Blackwell Cold Plate Specification

Alloy's Blackwell cold plate delivers industry-leading thermal performance with embedded microcapillary™ channels, enabled by Alloy's patented Stack Forging™ process. Designed for the NVIDIA Blackwell GPU, it ensures reliable heat removal at coolant inlet temperatures above 45 °C.

Key Benefits

- **Low thermal resistance:** Alloy's complex microcapillaries allow for more efficient and even cooling across the entire chip
- **Ultra-low pressure drop:** Alloy's unique parallelization enables better thermal performance without sacrificing pressure drop
- **Leak-tight reliability:** single-piece forged construction eliminates brazing and seals
- **Targeted cooling where needed:** localized flow paths direct cooling to hot spots
- **Stiff and strong:** no leakage or permanent deflection at pressure drop up to 2,000 psi and above

Blackwell Cold Plate Specification

Product Name	Alloy MC-NVB200
Compatibility	Nvidia B200 TTV Compatible with GPU cooling on the Bianca carrier board (GB200/300)
Cooling Technology	Single-phase DLC Cold plate, embedded microcapillary flow channels
Thermal Resistance*	<0.127 C/W @ 2 LPM (PG25)
Pressure Drop*	<4 psi @ 2 LPM (PG25)
Dimensions *(L x W x H)*	70.05mm x 99.8mm x 26.92mm
Weight*	563 grams
Material	Copper 110 and Al 6061

**for Cu 110*

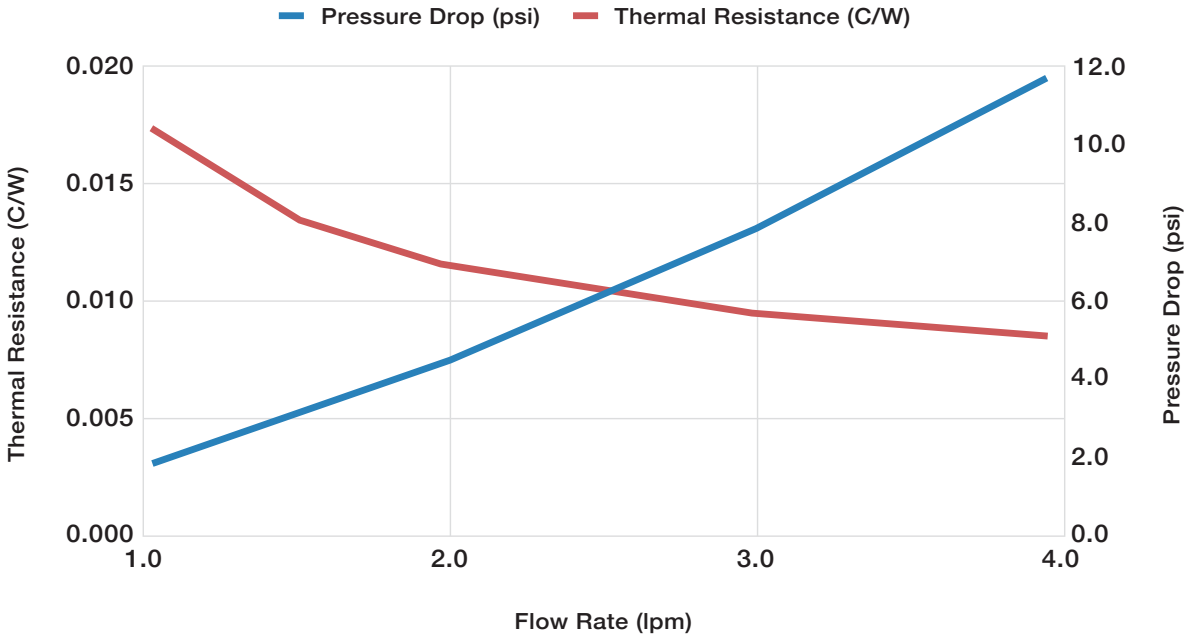
US Manufacturing

Alloy's portfolio also includes peripheral and memory cold plates for DIMMs, interconnect cards, and other components, **delivering 100% liquid cooling coverage across the entire system.**

Features

- **Ultra-thin microchannels** maximize heat transfer efficiency
- **3D engineered geometries** expand surface area for enhanced capacity
- **Massively parallelized networks** with short flow paths minimize flow resistance
- **Copper 110 or Aluminum 6061** single-piece construction

B200 TTV Coldplate Performance (PGW25 at 20 C)



Note: Thermal resistance does not include TIM. Data collected with a chassis resistor TTV at 500 W. Performance for Cu 110.

Learn more and see how we can help solve your toughest thermal challenges.

Reach out to **info@alloyenterprises.co**

The information provided herein is for reference only and is subject to change without notice. Performance values are derived from internal testing under specific conditions; actual results may differ based on system configuration, operating environment, and application requirements. Alloy Enterprises makes no warranties, express or implied, and assumes no liability in connection with the use of this information.

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