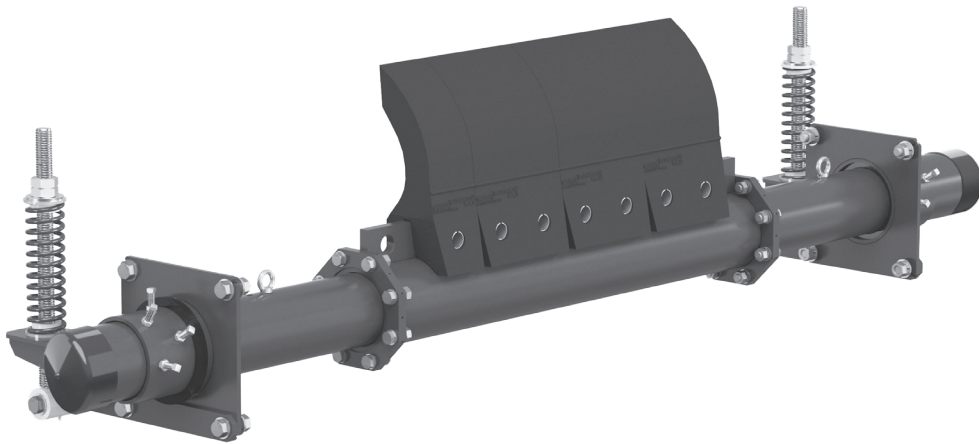


# **MXP Precleaner**

## **Installation, Operation and Maintenance Manual**



# MXP Precleaner

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Serial Number: \_\_\_\_\_

Purchase Date: \_\_\_\_\_

Purchased From: \_\_\_\_\_

Installation Date: \_\_\_\_\_

Serial number information can be found on the Serial Number Label included in the Information Packet found in the cleaner carton.

This information will be helpful for any future inquiries or questions about belt cleaner replacement parts, specifications or troubleshooting.

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# Section 1 – Important Information

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## 1.1 General Introduction

We at Flexco are very pleased that you have selected an MXP Precleaner for your conveyor system.

This manual will help you to understand the operation of this product and assist you in making it work up to its maximum efficiency over its lifetime of service.

It is essential for safe and efficient operation that the information and guidelines presented be properly understood and implemented. This manual will provide safety precautions, installation instructions, maintenance procedures and troubleshooting tips.

If, however, you have any questions or problems that are not covered, please visit our web site or contact our Customer Service Department:

**Customer Service: 49-7428-9406-0**

**Visit [www.flexco.com](http://www.flexco.com) for other Flexco locations and products.**

Please read this manual thoroughly and pass it on to any others who will be directly responsible for installation, operation and maintenance of this cleaner. While we have tried to make the installation and service tasks as easy and simple as possible, **it does however require correct installation and regular inspections and adjustments to maintain top working condition.**

## 1.2 User Benefits

Correct installation and regular maintenance will provide the following benefits for your operation:

- Reduced conveyor downtime
- Reduced man-hour labor
- Lower maintenance budget costs
- Increased service life for the belt cleaner and other conveyor components

## 1.3 Service Option

The MXP Precleaner is designed to be easily installed and serviced by your on-site personnel. However, if you would prefer complete turn-key factory service, please contact your local Flexco Field Representative.

## Section 2 – Safety Considerations and Precautions

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Before installing and operating the MXP Precleaner, it is important to review and understand the following safety information.

There are set-up, maintenance and operational activities involving both **stationary** and **operating** conveyors. Each case has a safety protocol.

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### 2.1 Stationary Conveyors

The following activities are performed on stationary conveyors:

- Installation
- Blade replacement
- Repairs
- Tension adjustments
- Cleaning

#### **DANGER**

It is imperative that OSHA/MSHA Lockout/Tagout (LOTO) regulations, 29 CFR 1910.147, be followed before undertaking the preceding activities. Failure to use LOTO exposes workers to uncontrolled behavior of the belt cleaner caused by movement of the conveyor belt. Severe injury or death can result.

**Before working:**

- Lockout/Tagout the conveyor power source
- Disengage any takeups
- Clear the conveyor belt or clamp securely in place

#### **WARNING**

**Use Personal Protective Equipment (PPE):**

- Safety eyewear
- Hardhats
- Safety footwear

Close quarters, springs and heavy components create a worksite that compromises a worker's eyes, feet and skull.

PPE must be worn to control the foreseeable hazards associated with conveyor belt cleaners. Serious injuries can be avoided.

---

### 2.2 Operating Conveyors

There are two routine tasks that must be performed while the conveyor is running:

- Inspection of the cleaning performance
- Dynamic troubleshooting

#### **DANGER**

Every belt cleaner is an in-running nip hazard. Never touch or prod an operating cleaner. Cleaner hazards cause instantaneous amputation and entrapment.

#### **WARNING**

Belt cleaners can become projectile hazards. Stay as far from the cleaner as practical and use safety eyewear and headgear. Missiles can inflict serious injury.

#### **WARNING**

Never adjust anything on an operating cleaner. Unforseeable belt projections and tears can catch on cleaners and cause violent movements of the cleaner structure. Flailing hardware can cause serious injury or death.

## Section 3 – Pre-Installation Checks and Options

---

### 3.1 Checklist

- Check that the cleaner size is correct for the beltline width
- Check the belt cleaner carton and make sure all the parts are included
- Review the “Tools Needed” list on the top of the installation instructions
- Check the conveyor site:
  - Will the cleaner be installed on a chute
  - Are there obstructions that may require cleaner location adjustments (see 3.2 – Cleaner Location Adjustments)
  - Is the install on an open head pulley requiring mounting structure (see 3.3 – Optional Installation Accessories)

## Section 3 – Pre-Installation Checks and Options

### 3.2 Cleaner Location Adjustments

In certain applications it is necessary to modify the location of the precleaner pole due to permanent obstacles that obstruct the desired location. Relocating the pole location can be done easily and does not hinder the performance of the cleaner as long as the “C” dimension is maintained.

**NOTE:** In the following example we will be lowering the pole location in the “Y” direction, but the same method could also be applied in the “X” direction.

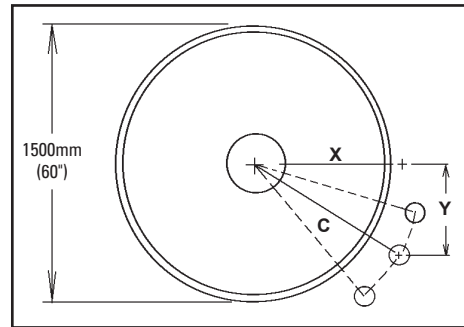
Conveyor situation:

Pulley Diameter: 1500mm (60")

X = 670mm (26 3/8")

Y = 692mm (27 1/4")

C = 965mm (38")



- Determine the given location dimensions and define the change needed.** After laying out the given X & Y dimensions, determine the distance of the modification required for adequate clearance of the pole and tensioning system. (In the example we decide to lower the pole 50mm (2") to clear the support structure).
- Write down known dimensions.** We can now determine two of the three required dimensions which will allow us to find the third. We know we cannot alter the “C” dimension, so this will remain the same. Also we are required to lower the unit in the “Y” dimension 50mm (2"), so we add 50mm (2") to the given “Y” dimension.  
X = ?"  
Y = 692mm + 50mm = 742mm (27 1/4" + 2 = 29 1/4")  
C = 965mm (38")
- Determine final dimension.** On a flat vertical surface, using a level, draw one horizontal line and one vertical line, creating a right angle (Fig 3a). Measure down from the intersection the determined “Y” dimension and mark (Fig 3b). With the tape measure starting at the modified “Y” mark, swing the tape across the “X” line and mark at the “C” dimension where it crosses the “X” line (Fig 3c). Measure from the intersection to the “C” intersection and this will be your new “X” dimension (Fig. 3d).

