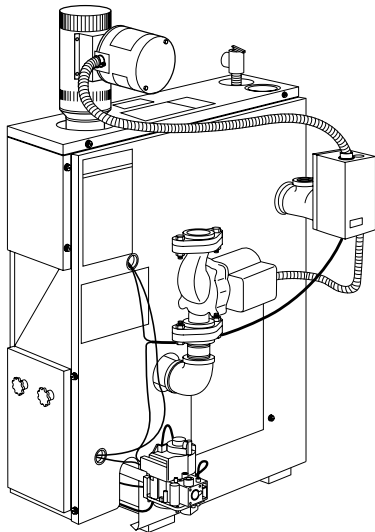


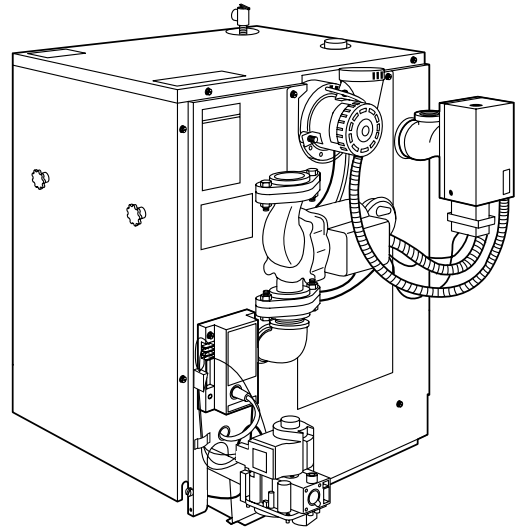


Gas and Oil-Fired Water and Gas Fired Steam Boilers

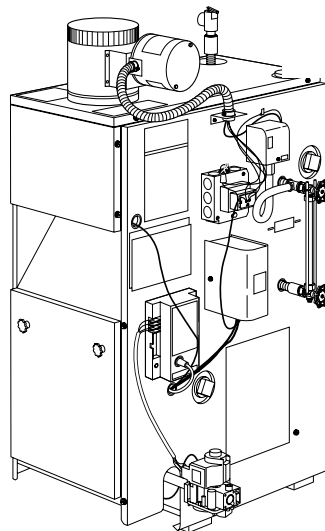
**BS
BW**



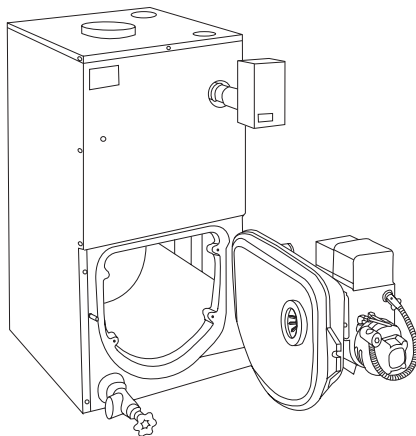
**MODEL BW1, BW2
Series B**



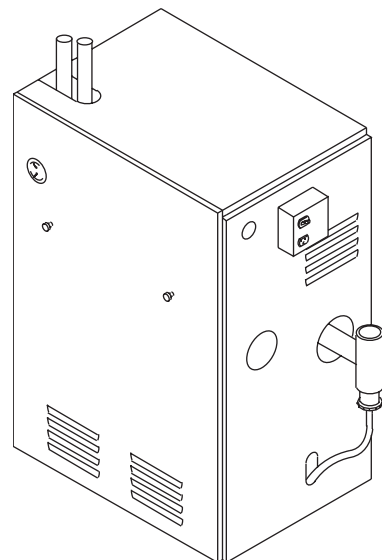
**MODEL BW3
Series B**



**MODEL BS1, BS2
Series B**



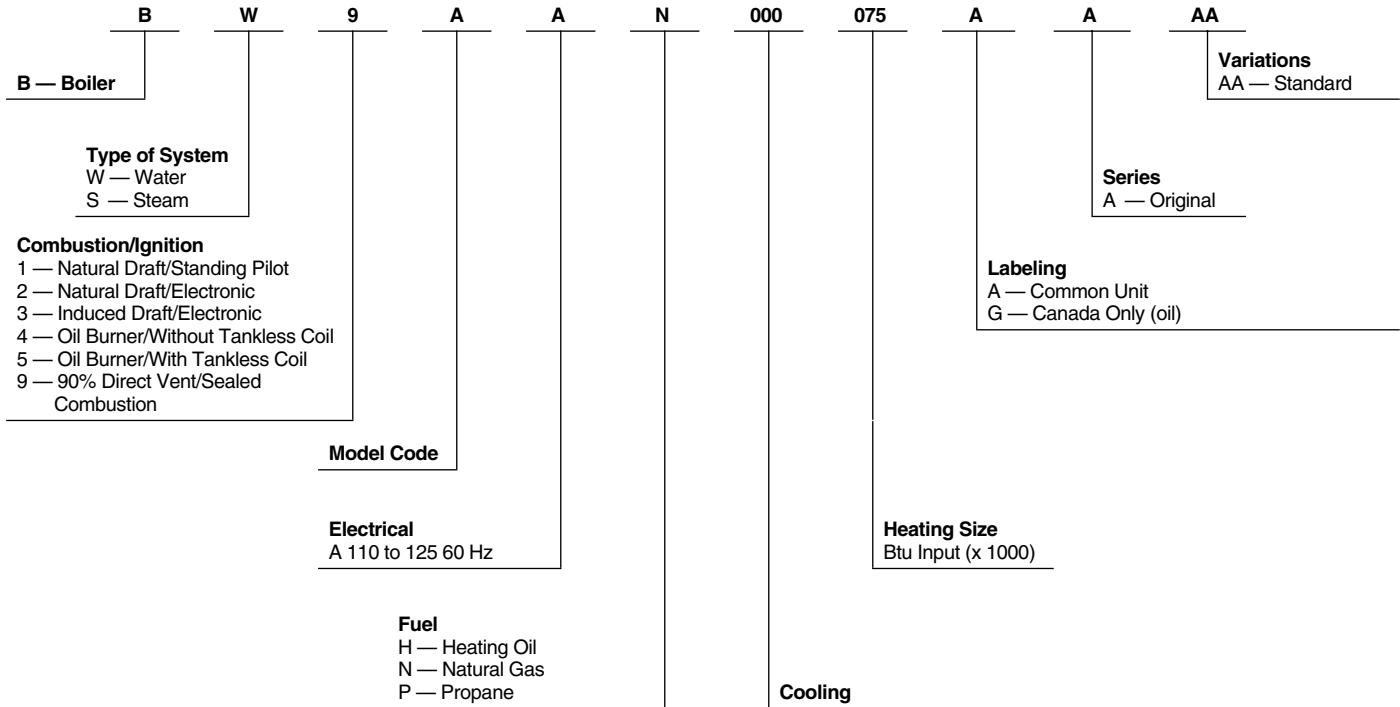
**MODEL BW4B, BW5B
Series B**



**MODEL BW9
Series A**

MODEL NUMBER NOMENCLATURE

BW9AAN000075AAAA



BOILER ACCESSORIES

BW1/BW2	
DESCRIPTION	PART NO.
Filtrol Package (Up to 75,000 Btuh Input)	KBAFP0101DNK
Filtrol Package (Up to 150,000 Btuh Input)	KBAFP0201DNK
Filtrol Package (Over 150,000 Btuh Input)	KBAFP0301DNK
High Limit Control	KBAHL0101DNK
Combustible Floor Base (2 thru 6 section models)	KBASB0301DNK
Combustible Floor Base (7 thru 9 section models)	KBASB0401DNK
Zoning Valve 3/4 in.	KBAZV0101DNK
Zoning Valve 1 in.	KBAZV0201DNK
