

General requirements:

The Roth solar combi stratified storage tank should be installed in frost-proof areas with short distance to the user. Installation and adequate commissioning must be carried out by an approved specified company with consideration of valid technical regulations, rules and guidelines.

This is especially applicable for **electrical connections**: in this case the guidelines of VDE as well as terms of the respective energy supplier should be followed.

Water connection: the valid guidelines DIN- and DVGW and the terms of the respective water supplier should be followed (DIN 1988, DIN 18160, DIN 4753, DIN 4109, DVGW working paper W551-3, etc.).

Security valve in cold water supply: according to DIN 4753 regularly check function by crack opening.

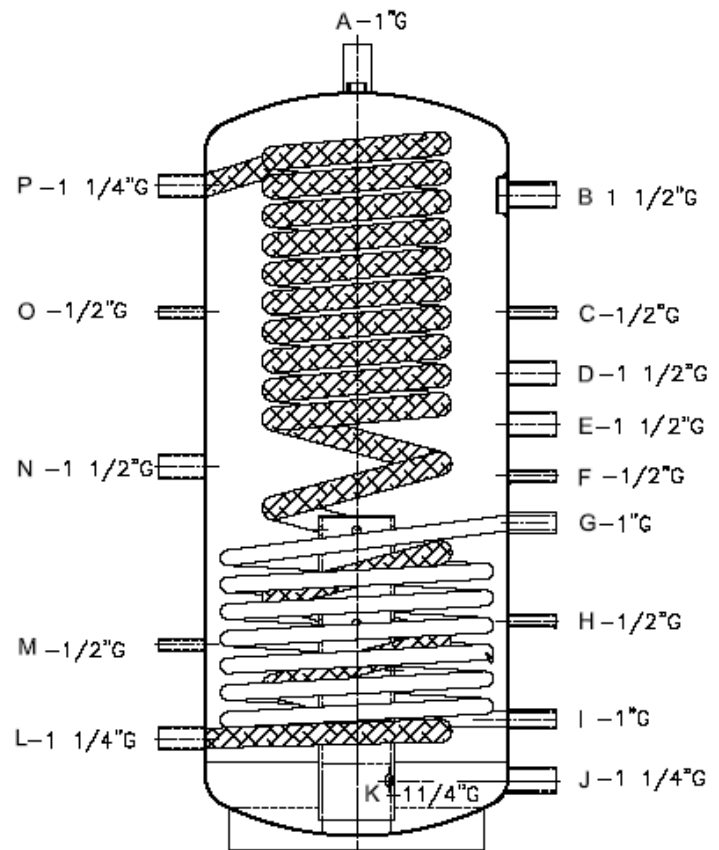
For protection against scald a limitation of water temperature necessary, Roth service water mixer (1135002298) can optionally be used.

Exhaust opening should not be closed or cramped. There should not be a barrier between security valve in cold water pipe and storage tank. The blow pressure of the security valve must be designed to fulfil the acceptable operating pressure of the storage tank. At 10 bar and higher water pressure behind the water meter, a pressure reducer must be installed. When heating the storage tank, water escapes from the security valve which is then guided through a siphon funnel. When filling to storage tank essentially start with the drinking water side. Otherwise the inside tank could be damaged!

The sensor immersion sleeves included in the scope of delivery (Solar) must be sealed on site.

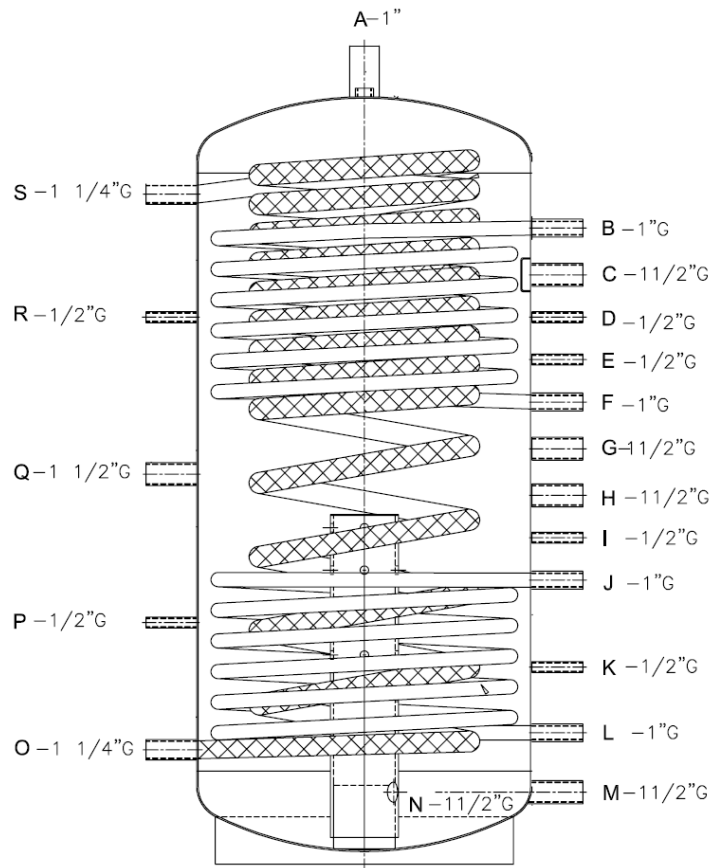
Technical data and connections for Roth solar combi stratified storage tank 500

