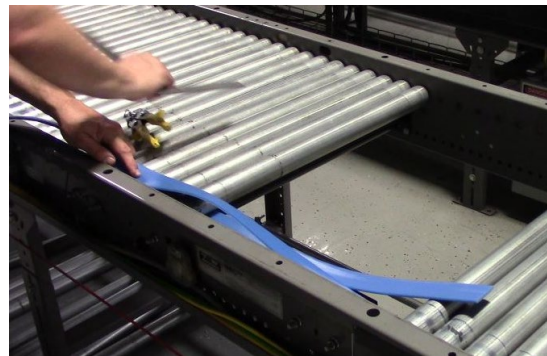


# **NBC, Belt Threading Instructions**

## **TGW, NBC Conveyor Belt Threading Instruction**

**P/N: 1209811**

**Date: 07/01/2000**



## INTRODUCTION

### PURPOSE

This manual contains the instructions to properly thread the NBC belt, use with TGW NBC flat belt conveyor. These instructions use the TGW Nitta belt and direct the user to the link for TGW Nitta belt welding instruction. TGW recommends reviewing the links included in this manual for more details to belt operation and NBC applications or repairs.

### SCOPE

The purpose is to apply proper belt threading and location of belt in TGW NBC conveyor. To accomplish this, these instructions must be followed closely.

For more TGW conveyor information:

Visit [www.tgw-conveyor.com](http://www.tgw-conveyor.com) for more maintenance videos and TGW IOM manuals.

## TGW SAFETY INFORMATION

### WARNINGS AND SAFETY INSTRUCTIONS

Failure to follow the instructions and cautions throughout this manual and warning labels on the conveyor may result in injury to personnel or damage to the equipment.

Your TGW Systems conveyor is powered by a motor and can be stopped only by turning off electrical power to the motor. As with all powered machinery, the drive-related components – including sprockets, chains, shafts, universal joints, and pneumatic devices – can be dangerous. We have installed or provided guards to prevent accidental contact with these parts, along with warning labels to identify the hazards.

Special attention must be paid to the following areas of this manual:



#### WARNING



- Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.

#### CAUTION

- Indicates a situation, which, if not avoided, could result in property damage.

 <b>WARNING</b>	
	Safety: Always lock out power source and follow recommended safety procedures.

## TGW SAFETY RECOMMENDATION



TGW agrees to the following safety instruction or guidelines listed within this manual. This is not to conflict with your state legal requirements.

TGW Recommends for maintenance or repair purposes, to incorporate a lock out or tag procedure. To ensure all starting devices, prime movers, or powered accessories are off before attempting to maintenance or repair.

The procedures below are designed to protect everyone involved with the conveyor against an unexpected restart. To include understanding of potential hazard of stored energy, which can exist after the power source is locked out.

**For additional information, refer to the latest issue of ANSI Z244.1, American National Standard for Personnel Protection – Lockout/Tagout of Energy Sources– Minimum Safety Requirements.** <http://www.ansi.org/>

**OSHA 29CRF Part 1910.147 “Control of Hazardous Energy Sources (Lockout/Tagout)”**, which includes requirements for release of stored energy and OSHA Safety and Health Regulations for Construction 1926.555 Conveyors <https://www.osha.gov/>

 <b>WARNING</b>	
	<ul style="list-style-type: none"> <li>• Pay attention to the safety instructions!</li> <li>• Prior to working at or in the immediate vicinity of the system it is recommended that you make yourself familiar with the safety instructions included in the present document!</li> <li>• TGW recommends reading all manuals supplied by TGW or Nitta Corporation. <a href="https://www.nitta.com/">https://www.nitta.com/</a></li> <li>• TGW recommends only trained and maintenance personal for conveyor repairs.</li> <li>• Do not use tools or equipment stated in this manual for other application.</li> <li>• Do not dismantle or remodel equipment or tools under any circumstances.</li> </ul>

