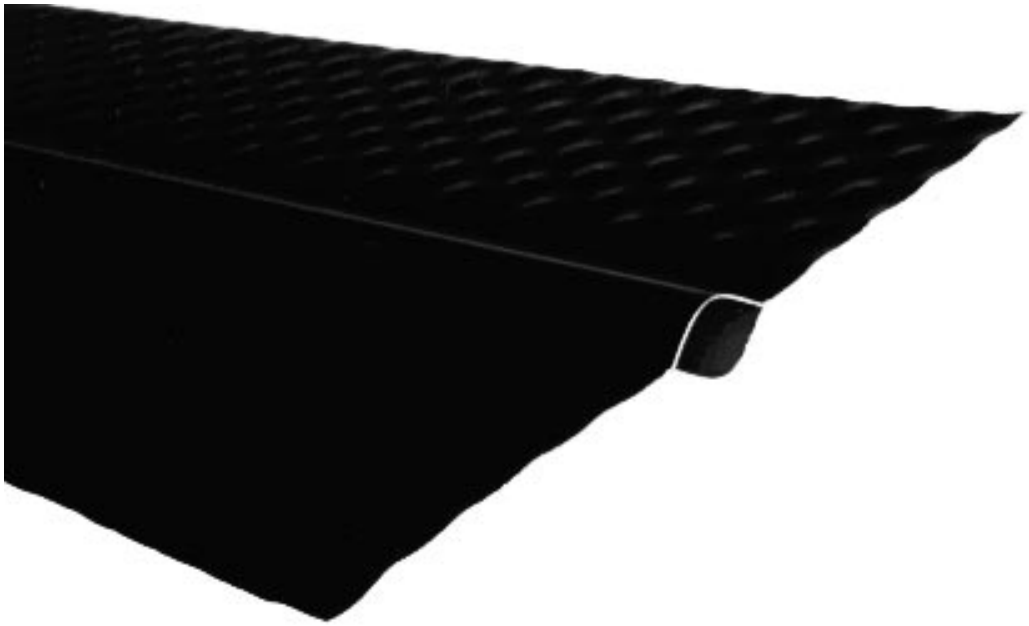
SUNSTRIP™ SOLAR FINS

Creating a New Wave of Solar Performance



After a decade of research, the Sunstrip™ solar fin has emerged as one of the most innovative developments in solar technology. It's elegant design and unparalleled performance now make possible a new generation of attractive and affordable solar products.

The advanced technology of cladding.

The fin's metallurgically-bonded aluminum completely surrounds a copper tube waterway. The corrosion resistance of copper combined with the light weight and high thermal conductivity of aluminum produces the optimal finned tube. The metallurgical bond provides superior thermal contact resulting in superior heat absorption and conductivity and long-term durability.

The Advantages

The Sunstrip™ fin is versatile and can be assembled into a variety of convenient solar absorber formats that realize only minimal pressure drops. Sunstrip™ has low thermal inertia due to its light weight. As the intensity of the solar flux varies, the fin will react quickly to maximize energy collection. Sunstrip™ technology can be adapted easily and economically for use in your existing production line.

Consider the following features:

• The aluminum/copper fin has such impressive corrosion resistance that the bond is guaranteed for 10 years.

• The dependable Sunstrip™ fin design has been use-tested and improved over a decade in varied applications and climatic conditions.

• Sunstrip™ is available (1) in uninflated coils (for high-volume/low-cost production) (2) as an inflated pre-cut fin (3) as completely assembled absorbers.

• The rhombic cross section of the Sunstrip™ tube is easily connected to a manifold header using round to rhombic adapters supplied by Thermo Dynamics.

• Standard tube sizes are 8, 12, and 15 mm nominal diameters.

• 8 mm Sunstrip™ is available in serpentine patterns. Termed "Micro-Flo™", these absorbers provide one continuous finned tube at low cost.

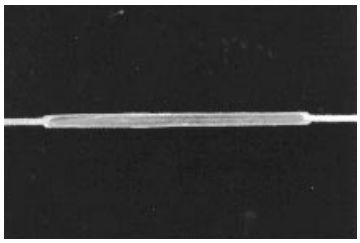
• Fins are available in lengths up to 6 m and in widths from 75 to 250 mm (2.95 to 9.84 inches). Standard uninflated widths are 146, 155, and 167 mm (5.74, 6.10, and 6.57 inches).

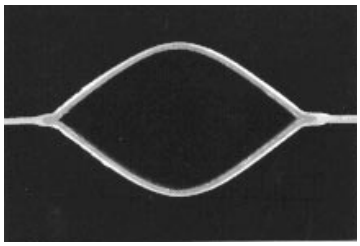
• Fin thickness is 0.5 mm, which yields a fin efficiency of 93 to 95%.

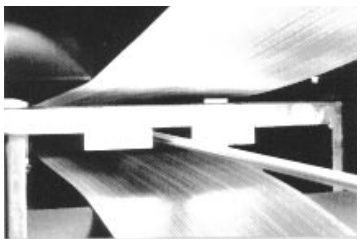
• Fin is available with a painted finish, an anodized black nickel (a highly selective surface) finish, or as bare aluminum.

