froling

Wood Chip and Pellet Boilers

TX

Heating with Wood Chips and Pellets

From the very beginning, Froling has specialized in the efficient use of wood as an energy source. Today, Froling sets the standard in modern biomass technology. Froling's firewood, wood chip, and pellet boilers are successfully in operation all over Europe. All of our products are manufactured at our factories in Austria and Germany. Froling's service network ensures that we can handle all inquires quickly and effectively.

The fuels: wood chips or pellets

Wood chips are a fuel that is domesitcally produced, unaffected by economic crisis, and environmentally friendly. Wood chip production also guarantees jobs for local residents. This proves why wood chips are the perfect fuel, not just economically, but also from an ecological perspective as well. The leftover branches and treetops as well as the sawmill waste is shredded into wood chips. Quality classes are determined by the wood used.

Wood pellets are made of natural wood. The large quantities of wood shavings and sawdust from the wood processing industries are compacted and pelleted wthout being treated beforehand. Pellets have a high energy density and are easy to deliver and store. These are just two of the advantages that make pellets the perfect fuel for fully automatic heating systems. Pellets are delivered by tanker, which unloads the pellets directly into the storage room.

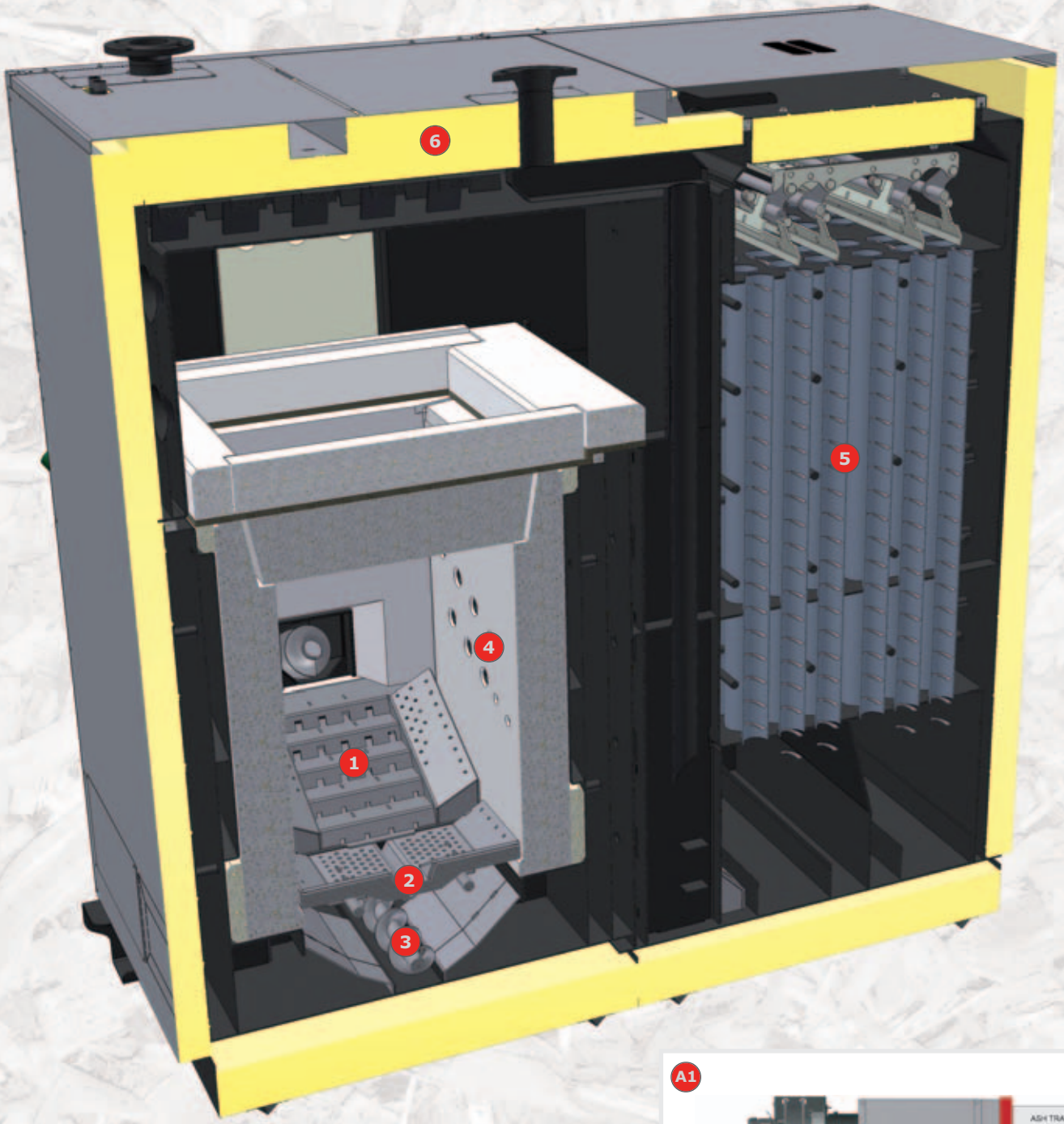
The new Froling TX

User friendly, sturdy, economical and reliable: the new TX from Froling is guaranteed to impress in every aspect.

This boiler can efficiently burn both wood chips and pellets due to its well designed fully automatic system.

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

High requirements - Smart solutions



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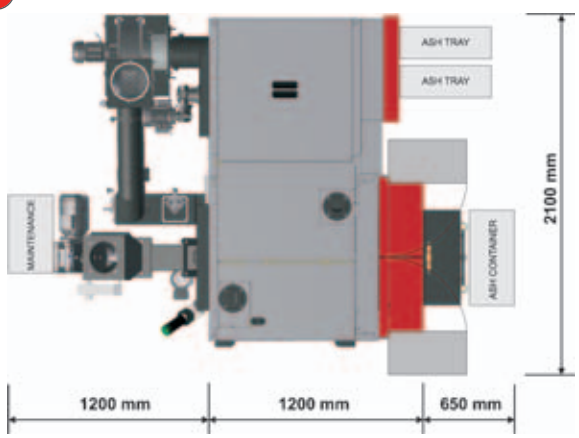


