

**motivair®**  
COOLING SOLUTIONS



**HDU** heat  
dissipation  
unit

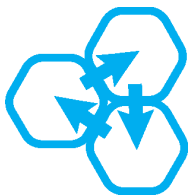
OUR BUSINESS IS COOLING YOURS™

[motivaircorp.com](http://motivaircorp.com)





# COMPREHENSIVE COOLING FOR YOUR DIGITAL WORLD



## APPLICATION

On-Chip Cooling,  
High-Performance Cooling,  
and Direct Liquid Cooling



## HEAT DISSIPATION

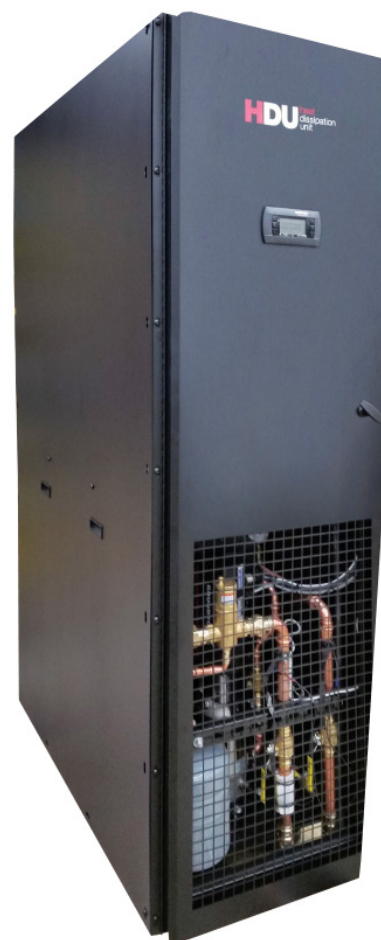
Dissipates heat up  
to 100 kW

## Key Reasons to Use a Motivair® HDU™

- Convert liquid cooled computer system to air-cooled by rejecting heat to room
- Location of liquid cooled system prevents water from being plumbed to the computers
- Chilled or cool water is not available at the site

## CUSTOM OEM SOLUTIONS

Motivair offers flexible designs for unique liquid cooling applications and IT densities with varying heat loads, including custom solutions for OEM customers.



# From Liquid-Cooled to Air-Cooled IT

Many modern High Performance Computer (HPC) systems are being designed to be liquid cooled. These computers circulate a fluid to and from the computer's CPU and GPU chips, removing heat and rejecting it to a dedicated building chilled water plant. In the absence of available building cooling water, the heat from the computer cooling system must be rejected to air, a process that can now be facilitated by Motivair's Heat Dissipation Unit™ (HDU).

The Motivair HDU is connected directly to the computer cooling loop and sits adjacent to or in close proximity to the computer racks. Circulation pumps located inside the HDU move hot water from the computer system to the HDU's air-cooled heat exchanger. High-efficiency EC fans draw cool room air across the HDU's internal heat exchanger, removing heat from the computer cooling system. A high-powered PLC controls and monitors all aspects of HDU performance ensuring the HPC system can operate within thermal specifications and without dependence on a building water supply.

## SPECIFICATIONS

Models	MHDU 350	MHDU 600
MHDU Dimensions (in):		
Height:	80	84
Width:	18	24
Depth:	49	57
Nominal Cooling Capacity (kW):	62	119
Piping Size (IN)	1"	1"
Nominal Flow Rate (GPM)	16	31
Max Flow Rate (GPM)	23	44
Piping Type	Non-Ferrous	Non-Ferrous
Electrical	230/1/50-60	208, 230, 460, 575/3/60 380/3/5

\* Building Air Supply @75F; Supply/Return Water @ 140F/113F

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# ***motivair***<sup>®</sup>

## COOLING SOLUTIONS



### **CHILLED DOOR<sup>®</sup> RACK COOLING SYSTEM**

Advanced server rack cooling system fits any standard or OEM computer rack. Removes up to 75 kW of server heat per door.



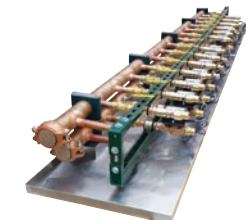
### **IN-RACK COOLANT DISTRIBUTION UNIT (CDU)**

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<sup>®</sup>) 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.



### **FLOOR-MOUNTED 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 1.25MW, depending on the model. For use with the ChilledDoor<sup>®</sup> or other IT cooling systems.



### **MANIFOLD SYSTEMS**

A manifold provides a common connection point between the ChilledDoors<sup>®</sup> 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<sup>®</sup> hoses. Available options for semi-custom designs include 6, 12 and 16 port assemblies.



### **SERVICE & MAINTENANCE PROGRAM**

Motivair<sup>®</sup> 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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