

Case Study

AVT McCormick Ingredients Pvt Ltd



AVT installs DuCool unit with existing cooling equipment.

AVT MC, who offer tailor made spice ingredients to its customers worldwide needed an efficient and effective solution to control its humidity. Ducool Systems provided that solution with its liquid desiccant dehumidification systems. As a result, the company has been able to boost its production, improve the quality of the spices with significant reduction in energy consumption.

Background

AVT McCormick is a spice company backed by almost 200 years of agriculture and spice experience. It offers tailor made spice ingredients to its customers. Over 20 spices that are processed, sterilized and ready to use in whole, cracked, crushed, milled, blended for uniformity, or custom blended spice mixes are available from AVT Mc spice range. AVT needed to control humidity while providing cooling due to high occupancy and high equipment load in the packaging area.

Challenge

Kerala, which lies in the tropic region, is mostly subject to intensely humid climate due to its close proximity to the sea. Due to these conditions throughout the year, the conventional cooling systems at AVT failed to handle the required humidity levels in their packaging area. Spice powder being hygroscopic in nature absorbs moisture which leads to lumping and caking making the product muggy. This stalled the free and unobstructed flow of spice powders during packaging. AVT tried to maintain the required humidity level and the temperature using conventional HVAC cooling systems which proved to be inefficient in handling the latent load and increasing the operating costs. Uncontrolled humidity also caused quality degradation and subsequent batch rejections. AVT also needed to provide cooling due to high occupancy and high equipment load in the packaging area.

DuCool Advantage

DuCool India installed a DT Large unit to treat 3400 cfm of air maintaining conditions of 55% RH at 25° C in the packaging area. The entire latent load was handled by our units, improving the overall efficiency of their existing conventional system and saving around 50% of energy. Due to precise humidity control lumping and caking during packaging were completely eliminated. This improved the quality of the spice powder in terms of flavour, colour, consistency, taste and aroma. As salt solution is a natural disinfectant, it supplied cleaner air which improved the employee working conditions.

