STREAMLINE ELECTRIC BOOSTED

Open Circuit Pump System

NOT SUITABLE FOR HEAVY FROST OR HARSH WATER REGIONS. This system is suitable for *multiple installations*.

Electric Boost Specifications

Auxiliary Boost	Electric (fitted)	3.6kW
Current Draw	15	Amps
Optional	Electric	1.8kW, 2.4kW, 4.8kW
Type	Immersion Copper Sheath	
Supply Voltage	220-250	AC

'F' Collector

Aperture (heating) Area	1.86	m^2
Length	1934	mm
Width	1019	mm
Height	63	mm
Absorber Surface	Chrome Black	
Absorber Material	Copper	
Riser Material	Copper	
Type of Riser	Sequential Tapered Riser	
Number of Risers	6	
Capacity	3.0	litres
Weight (full)	37	kg
Weight (empty)	34	kg
Working Pressure	1000	kPa
Tray Material	0.4mm AZ200 Zincalume	
Tray Insulation	25mm polyester blanket	
Collector Glass	3.2mm Tempered Glass Low Iron	

Hot Water Recovery Using Booster

		Supply Voltage	Current Draw	Temperature Rise		
				40C	50C	60C
	kW	*Volts AC*	*Amps*	*litres*	*litres*	*litres*
ELECTRIC	1.8	220-250	7.5	39	31	26
	2.4	220-250	10	52	41	34
	3.6	220-250	15	77	62	52
	4.8	220-250	20	103	83	69

Model		272 SFV		342 SFV		343 SFV		433 SFV		434 SFV	
		Tank	System	Tank	System	Tank	System	Tank	System	Tank	System
Number of Collectors			2		2		3		3		4
Storage Capacity	litres	270		340		340		423		423	
	US Gal	71		90		90		112		114	
Boost Capacity	litres		160		200		200		285		285
	US Gal		42		53		53		75		75
Boost Recovery	litres	103		103		103		103		103	
4.8kW (40C rise)	US Gal	27		27		27		27		27	
Weight - Empty	kg	72	140	96	164	96	198	117	219	117	253
Tank	lbs	159	309	212	362	212	437	258	483	258	558
Depth	metres	0.685		0.685		0.685		0.72		0.72	
Tank	inches	27		27		27		28.3		28.3	
Height	metres	1.39		1.7		1.7		1.875		1.875	
Tank	inches	54.72		66.93		66.93		73.82		73.82	
Width	metres	0.65		0.65		0.65		0.69		0.69	
Tank	inches	25.59		25.59		25.59		27.16		27.16	
Working Pressure	kPa	1000		1000		1000		1000		1000	
	psi	145		145		145		145		145	

Issue Date: January 2004

STREAMLINE ELECTRIC BOOSTED
Open Circuit Pump System

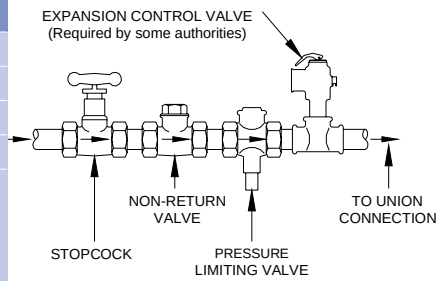
NOT SUITABLE FOR HEAVY FROST OR HARSH WATER REGIONS. This system is suitable for *multiple installations*.

Maximum recommended pipe length and number of 90° bends*

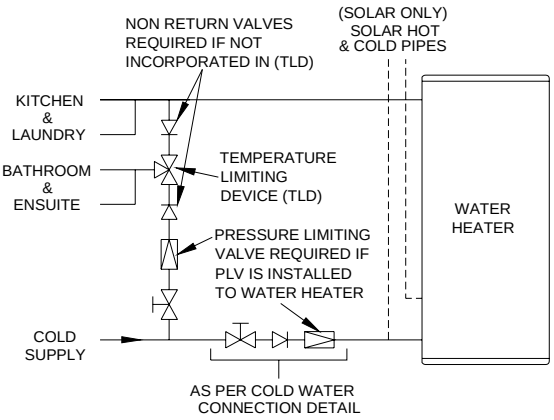
Pipe Size	1 or 2 Collectors		3 Collectors		4 Collectors	
	Pipe Length	*90° Bends*	*Pipe Length*	*90° Bends*	*Pipe Length*	*90° Bends*
DN15	40 metres	20	30 metres	20	NA	NA
DN18	60 metres	20	*40 metres*	20	32 metres	20

