





ICE can offer free estimates for turnkey solutions

### **Process Freezing**

Contact ICE to eliminate ice and frost, increase throughput, and exceed quality requirements with Munters dehumidification



# Humidity control is essential in process freezing

High volume, fast-paced production systems in continuous operation make up the majority of process freezing operations. Uncontrolled humidity in food production facilities can cause expensive and unproductive interruption because of the need to defrost evaporators and remove ice from conveyors, floors and walls.

Desiccant dehumidification removes moisture from the air before it can form frost and ice on equipment. With ice build-up and defrost cycles significantly reduced, process freezing operations can run smoothly and at high speeds year-round, regardless of season.



## Desiccant dehumidification for blast and spiral freezers

A blast or spiral freezer is a critical component in most frozen food production processes. One of the largest challenges to maintaining performance of blast or spiral freezers is frost build up in the freezer and on evaporator coils. A Munters desiccant dehumidification system can provide dry air to blast and spiral freezers with the following benefits:



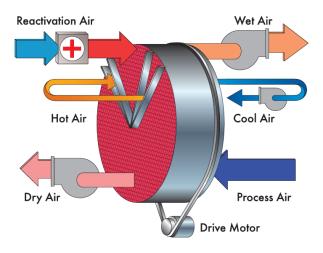
- Significantly reduce or eliminate frost on freezer cooling coils to minimize or eliminate defrost cycles, resulting in improved freezer cooling performance. Evaporator coils with minimal frost have higher cooling capacity. This allows more consistent and higher product flows through the freezer because the cooling coils can cool more effectively and efficiently.
- Significantly reduce or eliminate frost at the freezer inlets, outlets, and conveyors.
   This ensures higher food quality by eliminating product damage caused by contact with frost or damage by conveyor malfunction due to frost build up.
- Eliminate the need for employees to remove frost manually or by complete freezer shutdown and defrosting with a heat source. This can significantly improve productivity and reduce the chances for workers to be injured due to slipping or falling.

#### The Munters Solution

In contrast to cooling, the desiccant process becomes more efficient as the temperature of the air decreases. Munters units have no difficulty producing air dew points of -30° F and lower. This allows you to create dry, wintertime moisture conditions during the summer.

Since the Munters unit removes moisture from the air to levels below the evaporator's temperature, it no longer freezes on cold surfaces in the room, which means refrigeration equipment operates more efficiently, with fewer evaporator defrost cycles, fewer conveyor jams due to ice build-up and safer, less slippery floors. Munters has spent decades improving and optimizing the desiccant dehumidification process including patenting technologies like PowerPurge® which significantly reduces reactivation energy requirements and post cooling requirements.

Munters HoneyCombe® Rotor Technology with PowerPurge™





### Types of process freezers

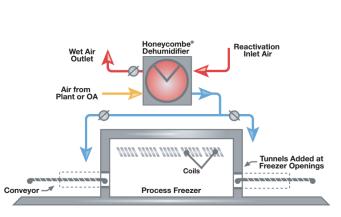


Figure 1. Makeup Air System with Tunnels

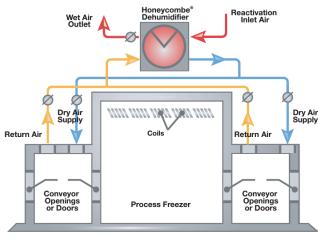
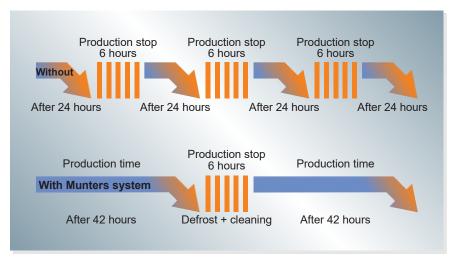


Figure 2. Air System with Vestibule



Our experts will help you find the perfect climate for your business.

Talk with an expert today.





Munters Corporation is a global leader in the manufacturing of industrial desiccant dehumidification systems down to -90F dewpoint.

Munters DH systems are used in over 20 major industries including food, pharmaceutical and battery manufacturing.



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