X = 616mm (24 1/4")

Y = 742mm (29 1/4")

C = 965mm (38")

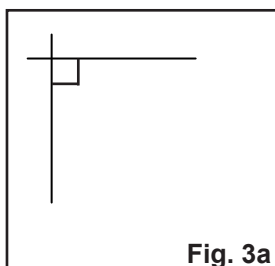


Fig. 3a

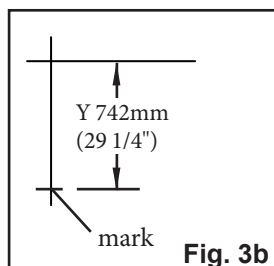


Fig. 3b

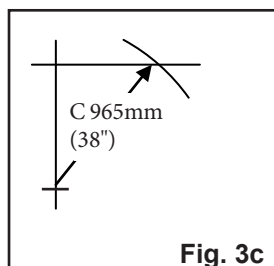


Fig. 3c

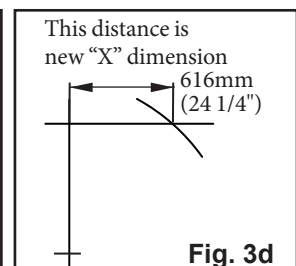


Fig. 3d

# Section 3 - Pre-Installation Checks and Options

## 3.3 Optional Installation Accessories

Versatile, adjustable brackets and plates that can be mounted on the conveyor structure so precleaners and secondary cleaners can be easily and quickly bolted into place.

**75830**  
**Optional Mounting Bar Kit**  
(with bolts, nuts and washers)

- For mounting precleaners on open head pulleys.
- Weld on both sides of pulley and bolt on steel plates.
- 38 x 400mm (1-1/2" x 16") with four 5/8-11 tapped holes

**76537**  
**Mounting Plate Kit (incl. 2 plates)**

- For use with Mounting Bars to mount cleaners on open head pulleys.
- 400 x 800mm (16" x 32") with four 16mm (5/8") holes

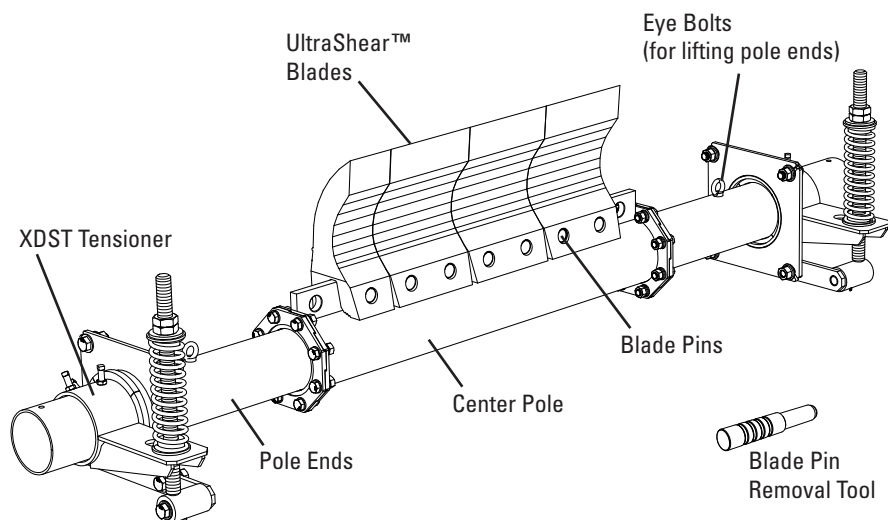
Optional Mounting Kits (incl. 2 brackets/bars)			
Description	Ordering Number	Item Code	Wt. KG.
Optional Mounting Bar Kit *	MMBK	75830	8.8
Mounting Plate Kit (incl. 2 plates)	MMPK	76537	63.5

\*Hardware Included  
Lead time: 1 working day



## Section 4 – Installation Instructions

### 4.1 MXP Precleaner



#### Tools Needed:

- Tape Measure
- Wrenches:
  - (2) 58mm (2-1/4") -1 wrench included
  - (1) 24mm (15/16")
  - (2) 36mm (1-27/64")
  - (2) 30mm (1-3/16")
- Heavyweight hammer -1.4-2.3 kg (3-5 lb) head
- Level
- Marking pen or soapstone

**Physically lock out and tag the conveyor at the power source before you begin cleaner installation.**

**CAUTION: Components may be heavy. Use safety-approved lifting procedures.**

1. **Find the X, Y & C specifications.** Measure the pulley diameter (including the belt and the lagging) (Fig. 1).

Pulley Diameter \_\_\_\_\_"; X= \_\_\_\_\_"; Y= \_\_\_\_\_"; C= \_\_\_\_\_".

(Adjustments can be made to the X & Y coordinates to move away from obstacles as long as the C dimension remains constant.)

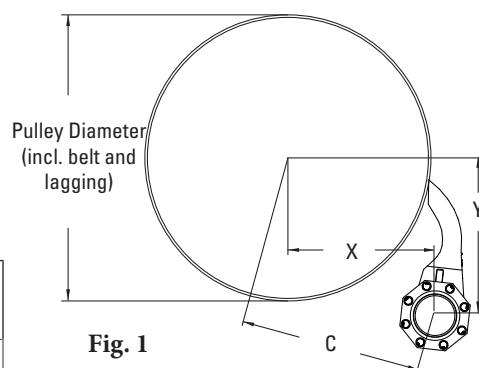


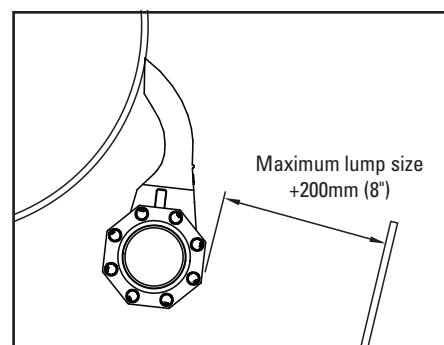
Fig. 1

**X & Y Chart for Pole Location**

Pulley Diameter (including belt and lagging)	X	Y	C
1225	520	665	845
1250	535	670	855
1275	545	670	865
1300	560	675	875
1325	570	675	885
1350	585	675	895
1375	595	680	905
1400	610	680	915
1425	620	685	925
1450	635	685	935
1475	645	690	945
1500	660	690	955
1525	670	695	965
1550	685	695	975
1575	695	695	985
1600	710	700	995
1625	720	700	1005
1650	735	705	1015
1675	745	705	1025
1700	760	710	1040
1725	770	710	1050
1750	785	710	1060
1775	795	715	1070
1800	810	715	1080
1825	820	720	1090

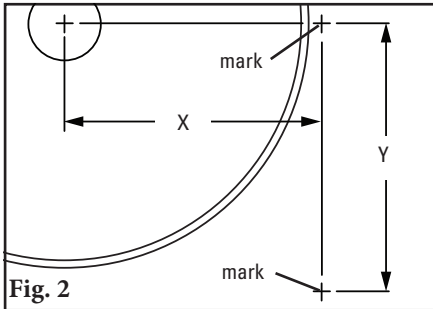
**X & Y Chart for Pole Location**

Pulley Diameter (including belt and lagging)	X	Y	C
1850	835	720	1100
1875	845	725	1115
1900	860	725	1125
1925	870	730	1135
1950	885	730	1145
1975	895	730	1155
2000	910	735	1170
2025	920	735	1180
2050	935	740	1190
2075	945	740	1200
2100	960	745	1215
2125	970	745	1225
2150	985	750	1235
2175	995	750	1245
2200	1010	750	1260
2225	1020	755	1270
2250	1035	755	1280
2275	1045	760	1290
2300	1060	760	1305
2325	1070	765	1315
2350	1085	765	1325
2275	1095	770	1340
2400	1110	770	1350
2425	1120	770	1360

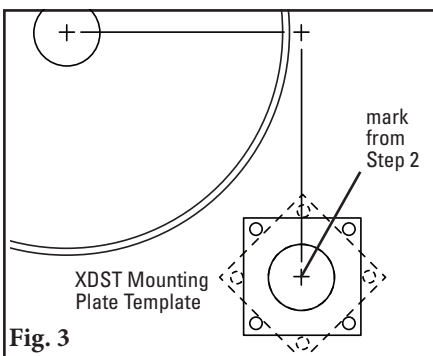


## Section 4 – Installation Instructions

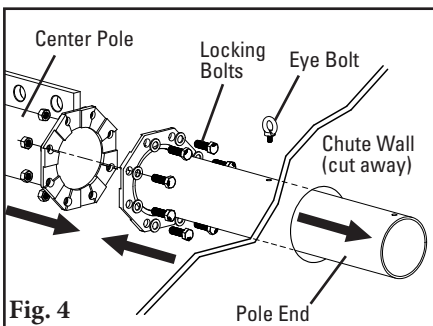
### 4.1 MXP Precleaner (cont.)



