

Bosch Commercial and Industrial Heating
Boiler House Components

BOSCH
Invented for life

Bosch Thermotechnology Ltd.

Bosch is one of the world's leading manufacturers of heating products. In the UK, Bosch Commercial and Industrial Heating is part of Bosch Thermotechnology Ltd., a company that specialises in providing complete system solutions for the commercial and industrial heating sectors.

Up until the middle of 2012 the systems were sold and distributed under the LOOS brand name. Now we have consolidated our strengths and sell under the worldwide Bosch name.

With our extensive product range of modular boiler house components you can selectively extend your boiler system to take advantage of additional energy-saving opportunities. This brochure provides a detailed overview of our range and how we can meet your specific requirements.

Contents

Expertise and trust

Bosch Thermotechnology Ltd. is a renowned worldwide specialist in boiler systems of all sizes and performance categories. We have been providing innovation in industrial boiler construction for over 140 years.

Providing reliable energy around the world
With more than 100,000 boiler systems installed in over 140 countries, you will find our systems in practically every type of industry. Global players such as Coca Cola, BASF, Siemens, Heineken, Nestlé and Esso all rely on our innovative commercial and industrial steam boilers.

Technical pioneering that sets a global standard
Bosch Thermotechnology Ltd. has specialised in industrial boiler construction. Our strengths in innovation, quality obsession and efficiency are the benchmarks for our product range and services.

Optimum solutions through successful partnerships
As a leading manufacturer of innovative steam boiler technology, we operate efficiently alongside specialists throughout the industry. Thanks to our close co-operation with individual contractors, you will achieve an optimum and bespoke solution for your project requirements.

Industrial boilers with quality approval
Our advanced modern production facilities ensure that our systems have a quality advantage, which is underlined via adherence to an ISO9001 accredited Quality Management System.

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Environment and efficiency

As a responsible and innovative boiler manufacturer, we dedicate ourselves to environmental protection and minimising resource consumption. Our sustainable and efficient systems keep CO_2 emissions low and contribute to a reduction in adverse climate change.

Highest levels of efficiency

We were one of the first manufacturers to supply industrial flame tube/smoke tube steam boilers with integrated economisers. This allows the heat contained in the flue gases to be recovered, which increases the efficiency.

Designed for less consumption

Intelligent control systems provide further energy- saving opportunities. In addition, modulating burner fans reduce the electrical power consumption considerably at times of low heat demand. The modern burner systems, controlled by oxygen or carbon monoxide trim systems, provide the optimum combustion efficiency via intelligent fuel/air ratio technology.

Lowest levels of emissions

Our boiler systems are suitable for both liquid and gaseous fuels. The modern burner systems fully comply with UK guidelines regarding the reduction of emissions. A carbon neutral operation can be achieved using bio-fuels or bio-gases.

Inherent economic viability

With our highly-efficient boiler systems and the appropriate boiler house components, it is possible to significantly reduce energy consumption and emissions. Through this reduction, the investment costs may be recouped in a few years via reduced running expenditure. For more information, to request a quotation or to book a free site visit with one of our technical consultants, please call 0844 892 3004.

Our boiler systems are perfectly matched to your requirements. This protects not only natural resources but your financial resources as well.

Modular quality

Reliability and long service life are particular characteristics of Bosch boiler systems. The high quality of our systems is guaranteed by the most modern production machines, strict quality controls and continuous improvement and innovation.

Perfectly matched to each other

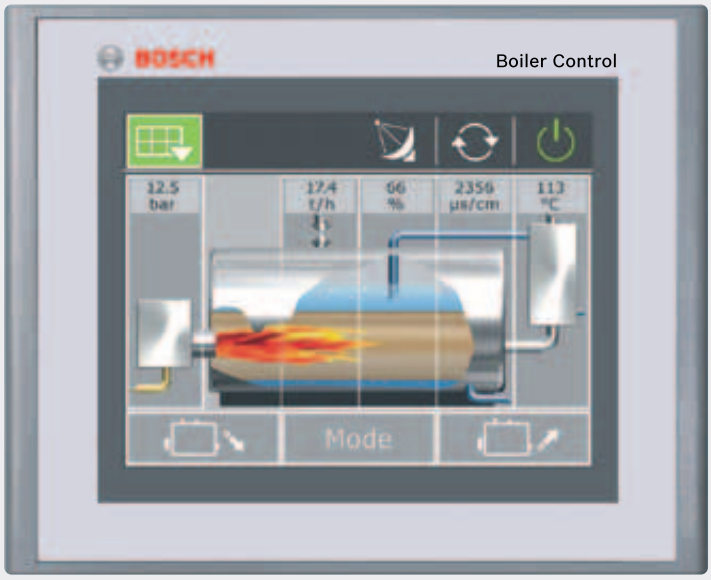
A boiler system tailored to your requirements is a foundation stone on which you can sustainably ensure the competitiveness of your company. We also offer modular and universal solutions through our complete boiler supply programme. The sizing and equipment level of the products are designed to individual customer specifications with many different options and variants available. The high manufacturing quality guarantees easy and smooth implementation.

