Pocket Instruction Guide

Flexco XP™
Staple Belt
Fastening
System

XP™
XTREME PERFORMANCE

FLEXCO

Table of Contents

Safety Checklist

DANGER

Serious personal injury may result by failure to comply with the following:

Prior to any work on your conveyors, make certain that the power has been turned off and the belt is locked out, as per site procedures. Follow other safety precautions outlined in the operator's manual.

Be sure to wear all recommended safety equipment prior to engaging in any belt maintenance procedure.

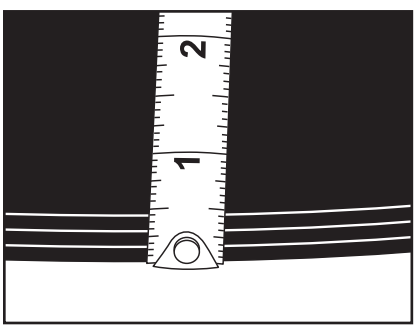
Protective Equipment
1. Safety Glasses
2. Gloves
3. Hearing Protection
4. Safety Shoes

Proper Flexco® XP™ Selection Guidelines

Proper selection for the Flexco® XP™ Staple Belt Fastening System

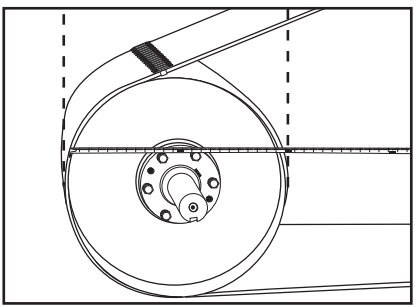
1. Determine Belt Tension.
Most conveyor belting has a mechanical fastener rating. Care should be taken not to operate the belting or fasteners beyond their recommended ratings

2. Measure Belt Thickness.
Choose a fastener size which corresponds to belt thickness. If fasteners are to be countersunk, measure the belt thickness after skiving



3. Measure the Diameter of the Smallest Pulley in your Drive.

For tail or take-up of the self-cleaning "wing type" pulley, 25% larger diameter dimensions are usually required. Only consider pulleys over which the belt makes at least a 90 degree wrap.

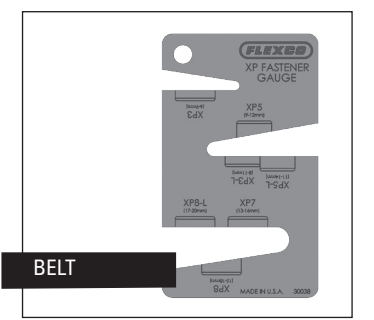


Proper Flexco® XP™ Selection Guidelines

4. Choose the Fastener Size that is Appropriate for your Specification.

Flexco® XP Staple Belt Fastener Selection Chart					
Fastener Size	Belt Strength up to	Tension Rating up to	Belt Thickness After Skive	Recommended Min. Pulley Diameter	Max. Hinge Pin Diameter
	kN/m	PIW	mm	mm	mm
XP3	1400	800	6-9	250	5.5
XP3-L	1400	800	8-11	250	5.5
XP5	2000	1150	9-12	350	8.1
XP5-L	2000	1150	11-14	350	8.1
XP7	3500	2000	13-16	500	10.3
XP8	3500	2000	15-18	500	7/16
XP8-L	3500	2000	17-20	500	7/16

Tip: After skiving, use the fastener selection gauge to determine the correct fastener size.



5. Select the correct hinge pin end and material for the application.

XAC – Bare Armored Cable: Heavy-duty, long-wearing pin popular in underground mining applications. Armor wrapping protects interior wires.

XACS – Bare Armored Stainless Steel Cable: The same advantages as bare armored cable plus corrosion resistance.

XNAC – Nylon Covered Armored Cable: Combines a durable armored steel wrap with a nylon covering for smooth operation and long service life. Nylon covering helps reduce pin migration and prolong pin life. Not recommended in wet, abrasive applications.

NOTE: Never cut the hinge pin ends shorter unless the ends are re-welded. This can cause the armor cable to loosen

Proper Belt Preparation

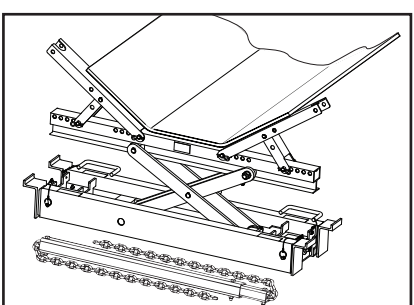
Improve workplace safety and maximise belt conveyor performance by following proper belt preparation practices.

BELT LIFTING

A Safer Way to Lift a Belt

Lifting a conveyor belt out of the way to do belt repair and maintenance can be a difficult and hazardous job. To optimize worker safety when replacing worn idler rollers or to lift and flatten belt for a splicing station, avoid pry bars and manual lifting with a Flex-Lifter™ Belt Lifter.

- Highest safe lift rating available: 2725 kg (6,000 lbs).
- Can safely lift a tensioned belt up to the stated ratings
- Works on all types of belt, including troughed, flat topside, or return side belts
- Easily transported to the job site

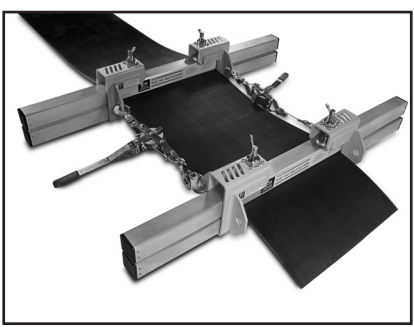


BELT CLAMPING

A Safer Way to Secure a Belt

Avoid the problems and potential dangers associated with homemade devices such as c-clamps or lumber and chains. The TUG™ HD® Belt Clamp is specially designed to properly secure a belt and clamp it for safe belt conveyor maintenance.

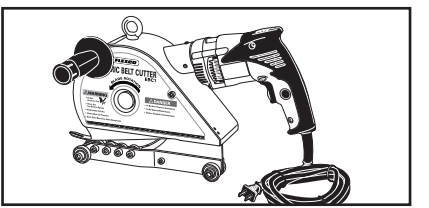
- 6 and 8-tonne versions available to secure a grip up to 55 mm thick
- Holds a 3:1 safety rating on all componentry
- Designed with high-grade aluminum bars and structural steel clamp ends



BELT CUTTING

A Safer Way to Cut a Belt

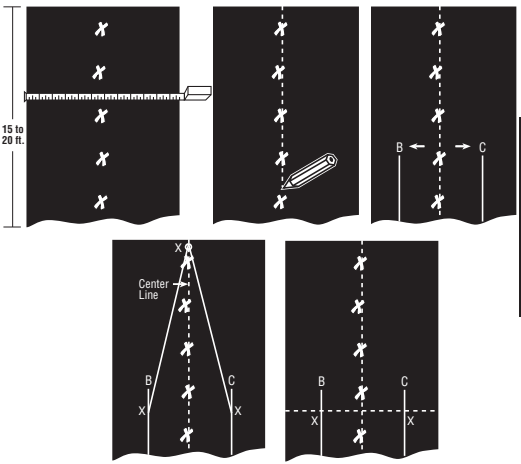
Utility knives can't provide the same level of safety, speed, and accuracy when cutting belts. And clean, square cut belt ends provide for optimal splice installation. To minimize the danger of accidental injury during the cutting process, choose a Flexco belt cutter.

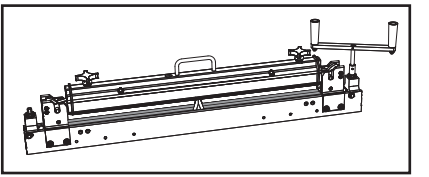


Electric Belt Cutter – AAvailable in two sizes. The EBC1, cordless CEBC1, and the pneumatic PBC1 allow for cuts up to 25 mm (1") thick on rubber belts and up to a maximum 630 kN/m (360 P.I.W.) on PVC belts. The EBC2, the cordless CEBC2, and the Pneumatic PBC2 provide for a thicker cut up to 50 mm (2") on rubber belts and up to a maximum 2000 kN/m (1140 P.I.W.) on PVC belts.

