Center for Advanced Composites Manufacturing and Engineering

Mission

The three fold mission of the Center for Advanced Composites Manufacturing and Engineering is to, first, provide extension services designed to assist Utah companies in areas such as development of product prototypes, testing of new product innovations, and improving manufacturing methods for existing products; second, provide industrial education and training to meet Utah's expanding industrial needs; third, develop innovative technologies resulting in new companies, patents, licenses and other economic benefits for the state of Utah.

The Center

The Center for Advanced Composites Manufacturing and Engineering (ACME) has been able to assist in creating $37.2 million in actual business through extension services and other center related activities. These activities have also provided 437 new jobs in spin–off companies launched with support from ACME. The Center has extensive test analysis and manufacturing equipment to assist companies with composite, plastics, and other advanced materials manufacturing. Companies are invited to request assistance from the Center.

EXTENSION SERVICES

The ACME Center has developed a unique support service for Utah's manufacturing and engineering industries. 102 companies have been assisted through extension services since its creation, 38 companies this year. 32 new companies have been launched using technology that was developed outside the center, but where the implementation of that technology critically depended on the Center's support. To further assist these companies, testing and processing equipment has been increased to over $1.2 million in value. This will provide valuable testing capabilities that are not readily available to most companies within the state.

INDUSTRIAL EDUCATION AND TRAINING

at the ACME Center has experienced widespread acceptance. Training programs have been provided to specific companies. ACME personnel have taken the lead in coordinating industrial conferences, 5 of which they co–sponsored. The Center has also assisted other state colleges and universities in their educational efforts in advanced materials manufacturing.

TECHNOLOGY DEVELOPMENT

Five patent applications have been derived from center–developed technology, 3 of which have been granted. Other accomplishments include: 1 licensed software product, 3 joint proposals with other universities, 3 published technical books, and 44 scientific presentations at industrial conferences.

Center Highlights

- *The Center is currently establishing an advanced materials and processes association with participants throughout the West,* which will strengthen industry within the State and give Utah business greater access to technology, facilities, equipment, expertise, financing, suppliers, and customers inside and outside the State.
- Composite manufacturing design capabilities include: Pultrusion, filament winding, RTM, high temperature autoclave, injection molding, extrusion, rotomolding, blowmolding, and vacuum molding.
- Various testing methods available include: Stress/strain, SEM, FTIR, x–ray, weatherometer, and dynamic impact testing. In addition, the center has developed unique vibration damping, cure sensing, plasma treatment and rapid prototyping.
- Products are emerging in areas such as aerospace, recreation, medical devices, transportation and sports.

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