Intelligently controlled

All boiler systems can be equipped with intuitive touchscreen controls. The coherent operating logic with integrated protection functions guarantees fully automatic operation of the boiler systems. Efficient bus system technology ensures intelligent networking of the individual modules and enables easy connection to higher-level management systems. For instance, the control units of our systems are already laid out for the use of our cost-effective Teleservice.

High performance in a system alliance

Alongside innovative boiler system technology, the ideal energy concept frequently includes important additional components such as combined heat and power, heat pumps or solar thermal systems. As a company within the Bosch Group we have access to an extensive range of additional system solutions in thermal technology. This enables us to combine different technologies and to implement these for your benefit.



Intelligent control systems from Bosch Commercial and Industrial Heating provide additional energy savings, as well as making the appliance more intuitive to your needs.

Modules for steam boilers

Our modules for steam boilers allow you to equip your system according to your requirements. They ensure maximum performance, a long service life and a high level of efficiency under the specific operating conditions.

Water service module (WSM)

The water service module supplies steam boilers with degassed and chemically conditioned feed water and disposes of the desalting and waste water.

- Discharge and storage of condensate and make-up water
- Thermal partial de-aeration of the feed water with WSM-T
- Thermal full de-aeration of the feed water with WSM-V
- Chemical conditioning of the feed water
- Expansion and cooling of the desalting and waste water
- Cooling of the water samples
- SPC control and display for
  - water level in the container
  - feed water temperature for the WSM-T
  - container pressure for the WSM-V
  - blow-down temperature
- Control for chemical dosing
- Dry running protection feed pump module
- Overflow protection.

Construction

All components are piped, thermally insulated and electrically wired to provide the highest level of quality for a multi-functional assembly unit. Elaborate scaffold constructions are not necessary: the compact module is mounted on a stable support device and designed for installing at ground level. All functions are computer-aided and automatically controlled with a programmable SPC controller with touch panel.

Equipment level

The module consists of a steam heated feed water tank, chemical dosing device, blow-down and expansion tank, water sample cooler and associated fittings – as well as the control cabinet. Optionally, there are additional components such as a heat recovery facility for alkalines and a second chemical dosing or feed pump module. For the WSM-V, there is a spray or trickle de-aerator mounted on the feed water tank.

Benefits at a glance:

- Fast and easy planning, installation, commissioning, maintenance, operation and implementation
- No need for positive suction head; ground level installation
- Ready for operation with just a few connections
- Warranty covers complete unit
- Reliable spare parts supply
- Easy transportation and relocation
- High degassing efficiency with WSM-T
- The highest degassing efficiency with WSM-V
- Reduced consumption of chemicals with WSM-V.

Water service module (WSM-V)

WSM-V for full de-aeration for all steam boilers with capacities ranging from 2,000 to approximately 100,000kg/h.

Water service module (WSM-T)

WSM-T for partial de-aeration for all steam boilers with capacities of up to 8,000kg/h.

Steam accumulator module (SAM)

This module is used for storing a defined amount of energy that is available as expansion steam during pressure reduction. This can then be used to cover peak loads e.g. if the capacity of a steam generator is exceeded briefly. The greater the water content of the accumulator, the greater the re-evaporation heat.

The steam accumulator is half filled with water and is heated with steam to boost the pressure. The accumulator is discharged by opening the shut-off devices on the consumer side. The steam quantity removed is always exactly the same as that fed into the accumulator. As a result, it is generally not necessary to feed additional water into the steam accumulator during operation. A float condensate trap is provided to prevent the water level increasing.

Construction

The steam accumulator consists of a horizontal cylindrical container with a built-in steam nozzle pipe.

