KÖB

VIESSMANN Group

Wood heating systems from 100 to 1700 kW

Why heat with wood?

The rising cost of fossil fuel and growing environmental awareness are resulting in an ever-increasing demand for renewable forms of energy. Today heating with wood is an environmentally friendly and economical alternative or addition to conventional heating systems for fossil fuels.

Sustainable
When wood is harvested within the context of sustainable forestry, it is a renewable and environmentally friendly source of energy and an important part of sustainable resource management.

CO_2 neutral
When wood is burned, only so much CO_2 is released as the trees have actually absorbed during the course of their life. That's why heating with wood is CO_2 neutral.

Economical
As an indigenous fuel, wood is very cost-efficient and not subject to wide price fluctuations.

Top technology and reliability
Advanced biomass systems are fully automated and equipped with control and safety devices for reliable, efficient and safe operation.

Home-grown and independent
Wood is a home-grown product, it is harvested with a minimum of energy and it contributes to the regional economy.

Did you know?

What types of wood can be used?
Wood boilers can be operated using a wide variety of wood fuels with different net calorific values, storage requirements and costs.

The type of fuel chosen depends on the available storage capacity, the facility's requirements and the availability of the different fuel types. Since the fuel quality influences the efficiency and service life of the facility, good-quality untreated wood with a low moisture content should be selected.

How economical is wood heating?
With a biomass system, approximately 50 percent of the total operating costs are accounted for by fuel costs. Therefore, choosing a high-performance wood boiler and using high-quality, affordable wood fuel are crucial when it comes to optimising the economy of your system.

Although the initial outlay for a biomass system can often be greater than for a conventional heating system, the savings made on fuel costs per heat unit lead to an amortisation of the higher investment outlay within a relatively short period of time. Your biomass system will operate as efficiently as a heating system for fossil fuels. However, since your fuel is home-grown and sourced independently, your fuel costs will fluctuate less severely compared with the use of conventional fuels.

Is it safe to heat with wood?
Absolutely. Today's wood heating systems are just as safe and reliable as oil and gas heating systems. Equipped with advanced safety and protective devices and a digital control unit, the system is closely and extensively monitored and regulated – from the supply of fuel through to heat transfer and ventilation.

Do wood heating systems provide clean combustion?
Yes. Advanced wood heating systems achieve emission ratings similar to leading heating systems that use fossil fuels. What's more, heating with wood is CO_2 neutral. Köb wood heating systems meet the strict regulations set out in European anti-pollution legislation.

Where can wood heating systems be used?
Wood boilers are ideal for commercial and industrial use, such as in schools, hospitals, district heating networks, wood-processing plants, etc. The heating energy they supply either covers the entire heat demand of the facility or covers the base load when operated in conjunction with an oil or gas boiler for peak loads. Thanks to our comprehensive product range you can expand your biomass system to create a fully integrated system with a Viessmann solar thermal system, oil or gas boilers and individual control systems.

Pellets
Pellets are the most compact form of wood energy and offer a high calorific value.

Ensure that the pellets conform to standard branded quality (e.g. EN Plus, DIN Plus or ÖNORM).

Wood shavings
Untreated wood shavings are wood processing by-products from facilities such as sawmills and joinery workshops.

Woodchips
Woodchips are small pieces (e.g. chips) of natural wood, with or without bark.

Mixed wood
Untreated mixtures of woodchips and wood shavings are classified as mixed wood.

Bark
Bark is the term used to designate shredded bark residue.

Wood dust
Wood dust is the residual dust generated during wood processing.

PYROT
PYROTEC
PYROFLEX

Wood boilers with rated heating output from 100 to 1700 kW

Pyrot
Innovative wood boiler with rotation combustion
For pellets, woodchips and wood shavings
Water content: max. W35
100 to 540 kW
Page 8

Pyrotec
Fully automated wood boiler with grate combustion
For pellets, woodchips and wood shavings
Water content: max. W50
390 to 1250 kW
Page 10

Pyroflex FSB
Fully automated wood boiler with flat moving grate combustion
For dry to moist wood fuels
Water content: max. W55
180 to 1700 kW
Page 12

Pyrot wood boiler with rotation combustion for pellets, woodchips and wood shavings

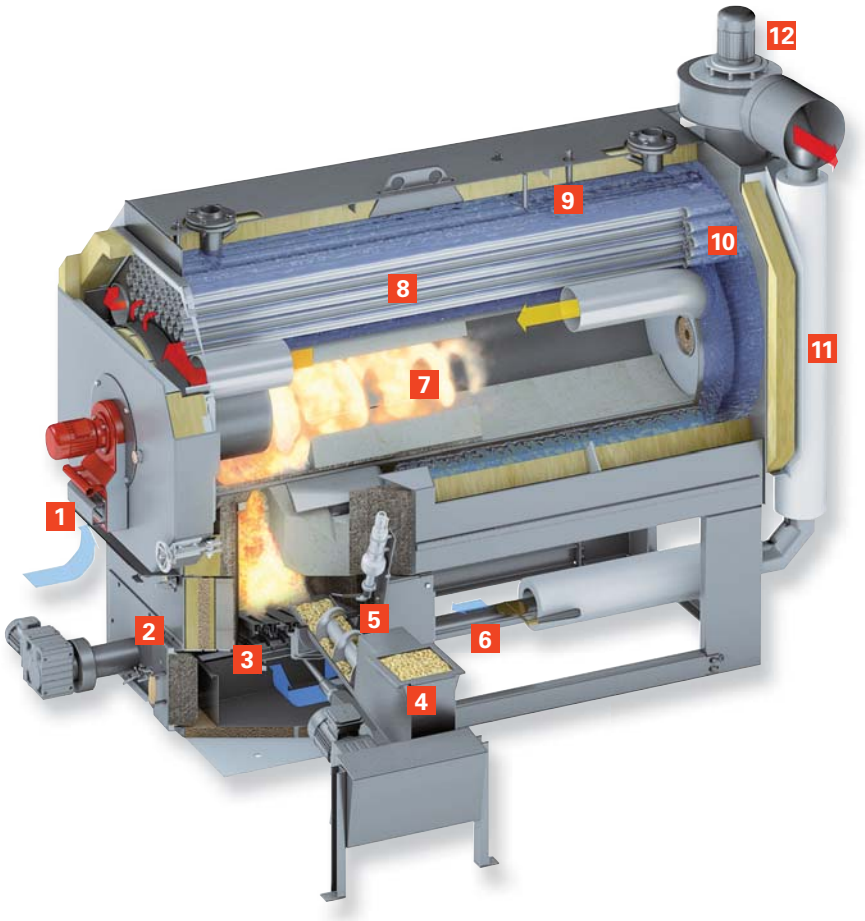
PYROT

**Innovative wood boiler with rotation combustion from 100 to 540 kW.
For wood fuels with a maximum water content of 35 %.**

The patented rotation combustion system of the Pyrot wood boiler is state of the art. A feed screw conveyor continuously supplies wood fuel onto a moving grate, where gasification of the fuel takes place (with Lambda-regulated primary air supply). Continuous gasification takes place under air starvation. Rotary fans mix rising combustion gases with secondary air that has been atomised and given angular momentum. This ensures thorough mixing with the combustion gases.

