

Connection Fittings Installation Guide



VITOSOL®



Vitosol 100-SVKF





Vitosol 200-FM



Vitosol DHW Solar Pack
Vitosol 200-FM Flat Plate Collectors

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Fitting Sets and Kits

Item	Description	Part Number
General Connection Set 	<p>One set required for each Vitosol 200-FM collector array. Array size can be 1 to 12 collectors. Contains all the required fittings for pipe connection to collector.</p> <p>Contents:</p> <ul style="list-style-type: none"> ■ 2 x brass connecting pipe (one long, one short) ■ 2 x brass plugs ■ 4 x stainless steel profile clamp ■ 2 x 22 mm 90° compression elbow ■ 1 x package of O-ring silicone assembly grease ■ 2 x copper tube support inserts 	200-FM 7248240
Installation Fittings Set 	<p>One set required for each system. Contains the metric conversion fittings required to connect to the collector array and the conversion adaptor for the expansion tank fitting.</p> <p>Contents:</p> <ul style="list-style-type: none"> ■ 4 x copper pipe adaptors – 22 mm dia to 3/4" dia x 4" long ■ 1 x copper pipe stub – 22 mm dia x 2.4" long ■ 1 x 3/4" BSPT Female x 3/4" NPT male adaptor ■ 1 x gasket ■ 1 x package of technical literature 	200-FM ZK02868 (CA) ZK02870 (USA)


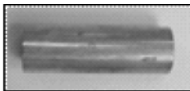
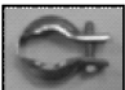

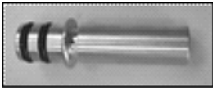


Collector Loop Fittings

Item	Description	Part Number
Interconnection Pipe Set 	<p>Used to connect Vitosol 200-FM collectors together. Brass fittings with double O-ring seal, connected by flexible stainless steel pipe.</p> <p>Contents:</p> <ul style="list-style-type: none"> ■ 2 x interconnection pipes ■ 1 x package of O-ring silicone assembly grease 	200-FM 7248239
Sensor Well Set 	<p>Collector sensor well set for Vitosol 200-FM. One required per system. Installed in top collector outlet piping.</p> <p>Contents:</p> <ul style="list-style-type: none"> ■ 1 x 22 mm compression tee ■ 1 x immersion sensor well ■ 1 x sensor wire strain relief ■ 1 x insulation cover ■ 1 x copper tube support insert 	200-FM 7174993


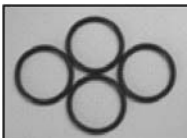




Collector Loop Fittings *(continued)*

Item	Description	Part Number
Automatic Fast Air Vent 	Air vent for high point of each collector array. Built in shut-off valve for 100% isolation after system is totally vented 22 mm brass compression couplings. Note: If ordered individually, requires 2 x PN 9543380 - copper adaptors – 22 mm x 3/4" x 4".	200-FM 7316789
Manual Air Vent 	Air vent for high point of each collector array. Can be used as an alternate to the Fast Air Vent. Manual key vent, 22 mm brass compression couplings. Note: If ordered individually, requires 2 x PN 9543380 - copper adaptors – 22 mm x 3/4" x 4".	200-FM 7316263
Automatic Air Vent With Micro-Bubble Mesh 	Air separator for location in mechanical room. Wire mesh micro-bubble separator, with built in shut-off valve 22 mm brass compression couplings. Note: If ordered individually, requires 2 x PN 9543380 - copper adaptors – 22 mm x 3/4" x 4".	7316049
Brass Elbow With Sensor Well  	Solar tank sensor well for Vitocell tanks. Installs on solar glycol return line to collectors. Note: Must be ordered separately for all other tanks.	
	1" probe, for Vitocell 300-W tanks, 42 USG: – for tanks with NPT threads	7606041
	1" probe, for Vitocell 300-B, 300-V tanks, 53 to 79 USG: – for tanks with NPT threads	7606041
	1 1/4" probe, for Vitocell 300-B, 300-V tanks, 119 USG: – for tanks with NPT threads	7606042
Expansion Tank Flex Pipe 	Flexible 3/4"G x 19" (500 mm) long Stainless steel flexible connection pipe. Used to connect expansion tank to Solar-Divicon DN20B / DN25B. Compression fitting with gasket. Note: Only for use with the following tank models: 18L, 25L, 40L	7497468



































Spare Parts / Individual Fittings

Item	Description	Part Number
<p>Copper Adaptor</p> 	<p>Included with the Installation Fittings Set (see page 3), but can be ordered individually.</p> <p>Used to connect standard NPT copper to all Vitosol fitting with compression couplings (eg. Supply/Return piping to 90° compression elbow).</p> <p>Copper adaptor pipe stub – 22 mm dia x ¾" Copper x 4" long.</p>	200-FM 9543380
<p>Copper Connector</p> 	<p>Included with the Installation Fittings Set (see page 3), but can be ordered individually.</p> <p>Used to connect two items together that both have 22 mm compression couplings (eg. Air vent and sensor well).</p> <p>Copper pipe stub – 22 mm dia x 2.4" long.</p>	200-FM 5276590
<p>Vitosol Profile Clamp</p> 	<p>Included with the General Connection Set (see page 3), but can be ordered individually.</p> <p>Used for Vitosol 200-FM to attach brass connection pipes and plugs to the collector header pipe.</p>	200-FM, 7317074
<p>Brass Collector Connection Pipe – Short</p> 	<p>Included with the General Connection Set (see page 3), but can be ordered individually.</p> <p>Used for Vitosol 200-FM to connect piping to the collector header pipe.</p>	200-FM 7827514
<p>Brass Collector Connection Pipe – Long</p> 	<p>Included with the General Connection Set (see page 3), but can be ordered individually.</p> <p>Used for Vitosol 200-FM. To connect piping to the collector header pipe.</p>	200-FM 7827515
<p>Brass Collector Plug</p> 	<p>Included with the General Connection Set (see page 3), but can be ordered individually.</p> <p>Used for Vitosol 200-FM to plug the collector header pipe.</p>	200-FM 7827516
<p>Compression Connector – Union</p> 	<p>Brass union fitting with 22 mm compression fittings (sold in a set of 2).</p> <p>Used for a straight connection between two 22 mm pipes:</p> <ul style="list-style-type: none"> - To bring S/R piping straight out of collector instead of using 90° compression elbow. <p>To extend pipe between two collectors that have to span an obstruction.</p>	All collectors 7819612