BELT SQUARING

Accurate squaring of belt ends is essential to optimal positioning of the belt splice and provides for better fastener performance. Unevenly squared belts can lead to uneven belt tensions, belt mistracking, spillage issues, and ultimately to splice failure





900 Series* Belt Cutter – Manually operated belt cutter for safe, accurate cuts up to 38 mm (1-1/2") thick.

BELT SKIVING

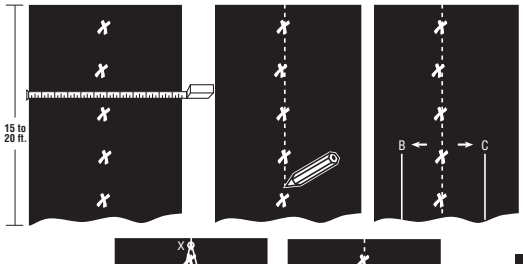
A Safer Way to Skive a Belt

Whenever possible, Flexco recommends skiving the belt in order to countersink mechanical fasteners. Skiving reduces the fastener profile on the belt, resulting in improved fastener/cleaner compatibility and increased fastener service life.

XP™ Single Blade Belt Skiver - Skives belts up to 50 mm thick. Maximum skive per pass is 10 mm.

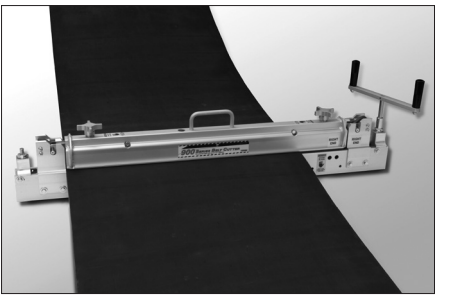
Belt Preparation

1. Square belt using centerline method.



Belt Preparation

2. Cut each belt end at the square line. Cut belt at least 6" (150mm) behind old splice using Flexco belt cutting tool



Belt Preparation

3. Skive each belt end. Use fastener selection gauge to determine how much to skive if only one fastener size is available. Leave a minimum of 1/16" (1.5mm) cover after skive. Skive to correct fastener size/width

Flexco® XP™ SINGLE Blade Belt Skiver Operating Instructions

Ordering Number: XPSK-SB

Item Code: 102099

Wear Proper PPE: Hand, eye, and foot.

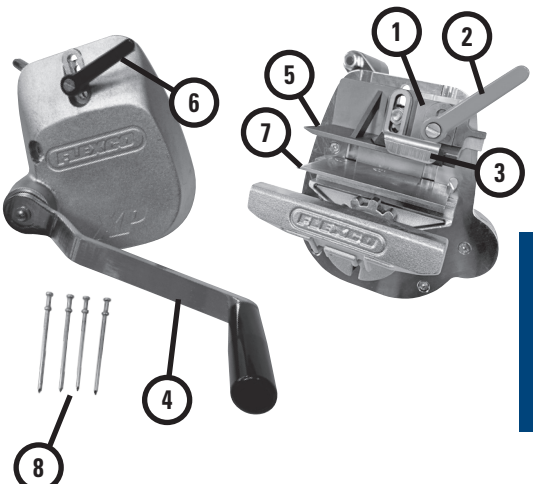
Tool Inspection: Examine the tool before each use. Check that blade is not loose. Inspect blade for nicks, cracks, or other damage. Replace blade if not sharp.

Operational Instructions: Clean belt prior to skiving. Make sure belt is flat. Do not skive into carcass. Tool skives top side of belt. Flip belt if necessary to skive opposite side.

WARNING: Keep fingers and hands away from the skiver blade at all times.

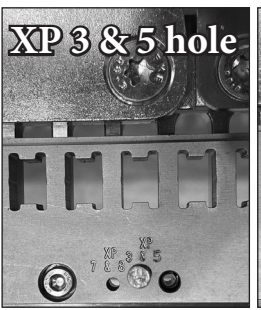
Main Components

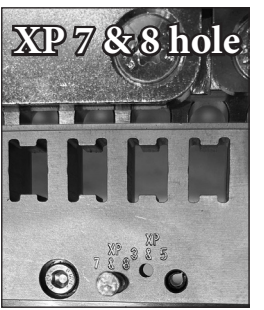
Flexco® XP™ Single Blade Belt Skiver	
1. Blade Holder	5. Upper Pressure Plate
2. Blade Holder Adjustment Lever	6. Upper Pressure Plate Adjustment Lever
3. Skiver Blade (32074)	7. Lower Belt Support
4. Drive Handle	8. Belt Stops (N0179)



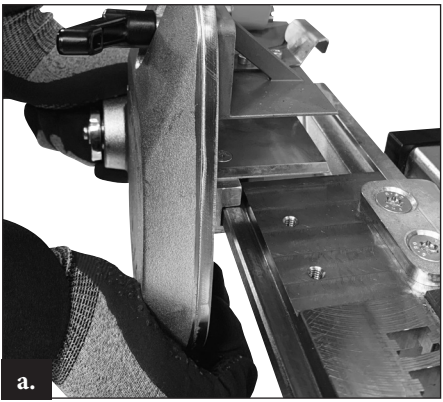
Skiver Belt Specifications

Skive belts up to 50mm thick. Maximum skive per pass is 10mm. Skive width of XP3/XP5 = 35 mm. Skive width of XP7/XP8 = 38mm.

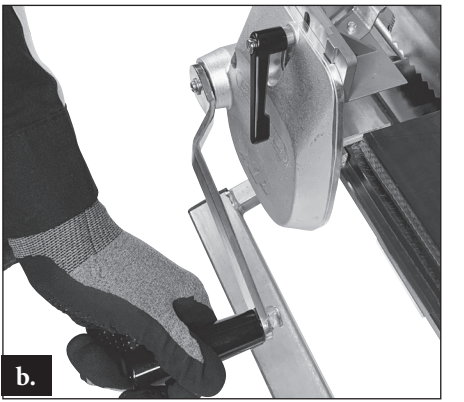




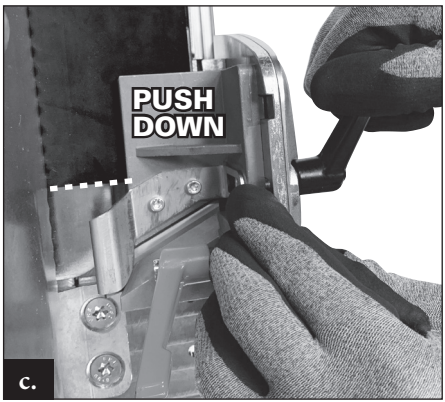
1. Insert belt end into frame centered on the bed and until it rests against all belt stops. Tighten clamp bar.



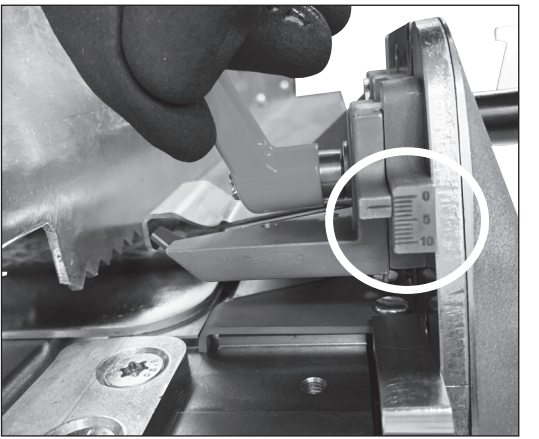
2. a. Attach the skiver to the bed by sliding the mounting bracket onto the left side of bed rail.



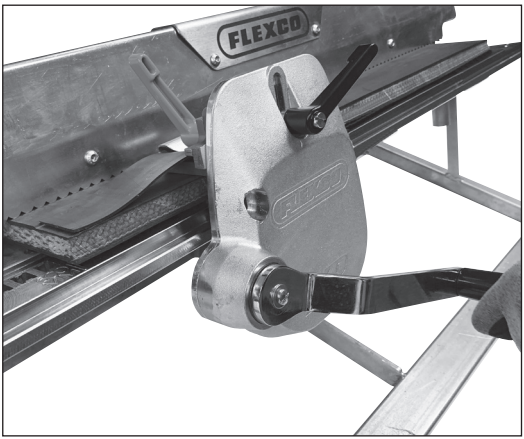
2. b. Turn Drive Handle clockwise to engage the skiver with the bed. Raise Upper Pressure Plate. Move skiver over belt until Upper Pressure Plate is positioned about 50 mm (2") over the belt. **Ensure blade is not touching the belt.**



2. c. Push Upper Pressure Plate firmly down against belt surface and tighten Adjustment Lever to lock in position.