* For each additional 90° bend, reduce the maximum total pipe length by 0.5 metres.
* For each additional metre of pipe length, reduce the number of 90° bends by two.
* Pipework **MUST** be of copper. Plastic pipe **MUST NOT** be used
* Pipework must be insulated with Bradflex insulation or similar. (minimum thickness 10mm)
* Insulation must be weatherproof if exposed, and must be fitted upto the connections on the storage tank
* There must be a continuous fall in the pipework from the collectors to the storage tank.

Cold Water Connection Detail



Two Temperature Zones Using Tempering Valves



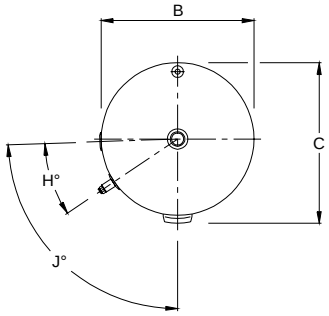
Water Connection Specification

Potable Water Connections	Suitable for Mains Pressure	
Expansion Control Valve (not supplied)	850	kPa
Maximum Mains Supply Pressure:		
With Expansion Control Valve	680	kPa
Without Expansion ControlValve	800	kPa
Temperature Pressure Relief Valve (supplied)	1000 99C	kPa
Water Connections	Hot & Cold	RP3/4/20

Temperature Pressure Relief Valve
This valve is set to relieve at 1,000 kPa and/or when the water temperature reaches 99C. It is supplied with the system and must be fitted or the warranty will be void.

Expansion ControlValve
This valve is not supplied with the Hot Water system. It is a legal requirement in some areas that a Expansion Control Valve is fitted, so please consult your local plumbing code.
It is a condition of the warranty that a Expansion Control Valve is fitted as standard where the water saturation index exceeds +0.4

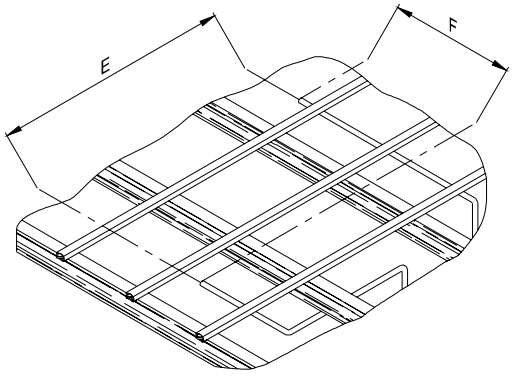
Anode
The correct anode type for the water supply being used must be fitted in the water heater. The unit comes standard with a Magnesium Anode that is suitable for water supplies with a Total Dissolved Solids of 40-600mg/l.

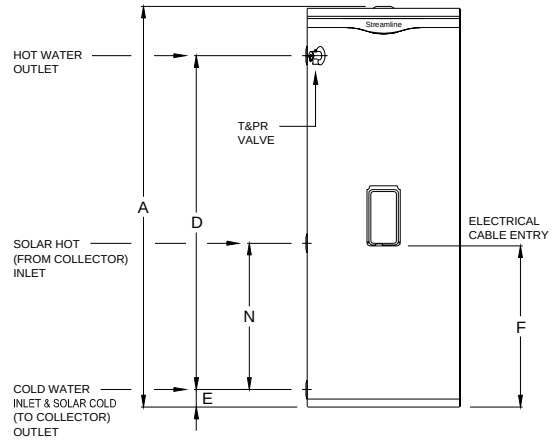


Pipework To Solar Collectors

	E	F
1 Collector	1240	1880
2 Collectors	2360	1880
3 Collectors	3480	1880
4 Collectors	4600	1800

