

SOLAR

PANELS

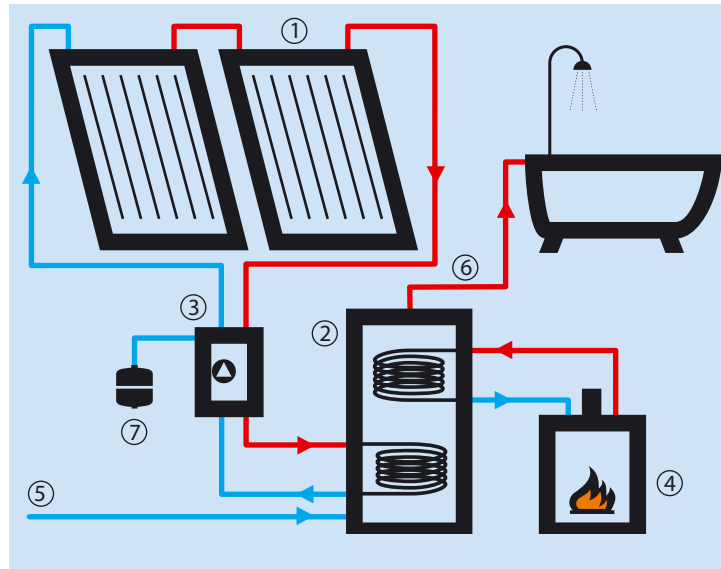


Application

Solar panels are arousing ever increasing interest among consumers as they constitute a perfect alternative to conventional energy sources which get pricier and pricier. They convert natural energy of the sun into the heat which can be used for heating running water, water in the swimming pool as well as for aiding the central heating system. Solar panels are a perfect solution lowering the costs of building usage and protecting the environment.

Diagram

- 1 – solar panel;
- 2 – solar cylinder;
- 3 – pump;
- 4 – boiler;
- 5 – cold water from mains;
- 6 – hot water out to baths and sinks;
- 7 – diaphragm vessel.



Solar panel scheme

A glycol-based heat carrier is heated up in the solar panel. Then, it flows out of the solar panel (1) and is directed towards the solar cylinder (2) where the heat is exchanged by means of a heat exchange coil immersed in it. Subsequently, cooled glycol flows out of the cylinder towards the pump (3) which forces it back to the solar panel. If the level of insulation drops, the water is heated up by another heat source – central heating boiler (4). Cold water feeds always into the bottom of the cylinder (5) and hot water comes from its top (6).

Solar panel **SKW-V**

NEW



Horizontal combination B2/1.

Solar panels absorb solar radiation and convert it into heat energy used for heating running water and aiding central heating of the house.

Installation in the roof significantly improves insulation and performance parameters of the solar panels. What is more, solar panels of this type can be combined in systems along with roof windows, thanks to which they perfectly merge into the structure of the whole roof.

