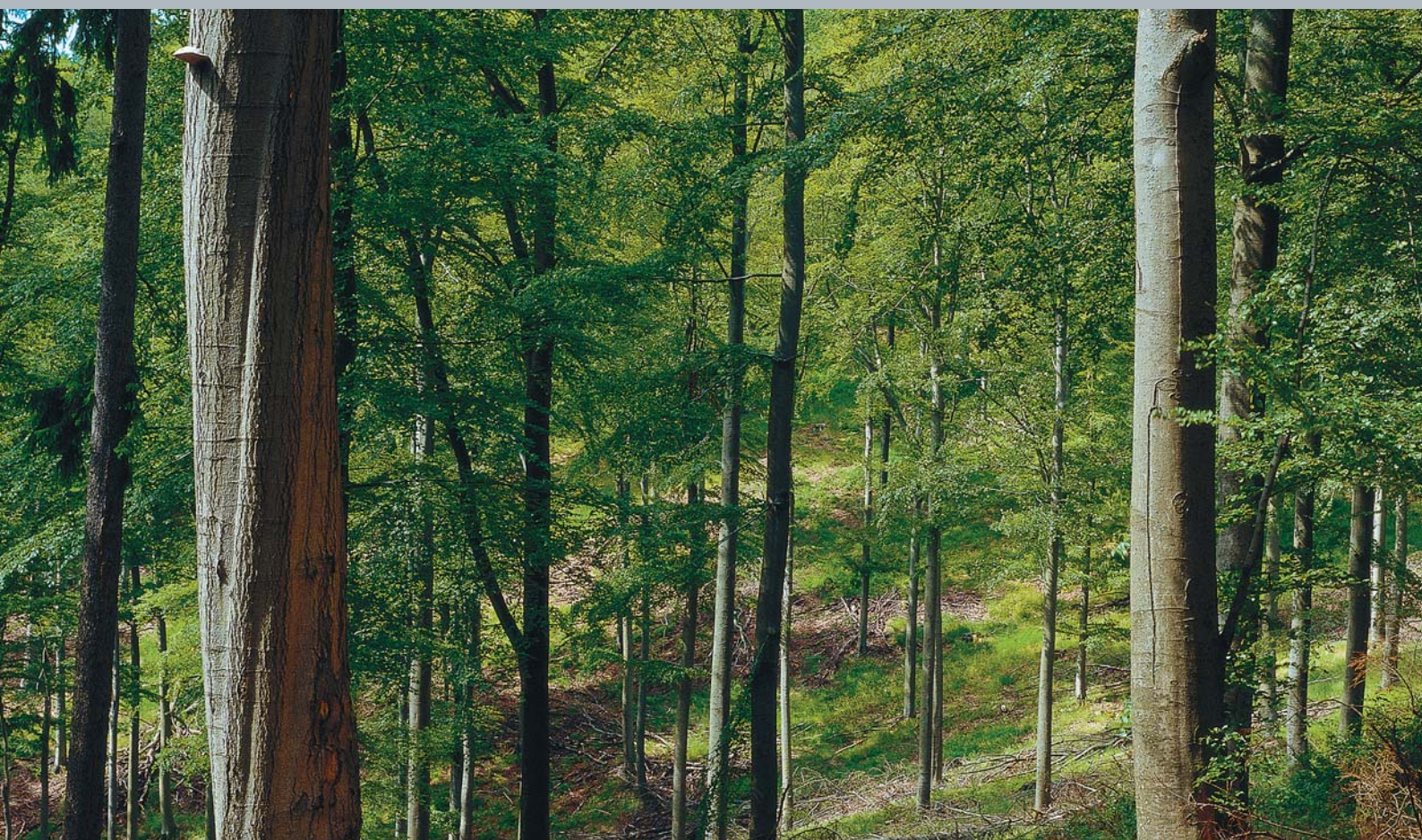


Wood heating systems from 150 to 1700 kW



Heating systems ◀

Industrial systems

Refrigeration systems



Why heat with wood?

The rising cost of fossil fuels and growing environmental awareness are creating 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 in sustainable forestry, it is a renewable and environmentally responsible source of energy and an important part of sustainable resource management.

CO₂ neutral

When wood is burned, only as much CO₂ is released as the trees actually absorbed during the course of their life. That's why heating with wood is CO₂ neutral.

Economical

As an indigenous fuel, wood is very cost efficient and not subject to extreme 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.



