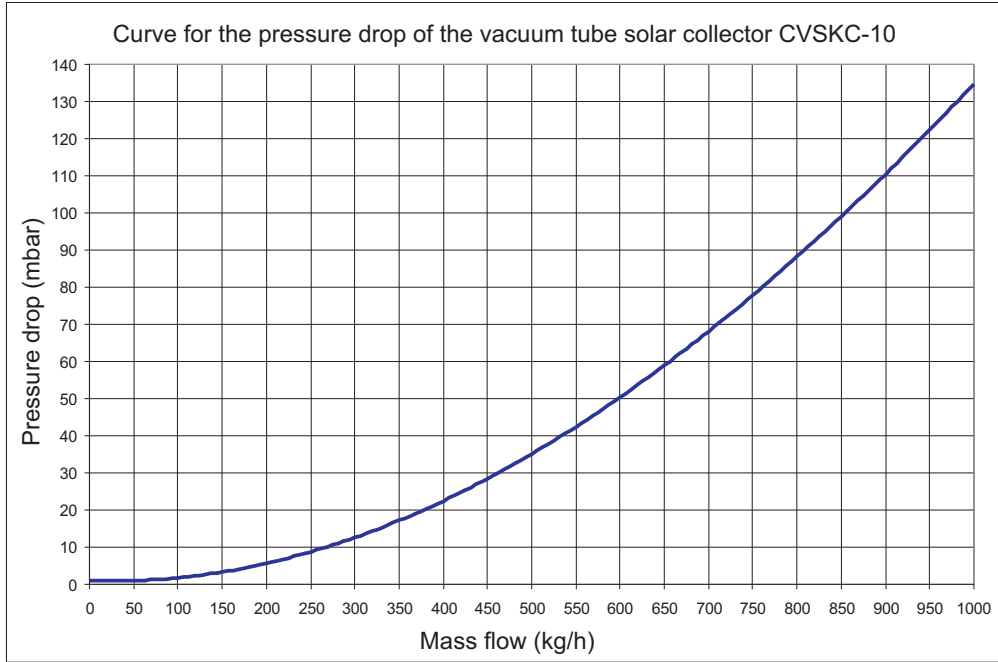


Curve for the pressure drop

Curve for the pressure drop of the vacuum tube solar collector CVSKC-10:



TECHNICAL MANUAL

For assembling, use and maintenance of the vacuum tube solar collector



CVSKC-10

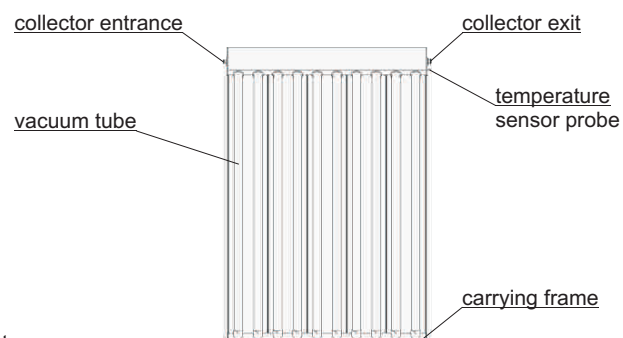
VACUUM TUBE SOLAR COLLECTOR CVSKC-10

The collector is designed for mounting only in vertical position (both connection is obligatory to be on the upper side of the collector).

The collector has two connections (R 3/4 ") on its upper side (connecting by the special union wing).

The collector is not designed for operating like thermal siphon system (solar system can not operate without pump).

The collector exit towards the water heater is always located on that side where the temperature sensor is connected.

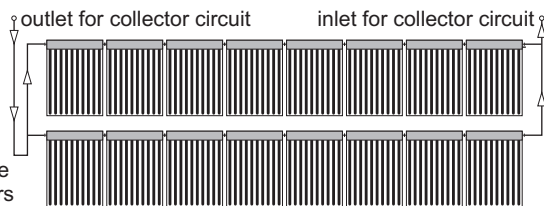


Draft: Collector parts

The collector is suitable for inclination from min. 15° to max. 75° of the horizontal surface.

Collectors can be mounted on the sloping roof (mounting sets for the sloping roof for 1,2 or 3 collectors) or on the flat roof under the angle of 45° (mounting sets for the flat roof for 1,2 or 3 collectors). Collector declination angle from 0° to 45° is adjusted by setting the mounting set for the flat roof. The detail manual for the mounting of the collector on the roof is placed in the mounting sets.

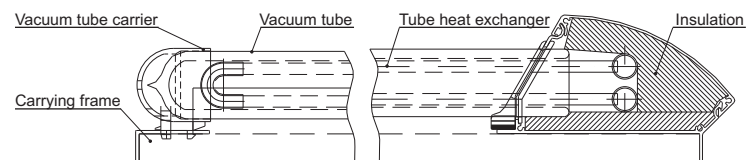
Max. 8 collectors can be connected in one line. For bigger collector systems connecting is parallel in more lines with up to 8 collectors.



DRAFT: Possible connection for more than one line with 8 collectors

IMPORTANT!

It is forbidden to carry or lift the collector for its connection or with the screw for the mounting the collector for the mounting sets. It is obligatory to fill the collector system with water glycole mixture (not only with water).

Collector section:**Technical data:**

		vacuum tube solar collector CVSKC-10
Number of tubes	(kom)	10
Brutto surface	(m ²)	1,84
Insolation	(m ²)	1,6
Absorber surface	(m ²)	0,97
Absorber content	(l)	1,63
Height of the collector	(mm)	1647
Width of the collector	(mm)	1120
Collector thickness	(mm)	107
Collector mass	(kg)	31
Optical efficiency rate	(%)	64,1
Heat loss rate k_1	W/(m ² K)	1,059
Heat loss rate k_2	W/(m ² K ²)	0,0045
Vacuum tube material		boron-silicate glass
Vacuum tube mass	(kg)	1,2
Absorption rate	(%)	96 ± 1
Emission rate	(%)	6 ± 1
Absorption insulation		vacuum
Collector insulation	(mm)	stone wool
Copper tubes	(mm)	φ8 x 0,5
Collecting pipes	(mm)	φ18 x 1
No. Of connection	(kom)	2
Dimension of connection	(R)	3/4"
Max. Operating pressure	(bar)	10
Stagnation temperature	(°C)	270
Mirror reflection	(%)	95
System liquid		glycole / water mixture