

 **motivaire**[®]
DYNAMIC COLD PLATES[™]

Breakthrough Performance for
Liquid Cooling



REVOLUTIONARY LIQUID COOLING FOR HIGH-PERFORMANCE COMPUTING

Motivair Dynamic Cold Plates™ empower the next generation of high-performance computing

Motivair's Dynamic Cold Plates™ harnesses innovative fluid dynamics to redefine direct liquid cooling. The free-flowing nature of the Dynamic Cold Plate™ accelerates particles and other contaminants moving through and minimizes risks of poor water quality.

Our patent pending technology enables robust performance without the use of skived microchannels. It allows CPUs and GPUs to operate at peak performance while reducing the possibility of cooling degradation and costly system failures.

This simple yet effective technology is optimized for cost efficient and scalable production, targeted specifically for high-performance computing, small-to-large clusters and Exascale class systems. All products are engineered and manufactured in the USA, ensuring a predictable, end-to-end experience while eliminating the risks of foreign supply chain disruptions.



**CUSTOMIZABLE
CONFIGURATIONS**

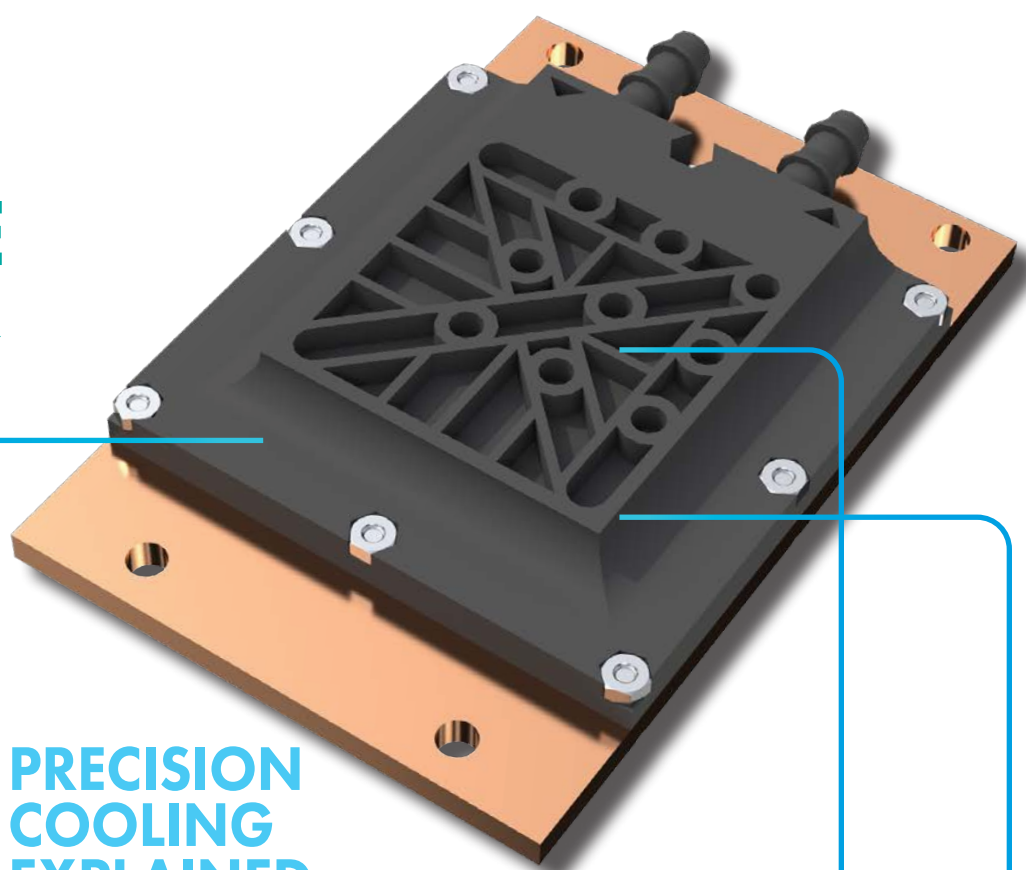


**MADE IN
THE USA**

ONE SOURCE FOR END-TO-END DIRECT LIQUID COOLING

Looking for a single source liquid cooling system for high-performance computing? Our Dynamic Cold Plates™, coupled with our Coolant Distribution Units or Heat Dissipation Units, provide users an all-in-one, End-to-End Direct Liquid Cooling System with comprehensive post-sales services.

