



Lochinvar®
HIGH EFFICIENCY BOILERS & WATER HEATERS

CREST COMMERCIAL CONDENSING BOILERS
MODELS FBD0751-6001



Submittal Sheet

FBD-Sub-04

Job Name: _____

Engineer: _____

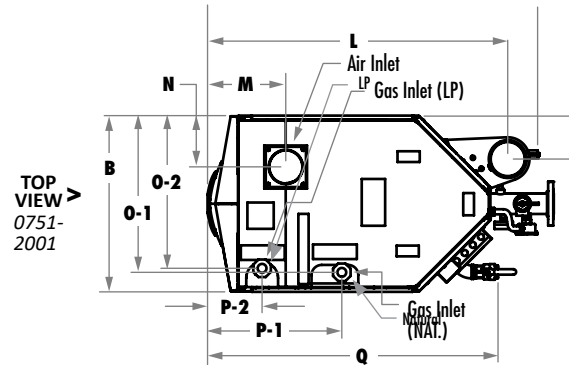
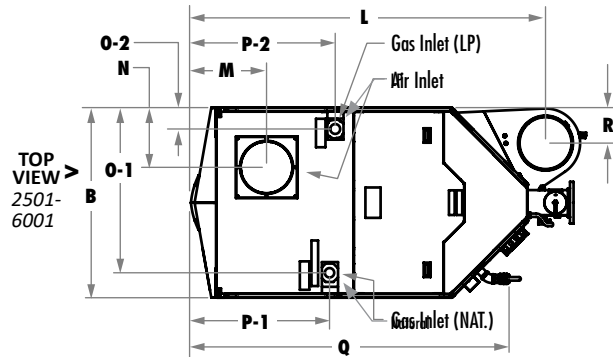
Contractor: _____

Equipment Tag(s): _____

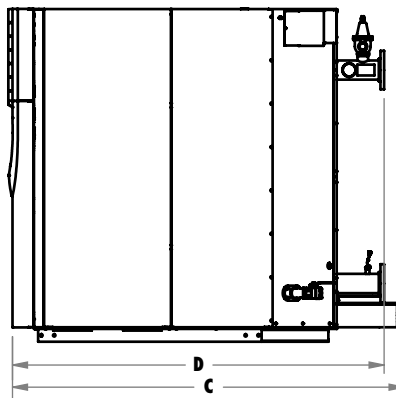
Location: _____

Model #: _____

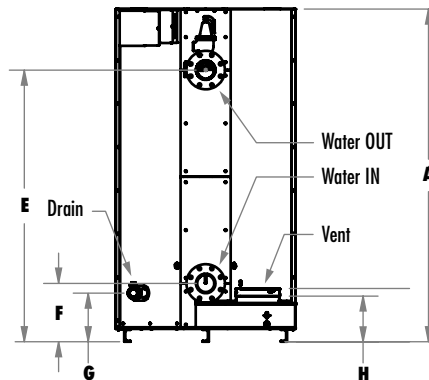
Agent/Wholesaler: _____



SIDE VIEW >



BACK VIEW <



Notes:

- Indoor installation only.
- Low NOx Operation.
- 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.
- The Net AHRI water ratings shown are based on a piping and pickup allowance of 1.15.

Fuel Connections

Model	Fuel Connections			
	Natural		LP	
	O-1	P-1	O-2	P-2
FBD0751	26-3/4"	23"	26"	9-1/4"
FBD1001	26-3/4"	22-1/2"	26"	8-3/4"
FBD1251	26-3/4"	21"	26-1/4"	7-3/4"
FBD1501	27"	28-1/4"	24-3/4"	11"
FBD1751	27"	27-1/2"	25-3/4"	11-3/4"
FBD2001	27"	27"	25-3/4"	11-1/2"
FBD2501	28-3/4"	32"	5-3/4"	32-1/4"
FBD3001	28-3/4"	32"	6-3/4"	32-1/4"
FBD3501	35-1/2"	31-3/4"	5-1/4"	33-1/2"
FBD4001	39-1/2"	42-1/4"	6-1/2"	42-1/4"
FBD5001	39-3/4"	39-1/4"	6-3/4"	40"
FBD6001	43-1/2"	36-1/2"	5-3/4"	38"

