



# REMOTE MONITORING AND REPORTING SOLUTIONS

Always know your boiler room's performance.

# DON'T GUESS IF YOUR BOILER IS RUNNING EFFICIENTLY

Cleaver-Brooks controls have always been designed to get the most out of your boiler room. Now, you can monitor your boiler remotely and access easily interpreted reports and alerts, to ensure you have the data you need to optimize your efficiency and lower your emissions better than ever.

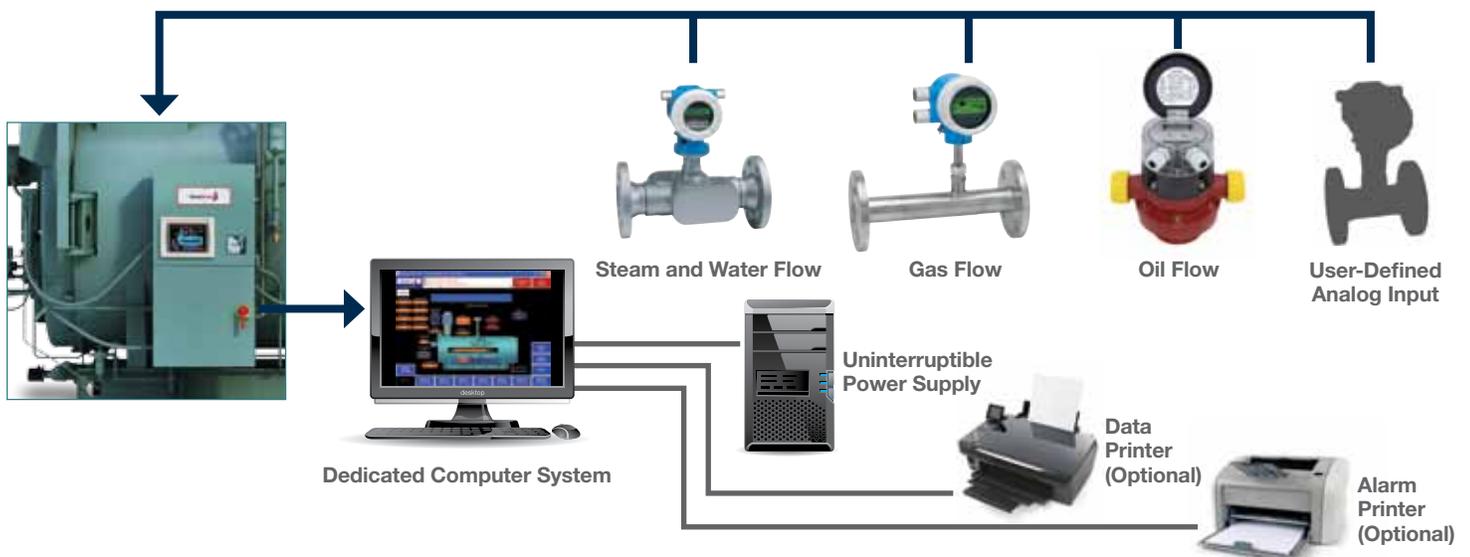
This suite of monitoring systems utilizes advanced Hawk technology that allows boiler room operators to produce reports for regular tune-ups and mandated government monitoring programs. These technologically advanced monitors are capable of calculating, logging, and reporting system information such as fuel usage, steam or hot water usage, flue gas temperatures, boiler efficiencies, alarm logs, and more.

**Monitoring devices can help boiler owners comply with new EPA Area Source Rule mandates, including:**

- Generating monthly and annual fuel usage reports, which must now be kept for five years.
- Data logging to record fuel in use, hours run on each fuel, and amount of fuel consumed.
- For more information, visit [cleaverbrooks.com/epa](http://cleaverbrooks.com/epa).

