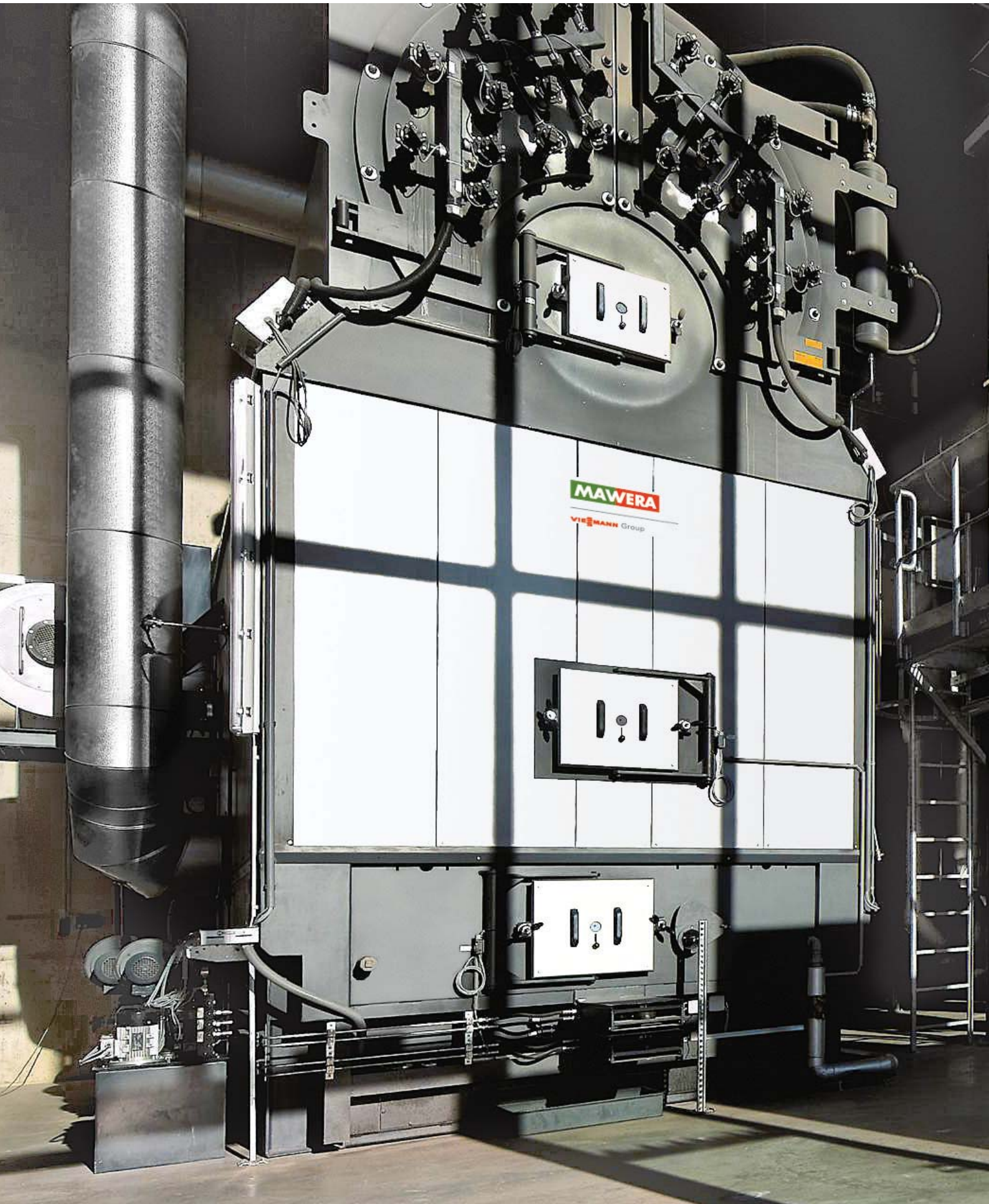
MAWERA

VIESMANN Group

Wood combustion systems up to 13,000 kW


MAWERA
VIESMANN Group

Reliable, sustainable, economical

Clever ways of extracting energy from biomass

This is the subject that has preoccupied Mawera since 1975 – with remarkably successful results. Originally oriented towards wood fuel, the company is now a leading international manufacturer of combustion systems based on biomass.

Mawera has been part of the Viessmann Group since 2006. As part of this wider group, the company is able to draw on the necessary expertise and experience in the design, project management and installation of complete energy centres using all fuel types – especially the thermal processing of biomass, of course.

Why biomass?
In addition to companies directly involved in the timber industry, an increasing number of local authorities, contractors and other commercial energy providers are opting for biomass as a fuel. Biomass is less prone to severe price fluctuations than fossil fuels and, being sustainable and CO_2 neutral, makes a significant contribution to preserving quality of life for future generations.

Biomass fuel
- Low price fluctuations
- High availability
- Renewable, CO_2 neutral energy source

Mawera Holzfeuerungsanlagen GmbH
- Biomass combustion systems from 850 to 13,000 kW
- Systems for generating heat, steam and power
- Founded in 1975
- Based in Hard on Lake Constance, Austria
- 140 employees
- Over 80 percent export share


Residual wood from forestry and sawmills


Timber, countryside management


Bark


Residual wood, wood processing


Saw shavings


Pellets


Wood dust

Mawera Pyroflex woodchip boiler
at the Oberlech heating plant in Austria

Innovation with lasting benefits

Clinging to the past limits future opportunities

To support progress and innovation, Mawera maintains its own test plant at the company's head office in Hard. The knowledge gained here promotes continued development, while the plant also serves to test bespoke fuels. Further advances are made through our work in collaboration with technical universities and other scientific institutions. Clean combustion technologies and optimised combustion chamber geometries are among the results of Mawera's research activities. This benefits our customers as well as the environment.

