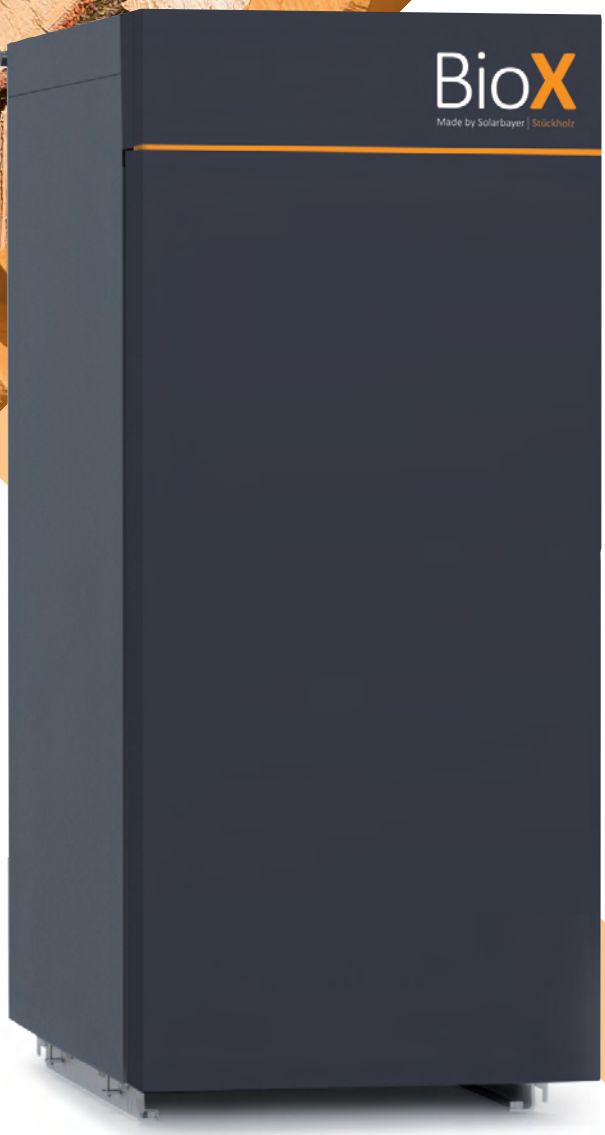
WOOD LOG HEATING



BioX

Made by Solarbayer | Wood log

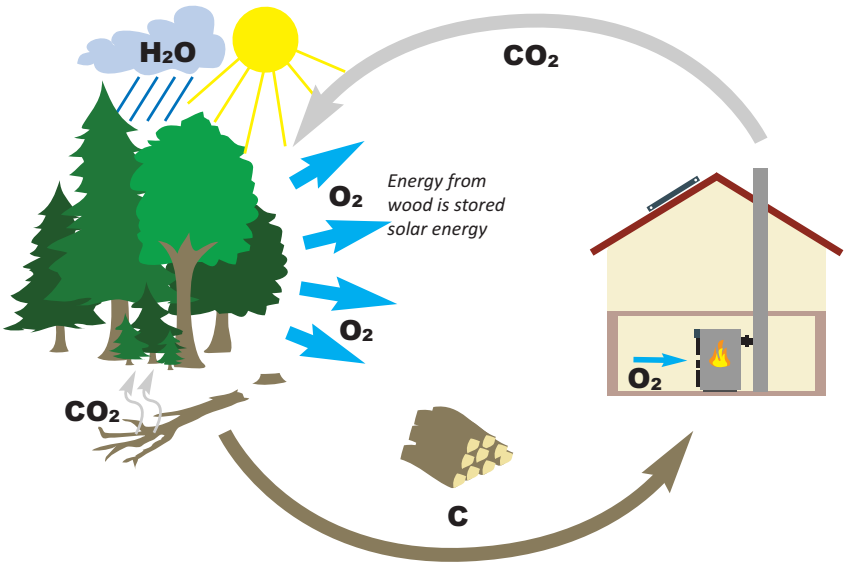
Heating with wood

Ecological, sustainable and environmentally friendly heating with the energy source of the future.

Why heating with wood?

Wood is the most natural and oldest fuel in the world. A healthy forest is not only a complex ecosystem and habitat, but one of the most determining factors for the global climate. Especially its role as carbon storage and producer of oxygen is essential for survival to humans and nature!

Heating with wood is the best alternative compared to fossil fuels. The renewable raw material will replace common energy soruce in the long run. A tree is grown up to a usable size in 70 – 90 years whereas coal and oil need 50 - 300 million years for the comparable amount of energy.

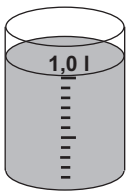


With the combustion of wood only the amount of carbon dioxide required by the plant during growth is released. Thus, the raw material is on the one hand a reservoir for current emissions and at the same time a fuel for subsequent generations.

Wood as fuel is not only carbon neutral, but also cheaper. It is not exposed to fluctuations in price of oil and gas and not dependent on global political crises. It promotes regional added value and makes the consumer a little more independent.

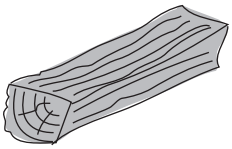
Heating with wood is not only ecological but also economical. The use of the local raw material supports the regional agriculture. The stable lower price compared to fossil energy sources in connection with state subsidies for biomass plants are reason enough to rely on the natural raw material now.

Rule of thumb for the energy content of dry wood



1 litre fuel oil
or 1 m³ gas
10 kWh

≙



2,5 kg wood

10 kWh

≙

electrical energy
(thermal heat)
10 kWh

1 Rm (stacked cubic meter/"stere") equals 1 m³ Holz, stacked (with head space):

Spruce wood (with 15 % residual moisture): **approx. 1.300 kWh/rm** ≙ **approx. 130 l fuel oil**
Beech wood (with 15 % residual moisture): **approx. 1.900 kWh/rm** ≙ **approx. 190 l fuel oil**

Heating ecologically

With local wood logs, a modern wood log boiler and a proper handling you will contribute to the fact that your wood log boiler is creating cozy warmth without harming the environment.

The Solarbayer BioX wood log boiler is the right choice for this. Its combustion is permanently so perfect that respirable dust, nitrogen oxides (NO_x) and other emissions are reduced to an absolute minimum.