Model Number	Input MBH		Gross Output MBH	Net AHRI Rating MBH	Combustion Efficiency	Thermal Efficiency	Turn-down	Flow Rate GPM		A	B	C	D	E	F	G	H	L	M	N	Q	R	Gas Conn.	Water Inlet/Outlet	Air Inlet	Vent Size	Oper. Weight (lbs.)	Ship. Weight (lbs.)
	Min	Max						Min	Max																			
FBD0751	50	750	722	628	96.4%	96.2%	15:1	18	750	78"	30"	55-1/2"	57-5/8"	66-1/8"	11-7/8"	11-3/8"	11-1/4"	51"	13"	8-3/4"	49-1/2"	7-3/8"	1-1/4"	3"	6"	6"	1,838	1,630
FBD1001	50	999	961	836	96.4%	96.2%	20:1	18	350	78"	30"	56-1/2"	57-5/8"	66-1/8"	11-7/8"	11-3/8"	11-1/4"	51"	13"	8-3/4"	49-1/2"	6-1/2"	1-1/4"	3"	6"	6"	1,908	1,666
FBD1251	62.5	1,250	1,203	1,046	96.4%	96.2%	20:1	18	350	78"	30"	56-1/2"	57-3/4"	66-1/8"	11-7/8"	11-3/8"	11-1/4"	51-3/8"	13"	8-3/4"	49-1/2"	6-1/2"	1-1/2"	3"	6"	8"	2,045	1,718
FBD1501	60	1,500	1,443	1,255	96.4%	96.2%	25:1	25	350	78"	30"	67-3/4"	68"	65-3/8"	12-3/8"	11-3/8"	11-1/4"	62-3/8"	15-7/8"	9"	59-1/4"	5-1/8"	1-1/2"	4"	8"	8"	2,377	2,031
FBD1751	70	1,750	1,684	1,464	96.4%	96.2%	25:1	25	350	78"	30"	66-1/4"	68"	65-3/8"	12-3/8"	11-3/8"	11-1/4"	61-1/2"	15-7/8"	9"	58-3/4"	5-1/8"	1-1/2"	4"	8"	8"	2,528	2,087
FBD2001	80	1,999	1,923	1,672	96.4%	96.2%	25:1	25	350	78"	30"	66-1/2"	68"	65-3/8"	12-3/8"	11-3/8"	11-1/4"	61-1/2"	15-7/8"	9"	58-3/4"	5-1/8"	1-1/2"	4"	8"	8"	2,640	2,157
FBD2501	125	2,500	2,400	2,087	96.1%	96.0%	20:1	25	350	77-3/4"	35"	83-3/4"	83-3/4"	63-3/4"	13-1/2"	11-1/4"	10-1/2"	76-1/4"	19-3/4"	9-1/4"	71"	7-1/4"	2"	4"	8"	9"	3,670	2,627
FBD3001	150	3,000	2,883	2,507	96.1%	96.0%	20:1	25	350	77-3/4"	35"	83-3/4"	83-3/4"	63-3/4"	13-1/2"	11-1/4"	10-1/2"	76-1/4"	19-3/4"	9-1/4"	71"	7-1/4"	2"	4"	10"	10"	3,970	2,951
FBD3501	175	3,500	3,364	2,925	96.1%	96.0%	20:1	45	350	77-3/4"	42"	91-1/2"	86-3/4"	63-1/2"	13-1/4"	11-1/2"	10-3/4"	82"	20-1/4"	12-3/4"	73-1/4"	8-3/4"	2"	4"	10"	10"	4,670	3,288
FBD4001	333.3	3,999	3,843	3,342	96.1%	96.0%	12:1	45	350	77-3/4"	45-1/2"	103-1/2"	99"	63-1/2"	13-3/4"	11-1/2"	10-3/4"	94"	24-3/4"	13-1/2"	85-1/4"	10-1/2"	2-1/2"	4"	12"	12"	5,270	3,875
FBD5001	499.9	4,999	4,804	4,177	96.1%	96.0%	10:1	50	600	77-3/4"	46-1/2"	102-1/4"	99-1/2"	63-1/2"	15"	11-1/2"	10-3/4"	92-1/2"	22"	14"	84"	9"	2-1/2"	6"	14"	14"	5,970	4,171
FBD6001	600	6,000	5,766	5,014	96.1%	96.0%	10:1	60	600	77-3/4"	50"	102-3/4"	99-3/4"	63-1/4"	14-3/4"	11-1/2"	10-3/4"	93-1/4"	20"	15-3/4"	83-3/4"	9-1/4"	3"	6"	14"	14"	6,970	4,781

Information subject to change without notice. Dimensions shown are approximate and should not be used for construction purposes.

