

Wood Chip and Pellet Boilers

TX



Heating with Wood Chips and Pellets



Right from the beginning, Fröling has specialised in the efficient use of wood as an energy source. Today the Fröling name stands for modern biomass heating technology. Our firewood, wood chip and pellet boilers are used successfully across Europe. All products are manufactured at our own factories in Austria and Germany. Fröling's service network has excellent coverage, ensuring we can handle queries quickly.

The fuels: wood chips or pellets



sawmill waste is broken down into wood chips with shredders. Depending on the wood used, there are various quality classes.

Wood chips are a fuel that is domestically produced, unaffected by crises, and environmentally friendly. The production of wood chips also guarantees local jobs. That is why wood chips are the perfect fuel, not just economically, but also from an ecological perspective. Scrap wood in the form of branches, treetops and



advantages that make pellets the perfect fuel for fully automatic heating systems. Pellets are delivered by tanker, which unloads the pellets directly into the store.

Wood pellets are made of natural wood. The wood shavings and sawdust produced in large quantities as a by-product in the wood processing industry are compacted and pelleted without being treated beforehand. Pellets have a high energy density and are easy to deliver and store. These are just some of the



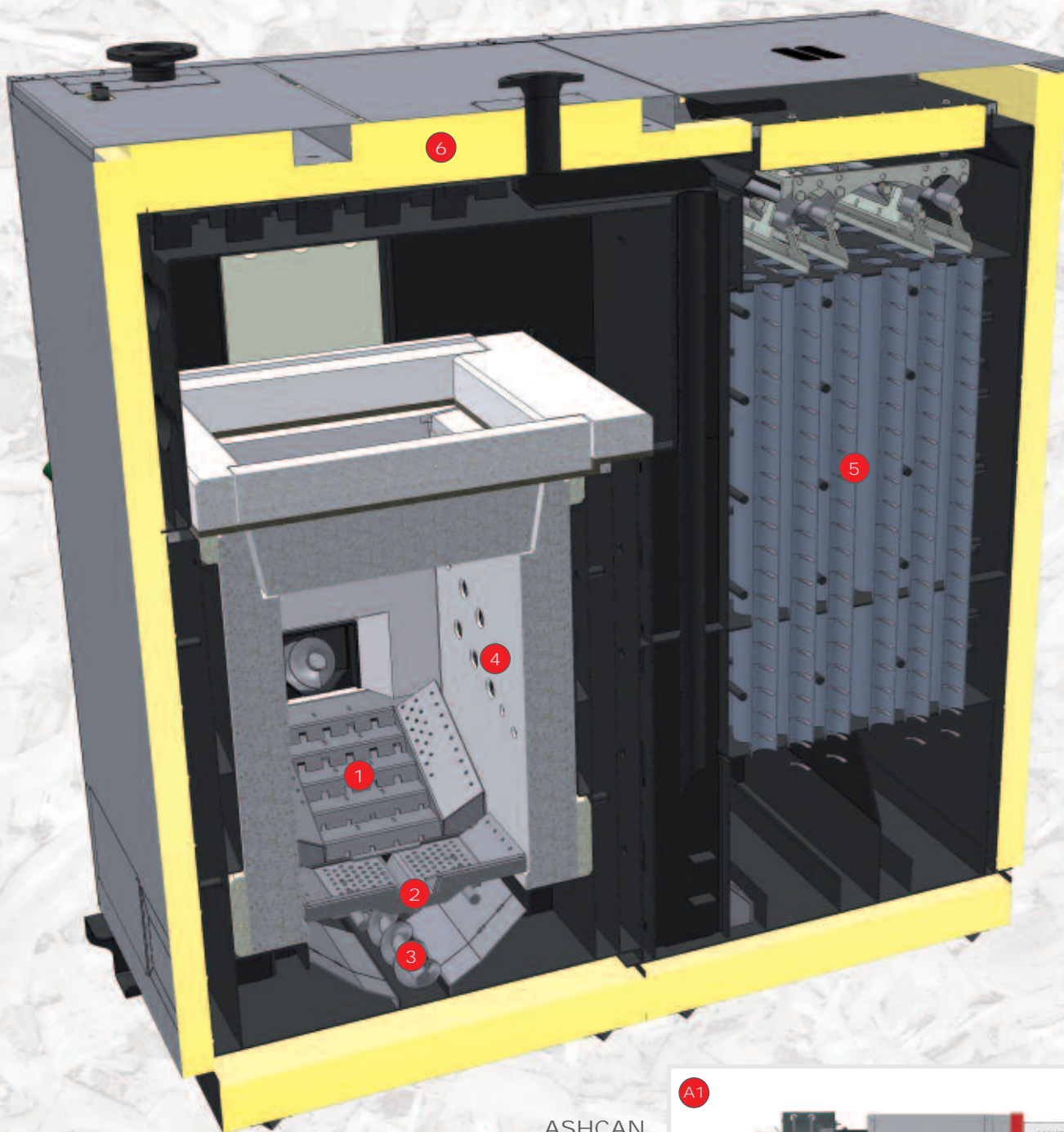
The new Fröling TX

User-friendly, robust, economical and reliable: The new TX from Fröling is guaranteed to impress in every regard.

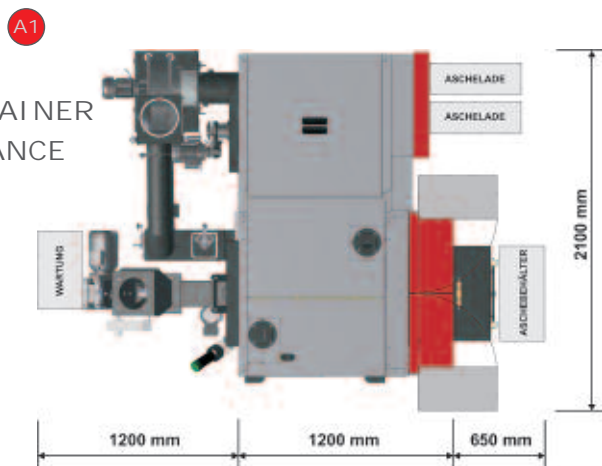
This boiler can efficiently burn both wood chips and pellets thanks to its intelligent fully automatic system.

Fröling also offers a wide range of fuel feeder systems catering for virtually all requirements. Optimum energy consumption is ensured by detailed systems engineering. This means the Fröling TX can offer reliable, high-quality heating!

