SOLARFOCUS

Pellet boiler 50 - 120 kW

ecoPELL zero

REMOTE ACCESS AND ASSISTANCE - H24 - REMOTE ACCESS AND ASSISTANCE - H24 -
Compatible with SOLARFOCUS CONNECT

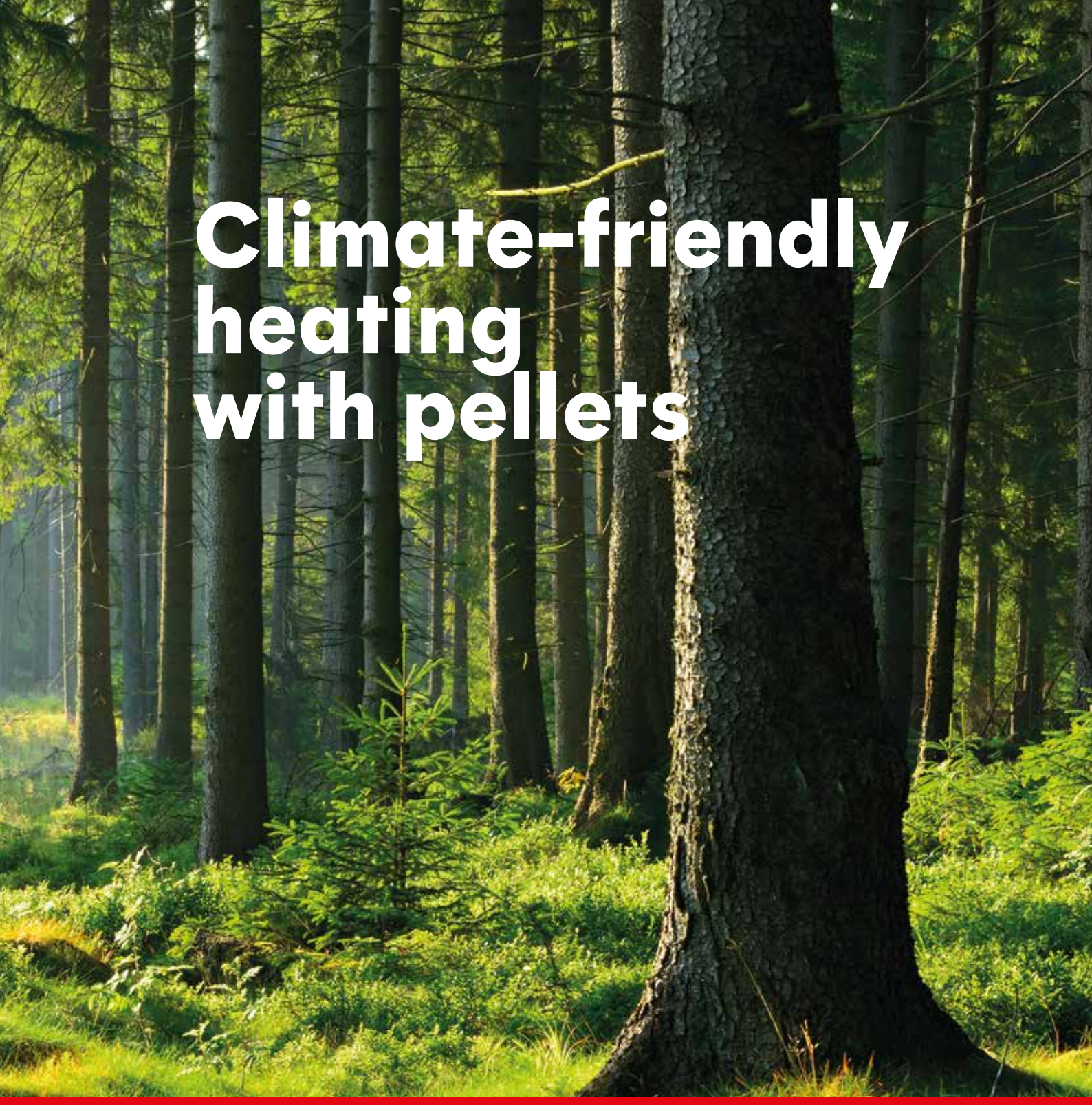
Zero Emission Technology

- For commercial buildings and multi-family houses
- Integrated flue gas recirculation
- Multi-part 120° multi tilting grate

5 JAHRE SYSTEM GARANTIE

Choosing the right heating system is an important decision that will have an impact for many years. A pellet boiler from SOLARFOCUS is a premium product that offers a safe and reliable source of cosy heat for your building. With an electrostatic particle filter and flue gas recirculation integrated as standard, the boiler boasts state-of-the-art technology.

SOLARFOCUS is a company based in Upper Austria which since 1998 has developed, produced and sold innovative, high-quality biomass boilers that thousands of customers love. Numerous patents and innovative solutions are the hallmark of our products, and the high-quality workmanship of our boilers can be seen in every single detail.



Climate-friendly heating with pellets

5-year system warranty

There's more to an efficient heating system than just an efficient pellet boiler. In particular, all components have to interact perfectly to ensure safe and cost-effective operation. For this reason, SOLARFOCUS grants a 5-year system warranty on all registered and maintained systems. The system warranty covers all components supplied by SOLARFOCUS.

For more details and to sign up for the 5-year system warranty, see:
www.solarfocus.com/de/systemgarantie

5 JAHRE SYSTEM GARANTIE

Key features of the ecoPELLzero

Speed-controlled, high-efficiency induced draught fan

The speed-controlled induced draught fan draws in the necessary combustion air via the primary and secondary air flaps. This creates a constant vacuum in the boiler, allowing the pellets to be burned efficiently with ultra-low emissions.

Flue gas recirculation

Integrated as standard, flue gas recirculation reduces the temperature in the combustion chamber. This combustion technology is used in particular with very dry fuels such as pellets.

