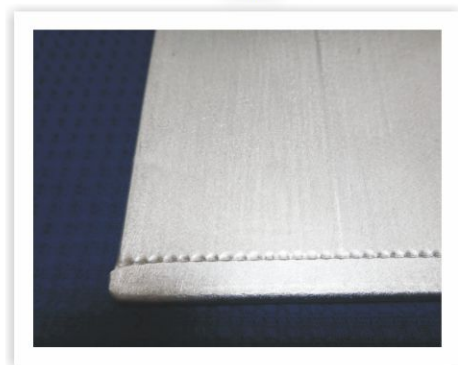
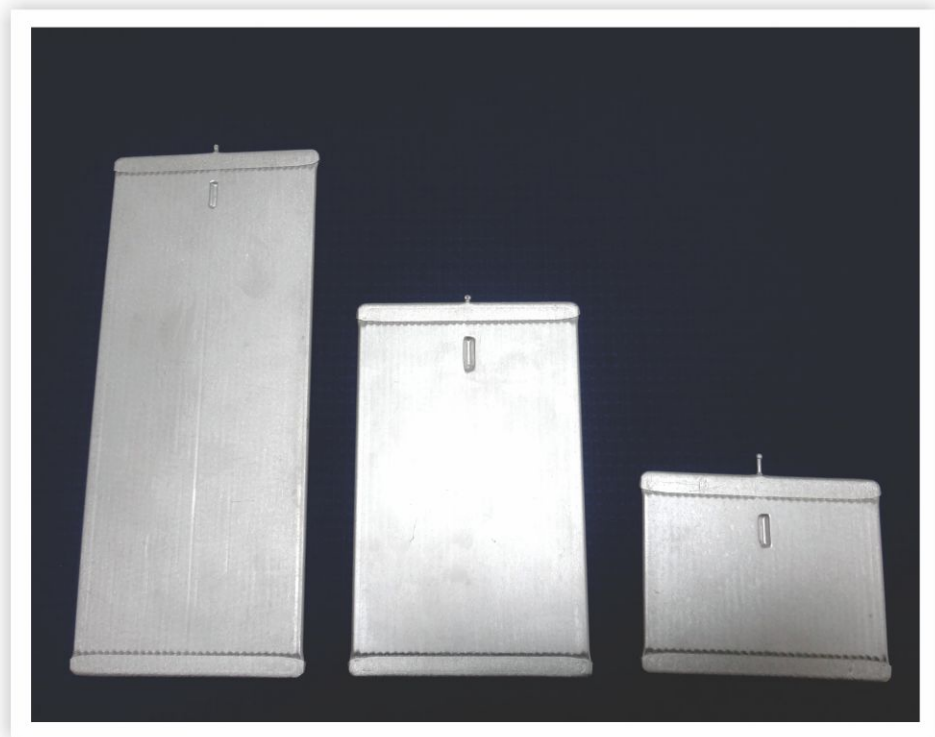




Complete Thermal Solution

LEADING EDGE ASSOCIATES Co., Ltd.



CAB brazing for end cab

AI VAPOR CHAMBER PLATE

The principle of Vapor chamber technology

A vapor chamber is a vacuum receptacle with an inner fin structure supported by the inside walls. The vapor chamber is filled to a set percentage with a specified liquid.

When a heat source is attached to a vapor chamber, the working liquid at the heat source vaporizes instantly and the vapor rushes to fill the entire chamber.

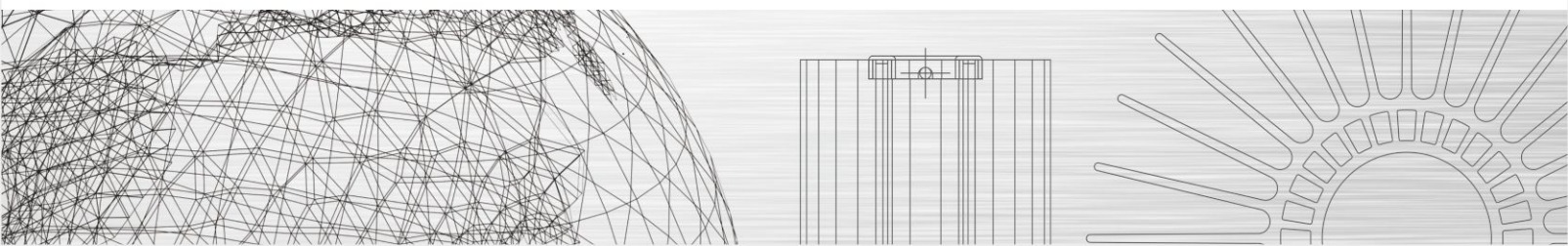
This vapor will condense when it contacts the cooler sides of the wall; this initial vaporization of the liquid and consequent return to a liquid state, becomes a highly efficient heat exchange system.

