

Pellet boiler

pellet^{top} touch



- ✓ Powerful products
- ✓ Modern design
- ✓ Low emissions



Pellets



Wood gasification technology

- ✓ Heating comfort creates living comfort!
- ✓ Our experience is your advantage!
- ✓ Good heat grows!

SOLARFOCUS

Comfort starts with heating!





Heating comfort is living comfort!

- High efficiency
- Compact structure
- Touch-screen-control

It works so easily

Based on its compact structure, the **pellet^{top}** can be easily fitted in to boiler room. The space requirement is no greater than for an oil-fired boiler.

Due to the "ready" delivery of the **pellet^{top}** (wired, assembled, inspected and pre-set), install time and costs are reduced.

Your benefit

- Technologies that set new standards
- Independence from fossil fuels like oil and gas

pellet^{top} Pellet boiler

pellet^{top} – The classic one

- Boiler efficiency: up to 94,8%.
- Compact structure – fits in almost every boiler room
- Modern touch-screen-control. Possibility for visualisation on smartphones, tablets and PCs!
- Ambient air-independent operation possible
- Power ratings: 15, 25, 35, 45, 49 and 70 kW suitable for cascade controls up to 420 kW.

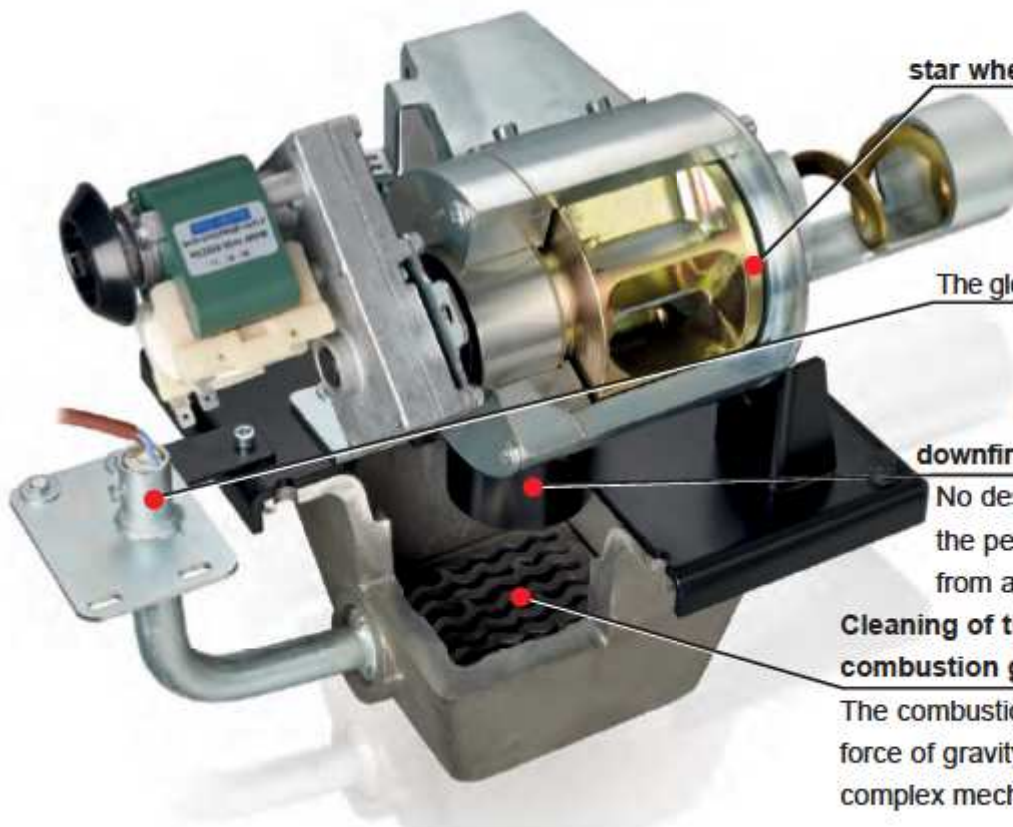
Applications

- ✓ New buildings and renovation
- ✓ Single- and multi-family houses
- ✓ Hotel business, Industry and Commerce



Your benefits

Compact burning unit



Screw feeder with Rotary star wheel backburning protection
 No chains and gears - quiet and maintenance-free.

Automatic ignition
 The glow pencil only requires 260 W.

Stepped grate system with downfiring combustion technology
 No destruction of the fire bed, as the pellets drop onto the fire bed from above.

Cleaning of the stainless steel combustion grate
 The combustion grate is cleaned by the force of gravity, with no moving parts or complex mechanisms.

Gasifier technology

Complete burning by top flame temperatures about 1.200°C.