Facts about wood

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 system's requirements and the availability of the different fuel types. Since the fuel quality influences the efficiency and service life of the system, 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 the fuel. Therefore, choosing a high performance wood boiler and using high quality, affordable wood fuel are critical factors 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 thermal unit lead to payback of the higher investment outlay within a relatively short 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 than those 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 equipment 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 those of leading heating systems using fossil fuels. What's more, heating with wood is CO₂ neutral. Viessmann wood heating systems meet the strict regulations set out in European clean air 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 plant to create a fully integrated system with Viessmann solar thermal collectors, oil or gas boilers and an individual control technology.



Pellets

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

Ensure that the pellets conform to standard branded quality (such as EN Plus or EN ISO 17225-2).



Wood shavings

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



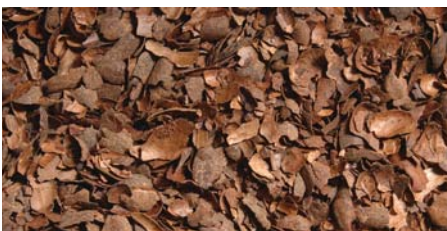
Woodchips

Woodchips are small pieces (e.g. chips) of natural wood, with or without bark. The relevant fuel standard is EN ISO 17225-4.



Mixed wood

Untreated mix of woodchips and sawdust 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.



VITOFLEX 300-RF

VITOFLEX 300-UF

VITOFLEX 300-VF

Wood boilers with rated heating output from 150 to 1700 kW



Vitoflex 300-RF

Innovative wood boiler
with rotation combustion
For pellets, woodchips and shavings
Moisture content: max. M35
150 to 540 kW

Page 8



Vitoflex 300-UF

Fully automatic wood boiler
with grate combustion
For pellets, woodchips, shavings
and mixed wood
Moisture content: max. M50
390 to 1250 kW

Page 10



Vitoflex 300-VF

Fully automatic wood boiler
with flat moving grate combustion
For dry to moist wood fuels
Moisture content: max. M55
180 to 1700 kW

Page 12

Wood boiler with
rotation combustion

Vitoflex 300-RF
150 to 540 kW



Vitoflex 300-RF wood boiler with rotation combustion for pellets, woodchips and wood shavings

VITOFLEX 300-RF

Innovative wood boiler with rotation combustion from 150 to 540 kW.
For wood fuels with a maximum moisture content of 35 percent.

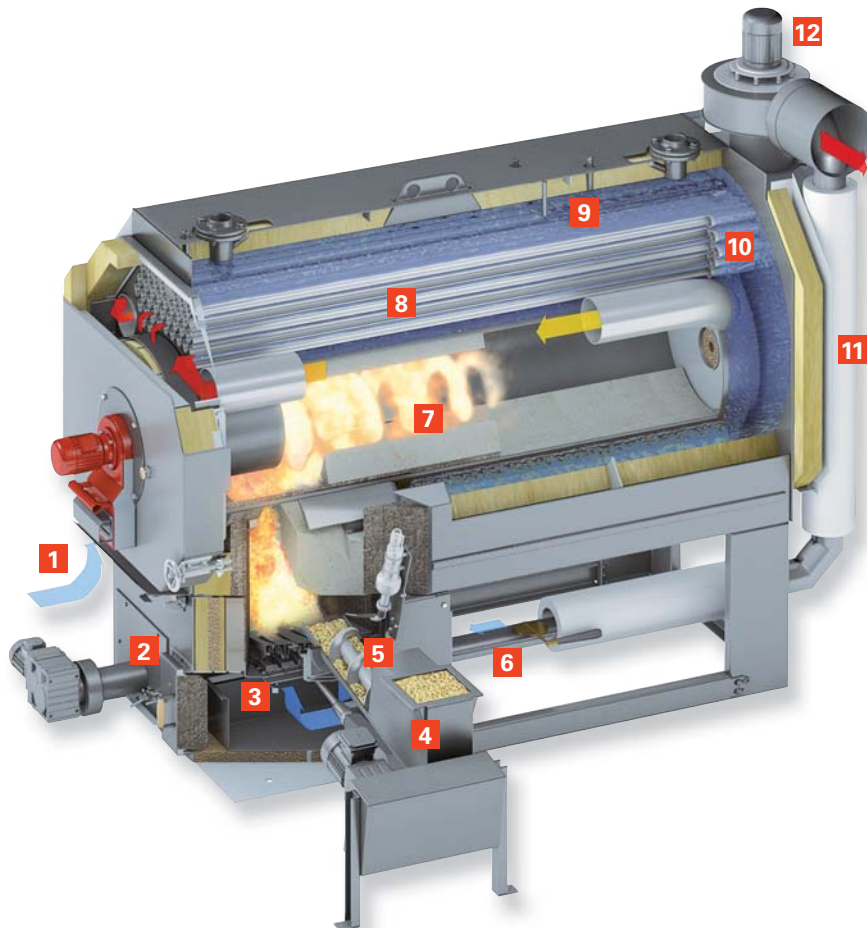
The patented rotation combustion system of the Vitoflex 300-RF wood boiler is state of the art. A feed screw conveyor continuously supplies wood fuel onto a moving grate, where gasification of the fuel occurs (with Lambda regulated primary air supply). Continuous gasification occurs under air starvation. Rotary fans mix rising combustion gases with secondary air that has been atomised and given a spin. This ensures thorough mixing with the combustion gases.