Award-winning performance
As an innovative company, we are constantly searching for new solutions. Mawera has won many awards in recognition of this fact:

- Innovation Award 2004
- Austria Quality Mark 1985 as the first in its industry
- AdI – Arbeitsplätze durch Innovation [Jobs through Innovation] 2003 Regional Winner for the region of Vorarlberg, Austria
- Bavarian State Award, 1981 and 1988
- Ecoprofit certification, 2009

Our success speaks for itself
- First-class NO_x ratings with Mawera's own Low NO_x combustion chamber
- Maximum efficiency with minimum system wear and tear
- Lowest emissions with Mawera Logic control

FSB 1700 flat moving grate steam boiler, 2.6 t/h, 20 bar

ORC module, wood heating plant
Hövelhof GmbH, Germany
(CHP system)

High quality brings high expectations

The highest quality – down to the smallest detail

We work to exceptionally high standards – whether in research, planning, production or maintenance. All Mawera combustion equipment is manufactured by skilled personnel in Austria and subject to the strictest quality assurance standards.

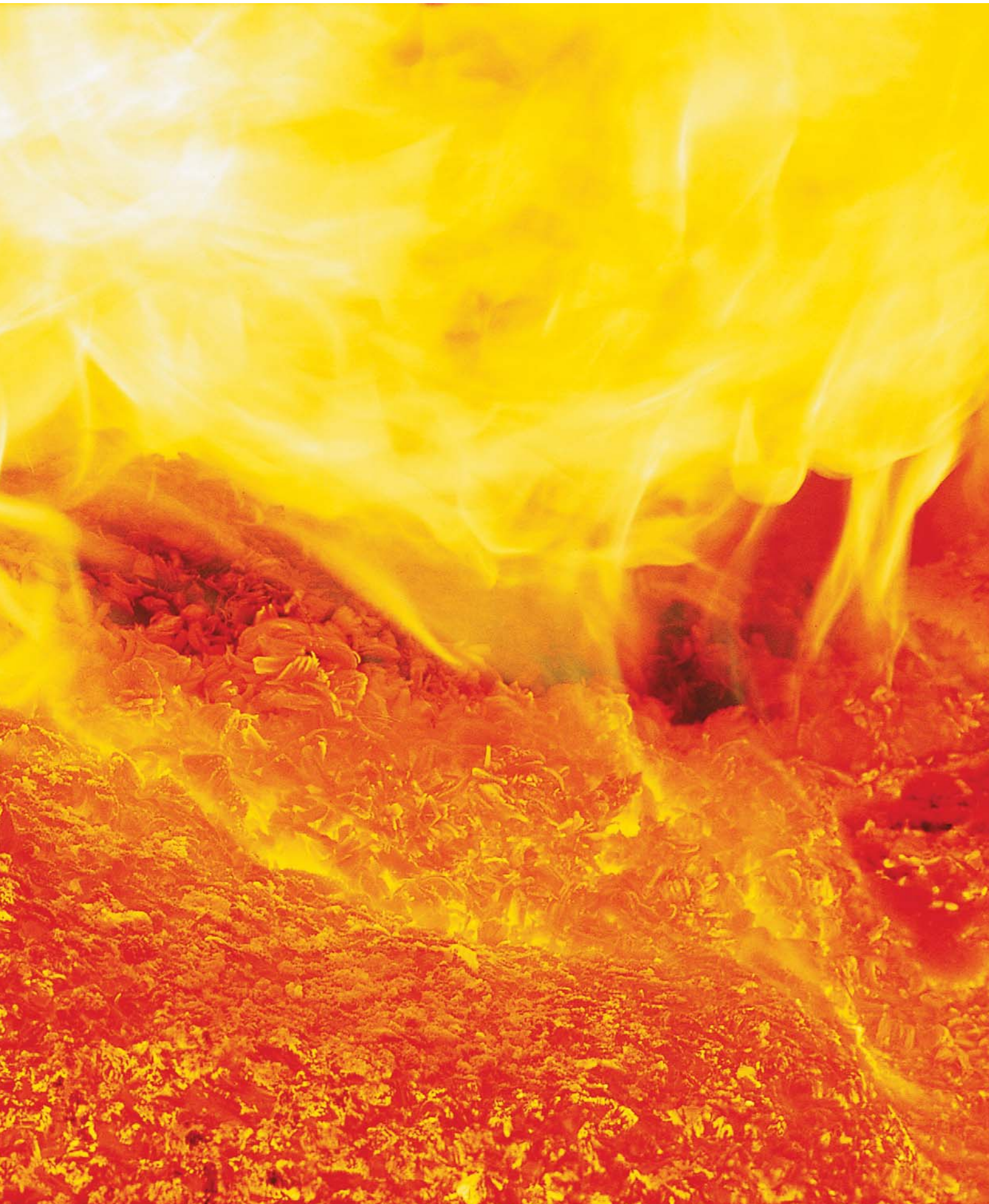
Our plants are exclusively equipped with first class machinery. In selecting suitable equipment we pay attention to quality, efficiency and optimal interplay between individual machines, as well as to durability and ease of maintenance. In addition to ensuring long plant run-times and availability we also seek to optimise life-cycle costs.

The latest technology for satisfied customers
By using advanced machinery and highly qualified employees, we can ensure that all Mawera systems are of consistently high quality.

More than 5000 customers around the world now trust in Mawera technology and solution expertise. This motivates us to continue to do our best.

BIBER Energie GmbH
Ägidienplatz 7
D-93047 Regensburg
www.biber-energie.com

FR 5000 direct firing system,
vertical combustion chamber
Nordplan AG, Olang, Italy
(wood-processing industry)



Combustion systems make the difference

The type of fuel and other customer-specific requirements determine the type of combustion system. Mawera offers flat moving grate, step grate, direct firing and special combustion systems – all of which are also available as low-NO_x versions to reduce nitrogen oxide emissions.

