

The Modular Heating System for all Energy Sources

# **SolvisMax** the All-Rounder





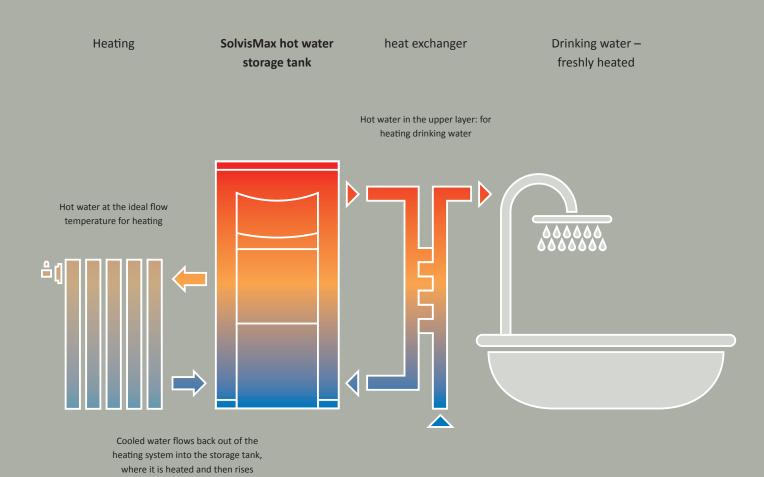




## Water is the most important of the elements – even for SolvisMax

More money in your pocket, more security for the future, more comfort and more space: that's what an all-rounder has to aim for – and that's what SolvisMax has achieved. But our heating system offers even more. It can switch energy carriers or combine multiple energy sources with impressive efficiency.

Many have talent. But to reach the top, you need something else. A really good idea to take a major step forwards. To develop the SolvisMax, we started with a very simple idea: our living spaces will not be heated with oil or gas – but with water.



In conventional heating systems, the burner takes centre stage. The SolvisMax offers something else. Here, the hot water storage tank is at the heart of the system. The heating module is integrated – and supplies heat directly to the water tank.

On the following pages, we want to show you how our talented all-rounder works, and how you can benefit from this unique heating system for oil, gas, thermal energy, wood and solar energy.

This much is already clear: boilers and heat stores provide you with a huge freedom of choice. And enormous savings.

## SolvisMax – The Energy Manager



# Individually, combined, or in full: You only buy what you actually need

SolvisMax is a modular system that can be retrofitted. You buy what you need. And you can add to it at any time.

The SolvisMax is available in three stages. As a boiler for oil, gas or district heating. As a solar storage tank or water heater that can be fitted to the integrated heating system. Or as a complete hybrid heating system for gas, oil, wood, air, thermal or district heating – with the appropriate Solvis collectors.

This lets the SolvisMax provide you with so many possibilities: Is your existing boiler still providing you with excellent performance? Then optimise your heating with the SolvisMax stratified storage tank and solar collectors.

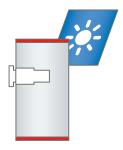
Are you looking for the best boiler? Then the SolvisMax gas or oil condensing system is the ideal solution.

You want to achieve maximum energy savings with your new heating system? Then choose our top design level – the complete heating system including a solar system – and up to 50 percent lower heating costs.

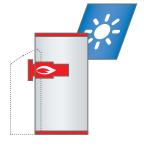
With the SolvisMax, you can just get the benefits that you actually need. It doesn't get any more flexible: You can retrofit whenever you want. It lets you save a lot of money.



