

CW

CompositesWorld

Composites Inspection: **BIG BLADES, BIG BUSINESS**

MAY 2018



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The latest developments in snap-cure
resins for automotive molding / 28

Metrology, robotics, inspection
cut vertical tail plane cost / 42

Wood/composite laminate opens
new vistas for architects / 76

Wide-use windsurfing board

Making the windsurfing sport available to all



Source | COBRA International

➤ Former windsurfing race champion Bruce Wylie, now the head of COBRA International's (Chonburi, Thailand) watersports business unit, saw his sport losing numbers. That concern was echoed by retailers, who were seeing a downward trend in windsurfing board sales, in part because of the growing dominance of heavy boards with massive sails, designed for high winds and extreme conditions. Wylie wanted to develop a new windsurfing board that could function equally well for the racing enthusiast, those who teach students new to the windsurfing sport and even for those who would simply use it like a stand-up paddleboard on windless days. In short? A board so simple it could be enjoyed by a first-timer, yet offer the option of fleet racing to the more advanced sailor.

A year ago, the COBRA team started work on prototypes, inspired by classic race boards, but also referencing the latest design ideas. Wylie knew that his solution would need to balance weight with long-term durability and low cost. To make the board, a lightweight expanded polystyrene (EPS) core, with the desired shape and relaxed "rockers" (the small upturns at the board's front and back that enable easy flat-water gliding), is carefully encapsulated with varying weights of commodity chopped strand fiberglass and open structure "combi mats." (The latter are a combination of discontinuous fiberglass strands stitched to a woven fiberglass fabric.) The result is wet out with a foaming, bio-based epoxy resin system from **Sicomin Epoxy Systems** (Châteauneuf les Martigues, France). The foaming action during infusion creates a foam "sandwich" skin structure that stiffens the laminate.

Dubbed the Windsurfer LT, the new board — 3.7m long, 65 cm wide, and weighing 15 kg — is similar in size to the first windsurfing racing boards of the 1970s, but is 6.5 kg lighter. Windsurfing organizations worldwide are reportedly happy with the design and several have adopted the board as standard equipment for Windsurfer Class racing. **CW**

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WEBINARS

June 5, 2018 • 11:00 AM ET

PRESENTED BY



PRESENTER



MATTHIAS LANGE
Product Manager

Camera-assisted laser projection for acceleration of manual composite lay-up

EVENT DESCRIPTION:

Laser projection systems are key components in manual composite manufacturing, for example in the aviation industry, to increase process efficiency and process reliability. For precise laser projection during composite lay-up, proper calibration of the tool is essential. Automatic calibration by camera during operation can significantly reduce setup times saving valuable time in production. Manufacturing centers that produce small to mid-size composite parts also demands flexible manufacturing concepts. The webinar will give practical demonstration how a camera system together with laser positioning systems can support both accelerated composite manufacturing processes and flexible and versatile production concepts in a Smart Factory.

PARTICIPANTS WILL LEARN:

- How laser projection + camera system support composite lay-up on 3D tools
- How camera assistance speeds up calibration in composite manufacturing
- In practice: Automatic calibration and further options of IR camera
- Flexible production processes in a Smart Factory

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