

Case Study 6110

Intervention key words

Extrusion honing machine; polishing dies

Industry

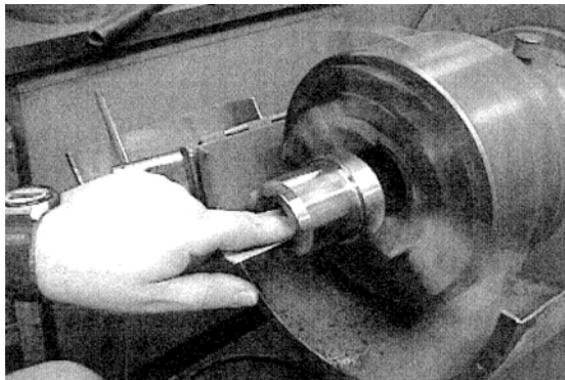
Manufacturing

Risk factors

Manual handling – lifting/carrying; high hand force – pinching/grasping; awkward posture – wrist deviations

Situation

This forge tooling company has recorded injuries in the polished finishes process. The nature of the process requires the employee to polish the product by hand or by holding an abrasive material against a spinning or oscillating part. The process requires the employee to apply continued pressure with his or her hands and fingers. This causes pain, discomfort, and numbness in the hands and wrists. The photo below shows the process.



Solution

This employer spent \$61,599.93 to purchase an extrusion honing machine that is capable of polishing multiple large extrusions and forming dies at one time. This machine has improved the polishing process by eliminating all the manual handling.



Results

- The incident rate (standardized for each 200,000 hours worked) decreased from 17.98 the two years prior to the intervention to zero the two years following, a 100-percent improvement.
- The National Safety Council reports the average cost for a workers' compensation claim is \$19,382. The return on investment was six years.
- The employees now work in a safer area, and the employer has recorded no injuries
- The intervention reduced the cycle time of the process by 45 percent.
- The machine increases the quality level of the product by giving it a better surface finish.