

MASCOT® FT



Residential Hydronic Boiler

MFTHW Wall Mounted Boiler
 Indoor, Sizes 100, 140, 199

Date:

Project #:

Engineer:

Prepared By:

Bid Date:

Submittal Data



Project Name:

Location:

Contractor:

Standard Equipment

- High condensing efficiency. 95% AFUE
- Low pressure drop, fire tube heat exchanger design
- Full modulation
 - 100 -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 Polypropolene
- 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*

*All boilers are shipped for natural gas, and include propane conversion kits.



Sizing Data

Model	Input		AHRI Certified Heating Capacity		AHRI Certified AFUE	Gas Connection Size	Water Connection Size	Shipping Weight	
	BTU/h	kW	BTU/h	kW				lbs	kg
MFTHW100	100,000	29.3	93,000	27.2	95.0%	¾" NPT	1¼" NPT	98	44
MFTHW140	140,000	41.0	129,000	37.8	95.0%	¾" NPT	1¼" NPT	102	46
MFTHW199	199,000	58.3	181,000	53.0	95.0%	¾" NPT	1¼" 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	Boiler		
	Volts	Phase	Amps
MFTHW (all sizes)	120	Single	4

* Minimum 15A circuit required

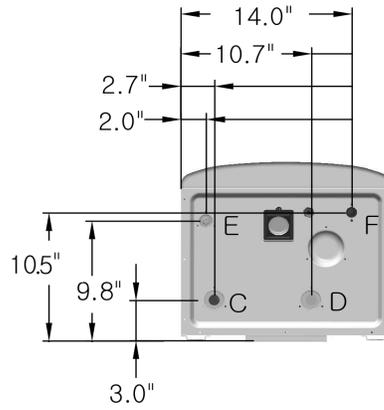
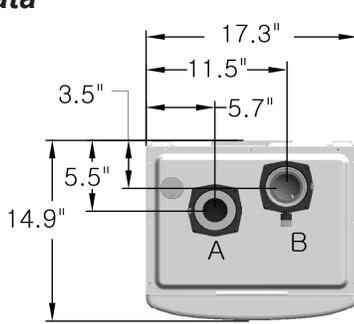
Vent System

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

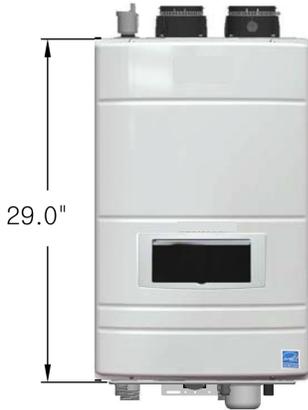
* Must use 3x2 adaptor within 1ft (3cm) of boiler. Reference the Installation and Operation Manual for more details.

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

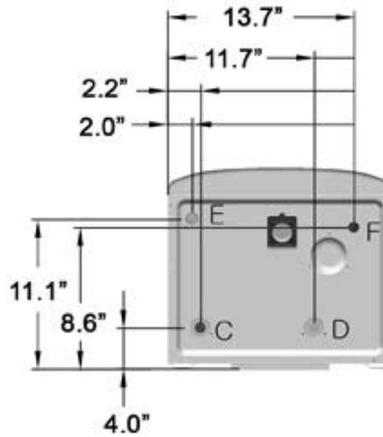
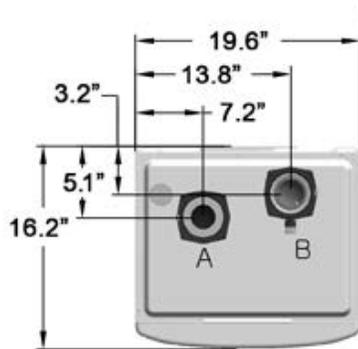
Dimensional Data



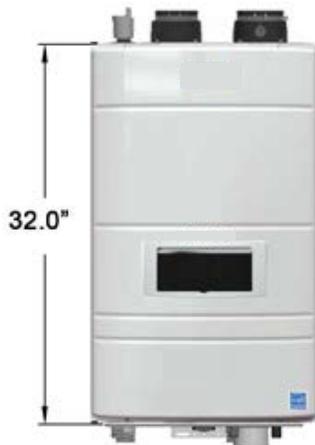
MFTHW 100 / 140



	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"



MFTHW 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"

