



Application Guide
HACCP Control
Meat Handling

Benefits

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

The HACCP solution to condensation

Slaughtering and processing plants process thousands of animals per day and the operation 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.

Large amounts of water are used to sanitise the environment and although much of the water is drained away a considerable amount evaporates and becomes water vapour.

A process must be capable of producing consistently safe product with the desired quality, and a full risk assessment should consider humidity control as part of HACCP to avoid condensation dripping onto animal product.

Many rooms are ventilated with air entering and leaving through wall and shackle line openings and doorways.

Moist air leaks in and makes occupants uncomfortable and 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 well being of workers is maintained.

Often considerable time is spent "controlling" with personnel dedicated to mopping and wiping away condensation. Munters provides a cost-effective solution to this condensation problem.

Munters desiccant dehumidification provides consistent moisture removal 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 significantly reduced.

Sometimes entire teams become a wipe down crew in order to dry ever-wet surfaces. Desiccant dehumidification reduces this wipe down period, thus reducing the labour required for sanitation. Operations are back on line quicker, increasing available production time. Wipe down periods can be shortened, enabling shifts to start faster.

Lower humidity reduces microbial counts as the reduction in condensation reduces the medium for breeding opportunities for microbial formation. In a dry environment mould and bacteria are inhibited.

Munters desiccant dehumidification technology 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 desiccant dehumidification 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.

Humidity levels can often be over 70-90% relative humidity (RH). Munters solutions ensure conditions drop to more comfortable levels and odours are reduced.

Munters dehumidification systems remove moisture from the air by using a desiccant rotor (wheel), which easily



attracts and holds water vapour. Process air passes through the rotor and leaves the dehumidifier as dry air. Heated reactivation air collects the moisture absorbed by the drying wheel and leaves the dehumidifier as wet air. The moisture collected is then carried away and exhausted externally.

Munters equipment is installed in thousands of food facilities worldwide and is a reliable method of condensation quality control for HACCP.

Munters desiccant dehumidification will inhibit dripping from overhead condensation and fog, whilst reducing labour and improving product quality.

For more information and case studies, visit our website or contact your local Munters team.



Request a FREE Site Survey today

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