Ask the Experts



How To Replace UHMW Liners

Question

Liners are a common feature in screw conveyors to increase efficiency by reducing the clearance between the screw and housing. Liners support the weight of the screw and improve performance. UHMW liners are prevalent in shaftless conveyors where the bulk material has some liquid or sticky properties. How do you replace UHMW liners in an existing screw conveyor?

Answer

UHMW liners can easily be replaced by following these steps -Step #1 – Lockout and tagout conveyor power and remove covers.

Step #2 – If hold-downs exist, remove bolts and entire hold down assembly.

Step #3 – If screws are shafted, remove coupling bolts at shaft locations, including drive shaft. Remove drive unit so screw sections can be lifted vertically. If the conveyor is shaftless, remove bolts connecting drive shaft to spiral.

Step #4 – Lift shafted screw or shaftless spiral up just slightly with a hoist or lifting device and place 2" x 4" wooden blocks underneath every five feet to wedge between the screw/spiral and existing UHMW liner. UHMW liners come in four-foot sections, so the blocks must be located so a single four-foot section can be removed at a time.

Step #5 – Using a pry tool, pry the top of the liner section away from retainer clips welded to one side of the trough.

Step #6 – Rotate existing liner to an inverted position then lift straight up to remove from trough.

Step #7 – Install new liner by lowering inverted section and rotating into position, use pry tool to snap liner under retainer clips. Use silicone caulk to seal edge of liner to trough and each seam of butted liner sections.

Step #8 – Lift screw/spiral off liner to remove wooden blocks.

Step #9 – Repeat steps 5 through 8 until all liner sections have been replaced.

Step #9 – If screws are shafted, reinstall coupling bolts at shaft locations. Reinstall drive unit. If conveyor is shaftless, reinstall bolts connecting drive shaft to spiral. Tighten all fasteners to recommended torque ratings in KWS Operations & Maintenance Manual.

Step #9 – If hold-downs exist, reinstall entire assembly.

Step #10 – Follow instructions for start-up in KWS Operations & Maintenance Manual.



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