

The Munters difference in meat processing

Optimized dehumidification prevents condensation,
improves productivity, and ensures food safety



Meat processing

The challenge:

Meat processing facilities must maintain an extremely clean processing environment. Thousands of liters of water are sprayed daily to maintain hygiene. Temperatures are kept at approximately 7°C or less to prevent microbial growth. Although much of the water is drained away, a considerable amount evaporates into water vapor. This water vapor often condenses on surfaces such as ceilings, structural steel, and piping.

Regulatory directives forbid condensation to drip onto the product and condensation cannot form in production or non-production areas. The most common solution was controlling it with plastic sheeting and personnel dedicated to wiping away condensation as it formed. But plants can still be overwhelmed by uncontrolled humidity and face regulatory actions.

The solution:

Munters dehumidification systems offer a dependable, cost-effective solution by providing consistent moisture removal capacity, even at high ambient humidities and sanitation cycles.

Since moisture is extracted as vapor, the Munters desiccant dehumidification system can remove as much moisture as necessary to maintain the low dew point levels required to prevent condensation from forming.



Munters MX2



Munters DSS Pro



Benefits

Regulatory compliance

Increased pressure is being placed on meat processors to control overhead condensation. But Munters desiccant dehumidification systems can eliminate condensation and fines associated with any inspection-related compliance issues.

Reduced manual labor

Most meat processing facilities employ “wiper crews” to remove condensation. These workers are trained to spot condensation droplets as they form and wipe them away. Considerable labor hours and material costs add up since workers must tear down and re-hang heavy plastic sheeting during the sanitation period. These costs can be significantly reduced or eliminated when a Munters desiccant dehumidification system is used to control condensation.

Reduced downtime and increased production

Meat plants usually carry out sanitation during the third shift. Large volumes of water are used to clean processing equipment and production lines. Plants usually discontinue sanitation three to four hours prior to shift start to dry out the process area using a large crew of employees that dry all wet surfaces.

But condensation can be eliminated by controlling facility humidity with the latest Munters desiccant dehumidification system. You will be able to reduce sanitation labor and be back online quicker, increasing available production time.



Reduced microbial counts

Control of moisture condensation is an important aspect of food-processing facility design and operation. Reduction of moisture in the air will reduce the dew point and can eliminate condensation and stop microorganism growth.

Reduced defrost cycles

By delivering air at lower dew point temperatures, Munters dehumidification systems enable existing mechanical cooling-based equipment to defrost less frequently. Daily defrost frequency can be reduced from four to one, which saves significant energy.

Improved temperature control

Desiccant dehumidifiers specifically target moisture (latent) loads allowing the operator to decouple the latent and sensible loads.

Sensible loads are addressed by the system's cooling equipment while the desiccant section tackles the latent part of the load. The cooling system can then focus its full capacity on removing sensible heat, which can lower space temperatures and improve temperature control

Food safety and extended shelf life

Food safety can be improved significantly with the help of a Munters desiccant dehumidification system. By reducing condensation, space humidity levels are reduced, which leads to significantly lower microbial counts. Hygienic packaging conditions can also help extend product shelf life.



Our dehumidification technology

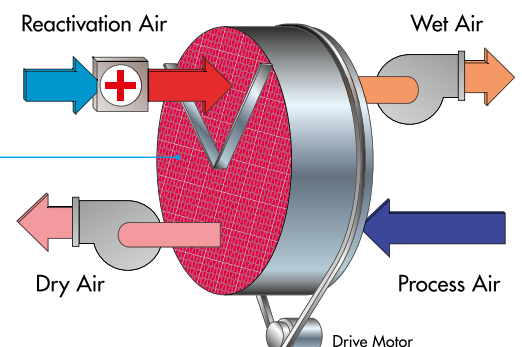
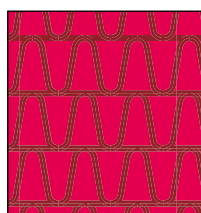
Munters equipment removes moisture from the air by using a desiccant, a material which easily attracts and holds water vapor.

In Munters units, the desiccant is impregnated into a corrugated ceramic composite material which is formed into a wheel. Air passes easily through the flutes, contacting the desiccant. The incoming process air stream gives off its moisture to the desiccant. The process air is dry as it leaves the wheel. The humidity-laden wheel rotates to the reactivation sector where the moisture is removed by a second air stream.

Munters has spent decades refining this process, and the desiccant rotor to give our customers the most energy-efficient and reliable desiccant dehumidifier available today. Our patented PowerPurge® technology can reduce the reactivation energy and post-cooling requirements by 20-40%.

Munters Honeycombe® Wheel Technology

Patented HoneyCombe® wheel design provides a vast surface area for desiccant





Munters Services – With you all the way

With Munters as your service partner, your air treatment equipment will receive the attention, care and maintenance needed to reach its maximum life expectancy. Throughout each phase of the equipment life cycle, the knowledge and expertise of Munters Services will insure optimal operation, minimum energy consumption, and extension of the life of your investment.

Our range of services available through our global network of Munters Services Engineers and Technicians include:

- Comprehensive installation and start-up services
- PrimaCaire™ (extended warranty) agreement
- Flexible ServiceCaire™ maintenance agreements to fit your specific needs
- Performance checks and optimization
- Numerous upgrade options for substantial energy savings and improved performance

Being a global provider of air treatment solutions means our product and service portfolio may vary depending on climate conditions, regional demand, applications and industries.

Find your nearest Munters office at www.munters.com

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