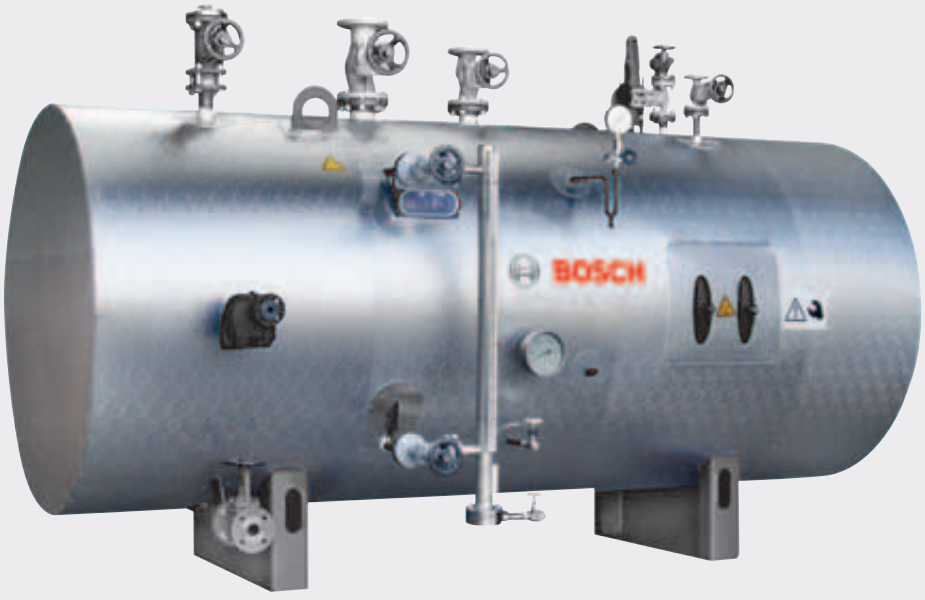
Equipment level

The module is thermally insulated and delivered with assembled equipment ready for operation. The module is fitted with a venting, drain shut-off, filling shut-off, steam inlet and outlet valves, an overflow and overpressure valve, a direct temperature display and a water level display.

Benefits at a glance:

- Balance of brief power peaks
- Reduction of water entrainment and its negative effects
- Reduction of switching frequency of steam generator
- Reduction of energy consumption and wear.

Steam accumulator module (SAM)



Condensate service module (CSM)

Condensate from steam consumers is channelled, collected and temporarily stored in the condensate service module. A condensate pump pumps the condensate back into the feed water de-aeration plant if the corresponding need for water arises. Unpressurised condensate service modules are usually installed near the consumer.

Condensate high pressure plant (CHP)

Within the condensate high pressure plant, the condensate is kept at pressure and temperature so that expansion steam losses are prevented or significantly reduced. The condensate is fed directly to the steam boiler via the condensate pump if necessary. Again, de-aeration of the high-pressure condensate is not necessary. Condensate high pressure plants should always be used if the discharge into the feed water tank or unpressurised condensate service module would be accompanied by a great deal of expansion steam loss due to the condensate parameters.

Construction

All components are piped, thermally insulated and electrically wired to Bosch quality standards. The unpressurised condensate service module is mounted on a stable support device and is designed for installation at ground level. The plant is prepared for open installation and needs a positive suction head of at least 1.5 metres. All functions are computer-aided and automatically controlled with a programmable controller.

Equipment level

The system consists of a condensate tank, condensate pump module, control cabinet and equipment. The system's piping and thermal insulation is pre-installed ex works.

Benefits at a glance:

- Decrease in energy and water consumption by reducing make-up water quantities
- Minimal expansion steam losses, desalination and blow-down quantities, less chemical consumption and reduced corrosion potential in the steam condensate system when using condensate high pressure plants.

Condensate service module (CSM)

The unpressurised condensate service module collects the condensate streams and channels them back into the water/ steam circuit via the de-aeration system.

Condensate high pressure plant (CHP)

The amount of fuel, make-up water requirement and use of chemical dosing agents for the water treatment can be reduced drastically by a condensate high pressure plant.

Blow-down, expansion and cooling module (BEM)

The purpose of the BEM is the recovery of all hot waste water from a steam boiler system. This waste water is collected, expanded and cooled to the permitted set discharge temperature in the module. The module is designed for multi-boiler systems with a maximum of 3 steam boilers.

Construction

A closed, upright container mounted on a support structure, with various feed and drain connections. The lower half of the module is filled with water during operation, with the upper half being expansion space. The prevailing media temperature is recorded and converted to an electrical signal with the temperature measuring transducer in the lower part of the module. Mixed cooling is achieved by the supply of cold, softened make-up water and the waste water is safely drained off when the permitted discharge temperature is reached. The discharge temperature can be controlled by the control system of the water service module.

Equipment level

The module comprises a vertical cylinder sealed with blank plates at both ends and all around with protection against contact. It is supplied fully assembled ex works with all necessary fittings and is thermally insulated.

