

BW9

GAS-FIRED CONDENSING WATER BOILER

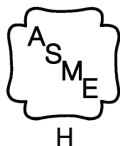
SERIES B

PRODUCT DATA



Fig. 1 – Fig. 1 - Model BW9 50-100 Series B

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Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to www.ahridirectory.org.

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The BW9 is a gas fired direct vent condensing hot water boiler with cast aluminum heat exchanger sections. A revolutionary cast aluminum heat exchanger means better heat transfer and thermal storage than similarly sized cast iron boiler, which results in higher efficiency. The heating system water absorbs large amounts of heat from the cast aluminum heat exchanger, cooling the flue gases and causing condensation. Sealed combustion, premix gas burner, and low flame temperature means reduced CO and NOx emissions, which contribute to a cleaner and healthier environment.

The BW9, unlike other residential atmospheric and induced draft boilers, takes its combustion air directly from the outdoors (sealed combustion) and does not compete with building occupants for fresh air. Sealed combustion (also known as “direct vent”) is the best way to obtain clean combustion air. The draft fan draws in the outside combustion air, then takes the cooler flue gases from the heat exchanger and provides a positive removal of the flue gases from the building through inexpensive and readily available PVC and CPVC pipes.

FEATURES

RANGE OF CAPACITIES

Three sizes ranging from 50,000 through 100,000 Btuh input.

2012 DOE COMPLIANT

The BW9 boiler features a 2012 DOE compliant Hydrolevel Fuel Smart Hydrostat. The control monitors the water temperature and delays the burner starting until the residual heat has been transferred. This maximizes efficiency by turning on the burner only when needed.

COMPLETELY PACKAGED

Each boiler comes fully assembled, including all controls (except thermostat and expansion tank). Factory pre-wired for quick connection of supplied circulator pump. Easily identified field connections for gas, electric, water and room thermostat.

VENTING

This boiler is direct vented with PVC and CPVC pipe.

ALUMINUM SECTIONS

These sections speed heat transfer to the boiler water. With faster thermal response, greater comfort and economy are achieved.

PRE-MIX BURNER

Provides quiet operation and improved combustion efficiency.

CONTROLS

UTEC Ignition Control manages operation of gas flow, ignition devices and supervision of safety components to provide superior combustion performance and protection. A factory installed low water cut-off is provided on all BW9 models.

SECTIONS TESTED

Each section is hydrostatically tested per ASME Section H requirements. The maximum allowable working pressure is 50 psig for hot water boilers.

PROPANE CONVERTIBLE

With factory approved conversion kit accessory.

