

S3 TURBO

FIREWOOD BOILER



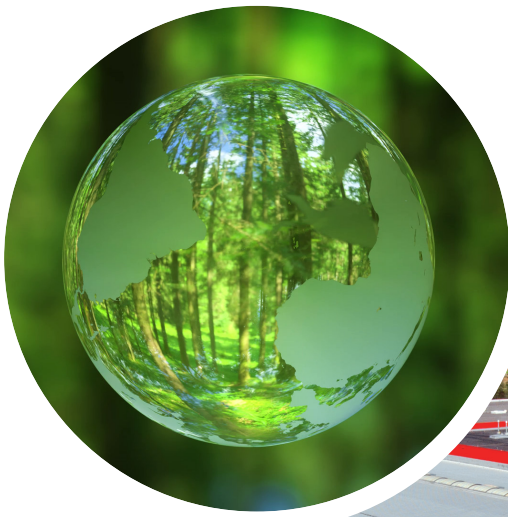
STANDARD LAMBDA
PROBE AND AUTOMATIC
AIR ACTUATORS



APPROVED FOR
INSTALLATIONS
IN ALL PROVINCES

BETTER HEATING
INNOVATIVE AND
COMFORTABLE

froling



ENVIRONMENTALLY RESPONSIBLE HEATING, ECONOMICALLY ATTRACTIVE

Wood is a plentiful, low cost and widely available fuel in Canada. Wood is carb on neutral: immune to the drastic price fluctuations of propane, oil and gas. Wood is a quintessential Canadian heating fuel from both an economic and an ecological point of view.





BIO THERMIC:
THE TEAM FOR END-TO-END
WOOD ENERGY SYSTEMS

Biothermic was founded in 2013 and is sought out for its expertise, knowledge and wide range of quality products and services. With over 200 biomass boilers placed across the country, Biothermic offers consulting and design services and supply of Fröling biomass boiler systems. Mike and Vince Rutter, brothers with backgrounds in forestry, physics, business development and natural resource management are the heart of Biothermic. Wood energy is quickly becoming the most affordable and sensible way to save heating costs while reducing carbon emissions. Biothermic will work with you to develop a project from initial analysis to design and through to installation and commissioning.

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FIREWOOD BOILER S3 TURBO

Speed-regulated induced draught fan

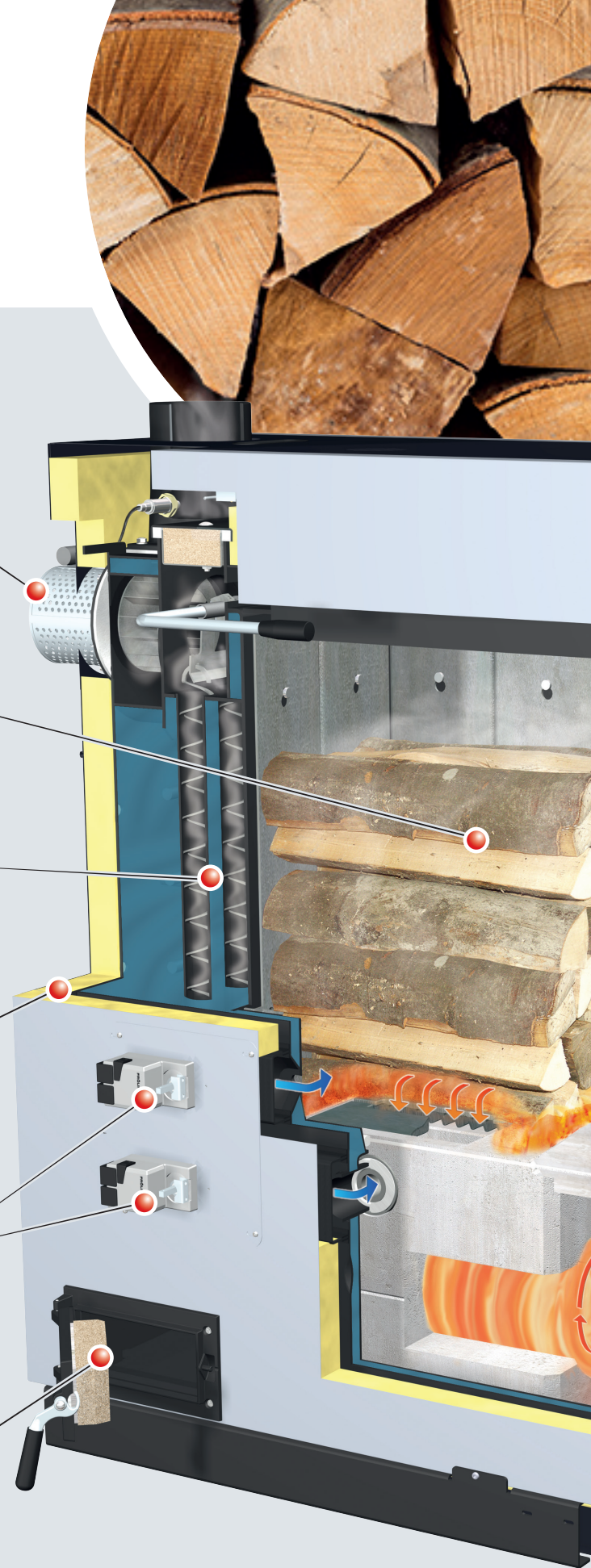
Large fuel loading chamber
for logs up to 56 cm in length