Lambda sensor

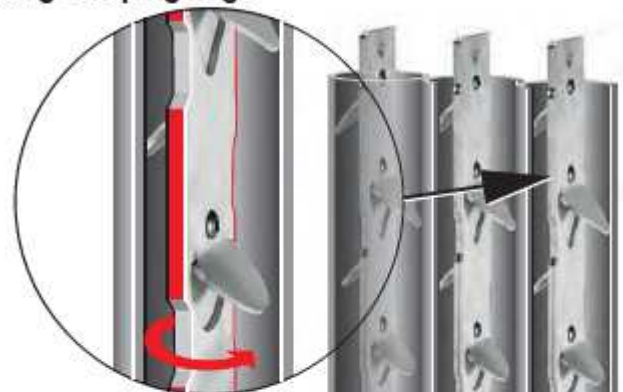
Lambda technology which has been used since 1981, is essential to ensure maximum efficiency with different load ranges.



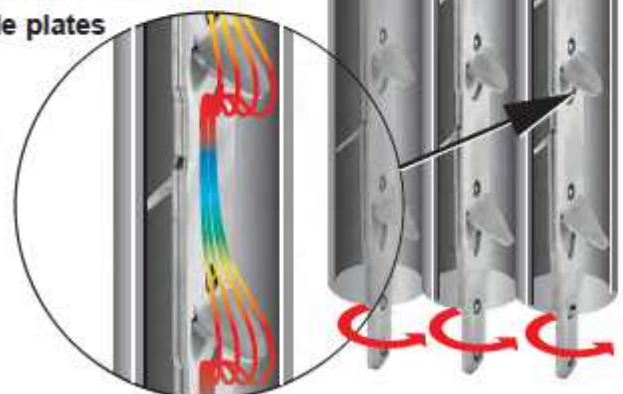
Heat exchanger cleaning

Turbulators with flow-optimised guide plates clean the heat exchangers automatically and ensure low flue gas temperatures.

Rotating scraping edge



Flow-optimised guide plates



Sophisticated technology in detail

Intermediate container for pellets (1) with suction turbine (2)

- The **pellet^{top}** has a generous intermediate container. The vacuum system turbine enables filling of the intermediate container within pre-set times in a closed circuit, maintenance-free system.
- The boiler room and pellet storage room do not have to be directly adjacent to each other. The vacuum turbine is directly mounted onto the intermediate container for pellets.

Auger feeder (3) with single axis rotary valve (4)

- The pellets are transported from the intermediate container by the feed auger into the single axis rotary valve. The single axis rotary valve hermetically seals-off the combustion chamber from the intermediate container. Six -chamber system - in one axis to the insert screw with a directly flanged, maintenance-free gear motor (5) .

- 100% backburn-proof even if there is a power failure. Minimum power consumption. No chains or gear wheels - low noise and maintenance free.

Stainless steel grate (6)

- The pellets fall from above through the single axis rotary valve onto the stainless steel combustion grate.
- The fire is not disturbed as the pellets feed from ABOVE on the fire-bed, with no mixing of ash and embers with the pellets = best efficiency!

Automatic ignition (7)

- Ignition of the pellets is fully automatic via a highly heat-resistant solid ceramic glow pencil.
- The glow pencil only requires 260 W. The glow pencil operates quietly and is maintenance-free.

Downfiring combustion technology/ pellets gasification (8)

- When using downfiring combustion technology (8) (wood gasification technology) the released gas is sucked through the grate and burned (residue-free) in the combustion chamber (9) with a flame tip temperature of approx. 1,200°C.
- Efficient fuel utilization, highest efficiencies.

Stainless grate cleaning

- The downfiring combustion technology automatically transports the ash downwards into the ash pan.
- In underfeed and case stage systems, the ash has to be removed mechanically via a complex mechanism (reversible stainless , tilting grate , grate, ...).

Induced draft fan (10)

- The combustion air sucked in is regulated by the ID fan.
- Efficient external rotor motor with stainless steel fan vanes, low noise, maintenance free with speed monitoring.

Lambda sensor (11)

