



MODELS: S, CR, WB, HSB & IWH

ELECTRIC BOILERS

12-3375 KW • 208-600V

INSTANTANEOUS ELECTRIC RESISTANCE BOILER

Features

Compact, economical units that deliver maximum output with minimum space requirements. Ideal for new boiler applications or as a replacement unit to upgrade existing installations.

Steam boiler models S, CR & HSB along with hot water boiler model WB take up less floor area and fits through smaller openings than large conventional units. The instantaneous hot water boilers, IWH Model, are also designed with a compact floor plan.

The Electric boiler is one of the many products Cleaver-Brooks offers to meet your boiler room needs. Performance and reliability in a small package.

Why an Electric Boiler?

Cleaver-Brooks Electric Boilers are designed for heavy duty commercial and industrial heating needs. They serve as either a primary or supplementary source of both hot water and steam. These immersion element boilers are quiet, flame-free and compact. Electric boilers completely eliminate the need for stacks and emission control. C-B electric water boilers use resistance elements as a source of heat while keeping water volume as low as possible to allow close control and rapid response.

Advantages

Compact Design

The smaller footprint reduces the overall boiler room space requirement.

No Stack or Fuel Requirements

The unit can be located anywhere in the building and the exterior of the building is not compromised with an unsightly stack, particularly helpful in tall or high rise buildings.

Emissions

Electric boilers are 100% local emission free. This is beneficial in meeting the total emissions of a given project site, or in areas where fuel combustion emissions are limited.

Quiet Operation

Elimination of combustion noise and minimal moving parts results in extremely quiet operation.

High Efficiency

The electric boiler will provide nearly 100% efficiency at all operating points.

Ease of Maintenance

The absence of higher maintenance combustion equipment and the use of solid state control devices reduce the complexity and number of moving parts. Electric elements are very accessible and easily replaceable, either individually or in flange mounted groups.

Lower Operating Cost

For areas affected by allocations or interruptions of natural gas and costly oil supplies, electric boilers provide a dependable source of steam or hot water. Electric boilers offer a clean, alternative to fossil fuels allowing users to take advantage of lower energy rates during daily or seasonal off-peak periods.

Typical Applications



Universities and Schools



Hospitals and Clinics



Commercial Buildings

LOW EMISSIONS, COMPACT, QUIET

Quality Construction

ISO 9001:2001 certified manufacturing processes ensure the highest compliance with manufacturing standards.

Each unit is tested and certified in accordance with UL or cUL and a label is affixed attesting to meeting the latest requirements for packaged electric boilers.

Progressive Sequencing Modulation

By individually controlling the heating elements with solid-state digital step controllers only the amount of electrical energy required in response to the system demand is used. In addition virtually a full range of input control is available with optional solid-state analog current controllers that reduce on/off cycling while providing unprecedented load tracking, and thus reduced operating costs.



Model S



Model HSB



Model WB



Model IWH



Model CR

Standard Features

Boiler:

- ASME Code Vessel
- UL Listed
- Integral Steel Frame
- Incoloy 800 Heating Elements
- Fiberglass Insulation
- ASME Pressure Relief Valves

Trim:

- Proportional Pressure (Temperature on WB & IWH) Control on most sizes
- Manual Reset High Pressure (Temperature on WB & IWH) Control
- Auxiliary Low Water Cut-off (Low Water Cut-Off on WB & IWH)
- Auxiliary Auto High Water Cut-off
- Pilot Light: Control Power On, Low Water, High Pressure (Temperature on WB & IWH)

Electrical Equipment:

- 200,000 AIC Rated Fuses
- Contactors rated at 500,000 Cycles
- Control Circuit Step-Down Transformer
- Customer Connection Terminal Strip
- Primary Lugs Connection Lugs

PRODUCT OPTIONS

Product Type	Model	Vessel Diameter (inches)	Output (KW)	Design Pressure (PSIG)
Hot Water Boilers	WB	12	12-288	160, 200 & 250
		20	300-576	
		24	510-1200	
		36	1224-2160	
		42	1830-3360	
Vertical Steam Boilers	S	12	12-48	15, 150, 200 & 250
		16	15-141	
		20	135-281	
		24	210-480	
		30	440-720	
		36	750-1031	
		42	1020-1688	
Vertical Steam Boilers with Condensate Return Tank & Pump	CR	12	12-56	15, 150, 200 & 250
		16	15-164	
		20	135-281	
		24	210-563	
Horizontal Steam Boilers	HSB	42	1560-3375	15, 150, 200 & 250
Instantaneous Water Heater	IWH	6	15-30	160
		8	45-240	
		10	210-360	

ELECTRIC BOILER VESSEL DIAGRAMS



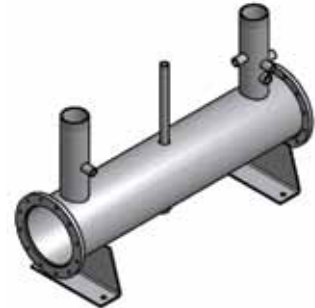
Model WB



Model HSB



Model S and CR



Model IWH



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