Low flue gas connection

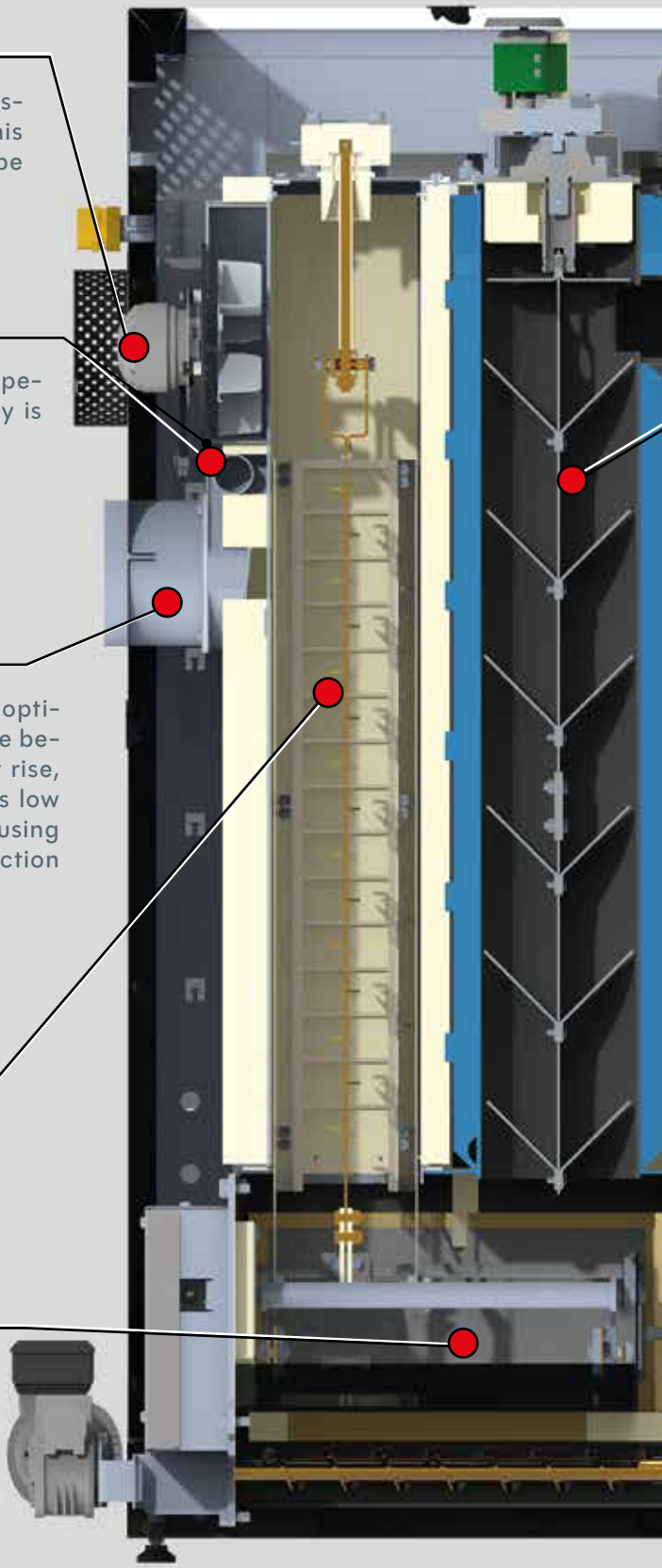
The ecoPELLzero has been specially designed to provide the optimum height for the flue gas connection. As the connecting piece between the boiler and the chimney must always feature a slight rise, it is extremely important to position the flue gas connection as low as possible on the boiler. The clever positioning of the spiral housing means that, unlike with other boilers on the market, this connection can be positioned low down as standard.

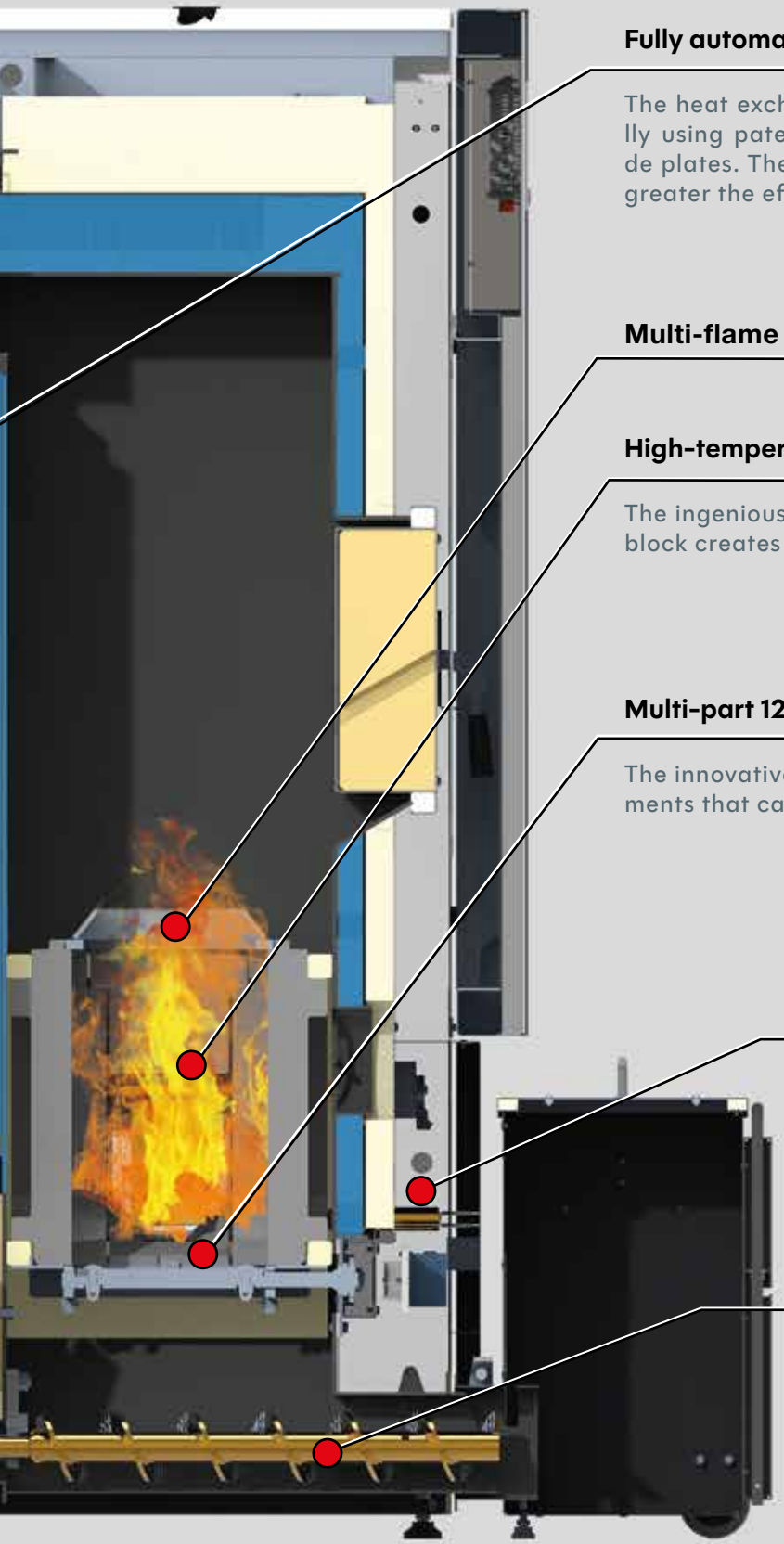
Electrostatic dust collector

The high separation rate of 85% keeps dust emissions below the measurable limit of < 1.0 mg/Nm³.

