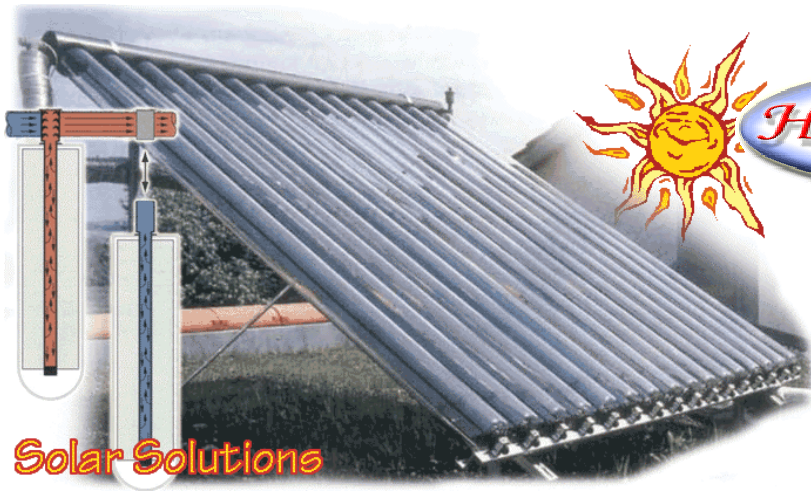


# *Solar Solutions*



Distribution, Design, Installation  
& Service of Leading Quality &  
Highly Specialized HVAC Systems

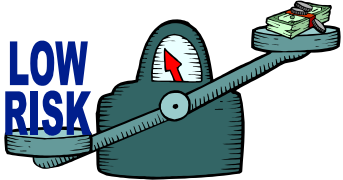
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<http://www.homepatron.com>  
e-mail: homepatron@homepatron.com



*Home Patron, Inc.*

Invest in Solar!  
 THE RETURNS ARE  
*GREAT*  
 AND THE RISK IS  
*LOW!*

*A ffordable!*

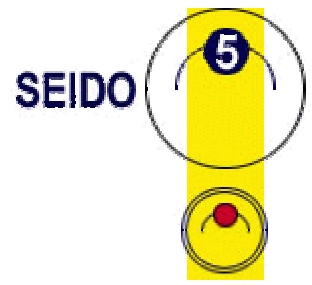
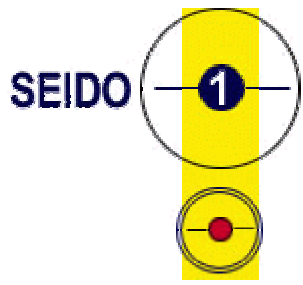


*LOOK GREAT!*

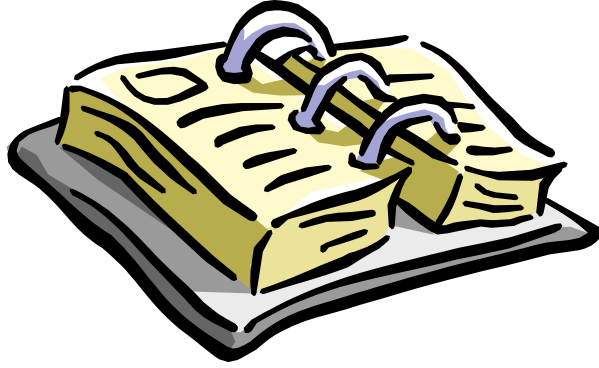
TRUE STYLE OF THE 21<sup>ST</sup> CENTURY!



High Efficiency  
 &  
 Savings!



World Class Products!



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## About Us



Distribution, Design, Installation & Service of Leading Quality & Highly Specialized HVAC Systems

Our philosophy is to deliver the best possible quality of different heating, ventilation, and air-conditioning solutions (HVAC) to our customers, while being environmentally conscious by reducing one's dependency on traditional HVAC products.

### HISTORY

Home Patron, Inc. was incorporated in 1999, and from its very beginning it offered superior quality design, installation and service of HVAC systems to its customers. Founders of Home Patron, Inc. worked with solar solutions since 1970's when they built state of the art solar-thermal greenhouses in Europe. The company hires some of the most qualified HVAC experts on the market. Our General Manager has completed an engineering degree in Poland, as well as an A.O.S. degree in Air Conditioning, Heating, and Refrigeration Technology at Technical Career Institutes the College for Technology in New York, one of the best technical schools in the U.S.



For many years in the core offerings of the company were complex forced air systems, as well as highly specialized multi-zone radiant and hydraulic systems. Home Patron, Inc. works very closely with all of its customers, direct clients or general contractors. Our superior quality, knowledge and workmanship made us the company of choice for many prestigious builders who needed to deliver superior products to its customers. Very often Home Patron's expertise makes us the only qualified contractor for some of the most complex projects.

