



Resin infusions for wind blade moulds

The Danish company, Dencam Composite, produces composite tooling for many large players in the wind and yachting industries. They are expanding their business to encompass the production of steel frames.

Previously, in preparation for the infusion of wind blade moulds, large quantities of resin were mixed manually beforehand which often caused the material to cure during or before infusion. There was also a high risk of inaccurate mixing. Both these problems led to wasted material, extra costs and quality problems.

Dencam was looking for a solution that would reduce costs, reduce time and increase quality. The solution provided by Air-Tech, Graco's local distributor, was Graco's VRM unit resin mixer.

Graco's VRM unit was the correct choice for the required output of minimum 20kg/min. It is a mobile unit that can be moved around in production facilities. The unit has a variable ratio mix and is standard "off the shelf" with data logging. Dencam was mainly looking for a solution that could provide quality, reliability, ease of use, output and good value for money.

Accurate & on demand mixing

Graco's VRM unit now mixes and dispenses resin on demand for the production of resin vacuum infusions of the wind blade moulds. Two different Biresin materials from Sika are mixed and applied in the factory. It is important to get an accurate mix and only mix material on demand, so it will not cure before it has been infused. It also requires less time and staff to prepare the infusion and less use of buckets.

Reduced costs, increased quality

The VRM unit is reliable and secured the expected quality. Dencam Composite was very positive about the results, since all the benefits they were aiming for were achieved after purchasing the unit. They noticed a reduction of waste material, resulting in a reduction of cost and the mix quality increased thanks to a reduction of infusion time. Overall, a more efficient work process was observed.

END USER

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Industry market sector

Wind, marine, automobile

CONFIGURATION

- Graco part no. 24F873 VRM, Ratio 100:26,
- Graco part no. 24F589 feed system from 1000 liter IBC tanks,
- Graco part no. 262478 and 248927 static mixer,
- Graco part no. 162024 coupling,
- Graco part no. 15R067 pipe outlet mixer manifold,
- Graco part no. 192977 center pipe, manifold mixer.

APPLICATION

Resin infusion

Material specifications

Sika Biresin CR131 and Biresin CH135-4

Typical properties

Viscosity Resin 2000 mPas, hardener 20 mPas, Density resin 1.16, hardener 0.92. Mix ratio 100:26. Pot life: 160 min.

GRACO Equipment VRM



GRACO Distributor

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