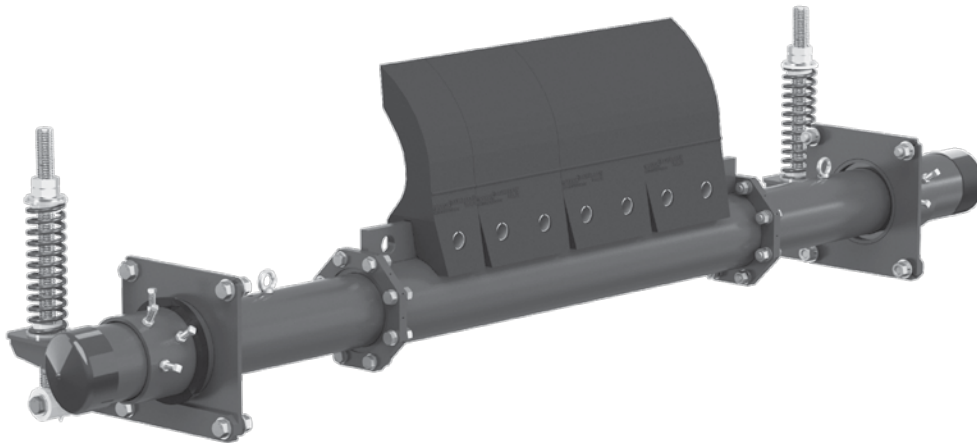


MXP Precleaner

Installation, Operation and Maintenance Manual



MXP Precleaner

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.

Table of Contents

Section 1 – Important Information	2
1.1 General Introduction	2
1.2 User Benefits	2
1.3 Service Option	2
Section 2 – Safety Considerations and Precautions	3
2.1 Stationary Conveyors.....	3
2.2 Operating Conveyors	3
Section 3 – Pre-Installation Checks and Options.....	4
3.1 Checklist	4
3.2 Cleaner Location Adjustments	5
3.3 Optional Installation Accessories	6
Section 4 – Installation Instructions.....	7
Section 5 – Pre-Operation Checklist and Testing.....	10
5.1 Pre-Op Checklist	10
5.2 Test Run the Conveyor	10
Section 6 – Maintenance	11
6.1 New Installation Inspection	11
6.2 Routine Visual Inspection	11
6.3 Routine Physical Inspection.....	11
6.4 Blade Replacement Instructions.....	12
6.5 Maintenance Log.....	14
6.6 Cleaner Maintenance Checklist.....	15
Section 7 – Troubleshooting	16
Section 8 – Specs and CAD Drawings.....	17
8.1 Specifications and Guidelines	17
8.2 CAD Drawings.....	19
Section 9 – Replacement Parts	20
9.1 Replacement Parts List.....	20
Section 10 – Other Flexco Conveyor Products	23

Section 1 – Important Information

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: USA: 1-800-541-8028

Visit 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

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.

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

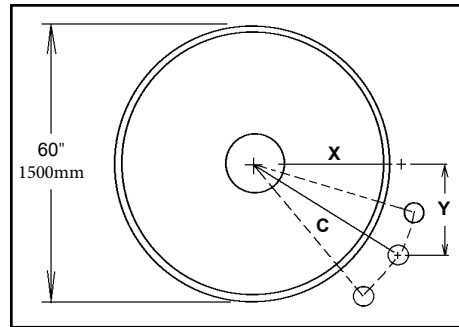
3.2 Cleaner Location Adjustments

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: 60" (1500mm)
X=26 3/8" (670mm)
Y=27 1/4" (692mm)
C=38" (965mm)



- 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 2" (50mm) 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 2" (50mm), so we add 2" (50mm) to the given “Y” dimension.
X = ?"
Y = 27 1/4" + 2 = 29 1/4" (692mm + 50mm = 742mm)
C = 38" (965mm)
- 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 = 24 1/4" (616mm)

Y = 29 1/4" (742mm)

C = 38" (965mm)