SolvisMax Pur as a replacement boiler for oil and gas, solar collectors can be retrofitted later



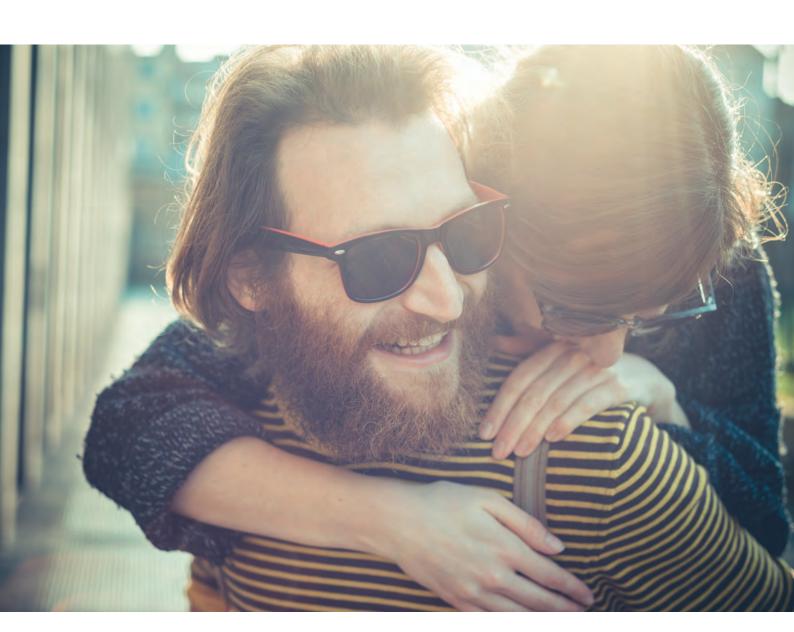
SolvisMax Futur as a supplementary solar storage tank, heating module can be retrofitted later



SolvisMax as a complete heating system with solar collectors

# With SolvisMax, you can always switch to the right energy

SolvisMax gives you the security to invest in the best heating technology. Because you can make a decision that will still be the right one in 20 years time.



Want to switch from oil to gas? Or power your heating with pellets or a heating pump? Do you want to use the heat from your fireplace? Or use solar energy? SolvisMax works with any energy source – with or without the help of the sun.

With SolvisMax, you can make all the right choices: for the here and now – and also for the future. Are the costs for your energy carriers fluctuating? Even after a number of years, SolvisMax can be converted into a new boiler – simply by switching the heating module. It makes SolvisMax way ahead of its time.

With more than 25 years of success on the market, Solvis offers you a unique long-term warranty: 5-year functional warranty on SolvisMax components and 10 years for collectors, storage tanks and combustion chambers.

Sit back and enjoy the warmth. With the great feeling of having made a great choice for today and tomorrow.







# So very clever: how the stratified storage tank uses the power of physics

The stratified storage tank is the heart of the SolvisMax. To ramp it up, we came up with something special – the patented triple stratified storage tank.

The triple stratified storage tank utilises the physical properties of the warm and cold water. The cooled heating water flows into the lower layer of the storage tank, is warmed again and then rises upwards. It accumulates in the middle layer - with the ideal flow temperature for heating. The water only gets really hot in the upper layer. Thanks to the hot water, heating and solar buffer, three storage functions are available at the same time.

In the upper layer of the stratified storage tank, the heat exchanger is connected. Here, the hot storage tank water flows through the fresh drinking water and heats it - to an exact specified quantity and temperature. When you turn on the tap, you get a constant flow of freshly heated water from the pipes – for a great feeling when washing and bathing.

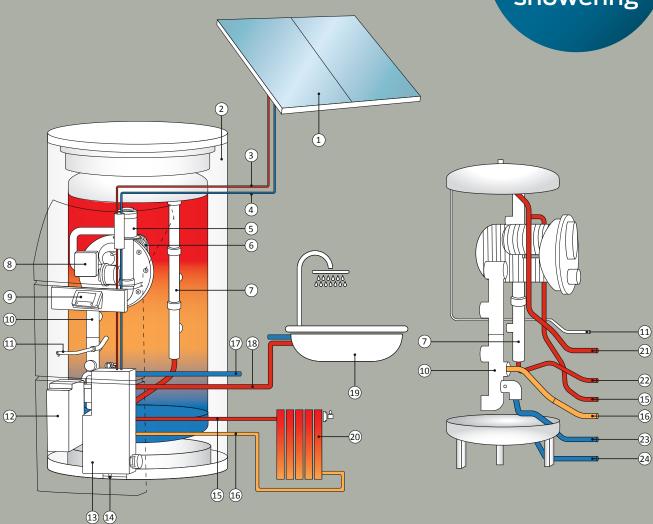
The SolvisMax combines heating and hot water in a single device. This lets it save up to 50 percent in energy costs and a massive amount of space. It comes with one user friendly controller for the entire system.

