



ADAC

**ADVANCED DEAERATOR CONTROL
MAXIMUM SAFETY AND EFFICIENCY
FOR STEAM APPLICATIONS**

One package from a single-source supplier

The ADAC is a PLC-based deaerator and surge tank control system designed to improve boiler water quality for system reliability and higher efficiency. It can monitor and control all points for a single deaerator or surge tank, a duo deaerator/surge tank, or two separate, independent tank systems via an easy-to-navigate, color touch screen.

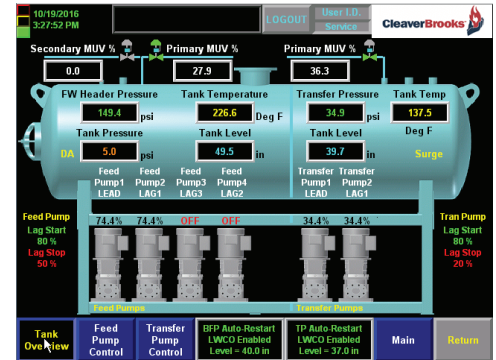
Control System Benefits

- ▶ Correctly maintains feedwater temperature and pressure to maximize boiler efficiency
- ▶ Ensures reliability with ongoing operating and fault indications
- ▶ Enhances safety through an electronic control with monitoring and annunciation
- ▶ Guides decision making via constant system intelligence and information access
- ▶ Effectively manages pump operations to extend system life

Key System Features

- ▶ Controls condensate return, fresh water make-up, and emergency water make-up
- ▶ Includes options for variable-speed drive, on-off or soft-starter pump control
- ▶ Provides options for one pump per boiler or lead-lag control of pumps
- ▶ Primary and secondary make-up valve control
- ▶ PRV and overflow-valve control option
- ▶ Electronic control of recirculation valve option
- ▶ Local trending of process variable vs. set point, and control outputs
- ▶ Chemical feed pump relay control
- ▶ Interfaces with local or remote monitoring and building automation systems

Custom programming is available on the ADAC 4000.



User-friendly graphical interface



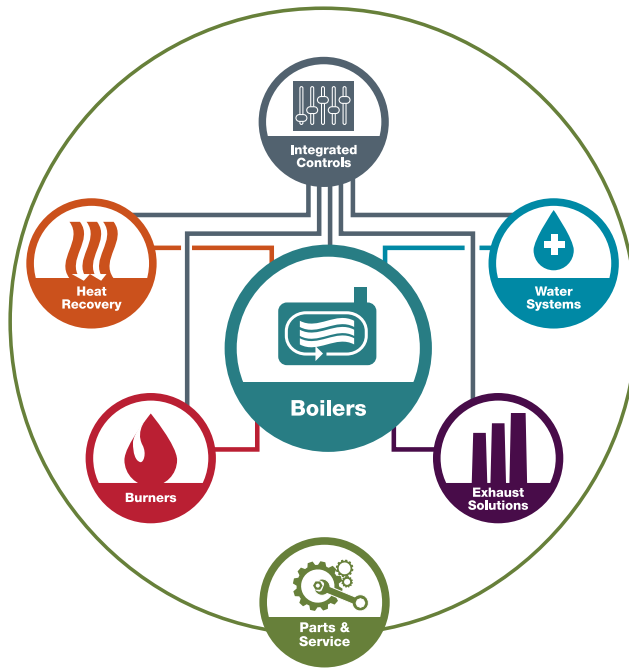
VFD, soft starters, combination starters, and contactors available with automatic sequencing and alternation



Multiple-pump staging

ADAC Comparison Chart

Feature	Model 4000	Model 1000
PLC processor	L33ER	L24ER
7-inch PanelView™ Plus color touch screen	Standard	Standard
10-inch PanelView™ Plus color touch screen	Optional	Optional
12-plus-inch PanelView™ Plus color touch screen	Custom	Not Available
Maximum number of feedwater pumps in a single-tank system	6	5
Maximum number of feedwater pumps in a dual-tank system	4	4 (6 pumps total, combination of feedwater and transfer pumps)
Maximum number of transfer pumps in a dual-tank system	3	3
Common header pump control	Standard	Standard
One feedwater pump per boiler pump control	Standard	Standard
Contactora pump control	Standard	Standard
VFD pump control	Standard	Standard
Feedwater header-pressure sensor	Standard	Standard
Transfer header-pressure sensor (dual-tank system only)	Standard	Standard
Tank temperature sensor	Standard	Standard
Tank level sensor	Standard	Standard
Deaerator tank pressure sensor	Standard	Standard
Tray temperature	Standard	Standard
Tray pressure	Standard	Standard
Pump auto rotation	Standard	Standard
Pump lead-lag	Standard	Standard
Primary make-up valve level control	Standard	Standard
Secondary make-up valve level control	Standard	Only 1 allowed
Steam PRV control	Standard	PRV or overflow (not both)
Overflow valve control	Standard	PRV or overflow (not both)
Recirculation valve control	Standard	Standard
Chemical feed pump relay control	Standard	Standard
User-defined analog inputs, single tank	Custom	Up to 4
User-defined analog inputs, dual tanks	Custom	Up to 4
Text/Email	Not Available	Standard
Variable frequency drive (VFD) bypass	Standard	Standard
Deaerator bypass (dual-tank system only)	Standard	Standard
Deaerator primary MUV valve bias on surge level (dual-tank system only)	Standard	Standard
Trending of process variable vs. set point	Custom	Standard
Trending of control output	Custom	Standard
Remote lead-lag rotation control via communication	Custom	Standard
Remote set point via communication	Custom	Standard
English/Metric units	Custom	Standard
SD card storage for PV+ and PLC processor	Standard	Standard
Ethernet IP communications	Standard	Standard
Basic remote monitoring via web server	Standard	Standard
Alarms and alarm history	Standard	Standard
PLC hardware and I/O overview	Custom	Standard
Contact information entry and viewing screen	Custom	Standard
Update date and time from HMI screen	Custom	Standard
Customizable	Yes	Not Available



Providing energy-efficient, environmentally friendly boiler room solutions

Cleaver-Brooks is one of only a few boiler room solutions providers in the world to operate a dedicated research and development facility. Having pioneered several industry-leading technologies, we remain just as committed today to introducing technology and products that enable a more energy-efficient and environmentally friendly generation of steam and hot water.

We distribute our products through the Cleaver-Brooks Representatives Association, or CBRA, an alliance of independently owned and operated companies that provide boiler room products and service. CBRA companies can be counted on to provide Cleaver-Brooks products and parts, engineering support, customer training, technical service and system maintenance. To find a CBRA representative near you, please visit cleaverbrooks.com/reps.



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