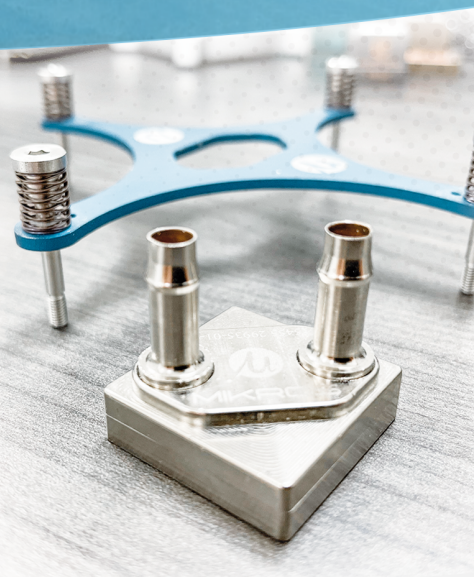
ascutney series

MIKROS technologies

AX-25
Data Sheet



High Performance Liquid Cooling:

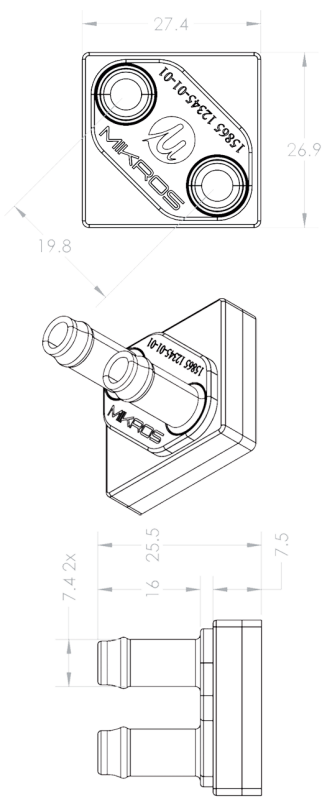
The Mikros AX-25 is the first cold plate in the Ascutney series. Utilizing our MikroMatrix technology, this cold plate is optimized for high heat flux semiconductors. With high cooling capacity and low pressure drop, it can improve performance on existing systems or evaluate Mikros' cooling technology for custom development.

Ascutney Series Technology:

- **High Cooling Capacity** as high as 120 W/C at 2 LPM
- **Low Pressure Drop** near 15 kPa (2 psi) at 2 LPM
- **High Cooling Value** average $0.25 per Watt dissipated*
- **High Reliability** endurance tested for over 18 years
- **Tailored Cooling** available with 0 deg temp gradients
- **Custom Mounts** available upon request
- **To Order:** info@mikros.net
- **Naming Scheme**: AX-xxyy-Z_1Z_2

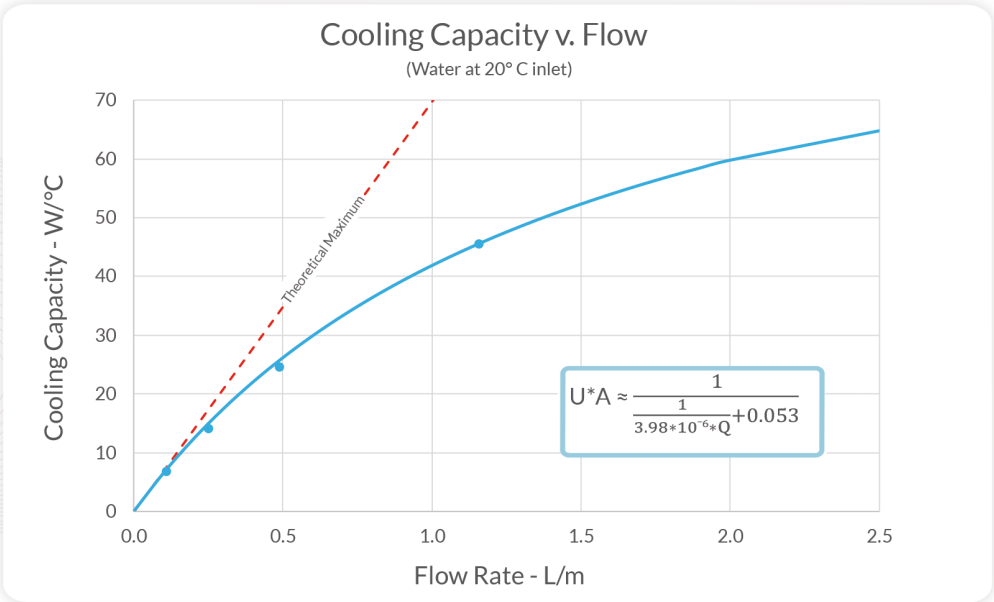
xx= x-dimension (barb direction)
yy= y-dimension
Z_1 = Flow Rate: [H]igh, [Low]
Z_2 = Barb Type: [S]traight, [N]inety-Deg