Lambda sensor

Measuring the residual oxygen content in the flue gas allows the boiler to be operated within the optimum operating range at all times.





Fully automatic cleaning of all heat exchangers

The heat exchangers in the ecoPELL are cleaned automatically using patented turbulators fitted with flow-optimised guide plates. The cleaner the surface of the heat exchangers, the greater the efficiency of the boiler.

Multi-flame nozzle

High-temperature silicon carbide combustion chamber

The ingenious geometry of the individual combustion chamber block creates high turbulence and minimises CO emissions.

Multi-part 120° multi tilting grate with robust drive

The innovative multi tilting grate consists of multiple grate elements that can be tilted up to 120°.

Fast, optimised ignition

The noiseless ceramic ignition device ensures the fuel is ignited safely and efficiently.

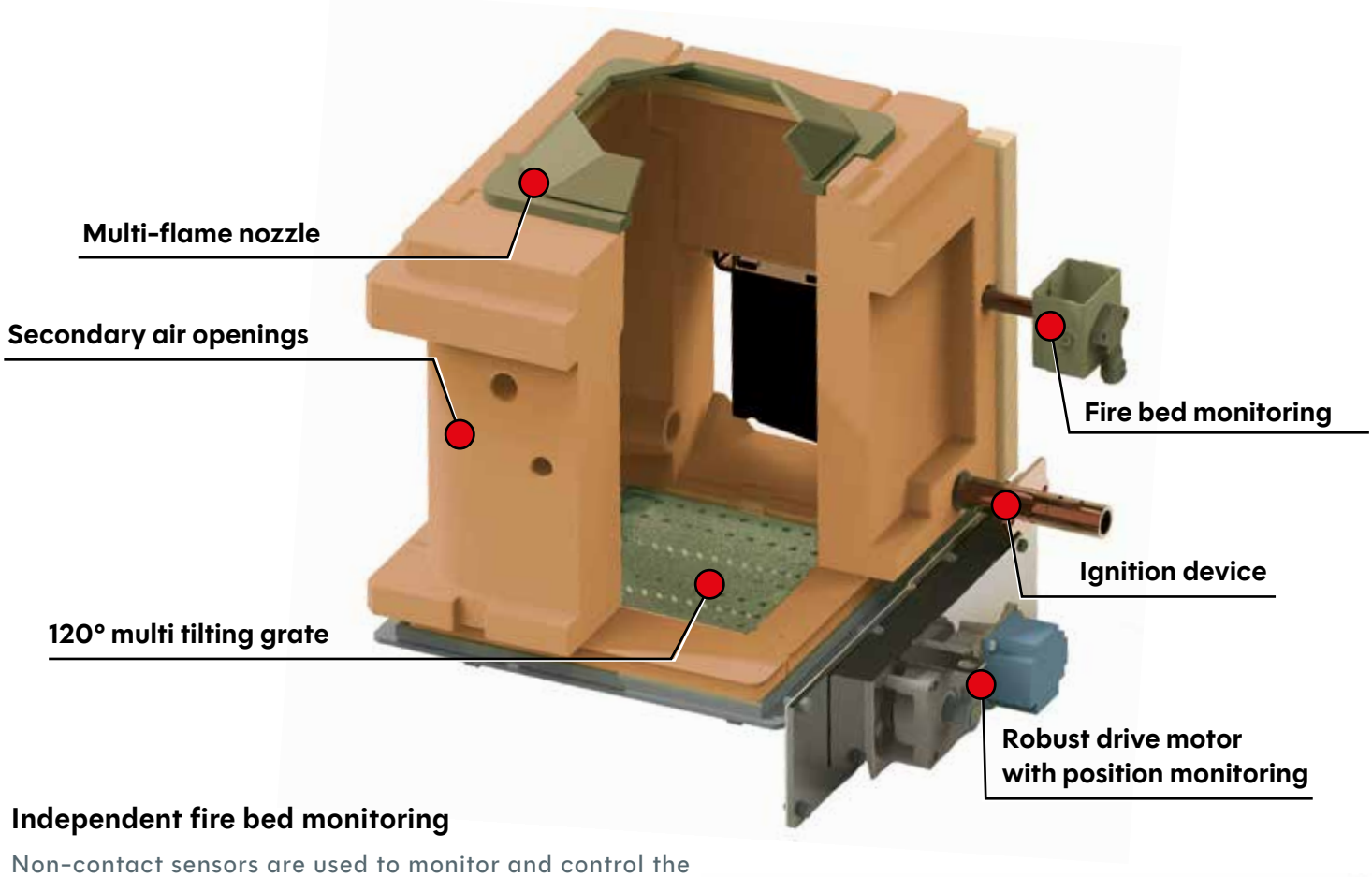
Fully automatic ash removal to an ash container on wheels

The ash is compacted by the ash auger and automatically removed to a large, external ash container This means the intervals between emptying the chamber are much longer.

Optimised combustion

High-temperature silicon carbide combustion chamber

The ingenious geometry of the individual combustion chamber block keeps the temperatures in the combustion area high. This, combined with the multi-flame nozzle and the asymmetric arrangement of the secondary air nozzles, further increases the turbulence in the combustion chamber to obtain as much energy as possible from the fuel.



Independent fire bed monitoring

Non-contact sensors are used to monitor and control the fire bed to ensure there is always the right amount of fuel on the multi tilting grate.

Fast, optimised ignition

The noiseless ceramic ignition device ensures the fuel is ignited safely and efficiently. When the lambda sensor and the flue gas temperature sensor detect that the fuel has been successfully ignited, the ignition device is switched off. This optimised ignition process saves energy.

