



The Brute™ 80-210

Residential, High Efficiency Modulating & Condensing Boilers



Efficient and Compact Home Heating



Built to be the Best™ | www.bradfordwhite.com

The Brute™ 80-210



The Bradford White Brute™ 80-210 residential modulating and condensing boilers combine energy-saving performance and innovative features into a compact design for an exceptional and highly versatile product line that's an excellent fit for most new and existing home heating systems.

Highlights

- **80-210 MBH**
- **95% efficiency**
- **ENERGY STAR® Qualified**
- **Low NOx emissions**
- **Space-saving design**
- **Flexible Installation**
- **High efficiency condensing design**
- **Full modulation firing**
- **Brute™ Integrated Control System**

95% Efficient

Brute™ 80-210 models perform at an ultra-high efficiency of 95% AFUE (Annual Fuel Utilization Efficiency). This value means that a full 95% of the gas used is outputted as heat for the home! Brute™ 80-210 models are also ENERGY STAR® qualified, surpassing minimum regulations and making them one of the best in the industry.

Modulating Technology

Modulation allows Brute™ 80-210 models to automatically adjust how much fuel is used to match a home's demand for heat, from 20% to 100% of full power. Brute™ 80-210 models will operate at 100% only on the coldest days of the year when demand is at its highest, and they will modulate down on days requiring less heat thus reducing the amount of fuel used to heat a home. Compared to standard "on-off" boilers, this feature can save homeowners up to 30% on their home heating bill.



Easy on the Environment

In addition to their efficient use of resources and ENERGY STAR® rating, Brute™ 80-210 models feature very low levels of NOx emissions, less than 10 ppm! The result is a home heating system that minimizes impact on the environment.



Residential Hydronic Boiler



Condensing Technology

In older designs, the heat trapped in boiler flue gas would go up the chimney instead of heating your home. Bradford White's technology utilizes the heat stored inside the exiting flue gas to increase efficiency!

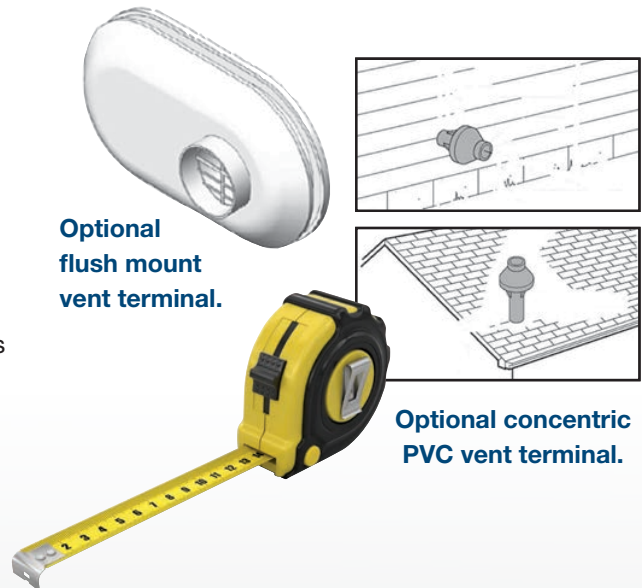
How it works:

- When the flue gas contacts the Brute's stainless steel heat exchanger it begins to condense, releasing stored heat.
- Heat released by condensing is combined with the heat from the burner flame.
- The result is 95% of the available heat is transferred to your home - up to 30% more energy versus older, low efficient designs - saving homeowners money!

Compact Design & Flexible Installation

Brute™ 80-210 boilers help optimize available living and storage space with their compact design, zero clearance to combustibles, and top mounted vent, gas, and water connections – their installed footprint is often half that of other boilers and can fit in the tightest spots! For added versatility and installation flexibility, the Brute™ 80-210 has a combined vent system length of up to 100 feet and is also compatible with multiple methods of combustion air and vent piping. Several outdoor vent terminal designs can help keep the installation looking neat and discreet.

**Optional
flush mount
vent terminal.**



**Optional concentric
PVC vent terminal.**

Advanced Integrated Control System

The Brute™ Integrated Control System monitors all aspects of the boiler's operation, and it also includes several features that can improve the performance of the entire heating system. One of the most important features is its ease-of-use and intuitive design. A large, backlit LCD screen displays information in full text, rather than complicated codes. Common settings are grouped in menus for easy access, and a Quick Setup feature provides installers direct access to control settings for basic installations.



