

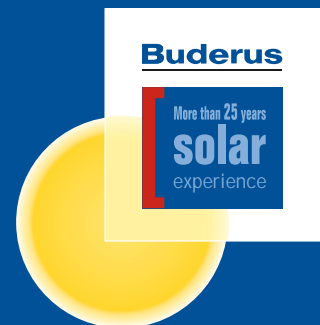
Solar Thermal Products Technical Data Sheets

Buderus

Bosch Group



- | Solar Pump Station
- | Combi-Tank
- | Dual-Coil Storage Tank
- | Solar Collectors

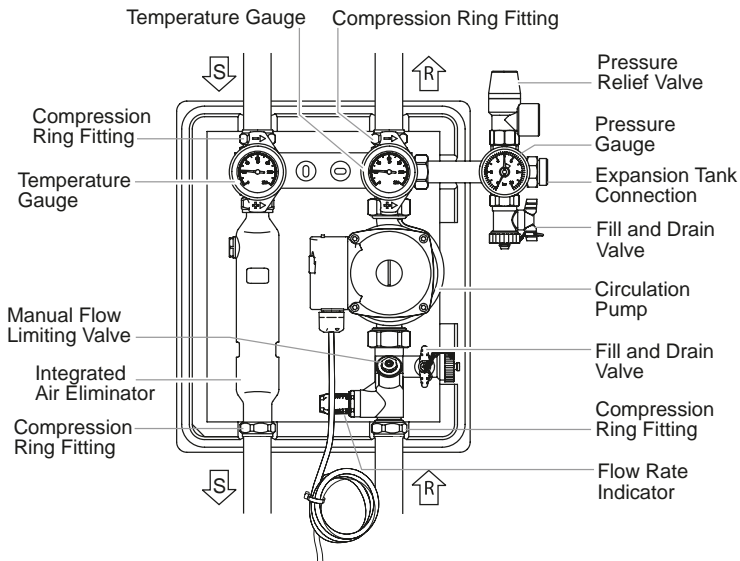
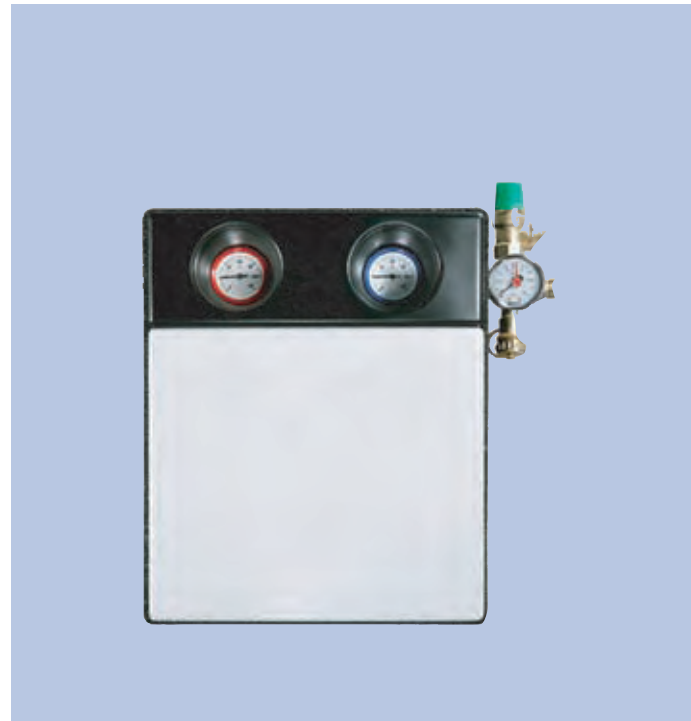


Comfortable. Efficient. Intelligent Heating.