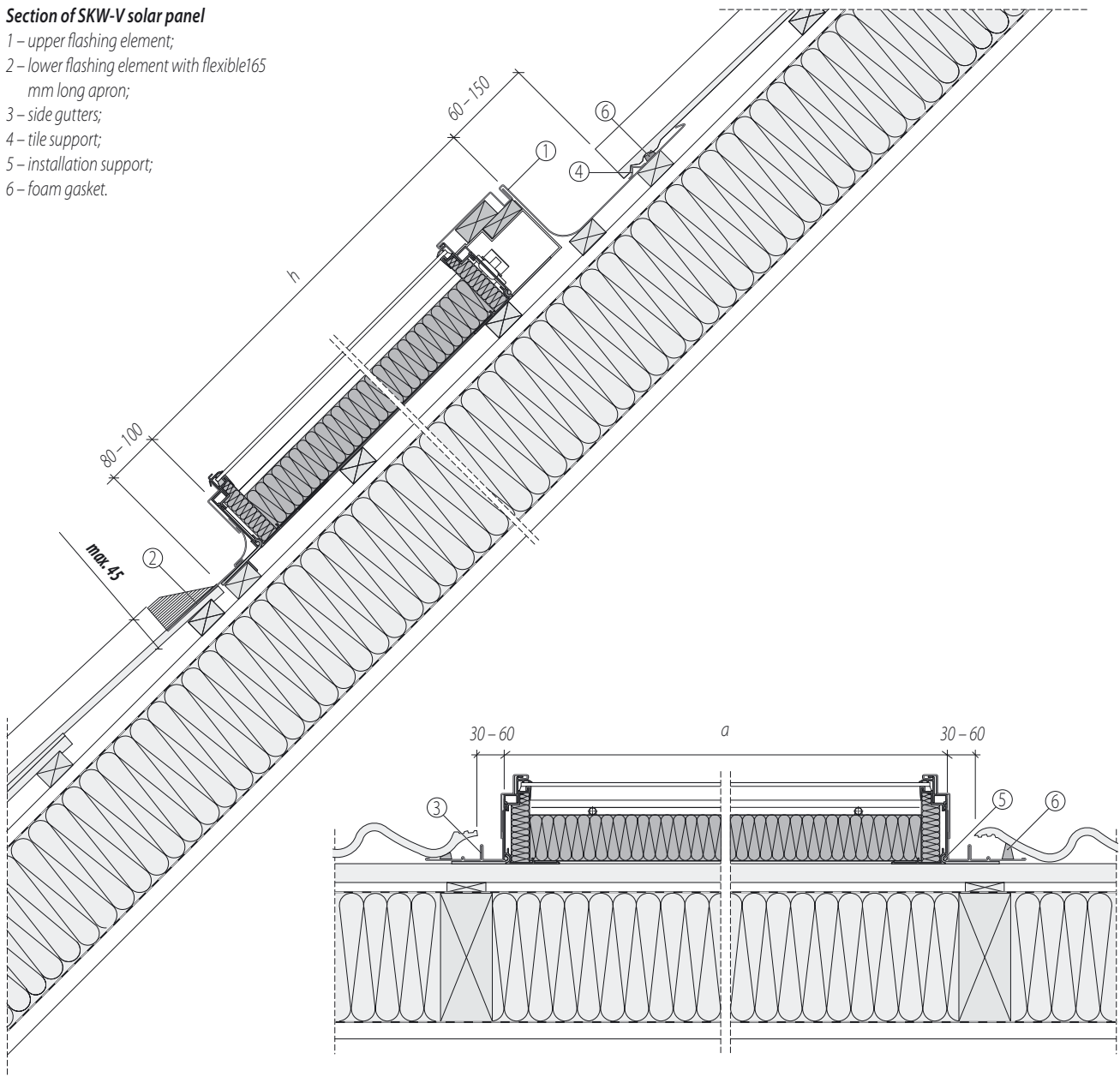
FAKRO sun panels can be installed in conjunction with FAKRO roof windows in any configuration. Tight connection with the roof slope is ensured by standard flashings for FAKRO roof windows.

Characteristics



- absorber sheet made of copper with high solar energy absorption coating;
- special layout of pipes and their proper connection with the copper sheet ensures perfect heat removal from the whole absorber surface;
- casing made of aluminium profiles guarantees strong and durable structure;
- mineral wool insulation minimises heat losses, constituting a great thermo-insulating barrier;
- toughened prismatic pane increases light transmittance and allows harvesting of light with low incident angle;
- installation in the roof slope improves insulating parameters, hence adding to the overall efficiency of the solar panel;
- special installation supports can be moved during installation and adjusted to any batten spacing;
- plastic inserts insulate places of pipe connections, thus reducing heat losses;
- specially designed upper cover plate where couplings are located enables easy connection of the solar panel into the solar system;
- installation in roofs with pitches ranging from 15 to 90 made possible thanks to the application of standard flashings for FAKRO roof windows.

Section of SKW-V solar panel

- 1 – upper flashing element;
- 2 – lower flashing element with flexible 165 mm long apron;
- 3 – side gutters;
- 4 – tile support;
- 5 – installation support;
- 6 – foam gasket.



Dimensions of standard solar panels

outer solar panel dimension	114x140	114x206
		
solar panel area [m ²]	1.59	2.34
absorber area [m ²]	1.37	2.08
maximum working pressure [bar]	6	6

Solar panels available in 2009.