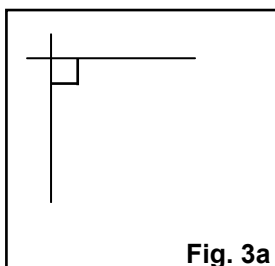


Fig. 3a

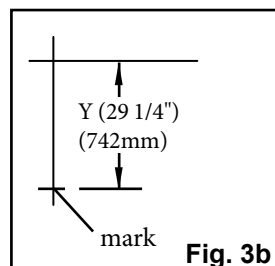


Fig. 3b

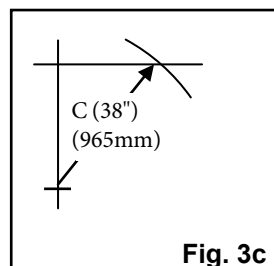


Fig. 3c

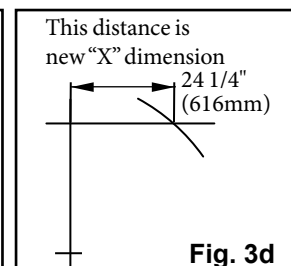


Fig. 3d

Section 3 - Pre-Installation Checks and Options

3.3 Optional Installation Accessories

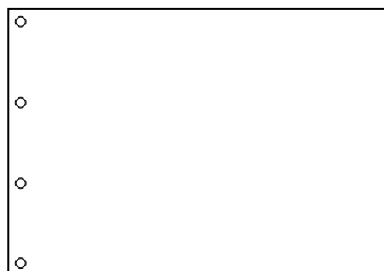
Versatile, adjustable brackets and plates that can be mounted on the conveyor structure so precleaners and secondary cleaners can be easily and quickly bolted into place.



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.
- 1-1/2" x 16" (38x400mm) 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.
- 16" x 32" (400 x 800mm) with four 5/8" (16mm) holes

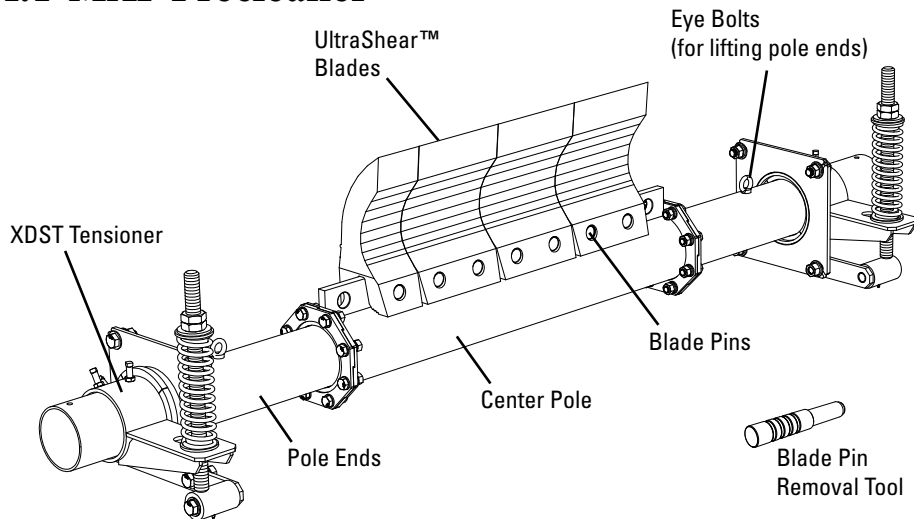
Optional Mounting Kits (incl. 2 brackets/bars)			
Description	Ordering Number	Item Code	Wt. Lbs.
Optional Mounting Bar Kit *	MMBK	75830	19.5
Mounting Plate Kit (incl. 2 plates)	MMPK	76537	140.0

*Hardware Included

Lead time: 1 working day

Section 4 – Installation Instructions

4.1 MXP Precleaner



Tools Needed:

- Tape Measure
- Wrenches:
 - (2) 2-1/4" (1 wrench included)
 - (1) 15/16"
 - (2) 36mm
 - (2) 30mm
- Heavyweight hammer (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.)

