



Designing Inclined Screw Feeders and Screw Conveyors with Non-Standard Inlet Size

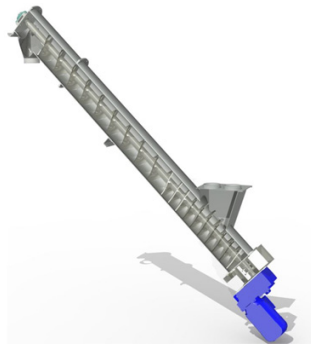
Question

I need to meter a bulk material from a hopper and elevate it 10-feet to a mixer that is located on a mezzanine. The hopper has a rectangular opening at the bottom. What is the proper design for an inclined screw feeder with a non-standard size inlet?

Answer

Metering or conveying bulk materials on inclines greater than 10-degrees requires special design considerations. If the inlet of an inclined screw feeder or conveyor is too long, the bulk material will fall back over the top of the flights in the inlet opening and not convey up the incline.

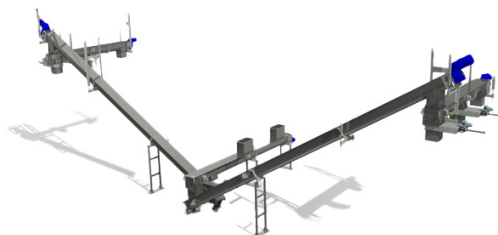
KWS recommends the inlet length be no greater than two times the screw diameter when designing screw feeders and conveyors on an incline greater than 10 degrees to ensure material does not fall back over the top of the flights. For example, a 12-inch diameter screw conveyor with an incline of 20-degrees can only have a maximum inlet length of 24-inches to ensure consistent flow of material. KWS designs and manufactures inclined screw feeders and conveyors for many different bulk materials. Please contact KWS and we can help you with your application.



Length of Inlet is Less Than 2 Times Diameter



KWS Recommends an Inlet Length of No More Than 2 Times Diameter for Inclined Screw Feeders



Inclined Screw Conveyors Efficiently Convey and Elevate Many Bulk Materials



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