

Company Background

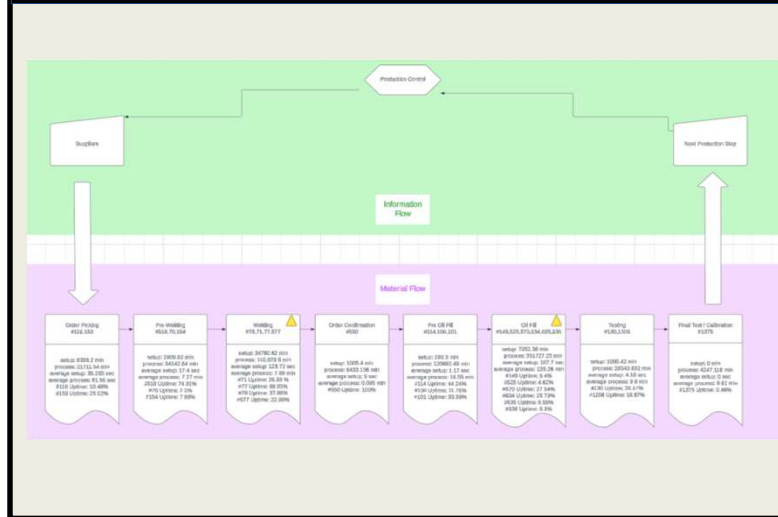
Endress+Hauser is a global leader in measurement instrumentation, services, and solutions for industrial process engineering with customers all over the world and from various industries. The Greenwood campus produces level, pressure, temperature, and flow measurement instruments.

Problem Statement

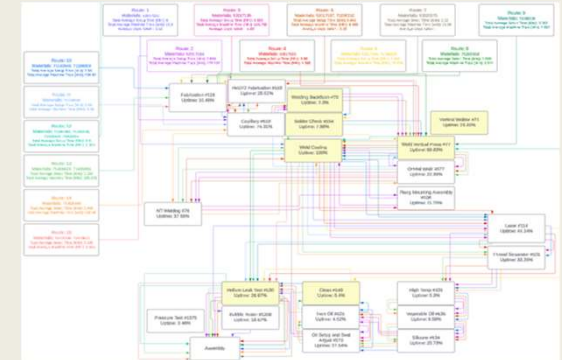
Endress+Hauser struggles to produce a high variety of products in their pull-based Pressure Assembly line. The main symptom is forced batching of orders. This causes problems like:

-  Welding Mistakes
-  Forced Expediting
-  Confusion in the line

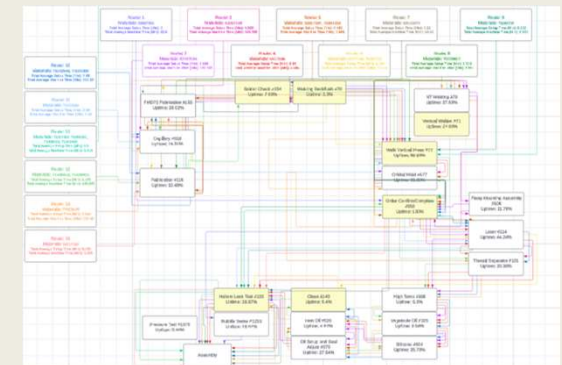
Value Stream Map



Material Flow

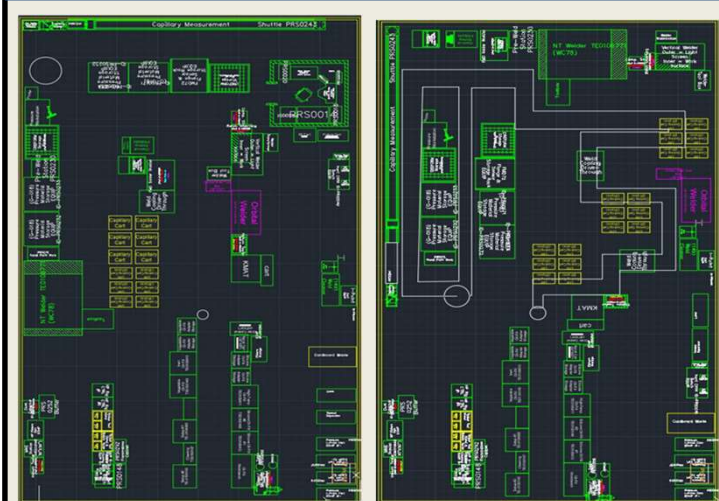


Current Spaghetti Diagram



Future Spaghetti Diagram

System Layouts



Current Layout

Future Layout

Methodology

- Analyzed data to determine material routes
- Created value stream map and spaghetti diagram to depict material flow
- Designed optimized layout to improve route efficiency

Discussion

Next Steps:

- Cart Improvement
 - Reduce cognitive load and increase efficiency
- Layout Implementation
 - Implement layout after expansion is complete
- Continuous Improvement
 - Continually improve layout efficiency

Results & Impacts

The new layout reduces the distance traveled across the 15 routes by 5,683 feet, which is a 17% reduction in total distance traveled. In addition, the new layout is designed so that material flows in the same direction.

Current Distance (ft)	33804
New Distance (ft)	28121
Distance Reduction (ft)	5683
Reduction per Route (ft)	379
Percent Reduction	17%