Lambda sensor

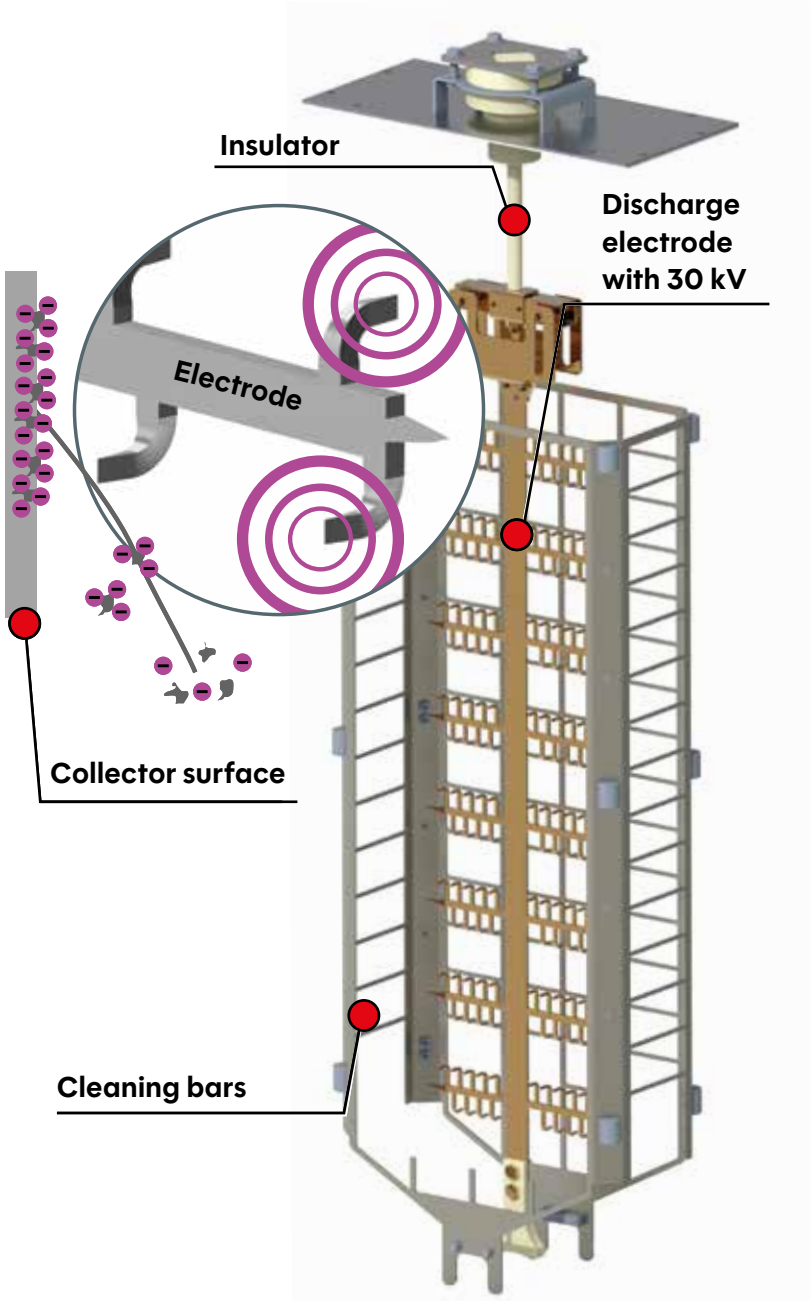
The lambda sensor measures the ratio of fuel to oxygen intake. Measuring the residual oxygen content allows the boiler to be operated within the optimum operating range at all times.

Zero Emission Technology

Electrostatic particle filter

To filter the last remaining dust particles from the flue gas stream, the ecoPELLzero features an integrated electrostatic particle filter as standard and a special discharge electrode to energise and ionise the ultra-fine dust particles. This ionisation deflects the charged particles so they form a layer of dust on the collector surface. As a result, the deposited particles remain within the boiler and cannot escape with the flue gas via the chimney.

The Zero Emission Technology can be retrofitted to the ecoPELLlight at any time.



Automatic cleaning

To ensure the particle filter always works as effectively as possible, impurities must be automatically removed from the discharge electrode and the collector surface.

So the particle filter of the ecoPELLzero is automatically cleaned with each ash removal cycle. The filtered dust falls into the ash chamber below and is transported using the ash auger along with the flue ash and combustion chamber ash to the ash container.

Innovative technical solutions

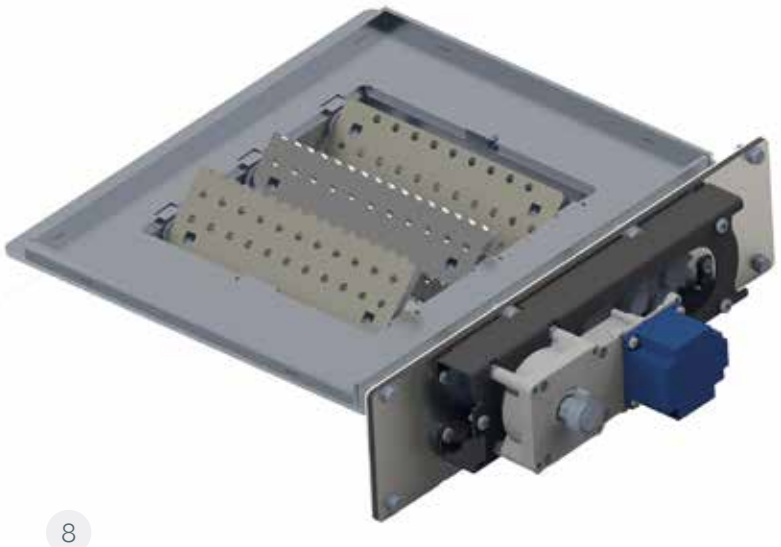
Flue gas recirculation

Integrated as standard, flue gas recirculation reduces the temperature in the combustion chamber. This combustion technology is used in particular with very dry fuels such as pellets.

It involves mixing part of the flue gas with the combustion air and feeding it back into the combustion chamber. The recirculated flue gas cools the fire bed, so that the combustion temperature can be kept below 1,000°C. That means flue gas recirculation optimises combustion and boiler performance and reduces NOx emissions – with the added benefit that the low combustion temperatures provide additional protection for the components exposed to flames.

Integrated return flow boosting

The integrated, mixer-controlled return flow boosting brings the boiler quickly to the required temperature and means external return flow boosting is not required. This reduces the installation time and the amount of space needed in the heating room. The mixer control also means the residual heat can be used at the end of a firing phase: when the temperature in the buffer tank has fallen to lower than that in the boiler, the pump starts up again, the return mixer opens, and the residual heat from the boiler is transferred to the buffer tank. The individual components are easily accessible and are always positioned on the right side of the boiler.



