



# The complete condensation solution

Slaughterers, Spain



*Slaughtering and processing plants process thousands of animals per day, and the operations can emit airborne micro-organisms and moisture. These contaminants are unwanted because they can affect product quality and pose a potential threat to the health of the workers. Thankfully, Munters has the right solutions to assist.*

Large amounts of water are used to sanitize the environment, and although much of the water is drained away a considerable amount evaporates and becomes water vapor. A process must be capable of producing consistently safe products with the desired quality and a full risk assessment should consider humidity control as part of HACCP to avoid condensation dripping onto animal products.

**Case study:**

- Controlling condensation in slaughterhouses

**Advantages:**

- HACCP control
- Reduce dripping onto product
- Decrease manual labour
- Rapid drying time after washdown
- Lower microbial count
- Reduce defrost cycles
- Improve temperature control
- Maximise yield
- Improve worker comfort



## Fighting moisture

Many rooms are ventilated with air entering and leaving through wall and shackle-lined openings and doorways. Moist air leaks in and makes occupants uncomfortable, and it can cause considerable condensation and frost as warm moist air mixes with cold air and comes into contact with cold surfaces. Fans are sometimes added in attempts to eliminate condensation. However, these can often move bioaerosol emission sources further into the process area.

Moist air condensing on surfaces with contaminated sources can increase the potential for product contamination and decrease food safety. Low humidity combats condensation and can help prevent food contamination, ensuring product quality and the health and wellbeing of workers is maintained.

Often considerable time is spent controlling the problem, with personnel dedicated to mopping and wiping away condensation. Munters Condensation Control System (MCCS) provides a cost-effective solution to this condensation problem, and there are a range of benefits to using this solution.

Munters systems consistently remove moisture as the absorption process is not limited to the freezing point of water. This enables existing cooling equipment to defrost less frequently, and in many instances defrosts are reduced by up to 75%.



## A range of benefits

Sometimes entire teams become a wipe down crew in order to dry ever-wet surfaces. Munters Condensation Control system also reduces this wipe down period, thus reducing the labour required for sanitation, so operations are back on line quicker increasing available production time. You'll shorten wipe-down periods and start shifts faster.

In addition, lower humidity reduces microbial counts as the reduction in condensation reduces the medium for breeding opportunities for microbial formation. In a dry environment mold and bacteria are inhibited. MCCA targets latent moisture loads, and allows the plant to decouple the latent and sensible loads in the facility. Sensible loads are addressed by the plants cooling system, whilst Munters Condensation Control System tackles the latent load. The cooling system does not come ON to respond to the latent load increase and then reheat to the desired area temperature, so promoting tighter temperature control

Finally, humidity levels are often over 70-90% relative humidity, but with Munters Condensation Control System these drop to more comfortable levels and odours are reduced. MCCA absorbs moisture using a desiccant wheel, which easily attracts and holds water vapour. This moisture is collected, carried away and exhausted externally.

Munters equipment is installed in thousands of food facilities worldwide and is a reliable method of humidity quality control for HACCP. Munters Condensation Control System inhibits dripping from overhead condensation and fog whilst reducing labour and improving product quality.

Would you like to find out if Munters has a solution for your company too? If so, please visit our website, [www.munters.com/food](http://www.munters.com/food)

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