CREST[®]

CONDENSING BOILER

Codes & Registrations

ANSI Z21.13/CSA Certified

ASME Certified, "H" Stamp / National Board

California Code Compliant

Canadian Registration Number (CRN)

CSD1 / Factory Mutual / GE Gap Compliant

South Coast Air Quality Management District
Qualified & Energy Star Rated (FBD0751-2001)

Smart Touch™ Features

CON-X-US Remote Connect

SMART TOUCH Touchscreen Operating Control

Full-Color 8" Touchscreen LCD Display

Built-in Cascading Sequencer for up to 8 Boilers

- › Built-in Redundancy
- › Cascade Multiple Sized Boilers
- › Lead/Lag Cascade
- › Efficiency Optimized Cascade

Front-End Loading Capability with Copper-Fin II® and Power-Fin® Boilers

Building Management System Integration with 0-10 VDC Input

BACnet MSTP Communications

Outdoor Reset Control with Outdoor Air Sensor

Password Security

Domestic Hot Water Prioritization

- › DHW tank piped with priority in the boiler loop
- › DHW tank piped as a zone in the system with the pumps controlled by the Smart System
- › DHW Modulation Limiting
- › Separately Adjustable SH/DHW Switching Times

Low Water Flow Safety Control & Indication

Inlet & Outlet Temperature Readout

Freeze Protection

Service Reminder

Time Clock

Data Logging

- › Hours Running, Space Heating
- › Hours Running, Domestic Hot Water
- › Hours Running, Modulation Rate
- › Ignition Attempts
- › Last 10 Lockouts

Programmable System Efficiency Optimizers

- › Night Setback
- › Anti-Cycling
- › Outdoor Air Reset Curve
- › Ramp Delay
- › Boost Temperature & Time
- › Modulation Factor Control

Three Pump Control

- › System Pump
- › Boiler Pump
- › Domestic Hot Water Pump



High-Voltage Terminal Strip

- › 120V/1PH/60Hz Power Supply (FBD 0751-2001)
- › 208V/3PH/60Hz Power Supply (FBD 2501-3501)
- › 480V/3PH/60Hz Power Supply (FBD 4001-6001)
- › System Pump, Boiler Pump and DHW Pump Power

Low-Voltage Terminal Strip

- › 24 VAC Auxiliary Device Relay
- › Auxiliary Proving Switch Contacts
- › Alarm on Any Failure Contacts
- › Runtime Contacts
- › DHW Thermostat Contacts
- › Unit Enable/Disable Contacts
- › System Sensor Contacts
- › DHW Tank Sensor Contacts
- › Outdoor Air Sensor Contacts
- › Cascade Contacts
- › 0-10 VDC BMS External Control Contact
- › 0-10 VDC Variable Speed Boiler Pump Control Contact

Standard Features

Proof of Closure Valve (FBD6001)

Modulating Burner with up to 25:1 Turndown

Direct-Spark Ignition

Low NOx Operation

Sealed Combustion

Air Inlet Filter

Low Gas Pressure Operation

Vertical and Horizontal Direct Venting

- › Direct Vent up to 100 Feet
- › PVC, CPVC, Polypropylene or AL29-4C (FBD0751-4001)
- › AL29-4C (FBD0751-6001)

ASME "H" Stamped Heat Exchanger

316L Stainless Steel Fire Tubes

160 psi Working Pressure

On/Off Switch

Adjustable High Limit with Manual Reset

Low Water Cutoff with Manual Reset & Test

High & Low Gas Pressure Switches w/Manual Reset

Low Air Pressure Switches

Condensate Trap w/Blocked Drain Switch

Drain Valve

System Sensor

Outdoor Air Sensor

Inlet & Outlet Temperature Sensors

High-Voltage Terminal Strip

Low-Voltage Terminal Strip

Downstream Gas Test Cocks

50 psi ASME Relief Valve

Temperature & Pressure Gauge

Zero Clearances to Combustible Materials

High Altitude Models Available

SCCR of 5,000 A

10-Year Limited Warranty (See Warranty for Details)

1-Year Warranty on Parts (See Warranty for Details)

Optional Equipment

Alarm on Any Failure

ASME Relief Valve Option:

75 psi 100 psi 125 psi 150 psi

BMS Gateway - BACnet IP or LonWorks

Condensate Neutralization Kit

Common Vent Kits Damper

Modbus Communication

Short Circuit Current Rating Options:

FBD 2501 - 6001

100,000 A

200,000 A

Motorized Isolation Valve

RealTime O₂ Feedback™

Variable Speed Boiler Pump

Wireless Outdoor Temperature Sensor

Electrical Transformer Options (Shipped Loose):

› FBD0751-2001

208V/3PH/60Hz → 120V/1PH/60Hz

480V/3PH/60Hz → 120V/1PH/60Hz

600V/3PH/60Hz → 120V/1PH/60Hz

› FBD2501-3501

480V/3PH/60Hz → 208V/3PH/60Hz

600V/3PH/60Hz → 208V/3PH/60Hz

› FBD4001-6001

208V/3PH/60Hz → 480V/3PH/60Hz

600V/3PH/60Hz → 480V/3PH/60Hz



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