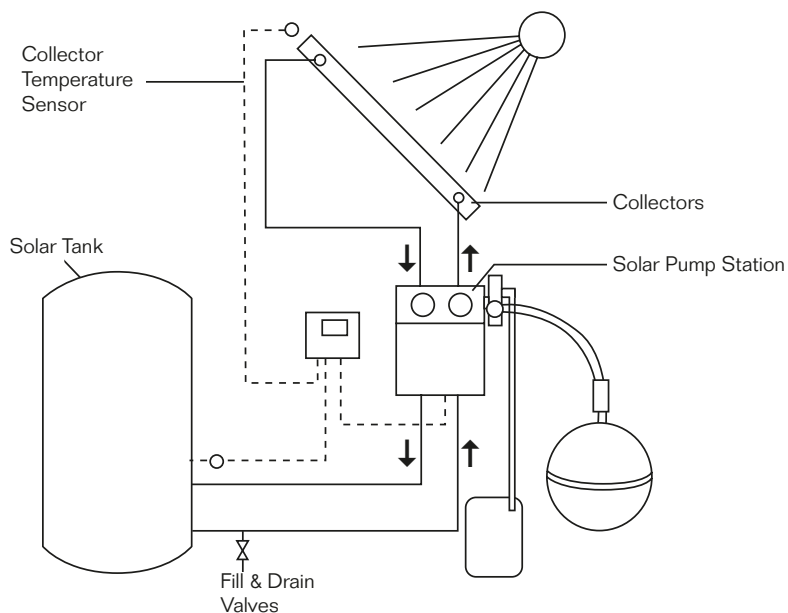
Logasol KS0105/KS0110/KS0120/KS0150: Solar Pump Station

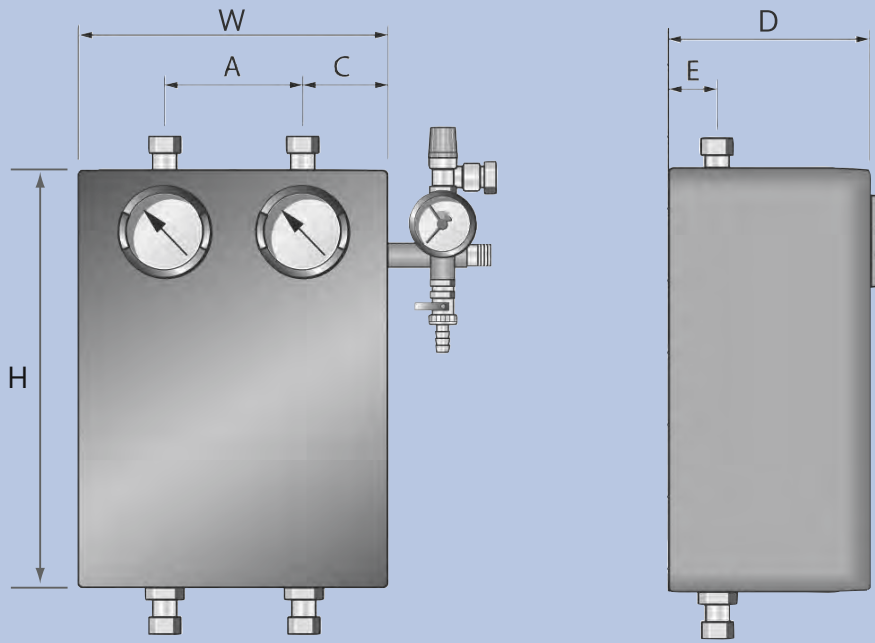
Compact and Convenient

- Pre-assembled, fully integrated 2-line pump kit
- Four different output stages
- Support up to 50 collectors
- Easy-to-install
- Quiet solar system pump
- All operational and safety devices in a single unit
- Line connections with compression fittings
- Integrated fill and drain valves for easy service and maintenance



