



**AAVID
THERMALLOY**

**Hi-Contact™
Liquid Cold Plates**

**RoHS ✓
Compliant**

**HI-CONTACT™ LIQUID COLD PLATES
FOR POWER APPLICATIONS**

Aavid Thermalloy Hi-Contact™ liquid cold plates are designed for engineers seeking a cost effective solution for medium power density applications. Hi-Contact™ cold plates feature a interlocking groove and tube geometry that improves mechanical robustness and thermal performance over conventional designs.



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*
- *Tube directly contacts the base of the device cooled improving thermal resistance. Thin epoxy joint between tube and plate outperforms 'dry' joints.*

ORDERING INFORMATION:

Part Number	"X" Dim	Finish	Configuration	Figure
416401U00000G	N/A	Unfinished	2 Pass	1
416501U00000G	152 (6.00)	Unfinished	4 Pass	2
416601U00000G	305 (12.00)	Unfinished	4 Pass	2
416101U00000G	152 (6.00)	Unfinished	6 Pass	3
416201U00000G	305 (12.00)	Unfinished	6 Pass	3
416301U00000G	610 (24.00)	Unfinished	6 Pass	3

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 Material: Extrusion, aluminum*
- *Tube Material: Copper,
9.5 mm (0.375") O.D. x 1.24 mm (0.044") wall*
- *Epoxy: Aluminum filled, high thermal conductivity*
- *Finish: Unfinished standard*

AVAILABLE OPTIONS :

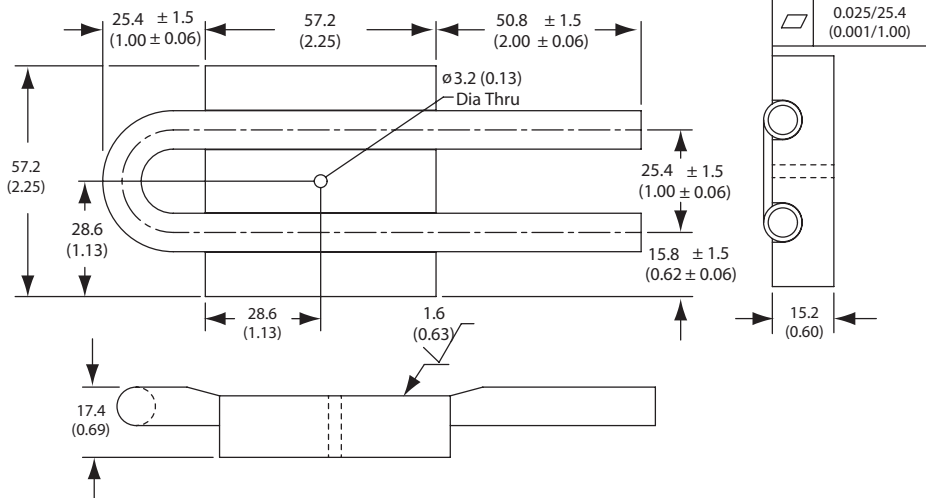
- *Finishes: AavSHIELD, AavSHIELD³*
- *Tube Material: Stainless steel or Cupronickel tubing of the same diameter*
- *Sizes: Custom sizes available (see Figure 4)*

Contact Aavid Thermalloy Applications Engineering Department for assistance with custom configurations

MECHANICAL OUTLINE:

Figure 1

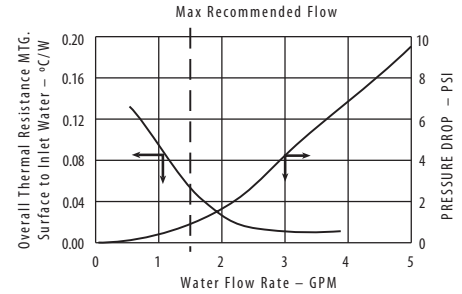
2 Pass Model



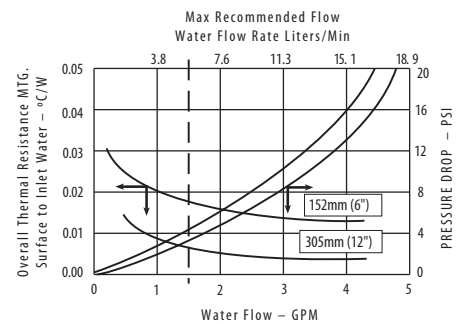
Dimensions as shown are mm (inches)