3. Adjust blade holder to desired cutting depth. Ensure blade adjustment handle is in the up position prior to skiving.

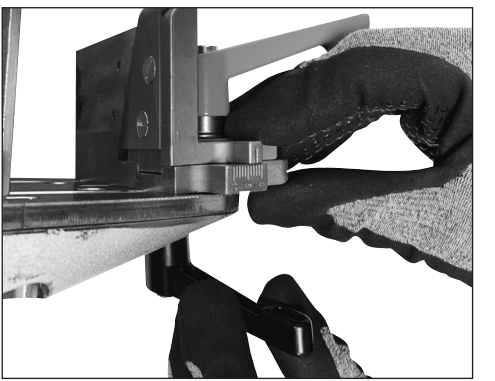


4. Turn Drive Handle clockwise to begin skiving. Make sure scrap cut does not get jammed in skiver. Spraying silicone on belt will reduce required effort. **If effort is high, stop, reverse and inspect for loose or damaged parts.**

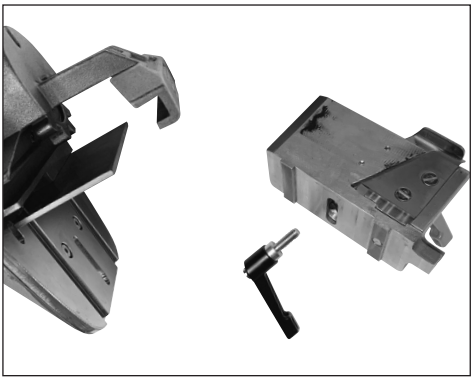
5. Remove nails before performing the belt splice.

Changing the Blade

WARNING: Use caution when handling blade. Unscrew the upper pressure plate adjustment lever and remove assembly. Using a slotted screwdriver, remove the two screws from the blade holder. Replace worn blade with new one. Retighten screws. Reattach the upper pressure plate.



Installation Instructions



Powered Installation:
Pneumatic Flexco® XP™ Staple Fastener Installation System

Flexco® XP™ Pneumatic Staple Applicator Specifications

Overall weight	28 kg (62 lbs)
Overall dimensions	762 mm x 508 mm (30" x 20")
Tool Air Fitting	Tool uses a 3/8" industrial shape designation male coupling. The airflow diameter should be .275" (7 mm) or larger. The fitting must be capable of discharging tool air pressure when disconnected from the air supply.
Operating Pressure	**65 to 101 p.s.i. (4.5-7.0 bar)** Select the operating pressure within this range for best fastener performance. **DO NOT EXCEED THIS RECOMMENDED OPERATING PRESSURE.**
Air Consumption	Tool Requires 200 L/m (7 SCFM) of free air to operate at the rate of 20 fasteners per minute, at 5.6 bar (80 PSI) - (where the free air pressure is at 1 bar (14.7 psia) and the temperature is at 22.2 C (72 F).
Coupling	ISO 6150/B 8mm profile, 3/8" industrial shape designation quick release coupling
Hose Length (included with tool purchase)	7.6 meters (25 feet)
Air Flow Diameter	7 mm (.275") or larger.

Operational Instructions

Set-Up Information

Operating Pressure:

65 to 101 p.s.i./4.5-7.0 bar

Select the operating pressure within this range for best fastener performance. **DO NOT EXCEED THIS RECOMMENDED OPERATING PRESSURE.**

Air Supply-Pressure and Volume:

Air volume is as important as air pressure. The air volume supplied to the tool may be inadequate because of undersize fittings and hoses, or from the effects of dirt and water in the system. Restricted air flow will prevent the tool from receiving an adequate volume of air, even though the pressure reading is high. The results will be slow operation, mis-drives or reduced driving power. Before evaluating tool problems for these symptoms, trace the air supply from the tool to the supply source for restrictive connectors, swivel fittings, low points containing water and anything else that would prevent full volume flow of air to the tool.

Air Consumption:

Tool Requires 200 L/m (7 SCFM) of free air to operate at the rate of 20 fasteners per minute, at 5.6 bar (80 PSI) - (where the free air pressure is at 1 bar (14.7 psia) and the temperature is at 22.2 C (72 F).

Operational Instructions (continued)

Filter:

Dirt and water in the air supply are major causes of wear in pneumatic tools. A filter will help to get the best performance and minimum wear from the tool. The filter must have adequate flow capacity for the specific installation. The filter has to be kept clean to be effective in providing clean compressed air to the tool. Consult the manufacturer's instructions on proper maintenance of your filter. A dirty and clogged filter will cause a pressure drop which will reduce the tool's performance.

Lubrication:

Frequent, but not excessive, lubrication is required for best performance. Use synthetic based Air Tool Lubricant. Do not use detergent oil or additives as these lubricants will cause accelerated wear to the seals in the tool, resulting in poor tool performance and frequent tool maintenance. Only a few drops of oil at a time is necessary. Too much oil in the tool will cause "seal swell" and the tool may not function properly. **To maintain tool performance, always use air regular/filter and keep the tool lubricated.**

Operational Instructions (continued)

Cold Weather Operation:

For cold weather operation, near and below freezing, the moisture in the air line may freeze and prevent tool operation. We recommend the use of winter formula air tool lubricant or permanent antifreeze (ethylene glycol) as a cold weather lubricant. **CAUTION: Do not store tools in a cold weather environment to prevent frost or ice formation on the tools operating valves and mechanisms that could cause tool failure. NOTE: Some commercial air line drying liquids are harmful to "O"-rings and seals – do not use these low temperature air dryers without checking compatibility.**

Hoses:

Air hoses should have a minimum of 150 p.s.i. (10.6 kg/cm^2) working pressure rating or 150 percent of the maximum pressure that could be produced in the air system. The supply hose should contain a fitting that will provide "quick disconnecting" from the male plug on the tool.

Supply Source:

Use only clean regulated compressed air as a power source for this tool. **NEVER USE OXYGEN, COMBUSTIBLE GASES, OR BOTTLED GASES, AS A POWER SOURCE FOR THIS TOOL AS TOOL MAY EXPLODE.**

Pneumatic Integrity:

Do not use a tool that leaks air or does not function properly. Notify your nearest FLEXCO representative if your tool continues to experience functional problems.

Operational Instructions (continued)

Guidelines

1. When connecting and disconnecting couplings, make sure dirt, dust, and other foreign substances do not enter or attach to coupling and hoses.


2. Do not trip over the hoses.


3. Make sure there are no jobsite obstacles.


4. Be cautious not to injure your back while lifting the tool.

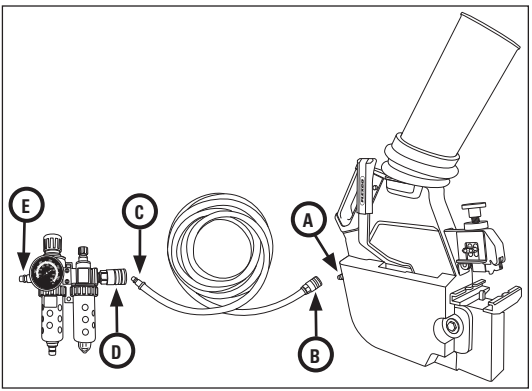
5. Replace with new hoses when they are worn or leaking.

Tool Inspection

Examine the tool before applying fasteners.

- Clean any dirt build-up from the bed rails.
- Check the pneumatic applicator to make sure the mounting brackets are free from dirt build-up.
- Check for any nicks in the bed that may interfere with the movement of the head. Should any nicks be found, they should be filed off before using the tool.
- Ensure applicator moves freely on bed. If not spray SLP5 GLIDE silicone lubricant on bed rails and mounting brackets for smoother operation.
- Inspect swipe arms, pusher tip and front/rear locator prongs for damage, chips or cracking. Replace damaged parts by authorized distributor.