Piping of a Solar Thermal System Using the KS0105 Solar Pump Station





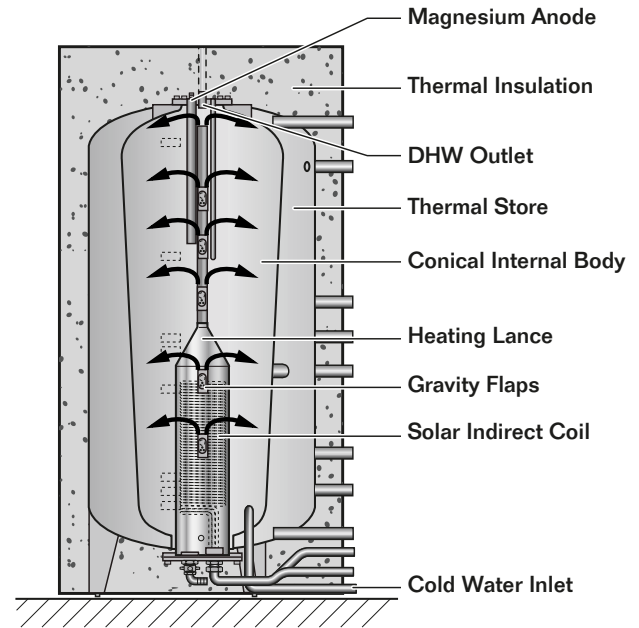
Specifications

Logasol Pump Stations		KS0105	KS0110	KS0120	KS0150
Max. recommended # of collectors		5	10	20	50
Dimensions	Height H	14" (355 mm)	14" (355 mm)	14" (355 mm)	14" (355 mm)
	Width W	11½" (290 mm)	11½" (290 mm)	11½" (290 mm)	11½" (290 mm)
	Depth D	9¼" (235 mm)	9¼" (235 mm)	9¼" (235)	9¼" (235)
	A	5⅛" (130 mm)	5⅛" (130)	5⅛" (130 mm)	5⅛" (130 mm)
	C	3⅛" (80 mm)	3⅛" (80 mm)	3⅛" (80 mm)	3⅛" (80 mm)
	E	2" (50 mm)	2" (50 mm)	2" (50 mm)	2" (50 mm)
Supply and Return Connections (compression fittings)		½"	¾"	1"	1"
Expansion Vessel Connection		¾"	¾"	¾"	1"
Safety Valve		87 psi (6 bar)	87 psi (6 bar)	87 psi (6 bar)	87 psi (6 bar)
Circulation Pump (Grundfos Solar)		model 15-40	model 15-70	model 25-80	model 26-120
Electric Power Supply		120 VAC	120 VAC	120 VAC	120 VAC
Maximum Power Consumption		87 W	87 W	197 W	215 W
Maximum Current Strength		0.75 A	0.75 A	1.80 A	2.15 A
Flow Limiter Range gallons per min. (liters per min.)		0.13-1.6 gpm (0.5-6 lpm)	0.53-4.2 gpm (2-16 lpm)	2.1-6.9 gpm (8-26 lpm)	5-11 gpm (20-42.5 lpm)
Weight		16 lbs. (7.1 kg)	16 lbs. (7.1 kg)	21 lbs. (9.3 kg)	22 lbs. (10 kg)

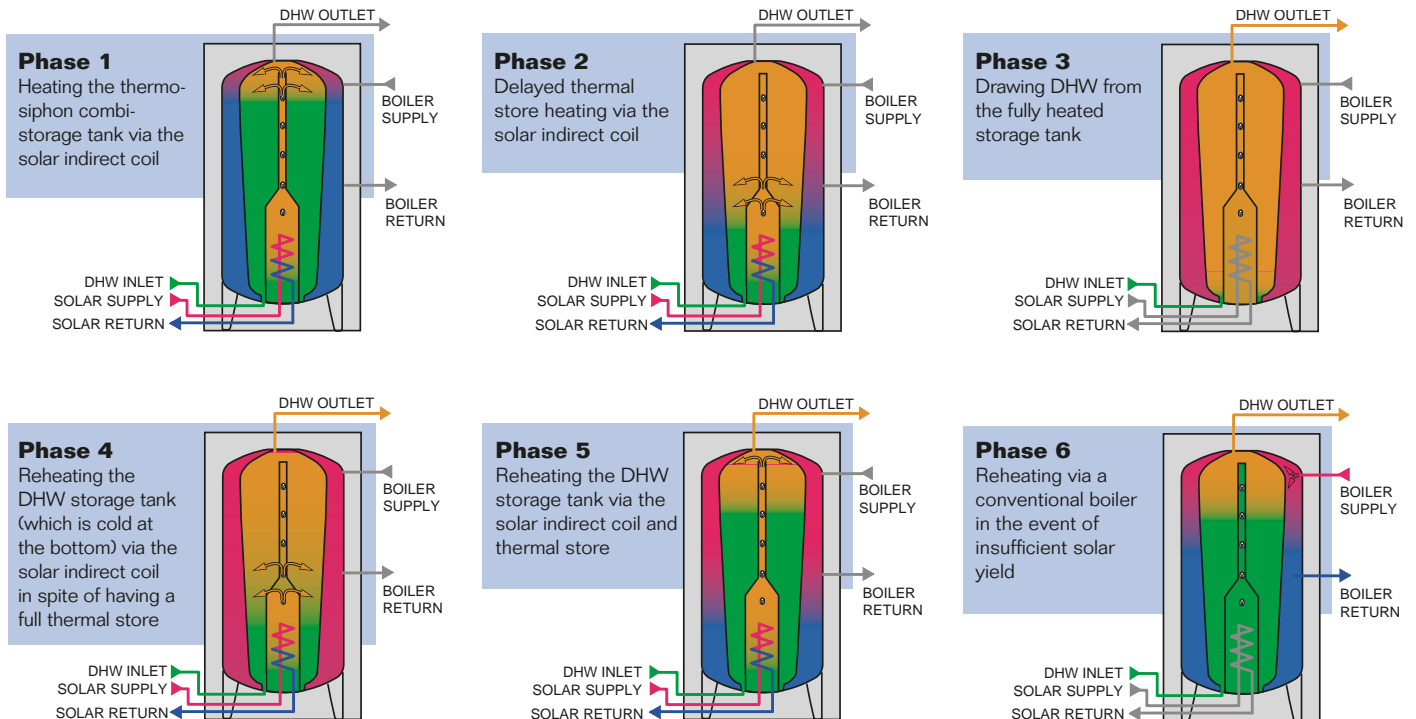
Logalux PL750/2S: Solar Indirect DHW and Central Heating Storage Tank

