KEEPING IT COOL: VISITECH NOW OFFERS LIQUID COOLING FOR All projectors

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Proper thermal management is critical for professional 3D print systems. With standard liquid cooling, improved stability, and higher power performance from the light source is now available for the entire LUXBEAM[®] subsystem range from Visitech.

Maximum stability

In addition to enabling higher power in image, liquid cooling provides vibration-free operation. This is particularly beneficial in applications requiring maximum stability, such as micro 3D printing.

Controlling the LED light source temperature by liquid cooling means you achieve higher UV power with enhanced image stability, improving the speed and print quality of your machine build. The additional benefit of a lower operating temperature is a significantly extended LED lifetime.

Performance upgrade

Many of Visitech's subsystems already come in liquid-cooled versions, which show outstanding performance in 24/7 operation setups. The decision to offer it for the entire product range will thus be a performance and quality upgrade for machine builders looking to get the most out of their next-generation, high-performance systems.

Improved dust management

For equipment operating in harsher industrial environments, where dust levels cannot be granted, liquid cooling adds another benefit by eliminating the need for a projector casing air fan. In air-cooled systems, the fan creates internal airflow, cooling critical components. Although the optical systems are encapsulated and protected, and most of the dust is filtered out, replacing filters on a regular basis is one less service burden for liquid-cooled systems.

Some of the static, high-powered light engines, such as the LRS 4KA, WQm LC, and the WQ LC, maintain a small fan with minimal air throughput to prevent heat accumulation on parts not reached by the liquid cooling system. However, the air volume produced by these minimal fans carries a very low contamination risk.

Marginal price difference

According to Managing Director Alfred Jacobsen at Visitech Engineering in Germany, liquid cooling enables a power output that is 10-20% higher than air-cooled systems. The price difference, however, is marginal. "We have tested and evaluated this valuable upgrade, and it is now available for all new product orders," said Jacobsen. Legacy air-cooled systems will remain optional and available moving forward.