High requirements - Smart solutions



ASHCAN
ASH CONTAINER
MAINTENANCE



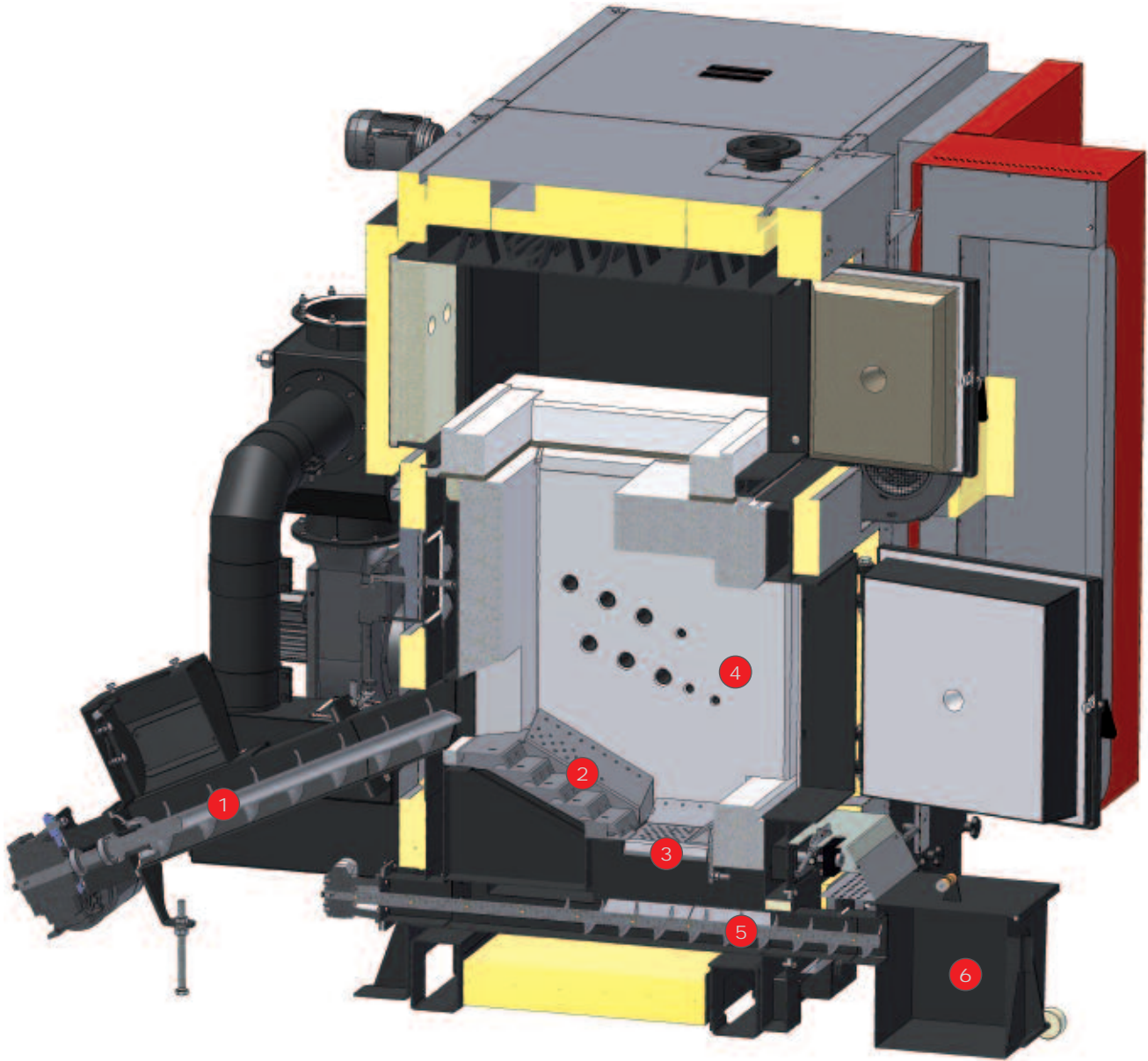


Outstanding features:

- 1 Ventilated step grate for pre-drying of materials and optimum combustion.
- 2 Tipping combustion grate to ensure complete burnout and grate cleaning during operation.
- 3 Cleverly positioned, heat-resistant ash removal screw.
- 4 Premium-quality high-temperature combustion chamber with firebrick lining for minimum emissions and economic combustion combined with excellent efficiency.
- 5 Vertical tubular heat exchanger and efficiency optimisation system (WOS) featuring automatic turbulators to clean the flue gas path in the boiler.