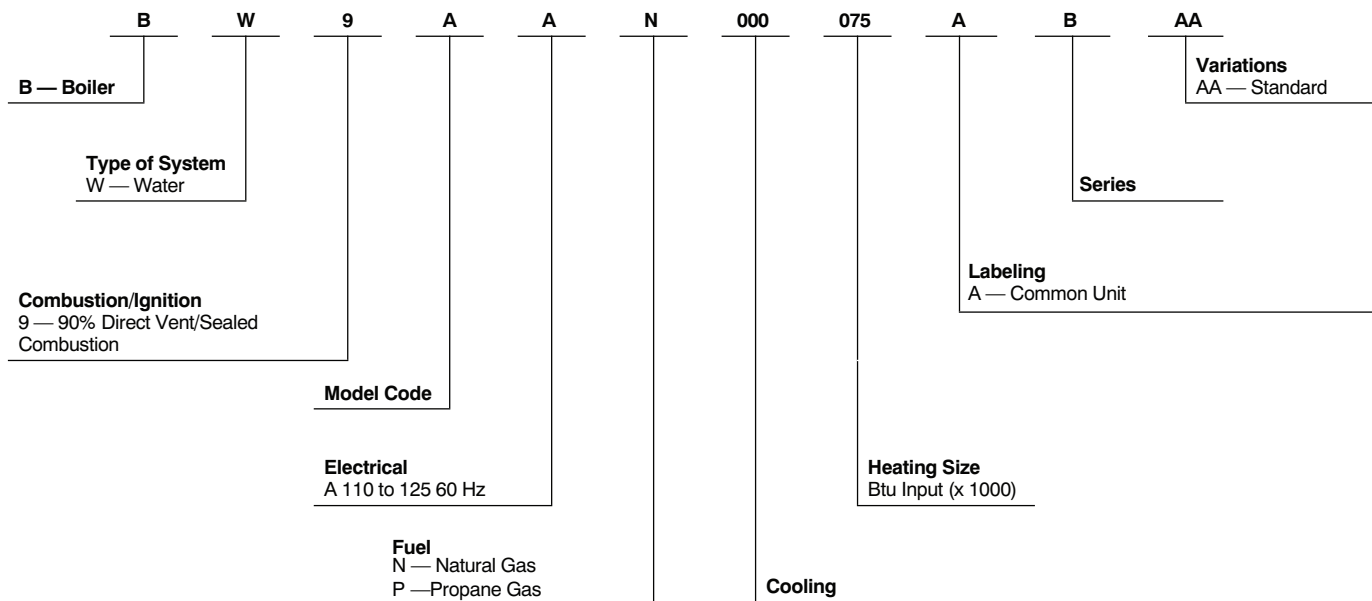


Fig. 2 – Model Number Nomenclature

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Table 1 – Accessories

DESCRIPTION	PART NO.
Filltrol Package (Up to 75,000 BTUH)	KBAFP0101DNK
Filltrol Package (Up to 150,000 BTUH)	KBAFP0201DNK
High Limit Control	KBAHL0101DNK
Gas Conversion Kit, Combination Natural to Propane (BW9-050, 0 to 10,000 ft.)	KBANP2401DNK
Gas Conversion Kit, Combination Natural to Propane (BW9-075, 0 to 5000 ft.)	KBANP2501DNK
Gas Conversion Kit, Combination Natural to Propane (BW9-075, 5001 to 10,000 ft.)	KBANP2601DNK
Gas Conversion Kit, Combination Natural to Propane (BW9-100, 0 to 10,000 ft.)	KBANP2701DNK
Gas Conversion Kit, Combination Propane to Natural (BW9-050, 0 to 10,000 ft.)	KBAPN1501DNK
Gas Conversion Kit, Combination Propane to Natural (BW9-075, 0 to 10,000 ft.)	KBAPN1601DNK
Gas Conversion Kit, Combination Propane to Natural (BW9-100, 0 to 10,000 ft.)	KBAPN1701DNK
Concentric Vent Kit 2"	KGAVT0701CVT
Concentric Vent Kit 3"	KGAVT0801CVT

NOTE: Accessory High Limit Control is a strap-on aquastat used as an auxiliary limit or revers acting circulator control.

Table 2 – Electrical Data

ALL MODELS	
Voltage—Hertz—Phase	120 — 60 — 1
Minimum Branch Circuit Wire Size (AWG)	14
Maximum Fuse Size (Amps)	15
Control Circuit Power Available	40va—@ 24v

