

Bimini

Residential and Commercial

High efficiency, condensing, gas-fired, hot water boiler

**Residential
Efficiencies
up to 95.4%
A.F.U.E.**



**Commercial
Thermal
Efficiencies
up to 93.1%**



- Cast aluminum heat exchanger
- Microprocessor controlled
- Direct vented to 100 feet
- Multiple venting options
- Natural or LP gas
- Five sizes from 70,000 to 425,000 BTU input



CROWN

CROWN's response to the quest for high efficiency

Bimini

Residential

Today's homes are tightly constructed to seal them from drafts that are uncomfortable and waste energy. Contemporary lifestyles demand abundant hot water supplies for radiant heating, large amounts of domestic hot water, pools, Jacuzzis, towel warmers and for snow melting applications to minimize the hazards of winter. And with today's rising energy costs, consumers are considering high efficiency condensing boilers, especially those that meet the federal Energy Star requirements.

To meet these greater performance demands, new high efficiency condensing boilers have been developed to deal with variable operating temperatures and flow rates, frequent cold starts and quick response between space heating demands and demands for domestic hot water. This is where the Bimini fits the bill.

New technologies in materials and control systems

Employing the latest cast aluminum metallurgy and advanced burner control technologies, CROWN's Bimini Series is more efficient than conventional boilers, and achieves efficiencies up to 95.4% A.F.U.E.

Once morning warm-up is complete, heating demand during the rest of the day may only call for a small percentage of the total boiler output. Typically, boilers operate at one firing rate, and turn on and off to provide the desired amount of heat. The Bimini utilizes a microprocessor control system to monitor heating needs and to automatically adjust the firing rate to minimize the amount of fuel consumed.

Regulating the boiler to partial loads requires a burner with a high turndown capability. The Bimini's modulating control system tracks the demand for space heat and domestic hot water, and senses the supply water temperature and outdoor temperature to precisely adjust heat output.

Pre-mix burner

The Bimini is equipped with a pre-mix, stainless steel burner system which meters the precise amount of fuel and air to optimize combustion at any firing rate. An important benefit is that the resulting combustion process is clean burning and very quiet.

Aluminum heat exchangers

Bimini features low-mass, cast aluminum heat exchangers superior corrosion resistance...an important attribute for



condensing boilers. Aluminum can be cast into intricate designs that improve heat transfer efficiency. Flow paths on both the combustion side and the water side are engineered to optimize efficiency.

Why a condensing boiler

Condensing design is necessary in a very high efficiency boiler. When the boiler is operating at maximum efficiency the exhaust temperatures become so low that water vapor in the exhaust condenses. The boiler must be designed to drain away this liquid.

Sealed combustion with multiple venting options

Bimini's sealed combustion design isolates the combustion process in your boiler from the air in your home. This saves energy dollars by using combustion air from outside, rather than room air you've already paid to heat. Vertical or horizontal venting is available to accommodate various installations.



**All models
can be vented directly
through the wall**

BWC070, 090,120 and 151

Bimini is efficient in many ways

Bimini uses less floor space than other similarly sized boilers, and the smaller sizes can be hung on the wall.

Bimini is lighter in weight than conventional boilers.

The Bimini is designed for easy installation. Water and gas piping are conveniently located, and electrical components are prewired. A terminal strip is provided for quick and easy field wiring.

Domestic Hot Water Priority

Bimini is designed to partner with the Mega-Stor Indirect Water Heater to provide domestic hot water efficiently.

Features of the Bimini Residential and Commercial boilers

Condensing design

Approved for closet installation

Models BWC070/090/120/151 may be installed on non-carpeted combustible surfaces when mounted on optional pedestal base.

Models BWC150/425 may be installed on non-carpeted combustible surface.

Quiet operation, even at high firing rates

Supply water temperatures up to 180 degrees F

Low emissions of CO and NOX

Standard Equipment

Microprocessor-based control system with

Digital touch pad and display

Direct spark ignition

Outdoor reset temperature sensor

Domestic hot water priority

Pump controls for heating and domestic hot water

Fully modulating burner

Cast aluminum heat exchanger

TACO circulator

Probe low-water cutoff

Deluxe powder coated steel jacket with two-toned textured finish

Factory assembled, pre-wired and packaged

For Models BWC070, 090,120 and 151

Wall mounting bracket standard

Concentric polypropylene vent system standard

Optional adapter for venting with stainless steel

Optional floor mounting pedestal kit

BWC150, 225 and 300

Can be vented with the concentric polypropylene system using an optional adapter

Bimini

Commercial



Features of the Bimini Commercial

Designed for commercial buildings with large BTU loads

Suitable for multiple boiler installations

Rugged "Commercial grade" construction

Input for External 0-10VDC Modulation Signal is standard (no need for AM-4 module)


Easy access to fan and gas valve assembly


BWC300 may be vented with 100/150 concentric vent

Redundant pressure switch system:

- Normally open switch proves air flow
- Normally closed switch prevents boiler operation at excessive vent pressures


Control/gas valve systems similar to those of the residential Bimini

 With today's high energy costs, owners of commercial properties want boilers that provide optimum comfort at the lowest cost. So, they are choosing the Bimini Commercial with thermal efficiency ratings up to 93.1%.