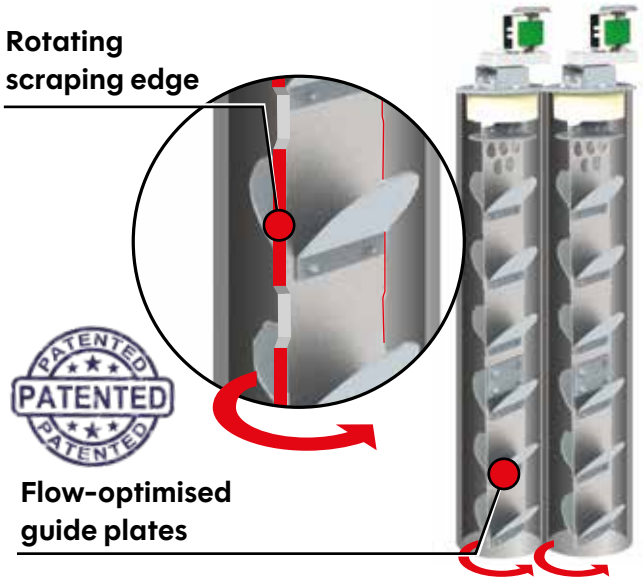
Multi-part 120° multi tilting grate with robust drive

The innovative multi tilting grate consists of multiple grate elements that can be tilted up to 120°.
The particular benefit of this design is that the openings for the primary air that flows between the tilting grate elements are automatically cleaned each time they tilt.

Cleaning and ash extraction

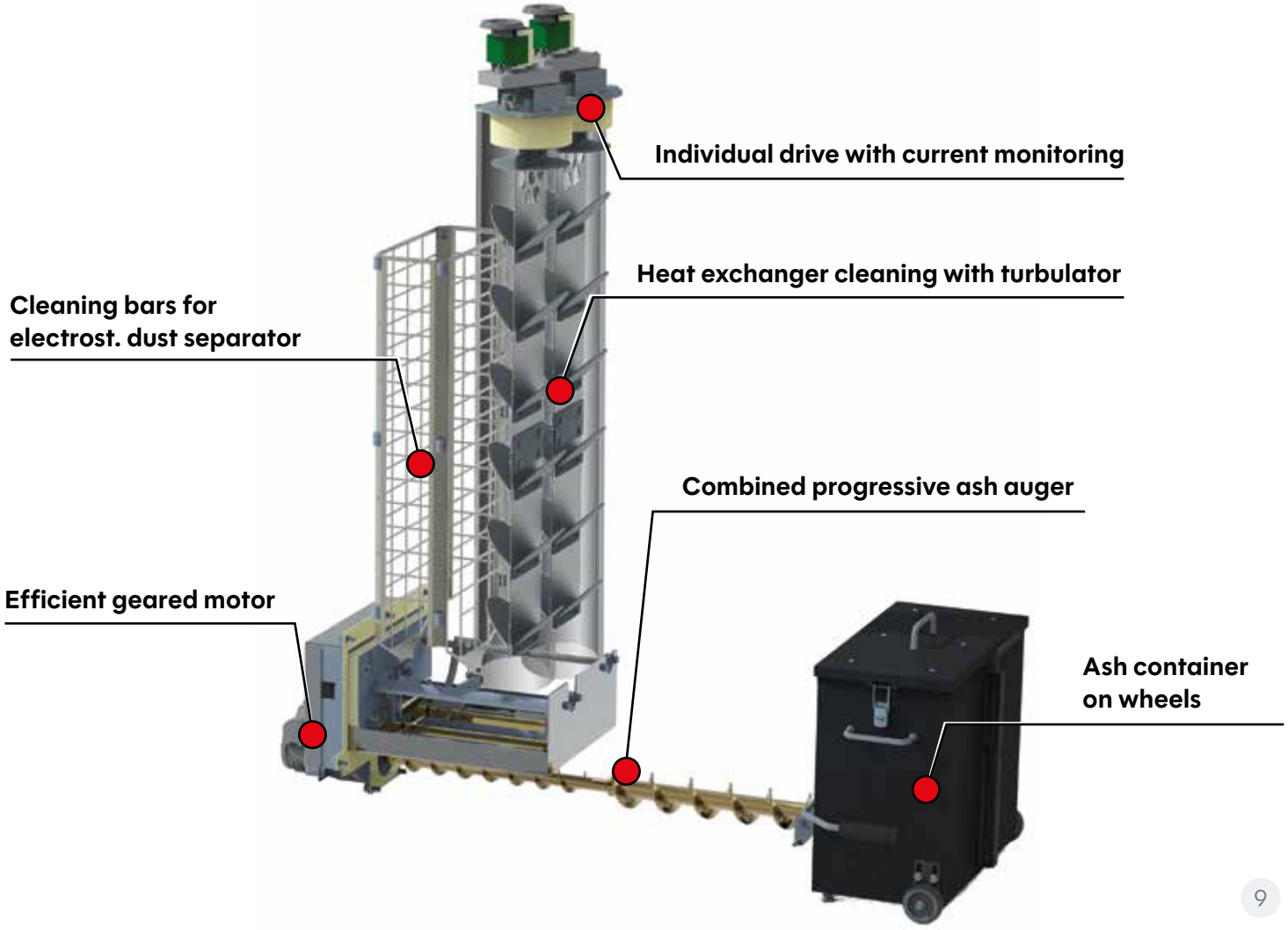
Fully automatic cleaning of all heat exchangers

The heat exchangers in the ecoPELLzero are cleaned automatically using patented turbulators fitted with flow-optimised guide plates. The cleaner the surface of the heat exchangers, the greater the efficiency of the boiler. Instead of conventional systems, SOLARFOCUS uses turbulators with scraping edges that rotate around their own axis rather than moving up and down. This rotation of the scraping edges removes the dirt effectively withoutgenerating loud noises.



Removing the ash to an ash container on wheels

The ash is compacted by the ash auger and automatically removed to a large, external ash container, which significantly increases the intervals between emptying the chamber. Once the ash container is full, it's quick and easy to move it on its wheels using the side handles or the integrated pull-out.

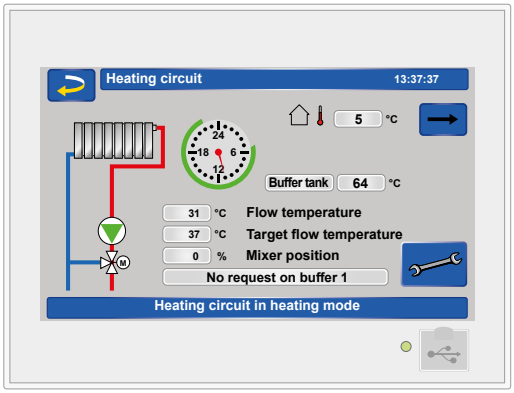


Controller for the entire heating system

- Intuitive control unit with 7" touch display
- Takes the weather forecast into account
- All controlled via a screen

Clear operation for the entire heating system

With its intuitive ecomanager-touch control system, SOLARFOCUS offers outstanding user-friendliness. The state-of-the-art control system is incredibly easy to use, with a touchscreen to control the boiler and the whole heating system. This allows all SOLARFOCUS products within a heat network to be linked and synchronised as effectively as possible.

