

Partners in Plastics, Inc., Sharon Center

Intervention Key Words: Deflasher, Die, Adjustable Height Tables

Industry: Manufacturing

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

Situation:

Partners in Plastics manufactures custom blow molded plastics products. Parts are produced using 9 dual head accumulator blow molding machines. The task of the Machine Tender is to take the product from the automatic part remover and deflash the excess material. Deflashing is the task of removing plastic debris from the surrounding product. This task poses significant risks for Cumulative Trauma Disorders (CTDs), stemming from repetitive cutting, awkward postures and wrist angles, excessive forces required and sustained bending in order to reach work tables. In addition, Machine Finishers use the same tables to perform additional secondary work such as cutting or drilling operations, assembly, labeling and packaging.



Solution:

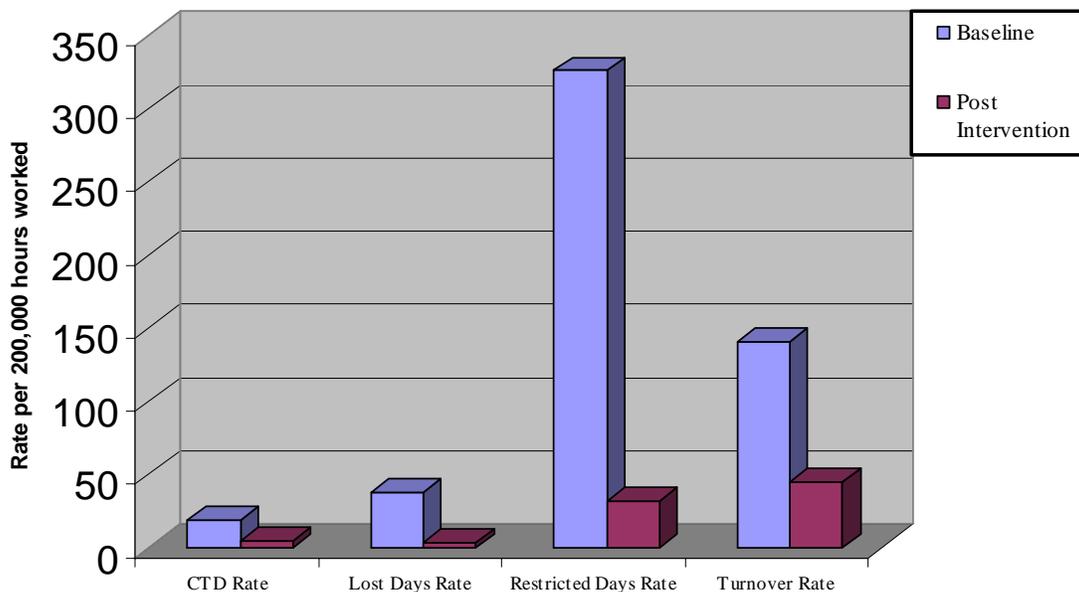
Partners in Plastics approached their CTD issues by automating. The company purchased two automatic deflashing machines and various dies to use with them. The new machines hydraulically trim the flashing from the parts, eliminating CTD risks associated with the task. In order to address CTD risks imposed upon the Finishers, Partners in Plastics purchased 4 adjustable lift tables for the employees to work on. The tables are adjusted to allow workers to maintain a neutral position, dependant upon the individual employee rather than an "average" one. This improvement promotes a more natural posture and reduces continuous bending. Total cost for the intervention

was \$47,700. Partners in Plastics received \$38,160 in assistance from SafetyGrant\$ to offset the costs.



Deflashing Machine and Lift Table

Results:



- CTD Rate (standardized per 200,000 hours worked) decreased from 19.0 the year prior to the intervention to 4.1 over the 2 years following, a 78% improvement
- Lost Days Rate decreased from 38.0 to 3.1 over the same time period, a 92% improvement. Restricted Days Rate also decreased 90% from 326.1 to 32.1.
- Employee Turnover Rate was at 140.3 the year prior to the intervention and decreased to 45.2 over the 2 years following. This equates to a 69% improvement.
- CTD Risk Factor Scores, averaged over 2 tasks, decreased 28% following the intervention.