SPECIFICATIONS AND PERFORMANCE

UTIC4 BOILERS

DV-B Series Cast Iron Gas-Fired Hot Water Boilers

P/N# 240005810, Rev. 1.0 [10/05]



83% AFUE

Efficiency









Warranty – Utica Boilers backs its residential, cast iron heat exchanger with a Limited Lifetime Warranty. This Warranty is meant to protect your investment, but is also offered to illustrate our commitment to customer satisfaction.

FEATURES AND BENEFITS

Cast Iron Boiler Assembly – Boiler sections and push nipples are constructed of long life cast iron. When the boiler is heated, sections and push nipples expand and contract in the same proportion because they are constructed of like material, providing a positive watertight seal.

Benefit: Cast iron provides efficient heat transfer, reliability and strength, the cast iron push nipples insure a watertight seal.



50,000 Btuh through 200,000 Btuh

Application – The DV-B Series gas-fired hot water boilers are available in five sizes with a heating capacity of 50,000 to 200,000 Btuh and an AFUE of 83% (Venting Category I, chimney or III, through-the-wall). The DV-B Series gas-fired hot water boilers come fully assembled, wired, tested and ready to install. Features include a compact design standing less than 31 inches high, allowing installation in areas with low ceilings, quality cast-iron construction, high efficiency and dependable performance backed by Utica Boiler's years of experience. The DV-B boilers are an ideal choice when converting a home from electric heat to a hot water system.

Renefits:

- · High efficiency, performance and low operating cost
- Worry-free performance

Approvals – The cast iron boiler assembly is manufactured and tested in accordance with American Society of Mechanical Engineers (ASME) standards, and certified by Canadian Standards Association (CSA) in the US and Canada. The Annual Fuel Utilization Efficiencies (AFUE) and heating capacity are based on US DOE test procedures and FTC labeling regulations. AFUE and I=B=R ratings are certified in accordance with standards set by The Hydronics Institute Division of the Gas Appliance Manufacturers Association (GAMA). The Material and Equipment Acceptance number for the City of New York, is Mea# 415-90-E.

▲ Cabinet:

- Constructed of heavy gauge steel with a baked-on enamel finish
- Insulated to keep cabinet surface temperatures low.
- Low profile allows for installation in areas with low ceilings.
- Specially designed to be vented vertically through a chimney or horizontally through a wall.

Benefits:

- Compact design and low profile allows for installation in areas with low ceilings.
- May be vented though-a-chimney or thoughthe-wall.

Stainless Steel Burner – Advanced design corrosion resistant stainless steel burners are incorporated into each DV-B boiler delivering uniform flame patterns that optimize combustion efficiency and quiet operation.

▲ Built-In Safety Devices:

- Automatic gas shut-off feature and a three-phase fuel safety system which senses proper flue pressure before it opens the main gas valve. This gas safety system also checks for proper component function before proceeding to the ignition mode.
- Low water cut-off to constantly monitor water levels and prevent "dry-firing" and potential boiler failure (optional).

DV-B SERIES CAST IRON GAS-FIRED/NATURAL OR PROPANE HOT WATER BOILERS

FEATURES AND BENEFITS Continued

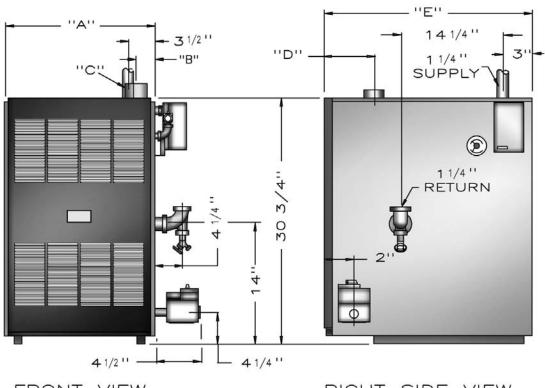
- Automatic Gas Control Silent operating control provides 100% safety shut off. A 24 Volt redundant combination gas control valve combines:
 - Automatic safety pilot
 - Manual shut off (On-Off)
 - Pilot filtration
 - Automatic electric valve (dual)
 - · Gas pressure regulation
 - Dual valve design provides 100% shut off to the pilot and main burners.
- **Aquastat Relay** Immersion-type controllers that combine high limit protection with switching relay control of burner and circulator motors.
- ► Flame Rollout Safety Shutoff A temperature sensitive snap-disc device is furnished as standard and factory installed on the boiler base just outside of the burner assembly. This device prevents unit operation in the event that the passage of combustion products through the flueway is blocked.

- Induced Draft Blower Heavy duty blower safely vents flue products. The motor has permanently lubricated ball bearings. A pressure switch prevents unit operation in case of blockage of flue outlet.
- Circulating Pump Supplied with the boiler to circulate hot water throughout the system and provide quick, even heat (field installed to supply-side of unit).
- Relief Valve Furnished as standard for field installation on top of the boiler. Valve provides for pressure relief of heating system in case of abnormal operating conditions. Valve opens at 30 psig (210 kPa) and is ASME stamped.
- Electronic Ignition Solid-state electronic spark igniter provides positive ignition of pilot burner on each operating cycle. Pilot gas is ignited and burns during each running cycle of the boiler. Main burners and pilot gas are extinguished during the off cycle. Ignition system permits main gas valve to open only when the pilot burner is proven to be lit. Pilot operation is fully automatic on demand for heat. Should a loss of flame occur, the main valve closes, shutting down the unit.

