TI

Wood Chip and Pellet Boilers

TI

Heating with wood chips and pellets

For more than 50 years Froling has specialised in the efficient use of wood as a source of energy. Today the name Froling stands for modern biomass heating technology. Froling firewood, wood chip and pellet boilers are successfully in operation all over Europe. All of our products are manufactured in our factories in Austria and Germany. Froling's extensive service network ensures that we can handle all enquiries quickly.

The fuels: wood chips and pellets

Wood chips are a local and environmentally-friendly fuel which is not subject to the crises and fluctuations of the market. Furthermore, wood chip production provides jobs for local residents. That is why wood chip is the perfect fuel, not just from an economic perspective but also from an environmental point of view. Leftover branches and treetops and sawmill waste are shredded into wood chips. The quality class is determined by the type of wood used.

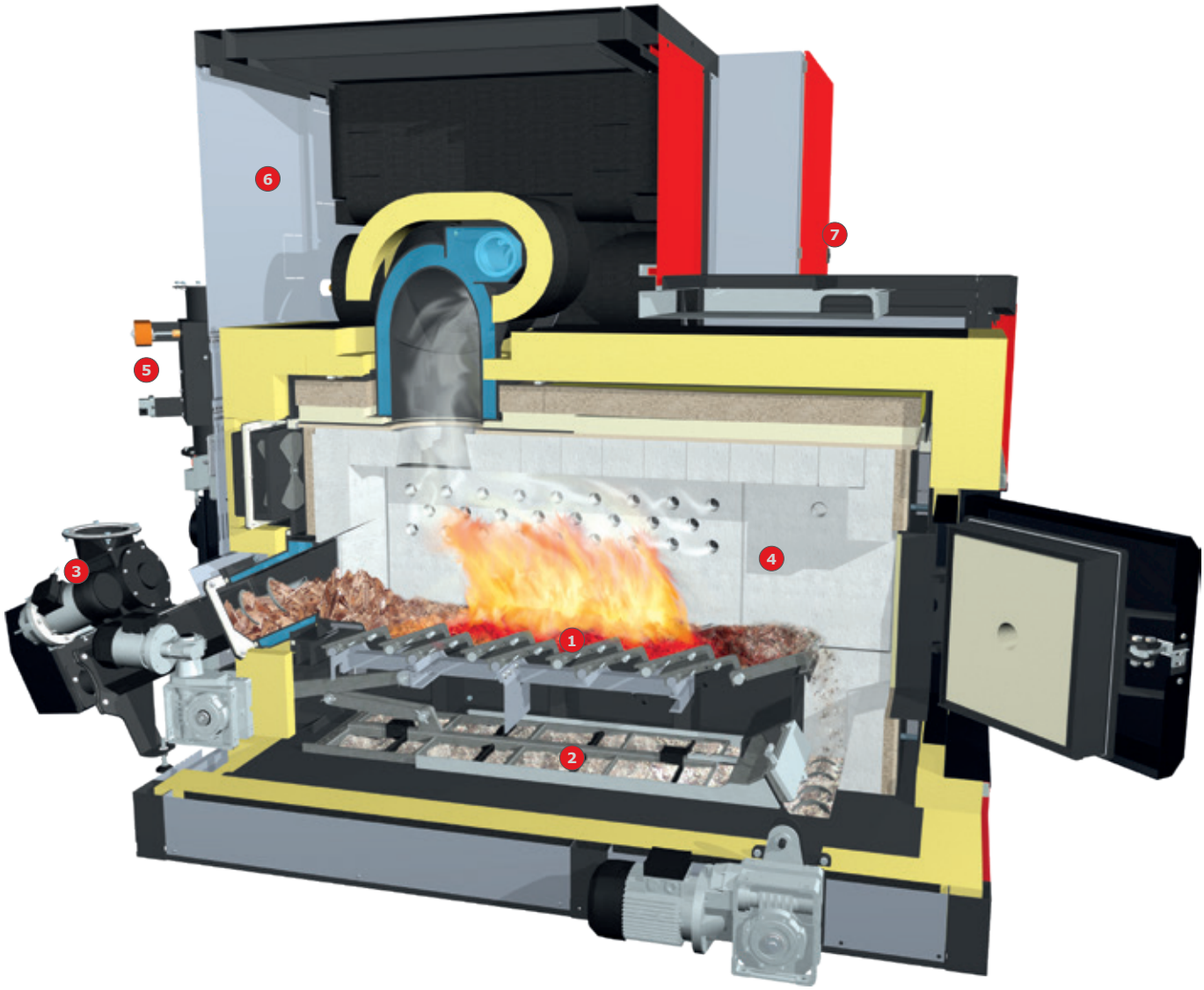
Wood pellets are made of natural wood. The large volumes of wood shavings and sawdust generated by the wood-processing industry are compacted and pelleted without being treated beforehand. Pellets have a high energy output and are easy to deliver and store. These are just some of the advantages that make pellets the perfect fuel for fully automatic heating systems. Pellets are delivered by tanker and unloaded directly into your store.

