JEC World 2024, Paris - show preview PR text

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CompoTech PLUS (Hall 6, G85) showcasing performance and productivity enhancing carbon fibre advanced winding technologies at JEC World 2024

Advanced Winding Technology with axial fibre placement

At JEC World 2024 (March 5-7), Compo Tech PLUS, spol. s r.o (Hall 6, G71) will be showcasing its proprietary carbon fibre (CF) placement, integrated loop and automated fibre winding and laying technologies. Key to this is the "true zero degree" axial fibre placement capabilities and the company will demonstrate benefits over traditional "near zero" winding. CompoTech is a global supplier of innovative carbon epoxy component designs and automated carbon fibre placement solutions. The company has a proven track record for using its in-house expertise and automated manufacturing technologies to develop structural components with significant performance, productivity and cost saving benefits.

CompoTech continues to grow its automated advanced winding machine business, which supplies custom made 'turnkey' automated fibre winding machines. The unique benefit to customers is that each automated machine includes CompoTech's proprietary continuous fibre AFL and integrated loop joint technologies. A recent new automated machine customer is Czech Republic based Meopta - optika, s.r.o. (a Carlyle Group company) which ordered a new advanced winding machine from CompoTech to be able to manufacture some of the optical components developed by CompoTech as well produce under licence the new CF twin gantry silicon chip positioning system beams for Schneeberger AG.

Leader in Carbon Industrial Machine components

CompoTech continues to forge its strong leadership in this niche and growing area of composite application. With winding and placement technologies that use a combination of both PAN (polyacrylonitrile) and Ultra high Modulus UHM pitch fibres, positioned precisely using its automated fibre laying (AFL) technology to provide the lightweight, high strength and stiffness needed in applications such as automated robot lines, materials handling and telescopic lifting as well industrial machine gantry beams.

Two recent examples of epoxy CF beam applications develop by CompoTech. Showcasing the experience for design in this sector and application of continuous UHM (ultra-high modulus) pitch carbon fibres using its proprietary axial placement automated fibre laying (AFL) and advanced winding technologies.

- ***New precision cutting machine*** - Kongsberg Precision Cutting Systems recently launched the Kongsberg Ultimate, a new precision cutting machine for accurate, high productivity cutting of corrugated board packaging and flat display sheet materials. The new machine includes a new wide-format epoxy CF composite traverse beam, developed, and manufactured by CompoTech. The innovative, new design, CF beam provides precision cutting accuracy at up 2.5g acceleration due to its high strength and stiffness. The low deflection of the gantry beam even under high acceleration and the 50 kg down-force needed for optimal cutting of corrugated board, with significant productivity gains due to being so much lighter than steel and smaller profile than any aluminium gantry.

- ***Silicon wafer nano positioning system*** - Schneeberger AG doubles the speed of their 'twin gantry' positioning system, currently used in the design silicon wafer metrology quality assurance production unit for manufacturing semiconductor chips. CompoTech developed carbon axis is critical to increase the speed and precision of the

wafer production. The low mass system and high stiffness of the pitch fibre composite improved the dynamics to enable chip manufacturing units to achieve higher throughputs. Acceleration up to a 5 g with positioning accuracy of 0.5 µm is achieved when installed in a semiconductor test system.

JEC World 2024 visitors to the CompoTech stand will be able to find out more about the company's automated manufacturing offering and the ongoing R & D projects with universities OEMs and Tier 1 specialist producers looking for CF components for next generation energy storage, aviation, HGV and mass transportation applications.

The knowledge and expertise gained by CompoTech from successful process development projects and the production of dynamic automation manufacturing systems is transferrable across a wide cross-section of industries including aerospace and space, agriculture, defence, automotive, transport, bicycles, and leisure marine.

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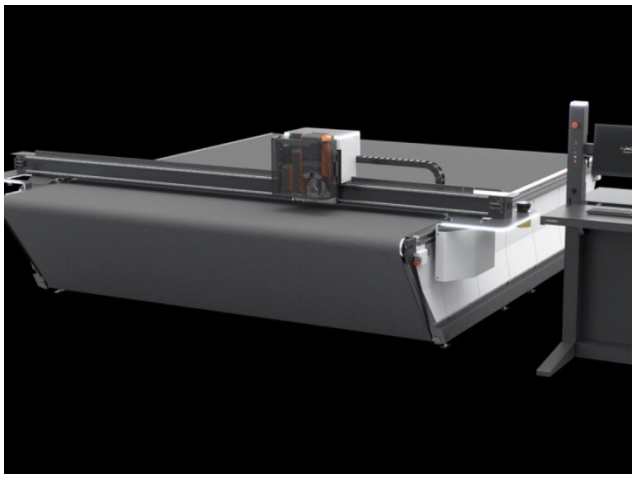
<u>Photo options for media</u>

Photo 1 (a) and (b): The New Kongsberg 'Ultimate' precision cutting machine developed for accurate, high productivity cutting of corrugated board packaging and flat display sheet materials.



[Photos courtesy of Kongsberg Precision Cutting Systems]

Photo 1 (a) and (b) caption: The innovative light weight CF beam provides the required level of cutting accuracy with significant productivity gains.

Photo 2: Schneeberger AG's new 'twin gantry' positioning system in their latest design silicon wafer metrology production unit.

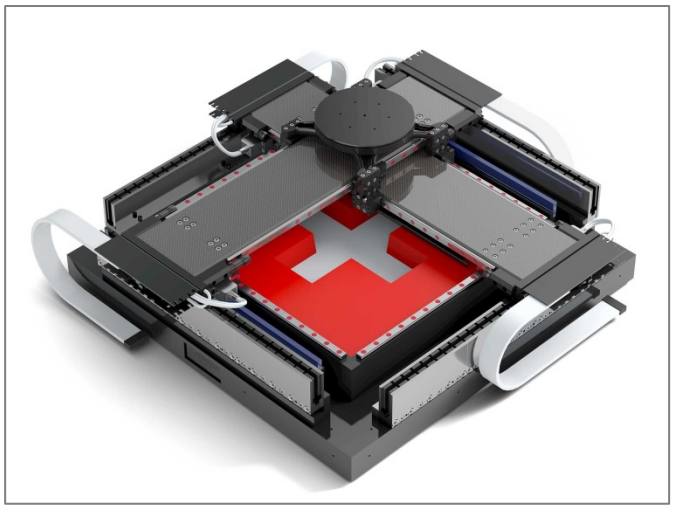


Photo 2 caption: The new twin gantry design, developed and produced by CompoTech with independent X and Y-axis epoxy CF beams, have doubled the positioning speed of the in-process wafer metrology inspection unit.

[Photos courtesy of Schneeberger AG]

Photo 3 CompoTech's Advanced Winding Technology.