Worth knowing

Wood gasification boilers are no ordinary boilers. They differ fundamentally in the combustion process from common wood boilers. In order to achieve the best possible combustion it is necessary to ignite the so-called wood gas. Wood gas is a hard to ignite gas consisting of carbon dioxide (CO_2), carbon monoxide (CO), methane, ethylene, hydrogene and steam that could reach up to 1100°C when inflamed. But the wood gas has to exhaust from the wood. In the BioX the wood is dried automatically at 200°C. This process starts right after the filling and heating up of the wood gasification boiler in the upper combustion chamber. The residual moisture evaporates from the wood logs. Afterwards the wood starts to decompose and the ingredients lignin and cellulose exhaust as gas from the wood. These gases are ignited and already reach temperatures up to 600°C. Only now the hard to ignite wood gas is released and ignited by the supply of oxygen. The energy stored in the wood is released in the most efficient way and transferred to the heating system in the best possible way. Glowing charcoal forms a bed of embers in the combustion chamber, which is hot enough to dry further wood. At the end an extremely small amount of ash remains.

X

The best way to heat with wood.

The idea behind BioX: Excellent processing, lowest emissions, high efficiency and all that at the same time for an almost unrivalled low price.

Illustration shows BioX 45 with optional front door and ash pan

Why choose the Solarbayer BioX wood log boiler?

BioX is the result of Solarbayers' many years of experience in the development, production and distribution of wood log gasification boilers.

The BioX wood log boiler not only convinces optically. The separation of the heating, filling and combustion chamber doors allows a comfortable heating up and reloading. The large filling chamber enables a long burn-off period with minimum effort. An integrated flue gas outlet prevents the generation of flue gas in the boiler room and offers a smoke-free reloading of the boiler. The cleaning of the BioX is very user-friendly due to its semi- respectively fully automatic heat exchanger cleaning (optionally available). The extremely low amount of ash can easily be removed through the ash door.

Convincing technology: the double high-temperature cyclone combustion chamber and the used silicone carbide (SiC) that acts like a catalyst, provide for a particularly efficient and clean combustion process with very high efficiency and minimum emissions. The nitrogen oxide output is extremly low and the respirable dust pollution is hardly measurable. **With its emissions it is far below the maximum permissible values specified by the German Federal Immission Control Ordinance (1.BImschV, level 2).**

By using high-quality and very robust components (e.g. combustion chamber bricks made of SiC) the BioX offers an extremely long service life with minimum follow-up costs.

The wood gasification boiler BioX from Solarbayer is exemplary environmentally friendly and economical.

The following types are available:

BioX 15 (16,6 kW), **BioX 20** (19,4 kW)

BioX 25 (25 kW), **BioX 35** (33,6 kW), **BioX 45** (43,2 kW)

Brief description

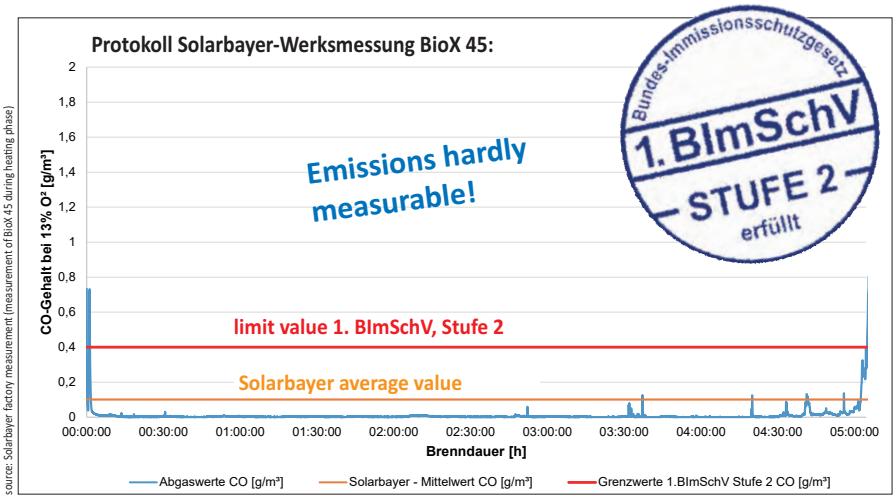
- ✓ Wood log boiler with upper wood gasification and lower burn-off
- ✓ solid boiler construction according to German quality standard
- ✓ easy and comfortable heating up without kindling
- ✓ the large fuel chamber guarantees a long burning period
- ✓ innovative wood boiler technology
- ✓ turbulators for more performance and lower exhaust gas tempartures
- ✓ either semi-automatic or fully automatic heat exchanger cleaning
- ✓ easy handling and cleaning, low amount of ashes
- ✓ Extremely fire-resistant combustion chamber made of silicon carbide (SiC)
- ✓ additional comfort-heating-door
- ✓ heating up and reloading possible without the use of the controller due to intelligent door contact switch
- ✓ solid lifting eye for easy insertion to basement boiler rooms
- ✓ modulation combustion, exhaust gas and lambda control ensure the compliance of the currently valid limit values of the Federal Immission Control Ordinance
- ✓ **boiler sizes from 15 kW to 45 kW**
- ✓ **log length 50 cm**
- ✓ **door hinge changeable from right-hinged to left-hinged**

1. BImSchV*, level 2:
currently valid for all wood log boilers in Germany (installed after 01.01.2017)

All Solarbayer wood log boilers meet the austere limit values of the Federal Immission Control Ordinance.

*First Decree of the Implementation of the Federal Immission Control Ordinance (Ordinance on small and medium combustion plants – 1. BImSchV)

Perfect combustion – low emissions:



source: Solarbayer factory measurement (measurement of BioX 45 during heating phase)

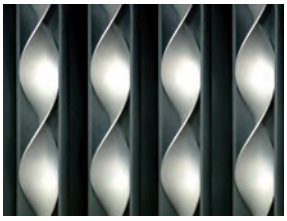
X Convincing details

1 Speed-controlled induced draft fan, rotatable

Provides for best combustion and reliable suction of flue gas due to its high suction power. Extremely practical: The flue gas pipe is flexibly adjustable to the appropriate angle.

2 Turbulators with automatic heat exchanger cleaning

No more dirty hands: the standard heat exchanger cleaning with external hand lever. A fully automatic heat exchanger cleaning can be optionally added. It cleans the heat exchanger completely independent at regularly intervals.



3 Double cyclone combustion chamber made of silicon carbide (SiC)

The new unique geometry and the resulting perfect mixing of the fuel gases with oxygen acts like a catalyst and guarantees the cleanest possible combustion with an extremely high efficiency. The nitrogen oxide output is extremly low and the respirable dust pollution is hardly measurable.

4 Large fuel chamber with optionally available stainless steel lining

The fuel chamber respectively the gasifying chamber is comfortably loaded from the front, the optionally available stainless steel lining reduces tar formation at the inner walls for a long period of time and protects the boiler walls from severe hits with wood logs.

5 Comfort-heating-door

For easiest and fastet heating up of the completely filled fuel chamber, e.g. with organic igniters made of wood wool. Special advantage when cleaning: The fuel chamber is easy to clean due to the ground-level door arrangement

6 Active exhaustion of low temperature carbonisation gas

Almost no smoke emission when refilling: Opening the filling chamber door to top up fuel automatically activates the exhaust gas fan via the door contact switch. Low-temperature carbonisation gases are powerfully exhausted by the upper flue pipe register to the back.

