Machine Setup and Material Handling
Reduction at Aurora Metals L.L.C.

Project Objectives:
- Reduce CNC machining center setup time by 25%
- Decrease operator travel by 70%
- Minimize tooling changes between setups
- Identify root causes for long setups
- Make recommendations to streamline material handling of parts

Design Tasks:
- Conduct time studies on machine setup procedure
- Identify setup challenges
- Collect and analyze data on post machining operations
- Design new gage storage system
- Collect and analyze data relating to commonly used tools
- Create a scheduling tool using part clustering techniques

Final Design
- Created and employed a point of use storage system for broaching equipment
- Implemented a new gage storage system
- Created a scheduling tool in the form of a part cluster
- Calculated current capacity of post machining operations to define current bottleneck.
- Organized a machining work cell using 5S techniques
- Made layout suggestions that aimed to reduce work in process and increase flow
- Made recommendations to minimize the time to change a machine tool
- Suggested several communication aids such as tablets and radios

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