The right decision

The TI from Froling combines the advantages of industrial-grade parts with a compact design and offers exceptional quality. Made of highly heat-resistant refractory fireclay, the combustion chamber adapts very quickly to different performance requirements. This rapid adjustability is particularly beneficial for dry to moderately damp fuel classes.

- Fitted with industrial-grade moving grate technology, the TI's nominal output is also suitable for 24h continuous operation.
- The H 3200 control system with touchscreen interface and full internet connectivity leaves nothing to be desired in terms of visualisation software.
- Lambda control, combustion chamber temperature control and flue gas recirculation ensure that the TI meets the safety and efficiency standards associated with the Froling brand.

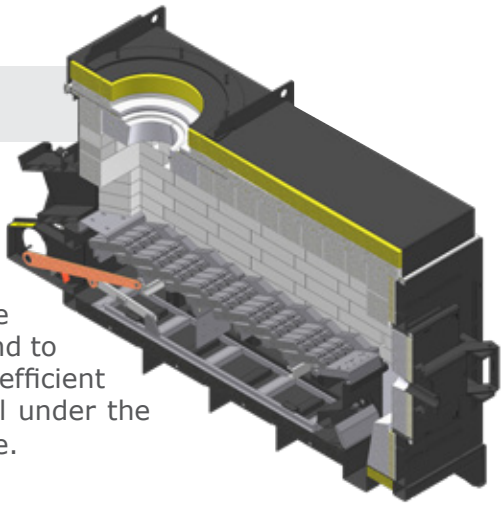
High demands - Smart solutions



Highlights:

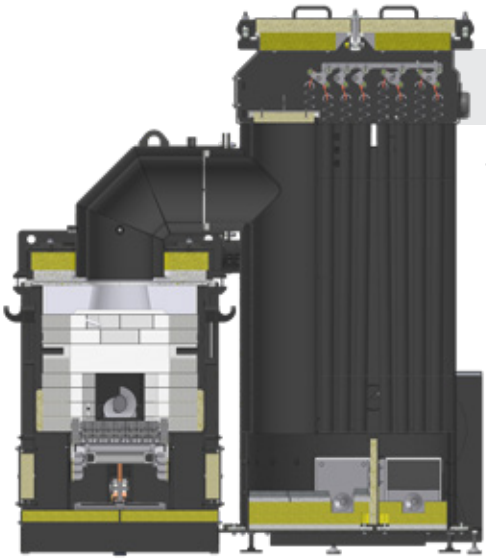
1. Moving grate with long combustion zone for optimum adjustment to output and fuel quality.
2. Automatic ash rake and ash screw for fully automated ash removal.
3. Combined stoker and rotary valve. Large stoker screw for safe fuel transport into the boiler. The patented Froling dual-chamber rotary valve ensures a safe separation between the burning chamber and discharge system.
4. High-temperature combustion chamber made of refractory fireclay components for maximum efficiency and ultra-low flue gas emissions.
5. Flue gas recirculation returns part of the flue gas flow to the combustion system. This optimises combustion and has a "cooling effect" which extends the operating life of parts in contact with the flame.
6. Vertical heat exchanger (3-pass, 6 bar) with Efficiency Optimisation System (WOS).
   The automatic turbulators clean the flue gas path in the heat exchanger.
7. Pre-wired H 3200 Touch control system with internet connectivity.

Detail: High-temperature combustion chamber with moving grate



The high-temperature combustion chamber is four-shelled (firebrick / insulation 1 / air jacket / insulation 2), guaranteeing clean combustion. The jacket cooling and the water-cooled stoker duct minimise radiant heat losses and guarantee high efficiency. Thanks to the moving grate, boiler operation is reliable and maintenance-free, even when using low-grade fuels which tend to form cinder. Separation of the primary air zone guarantees full, efficient burnout. This keeps emission levels very low. The ashes that fall under the grate are automatically transported to the ash container by a rake.