Gas Conversion Kit Natural to Propane (After 1799V)	KBANP0201DNK
Gas Conversion Kit Propane to Natural	KBAPN0201DNK
NOTE: There was never a Natural to Propane conversion kit for BW/BS boiler prior to 1799V.	
BW3	
DESCRIPTION	PART NO.
Filtrol Package (Up to 75,000 Btuh Input)	KBAFP0101DNK
Filtrol Package (Up to 150,000 Btuh Input)	KBAFP0201DNK
Filtrol Package (Over 150,000 Btuh Input)	KBAFP0301DNK
High Limit Control	KBAHL0101DNK
Combustible Floor Base (2 thru 6 section models)	KBASB0301DNK
Combustible Floor Base (6 thru 7 section models)	KBASB0401DNK
Zoning Valve 3/4 in.	KBAZV0101DNK
Zoning Valve 1 in.	KBAZV0201DNK
Gas Conversion Kit Natural to Propane (After 1799V)	KBANP0201DNK
Gas Conversion Kit Propane to Natural	KBAPN0201DNK
NOTE: There was never a Natural to Propane conversion kit for BW/BS boiler prior to 1799V.	
BS1/BS2	
DESCRIPTION	PART NO.
Combustible Floor Base (2 thru 6 section models)	KBASB0301DNK

See notes on page 3.

BOILER ACCESSORIES (CONT.)

