ready for field installation of the pre-tested sections and appropriate packages.
- Individual base and junction box controls are designed for easy installation with Plug 'n Play harnesses. The entire boiler links together in a "snap". A color-coded factory supplied harness eliminates wiring errors.
- Most commercial boilers are either "all-on" or "all-off". The D248 boiler when used in conjunction with the optional Argo AMB Control Kit will stage fire the individual bases. Depending on model, capacities as low as 11% of full load can be obtained for optimal performance. The optional AMB Control Kit adjusts the water temperature for increased fuel economy. The control balances section run time for increased reliability. The modular base design allows for built in back-up to reduce "no heat" situations.
- D248 boilers are available with a CSD1 option to comply with CSD1 standards where required by building code. The CSD1 option provides the increased number of controls and safety devices required to meet CSD1 standards.
- Cast to Last – 10 year limited warranty



STANDARD EQUIPMENT

- Base
- Fire Door
- Burner Orifice
- Manifold
- Main and Pilot Burner
- Electronic Pilot Gas Valve
- Intermittent Pilot Module
- Complete Jacket Assembly

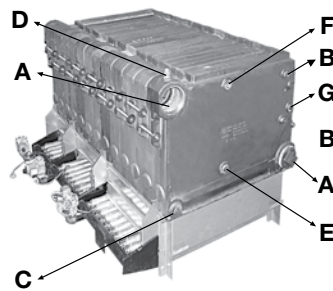
Water Trim Package:

- Limit Control (two required on units 2,500,000 BTU and larger)
- Pressure Temperature Gauge
- Relief Valve
- Drain Valve

OPTIONS

- AMB Control Kit
- CSD1 Option

RIGHT & LEFT END TAPPINGS DATA



Opening	Size	Water
A	4"	Supply and Return
B	1/2"	Plugged
C	3/4"	Drain, Left End
C	3/4"	Drain, Right End
D	1/2"	Limit Control
E	1"	Accessories
*F	1"	Relief Valve
G	3/4"	Plugged

* If opening F is to be used for something other than the Safety Valve or Pressure Relief Valve, or the Safety/Relief Valve is larger than 1", the Safety/Relief Valve must be installed in the Header Piping as near to the boiler as possible.

D248 WATER • RATINGS & SPECIFICATIONS

Boiler Model	Input (Mbh) ⁽¹⁾	Gross Output (Mbh)	Net AHRI Ratings Water (Mbh) ⁽²⁾	Base Size & Flue Outlet			Chimney Size ⁽⁴⁾	Vent Connector Size To Chimney ⁽⁴⁾	Therm. Eff.	Comb Eff.	Pressure Drop Thru Water Boiler	
				300 8"	400 10"	500 12"	I.D. x Ht.				GPM	In. Water
D248-300	300	241	210	1	0	0	8" x 20'	8	77.5	80.4	18.9 37.8	0.10 0.50
D248-400	400	322	280	0	1	0	10" x 20'	10	77.5	80.5	25.2 50.4	0.27 0.86
D248-500	500	403	350	0	0	1	12" x 20'	12	77.5	80.5	31.5 63.0	0.40 1.20
D248-600	600	482	419	2	0	0	12" x 20'	12	77.5	80.4	37.8 75.6	0.50 1.70
D248-700	700	563	490	1	1	0	12" x 20'	12	77.5	80.5	44.1 88.2	0.70 2.50
D248-800	800	644	560	0	2	0	14" x 20'	14	77.5	80.5	50.4 100.8	0.88 2.90
D248-900	900	725	630	0	1	1	14" x 20'	14	77.5	80.5	56.7 113.4	1.10 3.80
D248-1000	1000	805	700	0	0	2	14" x 20'	14	77.5	80.5	63.0 126.0	1.30 4.00
D248-1100	1100	884	769	1	2	0	16" x 20'	16	77.5	80.5	69.3 138.6	1.50 5.00
D248-1200	1200	966	840	0	3	0	16" x 20'	16	77.5	80.5	75.6 151.2	1.80 6.00
D248-1300	1300	1045	909	1	0	2	16" x 20'	16	77.5	80.5	81.9 163.8	2.00 5.60
D248-1400	1400	1127	980	0	1	2	18" x 20'	18	77.5	80.5	88.2 176.4	2.40 7.00
D248-1500	1500	1208	1050	0	0	3	18" x 20'	18	77.5	80.5	94.5 189.0	2.60 8.30
D248-1600	1600	1288	1120	0	4	0	18" x 20'	18	77.5	80.5	100.8 201.0	2.80 9.60
D248-1700	1700	1367	1189	1	1	2	18" x 20'	18	77.5	80.5	107.1 214.2	3.15 10.30
D248-1800	1800	1449	1260	0	2	2	20" x 20'	20	77.5	80.5	113.4 226.8	3.50 11.00
D248-1900	1900	1530	1330	0	1	3	20" x 20'	20	77.5	80.5	119.7 239.4	4.00 12.50
D248-2000	2000	1610	1400	0	0	4	20" x 20'	20	77.5	80.5	126.0 252.0	4.50 14.00
D248-2100	2100	1688	1468	2	0	3	20" x 20'	20	77.5	80.5	132.3 264.6	4.95 16.00
D248-2200	2200	1771	1540	0	3	2	22" x 20'	22	77.5	80.5	138.6 277.2	5.40 18.00
D248-2300	2300	1852	1610	0	2	3	22" x 20'	22	77.5	80.5	144.9 289.8	5.70 17.00
D248-2400	2400	1932	1680	0	1	4	22" x 20'	22	77.5	80.5	151.2 302.4	8.00 19.00
D248-2500	2500	2013	1750	0	0	5	22" x 20'	22	77.5	80.5	157.5 315.0	8.00 20.50
D248-2600	2600	2090	1817	2	0	4	22" x 20'	22	77.5	80.5	163.8 327.6	7.00 24.00
D248-2700	2700	2171	1888	1	1	4	24" x 20'	24	77.5	80.5	170.1 340.2	7.50 24.00
D248-2800	2800	2254	1960	0	2	4	24" x 20'	24	77.5	80.5	176.4 352.8	8.00 26.00
D248-2900	2900	2335	2030	0	1	5	24" x 20'	24	77.5	80.5	182.8 365.5	8.50 27.50
D248-3000	3000	2415	2100	0	0	6	24" x 20'	24	77.5	80.5	189.1 378.2	9.00 29.00