- 6 High-quality full insulation to minimise radiant heat losses.
- A1 Very small footprint thanks to optimised unit layout (bilateral).

Clear structure - Perfect detail

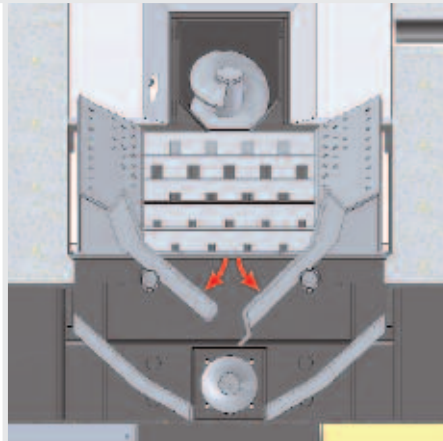
High-temperature combustion chamber with firebrick lining



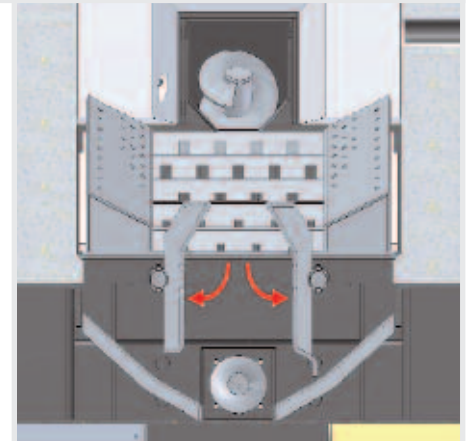
- 1 Stoker screw
- 2 Step grate
- 3 Tipping grate
- 4 High-temperature firebrick-lined combustion chamber
- 5 Ash removal screw
- 6 Mobile ash container

Ingenious grate concept

The combination of a ventilated pre-drying step grate with the tipping grate ensures optimum combustion for both dry and damp material. The system does not have to be shut down for cleaning, nor is an additional igniter required.