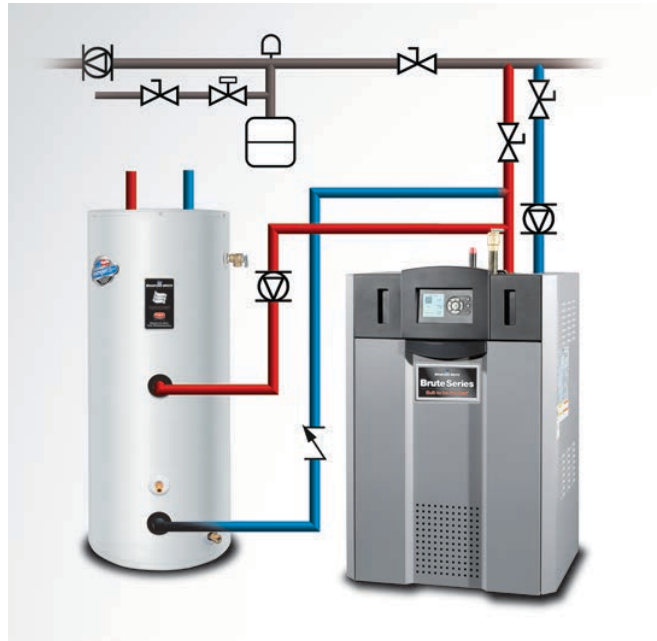
- Easy-to-use push buttons and large customizable backlit display
- Functions are clearly displayed in English, not complicated codes
- Quick setup feature for basic installations
- Complete on-screen diagnostics
- Onboard test commands to assist installer and service contractors
- Outdoor reset feature for fuel savings
- Domestic water priority

Big Performance in a Small Package!

Efficient Domestic Water Heating Too!

Combine the Brute™ 80-210 with a PowerStor Series® Indirect Water Heater

Combine the Brute™ 80-210 boiler's high efficiency and quick response with a Bradford White PowerStor Series® indirect water heater for improved performance and fuel savings over conventional water heaters. The Brute™ 80-210's domestic hot water priority control feature directs the boiler's full heating capacity to the PowerStor indirect water heater when needed. In normal residential applications, this can provide nearly double the hot water capacity of conventional stand-alone water heaters along with excellent durability.



About PowerStor Series® Indirect Water Heaters

Bradford White PowerStor indirect water heaters are heavily insulated storage tanks constructed with a heat exchanger coil designed to deliver heat from the boiler to the domestic water in the tank. Hot water supplied from the boiler travels through the PowerStor's heat exchange coil transferring heat into the domestic water in the tank. The PowerStor indirect water heater's oversized heat exchanger coils are capable of providing more hot water than nearly any competitive model.



Scan the QR code
for a video on why
professionals choose
PowerStor Series®
Indirect Water Heaters.

Exclusive Technologies and Features

Advanced Integrated Control Features

- *Integrated electronic PID modulating boiler control*
- *Large easy-to-read, multi-line graphic LCD display*
- *Full-text display of control status, settings, diagnostic info, and error history*
- *“Home” button provides direct access to customizable “Home” screen*
- *“Test” screen allows easy testing of control settings*
- *“Quick Start” screen groups common control settings for quick access by installer*
- *Password protection for adjustable settings*
- *Built-in cascade function for staging of up to 8 Brute units*
- *Adjustable Outdoor Reset System, w/WWSD & outdoor temperature sensor*
- *DHW Priority with protection*
- *Built-in Boiler, DHW, & System Circulator Pump Relays*
- *DHW tank sensor*
- *Separate low voltage and line voltage terminal strips simplify wiring*
- *Auxiliary limit control terminals*
- *Alarm output terminals*
- *Modbus communication*
- *Accepts external (4-20mA or 0-10VDC) modulation signal*
- *On/Off power switch*
- *Manual reset high limit*



Optional, large color touchscreen display (field mountable)