Clean and efficient combustion
The proven combustion technology of the Pyrot achieves similar emission values to those of a modern gas combustion system and keeps the release of CO, NO_x and dust particles to a minimum, subject to fuel type. The combination of combustion technology and digital modulating output control enables efficiency levels of up to 92 %.

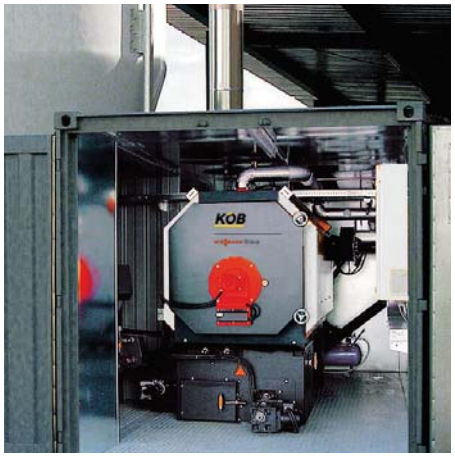
Mobile containerised heating centre
Pyrot wood boilers are available as containerised complete solutions for situations where there are no boiler houses available or where the on-site building costs have to be reduced to a minimum. This ready-to-use solution includes a pre-assembled wood boiler inside a special container and all auxiliary appliances. Individual container solutions can be specially adapted to meet specific needs.



Pyrot

1. Secondary air controlled by rotary fan
2. Ash removal
3. Fully moving grate
4. Feed screw conveyor with barrier layer
5. Ignition fan
6. Regulated primary air
7. Rotary combustion chamber
8. Two-pass heat exchanger
9. Safety heat exchanger
10. Pneumatic pipe cleaning
11. Flue gas recirculation
12. Induced draught fan with Lambda probe and temperature sensor

Pyrot – wood boiler with rotation combustion



Mobile containerised heating centre

Take advantage of these benefits:

- Fully automatic wood boiler with rotation combustion
- Rated heating output range: 100 to 540 kW
- For dry wood fuels with a maximum water content of 35 %
- High efficiency and low emissions in output mode (up to 92 %) due to controlled primary and secondary air supply, and low particle combustion
- Permissible flow temperature up to 100 °C
- Permissible operating pressure: 3 bar
- Two-pass heat exchanger and modulating output control (4:1 control range)
- Automatic ignition prevents having to maintain the firebed and saves fuel
- Easy to service thanks to fully automatic ash removal, optional pneumatic cleaning system and flue gas dust extractor
- Highly developed safety equipment ensures safe and reliable operation
- Available as a complete ready-to-use containerised solution

For specification, see page 22

PYROTEC

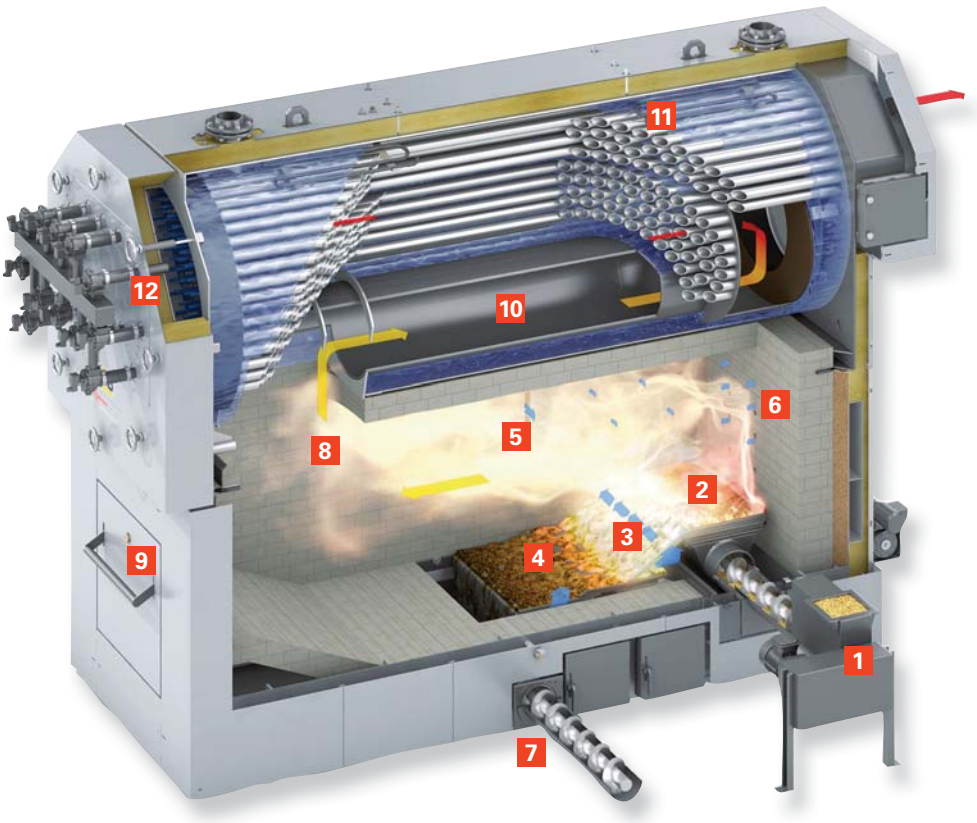
**Wood boilers with state of the art grate combustion, from 390 to 1250 kW.
For wood fuels with a maximum water content of 50 %.**

The moving infeed grate, the proven combustion retort and the sloping external grate in the Pyrotec optimally combine the benefits of infeed and underfeed combustion. A feed screw conveyor transports the wood fuel into the combustion retort, where it is pre-dried. On the external grate and the moving infeed grate the fuel is completely degassed. The wood gases are then burned with the aid of a regulated secondary air supply.