Tool Setup



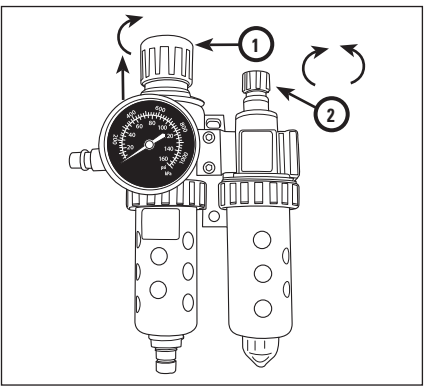
1. Connect air supply to the tool

a. Connect A to B

b. Connect C to D

c. Connect E to air supply

Tool Setup (continued)



2. Adjust the air pressure on air control assembly

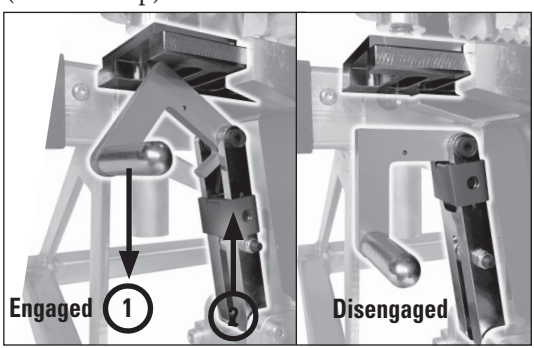
- **Mount air control assembly in upright position.** Fill oiler with pneumatic tool oil.
- **To adjust air pressure, pull cap "1" up and turn clockwise to raise pressure, turn counter clockwise to lower pressure.**
- **To adjust oil flow, turn cap "2" clockwise until tight, then turn cap counterclockwise one turn for proper adjustment.**

Basic Tool Operation

1. How to move the applicator tool on the bed.

- **Slide the tool to the right by continuing to push it across the bed.**
- **Slide the tool to the left by disengaging the advance mechanism lever and pushing the tool to the left.**

NOTE: Ensure the advance/actuation handle is in the start position or the tool will not slide. (See next step).

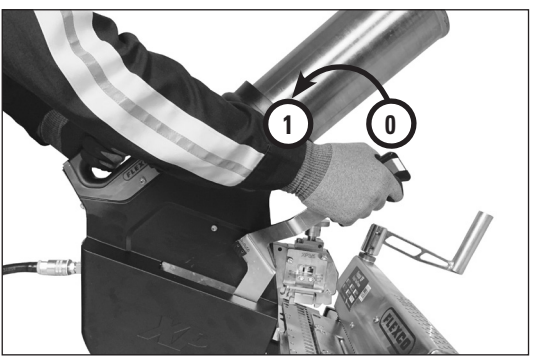


Basic Tool Operation (continued)

2. How to rapid advance the tool.

- **To use the rapid advance feature, move the advance/actuation handle from start position "0" to position "1" and repeat to quickly advance the tool.**

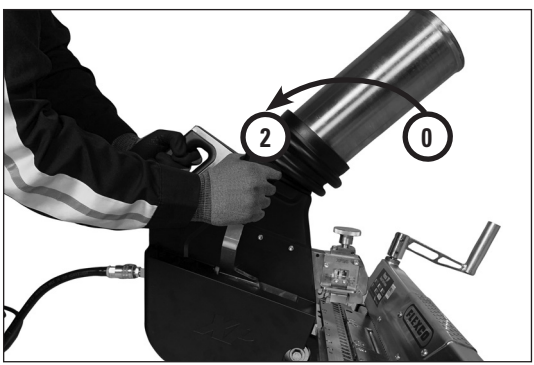
NOTE: If tool binds during advance – spray bed with SLP5 GLIDE.



Basic Tool Operation (continued)

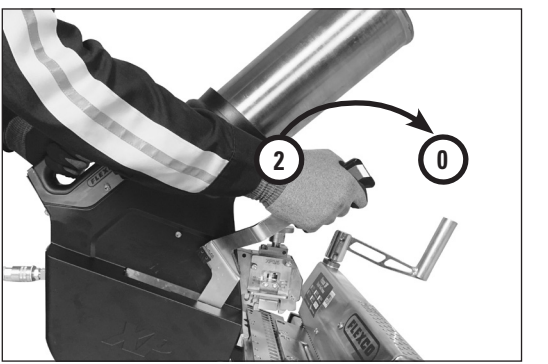
3. How to operate the tool for fastener installation.

- **Position tool so it is one H-hole before first fastener plate.**
  - **a.** Move the advance/actuation handle from position "0' to end of travel (position "2").



Basic Tool Operation (continued)

b. Push the advance/actuation handle forward (position "0"). This action completes the drive cycle.

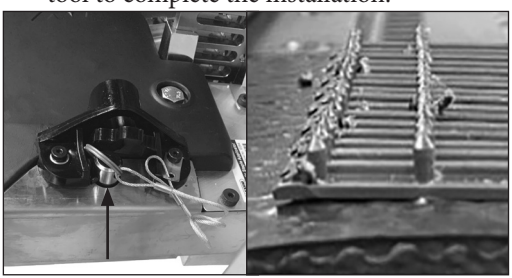


Basic Tool Operation (continued)

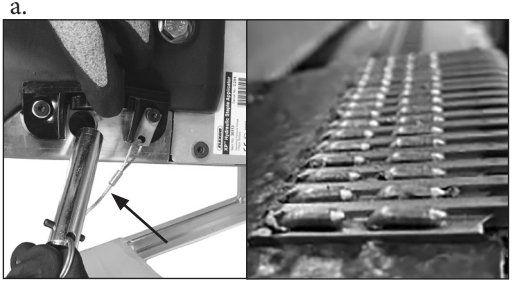
4. Two-Step Feature (Optional) may help with challenging installs to minimize belt compression for better installation results.

a. Lift protective cover and insert the stop pin. Move handle as directed above to drive the staples through the plates without swiping them.

b. Remove stop pin and store. Fully cycle the tool to complete the installation.



a.



b.

Basic Tool Operation (continued)

Best Practices

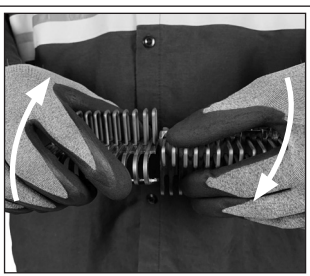
1. Use XPLT XP-LOK™ Tensioner and XPLW-120 XP-LOK™ Belt Wire to prevent belt wave and ripple on rubber plied belting.

2. Always perform a test sample to verify proper belt thickness setting before completing final installation. A final adjustment may be necessary after the first few fasteners have been installed. The leading edge of the fastener must be set tight on the belt – **Do not over compress**.

Installation Instructions

1. Determine the exact number of fasteners needed for the belt width.

- **Lay fastener strips across the belt width.** Center fasteners so that approximately 1-1/2 inches (38 mm) of belt extends beyond the fasteners on each edge.
- **If a shorter fastener strip is needed, hold strip in one hand and carefully twist the strip with the other hand.**



Installation Instructions (continued)

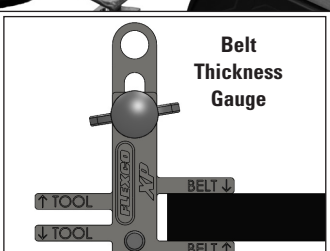
2. Load the fastener strips in the tool bed.

- **Without XP-LOK™ Make sure the fastener strips are centered on the tool bed.**
- **With XP-LOK™ Make sure the fastener strips are placed on the right side of the tool bed – leave 2-3 empty H-holes.**
- **Make sure the fastener strips are fully seated down in the tool bed.**

Installation Instructions (continued)

3. Set the applicator tool for correct belt thickness **after skive.**

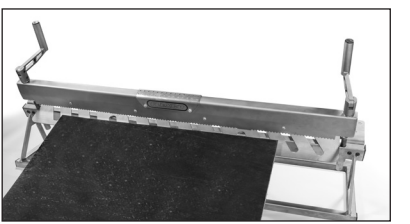
- **Use scrap belt from conveyor that matches each belt end or use the actual belt on the conveyor (Alternatively: use Belt Thickness Gauge if available).**
- **Use the correct side of the belt thickness gauge for the corresponding fastener size.**
- **Set tool for every belt end and check thickness on ends and middle of the belt.** (Belt thickness may vary due to wear and manufacturer).