In recent years, the company teamed up with Sun Spot Solar & Heating, Inc. in order to offer one of the best alternative heating solutions to its customers. The new product offerings include usage of "aerospace technology for residential, commercial, and institutional water heating," and radiant heating needs.



**"Sun Spot Solar & Heating, Inc** is engaged in the sale of renewable energy products to both the retail and wholesale market. Our philosophy is to provide products that promote sustainable living while reducing our dependency on and expenditures for non-renewable fossil fuels. All our products promote the use of clean, renewable sources of energy that save you money and help protect our environment." (Source: <http://www.sssolar.com>)





## Why Solar Solutions?

*Solar systems are reliable, low-to-no maintenance heating solutions that significantly reduce heating costs while promoting clean and renewable sources of energy.*

*Solar Energy is not only about the environment; it's also about Your Savings!*

Save money? How?

While using *Solar Solutions* one can save up to 80% by using solar energy for heating of the domestic hot water system. This means that if you are spending \$100 per month for your hot water system, with *solar* you can save up to \$80 per month.

Get money? How?

➤ Illinois

- State Grant Program from Illinois Department of Commerce and Community Affairs. The Department may provide up to, but not more than, the following funds for a single project using Solar Thermal Energy: **50% with a maximum of \$150,000**
- State Rebate Program from Illinois Department of Commerce and Community Affairs. The Department may provide up to, but not more than, the following funds for a single project Solar Thermal Energy: **50% with a maximum of \$5,000**
- State Grant Program (for Nonprofit, Schools, Local Government, State Government) from Illinois Clean Energy Community Foundation with varying grants.

➤ Federal

- Corporate Tax Credits from Internal Revenue Service. “The federal business energy tax credit is a 10% tax credit available to commercial businesses that invest in or purchase energy property in the United States ... The tax credit is limited to \$25,000 per year, plus 25% of the total tax remaining after the credit is taken.”
- Use Corporate Depreciation to deduct the cost of your solar system from your taxes! “For solar, wind, and geothermal property placed in service after 1986, the current Modified Accelerated Cost Recovery System (MACRS) property class is five years.”

Don't burn your money by sticking to your old and outdated heater, *switch today!*

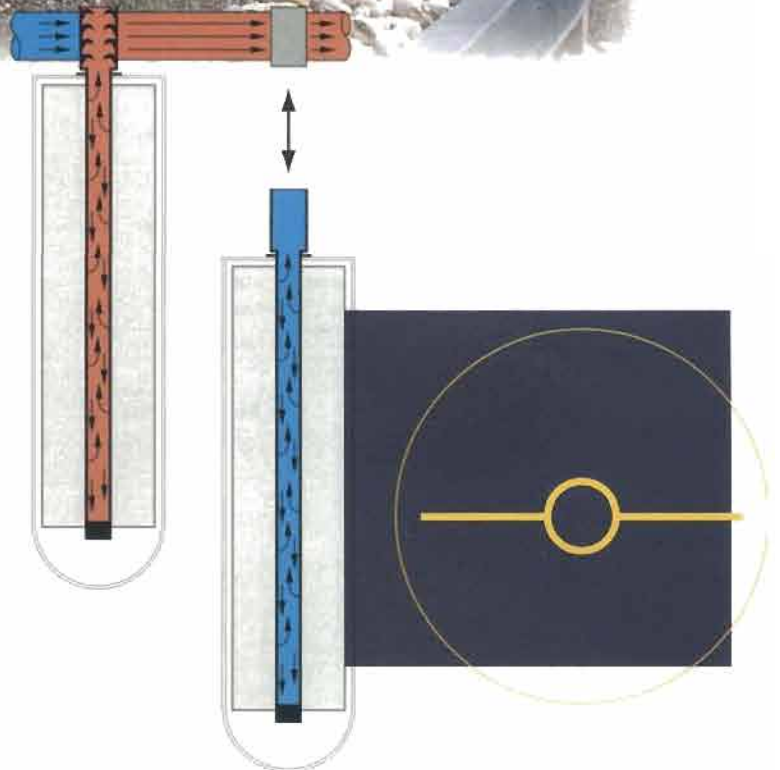


(Sources: <http://www.dsireusa.org>,  
Solar Energy Industries Association <http://www.seia.org>,  
Illinois Department of Commerce and Economic Opportunity – <http://www.commerce.state.il.us>,  
Internal Revenue Service – <http://www.irs.gov>,  
U.S. Department of Energy – <http://www.eere.energy.gov>,  
Maryland-DC-Virginia Solar Energy Industries Association – <http://www.mdv-seia.org>,  
Illinois Clear Energy Community Foundation – <http://www.illinoiscleanenergy.org>)  
*Please check with your CPA for details regarding any tax matters.*

## Solar Collectors – SEIDO 1



- highly efficient
- extremely durable
- compact
- maintenance free
- easy mounting



# SEIDO 1

## Energy technology with convincing results

The sun provides us with an inexhaustible potential for energy which today can be usefully exploited by means of high technology.

