

Lean Manufacturing Implementation: Crosby Lebus



Crosby Lebus is a union shop that has been in operation over forty years. The workforce is mature with many employees with 30+ years of service. Engineering support is provided by corporate headquarters in Tulsa, Oklahoma, while experienced employees handle most of the day-to-day manufacturing related issues. The facility has grown over the years to the point that product flow is not optimal and requires excessive handling of material.

This project developed out of a partnership between TCAT, The Texas Manufacturing Assistance Center (TMAC), and the Texas A&M Engineering Extension Service (TEEX). The TMAC projects are sponsored by the National Institute of Technology's (NIST) Manufacturing Extension Partnership (MEP). Assistance to be provided was to support Lean Manufacturing Implementation in the plant.



Early on in the contract, the leadership requested that we take an approach of making changes that would impact the company in a bigger way than just a 5-S Workplace Organization effort. They also planned to utilize the State's Skills Development Funds through Texas State Technical College to provide the Lean Training for employees. Initial observations determined there appeared to be few rules or controls on inventory or processes. There were no posted quality requirements; no production schedules; no indication of performance measures; and no automated inventory tracking systems were evident.



The major activity was a Rapid Improvement Event (RIE) that focused on the 25 ton shackle production flow resulting in a planned move of tap and assembly closer to the paint and shipping area. This move is intended to reduce the travel of the shackle and to improve the flow. As part of the move, working conditions is being improved, 5-S workplace organization implemented, and standard work developed. The new facility sets the standard for other work environments at Crosby. This move also frees up space that will improve other product line operations.

TEXAS CENTER FOR APPLIED TECHNOLOGY

There are many problems that require the careful and proper integration of applied technologies to find solutions. The Texas Center for Applied Technology (TCAT) was created to focus on these specific problems and to develop effective and efficient solutions. TCAT's core competency is the innovative application of existing technologies and advanced research to solve complex real-world problems.

TCAT's primary objective is to apply and test technologies to address targeted problems and engage basic research as required. TCAT has employees in a variety of locations with the ability to perform research that cuts across multiple technologies, disciplines, and cultures. The Center's employees are knowledgeable regarding customers' requirements and are ready to respond effectively to provide the best value for the customers' needs including expertise in technology insertion, technology assessments, and test and evaluation.

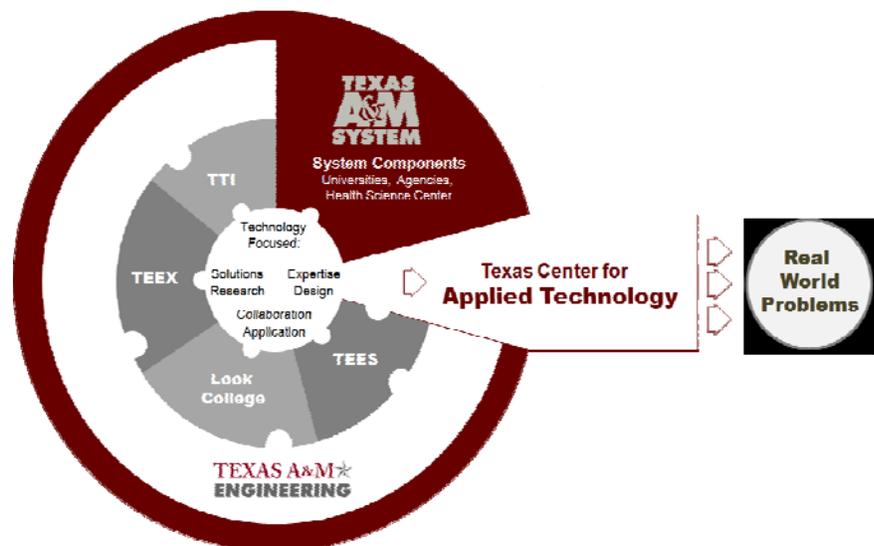
TCAT is part of the Texas A&M Engineering Experiment Station (TEES), a member of The Texas A&M University System. The A&M System is one of the largest and most comprehensive systems of higher education in the United States. Through a statewide network of eleven university campuses, seven state agencies, and a comprehensive health science center, the A&M System educates more than 120,000 students on its university campuses, conducts more than \$780 million in research, and reaches another 22 million people through service each year. TEES is an engineering research agency for the state of Texas and conducts over \$147 million in research annually. Because of the Center's position within the Texas A&M Engineering program, TCAT's expertise can easily be extended by rounding out its team with world class faculty researchers, as appropriate. TCAT is in an excellent position for collaboration not only with The Texas A&M University System components and their customers but with other universities, institutions, centers, and industry.

TCAT'S CORE COMPETENCIES

Energy Sustainability ★ Environmental Sustainability
Manufacturing & Systems Engineering ★ Information Technology ★ Modeling & Simulation
Technology Insertion ★ Test & Evaluation

TEXAS A&M ENGINEERING

Texas A&M Engineering consists of the Dwight Look College of Engineering, and three engineering agencies, including TEES: Texas A&M Transportation Institute (TTI) conducts research and professional education in all modes of transportation. The Texas A&M Engineering Extension Service (TEEX) works to develop a highly skilled and educated workforce and enhances public safety through training, continuing education, and technical assistance.



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