

SOLUS II – Combined systems for maximum energy savings

Stratified buffer tank with fresh water technology

The universal „heat power plant“

The SOLUS series combination tanks are standards in high-efficiency installation for solar heating support. For more than 20 years, more than 40,000 installations equipped with this technology have been in use throughout Europe. Whether it is a single or collective house, a villa or a hotel, the heat store can be perfectly integrated and completed with all high-efficiency systems. There are many possibilities for combining with different heating systems and hot water tanks, whether with existing or even new boilers (fuel oil, gas, wood, pellets), but also with heat pumps.

Efficiency and savings

The patented Consolar high efficiency high heat exchange system of the Comfort and Comfort-Pro lines ensures that water heated by the sun is directed upwards through the appropriate ducts, and can therefore be instantly used for consumption. This means that the boiler does not need to be started as frequently. In addition to that, compared to heat stores equipped with integrated hot water cylinders, it is possible to draw heat continuously.



SOLUS-TUBO installations have been given excellent marks in efficiency tests. As a result, these installations redefine the standard for solar thermal installations.

Less bulky, more efficient

By combining the water heater and heating system into a single heat store, you save space in your plantroom. Thanks to the angled connections, which act as a thermal brake, heat loss is considerably reduced. To minimize these losses, the SOLUS system features high efficiency LEEPS foam insulation and 2 cm of insulating fleece, which allows it to retain heat for several days. SOLUS II-Comfort-Pro (560L/1050L) are the first steel combination stores to be awarded the „Blue Angel“ label, which rewards outstanding environmental efforts.

High efficiency internal water heater

The cold water is heated by the internal water coil due to temperature differences in the heat exchanger housing, and the cooled buffer water is deposited in layers at the bottom of the storage tank. This brings benefits in terms of water hygiene. The completely passive system, which has been tested several thousand times, allows very reliable operation throughout its lifetime, without pumps or control.

Compatibility and compact design

SOLUS systems can easily be connected to almost all types of boilers and heat pumps. Comfort range: significant energy savings are possible while ensuring comfortable hot water production. This storage tank is also available without integrated heat exchangers and as a buffer module without integrated heat exchanger, for example for combination with external fresh water station or to increase storage capacity. Comfort-Pro range: compared to the Comfort range, this one has a hot water heat exchanger, which allows even more hot water to be produced at the same time or to lower the temperature required to heat the water.



The SOLUS II combined buffer tanks have been selected for the Belgian Princess Elisabeth Antarctic science station in combination with TUBO collectors and have been in service there since 2009.

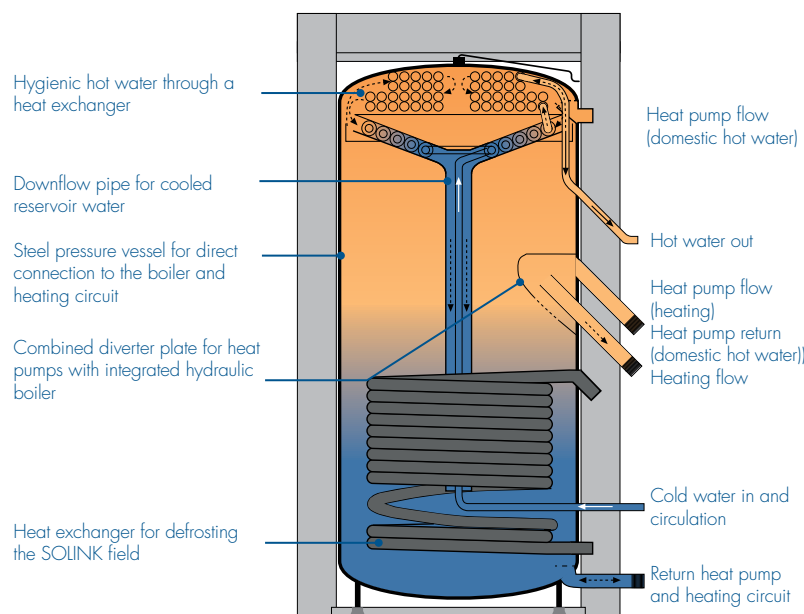
SOLUS II 560L and SOLUS II 1050L have been awarded the „Blue Angel“ quality label.