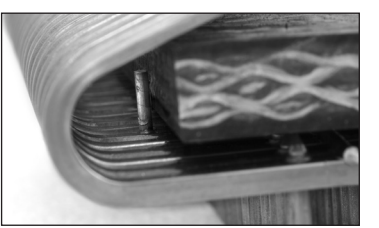


Installation Instructions (continued)

4. Load the belt into the fasteners.

- **Slide the belt on the extended guide plate into the fastener belt stops.**
- **Make sure the belt is centered within the fasteners.**
- **Tighten clamp bar evenly and securely.**

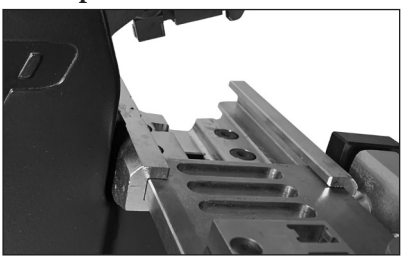




Installation Instructions (continued)

5. Load applicator tool on the tool bed.

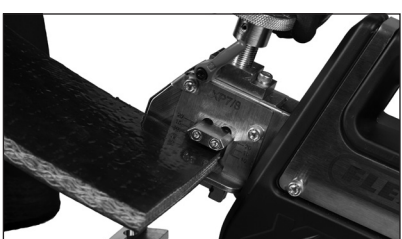
- **Ensure the advance/actuation handle is in the start position.**



6. Install fasteners with the applicator tool.

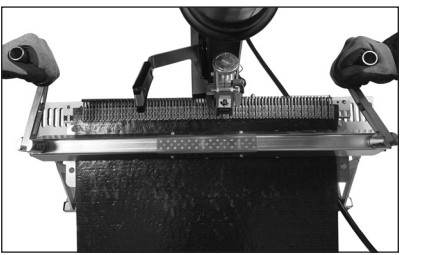
- **Make sure applicator tool cycles completely.**
- **Examine the first fasteners to ensure good fastener compression.**

NOTE: If belt is worn the belt thickness gauge on the tool may need to be adjusted tighter for the thinner areas.



Installation Instructions (continued)

7. Loosen the belt clamp bar and remove the belt from the tool bed.



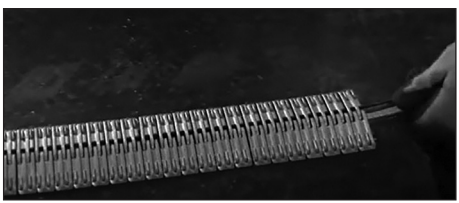
8. Repeat steps for the other belt end.

Make sure to set the applicator tool for the correct belt thickness on the other belt end

Installation Instructions (continued)

9. Bring both belt ends together and insert the hinge pin.

- **Make sure the fastener plates match up on both belt ends – Correct fastener matching allows the splice to flex without restriction while troughing.**



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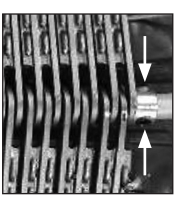

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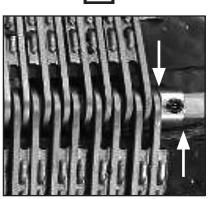
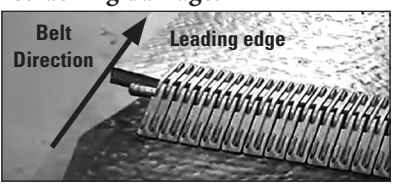


Installation Instructions (continued)

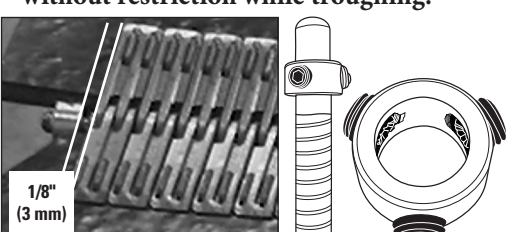
10. Notch the **trailing edge** of the belt only.

- **Notching is important to prevent the belt ends from catching on structure if belt mistracks.**
- **Only notch the trailing edge so the leading edge can protect the splice from belt mistracking damage.**



11. Install hinge pin retaining collars on each end of the splice.

- **Leave a minimum of 1/8" (3 mm) spacing from edge of fastener plate to edge of collars.**
- **This spacing allows the splice to flex without restriction while troughing.**



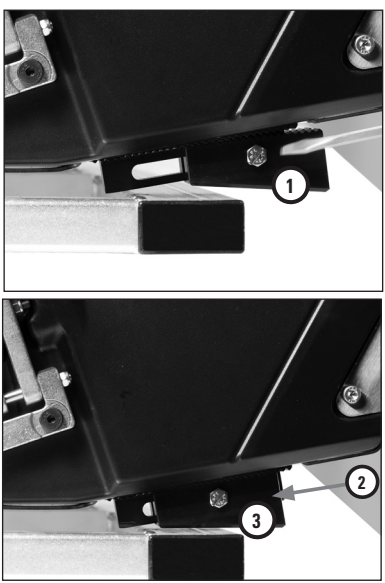
Tool Setup

Adjust the foot support on the bottom of the tool for each tool frame. This ensures the tool has a positive stop during installation.

1. Loosen the screw.

2. Push the foot support forward against the tool frame.

3. Retighten the screw.

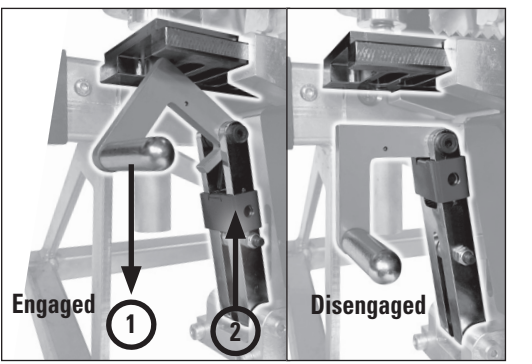


Basic Tool Operations

1. How to move the applicator tool on the bed.

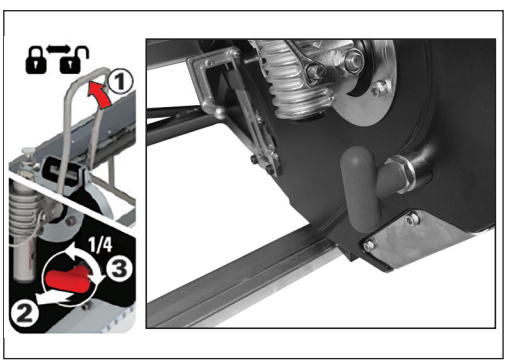
- **Slide the tool to the right by continuing to push it across the bed.**
- **Slide the tool to the left by disengaging the advance mechanism lever and pushing the tool to the left.**

NOTE: Ensure the advance/actuation handle is in the locked position or the tool will not slide. (See next step.)



2. How to **unlock** the advance / actuation handle
- **a.** Push and hold the handle all the way forward.
- **b.** Pull T-knob lock away from tool.
- **c.** Turn ¼ turn until T-knob stays in the **out position.**

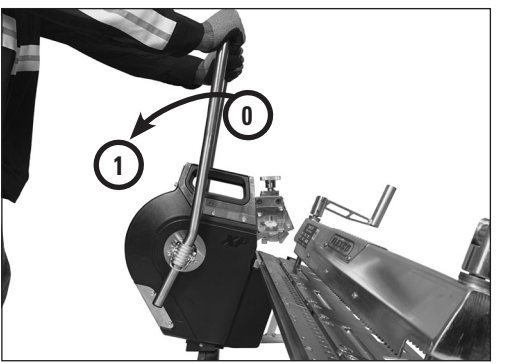
3. How to **lock** the advance / actuation handle
- **a.** Push and hold the handle all the way forward.
- **b.** Pull T-knob lock away from tool.
- **c.** Turn ¼ turn until T-knob returns to the **in position.**



4. How to rapid advance the tool.

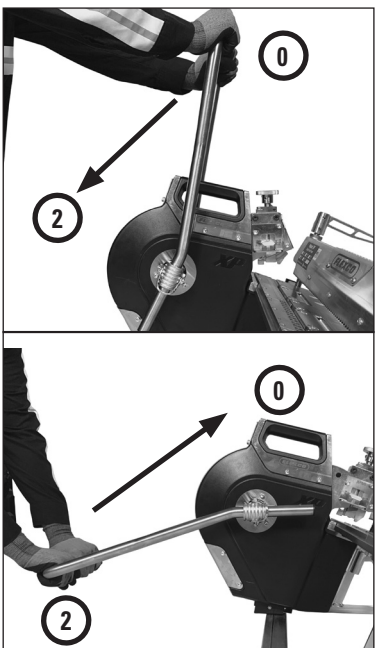
- **To use the rapid advance feature, move the advance/actuation handle from start position "0" to position "1" and repeat to quickly advance the tool.**

NOTE: If tool binds during advance – spray bed with SLP5 GLIDE.