Top quality design and construction
The Pyrotec wood boiler features high quality construction for use under the toughest conditions (high fuel flexibility from W10 to W50).

The inside of the combustion chamber is equipped with pressed and scorched fire bricks with a high clay content for greater durability. All grate elements are made of high-quality, thick-walled chromium steel casting and can withstand very high temperatures. A distinguishing feature of the Pyrotec wood boiler is its proven three-pass heat exchanger, providing maximum heat transfer and exceptional efficiency.

Clean and efficient combustion
The combustion technology of the Pyrotec achieves low emission values (particularly for CO and NO_x). Operation with modulating output control and the optimised combustion principle enables efficiency levels of up to 92 %.



Pyrotec

1. Feed screw conveyor with barrier layer
2. Combustion retort with internal grate and primary air 1
3. External grate with primary air 2
4. Moving infeed grate
5. Secondary air
6. Ignition fan
7. Ash removal
8. High temperature zone for burnout
9. Combustion chamber door
10. Three-pass boiler
11. Safety heat exchanger
12. Pneumatic pipe cleaning

Pyrotec wood boiler with feed screw conveyor
and burn-back protection

Firebrick-lined combustion chamber with
external grate and moving infeed grate

Take advantage of these benefits:

- Fully automatic wood boiler with grate combustion
- Rated heating output range: 390 to 1250 kW
- Universal application for all types of wood fuel from dry (W10) to wet (W50)
- High efficiency thanks to proven combustion technology, three-pass heat exchanger, modulating output control and regulated primary and secondary air supply
- Permissible flow temperature up to 100 °C
- Maximum operating pressure: 6 bar
- Easy servicing thanks to fully automatic ash removal and optional pneumatic cleaning system
- Highly developed safety equipment ensures safe and reliable operation
- Optimum system output is the result of design and delivery of all system components from a single source
- An automatic ignition device prevents the need to maintain the firebed and saves fuel (optional – only for fuels with water content below 40 %)
- Individual planning of your system by our team of experts
- Excellent output control from 30 to 100 %

For specification, see page 22

PYROFLEX (type FSB)

The flat moving grate of the Pyroflex (type FSB) is suitable for a diverse range of wood fuels.

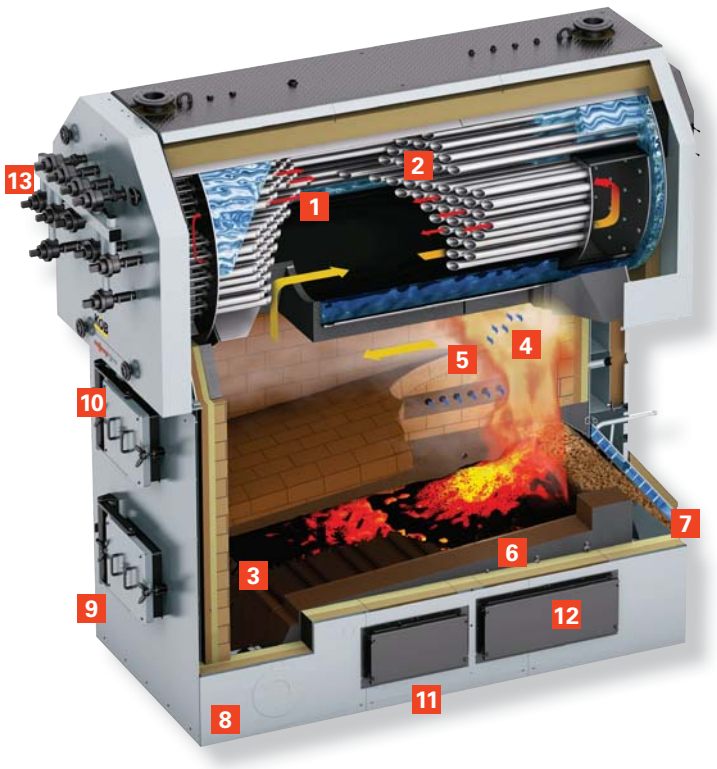
Flat moving grate combustion
The flat moving grate is particularly suited to the combustion of wood fuels with a high ash and water content. The Pyroflex (type FSB) is versatile in its use of fuel and produces flue gases with a low particulate content due to its static fuel bed – both of which are major benefits. The geometry of the combustion chamber is the result of research and flow simulations.

Systems with flat moving grate combustion make use of low NO_x reduction technology. The low NO_x combustion chamber features primary-side air staging for reducing NO_x emissions. In addition, this effect is amplified by the use of a flue gas recirculation system (option). Efficiencies of up to 92 % enable a high seasonal efficiency to be achieved in modulating operating mode.

Detection of fuel type
The flame temperature controller, combined with regulation of the residual oxygen content (Lambda probe), provides optimum combustion control for a wide range of fuels, whether these are damp spruce chippings straight from the forest, pellets or very dry beech dust from a joinery shop.

Fuel charging
Fuel is charged via a screw conveyor (screw conveyor feed) or the water-cooled feed neck (hydraulic direct feed or hydraulic feed).

Ash removal
The flat moving grate at the grate end (every other grate row is driven by a hydraulic cylinder) transports the ash into an ash container, either directly or via a screw conveyor.



Pyroflex
(Type FSB)

1. Three-pass boiler (6 bar – higher pressure levels on request)
2. Safety heat exchanger
3. Flat moving grate hydraulically driven (split into two from type FSB 850 onwards) with primary air supply (1 to 3 zones depending on type; optional preheating of zones 1 and 2 with water/air heat exchanger)
4. Secondary air supply
5. Flue gas recirculation feed "over grate" (optional)
6. Ignition fan (automatic ignition or assisted ignition – optional up to type FSB 1100)
7. Hydraulic feed/direct feed with water-cooled feed neck or feed screw conveyor
8. Ash removal (by screw conveyors or directly into 800-litre ash container)
9. Primary combustion chamber door
10. Under-grate pushrod from type FSB 850
11. Cleaning apertures below the flat moving grate
12. Pneumatic boiler cleaning (optional)

Flat moving grate combustion system with hydraulic direct feed

Combustion chamber with multi-layer insulation and high-grade fireclay lining

Take advantage of these benefits:

- Wood boiler with grate combustion
- Rated heating output range: 180 to 1700 kW
- High efficiency up to 92 %
- Version for flow temperatures over 110 °C (available as an option)
- Minimal radiation losses due to insulation of the entire boiler system
- Universal use of different types of wood fuel with water content of W6 to W55
- Static firebed results in significantly lower emissions
- Highly wear-resistant due to generously dimensioned grate area
- Overlapping pre-tensioned grate rods ensure little fuel falls through the grate (continuous automatic ash removal)
- Staged combustion (low NO_X combustion chamber)
- Three-pass flame tube/smoke tube boiler with flue gas temperatures below 190 °C at full load
- Integral backup heat exchanger for rapid controllability to DIN 4751 part 2
- Modulating load control from 25 to 100 % of rated heating output while adhering to emission levels
- Load-bearing cover on top of the boiler as part of the standard delivery – simplifies installation and maintenance and protects the thermal insulation against damage

For specification, see page 23

Comprehensive energy management

Modulating output control for maximum output and safe performance of the heating system.