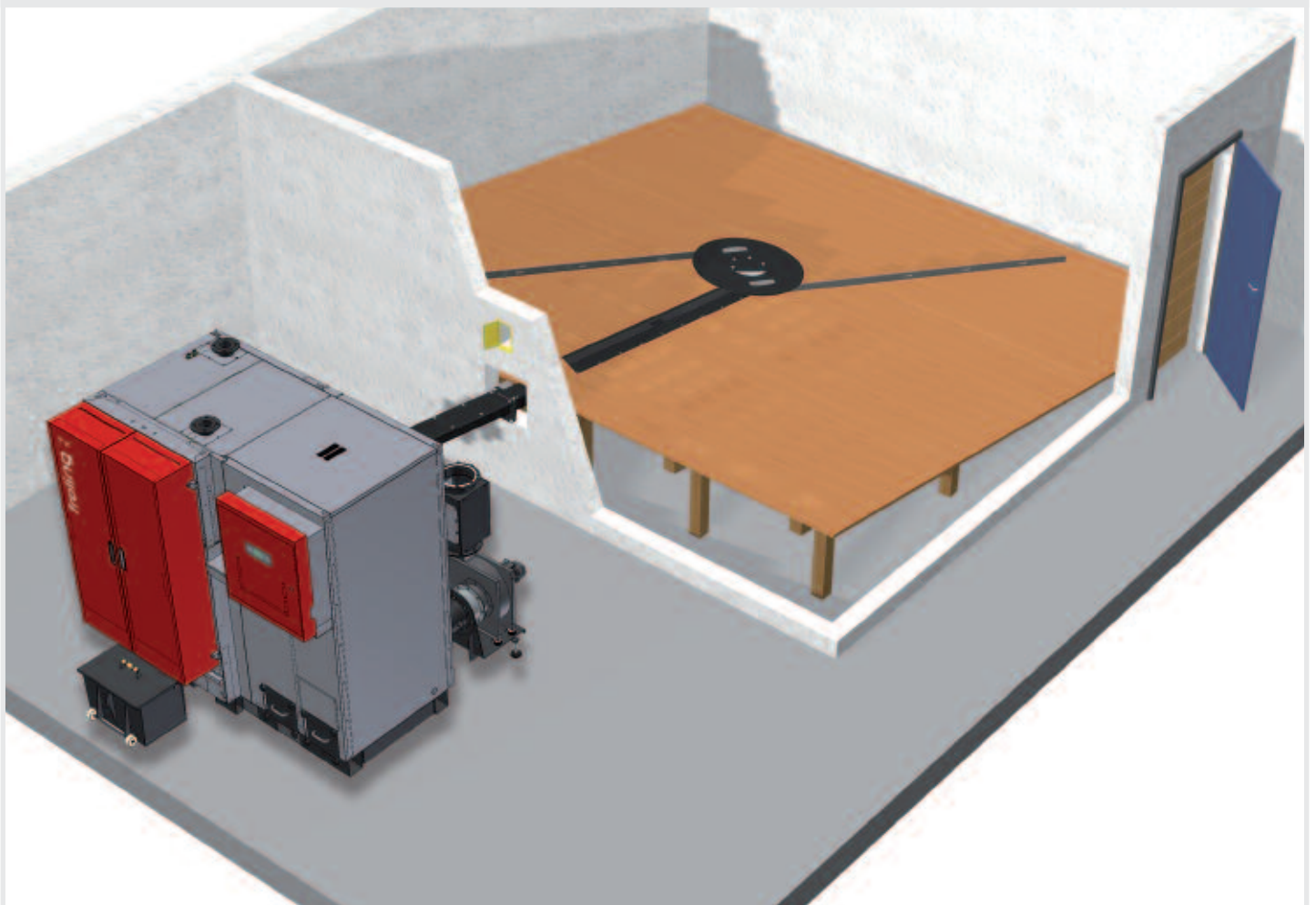


Combustion grate 45°



Combustion grate 90°

Example of a complete TX 150 system with an SBS spring blade stirrer



Systematically user-friendly



Feature: **Lambdatronic H 3200 controller**

- Your benefits:
- Precise combustion control thanks to lambda control supplied as standard
 - Large, clear control unit with graphic display
 - Menu-based operation with online help
 - Boiler operated from the living room using RBG 3200



With the new H 3200 boiler control, Fröling is taking a step into the future.

The control unit, optimised to your requirements, and the illuminated graphic display guarantee that each operating status is clearly indicated. The organised menu structure ensures simple operation. The main heating and hot water functions can be selected simply using the function keys.

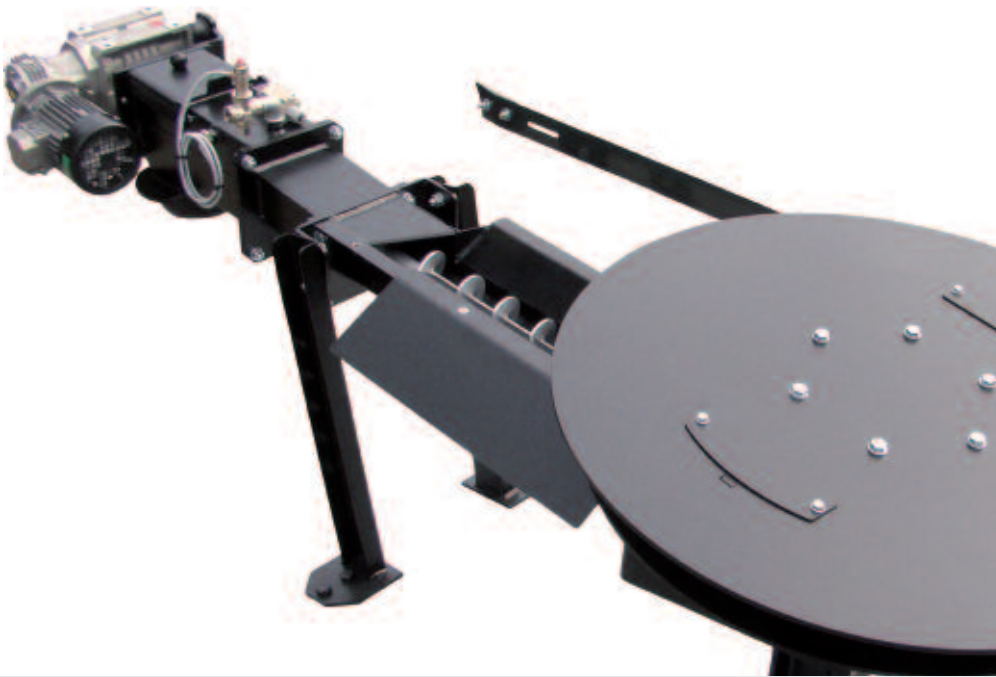
The equipment is pre-wired, saving on time-consuming electrical installation.

The Fröling bus system makes it possible to install extension modules at any location. The local controls can be installed wherever needed: at the boiler, the heat distributor, the tank, the living room or an adjacent building. Another benefit is that electric wiring is kept to a minimum.

The new RBG 3200 room console makes the system even more user-friendly. The heating system is conveniently controlled from your living room. It is extremely easy to read off all key values and status messages and to change settings at the touch of a button.



Spring blade stirrer (SBS)



During filling the reinforced spring arms are positioned under the stirrer plate and reaching out further and further to move the material into the open trough channel. This feed system is maintenance-free.

