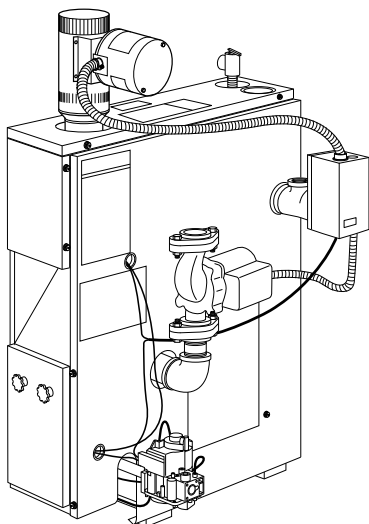


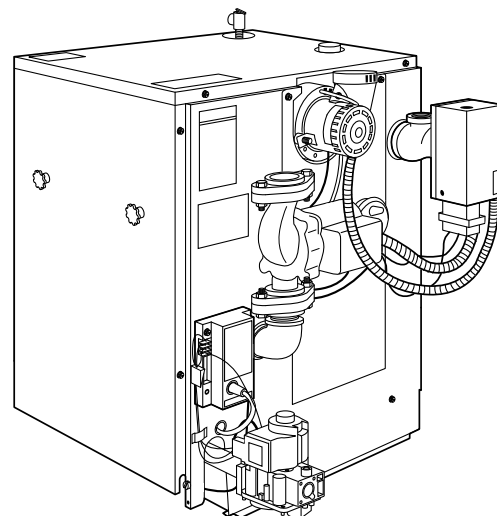


Product Data

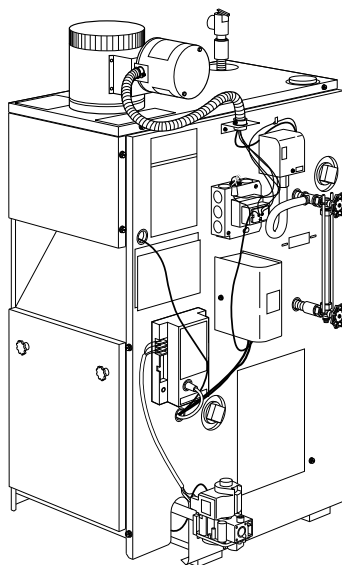
Models BW and BS Gas and Oil-Fired Water and Gas-Fired Steam Boilers