Advanced boiler control units for biomass systems offer the same control convenience as most standard control units for fossil fuel systems. Thanks to its modulating output control and a heating water buffer cylinder, the system's flow temperature can be matched to the prevailing weather conditions.

Boiler control unit (for Pyrot)
The digital modulating output control ensures optimum combustion by accurately controlling the relationship between the combustion air, recirculated flue gas and fuel. The control unit monitors:

- the flow and return temperatures of the wood boiler
- the condition of the firebed
- the light barriers on the supply system
- the flue gas temperature
- the oxygen content in the flue gas (Lambda probe)

Boiler control unit (for Pyrotec)
The boiler control unit is fully programmable and controls both the system and the modulating output. It regulates all variable speed fans and monitors the following:

- the flow and return temperatures of the wood boiler
- the light barriers on the supply system
- the pressure sensor for reliable negative pressure
- the flue gas temperature
- the combustion chamber (upper temperature limit)
- the oxygen content in the flue gas (Lambda probe)

Microprocessor control unit (for Pyroflex, type FSB)
The microprocessor control on the Pyroflex (type FSB) wood combustion system includes activation of the fuel charging system as per the articles listed separately. With regard to personal safety and fire safety the highest quality criteria are fulfilled.

Heating centre comprising Pyrot and Pyrotec

Heating water buffer cylinder
With a biomass system, a heating water buffer cylinder is an important component for control accuracy (the ability to adapt the system output to the actual demand). The heating water buffer cylinder makes it easier to form temperature layers, effectively reduces frequent switching on and off of the combustion system and adapts the system's flow temperature to meet the heat demand. With all control units, there are three or five sensor inputs available for optimum burner modulation in accordance with the buffer cylinder temperature.

Vitocontrol multi-boiler control unit
Vitocontrol allows specific customer requirements to be met, e.g. cascade control of two Pyrot or Pyrotec boilers, plus energy management of other integrated energy sources (solar, oil/gas, electric). It regulates a common storage and supply system and provides an interface for building management systems.

Remote monitoring (option)
Remote monitoring and maintenance of heating systems is carried out via an internet interface. It enables the monitoring and adjustment of various system parameters. The LonWorks® and BACnet® interfaces are optionally available for local monitoring (other interfaces on request). System monitoring is ideally used in public facilities or for district or CHP systems.

Boiler control unit for Pyrot

Boiler control unit for Pyrotec

All control units for biomass systems are made in-house. Other benefits include:

- Quick installation as all functions are combined in a single unit
- Ease of operation.

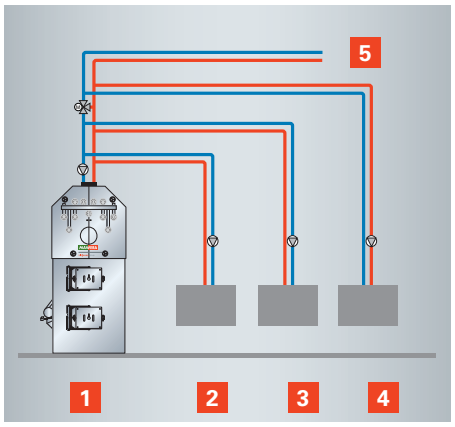
Microprocessor control unit (for Pyroflex, type FSB)

The microprocessor controller offers the following functions for the Pyroflex (type FSB) wood combustion system, including activation of the fuel charging system as per the articles listed separately. With regard to personal safety and fire safety the highest quality criteria are fulfilled.

Functions

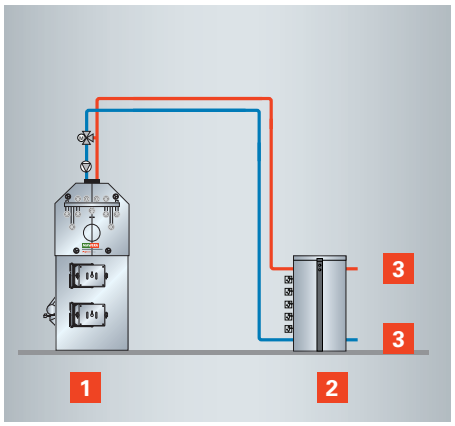
- Output control circuit with modulating output operation (25 to 100 %)
- Flow temperature capture and control with Pt100 and monitoring of flow temperature
- Return temperature capture with Pt100 and automatic return temperature control (230 V activation voltage – open/close)
- Control of 3-phase boiler circuit pump
- Flue gas temperature measurement with Pt100 and monitoring of minimum flue gas temperature
- Screw conveyor feed version: Fuel metering via speed control of the metering screw conveyor and feed screw conveyor using an inverter
- Version with hydraulic direct feed via water-cooled feed neck: Fuel metering via the hydraulic feed (number of feeds) and monitoring of the embers in the combustion chamber by light barrier (display in m³/h)
- Grate drive: The grate is driven by a hydraulic unit and is regulated by cycling (pause time)
- Oxygen (O_2) control: Heated Lambda probe in the flue outlet with test signal transducer
- Combustion chamber underpressure control and monitoring: Controlled using a flue gas fan, speed controlled by means of an inverter in conjunction with an underpressure transducer
- Activation of combustion air fan:
  – The secondary air fans are speed-controlled by inverters.
  – The primary fans are controlled using motor-actuated dampers with position feedback.
- Flame temperature sensor: NiCrNi sensor with retainer, for regulating the flame temperature and monitoring the maximum flame temperature
- Automatic restart in the event of power failure