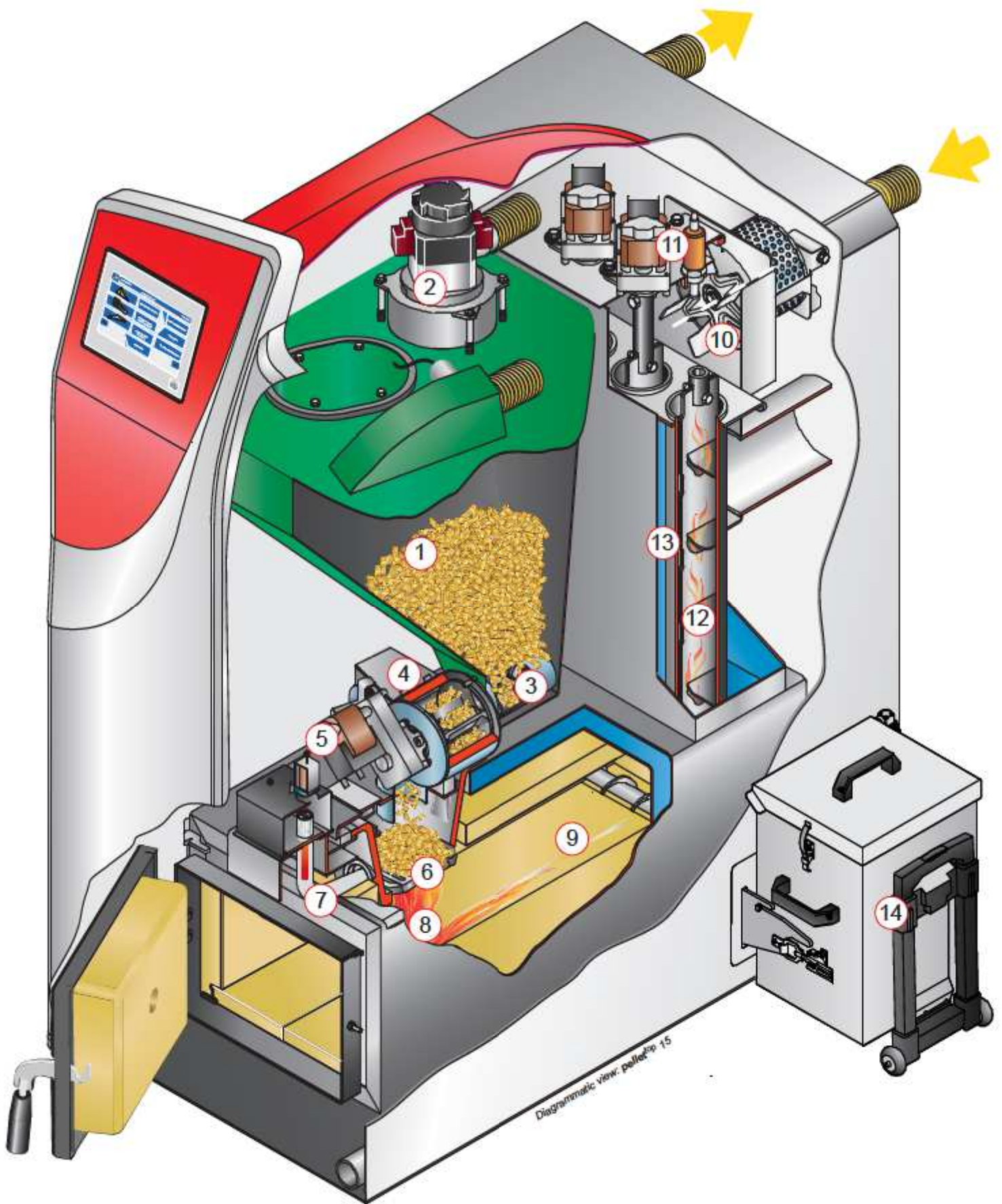
- The Lambda technology enables uniform combustion of the pellets in the **pellet^{top}**. Lambda technology is essential to ensure maximum efficiency with different load ranges.
- Guarantees environmentally-friendly, energy-saving combustion in all load ranges. Decades of experience using Lambda technology since 1981.

Heat exchanger cleaning system (12)

- Turbulators (12) clean the walls of the heat exchanger (13) at regular preset intervals. Increased exhaust gas temperature results in a loss of efficiency. Clean fuel exchangers save fuel!
- **AUTOMATIC** means **AUTOMATIC!** Uniform efficiency saves energy costs! Manual cleaning is not required. Maintenance free.

Automatic ash extraction (14)

- Ash box standard for **pellet^{top}** 35 and 45, for **pellet^{top}** 15 and 25 optional available.
- Long emptying intervals make for a convenient heating.



The leader among pellet boilers!

For more power

pellet^{top} 49 - 70



Cascading solutions up to 420 kW

The pellet boilers **pellet^{top}** 49 and 70 has been developed especially for commercial applications. With the suitability for cascading controls can be realized power ratings up to 420 kW.

In the summer or during the transitional period, when only part of the full performance is required, one single **pellet^{top}** 70 kW can handle the full energy requirement. The other boilers remain cold. This enhanced efficiency compared to large boilers helps you save fuel!

