

W. Stoller's Honey, Latty

Intervention Key Words: Lid Press, Automation, Bucket, Sealer, Honey, Packaging, Production, Case Erector, Automated box assembly

Industry: Distribution, Manufacturing

Risk Factor(s): Repetitive motion, High Hand Force-Pinching/Gripping, Vibration-Hand/Arm, Manual Material Handling-Lifting/Carrying and Pushing/Pulling

Situation:

W. Stoller's Honey supplies millions of pounds of honey each year to various markets around the Eastern US. As a producer, packager, and distributor of honey, they are constantly searching for ways to make their production line faster and safer. In the past few years they have seen orders for bulk containers of honey increase from 1618 pails in 1996 to 35,755 pails in 1998. A Cumulative Trauma Disorder risk arises during the packaging of the bulk containers. After each pail is filled with 60 lbs of honey, it is then sealed by the use of a plastic hammer, which requires approximately 10 blows around the lid. After the sealing process the operator must push the pails down the conveyor, where they are lifted by a machine and placed onto pallets. The repetitive nature of the hammering and pushing creates the potential risk for CTDs to the arm and shoulder. Another area of concern for Stoller's Honey is during the packaging of the containers. On the packing line, cases are manually erected then filled with containers of honey that arrive on a conveyor. Both the erecting and packaging are repetitive motions that pose a CTD threat to the workers upper extremities and spine.



Employee manually closing pail

Solution:

In order to address the CTD risks during filling, Stoller's purchased an On-The-Fly Lid Press with automatic conveyor. The lid press will seal the pails without any physical exertion and then move them to the pallet loading station. Total cost for the intervention was \$12,175, and Stoller's received \$9600 from Safety Grant\$ to help offset the burden. To help manage the CTD risk during packaging, Stoller's purchased a case erector that automatically assembles the box for packaging. This

eliminates the need for the repetitive motions required to manually erect the case, removing a significant strain from the arms and wrists of the workers. Safety Grant awarded \$22,714 towards the \$28,393 total cost for the erector.



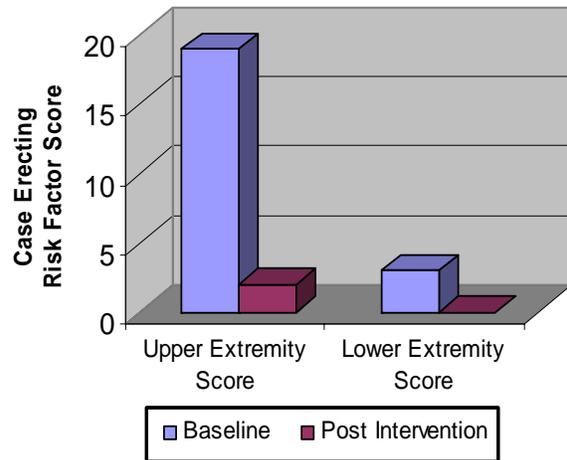
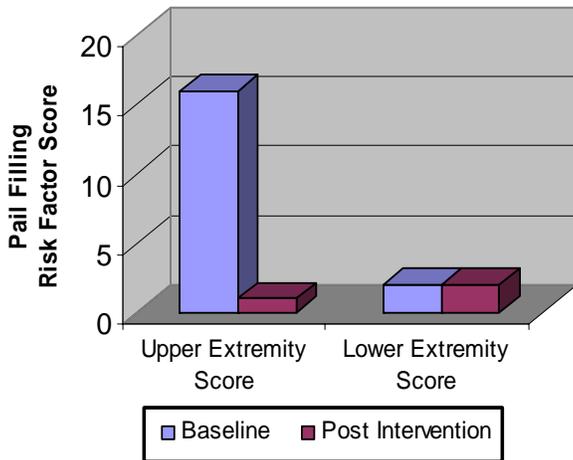
On-The-Fly Lid Press



Automatic Case Erector

Results:

- CTD rate, Lost Days Rate and Restricted Days Rate were all 0 prior to the intervention and have remained at that level 24 months post intervention.



- Total Pail Filling Risk Factor scores decreased from 18 to 3, an 83% improvement.
- Total Case Erecting Risk Factor scores decreased from 22 to 2, a 91% improvement.
- Productivity (Hourly production of pails):
 Baseline: 72 pails/hour
 One year: 144 pails/hour

Two years: 150 pails/hour