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## **Sanding and Buffing in the Aviation Manufacturing Industry: A Case Study**

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**Abstract:** The primary objective of this assessment was to assess and recommend engineering changes for the task of sanding and buffing a propeller hub and to establish a proper standard of practice and procedures that limit (or decrease) the potential for injuries. Management at this aviation manufacturing facility determined that there was a potential for injury while performing this task of sanding and buffing a propeller hub. These injuries could be sustained from improper workstation design and improper use of equipment required for performing the manufacturing tasks. Since no injuries had been reported at the time, we proactively evaluated the environment and the task to determine where the potential injuries were likely to occur. Using an ergonomic assessment tool, Rapid Entire Body Assessment (REBA) ergonomic assessment, and the 5S model, we were able to determine which aspects of the task presented the highest risks for potential musculoskeletal injuries. By implementing our recommendations from these assessments, the reduction in potential injury saved this aviation manufacturing facility \$21,045-\$179,896 in worker's compensation and increased the employee's quality of life.

*Keywords:* Musculoskeletal Disorders, Manufacturing, Ergonomics