2. **Lay out the dimensions on the chute wall or on mounting plate kits (optional if not installing in a chute).** Measure out the X dimension horizontally from the center of the pulley shaft and mark. (**NOTE:** It may be easier to put a level on top of the pulley shaft, draw a horizontal line and then measure down half the diameter of the shaft and make a line from the front of the shaft. Now subtract half the pulley shaft diameter from the X coordinate and measure on the line and make a mark.) Then measure down vertically the Y dimension and mark. This is the correct position for the center of the cleaner pole (Fig. 2). If using a mounting plate kit (ref. Page 6), install so that center of pole is centered on plate. Ensure there is room for entire mounting base template inside the edges of the plate. Lay out and mark the same dimensions on the other side.

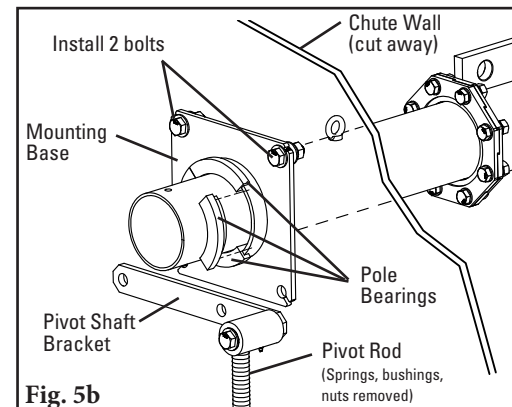
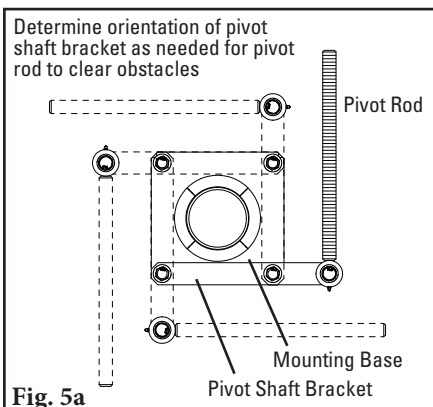


3. **Mark and cut the mounting base holes.** Using the mounting base template provided in the instruction packet, position the large pole hole of the template on the chute or mounting plate with the hole notches aligned with the layout lines. Trace the pole hole and mounting holes (Fig. 3). Each base can be mounted in any position 360° around the pole as needed for tensioner to clear obstacles, as long as the pole's center point does not change. Cut the holes on both sides of the chute.



4. **Assemble the pole ends to the center pole.** Remove the eye bolts if necessary and insert the pole ends through the chute holes from inside the chute and align bolt holes in flange with the center pole holes (Fig. 4). Install and tighten locking bolts, washers and nuts.

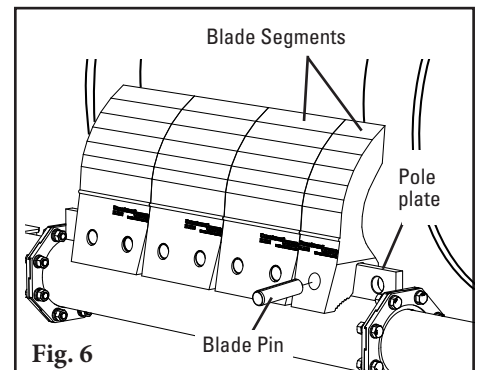
5. **Install the mounting bases.** Slide mounting base over pole end. Determine location of pivot shaft bracket and orientation of pivot rod, but do not install at this time (Fig 5a). Bolt mounting base assembly to chute wall with 2 of the bolts provided on the side opposite the location where the pivot shaft bracket will be installed (Fig. 5b). Install pole bearings with hammer. Gently tap until bearings are fully seated against mounting plate. Repeat on opposite side.



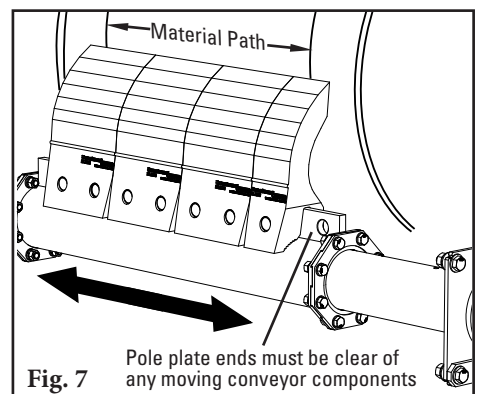
## Section 4 – Installation Instructions

### 4.1 MXP Precleaner (cont.)

6. **Install the blade segments.** Center blades on pole plate, aligning the blade holes with the holes in the pole plate. A minimum of one hole will be left open at each end of the pole plate and may be used as a lift point. Use hammer to pound blade pins into place.

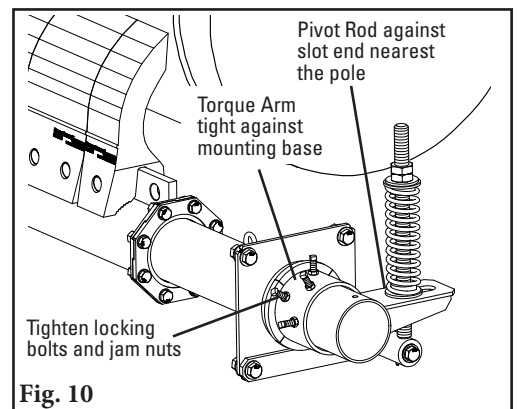
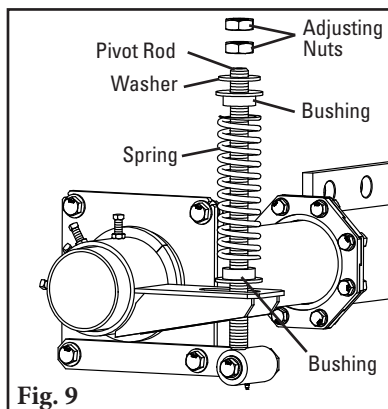
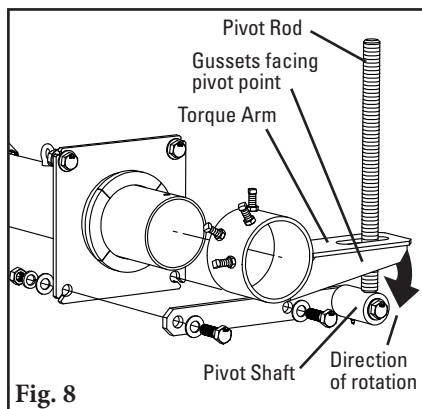


7. **Center the blades on the belt.** Slide the pole until the blades are centered on belt or cover the belt's material path (Fig. 7). Verify that the ends of the pole plate are clear of any moving components.  
**NOTE:** Standard blade coverage is belt width minus 150mm (6") or minus 300mm (12"). If less blade coverage is required, other material path options are achievable by removing blade segments.



### Install XDST Spring Tensioner

8. **Install torque arm and pivot shaft bracket.** Gussets on torque arm should face toward pivot point. Ensuring the correct pulling rotation, slide the torque arm assembly over the pole end and bolt the pivot shaft bracket to the mounting base (Fig. 8). Tighten all mounting bolts.
9. **Reassemble the spring assembly.** Slide the spring, washer and bushings onto the pivot rod and turn the two adjusting nuts so about 6mm (1/4") of the rod is exposed above the nuts (Fig. 9). Complete Steps 8 and 9 on the other side.



10. **Tension the blade to the belt.** Rotate the blade up until it contacts the belt. While holding the spring bushing flat on the torque arm, rotate the torque arm until the pivot rod is against the end of the slot nearest the pole. Tighten the locking bolts and jam nuts on the torque arm (Fig. 10).

**NOTE:** The torque arm should be up against the mounting base.

## Section 4 – Installation Instructions

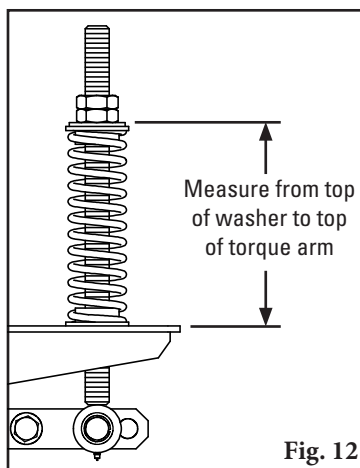
### 4.1 MXP Precleaner (cont.)