Pipework to Solar Collectors





Dimensions (mm)	A	B	C	D	E	F	H	J	N
270 SFV	1390	650	685	1117	74	557	32°	88°	499
340 SFV	1700	650	685	1417	74	684	32°	88°	621
430 SFV	1875	690	720	1559	80	573	30°	83°	457

Issue Date: January 2004

STREAMLINE ELECTRIC BOOSTED
OPEN CIRCUIT PUMP SYSTEM

NOT SUITABLE FOR HEAVY FROST OR HARSH WATER REGIONS. This system is suitable for *multiple installations.*

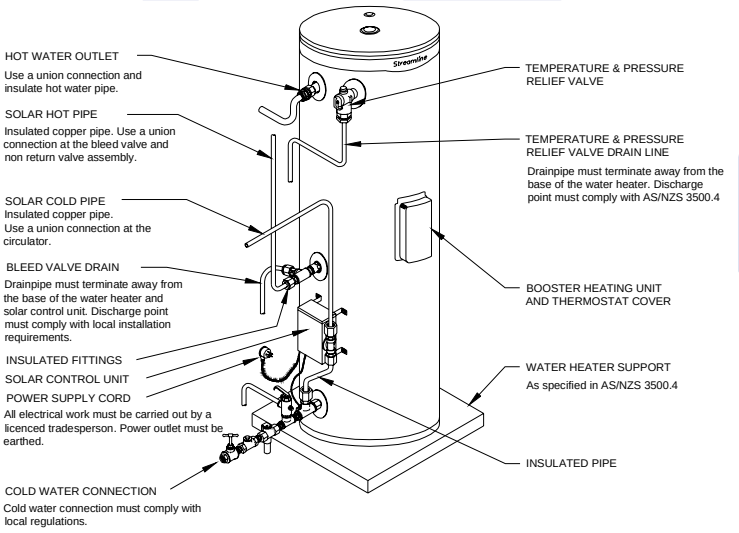
Flat Roof Installation: for flat roof installations use the Variable Pitch Frame, where the inclination can be set to 15°, 20°, 25°. Refer to Mounting Frames section for more details on Variable Pitch Frames.

Cyclone, Hurricane or Typhoon Prone Areas: refer to Mounting Frames sectionfor more details on Cyclone rated frames.

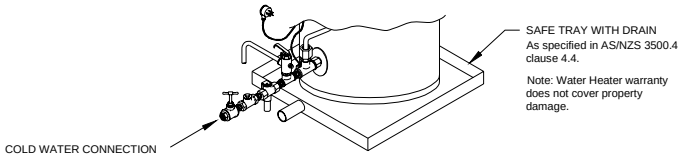
Inclination: for self cleaning of glass, a minimum angle of 10° is recommended.

Shading: the collectors should be free from shading.

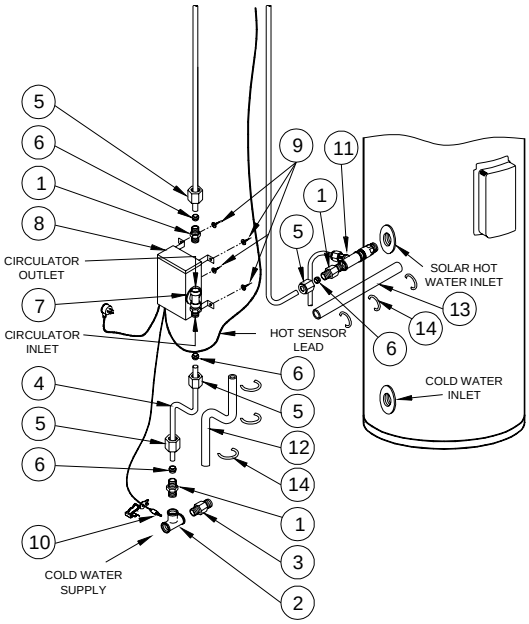
Clearance: the collectors should be free from any obstructions on all sides for a minimum distance of 500mm.



