



# Lochinvar®

## FTXL FIRE TUBE CONDENSING BOILER

Submittal Sheet

FTXL-Sub-02

### FTXL FIRE TUBE COMMERCIAL BOILERS

Job Name: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Engineer: \_\_\_\_\_  
 Agent/Wholesaler: \_\_\_\_\_  
 Contractor: \_\_\_\_\_

Model No. \_\_\_\_\_  
 Type Gas: Natural LP  
 Equipment Tag(s): \_\_\_\_\_

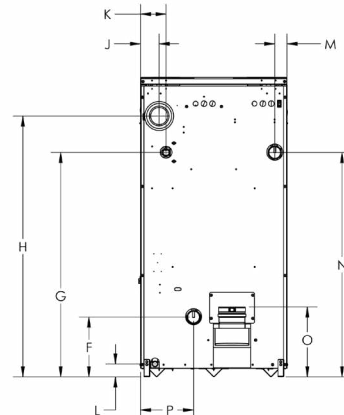
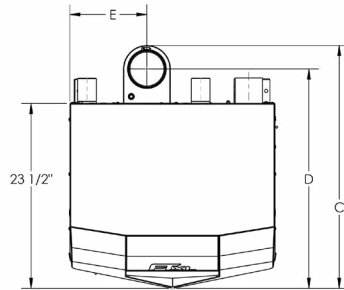
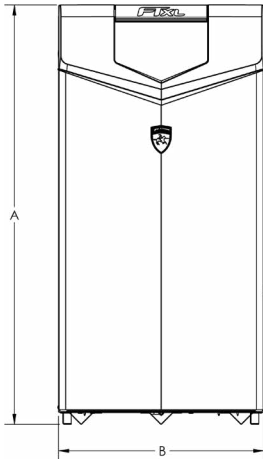
**NOTES:**

FOR EASE IN ORDERING  
BY MODEL NUMBER

FTX	1000	N	M13
FTXL Boiler	999,000 Btu/ Hr Input	Natural Gas	Firing Control

This model is:

- FTXL Fire Tube boiler
- 999,000 Btu/hr
- Natural gas
- M13 Firing Controls



FTXL HEATING BOILER						DIMENSIONS & SPECIFICATIONS											
Model Number	Input MBH		Gross Output MBH	Net AHRI Rating Water MBH	Therm. Eff. %	Turn-Down	Flow (GPM)		HEX Water Volume (Gal)	A	B	C	D	E	F	G	H
	Min Btu/Hr	Max Btu/Hr					Min	Max									
FTX400(N,L)	39.9	399	392	341	98.0	10:1	10	105	13	53-1/4"	26-1/4"	31"	28"	9-3/4"	10-3/4"	40"	46-1/2"
FTX500(N,L)	50	500	489	425	97.7	10:1	15	105	12	53-1/4"	26-1/4"	31"	28"	9-3/4"	10-3/4"	39-3/4"	46-1/2"
FTX600(N,L)	85.7	600	585	509	97.5	7:1	15	105	12	53-1/4"	26-1/4"	31"	28"	9-3/4"	10-3/4"	40-3/4"	48-1/4"
FTX725(N,L)	103.6	725	705	613	97.2	7:1	20	150	17	53-1/4"	26-1/4"	33-1/4"	29"	10"	11"	40-3/4"	48-1/4"
FTX850(N,L)	121.4	850	825	717	97.0	7:1	25	150	16	53-1/4"	26-1/4"	33-1/4"	29"	10"	11"	40-3/4"	48-1/4"
FTX1000(N,L)	99.9	999	982	854	98.3	10:1	30	150	19	61-1/4"	26-1/4"	38-1/4"	34"	10-3/4"	11"	40-1/4"	50-1/2"

Model Number	J	K	L	M	N	O	P	Water Conn.	Vent Size	Air Inlet	Gas Conn.	Ship Wt. (lbs.)	Operating Wt. (lbs.)
FTX400(N,L)	3-1/4"	2-1/4"	2-1/4"	2-1/4"	40"	12-1/2"	9-1/2"	2"	4"	4"	1"	478	542
FTX500(N,L)	3-1/4"	2-1/4"	2-1/4"	2-1/4"	40"	12-1/2"	9-1/2"	2"	4"	4"	1"	504	560
FTX600(N,L)	3-1/4"	3-3/4"	2-1/4"	2-1/4"	40"	12-1/2"	9-1/2"	2"	4"	4"	1"	504	560
FTX725(N,L)	3"	3-1/2"	2-1/4"	2-1/4"	40"	12-1/2"	9"	2-1/2"	6"	4"	1"	575	672
FTX850(N,L)	3"	3-1/2"	2-1/4"	2-1/4"	40"	12-1/2"	9"	2-1/2"	6"	4"	1"	604	693
FTX1000(N,L)	6-3/4"	2-1/2"	2-1/2"	2-1/2"	40"	12-1/2"	7-1/2"	2-1/2"	6"	6"	1-1/4"	670	750

\*Information subject to change without notice. Dimensions shown are approximate and should not be used for construction purposes. Dimensions are in inches. Select "N" or "L" for Natural or LP gas. The Net AHRI Water Ratings shown are based on a piping and pickup allowance of 1.15. Lochinvar should be consulted before selecting a boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc. The ratings have been determined under the provisions governing forced draft burners.