Standard Features

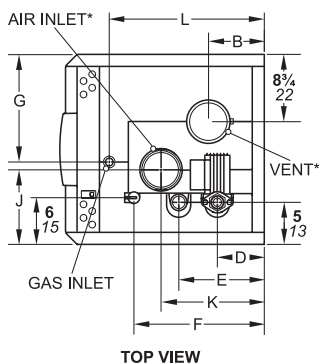
- *High efficiency, condensing design*
- *Up to 95% AFUE efficiency*
- *ENERGY STAR® Qualified*
- *Full-modulation burner with 5:1 turndown*
- *Field-convertible for natural gas and propane*
- *Premix stainless steel burner*
- *Direct spark ignition system*
- *Negative pressure gas valve*
- *Operates at low gas pressure*
- *Low NOx operation, less than 10 ppm*
- *Horizontal or vertical direct vent*
- *Vent and air pipe lengths of up to 100 equivalent feet each*
- *Certified for AL29-4C, CPVC, PVC, & rigid Polypropylene vent material*
- *ASME “H” stamp*
- *Certified for 160 psi working pressure*
- *Top location of all vent, fuel, electrical, & piping connections*
- *Zero clearance to combustible surfaces*
- *12-Year limited warranty on heat exchanger*
- *2-Year limited warranty on parts*



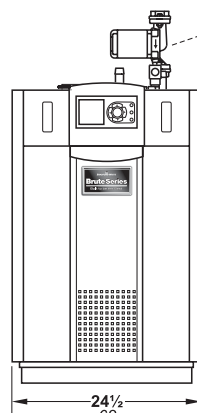
Specs at a Glance

* Brute™ Series is shipped with adapters for the air and vent that accept standard pipe of the proper size and type.

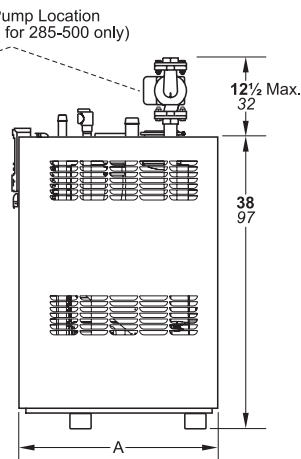
Dimensions shown in inches cm



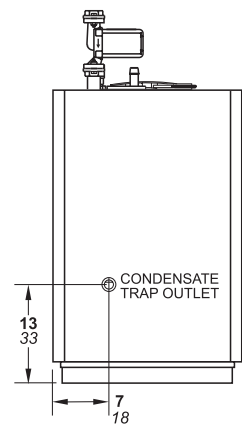
TOP VIEW



FRONT VIEW



RIGHT SIDE VIEW



BACK VIEW

Brute™ 80-210 Sizing Data

Model Number	Efficiency AFUE %	Input		Output		Connections NPT Size			
		MBH	kW	MBH	kW	Water in. cm	Gas in. cm	in. cm	in. cm
BNTH-080	95.0	80	23.4	74	21.7	1	2.5	1/2	1.3
BNTH-105	95.0	105	30.8	96	28.1	1	2.5	1/2	1.3
BNTH-150	95.0	150	44.0	138	40.4	1	2.5	1/2	1.3
BNTH-210	95.0	210	61.5	194	56.9	1	2.5	1/2	1.3

Brute™ 80-210 Dimensional Data

Model Number	A		B		D Water Inlet		E Water Outlet		F		G		J		K		L		Air Inlet Conn.*		Vent Conn.*		Shipping Weight	
	in.	cm	in.	cm	in.	cm	in.	cm	in.	cm	in.	cm	in.	cm	in.	cm	in.	cm	in.	cm	in.	cm	lbs.	kg
BNTH-080	19 1/2	49	9 1/2	24	7 1/2	19	11	28	10 3/4	27	13 3/4	35	3 1/2	9	11 3/4	30	13 1/2	34	2	5	2	5	202	92
BNTH-105	19 1/2	49	8 1/4	21	6 1/4	16	11	28	9	22	14 1/4	36	3 1/2	9	11 3/4	30	13 1/2	34	2	5	2	5	216	98
BNTH-150	19 1/2	49	5 1/2	14	3 1/4	8	11	28	7 1/2	19	14 1/4	36	5	13	7 1/2	19	13 1/2	34	3	7	3	7	228	104
BNTH-210	26 3/4	68	5 1/2	14	3 1/4	8	18	45	11 3/4	30	14 1/4	36	5	13	7 1/2	19	20 1/2	52	3	7	3	7	270	123

*Brute™ Series is shipped with adapters for the air and vent that accept standard pipe of the proper size and type. Dimensions are nominal and are shown in inches, cm.

Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement.



Committed to American Manufacturing,
Wholesale Distribution, and Professional Installation.

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