OUTDOOR LOCATIONS



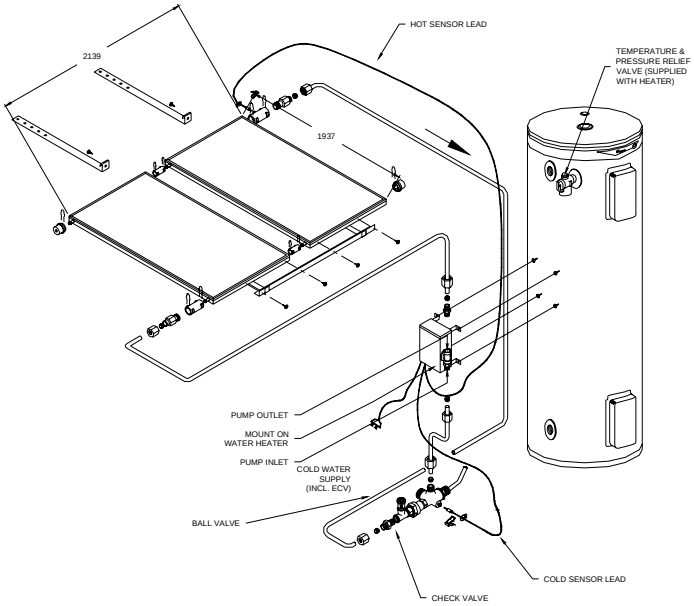
INDOOR LOCATIONS



Orientation Chart & Guide: Refer to Section 2-9 for details on orientation of the Solahart systems. Generally it is recommended that the system faces the equator, at an angle equal to the local latitude.

Supplied in Solar Control Unit Kit

1. Nipple BSP1/2" x G1/2"
2. 4-way tee
3. Nipple BSP1/2" x 3/4"
4. Performed pipe DN15
5. Compression nut
6. Olive
7. Circulator
8. Solar control unit
9. Screws
10. Cold sensor probe
11. Air bleed valve and non return valve assembly
12. Insulation 280mm x 12mm
13. Insulation 150mm x 35mm
14. Cable tie



STREAMLINE GAS BOOSTED

Open Circuit Pump System

NOT SUITABLE FOR HEAVY FROST OR HARSH WATER REGIONS. This system is suitable for *multiple installations*.

Gas Inlet Pressure	
Natural Gas	1.13 kPa
Propane Gas	2.75 kPa
Butane Gas	2.75 kPa

Hot Water Recovery Using Booster				
		Temperature Rise		
		30C *litres*	40C *litres*	50C *litres*
GAS	Natural	166	124	99

Model		SFV 262 Tank	SFV 262 System
Number of Collectors			2
Storage Capacity	litres	260	
	US Gal	69	
Boost Recovery	litres	124	
40C Rise	US Gal	33	
Weight - Empty	kg	125	189
	lbs	276	417
Depth	metres	0.68	
	inches	26.8	
Height	metres	1.64	
	inches	64.56	
Width	metres	0.59	
	inches	23.23	
Working Pressure	kPa	1000	
	psi	145	

Flat Roof Installation: for flat roof installations use the Variable Pitch Frame, where the inclination can be set to 15°, 20°, 25°. Refer to Mounting Frames section for more details on Variable Pitch Frames.

Cyclone, Hurricane or Typhoon Prone Areas: refer to Mounting Frames sectionfor more details on Cyclone rated frames.

Inclination: for self cleaning of glass, a minimum angle of 10° is recommended.

Shading: the collectors should be free from shading.
Clearance: the collectors should be free from any obstructions on all sides for a minimum distance of 500mm.

Water Connection Specification

Potable Water Connections	Suitable for Mains Pressure	
Expansion Control Valve (not supplied)	850	kPa
Maximum Mains Supply Pressure:		
With Expansion Control Valve	680	kPa
Without Expansion ControlValve	800	kPa
Temperature Pressure Relief Valve (supplied)	1000	kPa
	99C	
Water Connections	Hot & Cold	RP3/4/20

Temperature Pressure Relief Valve
This valve is set to relieve at 1,000 kPa and/or when the water temperature reaches 99C. It is supplied with the system and must be fitted or the warranty will be void.

