AAVID THERMALLOY

Tube Liquid Cold Plates

RoHS ✓ Compliant

TUBE LIQUID COLD PLATES FOR POWER APPLICATIONS

Aavid Thermalloy Tube liquid cold plates are designed for engineers seeking a cost effective solution for low and medium power density applications. Tube cold plates feature a joint free continuous tube mechanically interlocked into a extruded aluminum plate. In addition, a thermal epoxy is applied to the joint to provide a gap free thermal interface between the plate and the tube for increased performance.

CRITICAL APPLICATION NEED:

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

FEATURES AND BENEFITS:

- *Economical extruded base and continuous tube construction*
- *Continuous joint free tube reduces chances for leaks*
- *Use of thermal epoxy in the joint between tube and plate enhances thermal performance.*

ORDERING INFORMATION:

Part Number	"A" Dim	Finish	Configuration	Figure
418101U00000G	178 mm (7.0")	Unfinished	2 Pass	1
418201U00000G	305 mm (12.0 ")	Unfinished	2 Pass	1
418301U00000G	610 mm (24.0")	Unfinished	2 Pass	1

Custom Configurations: See Figure 4 for design guidelines.
Contact Aavid Thermalloy Application Engineering for assistance.

FOR MORE INFORMATION, VISIT OUR WEB SITE: WWW.AAVIDTHERMALLOY.COM
TEL: (603) 224-9988

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SPECIFICATIONS:

- *Plate: Extrusion, aluminum*
- *Tube: Copper 9.5 mm (0.375") O.D. x .8 mm (0.032") wall*
- *Epoxy: Aluminum filled, high thermal conductivity*
- *Finish: Unfinished standard*

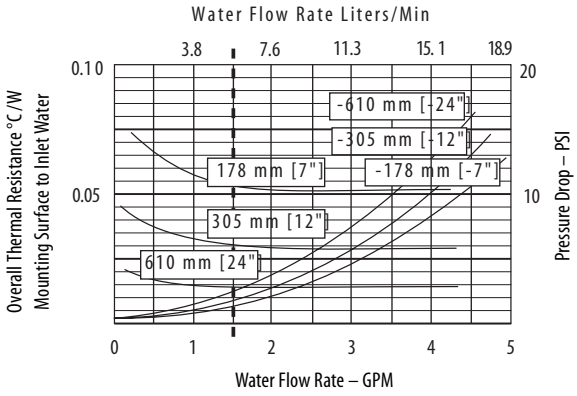
AVAILABLE OPTIONS:

- *Finishes: AavSHIELD, AavSHIELD³*
- *Tube Material: Stainless steel or Cupronickel tubing of the same outside diameter*
- *Length: Custom lengths available (see Figure 4)*

Contact Aavid Thermalloy Applications Engineering Department when ordering custom configurations.

PERFORMANCE:

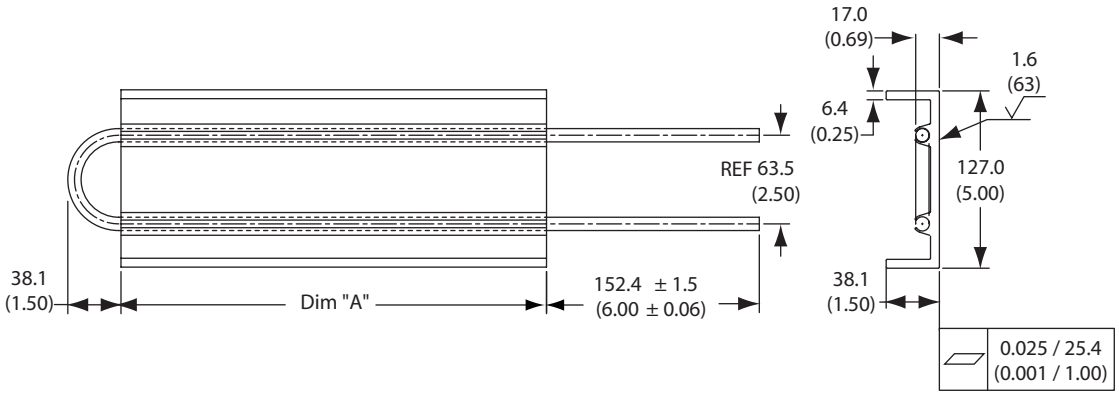
2 Pass Models



MECHANICAL OUTLINE:

Figure 1

2 Pass Model



Dimensions as shown are mm (inches)

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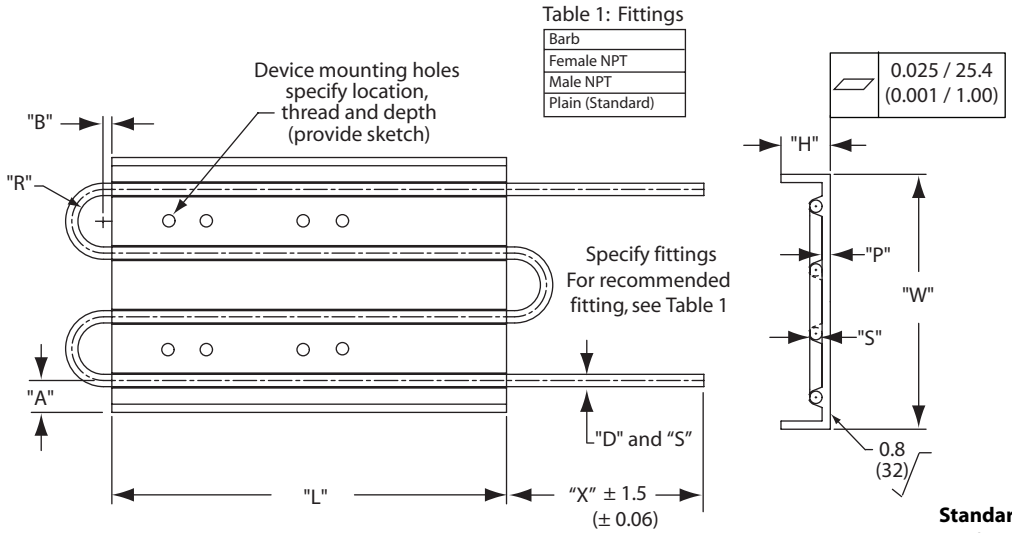
CUSTOM DESIGN EXAMPLE AND GUIDELINES



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	Tube to edge	12.0 (0.50)	
B	Center line of tube radius to plate	3.0 (0.12)	
H	Flange height	25.4 (1.00)	76.2 (3.00)
L	Plate length	25.4 (1.00)	711.2 (28.00)
P	Plate thickness	6.4 (0.25)	25.4 (1.00)
R	Tube bend radius measured at centerline (Copper only)*	2 x Dim D	
S	Tube wall thickness	0.8 (0.032)	
D	Tubing diameter	6.4 (0.25)	25.4 (1.00)
W	Plate width	50.8 (2.00)	307.8 (12.00)
X	Tube Extension	24.4 (1.00)	254.0 (10.00)

* For alternate materials please contact application engineering.

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