1. Ratings are at sea level to 2,000 feet. For altitudes above 2,000 feet, reduce all ratings 4% for each 1,000 feet above sea level
2. Net AHRI water ratings based on a piping and pickup allowance of 1.15. Contact Technical Support before selecting boiler for installations having unusual piping and pick-up factors, such as intermittent system operations, extensive piping systems, etc.
3. Pressure drop based on given flow from single outlet and returning to single inlet at the opposite end of the boiler.

4. Chimney sizes shown are one option based on a typical venting system as shown in Figure 6 of the Installation Manual, and sized according to the National Fuel Gas Code, assuming Type B double wall vent and vent connectors. Other venting system designs are acceptable as shown on Flue Connection and Venting section of the installation manual. For further chimney design and sizing information, consult the National Fuel Gas Code, ANSI Z223.1/NFPA 54-latest revision, or ASHRAE HVAC Systems and Equipment Handbook, Chimney, Gas Vent, and Fireplace Systems, or the Standard for Chimneys, Fireplaces, Vents, and Solid Fuel Burning Appliances. NFPA 211. Follow standard engineering practice.



D248 Steam

COMMERCIAL GAS-FIRED CAST IRON STEAM BOILER



- Available in 28 sizes from 300 to 3,000 Mbh.
- D248 Series Boiler Bases are pre-assembled at the factory with burner manifold, burner orifices, gas valves and electronic ignition installed, ready for field installation of the pre-tested sections and appropriate packages.
- Individual base and junction box controls are designed for easy installation with Plug 'n Play harnesses. The entire boiler links together in a "snap". A color-coded factory supplied harness eliminates wiring errors.
- D248 boilers are available with a CSD1 option to comply with CSD1 standards where required by building code. The CSD1 option provides the increased number of controls and safety devices required to meet CSD1 standards.
- Cast to Last Warranty
 - 10 year limited warranty



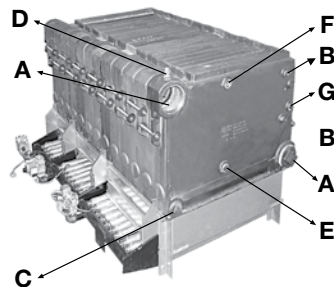
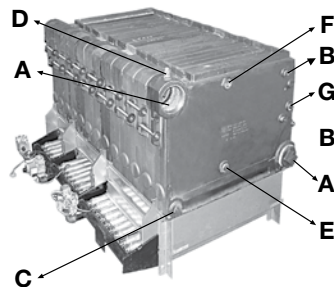
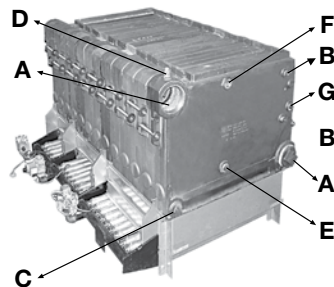
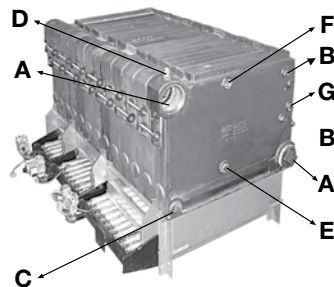
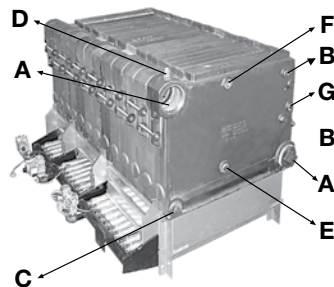
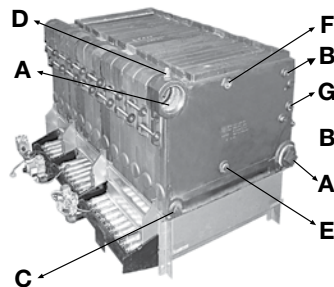
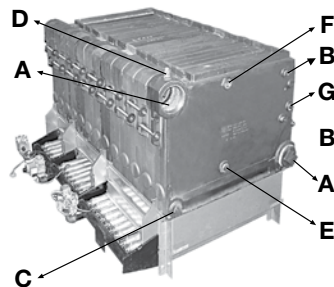
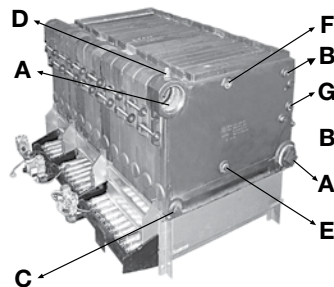
ELECTRONIC IGNITION BASE STANDARD EQUIPMENT

- | | | | |
|------------------|------------------------------|----------------------------|------------------|
| ■ Base | ■ Main and Pilot Burner | Steam Trim Package: | |
| ■ Fire Door | ■ Electronic Pilot Gas Valve | ■ Low Water Cut-Off | ■ Steam Gauge |
| ■ Burner Orifice | ■ Intermittent Pilot Module | ■ Glass Gauge Set | ■ Pressure Limit |
| ■ Manifold | ■ Complete Jacket Assembly | ■ Safety Valve | ■ Drain Valve |

OPTIONS

- CSD1 Option

RIGHT & LEFT END TAPPINGS DATA

	<u>Opening</u>	<u>Size</u>	<u>Steam</u>
	A	4"	Supply and Return
	B	1/2"	Primary LWCO and Gauge Glass Set
	C	3/4"	Drain, Left End
	C	3/4"	Drain, Right End
	D	1/2"	Plugged
	E	1"	Accessories
	*F	1"	Safety Valve
	G	3/4"	Plugged or Electronic (Probe Type) LWCO

* If opening F is to be used for something other than the Safety Valve or Pressure Relief Valve, or the Safety/Relief Valve is larger than 1", the Safety/Relief Valve must be installed in the Header Piping as near to the boiler as possible.

