



# *Free. Hot. Water.*

The new generation of  
design-oriented solar solutions





# Free. Hot. Water.

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**This is the Solpal® vision – and this vision is the future.**

Fossil fuel resources are becoming far more expensive due to rising extraction costs and an overestimation of reserve levels over many years. The unbroken upward trend in commodity prices does not appear to be coming to an end. Furthermore, growing CO<sub>2</sub> emissions are warming up our atmosphere and can cause drastic climate change. This forces us to deal with energy in a responsible way. Greater energy efficiency and the use of renewable energy is becoming an important and economic way to save costs and protects the environment.

Solpal® enables anyone to harness the sun to generate energy effectively. Solpal® offers customers high-quality design-oriented solar solutions at an attractive price. Solpal® is an integrated collector storage system where the water is heated and stored directly within the collector itself, which allows for levels of energy efficiency that are considerably higher than with traditional thermosiphon systems.

All components are perfectly matched and easy to install. Solpal® is OG 300 certified, ensuring compliance with all US standards. Innovative Solpal® technology is becoming the new standard in energy efficiency and quality. Made in Austria.



# The Design.

The modern, timeless design of Solpal® is setting new trends.

## Unique.

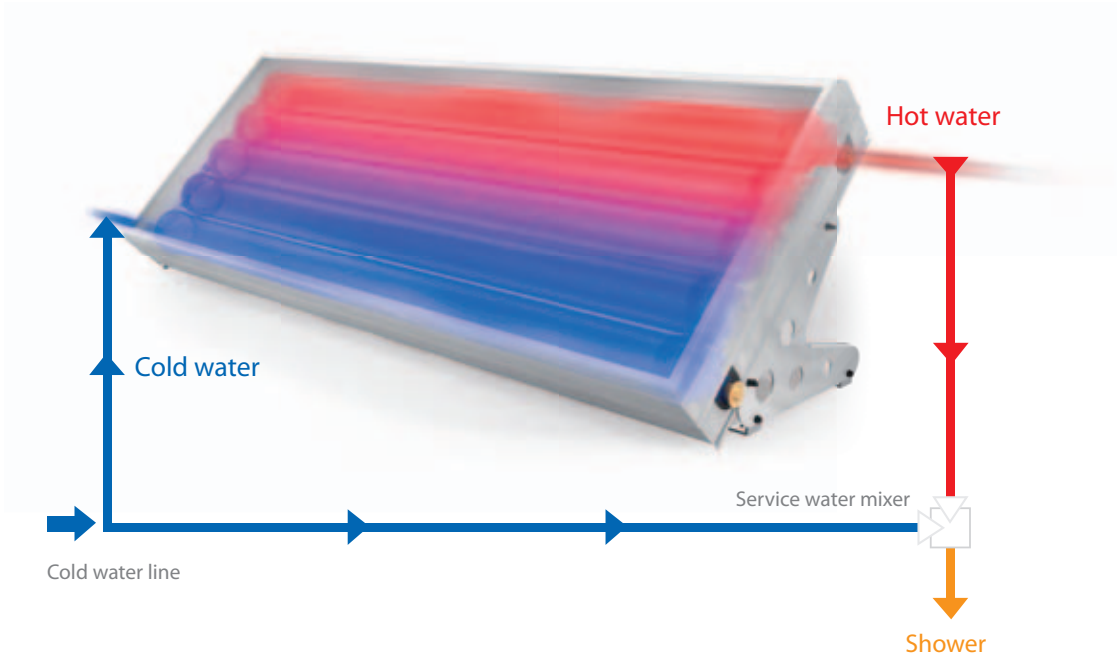
Solpal® features sophisticated designs: form, function and materials come together for a perfectly balanced unit.





# The technical concept.

The method is simple, yet ingenious: The water is heated and stored in the solar collector directly. The fact that the heat transfer medium is also the medium consumed offers two significant advantages: There are no transfer losses between the media and no circulation is required to heat the water. The smallest amount of irradiation can be converted into heat and harnessed effectively. This enables significantly higher energy efficiency and energy cost savings for heating sanitary water of up to 80% compared to traditional systems.



## THE ALL-IN-ONE SYSTEM

- Integrated collector storage system
- Modern design
- Best price
- Save up to 90% on energy costs for sanitary hot water production
- Easy installation (flat-roof/on-roof) with time savings of 50% compared to traditional thermosiphon systems
- Low maintenance
- 10 year limited warranty
- Hot water 365 days a year



# The savings.

The integrated collector storage system Solpal® allows the sun to be harnessed effectively to generate energy and enables a long-term reduction in energy costs. Never before has it been so affordable to use solar energy.

