

Sumitomo Drive Technologies

ADVANTAGES OF THE SUMITOMO BBB-4 SCREW CONVEYOR DRIVE

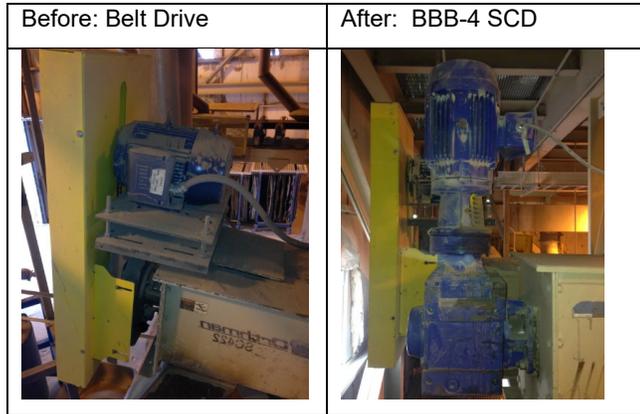
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WHITE PAPER

Advantages of the Sumitomo BBB-4 Screw Conveyor Drive by Sam Hancock

A Simpler, Reliable, and Safer Solution for your Screw Conveyor Drive.



Replacing your belt driven Screw Conveyor Drive (SCD) with a direct driven Sumitomo BBB-4 SCD is a mechanically efficient solution that can reduce opportunities for injuries.

Screw conveyors are potentially dangerous and mishaps can result in severe injuries or even fatalities. The following OSHA Accident Report descriptions demonstrate the potential hazards of a belt driven portion screw conveyor drive.

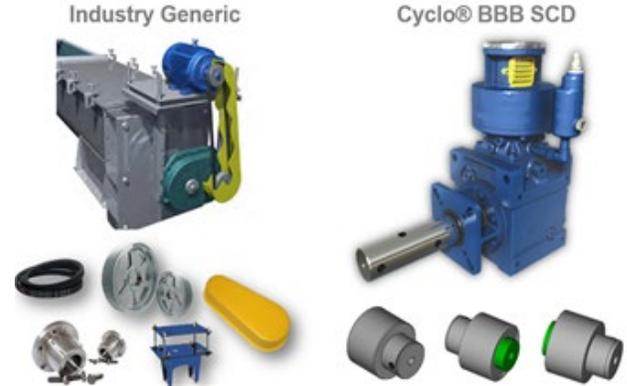
Case 1: Employee #1 was attempting to turn a v-belt drive, located on a dust auger, by hand. As he did so, the asphalt plant operator reset a circuit breaker and switched on the main panel control for the dust auger. The motor was energized and started without warning, trapping Employee #1's left hand in the in-going nip point.

Case 2: Employee #1 was trying to stop a V-belt on a feed auger's feed drive from slipping. He tried to advance the belt without turning off the equipment and his fingers were exposed to unguarded belts and pulleys. His right middle finger was pinched between the pulley and belt, which amputated the end of the distal phalanx.



The Nip points, Pinch points, and Lifting Safety Hazards of the Belt Driven System can be eliminated by using a BBB-4 SCD.

The Sumitomo BBB-4 SCD is designed to accommodate CEMA standards for easy mounting and screw connection. There are fewer parts to install and maintain. The belts, pulleys, bushings, motor mounting bracket, and guard are eliminated by using the BBB-4 SCD.



Not only does the Sumitomo BBB-4 SCD eliminate the potential safety hazards of the belt driven drive, it requires less maintenance resulting in improved uptime. There are no belts to re-tension due to stretch or replace. While under tensioned belts will reduce

power transfer and accelerate wear, over tensioned belts can lead to seal leaks, bearing failures, and broken shafts. No need to replace worn pulley sheaves. The BBB-4 SCD has no large guards to lift, handle, clean, paint or repair.



The direct BBB-4 SCD is on average 10 to 15% more energy efficient than a belt drive. The Cyclo® portion of the BBB4 can be changed if a permanent ratio change is required. A Sumitomo Drive Technologies Invertex® Variable Frequency Drive (VFD) can also be used to adjust speed. Backstops and multiple sealing options are available to accommodate the toughest operating environments.



For the safety of your employees and the profitability of your operation, please consider making the change to the BBB-4 SCD.

Please visit www.sumitomodrives.com for more information on the BBB4 SCD and options. Your local Sumitomo Sales Representative is ready to assist in selection of the BBB-4 SCD required for your application.

