

Ask the Experts

When To Use Tubular Trough Vs U-Trough

Question

I have an inclined screw conveyor at a 30-degree angle. Is a tubular trough or U-trough best suited for my application?

Answer

Two types of troughs are typically used with inclined screw conveyors: U-trough and tubular trough. U-troughs are used in most horizontal screw conveyor applications and inclined applications up to about 20 degrees. As the degree of incline increases, U-troughs become inefficient because bulk materials will fall back over the top of the screw flights in the open area between the cover and flights. Tubular troughs are used in most inclined screw conveyor applications above 20 degrees. Conveying efficiency is greatly improved because bulk materials are contained within the tubular housing and fall back is reduced.



U-Troughs are Used for Conveying Bulk Materials Horizontally or on Inclines up to 20-Degrees



Tubular Troughs are More Efficient for Conveying Bulk Materials on Inclines Greater Than 20-Degrees



Typical U-Trough Screw Conveyor for Conveying Bulk Materials



Tubular Inclined Screw Feeders Meter Bulk Materials to Horizontal U-Trough Transfer Screw Conveyor



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