

OMNIBLOC

Firetube Boiler



A Thermax Group Company



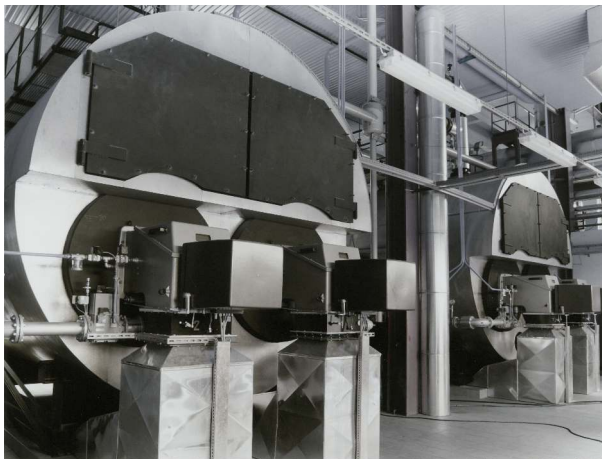
OMNIBLOC

Firetube Boiler



The Omnibloc is a fully packaged, modern three-pass, oil / gas fired, firetube boiler which can generate hot water or steam. Besides a wide range of standard boilers, Omnical also offers customized solutions as per the needs of the customer including complete turnkey solutions.

The wide product range of Omnibloc covers all kind of systems from small and packaged steam generators to large twin firetube boilers with steam superheater and special combustion.



Design Feature

This modern three-pass boiler is robust and economic. The application ranges from hot water boilers to saturated or superheated steam boilers for industrial application or power generation.

The main characteristic of this boiler type is the design of the three passes. The firetube is arranged in the center, offset slightly downwards. The hot exhaust gas is led downstream through the second and third passes, which are arranged symmetrically above.

A generously designed furnace volume and the inherent three pass design ensure complete combustion of fuel and prolonged furnace life. The large Heat transfer area also guarantees lower heat flux and lower thermal stresses in the boiler.

The large water holding capacity of this boiler ensures consistent supply and faster response to fluctuating heat demand.

Omnibloc for hot water applications

In the field of hot water generation, be it for district heating or for industrial purposes, Omnibloc three-pass boilers have been proven to be reliable source of heat. They are designed on basis of state of-the-art engineering and produced in line with modern manufacturing processes.

All Omnibloc boilers meet the pressure equipment directive and are designed according to EN 12953. The design according to TRD or other standards (e.g. German "Verbändevereinbarung") is also available if requested by the customer.

The arrangement of fire- and smoke tubes and the integration of the flue-gas reversing chamber into the boiler body allow a compact design without compromising on the efficiency and heat transfer areas. The boilers are also specifically designed with an internal return mixing unit so as to avoid thermal stresses.

A wide range of Omnibloc variants covers almost all applications catering to a whole range of customer specific requirements.

Additional equipment for efficiency enhancement:

- Economiser for the utilization of waste heat
- Return temperature raising facility
- Boiler warming system

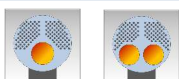
Omnibloc for steam applications

The Omnibloc three-pass boiler is a proven design for saturated and superheated steam applications. This boiler too reflects the feature of symmetry of fire and smoke tube arrangement as well as the integrated design of the flue-gas reversing chamber.

For different applications, various types of boilers and systems are available.

Additional equipment for efficiency enhancement:

- Economiser for the utilization of waste heat / feedwater heating system
- Superheater for the production of superheated steam
- Boiler warming system for quick start





Omnibloc twin firetube boiler for high-capacity

Designed as a twin firetube boiler the Omnibloc is applicable for high capacity output. Essential elements of this boiler type are the two firetubes and the external flue-gas reversing chamber.

The flue-gas reversing chamber is of membrane design and is water cooled. This construction thereby enables a higher heat transfer area and hence guarantees a shorter reaction time for any change in output demand.

As a unique feature the turndown range of the boiler is enhanced by using a completely isolated exhaust gas chamber, which enables an operation with only one firetube in case of very low output demands.

The advantages of an Omnibloc at a glance:

- Compact, reliable, economical and extremely long-lasting.
- Water cooling of all parts in contact with the flue gas hence guaranteeing optimum heat transfer and lower thermal stresses.
- A large water holding capacity and steam space ensure high quality of steam and enhanced response to fluctuating steam demands thereby rendering increased operational reliability.
- Boiler efficiency as high as 96 %
- Minimized radiation losses by combined thermal insulation.
- Shell boiler in three-pass design with extremely low heat flux.
- An optimized flue gas path ensuring a low pressure drop on the flue gas side.
- Ease of maintenance with its large front doors on the flue gas side and suitably located manholes and head holes on the water side.

OMNICONROL

As a standard feature, the Omnibloc is equipped with a programmable logic controller (SPS) for the whole boiler system. It guarantees the automatic operation and controls the complete system by following the individual requirements of the operator. Communication with a DCS / equivalent control system or a Remote Performance Monitoring System is also available as an option.

Product offering:

Omnibloc for hot water applications

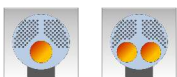
Type	Feature
DWHS Three-pass boiler with single firetube	<ul style="list-style-type: none"> - Production of hot water up to 200°C - Max. operating pressure up to 25 bar - Thermal capacity from 2 up to 17.5 MW
DWHT Three-pass boiler with twin firetube	<ul style="list-style-type: none"> - Production of hot water up to 200°C - Max. operating pressure up to 25 bar - Thermal capacity from 13 up to 38 MW



Omnibloc for steam applications

Type	Feature
DDHS Three-pass boiler with single flame tube	<ul style="list-style-type: none"> - Production of saturated steam - Max. operating pressure up to 38 bar - Steam capacity from 3 up to 27 t/h
DDHT Three-pass boiler with twin flame tube	<ul style="list-style-type: none"> - Production of saturated steam - Max. operating pressure up to 25 bar - Steam capacity from 20 up to 54 t/h

Customized solutions available on request



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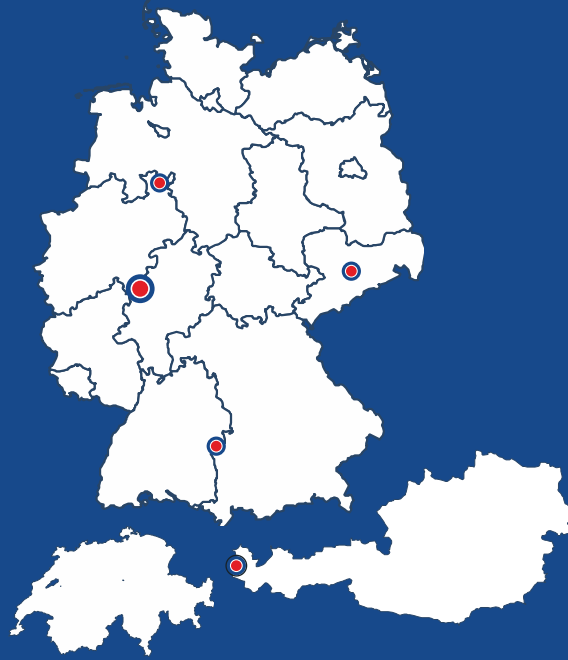
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For further information please contact sales@omnical.de

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