Technical Characteristics

Evacuated Tubes - Evacuated 15

This is Camel Solar's new Evacuated Tube Collector. The collector is composed of 15 evacuated tubes with highly efficient selective coatings. The Glass tube has a PVD (physical vapour deposition) selective coating inside enhancing the absorption of the tube.

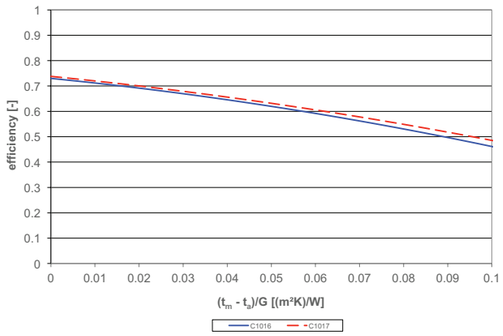
Inside the glass tube are U type copper pipes. These pipes are welded to an additional absorber. This absorber has its own patented selective coating increasing the heat transfer to the copper pipes and intern to the heat transfer fluid.

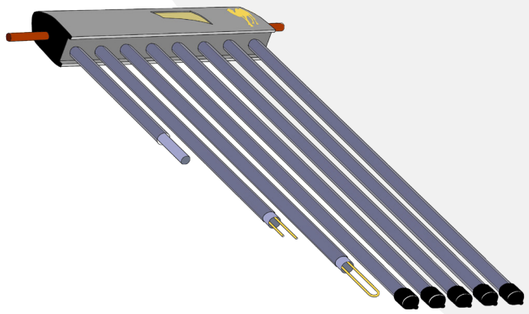
The U type copper pipes join two separate manifolds which are carefully placed in an anodized aluminum box and insulated with a high density rock wall.

Combining the latest research and technology this is one of the most efficient collectors on the market today and has recieved Solar Keymark Certification.

The Collector is perfect for domestic, commercial and industrial applications with a stagnation temperature of 250°c. Clients are using these panels for swimming pool applications, heating pools past 30°c without any other form of energy.

Efficiency Curve





1 - Aluminium Manifold I 2 - Rubber Seal I 3 - Thermal Sidewall Insulation I 4 - Absorber I 5 - Glass Tube Double Wall Vacuum I 6 - Hot Supply Manifold I 7 - Cold return Manifold

General Specifications

Manufacturer	
Camel Solar ltd Velijko Vlahovic 18 (mezanin) 1000 Skopje Rupublic of Macedonia	
Type of Collector	CS Vacuum 15
Year of Production	2011

Dimensions of Collector	
Gross Area	2.35 m^2
Aperture Area	1.42 m^2
Absorber Area	1.21 m^2

Technical Figures	
Collector type	Evacuated Tubular Collector With Direct Flow
Length	1990 mm (Determined by Test Lab)
Width	1180 mm (Determined by Test Lab)
Height	158 mm (Determined by Test Lab)
Material	Aluminium Frame + Manifold
Weight	45 kg
Sealing Material	Rubber
Collector Mounting	On Roof, Flat Roof

Absorber	
Material	Glass
Absorption	0.92 - 0.96
Emittance	0.04 - 0.06
Heat Transfer Fluid	2.95 Litres
Number of Absorber Tubes	15
Number of Connections	2

Glass	
Material	High Borsilicate Glass
Transmittance	0.92
Outer Diameter Glass Tube	58mm

Thermal insulation	
Material	Rock Wool
Thermal Conductivity	0.035w/(mK)
Thickness	20 mm

Limits	
Stagnation Temperature	250 °c
Max. Operating Pressure	10 bar
Heat Transfer Fluid	Glycol / Water Mixture