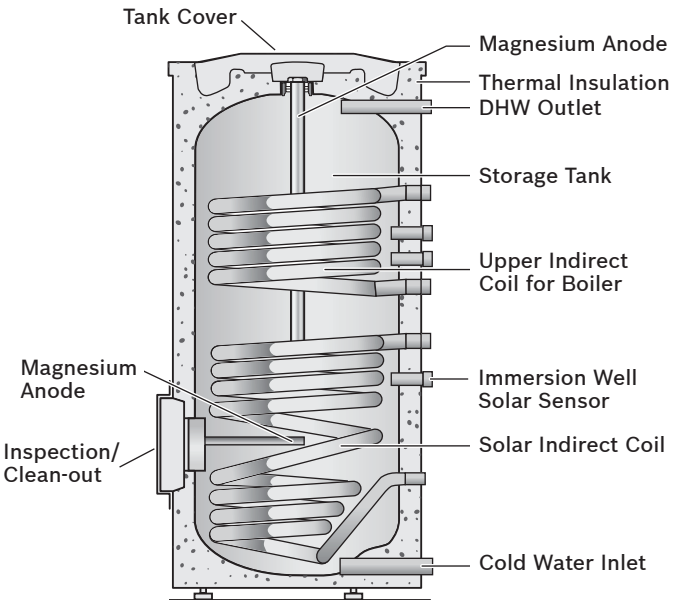
Logalux SM300/400 Dual-Coil Solar Indirect DHW Storage Tanks

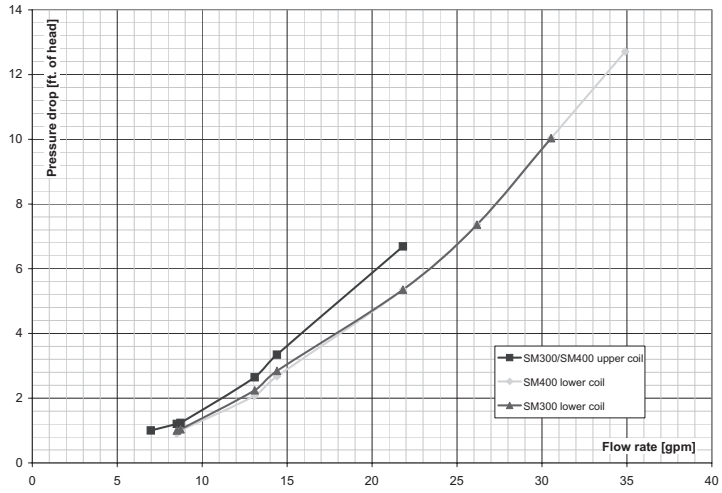
Engineering Submittal Sheet

Selected features and characteristics

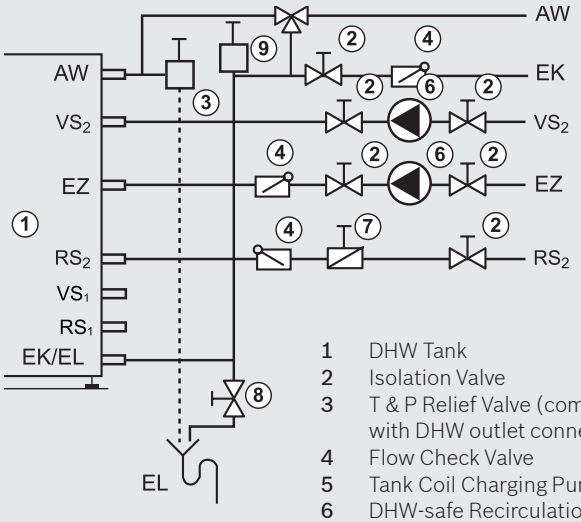
- Highly efficient dual coil storage tanks that accumulate and store the collected heat from solar collectors
- An additional indirect coil in the upper part of the tank for connection to a back-up heating source or to supply additional demand
- Insulation blanket that maximizes heat retention in the tanks
- Buderus Thermoglaze® and two magnesium anode rods 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



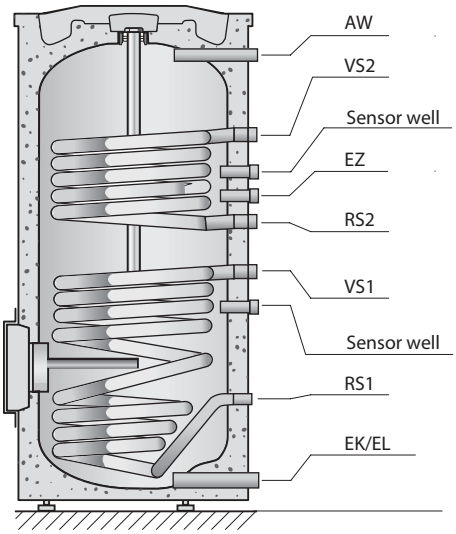
Pressure drop *vs* flow rate for SM300 and SM400 indirect tanks

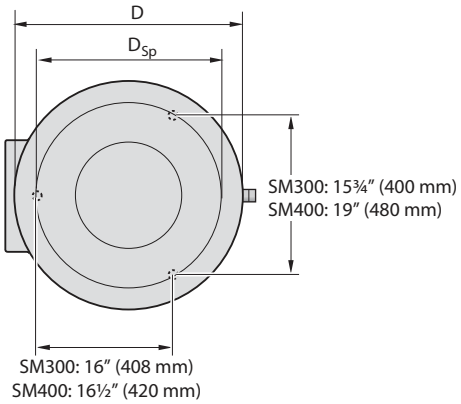


Installation of the SM Tank into an Existing DHW System



1	DHW Tank
2	Isolation Valve
3	T & P Relief Valve (combined with DHW outlet connection)
4	Flow Check Valve
5	Tank Coil Charging Pump
6	DHW-safe 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
VS1	Solar Coil Supply Connection
RS1	Solar Coil Return Connection
EK	Cold Supply Connection
EL	Tank Drain Connection (combined with EK connection)





Plan View

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 Standby Tank Capacity		77 gal (290 l) 34 gal (130 l)	103 gal (390 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 (2.81kWh/24h)
Solar Indirect Coil Surface Area Boiler Indirect Coil Surface Area		13 ft² (1.2 m²) 10.76 ft² (1.0 m²)	
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"	33⅛" (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)

[1]Removal of top anode rod requires 27" of clearance above SM300 tank and 12" of clearance above SM400 tank.
[2]Heating water supply temperature/DHW outlet temperature/cold water inlet temperature

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