The benefit to you: the SolvisMax is really easy to fit in your home. And, of course, to retrofit. As a result, the most economical boiler can quickly and easily become the best solar heating system on the market. When you choose SolvisMax, you choose the best hybrid heating system around.



Übrigens: Alle Versuche, dieses perfekt funktionierende System zu kopieren, scheitern europaweit an der Patentnummer EP 0795109.

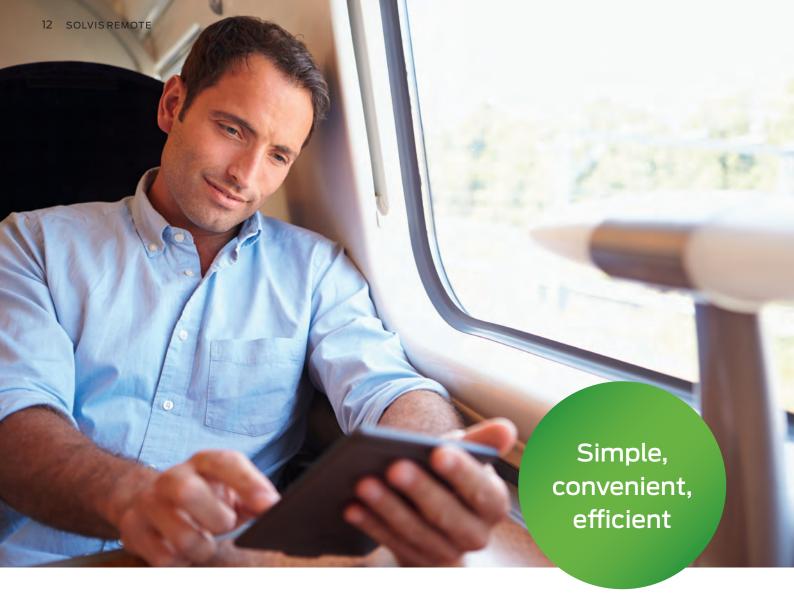
## **Effortless** heating and showering



- 1 Solvis solar collectors
- 2 Tank insulation
- 3 Solar flow, primary
- 4 Solar return, primary
- 5 Exhaust connection
- 6 Combustion chamber
- 7 Solar stratified charger
- 8 Burner

- 9 SolvisControl system controller
- 10 Combined stratified charger
- 11 Bleeding
- 12 Hot water station
- 13 Solar transfer station
- 14 Filling/emptying valve
- 15 Heating flow
- 16 Heating return

- 17 Fresh water, cold
- 18 Fresh water, warm
- 19 Tap
- 20 Heating
- 21 Warm water station, flow
- 22 Solar flow, secondary
- 23 Warm water station, return
- 24 Solar return, secondary



# SolvisRemote – your remote when home and away

Want to control your heating system from your sofa? Or when travelling? SolvisRemote makes it possible.

The SolvisRemote remote connects the SolvisMax to your home network or the internet. The heating system is easy and safe to operate from your PC, tablet or smartphone. At any time. From anywhere.

More home comforts for you: think you may be home earlier than planned today? When you're out, simply use the SolvisRemote to fire up your heating system just before your trip back. Instant warmth when you get home.