Technical data	Unit	500 l
Total volume	l	448
Buffer tank volume	l	443
Drinking water volume	l	45
Weight	kg	112
Diameter without insulation	mm	650
Diameter with insulation	mm	850
Height without insulation	mm	1640
Height with insulation	mm	1720
Diagonal height	mm	1785
Storage tank material		St37.2
Drinking water constant flow storage tank		V4A
Solar heat exchanger above/below		-----
Solar heat exchanger above	m ²	-----
Solar heat exchanger below	m ²	2,3
Stratified sley tube		St37.2
Perm. operating pressure buffer tank	bar	3
Perm. operating pressure TW-constant flow storage tank	bar	6
Perm. operating temperature	°C	95
Figure of merit NL		1,6
A air vent 1" FT	mm	1720
B free available 1 1/2" FT	mm	1400
C temperature sensor post heating 1/2" FT	mm	1150
D free available 1 1/2" FT	mm	1020
E free available 1 1/2" FT	mm	910
F sensor RAS 1/2" FT	mm	800
G solar heat exchanger VL 1" FT	mm	700
H solar sensor 1/2" FT	mm	490
I solar heat exchanger RL 1" FT	mm	280
J free available 1 1/4" FT	mm	150
K stratified sley tube 1 1/4" FT	mm	150
L cold water connection 1 1/4" FT	mm	240
M free available 1/2" FT	mm	440
N elect. immersion heater 1 1/2" FT	mm	820
O free available 1/2" FT	mm	1150
P warm water connection 1 1/4" FT	mm	1420



Technical data and connections for Roth solar combi stratified storage tank 800 and 1000

Technical data	Unit	800 l	1000 l
Total volume	l	805	897
Buffer tank volume	l	750	842
Drinking water volume	l	55	55
Weight	kg	195	210
Diameter without insulation	mm	790	790
Diameter with insulation	mm	1030	1030
Height without insulation	mm	1830	2010
Height with insulation	mm	1930	2110
Diagonal height	mm	2005	2185
Storage tank material		St37.2	St37.2
Drinking water constant flow storage tank		V4A	V4A
Solar heat exchanger above/below		Flat tube	Flat tube
Solar heat exchanger above	m ²	2,0	3,0
Solar heat exchanger below	m ²	3,0	3,5
Stratified sley tube		St37.2	St37.2
Perm. operating pressure buffer tank	bar	3	3
Perm. operating pressure TW-constant flow storage tank	bar	6	6
Perm. operating temperature	°C	95	95
Figure of merit NL		3,2	4,0
A air vent 1" FT	mm	1930	2110
B solar heat exchanger above VL 1" FT	mm	1500	1680
C free available 1/2" FT	mm	1390	1520
D temperature sensor solar above 1/2" FT	mm	1290	1450
E temperature sensor post heating 1/2" FT	mm	1190	1330
F solar heat exchanger above RL 1" FT	mm	1090	1210
G free available 1 1/2" FT	mm	980	1060
H free available 1 1/2" FT	mm	870	950
I temperature sensor return increase 1/2" FT	mm	770	840
J solar heat exchanger below VL 1" FT	mm	670	730
K solar sensor below 1/2" FT	mm	465	495
L solar heat exchanger below RL 1" FT	mm	310	310
M free available 1 1/2" FT	mm	170	170
N stratified sley tube 1 1/2" FT	mm	170	170
O cold water connection 1 1/4" FT	mm	270	270
P free available 1/2" FT	mm	570	580
Q elect. immersion heater 1 1/2" FT	mm	920	1130
R free available 1/2" FT	mm	1290	1760
S warm water connection 1 1/4" FT	mm	1580	1760



Anschluss Roth Solar-Kombischichtenspeicher

Connection plan:

- S1 = Sensor Kollektor
- S2 = Sensor Solar oben
- S3 = Sensor Solar unten
- R1 = Solarpumpe
- R2 = 3-Wege Ventil für solare Beladung

