

Pellet Boiler

octoplus touch
Sun + pellets



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



Pellets



Wood gasification technology

- ✓ Pellet boiler with integrated buffer tank
- ✓ Our experience is your advantage!
- ✓ Good heat grows!

SOLARFOCUS

Responsibility for the next generations





Energy from the sun + pellets

There's no comfort without warmth

octo^{plus} – Energy from the sun + pellets

- Boiler efficiency up to **96.5 %**
- System efficiency up to **94 %**
- 550/800 litre buffer tank with directly flange connected pellet burner unit
- Compact construction
- Perfect control technology
- Simple hydraulic integration
- Performance ratings: 10, 15, 15.5 and 22 kW

Applications

- ✓ New buildings and renovation
- ✓ Single-family houses





Yes – please!

The **octo^{plus}** was specially developed for the economic exploitation of sun energy and for covering the remaining energy requirements using wood pellets. The SINGLE tank concept serves as a power plant. The highly modern, user-friendly touch-screen control coordinates all control functions (solar system, pellet burner, heating control, control of the domestic water supply, etc.). Minimum hydraulic piping requirements save time and money!

Sun + pellets in my power plant revolutionary, unique technology

My Power Plant - Sun + Pellets



System technology – dual concept

The **octo^{plus}** combines solar and pellet technology in a "power plant". The plant is formed by the 550/800 litre buffer tank (1) with a generous solar register (2). The directly flange connected pellets burner unit balances the temperature difference as required. Optimum use of solar energy is thus achieved.

- Free energy from the sun
- One power plant
- No losses due to re-stratification of thermal layers
- Minimises the burner starts - increases system efficiency

Perfect solutions – even in the tightest space!

The **octo^{plus}** "TWO in ONE" 550/800 litre buffer tank and the directly connected pellets burner unit saves space and considerable piping costs.

- Less space requirement
- Minimum piping costs
- Additional charging pump and valves are not necessary
- Maximum system efficiency



In 3 hours, the sun supplies enough energy to supply the annual energy requirement of the entire population of the earth.



- | | |
|--|-------------------------------------|
| 1 550/800 litre buffer tank | 6 Heating flow / fresh water module |
| 2 Solar smooth tube register | 7 Solar pump group (option) |
| 3 Layered loading lance (heating return) | 8 Storage tank insulation |
| 4 Solar flow | 9 Multi-function door |
| 5 Solar return | |

Sophisticated technology in detail

Intermediate container for pellets with suction turbine (1)

- The **octo^{plus}** intermediate container has a 49 litre capacity. The suction turbine fills the intermediate container within specified times in a closed circuit (suction pressure system).
- The boiler room and pellet storage room do not have to be directly adjacent to each other. Maintenance free, closed circuit. The suction turbine is directly mounted on the intermediate container for pellets.

Screw feeder with single axis rotary valve (2)

- The pellets are transported from the intermediate container by the feed screw into the single axis rotary valve. The single axis rotary valve hermetically seals off the combustion chamber from the intermediate container. Six-chamber system - along an axis to the feed screw with a directly flange-connected, maintenance free drive motor.
- 100% backfire-proof even if there is a power failure. Minimum power consumption. No chains or gear wheels - low noise and maintenance free.

Combustion grate (3)

- The pellets fall from above through the single axis rotary valve onto the stainless steel combustion plate.
- The bed of embers is not degraded as the pellets fall from ABOVE onto the bed of embers and are not mixed with ash and embers = best efficiency!

Automatically Ignition (4)

- Ignition of the pellets takes place fully automatically 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 (5)

- When using downfiring combustion technology (wood gasification technology) the released wood gas is sucked through the grating plate and completely burned in the combustion chamber with a flame tip temperature of approx. 1,200°C without leaving any residues.
- Perfect wood gasifier technology!

Induced draft fan (6)

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

Lambda sensor (7)

- The Lambda technology enables uniform combustion of the pellets in the octoplus. Lambda technology is essential to ensure maximum efficiency in different load ranges.
- Guarantees environmentally-friendly, energy saving combustion in all load ranges. Long-standing experience with Lambda technology since 1981.