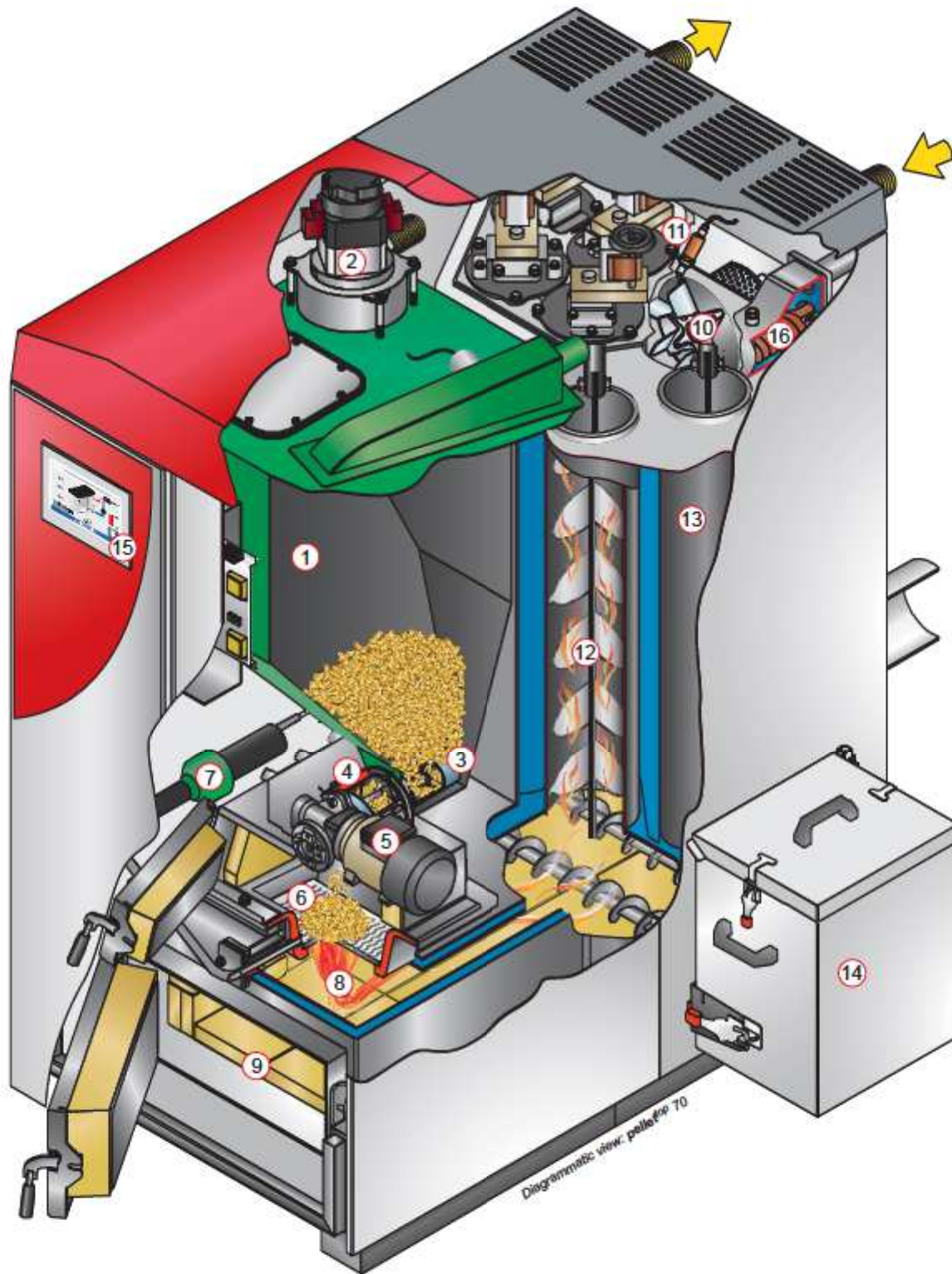
Statistics show that maximum performance from a boiler is needed only for 10% of the time in a year. The boiler runs at partial load or in the low-performance range (or in cycle mode) for the remaining 90% of the time; so it is not utilised to the optimum. Cascading solutions are an effective way to combat such inefficiencies.

The extended power range and cost benefits with fuel help achieve very short payback periods.



Your benefit

- ✓ Highest possible operational safety: This combination also allows maintenance work to be carried out easily.
- ✓ The flexible combination of performance classes enables customised adaptation.



Diagrammatic view: pellet^{top} 70

- | | | |
|----------------------------|------------------------------------|--|
| 1 Intermediate container | 7 Automatic ignition | 13 Heat exchanger |
| 2 Suction turbine | 8 Downfiring combustion technology | 14 Automatic ash removal with ash box |
| 3 Pellet auger | 9 Combustion chamber | 15 User-friendly touchscreen |
| 4 Single axis rotary valve | 10 Suction fan | 16 Heat exchanger for thermal process safety |
| 5 Gear drive | 11 Lambda sensor | |
| 6 Stainless steel grate | 12 Turbulators | |

Intelligent control

Everything under control with **eco**manager-touch





The core of your heating system the intelligent control *eco*manager-*touch*

To meet your daily comfort requirements, the controller is particularly important. The user determines when the heating comes on and how warm it should be.

- 7" VGA colour touch display: Guarantees simple, logical operation. Powerful microprocessor with power-saving standby mode.
- 1 weather-controlled heating circuit
3-point heating circuit curve, up to 8 modules are possible (option).
- 1 DHW tank charging circuit, up to 4 modules are possible (option).
- Fresh water module controllable with or without recirculation pump (option).
- 2 x three-circuit or 4 x two-circuit solar controllers possible (option). Also suitable for high-efficiency pumps.
- **mySOLARFOCUS** app: App for smartphone (Android and Apple) with attractive design for intuitive operation of the main heating parameters, such as room and flow temperature incl. heating times. Possibility to visualise the solar yield with installed heat quantity meter and control via *eco*manager-*touch*
- **Weatherman** function: Takes the weather forecast for the system's location into consideration. In conjunction with a solar-thermal system, prevents uneconomical start of the boiler when the weather forecast is good.