 Maximum efficiency is achieved by modulating the boiler's operation to meet the changing heat requirements over the course of the day. To handle large facilities, multiple Bimini boilers can be installed.

 The Bimini is ruggedly built to provide years of service. It uses the latest of microprocessor controls for efficiency and safety.

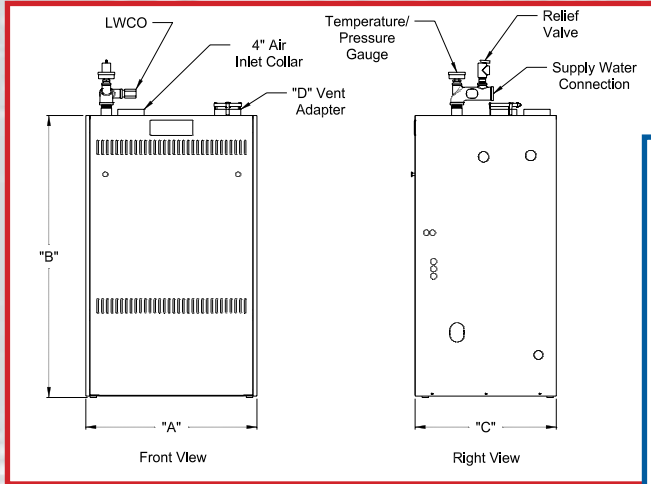
 Vent length can reach up to 100 feet. For the BWC300, concentric polypropylene venting is available which means only a single terminal outside for a cleaner look.

 The Bimini can be installed on non-carpeted combustible surfaces, and is approved for installation in a closet.

 For ease of installation, it is factory assembled, pre-wired and packaged.

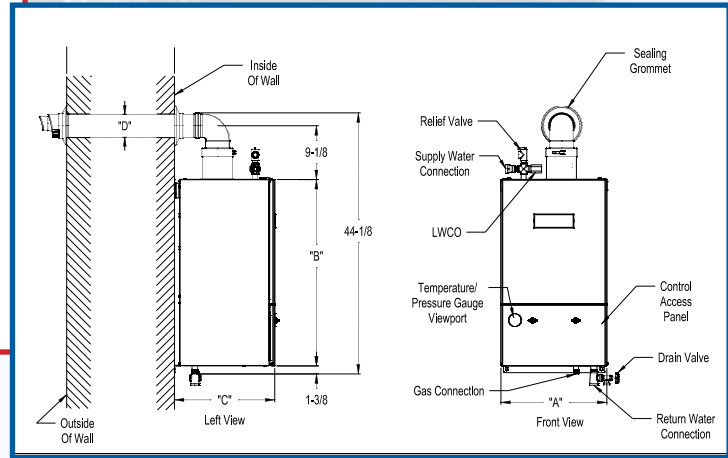
 Quiet operation.

Bimini Residential



BWC 150/225

BWC 070/090/120/151



Specifications

MODEL*	NO. OF SECTIONS	MAXIMUM INPUT (BTU/hr)	D.O.E. HEATING CAPACITY (BTU/hr)	IBR NET RATING (BTU/hr)	AFUE (%)
BWC070	mono block	70,000	63,000	55,000	95.4
BWC090	mono block	90,000	80,000	70,000	94.5
BWC120	mono block	120,000	107,000	93,000	95.2
BWC151	mono block	150,000	135,000	117,000	95.2
BWC150	3	150,000	135,000	117,000	93.1
BWC225	4	225,000	202,000	176,000	94.2

* Add suffix "EN" for natural gas and "EL" for propane. Ratings are the same for both fuels.

Dimensions

MODEL*	"A"	"B"	"C"	COLLAR DIAMETERS	
				AIR INLET	VENT "D"
BWC070	17-7/8	31-1/2	17	60/100mm Concentric Vent	
BWC090	17-7/8	31-1/2	17	60/100mm Concentric Vent	
BWC120	17-7/8	31-1/2	17	60/100mm Concentric Vent	
BWC151	17-7/8	31-1/2	20-1/2	80/125mm Concentric Vent	
BWC150	23-3/8	43-3/4	22-1/4	4"	3"
BWC225	27	43-3/4	22-1/4	4"	4"

Important: This boiler requires a special venting system. Read instructions carefully before installing.