Microprocessor control unit with touchscreen



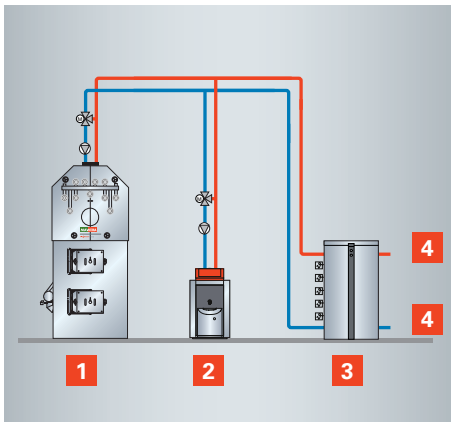
Pyroflex (type FSB) wood boiler connection options

1. Pyroflex (type FSB) wood boiler
2. Economiser (ECO) option
3. Feed neck cooling option
4. Air pre-heater (LUVO) option
5. Heat distribution



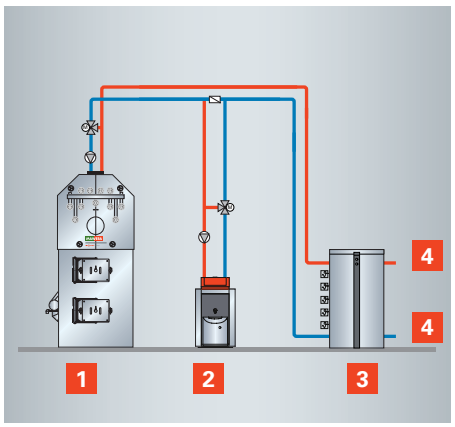
Wood boiler with heating water buffer cylinder

1. Pyroflex (type FSB) wood boiler
2. Heating water buffer cylinder with cylinder management (5 sensors as per QM-Holzheizwerke)
3. Heat distribution



Wood boiler as base load boiler and oil or gas boiler as peak load boiler in parallel operation with heating water buffer cylinder

1. Pyroflex (type FSB) wood boiler
2. Oil/gas boiler
3. Heating water buffer cylinder with cylinder management (5 sensors as per QM-Holzheizwerke)
4. Heat distribution



Wood boiler as base load boiler and oil or gas boiler as condensing peak load boiler in serial operation with heating water buffer cylinder

1. Pyroflex (type FSB) wood boiler
2. Oil/gas boiler
3. Heating water buffer cylinder with cylinder management (5 sensors as per QM-Holzheizwerke)
4. Heat distribution

System components

An extensive range of system components from a single source ensures the automatic, reliable and low-maintenance operation of the entire system.

Ash removal screw conveyor and external ash container

Automatic ash removal (option)
The clean combustion leaves only the minerals stored in the wood behind as ashes. A grate with moving grate elements extracts the ashes from the combustion chamber and guides them into the ash container. As soon as they have cooled down, the ash removal screw conveyor transports the ashes into a large external ash box.

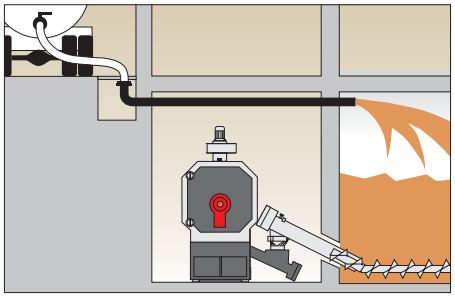
Pneumatic cleaning system

Pneumatic cleaning system (option)
A clean heat exchanger is crucial to the service life and efficiency of a wood boiler. With short blasts of compressed air, the pneumatic pipe cleaning system regularly removes ash from the heat exchanger, thereby considerably prolonging the maintenance-free boiler operation.

Flue gas recirculation system
(Standard for Pyrot, option for Pyrotec)
Flue gas with low oxygen content (6 to 8 %) is fed back into the boiler. Mixing it with primary air ensures the complete gasification of the fuel under air starvation. This enables a low grate temperature, which results in higher efficiency. In addition, particle emissions are reduced and the service life of the grate is increased.

Storage and feed systems

Every fuel storage and feed system is unique and is designed for a specific application. Our modern, fully automatic supply solutions are delivered ready for installation.

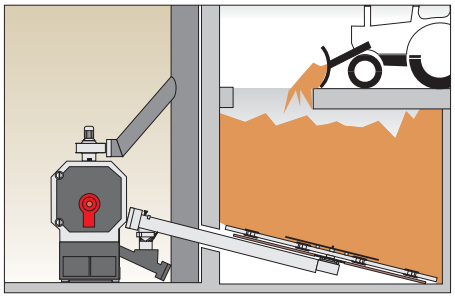


Basement storage with pellet screw conveyor

Basement storage with screw conveyor discharge
Cellars or former oil storage spaces can be turned into pellet stores without any major conversion work. Pellets can be blown in across large distances, while special screw conveyors transport them reliably and with low energy consumption.

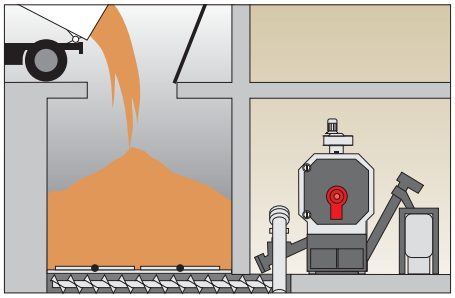
All Köb wood heating systems feature:

- High-performance screw conveyors with large diameter
- Spur geared motors for high torque
- Large, optimised supply channels
- A certified device for effective fire protection.



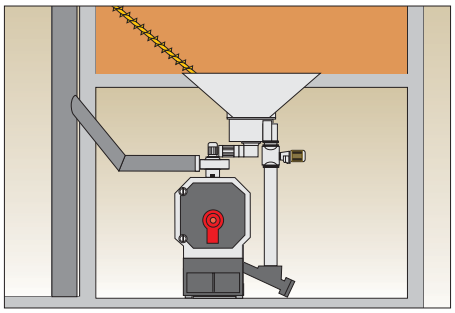
Bunker with flexible agitator discharge

Bunker with spring core or horizontal discharge
This is the right solution for square or slightly rectangular bunkers. A sprung arm pushes the fuel onto a discharge screw conveyor (flexible agitator discharge). For high bulk densities the stable horizontal discharge is used (separately driven bottom agitator and discharge screw conveyor).



Bunker with push floor

Bunker with push-floor delivery
This version is ideal for large, rectangular storage bunkers. Sliding hydraulic pushrods guide the fuel onto a supply screw conveyor. This enables quick filling with large amounts of fuel.



