



Flamco



Flamco

Products for Solar
powered installations

FLEXCON SOLAR



FLEXCON V-B



PRESCOR
SOLAR



FLEXVENT TOP
SOLAR



FLAMCOVENT
SOLAR V



DUO SOLAR



Flamco

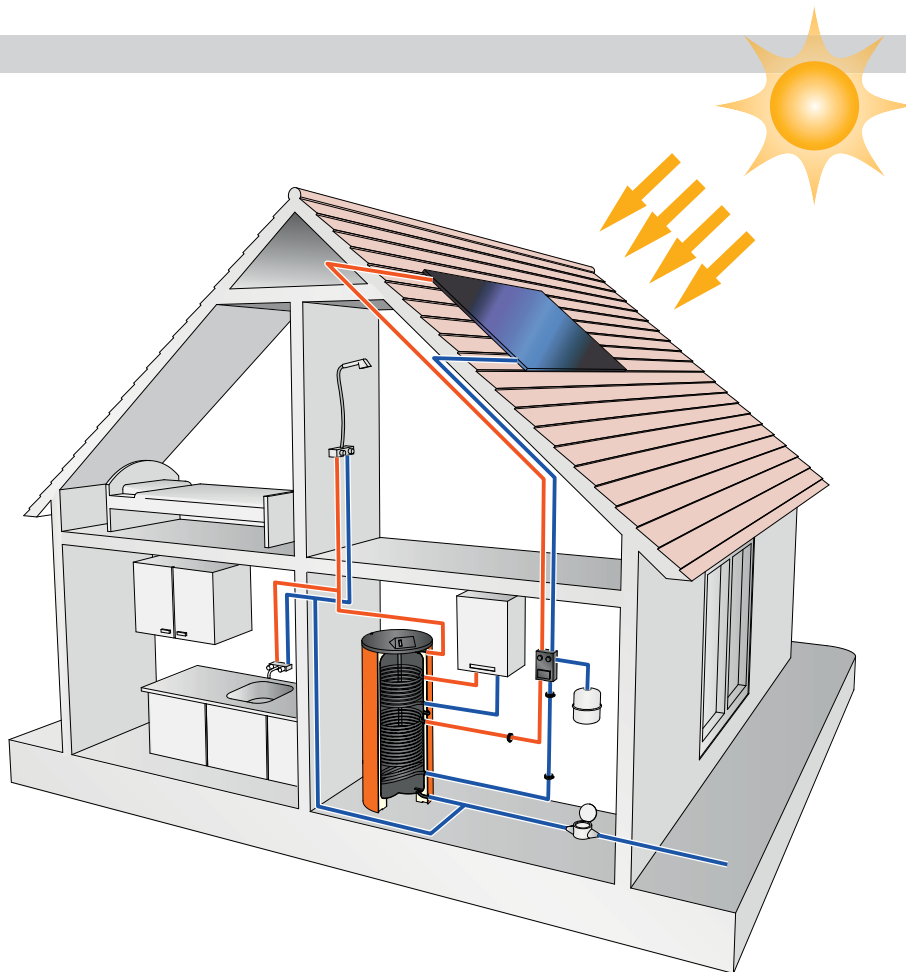




Flamco Solar products from Flamco: the best choice you can make!

Flamco is the preferred supplier for many products for solar systems to leading solar boiler manufacturers and solar boiler combination systems. This range comprises the following products and product groups:

- ◆ Water heaters, storage vessels and accessories.
- ◆ Expansion vessels.
- ◆ Safety valves.
- ◆ Combined pressure gauges/thermometers
- ◆ Filling sets.
- ◆ Air separators and automatic air vents.
- ◆ Pipe brackets and other pipe fittings.



Flamco products are fully compliant with the requirements in solar systems for pressure and temperature:

- Prescor Solar - VdTÜV-information sheet 100 (07-2006) par. 4.7.
- Expansion vessels (Flexcon Solar 8 - 80 litres) - Pressure Equipment Directive 97/23/EC.
- Water heaters and storage vessels for potable water - all parts that come into contact with the water must be enamelled to DIN 4753/3 standard for hygienic water heating.

Other systems

In a number of countries, the 'return-flow' principle is used. This is where water is present in the collector tank only if there is enough sun and the collector tank can still absorb heat. The most significant benefit of this system is that anti-freeze does not have to be added to the water and that there is no need for a thermal cut-out. The disadvantage is that the water must be able to flow back freely into the storage tank if the pump stops. The pipes must run in a continuous downward slope from the collector. That is not a problem if the storage tank is close to the collector, but it can be problematic if the storage tank is on the other side of the house or even in the cellar.

In countries where the storage tank is situated in the cellar a system that uses anti-freeze is often used. A thermo-syphon system is also a possibility. In such cases the storage tank is positioned above the collector and, because it gets lighter when heated, water runs automatically into the storage tank.

Operation

A solar boiler uses the heat of the sun. This heat is then circulated into the consumer's water heating system. By using a solar boiler you can cut your energy bills almost in half (on average 45%) in terms of heating water. In addition, it is also exceptionally environmentally-friendly as a solar boiler makes an immense contribution to reducing a household's CO₂ emissions (280 kg per year on average!) The solar heat is collected with a solar collector panel and transferred to a fluid (water with anti-freeze additives) that is concealed under the surface of the collector panel. The fluid is pumped through a pipeline that runs through the water tank. In this way, the heat can be circulated throughout the system, heating the water. The heated water is then fed via an after heater into the house, where it can be used.

A solar boiler working properly will be largely problem-free for its entire service life. Important is to have a regular (min 2 yearly) check on the concentration and pH-value of the medium, as this is of great influence to the efficiency and life time expectancy of the solar system. A solar boiler's output does not decrease noticeably.

Prescor Solar safety valves for the protection of your system

Prescor Solar safety valves are used to maintain safe pressure levels in sealed, intrinsically safe (which means that the solar boiler system has to be designed in such a way that even in the event of failures no hazardous situations will occur) solar heating systems with water/glycol mixtures containing up to 50% glycol. Permitted flow temperature 120 °C and peak temperature resistance up to 160 °C. Maximum working overpressure (response pressure): 3, 6, 8 and 10 bar. The set pressure and the maximum capacity for which the valve is suitable are marked on the valve. The Prescor Solar may be selected in relation to the collector surface, where 1 m² equals 1 kW. All valves precisely set and tested on pneumatic test bench. Certification number TÜV.SV.08-1118.SOL.N.p.



PRESCOR SOLAR 3/4"



PRESCOR SOLAR 1"



Indestructible plastic knob for lifting the valve plate.

Solid brass housing.

PRESCOR SOLAR ADVANTAGES:

- ◆ Seal made from high-grade synthetic rubber compound that does not adhere to the valve seat. With "pop effect": large bleed capacity, excessive pressure is quickly dissipated.
- ◆ Separating diaphragm protects inner part against dirt and calcification.
- ◆ With special spring made from high-quality spring steel, therefore no change in spring tension over time.
- ◆ Flamco was one of the first manufacturers to produce safety valves that complied with the standards found in the Pressure Equipment Directive 97/23/EC (CE marking).