THE BWC BOILERS ARE APPROVED FOR CLOSET INSTALLATION WITH THE FOLLOWING CLEARANCES:

- Models BWC070/090/120/151: Top = 7-1/2", Front = 3/4", Sides = 1/4", Bottom = 1-1/8"
- Models BWC150/225: Top = 5", Front = 3/4", Sides = 1/2", Rear = 0"
- Models BWC070/090/120/151 may be installed on non-carpeted combustible surfaces when mounted on optional pedestal base.
- Models BWC150/225 may be installed on non-carpeted combustible surface.

WHEN ORDERING

1. Ratings are reduced at altitudes above 2,000 ft.
2. Please specify fuel (natural gas or LP gas).
3. Specifications and dimensions are subject to change without notice.



MASS APPROVED

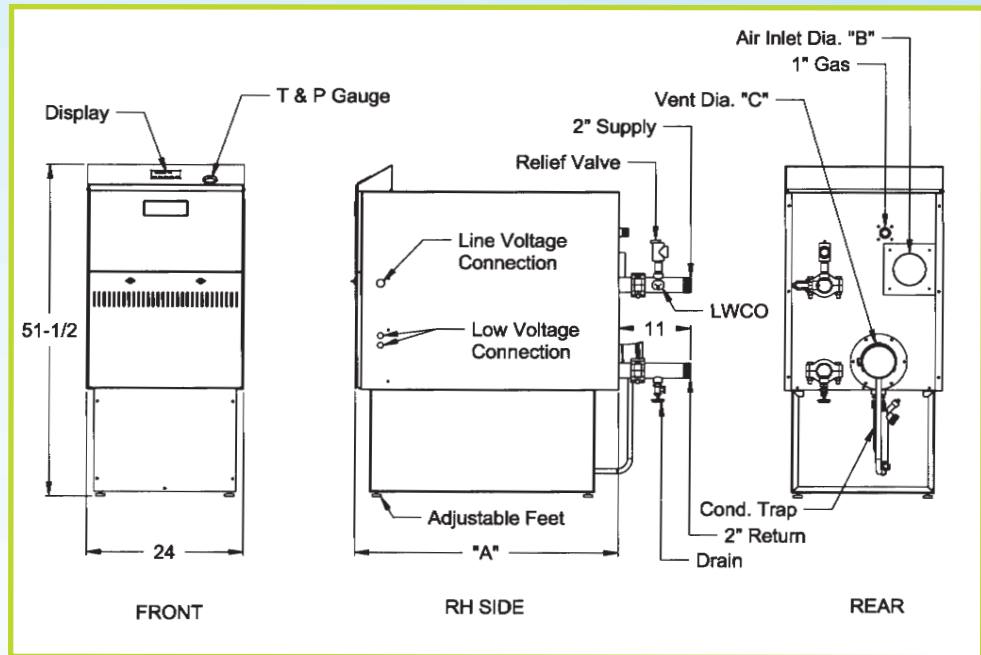


Heat Exchanger constructed and tested in accordance with ASME Section IV standard

Bimini

Commercial

**High efficiency, condensing,
gas-fired, hot water boiler**



BWC 300/399/425

MODEL	NO. OF SECTIONS	MAXIMUM INPUT MBH	MINIMUM INPUT MBH	GROSS OUTPUT MBH	IBR NET RATING MBH	HIGH FIRE/LOW FIRE EFFICIENCY %		"A" LENGTH	VENT COLLAR DIAMETERS (IN.)	
						COMBUSTION	THERMAL		"B" INLET	"C" EXHAUST
BWC300	5	300	100	265	230	93.1/95.7	88.2/90.9	33-3/8"	4"	4"
BWC399	7	399	106	350	304	91.7/96.1	87.6/93.1	40-1/8"	5"	5"
+BWC425	7	425	106	367	320	90.9/96.1	86.5/93.1	40-1/8"	5"	5"

PERFORMANCE RATINGS ARE THE SAME FOR NATURAL AND LP.

Important: This boiler requires a special venting system. Read instructions carefully before installing.

+ BWC425 meets Z21.13 requirements. Consult factory for availability of CSD-1 compliant gas train.

Clearances to combustible and non-combustible construction:

This boiler is approved for closet installation with the following clearances:
 Top = 7" Front = 3/4" Sides = 1/2" Rear = 8-1/2"

Boiler may be installed on non-carpeted combustible surfaces.

Recommended service clearances:

Top = 24" Front = 24" Rear = 24" RH Side = 24"

These service clearances are recommended, however they may be reduced to the combustible clearance listed above.

- 1) Access to the front of the boiler is provided through a door
- 2) Access is provided to the condensate trap and controls/trim located on the back of the boiler

WHEN ORDERING

1. Ratings are reduced at altitudes above 2,000 ft.
2. Please specify fuel (natural gas or LP gas).
3. Specifications and dimensions are subject to change without notice.

AVAILABLE FROM:

CROWN Boiler Co.
 Since 1949, homeowners have depended on us
 for quality, value and service

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