D248 STEAM • RATINGS & SPECIFICATIONS

Boiler Model	Input (Mbh) ⁽¹⁾	Gross Output (Mbh)	Net AHRI Ratings			Base Size & Flue Outlet			Chimney Size ⁽⁴⁾	Vent Connector Size To Chimney ⁽⁴⁾	Therm. Eff.	Comb Eff.
			Steam (PPF) ⁽²⁾	Steam (Sq. Ft.) ⁽³⁾	Steam (Mbh) ⁽²⁾	300 (8")	400 (10")	500 (12")	I.D. x Ht.			
D248-300S	300	233	1.333	729	175	1	0	0	8" x 20'	8	77.5	80.4
D248-400S	400	310	1.333	971	233	0	1	0	10" x 20'	10	77.5	80.5
D248-500S	500	388	1.333	1213	291	0	0	1	12" x 20'	12	77.5	80.5
D248-600S	600	465	1.333	1454	349	2	0	0	12" x 20'	12	77.5	80.4
D248-700S	700	543	1.333	1696	407	1	1	0	12" x 20'	12	77.5	80.5
D248-800S	800	620	1.333	1938	465	0	2	0	14" x 20'	14	77.5	80.5
D248-900S	900	698	1.333	2183	524	0	1	1	14" x 20'	14	77.5	80.5
D248-1000S	1000	775	1.333	2421	581	0	0	2	14" x 20'	14	77.5	80.5
D248-1100S	1100	853	1.333	2667	640	1	2	0	16" x 20'	16	77.5	80.5
D248-1200S	1200	930	1.333	2908	698	0	3	0	16" x 20'	16	77.5	80.5
D248-1300S	1300	1008	1.333	3150	756	1	0	2	16" x 20'	16	77.5	80.5
D248-1400S	1400	1085	1.333	3392	814	0	1	2	18" x 20'	18	77.5	80.5
D248-1500S	1500	1163	1.333	3633	872	0	0	3	18" x 20'	18	77.5	80.5
D248-1600S	1600	1240	1.333	3875	930	0	4	0	18" x 20'	18	77.5	80.5
D248-1700S	1700	1318	1.327	4138	993	1	1	2	18" x 20'	18	77.5	80.5
D248-1800S	1800	1395	1.319	4408	1058	0	2	2	20" x 20'	20	77.5	80.5
D248-1900S	1900	1473	1.313	4675	1122	0	1	3	20" x 20'	20	77.5	80.5
D248-2000S	2000	1550	1.307	4942	1186	0	0	4	20" x 20'	20	77.5	80.5
D248-2100S	2100	1628	1.301	5213	1251	2	0	3	20" x 20'	20	77.5	80.5
D248-2200S	2200	1705	1.296	5483	1316	0	3	2	22" x 20'	22	77.5	80.5
D248-2300S	2300	1783	1.292	5750	1380	0	2	3	22" x 20'	22	77.5	80.5
D248-2400S	2400	1860	1.290	6008	1442	0	1	4	22" x 20'	22	77.5	80.5
D248-2500S	2500	1938	1.288	6271	1505	0	0	5	22" x 20'	22	77.5	80.5
D248-2600S	2600	2015	1.288	6517	1564	2	0	4	22" x 20'	22	77.5	80.5
D248-2700S	2700	2093	1.288	6771	1625	1	1	4	24" x 20'	24	77.5	80.5
D248-2800S	2800	2170	1.288	7021	1685	0	2	4	24" x 20'	24	77.5	80.5
D248-2900S	2900	2248	1.288	7271	1745	0	1	5	24" x 20'	24	77.5	80.5
D248-3000S	3000	2325	1.288	7521	1805	0	0	6	24" x 20'	24	77.5	80.5

1. Ratings are at sea level to 2,000 feet. For altitudes above 2,000 feet, reduce all ratings 4% for each 1,000 feet above sea level.

2. Net steam ratings based on piping and pickup allowance of 1.333 (300-1600), 1.327 (1700), 1.319 (1800), 1.313 (1900), 1.307 (2000), 1.301 (2100), 1.296 (2200), 1.292 (2300), 1.290 (2400), and 1.288 (2500-3000). Contact Technical Support before selecting boiler for installations having unusual piping and pick-up factors, such as intermittent system operations, extensive piping systems, etc.

3. Ratings in square feet are computed at 240 Btuh/square foot for steam boilers.

4. Chimney sizes shown are one option based on a typical venting system as shown in Figure 6 of the Installation Manual, and sized according to the National Fuel Gas Code, assuming Type B double wall vent and vent connectors. Other venting system designs are acceptable as shown on Flue Connection and Venting section of the installation manual. For further chimney design and sizing information, consult the National Fuel Gas Code, ANSI Z223.1/NFPA 54-latest revision, or ASHRAE HVAC Systems and Equipment Handbook, Chimney, Gas Vent, and Fireplace Systems, or the Standard for Chimneys, Fireplaces, Vents, and Solid Fuel Burning Appliances. NFPA 211. Follow standard engineering practice.



