

THE BOILER HOUSE SOLUTION SERVICES

Operating Assistance Module

OAM



BABCOCK WANSON boilers are equipped with an Operating Assistance Module (OAM) which integrates all the components necessary for the supervision and operation of the boiler plant:

- monitoring;
- regulation;
- recording;
- display;
- communication.

Due to its extensive modularity, it is the perfect tool for statutory inspection, maintenance and operation.

Monitoring

All the boiler plant operating parameters are monitored continuously:

◆ Burner

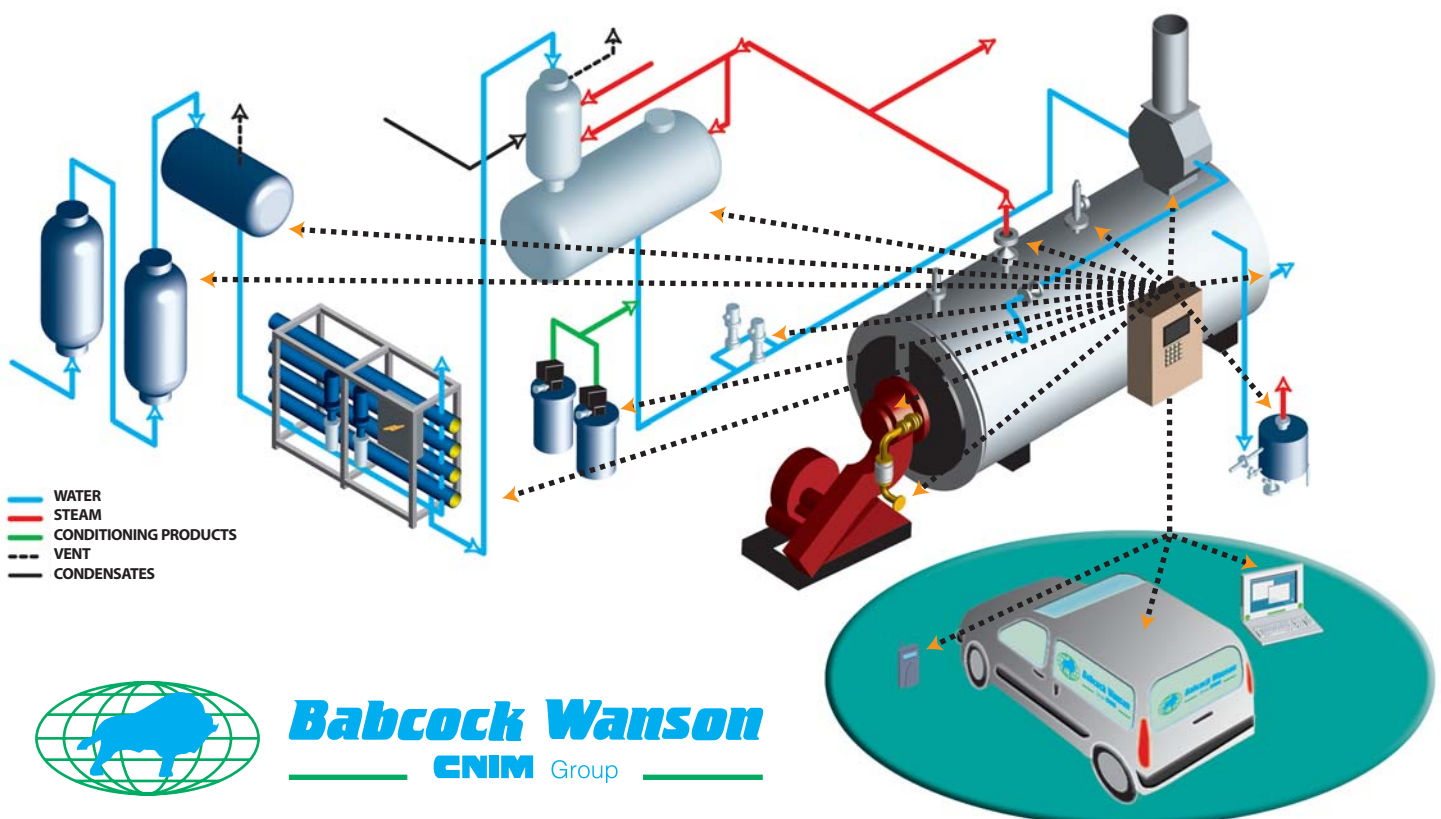
Correction ranges, start-up conditions (P, T, power, time), power limitation, burner shut-off delay, min./max. set-point values, upper and lower limits, regulation according to atmospheric conditions, re-starting, return to technical minimum, shut-down, etc...