TX 150

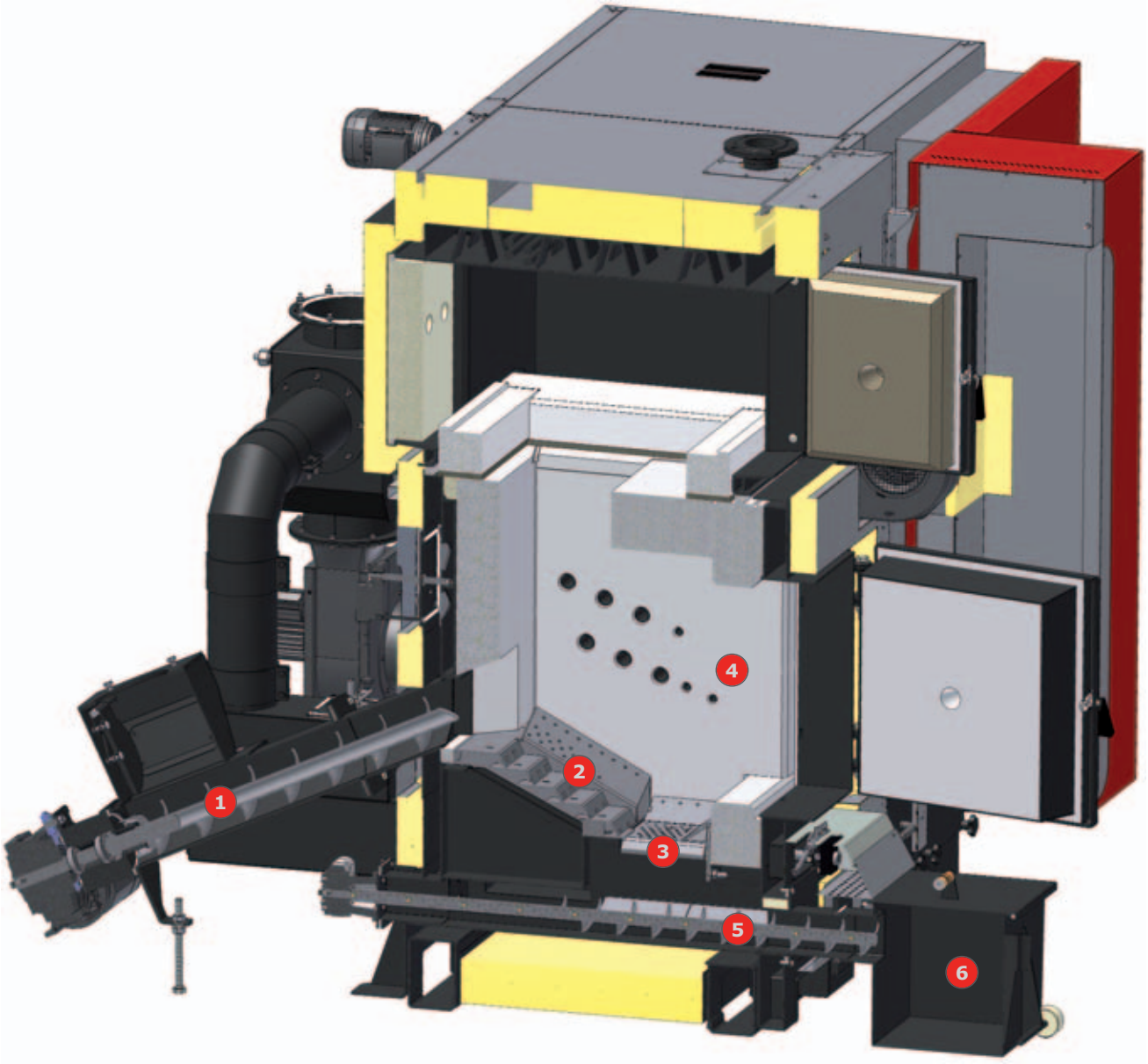
Outstanding features:

1. Ventilated step grate for pre-drying of materials and optimum combustion.
2. Tilted combustion grate to ensure full burn and grate cleaning during operation.
3. Easily accessible heat-resistant ash removal screw.
4. Premium-quality high-temperature combustion chamber with firebrick lining for minimum emissions and optimal combustion at a high efficiency.
5. A standing tubular heat exchanger with efficiency optimisation system (WOS) with automatically driven turbulators to clean the flue gas path in the boiler.
6. Fully insulated to minimize radiant heat loss.

A1 Minimal space requirement due to the optimal unit layout (bilateral).

Clear structure - Perfect detail

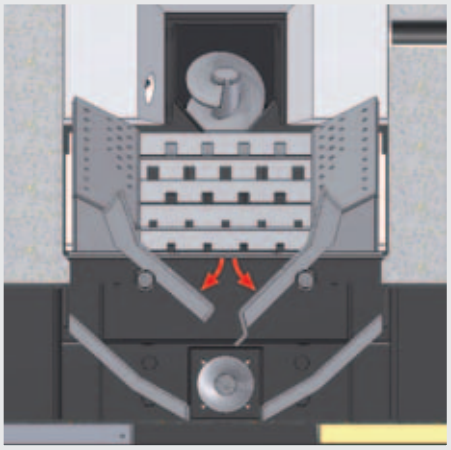
High-temperature combustion chamber with firebrick lining