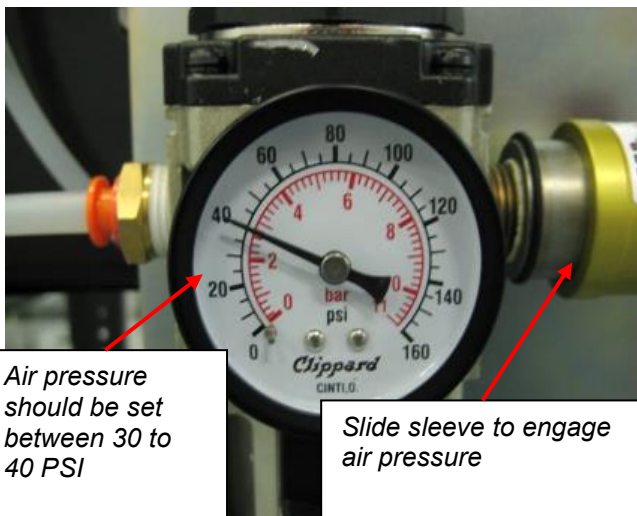
## NBC THREADING THE BELT

### THREADING BELT IN NBC ACCUMULATION CONVEYOR

#### Step 1

The most important item in threading NBC belts is to **turn the system air ON with NO POWER to the logic modules**. This will depress the pressure pans and open up a belt path. Without air, all the rollers are engaged as NBC is a spring-to-drive system and it will be extremely difficult to thread the belt.

**NOTE – Use the slide switch located at the take-up cylinder base to turn the air take-up OFF.**



*Air pressure should be set between 30 to 40 PSI*

*Slide sleeve to engage air pressure*

*Primary Conveyor Regulator P/N E0034790*

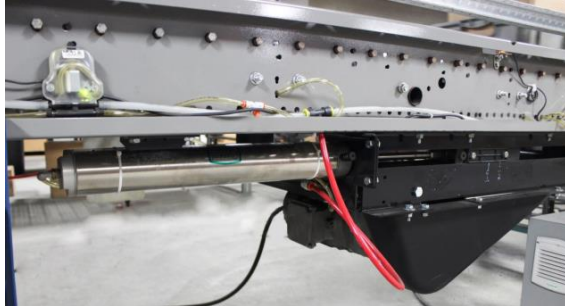
#### Step 2

Disconnect the power to ALL the logic modules (switch off SICK conveyor mounted power supplies). All logic modules lights should be OFF. This will depress the springs in the pressure pan creating a belt path.



### Step 3

Remove bottom guard on drive to have access for belt threading (150-AT manual drive guard shown – the 500 lb.-AT bottom guard is a flat plate).



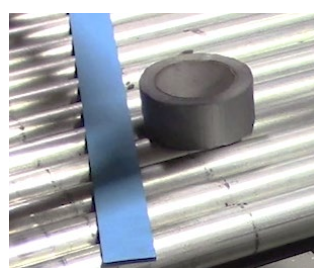
### Step 4

Uncoil the new belt. With the air pressure **ON** the logic, and the logic module power **OFF**, attach a sheet metal splint or the belt threading tool (attached to each drive from factory P/N 1118104) with tape to the end of the belt. This will enhance the ability to thread the belt under the rollers without the ends curling.



### NOTE:

Keep tape smooth and do not apply too much tape, as it will make it difficult to push the belt through the guide rollers.



**NOTE:****a) If replacing an existing belt.**

If replacing a belt determine if the old belt can be pulled through the conveyor. If yes the threading tool will not be needed. Make sure belt path is free from debris.

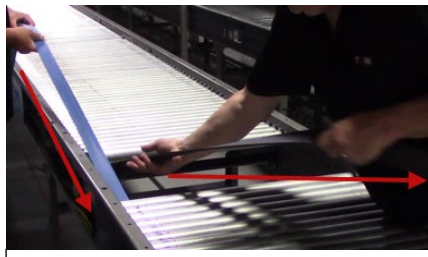
Duct tape the top and bottom of the old belt end to the new Nitta belt end (thick polyurethane side up) making sure to keep both belts flat and straight, **do not overlap the belts**.