Blow-down, expansion and cooling module (BEM)

Benefits at a glance:

- Fast and easy assembly with few connections, ready for immediate operation
- Full compliance with official guidelines thanks to automatic operating mode.

Expansion and heat recovery module (EHM)

The module recovers a substantial amount of the heat content contained within the hot water (waste water/ condensate) of a boiler system. The water that is under pressure in the expansion tank is expanded to support the heating of the feed water tank. In the downstream heat exchanger the make-up water of the boiler system is pre-heated and the desalinated water/condensate is cooled to a temperature of approximately 35°C.

Construction

The module comprises an expansion tank, an integrated heat exchanger for heat recovery, the bearing structure and the necessary equipment associated with it.

Equipment level

The module is offered fully assembled ex works with all necessary fittings and is thermally insulated.

Expansion and heat recovery module (EHM)

Benefits at a glance:

- Fast and easy assembly with few connections, ready for immediate operation
- Increased system efficiency
- Reduction of fuel, cooling water and waste water costs.

Expansion, heat recovery and blow-down module (EHB)

This module is a combination of the EHM expansion and heat recovery module and the BEM blow-down, expansion and cooling module. Its purpose is the recovery of the energy contained within the hot water (waste water and condensate) and the discharge of waste water, taking into account the permitted discharge temperature.

Construction

The module consists of an expansion tank as well as a waste water and cooling tank. A heat exchanger with associated fittings is integrated for heat recovery.

Equipment level

Two cylinders, one above the other, sealed with blank plates at both ends, a pick-up station, all necessary fittings, pipework connections between cylinders and thermal insulation are included and are offered fully assembled ex works.

Expansion, heat recovery and blow-down module (EHB)

Benefits at a glance:

- Fast and easy assembly with few connections, ready for immediate operation
- Full compliance with official guidelines thanks to automatic operating mode
- Increased system efficiency
- Reduced fuel, cooling water and waste water costs.

Vapour cooler (VC)

In thermal, full de-aeration systems there is an inherent accumulation of exhaust vapour. Without a vapour cooler, exhaust vapour would be dissipated into the atmosphere. The purpose of the vapour cooler is to condense the exhaust vapour by means of a heat exchanger. The accumulated thermal energy generated during the cooling of the exhaust vapour is used to heat the make-up water.

Construction
Plate-type heat exchanger with threaded connections. Wet parts are made of stainless steel.

Equipment level
The module comprises a heat exchanger with associated fittings.

Vapour cooler (VC)

Benefits at a glance:

- Heat recovery to improve efficiency
- Recovered energy for additional heating or for transfer to a separate water circuit.

Pump module (PM)

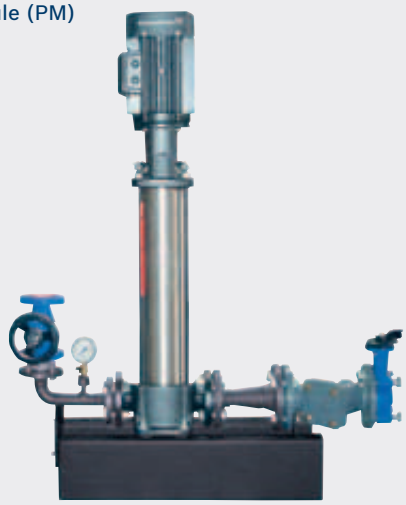
This module is used for extracting feed water from the feed water tank into the shell boiler or for extracting the condensate from the condensate tank into the de-aeration system.

The pump module can optionally have a motor with a frequency converter for infinitely variable, demand-related water quantity control.

Construction
The pumps supplied are vertical multi-stage high-pressure centrifugal pumps with a fully enclosed, fan-cooled motor. They are designed especially for use in shell boilers.

Equipment level
The pump module is delivered fully assembled ex works on a console with pressure indicator, shut-off, filter and non-return valves.

Pump module (PM)



Benefits at a glance:

- Pre-assembled, ready to be installed for fast assembly
- Speed-controlled version for increasing the efficiency of the flue gas heat exchanger
- Reduction in power consumption and increase in operating convenience.

Feed water regulation module (RM)

If no speed-controlled feed pump is available, continuous regulation with the RM feed water regulation module is recommended as an alternative for all boilers fitted with modulating burners and flue gas heat exchangers.

The module ensures longer flow-through times of the flue gas heat exchanger and thus optimum heat recovery from the boiler waste gases. At the same time, the minimum quantity required for the feed pump cooling is ensured via the module.

The prefabricated module is installed at a suitable location in the feed water pressure line. It is switched as inflow control.

