Resin Batch Blending & Melt-on-Demand

Demand for advanced composites is growing on a global scale. Yesterday's slow, manual resin dispensing processes can limit today's new capacity needs and performance specifications.

In the past, resins have been proportioned with other components using manual open pour processes and loss of weight methods. These manual processes require much hand touch labor, waste, difficult-to-trace batch history, and one- to five-gallon shipping containers.

Manufacturers who need to expand their capacities are looking to automate the way they add multi-resins/hardeners to process vessels and in-line fiber wetting equipment. Typical end uses for automated resin transfer include: one-component RTM resins, prepreg batching and mix transfer to filmers, BMC/SMCs (Bulk Molding Compounds/Sheet Molding Compounds), and continuous fiber wetting processes such as filament winding.

Graco's proportioning pumps, both ambient and hot melt, can be used with larger shipping containers to accurately proportion recipes of multiple resins into processes for advanced composites. If high-performance resins are extremely thick at ambient temperatures, Graco's line of warm melt and hot melt equipment can efficiently melt, transfer and measure components as needed. This eliminates the need to preheat entire drums of resin, thus extending shelf life and ultimately reduce resin waste.

New technology from Graco includes SmartWare Shot Dispense Technology that converts a Graco pump into a dosing system, and the Graco PCF Metering System, a batch measuring controller that delivers a pre-measured quantities at a controlled flow rate.

Graco pumping technology can help you:

- Reduce resin waste
- Improve lot-to-lot traceability
- Reduce hand touch labor and problems due to operator error
- Reduce resin-packaging costs
- Speed production