WOS system
Efficiency Optimisation System

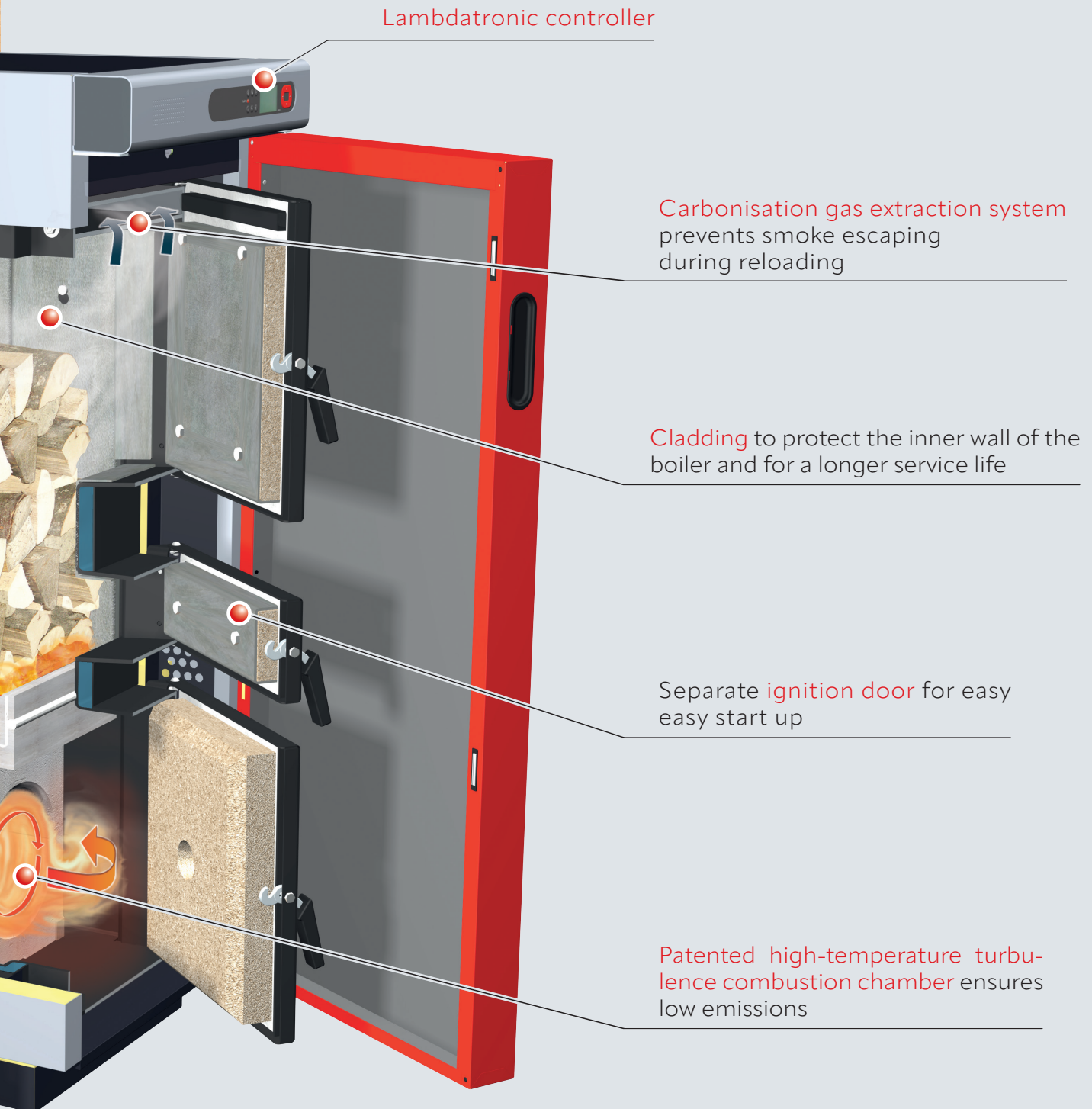
Top quality insulation to minimise radiant
heat loss