12. **Set the correct blade tension.** Refer to the chart or the decal on the mounting base for the spring length required for the belt width. Lightly pull the pivot rod toward the end of the torque arm slot nearest the pole and turn the adjusting nuts until the required spring length is achieved (Fig.12). Repeat steps 11 and 12 on the other side. For best results, recheck the spring length on the first side to insure there has been no movement.

#### Spring Length Chart

Belt Width		Blade Coverage		No. of Blades	Purple Springs		White Springs		Black Springs	
mm	in.	mm	in.		mm	in.	mm	in.	mm	in.
Belt Width Minus 160mm (6")										
1050	42	900	36	3	260	10 1/4	N/A	N/A	N/A	N/A
1200	48	1050	42	3.5	250	9 3/4	280	11 1/8	N/A	N/A
1350	54	1200	48	4	240	9 3/8	275	10 7/8	N/A	N/A
1500	60	1350	54	4.5	230	9	270	10 5/8	N/A	N/A
1800	72	1650	66	5.5	205	8 1/8	260	10 1/8	N/A	N/A
2100	84	1950	78	6.5	185	7 1/4	245	9 3/4	275	10 7/8
2400	96	2250	90	7.5	165	6 1/2	235	9 1/4	270	10 5/8
2700	108	2550	102	8.5	N/A	N/A	225	8 3/4	265	10 3/8
3000	120	2850	114	9.5	N/A	N/A	210	8 1/4	255	10 1/8
Belt Width Minus 300mm (12")										
1050	42	750	30	2.5	270	10 5/8	N/A	N/A	N/A	N/A
1200	48	900	36	3	260	10 1/4	290	11 3/8	N/A	N/A
1350	54	1050	42	3.5	250	9 3/4	280	11 1/8	N/A	N/A
1500	60	1200	48	4	240	9 3/8	275	10 7/8	N/A	N/A
1800	72	1500	60	5	215	8 1/2	265	10 3/8	N/A	N/A
2100	84	1800	72	6	195	7 3/4	250	9 7/8	N/A	N/A
2400	96	2100	84	7	175	6 7/8	240	9 1/2	275	10 3/4
2700	108	2400	96	8	N/A	N/A	230	9	265	10 1/2
3000	120	2700	108	9	N/A	N/A	215	8 1/2	260	10 1/4

Shading indicates preferred spring option.



13. **Test run the cleaner.** Run the conveyor for at least 15 minutes and inspect cleaning performance. Check the spring lengths for proper tensioning. Make adjustments as necessary.

## Section 5 – Pre-Operation Checklist and Testing

### 5.1 Pre-Op Checklist

- Re-check that all fasteners are tightened properly
- Add pole caps
- Apply all supplied labels to the cleaner
- Check the blade location on the belt
- Be sure that all installation materials and tools have been removed from the belt and the conveyor area
- Re-check tension settings

### 5.2 Test Run the Conveyor

- Run the conveyor for at least 15 minutes and inspect the cleaning performance
- Check the tensioner spring for recommended length (proper tensioning)
- Make adjustments as necessary

**NOTE:** Observing the cleaner when it is running and performing properly will help to detect problems or when adjustments are needed later.

## Section 6 – Maintenance

---

Flexco belt cleaners are designed to operate with minimum maintenance. However, to maintain superior performance some service is required. When the cleaner is installed a regular maintenance program should be set up. This program will ensure that the cleaner operates at optimal efficiency and problems can be identified and fixed before the cleaner stops working.

All safety procedures for inspection of equipment (stationary or operating) must be observed. The MXP Precleaner operates at the discharge end of the conveyor and is in direct contact with the moving belt. Only visual observations can be made while the belt is running. Service tasks can be done only with the conveyor stopped and by observing the correct lockout/tagout procedures.

### 6.1 New Installation Inspection

After the new cleaner has run for a few days a visual inspection should be made to ensure the cleaner is performing properly. Make adjustments as needed.

### 6.2 Routine Visual Inspection (every 2-4 weeks)

A visual inspection of the cleaner and belt can determine:

- If the spring length is the correct length for optimal tensioning.
- If the belt looks clean or if there are areas that are dirty.
- If the blade is worn out and needs to be replaced.
- If there is damage to the blade or other cleaner components.
- If fugitive material is built up on the cleaner or in the transfer area.
- If there is cover damage to the belt.
- If there is vibration or bouncing of the cleaner on the belt.
- If a snub pulley is used, a check should be made for material buildup on the pulley.

If any of the above conditions exist, a determination should be made on when the conveyor can be stopped for cleaner maintenance.

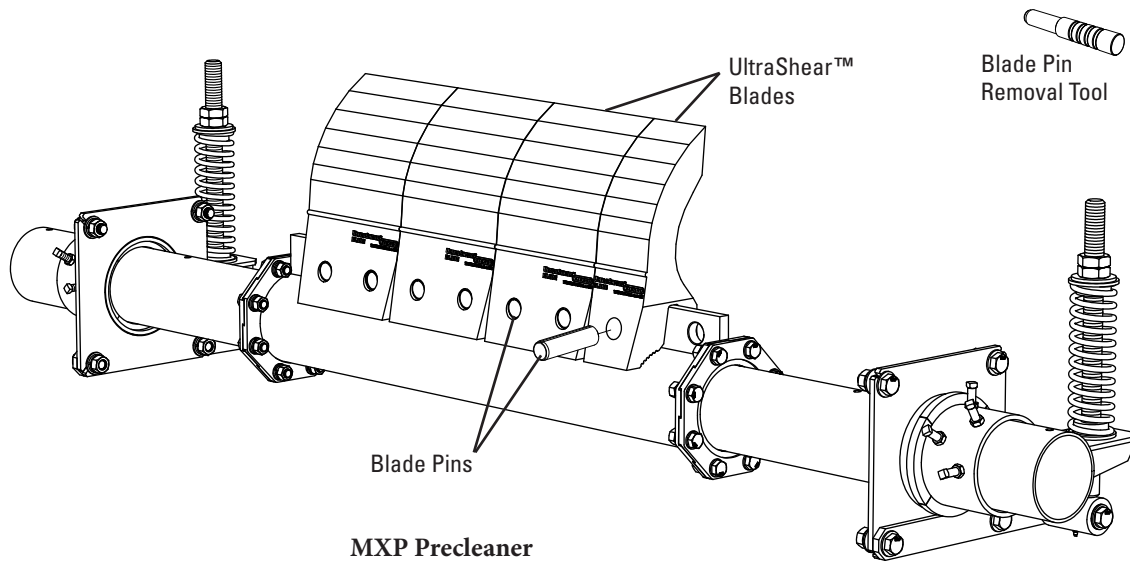
### 6.3 Routine Physical Inspection (every 6-8 weeks)

When the conveyor is not in operation and properly locked and tagged out a physical inspection of the cleaner to perform the following tasks:

- Clean material buildup off of the cleaner blade and pole.
- Closely inspect the blade for wear and any damage. Replace if needed.
- Ensure full blade to belt contact.
- Inspect the cleaner pole for damage.
- Inspect all fasteners for tightness and wear. Tighten or replace as needed.
- Replace any worn or damaged components.
- Check the tension/pressure of the cleaner blade to the belt. Adjust the tension if necessary using the chart on the cleaner or the one on Page 12.
- When maintenance tasks are completed, test run the conveyor to ensure the cleaner is performing properly.