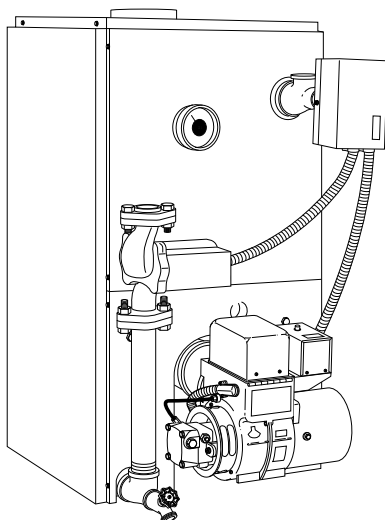
**MODEL BW1, BW2
Series B**



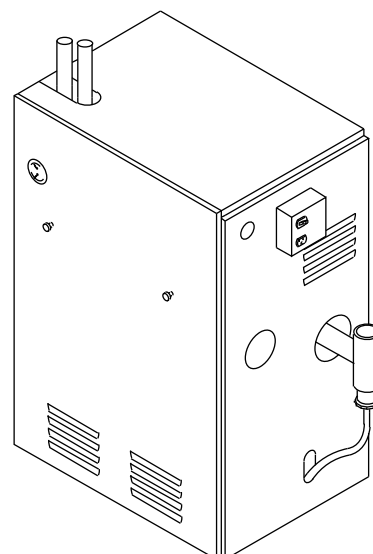
**MODEL BW3
Series B**



**MODEL BS1, BS2
Series B**

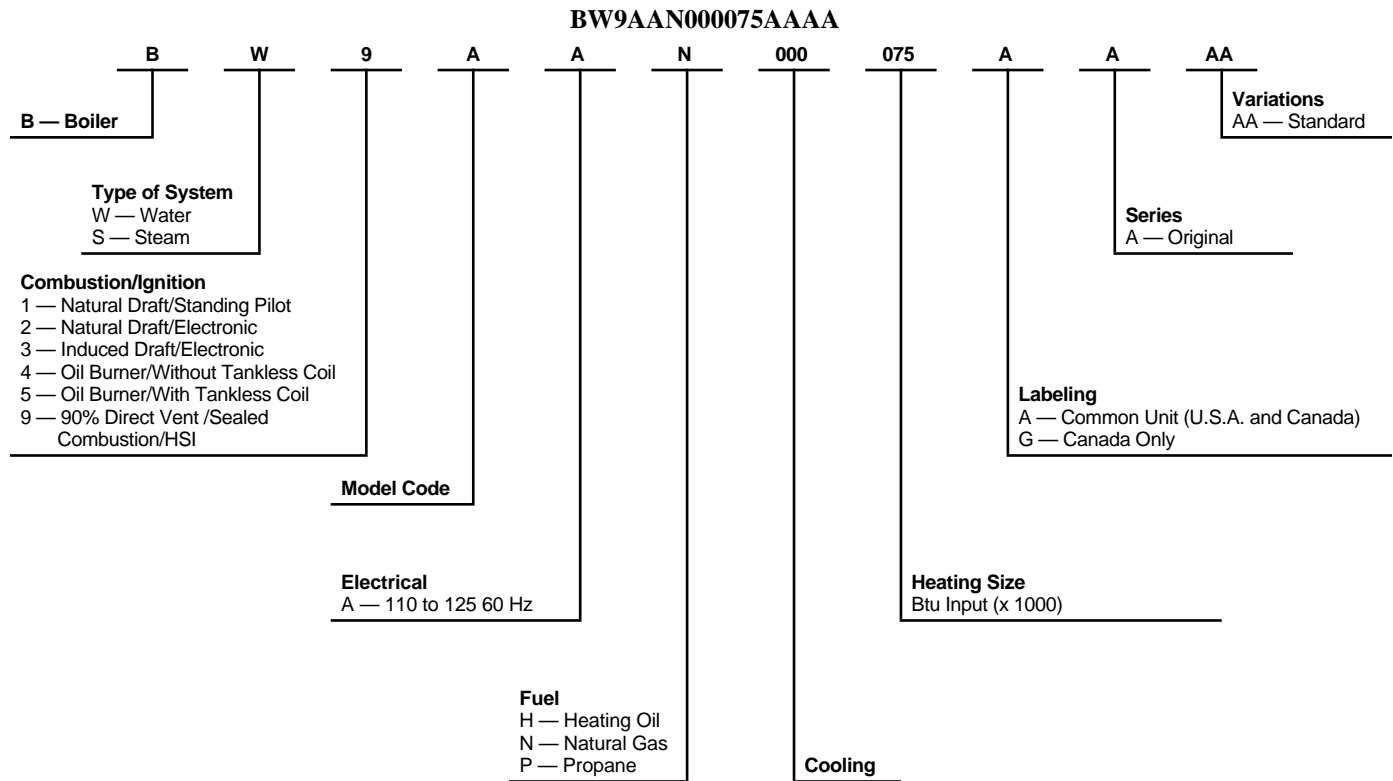


**MODEL BW4, BW5
Series B**



**MODEL BW9
Series A**

Model number nomenclature



Boiler accessories

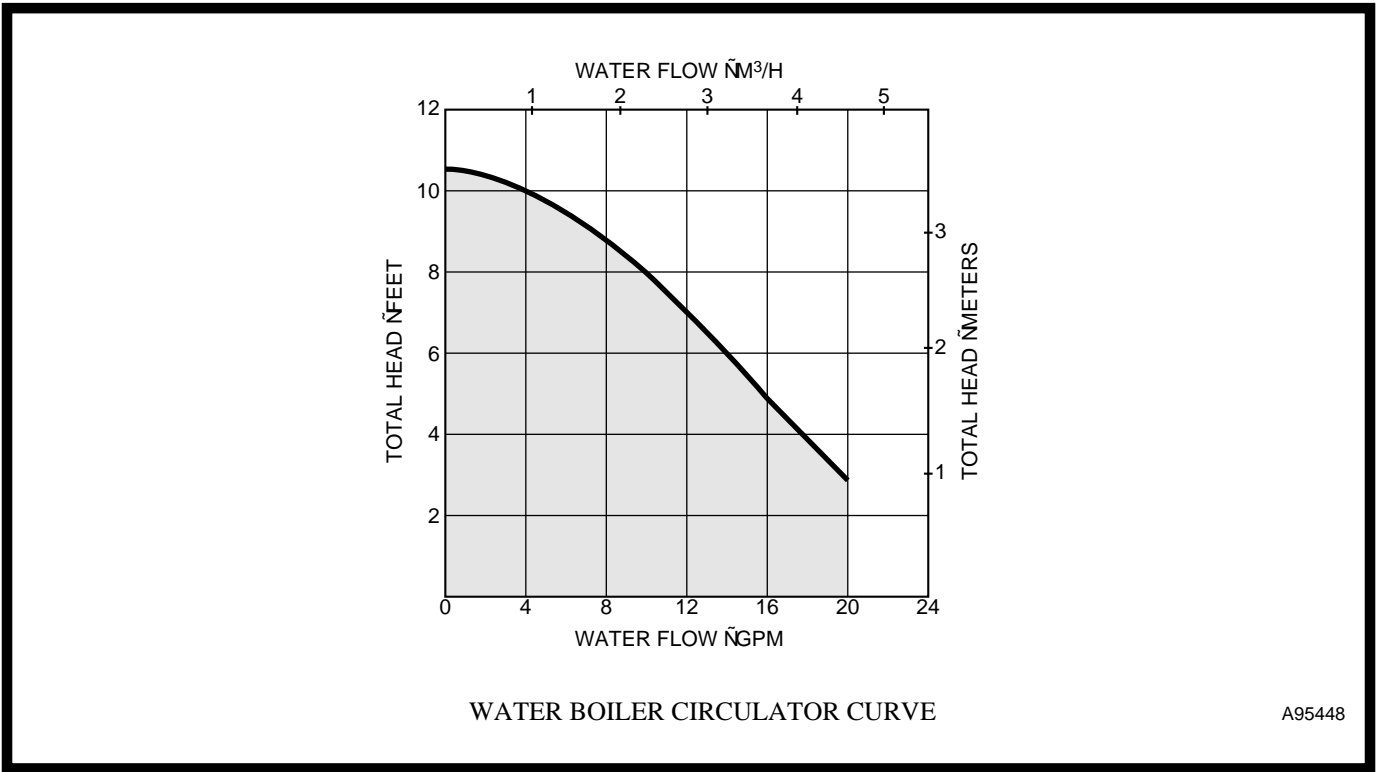
DESCRIPTION	PART NO.	BW1	BW2	BW3	BW4	BW5	BW9	BS1	BS2
Filltrol Package (Up to 75,000 Btuh Input)	KBAFP0101DNK	X	X	X	—	—	X	—	—
Filltrol Package (Up to 150,000 Btuh Input)	KBAFP0201DNK	X	X	X	X	X	X	—	—
Filltrol Package (Over 150,000 Btuh Input)	KBAFP0301DNK	X	X	X	X	X	—	—	—
High Limit Control	KBAHL0101DNK	X	X	X	X	X	X	—	—
Combustible Floor Base*	KBASB0301DNK	X	X	X	X	X	—	X	X
Combustible Floor Base†	KBASB0401DNK	X	X	X	—	—	—	X	X
Zoning Valve — 3/4 in.	KBAZV0101DNK	X	X	X	X	X	X	—	—
Zoning Valve — 1 in.	KBAZV0201DNK	X	X	X	X	X	X	—	—
Gas Conversion Kit — 3 Section steam Natural to Propane	KBANP0103DNK	—	—	—	—	—	—	X	X
Gas Conversion Kit — 4 Section steam Natural to Propane	KBANP0104DNK	—	—	—	—	—	—	X	X
Gas Conversion Kit — 5 Section steam Natural to Propane	KBANP0105DNK	—	—	—	—	—	—	X	X
Gas Conversion Kit — 6 Section steam Natural to Propane	KBANP0106DNK	—	—	—	—	—	—	X	X
Gas Conversion Kit — 7 Section steam Natural to Propane	KBANP0107DNK	—	—	—	—	—	—	X	X
Gas Conversion Kit — 8 Section steam Natural to Propane	KBANP0108DNK	—	—	—	—	—	—	X	X
Gas Conversion Kit — 9 Section steam Natural to Propane	KBANP0109DNK	—	—	—	—	—	—	X	X
Gas Conversion Kit, Combination Natural to Propane and High Altitude Derate (BW9-050)	KBANP1101DNK	—	—	—	—	—	X	—	—
Gas Conversion Kit, Combination Natural to Propane and High Altitude Derate (BW9-075)	KBANP1201DNK	—	—	—	—	—	X	—	—
Gas Conversion Kit, Combination Natural to Propane and High Altitude Derate (BW9-100)	KBANP1301DNK	—	—	—	—	—	X	—	—
Gas Conversion Kit, Combination Propane to Natural and High Altitude Derate (BW9-050)	KBAPN1101DNK	—	—	—	—	—	X	—	—
Gas Conversion Kit, Combination Propane to Natural and High Altitude Derate (BW9-075)	KBAPN1201DNK	—	—	—	—	—	X	—	—
Gas Conversion Kit, Combination Propane to Natural and High Altitude Derate (BW9-100)	KBAPN1301DNK	—	—	—	—	—	X	—	—
Gas Conversion Kit—Propane to Natural	KBAPN0101DNK	X	X	X	—	—	—	—	—
Tankless Water Heater Kit	KBATH0101DNK	—	—	—	X	—	—	—	—

* 2–6 Section Models on BS1, BS2, BW1, and BW2; 2–5 Section Models on BW3.

