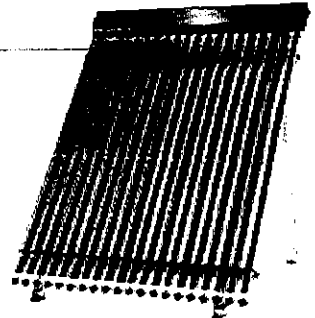


Solar thermal domestic hot water system

For more than 150 years, Baxi has been at the forefront of heating technology – a renowned and respected brand, which has consistently led the way with new and pioneering heating solutions.

Global warming affects all of us. As a responsive and responsible manufacturer, we at Baxi are constantly looking at how to reduce the carbon dioxide (CO<sub>2</sub>) emissions created by the heating products we manufacture. That's where the Baxi Solarflo™ range comes in. Baxi Solarflo™ is the result of many years' research and development by Baxi into environmentally friendly solar thermal domestic hot water systems and heating. It uses the free power of the sun to heat solar collectors, turning this renewable energy source into heat, to create hot water for the home. It's simple, effective and entirely renewable – which is good for the environment, and good for future generations.

NYMIPA  
- 8 MAR 2011



NYM / 2011 / 0113 / P

Everywhere we look we are being urged to consider energy efficient options for our homes. As customers become more 'green' and governments encourage the use of renewable energy sources, solar energy is becoming more popular and the demand for it is increasing. As one of the leading names in the world of heating technology, we have been researching and developing environmentally sound alternatives for many years and the Baxi Solarflo™ system incorporates our latest innovations.

### Solar energy in the UK

The Sun has been heating our bodies and drying our clothes for thousands of years but here in the UK we have not been using its potential to provide us with hot water. This begs the question would solar power work here? The fact is solar power is greater than most people imagine with enough energy hitting the earth in one minute to meet our demands for a whole year – if only we could harness it properly. The technology in a Baxi Solarflo™ system can utilise enough solar power to effectively heat 100% of a family's hot water in the summer and an average of around 55% of it annually making the investment into solar hot water systems worthwhile.

## Why use Solar?

### Savings for customers mean opportunities for installers

Real savings can be made over the medium to long term when homeowners switch to renewable energy sources. As the world's supply of gas diminishes, we must use this resource more efficiently and find other ways of meeting our hot water requirements. A Baxi Solarflo™ system gives customers a sustainable energy source which is free and natural, so it's becoming an attractive addition for customers and developers with an eye on the future. Thanks to the superb design and the training we offer, Baxi Solarflo™ systems are also easy for installers to fit.

Solar thermal water heating devices make use of free energy from the most abundant source we have – the Sun.

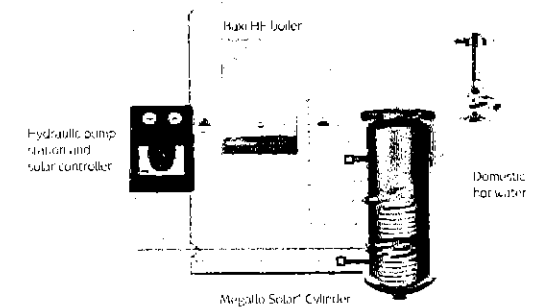
Flat plate collector panels or evacuated tubes, either fitted onto existing roofs or built into the roof structure of new build properties, absorb energy from the Sun and heat water in a specially designed water storage cylinder such as the Megaflo Solar® or the Megalife Solar® from Heatrae Sadia.

In the summer, this system can supply up to 100% of a home's hot water and even on dull days some hot water can be produced. Over the year, a well designed solar package provides approximately 55% of the annual domestic hot water demand, and can substantially reduce carbon emissions.

NYMNP  
- 8 MAR 2011

### How does it work?

The collector panels work by transferring heat into fluid that is circulated to a solar coil in the base of the hot water storage cylinder. Here, the heat is transferred into the stored domestic hot water. The cooled fluid is then circulated back to the solar collectors to be re-heated, and the cycle is repeated.