7 Lambda sensor and exhaust gas temperatur sensor

8 Servomotor with washer disc for finely dosed, perfect combustion air inlet

9 Control unit and controller

The lambda control unit with its high-contrast display is easy to handle and shows all important operating parameters. The operation is carried out via large buttons so that these can also be pressed when wearing gloves. It is easy to wipe off. The control unit supervises the exhaust gas values permanently and ensures a combustion with the lowest possible emissions and maximum efficiency even with changing fuel quality.

The cutaway model shows the BioX 25 with optional design front door, optinal stainless steel lining and optional heating controller

X Variants

X Design-boiler front door (optional)

The specially designed boiler door (optionally available) turns the BioX wood log boiler into an eye-catcher, also outside the basement rooms. Furthermore, the door protects the control unit from dust and dirt and decreases the heat loss through the boiler doors due to better thermal insulation.

Thoughtful: inside the door is a special compartment for the boiler manual and other documents.

Standard version with semi-automatic heat exchanger cleaning via hand lever.

Fully automatic heat exchanger cleaning via electronic unit is optionally available.

X Fully automatic heat exchanger cleaning (optional)

No more dirty hands: A fully automatic heat exchanger cleaning takes care of the cleaning each time the fuel chamber door is opened and at regularly intervals. Clean heat exchanger tubes guarantee a better efficiency factor and lower emissions.

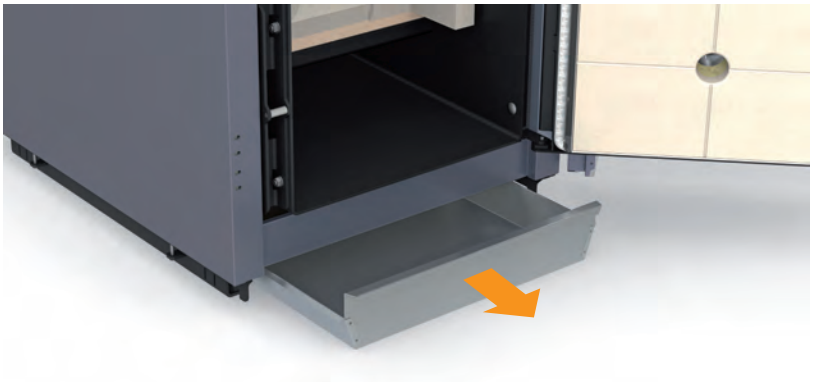
standard version without lining

version with stainless steel lining

X Stainless steel fuel chamber lining (optional)

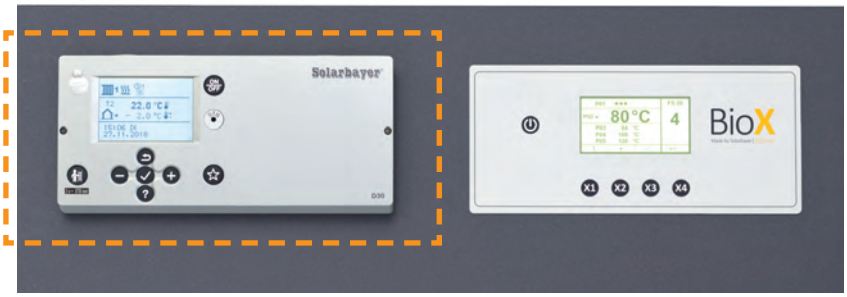
The optional hinged stainless steel plates take care of a decreased tar formation in the fuel chamber and protects the walls from severe hits.

Two integrated stainless steel air distribution plates in the bottom are standard.



X Practical ash pan (optional)

With the optionally available ash pan the cleaning of the ashpit is a mere child's play. The solid metal pan perfectly fits underneath the boiler and can easily be opened and closed when necessary.



X Integrated heating control unit (optional)

The complete heating system at one glance: the weather-compensating Solarbayer heating control unit D30 can be perfectly integrated into the pre-punched plate of the control unit. The graphic display shows, by the means of pre-set Solarbayer system variants, e.g. the temperatures of the heating circuits, heat generators, buffer tanks or DHW tanks and enables an individual adjustment.

X Left-hinged boiler doors

All doors come right-hinged, which means they open up to the right side. If it would be more handy to do it the ot-herway round, because for example space is limited in the boiler room, then the doors can easily be turned by 180° due to the clever design and mounted on the other side.

X Selection

Dimensioning diagram for calculating the boiler size with the following operating conditions:

outside temperature:	approx. -16 °C (coldest day)
room temperature:	approx. 20 °C
number of persons:	approx. 4
type of building:	single family home
heat coverage by wood log boiler:	100%

Therefore, estimate the situation on a case-by-case basis and, if necessary, provide for sufficient reserves.

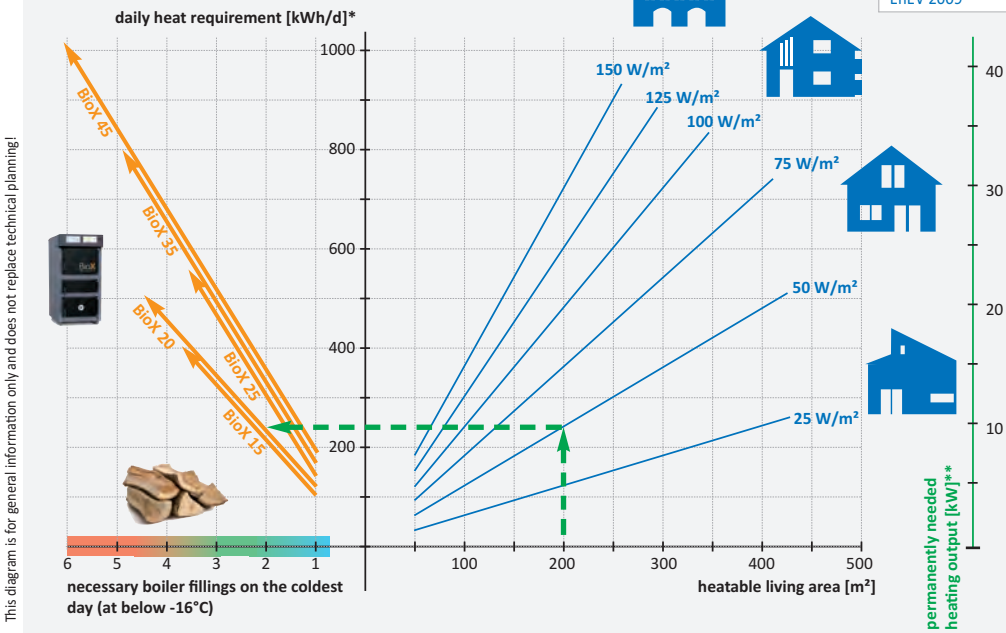
Example:

assumed heat load: 50 W/m²
heatable living area: 200 m²

Result:

boiler size: **BioX 20**
boiler fillings with firewood: **approx. 2**
(on the coldest day at -16 °C)

Building class	heating load at (-16 °C)
existing builting until 1977	> 120 W/m²
Thermal insulation Ordi. from 1977	80 to 120 W/m²
Thermal insulation Ordi. from 1984	60 to 80 W/m²
Thermal insulation Ordi. from 1994	40 to 60 W/m²
EnEV 2002	20 to 45 W/m²
EnEV 2009	15 to 30 W/m²



This diagram is for general information only and does not replace technical planning!