Prescor safety – the ultimate safety



Flamco Flexcon Solar diaphragm pressure expansion vessels for closed solar installations

Flexcon Solar vessels are manufactured from the highest grade of steel and coated with an epoxy gloss varnish for protection and high-quality processing. The clamping ring construction with the proven diaphragm impresses constantly in tests and in practice with its long service life, even under heavy use. The optimal distribution of forces at the diaphragm in conjunction with extremely low permeability are preconditions for the long service life of Flexcon Solar vessels. The quality of the Flexcon Solar is the result of the experience and know-how of half a century! Flexcon Solar vessels are delivered ready to install in a stackable box with handles; each box comes with detailed installation and operating instructions.



The thread of the water nipple is left uncoated to achieve a better screw joint.

The diaphragm is moved up and down to avoid being subjected to any tensile loading. This considerably extends its service life.

The unique clamping ring construction ensures that neither the diaphragm nor the two halves of the vessel can be damaged.

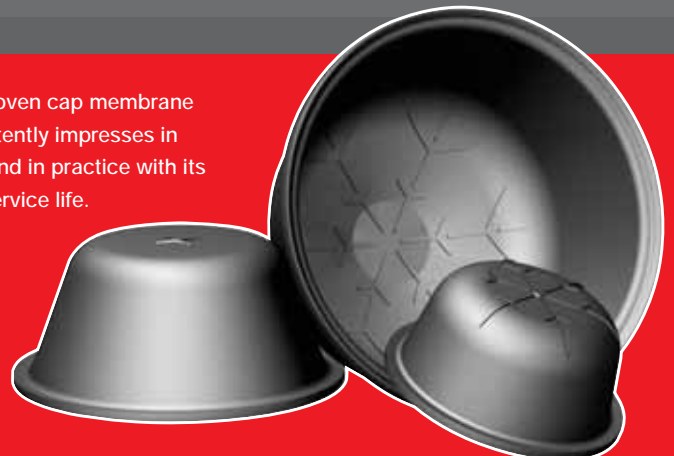


The nitrogen valve of the Flexcon Solar vessels with capacities from 8 to 80 litres is sunk into a groove and therefore protected against damage by the end cap and the additional protective plate.



Flexcon expansion vessels meet European directives and therefore carry the CE marking.

The proven cap membrane consistently impresses in tests and in practice with its long service life.





Flamco offers a 5-year warranty on Flexcon Solar vessels!



FLEXCON SOLAR 8 - 25



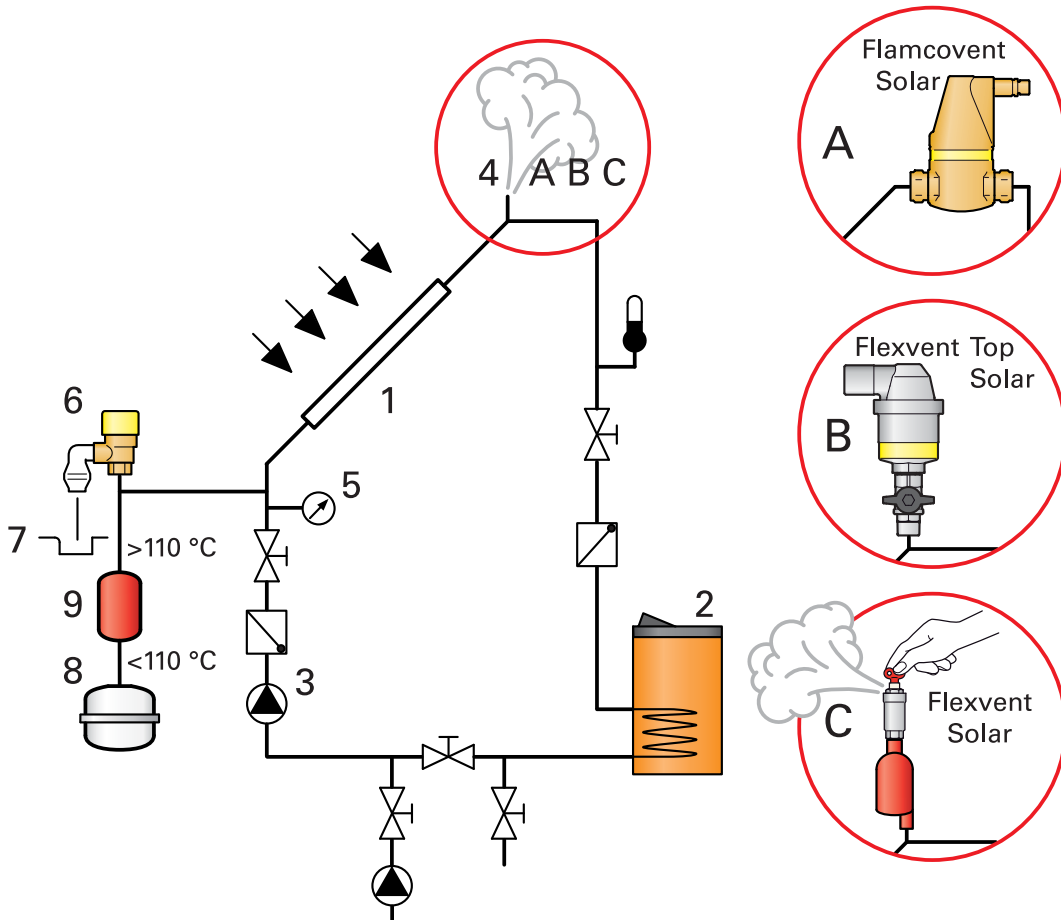
FLEXCON SOLAR 35 - 80



FLEXCON SOLAR 110 - 1000

Flexcon Solar diaphragm pressure expansion vessels are suitable for sealed, intrinsically safe solar installations. The working temperature on the diaphragm may reach max. 110 °C (8 - 80 litres). At higher temperatures, we recommend taking suitable measures to reduce the temperature. Flexcon Solar is suitable for anti-freeze additives with up to 50% glycol.

Flamco products used in a solar-powered installation



1. Solar collector.
2. Heat exchanger / water heater.
3. Circulationpump.
4. Flamco vent valve and Flamco air pot.
 - A. Flamcovent Solar.
 - B. Flexvent Top Solar.
 - C. Flexvent Solar.
5. Pressure gauge.
6. Prescor Solar safety valve and funnel.
7. Drain.
8. Flexcon Solar expansion vessel.
9. Flexcon VSV or Flexcon V-B intermediate vessel (necessary if the temperature is too high in the Flexcon vessel).

The quality of the Flexcon Solar is the result of the experience and know-how of half a century!



Flamco

Reducing the temperature on the diaphragm of the expansion vessel requires the installation of an intermediate vessel

In sealed solar installations, the temperature of the medium can far exceed the temperature permitted on the diaphragm of the expansion vessel. The permanent temperature load of the diaphragm in Flexcon Solar vessels is allowed to reach a maximum of 110 °C (8 - 80 litres) according to the applicable standard. Reducing the temperature to this value requires the installation of an intermediate vessel.

