

Energy Savings for Boat Builders

The Chislett's Boating and Design Company of Portsmouth, NH builds the sleek "MonoCat" powerboat. Although Cameron Chislett, owner, recently launched his new product, he has years of boatbuilding experience – and is all too familiar with the issues facing the industry. Chislett is well below the EPA 10 ton threshold for styrene emissions, but he recently had two concerns.

- Once the gelcoat had been applied, Chislett would continue to ventilate the shop as the resin cured. Located in New England, with its freezing winters, meant he was also exhausting expensive heat.
- Turning off the fans reduced his heating bill, but led to a build up of styrene vapors prompting odor concerns from the neighbors.

That's where Munters was able to help. The Munters adsorption system allowed the shop air to be cleaned (by removing the styrene) and then recirculated. Only a small amount of make-up air was required. This offered immediate savings off the former heating bills without any styrene build-up.

How It Works:

The Munters system includes a rotating Honeycombe® wheel. The wheel's Honeycombe® structure has an adsorbent material, which

attracts the styrene molecules from the exhaust air. As the shop air passes through the wheel, the styrene is removed and the "cleaned" air can then be returned to the shop. A small portion of the cleaned air is heated internally by the system and used to regenerate the wheel. This smaller stream containing the concentrated styrene can be exhausted to atmosphere. If needed, an oxidizer or

burner can be added to the concentrated stream to eliminate the styrene completely and reduce the overall emissions.

The Result:

Since the Munters system has been installed, Cameron has had no complaints from his neighbors. His energy bill has been dramatically reduced and he still has the flexibility to ventilate his shop to meet his needs. Cameron is planning for the future when he will expand his operations and have two booths, one for laminating and one for grinding. "There will definitely be a Munters system installed in the laminating bay" says Cameron "Even with a vacuum infusion manufacturing process there is still the need for hand laminating. The Munters system offers me the flexibility to exhaust the shop without annoying the neighbors or wasting energy."

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Reduce Air Ventilation while Controlling Odors



The Munters Advantage:

- Energy savings by recirculating the shop air.
- Removing styrene means less odor within the shop.
- Flexibility with future add-on technology for total styrene elimination.
- Opportunity to be a "green" neighbor.

