

Case Study

Hotel Domestic Hot Water & Swimming Pool



Overview: Constructed in the spring of 2009, this system was designed to produce domestic hot water for the hotel as well as heat their 150m³ pool with excess heat. Consisting of 30 Apricus AP-20 Evacuated Tube Collectors, the system sits on top of the east wing of the building, stretching across the roof in two rows. The systems pumps, pipes and heat exchangers were carefully designed to have the capability of serving a larger system to accommodate future expansion. For controlling and supervising the system, there is a Sorel TDC4 temperature difference controller in charge.



In the course of 18 months (June 2009 - December 2010), the system produced 62,400kWh of heat, saved 7,340m³ of natural gas and prevented 13 tons of carbon dioxide from entering the atmosphere.



Project Description:

Property Name:	Hunguest Grandhotel
Location:	Galya, Galyatető
System Type:	Domestic Hot Water & Pool Heating
Array Size:	30 Apricus AP-20 Collectors

Apricus APSE-20:

Physical Specifications:

Dimensions:	2.0m x 1.6m / 78.9" x 64.4"
Aperture Area:	1.98m ² / 21.36ft ²
Gross Area:	2.96m ² / 31.86ft ²
Gross Dry Weight:	63.5kg / 140lb
Fluid Capacity:	500ml / 16.9 fl oz
Max Pressure:	800kPa / 116psi

Materials of Construction:

Evacuated Tubes:	Borosilicate 3.3. Glass
Absorber Coating:	Aluminum Nitrate
Heat Pipes:	High Purity Copper
Mounting Frame:	439 Stainless Steel
Manifold Casing:	5005-H16 Anodized Aluminum

Warranty:

Manifold & Frame:	15 years
Tubes & Heat Pipes:	10 years

Contact Information:

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