## Elite Monitoring System

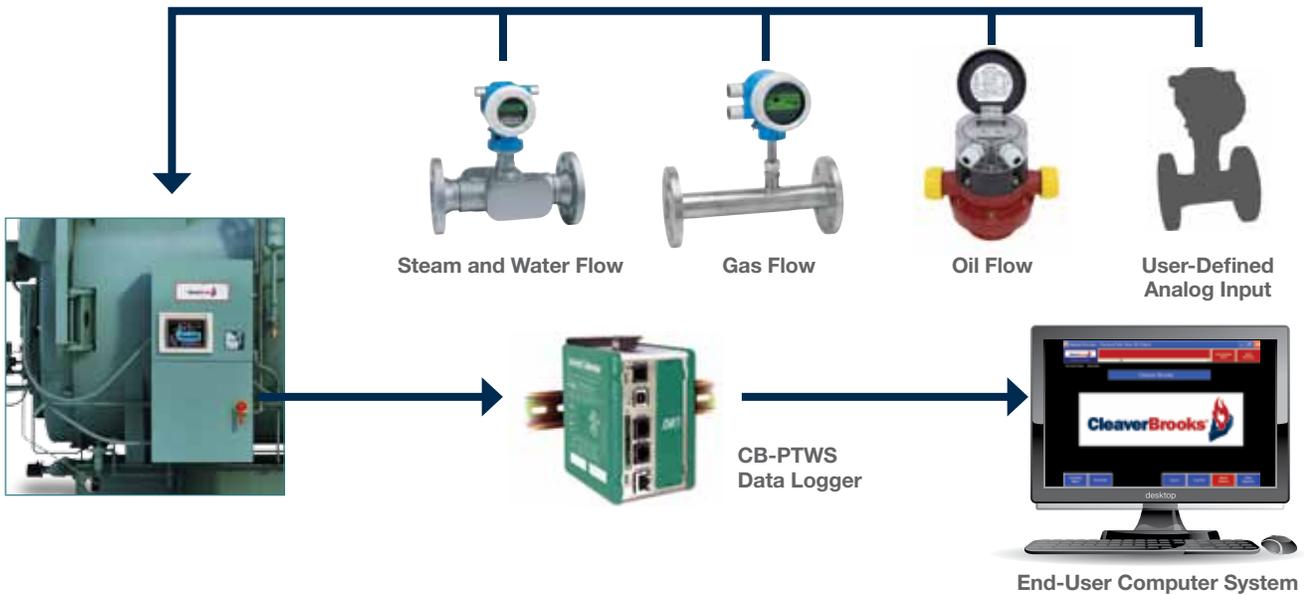
Cleaver-Brooks top-of-the-line monitoring product offers unparalleled performance and functionality. The Elite is a completely self-contained SCADA (Supervisory Control and Data Acquisition) boiler monitoring system that continuously gathers and analyzes real-time data from your Hawk control system. It is designed to collect and generate detailed reports on up to four user-defined analog points on up to eight boilers, such as fuel, steam, water usage, and run time. The Elite is the only monitoring system that provides control to your boiler and peripheral equipment remotely, allowing you to optimize your system for peak efficiency even when you're away from your boiler room.



*Data transmitted from all connected CB Hawk boiler control systems, CB, ADAC, DA, and surge tank systems and other balance of plant controls*

