

S3 TURBO
FIREWOOD BOILER



A⁺

BETTER HEATING
INNOVATIVE AND
COMFORTABLE

froling



ENVIRONMENTALLY RESPONSIBLE HEATING, ECONOMICALLY ATTRACTIVE



Wood is a domestic and environmentally friendly fuel that grows in large quantities, burns CO₂-neutral and makes it independent of international trouble spots. In addition, numerous jobs are

secured through the use of local wood. Therefore, wood is the optimal fuel from both an economic and an ecological point of view. There are different quality classes depending on the wood used.

For almost sixty 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.

GUARANTEED QUALITY AND RELIABILITY FROM AUSTRIA

- International pioneer in technology and design
- Sophisticated fully automatic operation
- Excellent environmental compatibility
- Environmentally responsible energy efficiency
- Renewable and CO₂-neutral fuel
- Ideal for all types of house
- Up to 5 year Froling-warranty (subject to warranty conditions)

Top-quality boiler technology at a mid-range price

The S3 Turbo firewood boiler focuses on the basics. It includes many features that you would normally only find in high-end firewood boilers.

- Patented, cylindrical high-temperature turbulence combustion chamber for excellent combustion values
- Separate pre-heating chamber door for easy pre-heating
- Carbonisation gas extraction system for smoke-free reloading
- Speed-regulated induced draught fan for output control and full operating safety.



FIREWOOD BOILER S3 TURBO

Speed-regulated induced draught fan

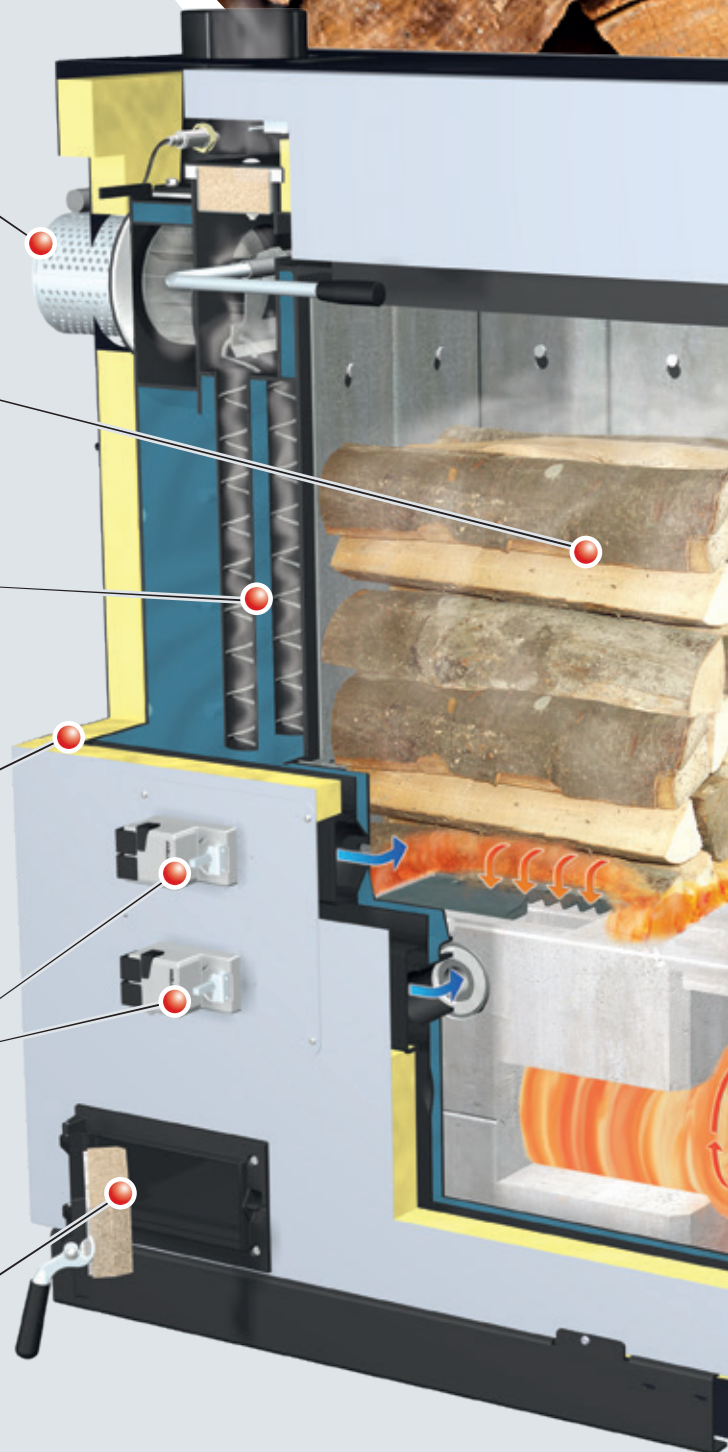
Large fuel loading chamber
for logs up to 56 cm in length

