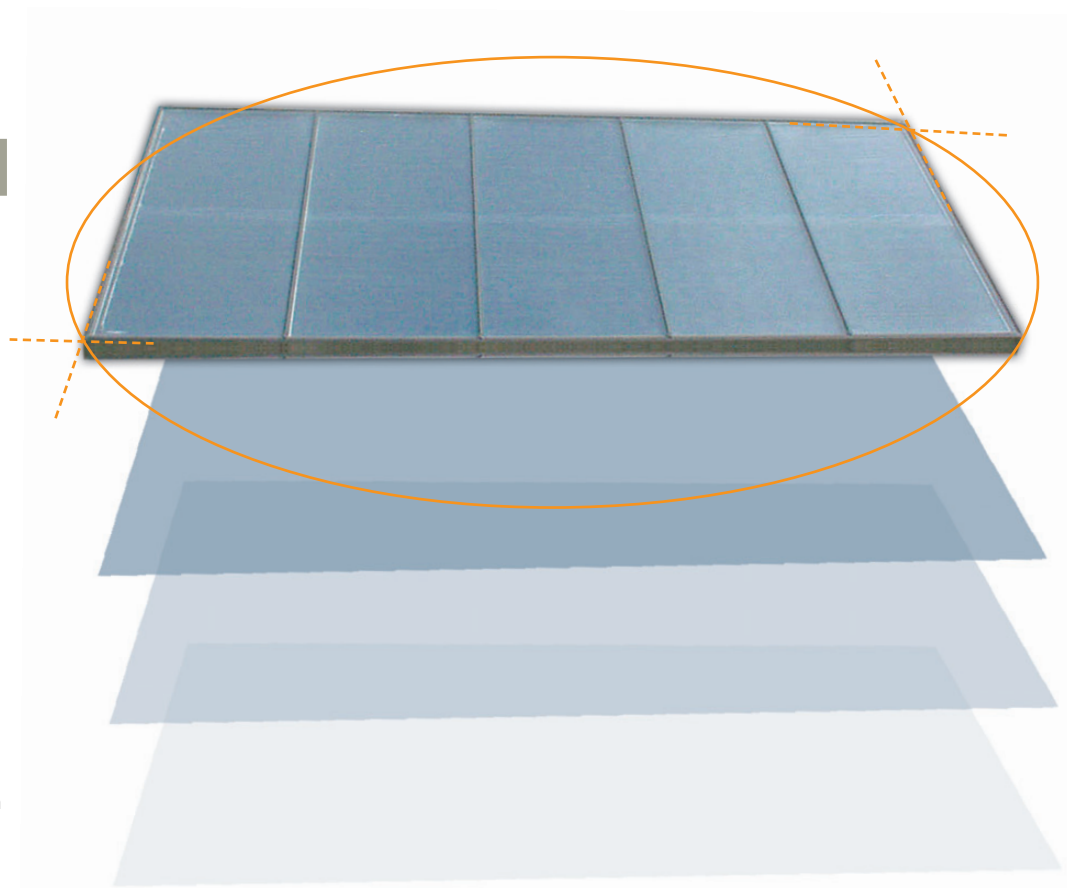


The Solar collector for high consumption DHW, heating and cooling installations



ARCON

- **Leading solar energy producer since 1973**
- **Certification in compliance with standard EN 12975 (EU), DIN 4757/ITW (D), TÜV (D) and DTI (DK)**
- **30 years of experience and development within the thermal solar industry**
- **Very high performance owing to:**
 - Solar glass, low iron, tempered
 - SunArc Anti-Reflective Coating
 - Insulation foil convection trap
 - NIOX coated selective absorber
 - 75 mm mineral wool insulation
 - Environment friendly production methods



SOLAR COLLECTOR

ARCON HTU-S(A)



Demanding installations like combined DHW and heating installations tend to be difficult and time-consuming if they are carried out by means of small modules. With the HT solar collector family ARCON has developed one of Europe's highest performing flat plate collectors, efficient enough to supply even complex installations like district heating and cooling plants.

Now heavy users of hot water or heating like housing associations, offices, hospitals, hotels, sports facilities, swimming pools, farms and some industrial properties can look forward to a very cost effective solar plant, easy to install with a minimum of external connecting pipe-work.

This HT solar collector has proven its worth during the last 18 years, where over 62.000 m² exclusively of this collector has been installed in the somewhat rougher climate in Scandinavia and Northern Europe.

Four innovative and novel features guarantee the high performance:

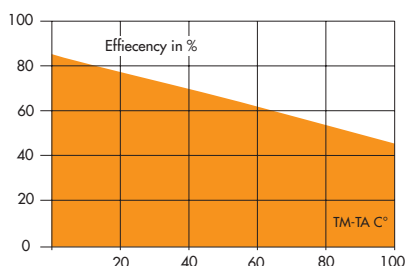
- SunStrip NIOX strips capable of converting almost all radiation into heat (96%)
- One large 12,5 m² absorber surface

- Optional insulation foil convection trap designed to minimise convection related heat loss
- SunArc anti-reflective coating for reduction of reflection losses at oblique angles of incidence

Connection is made simple and effective by means of preinsulated flexible pipe, and the horizontal flow through the collectors lead to very little pressure loss and thus a very high thermal conductivity.