Clean and efficient combustion

The proven combustion technology of the Vitoflex 300-RF 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 percent.

Mobile containerised heating centre

Vitoflex 300-RF wood boilers are available as containerised complete solutions for situations where there are no boiler houses available or where 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 requirements.

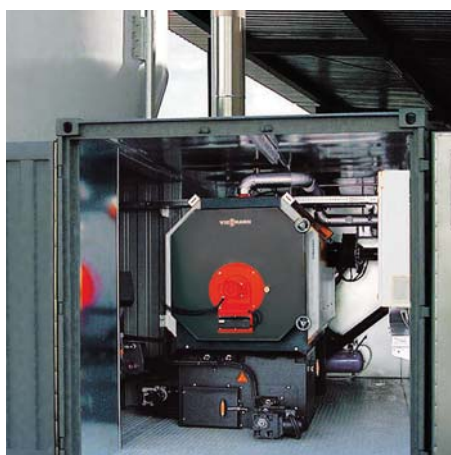


Vitoflex 300-RF

- 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



Vitoflex 300-RF – 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: 150 to 540 kW
- For dry wood fuels with a maximum moisture content of 35 %
- High efficiency and low emissions up to 92 % output 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 precludes the need for firebed maintenance 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

VITOFLEX 300-UF

Wood boiler with state of the art grate combustion, from 390 to 1250 kW.
For wood fuels with a maximum moisture content of 50 percent.

The moving infeed grate, the proven combustion retort and the sloping external grate in the Vitoflex 300-UF optimally combine the benefits of infeed and underfeed combustion. A feed screw conveyor charges the wood fuel into the combustion retort, where it is pre-dried. The fuel is completely degassed on the external grate and the moving infeed grate. The wood gases are then burned with the aid of a regulated secondary air supply.

