



**The International Leader in  
Solar Thermal Solutions**

► **Flat Plate and Vacuum Tube Collectors**

**For Domestic Hot Water and  
Hot Water Process Heating Applications**



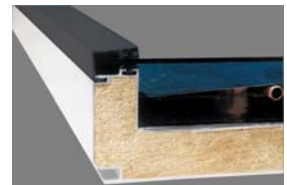
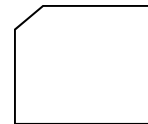
Residential  
Commercial  
Industrial  
Agricultural



### Calpak Giga Selective (GA Series)

The epitome of a well designed and efficient flat plate collector brings optimum performance and long life. This value engineered collector utilizes

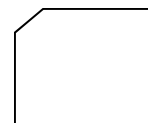
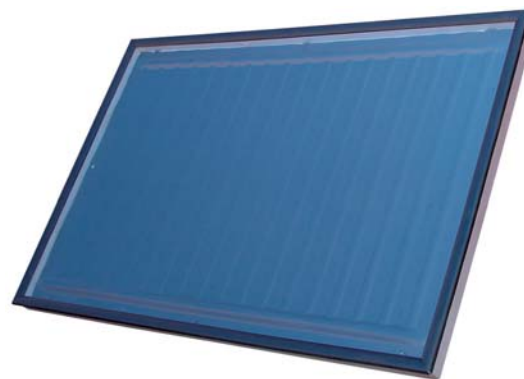
- Highly selective coating maximizing absorption while minimizing radiant heat loss
- Single aluminum full plate sheet absorber for maximum efficiency
- Laser welded vertical transport tubes for durability of the aluminum to copper bond
- 10 vertical copper tubes to maximize heat transfer from the collector
- Thick polyurethane insulation with aluminum vapor shield for optimizing efficiency by reducing thermal losses
- Low-iron transparent 1/8" tempered glass for radiant transmission and toughness
- Anodized aluminum frame for strength and long life



### Calpak Giga Sandwich Type (G Series)

Specifically engineered to deliver utmost efficiency in warmer sunny climates. The numerous channels formed in the absorber extract the maximum amount of solar radiation and converts it directly to the thermal energy in the collector fluid. This value engineered collector utilizes

- Horizontal flat "sandwich" design
- Integral double channels between two 5/16" thick steel plates
- Special black collector coating designed to maximize the absorption of solar radiation
- Thick polyurethane insulation with aluminum vapor shield for optimizing efficiency by reducing thermal losses
- Low-iron transparent 1/8" tempered glass for radiant transmission and toughness
- Anodized aluminum frame for strength and long life





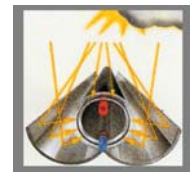
# Vacuum Tube Collectors

A PROVEN TRADITION OF POWER, EFFICIENCY AND LONG LIFE

## Calpak Vacuum VTN Series

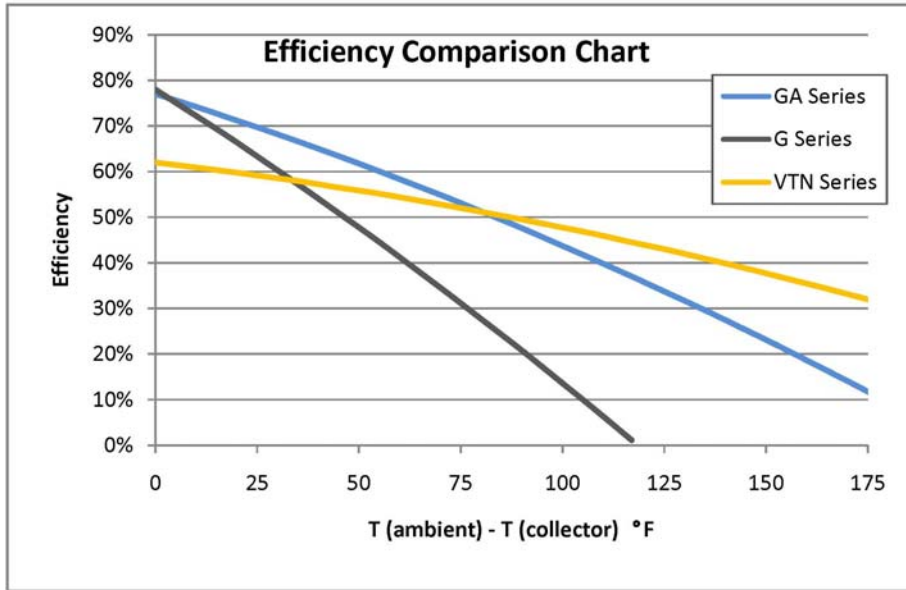
The ideal solution when real efficiency is what matters. The parabolic reflector maximizes absorption of direct and diffused solar radiation. Moreover, thermal losses are minimized due to the vacuum in the selective tubes and the strong header insulation.