DV-B SERIES STANDARD EQUIPMENT							
Assembled boiler wired and tested	Roll-out safety swithches						
Cast iron section and push nipples	Safety pressure switch						
Combination aquastat relay							
Circulator (field mounted)	 Electronic ignition Intermittent pilot control Continuous retry Combination pilot burner Electrode 						
Deluxe insulated cabinet							
Stainless steel burners							
Theraltimeter gauge	- Flame sensor						
A.S.M.E relief valve							
Drain cock	OPTIONAL EQUIPMENT						
Induced draft fan	B-vent adapter						
	Combustible floor kit						
	Low water cut-off (probe type)						

BOILER RATINGS & CAPACITIES

DV-B SERIES BOILER



FRONT VIEW

RIGHT SIDE VIEW

DV-B Series, Cast Iron, Direct Vent, Gas-Fired, Hot Water Boiler Ratings And Dimensions												
Boiler		Heating Capacity	I=B=R* Net	Naturel Gas Inlet	Dimensions				Pump Size Sup. & Ret.	No. Of	AFUE	
No.		Btuh	Output Btuh		A	В	С	D	Е	Tappings	Burners	Ratings
DVB-50	50,000	42,000	37,000	1/2	11 1/4	2 1/8	3	6 %	27	1 1/4	1	83%
DVB-100	100,000	82,000	71,000	1/2	15 1/8	4 1/8	3	6 %	27	1 1/4	2	82%
DVB-125	125,000	103,000	90,000	1/2	19	6	3	6 %	27	1 1/4	3	82%
DVB-150	150,000	122,000	106,000	1/2	19	6	4	6 %	27	1 1/4	3	80%
DVB-200	199,000	160,000	139,000	1/2	22 %	8	4	7	28	1 1/4	4	80%

 $NOTE: For \ altitudes \ above \ 2,000 \ ft. \ ratings \ should \ be \ reduced \ at \ the \ rate \ of \ 4\% \ for \ each \ 1,000 \ ft. \ above \ sea \ level.$

*For equivalent square feet of radiation, divide I=B=R output by 150.

MEA number for the DV series boilers is 415-90-E.

Electric service to be 120 Volts, 15 Amps, 60 Hz.

DV-B SERIES CAST IRON GAS-FIRED/NATURAL OR PROPANE HOT WATER BOILERS

BOILER CLEARANCES						
Unit	Minimum Clearance to Combustible	Vent Pipe Minimum Clearance				
Тор	18"					
Front	Alcove (open) 6"					
Flue Connector	6"	6"				
Rear	4"	0				
Left Side	3"					
Right Side	9"					

Notes:

- For installation on combustible flooring special base part No.#325-2-8.00 must be used.
- · Allow for greater clearance on access side for servicing.

Ventilation of the boiler room must be adequate to provide sufficient air to properly support combustion per the latest revision of the National Fuel Gas Code, ANSI Z223.1 section 5.3.

When a boiler is located in an unconfined space in a building or conventional construction frame, masonry or metal building, infiltration normally is adequate to provide air for combustion and ventilation. However, if the equipment is located in a building of unusually tight construction (See the national Fuel Gas Code, Ansi Z223.1 section 1.7). If there is any doubt, install air supply provisions in accordance with the latest revision of the National Fuel Gas Code.

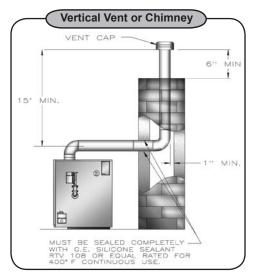
Samples of venting options follow.

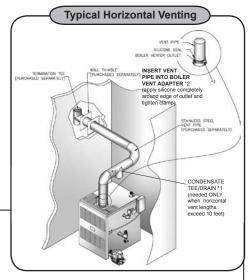
Vertical Vent or Chimney (Category I)

- Use a suitably sized Type B1 vent liner or suitable corrugated liner.
- 2) Support vent liner in a masonry chimney. Maintain at least 1" clearance on all sides to reduce the possibility of condensate in the vent.
- Terminate all vertical vents with a listed vent cap or roof assembly unless local codes require otherwise.

Typical Horizontal Venting (Category III)

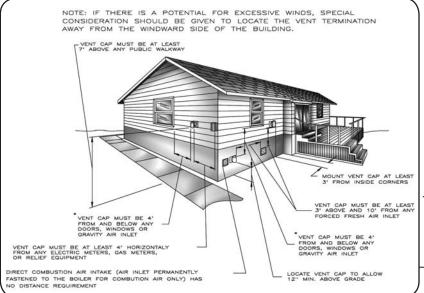
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LOCATING THE VENT TERMINATION

- 1. At least 12 inches above finished grade, or at least 12 inches above the normally expected snow accumulation level.
- 2. 4 feet away from and not above any doors or windows.
- At least 3 feet above any forced air inlet located within 6 feet horizontally.
- 4. At least 6 feet from a combustion air intake of another appliance.
- At least 4 feet horizontally from electric meters, gas meters, regulators and relief equipment.
- Do not locate the vent termination in traffic areas like walkways, unless it is at least 7 feet above finished grade.
- Do not locate the vent termination too close to shrubbery as flue products.
- Some building materials may be affected by flue products expelled near unprotected surfaces.



Sealing or shielding of exposed surfaces may be required to prevent staining or deterioration.

- When installing vent cap secure it to a noncombustible wall or a combustible wall thimble. Refer to vent pipe manufacturers instructions.
- See the Federal Codes for additional information on termination location.

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