† 7–9 Section Models on BS1, BS2, BW1, and BW2; 6–7 Section Models on BW3.

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

Circulator curve



Electrical data

ALL MODELS	
Voltage—Hertz—Phase	115 — 60 — 1
Minimum Branch Circuit Wire Size (AWG)	14
Maximum Fuse Size or CKT BKR (Amps)‡	15
Control Circuit Power Available	40va @ 24v

‡Time-delay type is recommended

Standard boiler warranties (yrs)

MODEL	BW1	BW2	BW3	BW4	BW5	BW9	BS1	BS2
Circulator Pump	3	3	3	3	3	3	—	—
Vent Damper	5	5	—	—	—	—	5	5
Heat Exchanger Section Assembly (Non-prorated)	20	20	20	20	20	15	12	12
Oil Burner	—	—	—	3	3	—	—	—

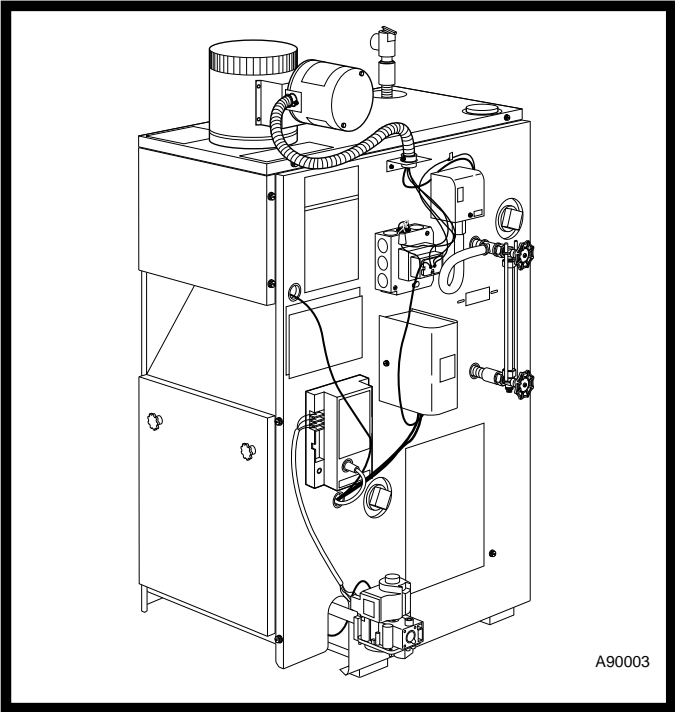


Models BS1 and BS2

Models BS1 and BS2 Gas-Fired Steam Boilers provide fast heat quietly and economically to assure the finest in hydronic heating.

These boilers provide quality design in a small, compact unit easily installed in a basement, garage, or utility room. They can be installed on a combustible floor when an optional combustible floor base is used.

The models BS1 and BS2 design is A.G.A. certified for use with natural and is convertible to propane gas with accessory kit.



FEATURES

Range of Capacities — Sizes 75,000 through 299,000 Btuh are available.

Completely Packaged — Each boiler is completely assembled, including all controls (except room thermostat). All necessary wiring is factory installed. The boiler is ready for gas, water, room thermostat, and electrical connections as shipped.

Thermal-Pin, Cast-Iron Sections — These sections speed heat transfer from the flue gases to the boiler water, with faster thermostat response, providing greater comfort and economy. Maximum heat is produced at a lower level on the thermal-pin sections, leading to peak efficiency.

Titanium Composite Burners — Provide quiet operation, corrosion resistance and improved combustion efficiency. Propane convertible – with accessory kit.

Controls — An automatic gas valve and continuous pilot or intermittent pilot provide quiet, dependable operation of the burners. Factory-installed safety components assure protection against overheating, pressure buildup, and low-water operation.

Insulated Casing — The casing is fully insulated with fiberglass for maximum operating efficiency and economy.

Automatic Vent Damper — BS1 and BS2 design is A.G.A. certified for use with the automatic vent damper.

Sections Tested — Each section is hydrostatically tested to 250 psig. The maximum working pressure is 15 psig for steam boilers.

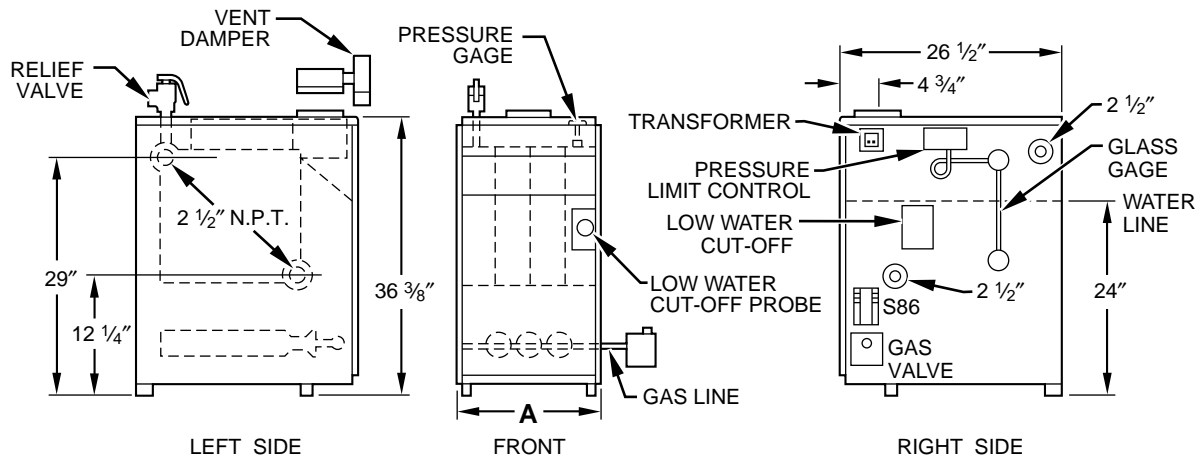
Warranty — The cast-iron sections are covered by a non-prorated 12-year warranty on the entire assembly. Vent damper covered by 5-year warranty. All other parts are covered by a 1-year limited warranty.

Physical data

UNIT SIZE		075	112	150	187	225	262	299
GENERAL DATA								
Sections — Fine Grain Cast Iron	No.	3	4	5	6	7	8	9
Burners — Cast Iron (Natural)/ Stainless (Propane)	No.	2	3	4	5	6	7	8
Burners — Orifice Drill Size	Propane/Natural	51/34	51/34	51/34	51/34	51/34	51/34	51/34
GAS CONTROLS — STANDING PILOT (BS1)								
Gas Valve (CSA Natural, CSC Propane)		Honeywell						
Inlet Size	In.	1/2 FPT					3/4 FPT	
Pilot Assembly (CSA Natural, CSC Propane)		Honeywell						
GAS CONTROLS — INTERMITTENT PILOT (BS2)								
Gas Valve (CSB Natural, CSD Propane)		Honeywell						
Inlet Size	In.	1/2 FPT					3/4 FPT	
Pilot Assembly		Honeywell						
Spark Generator		Honeywell						
CONTROLS								
Low-Water Cutoff		McDonnell Miller						
Pressuretrol	Psig	0–15						
Pressure Relief Valve	Setting	15 Psig						
	Capacity	400 lb/hr						
Pressure Retard Gage Range	Psig	0–30						
Drain Cock	In.	3/4						
Vent Damper*	In.	5	6	7				

*Factory authorized and listed, field installed.