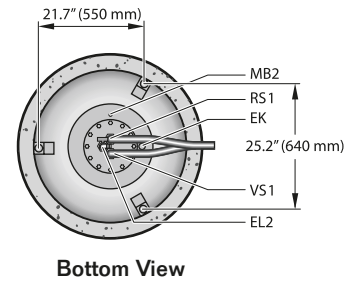
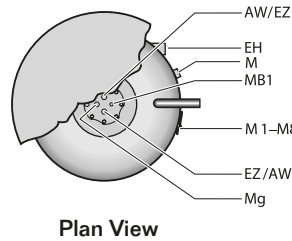
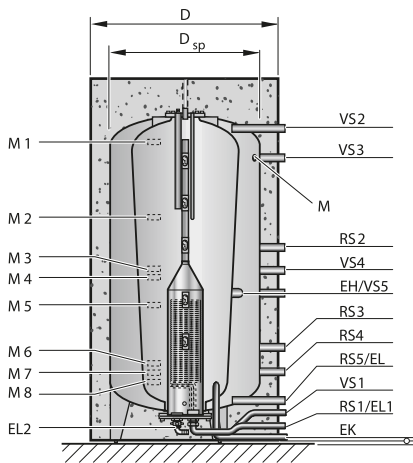
Thermosiphon Combi-Tank

- Tank-in-tank design with DHW vessel surrounded by boiler water
- Patented heating lance for stratified tank loading running along the entire height of the DHW storage tank
- Solar indirect coil integrated in the heating lance and surrounded by DHW
- Solar heats DHW first, with delayed transfer to boiler water for DHW priority
- Significantly improved solar efficiency because the solar heating system always heats the coldest water
- Buderus Thermoglaze® and magnesium anode rod for corrosion protection on inner DHW storage tank
- 8 boiler tappings for added flexibility with sizing the comfort zone
- All water connections are on the same side of the tank for easier pipe routing
- Solar coil connection and cold water inlet from the bottom
- DHW tapping and relief valve at top



PL750/2S Design and Operation





- MB1** DHW Sensor Location
- MB2** Solar Sensor Location
- M1-M8** Temperature Measuring Points (shown offset in the side view). Location is subject to system configuration.

