

WANSON HOUSE SOLUTION



Fuel costs are of prime importance in the operation of industrial boiler houses. The BABCOCK WANSON boiler house solution ensures minimum operating costs.

This is an innovative solution which is associated with the continuing development of new highly-energy-efficient products: boilers, burners and water treatment, and associated services: expertise, maintenance, statutory follow-up and training.

The technological control of the boiler house by the manufacturer ensures perfect integration of the system and optimises investment and operational costs.

The complete range of equipment offered by BABCOCK WANSON ensures the best solution to industrial and boiler house operating companies.

The burners designed and manufactured by BABCOCK WANSON provide the best match with the boiler shells to ensure:

- guaranteed efficiency over the whole operating range;
- reduced fuel consumption;
- compliance with pollution regulations (CO₂, NO_x, CO, SO₂ and dust);
- CE marking of the boiler and burner assembly.

BABCOCK WANSON water treatment adapted to water quality is essential for correct operation and durability of the boiler house.

These competences make BABCOCK WANSON the experienced single source for managing and improving the steam production equipment and boiler house fluids: energy audit, reconditioning, refurbishing, maintenance contracts, warranty extensions, rental, standby duties, trouble-shooting, etc.

All of the BABCOCK WANSON technologies and services provide:

Greater savings:
The Ecosteam pack enables boiler efficiency levels of 97 % over the whole of the power modulation range (see chart).

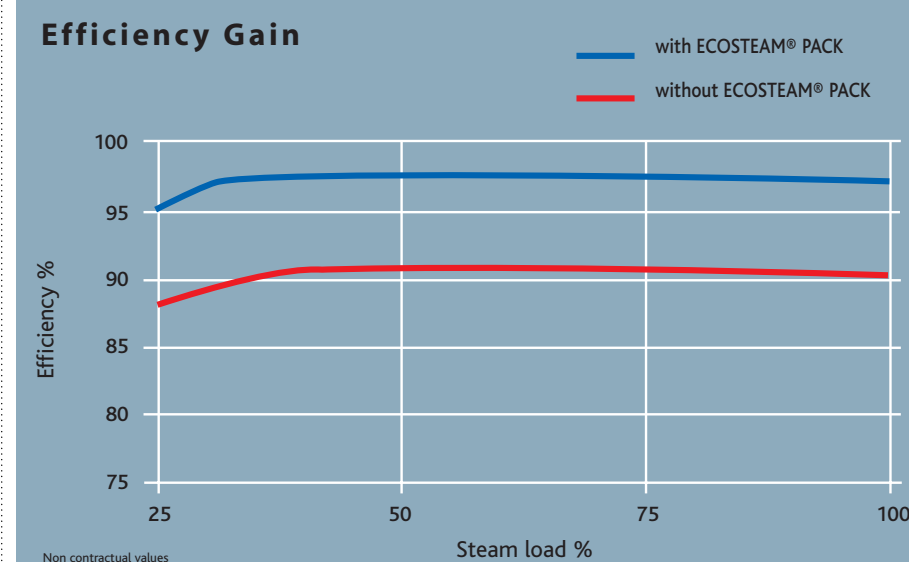
Regular checks and appropriate adjustments optimise outputs, limit consumable materials and reduce the operating costs of the boiler house.

Increased safety:
Inspection of the regulating and monitoring systems prevents incidents. Compliance with regulations is ensured on a continuous basis.

Better reliability:
With regular maintenance by professionals, the boiler house will have a higher rate of reliability and a longer service life. BABCOCK WANSON is committed to response times by ready, skilled, near-at-hand teams that implement also introduction of steps for improvement.