Dimensions — Models BS1 and BS2



A90064

DIMENSIONS (In.)

UNIT SIZE	A	VENT DIA
075	11-1/4	5
112	14-1/2	6
150	17-3/4	6
187	21	7
225	24-1/4	7
262	27-1/2	7
299	30-3/4	7

CLEARANCES (In.)

RIGHT SIDE	6*
LEFT SIDE	6
TOP	6
BACK	6
FRONT	6*

* Service clearance requirement 24 in.

Performance data*

UNIT	GAS TYPE	NUMBER OF SECTIONS	MAX INPUT (BTUH)	HEATING CAPACITY (BTUH)	NET RATING		AFUE % (W/DAMPER)	APPROX SHIP. WT (Lb)
					Btuh	Sq Ft		
BS1AAN075	Natural	3	75,000	62,000	47,000	196	81.1	256
BS1AAN112	Natural	4	112,500	91,000	68,000	283	78.8	404
BS1AAN150	Natural	5	150,000	122,000	92,000	383	79.2	483
BS1AAN187	Natural	6	187,500	153,000	115,000	479	79.6	564
BS1AAN225	Natural	7	225,000	183,000	137,000	571	80.1	649
BS1AAN262	Natural	8	262,500	214,000	161,000	671	80.5	719
BS1AAN299	Natural	9	299,000	245,000	184,000	767	80.9	800
BS2AAN075	Natural	3	75,000	62,000	47,000	196	82.7	256
BS2AAN112	Natural	4	112,500	91,000	68,000	283	80.4	404
BS2AAN150	Natural	5	150,000	122,000	92,000	383	80.6	483
BS2AAN187	Natural	6	187,500	153,000	115,000	479	80.9	564
BS2AAN225	Natural	7	225,000	183,000	137,000	575	81.1	649
BS2AAN262	Natural	8	262,500	214,000	161,000	671	81.3	719
BS2AAN299	Natural	9	299,000	245,000	184,000	767	81.5	800

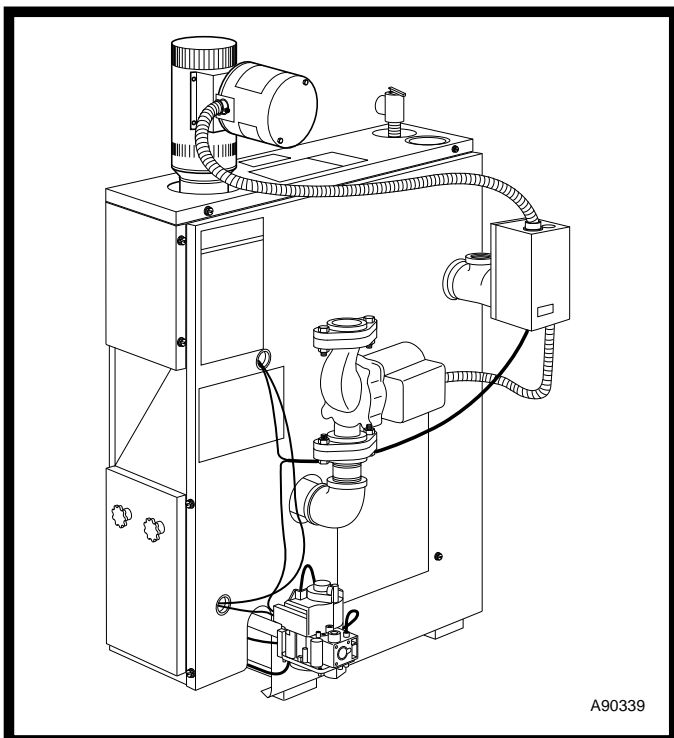
* Ratings are for altitudes to 2000 ft. Ratings for units for altitudes over 2000 ft are 4% less for each 1000 ft above sea level. Ratings in sq ft are computed at 240 Btuh/sq ft for steam boilers.

Models BW1 and BW2

Models BW1 and BW2 Gas-Fired Hot Water Boilers provide fast heat quietly and economically to assure the finest in hydronic heating.

These boilers provide quality design in a small, compact unit easily installed in a basement, garage, or utility room. They can be installed on a combustible floor when an optional combustible floor base is used.

The models BW1 and BW2 design is A.G.A. certified for use with natural and is convertible to propane gas with accessory kit.



FEATURES

Range of Capacities — Sizes 37,500 through 280,000 Btuh are available.

Completely Packaged — Each boiler is completely assembled, including all controls (except room thermostat). All necessary wiring is factory installed. The boiler is ready for gas, water, room thermostat, and electrical connections as shipped.

Thermal-Pin, Cast-Iron Sections — These sections speed heat transfer from the flue gases to the boiler water with faster thermostat response, providing greater comfort and economy. Maximum heat is produced at a lower level on the thermal-pin sections, leading to peak efficiency.

Integral Draft — These boilers incorporate an integral draft system to simplify installation. No external draft diverter is needed.

Titanium Composite Burners — Provide quiet operation, corrosion resistance and improved combustion efficiency. Propane convertible — with accessory kit.

Controls — An automatic gas valve and continuous pilot or intermittent pilot provide quiet, dependable operation of the burners. Factory-installed safety components assure protection against overheating, pressure buildup, and low-water operation.

Insulated Casing — The casing is fully insulated with fiberglass for maximum operating efficiency and economy.

Automatic Vent Damper — The model BW1 and BW2 design is A.G.A. certified for use with the automatic vent damper.

Sections Tested — Each section is hydrostatically tested to 250 psig. The maximum working pressure is 50 psig for hot water boilers.

Warranty — The cast-iron sections are covered by a non-prorated 20-year warranty on the entire assembly. Vent damper covered by 5-year warranty. Circulator pump covered by 3-year warranty. All other parts are covered by a 1-year limited warranty.