Excelsior EXB Series

OIL-FIRED CAST IRON WATER BOILER



- Advanced High Efficiency 3-Pass Heat Exchanger Design
 - Multiple firing rates
- High Limit Control with:
 - LED display
 - Easy to program dial settings
 - Boiler Water Temperature Reset
 - Low Water Cut Off functionality
- Compact Footprint
- Burners and Venting Options (Burner Cover Standard)
- Easy to Service
 - Flexible oil line combined with easy access heat exchanger with dual hinge swing door (right or left mount option)
 - Wide flue-ways for easy cleaning
 - Site glass for flame observation
 - Removable 1/4" test port for draft overfire reading
- Cast to Last Limited Lifetime Warranty



STANDARD EQUIPMENT

- **Boiler Control Module:** Hydrolevel Fuel Smart HydroStat Control – combination Low Water Cut Off with boiler temperature reset and circulator control.
- **User Display Interface:** Digital display with easy to set dial-type limit settings.
- **Heat Exchanger:** High efficiency, cast iron, 3-pass design with reversible swing door and target wall. Efficiency baffles/liner by model.
- **Combustion:** Oil burner with protective cover, flexible oil line.
- **Electrical:** Wiring harness with Molex connectors. Burner electrical disconnect.
- **Other:** Temperature/pressure guage, 3/4" ASME relief valve, drain valve, textured painted steel jacket.

SPECIFICATIONS

- Oil-Fired Chimney or Direct Vent Boiler
- Clearance for Combustible Materials: Top 12", Right Side & Left Side 2", Floor – Combustible, Front 17", Back (9" for Flue).
- Clearance for Accessibility, Cleaning & Servicing: Top/Right/Left/Front 24", Floor – No Requirement, Back 18", and Flue 9".
- **Water content in heat exchanger:** EXB4 - 3.6 gal., EXB5 - 4.3 gal., EXB6 - 5.1 gal., EXB7 - 5.9 gal.

CONNECTIONS

- 120 Volts AC, 60 hertz, 1 phase, less than 12 amps (15 amp circuit recommended)
- Water In/Out 1-1/4" NPT

OPTIONS

- Beckett or Riello Burner
- Manual Reset High Limit with plug-in Molex connector
- Direct Vent

RATINGS & SPECIFICATIONS

MODEL	NO. OF SEC.	BOILER INPUT RATE (MBH) ⁽¹⁾	HEATING CAPACITY (MBH) ⁽¹⁾⁽²⁾	NET AHRI RATING WATER (MBH) ⁽¹⁾⁽²⁾	CHIMNEY SIZE	BOILER FLUE	FIRING RATE GPH ⁽⁴⁾	AFUE % ⁽²⁾
EXB4075	4	105	91	79	8" x 8" x 15'	5" (13 cm)	0.75	86.0
EXB4095	4	133	114	99	8" x 8" x 15'	5" (13 cm)	0.95	85.0
EXB4110	4	154	132	115	8" x 8" x 15'	5" (13 cm)	1.10	84.0
EXB5100	5	140	122	106	8" x 8" x 15'	5" (13 cm)	1.00	86.5
EXB5115	5	161	139	121	8" x 8" x 15'	5" (13 cm)	1.15	85.0
EXB5135	5	189	161	140	8" x 8" x 15'	5" (13 cm)	1.35	84.0
EXB6130	6	182	159	138	8" x 8" x 15'	5" (13 cm)	1.30	86.5
EXB6145	6	203	176	153	8" x 8" x 15'	5" (13 cm)	1.45	85.0
EXB6165	6	231	198	172	8" x 8" x 15'	5" (13 cm)	1.65	84.0
EXB7165	7	231	201	175	8" x 8" x 15'	6" (15 cm)	1.65	86.0
EXB7180	7	252	217	189	8" x 8" x 15'	6" (15 cm)	1.80	85.0
EXB7190	7	266	228	198	8" x 8" x 20'	6" (15 cm)	1.90	84.0

(1) 1000 Btu/hr (British Thermal Units Per Hour)

(2) Heating Capacity and AFUE based on 13.1% CO₂ (13.5% CO₂ at 0.95 GPH and 1.10 GPH), -0.02" w.c. draft in breech, and # 1 smoke or less. Testing is done in accordance with U.S. DOE (Department of Energy) test procedure.

(3) Net AHRI ratings shown are based on piping and pickup factor of 15% in accordance with AHRI Standard as published by Hydronics Institute. Contact Technical Support before selecting boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.

(4) Gallons per hour oil at 140,000 BTU per gallon.



EW II Series II

OIL-FIRED CAST IRON WATER BOILER



LEARN MORE AT energy.gov

UP TO
86.5%
AFUE

- Available in 8 sizes from 91 to 245 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.
- Honeywell High Limit and Circulator Relay Control.
 - Digital Temperature Display and Diagnostics.
- **Less Coil:** Control monitors water temperature and delays the burner starting until any residual heat has been transferred. Thermal purge logic measures rate of temperature change inside the boiler and delays burner firing accordingly. This maximizes efficiency by turning on the burner only when needed.
- **With Coil:** Low Limit Control seeks maximum temperature to satisfy domestic hot water call bypassing thermal purge logic.
- Atmospheric Chimney Vent Boiler.
- Optional Tankless Heater Coil.
- Textured paint Jacket.
- Cast to Last 20 Year Non-Prorated Warranty (Residential Applications).



