Strike Off Plate vs. Feeder Shroud

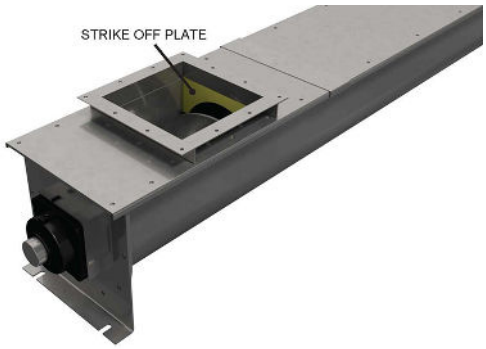
Question

I have a screw feeder metering bulk material from a hopper into my process. The inlet is flood loaded and material sometimes rides over the top of the screw flights, causing inconsistent feed rates and higher torque requirements. I have heard that a strike off plate can help, but I have also been told that a feeder shroud is the correct solution. What is the difference between a strike off plate and a feeder shroud?

Answer

A strike off plate is a simple flat plate installed at the end of the inlet opening on a screw feeder. The plate helps prevent excess bulk material from "riding" on top of the screw flights and reduces the chance of overfilling the screw feeder. Strike off plates can improve feeder performance in some applications, but they only control material at one point and do not fully prevent material from flooding past the inlet.

Strike Off Plate is Located at End of Inlet Opening



Strike Off Plate Does Not Fully Prevent Bulk Materials from Flooding Past Inlet

A feeder shroud is a more complete and reliable solution. The shroud is a curved cover that converts a U-trough into a tubular cross section and extends at least two screw diameters, or two pitches, beyond the inlet opening. This design prevents bulk material from riding over the screw flights and flooding past the inlet. By controlling the amount of material entering the screw, a feeder shroud provides a consistent and predictable feed rate, reduces torque fluctuations, and helps prevent drive overload.

For accurate metering from hoppers, bins, or silos, KWS recommends using a true feeder shroud instead of relying only on a strike off plate. KWS designs screw feeders with the proper shroud length, screw geometry, and drive selection to ensure reliable operation and predictable performance. KWS also stocks feeder shrouds for U-trough screw feeders and designs custom shrouds for demanding applications.

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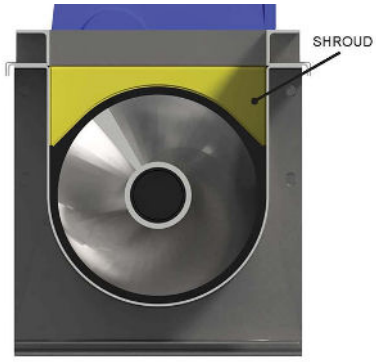

Shroud Converts U-Trough to Tubular Cross Section and Extends Toward Discharge End

Shroud Prevents Bulk Materials from Flooding Past Inlet

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