## Section 6 – Maintenance

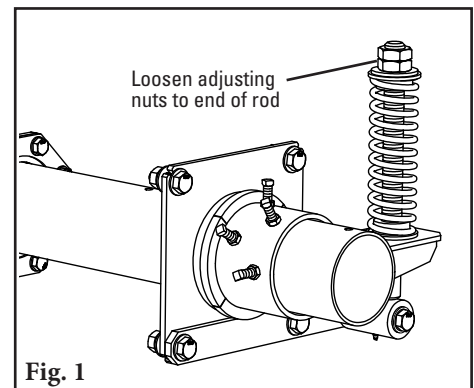
### 6.4 Blade Replacement Instructions



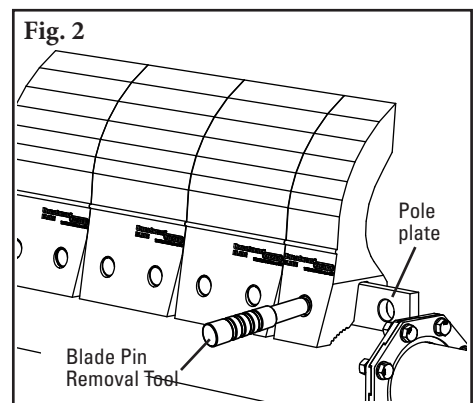
***Physically lock out and tag the conveyor at the power source before you begin cleaner installation.***

#### Tools Needed:

- Tape measure
- Hammer
- Blade Pin Removal Tool (provided)
- Pry bar
- Wire brush (for cleaning pole)
- Small putty knife (for cleaning pole)



1. **Remove the tension.** Loosen the adjusting nuts on both sides and turn them out until they are flush with ends of the pivot arms (Fig. 1). This releases the tension of the blades on the belt.
2. **Remove the worn blades.** Using hammer and blade pin removal tool, pound out old blade pins and remove the blades from the pole (Fig. 2). Clean all fugitive material from the pole.





## Section 6 – Maintenance

### 6.4 Blade Replacement Instructions (cont.)

3. **Install the new blade segments.** Seat the new blades onto the pole plate, leaving an open hole on each end of pole plate. Align holes on pole and blade, then install blade pins to lock in place (Fig. 3).
4. **Reset the correct blade tension.** Refer to the charts below for the spring length. Lightly pull the pivot arm toward the end of the torque arm slot nearest the pole and turn the adjusting nuts until the required spring length is achieved (Fig. 4). Tighten jam nut.

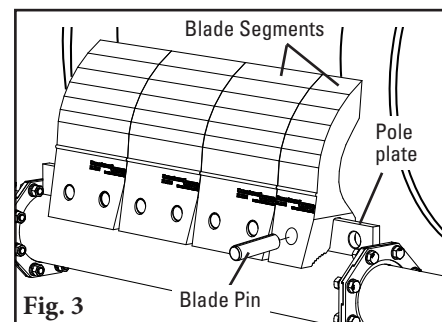


Fig. 3

#### Spring Length Chart

Belt Width		Blade Coverage		No. of Blades	Purple Springs		White Springs		Black Springs	
mm	in.	mm	in.		mm	in.	mm	in.	mm	in.
Belt Width Minus 160mm (6")										
1050	42	900	36	3	260	10 1/4	N/A	N/A	N/A	N/A
1200	48	1050	42	3.5	250	9 3/4	280	11 1/8	N/A	N/A
1350	54	1200	48	4	240	9 3/8	275	10 7/8	N/A	N/A
1500	60	1350	54	4.5	230	9	270	10 5/8	N/A	N/A
1800	72	1650	66	5.5	205	8 1/8	260	10 1/8	N/A	N/A
2100	84	1950	78	6.5	185	7 1/4	245	9 3/4	275	10 7/8
2400	96	2250	90	7.5	165	6 1/2	235	9 1/4	270	10 5/8
2700	108	2550	102	8.5	N/A	N/A	225	8 3/4	265	10 3/8
3000	120	2850	114	9.5	N/A	N/A	210	8 1/4	255	10 1/8
Belt Width Minus 300mm (12")										
1050	42	750	30	2.5	270	10 5/8	N/A	N/A	N/A	N/A
1200	48	900	36	3	260	10 1/4	290	11 3/8	N/A	N/A
1350	54	1050	42	3.5	250	9 3/4	280	11 1/8	N/A	N/A
1500	60	1200	48	4	240	9 3/8	275	10 7/8	N/A	N/A
1800	72	1500	60	5	215	8 1/2	265	10 3/8	N/A	N/A
2100	84	1800	72	6	195	7 3/4	250	9 7/8	N/A	N/A
2400	96	2100	84	7	175	6 7/8	240	9 1/2	275	10 3/4
2700	108	2400	96	8	N/A	N/A	230	9	265	10 1/2
3000	120	2700	108	9	N/A	N/A	215	8 1/2	260	10 1/4

Shading indicates preferred spring option.

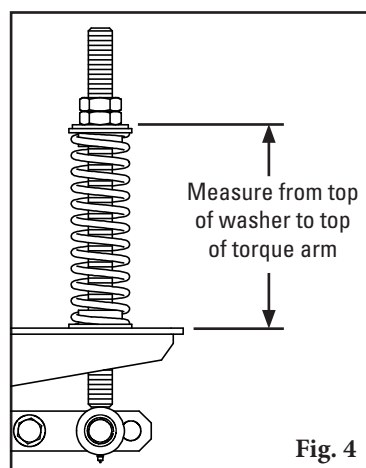


Fig. 4

**Test run the cleaner.** Run the conveyor for at least 15 minutes and inspect the cleaning performance. Check the spring length for proper tensioning. Make adjustments as necessary.

## Section 6 – Maintenance

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### 6.5 Maintenance Log

Conveyor Name/No. \_\_\_\_\_

Date: \_\_\_\_\_ Work done by: \_\_\_\_\_ Service Quote #: \_\_\_\_\_

Activity: \_\_\_\_\_

---

Date: \_\_\_\_\_ Work done by: \_\_\_\_\_ Service Quote #: \_\_\_\_\_

Activity: \_\_\_\_\_

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Date: \_\_\_\_\_ Work done by: \_\_\_\_\_ Service Quote #: \_\_\_\_\_

Activity: \_\_\_\_\_

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Date: \_\_\_\_\_ Work done by: \_\_\_\_\_ Service Quote #: \_\_\_\_\_

Activity: \_\_\_\_\_

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Date: \_\_\_\_\_ Work done by: \_\_\_\_\_ Service Quote #: \_\_\_\_\_

Activity: \_\_\_\_\_

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Date: \_\_\_\_\_ Work done by: \_\_\_\_\_ Service Quote #: \_\_\_\_\_

Activity: \_\_\_\_\_

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Date: \_\_\_\_\_ Work done by: \_\_\_\_\_ Service Quote #: \_\_\_\_\_

Activity: \_\_\_\_\_

---

Date: \_\_\_\_\_ Work done by: \_\_\_\_\_ Service Quote #: \_\_\_\_\_

Activity: \_\_\_\_\_

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## Section 6 – Maintenance

### 6.6 Cleaner Maintenance Checklist

Site: \_\_\_\_\_ Inspected by: \_\_\_\_\_ Date: \_\_\_\_\_

Belt Cleaner: \_\_\_\_\_ Serial Number: \_\_\_\_\_

#### Beltline Information:

Beltline Number: \_\_\_\_\_ Belt Condition: \_\_\_\_\_

Belt Width: ☐ 1050mm (42") ☐ 1200mm (48") ☐ 1350mm (54") ☐ 1500mm (60") ☐ 1800mm (72") ☐ 2100mm (84") ☐ 2400mm (96") ☐ 2700mm (108") ☐ 3000mm (120")

Head Pulley Diameter (Belt & Lagging): \_\_\_\_\_ Belt Speed: \_\_\_\_\_ M/sec Belt Thickness: \_\_\_\_\_

Belt Splice: \_\_\_\_\_ Condition of Splice: \_\_\_\_\_ Number of Splices: \_\_\_\_\_ ☐ Skived ☐ Unskived

Material conveyed: \_\_\_\_\_

Days per week run: \_\_\_\_\_ Hours per day run: \_\_\_\_\_

#### Blade Life:

Date blade installed: \_\_\_\_\_ Date blade inspected: \_\_\_\_\_ Estimated blade life: \_\_\_\_\_

Is blade making complete contact with belt? ☐ Yes ☐ No

Distance from wear line: Left \_\_\_\_\_ Middle \_\_\_\_\_ Right \_\_\_\_\_

Blade condition: ☐ Good ☐ Grooved ☐ Smiled ☐ Not contacting belt ☐ Damaged

Measurement of spring: Required \_\_\_\_\_ Currently \_\_\_\_\_

Was Cleaner Adjusted: ☐ Yes ☐ No

Pole Condition: ☐ Good ☐ Bent ☐ Worn

Lagging: ☐ Side Lag ☐ Ceramic ☐ Rubber ☐ Other ☐ None

Condition of lagging: ☐ Good ☐ Bad ☐ Other \_\_\_\_\_

Cleaner's Overall Performance: (Rate the following 1 - 5, 1= very poor - 5 = very good)

