

FBZ Series:

FBZ-3000

3000 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-3000
Unit Size	kW		3000
Rated Output (At 0 psig operating pressure and 212F feedwater temperature)	BTU/hr		10,236,000
	Boiler HP		305.8
	lbs/hr		10,500
	kg/hr		4,762

CONNECTION SIZES:

		FBZ	FBZ-3000
Steam Outlet at 150 PSI trim	inches		4
	<i>mm</i>		102
Steam Outlet at 15 PSI trim	inches		8
	<i>mm</i>		203
Feedwater Inlet	inches		2-1/2
	<i>mm</i>		64
Bottom Blowdown	inches		1-1/2
	<i>mm</i>		38
High Water Protection	inches		3/4
	<i>mm</i>		19
Water Column Drain	inches		1
	<i>mm</i>		25
Surface Blowdown	inches		1
	<i>mm</i>		25
Safety Relief Valve Inlet x Outlet Section I 150 psi trim	inches		(2) 1-1/2 x 2
	<i>mm</i>		38 x 51
Safety Relief Valve Inlet x Outlet Section I 15 psi trim	inches		(2) 2 x 3
	<i>mm</i>		51 x 76

ELECTRICAL REQUIREMENTS:

		FBZ	FBZ-3000	
Short Circuit Current Rating	kA		100*	
NEMA Rating			1	
Electrical Supply	Volts		480	600
	\emptyset		3	3
	<i>Hz</i>		60	60
Full Load Amps	Amps		3,627	2,902
MCA	Amps		4,534	3,628
MOCP	Amps		8,161	6,530

*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-3000	
Water Capacity	gallons		1,320	
	<i>liters</i>		4,997	
Dry Weight	lbs		13,650	
	<i>kg</i>		6,192	
Operating Weight	lbs		20,195	
	<i>kg</i>		9,160	
Shipping Weight	lbs		14,140	
	<i>kg</i>		6,414	
Flooded Weight	lbs		22,290	
	<i>kg</i>		10,111	

ELEMENTS:

		FBZ	FBZ-3000	
Number of Elements:			QTY (30) 100 kW	
Turndown			100:1 with full modulation	

DIMENSIONS:

Refer to the Product Data Submittal Drawing for dimensions.