Pull the new Nitta belt through the conveyor. Make sure the Nitta belt is **routed correctly** over all the return pulleys underneath the conveyor (**Always** reference the belt path label on the side of the drive and pull the belt through.). Remove the Duct tape.

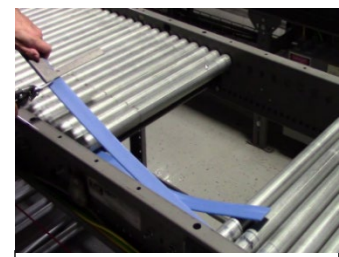
Before cutting the belt to length, make sure there is 18" overlap for NBC 150-AT and for NBC 500-AT 36" overlap. The overlap is to compensate for belt loss in the finger splice process. Both belt ends must be cut straight.



Tape ends of belts.



Pull Nitta belt through NBC conveyor.



Overlap belt ends.

**b) Nitta belt welding instruction**

TGW Nitta Belt Weld Instruction Manual #1120515 –

<https://www.tgw-conveyor.com/support/iom-manuals/nbc-manual>

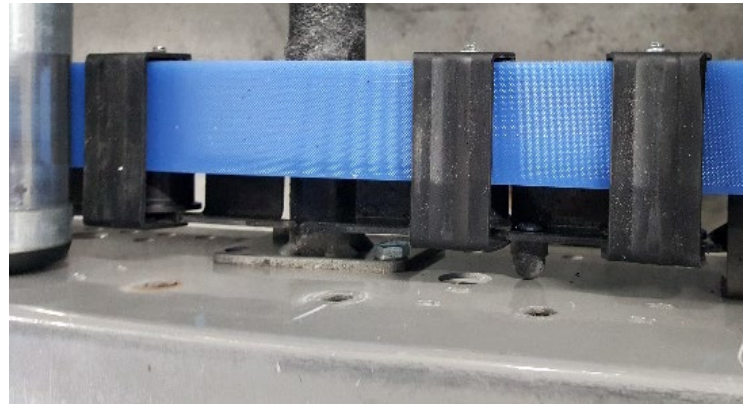
TGW Nitta Belt Weld Instruction Maintenance Video –

<https://www.tgw-conveyor.com/media-center/maintenance-videos/82-belt-driven-live-roller>



### Step 5

Remove rollers at each end and insert the splint with belt attached. Push belt into conveyor. It will be necessary to remove sections of rollers every 30' or 40' to help pull / push the belt through.



### Step 6

Remove bottom guard for end pulley.

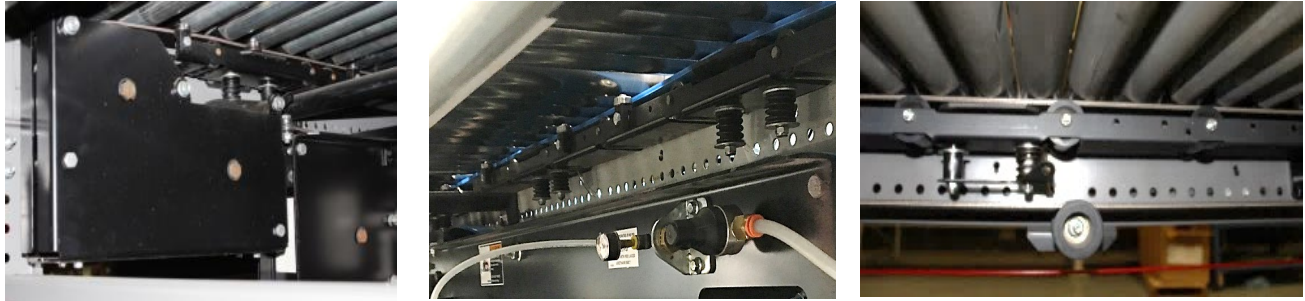
Push belt down between the stationary spacer and 6" dia. end pulley, and up and over the 6" flanged snubber pulley.