Spare Parts / Individual Fittings *(continued)*

Item	Description	Part Number
Compression Connector, 90° Elbow 	Brass elbow fitting with 22 mm compression fittings. Included with the General Connection Set, but can be ordered individually.	All collectors 7819611
Collector Fitting O-rings 	Package of 4. Spare parts, used for all collector fittings.	200-FM 7819604
Silicone Assembly Grease 	6 gram package. Included with the General Connection Set (see page 3) and with the Interconnection Pipe Set (see page 4). This can be ordered individually. Used for lubricating O-rings on all collector fittings.	All collectors 7819602
Solar Divicon Expansion Tank Adaptor Fitting 	Coupling, 3/4" BSPT x 3/4" NPT Brass. Included with the Solar Divicon fittings, but can be ordered individually. Used to connect NPT piping to the expansion tank connection on all Solar Divicon.	All Solar Divicon 7134829
Expansion Tank Service Valve Adaptor Fitting 	Adaptor, 3/4" G female - 3/4" NPT male. Included with the Installation Fittings Set (see page 4), but can be ordered individually. Used to connect NPT piping to the service valve on the expansion tank.	18 to 50 L Expansion Tanks 9635592
Flat Gasket 	Flat Gasket, 17 x 24 x 1.5mm Used with solar divicon expansion tank adaptor, expansion tank service valve adaptor, solar expansion tank service valve & flexible tank adaptor. This can be ordered individually.	9535412

