

## Arc Abrasives Inc., Troy

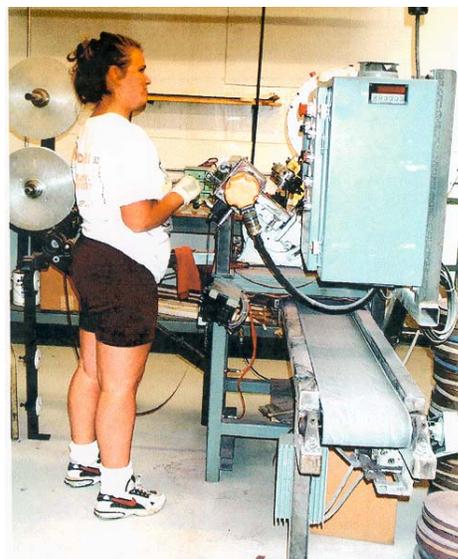
**Intervention Key Words:** Adjustable Chairs, Footrests, Anti-Fatigue Matting

**Industrial Key Words:** Manufacturing

**Risk Factor(s):** Awkward Posture- Back deviations

### Situation:

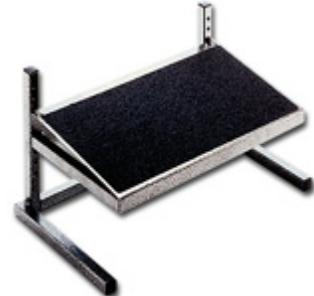
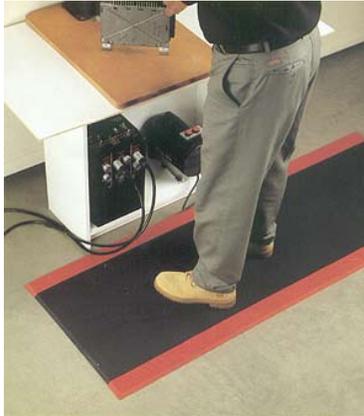
Arc Abrasives Inc., manufactures a variety of abrasive products and cartridge rolls (used in product finishing). Due to the high volume output required of the workers, especially in the Cartridge Roll Department, Arc has become concerned with the risks for Cumulative Trauma Disorders (CTDs). Several tasks were evaluated in that department, in which workers are expected to either stand for long periods of time or sit in un-adjustable chairs while maintaining awkward postures over an extended period of time. A number of workstations were seen to have elevated CTD risks which should be addressed by the employer.



**Examples of workstations in need of ergonomic improvements**

### Solution:

The company's answer to the CTD risks was to purchase a variety of ergonomically designed equipment. First of all, they bought adjustable chairs. These chairs are adjustable in numerous ways and each employee was educated on how to make proper adjustments. Footrests were also purchased to encourage safe posture for the workers who sit. For those who must stand, Arc Abrasives obtained anti-fatigue ortho-mats to place in each workstation necessary. The total cost for the interventions was \$7,353.76. Arc received a \$5407.64 award from Safety Grant\$ to assist them with their purchase.



**Workplace interventions purchased by Arc Abrasives, Inc.**

**Results:**

- CTD rate (incidents per 200,000 hours worked) decreased from 13.4 the year prior to the intervention to 3.1 in the 24 months following, a 77% improvement.
- Increases in both Lost Days and Restricted Days rates (per 200,000 hours worked) were observed, but can be attributed to an incident that occurred prior to the intervention.
- A 7% increase in Employee Turnover was seen, but may not be related to the intervention.
- When averaged over 6 tasks, Upper and Lower Extremity Risk Factor Scores decreased 52%.