***daily heat requirement [kWh/d]:**
The daily heat requirement of the building in kWh (at an outside temperature of -16°C), when known. This value can be inquired with the building's supply engineer.
If you don't know the exact value it might roughly be estimated. Thus, you take the heat load of the corresponding building class in the adjacent chart and then the equivalent line in the diagram in order to calculate the heat load for your living area.

****permanently needed heating output [kW]:**
The permanently required heating output is, for example, the nominal heat output of an ordinary oil/gas boiler that produces thermal heat for 24 hrs.

Demonstration of the interrelationship to the burning period

For this example we take „mixed wood" as calculation basis. This means an energy content of approx. 1.500 kWh per stacked cubic meter, which is a realistic average value of softwood (e.g. spruce, 1.300 kWh) and hardwood (e.g. beech, 1.900 kWh):

	BioX 15	BioX 20	BioX 25	BioX 35	BioX 45
nominal output [kW]	16,6	19,4	25	33,6	43,2
fuel chamber capacity [litre]	125		180		
heat energy capacity per filling with mixed wood [kWh/filling]	113		165		
theoretical Ø burning period with mixed wood [h]	6,8	5,8	6,6	4,9	3,8
Theoretical max. possible daily boiler fillings with mixed wood	3,5	4,1	3,6	4,9	6,3
required min. buffer tank volume, heating (55 l/kW) [litre]	913	1.067	1.375	1.848	2.376
recommended buffer tank volume [litre]	1.500	2.000	2.500	2.500	3.000

Practical tip

Please note that with solid fuel boilers the specified output will be achieved under full load only.

You heat up the boiler and it will take about 30 minutes until the boiler will operate with its maximum output. The stated output will last for several hours then. Then the burn-off period begins with decreased performance. The firebed remaining in the combustion chamber will post-heat for a certain time. Afterwards the combustible is completely used up. For an easier calculation we presume the burning period you can see in the chart (at nominal output).

Attention: This is imperative for the calculation of the boiler size to avoid that the boiler output is too low for the respective heating task

Technical specifications and dimensions

Dimension and weight			BioX 15	BioX 20	BioX 25	BioX 35	BioX 45
length - complete	A	mm	1255		1339		
length - covering	A1	mm	1021		1021		
length up to end of flue spigot	A2	mm	1179		1194		
width (without covering)	B	mm	610 (605)		670 (665)		
height* (without covering)	C	mm	1365 (1350)		1585 (1576)		
flue spigot	D	mm	150		150		
fuel chamber height	E	mm	260		305		
fuel chamber width	F	mm	400		460		
flue spigot - top edge	G	mm	1225		1494		
flue spigot -middle	(G)	mm	1050		1275		
height boiler inlet	H	mm	1155		1380		
height bioler return	I	mm	240		240		
minimum distance back side	J	mm	600		600		
minimum distance front side	K	mm	520		600		
height draining	L	mm	135		135		
connection boiler inlet / - return	1 + 2	Ø	1" (IG) DN 25		1 ¼" (IG) DN 32		
connection safety heat exchanger	3	Ø	1/2" (IG) DN 15		1/2" (IG) DN 15		
connection draining	4	Ø	1/2" (IG) DN 15		1/2" (IG) DN 15		
boiler weight		kg	461		564		

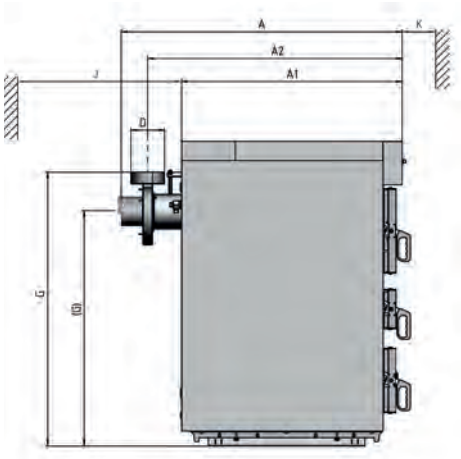
Technical facts		BioX 15	BioX 20	BioX 25	BioX 35	BioX 45
nominal output	kW	16,6	19,4	25,0	33,6	43,2
efficiency factor	%	90,6	90,9	90,7	90,7	90,5
water capacity	l	85		108		
max. operating pressure	bar	3				
pressure drop at nominal load (dt 10K)	mbar	8,4	8,4	13,2	28,2	27,2
pressure drop at nominal load (dt 20K)	mbar	2,1	2,1	3,2	8,0	7,3
permissible pressure range discharge safety device	bar	min. 1 to max. 4 bar				
water inlet temperatur discharge safety device	°C	4 to 15°C				
opening temperature discharge safety device	°C	at 95°C				
noise level at 30% load (at 90%)	dB (A)	36 (44)				
energy efficiency class	--	A+	A+	A+	A+	A+
energy efficiency index EEI	--	115	115	115	115	115
room heating -annual efficiency ηs	%	77,0	77,0	77,0	77,0	77,0

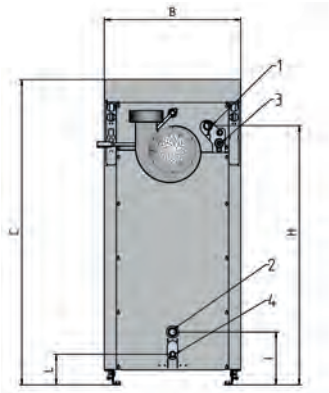
Fuel chamber/fuel consumption		BioX 15	BioX 20	BioX 25	BioX 35	BioX 45
admissible fuel		untreated, split wood log with residual moisture <20%				
max. wood log length	mm	550		550		
fuel chamber depth	mm	590		590		
fuel chamber height	mm	525		665		
fuel chamber width	mm	400		460		
dimension of the filling hole w/h	mm	400/260		460/305		
fuel chamber capacity, volume litre approx.	L	125		185		
max. filling weight (beech) approx.	kg	40		54		
fuel consumption at rated power (beech) approx.	kg/h	5,0	6,7	6,8	7,7	7,5
combustion period at nominal load (beech) approx.	h	6,0	5,0	7,0	6,0	4,5

