PRODUCT LINE REPORT

HIGH VOLUME BULK BAG UNLOADING

ADVANCED TECHNOLOGY PROVEN DESIGN

UNLOADING 24 DIFFERENT POWDERS

THE YOUNG® INDUSTRIES, INC.

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ADVANCED TECHNOLOGY PROVEN DESIGN

Young Industries was asked to develop a system that would solve the problems with handling multiple powders for loading mixers. To complicate matters, the system must be portable and be able to handle 24 different powders from bulk bags weighing up to 2000 lbs.

SYSTEM DESIGN REQUIREMENTS:

a. Be able to unload bulk bags in eight (8) different locations

b. Handle 24 different materials from bulk bags with variable particle size and bulk densities. Some powders are pigments and cohesive while other powders are free flowing granular

c. Be able to meter at a max rate of 600 cu. ft. per hour and provisions to run at low-rate addition of 200 cu. ft. per hour

d. Provide operator protection from a suspended bulk bag

e. Due to the area classification, electric motors and controls are not preferred, pneumatic motors and controls are the preferred mode of operation

f. Access to untie the bulk bag is not the same in all locations so the system must allow the operator safe access at all mixer locations

g. System should minimize dusting as some of the powders are combustible.

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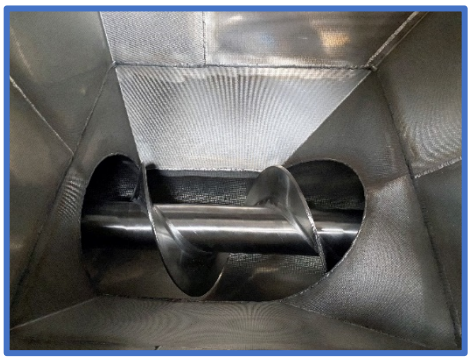
SOLUTION:

Young Industries designed and manufactured two portable systems that would be used in multiple locations to reliably unload all materials at a controlled rate into the customers process vessels. These systems offered the safety, versatility and reliability required.



8" Dia. Stinger Screw In Transflow Lined Hopper

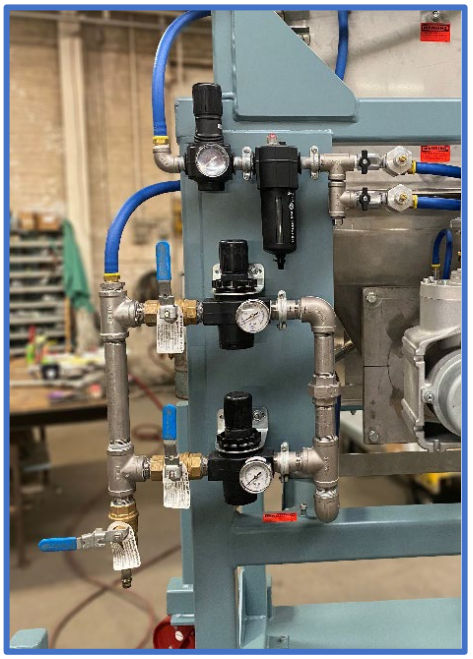
FEATURES OF THE UNLOADING SYSTEMS

a. Each system was portable with casters and fork-lift channels.

b. Each system has a support pan on which the bag will rest while it is being unloaded. The bag is supported at each unloading location by customers hoisting system. The support pan offers the safety for the operator to access the bag spout through two (2) large, hinged access door below the pan. Two doors were provided to give good operator access at all locations.

c. An 8" Stinger Screw Feeder meters powders at a rate of 600 cu. ft. per hour. The feeder uses a pneumatic gearmotor to control the speed of the helix. There is a wide range of powders with variable flow properties so the feeder has a hi and lo rate setting speed.

d. The systems handle free flowing powders as well as various grades of poor flowing Titanium Dioxide. The hopper and screw feeder are completely lined with Young Industries 316S/S Transflow fluidization media. This offers the reliability for handling the fine cohesive powders.



Pneumatic Controls, Single Compressed Air Inlet

The systems supplied by Young Industries give the customer the safety, flexibility, and reliability they need to meet their production goals.