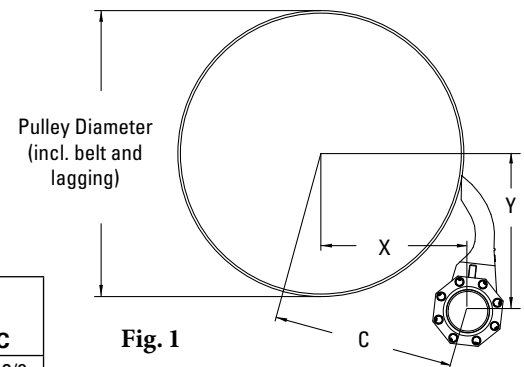


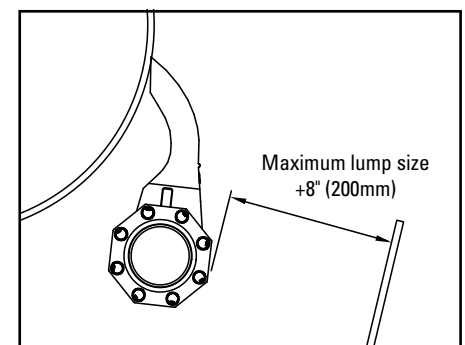
Fig. 1

X & Y Chart for Pole Location

Pulley Diameter (including belt and lagging)	X	Y	C
48	20 1/2	26 1/4	33 1/4
49	21	26 3/8	33 5/8
50	21 1/2	26 3/8	34
51	22	26 1/2	34 3/8
52	22 1/2	26 5/8	34 3/4
53	23	26 5/8	35 1/8
54	23 1/2	26 3/4	35 5/8
55	24	26 7/8	36
56	24 1/2	26 7/8	36 3/8
57	24 7/8	27	36 3/4
58	25 3/8	27 1/8	37 1/8
59	25 7/8	27 1/8	37 1/2
60	26 3/8	27 1/4	38
61	26 7/8	27 3/8	38 3/8
62	27 3/8	27 1/2	38 3/4
63	27 7/8	27 1/2	39 1/8
64	28 3/8	27 5/8	39 5/8
65	28 7/8	27 3/4	40
66	29 3/8	27 3/4	40 3/8
67	29 7/8	27 7/8	40 7/8
68	30 3/8	28	41 1/4
69	30 7/8	28	41 3/4
70	31 3/8	28 1/8	42 1/8
71	31 7/8	28 1/4	42 1/2
72	32 3/8	28 1/4	43

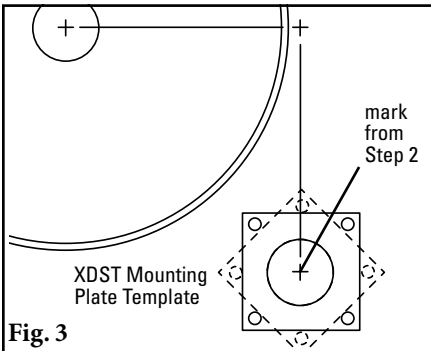
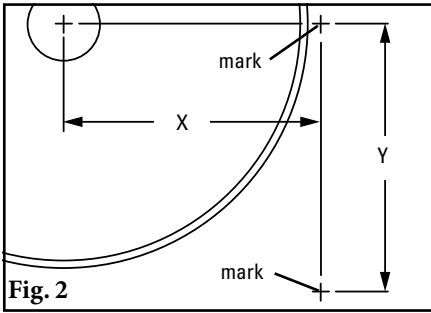
X & Y Chart for Pole Location

Pulley Diameter (including belt and lagging)	X	Y	C
73	32 3/4	28 3/8	43 3/8
74	33 1/4	28 1/2	43 7/8
75	33 3/4	28 5/8	44 1/4
76	34 1/4	28 5/8	44 3/4
77	34 3/4	28 3/4	45 1/8
78	35 1/4	28 7/8	45 1/2
79	35 3/4	28 7/8	46
80	36 1/4	29	46 3/8
81	36 3/4	29 1/8	46 7/8
82	37 1/4	29 1/8	47 1/4
83	37 3/4	29 1/4	47 3/4
84	38 1/4	29 3/8	48 1/4
85	38 3/4	29 1/2	48 5/8
86	39 1/4	29 1/2	49 1/8
87	39 3/4	29 5/8	49 1/2
88	40 1/4	29 3/4	50
89	40 3/4	29 3/4	50 3/8
90	41 1/8	29 7/8	50 7/8
91	41 5/8	30	51 3/8
92	42 1/8	30	51 3/4
93	42 5/8	30 1/8	52 1/4
94	43 1/8	30 1/4	52 5/8
95	43 5/8	30 1/4	53 1/8
96	44 1/8	30 3/8	53 5/8