• Sunstrip™ fins and absorbers can be used as heat radiators or in various fin-type heat exchangers where an integral fin and tube are required.

Sunstrip™ fins and absorbers are high in efficiency, light in weight, technologically advanced, and offer attractive economics - ***all good reasons for choosing Sunstrip™ solar fins and absorbers.***



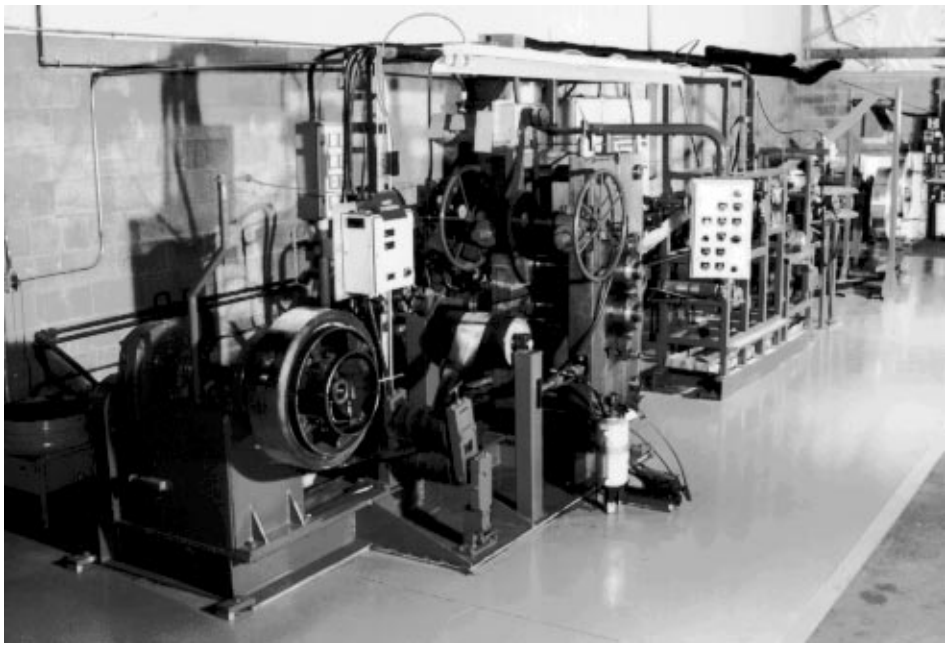




PHOTOS FROM TOP: Inflated Sunstrip™ fin, Uninflated fin/tube detail, Inflated fin/tube detail, Fin and tube entering high pressure rollers.

SUNSTRIP™ SOLAR FINS

Technical Specifications



Sunstrip™ is produced by metallurgically bonding two sheets of aluminum to a copper tube which acts as a waterway. A specialized rolling mill is used to manufacture Sunstrip™.

Sunstrip™ is light and strong. It has an average weight of 2 kg/m^2 and a high burst pressure of 58 kPa (870 psi). Every piece of Sunstrip™ is automatically tested to 16.7 kPa (250 psi) during inflation. Sunstrip™ has an infinite fatigue life under combined mechanical and thermal loading.

Hydraulic diameters (for calculation of pressure drops) are 3.93 mm for the 8 mm, 6.48 mm for the 12 mm, and 9.94 mm for the 15 mm Sunstrip™ tube. Fin thickness is .5 mm at the flange and 1 mm at the tube (uninflated). Fin surface is normally dimpled to increase rigidity and enhance appearance. Sunstrip is easily joined to conventional copper tubing by 95/5 (tin/lead) solder welding. Copper tubing is 99.9% pure and the aluminum fin is alloy 1350. Emissivity of selectively anodized (nickel plated) fin is 0.10 and absorptivity is 0.94.

Finished coils of Sunstrip™ fin are available in lengths of up to 1,000 m (3,280 feet). Sunstrip™ fin is also available in inflated form .

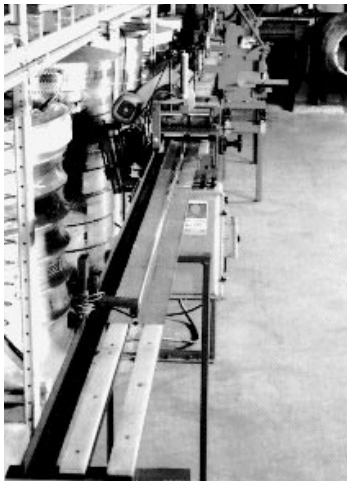
A company committed to advancing solar technology

Since 1980, Thermo Dynamics Ltd. has been dedicated to researching, developing, manufacturing, and marketing the finest solar energy products available. Company innovations contribute to a better life for solar users in Canada, the United States and world-wide.

To ensure strong client support and service, Thermo Dynamics maintains an international network of knowledgeable dealers and representatives.

Sunstrip™ solar fins in various specifications are manufactured in Canada and exported for use by other solar manufacturers and contractors throughout the world. If you are interested in obtaining information on Sunstrip™ fins and absorbers, call or write us. We welcome your enquiries.

Thermo Dynamics Solar Products. Giving you a season for the sun all year round.



PHOTOS FROM TOP: Sunstrip™ rolling mill, Fakir continuous inflation machine (for Micro-Flo® absorbers), Linear inflation table

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