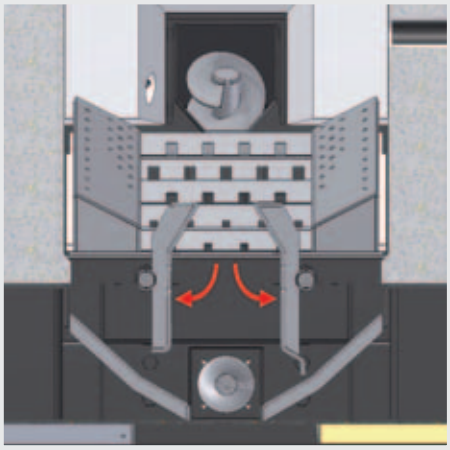
1. Stoker screw
2. Step grate
3. Tilted grate
4. High-temperature firebrick-lined combustion chamber
5. Ash removal screw
6. Mobile ash container

Smart grate technique

The combination of a ventilation pre-drying step grate and a tilted grate ensures optimum combustion for both dry and damp material. The system does not have to be shut down for cleaning and no further ignition is required.

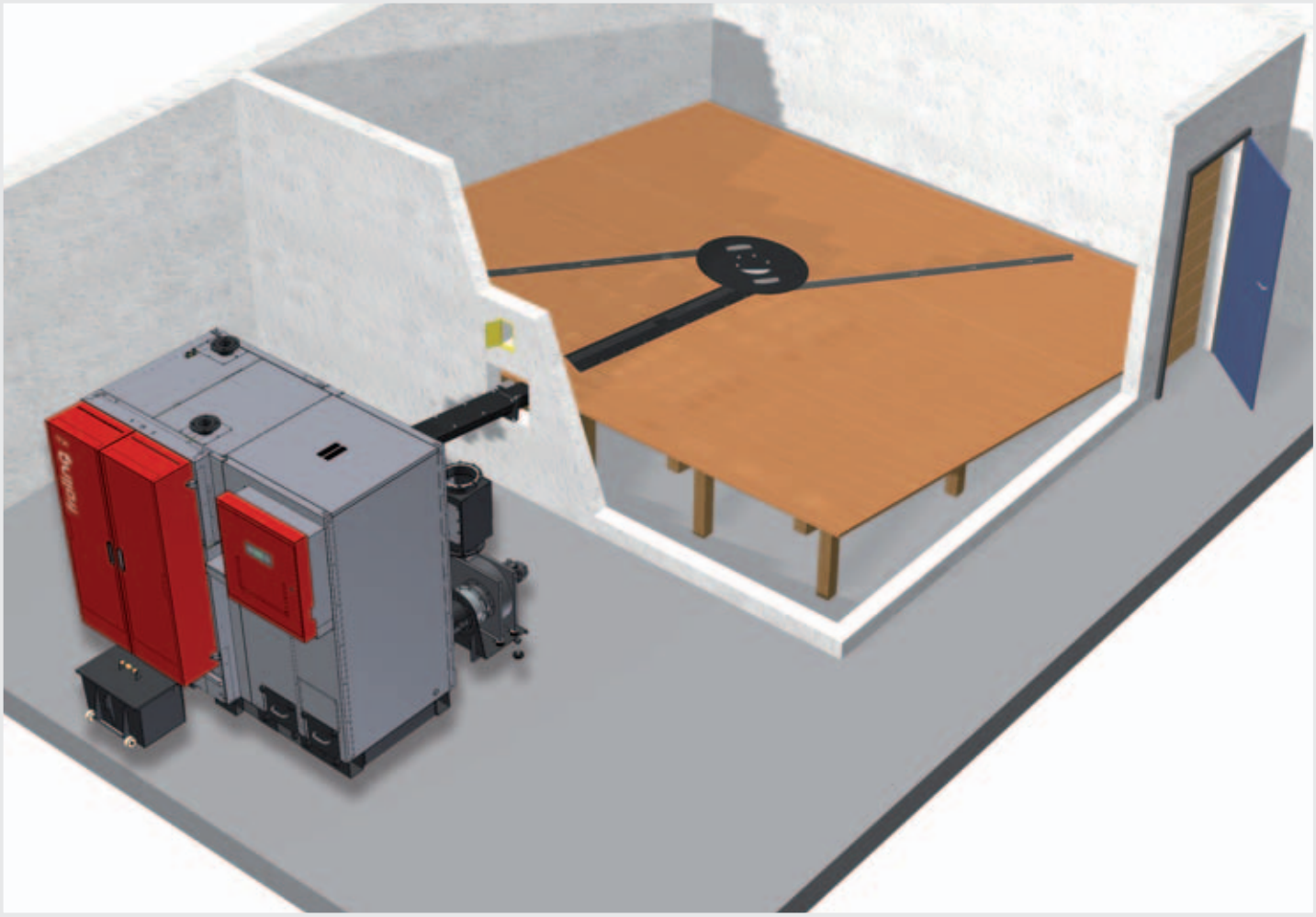


Combustion grate 45°



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:
- The lambda control supplied as a standard part, gives precise combustion control.
- Large, easy-to-read control unit with graphic display.
- Menu-based operation with online help
- Boiler operation from the living room made possible through the use of the RBG 3200

Froling takes you into the future with the new H 3200 boiler control unit. The control unit is optimized to your requirements and the illuminated graphic display panel guarantees that each operating status is clearly indicated. The menu makes operation simple. The main heating and hot water functions can be selected by simply selecting the function keys.