Silo with funnel

Silo with funnel
The fuel is discharged from the silo via a pendulum screw conveyor in the funnel – the automatic reverse function ensures operational reliability. A fire-prevention tested rotary lock valve separates the silo from the heating system. This system is recommended for wood-processing facilities.

Safe and reliable operation

Köb wood heating systems meet the strictest safety requirements. Safety equipment using state of the art technology guarantees safe and reliable operation of your system at all times.

Reignition protection (RZS)
This provides protection against reignition through flying sparks by means of a permanent, monitored barrier layer, and constant, controlled underpressure operation.

Burn-back resistant device
A sensor situated in the fuel charge pipe recognises the danger of burn-back and immediately counteracts this by increasing the amount of fuel charge to the boiler.

Burn-back protection
A horizontal-action slider with spring return interrupts the fuel supply in the event of a power failure and the danger of burn-back. If negative pressure occurs in the fuel store, a rotary lock valve is used in place of the slider for the same function. The rotary lock valve prevents unwanted leakage air getting into the combustion process.

Safety heat exchanger
A safety heat exchanger built into the wood boiler is connected to the water supply and prevents the wood boiler from overheating in the event of a power failure. A non-electric, thermally activated valve responds at a predetermined boiler water temperature and cools the boiler water down via indirect heat transfer through the heat exchanger.

Additional safety devices
In addition to the listed safety equipment, the Köb wood boilers also feature the following safety devices required by relevant safety standards:

- Low water shutdown
- Pressure and temperature sensors
- High limit safety cut-out

Cross transport of woodchips from the push floor discharge system

Perfectly matched to suit your system

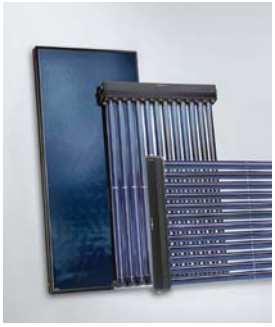
With Viessmann system technology, you can easily expand your wood heating system to enjoy all the benefits of an integrated system based on renewable energy.

Wood heating systems
Wood heating systems are ideal for integrating one or several further energy sources, such as fossil fuel or solar energy. Our comprehensive product range offers heating systems which operate with all forms of energy, and which are considerably more than just individual heating components. Whether it is an oil/gas boiler or a solar thermal system, all parts fit together perfectly and form a reliable and economical system.

Solar thermal systems
Flat-plate or vacuum tube collectors are ideal for DHW heating and for providing central heating backup for the biomass system. By incorporating solar energy, domestic hot water costs can be reduced by up to 65 % (depending on the size of the solar thermal system), while the environmental benefit is also further improved.

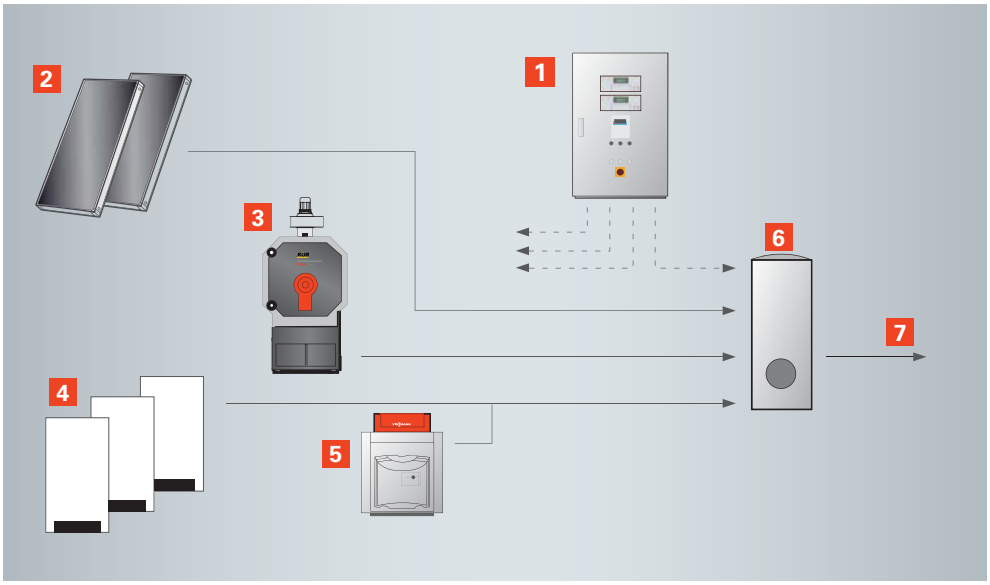
High-performance DHW cylinders
Vitocell DHW cylinders ensure a fast and reliable supply of DHW at all times. For applications requiring large amounts of DHW, the vertical and horizontal DHW boilers can be combined to create cylinder banks. By integrating the DHW supply into the wood heating system you can save up to 50 % of running costs compared to directly heated DHW.

Boilers
As a system based on renewable energy, a wood heating system is often linked to a conventional oil/gas boiler that covers peak loads or supports the biomass boiler. Depending on the type and temperature demand of the system, Viessmann offers highly efficient condensing boilers, as well as low temperature boilers.



Vitosol flat-plate and tube collectors

Vitocell DHW cylinders



1. Viessmann customer-specific control unit
2. Solar thermal system
3. Wood boiler
4. Condensing boiler
5. Low temperature boiler
6. DHW cylinder
7. System distribution

Pyrot
Wood boiler with rotation combustion
For wood fuels with a water content of ≤ 35 %

Model		**100**	**150**	**220**	**300**	**400**	**540**
Rated heating output	kW	100	150	220	300	400	540
Dimensions							
Length	mm	2263	2513	2537	2893	2877	3105
Width	mm	1050	1050	1330	1330	1570	1570
Height	mm	1825	1825	2084	2084	2422	2492
Weight	kg	1925	2198	3024	3433	4438	5108
Max. operating pressure	bar	3	3	3	3	3	3

Pyrotec
Wood boiler with grate combustion
For wood fuels with a water content of ≤ 50 %

Model		**390**	**530**	**720**	**950**	**1250**
Rated heating output	kW	390	530	720	950	1250
Dimensions						
Length	mm	3282	3782	3877	3835	4380
Width	mm	1274	1274	1380	1612	1612
Height	mm	2378	2536	2834	3035	3230
Weight	kg	5230	7554	8869	11463	12918
Max. operating pressure	bar	6	6	6	6	6