BABCOCK WANSON global solution



Solutions throughout the world



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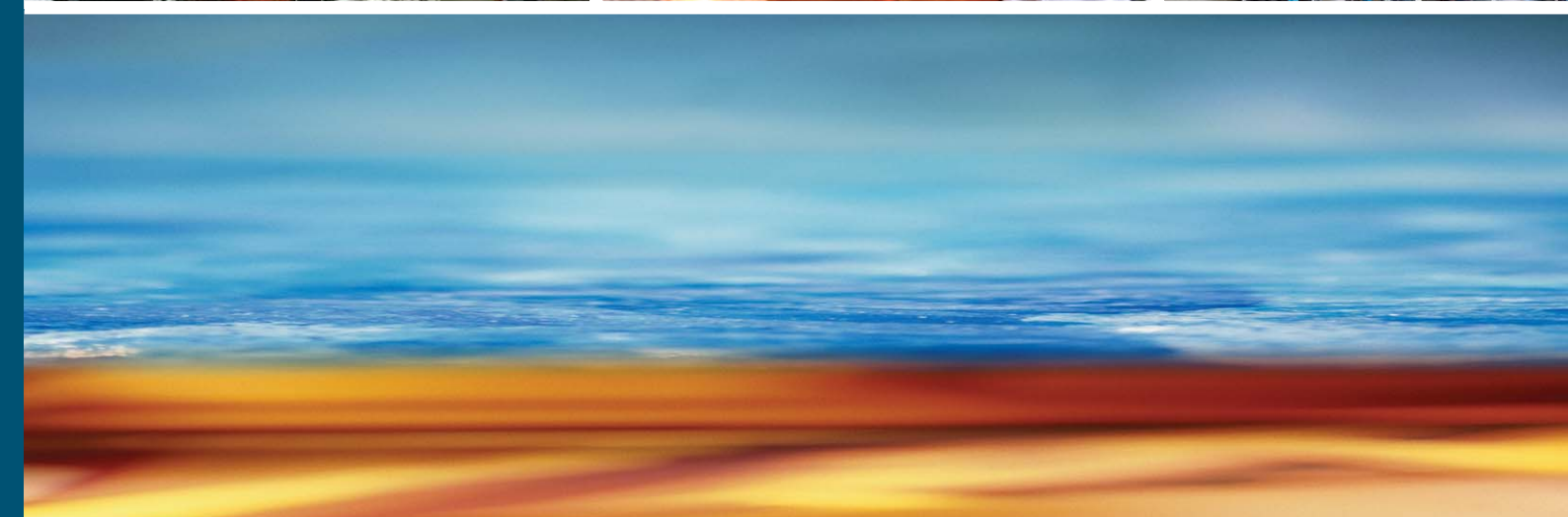
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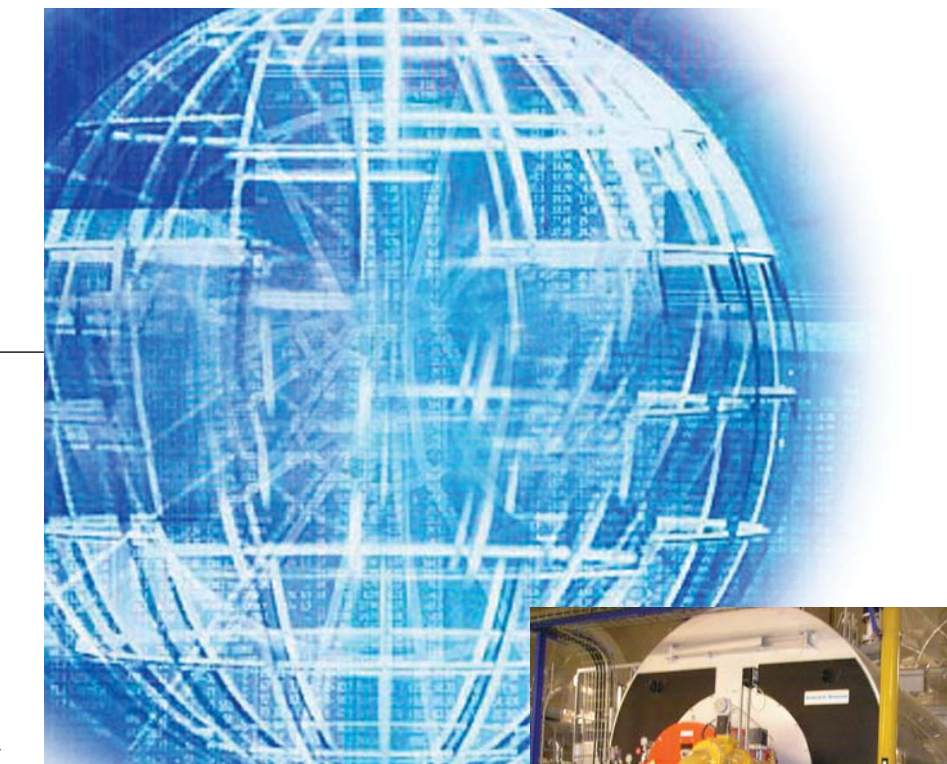


The Boiler House Solution

Industrial Boilers • Burners • Water Treatment • Energy Optimisation
Statutory Inspection • Maintenance • Audit • Boiler Hire • Training



THE BABCOCK BOILER



BABCOCK WANSON are major international players in the field of industrial boilers:

boilers and burners, water treatment, conditioning products; and for associated services: engineering, maintenance, refurbishing and upgrading, optimisation, trouble-shooting, etc.