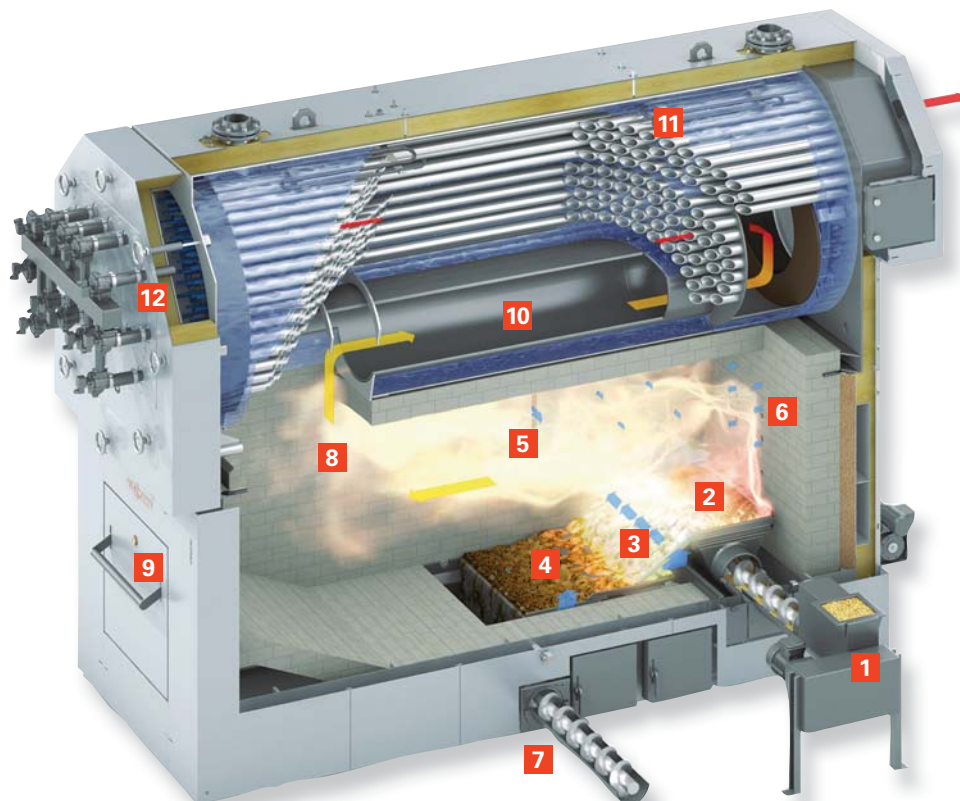
Top quality design and construction

The Vitoflex 300-UF wood boiler features high quality construction for use under the toughest conditions (high fuel flexibility from M10 to M50).

The inside of the combustion chamber is lined with pressed fire bricks with a high clay content for greater durability. All grate elements are high quality, heavy gauge chromium steel castings that can withstand very high temperatures. A distinguishing feature of the Vitoflex 300-UF 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 Vitoflex 300-UF 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 percent.



Vitoflex 300-UF

- 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



Vitoflex 300-UF 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 (M10) to wet (M50*)
- 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 results from the design and delivery of all system components from a single source
- Automatic ignition precludes the need for firebed maintenance and saves fuel (optional – only for fuels with moisture content below 40 %)
- Individual design of your system by our team of experts
- Excellent output control from 30 to 100 %

For specification, see page 22

* According to EN ISO 17225-1

VITOFLEX 300-VF

The flat moving grate of the Vitoflex 300-VF is suitable for a diverse range of wood fuels.

Flat moving grate combustion

The flat moving grate is especially well suited for the combustion of wood fuels with a high ash and moisture content. The Vitoflex 300-VF is versatile in its use of fuel and produces flue gases with a low dust concentration due to its static fuel bed – both of which are major benefits. The geometry of the combustion chamber is the result of research at our own test facility and flow simulation studies.

Low NO_x reduction technology is employed in flat moving grate combustion systems. The low NO_x combustion chamber is equipped with a primary-side air stage 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 percent enable maximum 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 woodchips 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) moves the ash into an ash container, either directly or via a screw conveyor.



Vitoflex 300-VF

- 1 Three-pass boiler (6 bar – higher pressure levels on request)
- 2 Safety heat exchanger
- 3 Hydraulically operated flat moving grate (split from 850 kW upwards) with primary air supply (1 to 3 zones – depending on the type, optional zone 1 and 2 pre-warming 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 1100 kW)
- 7 Hydraulic feed/direct feed with water-cooled feed neck or feed screw conveyor
- 8 Ash removal (via conveyors or directly into 800 litre ash container)
- 9 Primary combustion chamber door
- 10 Under-grate pushrod above 850 kW
- 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 multiple insulation
and high grade fireclay lining

Take advantage of these benefits

- Wood boiler with grate combustion
- Rated heating output range: 280 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 moisture content of M5 to M55*
- 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 maintaining 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

* According to EN ISO 17225-1

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 (for Vitoflex 300-RF)

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 (for Vitoflex 300-UF)

The boiler control unit is fully programmable and regulates both the system and the modulating output. It regulates all variable speed fans and activates the fuel delivery unit, and monitors:

- 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)



Heating centre comprising Vitoflex 300-UF (left) and Vitoflex 300-RF (right)

Heating water buffer cylinder

For biomass systems, 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.

Remote monitoring (option)

The heating system can be remotely monitored and serviced via a web interface. It enables the monitoring and adjustment of various system parameters. System monitoring is ideally used in public facilities or for cooperative or CHP systems.