STANDARD EQUIPMENT

- **Boiler Control Module:** Boilers without Tankless Heater Coil – Honeywell Combination High Limit Control and Circulator Relay. Boilers with Tankless Heater Coil – Honeywell Combination High Limit and Circulator Relay and Low Limit Control.
- **Heat Exchanger:** Cast Iron Sections with Cast Iron Push Nipples and Swing Door.
- **Combustion:** Completely installed and wired Beckett AFG Series Oil Burner (3 & 4 Section F Head; 5 Section MD Head) equipped with Nozzle, Primary Control, CAD Cell, PSC Motor, Interrupted Duty Ignition and Clean Cut Pump; Flue Brush; Swing Fire Door with Insulation (Vacuum Formed Ceramic Fiber), Target Wall (Vacuum Formed Refractory Ceramic Fiber); Dura Blanket Insulation Chamber and Barometric Draft Control 6".
- **Other:** Assembled Cast Iron Boiler with Insulated Jacket, Combination Temperature/Pressure Gauge, Circulator Pump wired with 5' harness for supply or return mounting in the field, 3/4" Boiler Drain Valve, 30 psi ASME Relief Valve, extra Boiler Tap for Expansion Tank or Air Elimination.

SPECIFICATIONS

- Oil-Fired Atmospheric Chimney or Direct Vent Boiler
- Clearance for Combustible Materials: Top 6", Left Side 24", Right Side (Control Side) 6", Front 18", Back 6", Bottom Non-Combustible
- Clearance for Servicing: Top 18", Left and Right sides 24", Front/Back/Bottom – No Requirement.
- Flue to Combustible Clearance 18"
- Water content in heat exchanger: 3EW - 9.6 gal., 4EW - 11.6 gal., 5EW - 13.7 gal.

CONNECTIONS

- 120 Volts AC, 60 hertz, 1 phase, less than 12 amps (15 amp circuit recommended)
- Water In/Out 1-1/4" NPT

OPTIONS

- Beckett or Riello Burner
- Manual Reset High Limit with plug-in Molex connector
- Direct Vent

RATINGS & SPECIFICATIONS

MODEL	NO. OF SEC.	INPUT		HEATING CAPACITY (MBH) (1)(2)	NET AHRI RATING, WATER (MBH) (1)(5)	MINIMUM CHIMNEY SIZE/ HEIGHT	AFUE % (2)
		G. P. H. (3)	(MBH) (1)				
*3EW.65	3	0.65	91	80	70	8" x 8" x 15'	86.3%
*3EW.75	3	0.75	105	92	80	8" x 8" x 15'	85.2%
3EW.100	3	1.00	140	120	104	8" x 8" x 15'	84.0%
*4EW.90	4	0.90	126	111	97	8" x 8" x 15'	86.0%
*4EW1.25	4	1.25	175	151	131	8" x 8" x 15'	85.0%
4EW1.50	4	1.50	210	179	156	8" x 8" x 15'	84.0%
*5EW1.20	5	1.20	168	147	128	8" x 8" x 15'	86.5%
5EW1.75	5	1.75	245	210	183	8" x 8" x 15'	84.3%

* Indicates an ENERGYSTAR rated product.

- (1) Mbh = 1,000 BTU per hour [BTU = British Thermal Unit]
- (2) Heating Capacity based on 13% CO₂ with a 0.02" w.c. draft over fire, and a #1 smoke or less. Testing was done in accordance with the D.O.E. (Department of Energy) test procedure.
- (3) G.P.H. = Gallons per hour oil at 140,000 BTU per gallon
- (4) A.F.U.E. = Annual Fuel Utilization Efficiency based upon D.O.E. test procedure.
- (5) Net AHRI Water Ratings based on piping and pickup allowance of 1.15. Consult manufacturer before selecting boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.



ESC IV Series

OIL-FIRED CAST IRON 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 flue ways allow for easy cleaning and servicing.
- Cast to Last 12 year Limited Warranty (Residential Applications).



STANDARD EQUIPMENT

- **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.

SPECIFICATIONS

- Atmospheric Chimney Vent Boiler.
- Clearance for Combustible Materials: Top 24", Left Side 6", Right/Front/Back 24", Flue Connector 9".
- Water content in heat exchanger: ESC-3090 - 11 gal., ESC-4125 - 13 gal., ESC-5185 and ESC-6210 - 15 gal.

CONNECTIONS

- 120 Volts AC, 60 hertz, 1 phase, less than 12 amps (15 amp circuit recommended)
- Supply Tapping 2" NPT
- Return Tapping 1-1/2" NPT
- Oil Line 3/8" O.D. copper tubing for runs of 50 feet or less, and 1/2" O.D. for longer runs.

OPTIONS

- Taco, Grundfos or Less Pump
- Tankless Coil.

RATINGS & SPECIFICATIONS

MODEL	AHRI OIL BURNER INPUT ⁽¹⁾		HTG. CAP. MBH ⁽⁴⁾	NET AHRI RATINGS ⁽³⁾		MIN. NAT. DRAFT CHIMNEY SIZE		PUMP PRESS. PSI	NOZZ FURN.	AFUE %
	G.P.H.	MBH ⁽²⁾		STEAM MBH	SQ. FT. STEAM	ROUND	SQUARE			
WITHOUT TANKLESS										
ESC-3090S	0.90	126	106	80	333	6"	8" x 8" x 15'	150	0.75-60°B	82.0%
ESC-4125S	1.25	175	147	110	458	6"	8" x 8" x 15'	140	1.10-60°B	82.0%
ESC-5185S	1.85	259	216	162	675	8"	8" x 8" x 15'	150	1.50-70°B	82.0%
ESC-6210S	2.10	294	247	185	771	8"	8" x 8" x 15'	145	1.75-70°B	82.0%
WITH TANKLESS										
ESC-3090ST	0.90	126	106	80	333	6"	8" x 8" x 15'	150	0.75-60°B	82.0%
ESC-4125ST	1.25	175	147	110	458	6"	8" x 8" x 15'	140	1.10-60°B	82.0%
ESC-5185ST	1.85	259	216	162	675	8"	8" x 8" x 15'	150	1.50-70°B	82.0%
ESC-6210ST	2.10	294	247	185	771	8"	8" x 8" x 15'	145	1.75-70°B	82.0%

(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) Electrical service is 120 Volts, 15 Amps, 60 Hz



H₂O Series

STAINLESS STEEL SINGLE COIL INDIRECT WATER HEATER



Need a domestic-hot-water heater with a low operating cost and the longevity of stainless steel? The H₂O Stainless Steel Single Coil Indirect Water Heater is your answer. It's available from 30- to 150-gallon capacity, with 316L stainless steel construction and top connections for an easy installation. This water heater is so well insulated that the water will lose only a half-degree for every hour it stands by. The smooth coil design prevents sediment build-up. This durable, efficient water heater is a great value.