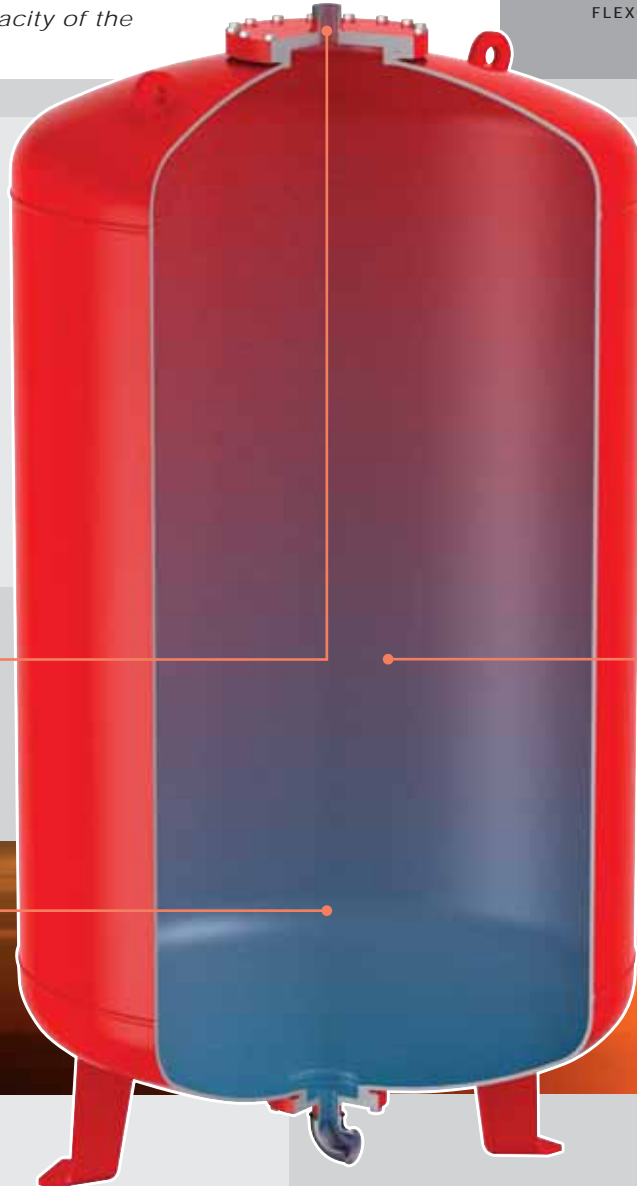
The maximum permissible water supply temperature for the Flexcon intermediate vessel is 160 °C. How much the water cools depends on the capacity of the storage tank. The storage tank must be arranged so as to ensure it functions perfectly and can be accessed for maintenance purposes. The tank should be installed at least 400 mm from walls or other components. Do not insulate the tank.



FLEXCON V-B



FLEXCON VSV



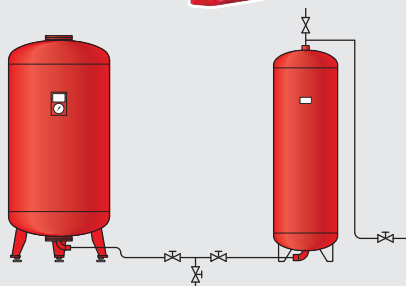
An intermediate vessel must be installed to ensure that the temperature on the diaphragm of the Flexcon Solar expansion vessel does not exceed 110 °C in larger installations. Flexcon intermediate vessels are suitable equipment for reducing the temperature in the expansion vessel.

The over-hot water flows from the system into the top of the intermediate vessel.

The hot water stays in the upper part of the vessel, cooled water is stored in the bottom part.

The heavily cooled water is fed to the expansion vessel from the lower part of the tank.

Connection diagram for a Flexcon intermediate vessel



With a Flexcon V-B or Flexcon VSV intermediate vessel, you can avoid unnecessary damage to the diaphragm due to excessively high temperatures.

Accessories for Flexcon Solar expansion vessels

Flamco provides accessories for a number of purposes, like attaching Flexcon Solar vessels to the wall. But also for facilitating inspection of the gas pre-pressure in fitted Flexcon Solar vessels as well as replacing the Flexcon Solar vessel without having to drain the installation. This page gives a brief overview of the handy accessories for Flexcon vessels. For further information please contact your local Flamco sales contact.



Test manometer

Using the Flamco test manometer, the gas pre-pressure of Flexcon Solar expansion vessels can be easily checked. The pressure range is from 0.4 to 6.8 bar.

FlexControl

FlexControl provides the connection between the Flexcon Solar expansion vessel on one side and the Solar installation on the other. Using the FlexControl, it is possible to control the gas pre-pressure in the expansion vessel, or to replace the expansion vessel without having first to drain the installation or to release it from pressure. The maximum working pressure is 10 bar.



Flexcon GVA 90

A handy extension piece with a 90° angle. The Flexcon GVA 90 must be screwed onto the valve of the medium-sized Flexcon Solar vessels of 110-1000 litres. This extension piece makes the valve more easily accessible.



Flexcon MB vessel support

The Flexcon MB vessel support is fitted to the wall with the threaded dowel pins and plugs supplied. The Flexcon MB 3 has a slot with spring in which the vessel's clamp fits exactly. The action of screwing in the two pins clamps the tank in place. The Flexcon MB is suitable for fixing Flexcon Solar vessels with capacities of up to 25 litres to the wall.



Flamco makes it easy for you with practical accessories!



Flamco

A programme of economic, highly-capable water heaters for solarpowered installations

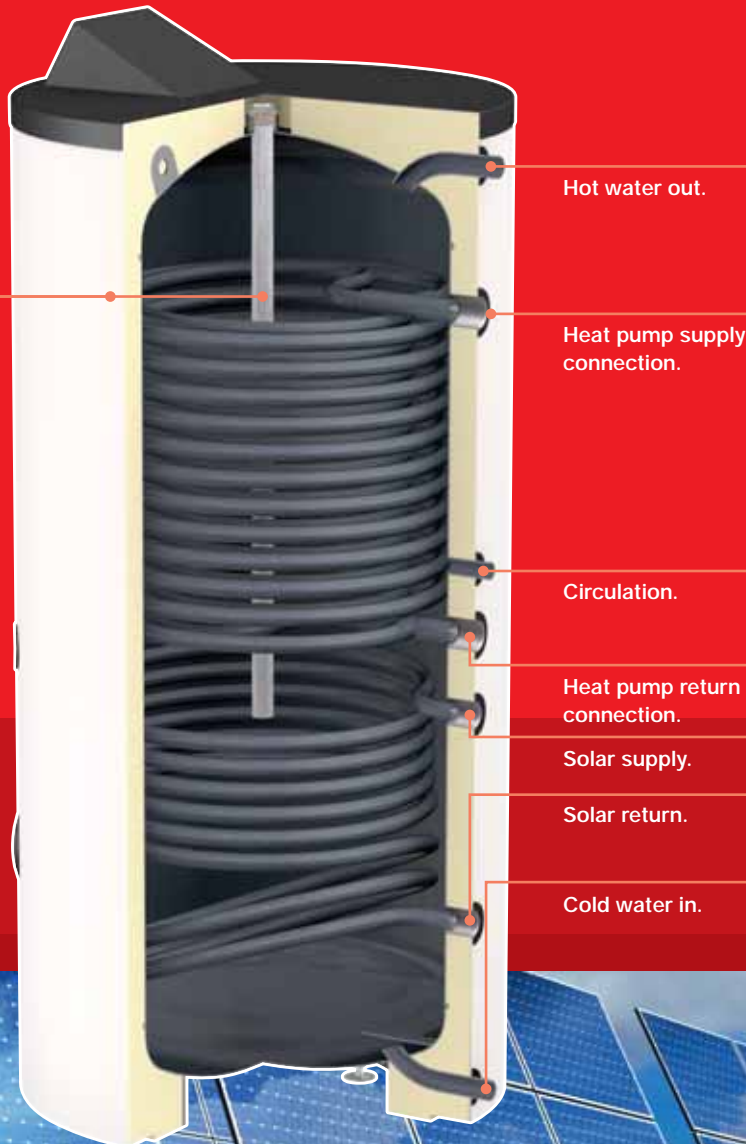
Flamco glass lined water heaters, storage and combination tanks are your best option for high-quality, user-friendly products. They are manufactured by experts in a modern production facility. Flamco offers a comprehensive programme of economic tanks with the best in corrosionresistant finish and environmentally-friendly heat insulation.