WOS system
Efficiency Optimisation System

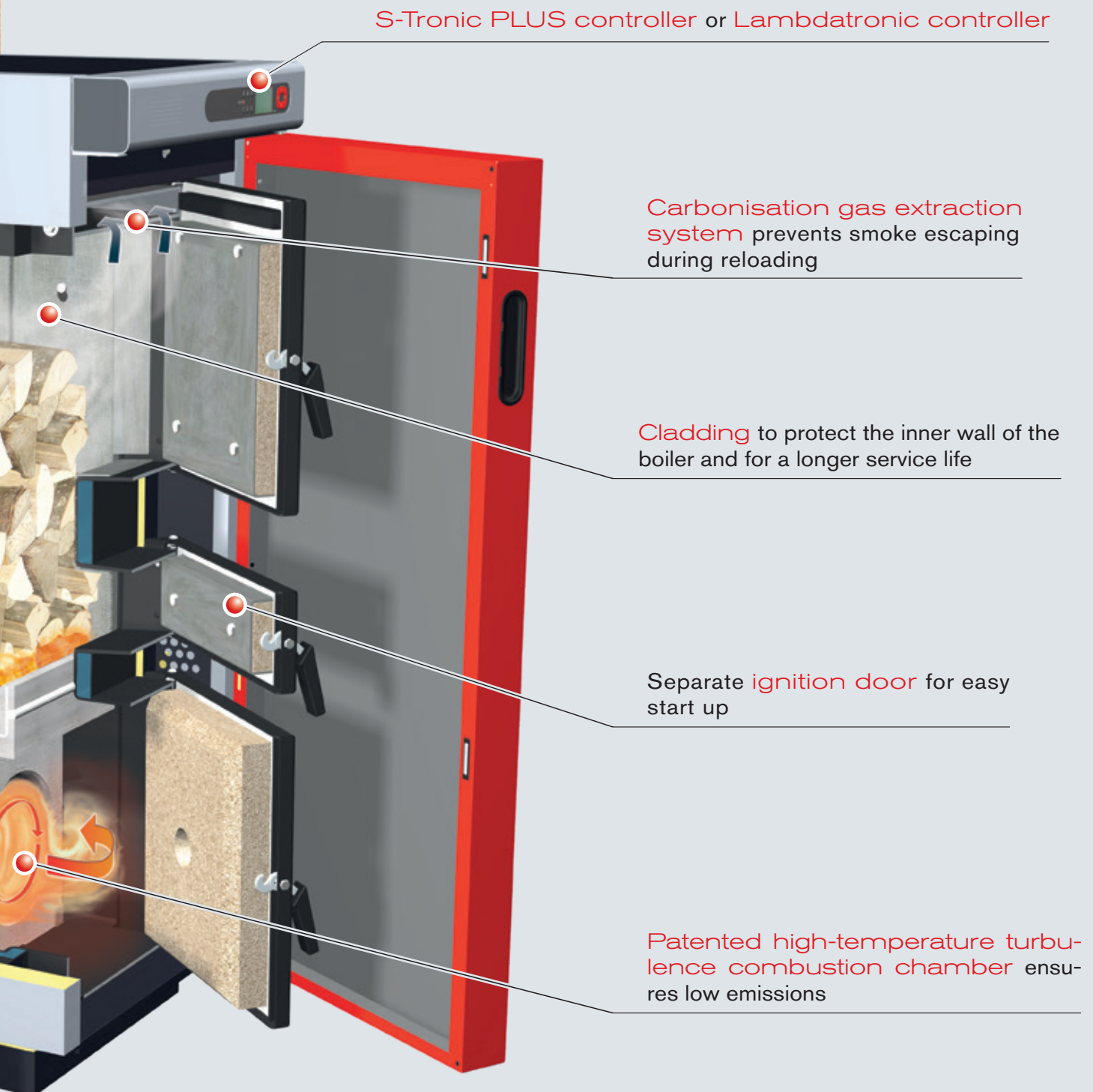
Top quality insulation to minimise
radiant heat loss

