

NEW CROSS DRIVE COMBINES THE BEST OF BOTH WORLDS:
INTERNAL DRIVE EFFICIENCY & SAFETY WITH EXTERNAL DRIVE FLEXIBILITY

Patent-pending Cross Drive, a new drive roller that combines the benefits of conventional drive methods for powering conveyor systems, is introduced by Van der Graaf Inc., Brampton, Ontario. The unique Cross Drive technology implements the efficiency, space savings and safety benefits of internally powered conveyor drive roller and combines it with conventional external drive design that allows for quicker and more economical conveyor moves or maintenance. The Cross Drive's gear assembly is housed within a sealed conveyor drive roller protected from the environment and is connected directly to an external motor eliminating the chain/sprocket or belt/pulley used in conventional systems.

Cross Drive technology combines the benefits of prior art:

- **Energy efficient:** The transfer of power from the motor's drive shaft to the drive roller's outer shell is 96 percent mechanically efficient through a precision cut, hardened steel gear assembly. Also, rotation of the motor's shaft is parallel with the axis of rotation of the drive roller's shell.
- **Safe operation:** No external moving parts eliminate the possibility of employee injury and/or product contamination. OSHA requires chain guards for conventional systems, but they are eliminated with the Cross Drive design. Eliminating the chain guards also eliminates components that require maintenance. Another safety concern is noise in the workplace. OSHA requires that employers provide protective noise-abatement devices in areas that exceed set limits. The Cross Drive is internally-driven, significantly reducing noise decibel levels.
- **Space savings:** The compact, low profile Cross Drive requires less operating space allowing systems designers the flexibility to use belt conveyors in more applications. Eliminating chain/sprocket or belt/pulley arrangements and their associated safety guards reduces the space needed for conventional drives allowing end-users to lower conveyor profiles and reduce conveyor line clearances. Also, a complete line of specialized sprockets, designed to drive an industry-standard segmented conveyor belt, attached to the cross drive roller expands the application range.

- Maintenance-free operation: Time-consuming housekeeping, maintenance and repair is required to keep conventional systems lubricated, tensioned properly, clean and in good working order. These tasks, if neglected, eventually shorten the life of the drive system.
- Sanitation: All drive components and lubricants are sealed inside the cross drive roller to provide a clean running drive system. Also, the Cross Drive is easily hosed down during clean-up procedures. The FDA often requires periodic washdown of conveyor belts during every shift and an extra cleanup shift to completely sanitize the belt each day. This task is made easier and safer because workers do not have to work around drive chains and guards used in conventional systems.
- Installation flexibility: The cost to retrofit a conveyor with Cross Drive technology is surprisingly low and cost effective. The cross drive roller easily slides into place and is secured with just 2 bolts, then the motor of choice is attached to the roller shaft with a standard coupler. Also, if the motor fails a replacement can be installed in less than 2 hours – half the time needed when compared to conventional external drive systems.

For more information on Cross Drive technology contact Van der Graaf Inc., 2 Van der Graaf Court, Brampton, Ontario L6T 5R6 Canada, phone 888-326-1476, fax 905-793-8129, www.vandergraaf.com.

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