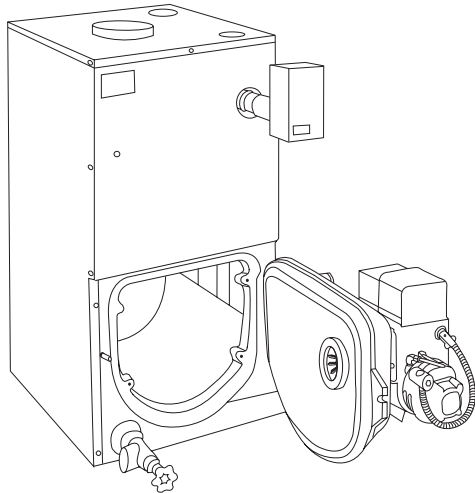




## Product Data

## Models BW4 and BW5 Oil-Fired Water Boilers Series B



MODEL BW4B, BW5B  
Series B

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 and circulator pump). 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

**Range of Capacities** — BW4 and BW5 boilers are available in sizes 91,000 to 280,000 BTUH.

**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. A factory accessory kit is available for protection against low water operation where required by local code.

**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 gauge 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. All other parts are covered by a 5-year limited warranty.

**Swing Burner Door** — This unique design offers uninhibited access for set-ups, service, and maintaining the burner. Routine cleaning is also much easier.