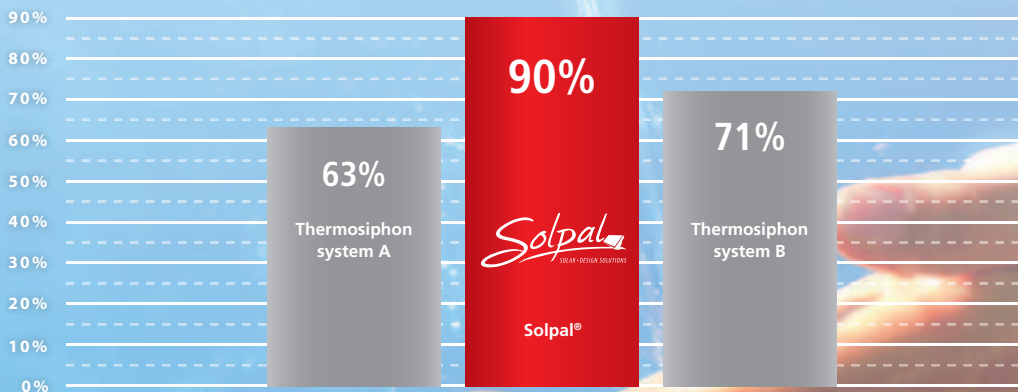
| ASSUMED DATA        |                          |
|---------------------|--------------------------|
| Location            | Los Angeles (California) |
| Inclination angle   | 30°                      |
| Direction           | Southward                |
| Tapping temperature | 104 °F                   |

| CO <sub>2</sub> SAVINGS |
|-------------------------|
| approx. 1,914 lb.       |

| ENERGY COST SAVINGS PER YEAR* |                                |                          |                                      |
|-------------------------------|--------------------------------|--------------------------|--------------------------------------|
| Solpal® model                 | Energy requirements (kWh/year) | Total solar coverage (%) | Total production per year (kWh/year) |
| Solpal® M                     | 1,528.7                        | 93                       | 1,421.7                              |
| Solpal® L                     | 2,054.66                       | 94                       | 1,939.6                              |

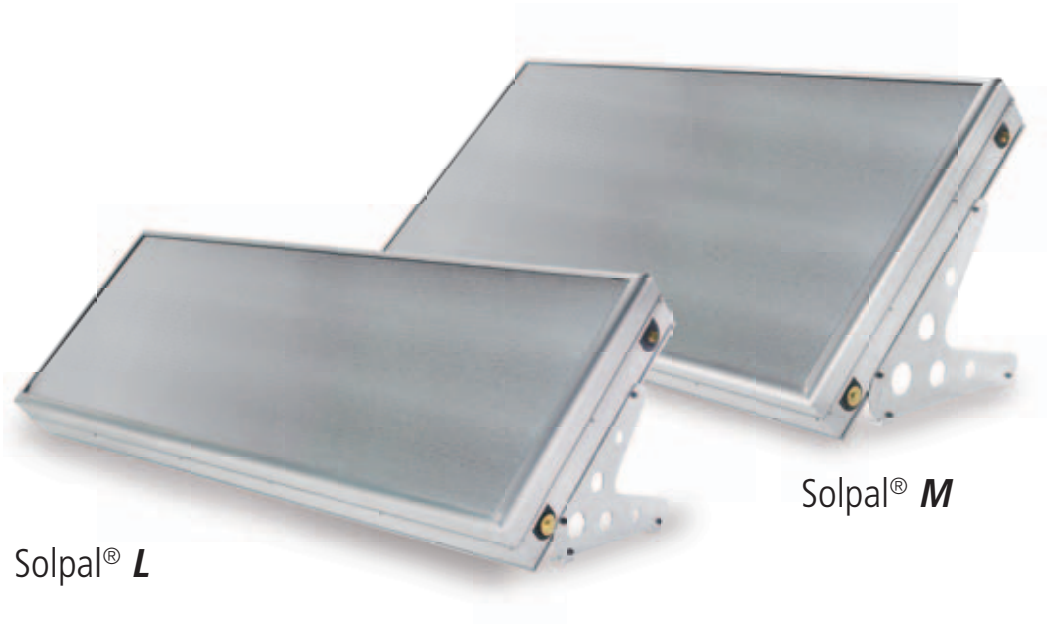
\* Calculation basis for energy cost savings for production of sanitary hot water: Polysun simulation software

## COMPARISON



# The Product.

The revolution in the solar market: The Solpal® integrated collector storage system impresses with its compactness, simplicity, cost-effectiveness and top design.