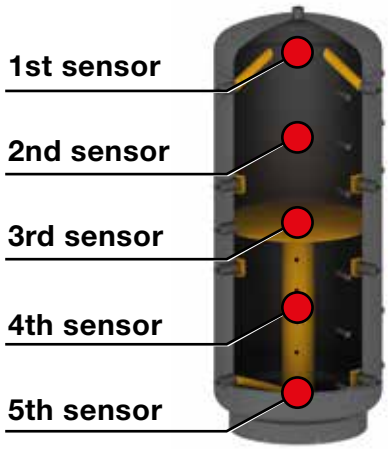


Buffer tank management

All sensors and functions for controlling a buffer tank are already included as standard. Depending on the system layout, up to 4 buffer tanks can be integrated into the control system. Multi-sensor buffer tank management is available for larger buffer tank sizes or for cascade control.

Multi-sensor buffer tank management

The multi-sensor buffer tank management option gives you up to five sensors distributed at various heights in the buffer tank, rather than the conventional two temperature sensors. The individual sensor values can be used to determine the charge status of the buffer tank. This option is particularly helpful for cascade systems, as varying loads can be detected sooner and the boiler output can be adjusted more quickly – which increases the boiler runtimes and reduces the start/stop intervals, increasing the efficiency of the overall system.



Weather-guided heating circuit

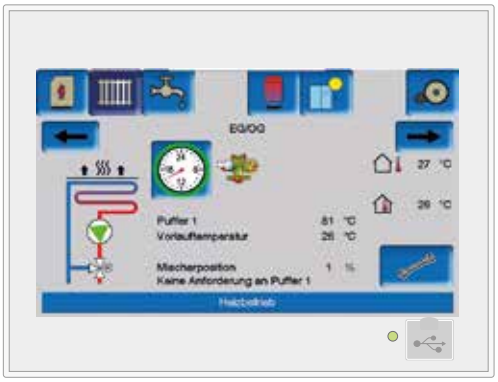
All sensors and functions for controlling a mixer-controlled heating circuit are already included as standard. Different time windows, holiday programmes or drops in temperature can be set individually. Up to 8 mixer-controlled heating circuits can be integrated into the control system. Each heating circuit can be extended with a room temperature sensor or controller. Versions with a radio or cable connection are available.

Hot water preparation

All sensors and functions for controlling a hot water tank or a fresh water module are already included as standard. Up to 4 hot water tanks/combination tanks or 4 fresh water modules can be integrated into the control system. Circulation pumps with different programmes (flow impulse, time, temperature) can also be controlled for all variants. Alternatively, circulation can also be triggered via Modbus using a motion sensor, for example.

Solar thermal system

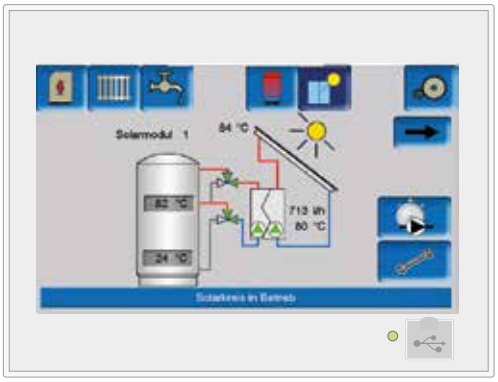
SOLARFOCUS offers complete flexibility when integrating the optional solar thermal system, with 3-circuit solar energy systems available in addition to the usual 1-circuit or 2-circuit systems with one or two buffer tanks. And a SOLARFOCUS stratified charging module, pool heating and multiple collector arrays can also be integrated. Plus, the ecomanager-touch control system has additional features such as a heat dissipation function, a start-up function, relative priority and the innovative weather forecast function.



Weather forecast control

The weather forecast control, integrated as standard, accesses real-time data and weather forecasts for the saved location when connected to the internet. The system decides whether or not to start up the boiler if the forecast is good, which gives the thermal solar energy system more time and the chance to supply more energy to the buffer tank.

But even if you don't have a solar thermal system, this function still helps you reduce what you pay. If sunny weather is forecast, the calculated flow temperature can also be reduced to avoid overheating living areas. Over the course of a year, this innovative system will save you lots of money.



Additional control features

As well as the standard features, additional functions are available:

- Excess PV current control for up to 3 electric heaters
- Dual-circuit temperature difference charge control
- External boiler integration for oil-fired boilers, gas boilers, heat pumps or wood-burning stoves
- Remote control with mixer for heat distribution across multiple buildings
- Cascade control of multiple SOLARFOCUS heat generators
- Room air module to control combustion air supply

Smart home integration

All SOLARFOCUS boilers have a LAN and a Modbus TCP interface as standard. This makes it easy to integrate the boiler into a network and control it remotely via PC, tablet or smartphone.

LOXONE

SOLARFOCUS products also communicate with the LOXONE smart home control system using an integrated Modbus TCP interface. No additional SOLARFOCUS extensions are required for the connection to the miniserver.

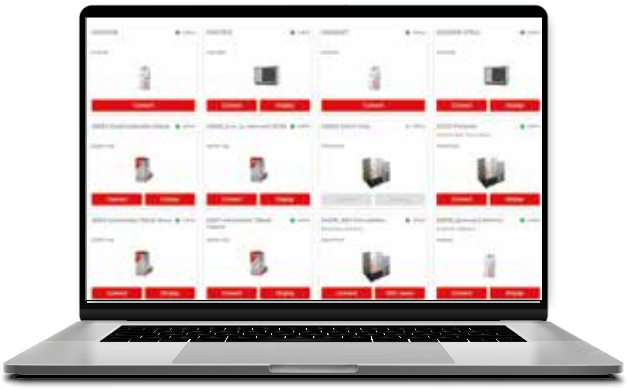
KNX

The ecomanager-touch can be connected to a KNX control system using a converter from KNX to Modbus TCP. The converter required for this is available from your trusted KNX partner.

SOLARFOCUS CONNECT

SOLARFOCUS-Connect

Is a fee-based platform that provides the customer with full remote access to the ecomanager-touch via VNC. With SOLARFOCUS Connect, you can see your boiler display on your smartphone, tablet or PC as if you were standing right in front of it. It is connected via a secure VPN channel, so only authorised users have access to it.