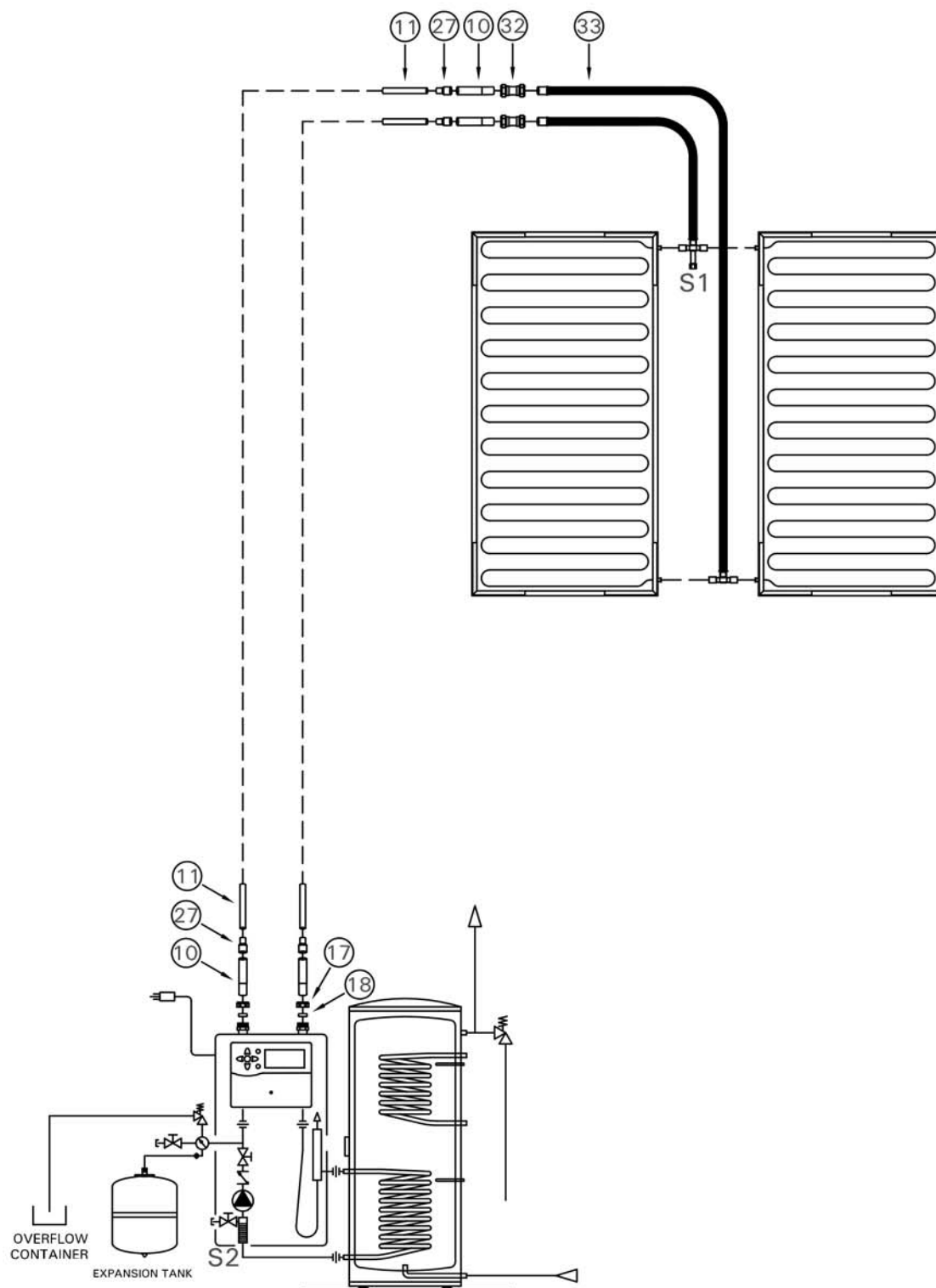
Connection Fittings Parts Index

①		Ø22mm Compression 90 deg Elbow
②		Connection Pipe - Short - 200-FM
③		Connection Pipe - Long - 200-FM
④		Connection Plug - 200-FM
⑤		Vitosol Profile Clamp - 200-FM & 1/2" Insulated Flexible S.S. Piping
⑥		Interconnection Pipe Set - 200-FM
⑦	 S1	Sensor Well Set - 200-FM
⑧		Fast Air Vent c/w Shut-off
⑨		Copper Pipe Stub Ø22 mm x 2 1/2" Long
⑩		Copper Adaptor Pipe Stub - Ø22mm x Ø3/4" x 4" Long
⑪		Ø1/2" Rigid Copper Pipe (Field Supplied)
⑫		Ø3/4" Rigid Copper Pipe (Field Supplied)
⑬		Ø1" Rigid Copper Pipe (Field Supplied)
⑭		1/2" Insulated Flexible S.S. Piping
⑮		Vitosol O-rings (Solar Rated)
⑯		Vitosol Plastic Spacer (White)
⑰		Ø22mm Compression Nut - 1/2" SS Piping
⑱		Ø22mm Compression Sleeve - 1/2" SS Piping
⑲		Ø22mm Compression Adaptor - 1/2" SS Piping
⑳		3/4" BSPT x 3/4" NPT Brass Coupling
㉑		Flat Fiber Gasket
㉒		3/4" G Female x 3/4" NPT Male Adaptor
㉓		Flexible S.S. Expansion Tank Adaptor
㉔		3/4" Expansion Tank Service Valve
㉕		1" Expansion Tank Service Valve
㉖	 S2	Brass Elbow c/w Sensor Well
㉗		Ø1/2" x Ø3/4" Copper Reducing Coupling (Field Supplied)
㉘		Ø3/4" x Ø1" Copper Reducing Coupling (Field Supplied)
㉙		3/4" Female NPT x Ø3/4" Copper Sweat Adaptor (Field Supplied)
㉚		3/4" Male NPT x Ø3/4" Copper Sweat Adaptor (Field Supplied)
㉛		1" Male NPT x Ø1" Copper Sweat Adaptor (Field Supplied)
㉜		Ø22mm Straight Compression
㉝	 S1	200-F SVK Connection Set (Insulated Flexible S.S. Piping)
㉞	 C	Locking Clip

Connection Fittings for DHW Solar Pack

Note: Vitosol 100-FM SVKF with ½" copper piping, pumping station included with pack.

Note: See numbered parts index on page 7.



Connection Fittings for DHW Solar Pack *(continued)*

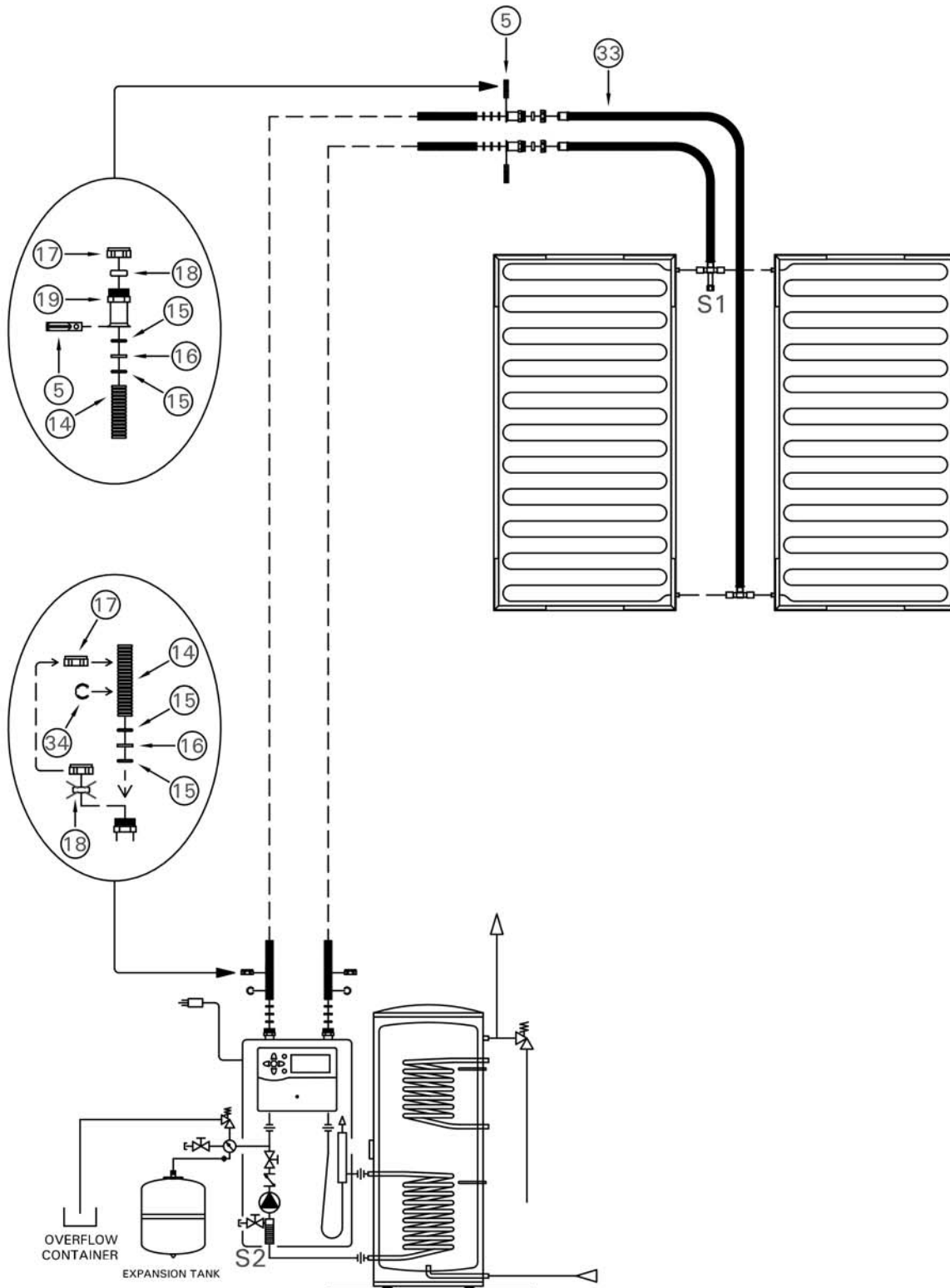
Note: Vitosol 100-FM SVKF with ½" stainless steel line set, pumping station included (with locking clip).