Heat exchanger cleaning system (8)

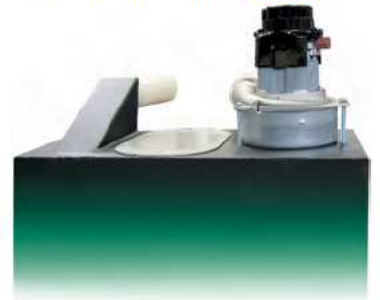
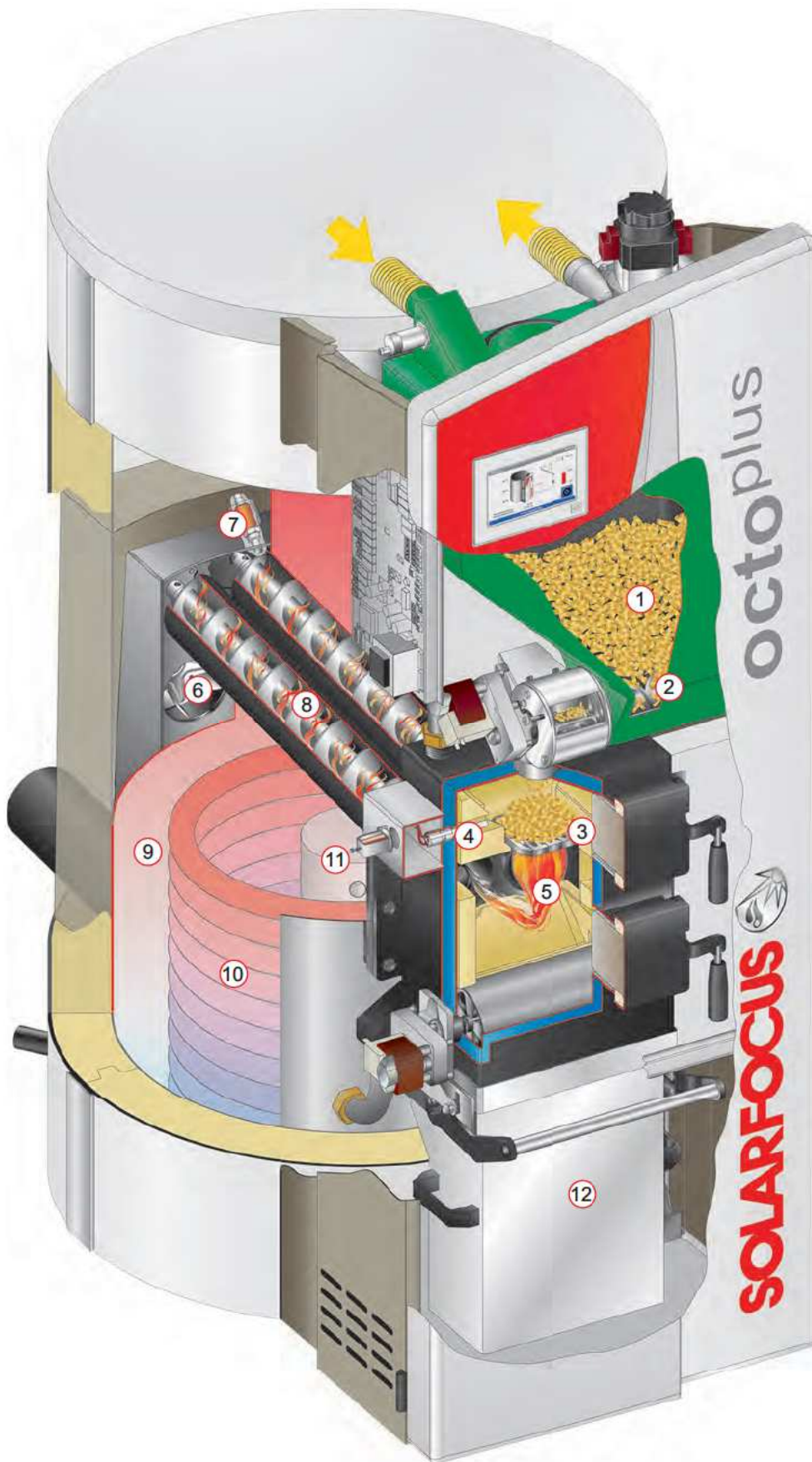
- Worms, functioning according to the "meat mincing principle" clean the walls of the heat exchanger at regular preset intervals and push the scraped-off ash into the ash box. An increase in exhaust gas temperature means a loss of efficiency. Clean fuel exchangers save fuel!
- AUTOMATIC means AUTOMATIC! Uniform efficiency saves energy costs! Manual cleaning is not required. Maintenance-free.

