



# The Brute<sup>®</sup> Mini Residential Hydronic Boilers



The Compact Brute<sup>®</sup> Mini  
for Superb Home Heating



Built to be the Best<sup>™</sup> | [www.bradfordwhite.com](http://www.bradfordwhite.com)

# The Brute® Mini



The Bradford White Brute® Mini is the ideal choice for homeowners and installers looking for an efficient and durable residential hydronic boiler that delivers great installation flexibility, low upfront and annual operation costs, and exceptional home heating for years of reliable, trouble-free service.

## Highlights

- **85% efficient (AFUE) - among the highest of any chimney-vent boiler**
- **Flexible installation**
- **Compact size**
- **Low mass heat exchanger**

## Compact Size

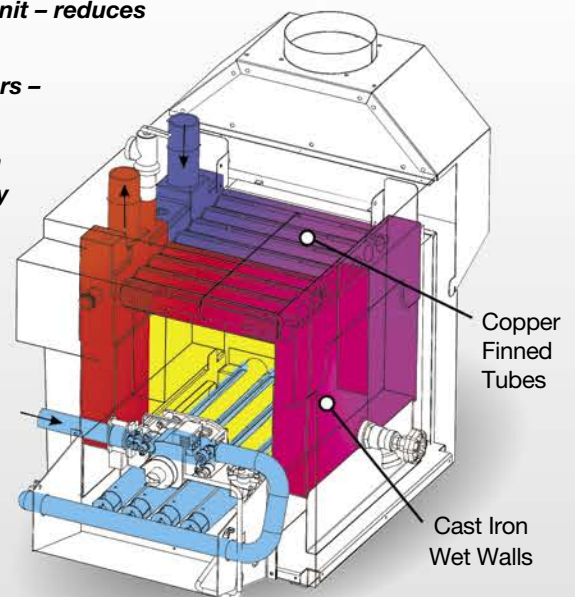
Whether it's a new installation or replacing an existing boiler, the Brute® Mini's compact and versatile design can help save space and reduce installation costs.

- **Supply and return water piping connections are located on the top of the unit – reduces installed footprint**
- **Spacing of supply and return piping connections matches many older boilers – replaces existing heating systems with less re-piping**
- **Factory-installed draft diverter and connection height of less than 29" from the floor – reduces jobsite assembly and offers greater installation flexibility in homes with low chimney connections or when the boiler is located far from the chimney**

## Unique, Low Mass Heat Exchanger

The Brute® Mini features a low-mass heat exchanger that combines the benefits of both cast iron "wet wall" headers and copper finned tubing, allowing the boiler to quickly, quietly, and efficiently respond to heating demands.

- **Two cast iron wet wall headers constructed of durable grey iron castings**
- **Combination of cast iron headers and copper tubes delivers the benefits of both materials – the mass and durability of cast iron and the quick response and exceptional efficiency of copper**
- **2" of high density insulation around the heat exchanger helps prevent heat loss**
- **ASME certified**



# Exclusive Technologies and Features

## Brute® Mini Advanced Controls

---

Outdoor weather conditions are one of the greatest factors in the heating needs of any home. The Brute® Mini includes a simple yet effective outdoor reset control system, which automatically adjusts the boiler to operate at the highest possible efficiency whenever the home needs heat. Several key features allow the reset control to optimize the Brute® Mini's performance:

***Outdoor Reset with Auto Differential Control*** – Outdoor reset continuously adjusts the boiler output to match outdoor weather conditions. The boiler control monitors the outdoor temperature and past history to calculate the home's heating demands. The controls can compensate for a fast response (cold days) or slower response (warmer days) to reduce fuel use. Added benefits of the control include less frequent on/off boiler cycling, which can also help improve the overall heating comfort of the home while reducing wear and tear on boiler components. The Brute® Mini's reset control requires no programming, making it simple to install and operate.

***Domestic Water Priority*** – When an indirect water heater is installed with the Brute® Mini, the boiler control recognizes the difference between a demand for domestic hot water and a demand for heat. If the boiler control senses demand for domestic hot water and space heating at the same time, it can prioritize the domestic hot water demand and direct the boiler's full capacity to provide domestic hot water first; it then returns to heating the home. This ensures there will always be plenty of hot water at every point in a home.

## Combined Benefits of Copper and Cast Iron

- ***Copper absorbs heat up to 7 times faster than cast iron: The Brute® Mini can respond to heating demands quickly and deliver warmth when you want it.***
- ***Less copper is needed to heat the same amount of water as compared to conventional cast iron boilers.***
- ***The Brute® Mini is smaller and lighter than conventional cast iron boilers.***
- ***The cast iron "wet wall" headers act as mini heat sinks to hold just enough heat to help minimize boiler short cycling. This helps increase heating comfort and boiler efficiency while also reducing wear and tear on electrical components.***

# The Perfect Balance of

## Top 10 Reasons to Choose Brute® Mini

### Installer Benefits

1. Brute® Mini offers 85% operational efficiency. That's among the highest efficiency for gas-fired chimney vented boilers in the industry.



