

Solar heat transfer system Solex – HF

Upgrade your hydronic heating system with solar thermal!

The compact and completely preassembled solar water heating system Solex for high flow systems is completely insulated. It is equipped with a generously dimensioned stainless steel flat plate heat exchanger, prewired and preset controller. All those advantages allow for a simple and quick installation as well as secure commissioning.

Your advantages:

All connections ¾" female

With pre-assembled steel wall bracket
 can be mounted easily onto the wall

Fully assembled with flat sealing union connections

Full port ball valves

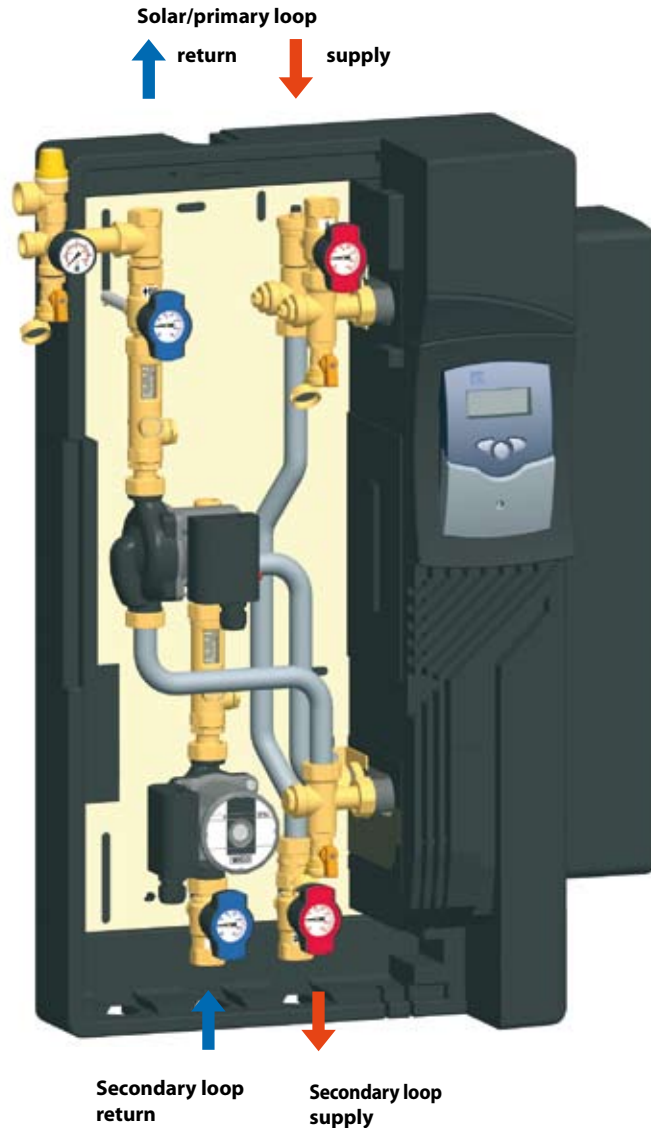
Flow check valves inside the solar loop and inside the secondary loop, manual opener, inside the solar loop with 400 mm WC, especially for solar systems, secondary with 200 mm WC, prevent any gravity circulations

Both loops with large ball valve handles
 easy handling, visible closing position, with integrated full metal thermometer 0-160 °C / 32-320 °F, can be pulled off, with thermowell integrated inside the ball valve

With solar circulation pumps by Wilo, three speed pre-assembled; aligned to the performance of the water heating system, pumps can be completely isolated- no draining necessary during pump service

Primary and secondary loop with flowmeter
 for easy adjustment of the flow rate

Integrated flushing and filling valves
 three drain valves permit filling and flushing the primary circuit as well as only the heat exchanger. On the secondary side automatic airvent at the highest point of the heat exchanger.



basic conditions: global radiation = 800 W/m²; efficiency $\Delta_{0,05} = 0,625$

For systems in high flow mode [20 - 30 l/(m² solar panels x h)]

Heat exchanger Type 1P with 20 plates	operational mode	surface of solar panels	performance
	20 l/(m ² *h)	30 m ²	15 kW
	30 l/(m ² *h)	20 m ²	10 kW
Heat exchanger Type 1P with 30 plates	operational mode	surface of solar panels	performance
	20 l/(m ² *h)	50 m ²	25 kW
	30 l/(m ² *h)	30 m ²	15 kW