Actuators for primary and secondary air
(or actuators with Lambdatronic)

Large maintenance openings
for easy cleaning



THE LATEST TECHNOLOGY



A SUCCESSFUL DESIGN

Special carbonisation gas extraction system

The special carbonisation gas extraction system also prevents any gas from escaping when refilling. This is applicable at every stage of combustion. Enjoy modern heating with wood!

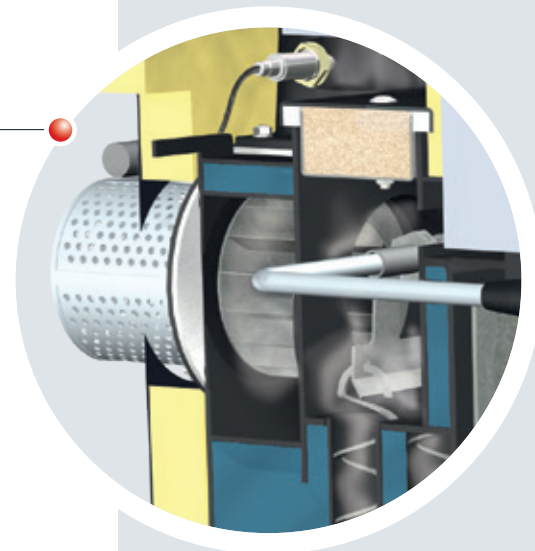
- Advantages:
- No flue gas escapes during reloading
 - The boiler room stays clean



Speed-regulated induced draught fan

The primary and secondary air settings are adjusted by the technician during commissioning. The functionmonitored induced draught fan enables the system to adjust to different operating conditions. This offers excellent output adjustment with full operating safety. In the S3 Turbo with broadband lambda probe the primary and secondary air settings are adjusted by means of servo-motors, ensuring that output is adapted to given requirements at every stage of combustion.

- Advantages:
- Easy to operate
 - Adapts to all operating conditions
 - Full operating safety



WOS system

The WOS (efficiency optimisation system) consists of special turbulators, which are placed in the heat exchanger pipes. The lever arm mechanism ensures easy cleaning of the heating surfaces from outside. An additional benefit: clean heating surfaces lower energy consumption.