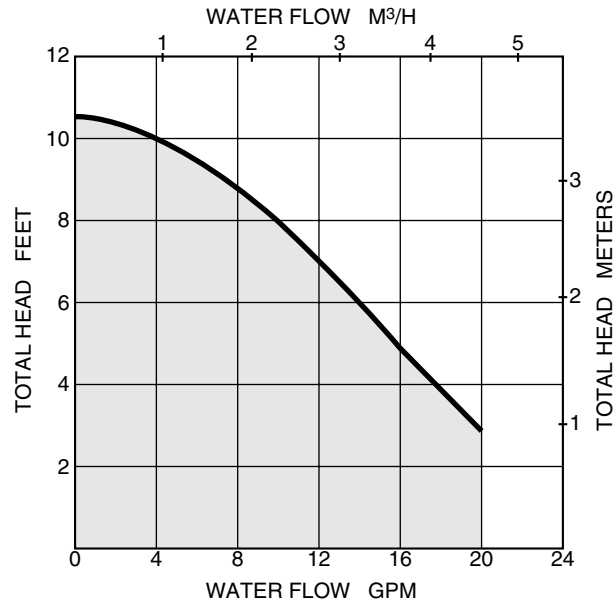
Combustible Floor Base (6 thru 7 section models)	KBASB0401DNK
Gas Conversion Kit Natural to Propane (3 section, BS1/2-075)	KBANP0301DNK
Gas Conversion Kit Natural to Propane (4 section, BS1/2-112)	KBANP0401DNK
Gas Conversion Kit Natural to Propane (5 section, BS1/2-150)	KBANP0501DNK
Gas Conversion Kit Natural to Propane (6 section, BS1/2-187)	KBANP0601DNK
Gas Conversion Kit Natural to Propane (7 section, BS1/2-225)	KBANP0701DNK
Gas Conversion Kit Natural to Propane (8 section, BS1/2-262)	KBANP0801DNK
Gas Conversion Kit Natural to Propane (9 section, BS1/2-299)	KBANP0901DNK
NOTE: There was never a Natural to Propane conversion kit for BW/BS boilers prior to 1799V.	
BW4/BW5	
DESCRIPTION	PART NO.
Filtrol Package (Includes Air Purge Extrol Tank and Fill Valve)	KBAFP0201DNK
	KBAFP0301DNK
Zone Valve - 3/4 in.	KBAZV0101DNK
Zone Valve - 1 in.	KBAZV0201DNK
High-Limit Control - Manual Reset*	KBAHL0101DNK
Tankless Water Heater Kit	KBATH0101DNK
Combustible Floor Base	KBASB0301DNK
Low Fire Rate Kit - 3 Section BW4/BW5	KBALF0101DNK
Low Fire Rate Kit - 4 Section BW4/BW5	KBALF0201DNK
BW9	
DESCRIPTION	PART NO.
Concentric Vent Termination Kit (Single Pipe) - 2 in.	KGAVT0501CVT
Concentric Vent Termination Kit (Single Pipe) - 3 in.	KGAVT0601CVT
Filtrol Package (Up to 75,000 Btuh Input)	KBAFP0101DNK
Filtrol Package (Up to 150,000 Btuh Input)	KBAFP0201DNK
Zoning Valve 3/4 in.	KBAZV0101DNK
Zoning Valve 1 in.	KBAZV0201DNK
Gas Conversion Kit Natural to Propane (BW9-050)	KBANP1101DNK
Gas Conversion Kit Natural to Propane (BW9-075)	KBANP1201DNK
Gas Conversion Kit Natural to Propane (BW9-100)	KBANP1301DNK
Gas Conversion Kit Propane to Natural (BW9-050)	KBAPN1101DNK
Gas Conversion Kit Propane to Natural (BW9-075)	KBAPN1201DNK
Gas Conversion Kit Propane to Natural (BW9-100)	KBAPN1301DNK

* 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



WATER BOILER CIRCULATOR CURVE

ELECTRICAL DATA

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

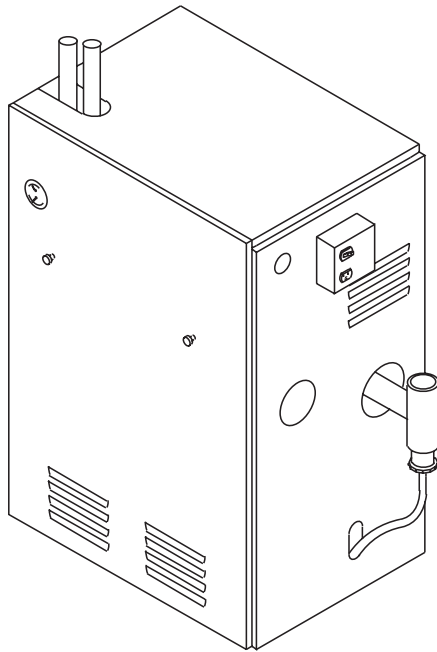
STANDARD BOILER WARRANTIES (Yrs)

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 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 known 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. Circulator is shipped pre-wired with 6 ft bx conduit for easy installation for supply side pumping.

