

## OOE Success Story

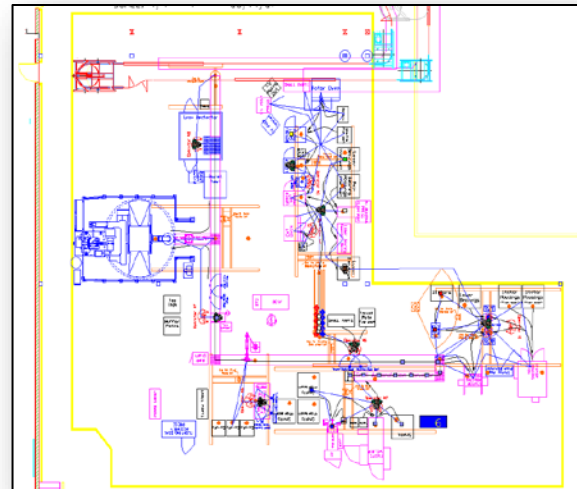
### Production Cell Redesign to Increase Throughput

- Customer:** Emerson - Copeland
- Problem / Challenge:** A mid-volume manufacturing cell (800 units/mth) producing refrigeration components was to be relocated to another plant. Additionally, the volume needed to be increased approximately 11%.
- Proposed Solution:** UAH developed and validated a discrete-event simulation model of the cell. A new cell was designed with improved work balancing, fewer non-value added operations and reduced WIP. The new cell design was modeled to verify the impact of improvements.

#### Outcomes:

##### *Discrete Event Simulation Model*

After observing and evaluating the current operation, a simulation model was developed to represent the current state of production and validated. The model included detailed operations including operator motion, machine loading and unloading, cycle times, changeover times and conveyance.



##### *Improvements*

Based on the output of the simulation model, the production cell was redesigned to incorporate a new layout and redistribution of work, resulting in a more balanced operation.

##### *Impact*

Production capacity increased 19%  
Required labor decreased 22%  
Floor space decreased 14%

UAH's Office for Operational Excellence  
*For more information*

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