Boiler control for Vitoflex 300



Boiler control for Vitoflex 300

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

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

Ecocontrol unit (for Vitoflex 300-VF)

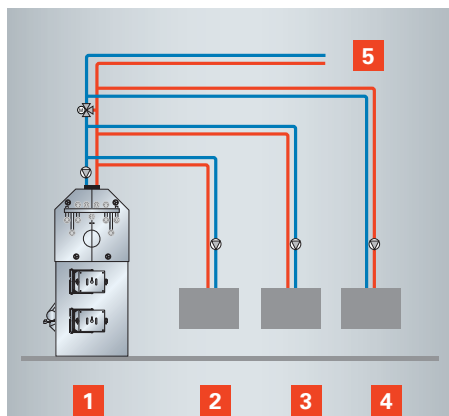
The microprocessor controller offers the following functions for the Vitoflex 300-VF wood combustion system, including activation of the fuel charging system as per the products listed separately. The highest quality criteria are met when it comes to personal and fire safety.

Functions

- Output control circuit with modulating operation (25 to 100 %)
- Flow temperature capture, control and monitoring with Pt1000
- Return temperature capture with Pt1000 and automatic return temperature control (230 V switching voltage – open/close)
- Control of 3-phase boiler circuit pump
- Flue gas temperature capture with Pt1000
- Supply screw conveyor version – fuel metering via feed screw conveyor
- 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 (O₂) control: heated Lambda probe in the flue outlet with captured signal transducer
- Combustion chamber negative pressure control and monitoring: controlled using a flue gas fan, speed controlled by means of an inverter in conjunction with a negative pressure transducer
- Activation of combustion air fan:
 - The secondary air fans are speed-controlled by inverters.
 - The primary fans are controlled using motorised 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

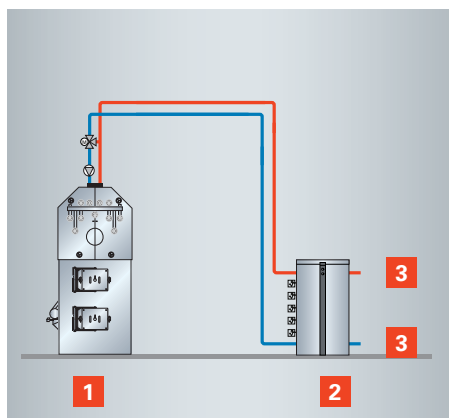


Microprocessor control unit with touchscreen



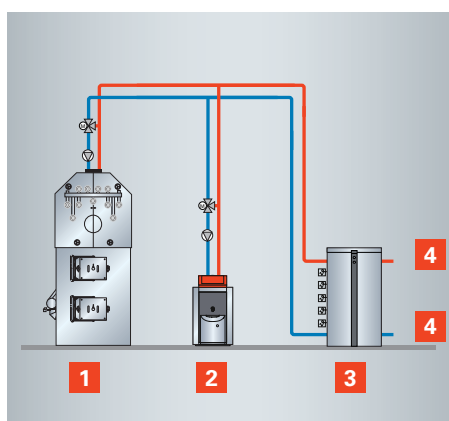
Vitoflex 300 wood boiler connection options

- 1 Vitoflex 300 wood boiler
- 2 Economiser (ECO) option
- 3 Feed neck cooling option
- 4 Air pre-heater (LUVO) option
- 5 Heat distribution



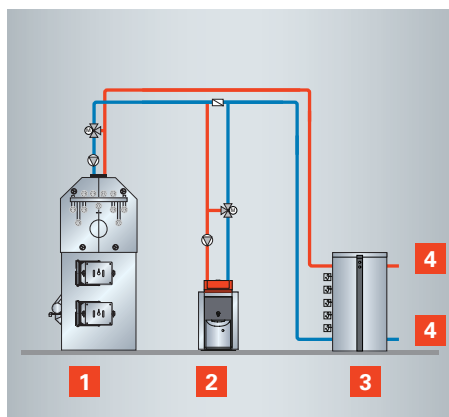
Wood boiler with heating water buffer cylinder

- 1 Vitoflex 300 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 Vitoflex 300 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 peak load condensing boiler in serial operation with heating water buffer cylinder

- 1 Vitoflex 300 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



Pneumatic cleaning system

Automatic ash removal (option)

The clean combustion leaves only the minerals stored in the wood behind as ash. A grate with moving elements extracts the ash from the combustion chamber and transfers it into the ash box. As soon as it has cooled down, the ash removal screw conveyor transports the ash into a large external ash container.

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 extending maintenance intervals.