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. Individual sections are tested to 125 psig at factory. Assembled sections are tested to 75 psig at the factory. The maximum allowable pressure is 50 psig for hot water boilers.

PROPANE CONVERTIBLE—With factory approved conversion kit accessory.

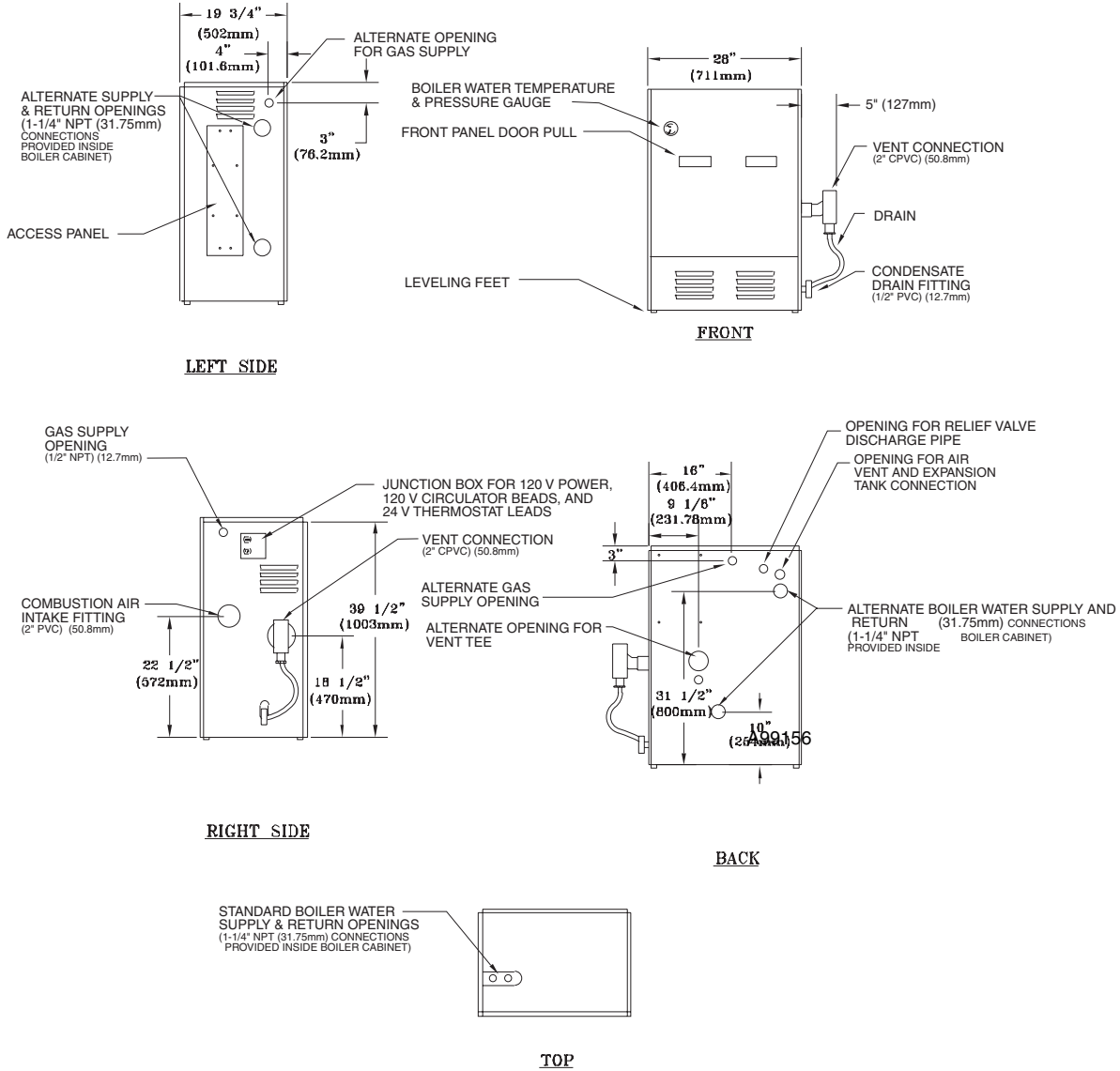
WARRANTY—The aluminum sections are covered by a limited 15-year warranty on the entire assembly. Circulator pump is covered by a limited 3-year warranty. All other parts are covered by a 1-year limited warranty.

SPECIFICATIONS

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



CLEARANCES

UNIT	COMBUSTIBLE (in.)	ACCESSIBILITY/CLEANING (in.)	SERVICING (in.)
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.