BABCOCK WANSON offer a complete range of equipment and services to provide industry with tailor-made solutions within an overall approach to sustainable development. **BABCOCK WANSON belong to the CNIM Group** and stem from two great industrial ventures:

- the international BABCOCK and WILCOX Organisation, specialising in industrial boilers since 1898.
- the WANSON Group, specializing in small-and medium-sized industrial boilers and air and water treatment since 1929.

With more than 100 years of experience and the integration over the years of boiler brands such as PARENT, BLOCIHERM, DUQUENNE, FLUIDOTHERMUS, SEUM, LARDET, GOEMINE, COBRA, VAPOR and burner brand such as SAFMAT, the know-how and environmental control of BABCOCK WANSON boiler house is unique



World-wide, the BABCOCK WANSON companies represent

a workforce of 740 persons, of which more than 300 are dedicated to services;
an international organisation centered around ten companies;
a world-wide network of technical and business partners;
two main productions sites (Milan and Nérao) and several boiler house equipment assembly sites;
a research and development site (CNIM, at La Seyne-sur-Mer).



BABCOCK WANSON is certified ISO 9001. The boilers have received the approval of many international organisations such as APAVE, OFFICE VERITAS, LLOYDS REGISTER EMEA, SGS, ASIT, BSI, ISPESL, ISQ, TUV, UDT, CERTIGAZ...

Boilers

Steam:

- Fire tube from 160 kg/h to 30 t/h (112 to 18 500 kW), 2-pass or 3-pass fire-tube boiler series, with semi-wet back design, maximum operating pressures of 10 to 20 bars as standard, or higher on request.
 - Steam generators from 150 kg/h to 8 t/h.
- Super-heated steam production** from 1,4 to 18,5 MW. Possibility of hot water production for boilers of 5 MW and above for specific applications.
- Thermal oil heaters** 116 kW/h to 17,5 MW/h. ■



Containerised boiler houses

Within the limit of certain output ranges, BABCOCK WANSON offer reactive, flexible and economical solutions, such as



boiler houses on skids or in containers. These solutions have many advantages: The boiler house is pre-erected and tested in the factory with the manufacturer's guarantee. This reduces civil engineering and planning permission constraints. Transport is no problem (standard road-size container). Very rapid installation, connection and commissioning. The cost of containerised boiler house is a controlled cost and can be covered by global financing. ■

Burners

BABCOCK WANSON develop their own burners with a range from 580 to 20 000 kW, suited to industrial boilers, and which reduce emissions (NOx, CO₂, dust, etc.) while improving the heat exchanges by radiation and convection. They include the most recent high-efficiency technologies and provide economical and quiet operation (less than 85 db). Combined with BABCOCK WANSON boilers, they bear the CE marking which covers the boiler and burner assembly. ■

Boiler house control-indicating and monitoring: Operating Assistance Module (OAM)

The Operating Assistance Module was developed by BABCOCK WANSON to meet the requirements of boiler house operators. The OAM enables optimum regulation of the boiler operating parameters, management of alarms and safety devices, measurement and recording of operating or regulatory data, and the recording of operating and maintenance operations. The Operating Assistance Module also has interfaces for communication with a remote control station or a remote management center. ■