Make sure belt passes between ball bearing belt guides and end pulley.



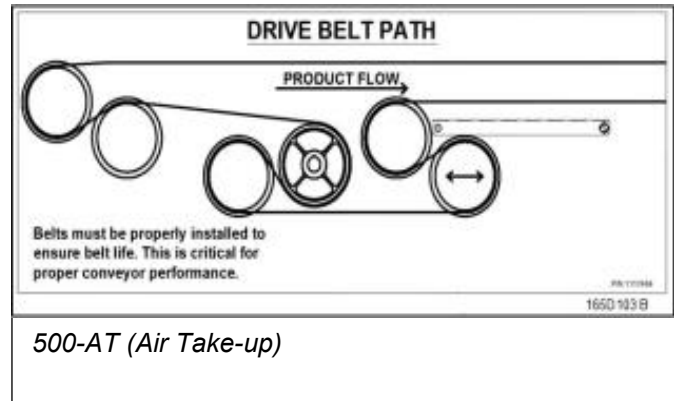
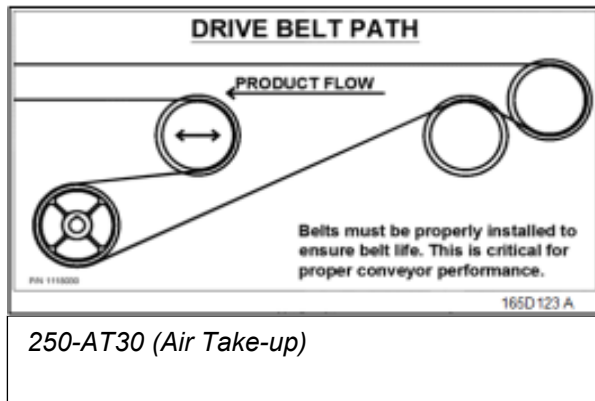
**Step 7**

Pull belt through the bottom side of the conveyor. The belt must be on TOP of the return belt idlers. Wrap the belt end around the drive take-up pulley (150lb manual drive). Wrap the belt end around the drive idler pulley before the air take-up pulley in AT drives.



**Step 8**

**Always** reference the belt path label on the side of the drive and pull the belt through.



**CAUTION**

- Never field splice the blue urethane belt (TGW P/N 1205548) with mechanical lacing, as the belt fabric is not designed to hold lacing.

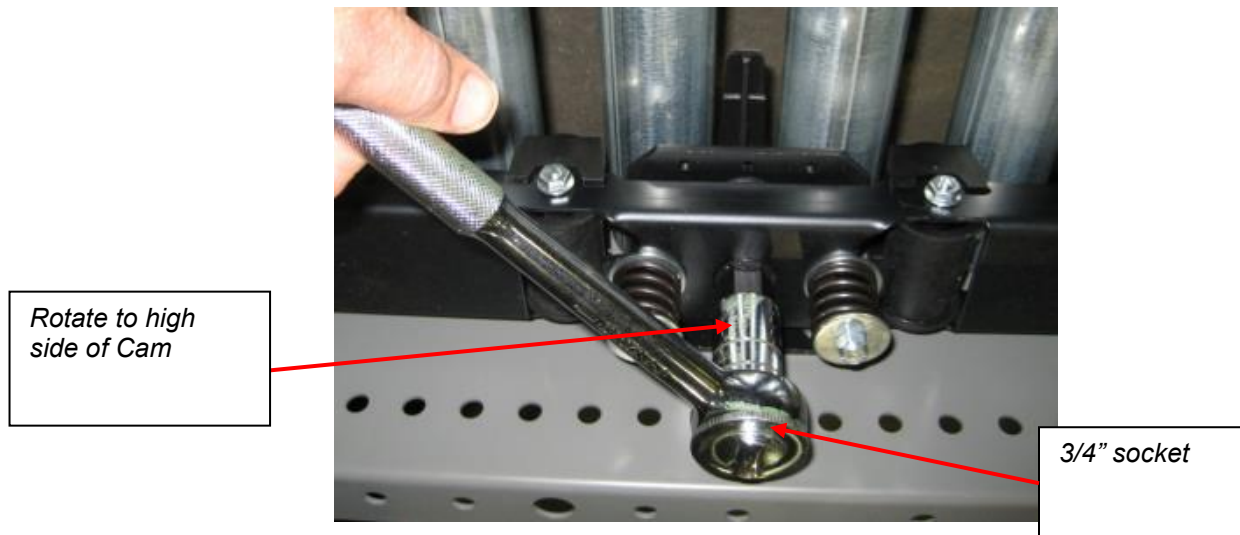
Form more NBC applications TGW recommends the following IOM's at <https://www.tgw-conveyor.com/technologies/belt-driven-roller-conveyor/nbc-manual>