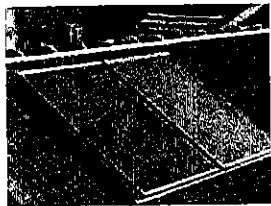
NYMNP / 2011 / 0113781

## Baxi Solarfio™ key features & benefits:

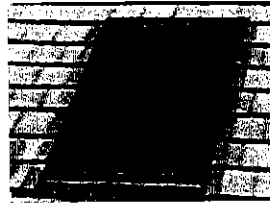
- On-roof, in-roof and flat roof solar collector panel packages available (1, 2 or 3 panels)
- Evacuated tube packages also available (20 or 50 tubes)
- Provides approximately 55% of a home's annual domestic hot water needs
- Substantially reduces CO<sub>2</sub> emissions
- The package consists of solar collector panel(s), a hydraulic pump station, controller and all the components required for safe operation
- Compatible with Heatrae Sadia's Megaflo solar range of cylinders
- National technical support and after-sales service from a single source
- Re-heat sensor provided as standard for auxiliary heating control
- Solar controller complete with built in energy monitor to provide energy saved by the system
- Control of boiler hot water schedule to maximise solar efficiency
- Compatible with majority of existing UK heating systems
- Industry leading warranties\*
- SAP compliant\*\*

\* See www.baxi.co.uk for details of the Baxi Solarfio warranty conditions

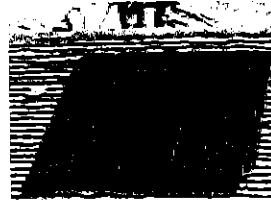
NYMNP A  
 - 8 MAR 2011



ON ROOF



IN-ROOF



EVACUATED TUBES

Introducing a complete range of panel options to meet individual needs, tastes and requirements. Baxi solar panels are high quality. They carry the Solar Keymark certification and are suitable for a range of different installations including on-roof, in-roof or flat roof applications to effectively and efficiently harness natural energy from the Sun.

### On-roof Solar Flat Plate Collector

This collector is mounted above the slate/tile roof and is ideal for homeowners who wish to install solar thermal domestic hot water to an existing building without having to disturb too much of the roof structure.

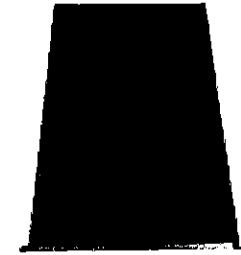
An A-frame option is also available for flat roof applications

#### Features

- Flat plate aluminium frame collector
- Solar Keymark certified
- 10 year warranty\*
- Gross collector area 2.02m<sup>2</sup>
- Absorber efficiency 95%
- Low lift weight of 36kg
- Ultrasonic welded to withstand high temperatures

#### Performance

	Aperture Area
Area	1.922m <sup>2</sup>
Zero loss co-efficient $\eta_0$	0.735
Heat loss co-efficient $U_{a1}$	3.606W/m <sup>2</sup> K
Heat loss co-efficient $U_{a2}$	0.012W/m <sup>2</sup> K



#### Technical Data

Height	1730mm
Width	1170mm
Depth	83mm
Weight	35kg
Maximum pressure	10bar
Shutdown temperature	234°C

### In-roof Solar Flat Plate Collector

The in-roof flat plate collectors are installed within the roof structure and are the perfect choice for all new build developments and homeowners who are having major roof refurbishments completed.

