

Brute® FT



Hydronic Boiler

BFTHW | Wall Mounted Boiler

Indoor Sizes 301, 399



Date:

Project #:

Engineer:

Prepared By:

Bid Date:

Submittal Data

Project Name:

Location:

Contractor:

Standard Equipment

- Stainless steel heat exchanger w/ finned aluminum core fire tubes
- ASME "H" stamp
- ASME 80 psi (551kPa) working pressure
- 95%+ AHRI certified thermal and combustion efficiencies
- Full Modulation:
 - 10:1 turndown (399)
 - 7.5:1 turndown (301)
- 30 psi (207kPa) ASME PRV
- Pressure gauge
- Sealed combustion chamber
- Pre-mix ceramic fiber burner
- Top & bottom water connections
- Top & bottom gas connections
- Wall mount bracket
- Available with floor stand
- Low NOx system exceeds the most stringent regulations for air quality
- Horizontal or vertical direct vent
- Vent and air pipe lengths up to 150 equivalent feet (each)
- Screens for air and vent pipe
- Large user-interface and display
- Electronic PID modulating control
- Cascade up to 4 units (mixing sizes is allowed)
- Direct spark ignition
- Outdoor reset (sensor included)
- Manual reset high limit
- Low water cutoff
- Customizable freeze protection
- Air filter
- Inlet air flue gas contamination sensor
- Built-in condensate trap and drain
- Automatic air vent
- Air pressure switch
- Burner site glass
- Propane conversion kit
- O-ring and gasket kit included
- 10-year limited heat exchanger warranty
- 5-year limited parts warranty

Boiler Data

Model Number:

- ☐ BFTHW301NX Wall-Mounted Boiler
- ☐ BFTHW399NX Wall-Mounted Boiler
- ☐ BFTHW301NF Boiler with Floor Stand
- ☐ BFTHW399NF Boiler with Floor Stand

Number of Units:



Field Installed
Accessory Kits

- Condensate neutralizer

Condensate neutralizer with pump

Cascade sensor

Cascade cable

DHW sensor

Mixing control sensor
- Flush concentric vent/air terminal 3"

Flush concentric vent/air terminal 4"

Concentric vent/air terminal 3"

4" vent/air pipe screen
- High altitude conversion kits (5001-10000 feet)

Natural gas

Propane

Sizing Data

AHRI Certified Ratings													
Size	Input Rate		Turndown Ratio	Combustion Efficiency	Thermal Efficiency	Gross Output		Net AHRI Rating		Product Weight		Shipping Weight	
	MBH	kw				MBH	kw	MBH	kw	lbs	kg	lbs	kg
301 Boiler	301	88	7.5:1	95.4	95.1	286	84	249	73	240	109	265	120
399 Boiler	399	117	10:1	95.9	95.4	379	111	330	97	250	114	275	125
301 Boiler & Stand	301	88	7.5:1	95.4	95.1	286	84	249	73	275	125	310	141
399 Boiler & Stand	399	117	10:1	95.9	95.4	379	111	330	97	285	129	320	145

Clearances

Boiler Hung on Wall						Boiler with Floor Stand					
	Clearance to Any Surface		Suggested Service Clearance				Clearance to Any Surface		Suggested Service Clearance		
	inches	cm	inches	cm			inches	cm	inches	cm	
Front	1	2.5	18	46	Front		1	3	18	46	
Back	1	2.5	1	2.5	Back		1	2.5	1	2.5	
Left	1	2.5	6	15	Left		1	2.5	6	15	
Right	1	2.5	6	15	Right		1	2.5	6	15	
Top (Alcove)	9	23	24	61	Top (Alcove)		9	23	24	61	
Top (Closet)	22	56	22	56	Top (Closet)		22	56	24	61	
Bottom	12	30	24	61							

Electrical
Data

Size	Main Supply	Maximum Power Consumption
301	120V 60Hz / 15A	160W
399	120V 60Hz / 15A	160W

Vent System

	3" Combustion Air & Vent Pipe			4" Combustion Air & Vent Pipe		
	Minimum Combustion Air Pipe Length	Minimum Vent Pipe Length	Maximum Combustion Air & Vent Pipe Length	Minimum Combustion Air Pipe Length	Minimum Vent Pipe Length	Maximum Combustion Air & Vent Pipe Length
Pipe Length	0 feet (0 m)	3 feet (1 m)	65 feet (19.5 m)	0 feet (0 m)	3 feet (1 m)	150 feet (45 m)
Deductions per 90° Elbow	5 feet (1.5 m)			5 feet (1.5 m)		
Deductions per 45° Elbow	2.5 feet (0.75 m)			2.5 feet (0.75 m)		
Max. Number of Total Elbows	6			8		

Combustion Air Pipe

Material	United States	Canada
ABS	ANSI/ASTM D1527	Air pipe material must be CPVC, sch 40, ANSI/ASTM or polypropylene, based upon the intended application of the boiler.
PVC, sch 40	ANSI/ASTM D1785 or D2665	
CPVC, sch 40	ANSI/ASTM F441	
Polypropylene	UL1738, ULC S636	
Single wall galv. steel	26 gauge	