Exhaust gas routing		BioX 15	BioX 20	BioX 25	BioX 35	BioX 45
recommended min. chimney cross section	mm	140		140		
draft requirements	mbar	0,2		0,2		
effective minimum chimney height	m	7		7		
exhaust gas mass flow	kg/s	0,0098	0,0122	0,0152	0,0212	0,0272
modulating exhaust gas temperature	°C	180	220	180	200	240
recommended exhaust piping length	--	developed length < 1,5m (max. 2 curves)				
barometic damper	--	recommended				

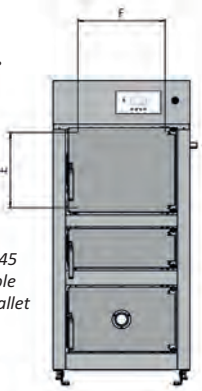
Electrical data		BioX 15	BioX 20	BioX 25	BioX 35	BioX 45
mains voltage / frequency	V/Hz	~230/50				
power consumption - standby	W	< 0,3				
power consumption - operation	W	90		150		

Hydraulic		BioX 15	BioX 20	BioX 25	BioX 35	BioX 45
recommended min. buffer tank volume**	L	1000	1500	2000	2000	2500
manufacturer´s recommendation	L	1500	2000	2500	2500	3000
min. tube dimension (Cu-/steel precision tube)***	mm	Ø 28	Ø 28	Ø 35	Ø 35	Ø 35
min. tube dimension (steel tube)***		DN 25 (1")		DN 32 (1 ¼")		
pre-set min. bioler return line temperature for the Solar-bayer boiler charging unit (controlled by boiler control unit)	°C	70°C				

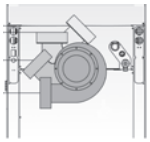




All boilers come with a lifting eye welded to the top of the boiler



BioX 25, 35 and 45 are also accessible with a regular pallet truck



rotatable exhaust gas connection resp. fan

Attention: If the optional available boiler front door is mounted the total length of the boiler is elongated about 6mm. With the optional available stainless steel fuel chamber cladding the fuel chamber capacity is slightly reduced.

* With a ceiling height below 2,20 m with BioX 25/35/45 and below 2,00 m with BioX 15/20 the version with split turbulators is necessary

** Legal regulations and requirements for subsidies have to be respected

*** Needs to be dimsioned larger depending on pipe length, number of bends, mixing valves, changeover valvex, etc.
The here stated pipe dimensions are only a recommendation and to not replace professional technical planning.

X Systems that work

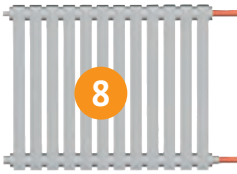
System technology made in Germany

1 Weather-compensating controller

The digital, weather-compensating Solarbayer heating control unit D30 can be perfectly integrated into the pre-punched plate of the control unit. The graphic display shows, by the means of pre-set Solarbayer system variants, e.g. the temperatures of the heating circuits, heat generators, buffer tanks or DHW tanks and enables an individual adjustment.

2 Wood log boiler BioX

The wood log boiler is the centerpiece of this heating system example, the boiler controller is separated from the heating controller which increases the reliability of the complete sytem.



3 Boiler charging unit

The boiler controlled boiler charging unit guarantees that the boiler will quickly achieve its perfect operating temperature, thus condensation is disabled and associated corrosion is prevented in the boiler.

4 Heating expansion vessel

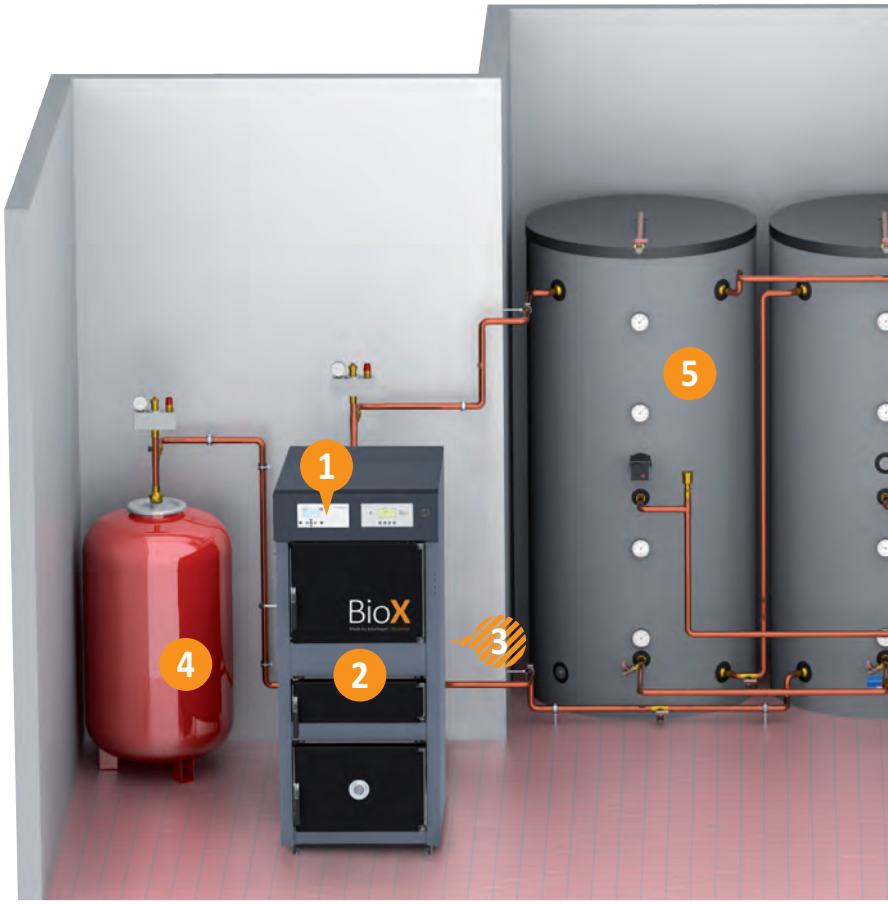
The vessels have a membrane inside which expands with increasing temperatures or increasing pressure in the system and contracts again when it cools down. They are indispensable for the protection of the system.

5 Stratification buffer tank SLS®

The buffer tank or the solar tank are, similar to a rechargeable battery, used to store the available energy of the wood log boiler, solar thermal system, as well as excess photovoltaic enery, which can for example be fed in via the immersion heaters.

The patented Solarbayer stratification system SLS® provides direct heat supply to the heating system.