◆ Boiler

Correction ranges, pressure measurements, temperature, water levels, self-checking of probes, conductivity, variation of steam demands, flue gas temperature, actual efficiency, CO₂ emissions, etc...

◆ **O₂ and CO probe**, regulation, dead time, proportionality factor, measurement/set-point deviation, etc...

◆ **water treatment** if integrated in the system, follow-up of reagent consumption, follow-up of condensate return rates, feed-water quality, thermal de-aerating quality.



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Regulation

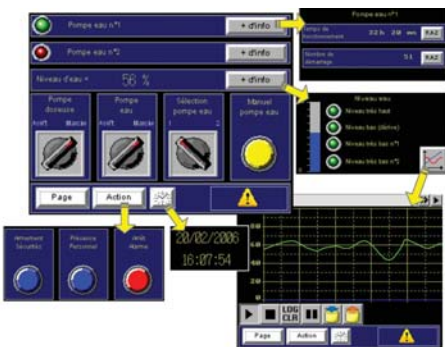
The OAM integrates the PID regulating loops necessary for optimum operation of the boiler (boiler water level, boiler pressure, burner, etc.);

The regulator front face views provide all the valve measurements, set-points and outputs;

The high technological level enables network automation, with a task programming structure, which separates the critical tasks to increase reliability and rapidity.

Recording

All defaults and alarms are recorded with all the boiler plant operating parameters; the OAM provides the possibility of viewing the record of defaults and acknowledgements. Data can be extracted and used via the flash card.



Communication

With the communication boards, the OAM provides the possibility of sending data via an intranet to various monitoring stations or via a modem to a remote management center.

Display

The OAM monitoring interface, both user-friendly and ergonomic, was developed for the boiler plant operator. A series of menus and mimic diagrams is accessible via an interactive display which enables rapid viewing of the state of the boiler and its environment, and in particular any alarms.

The details of the alarms (level, temperature, pressure, feed-water supply, etc...) and the associated operating parameters, regardless of the cause of the alarm, can be displayed in one click.

A boiler plant mimic diagram transmitted to a PC provides a view of all the operating parameters at one glance.

Statutory inspection

In an ever-increasingly complex environment, the OAM indicates all the statutory conditions:

- the actual efficiency of the boiler plant, pressure, heat transfer fluid flow-rate (stream, water, oil);
- the operating time of the burner, per fuel type, and total time;
- atmospheric emissions: tonnes of CO₂, CO, NO_x, O₂, SO₂, H₂SO₄;
- the history of maintenance operations, acknowledgements;
- replacement of the boiler plant log-book, etc...

Modularity

The software developed for industrial boiler plant applications, provides modularity perfectly adapted to operators. The OAM integrates all the parameters taken into account for boiler plant management: consumption of gas, electricity, water, conditioning products, etc., operation of the de-aerator, assessment of condensate returns, follow-up of excess air in the flue gases, follow-up of CO formation, etc...

I/O boards and modem boards can be added to the OAM as required for access to intranet/extranet networks, to communicate using profibus, canbus, unitel web, DH+ modes.

Characteristics

Many communication ports (up to 34);

All-or-nothing boards 16/32/64;

Analog I/O boards with 8/4/2 channels, 4,000 or 8,000 point resolution;

Interoperability between the CUs and local RS232C or remote RS485 systems;

5.7" STN or 8" touch-sensitive screen with TFT panel.



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