



Trans-Quip Inc.'s Jacks Journal

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Joyce/Dayton Corp. Steelbelt Division Introduces Integrated Torque Limiters for Speed Reducers

- Provides Economical Protection for Machine and Drive Systems -

Trans-Quip Inc. is pleased to announce that Joyce/Dayton Steelbelt Division has released adjustable Torque Limiters that can be integrated within most Joyce® Steelbelt Speed Reducers.

Previously, the options available to customers for protecting their reducers were either an electronic limiter or an external limiter, both of which were costly. Now, the integrated Torque Limiter from Joyce is a very economical alternative that offers the same protection to reducers. Also, each Torque Limiter is backed by an unmatched Two Year Warranty.



clutch slips automatically to minimize downtime and reduce costly damage to equipment and machines, and allows the reducer to automatically return to normal operation after the

obstruction is removed. Torque limit is set at the factory, but there are adjustments that allow customers to set limits in the field. Limiters are adjustable from zero inch pounds up to about 25% above the full torque rating, which makes them very robust.

Joyce Steelbelt Torque Limiters are ideal for application with

any equipment that requires overload protection, including conveyors, gate operators, overhead doors, bottling machines, packaging machines, coolers and steel processing equipment.

The Steelbelt Torque Limiters are mechanical, using a slip clutch assembly in an oil bath. The

Featured Applications Bending Machine uses Bevel Ball Jacks

E.R. St. Denis, a division of Valiant Machine & Tool, located in Oldcastle, ON, required a solution for two custom bending machines for Ford Motor Company's Wayne, Michigan facility. The machines were being used to bend and finish edges of doors for the new 2005 Focus and required the flexibility to adjust between side and

hatch doors. In this case, two Joyce brand bevel ball jacks (BB300-8.25-UP-T3 - Shaft pos2) were integrated into each of the two custom machines with a complete belt driven powertrain system.

The key benefits of using a bevel ball screw jack



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system are that it provides accurate and fast, repeatable positioning. It also requires very little maintenance, other than monthly lubrication.

In addition, Ford saves on up-front costs since the machine can be quickly adapted to fit both sizes of Focus doors thereby eliminating the

need for 2 separate machines.

JACK SPECIFICATIONS:

Model: BB300-8.25-UP-T3-Shaftpos2
Capacity: 35 ton
Ratio: 3.52:1 Rise: 8.25"
Screw Type: Bevel ball jack

**A special thanks to E.R. St. Denis and Korex Canada Ltd.
for allowing us to feature their firms.**

**Screw Jacks Incorporated into
Detergent Hopper**

Korex Canada Ltd. of Toronto, ON specializes in the packaging and distribution of laundry and dishwasher detergent for the Canadian market. The company was experiencing detergent overflow problems on their 100 lb. and 150 lb. commercial bag filling line due to problems with the manual operation



of the hopper bin.

To solve the overflowing issue, Korex Canada Ltd. approached Trans-Quip Inc. for assistance with an automated solution. A WJ51-20-INV-T3 was found to be the appropriate mechanism for accurately opening and closing the sliding gate at the bottom of the hopper bin. Once the jack was motorized and installed, the filling operation was found to run much more quickly and bag overflow issues were greatly reduced.

JACK SPECIFICATIONS:

Model: WJ51-20-INV-T3
Capacity: 1 Ton
Ratio: 5:1 Rise: 20"
Screw Type: Machine screw jack

Q & A

Q: Why would I purchase a ComDRIVE over a jacking system?

A: A ComDRIVE is a self-contained actuator package that combines a machine screw jack, motor and gear reducer into a single compact unit. ComDRIVES can power an entire jacking system and reduce the number of required components that need to be specified. As a result, this simplifies the design as you no longer have to size the gear reducer and motor separately.

It costs less to install a ComDRIVE because the only mounting required is one plate for the jack

body. As well, a ComDRIVE system reduces the number of shafts and couplings typically required in a multi-jack system.

Q: How much side load can I place on a screw jack?

A: Standard jacks are not designed to handle a side load in a dynamic condition. We recommend the use of external guides when side loads are expected.

However, jacks can accommodate some side loading in a static condition. The screw column length generally becomes the limiting factor in these applications. Please contact Trans-Quip Inc. for additional assistance.



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