

CEAD hybrid solutions revolutionize composite large format additive manufacturing

CEAD is a technology supplier for large format additive manufacturing (LFAM) machines.

We provide a turnkey solution for manufacturers seeking to transform and automate their current production process. Replacing traditional manufacturing processes with AM techniques offers increased flexibility, efficiency and sustainability.

Automation and robotic 3D printing can simplify and streamline the fabrication of large scale complex composite parts. Our application-orientated approach is based on understanding end-user requirements across a wide range of industries, driving our ongoing developments. This allows us to offer a transformative approach, enhancing every step of the production process from design to finish. Our technology platform is tailored to meet the demands of the industry, promising efficiency, reliability and an overall improved manufacturing process with faster time-to-market.



We build and implement large scale hybrid 3D printers. The Flexbot combines multiple manufacturing processes in one cell. The Flexbot can print a part to net shape or near net shape which can be further refined with CNC milling to achieve the desired surface finish. Our in-house developed calibration methods allows our robot to reach high accuracies and tolerances which meet the demands of the industry. Our wide range of extruders, varying in weight and output, ensure there is a right fit for your application and production requirements. The latest extruder, the ATLAM, is a groundbreaking new technology that combines continuous fiber-reinforced composite tape laying with short-fiber reinforced thermoplastics in one process. This allows to create parts with lower coefficient of thermal expansion (CTE) for 3D-printed tools.

The technology has been widely used for the production of end parts and molds and tooling. Traditional, labor-intensive and time-consuming manufacturing processes can be replaced with LFAM technology to automate the production in a cost-effective manner. CEAD extruders can process virtually any fiber-reinforced thermoplastic, allowing end-users to create parts with the desired (mechanical) properties. For example, 3D printing autoclave tooling has been proven to be successful and more efficient.

Our approach goes beyond 3D printing, we offer a turnkey solution: from assessing your business case, to providing tailored advice, installation of the machine, operator training and establishing a lifelong partnership. With your application in mind, we promise to provide you with a innovative solution. **Come join us at 5Q58** to observe live 3D printing with the Flexbot, the ATLAM, several use cases and to discuss your business case.

