

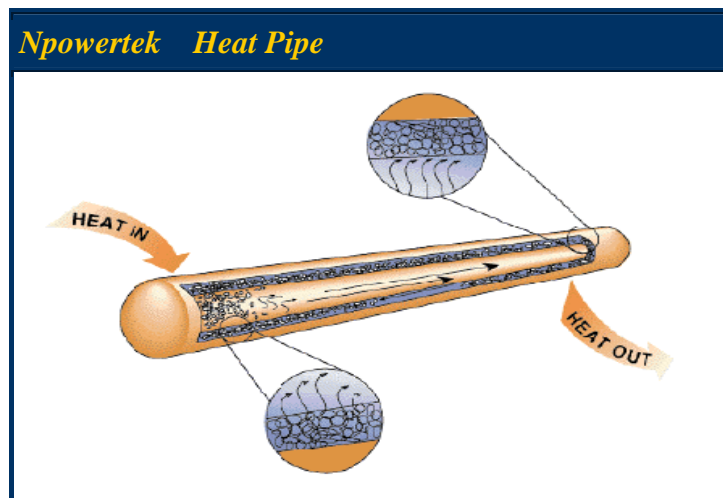
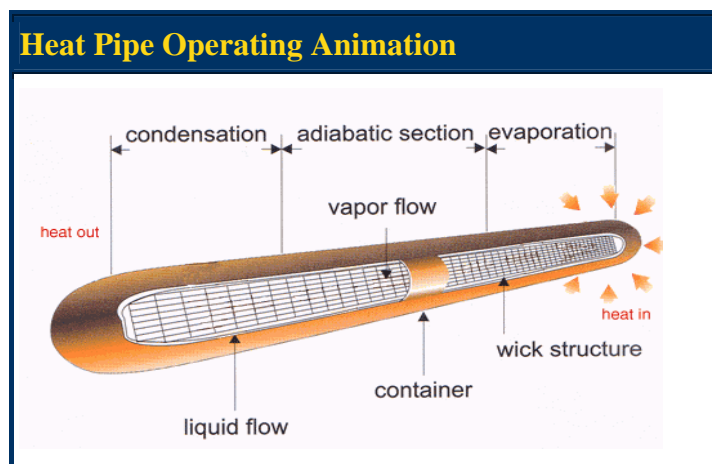
Npowertek Heat Pipe

A efficient heat pipe system can be affected by length of a heat pipe, type of fluid in a heat pipe, return wick type, and the number of bends in a heat pipe.

Npowertek heat pipe technology has been applied to computer cooling for years. We provide an ideal, cost effective heat pipe solution. Its small, compact profile and light weight allow it to meeting the demanding requirements of computer.

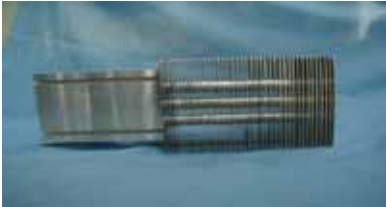
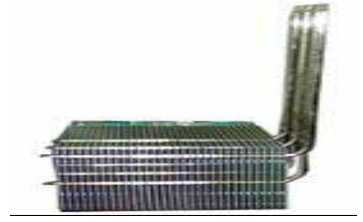
Sintered Powder

This process will provide high power handling, low temperature gradients and high capillary forces for anti-gravity applications. The photograph shows a complex sintered wick with several vapor channels and small arteries to increase the liquid flow rate. Very tight bends in the heat pipe can be achieved with this type of structure.



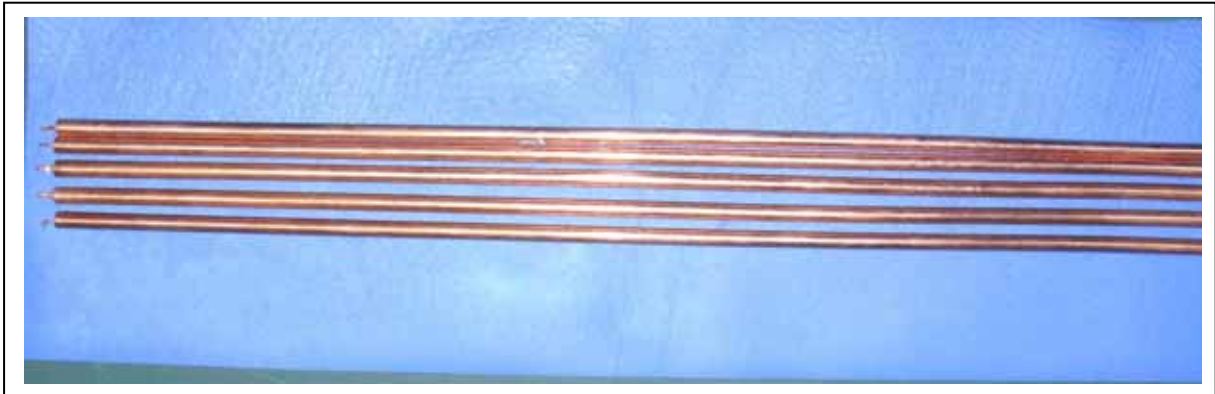
Heat pipe application :

Solar heater, IGBT radiator
Enclosure cabin exchanger
Laptop module, CPU cooler
Telecom dissipate cooling



npowertek NPH SERIES CPU COOLER

HEAT COLUMN SERIES



Sinter Heat Pipe

1. Scope

The heat pipe is a very effective heat transfer device which can transmit a large amount of heat over a long distance with extremely small temperature drops.

This specification details the requirements and applications for Npowertek standard Sinter heat pipes.

2. Dimensions

The dimensional attributes of Npowertek Sinter heat pipes shall conform to the following drawing.

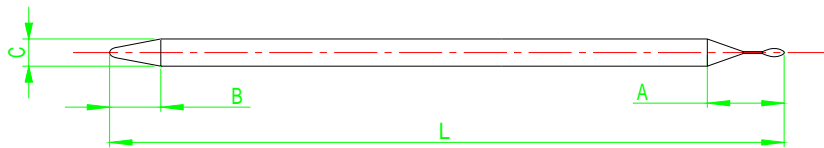


Fig. 1 Npowertek Sinter Heat Pipe Dimensions

Table 1 General Dimension of Npowertek Sinter Heat Pipes

Diameter (C)	Standard Length (L)	Ineffective Length B	Ineffective Length (pinch off) A
8±0.1mm	150~700±1 mm	< 5 mm	10 mm
10±0.1mm	150~700±1 mm	< 5 mm	15 mm
12.7±0.1mm	150~700±1 mm	< 5 mm	15 mm

Heat pipe Specification		
Dimension(mm)	length(mm)	Remark
4	0-250	Round shape / Mesh wick
5	0-300	Round shape / Mesh wick
6	0-350	Round shape / Sintered powder

3. Operating Environment

Table 4 Operating Environment

Item	Operating	Storage
Temperature	20 ~200	- 5~ 50
Humidity	80 % RH Max (at 60)	80 % RH Max (at 60)
Inclination	-30~90 degree	Horizontal