



Acerinox S.A.

Improving the Placement of Refractory Bricks

Employee Training

Safety

Challenge

After analysing accident statistical reports, Acerinox's Accident Prevention Service detected a high number of lost time injuries caused by musculoskeletal injuries in the Refractory section. The Prevention Service decided to analyse the section's work conditions, particularly during the placement of refractory bricks in ladles and argon oxygen decarburisation (AOD) converters.

Action

Technical Safety staff carried out an ergonomic study of the placement of refractory bricks.

The study looked in detail at the placement process including the type of bricks, weight, and work posture and movements required to do the work. They then evaluated the manual handling and ergonomic conditions of the work.

The evaluation of work conditions utilised the specifications in the National Work Hygiene and Safety Institute's (INSHT) technical guide.

Outcome

The study concluded that the following corrective measures should be implemented:

- Installation of new equipment to place the bricks.
- Acquisition of new work tables so bricks can be placed at different heights.
- Delivery of a specific Manual Handling training course to staff.

The implementation of these actions has resulted in a considerable decrease in the number of lost time injuries in the Refractory section.

An investigative project has also been started to identify if a robot could be designed to place the bricks.