RATINGS AND CAPACITIES*

UNIT	GAS TYPE	MAX INPUT (BTUH)	HEATING CAPACITY (BTUH)	AFUE %	NET RATING Btuh†	BOILER WATER CAPACITY (GALLONS)	APPROX SHIP. WT (Lb)
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

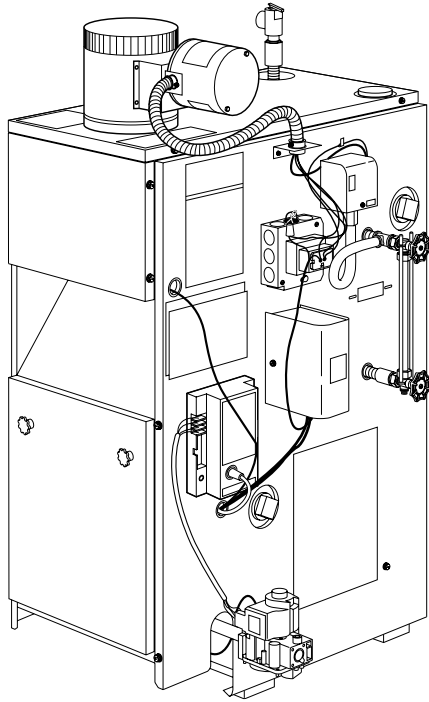
* Gas input ratings are for elevations up to 2000 ft. In the USA, for elevations above 2000 ft., reduce input per the charts supplied in the high altitude derate kits. In Canada, boilers may be used at high altitude by using a certified field conversion kit.

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 model BS1 and BS2 design is CSA and 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 input 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—The Model BS1 and BS2 is designed with automatic vent damper to recover chimney loss during off cycle.

SECTIONS TESTED—Each section is hydrostatically tested to 50 psig. Individual sections are tested to 125 psig at factory. Assembled sections are tested to 75 psig at the factory. Maximum allowable working pressure is 50 psig. The maximum allowable pressure is 15 psig for steam boilers.

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

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.

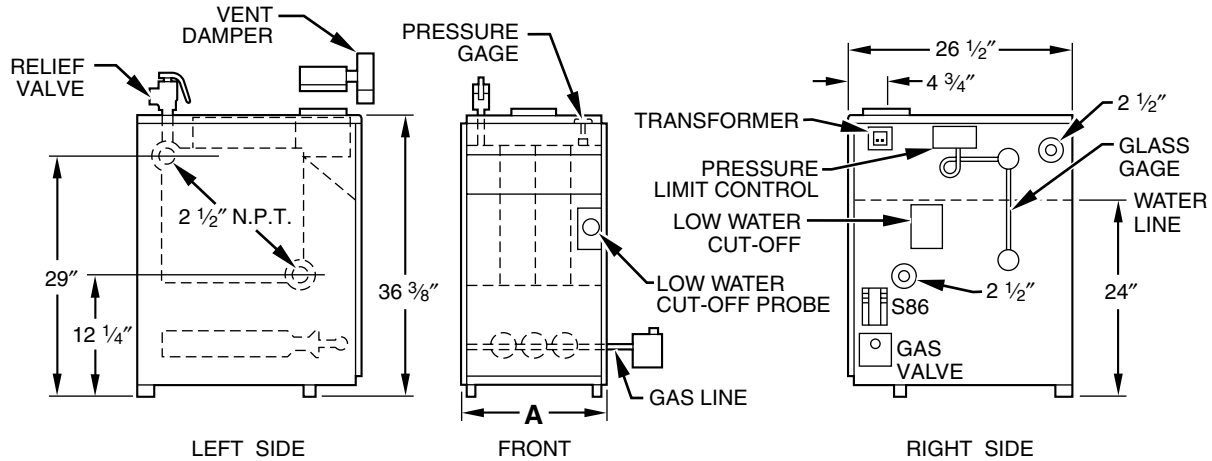
SPECIFICATIONS

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—Stainless/Titanium Alloy	No.	2	3	4	5	6	7	8
Burners—Orifice Drill Size	Natural	34	34	34	34	34	34	34
GAS CONTROLS — STANDING PILOT (BS1)								
Gas Valve		Honeywell						
Inlet Size	In.	1/2 FPT					3/4 FPT	
Pilot Assembly		Honeywell						
GAS CONTROLS — INTERMITTENT PILOT (BS2)								
Gas Valve		Honeywell						
Inlet Size	In.	1/2 FPT					3/4 FPT	
Pilot Assembly		Honeywell						
Spark Generator		Honeywell/UTEC						
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



DIMENSIONS (In.)

UNIT SIZE	A	VENT DIAMETER
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.