#### Features

- Flat plate wooden frame collector
- Solar Keymark certified
- 10 year warranty\*
- Gross collector area 2.5m<sup>2</sup>
- Absorber efficiency 95%
- Lift weight of 54kg
- Ultrasonic welded so is suitable for high temperatures

#### Performance

	Aperture Area
Area	2.52m <sup>2</sup>
Zero loss co-efficient $\eta_0$	0.78
Heat loss co-efficient $U_{a1}$	3.706W/m <sup>2</sup> K
Heat loss co-efficient $U_{a2}$	0.015W/m <sup>2</sup> K



#### Technical Data

Height	2058mm
Width	1227mm
Depth	105mm
Weight	49kg
Maximum pressure	10bar
Shutdown temperature	234°C

NYM / 2011 / 0113 / P1

\* See www.baxi.co.uk for details of the Baxi Solarfio warranty conditions

In offering a complete range of panel options to meet individual needs, tastes and requirements, Baxi solar panels are high quality. They carry the Solar Keymark certification and are suitable for a range of different installations including on-roof, in-roof or flat roof applications to effectively and efficiently harness natural energy from the Sun.

### On-roof Solar Flat Plate Collector

This collector is mounted above the slate/tile roof and is ideal for homeowners who wish to install solar thermal domestic hot water to an existing building without having to disturb too much of the roof structure.

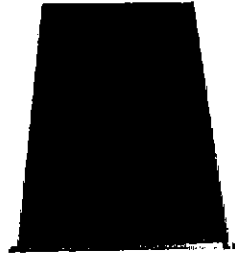
An A frame option is also available for flat roof applications.

#### Features

- Flat plate aluminium frame collector
- Solar Keymark certified
- 10 year warranty\*
- Gross collector area 2.02m<sup>2</sup>
- Absorber efficiency 95%
- Low tilt weight of 39kg
- Ultracreme seals to withstand high temperatures

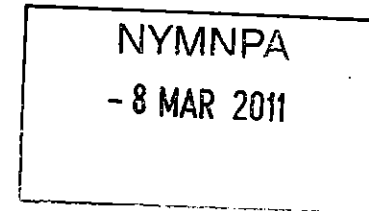
#### Technical Data

	Aperture Area
Area	1.902m <sup>2</sup>
Zero loss coefficient $U_0$	0.772
Heat loss coefficient $U_1$	3.606W/m <sup>2</sup> K
Heat loss coefficient $U_2$	0.012W/m <sup>2</sup> K



#### Technical Data

Height	1730mm
Width	1170mm
Depth	83mm
Weight	39kg
Maximum pressure	10bar
Shutdown temperature	234°C



### In-roof Solar Flat Plate Collector

The in-roof flat plate collectors are installed within the roof structure and are the perfect choice for all new build developments and homeowners who are having major roof refurbishments completed.

#### Features

- Flat plate wooden frame collector
- Solar Keymark certified
- 10 year warranty\*
- Gross collector area 2.5m<sup>2</sup>
- Absorber efficiency 95%
- Full weight of 64kg
- Ultrasonic welded seals suitable for high temperatures

#### Technical Data

	Aperture Area
Area	2.52m <sup>2</sup>
Zero loss coefficient $U_0$	0.78
Heat loss coefficient $U_1$	3.790W/m <sup>2</sup> K
Heat loss coefficient $U_2$	0.016W/m <sup>2</sup> K



#### Technical Data

Height	2058mm
Width	1227mm
Depth	105mm
Weight	64kg
Maximum pressure	10bar
Shutdown temperature	234°C

## Box Solar Panels

Introducing a complete range of panel options to meet individual needs, tastes and requirements. Box solar panels are high quality. They carry the Solar Keymark certification and are suitable for a range of different installations including on-roof, in-roof or flat roof applications to effectively and efficiently harness natural energy from the Sun.

### On-roof Solar Flat Plate Collector

This collector is mounted above the slate/tile roof and is ideal for homeowners who wish to install solar thermal domestic hot water to an existing building without having to disturb too much of the roof structure.

An A-frame option is also available for flat roof applications.

