Going GREEN With LEAN
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Project Goal: Use principles of Six Sigma LEAN and QiMacros Software to reduce waste and implement sustainable solutions in workplaces throughout the treasure valley

Six Sigma LEAN Class (TechHelp):
- 32 hours classroom instruction
- Experience working with QiMacros Statistical Software

LEAN Principles:
- LEAN: Focuses on waste reduction by streamlining a process
- Six Sigma: Focuses on preventing defects through problem solving

Together, LEAN and Six Sigma provide a comprehensive tool set that can be used to increase the speed and effectiveness of any process.

Qi Macros Software used as a tool to accelerate LEAN

Environmental Benefits of LEAN
- Reducing waste lowers the amount of materials consumed
- Potentially hazardous materials (paints) reduced
- Energy Intensity: less energy (is necessary to create wealth for the company. Implementing LEAN worldwide would greatly reduce carbon emissions.

Goal:
- Reduce transportation, waiting and motion waste in stile production department

Methods:
- Collect data on various programs, timing their length in seconds
- Collect data on load/unload and employee downtime

Recommendations:
- Remove unnecessary anti-crash process (~20 seconds) from every program
- Decrease variation in employee downtime

Results:
- 3 hours saved weekly w/out anti-crash process, saving up to $12,000 annually

Goal:
- Increase production of trailers from 30 per week to 50 per week

Methods:
- Decrease employee downtime
- Increase Value Added Time

Improvements:
- Added more employees
- Increased from 2 to 5 work stations
- Re-organized and moved tools and parts closer to the workstations

Results:
- Value Added Time increased by 37.26%
- Production increased to 50 trailers per week

Goal:
- Identify potential barriers to maximize efficiency of polishing pads on production line

Methods:
- Work on production line in order to understand manufacturing logistics
- Collect data on type of pad being used, when it went into service, and when it is no longer usable

Recommendations:
- Initiate a more thorough training process (i.e. eliminate lang. barriers)
- Re-organize/implement consistent pad-usage and removal process

Goal:
- Reduce the amount of paint used as well as the time taken to touch up due to excessive paint buildup on painting racks

Methods:
- Collect data on time taken unmounting product from old and new painting racks
- Contact suppliers for information about alternatives (i.e. anti-graffiti spray or paint thinner) in order to eliminate the build up

Recommendations:
- Resources used in the process can all be cut in half by eliminating paint build-up

Acknowledgements:
- Ben Jarvis, IDEQ Sponsor
- Gregg Lynde, Manufacturing Specialist at TechHelp
- Rob Cutler, Plant Manager at Mirage Trailers
- Ryan Kahre, Quality Manager, Woodgrain Doors
- Carlyn Blake, Usful Glassworks
- Kyle Davis, In The Ditch

Woodgrain Doors: Program Run Times Variability

Picture of Mirage Trailers, taken before the improvements.

Before: A newly build paint rack, In The Ditch Towing
After: Three week old paint rack, In The Ditch Towing