Appearance: ☐ Comments: \_\_\_\_\_

Location: ☐ Comments: \_\_\_\_\_

Maintenance: ☐ Comments: \_\_\_\_\_

Performance: ☐ Comments: \_\_\_\_\_

Other comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Section 7 – Troubleshooting

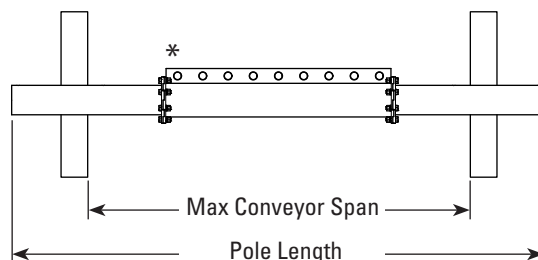
Problem	Possible Cause	Possible Solutions
Poor cleaning performance	Cleaner under-tensioned	Adjust to correct tension – see spring length
	Cleaner over-tensioned	Adjust to correct tension – see spring length
	Cleaner installed in wrong location	Verify "C" dimension, relocate to correct dimension
	Cleaner blade worn or damaged	Replace cleaner blade
Rapid Blade Wear	Tension on cleaner too high/low	Adjust to correct tension – see spring length
	Cleaner not located correctly	Check cleaner location for correct dimensions
	Blade attack angle incorrect	Check cleaner location for correct dimensions
	Material too abrasive for blade	Option: switch to alternate cleaner with metal blades
	Mechanical splice damaging blade	Repair, skive or replace splice
Center wear on blade (smile effect)	Blade wider than material path	Replace blade with width to match material path
	Tension on cleaner too high/low	Adjust to correct tension – see spring length
	Material very thick and wet	Increase tension (consult factory)
Unusual wear or damage to blade	Mechanical splice damaging blade	Repair, skive or replace splice
	Belt damaged or ripped	Repair or replace belt
	Cleaner not correctly located	Verify "C" dimension, relocate to correct dimension
	Damage to pulley or pulley lagging	Repair or replace pulley
Vibration or noise	Cleaner not located correctly	Verify "C" dimension, relocate to correct dimension
	Blade attack angle incorrect	Verify "C" dimension, relocate to correct dimension
	Cleaner running on empty belt	Use a spray pole when the belt is empty
	Cleaner tension too high/low	Adjust to correct tension or slight adjust to diminish
	Cleaner locking bolts not secure	Check and tighten all bolts and nuts
	Cleaner not square to head pulley	Verify "C" dimension, relocate to correct dimension
	Material buildup in chute	Clean up build-up on cleaner and in chute
Cleaner being pushed away from pulley	Cleaner tension not set correctly	Ensure correct tension/increase tension slightly
	Sticky material is overburdening cleaner	Increase tension; replace with cleaner with metal tips; replace with larger size cleaner
	Cleaner not set up correctly	Confirm location dimensions are equal on both sides

## Section 8 – Specs and CAD Drawings

### 8.1 Specifications & Guidelines

#### Pole Length Specifications\*

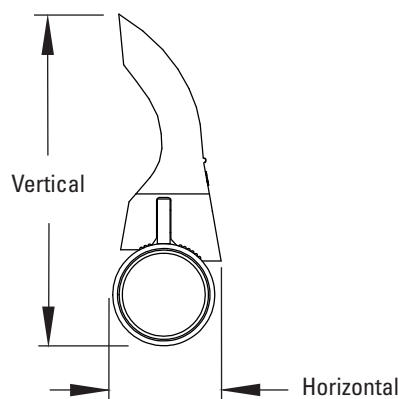
CLEANER SIZE		MAX OVERALL POLE LENGTH		CENTER POLE LENGTH		MAXIMUM CONVEYOR SPAN	
mm	in.	mm	in.	mm	in.	mm	in.
1050	42	3050	121	1200	48	2667	105
1200	48	3200	127	1350	54	2819	111
1350	54	3350	133	1500	60	2972	117
1500	60	3500	139	1650	66	3124	123
1800	72	3800	151	1950	78	3429	135
2100	84	4100	163	2250	90	3734	147
2400	96	4400	175	2550	102	4039	159
2700	108	4700	187	2850	114	4343	171
3000	120	5000	199	3150	126	4648	183



\*150mm and 300mm (6" and 12") blade segments can be configured to match material path.

#### Clearance Guidelines for Installation

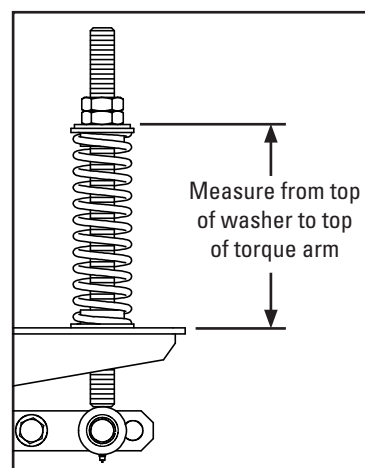
HORIZONTAL CLEARANCE REQUIRED		VERTICAL CLEARANCE REQUIRED	
mm	in.	mm	in.
300	12	700	27 1/2



#### Spring Length Chart

Belt Width		Blade Coverage		No. of Blades	Purple Springs		White Springs		Black Springs	
mm	in.	mm	in.		mm	in.	mm	in.	mm	in.
Belt Width Minus 160mm (6")										
1050	42	900	36	3	260	10 1/4	N/A	N/A	N/A	N/A
1200	48	1050	42	3.5	250	9 3/4	280	11 1/8	N/A	N/A
1350	54	1200	48	4	240	9 3/8	275	10 7/8	N/A	N/A
1500	60	1350	54	4.5	230	9	270	10 5/8	N/A	N/A
1800	72	1650	66	5.5	205	8 1/8	260	10 1/8	N/A	N/A
2100	84	1950	78	6.5	185	7 1/4	245	9 3/4	275	10 7/8
2400	96	2250	90	7.5	165	6 1/2	235	9 1/4	270	10 5/8
2700	108	2550	102	8.5	N/A	N/A	225	8 3/4	265	10 3/8
3000	120	2850	114	9.5	N/A	N/A	210	8 1/4	255	10 1/8
Belt Width Minus 300mm (12")										
1050	42	750	30	2.5	270	10 5/8	N/A	N/A	N/A	N/A
1200	48	900	36	3	260	10 1/4	290	11 3/8	N/A	N/A
1350	54	1050	42	3.5	250	9 3/4	280	11 1/8	N/A	N/A
1500	60	1200	48	4	240	9 3/8	275	10 7/8	N/A	N/A
1800	72	1500	60	5	215	8 1/2	265	10 3/8	N/A	N/A
2100	84	1800	72	6	195	7 3/4	250	9 7/8	N/A	N/A
2400	96	2100	84	7	175	6 7/8	240	9 1/2	275	10 3/4
2700	108	2400	96	8	N/A	N/A	230	9	265	10 1/2
3000	120	2700	108	9	N/A	N/A	215	8 1/2	260	10 1/4

Shading indicates preferred spring option.