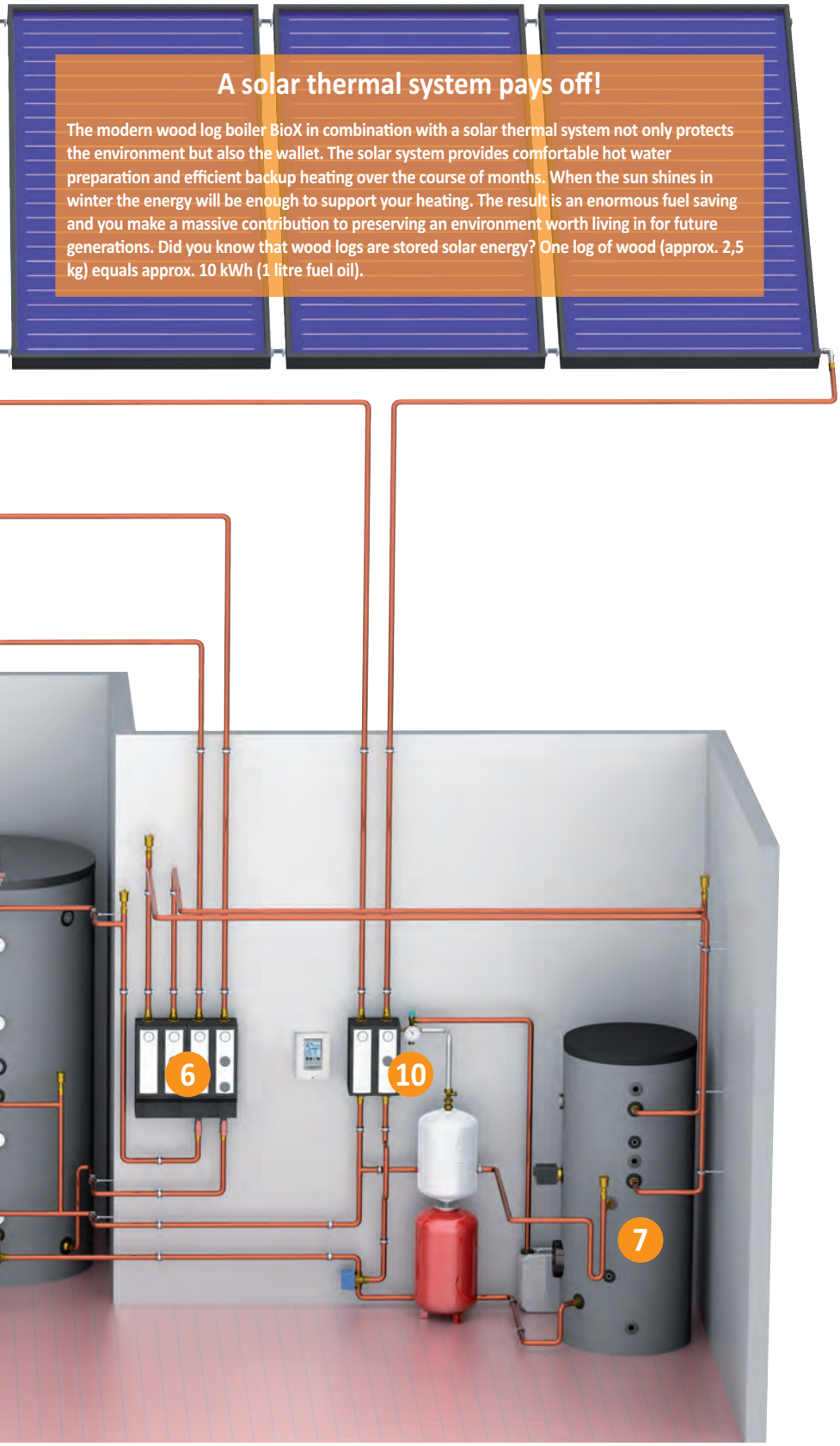
The Solarbayer system technology guarantees heating comfort, coziness and protects the environment.



All systems and hydraulic diagrams on www.solarbayer.com

A solar thermal system pays off!

The modern wood log boiler BioX in combination with a solar thermal system not only protects the environment but also the wallet. The solar system provides comfortable hot water preparation and efficient backup heating over the course of months. When the sun shines in winter the energy will be enough to support your heating. The result is an enormous fuel saving and you make a massive contribution to preserving an environment worth living in for future generations. Did you know that wood logs are stored solar energy? One log of wood (approx. 2,5 kg) equals approx. 10 kWh (1 litre fuel oil).



6 Heating circuit distributor

The distributor supplies the single circuits resp. the boiler charging circuit hydraulically decoupled with hot water from the buffer tanks. The single heating circuit models are then mixing the circuit to the desired flow line temperature.

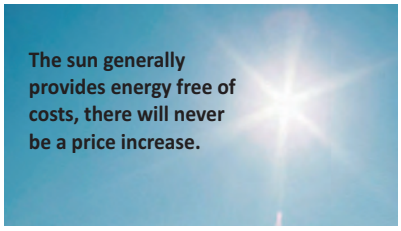
7 DHW solar tank

This tank heats up the DHW to the set temperature with heat exchangers and supplies the taps in the entire house, e.g. in the shower or in the kitchen.

8 Radiator or panel/ underfloor heating

9 Thermal solar system

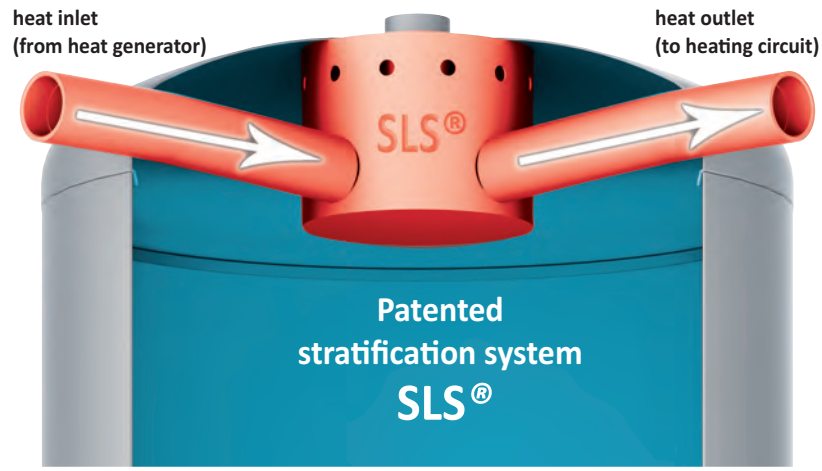
The solar thermal panels heat up the heat transfer fluid in the solar circuit with the caught solar energy and forward it via the solar station towards the buffer tank. There it flows throught the solar coil and brings the tank to the desired temperature, pre-set at the solar controller. Correctly aligned, a solar thermal system can cover a huge part of the energy requirement over the whole year. During summer months you often can even refrain completely from further heating sources. This increases the comfort of the heating system enormously. Furthermore, the boiler or other primarily used heat generators can be given a break and are thus preserved and the operating life extended. The high efficiency factor of solar thermal panels allows a worthwhile energy saving even with a small roof area. Besides this, the installation of a solar thermal system also demonstrates a responsible attitude towards the environment.