STANDARD EQUIPMENT

- Factory installed brass drain and relief valves, welded stainless steel cold water dip tube factory installed and pressure tested, Honeywell L4080B aquastat for field installation.

OPTIONS

- (L) Low profile models for applications with low clearances.
- (C) Commercial models with larger tappings for higher flow rates.
- (HO) High Output models available to meet greater demand.

RATINGS & SPECIFICATIONS

MODEL	STORAGE CAPACITY (GALS.)	COIL HEATING SURFACE SQ. FT.	PIPING CONNECTIONS NPT	
			DOMESTIC WATER IN/OUT (INCHES)	BOILER WATER IN/OUT (INCHES)
H2OI30DK	30	7.0	3/4	1
H2OI40DK	40	7.5	3/4	1
H2OI40LDK	42	7.1	3/4	1
H2OI50DK	50	8.0	3/4	1
H2OI60DK	60	8.3	3/4	1
H2OI60LDK	60	7.5	3/4	1
H2OI80DK	80	8.0	1	1
H2OI115DK	115	8.9	1	1
H2OI80CDK	80	8.0	1-1/2	1-1/4
H2OI115CDK	115	8.9	1-1/2	1-1/4
H2OI80HODK	80	13.4	1	1
H2OI115HODK	115	14.4	1	1
H2OI80HOC DK	80	13.4	1-1/2	1-1/4
H2OI115HOC DK	115	14.4	1-1/2	1-1/4

Note: Max. Working pressure 150 psi for all capacities.

General Information (See Installation, Operation and Maintenance Manual for complete instructions)

MODEL	MAX. FIRST HOUR RATING GAL./HR @		CONTINUOUS RATING GAL./HR @		BOILER OUTPUT REQUIRED (BTU/HR)	MIN. BOILER WATER FLOW THROUGH COIL (GAL./MIN.)	PRESSURE DROP THROUGH COIL (FT./WATER)
	140° F	115° F	140° F	115° F			
H2OI30DK	182	242	155	215	116,200	10.0	2.7
H2OI40DK	202	266	166	230	124,500	10.0	2.9
H2OI40LDK	193	251	157	215	117,900	10.0	2.8
H2OI50DK	222	290	177	245	132,800	10.0	3.1
H2OI60DK	240	311	186	257	139,400	10.0	3.2
H2OI60LDK	220	284	166	230	124,500	10.0	2.9
H2OI80DK	257	328	185	256	138,600	12.0	3.7
H2OI115DK	309	388	206	285	154,200	12.0	4.0
H2OI80CDK	257	328	185	256	138,600	12.0	3.7
H2OI115CDK	309	388	206	285	154,200	12.0	4.0
H2OI80HODK	386	507	314	435	235,670	15.0	9.0
H2OI115HODK	439	568	336	465	251,780	15.0	9.5
H2OI80HOC DK	386	507	314	435	235,670	15.0	9.0
H2OI115HOC DK	439	568	336	465	251,780	15.0	9.5

Note: All ratings are based on 200° F boiler water supply and 50° F cold water inlet.

See installation manual for ratings at different temperatures and flow rates.

Specifications subject to change without notice.



Conforms to UL STD 174
Certified to CAN/CSA STD C22.2 No. 110-94

H2O I 30 L DK

I=Indirect Capacity: 30=30 Gals. 40=40 Gals. 50=50 Gals. 60=60 Gals. 80=80 Gals. 115=115 Gals. L=Lowboy C=Commercial HO=High Output HOC=High Output Commercial DK=Dunkirk

H₂O Series

STAINLESS STEEL STORAGE TANKS



Need a hot water solution to balance input and storage while reducing short cycling? The H₂O Stainless Steel Storage Tank is your answer. It's available from 30 to 115 gallon capacities, with built to last, 316L stainless steel construction and top connections for an easy installation. Their low pressure drop makes them a perfect choice for use with low-mass boilers.

STANDARD EQUIPMENT

- Factory installed brass drain and relief valves, welded stainless steel cold water dip tube factory installed and pressure tested, Honeywell L4080B aquastat for field installation.

OPTIONS

- (L) Low profile models for applications with low clearances.
- (C) Commercial models with larger tappings for higher flow rates.

RATINGS & SPECIFICATIONS

MODEL	STORAGE CAPACITY (GALS.)	PIPING CONNECTIONS NPT	
		COLD/HOT SUPPLY/RETURN (INCHES)	HEAT SOURCE PRESSURE (INCHES)
H2OST30DK	30	1	1
H2OST40DK	40	1	1
H2OST60DK	60	1	1
H2OST60LDK	60	1	1
H2OST80DK	80	1	1
H2OST115DK	115	1	1
H2OST80CDK	80	1-1/2	1
H2OST115CDK	115	1-1/2	1

Note: Max. Working pressure 120 psi for all capacities.