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!

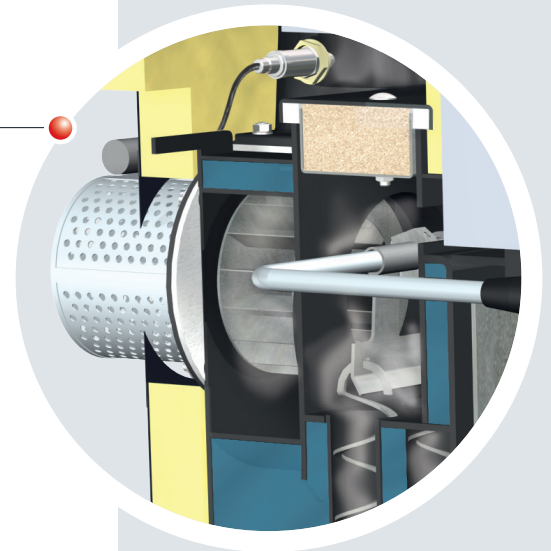
- Advantages:
- No flue gas escapes during reloading
 - The boiler room stays clean



Speed-regulated induced draught fan

The primary and secondary air settings are adjusted by the technician during commissioning. The variable speed 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 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.

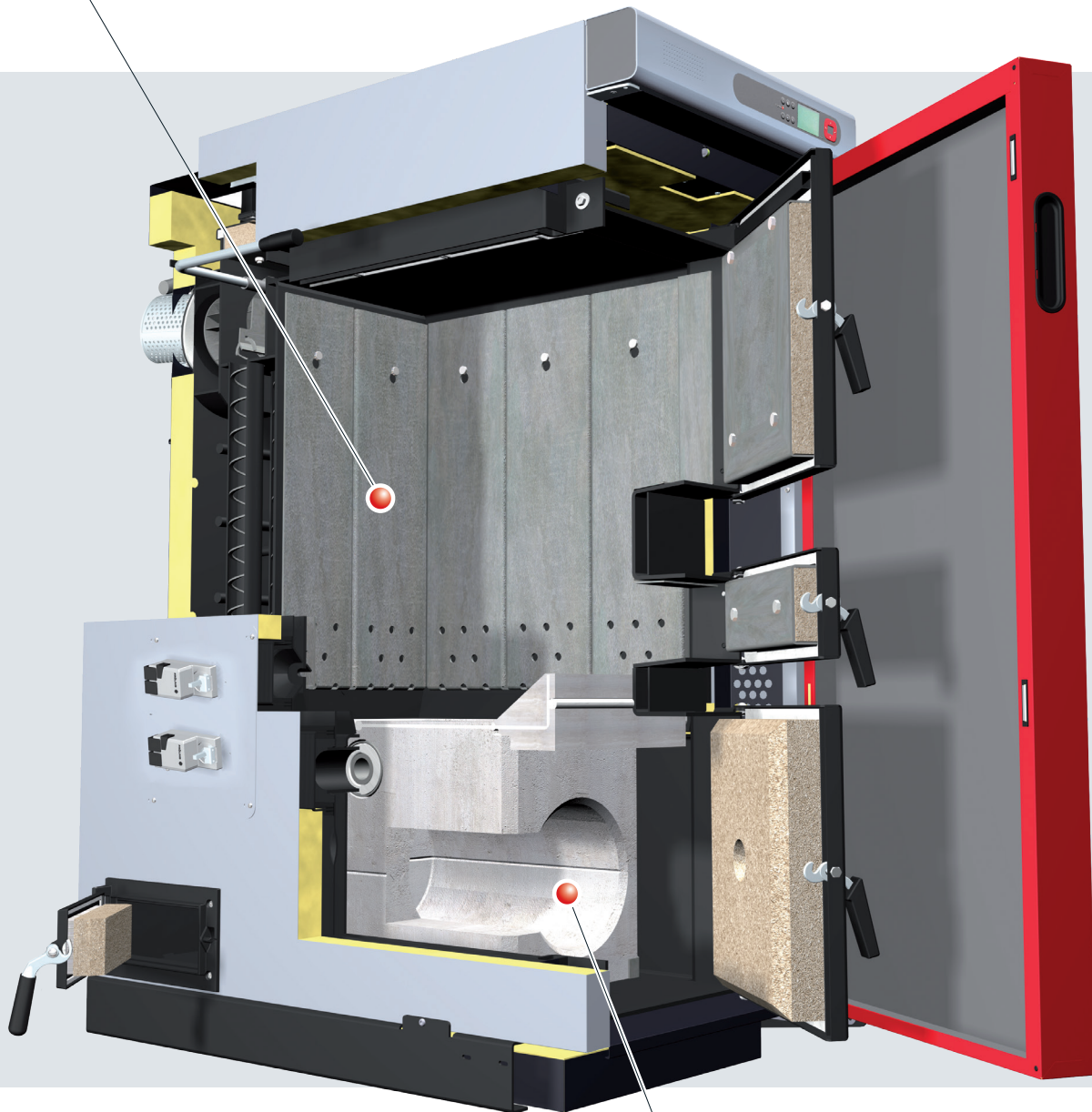
- Advantages:
- Even greater efficiency
 - Easy cleaning from outside
 - Fuel savings



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 keep our air clean.

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

SYSTEM CONVENIENCE



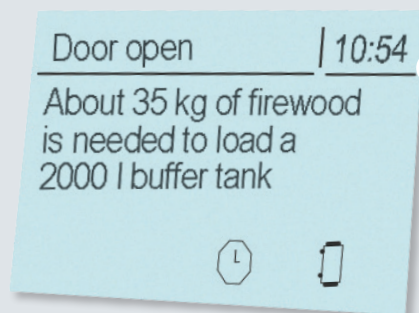
S-Tronic PLUS control

- 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.

INDIVIDUAL CONTROL UNIT OF THE HEATING SYSTEM

Lambdatronic S 3200 control unit

Fröling provides a future-oriented Lambdatronic S 3200 and a new 7" touch display. Intelligent control management makes it possible to connect up to 18 heating circuits, up to 4 storage tanks and up to 8 hot water storage tanks. The control unit ensures that the operating statuses are clearly shown. The menu structure is ideally organised to allow easy operation. All essential functions can be selected by simply pressing icons on the large colour display.