*eco*manager-*touch*

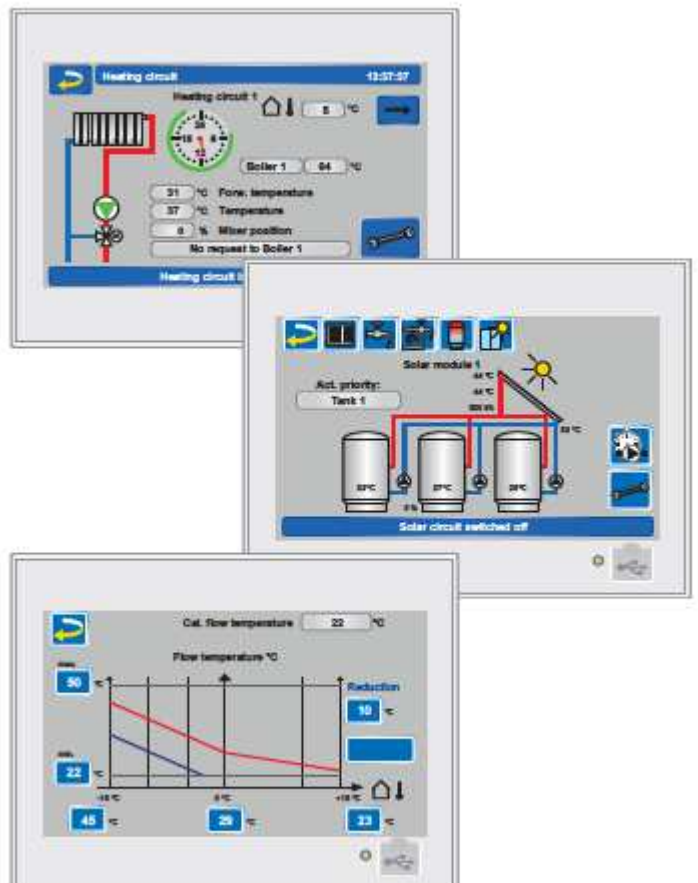
helps you to measure and control!

Changing outdoor temperatures have to be taken into consideration as precisely as very personal living habits. If the boiler is used in combination with a solar energy system, the burner only starts when the required heating energy cannot be fully provided by the solar energy system. This prevents any uneconomical boiler starts.

The *eco*manager-*touch* is very easy to use. It enables individual settings and ensures a perfectly tailored heating system.



Weather-depending control + mySOLARFOCUS app



Sustainable – renewable – cost-efficient

Now switch to pellets!
Comfortable delivery with tank truck



- Pellets are blown into the storage room with a tank truck similar to oil.
- Heating value: 1 kg pellets approx. 4,9 kWh
2 kg pellets = 1 l fuel oil
- Storage volume: 1 m³ approx. 650 kg