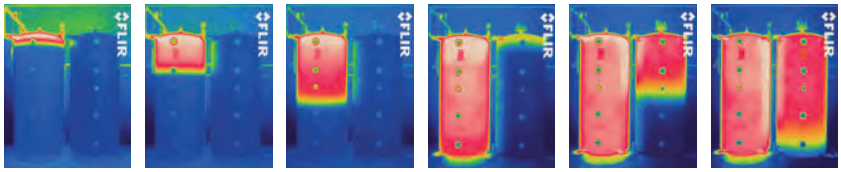


10 Solar station

The integrated pump pumps the heat transfer medium through the solar circuit

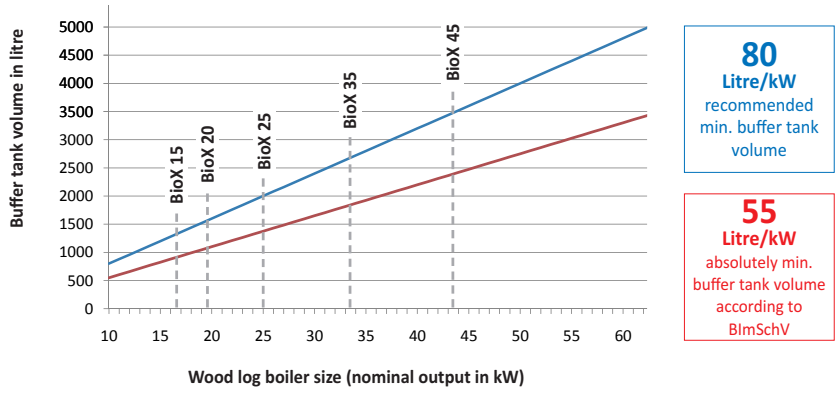
X Tank capacity





The displayed time-lapse recording clearly demonstrates the even allocation and stratification of the thermal energy while loading the tank.

Calculating the buffer tank size for the wood log boiler BioX



Rule of thumb for calculating the buffer tank size for wood log boiler systems:

- at least 55 litre per kW boiler nominal output, but better 80 litre per kW nominal output
- For standard buffer storage tanks, a maximum of no more than 100 litres per kW nominal boiler capacity should be used. The situation is different with high-performance Solarbayer stratification storage tanks. Due to the exact heat stratification, considerably larger tank volumes can also be used on request.

Stratification buffer tank SLS

make the usage of wood log boiler heating systems almost as convenient as oil or gas boilers.

Our wood log boilers generate clearly more energy with 1 complete filling during burn-off than is needed by the heating system at the same time. The surplus on energy provided is stored temporarily in the buffer tank. After the fire in the wood log boiler is burned off the heat of the buffer tank is still available for the building and, if necessary, for the hot water preparation.

The heating system can be supplied with heat without permanently feeding the wood log boiler. When calculating the correct size of a wood log boiler system one aims at one to two complete daily fillings of the boiler in order to supply the building with heat around-the-clock, this, at the same time serves the heating comfort.

The size of the buffer tank should be chosen in such a way that the energy amount of one total filling can be stored completely in the buffer tank.

For the perfect operation of the system it is important to install a stratification buffer tank with intelligent stratification and efficient energy utilisation.

The Solarbayer stratification buffer tanks with patented stratification system SLS® are perfectly suitable for this. Those are also perfectly aligned for the operation with the BioX wood log boiler.

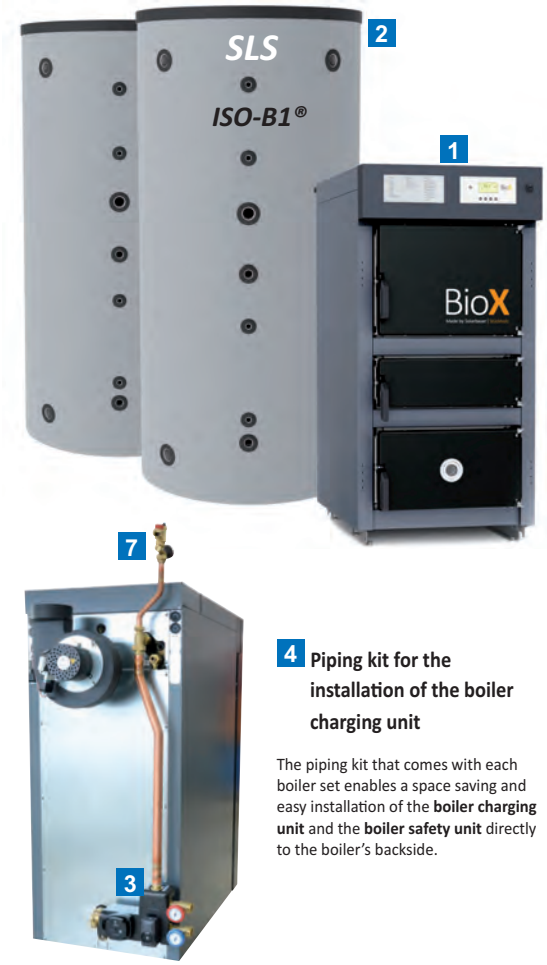
Practical tip:

The buffer tank capacity should also be perfectly adapted to the application of other renewable energy sources. In practice it has proven of value to provide for a complete buffer tank capacity of 50 to 75 litres per m² collector area. If a larger buffer tank size should be necessary due to the boiler size (see above) rather than the here mentioned perfect size for the solar system, then you have to pay attention to the fact that the hydraulic integration of the solar energy for the loading of the buffer tank is carried out in series, e.g. SLS with 2 heat exchangers or 2 buffer tanks after another. It is important that all buffer tanks have a solar coil and the solar system can contribute in its best way.

X Installation-ready sets

Wood log boiler sets – Solarbayer BioX

Solarbayer wood log boiler sets are always equipped with stratification buffer tanks SLS.
This guarantees a fast and efficient heat transmission into your building.



The single components in each set can be changed according to your needs. Our technicians will be glad to advise you.

4 Piping kit for the installation of the boiler charging unit

The piping kit that comes with each boiler set enables a space saving and easy installation of the **boiler charging unit** and the **boiler safety unit** directly to the boiler's backside.