DUO HLS SOLAR WATER HEATER

Duo HLS Solar

High-quality enamelled coating for hygienic water provision, coupled with the highest levels of corrosion protection including Mg-anode.



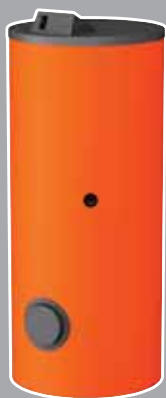
Flamco high-performance HLS Solar tank

Specially designed, indirectly heated tank specially designed for combining heat pumps with solar installations, with particularly large double-tube coil for re-heating and additional flat tube heat exchanger at the bottom for connecting a solar installation. Inspection flange can be used for the connection of additional heat sources (electrical heater, etc.). Sturdy and easy-to-install design. Can be combined with all modern heating systems. Equipped with thermometer and dip tube for temperature sensor. Foot height adjustment optional.

Duo Solar water heater

A programme of economic, highly-capable indirect water heaters (with high quality glass lining) for hot-water provision (potable water) for solarpowered installations.

er heaters for hot-water provision



DUO SOLAR WATER HEATER



DUO FWS COMBINATION TANK

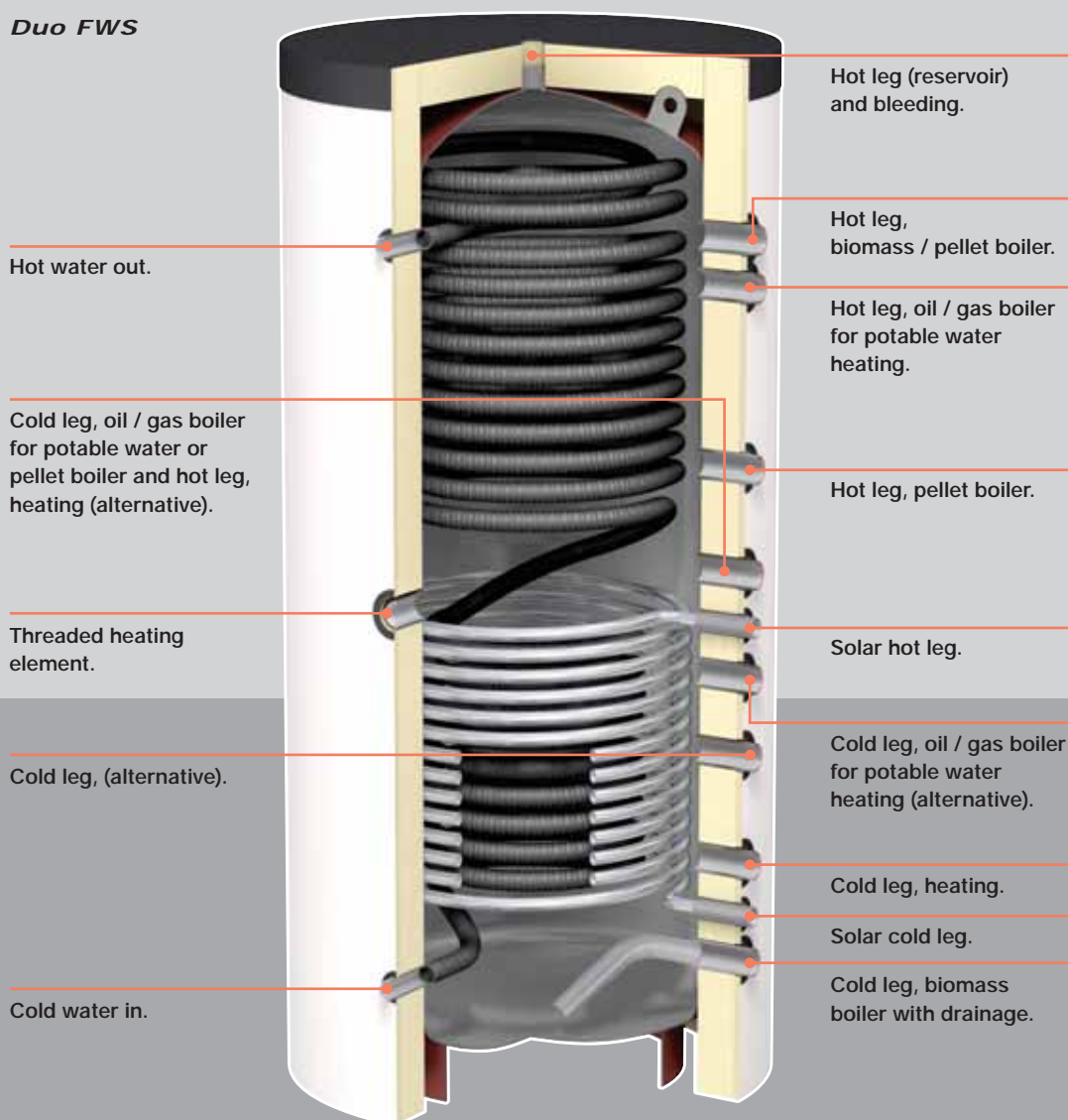


FWP WATER HEATER



KPS COMBINATION TANK

Duo FWS



Duo FWS mains water combination tank

The Duo FWS with integrated drinking water heater has been specially developed for combining solar installations with solid fuel or pellet boilers. At its heart is a large, high-grade stainless steel corrugated tube heat exchanger with 7 m² surface area, which hygienically and efficiently raises the drinking water to the right temperature as it flows through. The Duo FWS also has a solar tube and can be connected to up to eight flat collectors, depending on the size of the combination tank. The small diameter of 750 mm or 800 mm means the Duo FWS is also easy to install - even in cramped conditions. Space-saving installation in the corner of a building is possible using connections rotated by 90°.

Flamco FWP mains water buffer tank

Buffer tank for connecting to heat pumps with hygienic drinking water heating in the integrated, large stainless steel corrugated tube heat exchanger. Solar heating is supported by an external heat exchanger and other heat generators can also be connected.

KPS combination tank

For heating systems with built-in boiler for heating potable water. It can be connected to several heating systems, such as biomass systems, oil and gas-fired systems, and solar-powered systems respectively in combination with water heating. The "boiler in buffer" principle ensures a high level of comfort due to the ample provision of hot mains water.