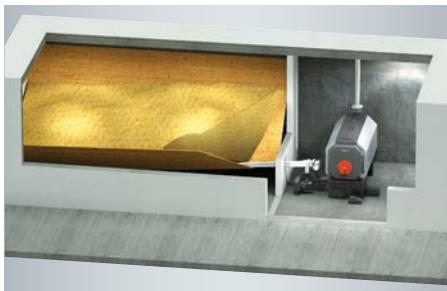
Flue gas recirculation system

(standard for Vitoflex 300-RF, optional for Vitoflex 300-UF)

Flue gas with low oxygen content (6 to 8 percent) 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 extended.

Storage and supply systems

Every fuel storage and supply system is unique and is designed for a specific application. Our advanced, 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 Viessmann wood heating systems come equipped with:

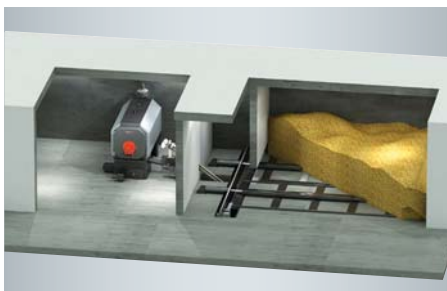
- High performance screw conveyors with large diameter
- Spur geared motors for high torque
- Large, optimised supply channels
- A certified device for effective fire protection



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 discharge

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

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

Safe and reliable operation

All Viessmann 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.

Re-ignition protection (RZS)

This provides protection against re-ignition through flying sparks by means of a permanent, monitored barrier layer, and constant, controlled negative pressure operation.

Burn-back resistant device

A sensor situated in the fuel charge pipe recognises the risk of burn-back and immediately counteracts this by increasing the amount of fuel charged into the boiler.

Burn-back protection

A horizontally acting slide valve 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 slide valve for the same purpose. The rotary lock valve prevents unwanted leakage air reaching 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, Viessmann wood boilers also feature the following safety devices specified 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 more further energy sources, such as fossil fuels 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

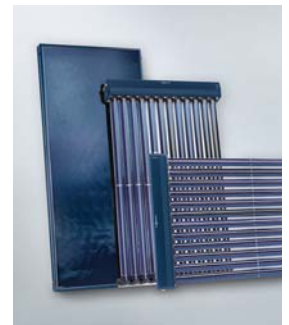
Flat-plate or vacuum tube collectors are ideal for DHW heating and for providing central heating backup for the biomass system. By incorporating solar energy, domestic hot water costs can be reduced by up to 65 percent (depending on the size of the solar thermal system), while simultaneously helping to improve the environment.

High performance DHW cylinders

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

Boilers

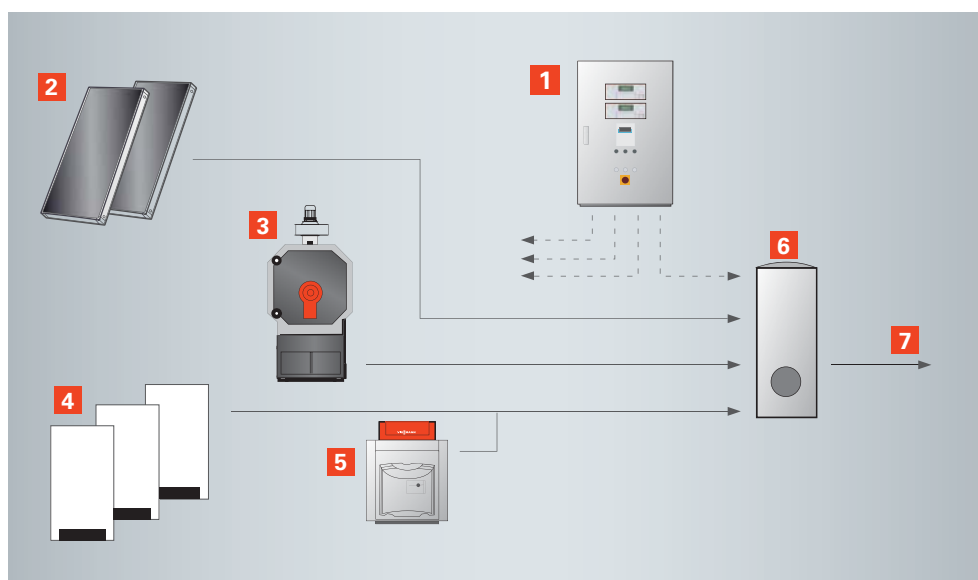
As a system based on renewables, a wood heating system is often linked to a conventional oil/gas boiler that covers peak loads or backs up the biomass boiler. Depending on the type and temperature demand of the system, Viessmann offers highly efficient condensing boilers, as well as low temperature boilers.