RATINGS AND CAPACITIES*

UNIT	GAS TYPE	NUMBER OF SECTIONS	MAX INPUT (BTUH)	HEATING CAPACITY (BTUH)	NET RATING		AFUE % (WITH 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	81.6	800

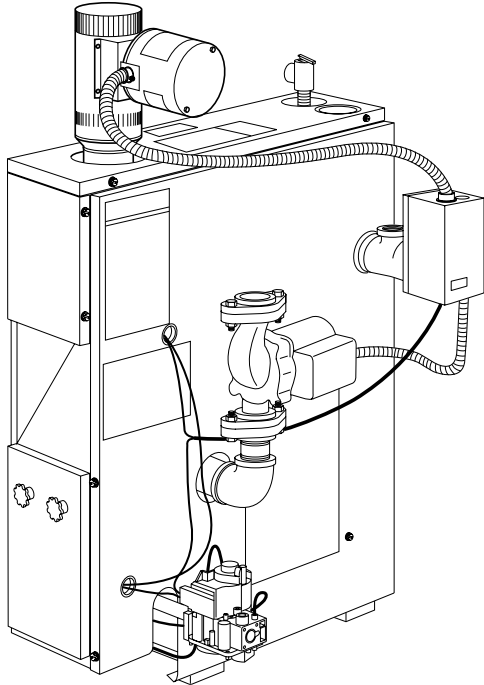
* Ratings are for altitudes to 2000 ft. Ratings for units for altitudes over 2000 ft are 4% less for each 1000 ft above sea level. Ratings in sq ft are computed at 240 Btuh/sq ft for steam boilers.

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 CSA and 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 BS1 and BS2 is designed with automatic vent damper to recover chimney loss during off cycle.

SECTIONS TESTED—Each section is hydrostatically tested to 50 psig. Individual sections are tested to 125 psig at factory. Assembled sections are tested to 75 psig at the factory. The maximum allowable 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.

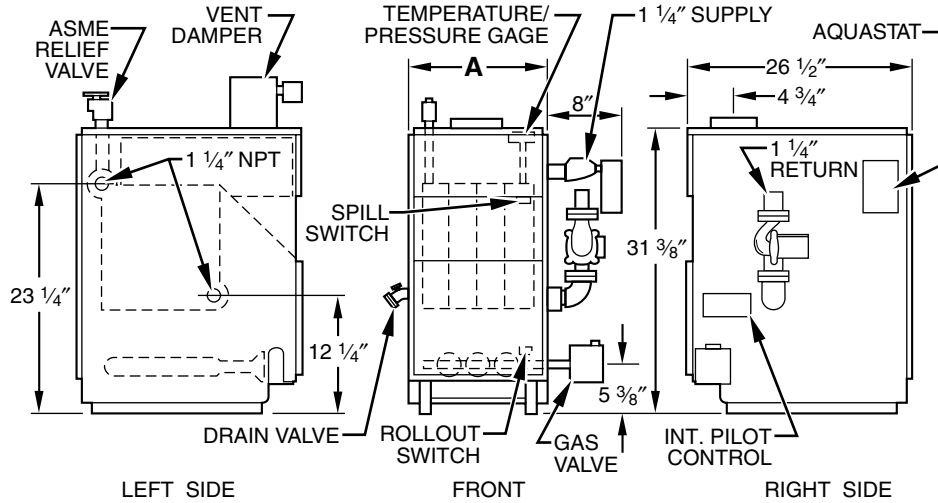
SPECIFICATIONS

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—Stainless/Titanium Alloy	No.	1	2	3	4	5	6	7	8
Burners—Orifice Drill Size	Natural	34	34	34	34	34	34	34	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/UTEC							
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							

* Factory authorized and listed, field installed.

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

DIMENSIONS BW1 and BW2 MODELS



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.

RATINGS AND CAPACITIES*

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

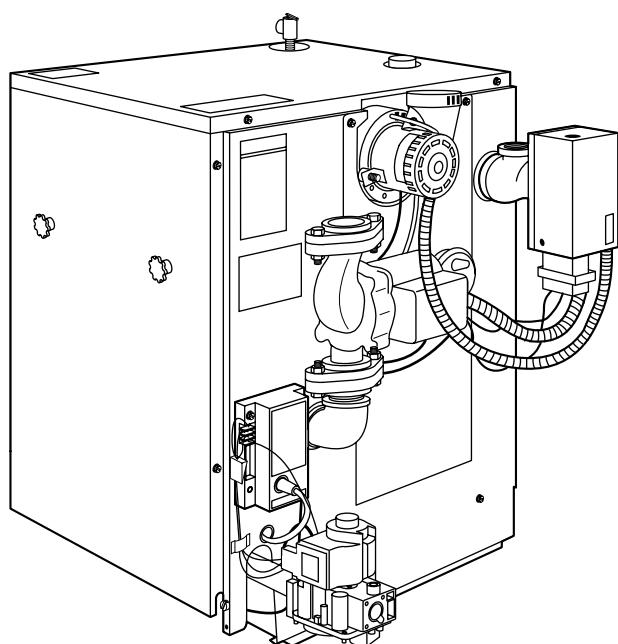
* Ratings are for altitudes to 2000 ft. Unit ratings for altitudes over 2000 ft are 4% less for each 1000 ft above sea level.