# FTXL™

## FIRE TUBE BOILER



### Standard Features

- › **97% -98.3% Thermal Efficiency**
- › **Modulating Burner with up to 10:1 Turn-down**
  - Direct Spark Ignition
  - Low NOx Operation
  - Sealed Combustion
  - Low Gas Pressure Operation
- › **Stainless Steel Fire Tube Heat Exchanger**
  - ASME-Certified, "H" Stamped
  - 160 psi Working Pressure
  - 50 psi Relief Valve
  - Combustion Analyzer Test Port
  - Fully Welded Design
- › **Vertical and Horizontal Direct Vent**
  - Direct Vent up to 100 feet
  - PVC, CPVC, Polypropylene or AL29-4C
  - Factory Supplied Sidewall Vent Termination
- › **Smart Touch**
- › **Other Features**
  - On/Off Switch
  - Adjustable High Limit with Manual Reset
  - Automatic Reset High Limit
  - Manual Reset Low Water Cutoff
  - Flue Temperature Sensor
  - Low Air Pressure Switch
  - Temperature and Pressure Gauge
  - Condensate Trap
  - Zero Service Clearance
  - 10-Year Limited Warranty (See Warranty)

### Smart System Features

- › **CON-X-US Remote Connect**
- › **Smart Touch Touchscreen Operating Control**
- › **Full Color 7" Touchscreen LCD Display**
- › **Cascading Sequencer with Built-in Redundancy**
  - Selectable Cascade Type:
    - Lead Lag/Efficiency Optimization
    - Multiple Size Boilers
  - Front-End Loading
- › **3 Reset Temperatures Inputs w/Independent Outdoor Reset Curves for Each**
  - Outdoor Sensor
- › **Four-Pump Control**
  - System Pump with Parameter for Continuous Operation
  - Boiler Pump with Variable-Speed Control
  - Domestic Hot Water Boiler Pump
  - Domestic Hot Water Recirculation Pump Control with Sensor
- › **Building Management System Integration**
  - 0-10 VDC Input to Control Modulation or Set-point
  - 0-10 VDC Input from Variable-Speed System Pump
  - 0-10 VDC Modulation Rate Output Signal
  - 0-10 VDC Enable/Disable Signal
- › **Programmable System Efficiency Optimizers**
  - Space Heating Night Setback
  - DHW Night Setback
  - Anti-Cycling
  - Ramp Delay
  - Boost Time and Temperature
- › **High-Voltage Terminal Strip**
  - 120 VAC/60 Hertz/1 Phase
  - Pump Contacts for 3 Pumps
- › **Low-Voltage Terminal Strip**
  - Building Recirculation Pump Start/Stop
  - Building Recirculation Return Temp Sensor Contacts
- Proving Switch Contacts
- Flow Switch Contacts
- Alarm Contacts
- Runtime Contacts
- 3 Space Heat Thermostat Contacts
- Tank Thermostat Contacts
- System Sensor Contacts
- Tank Sensor Contacts

- Cascade Contacts
- 0-10 VDC BMS Contacts
- 0-10 VDC Boiler Rate Output Contacts
- 0-10 VDC Boiler Pump Speed Contacts
- 0-10 VDC System Pump Speed Contacts
- ModBus Contacts
- › **Time Clock**
- › **Data Logging**
  - Ignition Attempts
  - Last 10 Lockouts
  - Space Heat Run Hours
  - Domestic Hot Water Run Hours
  - Custom Maintenance Reminder with Contact Info
  - Password Security
  - Customizable Freeze Protection Parameters

### Optional Equipment

- Alarm Bell
- BACnet MSTP Communications Kit
- BMS Gateway to BACnet or LonWorks
- Common Vent Kit
- Condensate Neutralization Kit
- Constant-Speed Boiler Circulator
- Flow Switch
- High and Low Gas Pressure Switches w/Manual Reset
- ModBus Communication
- Motorized Isolation Valve
- Variable-Speed Boiler Circulator
- Wireless Outdoor Temperature Sensor
- 30 psi ASME Relief Valve
- 75 psi ASME Relief Valve
- 100 psi ASME Relief Valve
- 125 psi ASME Relief Valve
- 150 psi ASME Relief Valve
- › **Firing Controls**
  - M9-Standard Construction
  - M13-CSD-1/FM/GE Gap



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