



# Tubed Cold Plates

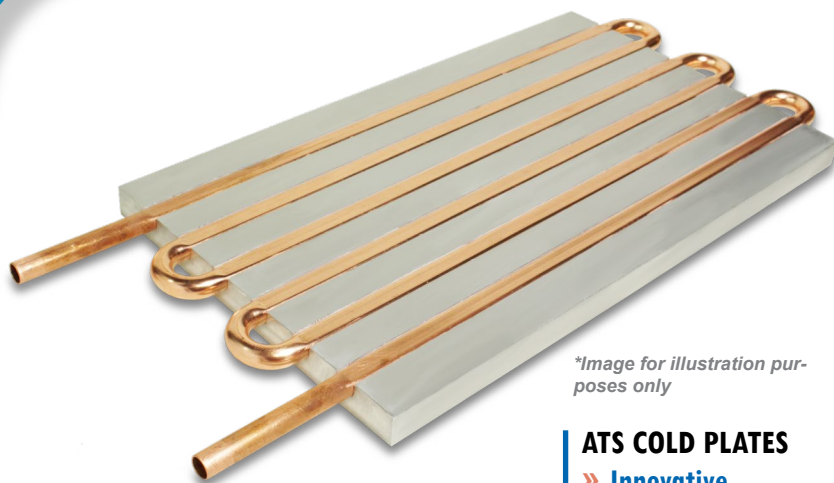
## High-Performance Tubed Cold Plates

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
- » The cold plate base the copper tubes press into is made of aluminum 6061
- » Direct, press fit, contact of copper pipe with the cold plate provides superior heat transfer
- » Supplied with secure, 3/8" push-to-connect tube fittings for a tight connection between the cold plate and inlet and outlet tubing. Tube outer diameter is 3/8" (9.525 mm).
- » Maximum pressure: 200 psi
- » Plastic tubing connecting to our Cold Plate fitting has to be at least 90 durometer Shore A scale



*\*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)	R (°C/W)	PD (psi)	R (°C/W)	PD (psi)	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	

### APPLICATIONS

- » Automotive
- » Instruments
- » Uninterruptible Power Supplies
- » Wind Turbines
- » Photovoltaic Inverters
- » Induction Heaters
- » Motor Devices