Equipment level

The feed water regulation module for infinitely variable control consists of a feed water control valve, discharge device, dirt retention device, two shut-off valves and a bypass device.

Feed water regulation module (RM)

Benefits at a glance:

- Increased efficiency of the flue gas heat exchanger
- Reduction of the pump circuits
- Constant boiler water level
- Reliable minimum flow rate for cooling the feed pump.

Steam distributor (SD)

In the distributor, the generated steam mass flow is distributed to the consumer and the residual moisture is separated and drained.

Construction

A collecting pipe, with an order-related number of pipe outlets, is fully supplied and assembled with flange connections and all necessary fittings for a modular unit.

Equipment level

The distributors are fitted and delivered thermally insulated with pressure indicators, shut-off, non-return and condensate drain valves.

Benefits at a glance:

- Reduction of grid losses by centralised distribution for systems with complex consumer structures
- Savings thanks to centralised operation and maintenance.

Flue gas heat exchanger ECO stand-alone

The flue gas heat exchanger is designed to save energy by heating the mains return water which lowers the flue gas temperature.

Flue gas flow contains significant heat potential at high temperature. Economiser modules, with their highly efficient heat recovery surfaces, utilise this heat potential and therefore can significantly increase the boiler efficiency of new or existing steam boiler systems.

The downstream flue gas heat exchanger from the boiler is used for "dry" operation when heating up feed water. To use the condensing technology, the flue gas condensation can take place in an additional downstream flue gas heat exchanger module and make-up water can be heated up. The subsequent installation in existing single-flame tube steam boiler systems can be carried out easily with these modules.

Construction

The flue gases in the lower section are collected and flow through the integrated heat exchanger in the upper part for heat recovery.

Equipment level

The module is mounted on a stable base frame and has rails at the back for transportation. Servo drive, pipework connections, flue gas control and drain shut-off valves are fully assembled and included in the delivered module. Thermal insulation is also available ex works.

Flue gas heat exchanger ECO stand-alone

Benefits at a glance:

- Increased boiler efficiency
- Reduced fuel consumption
- Easy retrofitting of existing systems.

Water analyser (WA)

Smooth boiler operation is dependent on good water quality. The water analyser provides continuous measurement and monitoring of:

- pH value in feed water
- O_2 content in the feed water
- Residual hardness in the make-up water
- pH value in boiler water.

All data is transmitted to the system control SCO via the bus system. Together with the connectivity of the boiler water and condensate streams, all relevant water parameters are available through the SCO.

Demand-based control and monitoring tasks can be performed fully automatically. If set limit values are exceeded, all parameters are transferred to the fault message storage of the SCO. Continuous logging of the data is also possible and can either be transmitted to a higher-level management system or outputted directly to a local printer via a defined interface.

Construction

The water analyser consists of an analysis section and an electronic section which are housed in two interconnected factory-fitted wall-mounted cases.

Equipment level

The analysis section includes the following measuring modules:

- TH-Control for measuring the residual hardness in the make-up water after a water softening system
- pH control for measuring the pH value in the boiler content water of up to 3 boilers and in the boiler feed water
- O_2 control for measuring the oxygen content in the boiler feed water
- In the lower section, the sample preparation with flow-through coolers for measuring feed and boiler water
- Control valves for switching and distribution of the individual mediums.

The electronic part consists of:

- Power supply
- Electronics of the measuring modules
- Communication processors for the data exchange between WA and SCO.

Water analyser (WA)

Benefits at a glance:

- Reduced input of dosing agent due to precise continuous measurement and control
- Increase of operating safety due to analytically correct measurement results
- Time-saving due to automatic measurement
- Fast reaction is possible by means of immediate signalling in the event of deviations
- Reduction of damage caused by insufficient water parameters
- Reduction of desalting and blow-down losses by means of demand-based dosing
- Reduction of make-up water, dosing agent and heating steam reduced desalination and blow-down losses.

Modules for hot water boilers

Our modules for hot water boilers make assembly easier and ensure safe operation of the system. They are pre-assembled ready for installation and suitable for retrofitting.

Supply flow adaptor piece (SP)

A flange adaptor, including safety equipment, for closed systems.

Construction
A tube with flange connections for the supply line.

Equipment level
The supply flow adaptor piece is fitted with a built-in level limiter, maximum pressure limiter, pressure indicator, manostat tube with shut-off valve, shut-off valves (emptying, test function) and shut-off valve with test connection.

Supply flow adaptor piece (SP)

Benefits at a glance:
- Pre-assembled ready for fast installation
- Full compliance with official guidelines.