Note: See numbered parts index on page 7.

Note: Item ⑮ is not required.

IMPORTANT

The ½" stainless steel line set has a minimum bend radius of 2". If possible a bend radius larger than 2" is recommended.



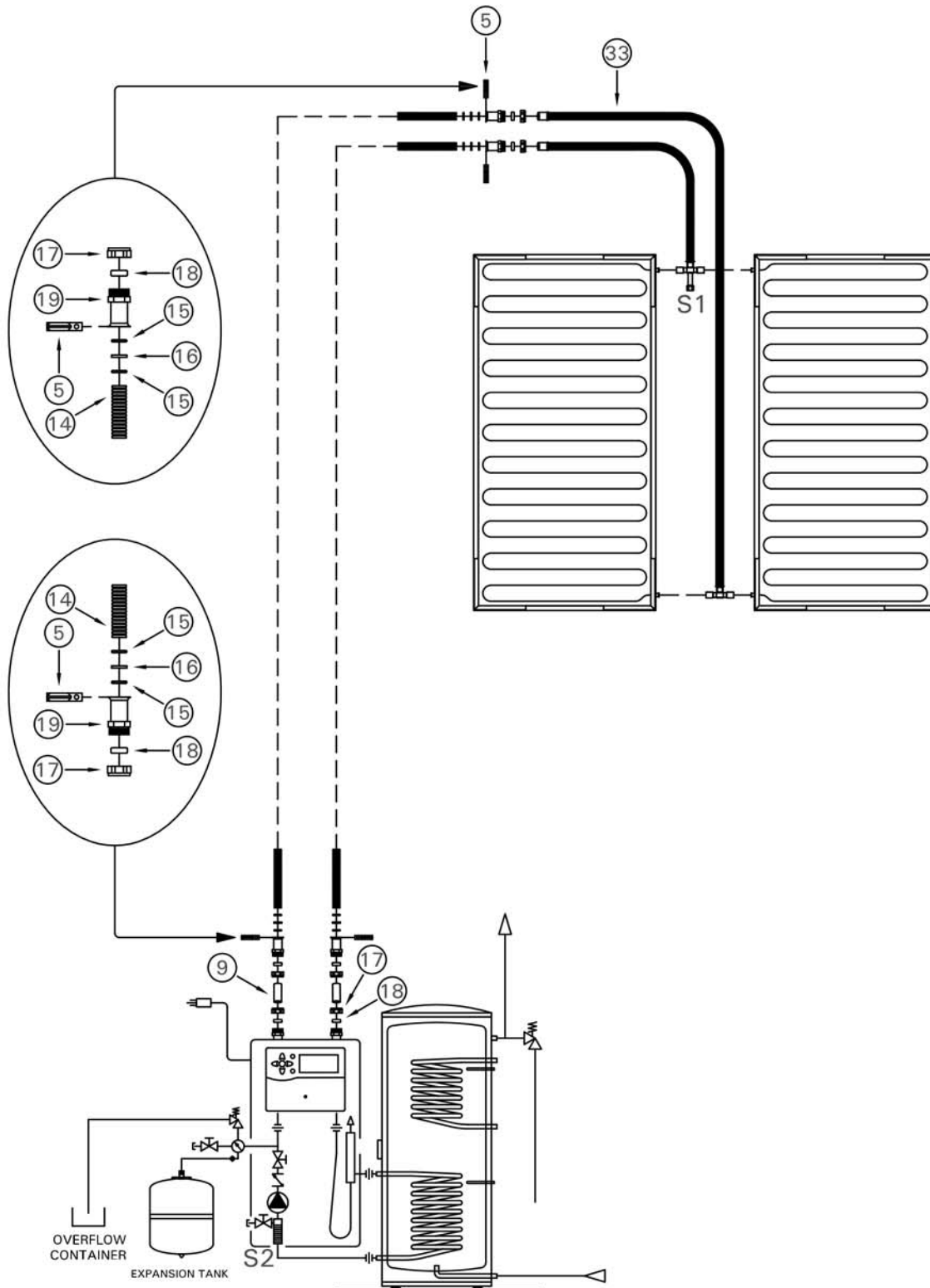
Connection Fittings for DHW Solar Pack *(continued)*

Note: Vitosol 100-FM SVKF with ½" stainless steel line set, pumping station included (with copper connector)

Note: See numbered parts index on page 7.

