



INSTITUTE FOR ADVANCED COMPOSITES MANUFACTURING INNOVATION

IACMI IMPACT IN OHIO

UPDATED 9/19/18

OHIO MEMBERS



"Through IACMI, we have been able to leverage resources from DOE, the state of Ohio, and other industry partners to **open new opportunities for our resins.**"
- Joe Fox, Ashland Chemicals



The IACMI project team of Ashland Chemicals, University of Dayton Research Institute, Michelman, and Michigan State University served on a panel during the **Federal Laboratory Consortium for Technology Transfer** in Washington, D.C.



GLOBE

Globe Machine Manufacturing Company is collaborating with IACMI partner, University of Dayton Research Institute (UDRI), to establish the **UDRI-Globe Composites Technology Center (CTC)** to be located in Dayton, OH.



WORKFORCE DEVELOPMENT IMPACT

4 OHIO-BASED PLACEMENTS

44 INTERNS



38% FEMALE INTERNS IN 2018 CLASS
more than double the national average of women in engineering

*National Science Board: Science & Engineering Indicators 2018



MICHELMAN



"We are so proud to be a part of this important program. Mentoring these talented college professionals through projects that are critical to the success of not just Michelman, but the industry overall, is an opportunity we value."

- Steve Bassetti, Michelman

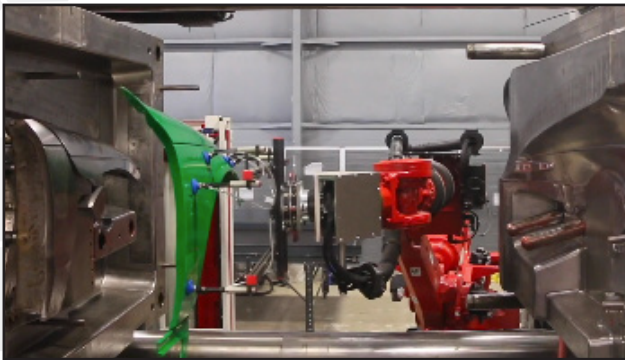
OTHER OHIO WORKFORCE IMPACTS:
COMPOSITES TRAINING WORKSHOPS & HYBRID ONLINE TRAINING



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OHIO ASSETS AND INNOVATIONS THROUGH IACMI



The Milacron injection molding a fender.

Injection Molding of Textile Carbon Fiber and PA66



First ever successfully compounded and injection molded full-size automotive component with TechmerPM PA66 and low-cost carbon fiber made from textile-grade PAN precursor developed at Oak Ridge National Laboratory (ORNL). The project utilizes **Milacron's 3,000-ton injection molding press** at the IACMI Scale-Up Research Facility (SURF).

30+ IACMI PROJECTS IN PROCESS

Phase 1 Project Completion: Thermoplastic Composite Compressed Gas Storage (CGS) Tanks

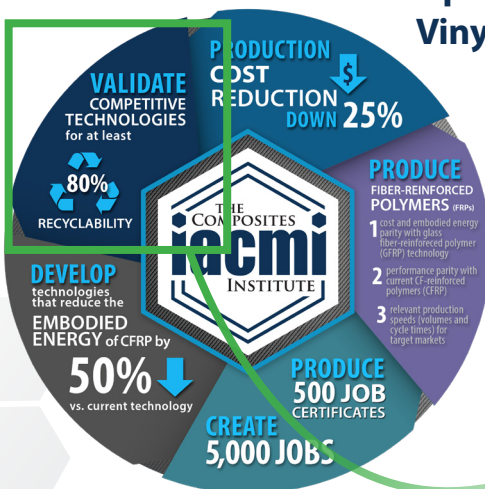
Validated the pressure vessel wrap pattern, concluding Phase 1 of the IACMI project with burst tests of the wrapped vessel. Phase 1 shows the efficacy of the technology which allows a better understanding of the material and process parameters of compressed pressure vessels.



NATIONAL EXPO IACMI MEMBERS LABS CONSORTIUM

Optimized Resins and Sizings for Vinyl Ester/Carbon Fiber Composites

Created an optimized vinyl ester/carbon fiber prepreg system with key benefits of a long shelf-life at room temperature, short compression molding times, as well as recycling and re-use opportunities for prepreg scrap.



The use of vinyl ester prepreps contributes toward reducing scrap waste and embodied energy through being recyclable, making a more cost-effective material option.