Pyroflex (type FSB)
Fully automated wood boiler
with flat moving grate combustion
850 to 1700 kW
For dry to moist wood fuels
Water content: max. W50
Page 10

Pyroflex (type SRT)
Fully automated wood boiler
with step grate
850 to 8000 kW
Woodchips, residual forestry and sawmill wood, bark, wood from countryside management, green cuttings, root stocks, long-fibre bark
Water content: W20 to W60
Page 12

Pyroflex (type FSR)
Fully automated wood boiler
with flat moving grate combustion
850 to 13,000 kW
Residual forestry and sawmill wood, residual wood from wood processing (shavings and chippings from planing, sawing and milling, dust, chipboard, MDF)
Water content: W6 to W55
Page 14

Pyrovent (type FR)
Fully automated wood boiler
with direct firing system
850 to 13,000 kW
For combustion of very fine particulate fuels from industrial wood processing
Water content: W6 to W15
Page 16

Wood boiler with flat moving grate combustion

Pyroflex (type FSB) 850 to 1700 kW

Combustion of woodchips, residual forestry and sawmill wood, bark, wood from countryside management and long-fibre bark

The flat moving grate 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 at the Mawera test facility and flow simulation studies.

Low NO_x reduction technology is generally employed in Mawera 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 use of a flue gas recirculation system (optional). Efficiencies of up to 92 % facilitate maximum seasonal efficiency in modulating operating mode.

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

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.

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 (integrated in boiler)
3. Flat moving grate, hydraulically driven (split in two from type FSB 850) 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 conveyor or directly into 800-litre ash container)
9. Primary combustion chamber door (primary/secondary combination door up to type FSB 700)
10. Under-grate pushrod from type FSB 850
11. Cleaning apertures below the flat moving grate
12. Pneumatic boiler cleaning (option)

Flat moving grate combustion with direct hydraulic feed

Combustion chamber with multiple insulation and high-grade fireclay lining

Take advantage of these benefits:

- Three-pass flame tube/smoke tube boiler with flue gas temperatures below 190 °C at full load
- Output: 850 to 1700 kW
- High efficiency of up to 92 %
- Version for flow temperatures above 110 °C optionally available
- Minimal radiation losses due to complete 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)
- Integral backup heat exchanger for quick 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.

Wood boiler with step grate

Pyroflex (type SRT)
850 to 8000 kW

Combustion of woodchips, residual forestry and sawmill wood, bark, wood from countryside management and long-fibre bark

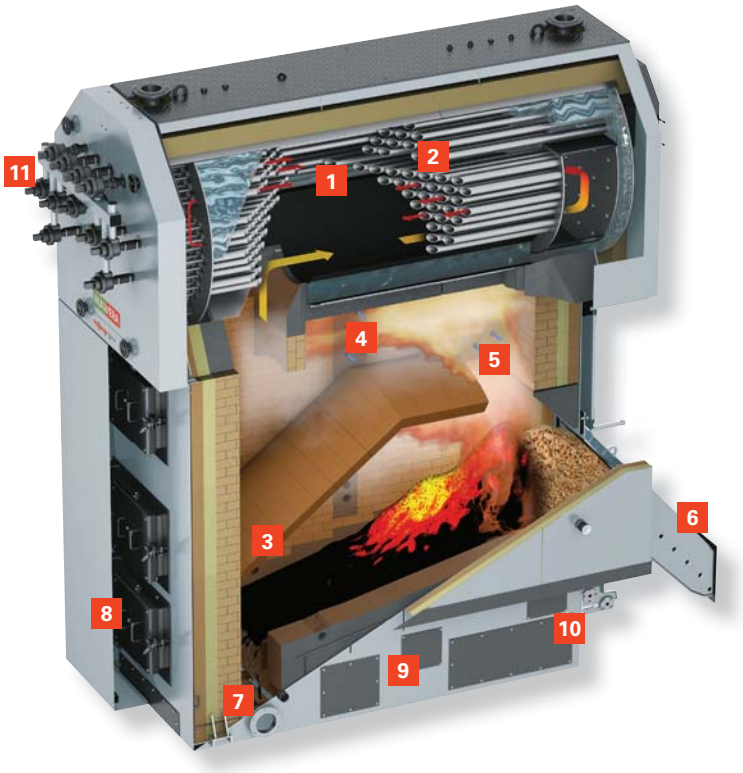
Biomass boilers with step grate combustion, 850 to 8000 kW

Suitable for continuous operation
The Pyroflex wood combustion system with step grate combustion (type SRT) has been designed for continuous operation of over 8000 hours per annum. This makes it suitable for power generation in biomass CHP stations.

The fuel may contain up to 60 percent moisture without loss of output. These qualities enable flexible use of low-cost, unseasoned fuels such as chippings from forestry work, green cuttings, bark, root stocks and wood from countryside management.

Ideal for local authorities and energy supply utilities
The Pyroflex (type SRT) is noted for its modulating operation – that is, it adjusts the system output to the actual heat demand. Consequently, this biomass boiler represents an economical solution for local authorities and commercial energy supply utilities.

A wood-based heating system is a good alternative to heating with oil or gas. Alongside environmental considerations there are also economic reasons for relying on this naturally occurring fuel: As an indigenous fuel, wood is very affordable and not subject to wide price fluctuations.