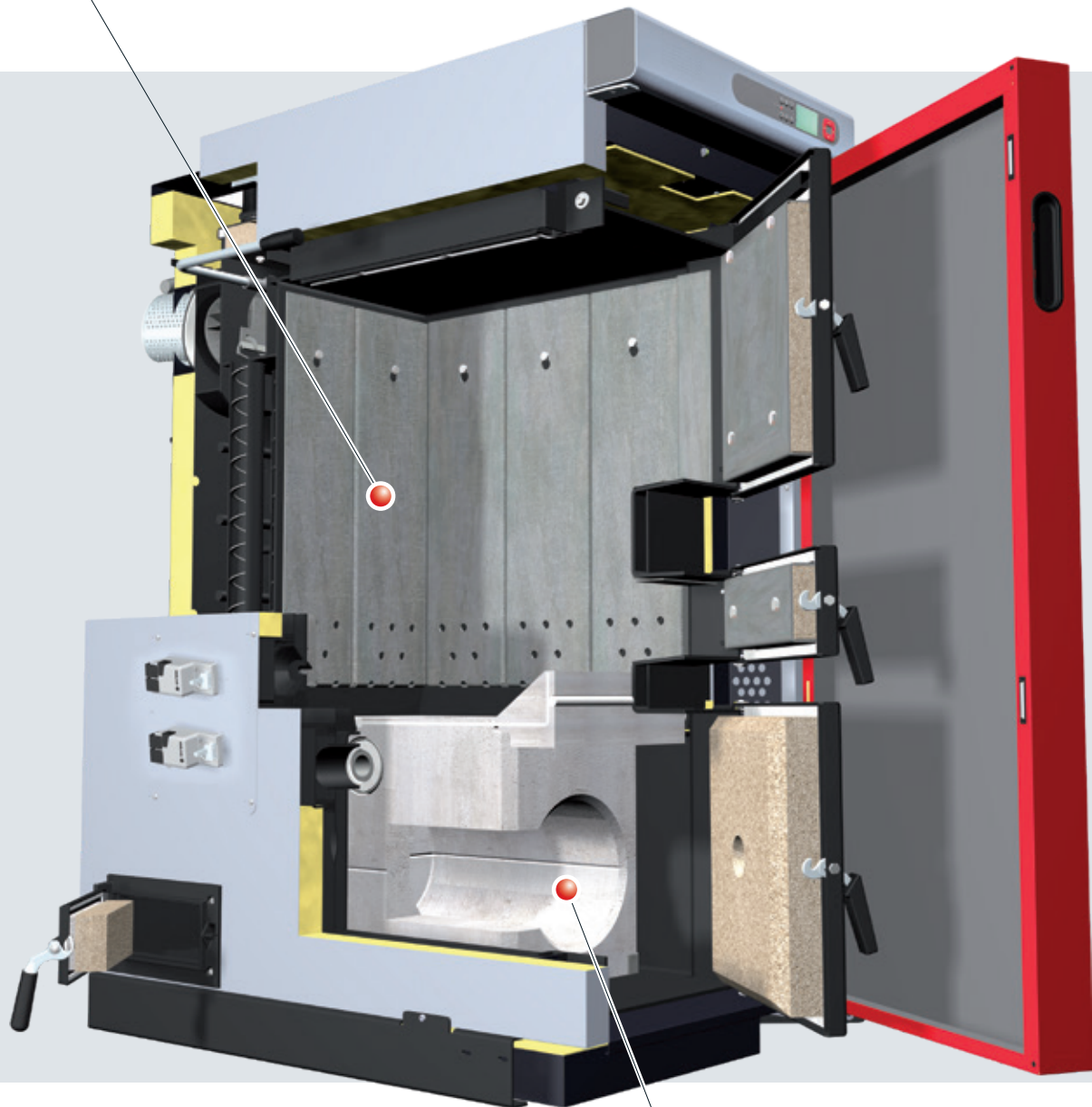
- Advantages:
- Even greater efficiency
 - Easy cleaning from outside
 - Fuel savings



Large fuel loading chamber for half-metre logs

The S3 Turbo can be loaded with half-metre firewood easily from the front. The loading chamber is 55 cm deep and has a generous reserve of space. Often it is only necessary to fill the boiler once a day. Strong steel guards protect the loading chamber and keep it clean.

- Advantages:
- Easy front-loading
 - Long combustion time
 - Long reloading intervals



High-temperature turbulence combustion chamber

Froling uses the patented, cylindrical high-temperature turbulence combustion chamber in the S3 Turbo. This means the boiler delivers excellent combustion values. The generous dimensions of the combustion zone guarantee low emissions. So by using a Froling S3 Turbo you are helping to keeping our air clean.