Articulated arm feed system



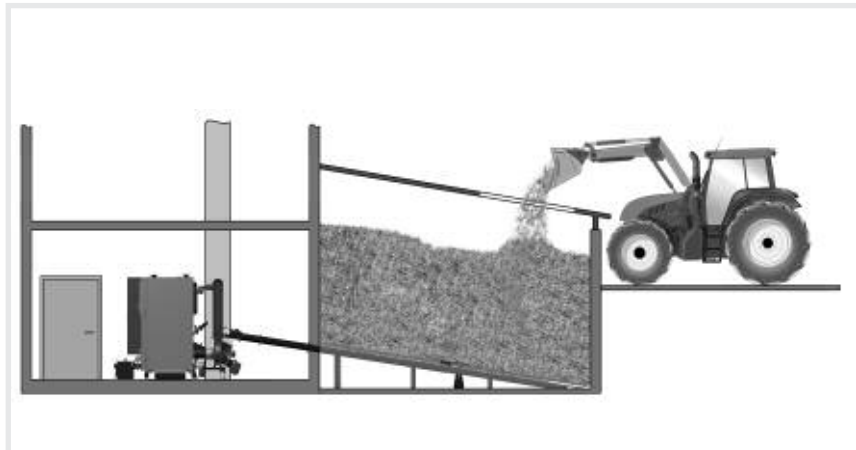
The articulated arm feed system ensures trouble-free, fully automatic operation. Energy and maintenance costs are kept to a minimum. The special shape of the trough and the feed screw with progressively rising screw blade ensure reliable fuel feed.

The system is free-moving, so also saving enormous energy even when feeding in the maximum amount of pellets.

Other Fröling feed systems available on request!

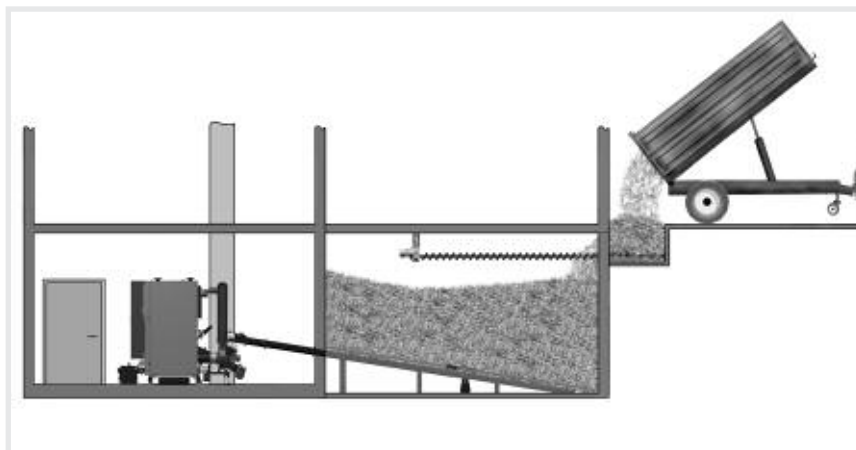
Fuel feeder systems

Some examples from a wide range of set-up options:



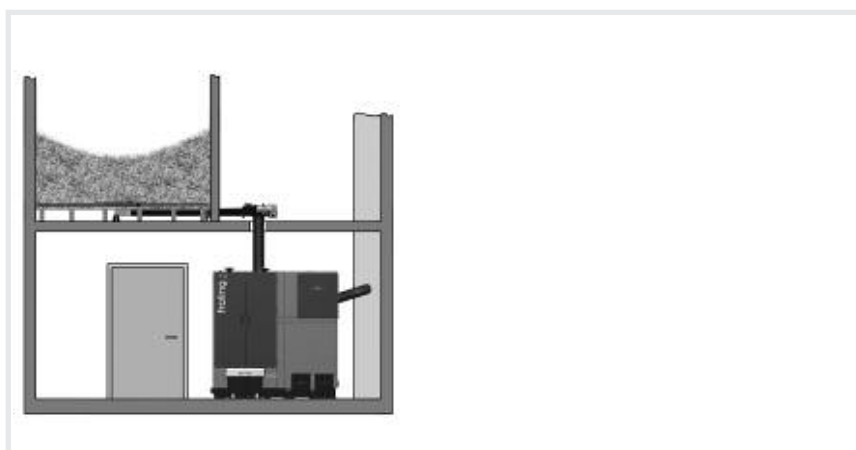
External store

External store with option of direct loading into the fuel store. This store can normally be created by building a low-cost extension.