IMPORTANT

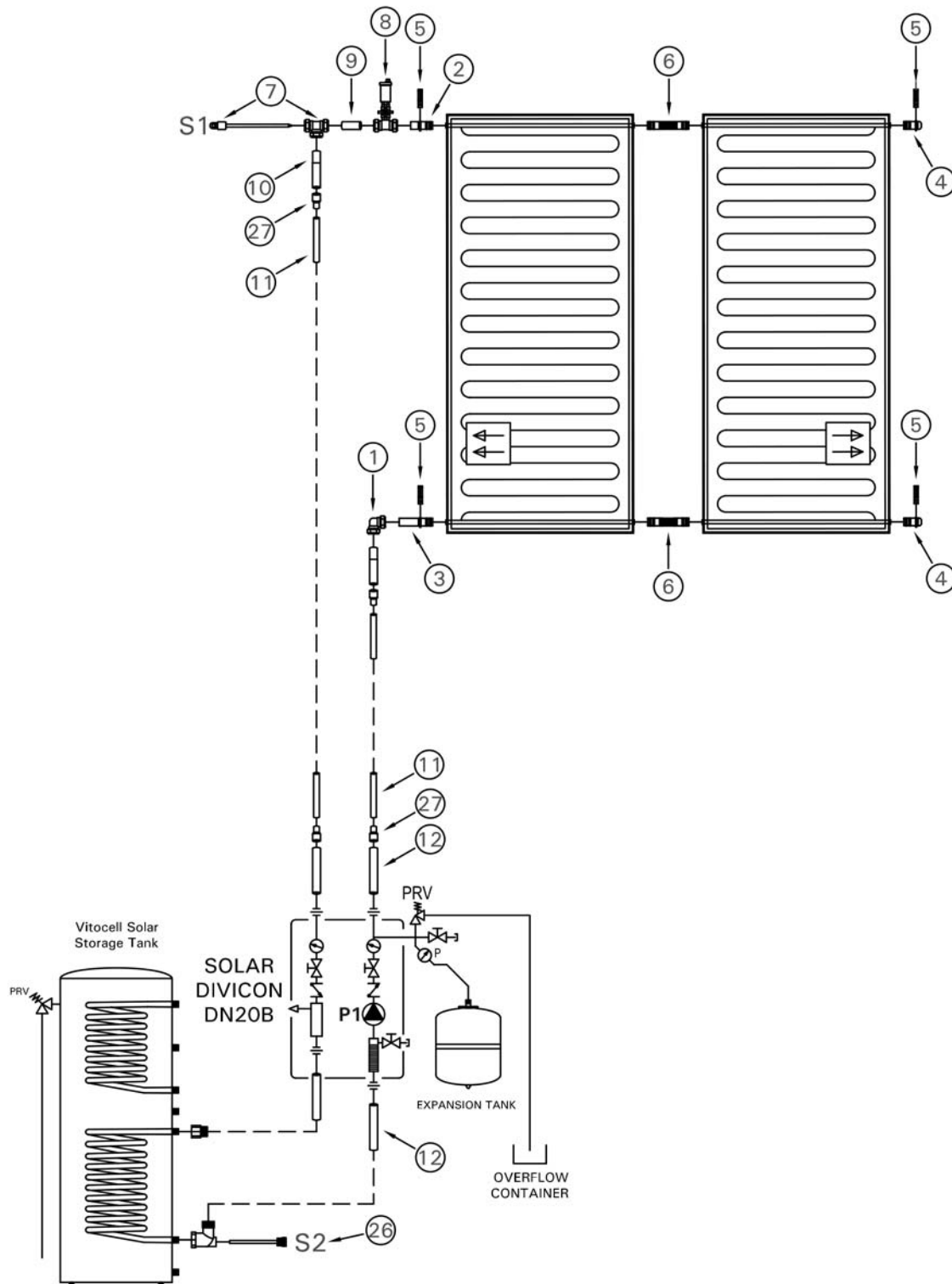
The ½" stainless steel line set has a minimum bend radius of 2". If possible a bend radius larger than 2" is recommended.



Connection Fittings for 200-FM with Solar-Divicon DN20B

Note: Vitosol 200-FM with 1/2" copper piping

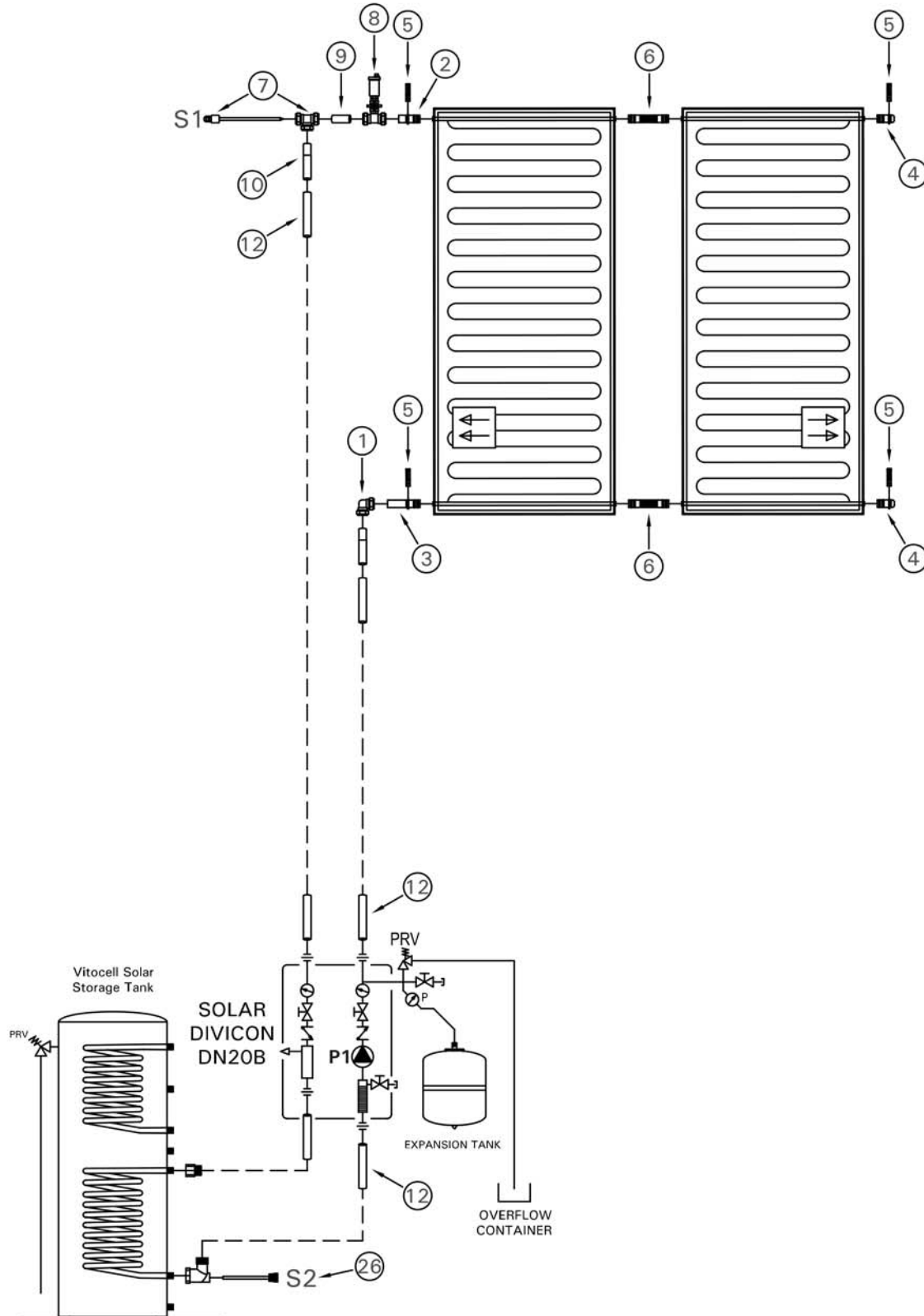
Note: See numbered parts index on page 7.



