ELECTRIC BOILERS

MODELS: S, CR, WB, HSB AND IWH
12-3,375 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 and HSB, along with hot water boiler model WB, take up less floor area and fit through smaller openings than large conventional units do. The instantaneous hot water boilers (IWH Model), are also designed for 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. Cleaver-Brooks 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, which is particularly helpful in tall or high-rise buildings.

Typical Applications

Universities and Schools

Hospitals and Clinics

Commercial 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.

Low Emissions, Compact, Quiet

Boilers

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.

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 and IWH) control on most sizes
- Manual reset high pressure (temperature and WB and IWH) control
- Auxiliary low-water cutoff (low-water cutoff on WB and IWH)
- Auxiliary auto high water Cutoff
- 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

Model S

Model HSB

Model WB

Model IWH

Model CR

PRODUCT OPTIONS

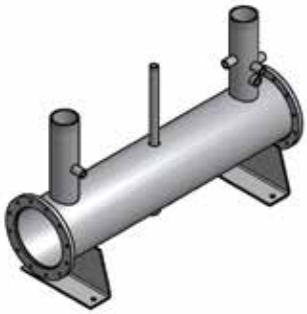
Product Type	Model	Vessel Diameter (inches)	Output (kW)	Design Pressure (PSIG)
Hot Water Boilers	WB	12	12-288	160, 200 & 250
		20	300-576	
		24	510-1,200	
		36	1,224-2,160	
		42	1,830-3,360	
Vertical Steam Boilers	S	12	12-48	15, 150, 200 & 250
		16	15-141	
		20	135-281	
		24	210-480	
		30	440-720	
		36	750-1031	
		42	1,020-1,688	
		48	1,380-2,250	
Vertical Steam Boilers with Condensate Return Tank and Pump	CR	12	12-56	15, 150, 200 & 250
		16	15-164	
		20	135-281	
		24	210-563	
Horizontal Steam Boilers	HSB	42	1,560-3,375	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

Models S and CR



Model IWH

Packaged Boiler Systems
221 Law Street • Thomasville, GA 31792 USA
800.250.5883 • info@cleaverbrooks.com
cleaverbrooks.com

Printed in the USA

CB-8264
05/15