

Solar water heating INDIRECT SOLAR THERMAL SYSTEM



A.O. Smith also provides indirect solar thermal systems. These systems consist of an indirect tank which is connected to an already existing central heating system or boiler. With use of several accessories you can create the perfect solution. Both the IT and ITS can be part of a solar system. Both can be installed with or without drain back.

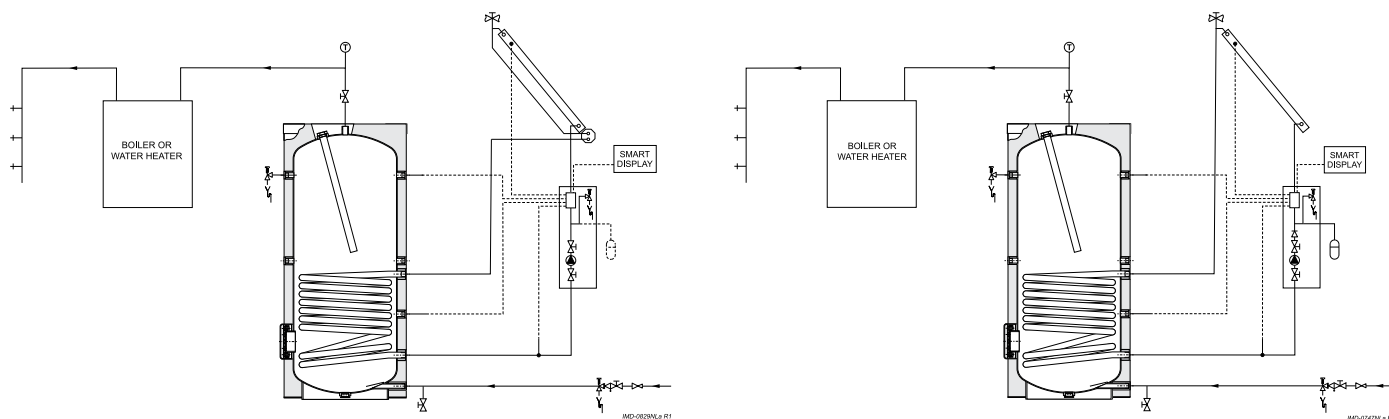
The heat exchanger in the IT or ITS transfers the collected heat to the water in the tank. The ITS is equipped with 2 heat exchangers. Both the collected solar heat as well as the heating from the central heating system or boiler transfer their heat into the same tank. Therefore the use of an ITS in this application can provide more comfort.

An indirect system is controlled through a standard module integrated in the pump station. This module controls the system based on the temperature in the collector and in the tank. The module displays the temperatures and the capacity of the pump. Selecting the correct pump station is based on the number of collectors and/or the length of the piping. A.O. Smith has regular and large capacity pump stations. Dependant on the installation, the pump stations are available for installations equipped with or without drain back system.

CERTIFICATES

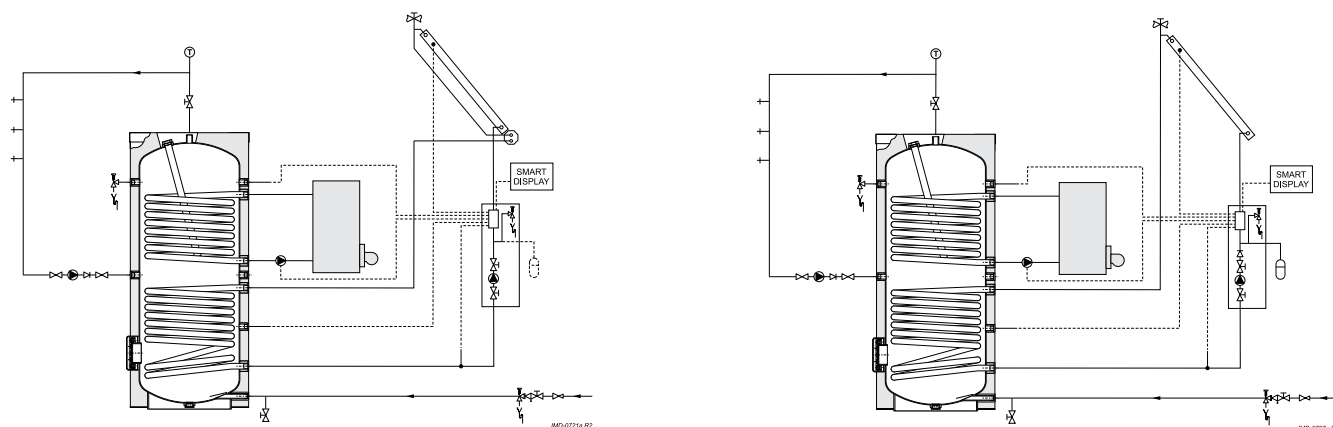
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IT in solar thermal configuration with and without drainback system





