

Healthy Workplaces Good Practice Awards 2020-2022

CASE STUDY

Introducing technical solutions in a meat production company to prevent musculoskeletal disorders



ORGANISATION/COMPANY

ELABORADOS JULIÁN
MAIRAL S.L.

COUNTRY

Spain

SECTOR

Production and
preserving of meat

TASKS

Lifting and moving heavy
pork loins



Source: ELABORADOS JULIÁN MAIRAL S.L.

Background

The core business of Elaborados Julián Mairal SL in Spain is the production of pork loin, which accounts for 90% of its activities. The production process includes several stages: reception, weighing, salting, maceration, marinating, stuffing, hanging and drying.

Several of these stages involve considerable physical effort on the part of workers. Pork loins are transferred from a large plastic container on the floor to a stainless steel tank for weighing and then salting. The same procedure is repeated during the marinating stage.

When performing this activity, two operators stand next to the box. To pick up the pork loins from the box, the workers must repeatedly bend over into the container,

with their legs straight. The worker's back must support the entire weight of the action, which constitutes a very high risk of overexertion.

The loin hanging stage involves an operator placing 5 to 7 loins (weighing 15-21 kg) on a bar, which then must be lifted by hand and placed on the rack. The racks are arranged in two heights and the employee must climb a ladder to place the loins on the top of the rack.

The bar holding the fresh loins must be lifted above shoulder height to place it on the supports. Because the operators work in a humid environment with meat residues, the accident risk is very high.

Aims

The company aims to prevent work-related musculoskeletal disorders (MSDs) by consulting with an external prevention service and involving managers and employees in finding solutions.

What was done and how?

Management and the quality and technical department examined different options for reducing risks. They identified the following:

- A hydraulic box tipper was purchased for the loin weighing stage to position the box at the worker's height.
- The tailor-made tipper consists of mobile arms that can be fully raised to position the box or pallet horizontally so that the contents can be removed without the employee bending over.
- This means that the employees are always standing upright and do not need to perform any awkward turns that could lead to overloads, especially in the lumbar area.
- For the hanging stage, a pneumatic rack lowering device was installed that drives the rack by means of a compressed air system and can lower it almost to the floor.
- Because the system is adaptable, the rack can be lowered to the optimum height for each operator, minimising the risk of overexertion by having to work above shoulder height.
- It is no longer necessary to climb any steps to place the bars on the upper part of the racks, thus avoiding the risk of falling.

What was achieved?

- The new equipment enabled the company to minimise the risk of overexertion and falls by the workers.
- The workers have a very positive attitude towards the new equipment (tipper, lowering device) as it makes their daily workload much easier.
- Workers can work more safely, without overexerting themselves and with much greater flexibility.



After the intervention

Source: ELABORADOS JULIÁN MAIRAL S.L.

Success factors

- Company's overall commitment to occupational safety and health (OSH) risk prevention.
- Management's dedication to improving the working conditions of company workers based on a study to find the best options for reducing OSH risks.
- Collaborating with existing plant suppliers to obtain bespoke solutions.



Before the intervention

Source: ELABORADOS JULIÁN MAIRAL S.L.

Transferability

Such company-wide commitment to OSH risk prevention is fully transferable to other small or large businesses but could also be transferred to organisations in other industries. The highly effective technical measure for preventing MSDs is transferable, especially in the meat sector where risks are greater.

Costs and benefits

Employees work more efficiently, flexibly and safely since acquiring and installing the new equipment. Overexertion and falls have been minimised. Accidents are currently down to zero.

Key features of good practice example

- Company management, workers and external providers collaborate seamlessly to find solutions in preventing MSDs.

- The acquisition and installation of two new pieces of equipment for various stages of the pork loin production process makes the work much more efficient, safe and flexible.

Further information

Further information can be found at <https://www.julianmairal.com>

Management believes that OSH risk prevention is a fundamental goal to be achieved. Therefore, everyone is committed to ensuring a safe and healthy working environment.