Introduction with bunker filling screw

Store connected to bunker filling screw. Existing window openings (or similar) can be used as loading openings.



Store above

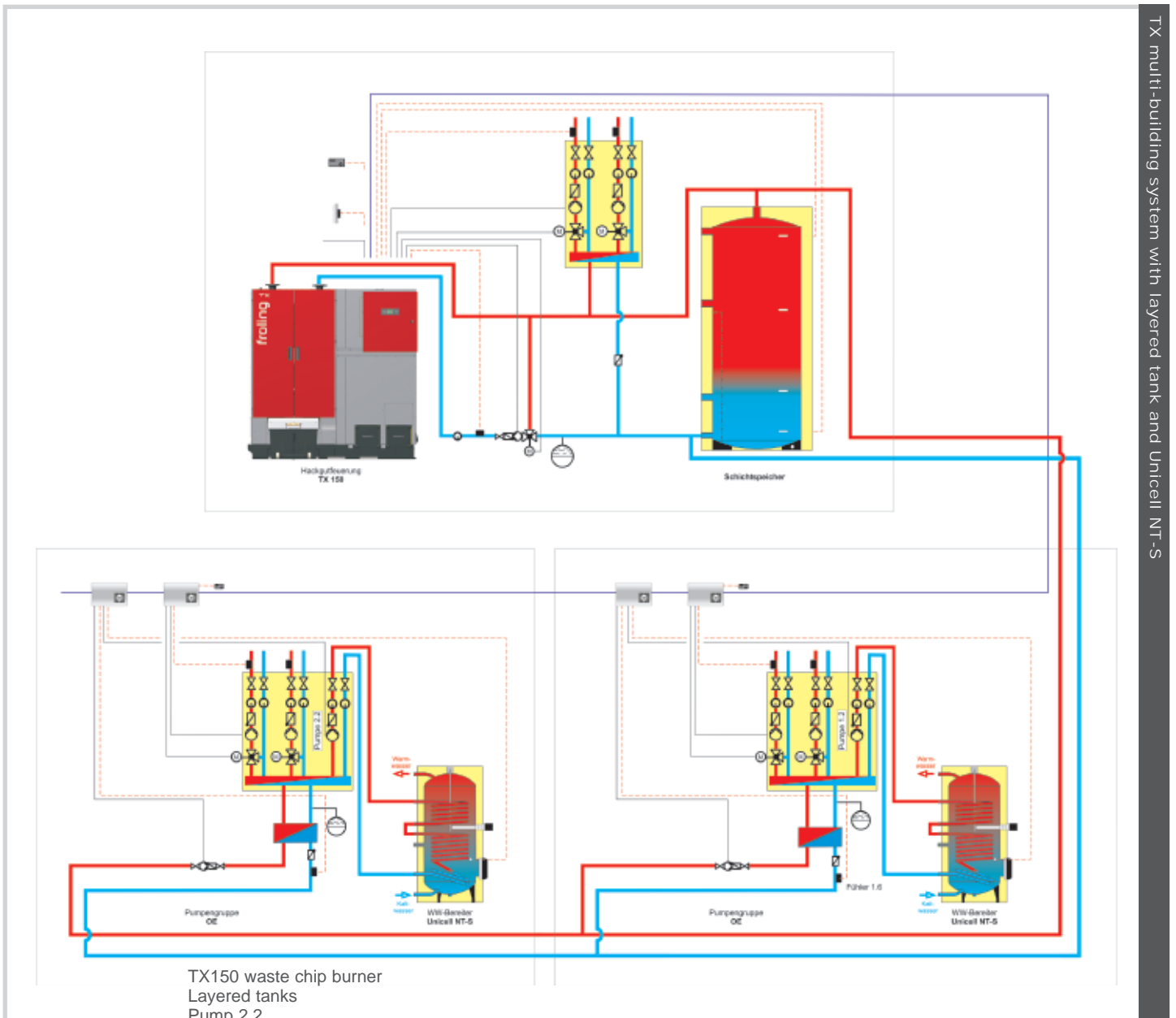
Store above the boiler room. Fuel is fed to the boiler using a downpipe. Here we recommend a rotary valve!