Flamco One needs the specialist knowledge from Flamcovent Solar systems properly

When a Solar powered system is de-aerated properly, its output will increase, and its service life will be extended, as will that of the individual components. Gases, including air, may enter the system in any of the following ways:

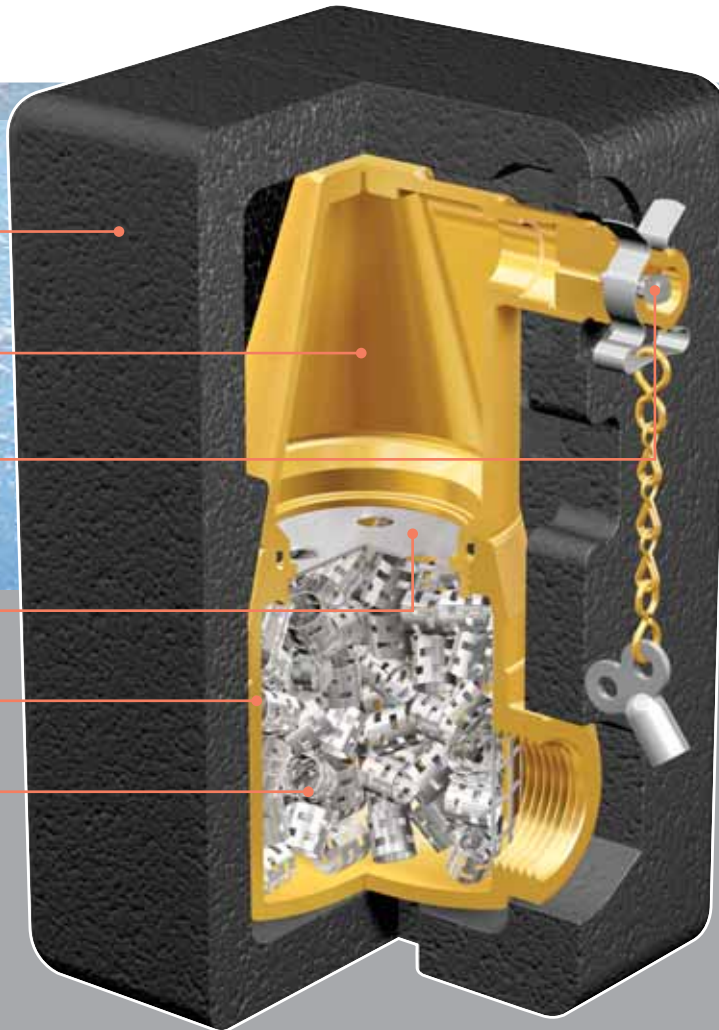
- ◆ Free air that is present in the system before or after filling.
- ◆ Air bubbles that are already present in the water during the filling process.
- ◆ Dissolved air in the system water.
- ◆ Via seals and connecting ports.
- ◆ By using an inferior expansion vessel.



FLAMCOVENT SOLAR

The adverse consequences of gases in the system include:

- ◆ Irritating noises and disruption to circulation.
- ◆ Impaired heat output.
- ◆ Shortened system service life due to internal corrosion.
- ◆ Possible cavitation damage to the circulation pump.



EPP heat protection insulation.

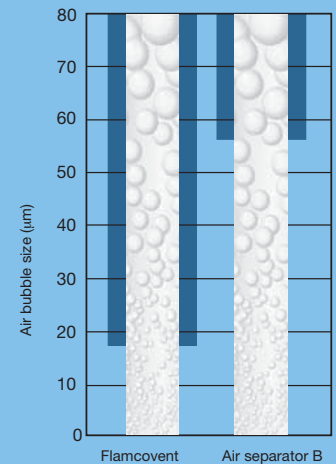
Air chamber.

Shut-off valve.

Protective plate.

Housing (brass).

PALL rings.



Flamcovent Solar and Flamcovent Solar V

The Flamcovent Solar air separators can be used in closed solar installations up to a maximum temperature of 200 °C (473 K) and an overpressure of 10 bar. Brass housing, with compression fittings. No plastic internal parts, complete with PALL rings made from stainless steel with very large contact surface for flawless separation of air and with lockable air valve. Flamcovent Solar and Flamcovent Solar V are suitable for anti-freeze additives with up to 50% glycol, and come with EPP heat protection insulation.

Flamcovent air separators have proved to be better! Tests carried out at the Delft Technical University have unequivocally proved that Flamcovent air separators remove all micro-bubbles from 15 – 20 µm upwards. This is three times better than comparable air separators!

How to remove air



FLAMCOVENT SOLAR V



FLEXVENT TOP SOLAR



FLAMCO LTA

If air separation equipment is fitted at the top of the solar system, it must not be allowed to bleed the system automatically. The reason for this is that steam can be created in this part of the system during operation and an automatic airvent would evaporate the system until it was dry. This is why the Flamcovent Solar is equipped with a manual venting valve. Automatic bleeding takes place only when the system is being topped up, or during maintenance.

Microscopically small gas bubbles contained in the liquid adhere to the large contact surface of the PALL ring. The coalescence effect causes micro-bubbles to grow into larger bubbles, which then rise and can be separated through an air chamber. One Flamcovent Solar in the right place is sufficient to extract air and micro-bubbles out of the solar installation. For your solar installation, Flamco also offers the Flamcovent Solar for vertical pipework as required.

Flamco practical tip: It is necessary to install air separation equipment with shut-off valve in an intrinsically safe solar installation! On summer days, the liquid in the solar installation can start to "boil" or turn to steam. In this case, air separation equipment that have not been shut off will bleed the liquid in the form of steam, rendering the solar installation unserviceable. In normal operation, a solar installation collects the air carried in the liquid at predefined points, such as the air chamber of a Flamcovent Solar air separator or an air pot, from where it is manually bled off at regular intervals by opening the shut-off valve.



The high efficiency of PALL rings is based on special properties:

- ◆ Large contact surface.
- ◆ High impact and adhesion properties.
- ◆ Low flow resistance.

Flexvent Top Solar

Automatic floatvent with shut-off valve for closed, intrinsically safe solar heating installations. Chrome-plated brass housing. Connection outer thread 3/8". Working temperature -30 °C to 180 °C. Suitable for anti-freeze additives with up to 50% glycol.

Flamco air pots LTA

The Flamco air pot is mounted on rising pipes in the supply or return pipe. The water can come to rest in the air reservoir and the air in it can collect at the top of the reservoir. The air can be bled from the Flexvent mounted on top of the air pot.

Flexcon Solar diaphragm pressure expansion vessels for sealed, intrinsically safe solar installations



- ◆ Licensed in accordance with the EU Pressure Equipment Directive 97/23/EC.
- ◆ The working temperature on the diaphragm may reach max. 110 °C (8 - 80 litres); at higher temperatures, we recommend taking suitable measures to reduce the temperature.
- ◆ Suitable for anti-freeze additives with up to 50% glycol.
- ◆ Diaphragm made from butyl.
- ◆ Vessels are powder-coated, white RAL 9010 (8 - 80 litres), red RAL 3002 (Flexcon Solar 110 - 1000)

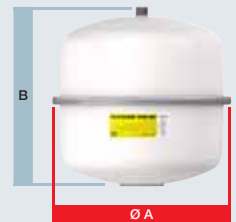
Versions and dimensions of Flexcon Solar 8 bar

Type	Pre-pressure in bars	Dimensions in mm			Connection (male) D	Weight in kg	Code number
		Ø A	B	Ø C			
Flexcon Solar 8	2.5	245	280	-	3/4"	3.2	16060
Flexcon Solar 12	2.5	286	313	-	3/4"	4.3	16061
Flexcon Solar 18	2.5	328	306	-	3/4"	5.7	16062
Flexcon Solar 25	2.5	358	359	-	3/4"	7.3	16063
Flexcon Solar 35	2.5	396	416	263	3/4"	8.8	16064
Flexcon Solar 50	2.5	437	473	263	3/4"	11.2	16065
Flexcon Solar 80	2.5	519	540	360	1"	15	16066

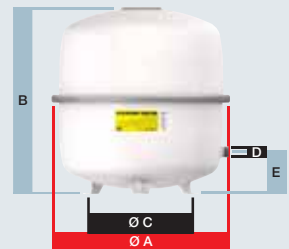
Versions and dimensions of Flexcon Solar 10 bar