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 BW3N is CSA and 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 50 psig. Individual sections are tested to 125 psig at factory. Assembled sections are tested to 75 psig at the factory. The maximum allowable pressure is 50 psig for hot water boilers.

UNIT CONVERTIBLE—The Boiler is listed for power venting with field controls power venting kit.

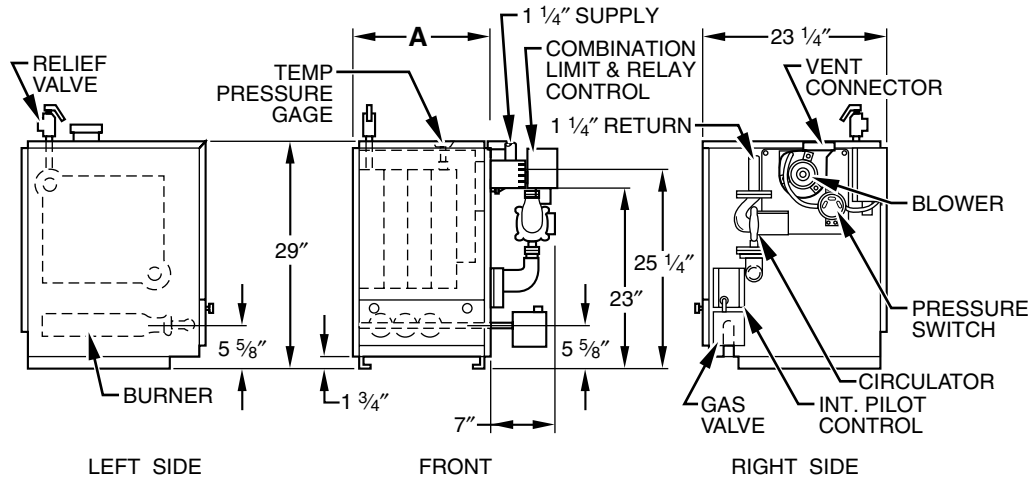
WARRANTY—The cast-iron sections are covered by a non-prorated 20-year warranty on the entire assembly. Circulator pump covered by 3-year warranty. All other parts are covered by a 1-year limited warranty.

SPECIFICATIONS

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—Stainless/Titanium Alloy	No.	1	2	3	4	5	6
Burner Orifice—Drill Size	Natural	32	34	34	34	34	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

BW3 MODELS



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.

RATINGS AND CAPACITIES*

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

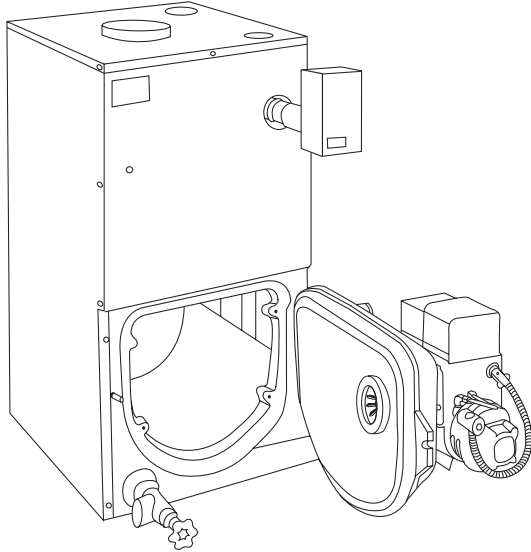
* Gas input ratings are for elevations up to 2000 ft. For elevations above 2000 ft, reduce input 4% for each 1000 ft above sea level.

† 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 cast iron block with thermal pins surrounds the combustion area for better heat transfer from flue gases to water.

FEATURES

BAROMETRIC DRAFT CONTROL—The factory supplied barometric draft control can easily be installed in the vent pipe for optimum draft and combustion efficiency.

CONTROLS—Factory-wired controls on units with tankless hot water coil include a triple aquastat relay with high/low limit protection and circulator control.

COMBINATION TRANSFORMER AQUASTAT—A 24-v transformer is combined with the aquastat assembly. The transformer will supply power efficient to power a 3-zone system on BW5 models. Factory installed combination pressure/temperature gage and a pressure relief valve.