Advantages:

- Precise combustion control by a Lambda control using a Lambda probe
- Connection for up to 18 heating circuits, 8 water heaters and up to 4 storage tank management systems
- Integration capability for a solar panel system
- LED frame for status display with illuminated presence detection
- Simple and intuitive operation
- Various smart home options (such as Loxone)
- Remote control from the living room (remote control 3200 and RGB 3200 Touch) or via Internet (froeling-connect.com)



SIMPLE & INTUITIVE OPERATION

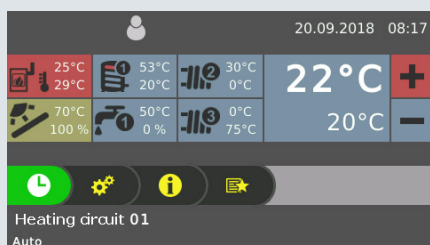


Fig. 1 General overview of the heating circuit (start screen)



Fig. 2 View of the heating times (individually adjustable)

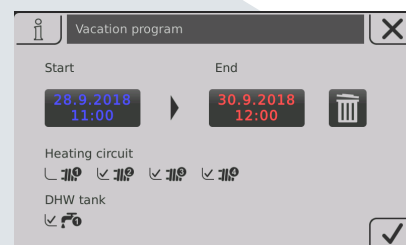


Fig. 3 Overview of the new holiday mode

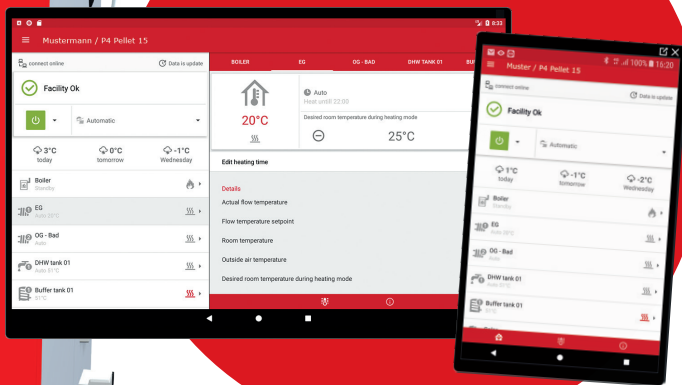


KEEP TRACK OF EVERYTHING WITH THE FROLING APP

The Froling App allows you to check and control your Froling boiler online from anywhere, at any time. You can read and modify the main status information and settings easily and conveniently online. You can also specify which status messages you want to be informed about via SMS or e-mail (e.g. when the ash box is to be emptied or in the event of a fault message).

Froling boiler (software core module from version V50.04 B05.16) with boiler touch display (from version V60.01 B01.34) a broadband internet connection and a tablet/smartphone with iOS or Android operating system are required. Once the boiler has been connected to the internet and activated, the system can be accessed 24/7 from anywhere using a web-enabled device (mobile, tablet, PC, etc.). The app is available in the Android Play Store and iOS App Store.

**NEW! Desktop version
with even more options.**



- Simple and intuitive operation of the boiler
- Status information can be called up and changed within seconds
- Individual naming of the heating circuits
- Changes of status are notified directly to the user (e.g. via e-mail or push notifications)
- No additional hardware required (such as an Internet gateway)

SMART HOME

Enjoy smart, convenient and piece-of-mind living with the Smart Home connection options from Froling.