PERFORMANCE:

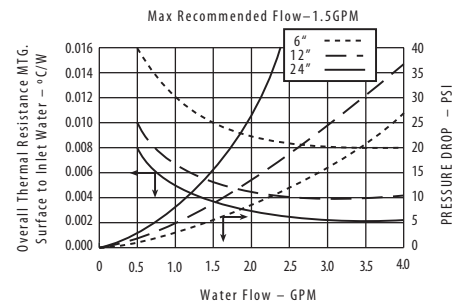
2 Pass Models



4 Pass Models



6 Pass Models



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MECHANICAL OUTLINE:

Figure 2
4 Pass Model

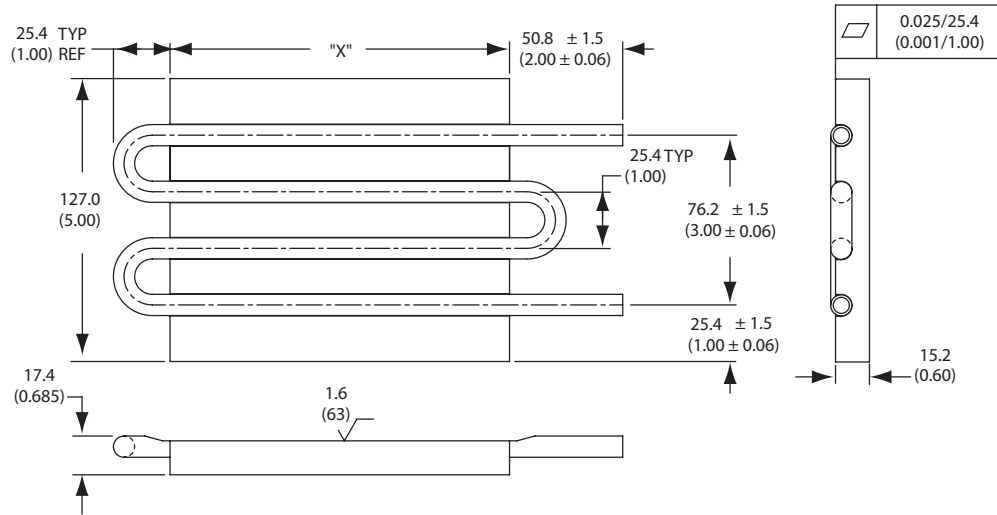
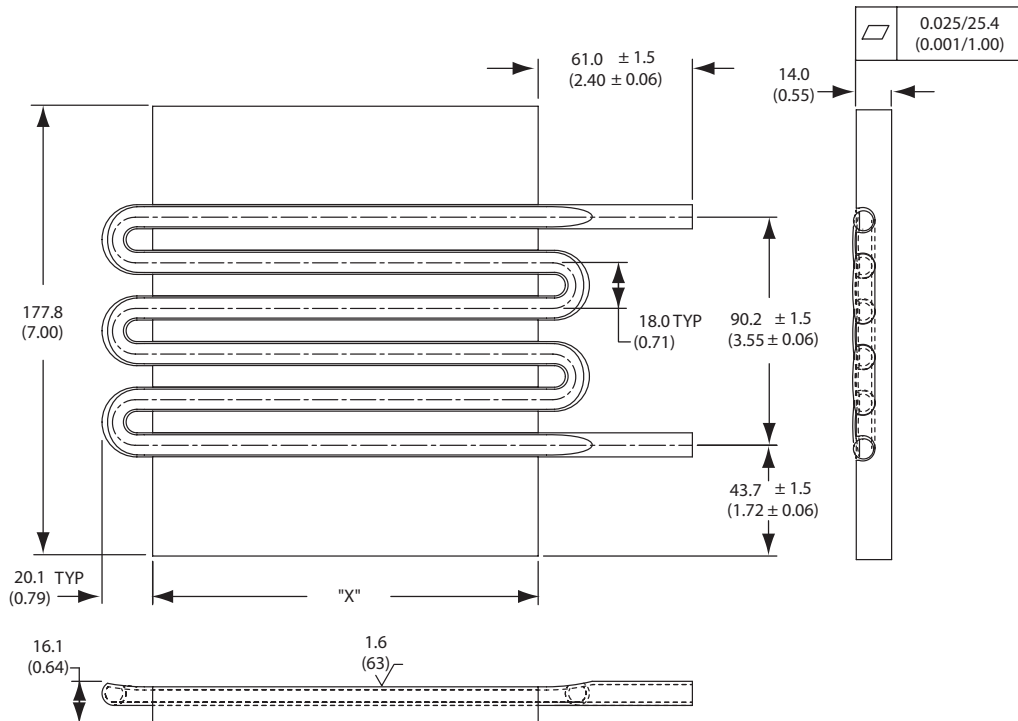