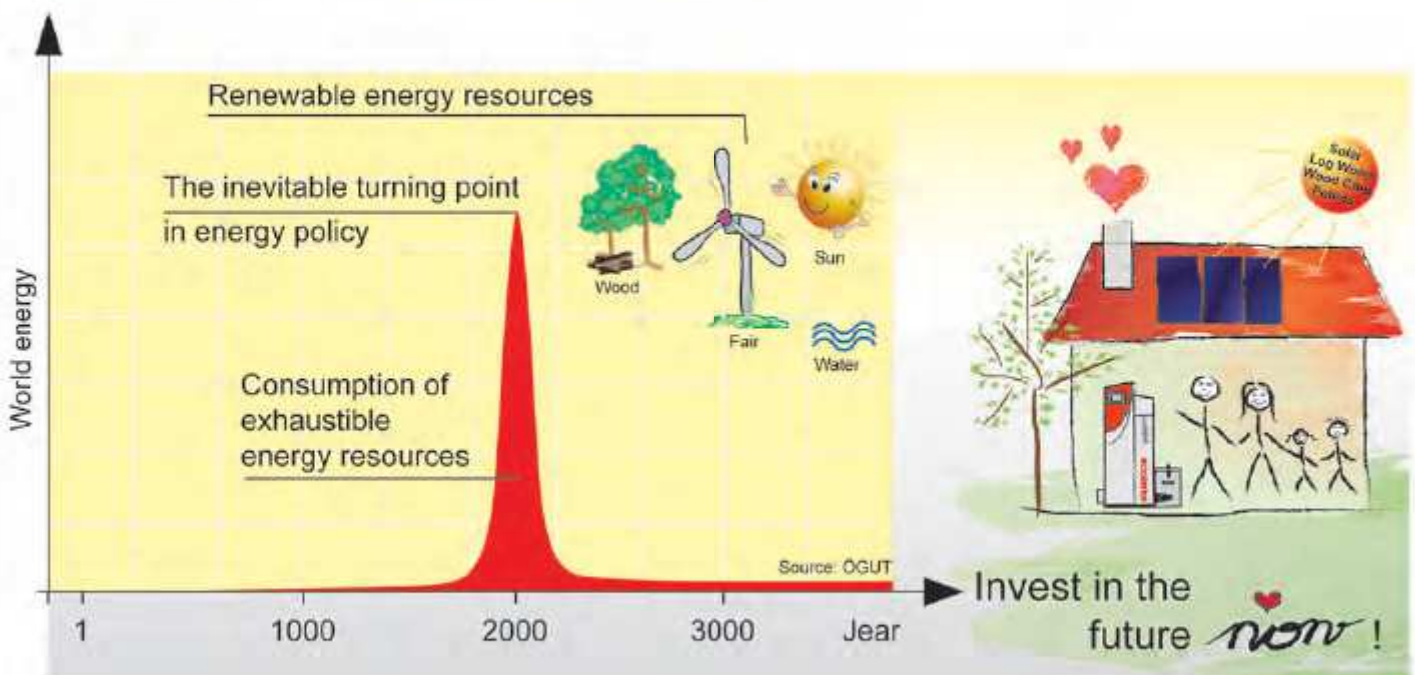
Make sure you get good-quality pellets



**ENplus –
Der neue Maßstab
für Holzpellets**

- Using pellets of good quality has several advantages: High-quality pellets achieve higher efficiency rates. They also mean that the boiler needs cleaning less frequently and has a longer service life.
- SOLARFOCUS recommends that you use only tested pellets. EN 14961-2-ENplus-A1 – the new benchmark for wood pellets. This means optimum heating values and protects your heating system.

Fossil energy use is geologically very short-lived



Together into the right direction!

Storage and feeding systems

pellet^{top} suction system with suction heads manual or automatic

- Maximum hose length 20 m
Maximum auger height 2.5 m
- Optimum utilisation of space
Minimum installation effort
For damp storage areas/rooms



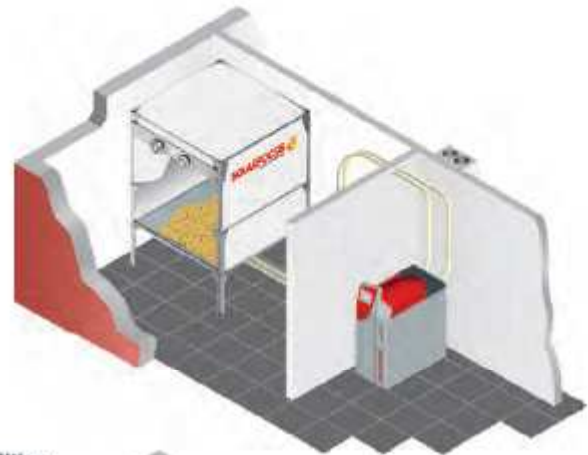
pellet^{top} with pellet box 350 litre with suction head, manually fillable or pellet box with suction system

Extraction with auger

- Maximum hose length 35 m
Maximum auger height 5 m

Extraction with suction heads

- Maximum hose length 20 m
Maximum auger height 2.5 m



Pellet box 350 litre for manual filling
or with suction system

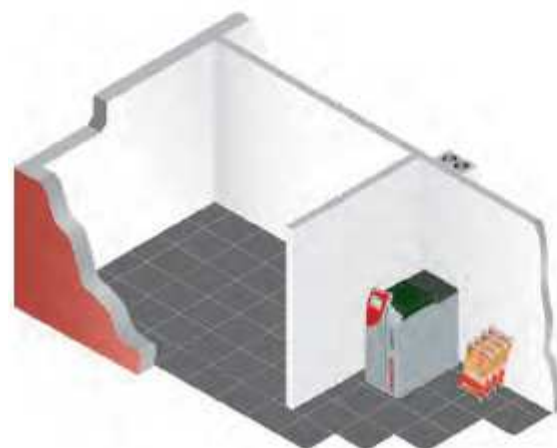
pellet^{top} vacuum system with extraction auger

- Maximum hose length 35 m
Maximum auger height 5 m
- Maximum auger length 6 m
- Complete storage room emptying



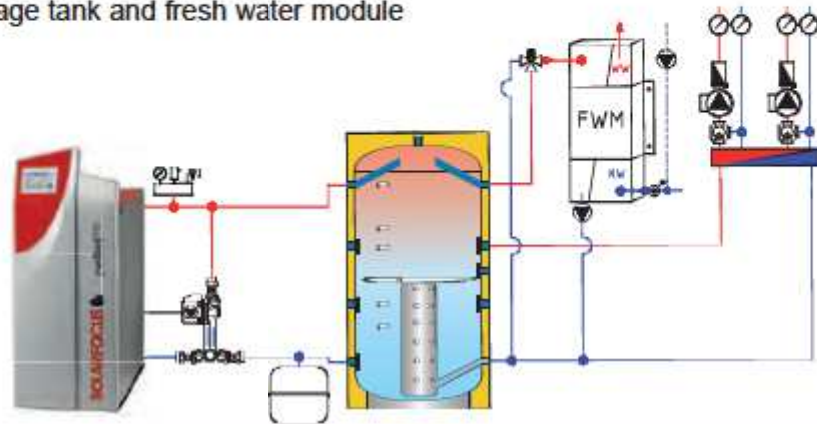
pellet^{top} manual storage container

- Available for pellet^{top} 15 and pellet^{top} 25
- Volume of the storage container:
pellet^{top} 15: 110 litre
pellet^{top} 25: 125 litre