Type	Pre-pressure in bars	Dimensions in mm			Connection (male) D	Weight in kg	Code number
		Ø A	B	Ø C			
Flexcon Solar 110	2.5	484	784	360	1"	38.5	16067
Flexcon Solar 140	2.5	484	950	360	1"	44.6	16068
Flexcon Solar 200	2.5	600	960	450	1"	49.3	16069
Flexcon Solar 300	2.5	600	1330	450	1"	73.7	16070
Flexcon Solar 425	2.5	790	1180	610	1"	105.5	16071
Flexcon Solar 600	2.5	790	1540	610	1"	132	16072
Flexcon Solar 800	2.5	790	1888	610	1"	181.8	16073
Flexcon Solar 1000	2.5	790	2268	610	1"	211	16074

FLEXCON SOLAR 8-25



FLEXCON SOLAR 35-80



FLEXCON SOLAR 110-1000



Flexcon VSV and Flexcon V-B intermediate vessels

Flexcon VSV and Flexcon V-B intermediate vessels for cooling of expansion water.
CE-approved.

- ◆ Flexcon VSV vessels and Flexcon V-B with a maximum working pressure of 6 or 10 bars respectively.
- ◆ At a feed temperature of 90 - 110 °C, the capacity of the Flexcon intermediate vessel must be 15% of the net expansion volume.
- ◆ At a feed temperature of 111 - 125 °C, this is 25% and at a feed temperature of 126 - 140 °C, this is 40%.



Versions of Flexcon VSV intermediate vessels

Type	Capacity	Weight	Weight	Code nr.	Code nr.
	litres	6 bar version in kg	10 bar version in kg	6 bar version	10 bar version
Flexcon VSV 50	50	25	26	23385	23305
Flexcon VSV 100	100	28	31	23386	23306
Flexcon VSV 200	200	36	51	23380	23300
Flexcon VSV 350	350	55	80	23381	23301
Flexcon VSV 500	500	64	96	23382	23302
Flexcon VSV 750	750	96	142	23383	23303
Flexcon VSV 1000	1000	114	172	23384	23304

Dimensions of Flexcon VSV intermediate vessels

Type	Dimensions in mm			Connection	
	Ø D	H	c	ds	de
Flexcon VSV 50	484	600	-	1 1/2" ext.	1 1/2" int.
Flexcon VSV 100	484	750	-	1 1/2" ext.	1 1/2" int.
Flexcon VSV 200	484	1304	90	1 1/2" ext.	1 1/2" int.
Flexcon VSV 350	484	2124	90	1 1/2" ext.	1 1/2" int.
Flexcon VSV 500	600	2025	100	2" ext.	2" int.
Flexcon VSV 750	790	1863	130	2" ext.	2" int.
Flexcon VSV 1000	790	2238	130	2" ext.	2" int.

Max. working temperature Flexcon VSV 160 °C.

Versions of Flexcon V-B intermediate vessels

Type	Capacity	Weight	Weight	Code nr.	Code nr.
	litres	6 bar version in kg	10 bar version in kg	6 bar version	10 bar version
Flexcon V-B 1500	1500	380	500	-	-
Flexcon V-B 2000	2000	425	570	22718	22728

Dimensions of Flexcon V-B intermediate vessels

Type	Dimensions in mm			Connection	
	Ø D	H	c	ds	de
Flexcon V-B 1500	1200	1790	200	2" ext.	2" int.
Flexcon V-B 2000	1200	2220	200	2" ext.	2" int.

Max. working temperature Flexcon V-B 6 bar: 120 °C.
Max. working temperature Flexcon V-B 10 bar: 160 °C.





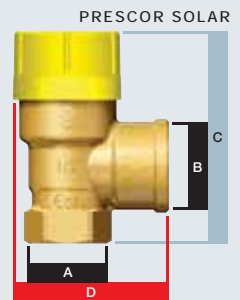
Prescor Solar safety valves for sealed, intrinsically safe solar installations

- ◆ Should the pressure in the installation rise too high, the Prescor safety valve will ensure that the excess water and steam are discharged safely.
- ◆ Pre-set pressure, non adjustable, membrane seal, quick release.



Models and dimensions Prescor Solar safety valves

Type	Set pressure in bar	Blow-off capacity in kW	Connections		Dimensions in mm		Code number
			A	B	C	D	
Prescor Solar 1/2	3.0	50	1/2" int.	3/4" int.	69	50	28310
Prescor Solar 1/2	6.0	50	1/2" int.	3/4" int.	69	50	28311
Prescor Solar 1/2	8.0	50	1/2" int.	3/4" int.	69	50	28312
Prescor Solar 1/2	10.0	50	1/2" int.	3/4" int.	69	50	28313
Prescor Solar 3/4	3.0	100	3/4" int.	1" int.	77	56	28315
Prescor Solar 3/4	6.0	100	3/4" int.	1" int.	77	56	28316
Prescor Solar 3/4	8.0	100	3/4" int.	1" int.	77	56	28317
Prescor Solar 3/4	10.0	100	3/4" int.	1" int.	77	56	28318
Prescor Solar 1	3.0	200	1" int.	1 1/4" int.	101	74	28320
Prescor Solar 1	6.0	200	1" int.	1 1/4" int.	101	74	28321
Prescor Solar 1	8.0	200	1" int.	1 1/4" int.	101	74	28322
Prescor Solar 1	10.0	200	1" int.	1 1/4" int.	101	74	28323





Flexcon MB, Flexcon GVA, Testmanometer and FlexControl

◆ FlexControl for simple and efficient inspection or changing of a Flexcon Solar vessel, without having to release the system pressure or drain the system.



Model and dimensions Flexcon MB

Type	Suitable for	Dimensions in mm			Code number
		A	B	C	
Flexcon vessel support MB 2	Flexcon Solar 8 - 25	94	110	26	27913
Flexcon vessel support MB 3	Flexcon Solar 8 - 25	94	110	26	27903

Model Flexcon GVA

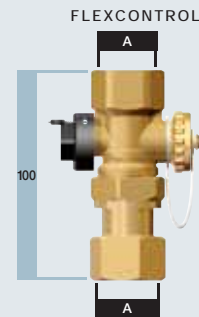
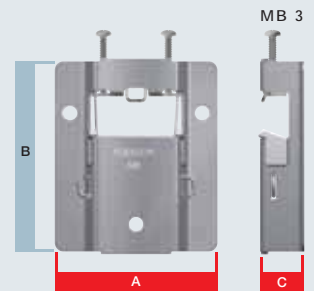
Type	Vessel	Connection	Exit	Code number
Flexcon GVA	Vg 8 int.		Vg 8 ext.	27952

Model test manometer

Type	Pressure reducing	Code number
Test manometer	0.4 – 6.8 bar	27907

Model and dimensions FlexControl

Type	A	Connections	B	Code number
FlexControl 3/4	3/4" int.		3/4" ext.	28920





Flamco Duo-Solar and Duo HLS Solar water heaters

- ◆ Insulation Duo-Solar (models up to 500 l: foam (without CFCs) with insulation jacket. Duo Solar (models from 750 l - 1000 l inc.): 80-mm CFC-free easy-assembly foam (with easy-clean synthetic insulation jacket) material.
- ◆ Maximum permitted operating pressure of Duo-Solar: tank/coil: 10/16 bar.
- ◆ Maximum permitted operating temperature of Duo-Solar: buffer tank/coil : 95/110 °C (368 K / 383 K).
- ◆ Duo HLS Solar: Indirectly-heated, upright tank with very large, welded heat exchangers.
- ◆ With side-mounted DN 110 inspection chamber for connecting extra heat sources.
- ◆ Can be used in combination with all modern heating systems. With thermometer and immersion pipe for temperature sensor.