SEIDO solar collectors have been specially designed for the supply of hot water. They can obtain up to 70 per cent of the energy required for this purpose over one year. During the summer, they can practically cover 100% of the daily requirements and they still make an important contribution even in the relatively sunless months of winter.

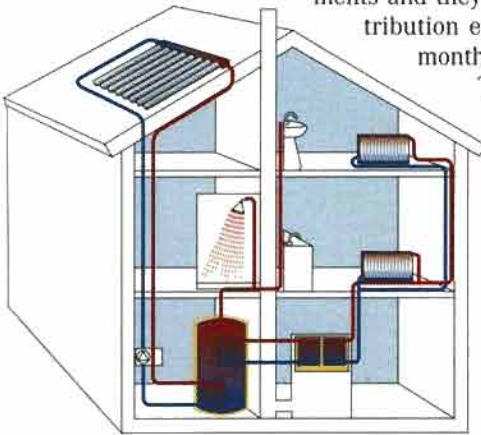
The convincing results were accomplished through the use of tried-and-tested technology developed in the aerospace industry.

## A new type of solar collector

The heart of the SEIDO solar collector is an aluminium nitride absorber plate. With its selective coating, the absorber transforms over 92 percent of incoming solar radiation into heat.

A "heat pipe" transfers the heat and feeds this into the heating circuit via a copper condenser. The collector pipes and the heating circuit are separated from one another by means of dry connection. This means that individual pipes can easily be replaced at any time whenever necessary – without interrupting the operation of the system. In order to prevent the heat loss which usually occurs in solar collectors due to the circulation of air, the absorber and heat pipe are mounted in a highly stable vacuum glass tube. This stops energy from being lost due to air circulation and protects the absorber plate and heat pipe in the long term against corrosion or other environmental influences.

Due to the condenser plug-in system the vacuum glass tube of the SEIDO 1 solar collector is rotatable. This means the flat absorber plate can manually be directed towards the optimum position of the sun, in case the roof area deviates from south.



A circuit and a system



A concept to meet your own personal requirements

## Technical Data

Model type	SEIDO 1-8	SEIDO 1-16
Construction	Vacuum tube collector with heat pipe	Vacuum tube collector with heat pipe
Certificate	DIN 4757	DIN 4757
Number of collector pipes	8	16
Absorber surface	1,5 m <sup>2</sup>	3,0 m <sup>2</sup>
Total surface	2,15 m <sup>2</sup>	4,3 m <sup>2</sup>
Length x width x height (mm)	2.110 x 960 x 125	2.110 x 1.920 x 125
Weight	50 kg	100 kg
Pressure drop per module at 100 l/h	5 mbar	10 mbar
Fluid content	0,48 l	0,96 l
Glass material	High quality borosilicate glass	High quality borosilicate glass
Glass tube diameter	100 mm	100 mm
Wall thickness	2,5 mm	2,5 mm
High vacuum, long-term stability	< 10 <sup>-5</sup> mbar	< 10 <sup>-5</sup> mbar
Absorber material	Aluminium	Aluminium
Coating	Aluminiumnitride	Aluminiumnitride
Absorptioncoefficient	> 92%	> 92%
Emission coefficient	< 8%	< 8%
Angle of inclination	15 to 90 degrees	15 to 90 degrees
Max. operating pressure	10 bar	10 bar
Max. temperature, module	190 °C	190 °C
non-operating mode pipe	247 °C	247 °C
Connection	Clamping ring	Clamping ring



