HEALTH AND SAFETY AUTHORITY

Ergonomics Good Practice Case Study

Manufacturing Sector

Organic Lens Manufacturing (OLM)

Organisation:
Organic Lens Manufacturing (OLM)

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This case study demonstrates how Organic Lens Manufacturing managed ergonomic risks through the introduction of a range of engineering and organisational improvements in the way work was carried out to avoid or reduce the risk of musculoskeletal injury.

The Project Team Involved

Left to right: Christine Kelly, Niall Geoghegan, Thomas Doyle, Bernard Dunne, John McNamara.

The Organisation

OLM is part of the Essilor Group and has been manufacturing ophthalmic lenses in Ennis, Co. Clare, for the export market since 1991. For 170 years, the Essilor Group has put its expertise at the service of good vision in designing, manufacturing and distributing ophthalmic lenses and equipment for eye care professionals. Today, Essilor are the leader in this field, providing solutions seen by professionals and consumers as the reference in correction, protection and prevention for visual health. With brands such as Varilux®, Crizal®, Eyezen™, Xperio®, Transitions®, Bolon®, Foster Grant® and Costa®, Essilor are active across prescription glasses, sunglasses and reading glasses, and in ophthalmic optics equipment.

01 Stage 1: Problem Identification

Description of Task

Maintenance technicians are encouraged to report tasks which they find uncomfortable or difficult. As a result, maintenance technicians reported that they had difficulty changing blades on a granulator due to performing the task in a kneeling position with limited space on a working platform. This task is part of the preventative maintenance programme within the regranulation workshop and takes place every three months.

Evidence of Risk Factors

The risk factors included:

- ☐ Lack of space
- ☐ Use of force in an awkward kneeling position
- ☐ Static kneeling posture

02 Stage 2: Problem Solving Process

The main problem was how to adapt or change the work platform to allow the maintenance technicians perform the task in a standing position, without interfering with normal daily operations within the area. Brainstorming and problem solving involved a multidisciplinary team from numerous departments: Maintenance, Production, Environmental, Health and Safety (EHS) and Engineering. An external fabrication company, Complete Stainless Engineering (CSE) subcontracted by Bercar Environmental Ltd, was also consulted and they provided drawings with potential solutions.

Problem Solving Activities

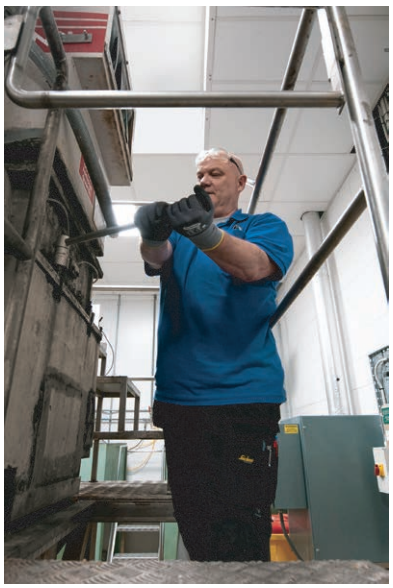
The main activities undertaken were:

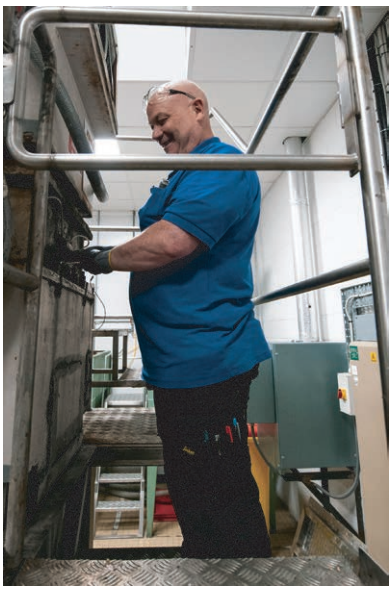
- ☐ an ergonomic assessment using video analysis was completed, in consultation with maintenance technicians performing the task, to identify the risks;
- ☐ consultation with the operators who normally work in the area took place during the assessment to ensure the changes did not have a negative effect on them; and
- ☐ consultation with all other relevant internal stakeholders and with an external fabrication company during the brainstorming process also took place.

03 Stage 3: Outcome

Main Interventions

The main intervention was to modify the existing platform, to allow for a section of it to be easily removable and to install a lower permanent platform. This allows maintenance technicians to remove a section of the original platform and perform their task while in a standing position on the lower platform.
A safety chain is attached when work takes place on the new platform.
The cost of the intervention was €2,500 approx.





04 Stage 4: Results

The most significant result is that maintenance operators can now perform their task while standing. Standing allows for a more dynamic and neutral posture while performing the task. Standing while using a torque wrench to loosen the blades also helps to reduce the force required to perform this task.
The adaptations have no negative effect on normal production.

Health benefits (including risk factors like force, repetition, posture eliminated or reduced)

The maintenance technicians can now perform the task while standing which means that they do not have to engage in awkward kneeling postures while using force to perform the task.

Evidence of innovation or creative thinking

A viable solution was the result of brainstorming with a multidisciplinary team, involving people performing the task, proposing different solutions and arriving at a modification which suited the needs of production and maintenance without the need for major renovation.

Evidence of team work

A multidisciplinary team consulted with maintenance technicians performing the task to identify the risks and also with the operators who normally work in the area to ensure the changes did not have a negative effect on them.

Evidence of consultation and communication with those that work on this production process

Yes, consultation with relevant stakeholders took place at all stages of the project, leading to a successful outcome. This included consultation with an external fabrication company during the brainstorming process.

Evidence of any productivity or efficiency improvements

Feedback from the maintenance technicians is that the task is now easier to perform and it takes less time to loosen the blades while in a standing position. They are very satisfied with the change.

Evidence of reduced lost days due to accidents or ill health

Not applicable.

Evidence of management commitment and investment

Management at OLM show a continuing commitment to invest in projects and innovations that will improve the safety and well-being of employees. This particular innovation was solely to improve the work conditions and safety of maintenance technicians performing an infrequent task.

Return on investment

Not in terms of financial return. But, in terms of investment in people, their wellbeing & safety, yes.

Evidence of increased knowledge and awareness of ergonomics

The project won a Global EHS award within Essilor. Internal ergonomic benchmarking between departments within OLM took place and the changes were shown to all managers and supervisors.
The ergonomic risks were discussed, as well as how the modifications addressed these risks.
Posters describing the improvement were placed near the entrance to the work area.

Client Testimonial

"Our maintenance technicians reported that they had difficulty changing blades on a granulator due having to perform the task in a kneeling position with limited space. An ergonomic assessment of the task was carried out using video analysis and in consultation with maintenance technicians and workshop operators. A brainstorming process took place between all relevant OLM stakeholders and a local fabrication company to find a solution. The main challenge was to make a modification with space restrictions and to ensure the modification did not interfere with daily production. The solution involved modifying an existing platform to allow for a section of it to be removable, together with the installation of a second permanent lower platform on which maintenance could stand while performing their task. This modification eliminates working in an awkward kneeling posture and reduces force required to perform the task. The maintenance technicians feel the change allows for a more efficient performance of the task and they are very satisfied with the change. The project has won a Global Safety award within Essilor."

Organic Lens Manufacturing Project Team