

Case Study Title: Ergonomics Survey of Food production lines

Background: A fresh food manufacturer required their production processes to be reviewed to reduce the risk of musculoskeletal disorders and repetitive strain injuries.

Fresh vegetables were processed at the factory which required repetitive tasks such as slicing, dicing, cutting, washing of the products.

There were many repetitive tasks that were reviewed with some manual handling tasks as well. Pushing and pulling tasks were also conducted. Task rotation was an important consideration as this is only effective if tasks rotated to are different and use different body structures.

Ergonomic Approach Taken:

- Our chartered ergonomist conducted a field ergonomics trial to survey and observe the tasks being conducted
- The range of products processed were observed with all the different tasks assessed
- The repetition and frequency rates of tasks were collected looking at cycle times etc
- Variation in techniques was observed
- Details with regards to task rotation was collected
- Subjective feedback from a range of production line operatives

Images



Analysis Methods:

- Expert ergonomics appraisal by chartered ergonomist
- MAC (Manual Handling Assessment Charts)
- ART (Assessment of Repetitive Tasks)
- Pushing and pulling force data and comparison with guidance

Outputs:

- A detailed ergonomic report was compiled with supporting images of postures observed
- Recommendations were provided for each of the tasks conducted
- Risk Assessment ratings using MAC, ART etc. were provided
- A bespoke training programme was developed to reduce the risk of musculoskeletal disorders through better techniques for repetitive tasks and handling

Impact

- Significant improvement in risk levels
- Better task rotation planned
- Postural training was provided
- Improvements to repetition rates and forces
- An ergonomic change programme was proposed to help implement ergonomics