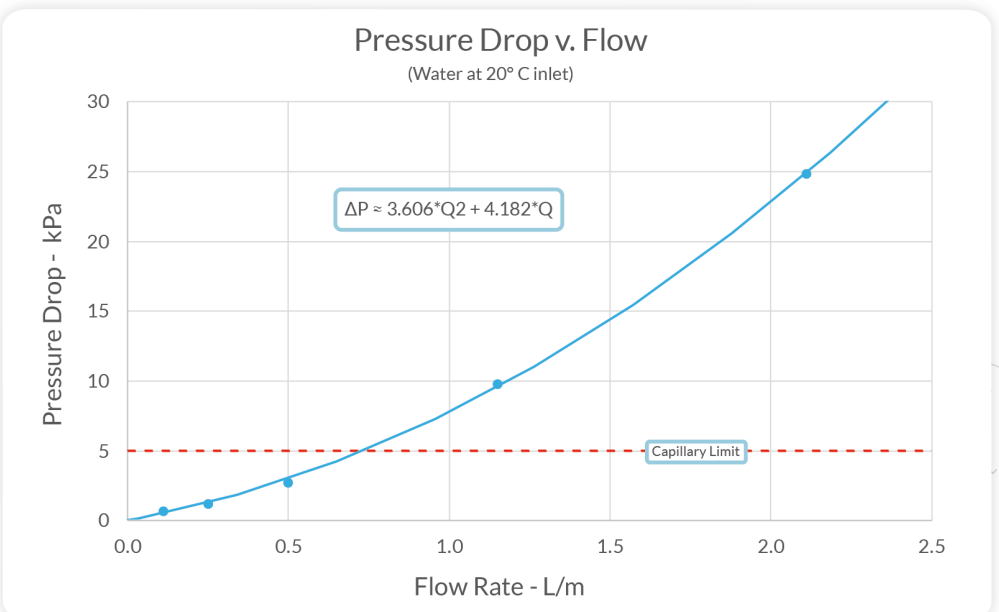
Design Sketches

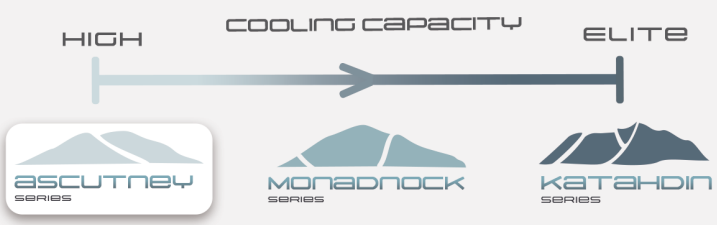


*dimensions (mm) | 1/4" ID Hose

AX-25 Performance Characteristics with Water







$$R^* = Resistivity \equiv \frac{T_c - T_{in}}{q / A}$$

$$R^* = R^*_{core} + R^*_{flow}$$

$$R^*_{flow} = \frac{A}{\rho \cdot c_p \cdot Q}$$

T_c	=	cold plate surface temp
T_{in}	=	fluid inlet temp
A	=	active area – 25 mm x 25 mm
q	=	heat flow
R^*_{core}	=	core resistivity
R^*_{flow}	=	flow sensible heating resistivity
Q	=	water flow rate
ρ	=	density of water
c_p	=	specific heat of water