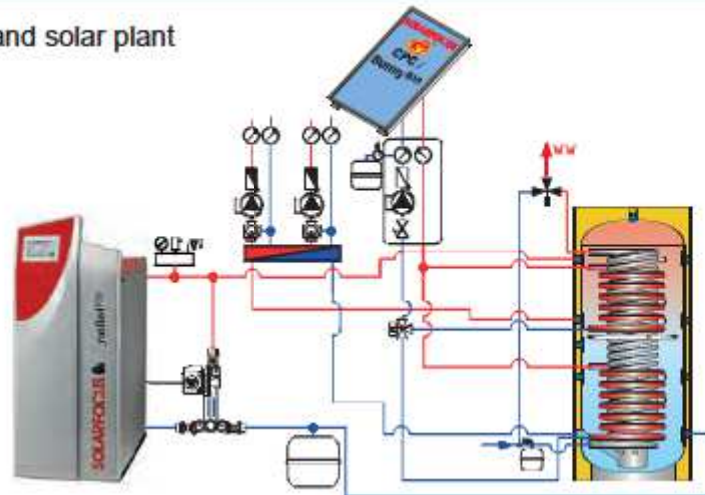


Perfectly combined with solar plant

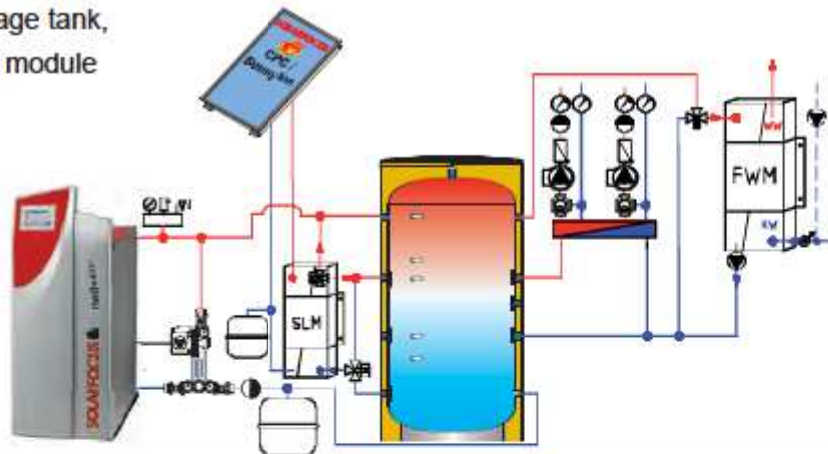
pellet^{top} with stratified buffer storage tank and fresh water module



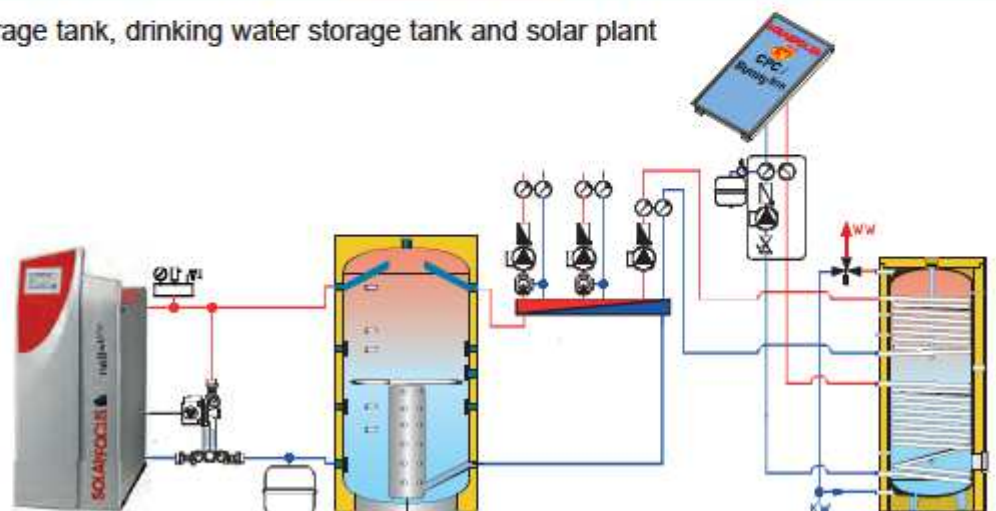
pellet^{top} with HYKO storage tank and solar plant



pellet^{top} with stratified buffer storage tank, stratified load module, fresh water module and solar plant



pellet^{top} with stratified buffer storage tank, drinking water storage tank and solar plant



More hydraulic schemes are available - we can help you by planning!