5. How to operate the tool for fastener installation

- **Position tool so it is one H-hole before first fastener plate.**
- **Move the advance/actuation handle from position "0' to end of travel (positon "2"). Ensure handle can't be pressed down any further.**
- **Push the advance/actuation handle forward (position "0").** This action completes the drive cycle.



Best Practices

1. Use XPLT XP-LOK™ Tensioner and XPLW-120 XP-LOK™ Belt Wire to prevent belt wave and ripple on rubber plied belting.

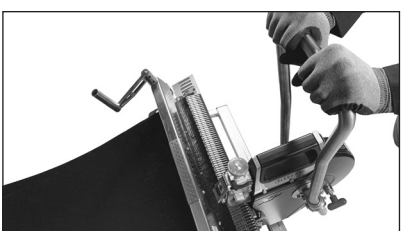
2. Always perform a test sample to verify proper belt thickness setting before completing final installation. A final adjustment may be necessary after the first few fasteners have been installed. The leading edge of the fastener must be set tight on the belt – **Do not over compress**.

Follow steps 1 to 5 on page 37 to determine the exact number of fasteners needed for the belt width.

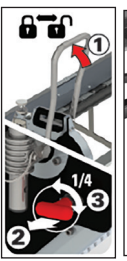
6. Install fasteners with the applicator tool.

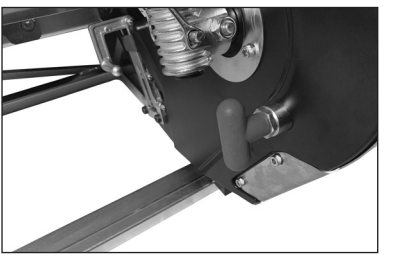
- **Make sure applicator tool cycles completely.**
- **Examine the first fasteners to ensure good fastener compression.**

NOTE: If belt is worn the belt thickness gauge on the tool may need to be adjusted tighter for the thinner areas.

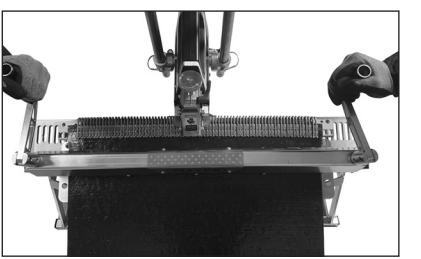


7. Lock the advance/acuation handle.
- **a.** Push and hold the handle all the way forward.
- **b.** Pull T-knob lock away from tool.
- **c.** Turn 1/4 turn until T-knob returns to the **in position.**





8. Loosen the belt clamp bar and remove the belt from the tool bed.



9. Repeat steps for the other belt end.
10. Follow steps 9-11 on page 43.

Flexco® XP™ Hydraulic Staple Applicator Specifications

Overall weight	26 kg
Overall dimensions	559 mm x 482 mm
Operating pressure	110 bar, 11 Mpa, 1600 psi
Min. pressure	103 bar, 10.3 Mpa, 1500 psi
Max. pressure	117 bar, 11.7 Mpa, 1700 psi
Flow rate	7-9 L/m, 1.5-2 GPM
Hydraulic fluid	MSHA approved fire resistant hydraulic fluid, MA approved #46 or equivalent (not included)
Coupling	ISO 16028 compliant couplings, flat face quick release coupling High pressure in: Female 3⁄8" body size Low pressure return: Male ½" body size
Max. hose length (hoses included with Flexco power source purchase)	10 meters, 32.8 feet High pressure hose (smaller hose OD), each end has factory installed male and female 3/8" body size couplings Low pressure return hose (larger hose OD), each end has factory installed male and female 1/2" body size couplings

Operational Instructions

Guidelines

1. When using hydraulic power units not manufactured by Flexco, make sure the operating pressure of the power unit is 110 bar, 11 Mpa, 1600 psi and flow rate is in the range of 7-9 L/m (1.5-2 gpm).
2. When connecting and disconnecting couplings, make sure dirt, dust, and other foreign substances do not enter or attach to coupling and hoses.
3. Make sure the power unit is OFF when connecting the hydraulic tool to the power unit.
4. If the oil temperature is below 10°C, warm up the hydraulic tool before operating.
5. Do not trip over the hydraulic hoses.
6. Make sure there are no jobsite obstacles.
7. Be cautious not to injure your back while lifting the hydraulic tool.
8. In case of sudden hydraulic hose breakage STOP the power unit IMMEDIATELY.

Operational Instructions (continued)

9. Replace with new hoses when they are worn or when oil exudes from them.
10. When couplers detach, a small amount of oil may leak out. Make sure that surrounding area does not get drenched in oil.
11. To prevent dirt from entering the quick release couplings, be sure to clip couplings together after disconnecting driver. Couplings should be wiped down before clipping them together.
12. When detached from power source, attach two hoses to each other. Couplings should be wiped down before clipping them together.
13. When frequently attached and detached to the power unit, hydraulic oil will decrease accordingly. Always check the hydraulic oil level before operating and refill if necessary.

Tool Inspection

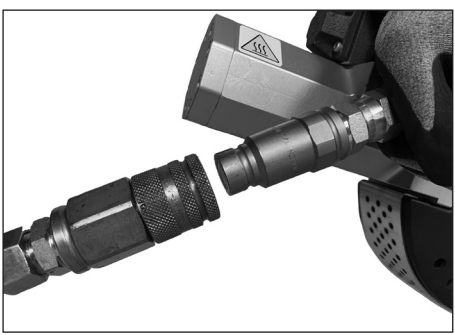
Examine the tool before applying fasteners.

- Clean any dirt build-up from the bed rails.
- Check the hydraulic applicator to make sure the mounting brackets are free from dirt build-up.
- Check for any nicks in the bed that may interfere with the movement of the head. Should any nicks be found, they should be filed off before using the tool.
- Ensure applicator moves freely on bed. If not spray SLP5 GLIDE silicone lubricant on bed rails and mounting brackets for smoother operation.
- Inspect swipe arms, pusher tip and front/rear locator prongs for damage, chips or cracking. Replace damaged parts by authorized distributor.

Tool Setup

1. Connect the hydraulic hoses from the hydraulic power source.
- **If quick release couplings are difficult to join, bleed the excess pressure.**
- **Turn on hydraulic power source.**

NOTE: Make sure to read the power source (Power pack or PTO) manual prior to operating the equipment.

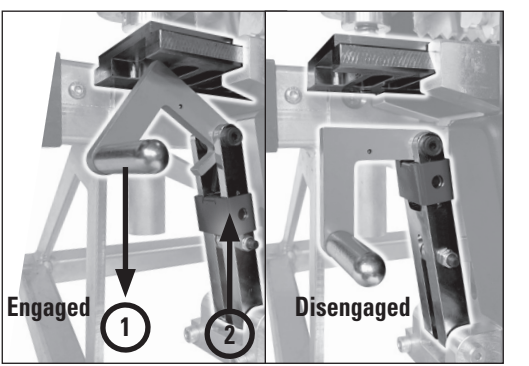


Basic Tool Operations

1. How to move the applicator tool on the bed.

- **Slide the tool to the right by continuing to push it across the bed.**
- **Slide the tool to the left by disengaging the advance mechanism lever and pushing the tool to the left.**

NOTE: Ensure the advance/actuation handle is in the start position or the tool will not slide. (See next step.)