Models and dimensions Duo-Solar

Type	Capacity in litres	Operating factor NL*	Coil surface m ²	Dimensions in mm from 750 l on excl. insulation		
				Ø D	H	Tip dimension
Duo-Solar 300	300	2.5 / 8.1	0.8 / 1.4	560	1950	2000
Duo-Solar 300	300	2.5 / 8.1	0.8 / 1.4	560	1950	2000
Duo-Solar 300	300	2.5 / 8.1	0.8 / 1.4	560	1950	2000
Duo-Solar 400	400	3.4 / 14	1.0 / 1.6	750	1630	1715
Duo-Solar 400	400	3.4 / 14	1.0 / 1.6	750	1630	1715
Duo-Solar 400	400	3.4 / 14	1.0 / 1.6	750	1630	1715
Duo-Solar 500	500	4.3 / 20	1.0 / 2.0	750	1830	1895
Duo-Solar 500	500	4.3 / 20	1.0 / 2.0	750	1830	1895
Duo-Solar 500	500	4.3 / 20	1.0 / 2.0	750	1830	1895
Duo-Solar 750	750	11 / 29	2.0 / 2.7	750	1970	2070
Duo-Solar 1000	1000	17 / 42	2.1 / 3.2	800	2230	2320

Models and dimensions Duo-Solar

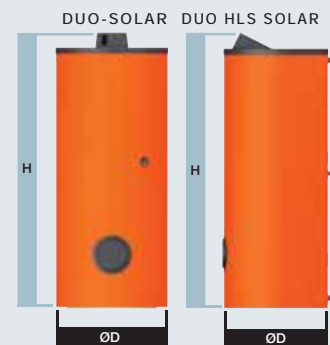
Type	Clearance from floor to connection ports in mm							Weight in kg	Insulation colour	Code number
	F	D	C	G	B	A	E			
Duo-Solar 300	65	245	910	1035	1135	1455	1785	123	orange	18225
Duo-Solar 300	65	245	910	1035	1135	1455	1785	123	white	18227
Duo-Solar 300	65	245	910	1035	1135	1455	1785	123	aluminium white	18362
Duo-Solar 400	70	330	770	870	970	1250	1470	176	orange	18231
Duo-Solar 400	70	330	770	870	970	1250	1470	176	white	18233
Duo-Solar 400	70	330	770	870	970	1250	1470	176	aluminium white	18367
Duo-Solar 500	70	330	890	990	1090	1370	1670	199	orange	18237
Duo-Solar 500	70	330	890	990	1090	1370	1670	199	white	18239
Duo-Solar 500	70	330	890	990	1090	1370	1670	199	aluminium white	18372
Duo-Solar 750	60	320	1040	890	1140	1620	1880	320	*	18378
Duo-Solar 1000	70	330	1110	960	1260	1740	2140	420	*	18379

* Upper/lower heating surface.

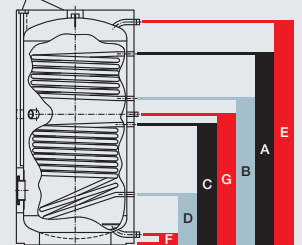
Models and dimensions Duo HLS Solar 400 - 500

Type	Capacity in litres	Heating surface of coils m ²	Dimensions in mm incl. insulation			Clearance from floor to connection ports in mm					Weight in kg	Insulation colour	Code number
			Ø D	H	Tip dimension	F	D	G	C	E			
Duo HLS Solar 500	500	4.8	750	1830	1895	65	320	820	760	1655	240	white	18128

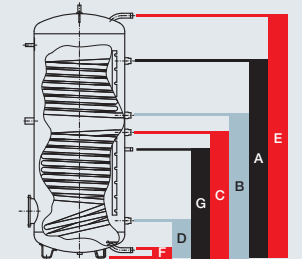
Special colours on request.



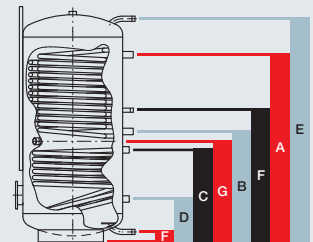
SCHEME DUO SOLAR 300-500



SCHEME DUO SOLAR 750-1000



SCHEME DUO HLS SOLAR 400-500





- ◆ Duo FWS: combination buffer tank. For combining several types of heating system, such as biomass, oil, gas or solar power. Has a second coil for separate mains-water heating from solar-powered systems.
- ◆ FWP can be connected to heat pumps for hygienic potable-water heating in the built-in corrosion-resistant stainless steel ribbed spiral coil (heated surface: 7m²!).



Models and dimensions Duo FWS 750 - 1000

Type	Capacity in litres	Heating surface of coils (m ²)	Solar heating surface (m ²)	Dimensions in mm excl. insulation		
				Ø D	H	Tip dimension
Duo FWS 750	750	7	2.2	750	1950	2020
Duo FWS 1000	1000	7	2.7	800	2210	2280

Models and dimensions Duo FWS 750 - 1000

Type	Clearance from floor to connection ports in mm												Weight in kg	Code number	
	F	D	B	A	C	G	J	H	E	I	K	L			M
Duo FWS 750	280	370	470	830	930	1030	1230	1570	1660	270	1670	680	985	240	18190
Duo FWS 1000	295	385	485	885	985	1085	1285	1835	1925	285	1935	695	1040	270	18195

Models and dimensions FWP 750 - 1000

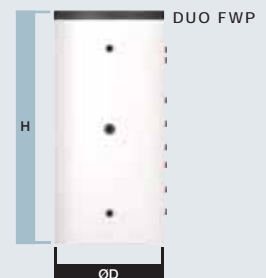
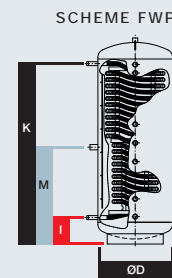
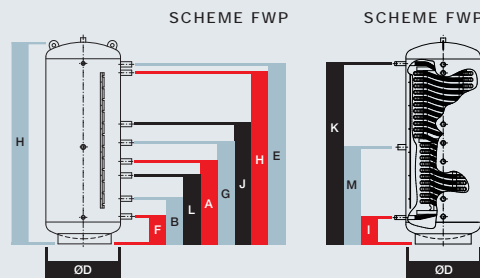
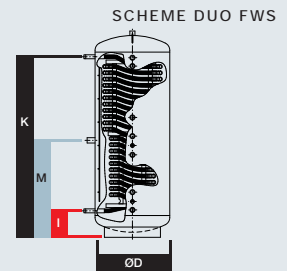
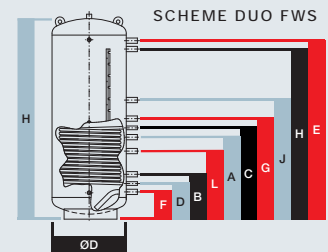
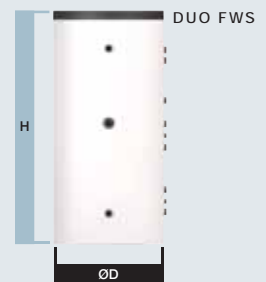
Type	Capacity in litres	Heating surface of coils (m ²)	Dimensions in mm excl. insulation		
			Ø D	H	Tip dimension
FWP 750	750	7	750	1950	2020
FWP 1000	1000	7	800	2210	2280

