



Electric Boilers

Hot Water Boilers
To 11.5 MBTU
12 to 3360 kW



A Clever-Brooks
Sustainable Solution



Decarbonizing Energy One Electric Boiler at a Time

Electric boilers are one of many products that Cleaver-Brooks offers to help meet your sustainability goals of decarbonization, emissions reduction and energy efficiency. Because they utilize electricity as a fuel source, these compact, economical units deliver maximum output with no local emissions.

Helping to achieve sustainability goals, our electric boiler solutions can:

- » Reduce or eliminate dependency on fossil fuels up to 100%
- » Leverage renewable energy sources to increase process efficiency to nearly 100%
- » Eliminate 17.7 metric tons annual CO₂ emissions per boiler horsepower (24/7/365)



Electric Boilers meet the strict performance and sustainability criteria required to earn the Cleaver-Brooks Sustainability Seal.

Features / Advantages

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

- » **Compact Design** – Simple installation and ideal for quick replacement of existing fuel-fired boilers.
- » **No Combustion Equipment Required** – Reduces installation costs by eliminating the need for gas/oil piping, combustion air supply and exhaust stack.
- » **Quiet Operation** – No noise from a combustion fan and burner.
- » **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.
- » **Flexible Fuel Supply** – Electricity is readily available from several sources, including renewables such as wind, solar and hydroelectric power.
- » **Zero Local Emissions** – 100% emissions-free and well suited for decarbonization or site-emissions-reduction projects.
- » **High Efficiency** – Nearly 100% efficient at all operating points.
- » **Full Modulation and Optional Infinite Turndown** – Only the amount of electrical energy required in response to the system demand is used.



Cleaver-Brooks stands behind its equipment

2-year comprehensive parts warranty

5-year electrical heating element warranty

10-year pressure vessel warranty

Why Choose Our Electric Boilers?

» Durable and Reliable

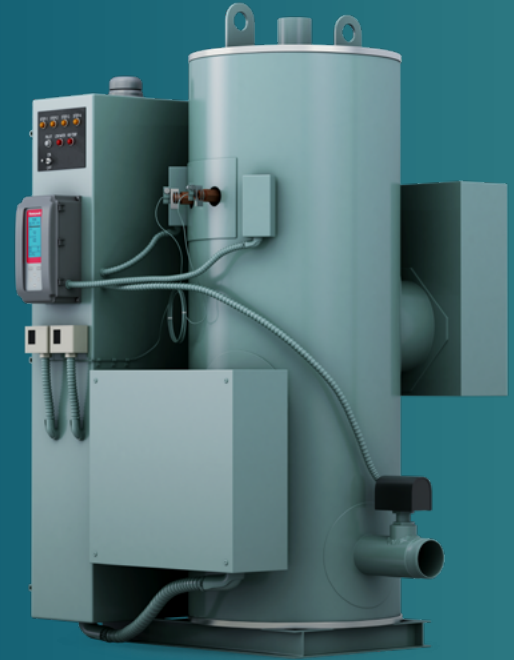
Electric boilers use individually replaceable, heavy-duty electric resistance heating elements. A modular element bundle design provides ease of replacement and built in redundancy.

» Quality and Consistent Manufacturing

Each packaged unit is quality tested in an ISO-certified shop and certified in accordance with stringent ASME and (c)UL standards.

» Packaged Hydronic System

Available as part of a Cleaver-Brooks skidded boiler room package for ease of installation.



Suitable for up to 50% glycol mixtures, excellent for snow-melt applications.



Count on consistent temperature control and operational reliability.



Compact footprint and quiet operation enable use in places with limited mechanical room space and noise limits.

Compact, Quiet and Highly Efficient

Standard Features

Boiler:

- » ASME coded vessel
- » UL/cUL listed
- » Integral steel frame
- » Incoloy 800 heating elements
- » Fiberglass insulation, 2"
- » ASME pressure-relief valves
- » Heavy-duty steel jacket
- » Forklift skid base

Trim:

- » Proportional temperature control
- » Manual reset high-temperature control
- » Main low-water cutoff
- » Pilot light: Control power on, low water, temperature and step status

Electrical Equipment:

- » 200,000 AIC-rated fuses
- » Contactors rated at 500,000 cycles
- » Control circuit step-down transformer
- » Customer connection terminal strip
- » Primary connection lugs

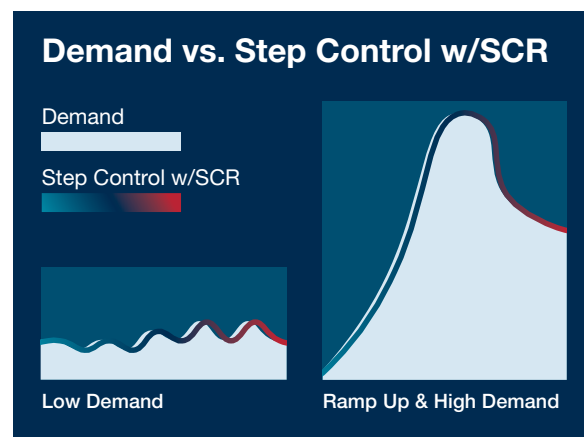
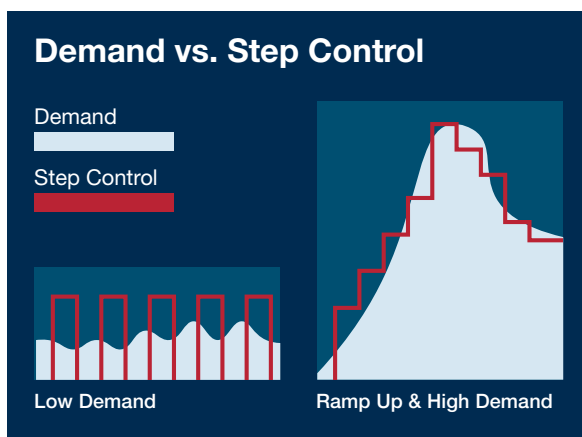
Intuitive, Intelligent Control