2. The Brute® Mini's small size provides big advantages



for installers. Its compact footprint and light weight help make the Brute® Mini easier to transport and maneuver. The factory-installed draft diverter and

low vent connection height simplify assembly and help the Brute® Mini fit where other boilers won't. Standardized piping locations line up with many existing installations, saving time and materials.

3. Proven spark ignition and durable electronic components are simple to set up and operate, making installation and operation a breeze.
4. Superior heat exchanger design combines the benefits of both cast iron "wet wall" headers and copper finned tubing, allowing the boiler to respond quickly to deliver heat swiftly and efficiently.
5. An automatic vent damper and 2" high density insulation reduce losses from the heat exchanger, saving fuel and money.

6. The economical Brute® Mini's design is simple, durable, and requires minimal maintenance.



### Homeowner Benefits

7. Brute® Mini is certified at 85% efficiency, saving energy and money. It is among the highest efficiency gas-fired chimney vented boilers in the industry.
8. Its unique design helps the Brute® Mini deliver heating comfort and efficiency whenever it's needed.
9. The Brute® Mini is built in the USA with quality materials and durable components for reliability and longevity.



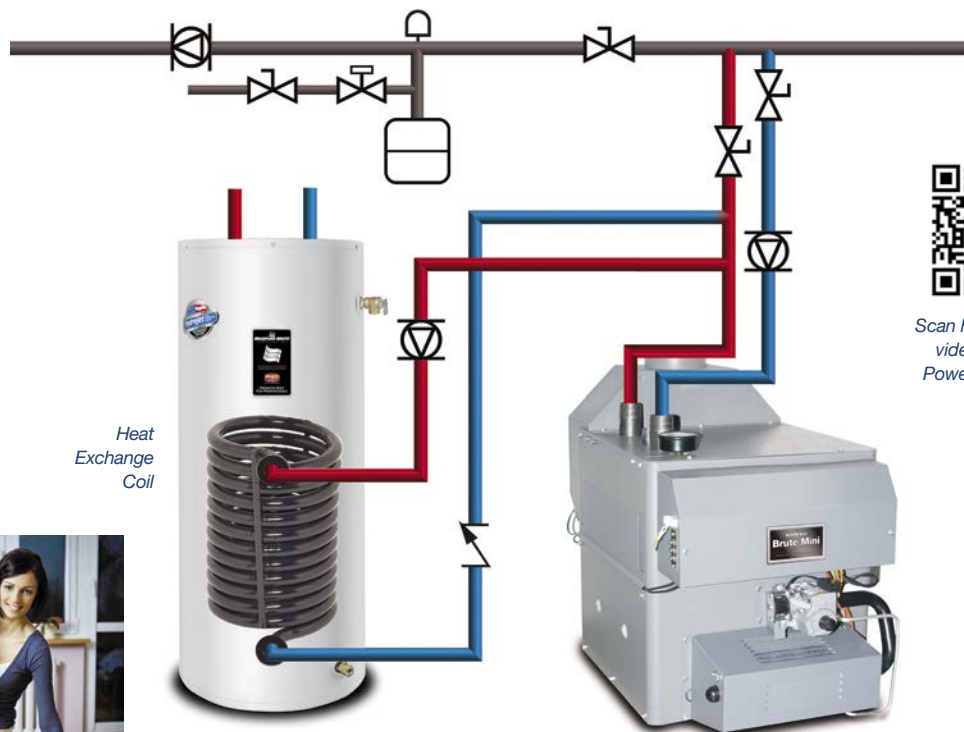
10. The compact size and design help the Brute® Mini fit where other boilers won't, leaving more room for living spaces in homes.



# Technology, Efficiency, and Value

## GET MORE HOT WATER! Combine the Brute® Mini with a PowerStor Series™ Indirect Water Heater

Combine Brute® Mini 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® Mini'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.