#### Features:

- Flat plate aluminium frame collector
- Solar Keymark certified
- 10 year warranty\*
- Gross collector area 2.02m<sup>2</sup>
- Absorber efficiency 95%
- Low lift weight of 55kg
- Ultrasonic welded to withstand high temperatures

#### Performance:

	Aperture Area	
Area	1.922m <sup>2</sup>	
Zero loss coefficient	$\alpha_0$	0.755
Heat loss coefficient	$\alpha_1$	3.606W/m <sup>2</sup> K
Heat loss coefficient	$\alpha_2$	0.012W/m <sup>2</sup> K



#### Technical Data

Height	1750mm
Width	1170mm
Depth	83mm
Weight	55kg
Maximum pressure	10bar
Shutdown temperature	234°C

### In-roof Solar Flat Plate Collector

The in-roof flat plate collectors are installed within the roof structure and are the perfect choice for all new build developments and homeowners who are having major roof refurbishments completed.

#### Features:

- Flat plate wooden frame collector
- Solar Keymark certified
- 10 year warranty\*
- Gross collector area 2.5m<sup>2</sup>
- Absorber efficiency 95%
- Lift weight of 54kg
- Ultrasonic welded so is suitable for high temperatures

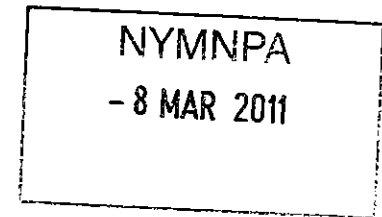
#### Performance:

	Aperture Area	
Area	2.52m <sup>2</sup>	
Zero loss coefficient	$\alpha_0$	0.78
Heat loss coefficient	$\alpha_1$	4.796W/m <sup>2</sup> K
Heat loss coefficient	$\alpha_2$	0.012W/m <sup>2</sup> K



#### Technical Data

Height	2058mm
Width	1227mm
Depth	105mm
Weight	49kg
Maximum pressure	10Bar
Shutdown temperature	234°C



Introducing a complete range of panel options to meet individual needs, tastes and requirements. Best solar panels are high quality. They carry the Solar Keymark certification and are suitable for a range of different installations including on-roof, in-roof or flat-roof applications to effectively and efficiently harness natural energy from the Sun.

### On-roof Solar Flat Plate Collector

This collector is mounted above the slate tile roof and is ideal for homeowners who wish to install solar thermal domestic hot water to an existing building without having to disturb too much of the roof structure.

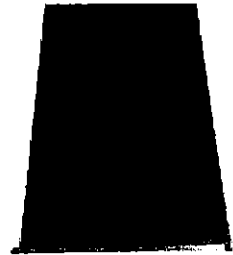
An A-frame option is also available for flat roof applications.

#### Features:

- Flat plate aluminium frame collector
- Solar Keymark certified
- 10 year warranty\*
- Gross collector area 2.02m<sup>2</sup>
- Absorber efficiency 95%
- Low lift weight of 55kg
- Ultrasonic welded to withstand high temperatures

#### Performance:

	Aperture Area
Area	2.02m <sup>2</sup>
Zero loss coefficient (U0)	0.773
Heat loss coefficient (U1)	5.600W/m <sup>2</sup> K
Heat loss coefficient (U2)	0.012W/m <sup>2</sup> K



#### Technical Data

Height	1750mm
Width	1170mm
Depth	88mm
Weight	55kg
Maximum pressure	10bar
Shutdown temperature	234°C

### In-roof Solar Flat Plate Collector

The in-roof flat plate collectors are installed within the roof structure and are the perfect choice for all new build developments and homeowners who are having major roof refurbishments completed.

#### Features:

- Flat plate wooden frame collector
- Solar Keymark certified
- 10 year warranty\*
- Gross collector area 2.6m<sup>2</sup>
- Absorber efficiency 95%
- Lift weight of 54kg
- Ultrasonic welded so is suitable for high temperatures

#### Performance:

	Aperture Area
Area	2.62m <sup>2</sup>
Zero loss coefficient (U0)	0.78
Heat loss coefficient (U1)	4.790W/m <sup>2</sup> K
Heat loss coefficient (U2)	0.014W/m <sup>2</sup> K



#### Technical Data

Height	2058mm
Width	1277mm
Depth	105mm
Weight	49kg
Maximum pressure	10bar
Shutdown temperature	234°C

NYMNP  
- 8 MAR 2011

NYM / 2011 / 0113 / PL

introducing a complete range of panel options to meet individual needs, tastes and requirements. Buro solar panels are high quality. They carry the Solar Keymark certification and are suitable for a range of different installations including on-roof, in-roof or flat-roof applications to effectively and efficiently harness natural energy from the Sun.