**Solenoid Oil Valve** — This provides cleaner burning and quieter operation. Valve is included on all burner types.

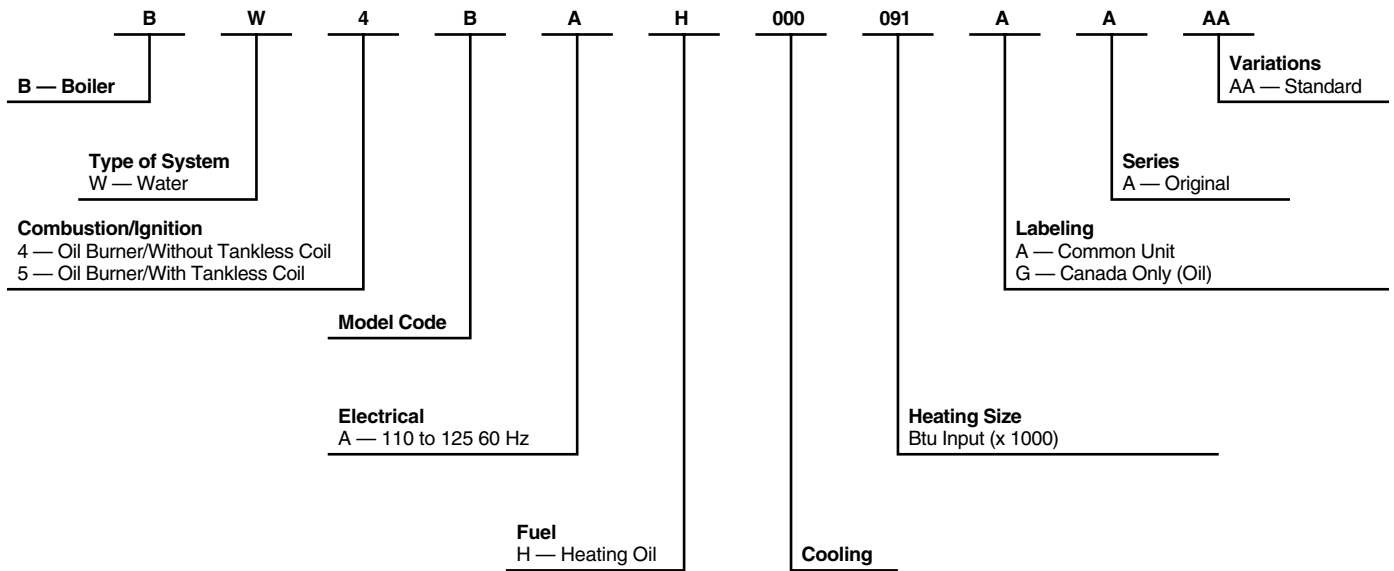


ASME



# Model number nomenclature

BW4BAH000091AAAA

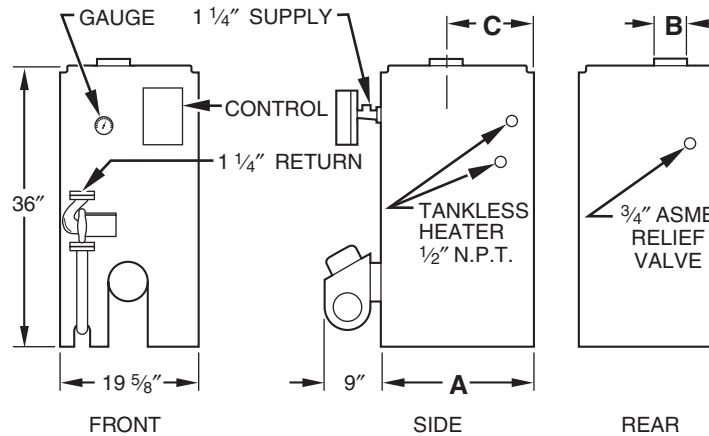


## Boiler accessories

BW4/BW5	
DESCRIPTION	PART NO.
Filltrol Package (Includes Air Purge, Extrol Tank and Fill Valve) Up to 150,000 BTUH input	KBAFP0201DNK
Filltrol Package (Includes Air Purge, Extrol Tank and Fill Valve) Over 150,000 BTUH input	KBAFP0301DNK
Zone Valve - 3/4 in.	KBAZV0101DNK
Zone Valve - 1 in.	KBAZV0201DNK
High-Limit Control	KBAHL0101DNK
Tankless Water Heater Kit	KBATH0101DNK
Combustible Floor Base 24" x 30"	KBASB0301DNK
Low Water Cut-off Kit	KBALW0101DNK
Low Fire Rate Kit - (91,000 BTUH input)	KBALF0101DNK
Low Fire Rate Kit - (126,000 BTUH input)	KBALF0201DNK

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

# Dimensions — Models BW4 and BW5



A04204

**DIMENSIONS (In.)**

UNIT SIZE	A	B	C
140	14-1/2	6	8
210	17-3/4	6	9-5/8
280	21	6	11-1/2

**CLEARANCES (In.)**

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

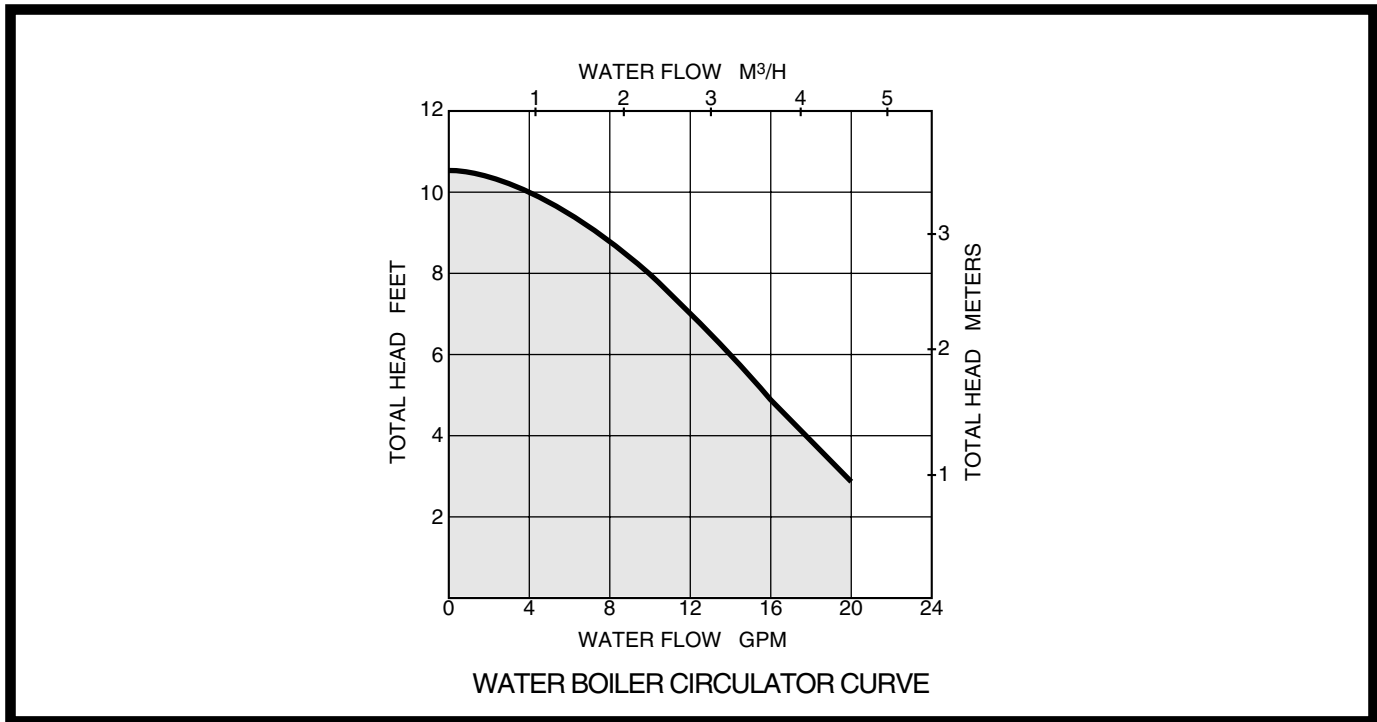
\* Clearance 18 in. for BW5.

† Service clearance requirement 24 in.

## Physical data

UNIT SIZE	140	210	280
<b>GENERAL DATA</b>			
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		
<b>OIL BURNER</b>			
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		
<b>CONTROLS</b>			
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 Gauge	Psig	0 — 60	
	°F	60 — 260	
ASME Pressure Relief Valve	Psig	30	
<b>CIRCULATOR</b>			
Taco	Model	007	
Full Load Amps		0.70	
Flange Size FPT	In.	1-1/4	

# 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

## Performance Data

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 CO<sup>2</sup> 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.