Advantages:
- No cinder build-up
- Very low emissions
- Optimum burnout
- Automatic ash removal

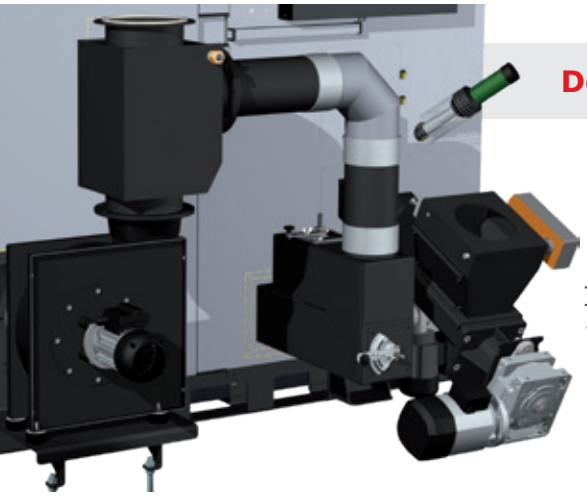


Detail: Vertical heat exchanger

The vertical design means that the heat exchanger practically cleans itself, ensuring high efficiency. The built-in safety battery prevents over-heating. The patented multi-cyclone dust separator built into the heat exchanger of the TI ensures compliance with the lowest dust emission limit values. Ash is removed by sturdy screws, which feed it into containers. These are outside the unit, so they are easy to remove and empty.

Advantages:
- Optimum heat transfer
- Automatic cleaning of heating surfaces
- High efficiency
- Low dust emissions

Impressive in the detail



Detail: Flue gas recirculation (FGR)

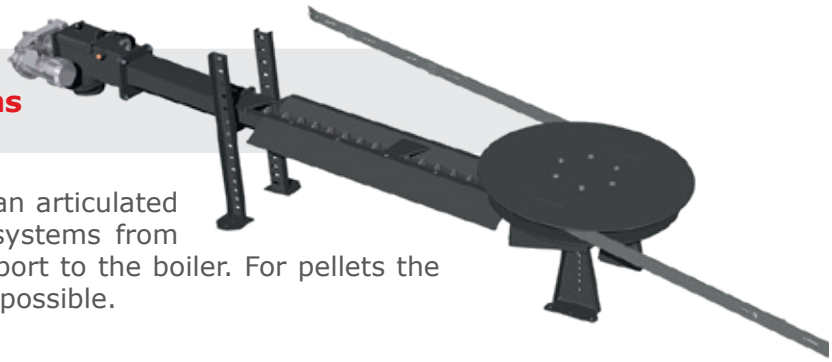
The flue gas recirculation system (FGR) mixes part of the flue gas with the combustion air and returns it to the combustion zone. This ensures exceptionally high efficiency. At the same time, flue gas recirculation helps to improve combustion and performance. In addition it reduces NOx emissions and helps to protect the fireclay when high-quality dry fuels are used.

Advantages:
- Optimised combustion
- Very low emissions

Detail: Lambdatronic H 3200 control system

Froling takes you into the future with the new H 3200 boiler control system. The control unit, optimised to your requirements, and the illuminated graphic display ensure that all operating statuses are clearly displayed. The organised menu layout makes the system easy to operate. The main heating and hot water functions can be selected using function keys. In addition, the unit is pre-wired for easy electrical installation.

Advantages:
- Precision combustion control with lambda control as standard
- Large, clear control unit with graphic display
- Menu-driven operation with online help



Detail: Flexible fuel transport options

Whether it's a spring blade feed system, an articulated arm or a sliding floor, the flexible feed systems from Froling always ensure optimum fuel transport to the boiler. For pellets the use of an industrial suction system is also possible.

Online control
froeling-connect.com

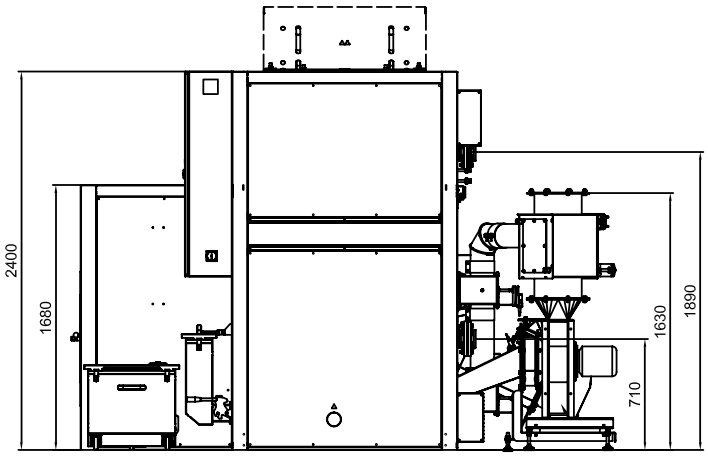
Froling's new online control, froeling-connect.com, allows you to check and control your Froling boiler with boiler touchscreen anytime, anywhere. You can read or modify the main status information and settings easily and conveniently online (from your PC, smartphone, tablet PC, etc.). You can also specify which status messages you would like to receive by text message or e-mail. The new froeling-connect.com service allows the owner of the heating system to enable additional users - for example the installer, a neighbour, etc. - to access the boiler and monitor the heating system, during holidays for instance.

