



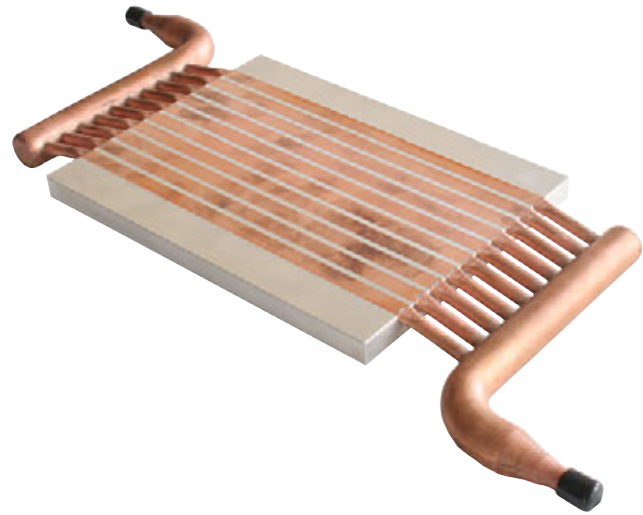
**AAVID  
THERMALLOY**

**AavTube  
Liquid Cold Plates**

**RoHS ✓  
Compliant**

### **AAVTUBE LIQUID COLD PLATES FOR POWER APPLICATIONS**

Aavid Thermalloy Aav Tube cold plates feature an innovation on our patented Hi-Contact™ design which embeds tubes in the base plate to form a mechanically robust cold plate. Extended Surface cold plates increase the surface area in contact with the cooling fluid by using flatter and more closely spaced tubes in order to increase surface area thereby increasing thermal transfer performance. Unlike narrow tube designs, the wide tube puts more fluid in close contact to the device base plate to increase thermal transfer.



#### **CRITICAL APPLICATION NEED:**

- *Cost/performance value*
- *Leak free operation*
- *Thermal performance*

#### **FEATURES AND BENEFITS:**

- *Headers provide parallel fluid flow for lower pressure drop*
- *Hi-Contact tubes put cooling fluid in close contact with the heat load*
- *Base plate provides mechanical support and area to accommodate device mounting*
- *Configured to accept a variety of fittings*

#### **ORDERING INFORMATION:**

<u>Part Number</u>	<u>"A" Dim</u>	<u>Finish</u>	<u>Configuration</u>	<u>Figure</u>
044586	178 mm (7.0")	Unfinished	Single Pass	1

Custom Configurations: See Figure 2 for design guidelines.  
Contact Aavid Thermalloy Application Engineering for assistance.

**FOR MORE INFORMATION, VISIT OUR WEB SITE: [WWW.AAVIDTHERMALLOY.COM](http://WWW.AAVIDTHERMALLOY.COM)**



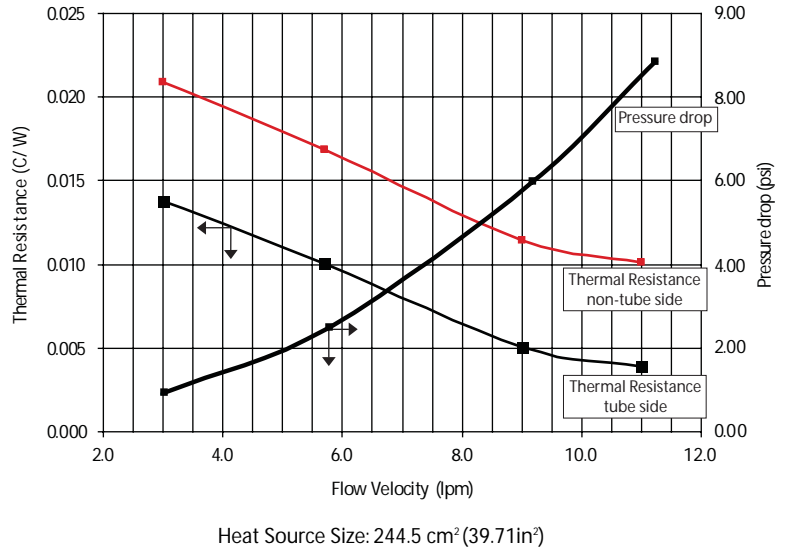
### SPECIFICATIONS:

- Plate: Extrusion, aluminum 6063-T5
- Tube: Copper 6.35 mm (0.250") O.D. x .8 mm (0.032") wall
- Epoxy: Aluminum filled, high thermal conductivity
- Finish: Unfinished standard

### AVAILABLE OPTIONS:

- Finishes: AavSHIELD, AavSHIELD<sup>3</sup>
- Tube Material: Stainless steel or Cupronickel tubing of the same outside diameter
- Length: Custom lengths available (see Figure 2)

