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January 8, 2014

For Immediate Release

New Solution for Profile Lagging



Van der Graaf, as a result of an on-going design improvement program, has introduced a new method of driving modular belt conveyors.

The conventional method of moving modular belt conveyors has primarily been with sprockets. However, depending on the belt width and the load application, the number of sprockets to be used has to be calculated. The torque transfer from the drum to the belt is dependent on the sprockets they are mounted on either a drum motor, or a square shaft on conventional drives. One of the solutions is profile lagging.

Profile lagging, a method of adhering a material to the entire length of a drum motor and milling it to create a single full profile cog to power a conveyor belt, has been around for some time and has been used most extensively in the food processing industries. The advantages include full belt and tooth engagement providing greater traction than the traditional sprocket drives eliminating the need for sprockets entirely.

While the concept is sound, previous applications had some drawbacks. On our older designs, the material used to create profile lagging has usually measured at 60-70 Shore A durometer hardness. While hard enough to be machined into various modular belt designs such as Intralox, Habasit, Uni, and others, it is slightly too soft for milling. This means that the surface cannot be milled to a smooth polished finish resulting in surface cavitations in which bacteria can hide. The softer material also wears out more quickly.

The engineers at Van der Graaf worked on improving the profile lagging by experimenting with different materials. After considering different formulations they decided on a unique urethane compound that was both hard enough to be milled to exacting specifications resulting in a hard smooth surface, and also flexible enough not to crack during continuous use.

This new lagging material is now an available option on all SSV motors.

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