Pyroflex FSB
Wood boiler with flat moving grate combustion
For wood fuels with a water content of ≤ 55 %

Model		**180**	**220**	**280**	**350**	**440**	**550**	**700**	**850**	**1100**	**1400**	**1700**
Rated heating output	kW	180	220	280	350	440	550	700	850	1100	1400	1700
Dimensions												
Length*	mm	2320	2320	2910	2910	2910	2910	2910	3692	3682	4242	4242
Length**	mm	-	-	3106	3106	3106	3106	3106	3994	3994	4544	4544
Width	mm	1180	1180	1280	1280	1380	1480	1630	1700	1800	1900	2060
Height	mm	2845	2845	3127	3127	3282	3392	3482	4023	4133	4505	4662
Weight*	kg	5924	5900	9070	9065	9900	12010	13700	18470	20000	24980	31910
Weight**	kg	–	–	9620	9615	10300	12610	14130	19150	21540	26380	32820

* FSB with screw conveyor feed
** FSB with hydraulic feed neck

E.ON Biomass Heating Plant
Markt Schwaben, Germany

Schloss Frauenthal
Deutschlandsberg, Austria

Commercial academy and school,
Lustenau, Austria – Pyrot with
220 kW rated heating output

Wood heating systems in operation

More than 1500 facilities throughout the world employ wood heating systems from Köb.

Köb wood heating systems
Köb has been installing wood heating systems for more than 30 years, during which it has achieved significant recognition for its innovative and environmentally friendly products. Köb is a member of the Viessmann Group.

Planning and commissioning service
Each installation begins with a system plan devised by a team of experts. We examine the special requirements and conditions of the project and provide you with bespoke system solutions – from individual wood boilers to fully integrated systems that include a fossil fuel heating system and a solar thermal system.

We offer comprehensive system solutions and service from one source.

La Cité Verte, Quebec City, Canada

The "Green City" project set itself the strict goal of retaining green areas by modernising and replacing existing buildings. The development, with more than 800 residential units, is heated by one of the most advanced biomass district heating networks in North America.

Alzey Clinic, Germany

At the heart of this multi-mode system is a Pyrotec biomass boiler fired with solid fuel. The boiler meets around 70 to 80 % of the clinic's energy needs. A CHP unit contributes a further 7 to 8 %. Up to 100 % of the power generated as part of the heating process is used on site. Two Vitomax 300 boilers with 2.9 MW output and equipped with dual fuel burners for oil or gas cover peak loads.

Heating centre for the Erzabtei St. Ottilien, Germany

The Erzabtei St. Ottilien in Oberbayern [archabbey of St Ottilia] in Upper Bavaria is one of Europe's largest Benedictine monasteries. It comprises some 45 buildings with a heatable area of 32,000 square metres. The outdated oil boilers have been replaced by a new heating centre that operates with a minimal carbon footprint. The Pyroflex woodchip heating plant has an output of nearly 2000 kilowatts and supplies around 85 per cent of the heating energy needed.

Residential estate, Hubelmatt, Switzerland

Comprising 30 detached houses and six apartment buildings, the Hubelmatt residential development near Lucerne, Switzerland, is supplied with CO_2 neutral heating by a Pyrot biomass boiler. The 400 kW wood boiler consumes about 180 tonnes of pellets a year. The heat for central heating and DHW heating is delivered to the connected households via long-distance pipes.

Köb wood heating systems up to 1700 kW

Located in Austria, Köb Holzheizsysteme GmbH is one of the leading manufacturers of wood combustion systems with outputs up to 1250 kW.

Köb has been part of the Viessmann Group since 2007. This enables Köb Holzheizsysteme GmbH to seamlessly complement the range of small biomass boilers offered by Viessmann in its Vitoligno series.

The output range above 1700 kW is covered by the Viessmann Group through the Mawera brand, also from Austria. With these two brands, Viessmann is further extending its leading position in the "Renewables from biomass" sector.

State of the art combustion technology
With the "Pyrot rotation combustion" range, Köb supplies what is currently the most advanced combustion technology in the medium output range. This is supported by a patented low particle combustion for pellets and chippings. The technology has been awarded the Austrian Innovation Award on several occasions.

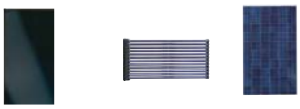
Mawera GmbH, the Austrian biomass specialist for wood combustion systems up to 13,000 kW, has been part of the Viessmann Group since 2006, thus extending the comprehensive Viessmann product range to include biomass for industrial, commercial and municipal customers.

From boilers to fuel discharge and fuel supply systems, Mawera products are suitable for all types of wood. All system components are supplied from a single source. The various combustion systems are outstanding and can be charged with all forms of wood fuel.

Turnkey systems from a single source
Mawera supplies commercial customers with turnkey systems from a single source:

- Flat moving grate combustion
- Step grate combustion
- Direct firing system
- Special combustion systems
- Water and steam boilers, thermal oil boiler heat exchangers
- Fuel transportation
- Supply systems
- Chimneys
- Flue gas dust extraction
- Control units and management systems
- Crushers
- Accessories

A comprehensive product range from the Viessmann Group

	Boilers for oil up to 116 MW heat or up to 120 t/h steam	Boilers for gas up to 116 MW heat or up to 120 t/h steam	Solar thermal systems and photovoltaics
Detached houses			
Apartment buildings			
Industry/commerce/ municipal			
Local heating networks			

Individual solutions with efficient systems

The comprehensive range of products and services from Viessmann offers individual solutions with efficient systems for all fuel types and application areas. As one of the world's leading manufacturers, Viessmann offers intelligent, convenient and efficient systems for heat, air conditioning/ventilation, cooling and decentralised power generation. Viessmann products and systems are synonymous with the very highest efficiency and reliability.

Our comprehensive product range offers top technology and sets new benchmarks. By focusing on using energy efficiently, we can help cut costs, save natural resources and protect the environment.

Everything from a single source
The Viessmann range offers the right products and systems for every need. Our heating systems range from wall mounted to floorstanding, from detached houses to large residential buildings, from commercial and industrial use to use in local heating networks. For modernisation to new build, and the provision of heat, steam, power and cold, Viessmann is always the right partner.

The wide ranging expertise we have at our disposal in the group enables us to provide our market partners with perfect solutions. Our product portfolio is rounded off with a full range of services.