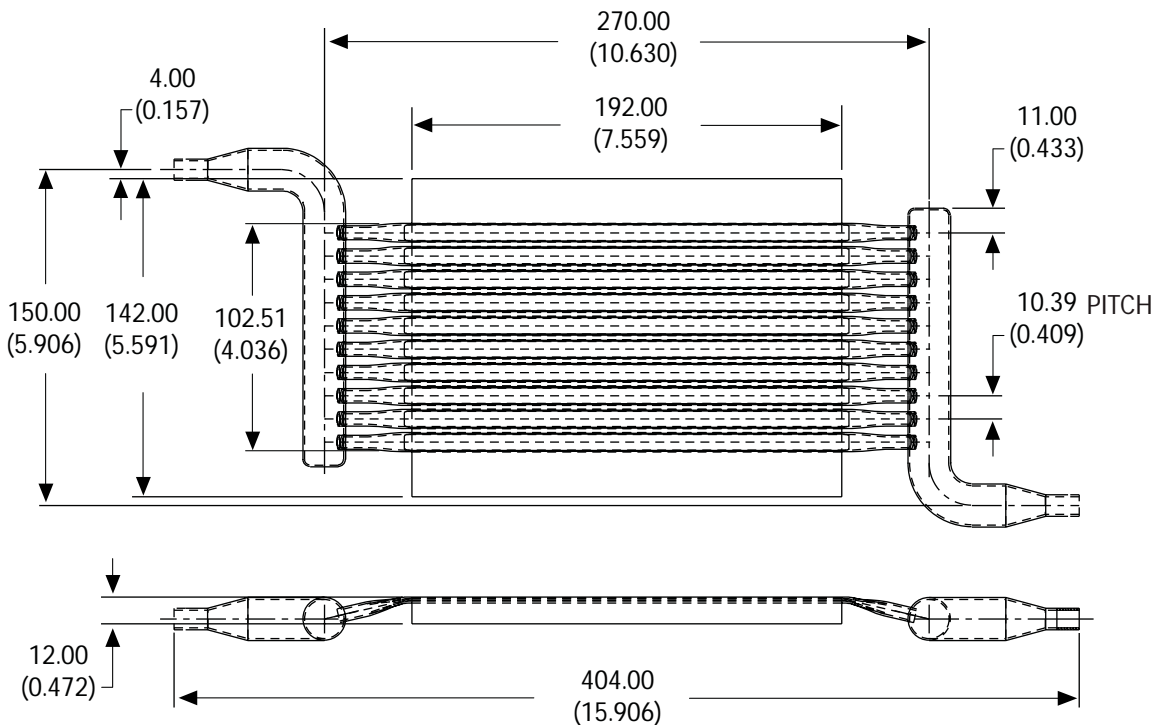
### PERFORMANCE:



Contact Aavid Thermalloy Applications Engineering Department when ordering custom configurations.

### MECHANICAL OUTLINE:

Figure 1



Dimensions as shown are mm (inches)



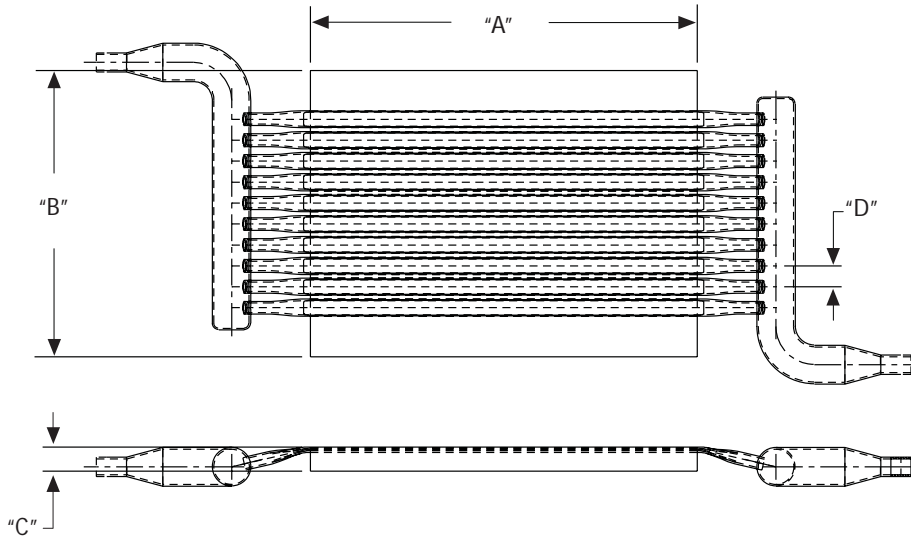
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**CUSTOM DESIGN EXAMPLE AND GUIDELINES**

Figure 2



**Standard Tolerances**

Lead-in Dimensions	± 0.25 (0.01)
Overall Dimensions	± 0.50 (0.02)
Feature to Feature	± 0.13 (0.005)

Dim	Description	Min	Max
A	Plate Length	75 (2.93)	450 (17.72)
B	Plate Width	100 (3.94)	360 (14.17)
C	Plate Thickness	8 (0.32)	25 (0.98)
D	Tube Pitch	9.5 (0.37)	25 (0.98)

Manifold layout, size, and end terminations are readily customized

\* For alternate materials please contact application engineering.

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