### On-roof Solar Flat Plate Collector

This collector is mounted above the slate tile roof and is ideal for homeowners who wish to install solar thermal domestic hot water to an existing building without having to disturb too much of the roof structure.

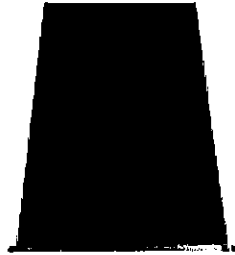
An A-frame option is also available for flat roof applications.

#### Features

- Flat plate aluminium frame collector
- Solar Keymark certified
- 10 year warranty\*
- Gross collector area 2.02m<sup>2</sup>
- Absorber efficiency 95%
- Low U weight of 55kg
- Ultra-sonic welded so withstands high temperatures

#### Performance

	Aperture Area
Area	2.022m <sup>2</sup>
Zero loss coefficient (n0)	0.155
Heat loss coefficient (U1)	5.600W/m <sup>2</sup> K
Heat loss coefficient (U2)	0.012W/m <sup>2</sup> K



#### Technical Data

Height	1750mm
Width	1170mm
Depth	83mm
Weight	55kg
Maximum pressure	10bar
Shutdown temperature	254°C

### In-roof Solar Flat Plate Collector

The in-roof flat plate collectors are installed within the roof structure and are the perfect choice for all new build developments and homeowners who are having major roof refurbishments completed.

#### Features

- Flat plate wooden frame collector
- Solar Keymark certified
- 10 year warranty\*
- Gross collector area 2.54m<sup>2</sup>
- Absorber efficiency 95%
- Low weight of 49kg
- Ultra-sonic welded so is suitable for high temperatures

#### Performance

	Aperture Area
Area	2.542m <sup>2</sup>
Zero loss coefficient (n0)	0.78
Heat loss coefficient (U1)	5.790W/m <sup>2</sup> K
Heat loss coefficient (U2)	0.014W/m <sup>2</sup> K



#### Technical Data

Height	2055mm
Width	1227mm
Depth	105mm
Weight	49kg
Maximum pressure	10bar
Shutdown temperature	244°C

NYMNP

- 8 MAR 2011

NYM / 2011 / 0113 / PA

## On-roof Evacuated Tube Collector

The Baxi evacuated tubes package is ideal for installation on new build developments and existing buildings. The collector is for on-roof application with the manifold and tubes sitting on top of the roof tiles/slate. The system is adaptable with both horizontal and vertical installations making it suitable for flat roof and lagged applications. An A frame option is also available for flat roof applications.

### Includes:

- Gross absorber area 2m<sup>2</sup> & 3m<sup>2</sup>
- On roof 20 or 50 tube sets
- Solar keymark certified
- 10 year warranty\*
- Copper absorber resistant to thermal shocks
- Seasonal collectors reduced lift weight
- Tool-free collector connection
- Combined tile, thin tile and slate roof mounting brackets sets as standard

### Technical Data

Tube Size	20	30	50
Height	1996mm	1996mm	1996mm
Width	709mm	1418mm	2127mm
Depth	97mm	97mm	97mm
Weight	25kg	55kg	81kg
Maximum pressure	8bar	8bar	8bar
Shutdown temperature	286°C	286°C	286°C