- Advantages:
- Excellent combustion values
 - Low emissions
 - Much more environmentally friendly

SYSTEM CONVENIENCE



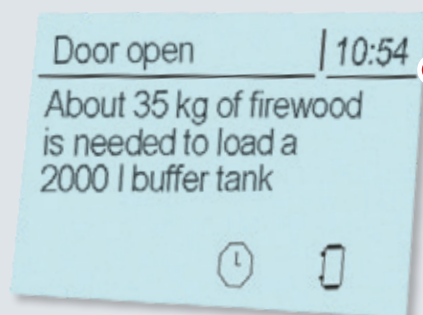
S-Tronic PLUS control

- Speed regulation and function monitoring of the induced draught fan for output adjustment
- Integrated storage tank management
- Visual display with control keys for setting
- Can be used to control 2 mixed heating circuits
- Integrated boiler management



Lambdatronic control

- Speed regulation and function monitoring of the induced draught fan for output adjustment
- Lambda control with broadband lambda probe
- Control of primary and secondary air via 2 servo-motors
- Integrated storage tank management
- Visual display with control keys for setting
- Can be used to control 2 mixed heating circuits
- Integrated boiler management



Firewood reload calculation

Too much firewood can result in fuel that is not completely burnt despite the storage tank being loaded. The integrated reload calculation can be used through simple parameterization of the storage tank type and the storage tank volume. Taking into account the current storage tank charge, the boiler control calculates the missing energy. When the boiler door is opened, the required amount of fuel for loading the storage tank is displayed in kilogrammes.

ACCESSORIES FOR EVEN GREATER CONVENIENCE



FRA room temperature sensor

By using the FRA room temperature sensor, sized just 8x8 cm, the main modes of the corresponding heating circuit can be easily selected and adjusted. The FRA can be connected both with and without affecting the store. The adjusting wheel allows you to change the room temperature by up to $\pm 3^{\circ}\text{C}$.

RBG 3200 room console

For even more convenience you can use the RBG 3200 room console and the new RBG 3200 Touch. You can control the heating system easily from your living room. Important system data is clearly displayed and settings can be changed at the push of a button.



RBG 3200 Touch room console

The RBG 3200 Touch has an impressive touchpad interface. The menu structure means it is intuitive and easy to use. The 17x10 cm console with colour screen shows the most important functions at a glance and automatically adjusts the background lighting to the conditions. The room consoles are connected to the boiler controller using a bus cable.



Heating circuit module

With wall casing and one contact sensor as heating circuit control for up to two mixer heating circuits.



Hydraulic module

With wall casing and two immersion sensors to control one or two pumps and one isolating valve with up to six sensors.

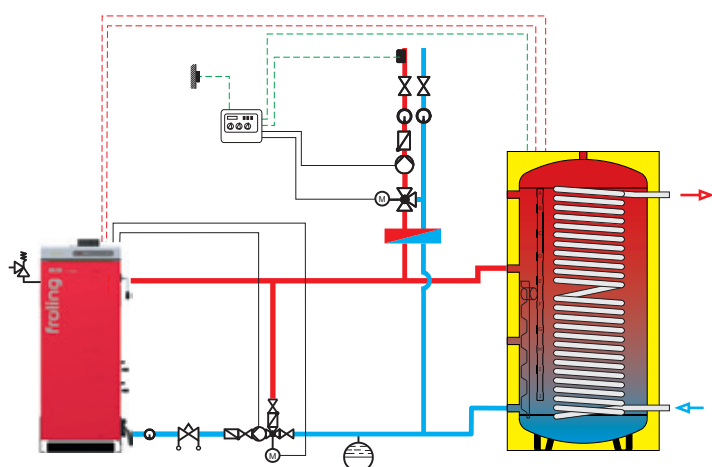


WMZ solar package kit

Set for measuring heat quantity, consisting of a volume pulse transmitter ETW-S 2.5, a collector sensor and two contact sensors for recording flow and return temperatures.