Our electric boilers feature an intuitive touchscreen control that has a built-in ability to control multiple boilers, enable time of day boiler scheduling to avoid demand charges, and improve system operating efficiency with outside air reset. The control can be configured for advanced silicon controlled rectifier (SCR) integration to achieve enhanced boiler modulating control and increased heater longevity. It also is IoT compatible to enable remote monitoring and offers control and trending through building management system integration.



Proven SCR/Thyristor Control Strategy for Infinite Turndown

Using the same concept as variable-speed drive technology, SCR control is an option to improve an electric boiler step control scheme. The SCR enables true linear-modulation control with infinite turndown, provides precise boiler supply temperature control, reduces electrical contactor cycling, decreases power surges, and allows for higher operational efficiencies at low flow rates.



Electric Boiler Skid System with Accessories

Cleaver-Brooks pre-engineered, skid-mounted boiler solutions offer a simple way to get up and running in less time, with less effort, than traditional field installed systems.

- » Fully packaged solution for simple installation and quick startup
- » Peace of mind in single source responsibility
- » Equipment is pre-engineered and selected by experts
- » Standard skid solutions to meet your needs with custom engineered systems available to meet almost any system requirement



Broad Range of Applications

- » Healthcare
- » Schools
- » Apartments
- » Government
- » Bacterial Digester Pools
- » Swimming Pool
- » Thermal Storage
- » Building Heat
- » Supplemental Heat for Heat Pumps



Swimming Pools



Healthcare



Digester Systems



Campus Systems

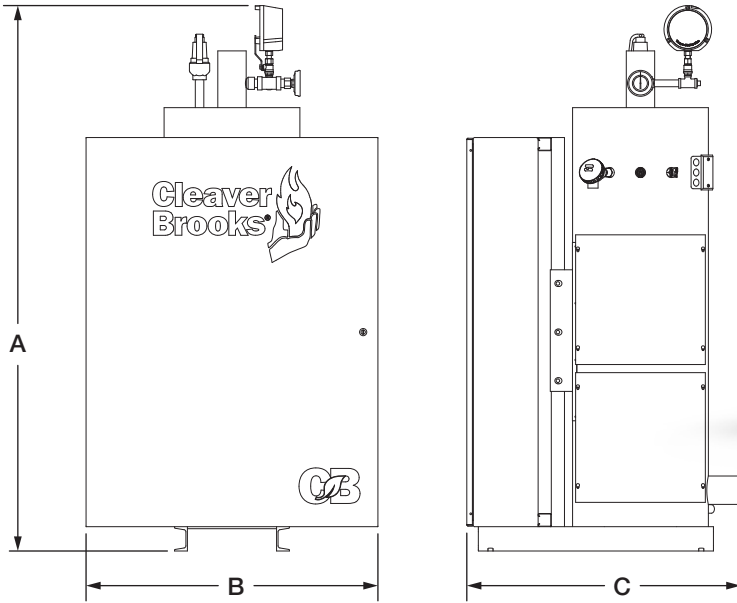


Multi-Family Housing

Dimensions and Ratings

Model WB

- » Hot Water Boiler
- » 12 to 3360 KW
- » Up to 11,464 MBTU
- » 350-600V available



	Boiler Output (MBTU)	Overall Height (A)	Overall Width (B)	Overall Depth (C)	Supply/Return Connection
WB-120	246	50"	28"	34"	2" NPT
WB-121	491	50"	32"	34"	3" NPT
WB-122	983	68"	36"	34"	3" NPT
WB-201	1,474	80"	52"	47"	4" 150# flanged
WB-202	1,965	90"	52"	47"	4" 150# flanged
WB-241	2,457	81"	48"	58"	6" 150# flanged
WB-242	3,276	89"	60"	58"	6" 150# flanged
WB-243	4,094	97"	72"	58"	6" 150# flanged
WB-361	4,422	97"	72"	70"	6" 150# flanged
WB-362	5,896	109"	72"	72"	8" 150# flanged
WB-363	7,370	117"	112"	72"	8" 150# flanged
WB-421	9,008	103"	112"	78"	10" 150# flanged
WB-422	11,464	114"	112"	78"	10" 150# flanged



The power of total integration.

The **Power of Total Integration** is how Cleaver-Brooks delivers the world's broadest range of integrated, sustainable boiler plant solutions. In addition to our products, this includes our global representative and service network, training resources, and trusted expertise that add significant value to your Cleaver-Brooks investment.



Use this QR code to access more resources for electric and electrode boilers.

