

## **Case Study 9**

### **Manual Handling: Calibration of turbine buckets**

**Issue:** 10kg buckets are inspected and maintained by individual worker in workshop. Task is continuous in nature and each bucket is handled up to 8 times through the process of inspection and calibration. Workers are reporting elbow, shoulder and neck pain.

### **Task Analysis**

The management and staff were consulted and their main issues noted.

Issues and observations included:

- Buckets are manually handled throughout the process: buckets are bought into the workshop on a forklift, lifted off and placed on a table to be weinto the workshop, weighing of bucket, reassembling of bucket onto turbine shaft and then calibrated
- Well lit environment
- Good valve maintenance programme
- Location of valves requires operator to adopt awkward postures and climb on other equipment to reach



### **Model Recommendations**

The proposed solutions included:

1. Increase length of valve stem to reduce need to stretch
2. Re-orientate valve to avoid reaching across other equipment, e.g. rotate 90 degrees.