Expansion ControlValve
This valve is not supplied with the Hot Water system. It is a legal requirement in some areas that a Expansion Control Valve is fitted, so please consult your local plumbing code. It is a condition of the warranty that a Expansion Control Valve is fitted as standard where the water saturation index exceeds +0.4

Anode
The correct anode type for the water supply being used must be fitted in the water heater. The unit comes standard with a Magnesium Anode that is suitable for water supplies with a Total Dissolved Solids of 40-600mg/l.

Orientation Chart & Guide: Refer to Section 2-9 for details on orientation of the Solahart systems. Generally it is recommended that the system faces the equator, at an angle equal to the local latitude.

'F' Collector

Aperture (heating) Area	1.86	m^2
Length	1934	mm
Width	1019	mm
Height	63	mm
Absorber Surface	Chrome Black	
Absorber Material	Copper	
Riser Material	Copper	
Type of Riser	Sequential Tapered Riser	
Number of Risers	6	
Capacity	3.0	litres
Weight (full)	37	kg
Weight (empty)	34	kg
Working Pressure	1000	kPa
Tray Material	0.4mm AZ200 Zincalume	
Tray Insulation	25mm polyester blanket	
Collector Glass	3.2mm Tempered Glass Low Iron	

STREAMLINE GAS BOOSTED
OPEN CIRCUIT PUMP SYSTEM

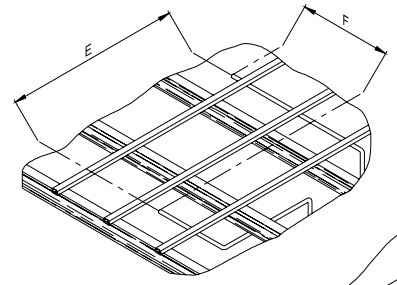
NOT SUITABLE FOR HEAVY FROST OR HARSH WATER REGIONS. This system is suitable for *multiple installations.*

Pipework To Solar Collectors		
	E	F
1 Collector	1240	1880
2 Collectors	2360	1880
3 Collectors	3480	1880
4 Collectors	4600	1800

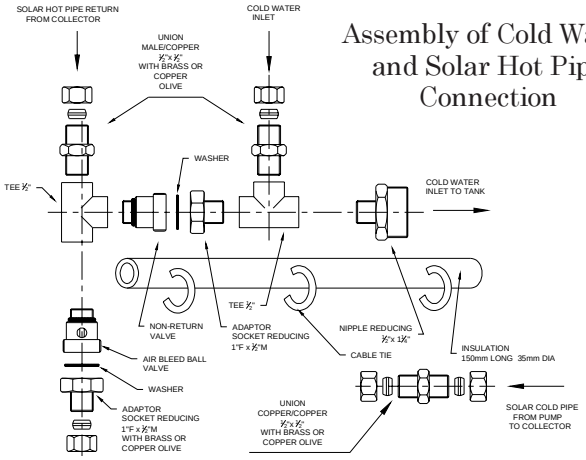
Maximum recommended pipe length and number of 90° bends*						
Pipe Size	1 or 2 Collectors		3 Collectors		4 Collectors	
	Pipe Length	*90° Bends*	*Pipe Length*	*90° Bends*	*Pipe Length*	*90° Bends*
DN15	40 metres	20	30 metres	20	NA	NA
DN18	60 metres	20	*40 metres*	*20*	32 metres	20

* For each additional 90° bend, reduce the maximum total pipe length by 0.5 metres.
* For each additional metre of pipe length, reduce the number of 90° bends by two.
* Pipework MUST be of copper. Plastic pipe MUST NOT be used
* Pipework must be insulated with Bradflex insulation or similar. (minimum thickness 10mm)
* Insulation must be weatherproof if exposed, and must be fitted upto the connections on the storage tank
* There must be a continuous fall in the pipework from the collectors to the storage tank.