THINK OUTSIDE THE BOX



PRECISION COOLING EXPLAINED

1. RESISTANCE TO FLUID FOULING

- Designed to tolerate much larger impurities than microchannel cold plates.
- Dynamic coolant flow prevents stagnant regions where fouling is more likely to occur.
- Patent-pending technology minimizes the impact of variations in coolant viscosity.
- No moving parts that can get stuck or malfunction due to poor fluid quality or cold plate orientation.

2. LEAK-FREE DESIGN

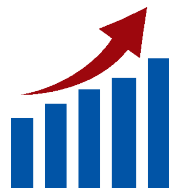
- Unitary molded Flow Distributor
- Single, static o-ring seal; no dynamic seals
- Tried and true push-lock hose connections, employed for decades for pressure hoses.

3. SCALABILITY

- Unconstrained by micro channels, thermal performance scales as flow and package power increase up to 1000 watts per processor.
- Dynamic fluid distribution ensures fresh, cool fluid flows wherever heat is generated.
- Scalable from small to large package sizes; equally effective at low and high power densities.



**UNIFORM
COOLING**



**HIGHER
PERFORMANCE**



**LOW
PROFILE**

Application Defined Options



MEMORY COOLING

Capturing the heat from DIMM packages is important when you want in order to take full advantage of direct liquid cooling.

Motivair has customizable designs for DDR4 and DDR5 server memory that integrate into the server liquid cooling package with the same, reliable leak-free connections and robust performance that characterizes the Dynamic Cold Plates™.

Features

- Made in the USA.



QUICK CONNECTS

Quick Connects provide a seamless, make-or-break connection of water transfer lines for Motivair's Dynamic Cold Plates™

Features

- Designed by CPC from the ground up for data center liquid cooling
- Employs an advanced engineering polymer for maximum fluid compatibility and long service life
- Double O-Ring Seal for unparalleled reliability even after years of connection
- 200 PSI Rating
- Made in USA



IN-RACK MANIFOLD

Motivair's stainless steel manifolds provide a common connection point between Motivair's Dynamic Cold Plates™ and the supply and return cooling infrastructure system or Coolant Distribution Unit.

Features

- 304 Stainless Steel
- Variable Size Options 42U/48U/50U/Custom
- Universal Top/Bottom Design
- Made in USA

motivair[®]

COOLING SOLUTIONS



COOLANT DISTRIBUTION UNIT (CDU)

A CDU provides the ability to deploy higher density, load diverse IT equipment in a smaller footprint while at the same time improving a facility's overall efficiency (PUE) and life expectancy. The CDU provides 100% sensible cooling up to 1.6MW, depending on the model. For use with the ChilledDoor[®] or other IT cooling systems.



IN-RACK COOLANT DISTRIBUTION UNIT (CDU)

Motivair's latest MCDU 4U provides all the benefits of a CDU, but can be mounted within a standard 19" rack enclosure. With a cooling capacity of 80kW (with ChilledDoor[®]) and 105kW (with other IT computer cooling systems), the MCDU 4U is ideal for smaller IT deployments, areas with space constraints, or to address hot spots in air-cooled data centers.



MANIFOLD SYSTEMS

A manifold provides a common connection point between the ChilledDoors[®] and the supply and return cooling infrastructure system or CDU. Each manifold is preconfigured for each door to include a check valve, individual 2-way valve and quick connect fittings for use with Motivair[®] hoses. Available options for semi-custom designs include 6, 12 and 16 port assemblies.



MOTIVAIR FREE-COOLING CHILLERS

The Motivair[®] Free-Cooling chillers were created to serve year-round mission critical cooling loads for data centers. Generations of Free Cooling chiller software design and implementation allow for optimal water side economizing hours, rapid restart after power failure, and tight temperature control during extreme year-round weather patterns.



MFC & PTS

Motivair offers a wide range of closed loop cooling systems designed to operate at W03 and W-4 water temperatures for use with next gen liquid cooled computer systems.



SERVICE & MAINTENANCE PROGRAM

Motivair[®] provides customer-focused service and support for your mission critical equipment. We offer site surveys, installation services, Level III Commissioning support, service agreements, and extended warranties on parts.

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