Vitosol flat-plate and tube collectors



Vitocell DHW cylinders



- 1 Viessmann bespoke programming unit
- 2 Solar thermal system
- 3 Wood boiler
- 4 Condensing boilers
- 5 Low temperature boiler
- 6 DHW cylinder
- 7 System distribution

Specification



Vitoflex 300-RF

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

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



Vitoflex 300-UF

Wood boiler with grate combustion
For wood fuels with a moisture 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



Vitoflex 300-VF

Wood boiler with flat moving grate combustion

For wood fuels with a moisture content of $\leq 55\%$

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

* with screw conveyor feed

** with hydraulic feed neck



E.ON Biomass Heating Plant
Markt Schwaben, Germany



Schloss Frauenthal
Deutschlandsberg, Austria



Commercial academy and school,
Lustenau, Austria – Vitoflex 300-RF
with 220 kW rated heating output

Wood heating systems in operation

Advanced and energy efficient reference systems

Wood heating systems

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

Design and commissioning service

Each installation begins with a system design 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 could include a fossil fuel heating system and a solar thermal system.

We offer comprehensive system solutions and service from a single 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. One of the most advanced district heating networks in North America provides heating for this estate with more than 800 residential units.



Alzey Clinic, Germany

At the heart of this multi mode system is a Vitoflex 300-UF biomass boiler fired with solid fuel. The boiler meets around 70 to 80 percent of the clinic's energy needs. A CHP unit contributes a further 7 to 8 percent. Up to 100 percent 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

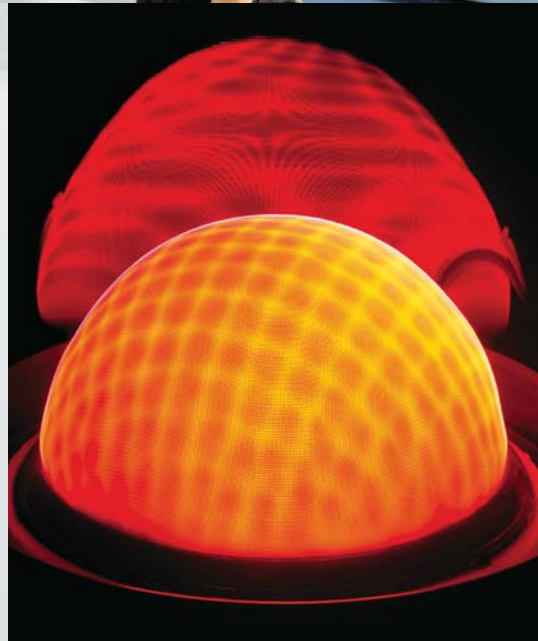
The Erzabtei St. Ottilien [archabbey of St Ottilia] in Upper Bavaria is one of Europe's largest Benedictine monasteries. It comprises some 45 buildings with an area to be heated of 32,000 square metres. The outdated oil boilers have been replaced by a new heating centre that operates with a minimal carbon footprint. The Vitoflex 300-UF woodchip heating plant has an output of nearly 2000 kW and supplies around 85 percent of the heating energy required.



Residential development, Hubelmatt, Switzerland

Comprising 30 detached houses and six apartment buildings, the Hubelmatt residential development near Lucerne, Switzerland, is supplied with CO₂ neutral heating by a Vitoflex 300-RF 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.

The company



Viessmann – climate of innovation

Viessmann is one of the world's leading manufacturers of intelligent, convenient and efficient systems for heating, 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 to harmonise ecology, economy and social responsibility so that the needs of

today are met without compromising the quality of life of future generations.

We consider climate protection, environmental responsibility and resource efficiency to be key priorities throughout our company, which has more than 11,400 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 percent
- CO₂ emissions reduced by 80 percent

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



2009/2011/2013:
German Sustainability Award for
Production/Brand/Resource
Efficiency



Energy Efficiency Award 2010

Viessmann Group

Company details

- Established in: 1917
- Employees: 11,400
- Group turnover: 2.1 billion euros
- Export share: 55 percent
- 27 production companies in 11 countries
- 74 countries with sales companies and representation
- 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
- Photovoltaics
- Accessories
- Refrigeration technology



climate of innovation

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