Heat  
Exchange  
Coil



Scan here to see our  
video about the  
PowerStor Series™

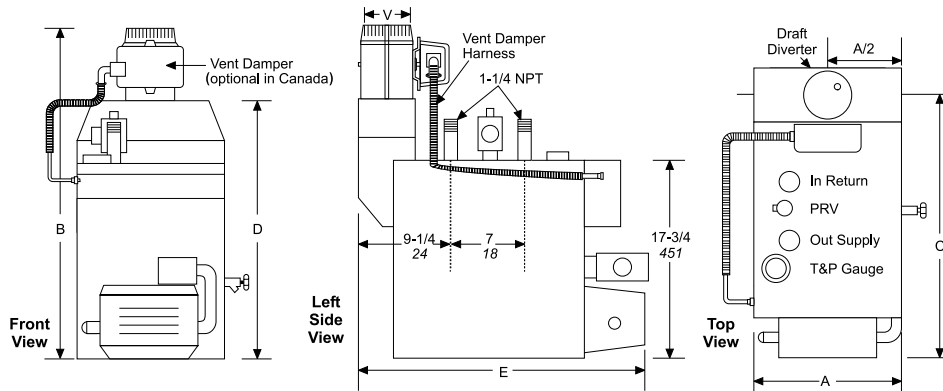


Bradford White PowerStor indirect water heaters are heavily insulated storage tanks constructed with a heat exchanger coil designed to deliver heat from the boiler to the domestic water in the tank. Hot water supplied from the boiler travels through the PowerStor's heat exchange coil, transferring heat 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.

# Brute® Mini Standard Features

- 6 sizes, 50-225 MBTU/Hr. input
- 85% AFUE
- Category I chimney venting
- Includes auto set point and outdoor reset
- Natural or LP gas models
- ASME certified “wet wall” copper heat exchanger with cast iron headers
- 30 psi safety relief valve
- Built-in, low profile draft diverter
- Electronic spark ignition
- Manual reset blocked vent safety switch
- Manual reset roll-out switch
- Adjustable high limit
- Integrated boiler reset control
- Adjustable reset curve
- Heat & DHW demand terminals

## Specs at a Glance



## Brute® Mini Sizing Data

Model Number	Size	Efficiency AFUE %	Input		Output	
			MBTU/h	kW	MBTU/h	kW
BJVS050	50 MBTU/Hr.	85.0	50	14.7	43	12.6
BJVS075	75 MBTU/Hr.	85.0	75	22.0	64	18.8
BJVS100	100 MBTU/Hr.	85.0	100	29.3	85	24.9
BJVS125	125 MBTU/Hr.	85.0	125	36.6	106	31.1
BJVS160	160 MBTU/Hr.	85.0	160	46.9	136	39.8
BJVS225	225 MBTU/Hr.	85.0	225	65.9	191	56.0



## Brute® Mini Dimensional Data

Model Number	Size	A		B		C		D		E		V		Weight	
		in.	cm	in.	cm	in.	cm	in.	cm	in.	cm	in.	cm	lbs.	kg
BJVS050	50 MBTU/Hr.	13 <sup>3</sup> / <sub>8</sub>	34	27 <sup>3</sup> / <sub>4</sub>	71	23 <sup>5</sup> / <sub>8</sub>	60	21 <sup>3</sup> / <sub>4</sub>	55	26 <sup>1</sup> / <sub>2</sub>	67	4	10	120	54
BJVS075	75 MBTU/Hr.	13 <sup>3</sup> / <sub>8</sub>	34	27 <sup>3</sup> / <sub>4</sub>	71	24 <sup>1</sup> / <sub>8</sub>	61	21 <sup>3</sup> / <sub>4</sub>	55	27 <sup>1</sup> / <sub>2</sub>	70	5	13	126	57
BJVS100	100 MBTU/Hr.	16 <sup>7</sup> / <sub>8</sub>	43	28 <sup>3</sup> / <sub>4</sub>	73	24 <sup>1</sup> / <sub>8</sub>	61	22 <sup>3</sup> / <sub>4</sub>	58	27 <sup>1</sup> / <sub>2</sub>	70	5	13	134	61
BJVS125	125 MBTU/Hr.	16 <sup>7</sup> / <sub>8</sub>	43	28 <sup>3</sup> / <sub>4</sub>	73	23 <sup>5</sup> / <sub>8</sub>	60	22 <sup>3</sup> / <sub>4</sub>	58	27 <sup>1</sup> / <sub>2</sub>	70	6	15	138	63
BJVS160	160 MBTU/Hr.	20 <sup>3</sup> / <sub>8</sub>	52	28 <sup>3</sup> / <sub>4</sub>	73	23 <sup>5</sup> / <sub>8</sub>	60	22 <sup>3</sup> / <sub>4</sub>	58	27 <sup>1</sup> / <sub>2</sub>	70	6	15	164	74
BJVS225	225 MBTU/Hr.	25 <sup>5</sup> / <sub>8</sub>	65	31 <sup>1</sup> / <sub>2</sub>	80	23 <sup>1</sup> / <sub>4</sub>	59	24 <sup>3</sup> / <sub>4</sub>	63	27 <sup>1</sup> / <sub>2</sub>	70	7	18	181	82

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



Committed to the Professional.