

JAC Products, Maumee

Intervention Key Words: Ergo-pulse Drills, Sorbothane Anti-Vibration Gloves

Industry: Manufacturing

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

Situation:

JAC Products in Maumee manufactures automotive roof and deck mounted luggage racks. Their annual production exceeds over 5 million parts per year and they supply to nearly all automotive manufacturers. Assembly of each part poses numerous Cumulative Trauma Disorder (CTD) risks. Repetition, awkward reaching, twisting, bending, tool vibration and long periods of standing all create CTD risks. The area in which JAC products has focused its CTD research is in tool handling. JAC has determined that excessive vibration and poor design have led to a number of work-related cumulative injuries.



Poor workspace design results in awkward bending and reaching which can lead to CTDs

Solution:

JAC Products approached the problem by purchasing 33 “EP 5 PT Ergopulse” drills. A small number of these tools had been purchased previously and have shown to reduce CTD incidents when compared to the previous model. JAC plans on implementing the new drills in areas which still relied on the old model. In addition, a supply of Sorbothane Anti-Vibration Gloves was purchased for optional use by the workers. These fingerless gloves have a cushioned palm to reduce vibrations produced by the drills and other hand tools. Finally, a workspace re-design was undertaken to



reduce the bending and reaching required of the workers and to complement the addition of the new tools. Total cost for the intervention was \$39,723. JAC Products received \$31,778 in assistance from Safety Grant\$



New tools and workspace design reduce CTD risks

Results:

- CTD Risk Factor scores decreased 49% following the intervention.
- CTD rate (incidents per 200,000 hours worked) did show an increase but may not be directly attributed to the intervention.
- Lost Days rate had a significant increase but is related to a lapse in the employers “Transitional Work Program”.
- Employee Turnover rates (per 200,000 hours worked) decreased 47% in the 2 years following the intervention when compared to the year prior.
- Restricted Days rate had a 25% improvement over the same time period.