Pyroflex
(Type SRT)

1. Three-pass boiler (6 bar – higher pressure levels on request)
2. Safety heat exchanger (integrated in boiler)
3. Hydraulically driven, controllable step grate
4. Secondary air supply
5. Flue gas recirculation feed "over grate"
6. Hydraulic feed/direct feed with water-cooled feed neck or feed screw conveyor
7. Ash removal by screw conveyors or directly into an ash container
8. Combustion chamber door
9. Underfeed pushrod
10. Cleaning and access ports to the rollers below the flat moving grate
11. Pneumatic boiler cleaning (optional)

Pyroflex (type SRT) – wood boiler with step grate

Hydraulically operated step grate

Take advantage of these benefits:

- Three-pass boiler with low emissions
- Output: 850 to 8000 kW
- Modulation range: 25 to 100 %
- Flue gas temperature: < 190 °C at full load
- Annual full load: > 8000 h can be achieved
- Diverse versions for a wide range of applications
- Highly robust, thanks to low stress on components and fireclay
- Designed for continuous operation (hours at full load per annum > 8000)
- Step grate technology for high degree of fuel flexibility
- Guaranteed output even with damp and ash-rich fuels (water content up to 60 %, ash content up to 10 %)
- Low loading of grate area reduces fuel costs
- Step grate technology with up to three hydraulically driven grate zones
- Ash removal by screw conveyor or into ash container
- Pneumatic boiler cleaning (optional)

Wood boiler with step grate

Pyroflex (type FSR) 850 to 13,000 kW

Combustion of woodchips and residual forestry and sawmill wood

Trusted technology for dry to moist fuel

The major benefits of flat moving grate combustion (type FSR) are the ability to use different fuels and a low particulate content in the flue gas, due to the static fuel bed.

Low NO_x reduction technology can be employed to best effect in Mawera flat moving grate combustion systems. For this, the low NO_x combustion chamber is equipped with primary-side features such as air staging to reduce NO_x emissions.

Standard boilers are designed for a maximum flow temperature of 100 °C and a maximum permissible operating pressure of 4 bar. Optionally, boilers can also be supplied with a higher operating pressure, a higher flow temperature and TÜV certification.

Suitable wood fuels

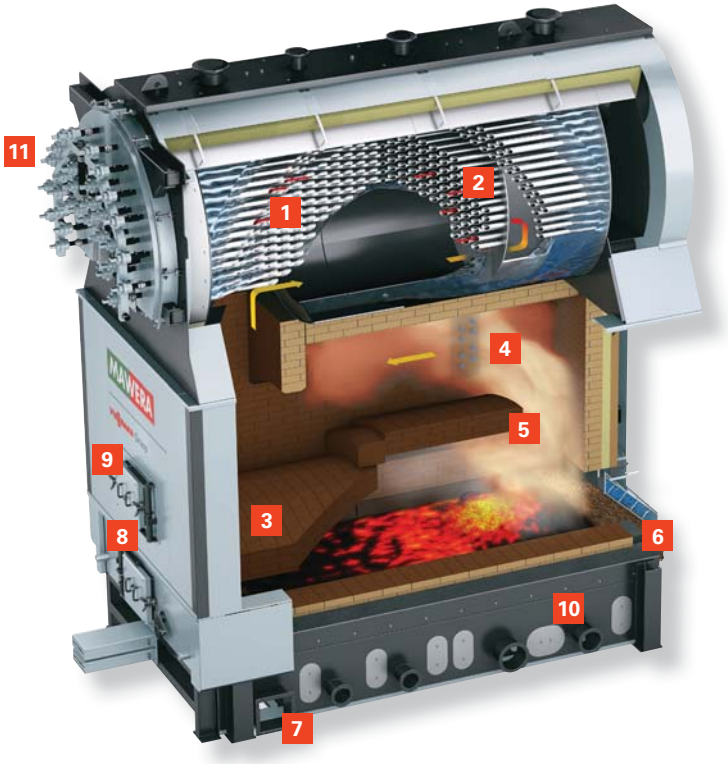
- Residual forestry and sawmill wood
- Residual wood from wood processing (chips and shavings from planing, sawing and milling, wood dust)
- Chipboard
- MDF

Fuel water content

Water content W6 to W55

Granulation of fuel

Version with screw conveyor feed up to P63 as per QM-Holzheizwerke, version with hydraulic feed up to P100 available on request.

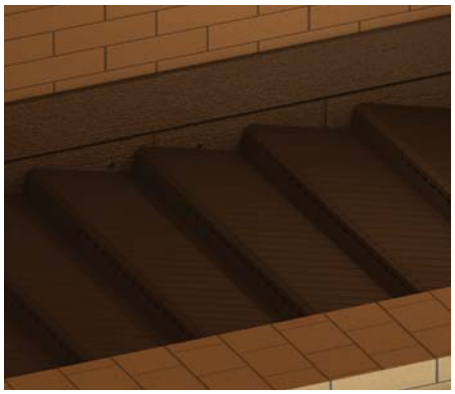


Pyroflex

(Type FSR)

1. Three-pass boiler (6 bar – higher pressure levels on request)
2. Safety heat exchanger (integrated in boiler)
3. Hydraulically driven flat moving grate (in two or three sections depending on type), with primary air supply (4 zones optional; zones 1 and 2 pre-heated via air/water heat exchanger)
4. Secondary air supply
5. Flue gas recirculation feed "over grate"
6. Hydraulic feed/direct feed with water-cooled feed neck
7. Ash removal (by screw conveyors or directly into an 800-litre ash container)
8. Primary combustion chamber door
9. Secondary combustion chamber door
10. Underfeed pushrod
11. Cleaning and access ports to the rollers below the flat moving grate
12. Pneumatic boiler cleaning (optional)

Pyroflex (type FSR) – Wood boiler with flat moving grate combustion



Hydraulically driven flat moving grate

Take advantage of these benefits:

- Three-pass flame tube/smoke tube boiler with flue gas temperatures below 190 °C at full load
- High efficiency of up to 92 %
- Output: 850 to 13,000 kW
- Optional TÜV version for flow temperatures over 110 °C
- Minimal radiation losses thanks to complete insulation of the entire boiler system
- The geometry of the combustion chamber was developed in close collaboration with Graz Technical University
- Static firebed results in significantly lower emissions
- High wear resistance thanks to generously dimensioned grate area and water cooling of grate
- Overlapping pre-tensioned grate rods ensure little fuel falls through the grate (continuous automatic ash removal)
- Wood fuels up to W55
- Integral backup heat exchanger for quick controllability to DIN 4751 part 2
- Modulating load control from 25 to 100 % of rated output while adhering to emission levels
- Staged combustion (low NO_X combustion chamber)
- Low loading of grate area reduces fuel costs

Wood boiler with
direct firing system

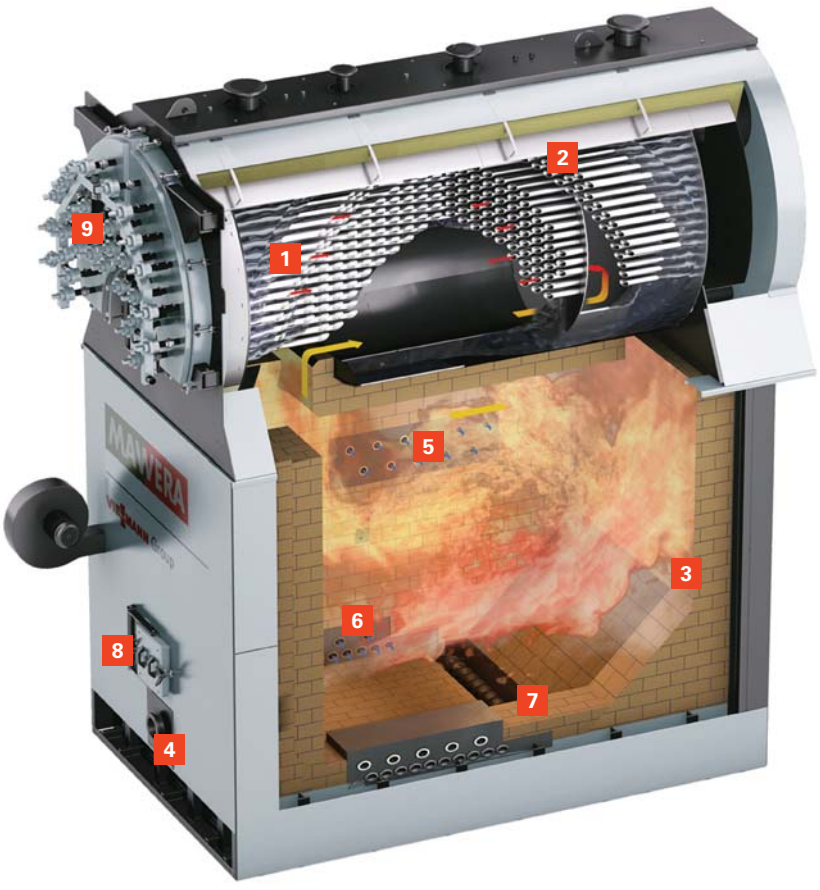
Pyrovent (type FR)
850 to 13,000 kW

Combustion of dusty, very dry fuel
from industrial wood processing

Direct firing system with high-temperature fluidised bed combustion to maximise the energy yield of wood residues from wood processing

The very dry and dust-like fuel is blown through one or more feed pipes into the fully ceramic-lined, highly insulated combustion chamber. The blowing action combined with the specially-developed combustion chamber geometry ensures optimal burnout of the fuel and the required turbulence and flow characteristics.

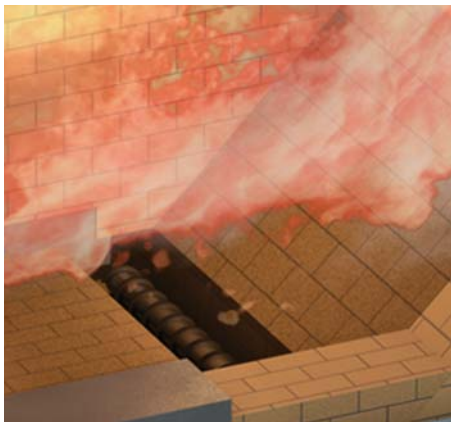
The heat storage in the fireclay mass ensures correspondingly high combustion chamber temperatures, which guarantee low emissions. The horizontal three-pass flame tube/smoke tube boiler is mounted on top of the combustion chamber to serve as a hot water boiler up to 110 °C or above 110 °C. If required, steam boilers or thermal oil boilers can also be supplied.



Pyrovent
(Type FR)

1. Three-pass boiler (6 bar – higher pressure levels on request)
2. Safety heat exchanger (integrated in boiler)
3. Combustion chamber
4. Blow-in connector
5. Secondary air supply
6. Flue gas recirculation supply
7. Automatic ash removal by water-cooled screw conveyor (optional)
8. Combustion chamber door
9. Pneumatic boiler cleaning (optional)

Pyrovent (type FR) – wood boiler with direct firing system



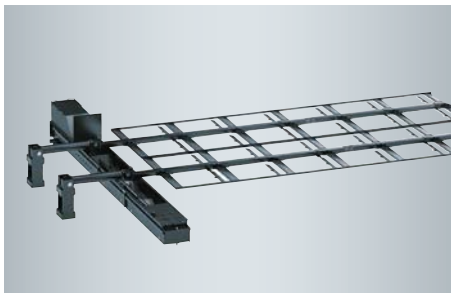
Optimal automatic ash removal via water-cooled screw conveyor

Take advantage of these benefits:

- Three-pass flame tube boiler or two-pass boiler with water wall with flue gas temperatures below 190 °C at full load
- Output: 850 to 13,000 kW
- Integral backup heat exchanger to maintain quick controllability to DIN 4751 part 2
- Modulating load control from 60 to 100 % depending on system type and fuel
- Injector principle for fuel charging, hence no wear to blower fan
- Low ash removal requirement in combustion chamber thanks to fluidised bed combustion
- Optional staged combustion (low NO_X principle)

Tailor-made system solutions

Mawera combustion systems are suitable for the production of high or low-pressure hot water and steam and process heat generation using thermal oil (CHP systems).
Boiler room container systems are also available as part of the Mawera product range.

