

# MASCOT® FT



# Residential Hydronic Boiler

MFTHW Wall Mounted Boiler  
 Indoor, Sizes 080, 100, 120, 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
  - 80 -140MBH: 100% down to 20% of full fire (5:1 turndown)
  - 199MBH: 100% down to 10% of full fire (10:1 turndown)
- 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
- 10-Year limited warranty
- 2-Year parts warranty

## Boiler Data

Number of Units:

Fuel

Natural\*

Options

Low Water Cut-off (shipped loose)

\*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	
	BTU/h	kW	BTU/h	kW				lbs	kg
MFTHW080	80,000	23	74,400	22	95%	3/4 NPT	1 1/4 NPT	98	44
MFTHW100	100,000	29	93,000	27	95%	3/4 NPT	1 1/4 NPT	98	44
MFTHW120	120,000	35	111,600	33	95%	3/4 NPT	1 1/4 NPT	102	46
MFTHW140	140,000	41	130,200	39	95%	3/4 NPT	1 1/4 NPT	102	46
MFTHW199	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	Boiler		
	Volts	Phase	Amps
MFTHW (all sizes)	120	Single	4

\* Minimum 15A circuit required

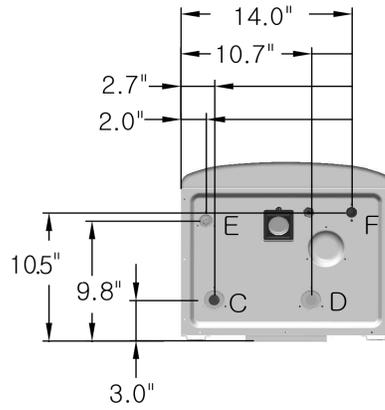
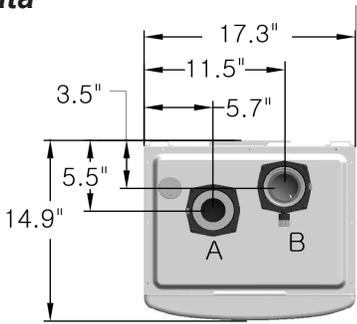
## Vent System

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

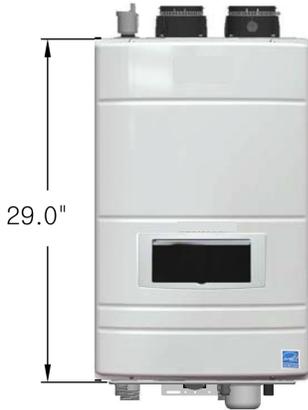
\* Must use 3x2 adaptor within 1ft (3cm) of boiler. Reference the Installation and Operation Manual for more details.

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

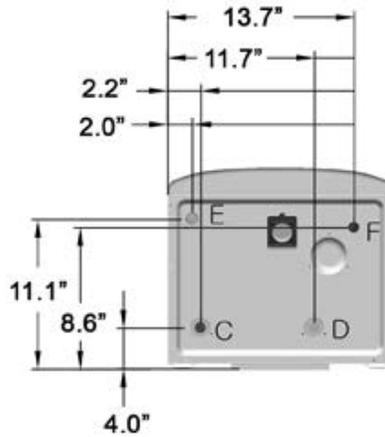
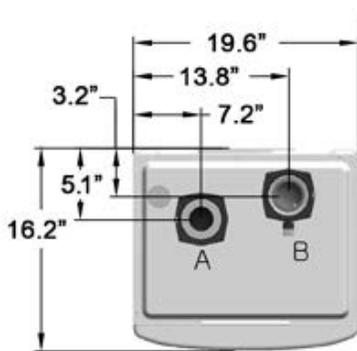
**Dimensional Data**



**MFTHW080/100/120/140**



	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"