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Solar safety assembly

pressure relief valve 6 bar / 87 psi, high-temperature manometer 0-6 bar / 0-90 psi with valve, flat sealing connection for expansion tank
secondary side fitted with 3/4" pressure relief valve connection

Compact function-optimized design insulation

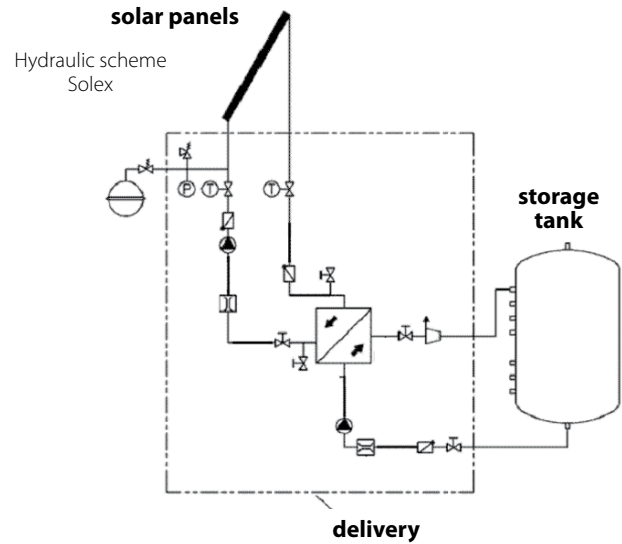
made of durable elastic EPP; **100% insulation of the fittings** – minimized heat loss

Highly efficient stainless steel heat exchanger

two sizes for small and larger installations, designed for high flow operation. Generously dimensioned, for transmitting high performances high ΔT , completely integrated into the insulation.

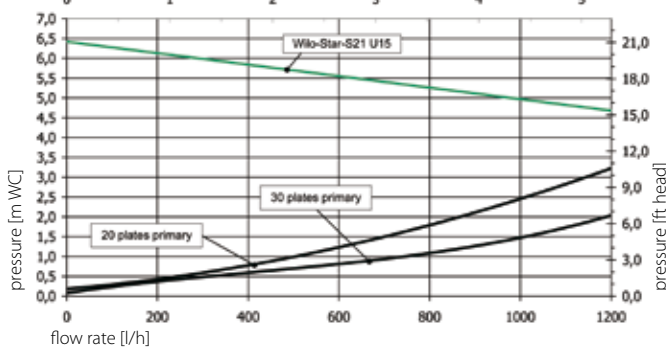
Integrated solar controller

completely pre-assembled, preset and prewired, assures quick assembly – only the sensors for the storage tank and for the solar panels have to be connected branched. The preset control system makes commissioning simple and clean.

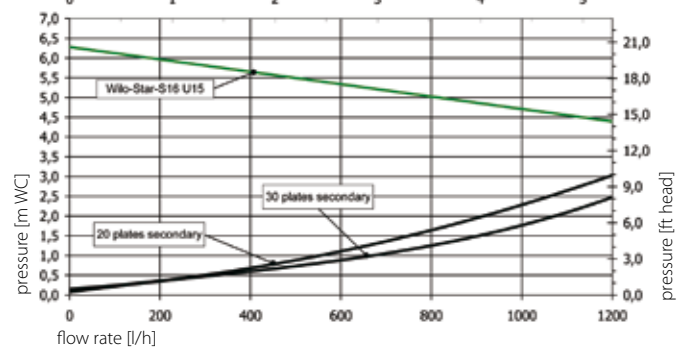


TECHNICAL DATA Solex - HF		
Dimension		DN 20 - 3/4"
Material	fittings	brass
	gaskets	Klingersil / EPDM
	insulation	EPP
	check valves	brass
	heat exchanger	plates + sockets: 1.4400 solder: 99,99% copper
Techn. data	max. pressure	10 bar / 145 psi
	max. temperature	130 °C / 266 °F, temp. 160 °C, 320 °F
Equipment	check valves	400 mm WC primary 200 mm WC secondary
	pressure relief valve	6 bar / 87 psi, for thermal solar
	flowmeters	0.5-3.5 USgpm
	manometer	0-6 bar / 0-90 psi, resistant to high temperatures
	temperature gauges	32-320 °F
Dimensions	connections	3/4" female
	over-all width	560 mm / 22 1/32"
	over-all height	880 mm / 34 21/32"

Pressure drop Solex HF primary circuit / pump characteristic flow rate [USgpm]



Pressure drop Solex HF secondary circuit / pump characteristic flow rate [USgpm]



