

SOLAR COLLECTORS

Ultimate Solar Hot Water

The **WAWA Energy Solutions** Solar Heat collectors represent a technological breakthrough in the use of solar energy. The special glass vacuum principle and the large diameter of the glass tubes make it possible for this system to extract sufficient energy from (diffused) light to heat water even on cloudy days. This allows for an exceptionally high yield from the Solar Heat collectors.

Each bank of solar collectors measure only 4m² and provides enough capacity for an average size family's normal hot water requirements.

Use of **WAWA Energy Solutions** Solar Heat collectors can result in saving of up to 20% on the total household gas bill. In winter or during cold spells, the system provides an economical and efficient method of pre-heating hot water utility use. Heat generated with the use of Solar Heat collectors may be used for supporting a central heating system or for heating swimming pools.

There are 2 different types of Solar Heat vacuum collectors; type HP and type DF.

The Solar Heat collectors can be expanded into multiple modules to accommodate large projects designed by architects, contractors, local councils and government bodies.

Both systems come supplied with a storage buffer tank, a pressure tank and a pump unit controlled by 2 temperature sensors. When the temperature differential between the water in the buffer tank and the water at the top of the collector is remotely sensed to exceed 10 degrees Celcius; a pump is automatically activated.

More informations on this product and installation are available on www.wawaenergysolutions.com

Benefits & Advantages

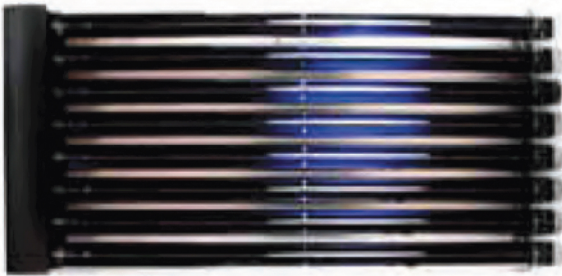
- Cost effective
- Very high efficiency, even in winter
- Long life
- Easy installation
- Rugged construction with high reliability
- Very low maintenance costs

Exceptionally high efficiency!
DF - 768 kWh/m² | HP - 722 kWh/m²

MODEL DF / HP



Heat Swimming Pools



WAWA Energy HP 8

Exceptionally high efficiency!
Pre-heat water for boilers or steam

Your supplier in all weather conditions.

WAWA Energy Solutions would like to introduce their many affordable, innovative products that enable customers and businesses to generate their own energy needs.

You can now choose to provide for your own sustainable energy requirements, reduce your fossil fuel use while taking some personal initiative toward a healthier future for our planet.

Your Choice: **WAWA Energy Solutions**

Technical Data

MODEL:	DF	HP - 16	HP - 12	HP - 8
Number of tubes	6	16	12	8
Collector area (m2)	1.6 m2	4.2 m2	3.1 m2	2.1 m2
Absorber area (m2)	1.1 m2	3.0 m2	2.25 m2	1.5 m2
Fluid circulation per collector (l/h)	45 - 75	150 - 350	120 - 270	75 - 175
Fluid content (l)	0.98	2.30	1.80	1.15
Loss of pressure at (mbar)	< 30	5	5	5
Frost protection to (°C)	-35	-35	-35	-35
Base material glass	High-quality Boron Silica			
Vacuum tube diameter	100	100	100	100
Sustained high vacuum (bar)	10-8	10-8	10-8	10-8
Wall thickness	2.5	2.5	2.5	2.5
Absorber base material	Copper			
Absorber coating	Sunselect			
Absorption coefficient	95% ± 2%	95% ± 2%	95% ± 2%	95% ± 2%
Emission coefficient	5% ± 2%	5% ± 2%	5% ± 2%	5% ± 2%
Placement angle	0° - 90°	25° - 70°	25° - 70°	25° - 70°
Fill overpressure (bar)	4	4	4	4
Max. working pressure (bar)	10	6	6	6
Max. standstill temp. collector	190 °C	180 °C	180 °C	180 °C
Manufacture warranty	5 years	5 years	5 years	5 years

Efficiency	DF	HP - 8	HP - 12	HP - 16
25 °C	902 kWh/m2	852 kWh/m2	852 kWh/m2	852 kWh/m2
50 °C	768 kWh/m2	722 kWh/m2	722 kWh/m2	722 kWh/m2
70 °C	635 kWh/m2	608 kWh/m2	608 kWh/m2	608 kWh/m2