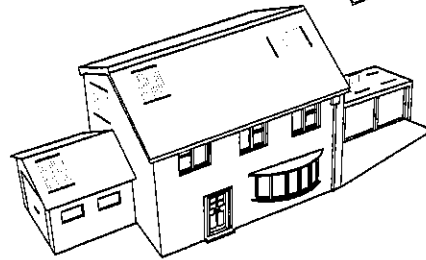
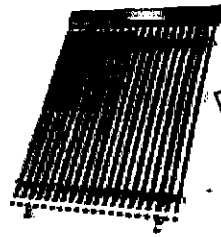
### Performance

Tube Size	Aperture Area
Area	1.07m <sup>2</sup>
Zero loss coefficient	$\alpha_0$ 0.781
Heat loss coefficient	$\alpha_1$ 1.44W/m <sup>2</sup> K
Heat loss coefficient	$\alpha_2$ 0.0062W/m <sup>2</sup> K

### On-roof Flat

Tube Size	Aperture Area
Area	5.23m <sup>2</sup>
Zero loss coefficient	$\alpha_0$ 0.779
Heat loss coefficient	$\alpha_1$ 1.04W/m <sup>2</sup> K
Heat loss coefficient	$\alpha_2$ 0.0176W/m <sup>2</sup> K

\*10 year warranty on collector tubes only. See page 14 for details.



NYM/PA  
- 8 MAR 2011

Baxi provides complete solar packages which enable the installer to easily fit the whole system. Additional solar accessories can be easily obtained to support Baxi solar packages (refer to the accessories section on page 14 for further details). All the components are covered by a 2 year parts and labour warranty subject to registration and an annual service.

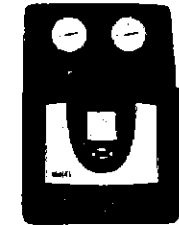
To complete the system, add a Heatrae Sadia solar cylinder (refer to pages 15 and 16 for further details).

## Solar Hydraulic Pump Station

The pump station is compact and incorporates all hydraulic functions in a neat package to ensure thermal safety.

### Features:

- Solar pump
- Service isolation valves fitted as standard
- Large, easy to read temperature gauges fitted as standard
- Optional relay to control immersion heater back up
- Fully insulated
- Fill and drain points
- Air separator
- Auxiliary heating re-heat sensor



### Technical Data

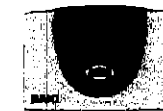
Height	575mm
Width	250mm
Depth	190mm
Max continuous working temperature	120°C
Max short term starting temperature	120°C
Pressure relief valve setting	6bar
Check valve operating pressure	20mbar

## Solar Controller

The solar controller has a pictorial display making it easy to operate. It can control up to two collector fields (e.g. East/West array).

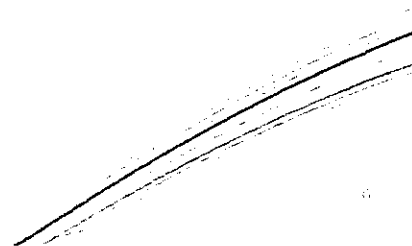
### Features:

- Simple menu driven programming
- Adjustable temperature differential regulation
- Battery back up stores set values
- Fitted into pump station as standard to simplify installation
- Can be easily removed and remotely fitted elsewhere in the home
- Supplied with temperature sensors for solar control solar gain and auxiliary re-heat
- Large clear multi-function LCD display
- Ability to control auxiliary heat source
- Advanced control functions
- System status and fault finding
- Can control up to two collector fields (e.g. East/West array)
- Can control up to two solar cylinders



### Technical Data

Height	134mm
Width	175mm
Depth	56mm
Fault display functions	Yes
Auxiliary heat control	Yes
Solar gain measurement	Yes



NYM / 2011 / 0113 / P1

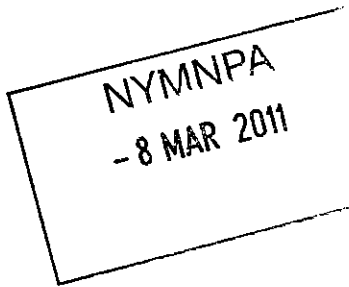


**Primary System Fluid**

- 20 litres supplied as standard with each package (pre-mixed water/glycol solution protects to -21°C)
  - Tyfocor Type L supplied with panel collector
  - Tyfocor Type LS supplied with evacuated tube collector kits
- Note: These two products **MUST NOT** be mixed into one system  
Tyfocor L is not suitable for evacuated tubes