Conforms to UL STD 174
Certified to CAN/CSA STD C22.2 No. 110-94

H2O ST 30 L DK

ST=Storage Tank

Capacity:
30=30 Gals.
40=40 Gals.
60=60 Gals.
80=80 Gals.
115=115 Gals.

L=Lowboy
C=Commercial

DK=Dunkirk

H₂O Series

STAINLESS STEEL BUFFER TANKS



Need a hot-water solution when you're working with a chiller, heat pump or a low-mass boiler? Choose Dunkirk's H₂O Stainless Steel Hydronic Buffer Tanks. These buffer tanks are available in 40-, 60-, 80-, or 115-gallon capacity, with your choice of 1-1/4", 1-1/2", or 2" connections for peak performance. This is the perfect solution to burner short cycling.

STANDARD EQUIPMENT

- Factory installed brass drain and relief valves, welded stainless steel cold water dip tube factory installed and pressure tested, Honeywell L4080B aquastat for field installation.

OPTION

- (WC) With Coil

RATINGS & SPECIFICATIONS

MODEL	STORAGE CAPACITY (GALS.)	PIPING CONNECTIONS NPT (INCHES)
H2OBT40114DK	40	1-1/4
H2OBT40112DK	40	1-1/2
H2OBT402DK	40	2
H2OBT60114DK	60	1-1/4
H2OBT60112DK	60	1-1/2
H2OBT602DK	60	2
H2OBT80112DK	80	1-1/4
H2OBT80114DK	80	1-1/2
H2OBT802DK	80	2
H2OBT115114DK	115	1-1/4
H2OBT115112DK	115	1-1/2
H2OBT1152DK	115	2
H2OBT40114WCDK	40	1-1/4
H2OBT40112WCDK	40	1-1/2
H2OBT402WCDK	40	2
H2OBT60114WCDK	60	1-1/4
H2OBT60112WCDK	60	1-1/2
H2OBT602WCDK	60	2
H2OBT80114WCDK	80	1-1/4
H2OBT80112WCDK	80	1-1/2
H2OBT802WCDK	80	2
H2OBT115114WCDK	115	1-1/4
H2OBT115112WCDK	115	1-1/2
H2OBT1152WCDK	115	2

Note: Max. Working pressure 60 psi for all capacities.



Intertek

Conforms to UL STD 174
Certified to CAN/CSA STD C22.2 No. 110-94

H2O BT 40 114 WC DK

BT = Buffer Tank

Capacity:
40 = 40 Gals.
60 = 60 Gals.
80 = 80 Gals.
115 = 115 Gals.

114 = 1-1/4" NPT
112 = 1-1/2" NPT
2 = 2" NPT

WC = With Coil

DK = Dunkirk

H₂O Series

STAINLESS STEEL SINGLE & DUAL COIL SOLAR WATER HEATERS



Need a hot-water heating solution when you're working with solar thermal or small zones? Dunkirk's H₂O Stainless Steel Single- and Dual-Coil Solar Water Heaters are the answer, and they even come with electric backup for cloudy days.

STANDARD EQUIPMENT

- Factory installed brass drain and relief valves, welded stainless steel cold water dip tube factory installed and pressure tested, Honeywell L4080B aquastat for field installation.
- Removable thermal well to accept a solar control thermostat or thermistor.
- Dual coil units equipped with two aquastat wells which control each coil independently and built-in recirculation tapping.
- Units with Electric Back-Up are provided with 4" x 10" electrical box with pre-wired heating element, thermostat, and hi-limit.
- All electric back-up units provided with 240 volt AC, 3500 watt element.

OPTION

- (E) Electric Back-Up models for supplemental heating.

RATINGS & SPECIFICATIONS

MODEL	STORAGE CAPACITY (GALS.)	TOP COIL HEATING SURFACE SQ. FT.	BOTTOM COIL HEATING SURFACE SQ. FT.	PIPING CONNECTIONS NPT (INCHES)
SINGLE COIL				
H2O160EDK	60	N/A	8.3	1
H2O180EDK	80	N/A	8.0	1
H2O115EDK	115	N/A	8.9	1
DUAL COIL				
H2O160DDK	60	7.4	8.3	1
H2O180DDK	80	7.4	8.0	1
H2O115DDK	115	7.4	8.9	1
H2O160DEDK	60	7.4	8.3	1
H2O180DEDK	80	7.4	8.0	1
H2O115DEDK	115	7.4	8.9	1

Note: Max. Working pressure 150 psi for all capacities.

MODEL	MAX. FIRST HOUR RATING GAL./HR @		CONTINUOUS RATING GAL./HR @		MAX. REC. TOP COIL (GAL./HR)	MAX. REC. BOTTOM COIL (GAL./HR)	MIN. BOILER WATER FLOW THROUGH COIL (GAL./MIN.)	PRESSURE DROP THROUGH COIL (FT./WATER)
	140° F	115° F	140° F	115° F				
SINGLE COIL								
H2O160EDK	45.9	52.0	15.9	22.0	N/A	214	10.0	3.5
H2O180EDK	55.9	62.0	15.9	22.0	N/A	214	10.0	3.6
H2O115EDK	73.9	80.0	15.9	22.0	N/A	214	10.0	3.9
DUAL COIL								
H2O160DDK	45.9	52.0	15.9	22.0	185	214	10.0	3.5
H2O180DDK	55.9	62.0	15.9	22.0	180	214	10.0	3.6
H2O115DDK	73.9	80.0	15.9	22.0	190	214	10.0	3.9
H2O160DEDK	45.9	52.0	15.9	22.0	185	214	10.0	3.5
H2O180DEDK	55.9	62.0	15.9	22.0	180	214	10.0	3.6
H2O115DEDK	73.9	80.0	15.9	22.0	190	214	10.0	3.9

Note: All ratings are based on 180° F boiler water supply and 50° F cold water inlet. For Dual Coil units, continuous ratings shown are for the lower coil only. Specifications subject to change without notice.