### So simple:

The SolvisRemote is simply connected to the SolvisControl 2 central controller using the supplied network cable. You can also connect it to your router using a network cable or, if you cannot connect it directly, a power line adapter.

#### Configuration

The SolvisRemote can be connected with your network using the PC configuration tool. You can access the remote from practically any end device and web browser without installing any additional programs.

Operate your SolvisMax from your smartphone and check the status of your system at any time from anywhere.



# Free heat – with our collectors and the power of the sun

Whichever design you choose: SolvisMax reduces your energy costs regardless. You can achieve maximum savings by combining the system with a solar system on the roof.

When the sun is shining, we're all happy. We can really feel how light and heat can fill our bodies with new energy. Our high-performance collectors also use the power of the sun – for hot water, heating or both. Even the energy needs of your dishwasher and washing machine can be reduced with solar-heated water. And the sun can also help your tumble dryer: together with Miele, we have developed a solar tumble dryer.



SolvisFera large-surface collector The classic that gave Solvis its excellent reputation. The largesurface design saves on installation costs and makes the SolvisFera extremely powerful and versatile.



SolvisCala compact solar panel Small and compact. Turns even the most angular of roofs into sun catchers. At 2.17 x 1.17 m, it even fits between dormer windows.



SolvisLuna evacuated tube collector Magically attracts even the smallest sunrays (not to mention admiring glances). This added performance means you are always on the sunny side of the street.





## Flat-plate collectors SolvisFera and SolvisCala

When our flat-plate collectors catch the sun's rays, the absorber plate heats up. It is made from durable aluminium with a highly selective coating - evenly vaporised and good for the environment. Copper piping that conducts the heat is welded below the absorber. The laser-welded connection ensures the optimum heat transfer and provides ten percent more power.

Highly transparent, specially hardened solar glass with an anti-reflective coating increases the power capabilities even more. It lets extra sunlight through and is extremely durable. This special surface treatment increases light transmission. These features ensure that the solar collector performs optimally, looks great and lasts practically forever.

### SolvisLuna evacuated tube collector

The same thing that keeps your tea warm is also good for solar energy. A sophisticated system of mirrors deflects the sunrays into an evacuated tube, where the rays can transfer all of their energy. Like in a thermos, practically no heat is lost. This is especially recommended if the roof of your house does not face south.



## Outstanding choice: the SolvisMax is a real winner a multi-award winner.

#### Prizes, certificates, top marks:

the SolvisMax has scooped up every award going. With it, you own an energy-saving award winner and the leader in price-performance comparisons. Trust the opinion of independent energy experts.



European **Solar Prize** 2003



Energy Globe 2003: more than 1,000 candidates from 95 countries competed. Solvis took home the prize.







Task 26 Solar Combisystems 12/2002: "Far and away Europe's best solar heating system."











GreenTec Awards Winner 2013: SolvisMax and solar drver (a collaboration between Miele + Cie. and SOLVIS GmbH & Co KG)





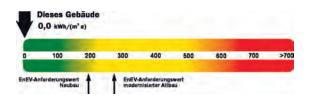
# Endless energy for ideas and innovations

How do we make the most of solar energy? That is the question we ask ourselves daily.



Since our company was founded in 1988, we at Solvis have set our sights on utilising the power of the sun. It drives us on. And our team of employees gives us the energy and creativity to make breakthrough after breakthrough and patent after patent. Today, Solvis is the expert for highly efficient heating systems and technology leader in Europe.

A balance between our own interests and those of the environment – that is key to us. We have established Europe's largest zero-emission factory in Braunschweig. That means that each of our departments and each of our production processes have zero impact on the environment.



An international jury under the chairmanship of the Club of Rome recognised Solvis as an "outstanding example of an environmentally conscious industrial company". Because our products – like the SolvisMax – deliver technological answers to ecological questions. So we can let everyone save energy and do something good for the environment at the same time.

