

Mass Flow Screw is Designed to Evenly Meter Bulk Materials from a Hopper or Bin

Mass Flow Screw and Shroud Stop Bulk Material Overflow

Introduction

Nestle Purina PetCare is a leading pet food manufacturer in the US with over 22 locations. Purina Pro Plan, Purina One, Friskies and Purina Cat Chow are some of the many well-known brands of pet food.

Hundreds of screw conveyors are used throughout the production process to handle raw ingredients and finished products safely and efficiently. The Nestle Purina Petcare in Mechanicsburg, PA works with Motion for the supply of MRO components and solutions.

Challenge

Nestle Purina had an existing bin with a screw feeder located underneath. The original equipment was incorrectly designed with full pitch screws in the inlet area and no feeder shroud. The flood loaded condition caused the screw feeder to overfill, deforming the covers and allowing material to escape. The screw feeder would shut down, requiring the Nestle Purina team to manually clean out material before restarting.

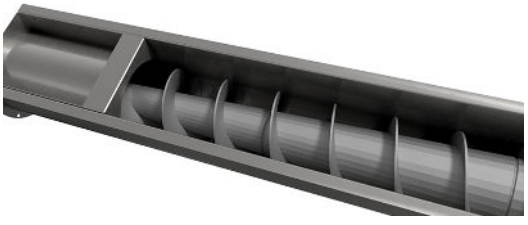
KWS Advantage

KWS analyzed the application and provided a new screw that was properly designed for a flood loaded condition. Because the inlet was much longer than standard, KWS recommended a mass flow, or cone screw, to feed material evenly from the bin across the full inlet length. KWS also supplied a CEMA standard feeder shroud for the inlet area to prevent uncontrolled bulk material flow across the top of the screw. The new design eliminated overfilling, prevented material leakage, and allowed the system to operate properly with no down time.

Customer Testimonial

"The new KWS feeder screw and shroud work perfectly and have solved a continuous problem. Now we can focus on other areas of production. Thank you KWS for the correct solution."

Maintenance Supervisor, Nestle Purina PetCare



Feeder Shroud Prevents Uncontrolled Bulk Material Flow from Hopper or Bin



Proper Screw Feeder Design Eliminated Overfilling and Bulk Material Leakage

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