LIQUID COOLED COLD PLATES

Why do we need to use cold plates:

When the heat density generated by power devices is so high that it cannot be cooled even with the use of forced circulation of air using either bonded fin or folded fin products, one of the most suitable choices is to use liquid cooled cold plate.

Specification Features and Benefits

**Advantage of SNS Cooling Cold Plates:**

1. Extruded base for large qty requirement thus better price & performance.
2. Leak free features on contact surfaces (pressure tested 100% before shipping)
3. Device to be cooled is in direct contact with copper tube. Micro porosity between tube & base plate is filled with thermally conductive aluminum filled epoxy & thus better performance because of no air pockets.
4. Flatness of max. 0.002 T.I.R. over surface area of 6"x6" thus thinner layer of thermal grease between device & cold plate.

**Tube materials offered:**

1. Copper
2. Stainless steel
3. Cold drawn aluminum tube
4. 90/10 Cupro-Nickel

**Tube sizes offered:**

: Diameter 1/4", 3/8", 1/2" & 5/8"

**Tube wall thickness:**

: 0.032" to 0.062"
Specification Features

Base plate material Offered: 6061-T651 as per AMS 4020/ASTM B 209 and 6063-T5

Surface finish offered:
1. Wash
2. Clear chromate
3. Yellow chromate
4. ROHS chromate
5. Electro less Nickel Plating

Wall thickness on fly-cut tube:
Min 0.032” for 0.049 thick tube & 0.022” for 0.035” wall thick tube.

MECHANICAL FEATURES:

1 PASS COLD PLATE

Tube inlet/outlet features for stocked cold plates:
1. Plain tubes

Tube Inlet/Outlet features for custom order:
1. Bead single or double
2. Soldered threaded adapter male/female
3. Quick assembly adapter as per ISO/SAE standard

FOR MORE INFORMATION
VISIT OUR WEBSITE
WWW.SNSCOOLINGTECH.COM
OR CALL 416-738-7797 FOR IMMEDIATE HELP
Specification - Mechanical Features

2 PASS COLD PLATE

Dimensions as shown are in inches

4 PASS COLD PLATE

Dimensions as shown are in inches
Custom design:

If any of your cooling requirements cannot be taken care with existing standard design, then we recommend to send us an email at sales@snscoolingtech.com so that we can review your requirement & offer our expertise before you finalize the drawing.
## STANDARD COLD PLATE ORDERING NUMBER

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Note:
1. All standard cold plates are designed with diameter 0.375” copper tube with wall thickness of 0.049”, standard projected length of copper tube beyond the edge of cold plate=2”

2. Pricing for standard cold plates– please visit website.