TECHNICAL DATA SHEET

FBZ Series:
FBZ-1000

1000 kW
Electric Steam Boiler

Fulton's FBZ is engineered to address the needs of sustainable energy, delivering nearly 100% efficiency and premium steam quality. The FBZ achieves zero scope 1 emissions by removing the use of fossil fuels and combustion methods, presenting an environmentally friendly solution for a range of industrial and commercial uses.

STANDARD FEATURES:

- Vertical footprint
- Thick wall construction
- 99%+ Operating efficiences
- 150 PSIG maximum allowable working pressure
- Near zero jacket loss
- Operating and high pressure limit switches
- NEMA 1 enclosure with locking electrical panel
- Zero scope 1 emissions
- Incoloy sheathed elements
- Control circuit transformer
- Low water light
- On/off probe type level control
- Two (2) low water cutoff probes,
  (1) with auto reset
  (1) with manual reset
- Modbus integration
- 5.7" touchscreen with PLC
- SCR Control
- 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
- ☐ Differential pressure level control
- ☐ On/off motorized FW valve & 3-valve bypass
- ☐ On/off FW solenoid valve
- ☐ BACnet integration
- ☐
- ☐
- ☐

PROJECT DETAILS:

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

TRIM KIT ITEMS:

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

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

CAPACITIES:

FBZ		FBZ-1000
Unit Size	**kW**	**1000**
Rated Output (At 0 psig operating pressure and 212F feedwater temperature)	**BTU/hr**	**3,412,000**
	Boiler HP	101.9
	lbs/hr	3,500
	kg/hr	*1,588*

CONNECTION SIZES:

FBZ		FBZ-1000
Steam Outlet at 150 PSI trim	**inches**	**4**
	mm	*102*
Steam Outlet at 15 PSI trim	**inches**	**8**
	mm	*203*
Feedwater Inlet	**inches**	**1-1/4**
	mm	*32*
Bottom Blowdown Outlet	**inches**	**2**
	mm	*51*
High Water Protection	**inches**	**3/4**
	mm	*19*
Surface Blowdown	**inches**	**3/4**
	mm	*19*
Water Column Drain	**inches**	**1**
	mm	*25*
Safety Relief Valve Inlet x Outlet Section I 150 PSI trim	**inches**	**(2) 1-1/2 x 2**
	mm	*38 x 51*
Safety Relief Valve Inlet x Outlet Section I 15 PSI trim	**inches**	**(2) 2 x 3**
	mm	*51 x 76*

ELECTRICAL REQUIREMENTS:

	FBZ	FBZ-1000	
Short Circuit Current Rating	**kA**	**100***	
NEMA Rating		**1**	
Electrical Supply	**Volts** Ø *Hz*	**480** *3* *60*	**600** *3* *60*
Full Load Amps	**Amps**	**1,204**	**964**
MCA	**Amps**	**1,505**	**1,205**
MOCP	**Amps**	**2,709**	**2,169**

*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-1000
Water Capacity	**gallons** *liters*	**628** *2,377*
Dry Weight	**lbs** *kg*	**8,270** *3,751*
Operating Weight	**lbs** *kg*	**13,500** *6,124*
Shipping Weight	**lbs** *kg*	**8,580** *3,892*
Flooded Weight	**lbs** *kg*	**14,900** *6,759*

ELECTRIC HEATERS:

FBZ	FBZ-1000
Number Of Heaters:	**QTY (10)** **100 KW**
Turndown	**100:1** **with full modulation**

DIMENSIONS:

Refer to the Product Data Submittal Drawing for dimensions.