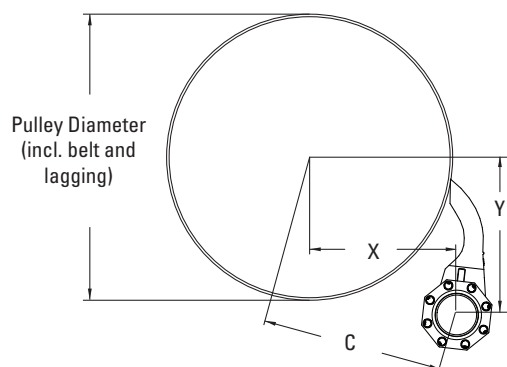
#### Specifications:

- Maximum Belt Speed ..... 10 M/sec (2000 FPM)
- Temperature Rating ..... -35°C to 135°C (-30°F to 275°F)
- Minimum Pulley Diameter ..... 1200mm (48")
- Blade Height ..... 490mm (19-3/8")
- Usable Blade Wear Length ..... 290mm (11-1/2")
- Blade Material..... Polyurethane 93 durometer (proprietary blend for abrasion resistance and long wear)
- Available for Belt Widths..... 1050 to 3000mm (42" to 120"). Other sizes available upon request.
- CEMA Cleaner Rating..... Class 5

## Section 8 – Specs and CAD Drawings

### 8.1 Specifications & Guidelines (cont.)

#### Pole Location Specs



**X & Y Chart for Pole Location**

Pulley Diameter (including belt and lagging)		X		Y		C	
mm	in.	mm	in.	mm	in.	mm	in.
1225	48	520	20 1/2	665	26 1/4	845	33 1/4
1250	49	535	21	670	26 3/8	855	33 5/8
1275	50	545	21 1/2	670	26 3/8	865	34
1300	51	560	22	675	26 1/2	875	34 3/8
1325	52	570	22 1/2	675	26 5/8	885	34 3/4
1350	53	585	23	675	26 5/8	895	35 1/8
1375	54	595	23 1/2	680	26 3/4	905	35 5/8
1400	55	610	24	680	26 7/8	915	36
1425	56	620	24 1/2	685	26 7/8	925	36 3/8
1450	57	635	24 7/8	685	27	935	36 3/4
1475	58	645	25 3/8	690	27 1/8	945	37 1/8
1500	59	660	25 7/8	690	27 1/8	955	37 1/2
1525	60	670	26 3/8	695	27 1/4	965	38
1550	61	685	26 7/8	695	27 3/8	975	38 3/8
1575	62	695	27 3/8	695	27 1/2	985	38 3/4
1600	63	710	27 7/8	700	27 1/2	995	39 1/8
1625	64	720	28 3/8	700	27 5/8	1005	39 5/8
1650	65	735	28 7/8	705	27 3/4	1015	40
1675	66	745	29 3/8	705	27 3/4	1025	40 3/8
1700	67	760	29 7/8	710	27 7/8	1040	40 7/8
1725	68	770	30 3/8	710	28	1050	41 1/4
1750	69	785	30 7/8	710	28	1060	41 3/4
1775	70	795	31 3/8	715	28 1/8	1070	42 1/8
1800	71	810	31 7/8	715	28 1/4	1080	42 1/2
1825	72	820	32 3/8	720	28 1/4	1090	43

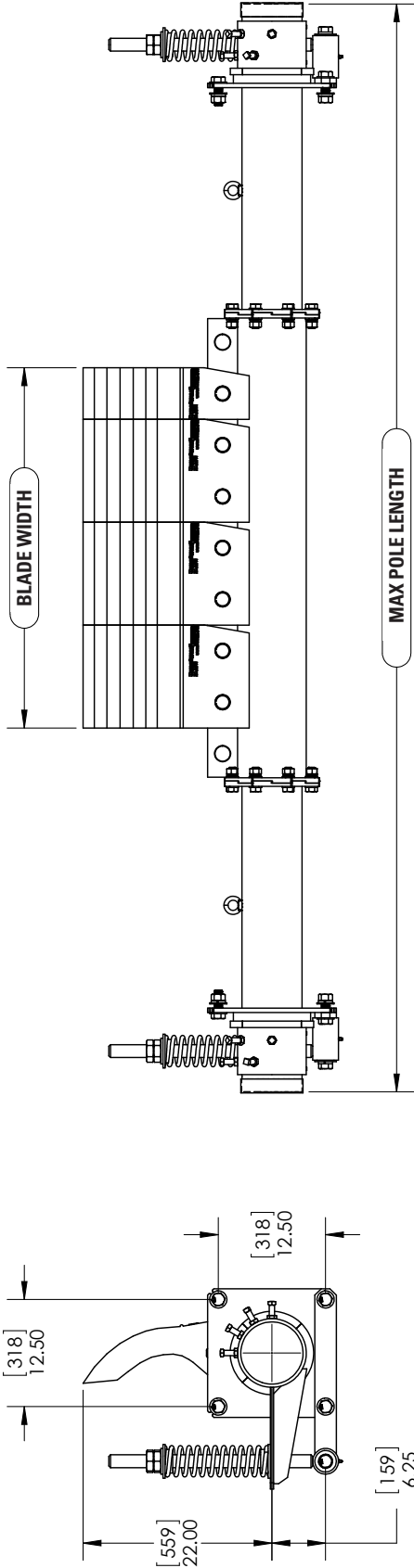
**X & Y Chart for Pole Location**

Pulley Diameter (including belt and lagging)		X		Y		C	
mm	in.	mm	in.	mm	in.	mm	in.
1850	73	835	32 3/4	720	28 3/8	1100	43 3/8
1875	74	845	33 1/4	725	28 1/2	1115	43 7/8
1900	75	860	33 3/4	725	28 5/8	1125	44 1/4
1925	76	870	34 1/4	730	28 5/8	1135	44 3/4
1950	77	885	34 3/4	730	28 3/4	1145	45 1/8
1975	78	895	35 1/4	730	28 7/8	1155	45 1/2
2000	79	910	35 3/4	735	28 7/8	1170	46
2025	80	920	36 1/4	735	29	1180	46 3/8
2050	81	935	36 3/4	740	29 1/8	1190	46 7/8
2075	82	945	37 1/4	740	29 1/8	1200	47 1/4
2100	83	960	37 3/4	745	29 1/4	1215	47 3/4
2125	84	970	38 1/4	745	29 3/8	1225	48 1/4
2150	85	985	38 3/4	750	29 1/2	1235	48 5/8
2175	86	995	39 1/4	750	29 1/2	1245	49 1/8
2200	87	1010	39 3/4	750	29 5/8	1260	49 1/2
2225	88	1020	40 1/4	755	29 3/4	1270	50
2250	89	1035	40 3/4	755	29 3/4	1280	50 3/8
2275	90	1045	41 1/8	760	29 7/8	1290	50 7/8
2300	91	1060	41 5/8	760	30	1305	51 3/8
2325	92	1070	42 1/8	765	30	1315	51 3/4
2350	93	1085	42 5/8	765	30 1/8	1325	52 1/4
2275	94	1095	43 1/8	770	30 1/4	1340	52 5/8
2400	95	1110	43 5/8	770	30 1/4	1350	53 1/8
2425	96	1120	44 1/8	770	30 3/8	1360	53 5/8

# Section 8 – Specs and CAD Drawings

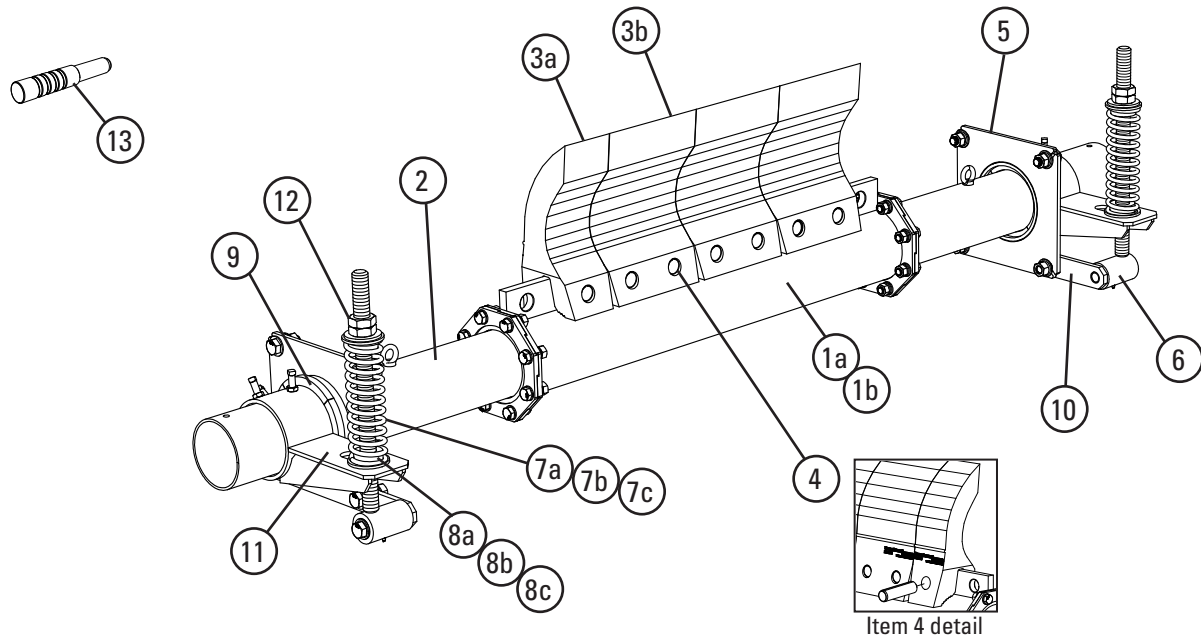
## 8.2 CAD Drawing - MXP with XDST Tensioner