The Lambdatronic controllers allow for efficient energy management. Up to 4 storage tanks, up to 8 hot water tanks and up to 18 heating circuits can be integrated into the heating management system. You also benefit from the ability to integrate other means of energy production, such as solar panels.

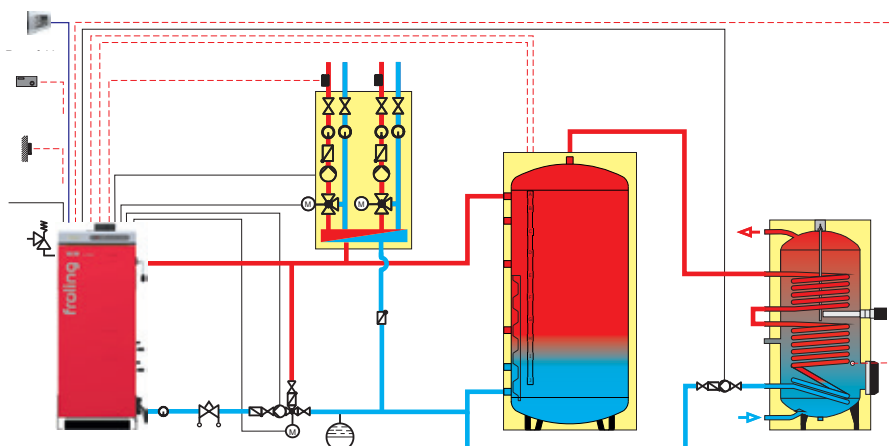
S3 Turbo with S-Tronic and H2 hygienic layered tank



NOTICE

National and regional regulations requiring the use of weathercompensated controls should be observed.

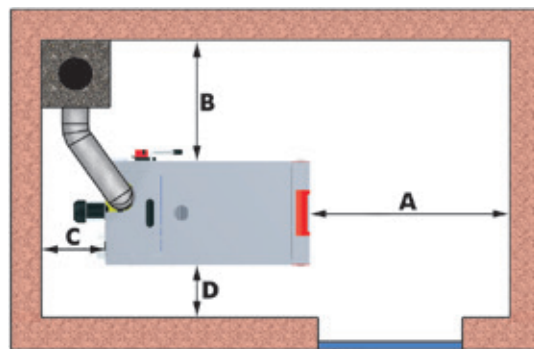
S3 Turbo with Lambdatronic, layered tank and Unicell



