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TMC INTRODUCES HYBRID HONEYCOMB™ FOR OPTICAL SUBASSEMBLIES IN PHOTONICS TOOLS

PEABODY, MA, April 6, 2017 — [TMC](http://www.techmfg.com), an industry leader in high-performance vibration cancellation technology, introduces [Hybrid Honeycomb™](#), a new type of optical breadboard that combines a custom, bonded aluminum plate with the structural damping of a honeycomb breadboard.

“Many ultra-precision tools include an optical subassembly. Those subassemblies must be mounted to a rigid, flat, damped surface to maintain the positional stability of the optical system,” states Steve Ryan, Divisional Vice President for TMC. “Until now, engineers have had to choose between a machined aluminum plate and a honeycomb optical breadboard.

“Aluminum plates have the advantage of achieving precision flatness and parallelism as well as tight tolerances on hole positions. Honeycomb breadboards offer the advantage of providing structural damping along with a much higher stiffness-to-weight ratio. TMC’s latest innovation combines the best of both,” he adds.

Hybrid Honeycomb starts as an aluminum plate. The plate is machined to achieve the desired features. The underside is then machined away leaving a monolithic honeycomb pattern to lighten the structure. Finally, a bottom skin is epoxied over the honeycomb cells, closing the structure and providing additional damping and stiffness.

Hybrid Honeycomb structures are engineered solutions. Each version is custom designed for the unique requirements of the application. It is ideal for optical subassemblies in photonics tools and applications including lab automation, drug discovery, lasers, surface metrology, and semiconductor inspection.



TMC designs and manufactures precision vibration isolation systems for sensitive research and manufacturing processes worldwide. TMC is an ISO 9001:2008-certified company. Its products include active and passive vibration isolation systems; optical tops, optical table systems, and breadboards; laboratory tables and tabletop platforms; floor platforms; magnetic field cancellation and electric field shielding systems; and acoustic enclosures.

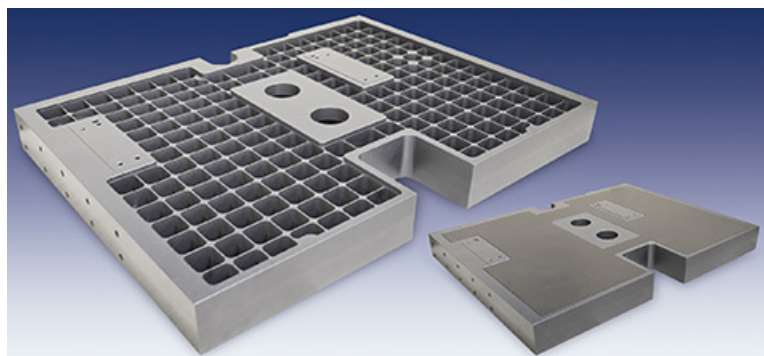
TMC is a unit of AMETEK Ultra Precision Technologies, a pioneer in the development of ultra-precision measurement instruments and a global leader in ultra-precise machine tools and manufacturing systems for the semiconductor, photovoltaic, nanotechnology, military, defense and ophthalmic lens markets.

AMETEK Ultra Precision Technologies is a division of [AMETEK, Inc.](#), a leading global manufacturer of electronic instruments and electromechanical devices with annual sales of approximately \$4.0 billion.

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TMC Hybrid Honeycomb™ Optical Breadboard



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