**Expansion Vessel**

- 24 litre expansion vessel
- Special high temperature membrane
- Mounting bracket and flexible hose with self-sealing shut off valve



Evacuated tube mounting brackets shown above

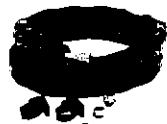
**Mounting Brackets (A frame for a roof application)**

To ensure ease of installation we provide the mounting brackets, which have been specifically developed for all types of roofing situations and an A frame option for flat roofs



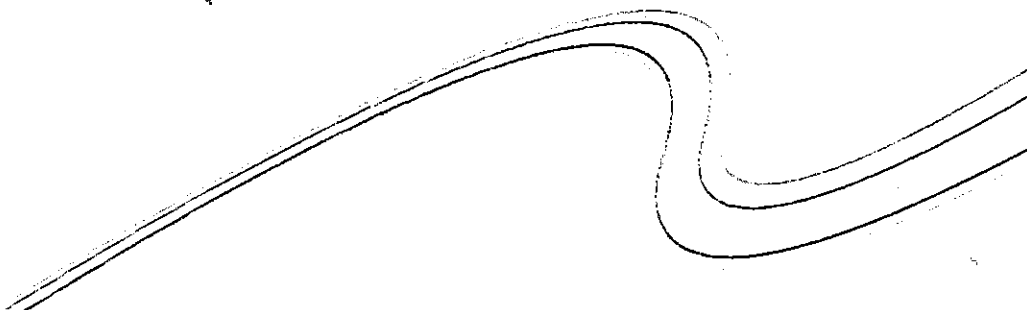
**Flashing Kit (for all roof applications)**

A bespoke flashing kit for either slate or tile roofs, giving a neat finish to the installation and ensuring the roof remains watertight.



**2m Flexible Pipe Kit**

Whether your install is on-roof or in-roof this pipe kit provides easy connection from the collector panels into the roof space.



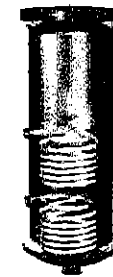
For solar hot water systems, the number of solar panels required is generally dependant on the size of the solar hot water cylinder and the size of the cylinder depends on the size of the house, number of bathrooms and people living in the property.

For guidance on the size of Baxi Solarflo™ package you need, simply take a look at the tables shown.

Water Heating Package

Water Heating Package	1000 Litres	1500 Litres	2000 Litres	2500 Litres	3000 Litres	3500 Litres	4000 Litres	4500 Litres	5000 Litres	5500 Litres	6000 Litres
1000 Litres	1	1	1	20	190	70	21	34	60	100	130
1500 Litres	2	1	1	30	210	90	34	54	63	77	120
2000 Litres	3	2	1	30	250	100	34	56	65	125	145
2500 Litres	4	2	2	30	290	100	34	56	65	125	145
3000 Litres	5	2	2	30	330	100	34	56	65	125	145
3500 Litres	6	2	2	30	370	100	34	56	65	125	145
4000 Litres	7	2	2	30	410	100	34	56	65	125	145
4500 Litres	8	2	2	30	450	100	34	56	65	125	145
5000 Litres	9	2	2	30	490	100	34	56	65	125	145
5500 Litres	10	2	2	30	530	100	34	56	65	125	145
6000 Litres	11	2	2	30	570	100	34	56	65	125	145

All cylinder capacities are given in litres. The maximum capacity may vary depending on the installation and the water pressure in the system.



Megalife Solar® Unvented Cylinder (indirect)



Megalife Solar® Cylinder (indirect)

NYM / 2011 / 01113 / P1