Dual concept – even in the tightest space

- The **octo^{plus}** combines solar and pellet technology in a "power plant". The plant is formed by the 550/800 litre buffer tank (9) with a generous solar register (10) and layered loading lance (11) for heating return.
- The "Two-in-One" solution offers optimum exploitation of solar energy. Minimum pipework required, and no need for additional charging pumps and valves!

Automatic ash extraction (12)

- The ash box has a volume of around 21 litres. It is easy to remove and can be carried comfortably by the two handles.
- Long emptying intervals make for convenient heating.



①



②



③



④



⑤



⑥



⑦

Award-winning technology!

Intelligent control

Everything controlled 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

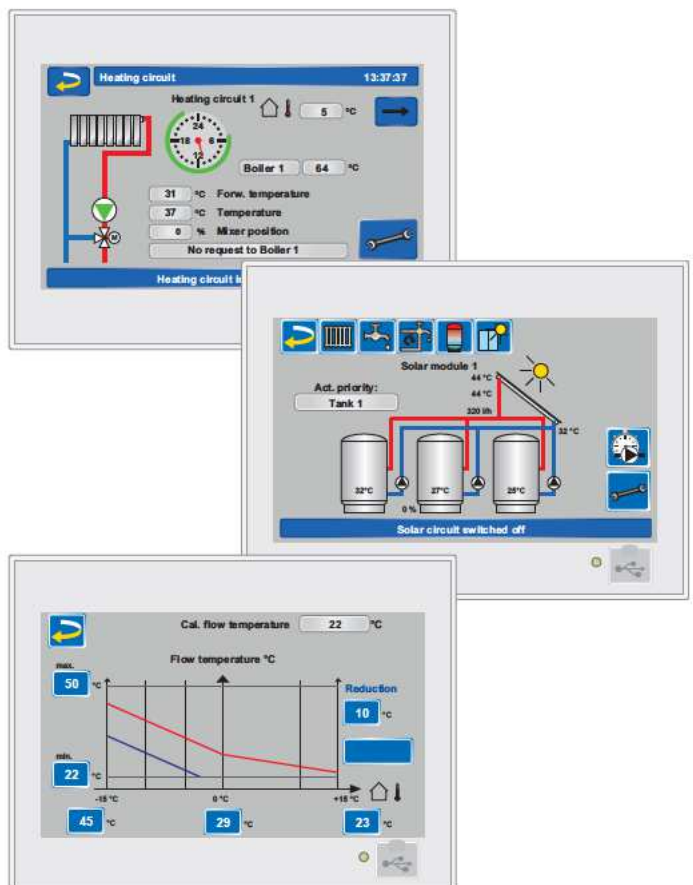
helps you to measure and control!

