



# Tubed Cold Plates

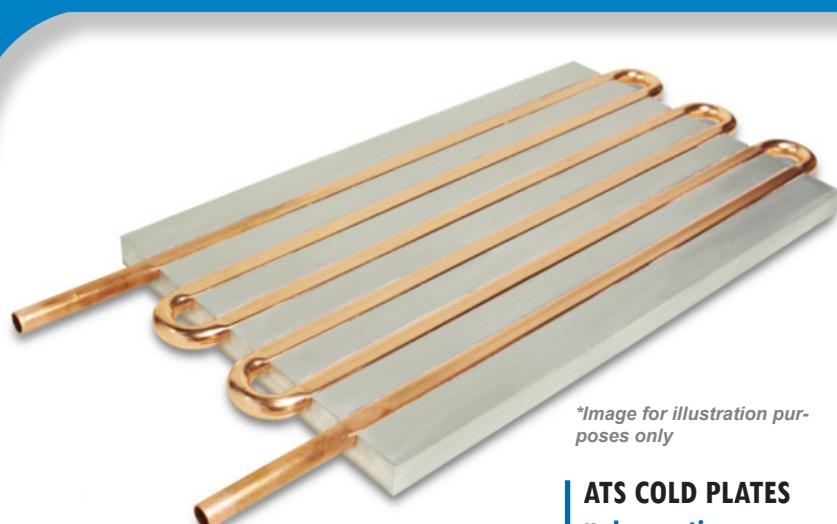
## High-Performance Tubed Cold Plates

The Tubed Cold Plate family is engineered as a cost effective and reliable solution for thermal management applications where liquid cooling of components is preferred over air.

The cold plates are manufactured in the USA using a continuous copper tube and a press fit attachment. This method maximizes heat transfer since the tubes are directly connected to the plate instead of through a bulky epoxy or other material that can act as thermal insulator.

### FEATURES AND BENEFITS

- » Cost effective thermal management solution for component cooling where the heat load is low to moderate.
- » Compatible with industry accepted coolants
- » Continuous copper tubing for reliable liquid flow
- » Direct contact of copper pipe with the cold plate provides superior heat transfer
- » Supplied with secure, push-to-connect tube fittings for a tight connection between the cold plate and inlet and outlet tubing
- » Maximum pressure: 200 psi



\*Image for illustration purposes only

### ATS COLD PLATES

- » **Innovative Technology**  
Superior heat transfer, flexible design platform
- » **Compact Design**  
Designed to be used in a variety of liquid cooling applications
- » **Easy Connections**  
Supplied with push-to-connect fittings for a quick, reliable, secure connection.
- » **Safe & Reliable**  
Continuous copper tubing with press fit manufacturing for a safe & reliable unit

**» Customization Available!** ATS will customize any of our cold plates to meet any application need

### ATS Tubed Cold Plate Family

(Performance Data based on 400 W, 20°C Inlet Temp, and Water as Fluid)

| Part Number  | Plate Dim. (mm) |     |    | Overall Length (mm) | # of Tube Passes | Heated Side | Flow Rate 0.5 gpm |          | Flow Rate 1.0 gpm |          | Flow Rate 1.5 gpm |          | Flow Rate 2.0 gpm |          |
|--------------|-----------------|-----|----|---------------------|------------------|-------------|-------------------|----------|-------------------|----------|-------------------|----------|-------------------|----------|
|              | L               | W   | H  |                     |                  |             | R (°C/W)          | PD (psi) |
| ATS-TCP-1000 | 57              | 57  | 15 | 133                 | 2                | Tube        | 0.088             | 0.15     | 0.075             | 0.47     | 0.067             | 0.95     | 0.063             | 1.61     |
|              |                 |     |    |                     |                  | Plate       | 0.150             |          | 0.135             |          | 0.125             |          | 0.121             |          |
| ATS-TCP-1001 | 152             | 127 | 15 | 229                 | 4                | Tube        | 0.021             | 0.52     | 0.016             | 1.57     | 0.013             | 3.07     | 0.012             | 5.10     |
|              |                 |     |    |                     |                  | Plate       | 0.033             |          | 0.027             |          | 0.025             |          | 0.024             |          |
| ATS-TCP-1002 | 305             | 127 | 15 | 381                 | 4                | Tube        | 0.013             | 0.80     | 0.009             | 2.26     | 0.008             | 4.67     | 0.007             | 7.87     |
|              |                 |     |    |                     |                  | Plate       | 0.018             |          | 0.014             |          | 0.013             |          | 0.012             |          |
| ATS-TCP-1003 | 152             | 178 | 15 | 241                 | 6                | Tube        | 0.015             | 0.81     | 0.011             | 2.32     | 0.009             | 4.65     | 0.008             | 7.82     |
|              |                 |     |    |                     |                  | Plate       | 0.023             |          | 0.018             |          | 0.017             |          | 0.016             |          |
| ATS-TCP-1004 | 305             | 178 | 15 | 393                 | 6                | Tube        | 0.011             | 0.96     | 0.006             | 3.22     | 0.005             | 6.66     | 0.004             | 11.25    |
|              |                 |     |    |                     |                  | Plate       | 0.013             |          | 0.010             |          | 0.008             |          | 0.008             |          |
| ATS-TCP-1005 | 610             | 178 | 15 | 698                 | 6                | Tube        | 0.007             | 1.78     | 0.004             | 5.99     | 0.003             | 12.47    | 0.003             | 20.77    |
|              |                 |     |    |                     |                  | Plate       | 0.009             |          | 0.006             |          | 0.005             |          | 0.005             |          |

