

# Improvement of Slitting Operations



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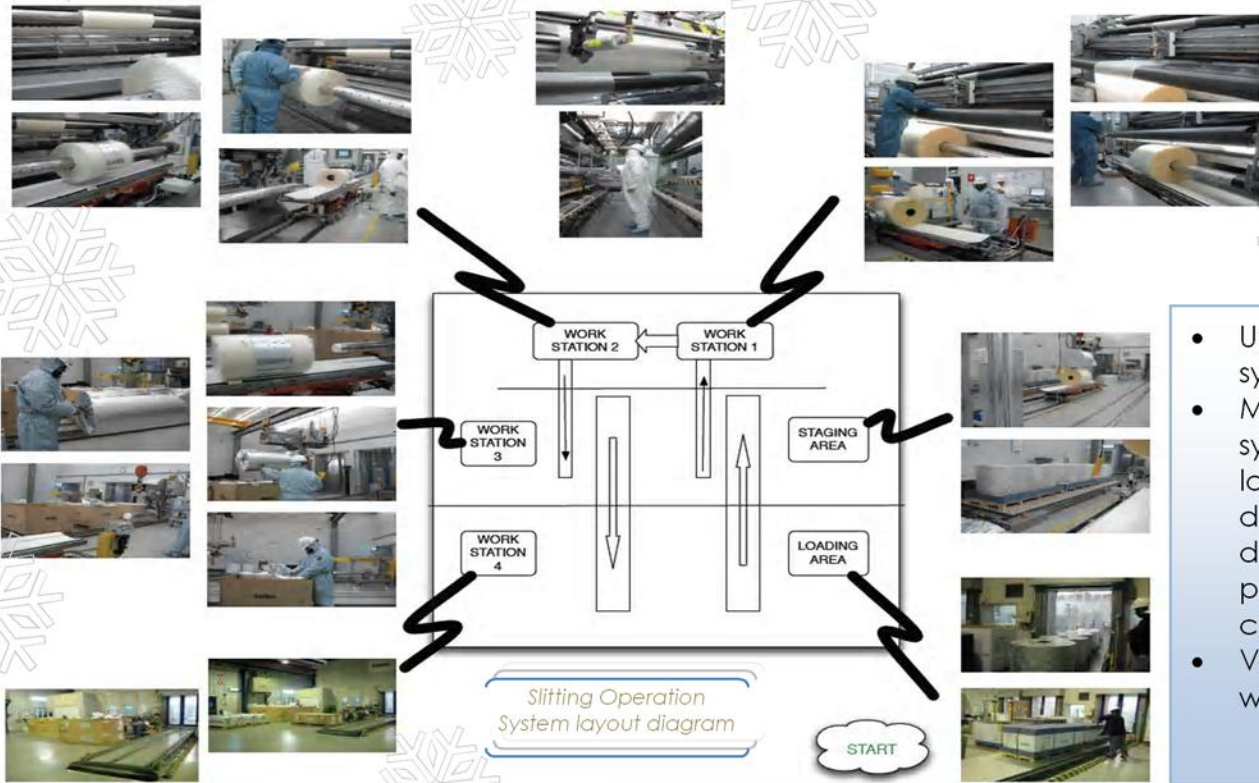
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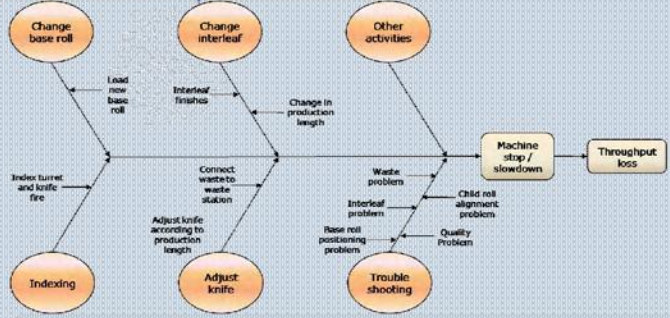
**Objectives:**  
Quantify throughput  
Determine the optimality of system  
Provide recommendation

## Conceptualization



- Understand system
- Map into system layout diagram & detailed process flow chart
- Validate with experts

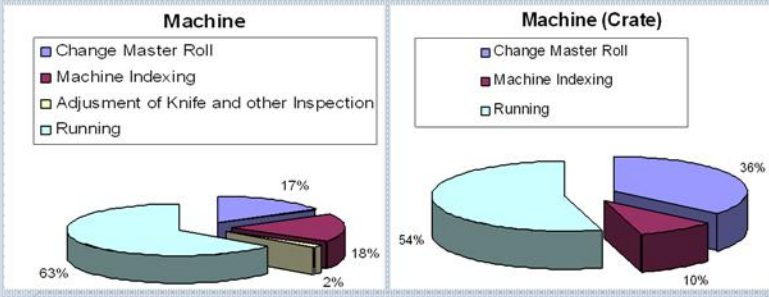
## Qualitative Analysis



Fish Bone Diagram

- Analyze detailed process flow chart
- Identify bottleneck
- Examine cause and effect of bottleneck using fishbone diagram
- Investigate each cause using cause analysis table

## Quantitative Analysis



Pie chart for Machine Utility (Roll and Crate)

- Verify qualitative analysis
- Quantify throughput
- Map into flow chart with  $\mu$  &  $\sigma$
- Quantify utility for resources
- Summarize utility into pie charts
- Estimate performance of all product types