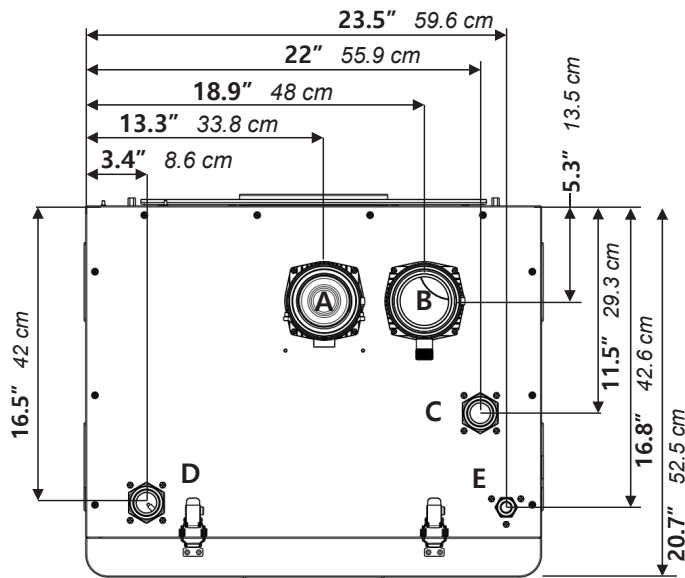
Exhaust Vent Pipe

Material	United States	Canada
Stainless Steel	UL 1738	Venting must be ULC-S636 certified for use as venting material. The venting material must be chosen based upon the intended application of boiler.
PVC, sch 40	ANSI/ASTM D1785	
CPVC, sch 40	ANSI/ASTM F441	
Polypropylene (PP)**	UL1738 or ULC-S636	

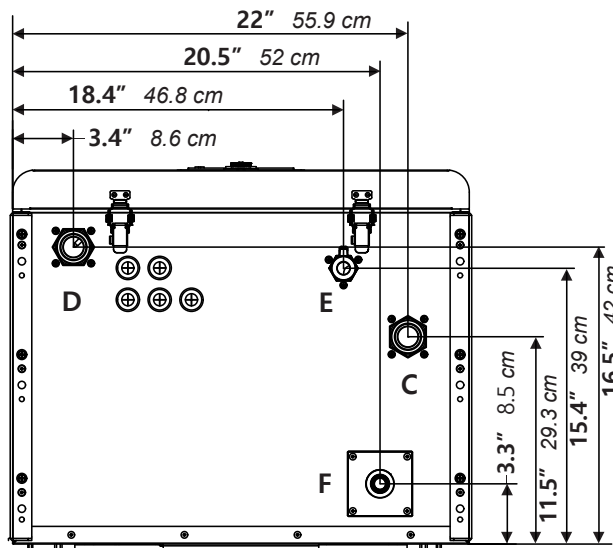
** 3" Polypropylene Flex allowed with restrictions:

- Up to 65 linear feet.
- Vertical vent through the roof ONLY.
- Indirect venting ONLY.

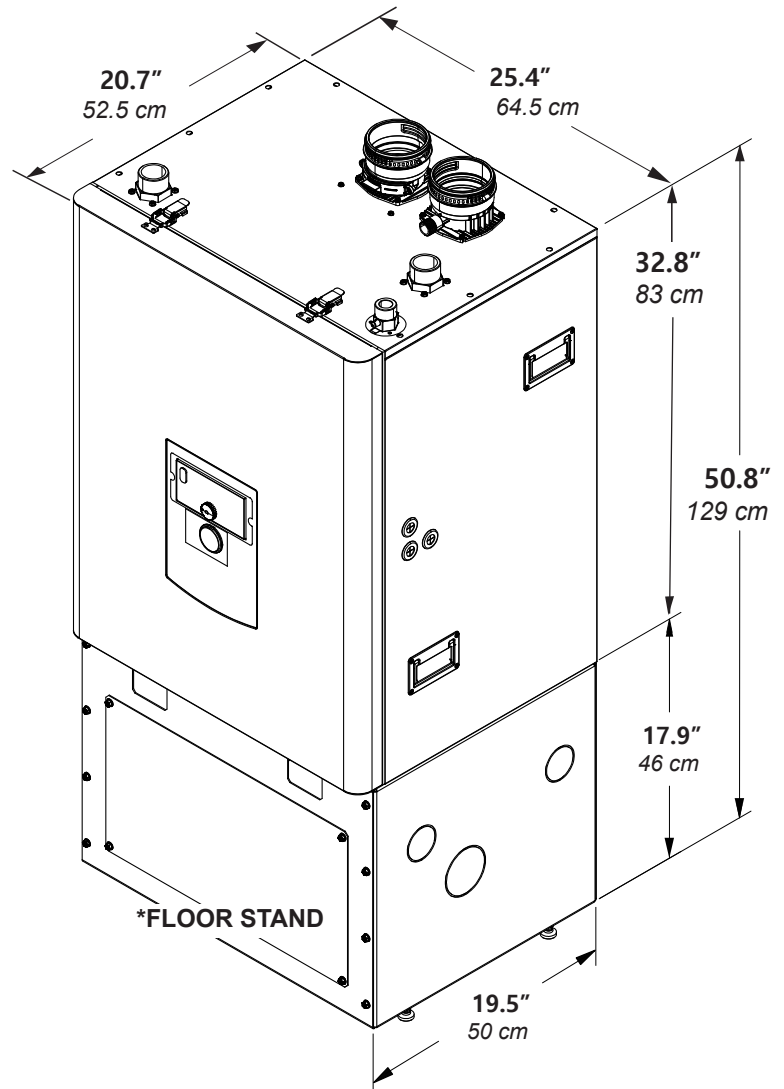
Dimensional Data



TOP VIEW



BOTTOM VIEW



*Floor stand is available separately or ordered with the boiler.

Callout	Description	Diameter
A	Air Intake Collar	3-inch
B	Vent Pipe Collar	3-inch
C	Boiler Supply	1½" NPT
D	Boiler Return	1½" NPT
E	Gas Inlet	1" NPT
F	Condensate Line	½"