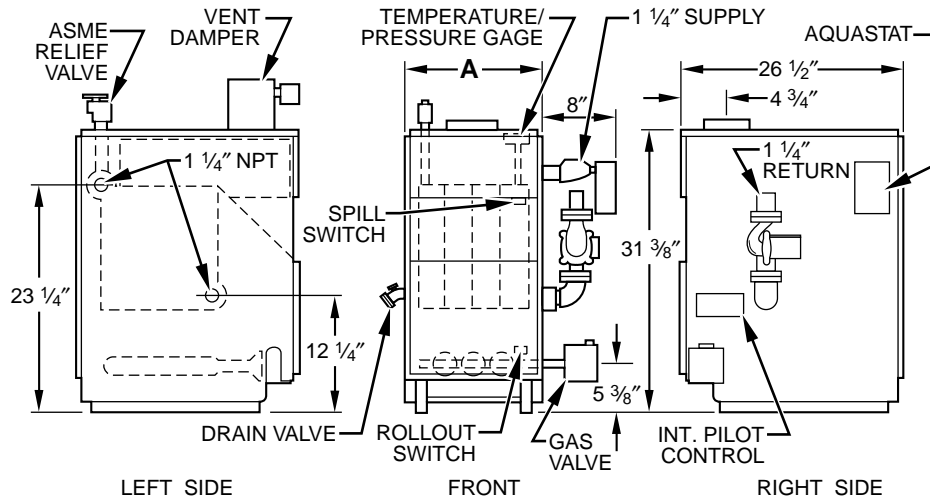
Physical data

UNIT SIZE		037	070	105	140	175	210	245	280
GENERAL DATA									
Sections—Fine Grain Cast Iron	No.	2	3	4	5	6	7	8	9
Burners—Cast Iron (Natural)/ Stainless (Propane)	No.	1	2	3	4	5	6	7	8
Burners—Orifice Drill Size	Propane/Natural	51/34	51/34	51/34	51/34	51/34	51/34	51/34	51/34
GAS CONTROLS—STANDING PILOT (BW1)									
Gas Valve		Honeywell							
Inlet Size	In.	1/2 FPT						3/4 FPT	
Pilot Assembly		Honeywell							
GAS CONTROLS—INTERMITTENT PILOT (BW2)									
Gas Valve		Honeywell							
Inlet Size	In.	1/2 FPT						3/4 FPT	
Pilot Assembly		Honeywell							
Spark Generator		Honeywell							
CONTROLS									
Limit Control Range	°F	140 — 240							
Pressure/Temperature Gage	Psig	10 — 70							
	°F	60 — 320							
Pressure Relief Valve Setting	Psig	30							
Circulator Relay—AquaStat		Honeywell (Factory Installed)							
Vent Damper*	In.	4†	5	6			7		
CIRCULATOR									
Taco	Model	007							
Full Load Amps		0.70							
Flange Size FPT	In.	1-1/4							

6 * Factory authorized and listed, field installed.

† A 4-in. vent damper is supplied. A 4-in. to 3-in. reducer is also furnished.

Dimensions — Models BW1 and BW2



A90340

DIMENSIONS (In.)

UNIT SIZE	A	VENT CONNECTION
037	8	3
070	11-1/4	5
105	14-1/2	6
140	17-3/4	6
175	21	7
210	24-1/4	7
245	27-1/2	7
280	30-3/4	7

CLEARANCES (In.)

RIGHT SIDE	6 (2-5 Section)* 24 (6-9 Section)*
LEFT SIDE	6 (2-5 Section) 24 (6-9 Section)
TOP	6
BACK	6
FRONT	6*

* Service clearance requirement 24 in.

Performance data*

BW1, BW2	GAS TYPE	NUMBER OF SECTIONS	MAX INPUT (BTUH)	HEATING CAPACITY (BTUH)	NET RATING (BTUH)	AFUE%		APPROX SHIP. WT (Lb)
						BW1	BW2	
AAN037	Natural	2	37,500	30,000	26,000	80.0	81.4	227
AAN070	Natural	3	70,000	57,000	50,000	80.4	81.6	285
AAN105	Natural	4	105,000	85,000	74,000	80.4	81.5	350
AAN140	Natural	5	140,000	113,000	98,000	80.3	81.3	421
AAN175	Natural	6	175,000	142,000	124,000	80.2	81.1	488
AAN210	Natural	7	210,000	170,000	148,000	80.1	81.0	564
AAN245	Natural	8	245,000	198,000	172,000	80.0	81.6	626
AAN280	Natural	9	280,000	226,000	197,000	80.0	80.7	689

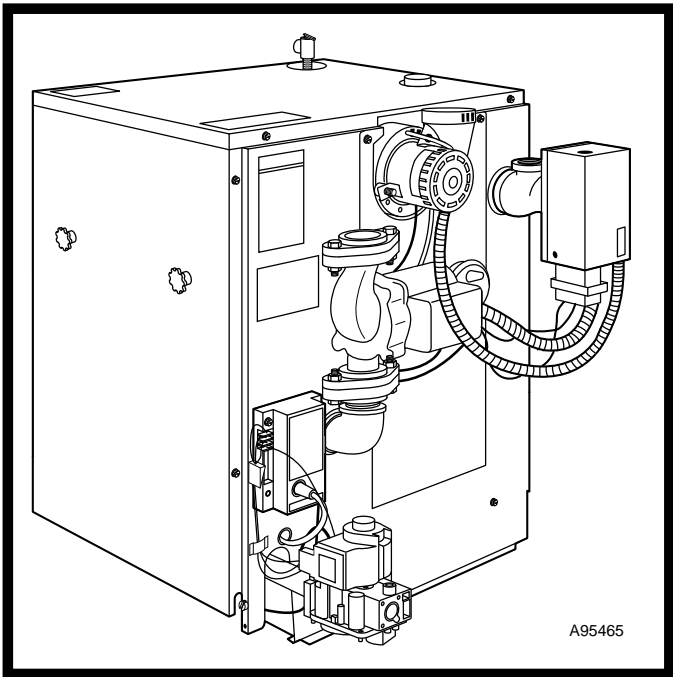
* Ratings are for altitudes to 2000 ft. Unit ratings for altitudes over 2000 ft are 4% less for each 1000 ft above sea level.

Model BW3

Model BW3 Gas-Fired Induced-Combustion Water Boilers are the answer to energy-efficient residential hydronic heating. They provide fast, almost instant heat quietly and economically.

These boilers provide quality design in a small, compact unit easily installed in a basement, garage, or utility room. They can be installed on a combustible floor when an optional combustible floor kit is used.

The design of model BW3 is A.G.A. certified for use with natural gas and is convertible to propane gas with accessory kit.