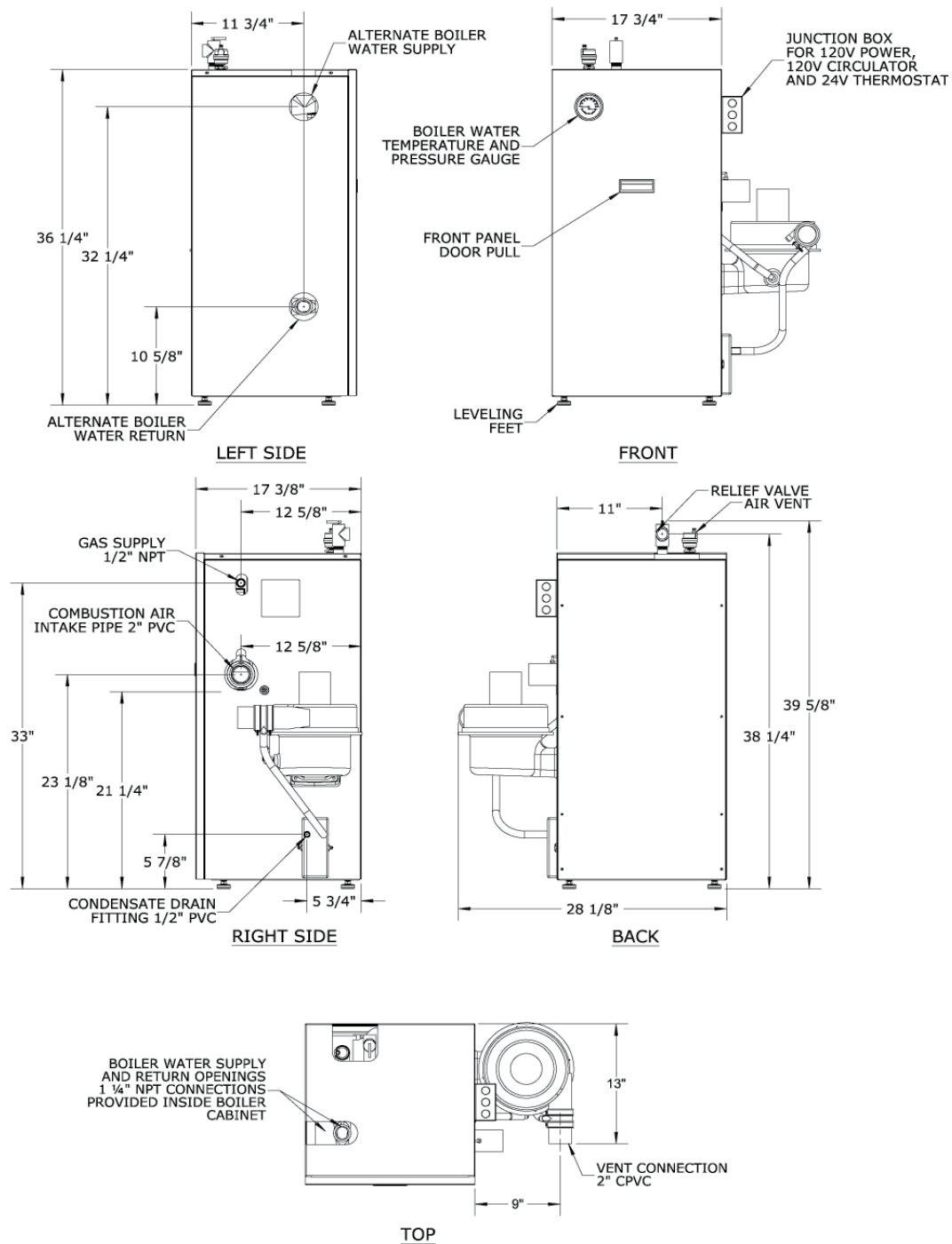


Fig. 3 – Dimensions - Model BW9

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Table 3 – Clearances - in. (mm)

PART OF BOILER	COMBUSTIBLE
TOP	1 (25)
LEFT SIDE	1 (25)
RIGHT SIDE	11(279)*
BASE	1 (25)
FRONT	1 (25)*
BACK	1 (25)
INTAKE/VENT PIPING	0
NEAR BOILER HOT WATER PIPING	1 (25)

*Service clearance requirement 24-in. (610 mm); front alcove clearance 18-in. (457 mm)

Table 4 – Specifications

UNIT SIZE		50	75	100
Sections		2		
GAS CONTROLS				
Gas Valve		Honeywell		
Inlet Size		1/2-in.		
Integrated Boiler Control		UTEC, Hot Surface		
Burner—Stainless Alloy Natural Gas		1		
WATER CONTROLS				
Limit Control		Hydrolevel, Fuel Smart Hydrostat		
Limit Control Range		100 - 190_F		
Pressure Relief Valve Setting		3/4-in. 30 Psig		
Drain Valve		3/4-in.		
Air Vent		1/8-in.		
CIRCULATOR				
Pump		Taco 007		
Full Load Current		.76 amps		
Flange Size FPT		1-1/4-in.		

Table 5 – Ratings and Capacities

MODEL	GAS TYPE	MAX INPUT (BTUH)	HEATING CAPACITY (BTUH)	AFUE %	NET RATINGS (BTUH)	BOILER WATER CAPACITY (GALLONS)	APPROXIMATE SHIP WEIGHT (LBS.)
BW9AAN050*	Natural	50,000	45,000	90.0	39,000	2.6	202
BW9AAN075*	Natural	75,000	68,000	90.0	59,000	2.6	202
BW9AAN100*	Natural	100,000	90,000	90.0	78,000	2.6	203

*Boilers are factory equipped for operation at elevations from 0 to 5,000 ft. (1,524 M) above sea level. For elevations from 5,000 ft. (1,524 M) to 10,000 ft. (3,048 M) above sea level, gas manifold pressure needs to be adjusted based upon calorific value of supply gas. BW9AAN075 installations firing on Propane at elevations from 5,000 ft. (1,524 M) to 10,000 ft. (3,048 M) above sea level also require an orifice change as well as gas manifold pressure adjustment.

Canada - Boilers are factory equipped for operation at elevations from 0 to 4,500 ft. (1,372 M) above sea level. Contact Provincial Authority having jurisdiction for installations above 4,500 ft. (1,372 M) above sea level.

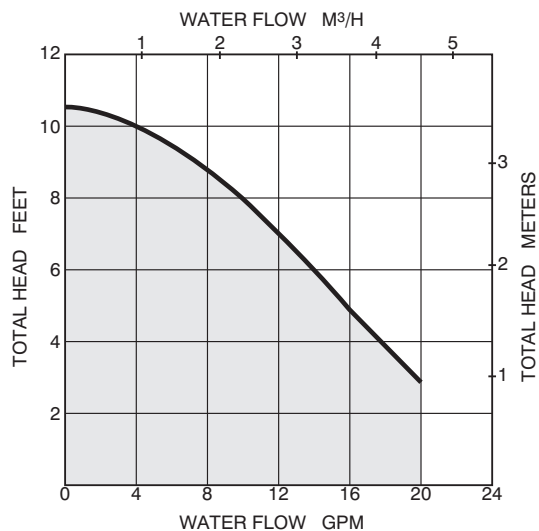


Fig. 4 – Fig. 6 - Circulator Curve

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