| Type                                  | Solpal® L              | Solpal® M              |
|---------------------------------------|------------------------|------------------------|
| Total collector area                  | 25.8 sqf               | 18.8 sqf               |
| Dimensions (L x W x H)                | 86.0 x 43.3 x 8.3 in   | 86.0 x 31.5 x 8.3 in   |
| Weight (empty, excl. fixing elements) | 150 lb                 | 120 lb                 |
| Capacity                              | 51.5 gallons           | 38.3 gallons           |
| Insulation                            | 1.18 in PUR foam panel | 1.18 in PUR foam panel |
| Maximum operating temperature         | 212°F                  | 212°F                  |
| Maximum operating pressure            | 4 bar                  | 4 bar                  |
| Connections                           | 2 x ¾" male thread     | 2 x ¾" male thread     |
| Installation                          | Flat/Pitched roof      | Flat/Pitched roof      |
| Warranty                              | 10 years               | 10 years               |



# The Application.

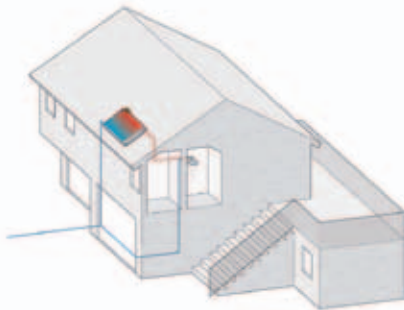
## Versatile.

Solpal® generates hot water the entire year.

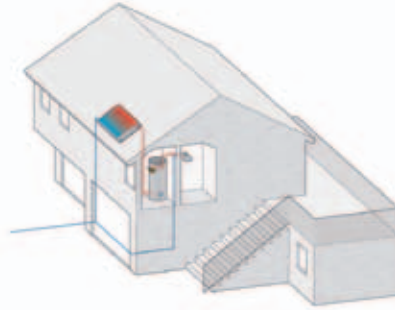
## Applicable.

Solpal® is available in two versions, which differ from each other in their storage capacity: 51.5 gallons or 38.3 gallons.

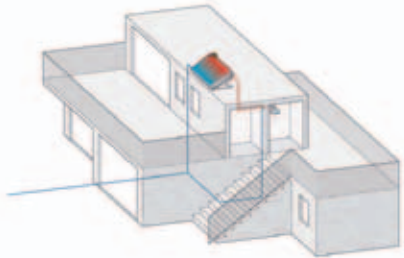
Solpal® offers the right solution for every application:



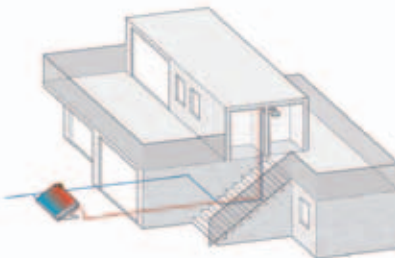
① Standalone with on-roof installation



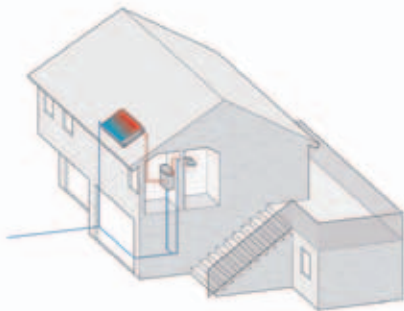
② As a pre-feed system for a boiler



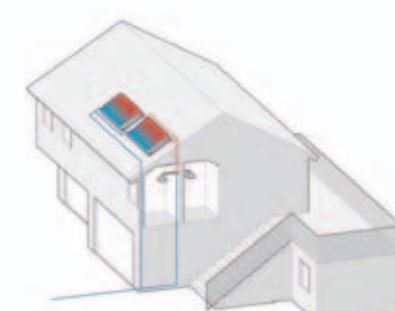
③ Standalone with flat-roof installation



④ Installed in front of the building



⑤ In combination with an external energy source



⑥ Connected in parallel

# Perfection Made in Austria.

As a leading manufacturer in Europe of flat plate collectors and with more than 20 years experience in the development and manufacture of thermal solar systems, KIOTO Clear Energy only supplies trained and authorised partners. This means that as a customer, you are safe in the knowledge that the advice you receive and any installation also meet our high standards.



Further information can be found at [www.solpal.us](http://www.solpal.us)

# Why choose a Solpal® solar system?

The future belongs to solar power: it is and always will be inexhaustible. Saving energy protects resources and the environment, increases energy supply security and saves you money. Solpal® is a perfect mix of top design, high tech and best price.



## Protects the environment. Saves energy costs.

Do something positive for the environment and save up to 1,914 lb. CO<sub>2</sub> each year with solar systems from Solpal®. You'll be making an important contribution to a liveable future and enabling future generations to also enjoy a high quality of life.

Thanks to freely available solar energy, your investment pays for itself within a few years due to the large savings on fossil fuels! When we harness the sun, the earth is delighted - along with all sensibly minded people!





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