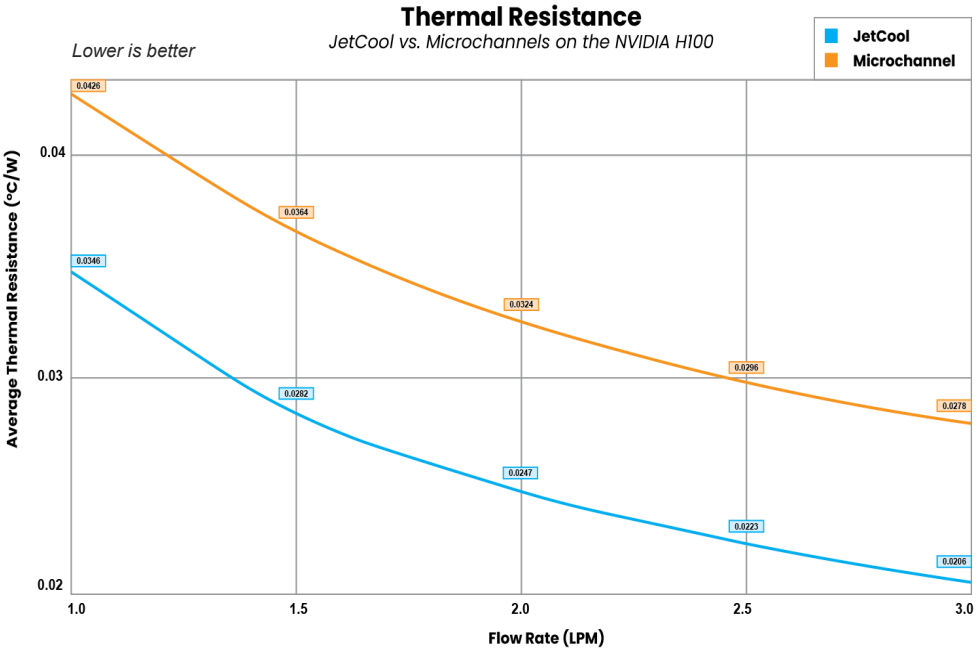
SmartPlate™ outperforms microchannel cold plates by 25%

Independent third-party testing confirms that JetCool's SmartPlate delivers 25% better thermal performance than competing microchannel solutions when cooling the NVIDIA H100 GPU. The results highlight lower GPU core and High Bandwidth Memory (HBM) temperatures, even with coolant temperatures as high as 50°C, keeping GPUs within safe operating limits.



At 50°C inlet coolant temperature using PG25, JetCool's total thermal resistance (including thermal interface materials) was measured to be significantly lower, proving its superior cooling efficiency. By maintaining lower chip temperatures, SmartPlates enable higher processor utilization, unlocking more compute per rack and sustaining peak AI performance. These findings reinforce what the industry is already recognizing **microchannel designs can't keep up with today's high-power AI workloads.**

Why hyperscalers are moving to SmartPlates

JetCool's SmartPlates redefine single-phase, direct-to-chip liquid cooling with our patented microconvective cooling® technology, delivering superior thermal performance for the most demanding AI and HPC workloads. Unlike microchannel cold plates, SmartPlates use microjet impingement to target hotspots and provide consistent, high-efficiency cooling—**from popular processors to Superchips exceeding 3,500W.**

Maximizes Thermal Performance	Leverage Warm Inlets for Heat Reuse	Optimizes for Next-Gen AI & HPC
SmartPlates lower thermal resistance, reducing GPU temperatures and unlocking maximum AI acceleration.	SmartPlates use warm coolant inlets up to 50°C, optimizing heat capture, transfer, and reuse efficiency at scale.	With GPUs climbing to 3,500W, SmartPlates scale where microchannels fall short.

Reach out to our team to learn more at hello@jetcool.com

jetcool
A Flex Company

SmartPlate for the NVIDIA H100

Any power, any scale, anywhere.

From single racks to multi-megawatt deployments, JetCool scales with your AI ambitions.

As a Flex company, JetCool is delivering its industry-leading liquid cooling technology at a global scale.

By integrating into Flex's extensive manufacturing ecosystem, JetCool can now design, build, deliver, and support complete liquid-cooled rack and power solutions entirely in-house - **at any scale, anywhere.**

Delivering superior cooling efficiency at

1.0 LPM

and higher compared to competing microchannel designs

Outperform microchannel cold plates by

25%

in thermal performance compared to competing microchannel designs

Leverage coolant inlets up to

50°C

while maintaining peak GPU performance