Return flow adaptor piece (RP)

Flange adaptor for installation on the return flow nozzle.

Construction
A T-tube with various flange connections and a connection for the temperature monitoring.

Equipment level
A flange connection for the expansion line as well as a connection for a thermometer or temperature sensor is included.

Return flow adaptor piece (RP)

Benefits at a glance:
- Pre-assembled ready for fast installation.

Return flow temperature safeguard (RTS)

The return flow temperature safeguard on a hot water generator can be achieved by means of maintaining temperature or boosting temperature.

Construction

All individual accessory parts including supply flow adaptor piece with safety equipment, return flow adaptor piece, supply and return flow fittings, circulation pump and motor three-way valve are pre-fabricated for the pre-assembled RTS module.

Equipment level

Return flow temperature maintenance consists of:

- Boiler circulation pump
- Three-way control valve
- Return temperature control
- Shut-off valves supply flow/return flow.

Return flow temperature boosting consists of:

- Admixing pump
- Shut-off valve, suction side
- Shut-off valve, pressure side
- Non-return valve, pressure side
- Motor shut-off valve boiler return flow
- Shut-off valve boiler supply flow.

Return flow temperature safeguard (RTS)

Benefits at a glance:

- Assembly within just a few hours
- Problem-free compliance with operating conditions.

Flue gas heat exchanger ECO stand-alone

For further reduction of the flue gas temperature, different flue gas heat exchangers are provided for hot water boilers. There are stand-alone retrofit models without bypass for heating boilers with gas firing, as well as with bypass and flue gas switching valve for hot water boilers with oil/gas dual-firing.

To make use of condensing technology, flue gas condensation can take place in an additional downstream stainless steel flue gas heat exchanger module.

Construction

Welded for installation downstream of the boiler, with connecting branches for water inlet, water outlet and drainage, including inspection openings on the flue gas side. In the model with bypass, the hot flue gases are guided through control dampers.

Equipment level

Lifting lugs, feet or transport rails, a flue gas control valve and thermal insulation are included and are offered fully assembled ex works.

Flue gas heat exchanger ECO stand-alone

Benefits at a glance:

- Improvement of utilisation level
- Fuel savings
- Easy retrofitting to existing systems.

Modules for supplying to the boiler

You can configure the operation of hot water and steam boilers according to your needs with our ready-to-assemble modules for supplying to the boiler. At the same time, our technology enables you to optimise your system control and protect the system from harmful operating influences.

Water treatment module (WTM)

To avoid boiler scale, it is only permissible to operate boiler systems with softened feed water. In the guidelines on water characteristics, the permitted total hardness for different types of boilers and operational modes is limited. Raw water is filtered and generated in the ion exchange process make-up water to soften it. The hardening components – calcium and magnesium ions – are replaced by sodium ions.

Fully automatic designs save operation, prevent operating errors, enable continuous operation and ensure increased utilisation of capacity when using the same raw water hardness.

Construction

All elements of the water softening system are clearly and functionally arranged and come fully assembled on a support structure. The WTM is suitable for all boiler sizes.

Equipment level

The WTM consists of the water softening system and a salt-softening receptacle. A drainage water connection, sampling device, pressure indicator as well as control fittings, shut-off and filter valves complete the module.

Water treatment module (WTM)

Benefits at a glance:

- Constant softened feed water for preventing calcification of the boiler surfaces
- Good heat transfer, high efficiency and long service life of the boiler
- High degree of operational reliability
- Quality-controlled design allows external hardness monitoring to be dispensed with – e.g. for improved utilisation of capacity and without the need for permanent supervision of operation even in the case of varying raw water hardness.

System control (SCO)