Feature: Systems engineering for optimum energy consumption

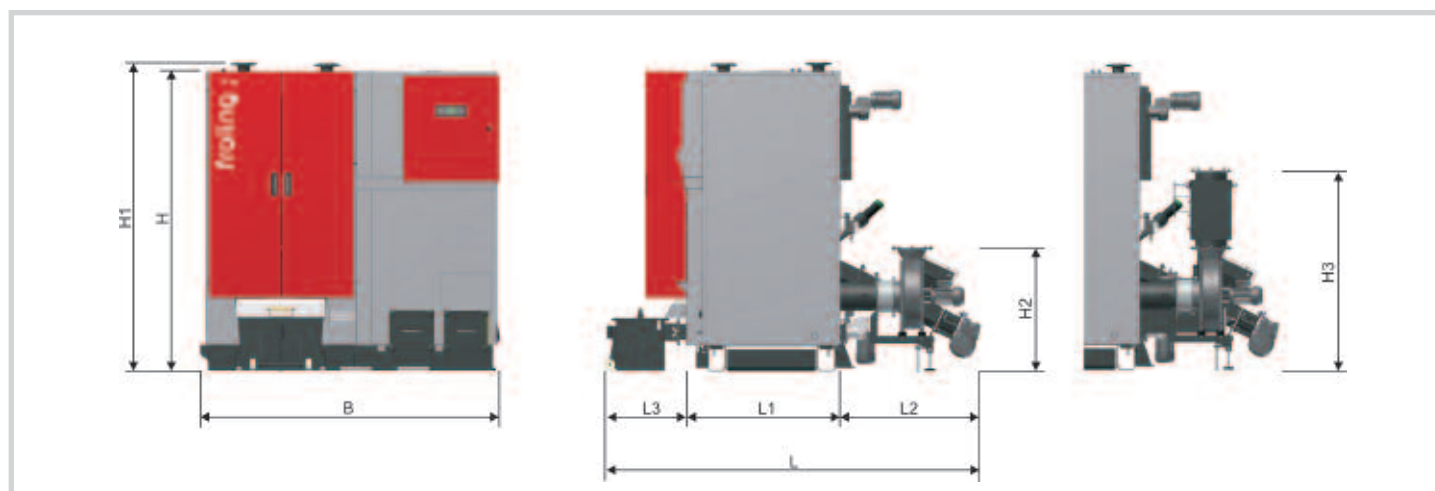
Your benefits: • Complete solutions catering for every need

- The components work together perfectly
- Incorporation of solar energy

Fröling systems engineering enables efficient energy management. Heat management can include as many as 4 storage tanks, 8 hot water tanks and 18 heating circuits. You also benefit from the option of connecting other types of energy generation, such as solar panel systems.



Technical specifications



DIMENSIONS			TX 150
H	Height of boiler	[mm]	1880
H1	Height of outfeed connection / return feed connection	[mm]	1935
H2	Height of flue gas pipe connection without FGR	[mm]	770
H3	Height of flue gas pipe connection with FGR	[mm]	1270
B	Width of boiler	[mm]	1900
L	Total length of system	[mm]	2410
L1	Length of boiler	[mm]	960
L2	Length of stoker unit	[mm]	890
L3	Length of ash container	[mm]	560

TECHNICAL SPECIFICATIONS			TX 150
Rated heat output (woodchips W30 as per ÖNORM)	[kW]		150
Required fuel consumption at rated load (G50/W30)	[kg/h]		53
Flue gas pipe diameter	[mm]		200
Diameter of stoker screw	[mm]		110
Weight of boiler	[kg]		1950
Water capacity	[l]		440
Maximum permitted boiler operating temperature	[°C]		95
Minimum return feed temperature	[°C]		65
Maximum permitted operating pressure	[bar]		3
Flue gas temperature at rated load	[°C]		150

Further technical details on request.
We will be pleased to advise.



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