The comprehensive Viessmann product range: Individual solutions with efficient systems for all energy sources and application areas

The product range for all energy sources and output ranges

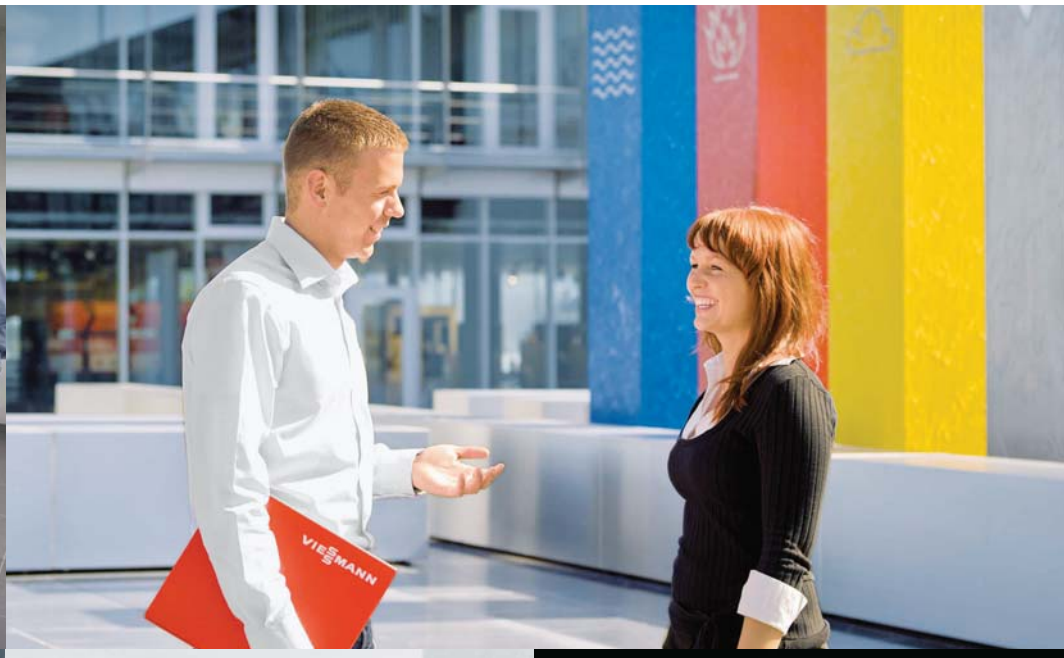
- Boilers for oil and gas up to 116 MW heat or 120 t/h steam
- Combined heat and power generation up to 50 MW_{el}
- Heat pumps up to 2 MW
- Wood combustion technology up to 50 MW
- Biogas production plants from 18 kW_{el} to 20 MW_{gas}
- Biogas upgrading plants up to 3000 m^3/h
- Solar thermal systems
- Photovoltaics
- Accessories
- Refrigeration technology

Maintenance and service

Whether it concerns commissioning, maintenance or troubleshooting – trade partners can count on the Viessmann Group for professional support. Our team will be more than happy to talk to you on the phone or in person. Our online tools can provide you with valuable tips, and if necessary spare parts can be delivered the next morning.

Training

The Viessmann Academy offers a wide range of courses, from business management seminars to technical training, designed to keep our trade partners abreast of the very latest developments in our industry.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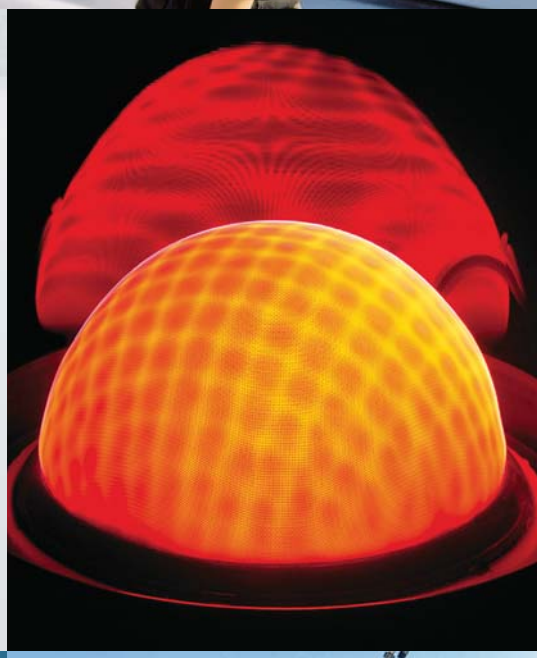


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Viessmann – climate of innovation

Viessmann is one of the world's leading manufacturers of intelligent, convenient and efficient systems for heat, air conditioning/ventilation, cooling and decentralised power generation.

As a third generation family run business, Viessmann has been supplying highly efficient and clean heating systems for many decades.

A strong brand creates trust
Together with our brand label, our key brand message is an identifying feature throughout the world. "Climate of innovation" is a promise on three levels: It is a commitment to a culture of innovation. It is also a promise of enhanced product benefits and, at the same time, an obligation to protect the environment.

Acting in a sustainable manner
For Viessmann, taking responsibility signifies a commitment to acting sustainably.

This means bringing ecology, economy and social responsibility into harmony with each other, ensuring that current needs are satisfied without compromising the quality of life for the generations to come.

We consider climate protection, environmental responsibility and resource efficiency to be key priorities throughout our company, which has more than 10,600 employees worldwide.

Example of Best Practice
With its strategic sustainability project, Viessmann demonstrates at its own head office in Allendorf (Eder) that the energy and climate policy goals set for 2050 can in fact be achieved today with commercially available technology. The results speak for themselves:

- Expansion of renewables to 60 per cent
- CO_2 emissions reduced by 80 per cent

The long-term goal is for the company to sustainably meet all its own heating energy requirements.

Deutscher Nachhaltigkeitspreis
Deutschlands nachhaltigste Produktion 2009

Deutscher Nachhaltigkeitspreis
Deutschlands nachhaltigste Marke 2011

Energy Efficiency Award 2010

Viessmann Group

Company details
- Established in: 1917
- Employees: 10,600
- Group turnover: €1.89 billion
- Export share: 54 percent
- 27 production companies in 11 countries
- Sales companies and representations in 74 countries
- 120 sales offices worldwide

The comprehensive product range from the Viessmann Group for all energy sources and output ranges
- Boilers for oil or gas
- Combined heat and power units
- Heat pumps
- Wood combustion technology
- Biogas production plants
- Biogas upgrading plants
- Solar thermal systems
- Photovoltaic systems
- Accessories
- Refrigeration technology

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Your trade partner:

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