

IMPROVEMENT EFFORT REDUCES CHANGEOVER TIME

ABOUT BRIGHTON NC MACHINE CORP. Brighton NC Machine Corporation (www.brightonnc.com) is an industry leader in machining, grinding, and assembly services in Brighton, Michigan. Established in 1965, Brighton NC was one of the first private companies in the US to use NC machine tools (the forerunner to CNC). Brighton NC continues to offer material sourcing and machining services both domestically and off-shore. Now with more than one hundred employees, their expertise comes from years of welcoming innovation and dedication to customer service.

THE CHALLENGE. Brighton NC contacted the Michigan Manufacturing Technology Center (MMTC), a NIST MEP affiliate, for assistance in reducing changeover time from one part to another. Changeovers only took place on the first shift, and long changeovers throughout the organization were infringing on the productive capacity of Brighton NC's second and third shifts. The problem was contributing to longer lead times and inefficient use of personnel. Brighton NC also wanted to establish standard work for the changeover process, and MMTC stepped in to help.

MEP CENTER'S ROLE. MMTC conducted a Kaizen improvement event to review the set-up of one Brighton NC work center. After videotaping the changeover, MMTC used a spaghetti diagram and set-up analysis chart to measure the process. They found multiple non-value added events occurring as part of the changeover, creating a "perfect storm" of things gone wrong. The changeover took 8 hours and 20 minutes and required 9,121 feet (1.72 miles) of employee travel time. Brighton NC's team agreed with the "perfect storm" assessment and embraced the opportunity to make the changes necessary to create a much better changeover scenario.

MMTC helped define the problem, measure the impact, analyze the current state for possible improvements, implement those ideas to improve the changeover process, and create standard work to sustain the improvements. The company managed to decrease changeover time by over two-thirds, and reduce employee travel time almost entirely. The improvements led to new sales and increased cost savings for Brighton NC.

"For so long, we just accepted our extended changeover time as part of doing business. After consulting with and getting assistance from Michigan Manufacturing Technology Center, we were able to significantly reduce our changeover time by 70 percent, allowing us to provide additional production capacity."

-Kevin Alder, CEO

RESULTS



Decreased changeover time by **70%**



Reduced travel time by **98%**



\$460,000 in new sales



\$125,000 in cost savings



Created standard work for changeover

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