

## PROCESS IMPROVEMENTS AND QUALITY AT SOURCE RESULTS IN COST SAVINGS AND AN INCREASE IN PRODUCTIVITY

**ABOUT TMI SYSTEMS DESIGN CORPORATION.** Founded in 1969, TMI Systems Corporation (TMI), a family-owned business located in Dickinson, North Dakota, is one of the nation's largest manufacturers of laminate casework, countertops, and architectural woodwork products. TMI utilizes the highest quality raw materials and hardware to design and manufacture products that withstand the toughest environments. In addition to exceptional quality, the company is able to produce the most highly customizable laminate clad product line in the industry. TMI delivers highly-customized products including storage solutions for institutional markets including education, healthcare, laboratory, architectural woodwork, and commercial projects.

**THE CHALLENGE.** TMI's main facility includes various areas housing different processes for cutting, milling, and edge banding feeding the final assembly line. The assembly line had become a bottleneck, creating a number of issues including high work-in-process consuming productive spaces and negatively impacting the productivity. Initially it was thought that increasing the final assembly area may help to eliminate or alleviate this problem.

**MEP CENTER'S ROLE.** Impact Dakota, part of the MEP National Network™, evaluated the current casework assembly manufacturing process, flow, layout, work methods and production/performance data. The constraint was identified as the final assembly process from the clamp through strapping/packaging. Upstream processes left excess glue and black marking on the surface of panels, resulting in final assembly operators spending non-productive but necessary time to clean excess glues and black markings. This non-productive time kept the products, many of them bulky, in the assembly area creating space constraints.

The company was aware of the issues with upstream processing equipment and was researching to replace them. However, one thing that surfaced was there was a need to train and educate workforce emphasizing, amongst other things, the concept of "quality at source." The contributions made by Impact Dakota helped to significantly improve the daily production output of cabinets through, in addition to "quality at source", the application of lean principles, 5S, and facility layout.

**"IMPACT Dakota helped TMI identify processes that were affecting our assembly area which is our production pace setter. 'Quality at the source' is now ingrained in our culture throughout the company. Practicing quality at the source is used in the factory and in the office to improve process flow and reduce rework."**

-Tom G. Krank, Senior Vice President and General Manager

## RESULTS



**\$5,000,000** in new investment in state of the art equipment



**10%** improvement due to improved layout and lean tools



Employees follow new standards and appreciate impact on productivity

## CONTACT US



1929 North Washington  
Street, Suite M  
Bismarck, ND 58501



(866)297-8250



[www.impactdakota.com](http://www.impactdakota.com)

**IMPACT DAKOTA**  
People • Purpose • Process • Performance