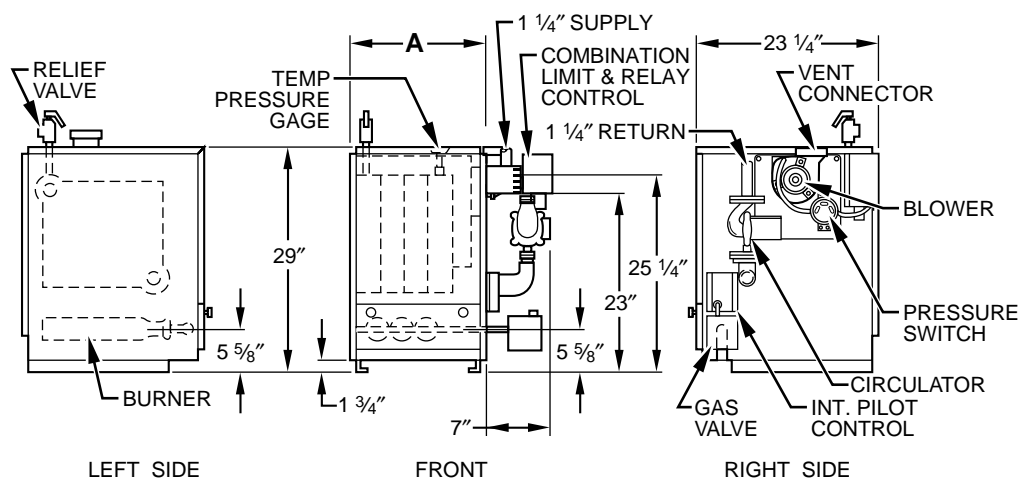
FEATURES

- Range of Capacities** — Six sizes ranging from 42,500 through 225,000 Btuh input.
- Completely Packaged** — Each boiler is completely assembled, including all controls (except room thermostat). All necessary wiring is factory installed. The boiler is ready for gas, water, room thermostat, and electrical power connections as shipped.
- Venting** — This boiler can be vented into any approved chimney or Type B-1 vent. Common-venting with an existing water heater is acceptable in vertical vent systems. See the Installation Instructions for common venting requirements. The induced-combustion design also eliminates the need for a vent damper.
- Thermal-Pin Cast-Iron Sections** — These sections speed heat transfer from the flue gases to the boiler water, with faster thermostat response, providing greater comfort and economy.
- Titanium Composite Burners** — Provide quiet operation, corrosion resistance and improved combustion efficiency. Propane convertible – with accessory kit.
- Controls** — An automatic gas valve and intermittent pilot provide quiet, dependable operation of the burners. Factory-installed safety components provide maximum safety against overheating, pressure buildup, and low-water operation.
- Insulated Casing** — Fully insulated with fiberglass for maximum operating efficiency and economy.
- Sections Tested** — Each section is hydrostatically tested to 250 psig. The maximum working pressure is 50 psig for hot water boilers.
- Warranty** — The cast-iron sections are covered by a non-prorated 20-year warranty on the entire assembly. Circulator pump covered by 3-year warranty. All other parts are covered by a 1-year limited warranty.

Physical data

UNIT SIZE		042	075	112	150	187	225
Sections — Fine Grain Cast-Iron	No.	2	3	4	5	6	7
GAS CONTROLS — INTERMITTENT PILOT							
Gas Valve		Honeywell					
Inlet Size	In.	1/2 FPT					
Pilot Assembly		Honeywell					
Spark Generator		Honeywell					
Burners — Cast Iron (Natural)/Stainless (Propane)	No.	1	2	3	4	5	6
Burner Orifice — Drill Size	Propane/Natural	51/32	51/34	51/34	51/34	51/34	51/34
CONTROLS							
Limit Control Range	°F	180–240					
Pressure/Temperature Gage	Psig	0–60					
	°F	60–260					
Pressure Relief Valve Setting	Psig	30					
Circulator Relay—AquaStat		Honeywell (Factory Installed)					
CIRCULATOR							
Taco	Model	007					
Full Load Amps		0.70					
Flange Size FPT	In.	1-1/4					

Dimensions—Model BW3



A85084

DIMENSIONS (In.)

UNIT SIZE	A	VENT CONNECTION
042	11	4*
075	14-1/4	4*
112	17-1/2	4*
150	20-3/4	4*
187	24	4
225	27-1/4	4

*With factory-supplied adapter installed.

CLEARANCES (In.)

RIGHT SIDE	6*
LEFT SIDE	6
TOP	6
BACK	6
FRONT	6*

*Service clearance requirement 24 in.

Performance data*

UNIT	GAS TYPE	MAX INPUT (BTUH)	RATINGS HEATING CAPACITY‡	AFUE %	NET RATING†	BOILER WATER CAPACITY (GALLONS)	APPROX SHIP. WT (Lb)
			Btuh		Btuh		
BW3AAN042	Natural	42,500	36,000	84.4	31,000	1.75	211
BW3AAN075	Natural	75,000	63,000	83.4	55,000	3.00	263
BW3AAN112	Natural	112,500	94,000	83.0	82,000	4.25	320
BW3AAN150	Natural	150,000	125,000	82.7	109,000	5.50	369
BW3AAN187	Natural	187,500	155,000	82.3	135,000	6.75	418
BW3AAN225	Natural	225,000	186,000	82.0	162,000	8.00	471

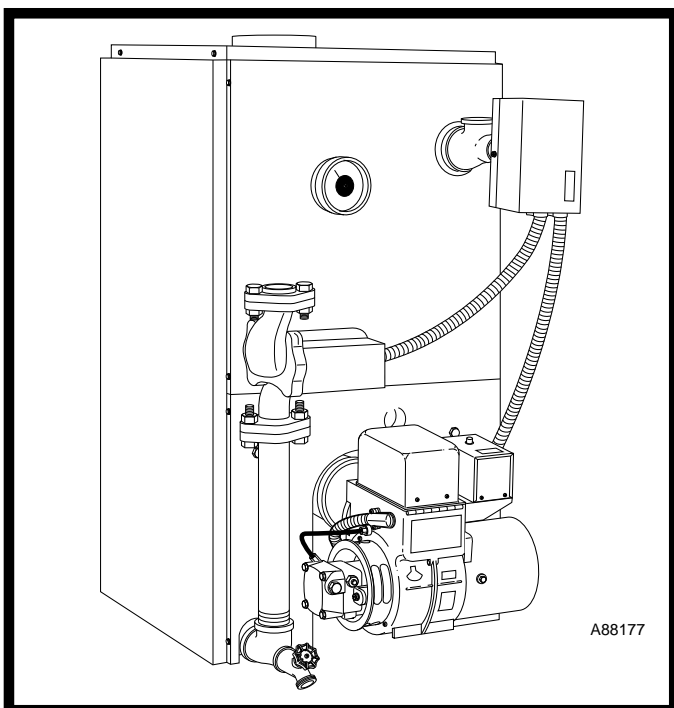
* Gas input ratings are for elevations up to 2000 ft. For elevations above 2000 ft, reduce input 4% for each 1000 ft above sea level.

† Selection factors providing for piping loss and starting load are those recommended by the Institute of Boiler and Radiator Manufacturers. Net water boiler ratings are based on an allowance of 1.15.

‡ In accordance with U.S. Government test procedures.

Models BW4 and BW5

The modern design and attractive appearance of the models BW4 and BW5 Oil-Fired Water Boilers make them ideal for installation in any area. The boilers are shipped fully assembled and wired, including all controls (except barometric draft regulator). The compact 22-gage steel cabinet has a baked-on enamel paint finish for durability. A 1-in. layer of thermal insulation is applied inside the jacket for protection and thermal efficiency. The flame retention head burner provides efficient fuel usage. A wet base case iron block with thermal pins surrounds the combustion area for better heat transfer from flue gases to water.