TGW Also recommends NBC maintenance videos for tracking the NBC belt and NBC belt alignment at <https://www.tgw-conveyor.com/media-center/maintenance-videos/82-belt-driven-live-roller>

## THREADING BELT IN NBC TRANSPORTATION CONVEYOR

### Step 1

NBC transportation conveyor is spring to drive with no air. To open a belt path, two Cams under each pressure pan must be rotated to the high side of the Cam.

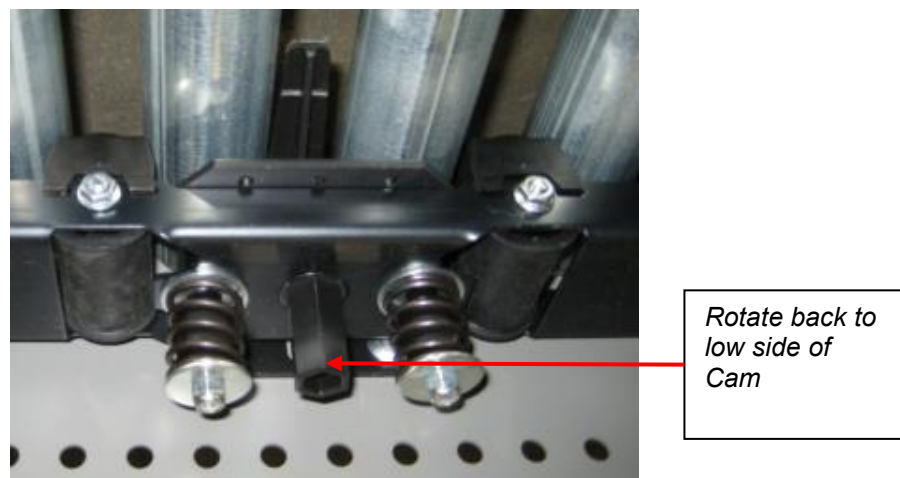


### Step 2

Thread the belt as shown in steps 3 through 8 of the NBC accumulation conveyor.

### Step 3

Rotate each Cam back to the low side of the Cam re-engaging the spring.



Form more NBC applications TGW recommends the following IOM's at <https://www.tgw-conveyor.com/technologies/belt-driven-roller-conveyor/nbc-manual>

TGW Also recommends NBC maintenance videos for tracking the NBC belt and NBC belt alignment at <https://www.tgw-conveyor.com/media-center/maintenance-videos/82-belt-driven-live-roller>

## GENERAL INFORMATION

**Website Link:**

[www.tgw-conveyor.com](http://www.tgw-conveyor.com)

## TGW SYSTEMS INFORMATION

### Mission

TGW Systems, located in Norton Shores, Michigan, is a leading deliverer of “smart” material handling systems, technologies, products, and services, creating solutions for material flow applications. As a global supplier of conveyor systems and equipment since 1964, TGW Systems provides sorters, conveyors, and accessories to satisfy a broad spectrum of accumulation, transportation, and sortation applications.



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