# Carefree, efficient and clean heating with the SolvisMax

#### SolvisMax: Technical data

Rated volume	450 l	750 l	950 I
Total height without insulation	1648	1724	2114
Total height without insulation with adjustable feet	1683	1759	2149
Total height with insulation and adjustable feet	1802	1922	2330
Diameter without insulation	650	790	790
Diameter with insulation	870	1020	1020
Storage tank tilt height	1678	1762	2137

All dimension specifications in mm

For all sizes, the space requirement is increased by 0.45  $\mbox{m}$ 

for the cover that protects the hot water and solar stations.

#### Values for all sizes

	SolvisMax Gas (SX)	SolvisMax Öl (SÖ-BW)	SolvisMax Teo (Teo)*	SolvisMax Vaero (Vaero)*
Rated heat output	Either 5–15 kW or 5–20 kW or 7–25 kW or 8–30 kW	Either 10–17 kW or 14–23 kW or 20–28 kW	Either 10 kW or 16 kW	Either 8 kW or 11 kW or 15 kW
Standard efficiency coefficient	109,2 % (5–15 kW) 109,1 % (5–20 KW) 108,8 % (7–25 kW) 108 % (8–30 KW)	104,6 % (10–17 kW) 104,1 % (14–23 kW) 103,1 % (20–28 kW)	COP: 4,37** Operating limits: For brine -5 °/+25 °C For heating +15 °/+60 °C	COP: 4,60** Operating limits: For air -20 °/+40 °C For heating +15 °/+60 °C
Standard emissions factor	NOx 18,7 mg/kWh, CO 0,9 mg/kWh (for 5–15 kW)	NOx 60 mg/kWh, CO 3 mg/kWh (for 10–17 kW)	-	-

<sup>\*</sup> SolvisMax Teo and SolvisMax Vaero are offered with a rated volume of 750 l or 950 l only.

### **Solvis collectors**

	SolvisFera F-553	SolvisFera F-653	SolvisFera F-803	SolvisCala C-254	SolvisLuna LU-233
Collector length	3793	4735	5677	2174	2025
Collector width	1480	1480	1480	1174	1165
Collector surface area (gross)	5,61 m²	7,01 m²	8,40 m²	2,55 m²	2,36 m²
Opening surface area according to EN 12975	5,16 m²	6,45 m²	7,74 m²	2,40 m²	1,93 m²
Absorber type	Aluminium with mirotherm® coating				Sydney tubes
Anti-reflective glass	Yes	Yes	Yes	_	_
Glass transmission	_	_	_	> 0,91	_
Transmission of anti-reflective glass	> 0,95	> 0,95	> 0,95	_	_
CE mark of conformity	✓	✓	✓	✓	✓
Solar Keymark certificate	011-7S1750 F			011-7S2503 F	011-7S2504 R

All dimension specifications in mm

<sup>\*\*</sup> Output data according to EN 14511 (Teo: BO/W35, Vaero: A10/W35)

## Here it is in black and white

- **1** More money: You are proven to save up to 50 percent on energy costs.
- 2 More independence: You do not rely on fossil fuels alone.
- **More options:** You can switch or add energy sources at any time thanks to the retrofittable modular system.
- **The many testimonials:** You can rely on thousands of references and proven examples of energy savings.
- 5 Real seal of approval: You've chosen the award-winner
- 6 Increasing value: You are increasing the value of your property.
- **Unique long-term warranty:** You get a five-year Solvis warranty on the SolvisMax components, and a ten-year functional warranty on collectors, storage tanks and combustion chambers.
- 8 Experts in the field: Solvis exclusively partners with technicians who have proven themselves as experienced energy saving experts.
- **9 Thinking green:** You are doing something good for the environment and the future generations.
- **Simple logic:** With the SolvisMax, you are choosing the most cost-efficient solution for the long term.





Platzhalter Label ClimatePartner

Platzhalter FSC-Zertifikat



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Your partner for carefree heating