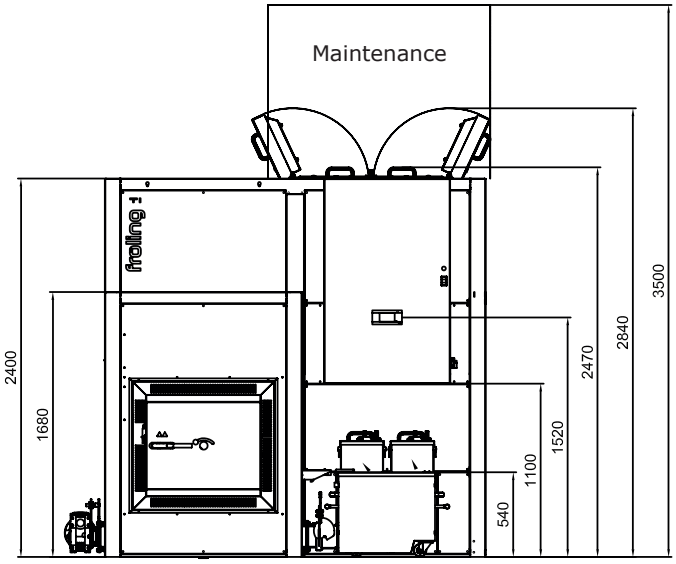
System requirements:

- Froling boiler (core module software version V54.04, B05.09) with boiler touchscreen (software version V60.01, B01.20)
- Broadband internet connection
- Froling boiler internet connection via network
- Web-enabled terminal device (smartphone/tablet/laptop/PC) with web browser

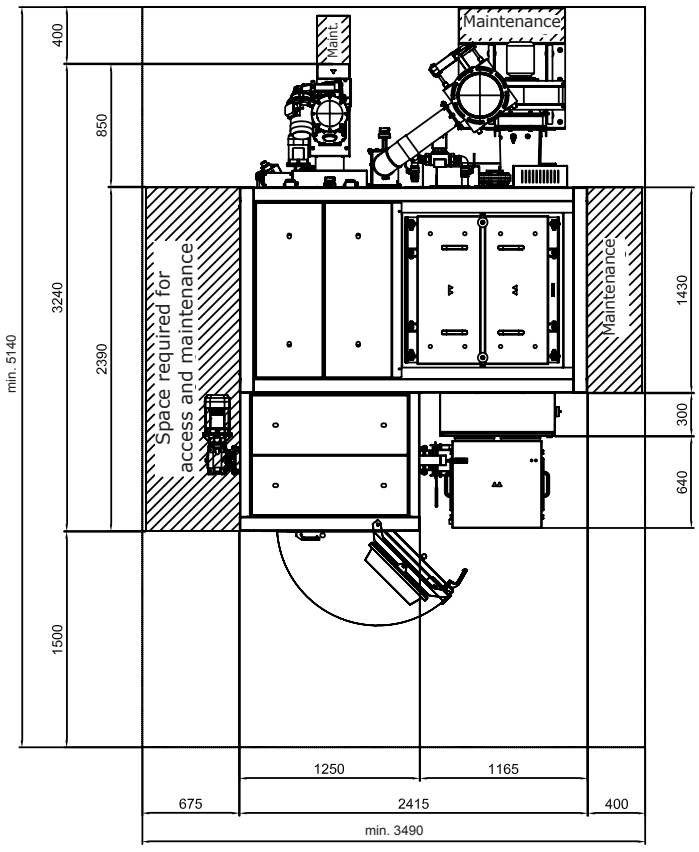
Technical data

All dimensions in millimetres





TECHNICAL DATA	TI 350
Nominal output	350 kW
Output range	105 - 350 kW
Nominal fuel heating efficiency with wood chips / pellets	376 kW
Efficiency with wood chips / pellets	94%
Minimum room height	3000 mm
Dimensions required for combustion chamber installation (LxWxH)	2550x1100x1500 mm
Dimensions required for heat exchanger installation (LxWxH)	1250x1400x2400 mm
Weight, combustion chamber	1270 kg
Weight, fireclay	1060 kg
Weight, heat exchanger	1600 kg
Weight including fittings	5630 kg
Heat exchanger water capacity	590 l
Maximum permitted operating pressure	6 bar
Permitted fuels as per EN ISO 17225 - Part 4: Wood chips P16S - P31S class A1 Part 2: Wood pellets D06 class A1	



Further technical details on request.

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