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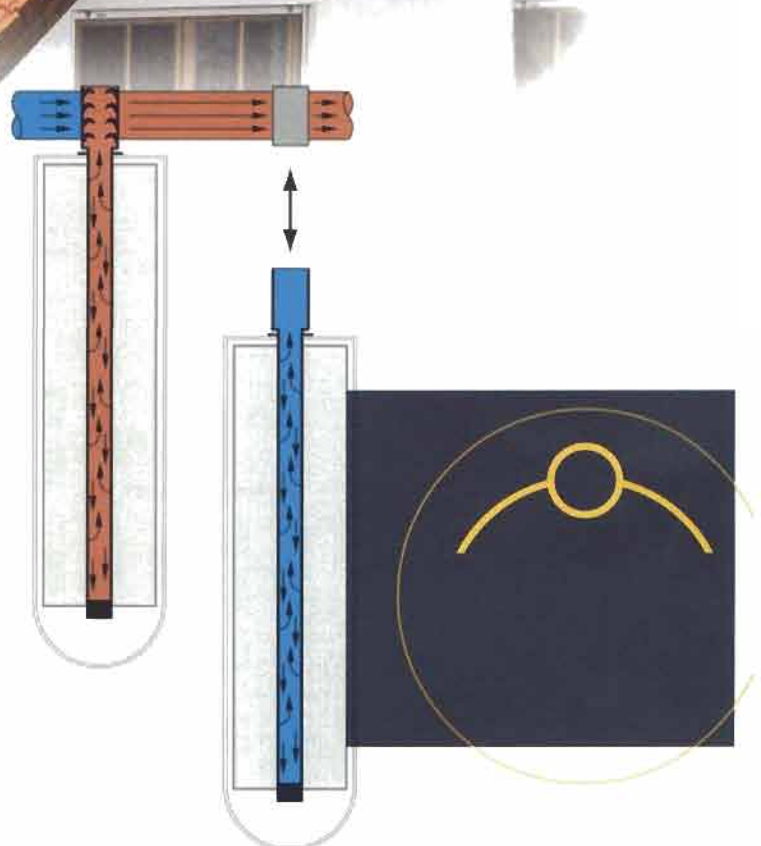
E-Mail: [homepatron@homepatron.com](mailto:homepatron@homepatron.com)

<http://www.homepatron.com>

## Solar Collectors – SEIDO 5



- highly efficient
- extremely durable
- compact
- maintenance free
- easy mounting



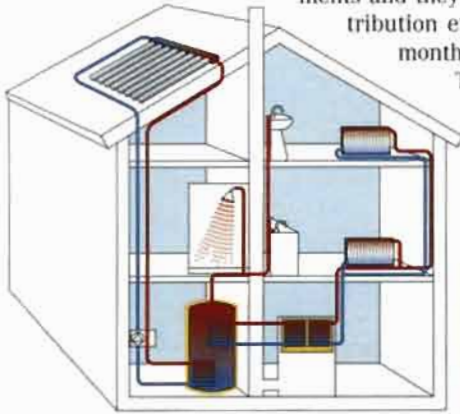
## SEIDO 5

### Energy technology with convincing results

The sun provides us with an inexhaustible potential for energy which today can be usefully exploited by means of high technology.

SEIDO solar collectors have been specially designed for the supply of hot water. They can obtain up to 70 per cent of the energy required for this purpose over one year. During the summer, they can practically cover 100% of the daily requirements and they still make an important contribution even in the relatively sunless months of winter.

The convincing results were accomplished through the use of tried-and-tested technology developed in the aerospace industry.



A circuit and a system



A concept to meet your own personal requirements

### A new type of solar collector

The heart of the SEIDO solar collector is an aluminium nitride absorber plate. With its selective coating, the absorber transforms over 92 per cent of incoming solar radiation into heat.

A "heat pipe" transfers the heat and feeds this into the heating circuit via a copper condenser. The collector pipes and the heating circuit are separated from one another by means of dry connection. This means that individual pipes can easily be replaced at any time whenever necessary – without interrupting the operation of the system. In order to prevent the heat loss which usually occurs in solar collectors due to the circulation of air, the absorber and heat pipe are mounted in a highly stable vacuum glass tube. This stops energy from being lost due to air circulation and protects the absorber plate and heat pipe in the long term against corrosion or other environmental influences.

The SEIDO 5 collector has special advantages when installed on roof areas facing southward as the curved absorber plate remains effective even when the sun is low in the early morning and late afternoon hours.

### Technical Data

Model type	SEIDO 5-8	SEIDO 5-16
Construction	Vacuum tube collector with heat pipe	
Certificate	DIN 4757	
Number of collector pipes	8	16
Absorber surface	1,8 m <sup>2</sup>	3,6 m <sup>2</sup>
Total surface	2,15 m <sup>2</sup>	4,3 m <sup>2</sup>
Length x width x height (mm)	2.110 x 960 x 125	2.110 x 1.920 x 125
Weight	50 kg	100 kg
Pressure drop per module at 100 l/h	5 mbar	10 mbar
Fluid content	0,48 l	0,96 l
Glass material	High quality borosilicate glass	
Glass tube diameter	100 mm	100 mm
Wall thickness	2,5 mm	2,5 mm
High vacuum, long-term stability	< 10 <sup>-5</sup> mbar	< 10 <sup>-5</sup> mbar
Absorber material	Aluminium	Aluminium
Coating	Aluminiumnitride	Aluminiumnitride
Absorptioncoefficient	> 92%	> 92%
Emission coefficient	< 8%	< 8%
Angle of inclination	25 to 90 degrees	25 to 90 degrees
Max. operating pressure	10 bar	10 bar
Max. temperature, module	190 °C	190 °C
non-operating mode, pipe	247 °C	247 °C
Connection	Clamping ring	



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