Mechanical and Thermal Specifications

PL750/2S		
Tank Diameter with/without Insulation (D/Dsp)	40/32" (1000/800 mm)	
Tank Height	75.6" (1920 mm)	
Net Weight (Dry)	556 lbs (252 kg)	
Total Capacity	200 gal (750 l)	
Boiler Water Capacity	73 gal (275 l)	
DHW Total Capacity / DHW Standby Portion	80/40 gal (300/1500 l)	
Solar Indirect Coil Capacity	0.37 gal (1.4 l)	
Solar Indirect Coil Length	11 ft ² (1.0 m ²)	
Standby Heat Loss	13,000 BTU/day (3.7kWh/24h)	
Continuous Output (Upper Indirect Coil) with 176/113/50 °F (80/45/10 °C)*	96,000 BTU/Hr [182 gph] (28 kW [688 l/hr])	
Max. Operating Pressure (Solar Indirect Coil/Boiler Water/DHW)	116/44/145 psi (8/3/10 bar)	
Max. Operating Temperature Heating Water/DHW	203 °F (95 °C)	
	Pipe Size	Height from Ground
Cold Water Inlet (EK)	1"	.31" (8 mm)
Cold Water Drain (EL)	1¼"	8.5" (215 mm)
Solar/DHW Drain (EL1/E2)	¾"	3.9" (100 mm)
Storage Tank Return on the Solar Side (RS1)	¾"	
Storage Tank Supply on the Solar Side (VS1)	¾"	6.7" (170 mm)
Return, Oil/Gas Fired/Condensing Boiler for DHW Heating (RS2)	1¼"	40.7" (1033 mm)
Supply, Oil/Gas Fired/Condensing Boiler for DHW Heating (VS2)	1¼"	65.7" (1668 mm)
Return, Oil/Gas Fired Boiler (RS3)	1¼"	19.7" (500 mm)
Supply, Oil/Gas Fired Boiler (VS5)	1¼"	31" (788 mm)
Return, Boiler Circuits (RS4)	1¼"	14.6" (370 mm)
Supply, Boiler Circuits (VS4)	1¼"	35.9" (911 mm)
Return, Solid Fuel Boiler (RS5)	1¼"	
Supply, Solid Fuel Boiler (VS2)	1¼"	65.7" (1668 mm)
DHW Circulation Inlet (EZ)	¾"	
DHW Outlet (AW)	1¾"	

*Boiler water supply temperature/DHW outlet temperature/cold domestic water inlet temperature

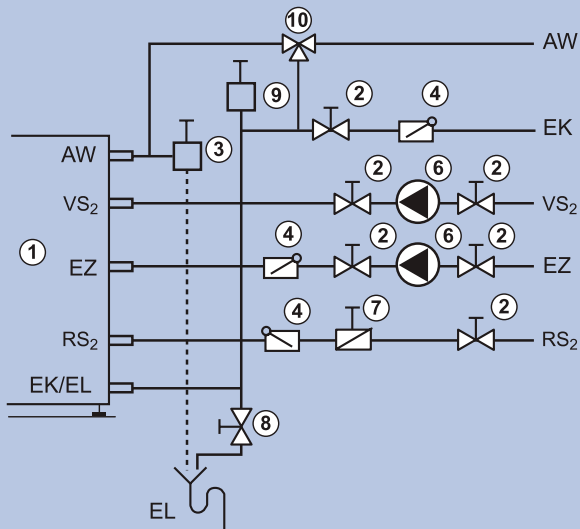
Logalux SM300/400 Dual-Coil Tank: Solar Indirect DHW Storage Tank

Energy Efficient Hot Water Storage Tank

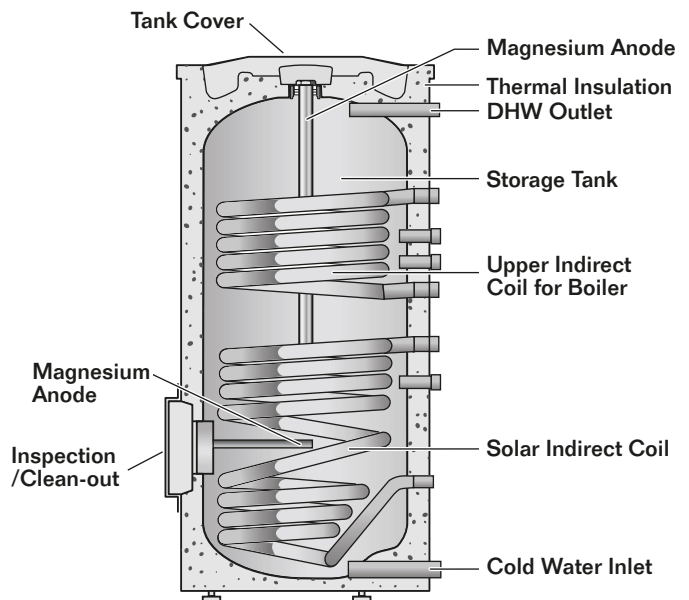
- Highly efficient dual coil storage tanks that accumulate and store the collected heat from solar collectors
- An additional indirect coil in the upper part of the tank for connection to a back-up heating source or to supply additional demand
- Insulation blanket that maximizes heat retention in the tanks
- Buderus Thermoglaze® and two magnesium anode rod for corrosion protection
- Large coils provide an extremely good heat transfer and therefore create a high temperature differential in the solar circuit between the supply and the return lines
- All water connections are on the same side of the tank for easier pipe routing
- Solar coil connection and cold water inlet from the bottom
- DHW tapping and relief valve at top

