

## **API 5000 Series Solar Collectors**

### **For Pool, Hot Tub, Hot Water, and Space Heating**



#### **Quality Construction**

The API 5000 Series of thermal solar collectors consists of two models—the 5000C with an all copper absorber plate and the 5000A with an aluminum absorber plate. Use of copper absorber plates is recommended where low flow and high temperatures are required (such as space or hot water heating), aluminum absorber plates are recommended where highflow and low temperatures are required (pool heating).

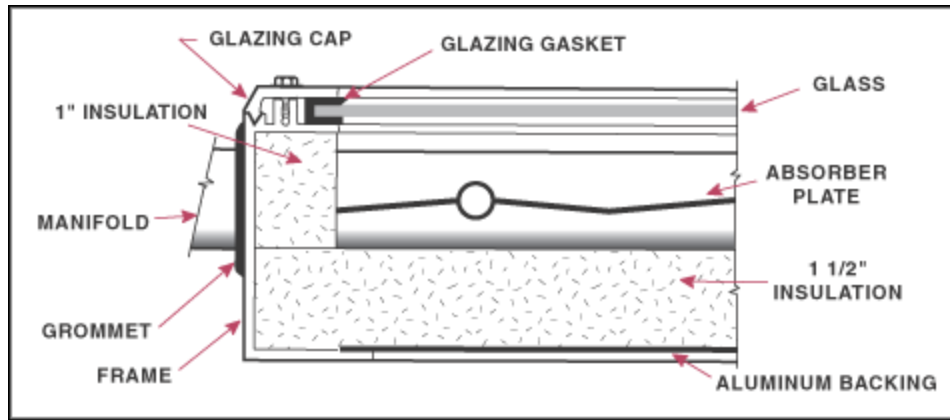
The API 5000C uses all copper fins, roll-formed 360° around a seamless copper tube. The fin is then mechanically seam-locked to the copper tube to enhance thermal conduction. No solders are used in the process. Collared joints are used where water passages and manifolds join. Joints are copper brazed for material compatibility and strength. (Refer to API 4000 for specification sheet on aluminum plate construction.)

The plate of choice is framed in bronze anodized aluminum and glazed with the finest quality glass formulated for solar applications. The interior of the box is insulated with foil-faced poly-isocyanurate foam insulation to improve heat retention. The box exterior has solid aluminum backing to build strength and cut down on damage in transit. Stainless steel screws and EPDM rubber gaskets are utilized to seal the box from the elements.

#### **Mechanical Versatility**

The API 5000 Series is the best choice for a single application such as a pool, hot tub, hot water, or space heating. The API 5000 can be mechanically integrated with storage tanks, heat exchangers, pumps, and controls to combine several applications. Collectors can be installed below a body of water (pool, hot tub or storage tank) to produce a thermosiphon where no pumps, controls or heat exchangers are required. Where corrosive conditions are a concern, alcohol, oil or glycol can be used as a heat exchange fluid.

The superior strength of the 5000 series frame allows for mounting and tilting of the collector with a minimum of construction materials.



Cross-section showing API 5000 construction.

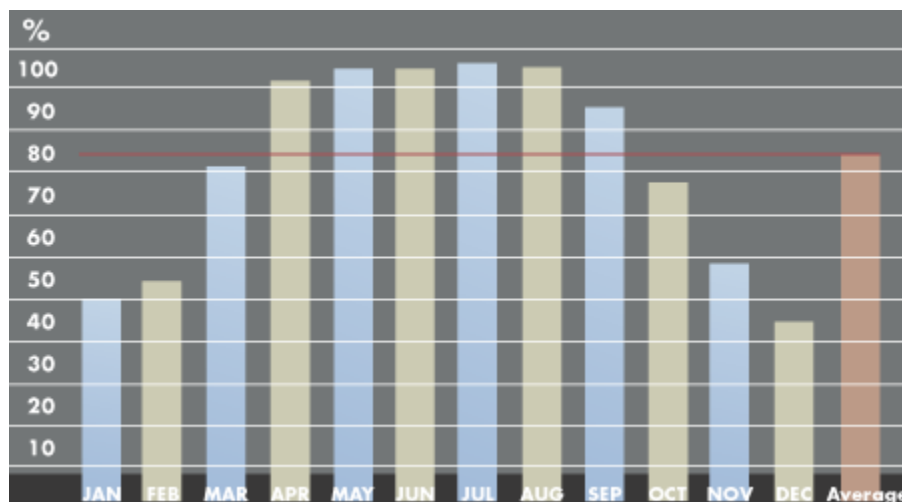
Warranty: 20 year full warranty

### API 5000 Series Specifications

#### Technical Data

Size	4' x 8' (47.5" x 97.5")	4' x 10' (47.5" x 121.5")
5000C (Copper) Weight	130 lbs.	160 lbs.
500A (Aluminum) Weight	145 lbs.	185 lbs.
Net Collector Area	30.67 sq. ft.	38.33 sq. ft.
Maximum Flow Rate	4 GPM	4 GPM
Minimum Flow Rate	.6 - 1.2 GPM	.6 - 1.2 GPM

#### Efficiency Chart



Expected solar contribution per month and average per year based on correct industry sizing standards.

Tested and rated in accordance with ASHRAE standard 96-80 and SRCC 100-81. Meets requirements of ARI and FSEC test facility.

### Recommended Plumbing Schematic