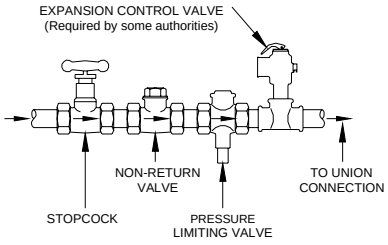
Pipework to Solar Collectors



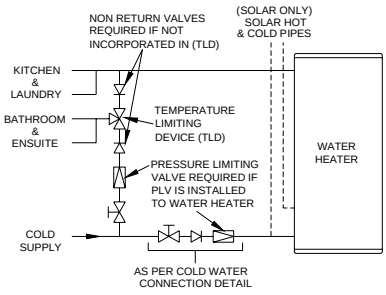
Assembly of Cold Water and Solar Hot Pipe Connection

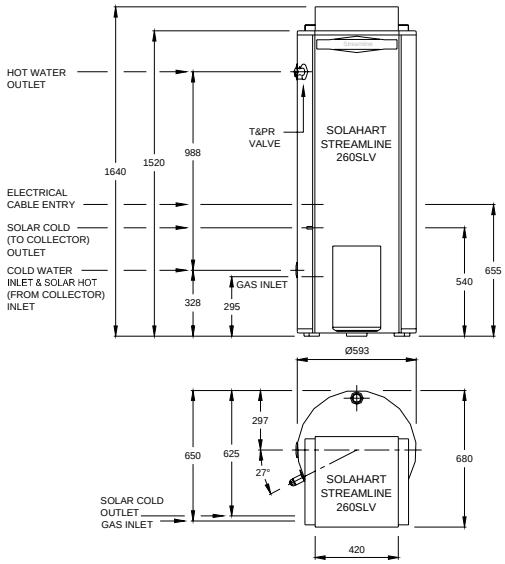


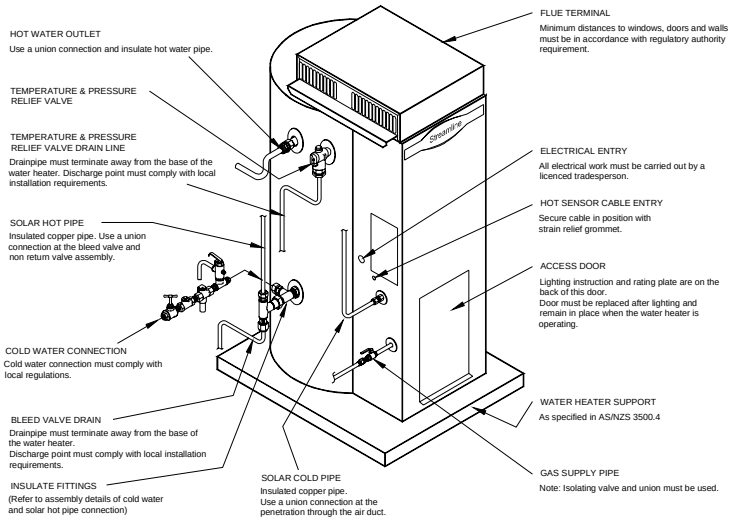
Cold Water Connection Detail



Two Temperature Zones Using Tempering Valves







POWERPAK 10KW

Closed Circuit Pump System

This system is suitable for *multiple installations*.

Temperature Differential Control		
	Preset	Optional
Cut in (Dt)	5°C	10°C
Cut out (Dt)	2°C	5°C

Power Supply 220-250 Volts AC, 10 AMP			
Circulating Pumps			
Primary or Closed Circuit		Secondary or Potable Circuit	
Main Body	Cast Iron	Main Body	Bronze
Flow Rate (Nominal)	5.5 l/min	Flow Rate (Nominal)	9.0 l/min

'M' Collector			
Aperture (heating) Area		1.86	m²
Length		1940	mm
Width		1020	mm
Height		77	mm
Absorber Surface	Chrome Black		
Absorber Material	Copper		
Riser Material	Copper		
Number of Risers	7		
Capacity		3.0	litres
Weight (full)		34.5	kg
Weight (empty)		31.5	kg
Working Pressure		1000	kPa
Tray Material	0.7mm Aluminium - Marine Grade		
Tray Insulation	40mm polyester blanket		
Collector Glass	3.2mm Tempered Glass Low Iron		