Installation – sloping roof, flat roof or ground – is made easy due to the ready made self-locking fixations at the bottom of the collector and the integrated lifting device for the crane. The estimated time for lifting, placing and securing is only about 20 minutes for each collector.

Collector model	HT-U	HTU-SA	HT-SA
Alu. frame	■	■	■
NIOX absorber strips	■	■	■
Underside and frame insulation	■	■	■
Copper piping	■	■	■
Solar glass	■		
Anti-reflective solar glass		■	■
Insulation foil			■



Power (W/collector)

Temp. difference (K)	Irradiance (W/m ²)			
	Tm-Ta	400	700	1000
10		3695	6740	9785
30		2966	6011	9055
50		2237	5281	8326
70		1507	4552	7597

With the HT solar collector family ARCON has developed one of Europe's highest performing flat plate collectors, efficient enough to supply even complex installations like district heating and cooling. The range of collectors and proven performance once again highlights ARCON as a market leader in the development and manufacturing for solar collectors.

External characteristics

The flexible hydraulic volume, the flow design and the simple roof fastening system are designed to minimise installation time and the use of special tools. There is nearly no need for external pipe work due to the flow design. This reduces installation costs significantly.

Solar glass

The special solar glass is designed to concentrate the light rays penetrating the glass and hence increasing performance, as well as reducing the loss of energy on the glass surface.

The absorber

The new SunStrip NIOX absorber is coated with an absorbing nickel oxide film applied in an environment friendly vacuum coating process. The construction of the flow makes it possible to connect as many as 10 solar collectors into one row. The number of rows is unlimited.

INCREASE PERFORMANCE:

Antireflective glass (optional)

For even higher performance the collector can be fitted with an optional anti-reflective coating, designed to limit reflections resulting from the angle of incidence and hence reduce the loss of energy on the glass surface even further. This improves yearly solar performance by upto 12%, especially when the sun is low or for roofs with a low pitch and further expands the scope of application of solar energy.

Insulation foil (optional)

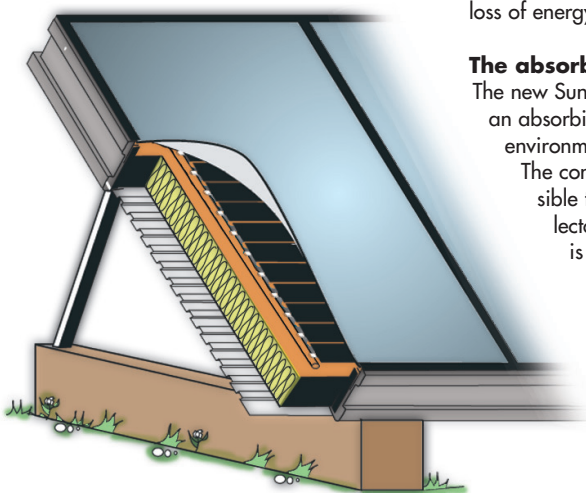
Between the absorber and the glass of the solar collector, there can be fitted an extremely thin insulating foil. The foil prevent air from circulating between the hot absorber and the cold solar glass. This improves the performance by upto 8%-15% by minimising heat loss of the collector.

Assistance in planning and system design

Through 18 years of work in the field of large solar plants, ARCON has gathered comprehensive knowledge in planning and designing.

Through our head office in Denmark this service is offered to professional planners, specifiers, architects and engineers.

You will have our dedicated cooperation in order to achieve the best possible solar plant in respect to high performance, reliable distribution, low installation costs and close to zero maintenance costs.



Technical data

ARCON HT

External dimensions	2.27(H) x 5.96(W) x 0.14(D) m
Nett/gross area	12.53 m ² / 13.5 m ²
Weight	250 kg
Max. work-/test pressure	6 bar/13 bar
Fluid volume	8.5 L
Fluid flow	0.5 L/min./m ² , variable flow also possible
Connection	2x22 mm clamping ring fitting to flex pipe
Channel system	16 parallel channels and two branch pipes

Absorber

SunStrip NIOX absorber of copper/aluminium with a degree of absorption above 96%, rhombic tubing to ensure a large contact surface between fluid and wall, absorption surface with parallel flow, into 2 branch pipes in each end. Environment friendly nickel oxide coating.

Glass

3.2 mm solar glass, low-iron safety glass, patterned underside.

Cabinet

Extruded aluminium frame, self-supporting construction.

Insulation

30 mm edge insulation and 75 mm underside insulation.

Mounting

The HT collector has a self-supporting frame that makes it ideal for different kinds of mounting. Beside installation on sloping and flat roof or on the ground, the collector can be mounted as cover for car parks, pathways or even noise walls.

Certifications

Approved by Clear Skies
Approved product to The Enhanced Capital Allowance Scheme. Tested according to EN 12975 at SPF in Switzerland, ITW in Germany and DTU in Denmark.

Please contact us for any proposal

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