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

The **Froling bus system** makes it possible to install extension modules at any location. The local controls can be installed wherever needed: on the boiler, the heat distributor, the tank, the living room, or an additional building. A further 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, status messages, and with a touch of a button to change settings.

Spring blade stirrer (SBS)

During the filling process the reinforced spring arms are positioned under the stirrer plate. Through further and further rotations, the material is moved into the open trough channel. This feed system is maintenance-free.

Jointed-arm feeder system

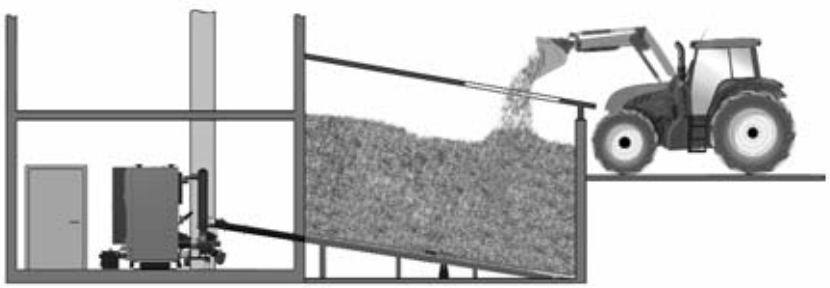
The jointed-arm feeder system ensures flawless fully automatic operation. Energy and maintenance costs are kept to a minimum.
The unique shape of the trough and the feed screw, with progressive rotation circles of the screw blade ensures a reliable fuel feed.

The system is free-flowing and therefore operates at maximum quantity, which is energy efficient.

Additional Froling feeder systems available upon request.