- Solar system connected to existing central heating system or boiler
- IT indirect tank with 1 heat exchanger available in capacities from 296 to 2800 litre
- Combined with the correct pump station several numbers of collectors possible. If you use a large pump station, always install an expansion vessel
- Drain back system prevents stagnation temperatures in the installation
- Always use an expansion vessel in an installation without drainback system



ITS in solar thermal configuration with and without drainback system





- Solar system connected to existing central heating system or boiler
- ITS indirect tank with 2 heat exchangers available in capacities from 289 to 1007 litre
- Combined with the correct pump station several numbers of collectors possible. If you use a large pump station, always install an expansion vessel
- Drainback system prevents stagnation temperatures in the installation
- Always use an expansion vessel in an installation without drain back system
- In an ITS installation both the collector and the central heating system or boiler transfer their heat into one tank. This provides more comfort compared to the IT installation


	IT		
	Type	Litre	kW
	300	296	46
	400	385	78
	500	473	100
	600	643	104
	750	725	112
	1000	1007	145
	1500	1550	147
	2000	1800	147
	2500	2550	156
	3000	2800	156


	ITS		
	Type	Litre	kW
	300	289	27
	400	382	37
	500	470	42
	600	641	40
	750	718	56
	1000	1007	58


PUMP STATION			
Standard pump stations			
	Art. No.	Collectors	DB
	0311594	1-7	no
	0311595	8-15	no
	0311692	1-7	yes
	0311593	8-15	yes
Large pump stations incl. control			
	0309975	n.a. selection is dependant on more factors than solely the number of collectors	yes
	0309979		yes
	0309983		yes
	0309987		yes
	0309991		yes
	0309976		no
	0309980		no
	0309984		no
	0309988		no
	0309992		no


EXPANSION VESSEL			
	Art. No.	Litre	Collectors
	0308875	25	1-4
	0308876	35	5-6
	0308877	50	7-11
	0308878	80	12-15
The selection of the expansion vessel is based on the number of collectors in the installation			


SMART DISPLAY	
	Art. No.
	0309701(S)

GLYCOL				
	Art. No.		Litre	
	0308803		10	
	Corrosion inhibiting and anti-frost agent Tyfocor L Packaging of 10 litres in a 40% mixed solution			
REQUIRED GLYCOL				
	Number of collectors			
	1 - 2	3 - 5	6 - 11	12 - 15
IT 300 ITS 300	40	50	60	70
IT 400 ITS 400	50	60	70	80
IT 500 ITS 500	50	60	70	80
IT 600 ITS 600	60	70	80	90
IT 750 ITS 750	70	70	80	90
IT 1000 ITS 1000	80	80	90	100
IT 1500	80	80	100	100
IT 2000	80	80	100	110
IT 2500	80	80	100	110
IT 3000	80	90	100	110
These quantities are based on the contents of the appliance excluding piping. These quantities are averages. For the exact quantities please contact our Technical Support Group.				

INSULATION MATERIAL		
	Art. No.	Dimensions
	0309933(S)	Ø 22mm x 2m
	0309934(S)	Ø 28mm x 2m

OUTPUT SENSOR		
	Art. No.	Connection
	0309691(S)	22 mm solder
	0309703(S)	28 mm solder

T&P VALVE		
	Art. No.	Connection
	0076527004(S)	¾" / 10 bar

REDUCING NIPPLES											
	Description	IT/ITS									
		300	400	500	600	750	1000	1500	2000	2500	3000
	Set 2" BSp F x R 1" M		0309754(S)						0309754(S)		
	Set 2" BSp F x R 1 1/2" M		0309755(S)						0309755(S)		
	Set 2 1/2" BSp F x R 1" BSp F					0309756(S)					
	Set 2 1/2" BSp F x R 1" BSp F					0309757(S)					
	Set 2 1/2" BSp F x R 1 1/2" BSp F					0309758(S)					



For more information on our solar thermal collectors, please refer to the specific Collectors spec sheet.