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

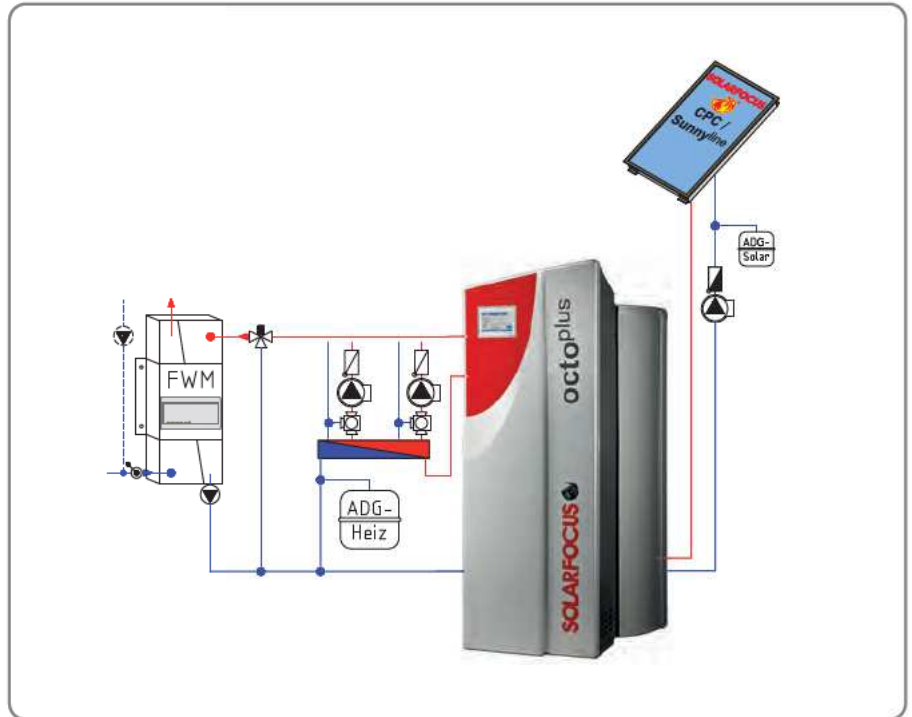


Simple hydraulics

Connection diagram octo^{plus} with solar system and fresh water module

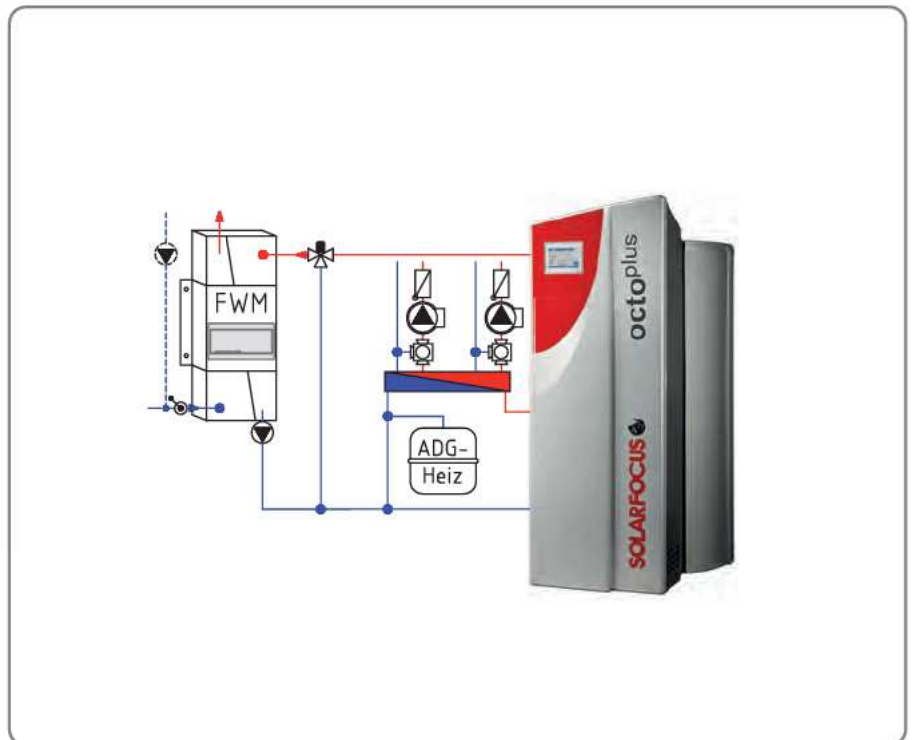
Buffer tank and pellet boiler form one unit with the **octo^{plus}**.

Thus additional costs are saved as early as at installation due to reduced material and piping costs. The connection to an external fresh water module ensures hygienic hot water generation using a constant flow principle with constant removal temperature.



