

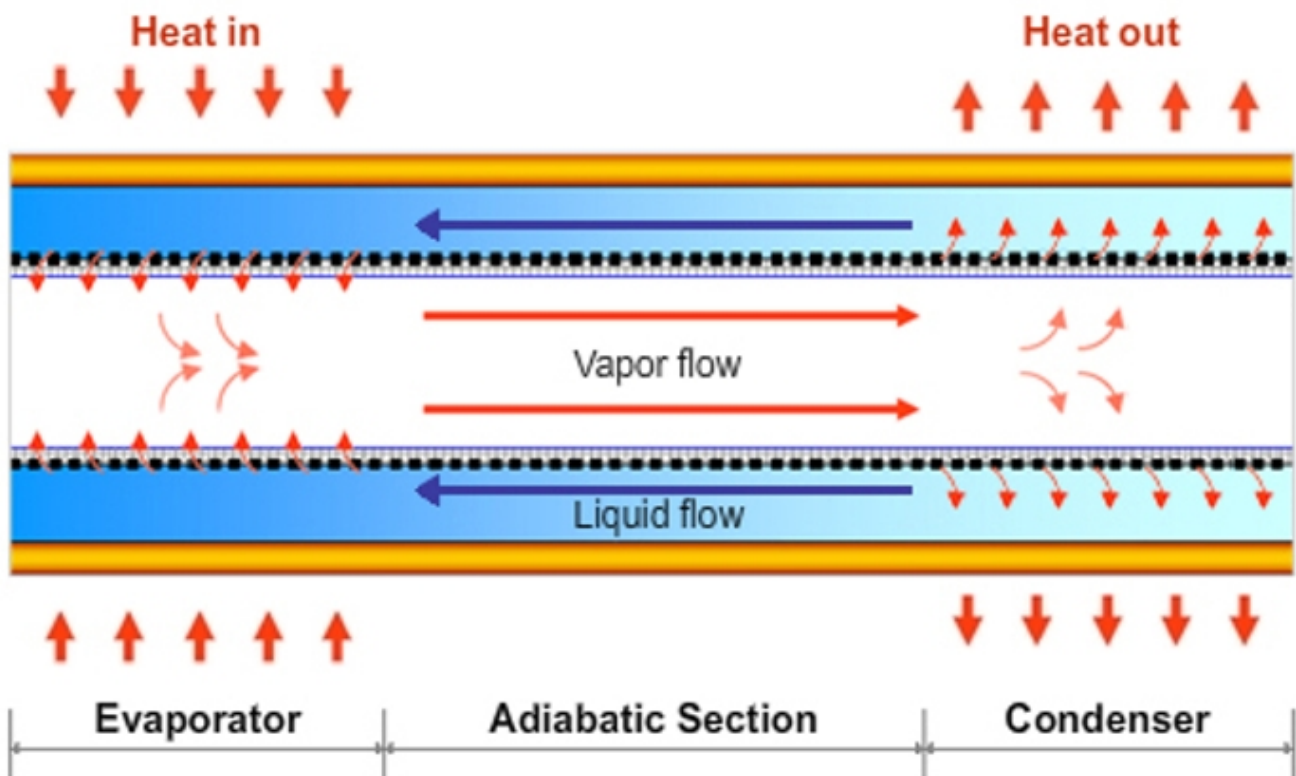
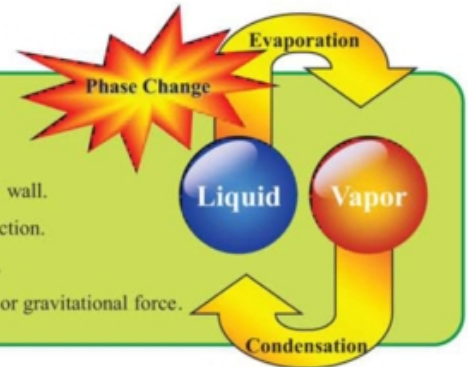
# amecthermasol

## Operating Mechanism

➤ Phase Change Technology : Conduction & Convection Heat Transfer Mechanism

➤ Working Process :

1. Heat applied to the evaporator section by an external heat source is conducted through the MHP wall.
2. Working fluids are vaporized then, working fluids through the vapor section to the condenser section.
3. Then releasing its latent heat of vaporization to the external cooler module of condenser section.
4. And working fluids return to the evaporator section in the liquid phase by the capillary pressure or gravitational force.



**AMEC Thermasol**

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# amecthermasol

- Feature : MHP has increased thermal conductivity compared to single metal.
- Concept : Working fluid (Acetone) transfer the latent heat energy by phase change in closed container

※ Notes





When temperature of water(25°C, 1kg) is rising up 1 degrees centigrade, the heat energy is needed as 4.18kJ

When state of water(25°C, 1kg) is changed from liquid to gas(=vapor) without temperature change, the latent heat energy is needed as 2,422kJ

## Thermal Conductivity (k) @ T=27°C

Aluminum		237W/mK
Copper		401W/mK
Silver		430W/mK
Cool Pipe		5,000~10,000 W/mK

## Thermal Conductivity (k) @ T=80°C

Aluminum		239W/mK
Copper		397W/mK
Silver		426W/mK
Cool Pipe		5,000~10,000 W/mK

< Comparison of Thermal Conductivity on Various Ambient Temperature >

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