If you have any questions for the heating engineer in charge or a SOLARFOCUS technician, you can grant them temporary access to the controller. This means that questions or settings can be explained live on the display. And it also enables more targeted, faster remote diagnoses in order to provide you with better assistance and avoid anyone having to be called out.

mySOLARFOCUS

My SOLARFOCUS

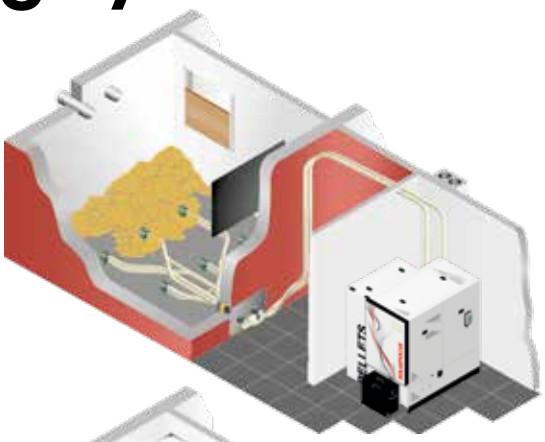
The free mySOLARFOCUS app allows you to control the most important functions of your heating system remotely. For example, you can select different operating modes (holiday mode, automatic mode or reduced mode) of the heating circuits and you can control the temperatures of the hot water and buffer tanks. The current status line of the heat generator is also displayed.

If a solar thermal system with a heat meter is also installed, the current and historical solar yields can also be shown. Push notifications to your smartphone give you important information. It's quick and easy to set up the app on your smartphone, and it's available for Android and iOS.

Storeroom and conveying systems

ecoPELL with suction heads and diverter for suction heads (DFSH), manual or automatic

- Maximum hose length 20 m (boiler – DFSH)
  Maximum auger height 2.5 m (boiler – DFSH)
- Optimum utilisation of space
  Easy to install
  Also suitable for irregularly shaped storage areas/rooms



ecoPELL with pellet box

Extraction with suction auger

- Maximum hose length 35 m
  Maximum auger height 5 m

Extraction with suction head

- Maximum hose length 20 m
  Maximum auger height 2.5 m

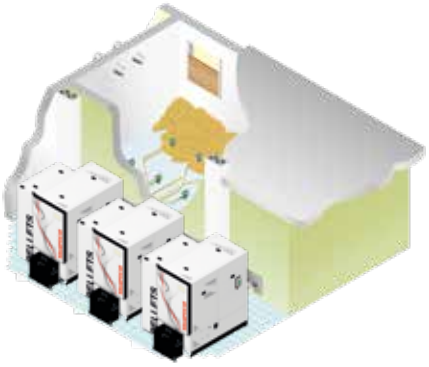
ecoPELL with suction auger

- Maximum hose length 35 m
  Maximum auger height 5 m
- Maximum auger length 6 m
- Storage area can be completely emptied

Cascade solutions

The ecoPELL pellet boiler has been developed especially for commercial applications and multi-storey residential buildings. The optional cascade control allows up to six boilers to be combined. In the summer or during transitional periods, when only part of the full performance is required, a single ecoPELL 70 (for example) can meet the entire energy requirements while other boilers remain switched off. This enhanced efficiency compared to commercial boilers helps you save fuel.

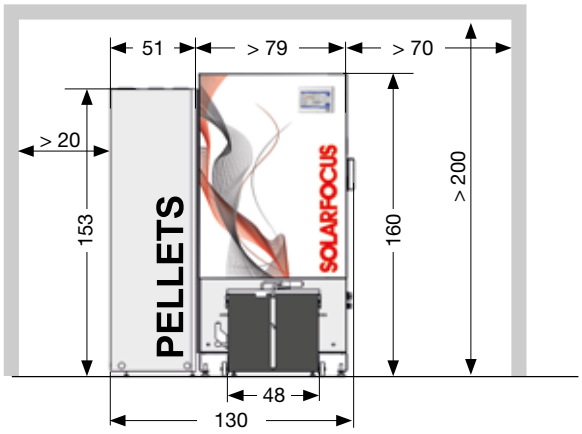
Statistics show that maximum performance from a boiler is only needed for 10% of the year. Boilers run at partial load or in the low-performance range (or in cycle mode) for the remaining 90% of the time, so they aren't used as efficiently as they could be. Cascading solutions are an effective way to improve efficiency.

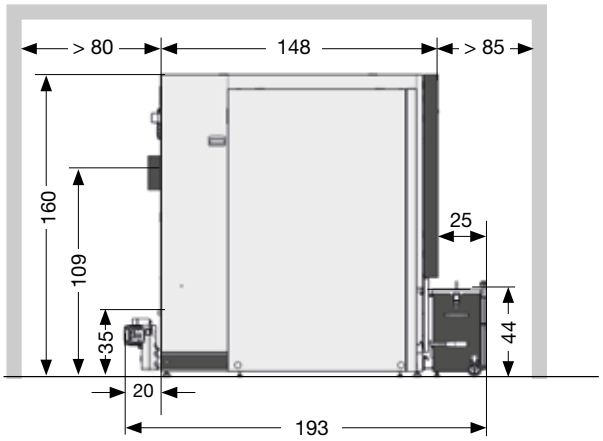


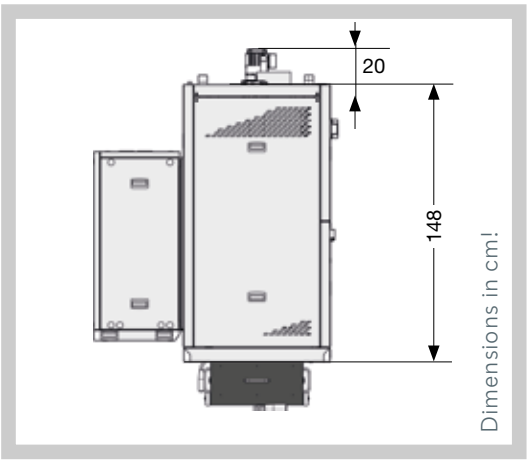
How you benefit

- Maximum operational safety, and maintenance can be carried out without interrupting the heat output.
- The flexible combination of performance classes means you can adapt the system to suit your needs.