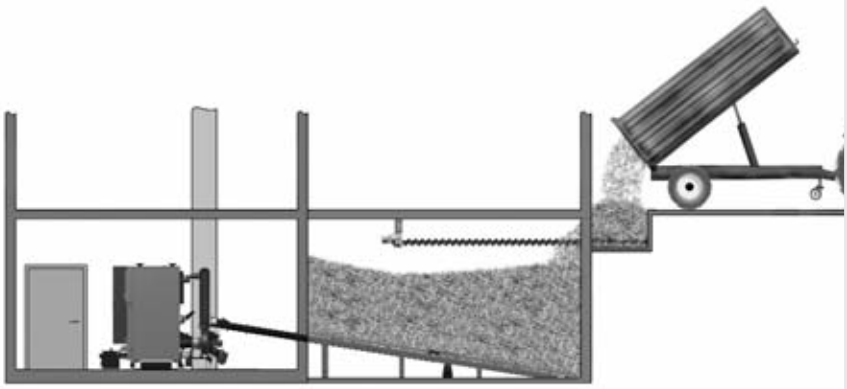
Fuel feeder systems

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



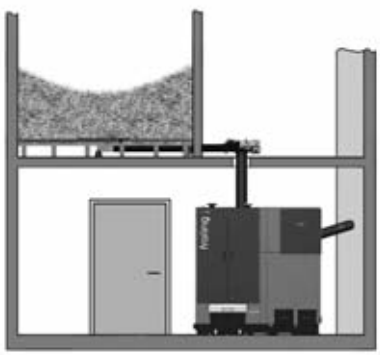
External store

External storage with an option of direct loading into the fuel storage area. This storage area can be extended at a low cost.