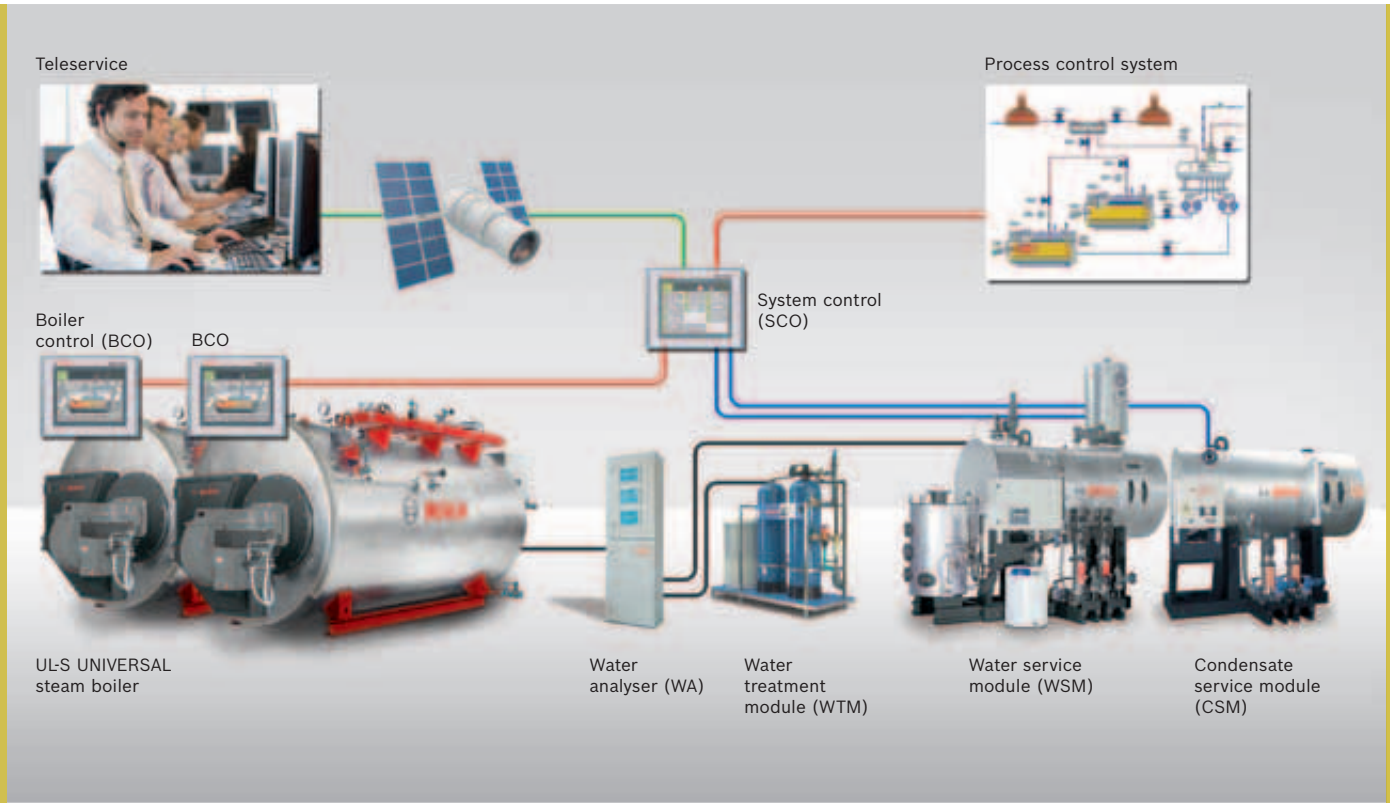
The SCO combines the controls of steam boilers and/or hot water boilers as well as individual module controls into an overall management system and opens up a multitude of new possibilities. The communication between the individual boiler controls BCO, other possible controls and the SCO takes place via a powerful bus system. Elaborate wiring work and signal separations are therefore rendered unnecessary. Connection to higher-level visualisation and control systems is possible by means of a Profibus DP interface.

Construction

Programmable, powerful control with a TFT colour display operator screen with touch-sensitive surface.

Equipment level

- Sequence control of multi-boiler systems
- Integration of water analysis
- Integration of de-aeration systems
- Integration of condensate systems
- Integration of foreign matter monitoring systems
- Integration of oil supply facilities
- A diverse range of pressure and temperature controls etc.
- Return flow temperature maintenance (only hot water)
- Weather-driven boiler control (only hot water).



Benefits at a glance:

- Easy connection to higher-level visualisation and control systems
- Integrated monitoring and protection functions against faulty operation
- Extensive storage of operating parameters and operating signals
- Preparation for Teleservice: the operating parameters and operating signals can be accessed via an optional modem
- Intuitive operation through the use of graphical symbols and presentation on modern touchscreen displays.

Gas regulation module (GRM)

This module regulates the constant gas pressure of the burner upstream, irrespective of the level of the input pressure and gas flow rate. It ensures against incorrect gauge pressure and gas flow rate.

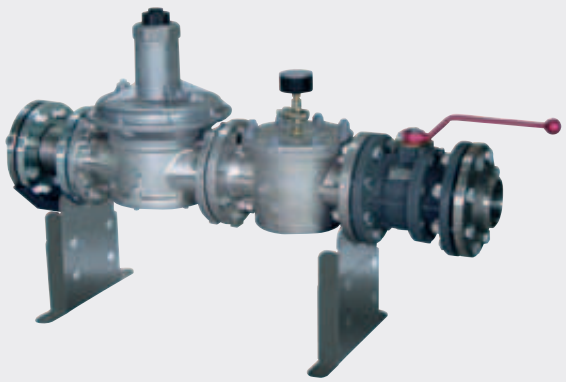
Construction

All elements included in the standard delivery are arranged in the necessary order and delivered fully assembled on a support structure.