Drain Back Vessel			
Weight (full)		77	kg
Weight (empty)		27	kg
Working Pressure:			
Closed Circuit	80		kPa
Potable Circuit	1,000		kPa
Cylinder Material		2.5mm	Steel
Insulation	Polyurethane Pressure Injected Zero CFC		
Outer Case	0.45mm Colorbond		
Top Cover	ABS Plastic Black		

Flat Roof Installation: for flat roof installations use the Variable Pitch Frame, where the inclination can be set to 15°, 20°, 25°. Refer to section 13-5 to 13-6 for more details on Variable Pitch Frames.
Cyclone, Hurricane or Typhoon Prone Areas: refer to Section 13-7 to 13-10 for more details on Cyclone rated frames.
Inclination: for self cleaning of glass, a minimum angle of 10° is recommended.
Shading: the collectors should be free from shading.
Clearance: the collectors should be free from any obstructions on all sides for a minimum distance of 500mm.

Orientation Chart & Guide: Refer to System Selection Section for details on orientation of the Solahart systems. Generally it is recommended that the panels face the equator, at an angle equal to the local latitude. In the Northern hemisphere, the panels should face South and in the Southern hemisphere, the system should face North. For Example in the Southern Hemisphere

1. If the roof is facing between 45° East or 45° West install the panels on the pitch of the roof.

2. If the roof is facing between 45° and 135°, install the panels on a Fixed Pitch Frame on a side pitch.

3. If the roof is facing between 135° and 122°, install the panels on a Fixed Pitch Frame on a reverse pitch.

4. If the roof is facing between 225° and 270°, it is preferable to add an extra collector instead of installing on a Fixed Pitch Frame on a side pitch.

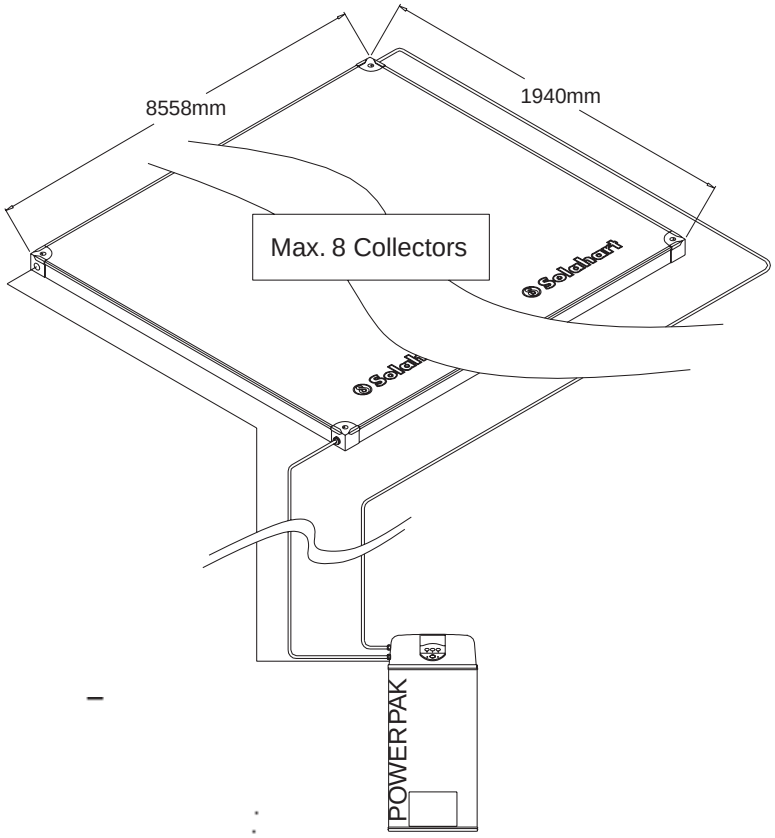
56. If the roof is facing between 270° and 315°, install the panels on a Fixed Pitch Frame on a side pitch.

Issue Date: January 2004

POWERPAK 10KW

Closed Circuit Pump System

This system is suitable for *multiple installations*.



Total Weight on Roof (kg)		
	5 Collectors	8 Collectors
Full	219	351
Empty	200	320

Dimensions (mm)	A	B	C
10KW	1053	931	982