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# **FORDERBAND**

# The Modular Space-Saver™ Conveyor User's Manual



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#### SAFETY INFORMATION



Standing or sitting on a Forderband conveyor as well as transporting people is **PROHIBITED**.



Prior to start-up, **ALWAYS CHECK** for mechanical hazards or potential pinch points if conveyors are in use or in conjunction with other conveyors or equipment. FORDERBAND, Inc. has no control over any installation or applications of multiple conveyor systems; therefore, it is the responsibility of the user to take protective measures.



FORDERBAND, Inc. **PROHIBITS** any use of Forderband conveyors in an explosive environment. If conveyors are needed for such an environment, call us for consultation.



**DISCONNECT** and **LOCKOUT** all electrical and pneumatic power sources **PRIOR** to performing maintenance, adjustments or replacing parts. **NEVER** operate equipment without guards or protective devices securely in place.



#### Introduction

The Modular Space-Saver™ Conveyor is composed of four distinctive units as depicted in the picture shown below:



On the left (A) is the standard idler section; the right (C) features the Quick-Change™ Drive Cartridge and (D) is the belt, available in many colors and textures or materials.

The middle section or frame (B) is constructed with aluminum extrusion providing excellent stability to the conveyor and keeps it lightweight. The extrusion is either 30 x 60 mm, 40 x 40 mm, 50 x 50 mm, or  $40 \times 80$  mm, depending on the conveyor size.

The T-slot is 14mm (0.55") wide and provides two flat surfaces on the inside for better mounting and match-up of fitted parts. This width allows larger fasteners to be used, like M8 screws.



### THE QUICK-CHANGE™ DRIVE CARTRIDGE

The Quick-Change™ Drive Cartridge is built with the best quality for the highest uptime in the industry. All materials used are non-corrosive or corrosion protected, lightweight, and durable.



Do **NOT** disassemble/reassemble or modify any parts of the Quick-Change™ Drive Cartridge. Doing so will terminate the warranty immediately.



We recommend having a Quick-Change™ Drive Cartridge in stock for your convenience if ever needed.

The Quick-Change™ Drive Cartridge contains the motor, reducer, drive gears, drive rollers or sprockets as well as sealed bearings in the interior.



No maintenance is needed.



Quick-Change™ Drive Cartridge with electrical Quick-Disconnect (TURCK Pico) and Mat Top chain.



## THE QUICK-CHANGETM DRIVE CARTRIDGE (CONTINUED)

**If ever needed**, the quick-change is accomplished **without** the need of tools when a belt is in use. The belt just can be squeezed off the conveyor.

For Mat Top chains, a small screwdriver is needed to remove one yellow clip quickly on both sides of a link pin. Push out the link pin and the Mat Top will unfold. Now the Quick-Change™ Drive Cartridge can be easily removed by hand and exchanged with another. Reverse the procedure for the Mat Top to reassemble.



#### THE IDLER OR TAKE-UP SECTION

The idlers for our belt conveyors are crowned and allow for automatic belt centering. For Mat Top conveyors, the idler and drive-sprockets are in a fixed position and **do not** need any alignment.



Belt tensioning and alignment is done in our factory at assembly and should not need to be touched unless a new belt is applied.



If in doubt, **DO NOT** over tighten the belt. This can cause early drive bearing and motor bearing failure. Over-tightening the belt adds much friction and can heat up rollers and belt, leading to early belt wear.

Belt tensioning and alignment is accomplished on hand of two (2) setscrews (C1 and C2) at the idler end.



The setscrews are made from Stainless Steel and can be M4 to M8 depending on the conveyor size.



The idler section should **never** need replacing if tension guidelines are followed.



#### WARRANTY AND MAINTENANCE

#### WARRANTY

FORDERBAND, Inc. gives **two years** of warranty on the conveyor for mechanical or manufactured parts. FORDERBAND, Inc. guarantees the products to be tested in-house prior to delivery and in good working condition.

Purchased parts, such as motor, reducer, electrical parts and belt will have warranties from the respective manufacturer.



Do **NOT** disassemble/reassemble or modify any parts of the Quick-Change™ Drive Cartridge, the idlers or the belt. Doing so will terminate the warranty immediately.

#### **MAINTENANCE**

FORDERBAND, Inc. considers its Space-Saver™ Conveyors to be **maintenance-free**. The conveyors are designed and built with the highest quality for the highest uptime on the industry.



## FAQ (FREQUENTLY ASKED QUESTIONS)



The belt does not run centered. How do I adjust the direction of the belt?

The belt conveyor is designed and assembled to center the belt automatically and to keep it centered while running. In cases where the belt runs off the center, the tension on the idlers can be adjusted to any degree necessary until the belts run centered. To adjust the tension of the idlers you need an Allen Wrench. There are two possibilities to adjust the idlers depending on the tension the belt allows and/or the application requires.



For safety reasons, **STOP** the conveyor before you adjust the tension of the belt.



If the belt runs off the center to the left, you can either increase the tension on the left side of the idler by slightly turning the idler setscrew (C1) clockwise or decrease the tension on the right side of the idler by slightly turning the idler setscrew (C2) counter-clockwise until the belt runs centered.

If the belt runs off the center to the right, you can either increase the tension on the right side of the idler by slightly turning the idler setscrew (C2) clockwise or decrease the tension on the left side of the idler by slightly turning the idler setscrew (C1) counter-clockwise until the belt runs centered.



## FAQ (FREQUENTLY ASKED QUESTIONS) (CONTINUED)



How much tension can I have on the belt?

The tension the conveyor belt supports is specified by the respective belt manufacturer. Please call us at (864) 879-1110 or fax your request to (864) 879-0578 for the correct data, as belts vary in thickness and material, which may stretch more or less.



What do I do when the Quick-Change™ Drive Cartridge fails?

In the unlikely event that the cartridge fails, the following steps should be taken:



#### **STOP** the conveyor.

- a) Free the access to at least one side of the conveyor. Appropriate tools for this step may be required. This depends on your application.
- b) Strip off the belt evenly.

If necessary, decrease the tension on the belts by adjusting the left (C1) and the right (C2) idler setscrew counter-clockwise. An Allen Wrench is required for this step.

For Mat Top chains, a small screwdriver is needed to remove one yellow clip quickly on both sides of a link pin. Push out the link pin and the Mat Top will unfold.





## FAQ (FREQUENTLY ASKED QUESTIONS) (CONTINUED)

- c) Disconnect the Quick-Change™ Drive Cartridge by unplugging the Quick-Disconnect cable from the back of the cartridge (C).
- d) Pull off the Quick-Change™ Drive Cartridge (C) from the aluminum extrusion (B). No tools are required.

#### If an exchange cartridge is available, proceed with step g) and following.

The following steps should be taken to have the conveyor up and running again:

- e) Depending on the conveyor model, slide the Quick-Change™ Drive Cartridge (C) between the aluminum extrusions (B) or stick the Quick-Change™ Drive Cartridge (C) onto the aluminum extrusion (B). No tools are required.
- f) Connect the Quick-Change™ Drive Cartridge by plugging in the Quick-Disconnect cable to the back of the cartridge (C).
- g) Put on the belt evenly and move it until all belt is on the conveyor.
  - In case of a Mat Top chain, put on the chain, close it by putting in the link pin, and secure it with a yellow clip on each side.
- h) Run the conveyor.



In case the tension of the belt of a Space-Saver $^{\text{TM}}$  Belt Conveyor needs to be adjusted, please follow carefully the tension guidelines.