Introduction with bunker filling screw

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



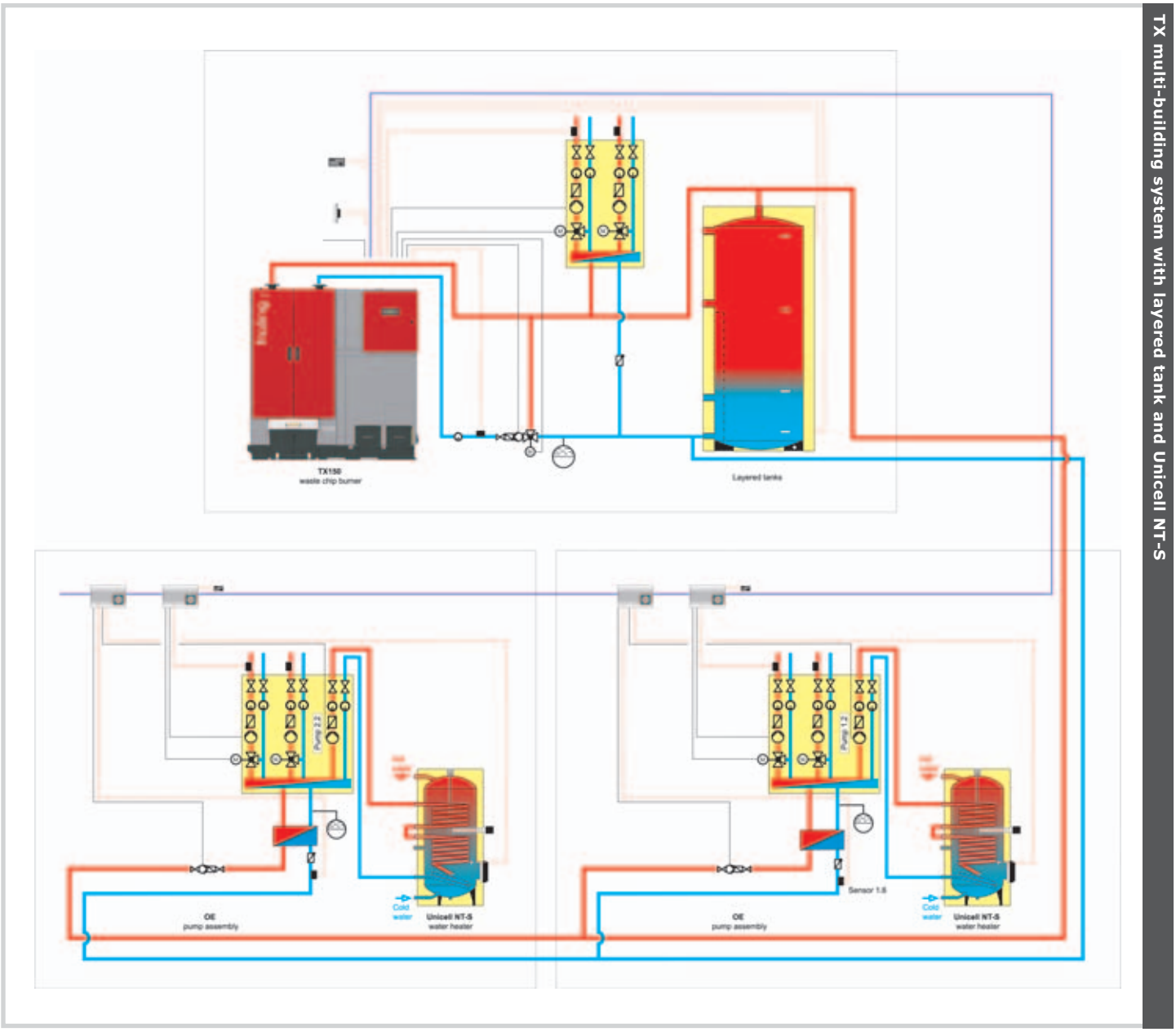
Storage Above

Storage 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.**

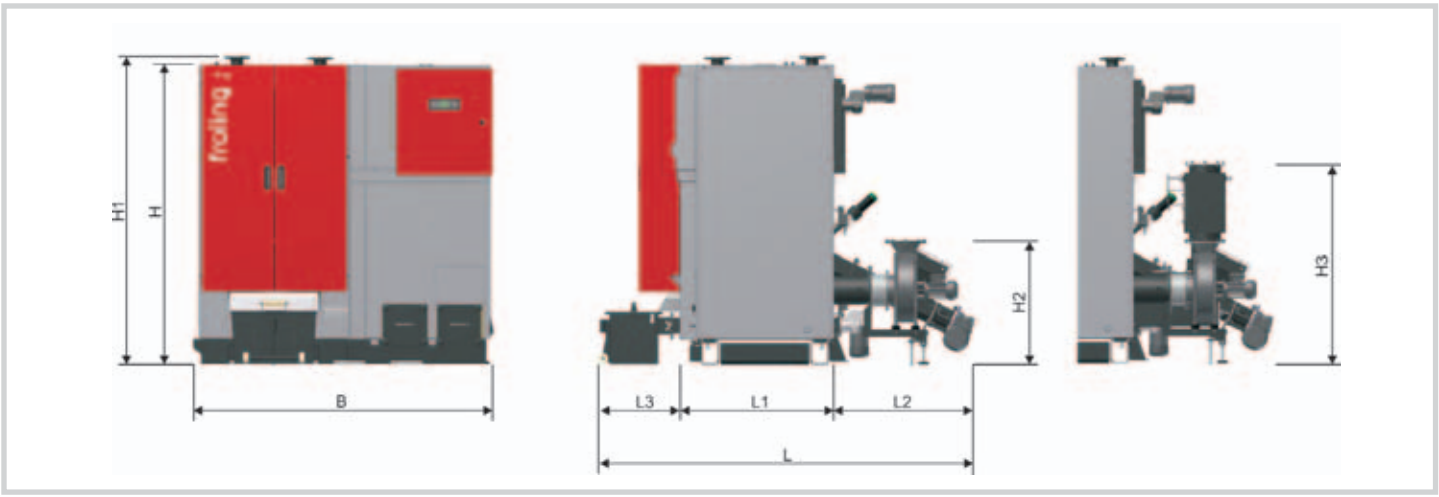
Your benefits:
- Complete solutions for every need.
- The components work perfectly together.
- Incorporation of solar energy

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



TX multi-building system with layered tank and Unicell NT-S

Technical specifications



DIMENSIONS			TX 150
H	Height of boiler	[mm]	1880
H1	Height of flow connection / return 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 temperature	[°C]	65
Maximum permitted operating pressure	[bar]	3
Flue gas temperature at rated load	[°C]	150

Further technical details upon request.
We will be pleased to assist and advise you.

Heizkessel- und Behälterbau GesmbH
A-4710 Grieskirchen, Industriestr. 12
Austria: Tel +43 (0) 7248 606 • Fax +43 (0) 7248 606-600
Germany: Tel +49 (0) 89 927 926 • Fax +49 (0) 89 927 926-219
E-mail: info@froeling.com • Internet: www.froeling.com