

Condensation elimination and production efficiency improvement for Marlow Foods

Upgraded ventilation and dehumidification system eliminates condensation in high care unit

The Challenge:

Excessive steam release in the production area was causing massive condensation issues on the walls and ceiling with moist air getting into the chiller. The ice build up on the chiller evaporator resulted in shorter run times and downtime to regularly defrost.

The proximity of a spiral steamer and spiral chiller was contributing to the high moisture transfer problems. Condensation on the building fabric was also increasing the hygiene risk. Our brief was to significantly reduce the very high humidity conditions in this high care space. Previous attempted solutions had made the situation worse.



The Solution:

Penmann enclosed the area in a hygienic insulated stainless steel clad room and then ventilated the room with dry warm air, to absorb the moisture and prevent fogging and condensation, using a desiccant dehumidifier

- Original extraction system stripped out & the area opened up
- Stainless steel liner to improve cleanability & protect structure
- New desiccant dehumidified supply air system
- New odour treatment system utilising energy efficient cooling tower

The Benefits:

- ✓ **Complex project completed with minimal production downtime**
- ✓ **Areas now operate dry (RH less than 50%)**
- ✓ **All exhaust air odour treated**



Testimonial

"Penmann communicated and planned all aspects of the installation and changeover works meticulously. Their staff overcame unforeseen challenges and were very positive throughout ...with the same staff throughout the contract, even though it was staged over several months. The quality of work and materials used was excellent and any snagging works were identified and completed within timescales given.

We found Penmann a very good company to complement our supply chain and would not hesitate to use them again or recommend to other companies".

Willie Botha, Group Engineering & Project Manager, Quorn Foods