Connection diagram octo^{plus} without solar system but with fresh water module

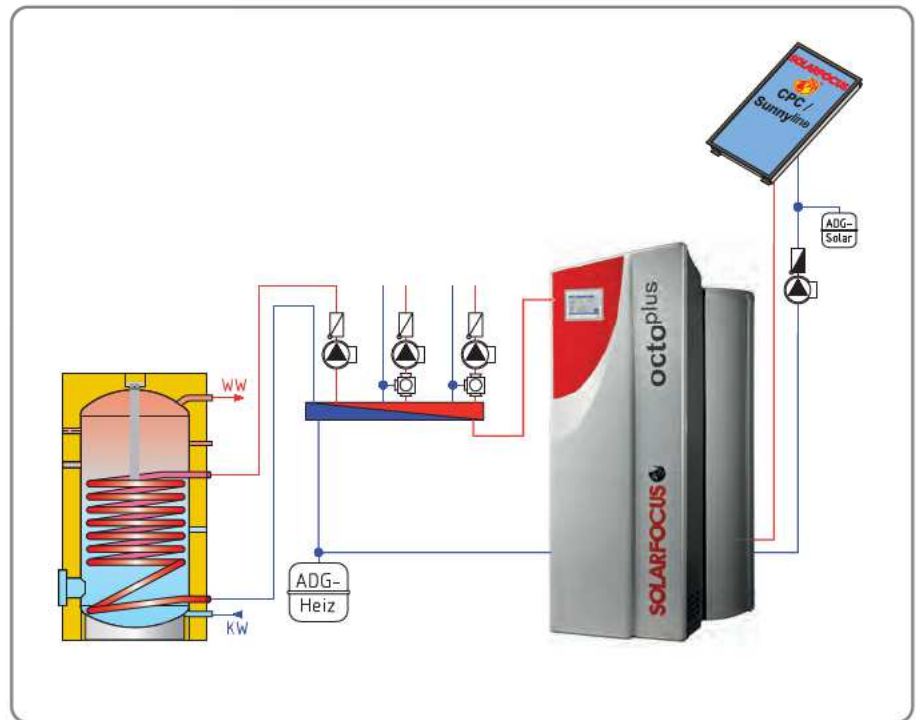
Even without a solar system **octo^{plus}** is a perfect power plant. The connection to an external fresh water module ensures hygienic hot water generation using a constant flow principle with constant removal temperature. The fresh water module enables hot water preparation in the "tightest" space. The **octo^{plus}** can be upgraded at any time with a solar system.



Important: To aid clarity no safety equipment or appliances are included in the drawing on the heating or water sides.

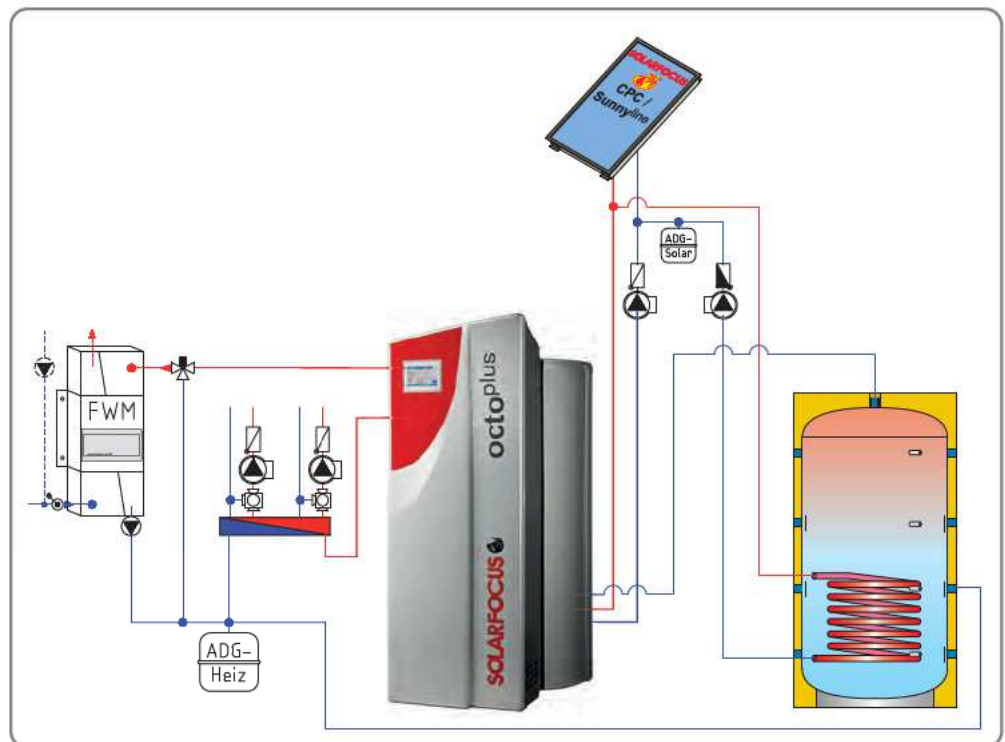
Connection diagram octo^{plus} with solar system and domestic hot water tank

The octo^{plus} is just as suited to hot water generation using a domestic hot water tank. This system is used if a domestic hot water tank / waste water heat pump is available or desired.



Connection diagram octo^{plus} with solar system, fresh water module and additional storage tank for large collector surfaces

If the solar fraction is to be increased with octo^{plus} then the use of an additional storage tank is recommended.



