

Case Study

12 Unit Apartment Building



Overview: Five Apricus AP-30 Evacuated Tube Solar Collectors were installed on the south facing wall of this building to provide hot water from the sun for it's 12 apartments. Plumbed together to form a district hot water system, the balance of system components includes five heat dissipators to prevent the system from overheating and two electric hot water tanks which provide backup heating when solar cannot product 100% of the necessary output.

The cost of utilities is included in all tenants rent so the system was as sound investment for the building owner. Since being commissioned, the owner has seen approximately a 50% savings in the building's utility costs. This installation serves as a showcase to clearly demonstrate to other property owners how solar thermal systems can help lower a building's energy costs.



Project Description:

Location:	Blacksburg, VA
Array Size:	5 Apricus AP-30 Collectors
System Type:	Closed Loop, Domestic Hot Water
Displaced:	Electricity
Design & Installation:	Baseline Solar
Annual Energy Savings:	50% of utility costs

Apricus APSE-30:

Physical Specifications:

Dimensions:	2.0m x 2.2m / 78.9" x 86.4"
Aperture Area:	2.98m ² / 32.05ft ²
Gross Area:	4.15m ² / 44.76ft ²
Gross Dry Weight:	95kg / 209lb
Fluid Capacity:	710ml / 24 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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Baseline Solar:	620 North Main Street, Suite 305 Blacksburg, VA 24060 USA T: 540-552-1511
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