Equipment level

The GRM gas regulation module includes all of the fittings, such as filter, ball valve, shut-off valve etc., which are required for the gas-side fuel supply of the burner.

Gas regulation module (GRM)



Benefits at a glance:

- Pre-assembled ready for fast installation
- Full compliance with official guidelines
- Increased operating safety.

Oil circulation module (OCM)

The oil circulation module prepares liquid fuels and records the throughput. A ready-to-connect extraction module for each burner provides easy installation in ring mains with a supply pressure of 1.5 bar. The two-chamber oil feed vessel is designed for light and heavy fuel oil pressure atomising burners with a spill back atomiser system.

Construction

The oil circulation module is supplied as a compact, fully assembled unit on a carrier plate and is delivered with a protective cover.

Equipment level

The module includes a two-chamber feed vessel, a filter valve, the oil quantity indicator, a shut-off valve, pressure safeguard valve, vent shut-off valve and two drain plugs. For heavy fuel oil operation there is also heating for the filter and vessel.

Oil circulation module (OCM)

Benefits at a glance:

- Pre-assembled ready for fast installation
- Reliable recording of the oil throughput.

Oil supply module (OSM)

The oil supply module is used for extracting and filtering fossil fuels in ring mains supplying one or more burners.

Construction
It is pre-assembled as a single or double station with all fittings in an oil collection vessel for easy installation in the ring main.

Equipment level
Double stations enable filter cleaning without interruption of operations and offer a 100% reserve. The heavy fuel oil extraction module is fitted with electric or combination heating for steam or hot water.

Oil supply module (OSM)

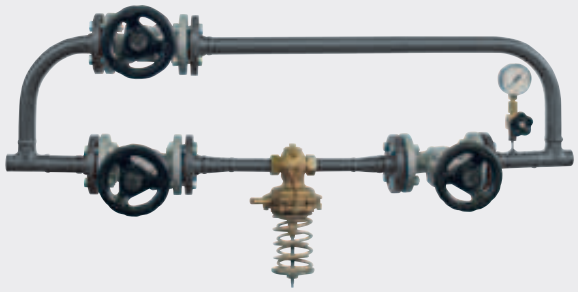
Benefits at a glance:
- Can be used for all Bosch boiler systems with oil firing and ring mains supply
- Pre-assembled ready for fast installation.

Oil pressure regulation module (ORM)

The oil pressure controlling module is used for maintaining the pressure in the oil ring line.

Construction
It consists of a controller, including connection parts such as manometer, manometer valve and a by-pass valve.

Oil pressure regulation module (ORM)



Benefits at a glance:
- Pre-assembled ready for fast installation
- Increased operating safety.

Oil pre-heater module (OPM)

The oil pre-heater module pre-heats the pumpable heavy fuel oil to the atomiser temperature of the respective burner.

Construction

The compact cylindrical heat exchanger is assembled with fittings and delivered on a stable support structure.

Equipment level

A heat exchanger with an extendible tube bundle can be optionally fitted with steam or steam/electrical heating. The module, including the heating control, thermal insulation and all fittings, is pre-assembled ready to connect.

Oil pre-heater module (OPM)

Benefits at a glance:

- Can be used for all Bosch boiler systems with oil firing and ring mains supply
- Increased operating safety.

A high performance boiler with a first class service to match

With Bosch Commercial and Industrial Heating and our first class service, you are always on the safe side.

Always there for you
Our customer service is there for you and because of our close-knit service support network, we can ensure the quickest possible reaction times. Along with maintenance services, fault finding and repairs, we also offer support with the regular inspection of your system. Bosch after-sales support also allows us to analyse your system and upgrade it if required.

Customer service
Email: commercial.enquiry@uk.bosch.com
or telephone 0330 123 3004.

Opening times
Monday - Friday: 7.00am - 8.00pm
Saturday: 8.00am - 5.00pm
Sunday: 9.00am - 12 noon

Reliable supply of spare parts
Genuine spare parts for all supported Bosch appliances are readily available either from stock on a next day delivery basis or delivered direct from Germany.

Opening times
Monday - Friday: 7.00am - 8.00pm
Saturday: 8.30am - 4.00pm

Email: spares.mailbox@uk.bosch.com
or telephone 0330 123 9779.

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