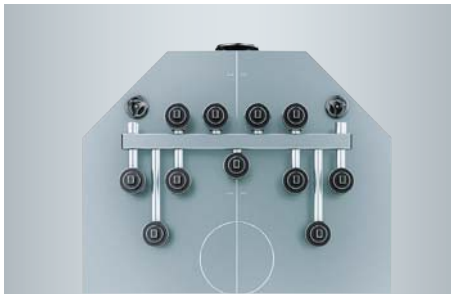


Fuel transportation

- Push floors
- Pendulum and horizontal screw conveyors
- Mixing and metering containers

Supply systems

- Pipe and trough screw conveyor
- Hydraulic and pneumatic conveyor systems
- Trough chain conveyor



Pneumatic cleaning system

The entire tubular heat exchanger is cleaned with periodic blasts of compressed air during operation.

MZA flue gas dust extractor

- For woodchips
- For pellets
- Pre-separator for systems with electric filter

Control and management systems

- Visualisation systems
- Mawera Logic
- Easy remote maintenance via Visio Web

Economiser

1. 6-bar version (higher pressure levels on request)
2. Flue gas bypass damper
3. Cleaning cover for cleaning flue outlets
4. Flue gas inlet
5. Flue gas outlet
6. Cleaning aperture

Economiser (optional)

Take advantage of these benefits:

- Reduced flue gas volume – compact flue gas dust extraction
- Efficiency increased by up to 8 %
- Integrated bypass damper to regulate constant flue gas exit temperature can be set between 120 and 150 °C
- Two-pass flue gas boiler
- Insulation minimises radiation loss

Professional service and support

By opting for a Mawera wood combustion system you are choosing a high quality product.

From planning and concept development through to the commissioning of your wood combustion system, you benefit from the knowledge our experts have gained over their many years of experience.

Mawera is available to its customers throughout the operational lifetime of the plant. Our in-house project management and service staff receive continuing professional training, with particular emphasis given to problem-solving.

Mawera Service

- Tailored maintenance contracts
- Experienced Mawera employees with relevant expertise
- Remote maintenance in the event of a fault
- Professional spare parts management

Professional support
Mawera's project management ensures smooth coordination between all companies involved in the construction process. Our installers and service engineers guarantee rapid installation and professional commissioning and will hand over the system to you in a fully documented, approved and fault-free condition. Carefully planned and executed maintenance is the foundation of long-term optimal system operation and minimises downtime and repair costs.

Tailored maintenance
The benefits of a Mawera maintenance contract:

- Operational reliability is maintained
- System availability is increased
- Rapid response times with remote maintenance and troubleshooting without site visit

Measuring equipment and spare parts management
In order to ensure the right assistance is provided, even while the system is running, we perform precise measurements. Our service is complemented by professional spare parts management.

MAWERA customer training is an essential part of ensuring the correct operation of your heating system for years to come. We will provide specially tailored, professional training for you and your employees as a matter of course. We look forward to welcoming you to our growing circle of satisfied customers.


MAWERA
MAWERA

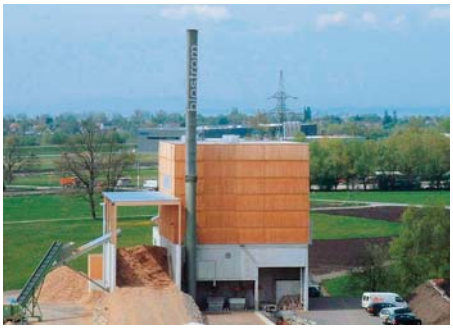
Top references for top sales results

Energy from biomass is versatile in its uses. Mawera offers wood combustion systems for residential buildings, commercial use and power and heat supply plants.

We have more than 5000 satisfied customers who already enjoy the benefits of obtaining energy from biomass.

- Wood processing
  (carpentry and joinery workshops, interior outfitters, etc.)
- Timber industry
  (manufacturers and processors of chipboard, MDF, hardboard, OSB, plywood etc.)
- Sawmill industry
  (softwood and hardwood sawmills)
- Recycling industry
  (waste wood processing)
- Trade and industry
  (food processing, pharmaceuticals and chemical industries, etc.)
- Property developers
  (residential buildings, housing estates)
- Tourism
  (hospitality industry, hotels, etc.)
- Local and district heating associations
  (municipal authorities, cities, contractors)
- Commercial nurseries
  (heating greenhouses of all sizes)

Bauwerk Parkett AG, St. Margrethen, Switzerland



"Biostrom" Erzeugungs GmbH,
Fussach, Austria

1100 kW and 550 kW wood combustion systems
Biowärme Frastanz, Austria

Bioheating centre at E-Werke Frastanz, Austria

Bioheat for regional energy supply

E-Werke Frastanz, Austria
E-Werke Frastanz chose to invest in a bioheating plant to supply the Vorarlberg region in Austria with energy from renewable resources. Consumers are now benefiting from the more stable price of biomass compared to crude oil. The plant supplies private, public and commercial buildings with natural heat from woodchips all year round.

The chippings are automatically transported from the silo to the combustion chamber using a pushrod discharge system. A flat moving grate (FSB) with variable speed ensures optimum combustion of fuels that have a high water and ash content.

