

## FBZ Series:

FBZ-2500

**2500 kW**

Electric Steam Boiler



The FBZ completes Fulton's electric steam boiler lineup with capacities from 1500kW up to 3000kW. This boiler meets Scope 1 zero emissions and is nearly 100% efficient, making it an environmentally conscious choice. It incorporates advanced controls and is highlighted by a user-friendly 5.7" touchscreen interface. With steam quality greater than 99.75%, the FBZ+ is ideal for larger electric steam boiler applications.

### STANDARD FEATURES:

- Horizontal footprint
- Thick wall construction
- 99% Operating efficiencies
- 150 PSIG maximum allowable working pressure
- Operating and high pressure limit switches
- Two (2) low water cut off probes, (1) with auto reset, (1) with manual reset
- PLC with 5.7" touchscreen
- NEMA 1 enclosure with locking electrical panel
- Zero scope 1 emissions
- Incoloy sheathed elements
- Low water light
- On/off probe type water level control
- Control circuit transformer
- Near zero jacket loss
- Lifting eyes
- SCR control
- Modbus integration
- 10-year pressure vessel warranty

### OPTIONS:

- Stainless steel jacket
- Conductivity based surface blowdown
- Timer based bottom blowdown
- High water overflow protection
- Reflex type sight glass
- Boiler alarm package
- Remote E-Stop
- MM-150 ALWCO
- MM-157 PLWCO and pump control
- MM-193-7b PLWCO modulating level control
- On/off motorized FW valve & 3-valve bypass
- On/off FW solenoid valve
- Differential pressure level control
- BACnet integration gateway

### PROJECT DETAILS:

Project Name	
Date Submitted	
Fulton Representative	
City, State (Province)	
Engineer of Record	
Contractor	

### LISTINGS & COMPLIANCE:

- ASME Section I or IV code
- ETL Approved to UL-834
- CSD-1 and CSA Controls
- Exceeds AHRAE 90.1 efficiency requirements
- Control panel wired in a UL 508 facility

### TRIM KIT ITEMS:

- ASME Safety Relief Valve
- Pressure Gauge
- Installation, Operation and Maintenance Manual
- Gauge Glass and Protector Rods
- Touch-up Spray Paint

### NOTE:

Information provided in this document is based on standard boiler configurations only. Custom configurations may result in deviations.

**CAPACITIES:**

		FBZ	FBZ-2500
Unit Size	<b>kW</b>		<b>2500</b>
Rated Output (At 0 psig operating pressure and 212F feedwater temperature)	<b>BTU/hr</b>		<b>8,530,000</b>
	Boiler HP		254.8
	lbs/hr		8,750
	kg/hr		3,968

**CONNECTION SIZES:**

		FBZ	FBZ-2500
Steam Outlet at 150 PSI trim	<b>inches</b>		<b>4</b>
	<i>mm</i>		102
Steam Outlet at 15 PSI trim	<b>inches</b>		<b>8</b>
	<i>mm</i>		203
Feedwater Inlet	<b>inches</b>		<b>2-1/2</b>
	<i>mm</i>		64
Bottom Blowdown	<b>inches</b>		<b>1-1/2</b>
	<i>mm</i>		38
High Water Protection	<b>inches</b>		<b>3/4</b>
	<i>mm</i>		19
Water Column Drain	<b>inches</b>		<b>1</b>
	<i>mm</i>		25
Surface Blowdown	<b>inches</b>		<b>1</b>
	<i>mm</i>		25
Safety Relief Valve Inlet x Outlet Section I 150 psi trim	<b>inches</b>		<b>(2) 1-1/2 x 2</b>
	<i>mm</i>		38 x 51
Safety Relief Valve Inlet x Outlet Section I 15 psi trim	<b>inches</b>		<b>(2) 2 x 3</b>
	<i>mm</i>		51 x 76

**ELECTRICAL REQUIREMENTS:**

		FBZ	FBZ-2500
Short Circuit Current Rating	<b>kA</b>		<b>100*</b>
NEMA Rating			<b>1</b>
Electrical Supply	<b>Volts</b>	<b>480</b>	<b>600</b>
	$\emptyset$	<b>3</b>	<b>3</b>
	<i>Hz</i>	<b>60</b>	<b>60</b>
Full Load Amps	<b>Amps</b>	<b>3,023</b>	<b>2,418</b>
MCA	<b>Amps</b>	<b>3,779</b>	<b>3,023</b>
MOCP	<b>Amps</b>	<b>6,802</b>	<b>5,441</b>

\*In the absence of rated upstream disconnect(s), Fulton FBZ boilers carry a 5kA SCCR. FBZ is supplied as standard with contactors, fuse blocks, fuses, and internal power distribution blocks with 100kA SCCR. In order to meet elevated SCCR per NFPA 70 Article 424, FBZ boilers must be supplied with electrical feeds rated at or below 600 MCA. Each of these feeds must be installed with external power disconnects or appropriate fusing of the desired SCCR. A maximum of 100kA SCCR is possible.

Consult your local jurisdiction for any additional requirements.

**WEIGHTS AND VOLUMES:**

		FBZ	FBZ-2500
Water Capacity	<b>gallons</b>		<b>1,320</b>
	<i>liters</i>		<b>4,997</b>
Dry Weight	<b>lbs</b>		<b>13,650</b>
	<i>kg</i>		<b>6,192</b>
Operating Weight	<b>lbs</b>		<b>20,195</b>
	<i>kg</i>		<b>9,160</b>
Shipping Weight	<b>lbs</b>		<b>14,140</b>
	<i>kg</i>		<b>6,414</b>
Flooded Weight	<b>lbs</b>		<b>22,290</b>
	<i>kg</i>		<b>10,111</b>

**ELEMENTS:**

		FBZ	FBZ-2500
Number of Elements:			<b>QTY (25) 100 kW</b>
Turndown			<b>100:1 with full modulation</b>

**DIMENSIONS:**

Refer to the Product Data Submittal Drawing for dimensions.