

Dehumidification to Returns Area at a Yorkshire Distribution Warehouse



The steam tunnel area within the facility faced significant challenges due to high levels of humidity and condensation, which posed a risk to the integrity of returned clothing. A specialised climate control solution was required to maintain optimal environmental conditions and ensure that the garments remained free from moisture-related damage.

The project aimed to revolutionise the climate control systems in the steam tunnel area of a facility dedicated to inspecting, sorting, and storing returned apparel. The primary goal was to remove humidity and condensation to prevent damage such as mould, mildew, and odours, thereby preserving the quality of garments for resale or redistribution.

Our solution included the design, installation, and successful implementation of an innovative Air Handling Unit (AHU) and Variable Refrigerant Flow (VRF) system with bespoke controls.



Project Details

Completed	2024
Sector	Retail
Location	South Emsall
Type	HVAC

Project Scope

- ▶ **Air Handling Unit (AHU)**
The new AHU was strategically designed to meet the steam tunnel's unique requirements. It featured robust construction to withstand the demanding environment and was equipped with advanced filters and fans to ensure efficient air circulation and moisture removal.
- ▶ **Variable Refrigerant Flow (VRF)**
The VRF system was chosen for its flexibility and efficiency in managing varying loads. It complemented the AHU by providing targeted cooling and dehumidification. The VRF system's bespoke controls allowed for precise adjustment of temperature and humidity levels, ensuring consistent conditions throughout the area.
- ▶ **Integrated Controls**
Cutting-edge controls were a cornerstone of this project. Integrated sensors continuously monitored the environment, adjusting the system's operations to maintain optimal conditions. The controls ensured that humidity and temperature levels were kept within the desired range, preventing any adverse effects on the returned apparel.

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