Technical specifications

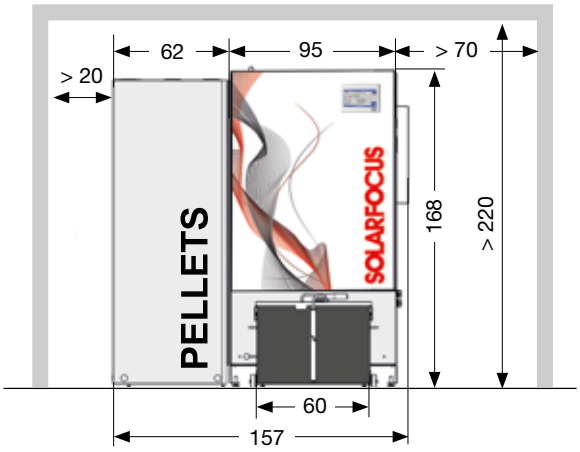


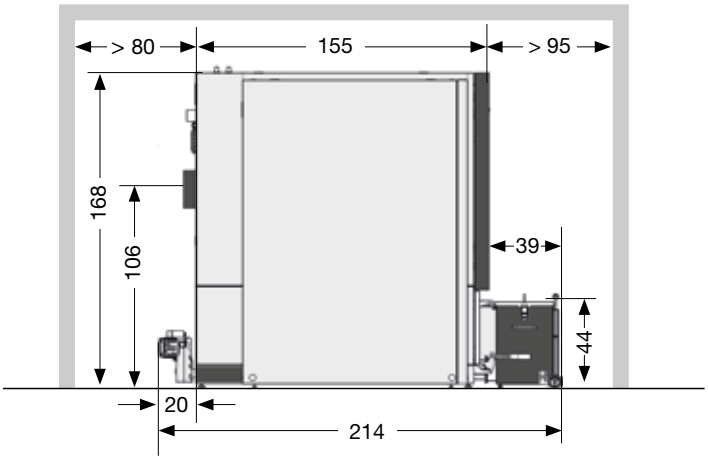


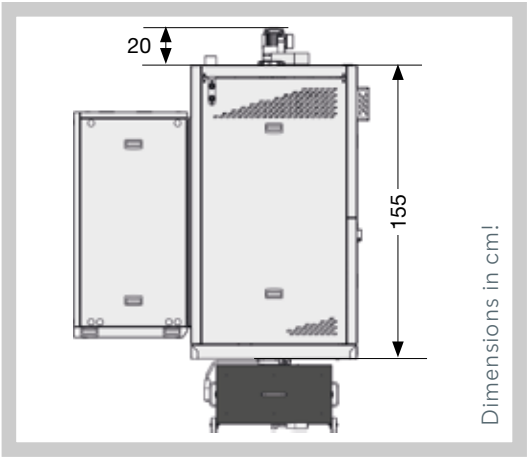


ecoPELL		50	60	70	80
Power range	[kW]	15 - 49	18 - 59	20,7 - 69	23,7 - 79
Boiler class acc. to EN303-5:2021		5	5	5	5
Composite label energy efficiency class (with control)		A+	A+	A+	A+
Dimensions					
Width	[cm]	130	130	130	130
Height	[cm]	160	160	160	160
Depth without/with ash container and drive	[cm]	148/193	148/193	148/193	148/193
Minimum room height	[cm]	200	200	200	200
Recommended room height	[cm]	230	230	230	230
Flue gas side					
Flue gas pipe DM	[cm]	15	18	18	18
Height to flue gas pipe - centre	[cm]	109	109	109	109
Minimum draught requirement	[Pa]	5	5	5	5
Flue gas mass flow full load	[g/s]	29	36	43	49
Max. flue gas temperature full load	[°C]	140	140	140	140
Weight					
Pellet distributor box + feeder weight	[kg]	140	140	140	140
Boilet weight	[kg]	860	860	860	860
Water side					
Water content	[l]	205	205	205	205
Temperature controller adjustment range	[°C]	70 - 85	70 - 85	70 - 85	70 - 85
Max. permissible temperature	[°C]	95	95	95	95
Max. permissible operating pressure	[bar]	3	3	3	3
Boiler flow/boiler return connection	["]	ET 6/4"			
Filling and draining valve connection	["]	IT 3/4"			
Thermal overload protection	["]	External thread 1/2	External thread 1/2	External thread 1/2	External thread 1/2
Electrical connection					
Power supply, fuse	[V, Hz, A]	230 V AC/50 Hz, 10 A			
Fuel					
Suitable fuel		Pellets EN ISO 17225-2, Class A1			
Capacity of ash container	[l]	51	51	51	51
Intermediate pellet store	[l]	140	140	140	140

Technical specifications







ecoPELL		90	100	110	120
Power range	[kW]	26,7 - 89	29,7 - 99	33 - 110	36 - 120
Boiler class acc. to EN303-5:2021		5	5	5	5
Composite label energy efficiency class (with control)		A+	A+	A+	A+
Dimensions					
Width	[cm]	157	157	157	157
Height	[cm]	168	168	168	168
Depth without/with ash container and drive	[cm]	155/214	155/214	155/214	155/214
Minimum room height	[cm]	220	220	220	220
Recommended room height	[cm]	240	240	240	240
Flue gas side					
Flue gas pipe DM	[cm]	20	20	20	20
Height to flue gas pipe - centre	[cm]	106	106	106	106
Minimum draught requirement	[Pa]	5	5	5	5
Flue gas mass flow full load	[g/s]	51	58	64	73
Max. flue gas temperature full load	[°C]	140	140	140	140
Weight					
Pellet distributor box + feeder weight	[kg]	200	200	200	200
Boilet weight	[kg]	1.160	1.160	1.160	1.160
Water side					
Water content	[l]	302	302	302	302
Temperature controller adjustment range	[°C]	70 - 85	70 - 85	70 - 85	70 - 85
Max. permissible temperature	[°C]	95	95	95	95
Max. permissible operating pressure	[bar]	3	3	3	3
Boiler flow/boiler return connection	["]	G 2" ET			
Filling and draining valve connection	["]	G 1/2" IT			
Thermal overload protection	["]	External thread 1/2	External thread 1/2	External thread 1/2	External thread 1/2
Electrical connection					
Power supply, fuse	[V, Hz, A]	230 V AC/50 Hz, 10 A			
Fuel					
Suitable fuel		Pellets EN ISO 17225-2, Class A1			
Capacity of ash container	[l]	78	78	78	78
Intermediate pellet store	[l]	280	280	280	280

Pellet boiler

pelletelegance:	10 to 24 kW
octoplus:	15 to 22 kW
ecotopzero:	15 to 24 kW
pellettop:	35 to 70 kW
ecopellzero:	50 to 120 kW
maximus:	110 to 300 kW

Dual fuel boiler for wood and pellets

therminator II dual fuel:	22 to 60 kW

Log wood boiler

therminator II SH:	18 to 60 kW

Wood chip boiler

ecohackzero:	30 to 120 kW
maximus:	120 to 250 kW

Air source heat pump

vampair PRO 08 - 10
vampair PRO 12 - 15
vampair PRO 20
vampair ECO 08 - 12

Solar energy system

CPC collector
Sunnyline
SUNeco

Photovoltaic system

PV modules
Batteries
Heat pump and PV

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