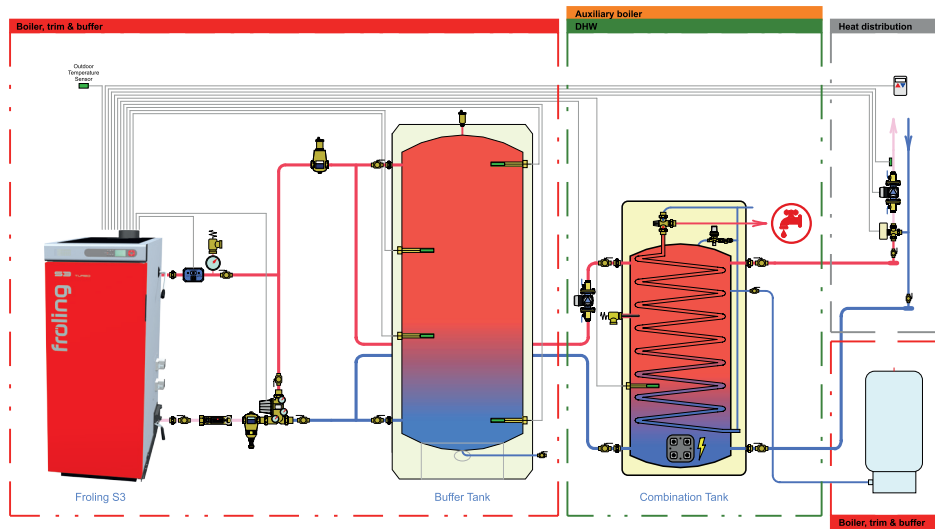


Modbus

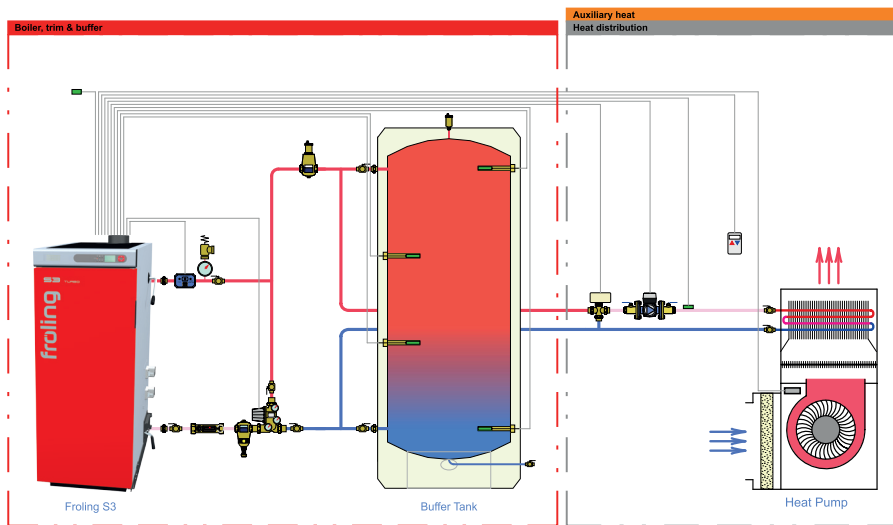
Via the Froling modbus interface, the system can be integrated into a building management system.

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 buffer tank and combination tank