Further hydraulic plans are available from our technical department.
We would be happy to help with planning.

Sustainable – new growth – cost efficient

Now switch to pellets!

Comfortable delivery with tank truck



- Pellets are blown into the storage room.
- The pellet storage room and/or the fill couplings should not be further than 30 m from the vehicular access point.
- The storage volume should be approximately 1.5 times the amount of annual consumption

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.

You have the choice – pellet storage area for

Suction system with suction heads



- Optimum utilisation of space
- Minimum installation effort
- Also suitable for storage rooms with many corners

Suction system with suction auger



- Cost-efficient
- Complete removal of storage room contents

Pellet box with extraction auger



- For damp storage rooms
- No construction effort required



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

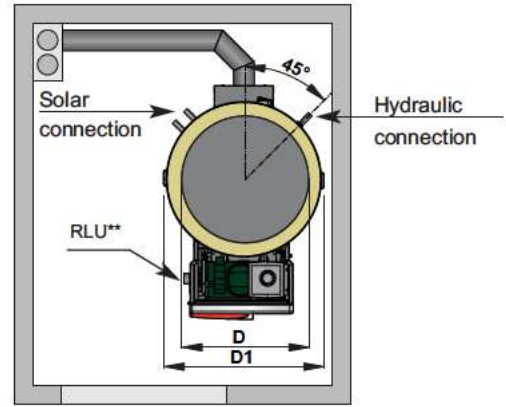
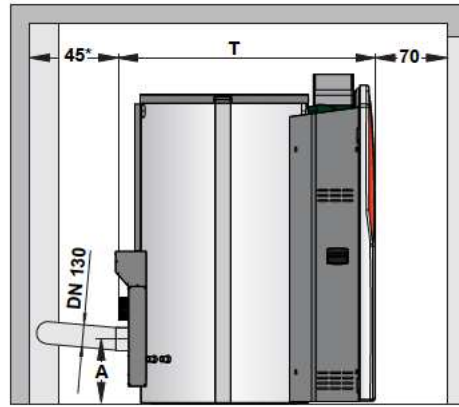
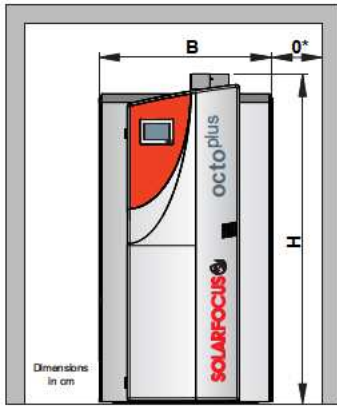
SOLARFOCUS are one step ahead: The research, development and cooperation with research institutes and prestigious partners has led to our dynamic development. Our products are on offer throughout Europe. The courses and seminars held on a permanent basis with our partners guarantee personalised advice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





octo ^{plus}		10	15	15.5	22
Power range	[kW]	2.9 - 9.9	2.9 - 14.9	4.6 - 15.5	6.6 - 22
Depth without fan (T)	[cm]	146	146	159	159
Width (B)	[cm]	88	88	97	97
Height (H)	[cm]	188	188	188	188
DM flue pipe	[cm]	13	13	13	13
Height flue pipe centre (A)	[cm]	38	38	39	39
Boiler DM without isolation	[cm]	70	70	79	79
Boiler DM with isolation	[cm]	89	89	98	98
Boiler weight	[kg]	150	150	190	190
Total weight	[kg]	285	285	320	320
Water content	[l]	550	550	800	800
Pellet storage container	[l]	49	49	49	49
Entry dimensions: at least	[cm]	min. 75	min. 75	min. 80	min. 80

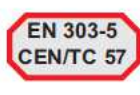
* Access to the rear side of the boiler must be provided (at least 45 cm on the left or right). A greater distance from the wall must be selected when mounting the solar pump set on the octo^{plus}.

** Also certified for ambient air independent operation!

Everything from one supplier

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

Tested state-of-the-art technology – EN ISO 9001 certified



Your specialised dealer

SOLARFOCUS GmbH, Werkstraße 1, A-4451 St. Ulrich/Steier
 e-mail: office@solarfocus.com Tel.: +43 (0) 7252 / 50 002 - 0
 web: www.solarfocus.com Fax: +43 (0) 7252 / 50 002 - 10