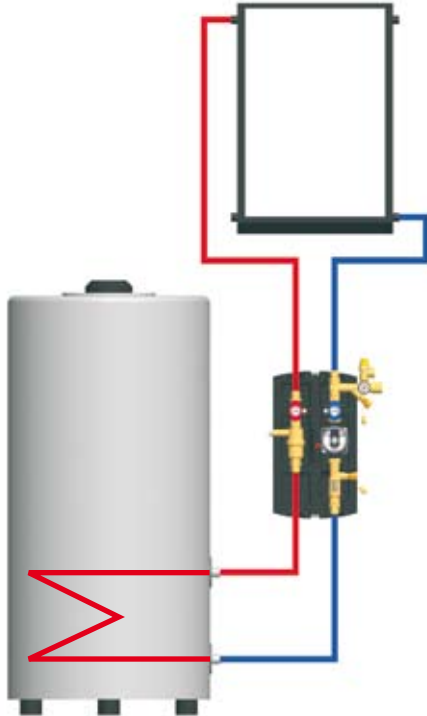
Heat exchanger	Pump version	Item n°
Type 1P 20 plates	primary: Wilo Star S 21 U-15 ; secondary: Wilo Star S 16 U-15	6091822 US 01
Type 1P 30 plates	primary: Wilo Star S 21 U-15 ; secondary: Wilo Star S 16 U-15	6091832 US 01



Solar systems with PAW pump modules

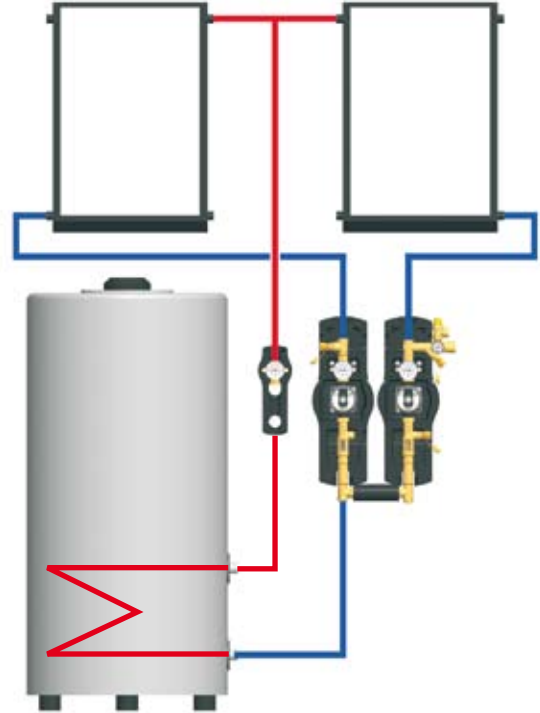
FlowCon , FlowCon C , FlowCon MAX

One solar panel field, single storage tank with integrated heat exchanger



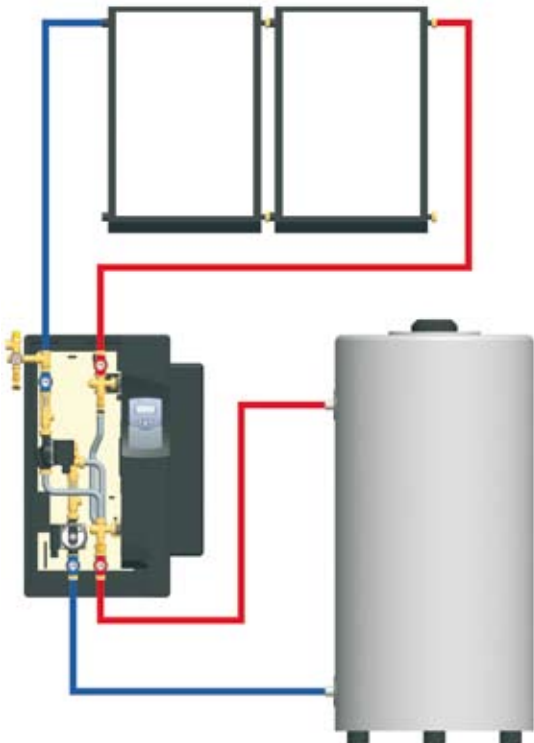
FlowCon D2F

Two independantly operated solar panel fields, one storage tank with integrated heat exchanger



Solex

One solar panel field, one buffer storage tank without heat exchanger



FlowCon S2F

One solar panel field, two independantly or parallely operated storage tanks with integrated heat exchanger