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- Reduction of heat loss
- Low heat loss rate
- Energy saving with heating systems

SOLUS II 1050L PVT SECTION



NEW: SOLUS 850L PVT and 1050L PVT

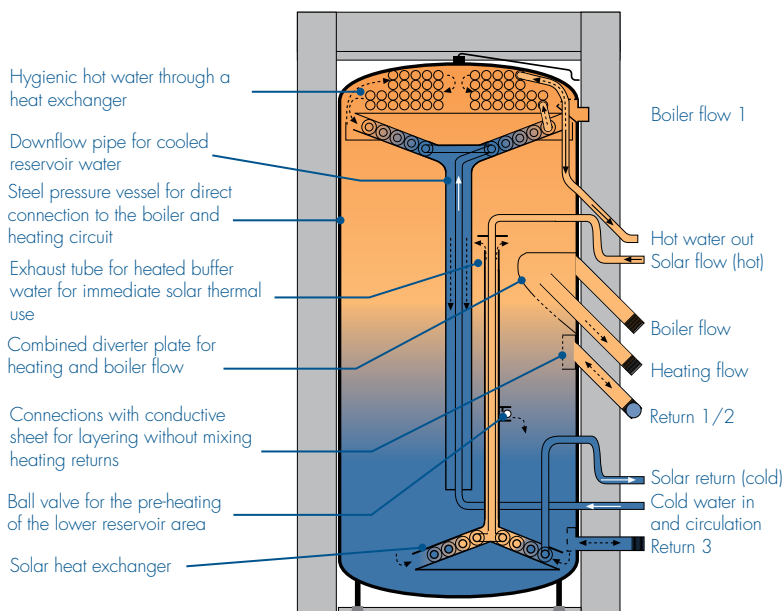
The new SOLUS cylinders for combining PVT modules with brine heat pumps to make heat pump heating systems more efficient. The buffer volume allows the heat pump to use much more electricity produced by itself and to supply the house with heat and hot water later when necessary.

In addition, with the new heat exchanger in the lower part of the storage area, it is possible to defrost the collector field and, if the building is to be cooled, the subsequent possibility of cooling by SOLINK modules is already provided.

Special version on request

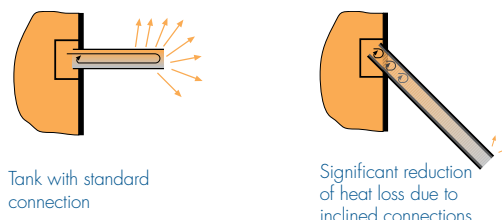
The SOLUS series is also available without solar heat exchanger for biomass, heat pump and combined heat and power generation applications. For local and district heating projects, the storage tank can be manufactured with an integrated transfer heat exchanger.

SOLUS II 1050L SECTION



SOLUS stores with Consolar PVT collectors, flat plate and vacuum tube thermal collectors, together form high-performance systems for heat supply.

SOLUS CONNECTIONS WITH HIGHLY EFFICIENT THERMAL BRAKE



TECHNICAL CHARACTERISTICS OF THE SOLUS SERIES

Technical data	SOLUS II COMFORT RANGE			SOLUS II COMFORT-PRO RANGE				SOLUS II PVT	
	550	800	1000	560L	850L	1050L	2200L	850L PVT	1050L PVT
Reservoir volume	550 l	800 l	1000 l	550 l	800 l	1000 l	2200 l	800 l	1000 l
Net weight	137 kg	175 kg	225 kg	147 kg	190 kg	255 kg	395 kg	218 kg	279 kg
Diameter without insulation ¹⁾	70 cm	79 cm	79 cm	70 cm	79 cm	85 cm	130 cm	79 cm	85 cm
Diameter with insulation ¹⁾	96 cm	106 cm	106 cm	96 cm	106 cm	111 cm	156 cm	106 cm	111 cm
Height with insulation	12 cm	12 cm	12 cm	12 cm	12 cm	12 cm	12 cm	12 cm	12 cm
Insulation	8 + 2 cm	8 + 2 cm	8 + 2 cm	8 + 2 cm	8 + 2 cm	8 + 2 cm	8 + 2 cm	8 + 2 cm	8 + 2 cm
Required ceiling height ²⁾	171 cm	200 cm	218 cm	171 cm	200 cm	202 cm	202 cm	200 cm	202 cm
No. of accommodation	1	1-2	1-2	1-2	1-2	1-3	1-3	1-2	1-3
Showers/Bathtubs	2 / 1	3 / 1	3 / 1	2 / 1	3 / 2	4 / 2	4 / 2	3 / 2	4 / 2
Surface TUBO collector	4-9,5 m ²	7-14,5 m ²	7-14,5 m ²	4-9,5 m ²	7-14,5 m ²	10-20 m ²	10-20 m ²	-	
Surface flat plate collector	4,5-10,5 m ²	8-16 m ²	8-16 m ²	4,5-10,5 m ²	8-16 m ²	11-23 m ²	11-23 m ²	up to 40 m ² SOLINK	
Max. draw down rate at 45 °C ³⁾	16 l/min	20 l/min	20 l/min	18 l/min	25 l/min	30 l/min	30 l/min	25 l/min	30 l/min

¹⁾ Installation dimensions are subject to manufacturing tolerances and may vary from 1 to 2 cm. ²⁾ This disclosure is based on the assumption that the end cap is omitted or divided by the side.

³⁾ Values at 60 °C above the storage tank temperature. At 55 °C, e. g. for the operation of a heat pump, it is possible to draw 15 l/min for 560 l, 20 l/min for 850 l and 25 l/min for 1050 l.