SPECIFICATIONS				MXP CLEANER ASSEMBLY			
BELT WIDTH		MAX POLE LENGTH		MINUS 6		MINUS 12	
				ORDER NUMBER	ITEM CODE	ORDER NUMBER	ITEM CODE
42	1050	120 7/8	mm	MXP-642	90393	MXP-1242	90581
48	1200	126 7/8	mm	MXP-648	90394	MXP-1248	90582
54	1350	132 7/8	mm	MXP-654	90395	MXP-1254	90583
60	1500	138 7/8	mm	MXP-660	90396	MXP-1260	90584
72	1800	150 7/8	mm	MXP-672	90397	MXP-1272	90585
84	2100	162 7/8	mm	MXP-684	90398	MXP-1284	90586
96	2400	174 7/8	mm	MXP-696	90399	MXP-1296	90587
108	2750	186 7/8	mm	MXP-6108	90642	MXP-12108	90643
120	3000	198 7/8	mm	MXP-6120	90400	MXP-12120	90588



## Section 9 – Replacement Parts

### 9.1 Replacement Parts List



#### Replacement Poles

REF	DESCRIPTION	ORDERING NUMBER	ITEM CODE	WT. KG.
1a	1050mm (42") Center Pole BW-6	MXPP-642	90589	80.3
	1200mm (48") Center Pole BW-6	MXPP-648	90590	89.8
	1350mm (54") Center Pole BW-6	MXPP-654	90591	98.9
	1500mm (60") Center Pole BW-6	MXPP-660	90592	108.4
	1800mm (72") Center Pole BW-6	MXPP-672	90593	127.0
	2100mm (84") Center Pole BW-6	MXPP-684	90594	145.1
	2400mm (96") Center Pole BW-6	MXPP-696	90595	163.7
	2700mm (108") Center Pole BW-6	MXPP-6108	90644	182.3
	3000mm (120") Center Pole BW-6	MXPP-6120	90596	200.9
1b	1050mm (42") Center Pole BW-12	MXPP-1242	90622	80.7
	1200mm (48") Center Pole BW-12	MXPP-1248	90623	89.8
	1350mm (54") Center Pole BW-12	MXPP-1254	90624	99.3
	1500mm (60") Center Pole BW-12	MXPP-1260	90625	108.4
	1800mm (72") Center Pole BW-12	MXPP-1272	90626	127.0
	2100mm (84") Center Pole BW-12	MXPP-1284	90627	145.6
	2400mm (96") Center Pole BW-12	MXPP-1296	90628	164.2
	2700mm (108") Center Pole BW-12	MXPP-12108	90645	181.9
	3000mm (120") Center Pole BW-12	MXPP-12120	90629	200.5
2	Extreme Duty Pole Ends* (pair)	MXPPE	90598	60.3

\*Hardware Included

Lead Time: 2 weeks

#### Replacement Parts

REF	DESCRIPTION	ORDERING NUMBER	ITEM CODE	WT. KG.
3a	UltraShear Blade 150mm (6")	USB6	90410	9.1
3b	UltraShear Blade 300mm (12")	USB12	90409	18.1
4	UltraShear Blade Pin (1 ea.)	USBP	90411	0.5
5	XDST Mounting Plate Kit* (2 ea.)	XDSTMPK	90599	29.0
6	XDST Pivot Arm Kit* (1 ea.)	XDSTPAK	90600	9.1
7a	XDST Tension Spring - Purple (1 ea.) for blades 1050 - 1500mm (42" - 60")	XDSTS-P	90602	4.5
7b	XDST Tension Spring - White (1 ea.) for blades 1800 - 2700mm (72" - 108")	XDSTS-W	90601	5.9
7c	XDST Tension Spring - Black (1 ea.) for blades 3000mm (120")	XDSTS-B	90603	7.7
8a	XDST Bushing Kit - Purple (2 ea.)	XDSTBK-P	90605	0.2
8b	XDST Bushing Kit - White (2 ea.)	XDSTBK-W	90604	0.2
8c	XDST Bushing Kit - Black (2 ea.)	XDSTBK-B	90606	0.2
9	MXP Pole Bearing Kit (8 segments) Replacements for both tensioners	MXPPBK	90607	1.1
10	XDST Pivot Shaft Bracket* (1 ea.)	XDSTPSBK	90608	6.8
11	XDST Torque Arm Kit* (1 ea.)	XDSTTAK	90609	6.8
12	XDST Jam Nut Kit (2 nuts, 1 washer)	XDSTJNK	90610	0.5
13	USB Blade Pin Removal Tool	USBBRP	90412	4.1
-	XDST Spring Tensioner* - Purple (incl. 1 ea. items 5, 9; 2 ea. items 6, 7a, 8a, 10, 11, 12) for blades 1050 - 1500mm (42" - 60")	XDST-P	90612	93.4
-	XDST Spring Tensioner* - White (incl. 1 ea. items 5, 9; 2 ea. items 6, 7b, 8b, 10, 11, 12) for blades 1800 - 2700mm (72" - 108")	XDST-W	90611	96.2
-	XDST Spring Tensioner* - Black (incl. 1 ea. items 5, 9; 2 ea. items 6, 7c, 8c, 10, 11, 12) for blades 3000mm (120")	XDST-B	90613	99.8

\*Hardware Included

Lead Time: 1 working day

#### Spring Tensioner Selection Chart

CLEANER BLADE WIDTH	90612 XDST-P	90611 XDST-W	90613 XDST-B
UltraShear 1050 - 1500mm (42" - 60")	X		
UltraShear 800 - 2700mm (72" - 108")		X	
UltraShear 3000mm (120")			X

## Section 10 – Other Flexco Conveyor Products

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Flexco provides many conveyor products that help your conveyors to run more efficiently and safely. These components solve typical conveyor problems and improve productivity. Here is a quick overview on just a few of them:

### EZP1 Precleaner



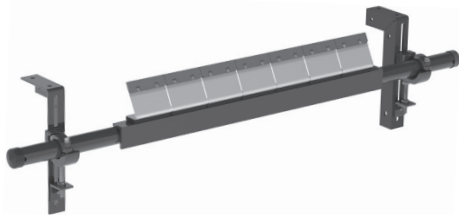
- Patented ConShear™ blade renews its cleaning edge as it wears
- Visual Tension Check™ for optimal blade tensioning and simple retensioning
- Quick and easy one-pin blade replacement Material Path Option™ for optimal cleaning and reduced maintenance

### DRX Impact Beds



- Exclusive Velocity Reduction Technology™ to better protect the belt
- Slide-Out Service™ gives direct access to all impact bars for change-out
- Impact bar supports for longer bar life
- 4 models to custom fit to the application

### EZS2 Secondary Cleaner



- Long-wearing tungsten carbide blades for superior cleaning efficiency
- Patented FormFlex™ cushions independently tension each blade to the belt for consistent, constant cleaning power
- Easy to install, simple to service
- Works with Flexco mechanical belt splices

### PT Max™ Belt Trainer



- Patented “pivot & tilt” design for superior training action
- Dual sensor rollers on each side to minimize belt damage
- Pivot point guaranteed not to freeze or seize up
- Available for topside and return side belts

### Flexco Specialty Belt Cleaners



- “Limited space” cleaners for tight conveyor applications
- High Temp cleaners for severe, high heat applications
- A rubber fingered cleaner for chevron and raised rib belts
- Multiple cleaner styles in stainless steel for corrosive applications

### Belt Plows



- A belt cleaner for the tail pulley
- Exclusive blade design quickly spirals debris off the belt
- Economical and easy to service
- Available in vee or diagonal models

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