

HERMs Eliminate Vibration in Produce Dryer Enidine Wire Rope Isolators

By: Mike Thurkettle and Buchanan Automation

Product Overview

A central California manufacturer of produce and food handling equipment was in the process of designing a produce dryer, but was concerned that uneven, wet loads would emit vibrations that would transmit into the mounting frame assembly. The manufacturer contacted Buchanan Automation, the local ITT Enidine Inc. distributor, for possible solutions to isolate the vibration and solve the problem. Buchanan Automation turned to the ITT Enidine Inc. application engineers for assistance. All three groups worked together to create a solution that solved this application problem.

Product Solution

The produce dryer is part of a complete production line that begins with removing produce from a truck and finishes with bag-sealed produce ready for purchase by the consumer. The unit they designed resembles an all stainless steel cement truck. Tractor drive wheels and four electric motors power the drying drum. The manufacturer and ITT Enidine Inc. engineers identified the problem frequencies with the dryers and then incorporated wire rope isolator products into the first test units. During the second test phase, wire rope isolators made with stainless steel bars were added to the construction of additional dryer units, helping to eliminate potential wash-down problems. These second test units performed well and the first production units were then constructed. To prevent produce bits from lodging into the cable strands, the wire rope units were sealed with molded rubber. The molded High Energy Rope Mount (HERM) units effectively solved the vibration problem. During production tests, the dryer units ran with 1500 lbs. of wet produce turning at a rate of 600 RPM. Very little vibration was registered in the frame assembly.

Application Opportunity

Vibration is a huge problem. It can cause damage to internal components, electrical devices as well as other nearby equipment. ITT Enidine Inc. Wire Rope Isolators provide a sound solution for vibration and shock control. The manufacturer will continue to use the HERM units on their dryer equipment and will consider using ITT Enidine Inc. products in other applications.