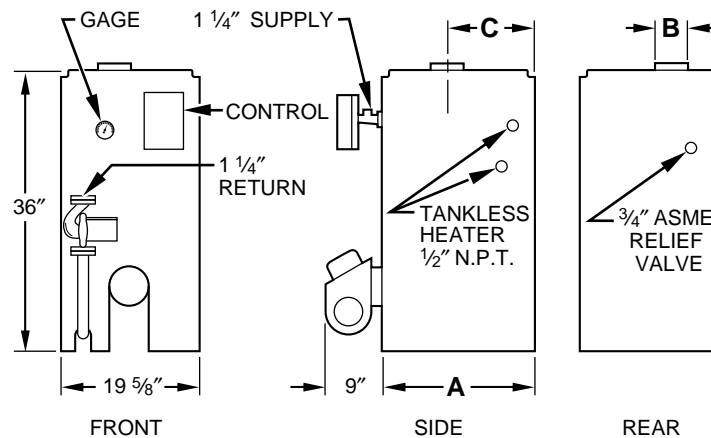
FEATURES

- Electrical power supply can be easily connected from either side of the unit.
- Small, compact unit installs easily in basement, garage, or utility room.
- Conveniently located vent connector permits versatile connection of vent pipe to top of unit from any direction.
- The factory-supplied barometric draft regulator can easily be installed in the vent pipe for optimum draft and combustion efficiency.
- Factory-installed controls on units with tankless hot water coil include a triple aquastat relay with high/low limit protection and circulator control.
- A 24-v transformer is combined with the aquastat assembly. The transformer will supply power sufficient to power a 3-zone system on BW5 models.
- Factory-installed combination pressure/temperature gage and a pressure relief valve.
- Units are available with or without tankless heater coil. The coil provides a supply of hot water for normal domestic purposes or an accessory tankless heater coil can be added later.
- A factory-installed drain is provided should the boiler ever need to be drained.
- Oil primary control prevents boiler operation in the event of flame loss.
- Removal of the burner door and burner can be accomplished by removing 4 nuts and screws, then sliding burner and door off the studs.
- The boilers are designed for a 50 psig working pressure and are tested at 75 psig.
- The cast-iron sections are covered by a non-prorated 20-year warranty on the entire assembly. Oil burner and circulator pump covered by 3-year warranty. All other parts are covered by a 1-year limited warranty.

Physical data

UNIT SIZE		120	181	239
GENERAL DATA				
Sections — Fine Grain Cast Iron	No.	3	4	5
Water Capacity	Gal	9.6	11.6	13.7
Combustion Chamber Target Wall		Ceramic Fiber		
Draft Regulator		Furnished		
Flue Brush		Furnished (Wired to top of crate)		
OIL BURNER				
Type Manufacturer/Model		Beckett/Model AFG Flame Retention Head Burner		
Oil Pump		Single Stage		
Fuel Type		No. 1 or 2 Fuel Oil		
Rated Load Amps		3 Amps		
CONTROLS				
Combination Control	Without Heater	High Limit, Circulator Relay, and Cad. Cell Relay		
	With Heater	High and Low Limit, Circulator Relay, and Cad. Cell Relay		
Pressure/Temperature Gage	Psig	0 — 60		
	°F	60 — 260		
ASME Pressure Relief Valve	Psig	30		
CIRCULATOR				
Taco	Model	007		
Full Load Amps		0.70		
Flange Size FPT	In.	1-1/4		

Dimensions — Models BW4 and BW5



A94271

DIMENSIONS (In.)

UNIT SIZE	A	B	C
120	17-3/4	6	9-3/4
181	21	6	11-3/8
239	24-1/4	6	13

CLEARANCES (In.)

RIGHT SIDE	6*
LEFT SIDE	6
TOP	6
BACK	6
FRONT	6†
FLUE	18

* Clearance 18 in. for BW5.

† Service clearance requirement 24 in.

Performance data

RATINGS AND PERFORMANCE

PACKAGED MODEL NO.		HEATING CAPACITY† (BTUH)	I=B=R NET RATING† (BTUH)	SQ FT WATER (150 BTU @ 170°F)	MAX FIRING RATE (GPH*)	TANK HEATER (GPM)	MINIMUM CHIMNEY SIZE AND HEIGHT	AFUE%	SHIP. WT (Lb)	
Without Tankless Heater	With Tankless Heater								Without Tankless Heater	With Tankless Heater
BW4AAH120	BW5AAH120	74,000	64,000	426	0.60	2.60	8 in. x 8 in. x 15 ft	86.1	492	502
		92,000	80,000	533	0.75	3.00	8 in. x 8 in. x 15 ft	85.6		
		120,000	104,000	693	1.00	3.25	8 in. x 8 in. x 15 ft	84.4		
BW4AAH181	BW5AAH181	111,000	97,000	647	0.90	3.15	8 in. x 8 in. x 20 ft	86.4	575	585
		153,000	133,000	887	1.25	3.50	8 in. x 8 in. x 20 ft	85.9		
		181,000	157,000	1047	1.50	3.75	8 in. x 8 in. x 20 ft	85.1		
BW4AAH239	BW5AAH239	147,000	128,000	853	1.20	3.40	8 in. x 8 in. x 25 ft	86.1	673	683
		210,000	183,000	1220	1.75	4.00	8 in. x 8 in. x 25 ft	84.8		
		239,000	209,000	1393	2.00	4.25	8 in. x 8 in. x 25 ft	84.0		

* Oil at 140,000 Btu per gallon.

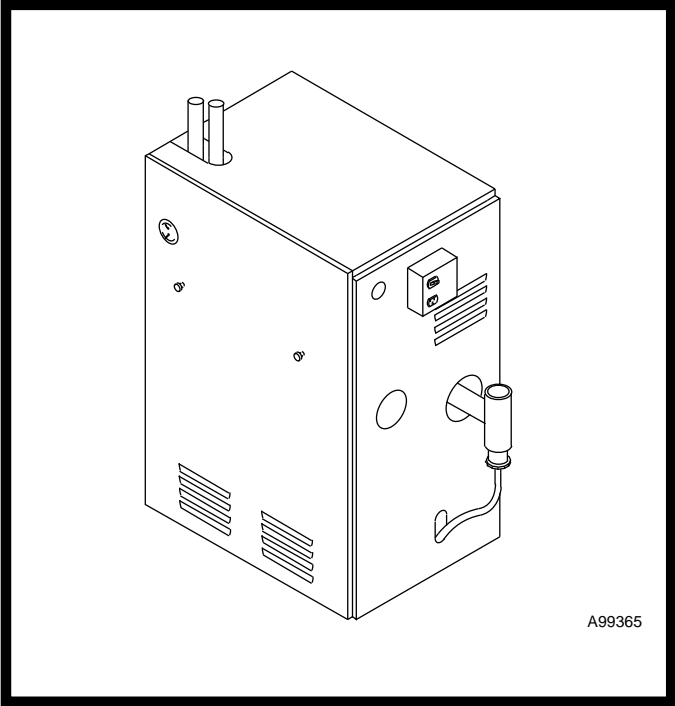
† Heating capacity is based on a 13% CO₂ with a 0.02-in. wc draft over fire, and a No. 1 smoke or less. The testing on the boilers was done in accordance with the Department of Energy (D.O.E.) test procedure.

NOTE: The Net I = B = R water ratings shown are based on the approved I = B = R code factor of 1.15. The manufacturer should be consulted before selecting a boiler for installations having unusual piping and pick-up requirements. The sq ft hot water rating is for 170° water only — for higher temperature water, divide the net I = B = R Btu rating by the applicable Btu per sq ft factor — do not use above sq ft ratings.