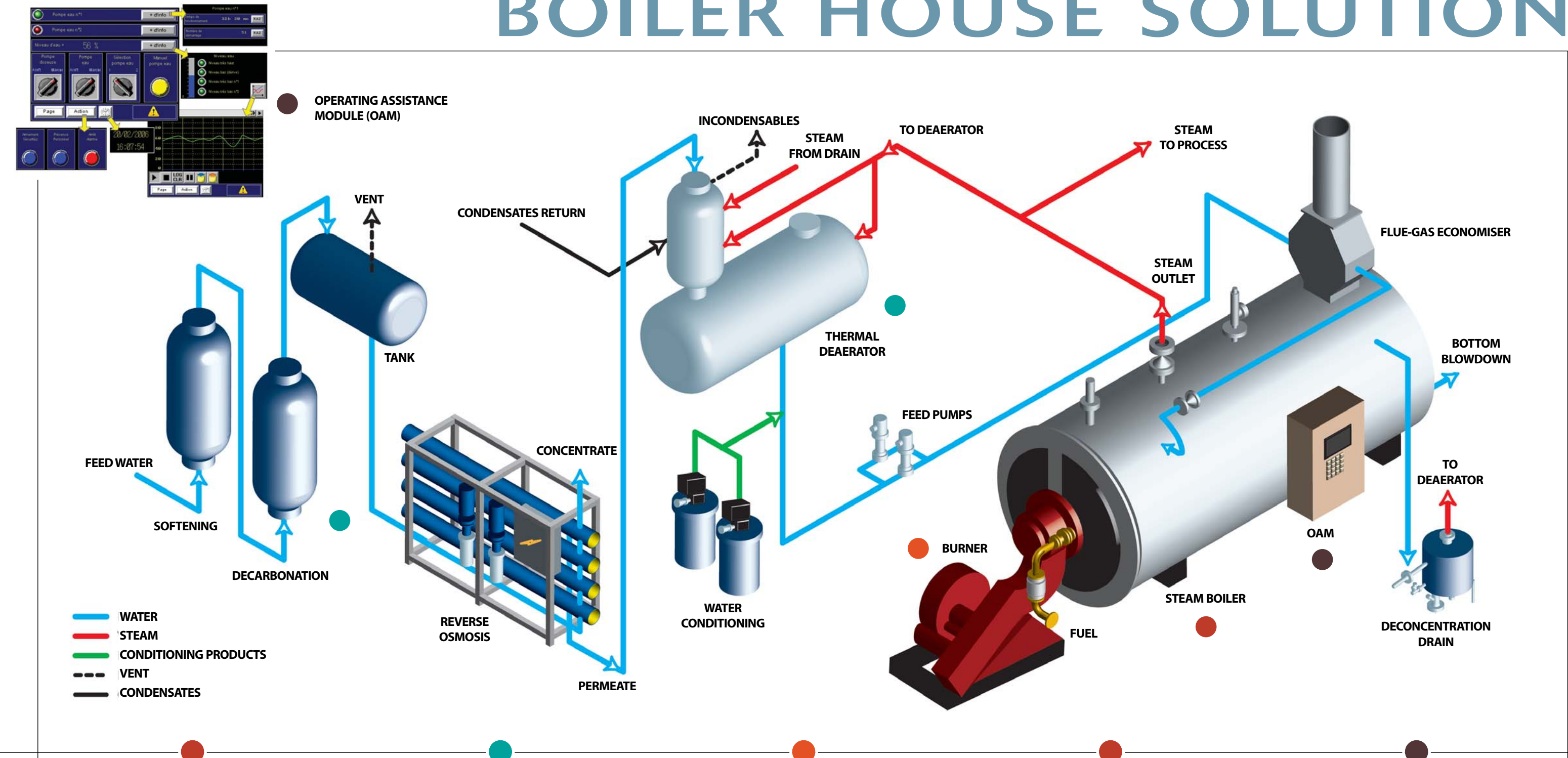
to treat the feed-water appropriately according to the quality of the water available and the type of boiler installed. ■



Water conditioning

Water conditioning products are one of BABCOCK WANSON's specialties; BABCOCK WANSON offer their own conditioning products and can therefore guarantee the quality of the boiler water, the quality of the steam and its cost. ■

THE BABCOCK WANSON BOILER HOUSE SOLUTION



Maintenance contracts

Pick-and-choose annual technical assistance contracts for boilers and burners, with checks on the operating parameters, safety systems, pollution and performance levels, with advance notice for scheduled inspections during operation or shut-down. These contracts offer the possibility of standby, commitment to response time and the supply of wear parts. Additional options include 6-year warranty extensions and the follow-up of water treatment. ■



Statutory inspection of the boiler house, upgrading and refurbishing

With all their know-how in boiler house equipment, BABCOCK WANSON can offer control solutions which integrate specific operating constraints, ensuring maximum safety and optimised operation. The BABCOCK WANSON boiler house solution is a unique tool which also offers access to the most recent developments in terms of remote diagnostics and fault analysis. ■



Spare parts

BABCOCK WANSON's customers have access to a stock of more than 12,000 spare parts of all makes, for quick deliveries, maintenance or trouble-shooting operations. ■

Boiler hire

The BABCOCK WANSON hire service can respond very quickly to manufacturing sites confronted with scheduled or unscheduled replacement boiler or boiler house requirements. BABCOCK WANSON have a pool of more than 150 mobile boilers and boiler house, from 90 kW to 12 000 kW - new or recent, fully automatic, overhauled and inspected by approved organisations and tested prior to each new use. ■

Approved training

As an approved training establishment, BABCOCK WANSON offer in-house or external courses suited to the needs of operating personnel, operating and maintenance personnel : economical operation of boiler house, intermittent monitoring of boilers, and water treatment. 350 trainees follow BABCOCK WANSON training courses every year. ■

The Audisteam energy audit:

To anticipate cost reductions associated with equipment and operating improvements, BABCOCK WANSON have developed a boiler house analysis tool which can quantify possible fuel savings before investment. This tool takes into account all the boiler house operating parameters, from water treatment to gas and fluid emissions. ■

