

CASE HISTORY



AGRICULTURE: MOTORIZED PULLEY INSTALLATION Conveyor Uptime Increased By 1800%



Motorized Pulley Reduces Costs in Corrosive Environment

INTRODUCTION

This job story evaluates the need for motorized pulleys to eliminate maintenance problems in facilities that convey corrosive materials. A mushroom farm, located in the Middle Atlantic States, mixes hay and manure to create suitable soil for mushroom growth, and conveys the soil mixture into bays where it sits and ages for 30 days. At the end of this aging process, it is conveyed back out of the bays and transferred onto trays where the mushrooms are ultimately grown.

PROBLEM IN MORE DETAIL

This facility originally used shaft-mount gear reducers on their conveyors; however, they quickly rusted and corroded due to the acidic gas generated during the soil's aging process, thereby destroying the reducers' bearings and seals. The plant manager also found the wear-life of the shaft-mount gear reducers to be unacceptable as they needed to be replaced every 6-9 months, causing high-maintenance and downtime costs. Further, gear reducers had to be kept in stock at all times, increasing inventory carrying costs and tying up valuable warehouse space.

SOLUTION

AIRMATIC Application Specialists reviewed the situation and recommended installing RULMECA® Motorized Pulleys on the portable conveyors throughout the facility to reduce maintenance costs and increase productivity. RULMECA® Motorized Pulleys are compact, hermetically sealed, highly efficient geared motor-driven units that are unaffected by dust, water, oil, grease, or other harmful substances. They are quick and simple-to-install and require virtually no maintenance. With the installation of the motorized pulleys, the corrosive gas released from the urea hay manure is unable to affect the pulley, improving wear life from a few months to over three years. All 35 conveyors are now equipped with these safe, reliable, and effective conveyor drive systems.

CONCLUSION

As this case study shows, in corrosive environments using sealed RULMECA® Motorized Pulleys makes good sense because they significantly reduce maintenance costs, inventory costs, and equipment downtime. RULMECA® Motorized Pulleys also incorporate a seal system superior to that used on shaft-mount gear reducers, which allows the equipment to last longer and perform better. Since installing motorized pulleys on their portable conveyors, this facility has had none of the problems with which they were previously plagued.

For more information on Motorized Pulleys and other products and services provided by AIRMATIC INC, [click here](#).

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