■ Shaded areas are as shipped.

Models BW9

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 drastically reduced CO and NOx emissions, which contribute to a cleaner and healthier environment.



The BW9, unlike normal 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 know as “direct vent”) is the safest and best way to obtain plenty of clean combustion air. The induced 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.

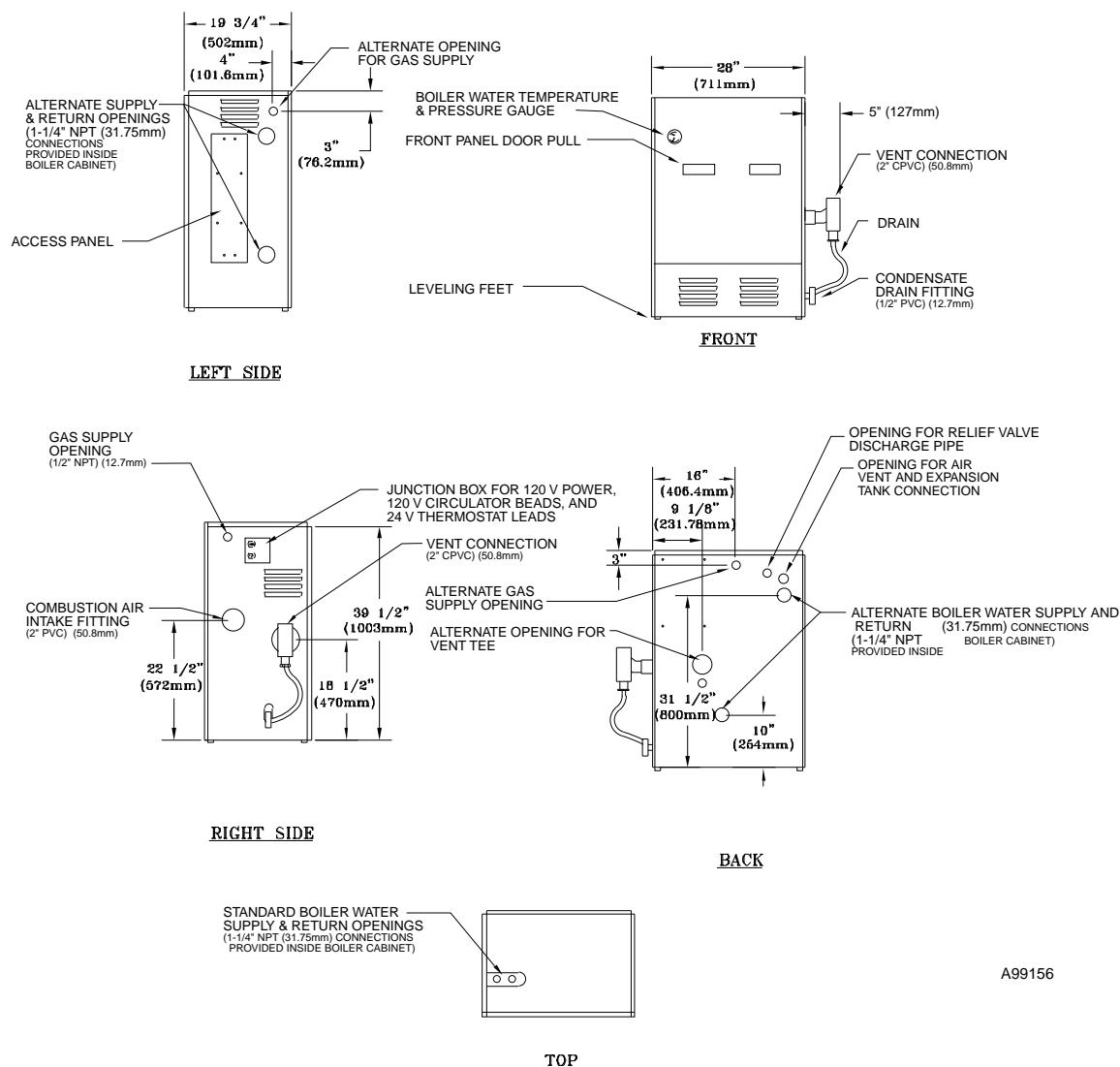
FEATURES

- **Range of Capacities**—Three sizes ranging from 50,000 through 100,000 Btuh input.
- **Completely Packaged**—Each boiler is completely assembled, including all controls (except room thermostat). All necessary wiring is factory installed. The boiler is ready for gas piping, room thermostat, and electrical power connections as shipped.
- **Venting**—This boiler is direct vented with PVC and CPVC pipe. See the Installation Instructions for common venting requirements.
- **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**—Integrated Boiler control provides safe, dependable operation of burners. Factory-installed safety components provide maximum safety against overheating, pressure buildup, and low-water operation.
- **Sections Tested**—Each section is hydrostatically tested to 50 psig.
- **Propane Convertible**—With factory approved conversion kit accessory.
- **Warranty**—The aluminum sections are covered by a limited 15-year warranty on the entire assembly. Circulator pump is covered by a limited 3-year warranty. All other parts are covered by a 1-year limited warranty.

Physical data

UNIT SIZE	050		075	100
Sections	1			
GAS CONTROLS				
Gas Valve	Honeywell			
Inlet Size	In.	1/2		
Ignition	Hot Surface Ignition			
Burner—Stainless/Titanium Alloy	1			
Burner Orifice	No.	0.0615	#48	#44
CONTROLS				
Limit Control Range	°F	100-200		
Pressure Relief Valve Setting	Psig	30		
Integrated Boiler Control	UTEC factory installed			
CIRCULATOR				
Taco	Model	007		
Full Load Amps	2.0 AMPS/330 WATTS			
Flange Size FPT	In.	1-1/4		

Dimensions—Model BW9



A99156

CLEARANCES (In.)

UNIT	COMBUSTIBLE	ACCESSIBILITY/CLEANING	SERVICING
TOP	1"	8"	8"
LEFT SIDE	1"	24"	24"
RIGHT SIDE	8"	—	—
BASE	1"	—	—
FRONT	0"	24"	24"
BACK	1"	—	—
INTAKE/VENT PIPING	0"	—	—
NEAR BOILER HOT WATER PIPING	1"	—	—

*Service clearance requirement 24 in.

Performance data*

UNIT	GAS TYPE	MAX INPUT (BTUH)	RATINGS HEATING CAPACITY†	AFUE %	NET RATING†	BOILER WATER CAPACITY (GALLONS)	APPROX SHIP. WT (Lb)
			Btuh		Btuh		
BW9AAN050	Natural	50,000	45,000	90	39,000	2.6	220
BW9AAN075	Natural	75,000	68,000	90	59,000	2.6	220
BW9AAN100	Natural	100,000	90,000	90	78,000	2.6	220

* Gas input ratings are for elevations up to 2000 ft. In the USA, for elevations above 2000 ft., reduce input per the charts supplied in the high altitude derate kits. In Canada, boilers may be used at high altitude by using a certified field conversion kit..



Carrier

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Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice and without incurring obligations.

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