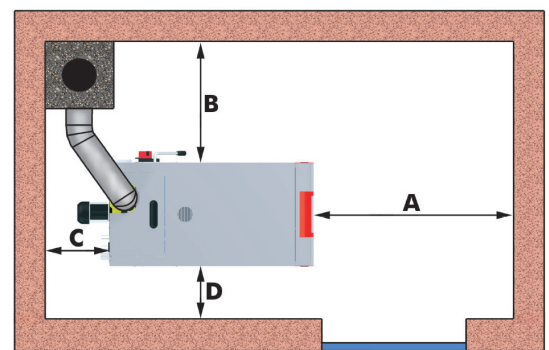


S3 Turbo with buffer tank and heat pump

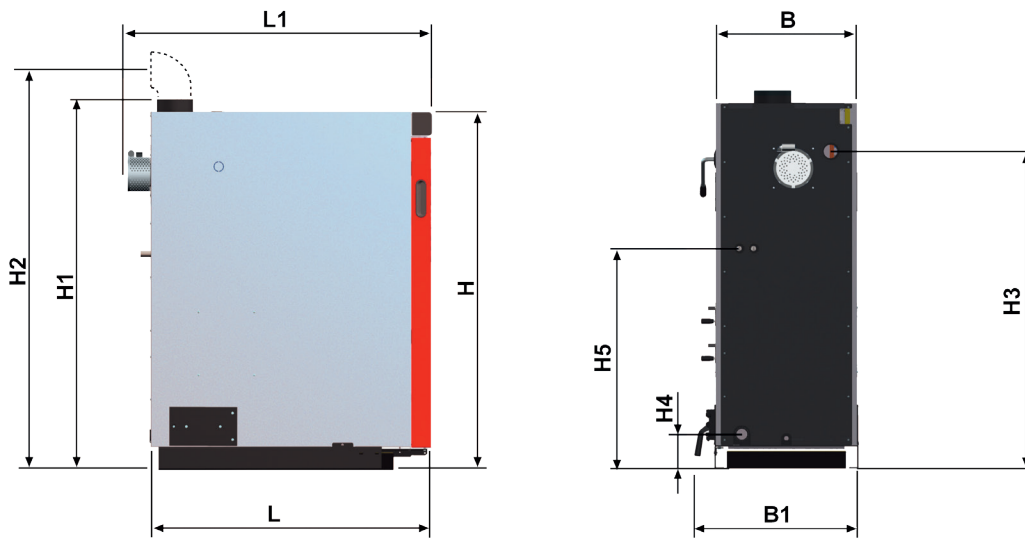


OPERATING AND MAINTENANCE AREAS

Minimum distances - S3 Turbo	30-50
A Distance - front of boiler to wall	36" (900 mm)
B Distance - side of boiler to wall	32" (800 mm)
C Distance - back to wall	14" (350 mm)
D Distance - side of boiler to wall	9" (250 mm)
Distance between ceiling and boiler	18" (460 mm)



DIMENSIONS & TECHNICAL SPECIFICATIONS



Dimensions - S3 Turbo		30	50
L	Length of boiler	45 ¾" (1160 mm)	49 ¼" (1250 mm)
L1	Total length including induced draught fan	49 ½" (1260 mm)	53 ¼" (1350 mm)
B	Width of boiler	22 ½" (570 mm)	26 ⅓" (670 mm)
B1	Total width including side cleaning door	26 ¾" (680 mm)	30 ¾" (780 mm)
H	Height of boiler	58" (1470 mm)	62" (1570 mm)
H1	Total height incl. flue gas nozzle	60 ¼" (1530 mm)	64 ¼" (1630 mm)
H2	Height of flue pipe connection	69" (1750 mm)	73" (1850 mm)
H3	Height of flow connection	50 ½" (1280 mm)	54 ⅓" (1380 mm)
H4	Height of return connection	5 ½" (140 mm)	5 ½" (140 mm)
H5	Height of safety battery connection	35" (890 mm)	38 ¼" (970 mm)
Flue gas connector Diameter		6" (150 mm)	6" (150 mm)

Technical specifications - S3 Turbo		30	50
Nominal heat output	BtU / kW	102,500 / 30	170,000 / 50
Fuel loading chamber capacity	gal / l	37 / 140	55 / 210
Fuel loading door dimensions (width / height)	inch mm	13 / 14.5 330 / 370	13 / 14.5 330 / 370
Total boiler capacity (water)	gal / l	32 / 120	50 / 190
Weight of boiler incl. insulation and control	lbs / kg	1170 / 530	1370 / 620

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



Pellet boiler

PE1 Pellet	15 - 35 kW
P4 Pellet	80 - 100 kW



Firewood boiler

S3 Turbo	20 - 50 kW
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Wood chip / Large boilers

T4	130 - 150 kW
Turbomat	400 - 500 kW



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