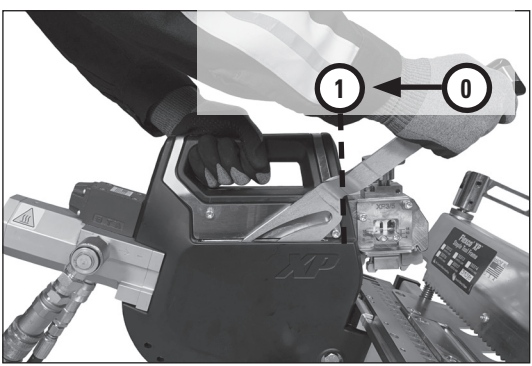


Basic Tool Operations (continued)

2. How to rapid advance the tool.

- **To use the rapid advance feature, move the advance/actuation handle from start position "0" to position "1" and repeat to quickly advance the tool.**

NOTE: If tool binds during advance – spray bed with SLP5 GLIDE.

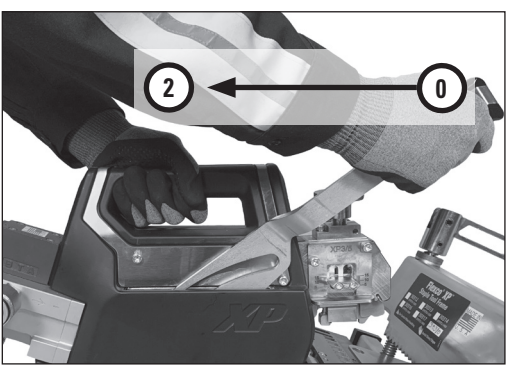


Basic Tool Operations

3. How to operate the tool for fastener installation.

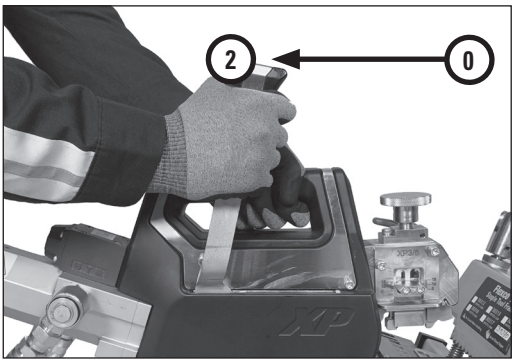
- **Position tool so it is one H-hole before first fastener plate.**
  - **a.** Move the advance/actuation handle from position "0' to end of travel (position "2").
  - **b. Hold handle in position "2" until feedback in handle is felt**
  - **c.** Push the advance/actuation handle forward (position "0"). This action completes the drive cycle.

a.

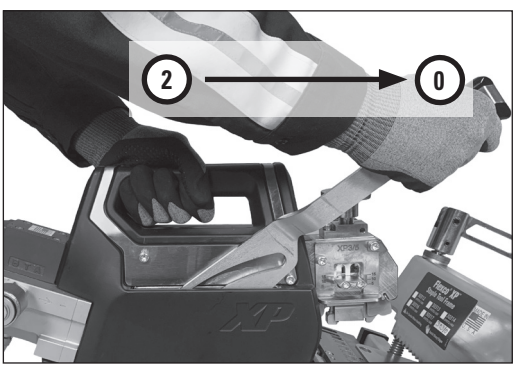


Basic Tool Operations (continued)

b.



c.

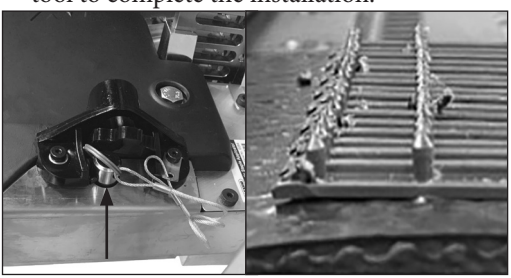


Basic Tool Operations (continued)

4. Two-Step Feature (Optional) may help with challenging installs to minimize belt compression for better installation results.

a. Lift protective cover and insert the stop pin. Move handle as directed above to drive the staples through the plates without swiping them.

b. Remove stop pin and store. Fully cycle the tool to complete the installation.



a.

b.

Basic Tool Operations (continued)

Best Practices

1. Use XPLT XP-LOK™ Tensioner and XPLW-120 XP-LOK™ Belt Wire to prevent belt wave and ripple on rubber plied belting.

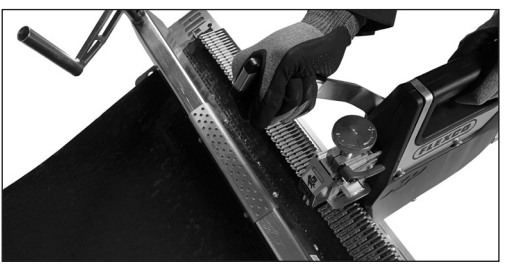
2. Always perform a test sample to verify proper belt thickness setting before completing final installation. A final adjustment may be necessary after the first few fasteners have been installed. The leading edge of the fastener must be set tight on the belt – **Do not over compress**.

Follow steps 1 to 5 on page 37 to determine the exact number of fasteners needed for the belt width.

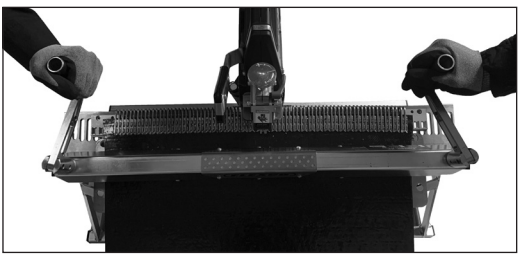
6. Install fasteners with the applicator tool.

- **Make sure applicator tool cycles completely.**
- **Examine the first fasteners to ensure good fastener compression.**

NOTE: If belt is worn the belt thickness gauge on the tool may need to be adjusted tighter for the thinner areas.



7. Loosen the belt clamp bar and remove the belt from the tool bed.



8. Repeat steps for the other belt end.

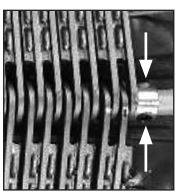
Make sure to set the applicator tool for the correct belt thickness on the other belt end

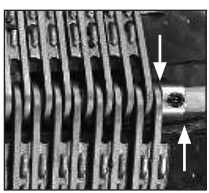
9. Turn off the hydraulic power source when finished and disconnect the hydraulic hoses.

- **Pull back on lock collar to disconnect the hydraulic hoses.**
- **If quick release couplings are difficult to disconnect, bleed the excess pressure.**

10. Bring both belt ends together and insert the hinge pin.

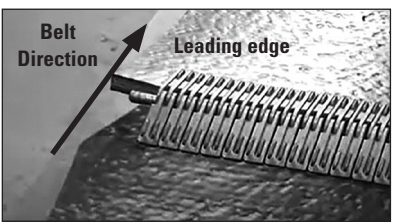
- **Make sure the fastener plates match up on both belt ends – Correct fastener matching allows the splice to flex without restriction while troughing.**





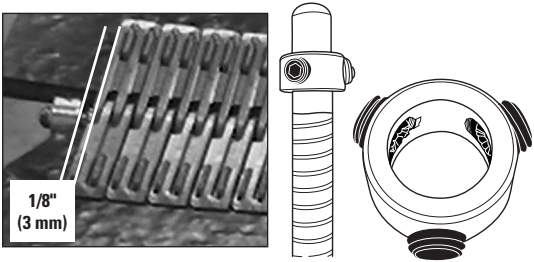
11. Notch the **trailing edge** of the belt only.

- **Notching is important to prevent the belt ends from catching on structure if belt mistracks.**
- **Only notch the trailing edge so the leading edge can protect the splice from belt mistracking damage.**



12. Install hinge pin retaining collars on each end of the splice.

- **Leave a minimum of 1/8" (3 mm) spacing from edge of fastener plate to edge of collars.**
- **This spacing allows the splice to flex without restriction while troughing.**

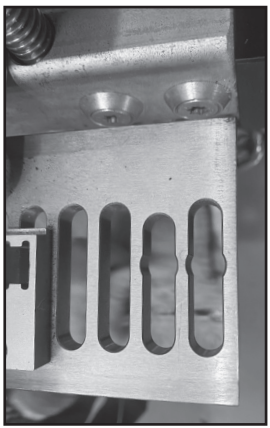


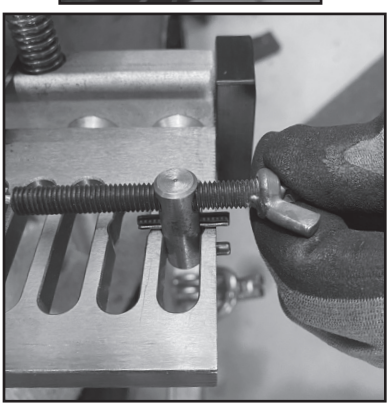
XP-LOK™ Operating Instructions

For installation of Flexco® XP™ fasteners on rubber plied belting, use XP-LOK™ to prevent belt wave and ripple.

