

Fresh Products Inc., Toledo

Intervention Key Words: Automated Capping Machine, Automatic Feed Hot Stamp Machine

Industrial Key Words: Manufacturing

Risk Factor(s): Repetitive motion, Awkward Posture- Wrist deviations, High Hand Force- Pinching/Gripping

Situation:

Fresh Products manufactures various industrial deodorizing products and urinal screens. Products are made and packaged on site and shipped worldwide. Packaging for most deodorizers consists of bottling and capping. The capping process is done manually, requiring workers to repetitively twist caps using moderate force in awkward positions. This causes concern for Cumulative Trauma Disorders (CTDs) such as carpal tunnel injuries. Another concern arises from the stamping of urinal screens. Workers load and then activate heat stampers by pressing dual switches found on either side of the workstation. Repetitive movements used to load the stamper and extensive reach required to operate the machine create risk factors for CTDs.



Bottle Capping Process



Worker operates stamping machine

Solution:

To approach the problems concerning the capping of bottles, Fresh Products purchased an automatic bottle-capper. This device mechanically caps and torques caps in line. The workers must continue to hand box the products, but the repetition from twisting the caps has been eliminated. The implementation of a new Rotary Hot Stamp Press addresses the problem of stamping urinal screens. An 8 station turntable automatically feeds the heat stamper, which then releases the screens into boxes. The only task for the worker is to keep the turntable filled with product. The automatic stamper eliminates the repetition and awkward postures once faced by the manual machine operators.



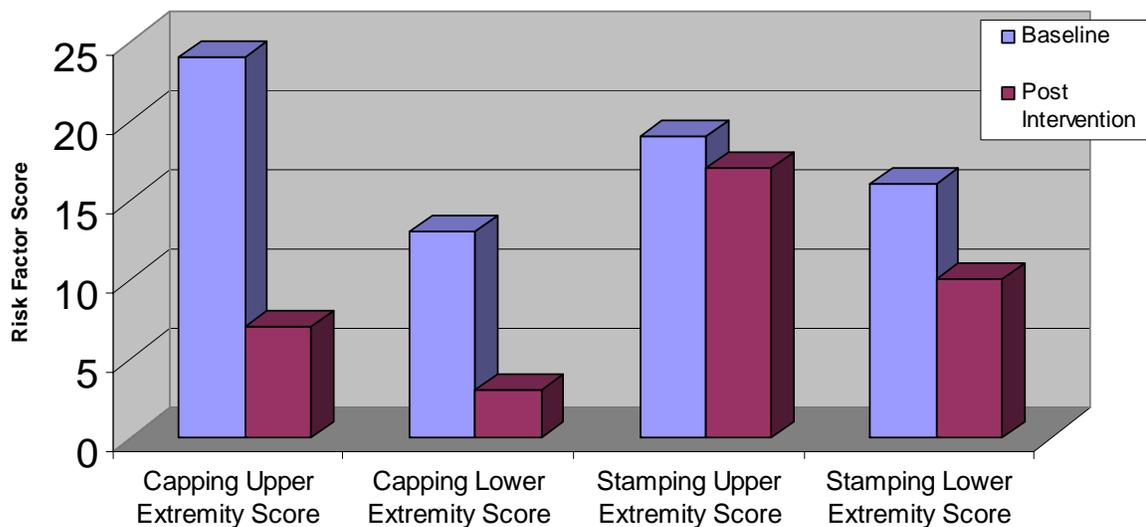
Bottle Capper in action



Catalog picture of automatic rotary heat stamper

Results:

- CTD, Lost Days and Restricted Days rates were at 0 for 12 months prior to the intervention and remained at 0 for 2 years following.



- When averaged over the 2 tasks, Risk Factor scores decreased 49%.
- An increase in Employee Turnover was observed but may not be directly attributed to the intervention.