Set components

1 Solarbayer wood log boiler BioX

2 Stratification buffer tank SLS
with patented stratification system SLS® (one of the most powerful storage tank systems on the market)
incl. fire protection insulation ISO-B1® difficult to ignite

3 LaddoMix electronic boiler charging unit

4 Piping kit
for the direct installation of the boiler charging unit to the backside of the BioX boiler

5 Thermal discharge safety valve
with sensor and sensor pocket

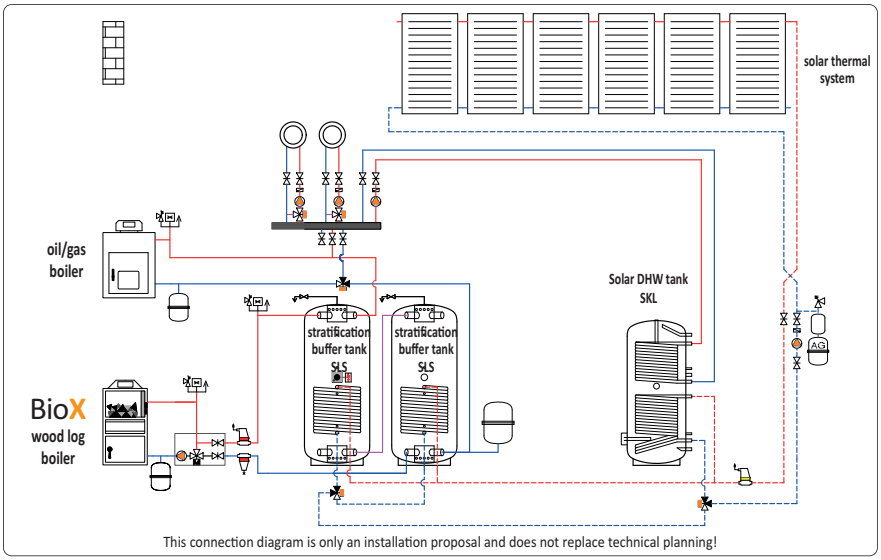
6 Membrane expansion vessel
aligned to the particular buffer tank size
incl. cap valve for expansion vessel with shut-off device, connection and draining

7 Boiler safety unit
with de-aeration, manometer and safety valve

8 Air separator for heating
air separator for closed hot and cold water heating systems

9 Dirt separator
dirt separator for closed hot and cold water heating systems

- **detailed instruction manual**



Hydraulic example: expansion of an existing oil/gas heating system with a wood log boiler and a solar thermal system

All systems and hydraulic diagrams on www.solarbayer.com

Comfortable warmth

A reliably well-tempered home and a good conscience towards the environment.

X Our services

Comprehensive Solarbayer warranty

We have faith in our products:
We grant you a 5 year manufacturer's warranty on our BioX series – without additional costs.

The warranty conditions can be found in the operating manual.
And you will also receive further information on it by our technical support.

Initial operation by our factory customer service team

Besides our consulting service by phone which is free of charge we can offer you an initial operation carried out by our factory customer service team or by one of our service partners. Because it is only a perfectly adjusted system that ensures customer satisfaction in the long run!

Which services are included in the initial operation?

- ✓ adjustment of all existent Solarbayer boiler components
- ✓ check of the operating requirements
- ✓ intoduction to the operation and maintenance of the boiler
- ✓ joint heating-up of the boiler
- ✓ realisation of a flue gas measurement with printed record
- ✓ check of correct connection of the wood log boiler

What does an initial operation by a service technician cost (in Germany)?

The costs for the initial operation are an all-in rate without hidden costs. The height of the rate depends on the boiler size and on the distance from the nearest service point in Germany. The travel distances are divided into 5 distance zones in Germany for an easier calculation. The working time is already included in the all-in rate.

Initial operation for plant locations outside Germany on request.

Tell us your location and we will prepare a non-binding quote for you.

On workdays we are available from
8:00 am -12:00 and from 1:30 pm - 5:00 pm

Consulting service by phone:
0049- 84 21 / 9 35 98 0

or via email to:
info@solarbayer.de

... or you are going to visit us in Preith:

You will of cource also receive a personal consulting in our headquarters. Our showrooms are open during the above mentioned opening hours. The best way is to arrange an appointment with one of our technicians so you can directly see and "feel" the products.

Address:
Solarbayer GmbH
Preith, Am Dörrenhof 22
DE-85131 Pollenfeld

Family business.

Having deep roots in the region and with responsibility towards the employees and the environment.

The family business

Solarbayer GmbH, based in Preith, is a medium-sized family business. As a manufacturer and system provider of wood heating systems, thermal solar systems, heat pumps and innovative storage systems, Solarbayer has turned into a very reliable partner of wholesalers and the specialist HVAC trade since it was founded in 2004. The distribution in Germany as well as the European and worldwide export with international sales centers have etablished very well. Customers appreciate the reliability of the Solarbayer products as well the competence of our consulting service. Prompt and flexible response to customer wishes has high priority. In our own training center, HVAC technicians and resellers, engineers and also planners are trained on Solarbayer products.

Our philosophy

The proven company motto of Managing Director Martin Kraus is: "Our products show outstanding properties in terms of quality and operational safety. This is also now known outside Germany by now. Our motto is and remains to offer outstanding products at a good price-performance ratio. This contributes to our long-term above-average success on the market. Our know-how goes far beyond standard applications. We have long qualified ourselves for the use of renewable energies in large-scale industrial plants. This know-how is our foundation. Innovation in technology, innovative manufacturing processes, a solid financial and corporate structure as well as a clear, transparent and innovative sales policy are the cornerstones of the company. All this provides the necessary stability on the market for renewable energies".

Development and quality control

The expectations of our customers with regard to innovation in technology and sales, quality, operational reliability, a good price/performance ratio, exemplary new manufacturing processes and an extremely stable financial and corporate structure have been fully met. The extraordinarily stable statics have so far more than withstood the "enormous suction and pressure forces" of the market, which are now well known and constantly present. One of the reasons for this is the balanced product range. The right combination of our products enables us to offer our customers perfectly aligned system technology from Bavaria.

Distribution and customers

At Solarbayer, the process of continuously evaluating customer opinions and taking their wishes into account as "guidelines" for the constant further development of technology and service, which has been successfully practiced for years now, has also proven its worth. Representative surveys show the consistently high degree of satisfaction of our customers. We guarantee our customers that we will do everything in our power to maintain this trust in the future. All employees and of course the managing directors Martin Kraus and Benedikt Kirschner personally take care of this in the well-managed family business.

Solarbayer®

Future-proof heating systems

Your retailer will be glad to advise you:

Solarbayer GmbH
Preith, Am Dörrenhof 22
85131 Pollenfeld
Phone: +49(0)8421/93598-0
Fax: +49(0)8421/93598-29
E-Mail: info@solarbayer.de

www.solarbayer.com

Wood log boiler BioX
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