Connection Fittings for 200-FM with Solar-Divicon DN20B

Note: Vitosol 200-FM with $\frac{3}{4}$ " copper piping

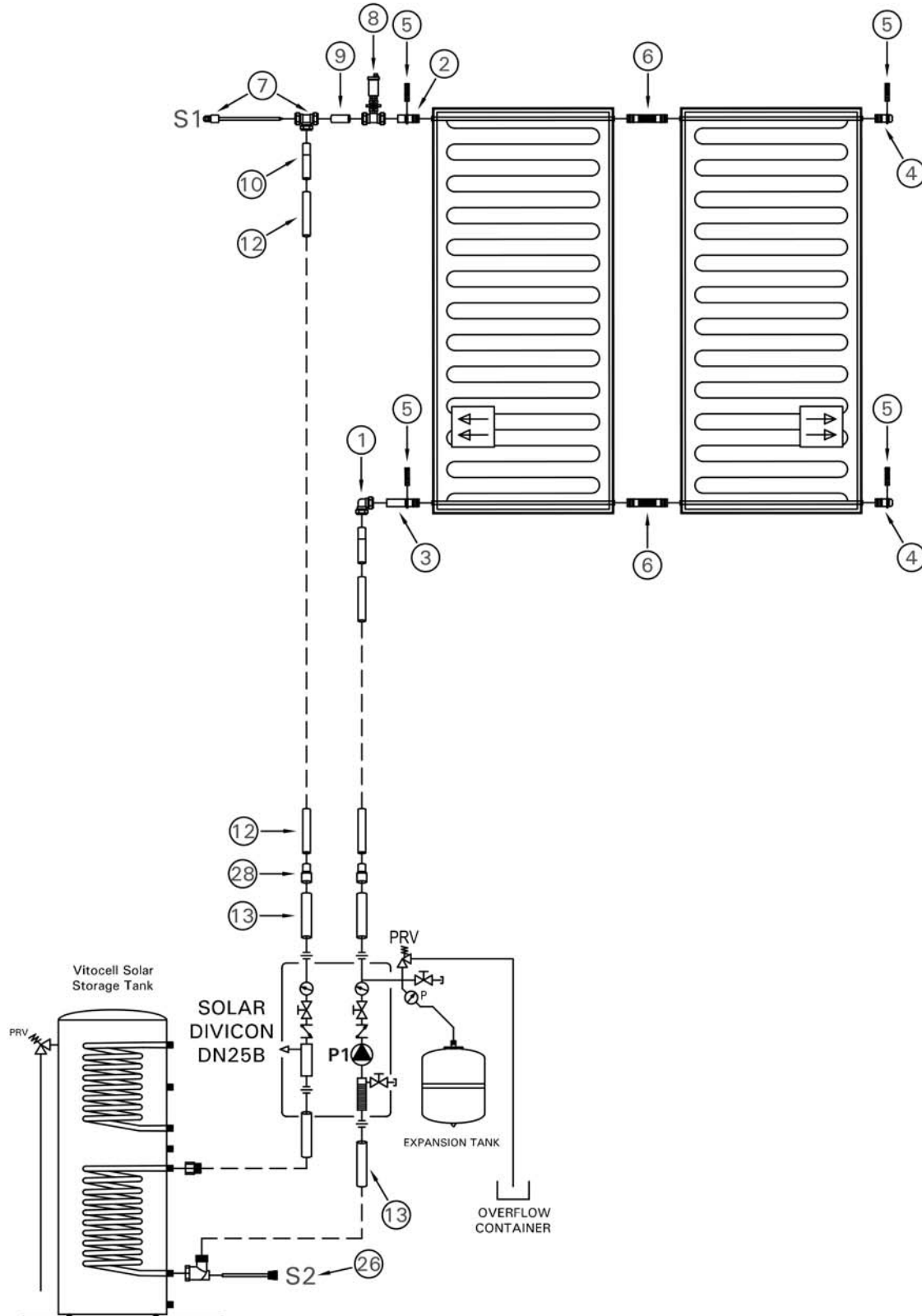
Note: See numbered parts index on page 7.