The condensed liquid is then returned to the heat source via the inner fin action, ready to be vaporized again, repeating the cycle for as long as the heat source maintains a need for such heat exchange.

Feature

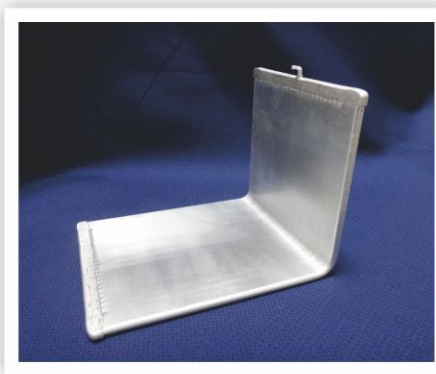
- ★ Lower cost due to aluminium (compare to copper)
- ★ Lighter weight and thinner thickness (2.5mm)
- ★ 30% faster heat transfer by using refrigerant as working fluid
- ★ 100% aluminium, 100% recyclable, environment friendly
- ★ Made by CAB brazing process for stronger structural

www.alvc.jp e-mail: info@alvc.jp





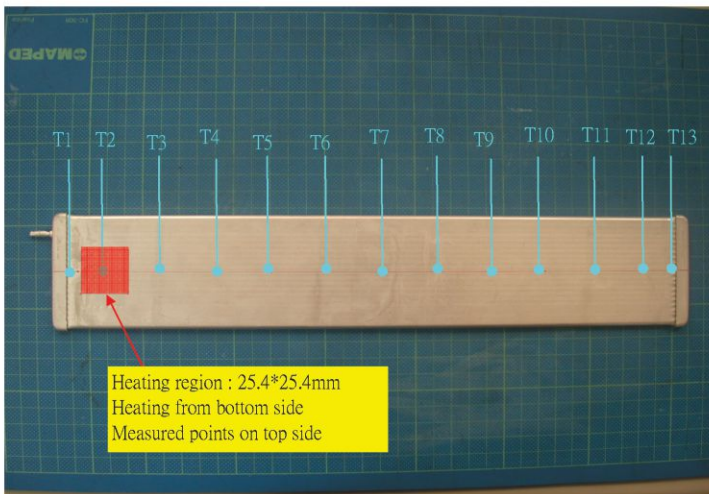
Adjustable length



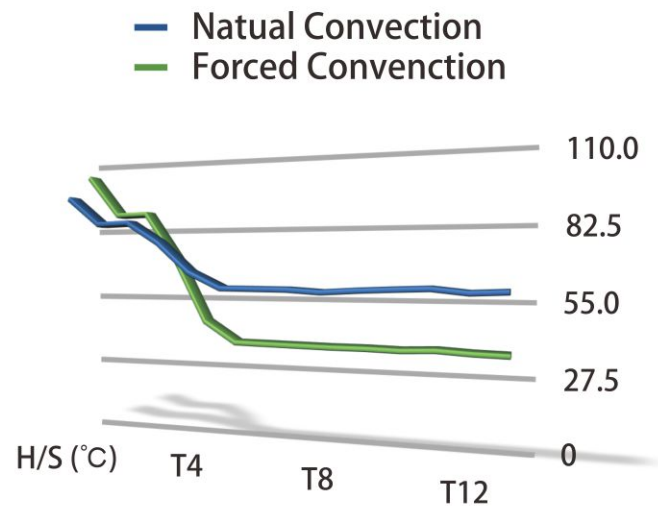
Adjustable angles



Fixing hole made direct on the plate



▲ 355mm Vapor Chamber and Measured points



Heat source		Natural Convection	Forced Convection
Input	Power (W)	15.05	25.20
	Heat (W)	9.80	18.59
Temperature		93.8	103.3

Standard size :

- A. 5mm (T) * 67mm (W) * Length
- B. 5mm (T) * 125mm (W) * Length
- C. 2.1mm (T) * 67mm (W) * Length

*Length is adjustable according to the needs.
*Fixing hole could be added direct on the plate (when thickness is over 5mm)

Application

- * Industrial high power IGBT, inverter, converter
- * Junction box, battery pack, ECU for EV/HEV
- * Semiconductor device, communication device, IC chip
- * High power LED lighting