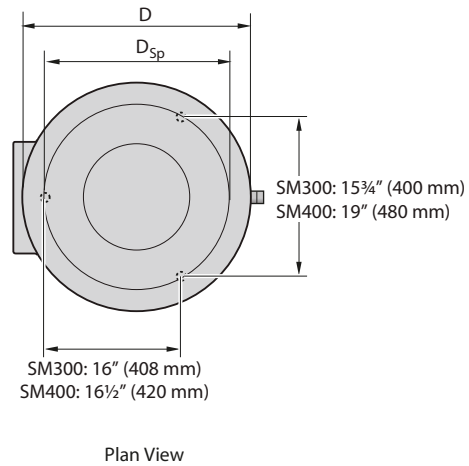
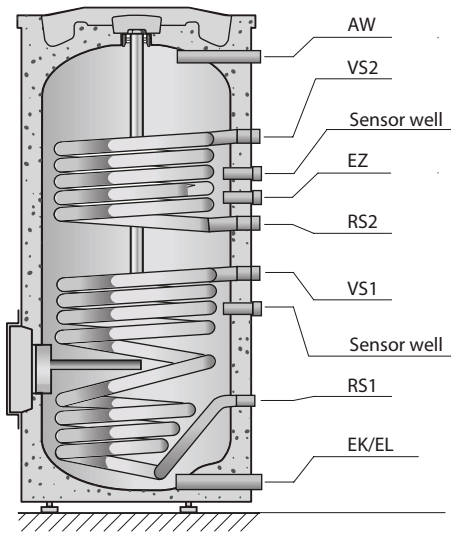


Installation of the SM Tank into an Existing DHW System



- 1 DHW Tank
 - 2 Isolation Valve
 - 3 P & T Valve (combined with DHW outlet connection)
 - 4 Flow Check Valve
 - 5 Tank Coil Charging Pump
 - 6 Bronze DHW Recirculation Pump (optional)
 - 7 Vacuum Breaker
 - 8 Tank Drain Valve
 - 9 Thermal Expansion Tank
 - 10 Thermostatic Mixing Valve
- AW** DHW Outlet
EZ DHW Recirculation Connection
VS2 Tank Coil Supply Connection
RS2 Tank Coil Return Connection
EK Cold Feed Connection
EL Tank Drain Connection (combined with EK connection)





Mechanical and Thermal Specifications

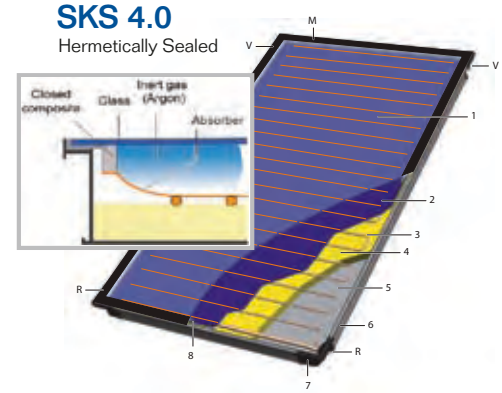
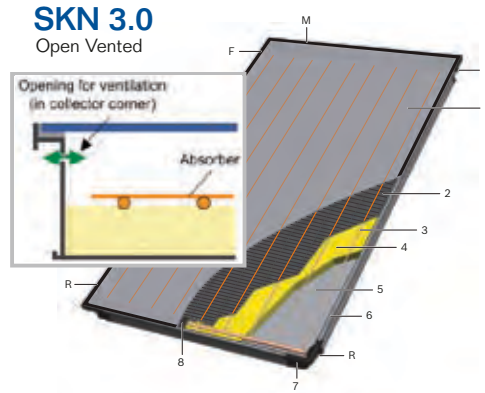
Logalux Dual-Coil DHW Storage Tank	SM300	SM400
Tank Diameter with/without Insulation (D/Dsp)	26½" (672 mm)	33½" (850 mm)/25½" (650 mm)
Height (H)	57⅔" (1465 mm)	61" (1550 mm)
Net Weight	317 lbs (144 kg)	445 lbs (202 kg)
Total Tank Capacity	77 gal (290 l)	103 gal (390 l)
Standby Tank Capacity	34 gal (130 l)	44 gal (165 l)
Solar Indirect Coil Capacity	2 gal (8 l)	2.5 gal (9.5 l)
Standby Heat Loss	7200 BTU/day (2.1 kWh/24h)	9600 BTU/day (2.81 kWh/24h)
Solar Indirect Coil Surface Area	13 ft ² (1.2 m ²)	
Boiler Indirect Coil Surface Area	10.76 ft ² (1.0 m ²)	
Continuous Output (Upper Indirect Coil) with 176/45/10 °F (80/45/10 °C) ²	120,000 BTU/Hr [223 gph] (34.3 kW [843 l/h])	
Max. Operating Pressure Solar Fluid/Boiler Water/DHW	232/360/145 psi (16/25/10 bar)	
Max. Operating Temperature Boiler Water/DHW	320/203 °F (160/95 °C)	
	Pipe Size	Height from Ground
Cold Water Inlet/drain (EK/EL)	NPT 1¼"	2⅓" (60 mm) / 5¾" (148 mm)
Solar Return (RS1)	NPT 1"	11⅔" (297 mm) / 12" (303 mm)
Solar Supply (VS1)	NPT 1"	26¾" (1077 mm) / 27" (1103 mm)
Boiler Return (RS2)	NPT 1"	33⅓" (842 mm) / 31" (790 mm)
Boiler Supply (VS2)	NPT 1"	42½" (1077 mm) / 43½" (1103 mm)
DHW Circulation Inlet (EZ)	NPT 1"	30" (762 mm) / 36" (912 mm)
DHW Outlet (AW)	NPT 1"	1" / 52¼" (1326 mm) / 1¼" / 52¾" (1343 mm)