COIL OPTIONS—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.

FACTORY INSTALLED FEATURES—A factory-installed drain is provided should the boiler ever need to be drained. Oil primary control prevents boiler in operation in the event of flame loss.

SECTIONS TESTED—Each section is hydrostatically tested to 50 psig. Individual sections are tested to 125 psig at factory. Assembled sections are tested to 75 psig at the factory. The maximum allowable pressure is 50 psig for hot water boilers.

EASE OF INSTALLATION—Circulator is shipped pre-wired with 6 ft bx conduit for easy installation for supply side pumping.

WARRANTY—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.

SOLENOID OIL VALVE—This provides cleaner burning and quieter operation. Valve is included on all burner types.

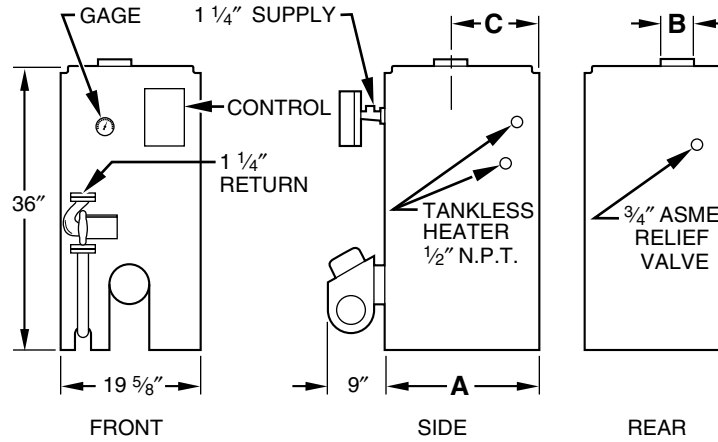
SWING BURNER DOOR—This unique design offers uninhibited access for set-ups, service, and maintaining the burner. Routine cleaning is also much easier.

SPECIFICATIONS

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		
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, & Cad. Cell Relay		
	With Heater	High & Low Limit, Circulator Relay, & 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



DIMENSIONS (In.)

UNIT SIZE	A	B	C
140	17-3/4	6	9-3/4
210	21	6	11-3/8
280	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.

RATINGS AND PERFORMANCE

BOILER MODEL NO.		NO. SEC.	INPUT *MBH	**HEATING CAPACITY *MBH	NET I=B=R RATING *MBH	FIRING RATE +GPH	A.F.U.E. ++	MINIMUM CHIMNEY SIZE/ HEIGHT	DIMENSIONS - IN.		
WITH TANKLESS COIL	WITHOUT TANKLESS COIL								A	B	C
BW5BAH091	BW4BAH091	3	91	80	70	0.65	86.3	8-in. x 8-in. x 15 ft	14-1/2	6	8
BW5BAH105	BW4BAH105	3	105	92	80	0.75	85.2	8-in. x 8-in. x 15 ft	14-1/2	6	8
BW5BAH140	BW4BAH140	3	140	119	103	1	83.4	8-in. x 8-in. x 15 ft	14-1/2	6	8
BW5BAH126	BW4BAH126	4	126	111	97	0.9	86.0	8-in. x 8-in. x 15 ft	17-3/4	6	9-5/8
BW5BAH175	BW4BAH175	4	175	150	130	1.25	83.9	8-in. x 8-in. x 15 ft	17-3/4	6	9-5/8
BW5BAH210	BW4BAH210	4	210	178	155	1.5	82.4	8-in. x 8-in. x 15 ft	17-3/4	6	9-5/8
BW5BAH168	BW4BAH168	5	168	147	128	1.2	86.5	8-in. x 8-in. x 15 ft	21	6	11-1/2
BW5BAH245	BW4BAH245	5	245	209	182	1.75	83.6	8-in. x 8-in. x 15 ft	21	6	11-1/2
BW5BAH280	BW4BAH280	5	280	236	205	2	82.0	8-in. x 8-in. x 20 ft	21	6	11-1/2

* MBH = 1,000 BTU per hour / BTU = British Thermal Unit.

** Heating Capacity is based on a 13 percent C02 with a -0.02 in. wc and a #1 smoke or less. Testing was done in accordance with the D.O.E. (Department of Energy) test procedure.

+GPH = Gallons per hour oil at 140,000 BTU per gallon.

++A.F.U.E. = Annual Fuel Utilization Efficiency based upon D.O.E. test procedure.

As an Energy Star Partner, the manufacturer has determined that this product meets Energy Star guidelines for Energy Efficiency.



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

UNIT MUST BE INSTALLED IN ACCORDANCE
WITH INSTALLATION INSTRUCTIONS

Cancels: PDS BSIA.75.2