INNOVATION - ECONOMY – QUALITY

SOLARFOCUS shapes the future with products that serve mankind and protect the environment.

SOLARFOCUS is committed to researching, developing, manufacturing and selling environmental technology in the fields of:

Biomass heating,
Solar systems,
Storage technology and
Fresh water technology

SOLARFOCUS are one step ahead: The research, development and cooperation with research institutes and prestigious partners has led to our dynamic development. Our products are on offer throughout Europe. The courses and seminars held on a permanent basis with our partners guarantee personalised advice and professional installers for you.

AWARDS:

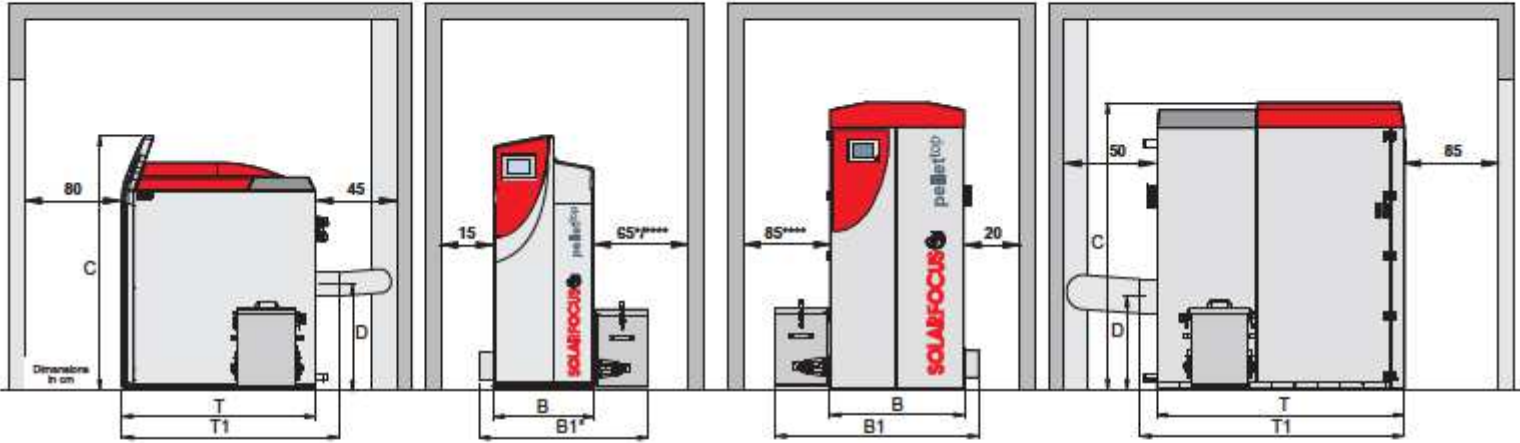
- Young entrepreneur's Award
- Innovations Award 1995
- Pegasus in Gold
- Environmental Protection Award of the Upper Austrian Region
- Innovation Award "EnergieGenie" 2003
- House Technology Award 2004
- Innovation Award "EnergieGenie" 2011
- Italian innovation prize for energy-efficient technologies 2012
- Polish Innovation Award „Zloty Medal" 2012 and 2013
- Slovenian Innovation Award „Energetika" 2014
- Best Business Award 2014
- UK Built It Award 2015
- Innovation Award "EnergieGenie" 2016

and many more confirm our philosophy.



pellet^{top} 15*, 25*, 35 and 45

pellet^{top} 49 and 70



pellet ^{top}		15*	25*	35	45	49	70
Power	[kW]	4.5 - 14.9	7.3 - 25	10.5 - 35	13.4 - 45	14.7 - 49	21 - 70
Depth without fan (T)	[cm]	107	117	134	134	145	145
Total depth (T1)	[cm]	120	130	144	144	155	155
Width (B)	[cm]	55.5	55.5	55.5	55.5	79	79
Width incl. ash box (B1)	[cm]	92*	92*	94	94	120	120
Height incl. adjustable feet** (C)	[cm]	143	156	156	156	172	172
DM flue pipe	[cm]	13	13	15	15	20	20
Height flue pipe centre** (D)	[cm]	60	77	46	46	59	59
Weight	[kg]	279	368	554	560	882	882
Water content	[l]	51	66	58	58	130	130
Pellet storage container	[l]	71/110***	87/125***	95	95	250	250

* Optionally with ash removal ** Adjustable feet at maximum depth of thread *** Pellets storage container for manual filling
 **** Access to the rear side of the boiler must be provided (at least 45 cm on the left or right)

Everything from one supplier

Solar systems – Biomass heating – Storage technology – Fresh water technology

Tested leading-edge technology – EN ISO 9001 certified



Your specialised dealer



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