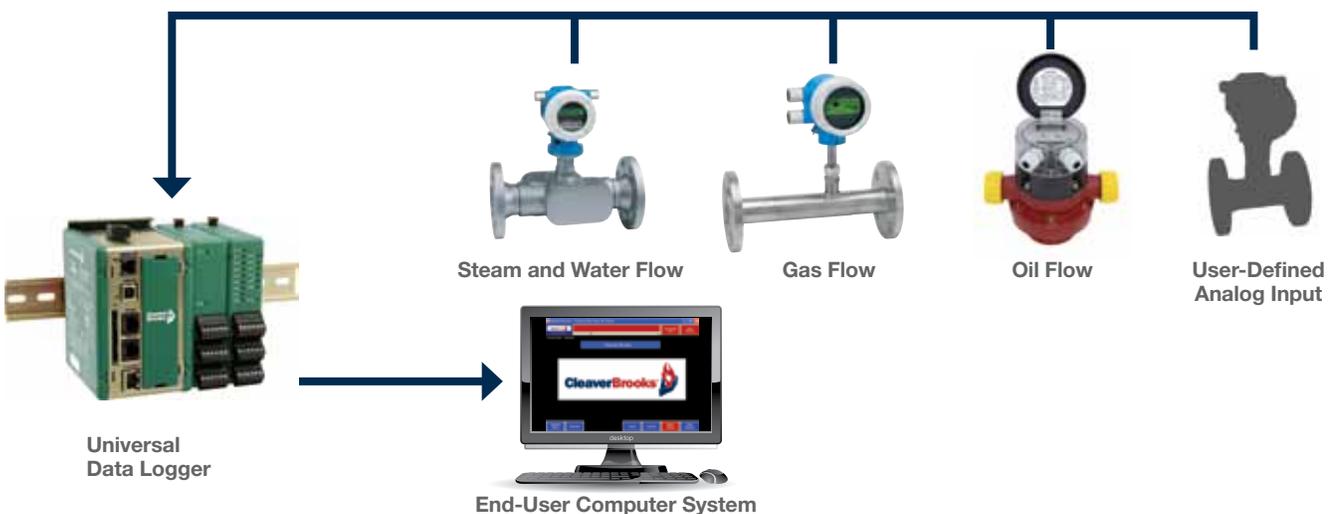
## Premium Monitoring System

The Premium Monitoring System is our value-priced option for boiler systems that are already equipped with Cleaver-Brooks Hawk controls. It is an Ethernet-based communications system that provides data logging and remote monitoring functions for up to three boilers, with optional capabilities to make information available via the Internet. It comes complete with all transmitters, controller, preloaded application, and SD memory card.



## Universal Monitoring System

This is a monitoring option for boiler systems that do not have Cleaver-Brooks Hawk controls. It is a hard-wired product that provides data logging and remote monitoring functions and comes complete with all transmitters, controller, preloaded application, and SD memory card. This universal system provides data collection for up to four analog points per boiler for one to four boilers, and uses a built-in web server to provide remote monitoring via the Internet.



# Monitoring Solutions Feature Comparison

	Elite	Premium	Universal
Boiler Control System Required	Hawk 4000 or Hawk ICS Advanced	Hawk 4000 or Hawk ICS Advanced	No control system required
Number of Analog Points Monitored	4 standard per boiler, but more custom inputs can be added.	4 standard per boiler, but more custom inputs can be added.	4 per boiler
Remote Monitoring Capability	Self-contained SCADA (Supervisory Control and Data Acquisition) boiler monitoring system that continuously gathers and analyzes real-time data.	Ethernet-based communication with a data logger to provide data logging and a built-in Web server to provide remote monitoring.	Hard-wired system that provides data logging and uses a built-in Web server to provide limited remote monitoring.
Remote Boiler Control and Firing	Only control that allows remote set point changes for the boiler firing rate, local on-off set points and peripheral equipment.	Display system data, monitor boiler activity, and transfer the data log files through secure network access.	Built-in Web server allows configuring the data logging system, which fuel is in use, what analog values are in use, and transferring the data log files.
Number of Boilers	Maximum of 8 boilers (with or without a Master Panel) and ADAC system.	Currently 3 boilers (no Master Panel required, no ADAC).	Currently 4 boilers (no Master Panel required, no ADAC).
Totalization and Reporting	Provides totalized data reports, calculates and displays trends, and logs process points. Also provides centralized boiler alarm reporting.	Alarm and Data logs are written in CSV format and can be viewed and modified in Microsoft® Excel®. Trending data is also accessible.	Data logs are written in CSV format and can be viewed and modified in Microsoft Excel. Trending data is also accessible.
Data Reporting Method	Self-contained SCADA using SQL Server	No data reports. CSV Data files only.	No data reports. CSV Data files only.
Alarm History	Creates alarm history logs. Can be accessed and stored locally, or printed to a dedicated alarm reporting printer.	Includes a separate log to include alarms.	Alarms are limited to whether the analog signals are within 2.2–25 mA to notify you if the meters are reporting data within normal ranges.
Setup and Configuration	On-site setup by Cleaver-Brooks Specialist	Factory or on-site configured	Factory or on-site configured
Data Storage	Stored on local PC hard drive	SD card and/or optional, site-specific custom FTP	SD card and/or optional, site-specific custom FTP
Metering Hardware (included)	Customized metering devices for each analog input point, and systems are preconfigured at the factory or on site by a Cleaver-Brooks representative.	Customized metering devices for each analog input point, and systems are preconfigured at the factory or on site by a Cleaver-Brooks representative.	Customized metering devices for each analog input point, and systems are preconfigured at the factory or on site by a Cleaver-Brooks representative.



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