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From the pages of Modern Materials Handling

Why motor-driven conveyors are catching on

By Bob Trebilcock, Editor at Large -- 6/26/2006

One of the most notable findings from *Modern*'s conveyor survey is that more than a third of respondents are now considering 24-volt motor driven roller (MDR) conveyors.

This is a significant change from just a few years ago, when only a few vendors were showing powered roller conveyors at major materials handling shows, and few users beyond the United States Postal Service were installing MDR conveyors.

Unlike belt or line shaft conveyors, which rely on AC motors, MDR systems utilize a powered conveyor roller with a miniaturized 24-volt DC motor and gearbox inserted into a roller tube. In a typical configuration, one powered roller can drive nine rollers. That configuration in the right application allows MDR conveyors to deliver significant benefits compared to traditional line shaft conveyors.

For starts, MDR conveyors are quieter and more efficient than traditional line shaft conveyor systems. They are also cheaper to run than AC motors. Since the motor runs only when it's in use, motorized rollers are more efficient than traditional motors. And they can be sized using less horsepower than a traditional motor and drive unit. In addition, the control systems provide more sophisticated control. While some units are capable of operating at 300 feet per minute, the systems can easily be changed on the fly to operate at slower speeds on light-duty days.

Finally, powered rollers and pulleys are virtually maintenance free. The motors run only when needed, extending the life of these motors by years. And when a motor dies, it's only a matter of replacing that particular roller with the motor to be back up and running again.

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