HEAT PIPE COLLECTOR

Introduction of heat pipe
Heat pipe is a vacuum heat transmission device filled with heat conduction fluid. It is the most efficient thermal conductivity device so far which is 1000 times of silver and with characters of excellent isothermal performance and thermal flux flow reversible.

Working principle
Heat conduction fluid filled in the heat pipe is vaporized after heat absorption. Vapor flows to the condensation section under the inner pipe pressure, and meanwhile turns liquidy and release heat. Conduction fluid condensed at the condensation section back to evaporator section caused by gravity. Finally, heat transmission process is accomplished by conduction fluid phase transformation.

Introduction of heat pipe collector
Heat pipe solar collector consists of thermal superconductive heat pipes and evacuated glass tubes. The Himin tube adopts the interrefractive coating technology. The high-efficiency absorbing layers have features of high and low temperature resistance and high-efficiency energy absorption. No water inside glass tubes extends the lifetime and avoids breakage.
Advanced production line

- Own the first automatic gravity heat pipe production line in China with annual capacity of more than 2 million pcs.

- Automatic cleaning line:
  High cleaning ability. Products undertake eight procedures such as pre-cleaning, cleaning, pickling, spray washing, bake etc. ensure cleaning quality. Oil, impurities, oxides on tube wall is cleaned up by Chemical cleaning method. And then protective film is formed by polishing and passivation processing to increase compatibility between tube wall and working medium to prolong lifespan.

- Independently developed high temperature annealing line: vacuum annealing can eliminate the air adhere to the heat pipe surface and realize the elimination of stress on the welding point, make sure no permeation of non-condensable gases and long life-span of the product.

- Vacuum exhaust line: the first and largest automatic production line integrated by collector vacuum exhaust, medium filling, cold welding and sealing technology. Automatic process exhausts the gases adhered to the inner side surface to make sure vacuum rate of the tube. Automatic medium filling makes ensure vacuum rate of the tube. Automatic cold welding assures the welding accuracy. Meanwhile, realizes large scale production and remote monitoring. By adopting the vacuum exhaust technology, it improves vacuum rate of the heat pipe and startup speed, which realize low attenuation and long life-span of heat pipes.

- Himin's other advantage in solar heat pipe is its patented secondary exhaust process. It eliminates the non-condensable gas thoroughly which improve the isothermal performance, and also solve the fluid filling uncontrollable problem caused by the second exhaust, increase heat-transmission efficiency.

- Special product order. Himin can make specific products according to customers’ demands

Certificate

Heat Pipe Projects

Himin’s solar heating & cooling project for high-end residence property

Himin’s solar heating program for the first Tibetan hydropower plant