¹Removal of top anode rod requires 27" of clearance above SM300 tank and 12" of clearance above SM400 tank.

²Heating water flow temperature/DHW outlet temperature/cold water inlet temperature

SKN 3.0 / SKS 4.0: Solar Flat Plate Collector

- F or V Solar Supply
- R Solar Return
- M Well for Temperature Sensor
- 1 3.2 mm Solar Safety Glass
- 2 Absorber Plate
- 3 Copper Riser Tubes in SKN 3.0
Double Meander Tubing in SKS 4.0
- 4 Mineral Wool Insulation
- 5 Aluminum-Zinc Coated Steel Back Sheet
- 6 Composite Fiber Frame
- 7 Extruded Plastic End Cap
- 8 Edge Assembly



OG-100
Certified Solar Collector

Model	SKN3.0S Vertical	SKN3.0W Horizontal	SKS4.0S Vertical	SKS4.0W Horizontal
Height	81 1/2"	45 1/8"	81 1/2"	45 1/8"
Width	45 1/8"	81 1/2"	45 1/8"	81 1/2"
Depth	3 1/2"	3 1/2"	3 1/2"	3 1/2"
Dry Weight	90 lbs	93 lbs	101 lbs	104 lbs
Fluid Content	0.23 gal	0.33 gal	0.39 gal	0.46 gal
Gross Collector Area	25.96 ft ²		25.96 ft ²	
Net Aperture Area	24.29 ft ²		24.29 ft ²	
Solar Glass Transmission	91.5% ± 0.5%		91.5% ± 0.5%	
Stagnation Temperature	370 °F		400°F	
Coating	Highly Selective Black Chrome		Highly Selective PVD Coating	
Absorptivity	95% ± 2%		95% ± 2%	
Emissivity	12% ± 2%		5% ± 2%	
Max. Operation Pressure	87 psi		145 psi	
Max Flow Rate	1.07 gpm		1.07 gpm	
Absorber Material	Copper with Ultrasonic Welding		Copper with Ultrasonic Welding	
Absorber Type	Harp		Double Meander	
Collector Construction	Open Vented		Hermetically Sealed Inert Gas	
SRCC Clear Day Rating, Category C	27kBTU/day		28kBTU/day	



Solar Flat Plate Collector installation is easy either with the Flat Roof Mounting System or with roof brackets. Collectors can be easily and harmoniously integrated into all types of roof surfaces and pitches.

The Flat Roof Mounting System is compatible with both SKN and SKS collectors. The inclination can be easily adjusted to optimize your solar gain. Properly installed, the mounting system can withstand hurricane force winds and up to 35 lbs/ft² snow loads.



The flexible roof jack for vertical and horizontal type collectors is made of aluminum and is designed for fast and easy installation using a single tool.

Printed on Elemental Chlorine Free, FSC-certified, minimum 10% PCW paper with vegetable-based inks