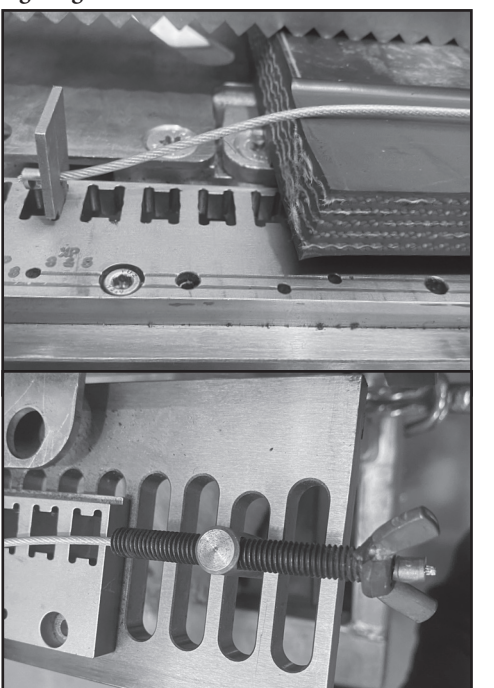
NOTE: Before beginning, ensure your kit is the correct length for your fastener.

1. Use the furthest scalloped slot on the right-hand side of the XP bed to insert the screw tensioning rod.

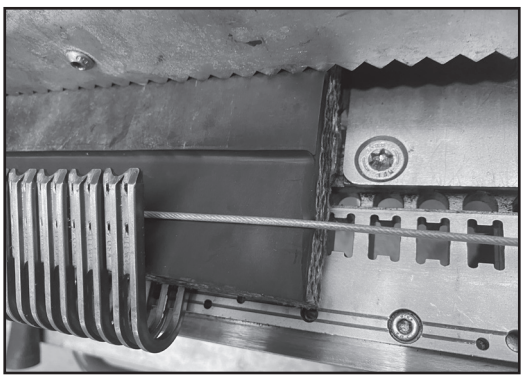




2. Load the XP™ Staple Fasteners in the bed, centre the belt between the fasteners, and tighten the clamp bar. Insert the end plate in one of the H-holes on the left-hand side of the bed and thread the XP-LOK™ Belt Wire through. Tension the wire by using the thumb screw. **Only tension the wire until finger tight.**



3. The XP-LOK™ wire should be tensioned to the centre of the fasteners and belt. Install the fasteners. Monitor the tension and position throughout the entire installation, make adjustments as necessary. Use wire cutters to cut any excess wire if necessary. Loosen the thumb screw, remove the end block and screw tensioning rod, and release the belt from the clamp bar.



Troubleshooting Guide for Pneumatic, Manual and Hydraulic Tools

Tool/s	Problem	Cause	Correction
Pneumatic, Manual & Hydraulic	Pull advance/ setting handle but applicator does not advance	1. Advance mechanism lever was in disengage position 2. Advance/setting handle was not pulled down to position "1" to complete advance cycle 3. Advance/setting handle was not fully pushed forward (position "0") to engage advance mechanism 4. Bed rails are dirty 5. Advance mechanism lever spring was not in position or damaged (Rare)	1. Engage advance mechanism lever 2. Pull handle down to position "1" 3. Push handle forward all the way to complete cycle 4. Clean surfaces and spray SLP5 GLIDE silicone lubricant on bed rails and mounting brackets 5. Adjust or replace spring
Pneumatic, Manual & Hydraulic	Staple legs are pushed up but staples are only partially bent over	1. Operator did not wait for handle feedback at end of the pull (position "2") before returning handle to start position "0"	1. Pull advance/ actuation handle down to position "2" and wait for handle feedback prior to releasing

Troubleshooting Guide for Pneumatic, Manual and Hydraulic Tools

Tool/s	Problem	Cause	Correction
Pneumatic, Manual & Hydraulic	Staple legs are pushed up but staples are not bent over	1. Damaged swipe arms 2. Damaged swipe linkages	1. Replace swipe arms by an authorised distributor 2. Replace swipe linkages by an authorised distributor
Pneumatic, Manual & Hydraulic	Staple legs are pushed up but staples are not completely set	1. Fastener compression was incorrectly set (under-compress)	1. Adjust fastener compression by turning the adjustment knob ¼ turn to right (clockwise) and repeat as necessary
Pneumatic, Manual & Hydraulic	Belt has too much ripple or wave	1. Fastener compression was incorrectly set (over-compress) 2. Using rubber plied belting	1. Adjust fastener compression by turning the adjustment knob ¼ turn to left (counter-clockwise) and repeat as necessary 2. Use XPLT XP-LOK™ Tensioner and XPLW-120 XP-LOK™ Belt Wire to prevent belt wave and ripple

Troubleshooting Guide for Pneumatic, Manual and Hydraulic Tools

Tool/s	Problem	Cause	Correction
Pneumatic, Manual & Hydraulic	Cannot load applicator onto frame	1. Pilot punch is in up position 2. Mounting brackets are not aligned properly	1. Push advance/ setting handle to position "0" prior to loading onto frame 2. Inspect and verify mounting brackets are properly installed
Pneumatic	Functioning but weak or low speed	1. Air supply restriction 2. Tool dry, lack of lubrication	1. Check air supply equipment 2. Use Air Tool Lubricant
Hydraulic	Functioning but weak or low speed	1. Low fluid flow rate from power source unit 2. Relief valve pressure set too low 3. Back pressure is too high 4. Over-heated hydraulic fluid	1. Check electric cable connection, voltage, and phases 2. Adjust pressure to 115 bar, 11.5 Mpa, 1650 psi 3. Use bigger diameter hose for return hose 4. Turn OFF power pack approximately one hour to allow hydraulic fluid to cool

Troubleshooting Guide for Pneumatic, Manual and Hydraulic Tools

Tool/s	Problem	Cause	Correction
Pneumatic, Manual & Hydraulic	Pull advance/ actuation handle down but applicator does not actuate	1. Compressed air source or power pack unit is not turned ON 2. Hose/s is not connected 3. Couplings are not connected properly 4. Compressed air or power source relief valve pressure is set too low 5. No Hydraulic pressure due to incorrect electric cable connection at Motor	1. Turn ON compressed air source or power pack unit 2. Connect hose/s 3. Check if couplings have been connected properly 4. Adjust pressure to recommended level 5. Check proper electric cable connection, voltage and phases
Pneumatic	Tool leaks air	1. O-ring or Gasket is cut or cracked 2. Hose is cut or cracked 3. Loose internal hose connections	1. Replace O-ring 2. Replace hose 3. Secure internal hose connections

Troubleshooting Guide for Pneumatic, Manual and Hydraulic Tools

Tool/s	Problem	Cause	Correction
Hydraulic	Oil leakage from cylinder, hydraulic hose, coupling	1. Damage, wear or hardened O-ring 2. Damaged hose 3. Damaged connection at coupling	1. Replace O-ring by authorized distributor 2. Replace hose assembly 3. Replace hose assembly
Pneumatic	Tool stops during return stroke	1. Fastener compression was incorrectly set (over-compress)	1. Adjust fastener compression by turning the adjustment knob ¼ turn to left (counter-clockwise) and repeat as necessary
Hydraulic	Power pack motor runs but there is no pressure at the outlet	1. Motor turns in wrong direction due to incorrect electric cable connection 2. Relief valve pressure is set too low 3. Relief valve stuck/ malfunction 4. Low hydraulic fluid level	1. Check proper electric cable connection, voltage, and phases 2. Adjust pressure to 115 bar, 11.5 Mpa, 1650 psi 3. Replace relief valve by authorized distributor 4. Add hydraulic fluid accordingly

Notes

Notes

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