

Brute FT



Residential Hydronic Boiler

BMFTHW Wall Mounted Boiler

Indoor, Sizes 080, 100, 140, 199



Submittal Data

Date:

Project #:

Engineer:

Project Name:

Prepared By:

Location:

Bid Date:

Contractor:

Standard Equipment

- High condensing efficiency. 95% AFUE
- Low pressure drop, fire tube heat exchanger design
- Full modulation
 - 80 -140MBH: 100% down to 20% of full fire (5:1 turndown)
 - 199MBH: 100% down to 10% of full fire (10:1 turndown)
- Cascadable up to 20 units
- Sealed combustion chamber
- Pre-mix ceramic fiber burner
- Low NOx system exceeds the most stringent regulations for air quality – 17ppm NOx
- Horizontal or vertical direct vent
- Vent and air pipe lengths of up to 100 equivalent feet (each)
- Stainless steel heat exchanger with finned aluminum core fire tubes, welded construction
- ASME 30 psi (207kPa) working pressure heat exchanger
- ASME "H" stamp
- Vent with PVC, CPVC or Polypropylene
- Natural gas or propane
- 30 psi (207kPa) ASME pressure relief valve
- Gas leak detection
- Boiler pump wired and mounted inside jacket
- Built-in condensate trap and drain, priming not required
- Automatic air vent
- Pressure gauge
- Boiler water pressure switch
- Blocked vent pressure switch
- Blocked condensate pressure switch
- Burner site glass
- Electronic PID modulating control
- Direct spark ignition
- Pump control with delay
- Freeze Protection
- Anti-short cycling
- Large user-interface and display
- Accepts external (0-10VDC) temperature setpoint signal
- Outdoor reset (sensor included)
- Outdoor air reset curve
- Manual reset high limit
- Wall mount bracket
- Field convertible between natural gas and propane
- Automatic low water cut-off (LWCO)
- 10-Year limited warranty
- 2-Year parts warranty

Boiler Data

Number of Units:

Fuel

Natural*

*Boilers shipped set up for use with Natural Gas and includes a Propane conversion kit.



Sizing Data

Model	Input		Output		AFUE	Gas Conn. Size inches	Heating Supply & Return Conn. Size inches	Shipping Weight lbs kg
	BTU/h	kW	BTU/h	kW				
BMFTHW080	80,000	23	74,400	22	95%	3/4 NPT	1 1/4 NPT	98 44
BMFTHW100	100,000	29	93,000	27	95%	3/4 NPT	1 1/4 NPT	98 44
BMFTHW140	140,000	41	130,200	39	95%	3/4 NPT	1 1/4 NPT	102 46
BMFTHW199	199,000	58	189,050	55	95%	3/4 NPT	1 1/4 NPT	118 54

NOTES:

- For other boiler ratings:

$$\text{Boiler Horsepower: HP} = \frac{\text{Output}}{33,475} \quad \text{Radiation Surface: EDR sq. ft.} = \frac{\text{Output}}{150}$$

Clearances

APPLIANCE SURFACE	SUGGESTED SERVICE ACCESS CLEARANCE	
	INCHES	CM
Left Side	8	20
Right Side	8	20
Top	18	46
Back	0	0
Closet, Front	3	8
Front	40	101
Bottom	24	61
Vent	1	3

Electrical Data

Size	Volts	Boiler Phase	Amps
BMFTHW (all sizes)	120	Single	4

* Minimum 15A circuit required

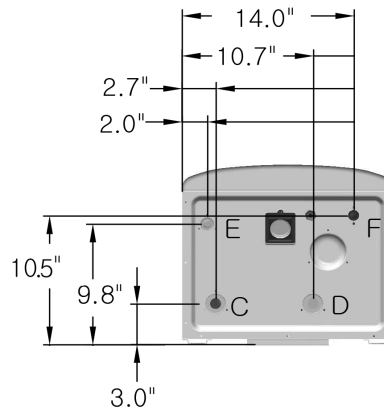
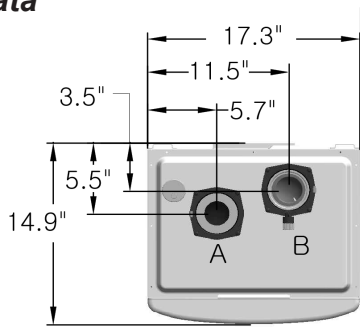
Vent System

SIZES	INTAKE / EXHAUST Max Equivalent Vent and Air Pipe Length (each)					
	STANDARD 2-PIPE			STANDARD 2-PIPE		
	DIA.	FT.	m	DIA.	FT.	m
(all sizes)	2"*	50**	15.2	3"	100	30.5

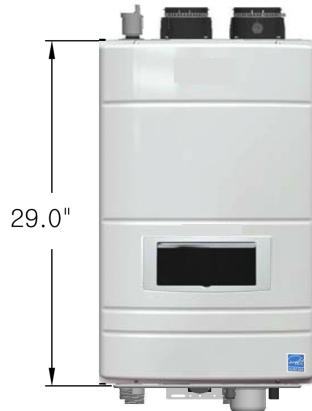
* Must use 3x2 adaptor within 1ft (3cm) of boiler. Reference the Installation and Operation Manual for more details.

**Propane models are limited to 25 equivalent feet of 2" vent.

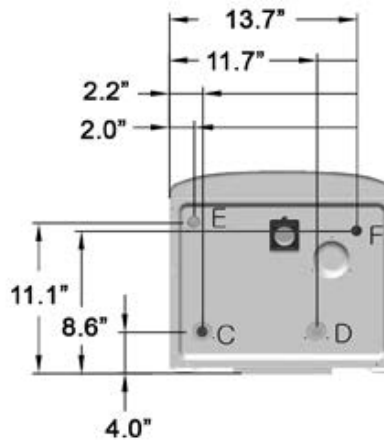
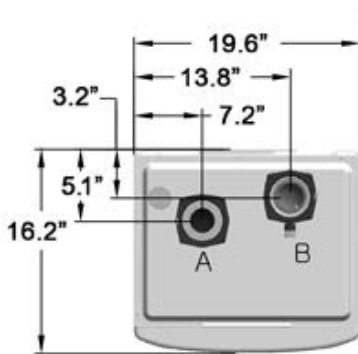
Dimensional Data



BMFTHW 080/100/140



	Description	Diameter
A	Air Intake Collar	3"
B	Vent Pipe Collar	3"
C	'CH' Supply Adapter	1 1/4"
D	'CH' Return Adapter	1 1/4"
E	Gas Inlet Adapter	3/4"
F	Condensate Line	1/2"



BMFTHW 199



	Description	Diameter
A	Air Intake Collar	3"
B	Vent Pipe Collar	3"
C	'CH' Supply Adapter	1 1/4"
D	'CH' Return Adapter	1 1/4"
E	Gas Inlet Adapter	3/4"
F	Condensate Line	1/2"