Figure 3
6 Pass Model



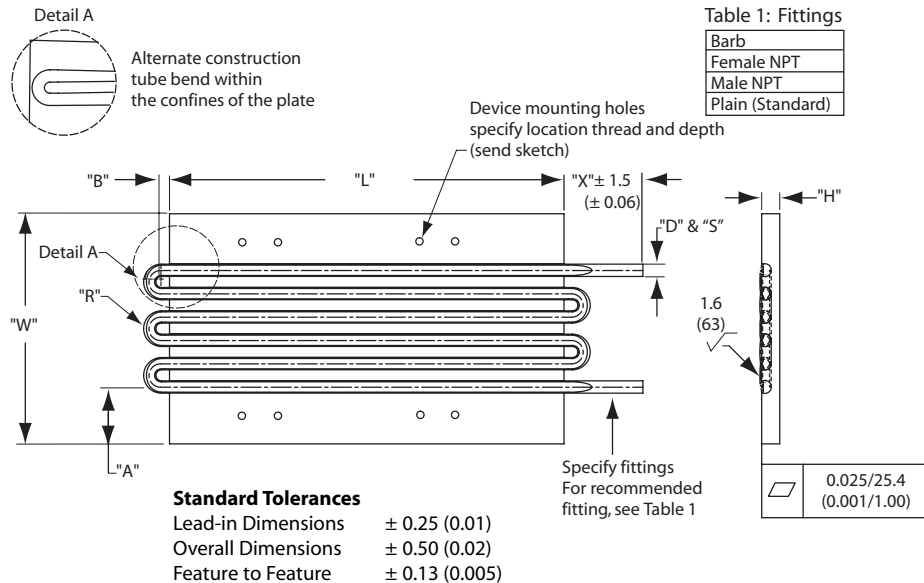
Dimensions as shown are mm (inches)

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MECHANICAL OUTLINE:

Figure 4



CUSTOM DESIGN GUIDELINES

Dim	Description	Min	Max
A	Tube to edge	6.4 (0.25)	
B	Center line of tube radius to plate	3.0 (0.12)	
H	Plate thickness	1.7 x Dim D	25.4 (1.00)
L	Plate length	25.4 (1.00)	1219.2 (48.00)
R	Tube bend radius measured at centerline (Copper only. For alternate materials please contact application engineering.)*	2 x Dim D	
S	Tube wall thickness	1.25 (0.050)	
D	Tubing diameter	6.4 (0.25)	25.4 (1.00)
W	Plate width	38.1 (1.50)	250.4 (10.00)
X	Tube extension	25.4 (1.00)	254.0 (10.00)

* To simplify tooling, a single bend radius dimension is recommended for all tube bends

North America

70 Commercial Street
Suite 200
Concord, NH 03301
TEL: (603) 224-9988
FAX: (603) 223-1790
EMAIL: info@aavid.com

Europe - Italy

Via Aprile,32
40057 Cadriano (BO), Italy
TEL: (39) 051 764011
FAX: (39) 051 764090
EMAIL: sales.it@aavid.com

Asia - Taiwan

14F-4, NO. 79, Hsin Tai Wu RD.
SEC. 1, Hsi Chih
Taipei Hsien
Taiwan
TEL: 011(886) 2-2698-9888
FAX: 011(886) 2-2698-9808

Asia - Singapore

31 Admiralty Road, #06-01
Singapore 739984
TEL: 65-6362-8388
FAX: 65-6362-8588

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