Conforms to UL STD 174
Certified to CAN/CSA STD C22.2 No. 110-94

H2O I 60 D E DK

I=Indirect Capacity: 60=60 Gals. 80=80 Gals. 115=115 Gals.
D=Dual Coil E=Electrical Back-up (3500 Watts) DK=Dunkirk

Hotline Series

INDIRECT WATER HEATER



The HotLine Storage Tank teams with a gas- or oil-fired boiler to supply residential and commercial hot-water needs at terrific efficiency. HotLine tanks deliver three to five times more domestic hot water than electric- or gas-fired water heaters, with extremely low standby losses.

STANDARD EQUIPMENT

- 2" Foam Insulation, Heavy-Duty Steel Jacket, Replaceable Extra-Thick Magnesium Anode Rod, Corrosion Resistant Porcelain-Coated Enamel Smooth Coil and Interior Tank Walls, Immersion Aquastat, Surface-Mounted Thermostat, Self-Cleaning Drain Valve, Factory Installed T & P Valve.

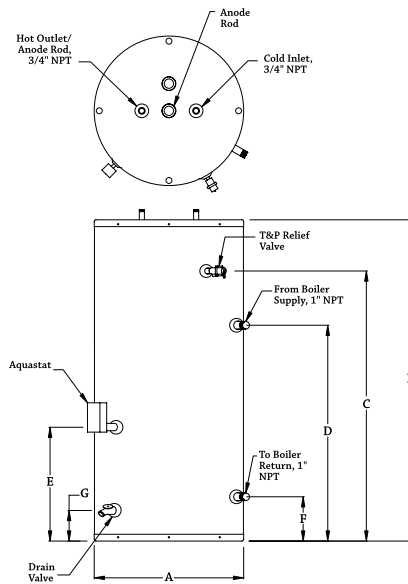
OPTIONS

Domestic Water Hot and Cold

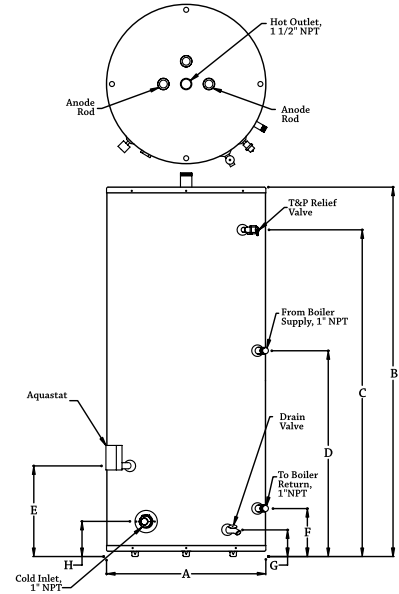
Side Connection – HL30SK, HL40SK, HL50SK.

Hot Only Top Connection – HL80SK, HL119SK.

Cold Only Bottom/Side – HL80SK, HL119SK.



Models HL30SK, HL40SK, HL50SK



Models HL80SK, HL119SK

SPECIFICATIONS*

MODEL NO.	STORAGE CAPACITY	DIMENSIONS								SHIPPING WEIGHT
		A	B	C	D	E	F	G	H	
HL30SK	30 GAL.	22"	35 3/4"	27 3/4"	19 1/2"	11 3/4"	6 1/2"	4 1/2"	N/A	180 LBS.
HL40SK	38 GAL.	22"	42 3/4"	34 3/4"	31 1/2"	16 3/4"	6 1/2"	4 1/2"	N/A	226 LBS.
HL50SK	45 GAL.	22"	48 3/4"	39 3/4"	31 1/2"	16 3/4"	6 1/2"	4 1/2"	N/A	231 LBS.
HL80SK	75 GAL.	24"	64 3/4"	57 1/8"	33"	19 1/4"	8"	5"	5"	297 LBS.
HL119SK	110 GAL.	28"	65 1/4"	57 3/4"	33 3/4"	16 1/4"	8 3/4"	5"	6 1/2"	397 LBS.

NOTES: Potable outlet water temperature at 135° F as per D.O.E. • Boiler output should be at least 74,000 BTU/h.
 * Due to ongoing product development specifications and dimensions subject to change without notice.

FIRST HOUR RATING (Gal) @ COIL OUTPUT (Bth/hr)

Model	180°F / 6 GPM*	180°F / 10 GPM*	180°F / 12 GPM*	200°F / 6 GPM*	200°F / 8 GPM*	200°F / 10 GPM*	200°F / 12 GPM*
HL30SK	107 @ 53,000	114 @ 57,000	117 @ 59,000	129 @ 67,000	132 @ 69,000	136 @ 71,000	139 @ 73,000
HL40SK	141 @ 69,000	165 @ 84,000	177 @ 92,000	171 @ 88,000	183 @ 96,000	195 @ 104,000	207 @ 111,000
HL50SK	148 @ 69,000	172 @ 84,000	184 @ 92,000	178 @ 88,000	190 @ 96,000	202 @ 104,000	214 @ 111,000
HL80SK	188 @ 76,000	212 @ 91,000	224 @ 98,000	221 @ 97,000	233 @ 104,000	245 @ 112,000	257 @ 119,000
HL119SK	220 @ 76,000	244 @ 91,000	256 @ 98,000	253 @ 97,000	265 @ 104,000	277 @ 112,000	289 @ 119,000

NOTES: First Hour Rating = First Draw + Continuous Draw
 * Coil Input (temperature, flow rate). Ratings based on 77°F rise with 58°F inlet potable water.

All data obtained through testing in accordance with GAMA INDIRECT-FIRED WATER HEATER TESTING STANDARD IWH-TS-1_MARCH 2003

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