Connection Fittings for 200-FM with Solar-Divicon DN25B

Note: Vitosol 200-FM with $\frac{3}{4}$ " copper piping

Note: See numbered parts index on page 7.



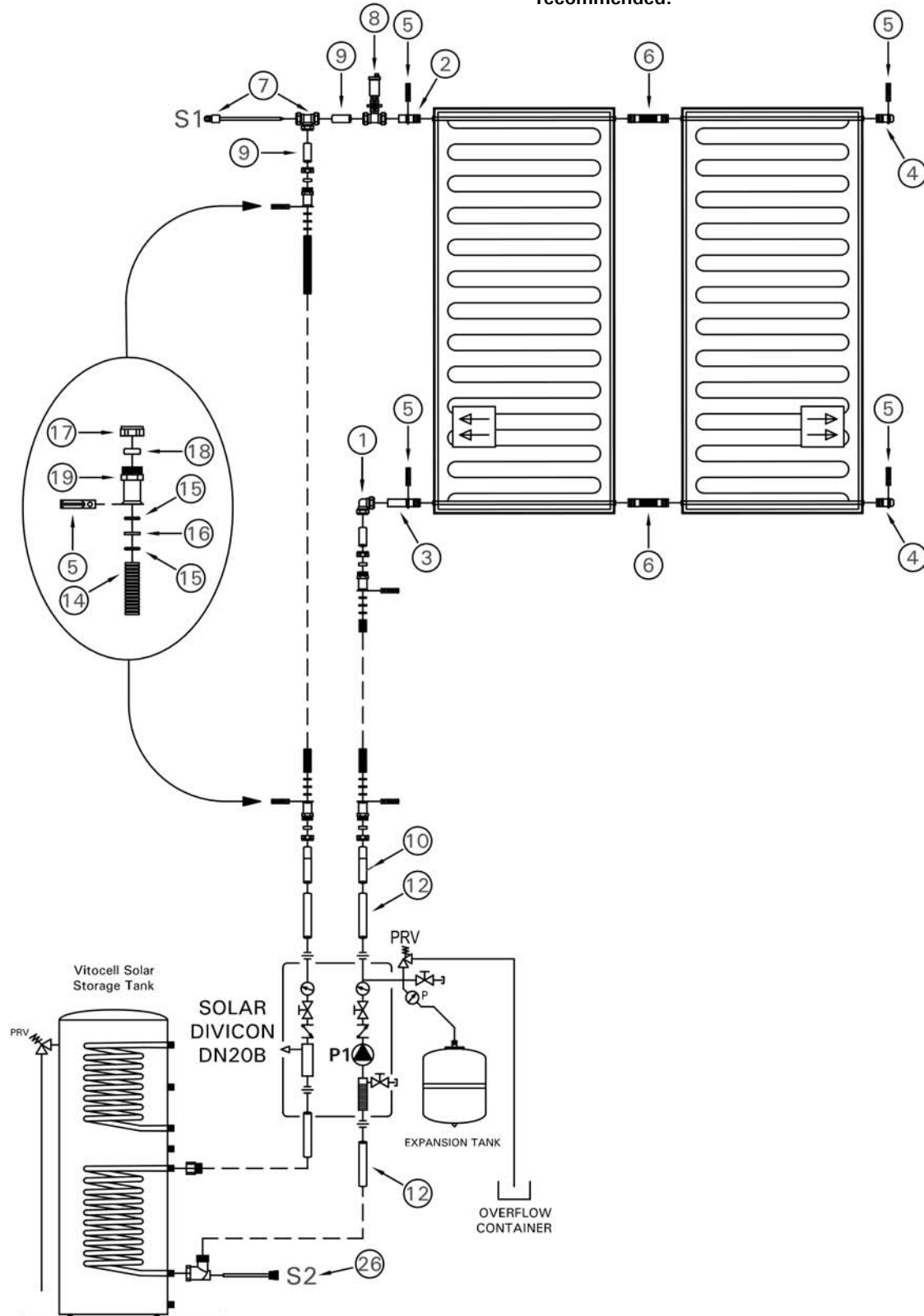
Connection Fittings for 200-FM with Solar-Divicon DN20B *(continued)*

Note: Vitosol 200-FM with 1/2" stainless steel line set.

Note: See numbered parts index on page 7.

