

THE SMALLEST PARTICLES CAN CREATE THE BIGGEST PROBLEMS

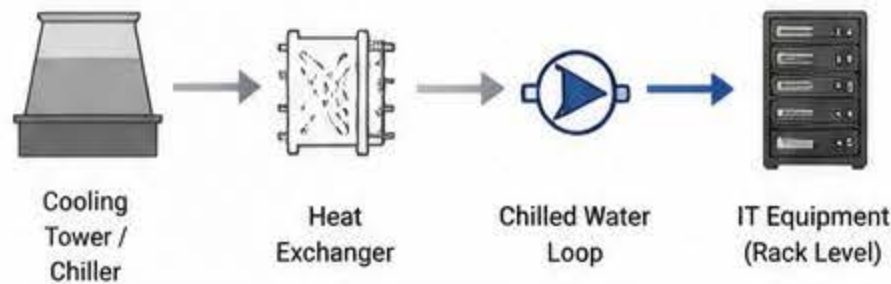
As cooling gets closer to the electronics,
the need for effective particle control increases.

Does our approach to filtration need to change?

COOLING IS MOVING CLOSER TO THE CHIP

TRADITIONAL COOLING

Larger system components and flow paths



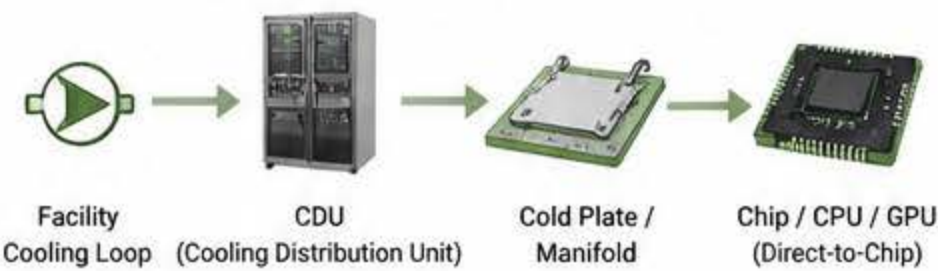
PARTICULATE CONTROL

Filtration at multiple points helps protect equipment throughout the system.



LIQUID / DIRECT-TO-CHIP COOLING

Tighter passages and sensitive components



PARTICULATE CONTROL IS MORE CRITICAL

Smaller particles can impact flow, heat transfer and system reliability.



WHY SMALL PARTICLES CAN CAUSE BIG PROBLEMS

IN LARGER SYSTEMS

Particles circulate with less impact on flow and heat transfer.



THE SMALLER
THE PASSAGE...

!
...THE GREATER
THE IMPACT

IN TIGHT PASSAGES

Particles can restrict flow, cause blockages and reduce heat transfer efficiency.



WHAT THIS MEANS FOR FILTRATION



RIGHT LEVEL OF FILTRATION

Match particle removal to the application – not just the smallest micron.



FLOW RATE

Maintain required flow while controlling particles.



PARTICLE LOAD MATTERS

Higher contamination loads will drive faster filter loading.



DIFFERENTIAL PRESSURE

Lower ΔP helps protect pumps, maintain flow and efficiency.



FLUID CHEMISTRY & TEMPERATURE

Ensure filter compatibility with fluids, additives and temperatures.



FILTER LIFE & MAINTENANCE

Balance particle control, filter life and operational practicality.



KEY TAKEAWAY

As cooling moves closer to the chip, effective particle control becomes more critical. The right filtration strategy protects equipment, maintains performance and supports reliable, efficient cooling.



Reduced
Heat Transfer



Increased
Pressure Drop



Blockages &
Component Wear



More Downtime
& Maintenance



THINK BEYOND MICRON RATING.
Think about the system. Protect what matters.

PoreFiltration®
Precise • Optimal • Reliable • Efficient