Specification

Biomass boiler	2 x Pyroflex (type FSB) (1100 kW, 550 kW)
Fuel type	Biomass
Water temperature	95 °C
Boiler efficiency	85 %
Commissioned	2009

Standard delivery

- Wood combustion system
- Push floor
- Trough chain conveyor
- Hydraulic feed
- Multi cyclone separator
- Electronic filter
- Bunker cover
- Control unit

Heating plant at Gräfelfing with
Pyroflex biomass boiler

Multi mode heating centre for local heating supply

Bio-Wärme, Gräfelfing, Germany
The heating centre at Bio-Wärme Gräfelfing GmbH meets all the demands for quality, efficiency and optimum interaction between component modules. A long service life and ease of maintenance are of particular importance here. Both of these factors make a significant contribution to the continuous yet economical operation of the plant, which stands at more than 8000 hours per year.

The Pyroflex boiler deployed at Gräfelfing is notable for its minimal requirements regarding fuel – materials with a water content of up to W60 serve for reliable and clean combustion. The boiler's modulating operating mode matches the system output to the actual heat demand. If required, a Vitomax 200 peak load boiler is also started up.

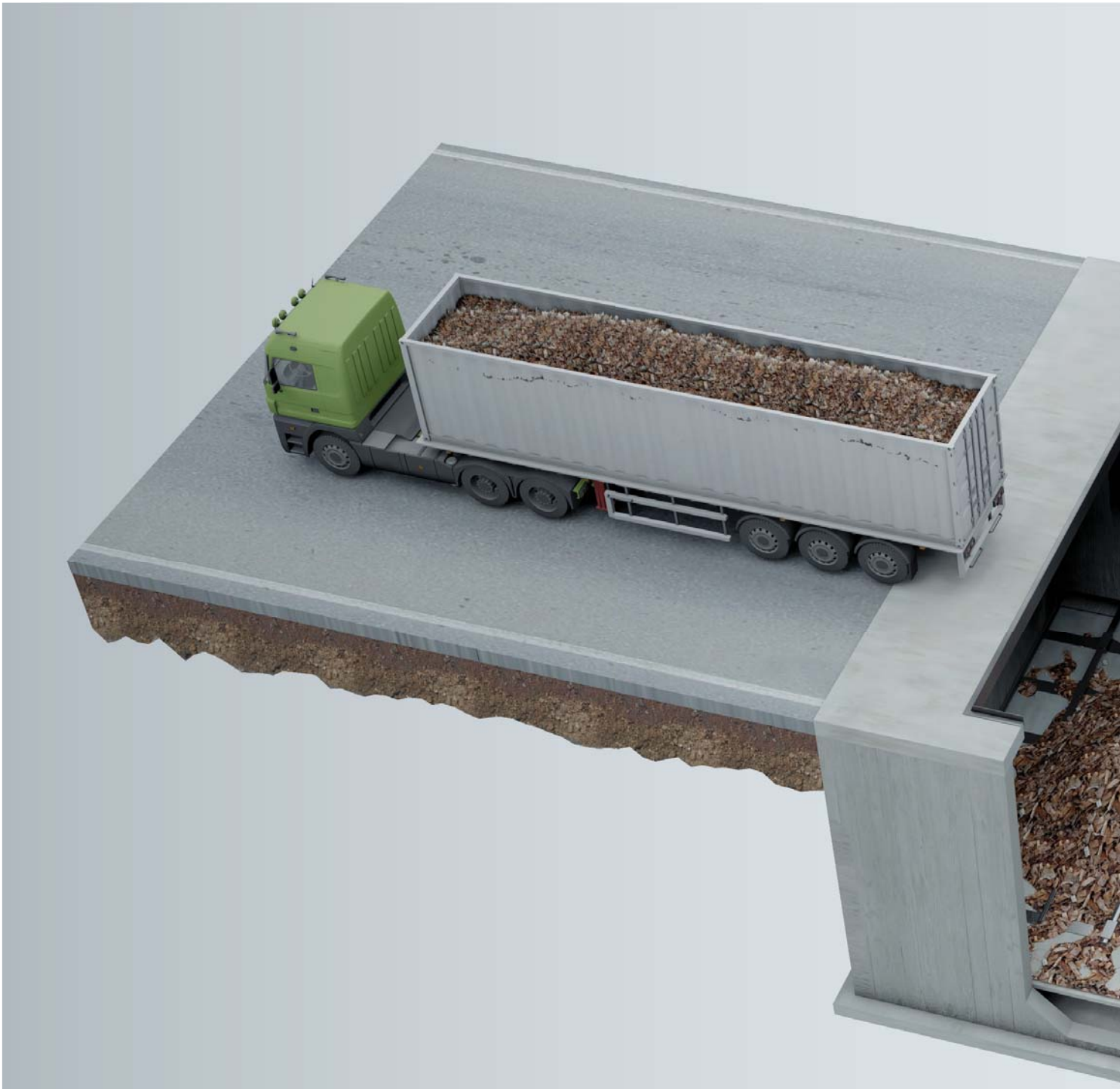
Specification

Biomass boiler	Pyroflex (type SRT)
Flame tube boiler	Vitomax 200
Total output	3650 kW
Fuel type	Biomass, gas
Commissioned	2012

Standard delivery
- Wood combustion system
- Hydraulic direct feed (fuel transport)
- Pushrod discharge (fuel discharge)
- Flue gas dust extraction using multi cyclone separator
- Hot water boiler
- Control unit