IMPORTANT

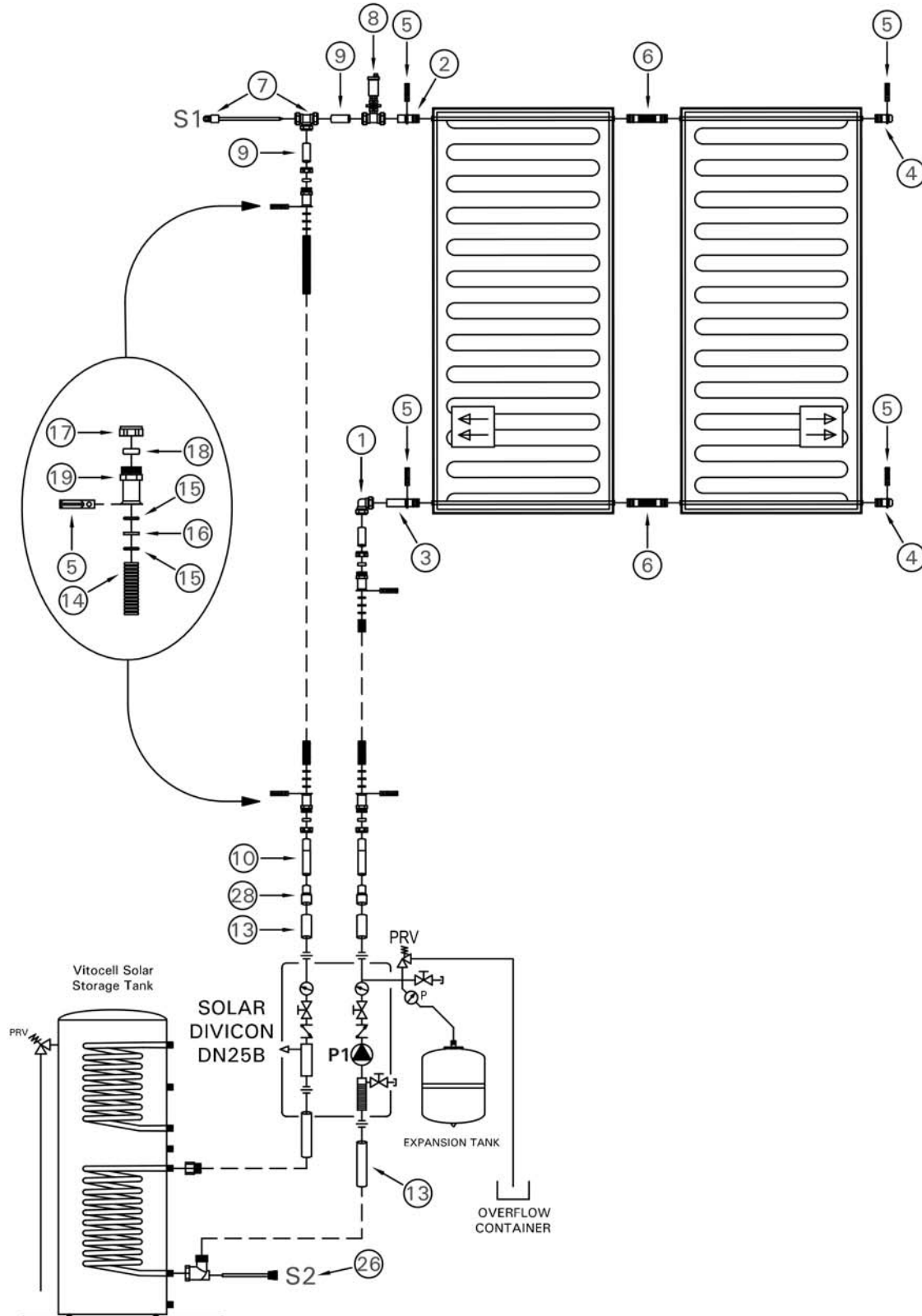
The 1/2" stainless steel line set has a minimum bend radius of 2". If possible a bend radius larger than 2" is recommended.



Connection Fittings for 200-FM with Solar-Divicon DN25B

Note: Vitosol 200-FM with ½" stainless steel line set.

Note: See numbered parts index on page 7.

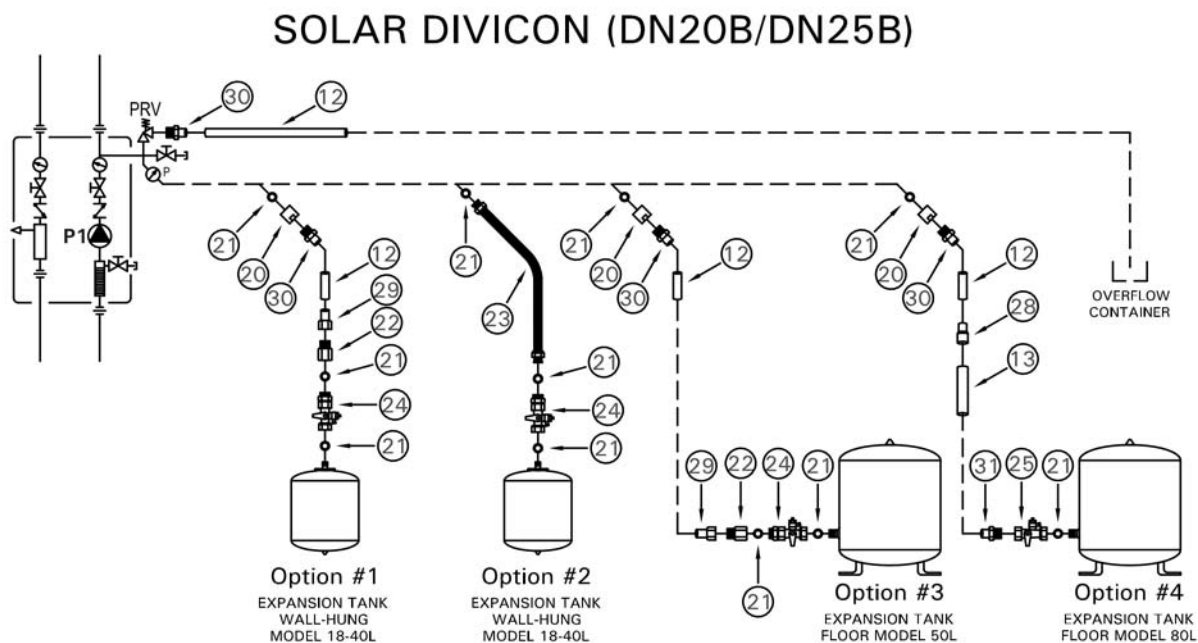


Expansion Tank Piping Connections

Note: See numbered parts index on page 7.

IMPORTANT

The 1/2" stainless steel line set (option #2) has a minimum bend radius of 2". If possible a bend radius larger than 2" is recommended.



*Special Note:

-The 1/2" stainless steel lineset has a minimum bend radius of 2". If possible a larger bend radius would be recommended.

Contacts

If you have any questions about any of these connection fittings or connection drawings, please contact your Solar Technical Support Team:

Viessmann - Waterloo, Ontario, Canada
Steve Royce
1-519-885-6300
roys@viessmann.com

Viessmann - Langley, British Columbia, Canada
Scott Boutillier
1-604-533-9445
bous@viessmann.com

Viessmann - Warwick, Rhode Island, USA
Nick Toman
1-401-732-0667
tomn@viessmann.com