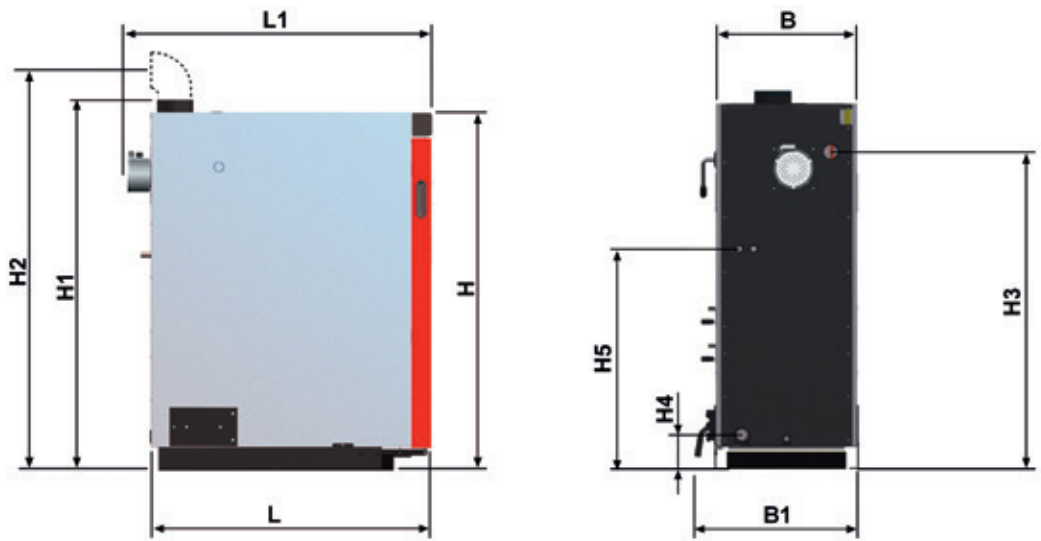
OPERATING AND MAINTENANCE AREAS

Minimum distances - S3 Turbo [mm]	20-45
A Distance - front of boiler to wall	800
B Distance – side of boiler to wall	800 (200) ¹
C Distance – back to wall	500
D Distance – side of boiler to wall	200 (800) ¹

¹ The side of the boiler where the WOS lever is located (B or D) should be at least 800 mm from the wall to allow easy access for connecting the appliance and for maintenance work (e.g. induced draught).



DIMENSIONS & TECHNICAL SPECIFICATIONS



Dimensions - S3 Turbo [mm]		20	30	40	45
L	Length of boiler	1160	1160	1250	1250
L1	Total length including induced draught fan	1260	1260	1350	1350
B	Width of boiler	570	570	670	670
B1	Total width including side cleaning door	680	680	780	780
H	Height of boiler	1470	1470	1570	1570
H1	Total height including flue gas pipe	1530	1530	1630	1630
H2	Height of flue pipe connection	1635	1635	1735	1735
H3	Flow connection	1280	1280	1380	1380
H4	Return connection	140	140	140	140
H5	Safety heat exchanger connection	890	890	970	970
Flue pipe diameter		149	149	149	149

Technical specifications - S3 Turbo		20	30	40	45
Nominal output	[kW]	20	30	40	45
Energy (ErP) label*		A ⁺	A ⁺	A ⁺	A ⁺
Fuel loading chamber capacity	[l]	140	140	210	210
Fuel loading door (width/height)	[mm]	330 / 370	330 / 370	330 / 370	330 / 370
Water capacity	[l]	120	120	190	190
Boiler weight	[kg]	525	535	610	620

Composite label (boiler + controls)

The ecodesign requirements according to VO (EU) 2015/1189, Annex II, point 1. are met.



Pellet boiler

PE1 Pellet	7 - 35 kW
PE1c Pellet	16 - 22 kW
P4 Pellet	48 - 105 kW



Firewood boiler

S1 Turbo	15 - 20 kW
S3 Turbo	20 - 45 kW
S4 Turbo	22 - 60 kW

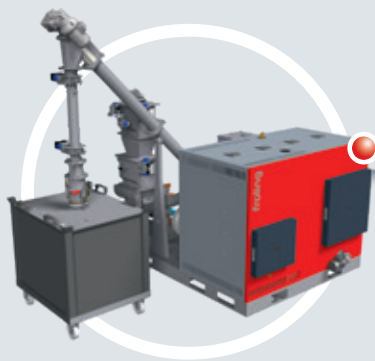
Dual fuel boiler

SP Dual compact	15 - 20 kW
SP Dual	22 - 40 kW



Wood chip / Large boilers

T4e	20 - 350 kW	TI	350 kW
Turbomat	150 - 550 kW	Lambdamat	750 - 1500 kW



Wood combined heat and power

Fixed-bed gasifier CHP	45 - 500 kWel
------------------------	---------------

Your Fröling partner

Fröling Heizkessel- und Behälterbau Ges.m.b.H.
A-4710 Grieskirchen, Industriestr. 12

AT: Tel +43 (0) 7248 606-0
Fax +43 (0) 7248 606-600

DE: Tel +49 (0) 89 927 926-0
Fax +49 (0) 89 927 926-219

E-mail: info@froeling.com
Web: www.froeling.com