Models and dimensions FWP 750 - 1000

Type	Clearance from floor to connection ports in mm												Weight in kg	Code number
	F	B	A	G	J	H	E	I	K	L	M			
FWP 750	280	470	830	1030	1230	1570	1660	270	1670	680	985	200	18151	
FWP 1000	295	485	885	1085	1285	1835	1925	285	1935	695	1040	225	18161	

Soft-foam insulation for Duo FWS and FWP

Type		Code number
Duo FWS / FWP 750	soft-foam insulation 80 mm	18158
Duo FWS / FWP 750	soft-foam insulation 120 mm	18156
Duo FWS / FWP 1000	soft-foam insulation 80 mm	18168
Duo FWS / FWP 1000	soft-foam insulation 120 mm	18167





- ◆ KPS: maximum permitted operating pressure: buffer tank/water tank: 3/10 bar.
- ◆ KPS: maximum permitted operating pressure – coil: 10 bar.
- ◆ KPS: maximum permitted operating temperature: 95 °C (368 K).



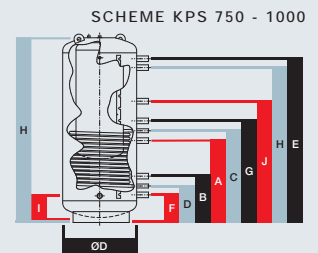
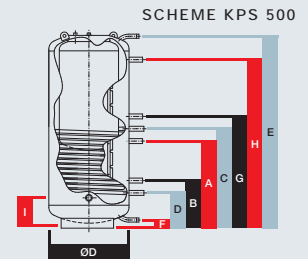
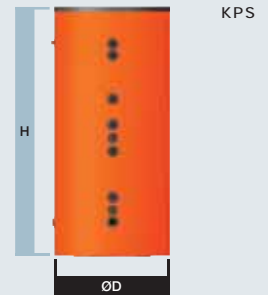
Models and dimensions KPS

Type	Capacity in litres		Heating surface of coils (m ²)	Dimensions in mm excl. insulation		
	Total	Water		Ø D	H	Tip dimension
KPS 500/150	500	150	2	650	1590	1700
KPS 750/200	750	200	2.2	750	1930	2020
KPS 1000/200	1000	200	2.7	800	2195	2280

Models and dimensions KPS

Type	Clearance from floor to connection ports in mm										Weight in kg	Code number
	F	D	C	G	B	A	E	H	I	J		
KPS 500/150	65	285	805	905	385	705	1740	1365	245		170	19110
KPS 750/200	280	370	930	1030	470	830	1660	1570	270	1230	240	19080
KPS 1000/200	295	385	985	1085	485	885	1925	1835	285	1285	270	19090

Standard colours: orange RAL 2004 and white RAL 9010. Special colours on request. Please indicate which colour of insulation you require.



Flamcovent Solar air separators for use with solar-powered systems and air pots LTA



- ◆ Flamcovent Solar brass vertical air separators are suitable for use in vertical pipes in sealed systems with maximum water temperature of 200 °C and maximum pressure of 10 bar. These air separators have threaded or compression fittings.
- ◆ Suitable for glycol solutions of up to 50%.
- ◆ The Flamcovent Solar is designed specifically for use with solar-powered systems.
- ◆ **The Flamcovent Solar is fitted with a EPP insulation jacket as standard.** These air separators have a maximum temperature rating of 200 °C.

Models and dimensions Flamcovent Solar

Type	Connection	Dimensions mm						Insulation mm	Weight kg	Code number
		A	B	Ø C	Ø d	E	F			
Flamcovent Solar 22	22 mm compr.	151	98	71	22	121	36	113x188x102	1.4	28062
Flamcovent Solar 3/4	3/4"	151	88	71	3/4"	121	36	113x188x102	1.4	28663
Flamcovent Solar 1	1"	171	100	80	1"	137	45	117x206x110	1.8	28664
Flamcovent Solar 1 1/4	1 1/4"	192	114	87	1 1/4"	152	55	121x226x116	2.4	28665
Flamcovent Solar 1 1/2	1 1/2"	192	114	87	1 1/2"	152	60	121x226x116	2.5	28666
Flamcovent Solar 2	2"	214	131	93	2"	169	70	135x258x125	2.6	28667

Models and dimensions Flamcovent Solar V

Type	Connection	Dimensions mm						Insulation mm	Weight kg	Code number
		A	B	Ø C	Ø d	E	F			
Flamcovent Solar V 22	22 mm compr.	189	94	71	22	182	32	190x215x100	2	28065
Flamcovent Solar V 3/4	3/4"	182	80	71	3/4"	182	32	190x215x100	2	28009
Flamcovent Solar V 1	1"	204	100	85	1"	195	50	215x227x115	3	28685
Flamcovent Solar V 1 1/4	1 1/4"	204	100	85	1 1/4"	195	50	215x227x115	3	28686

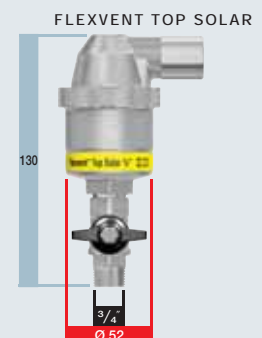
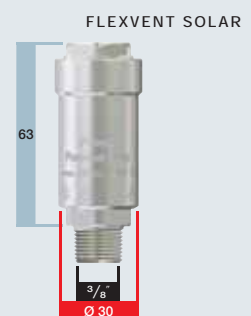
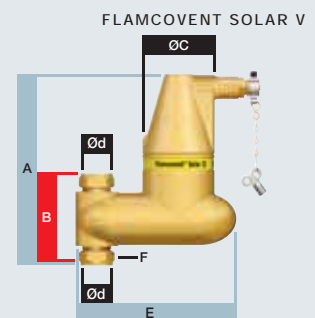
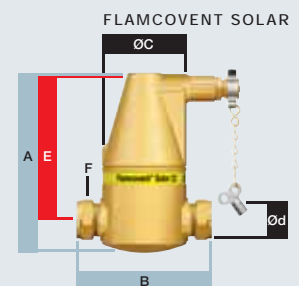
Flexvent Solar and Flexvent Top Solar

Type	Connection	Dimensions mm		Code number
		Ø	H	
Flexvent Solar	3/8" ext.	30	63	27785
Flexvent Top Solar*	3/4" ext.	52	130	28505

* Flexvent Top Solar with shut-off valve.

Models and dimensions Flamco LTA

Type	Capacity litres	Installation connection A	Bleed connection B	Dimensions mm		Material	Weight kg	Code number
				Ø	H			
Flamco LTA 1	1	G 1/2"	G 3/8"	185	110	Rst 37-2	1.3	27581
Flamco LTA 2	1.6	G 1/2"	G 3/8"	233	110	Rst 37-2	1.7	27582
Flamco LTA 5	5	G 1/2"	G 1/2"	221	196	Rst 37-2	4	27585





FLEXCON SOLAR



FLEXCON V-B



PRESCOR SOLAR



FLEXVENT TOP SOLAR



FLAMCOVENT SOLAR V



DUO SOLAR

PRODUCTS FOR SOLAR POWERED INSTALLATIONS

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Flamco

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