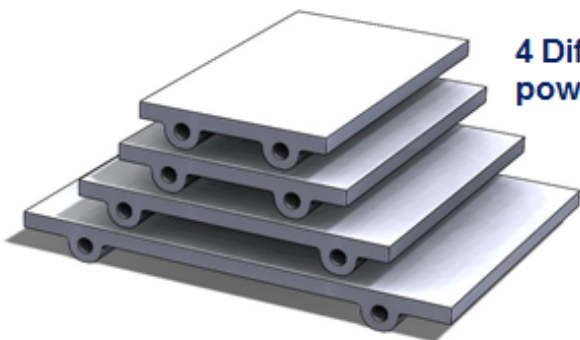


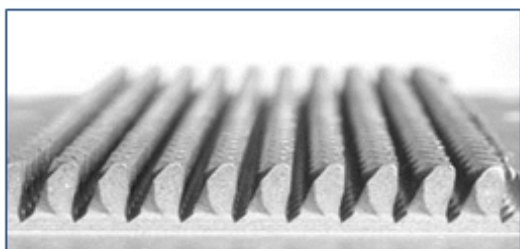
CP3004
CP3004 XP
Patent Pending

WOLVERINE
MICROCOOL[®]
ENGINEERING THERMAL INNOVATION

MicroCool[®] liquid cooled coldplates are designed to fit common IGBT and Power electronics configurations used today. At the heart of each MicroCool[®] cold plate is our patented Micro Deformation Technology (MDT[™]) in line pin fin, Friction Stir Welded construction, and CFD optimized parallel cooling. The 3000 Series coldplates feature MicroCool's library of extruded tubs / manifolds, allowing for the best performing and lowest cost coldplate on the market today.

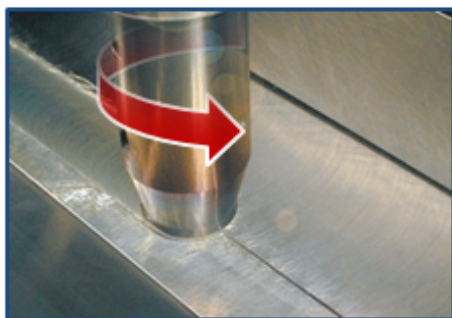
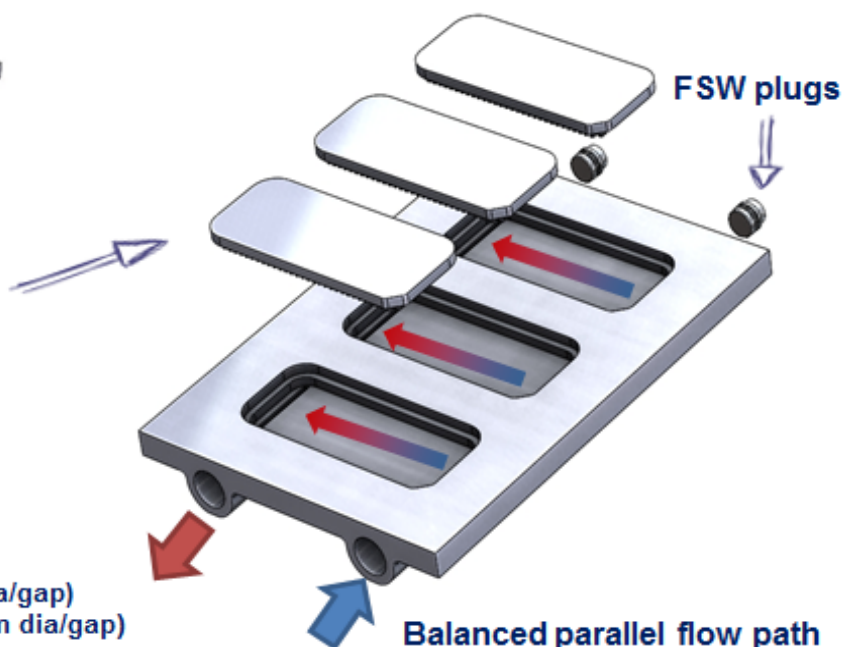


4 Different aluminum extrusion sizes to fit 90% of the power modules on the market today.

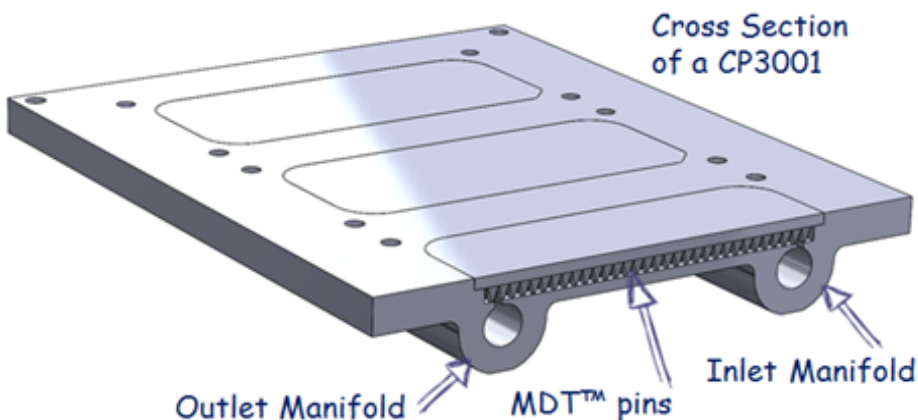


MDT[®] Pin Plate Options
(AL 1100-H14: 220 W/m-K)

- 4mm tall 12 fins/inch inline pin (1mm dia/gap)
- XP 4mm tall 20 fins/inch inline pin (.5mm dia/gap)



Friction stir welded construction



Cross Section
of a CP3001

Outlet Manifold

MDT[™] pins

Inlet Manifold