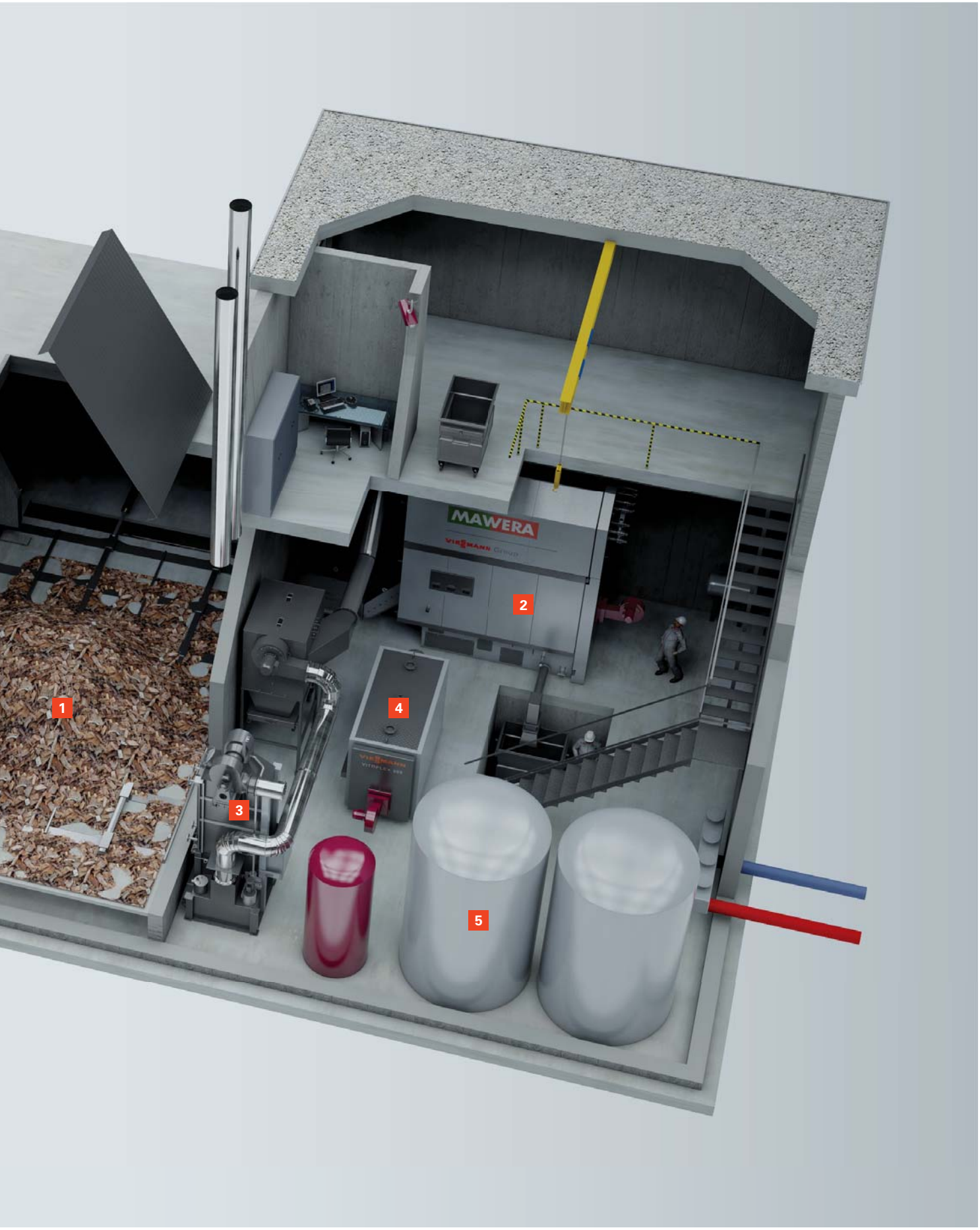
Model of the Gräfelfing heating plant

Model
Pyroflex SRT step grate system

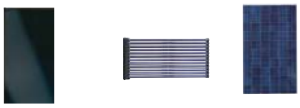


Pyroflex SRT step grate system

1. Fuel store
2. Biomass wood boiler
3. Flue gas dust extraction with heat recovery (efficiency up to 99 %)
4. Peak load fossil fuel boiler
5. Buffer management system


MAWERA
1
2
3
4
5

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.

Wood combustion technology, combined heat and power generation and biogas production up to 50 MW

Heat pumps for brine, water and air

up to 2 MW

Heating system accessories

Refrigeration technology

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

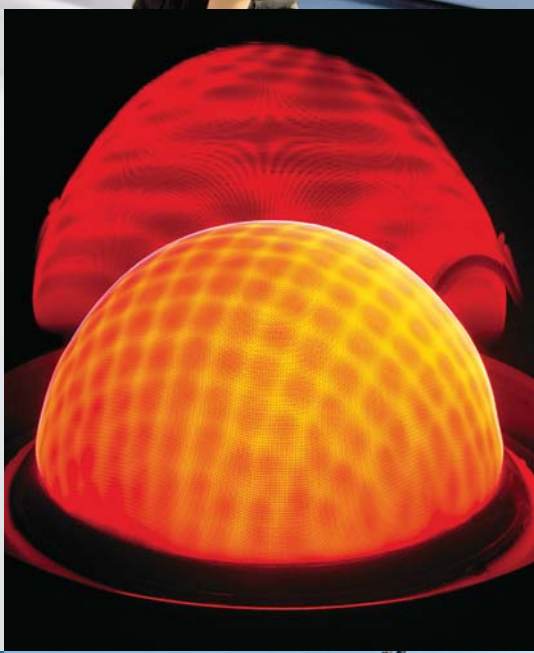
Whether it concerns commissioning, maintenance or troubleshooting – trade partners can count on the Viessmann Group for professional support. Our team will be more than happy to talk to you on the phone or in person. Our online tools can provide you with valuable tips, and if necessary spare parts can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


VIESMANN


VIESMANN




VIESMANN


Audi
VIESMANN
3

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

MAWERA

VIESMANN Group

Mawera wood combustion systems
Gesellschaft mbH
A-6971 Hard am Bodensee
Neulandstrasse 30
Tel. +43 5574 74301-0
Fax +43 5574 74301-20
info@mawera.com
www.mawera.com

Viessmann Werke GmbH & Co. KG
D-35107 Allendorf (Eder)
Tel. +49 6452 70-0
Fax +49 6452 70-2780
www.viessmann.com

Your trade partner:

9449 833 - 3 GB 10/2013