- Highly efficient evacuated tube collector using U-shaped copper tube with inner aluminum fins
- Highly selective coatings on glass tubes maximizes absorption while minimizing radiant heat loss
- CPC reflector for optimal performance even on partly cloudy days
- Black header made of anodized aluminum with expanded polyurethane and fiberglass for strong insulation
- Easy to replace vacuum tubes
- Light weight for easy handling during installation



### COLLECTOR MODEL COMPARISON CHART

	240GA	240G	12VTN
Dimensions: Length	92 - 1/2 in.	92 - 1/2 in.	63 in.
Width	42 - 1/8 in.	42 - 1/8 in.	52 - 3/8 in.
Height	3 - 3/4 in.	3 - 3/4 in.	4 in.
Weight	84 lb.	134 lb.	77 lb.
Gross Area	27.0 SF	27.0 SF	22.9 SF
Aperture Area	25.0 SF	25.0 SF	21.1 SF
Max. Working Pressure	145 psi (Tested at 190 psi)	22 psi	145 psi (Tested at 190 psi)
Max. Operating Temp.	347 °F	230 °F	428 °F
Cover Materials	Low iron 0.118 in. tempered glass	Low iron 0.118 in. tempered glass	12 borosilicate glass vacuum tubes
Absorber Material	Aluminum Plate 0.020 in. thick	Steel 0.315 in. thick	Selective sputtered surface of glass tubes
Surface Treatment	Selective sputtered	High Radiant Black Paint	Selective sputtered
Insulation	Expanded polyurethane	Expanded polyurethane	Expanded polyurethane and fiberglass
Frame	Anodized Aluminum	Anodized Aluminum	Black Anodized Aluminum
Reflector	Not applicable	Not applicable	High reflectance Aluminum
Sealing Material	EPDM	EPDM	Not applicable



Calpak solar thermal collectors have been engineered to maximize efficiency through design and material selection.

Choosing the best collector for a specific application and location requires the careful analysis to maximize the value of the installation based on

- Temperature of Water Required
- Thermal Efficiency
- Cost of Collectors

The collector comparison chart provides the visual comparison of the thermal efficiency data provided through testing conducted by the certification agencies some of which are listed below.

### Over 30 years of Global Leadership in Solar Hot Water

Calpak-Cicero Hellas is the pioneer and worldwide leader in solar thermal technology. The company was founded in 1976 by BP (British Petroleum) in Corinth, Greece and quickly established itself as the market leader in thermal solar with over 60,000 installations by 1980. The company was sold in 1990 to the current private ownership that brought its experience in HVAC manufacturing and a renewed commitment to R&D. The product lines have expanded to include solar collectors for every climate. Other products include thermosiphonic systems, integral heat exchanger water heaters, control components and systems incorporating each of these items.

The solar collectors are all manufactured in-house at the ISO 9001:2008 certified facility and each have numerous solar collector certifications including the prestigious Solar Keymark.

The 30 plus years of experience has yielded the most diverse and highest value engineered collectors in the world. A solar collector is an investment in solar power that is designed to last over 20 years. Invest in collectors with the proven tradition of power, efficiency and long life of Calpak.

Contact our CP Solar Thermal engineers to see what Calpak can do for you!



CP Solar Thermal is the official US partner of Calpak-Cicero Hellas.

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## ISO 9001:2008