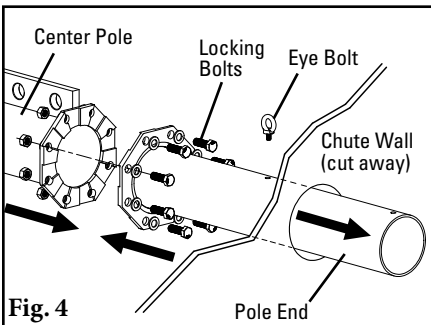
Section 4 – Installation Instructions

4.1 MXP Precleaner (cont.)



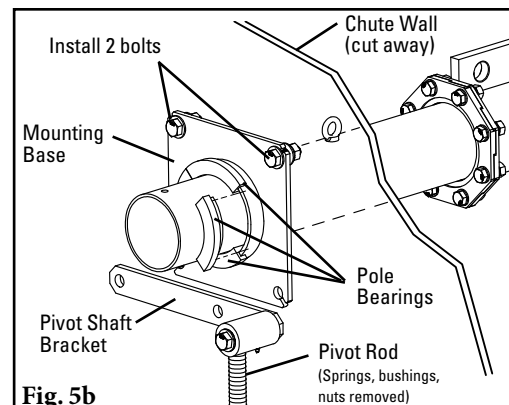
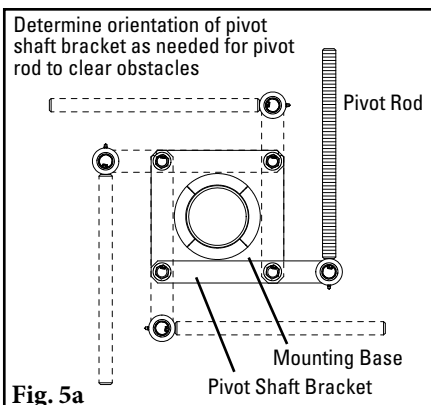
2. **Lay out the dimensions on the chute wall or on mounting plate kits (optional if not installing in a chute).** Measure out the X dimension horizontally from the center of the pulley shaft and mark. (**NOTE:** It may be easier to put a level on top of the pulley shaft, draw a horizontal line and then 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.

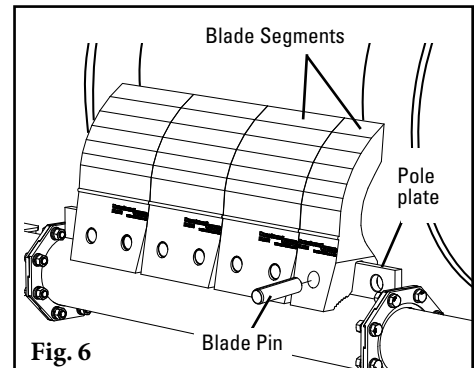
5. **Install the mounting bases.** Slide mounting base over pole end. Determine location of pivot shaft bracket and orientation of pivot rod, but do not install at this time (Fig 5a). Bolt mounting base assembly to chute wall with 2 of the bolts provided on the side opposite the location where the pivot 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.



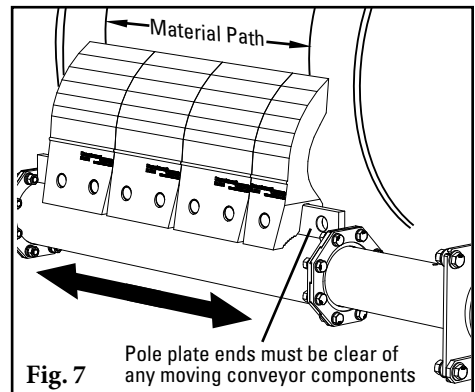
Section 4 – Installation Instructions

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.

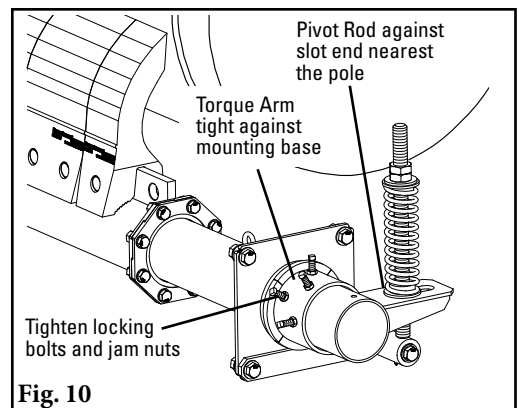
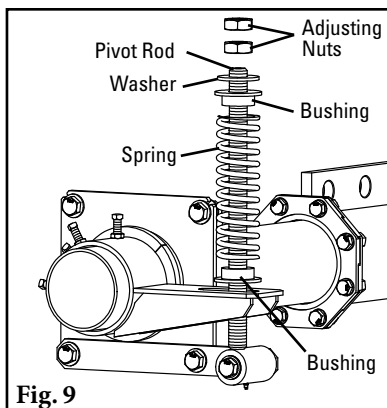
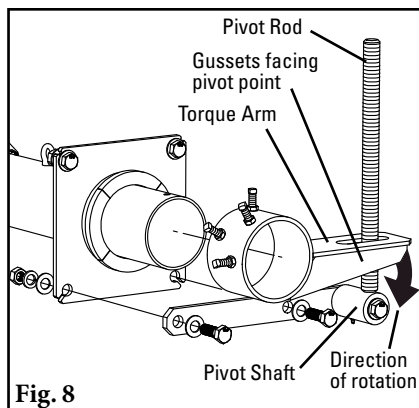


7. **Center the blades on the belt.** Slide the pole until the blades are centered on belt or cover the belt's material path (Fig. 7). Verify that the ends of the pole plate are clear of any moving components. **NOTE:** Standard blade coverage is belt width minus 6" (150mm) or minus 12" (300mm). If less 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 1/4" (6mm) 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

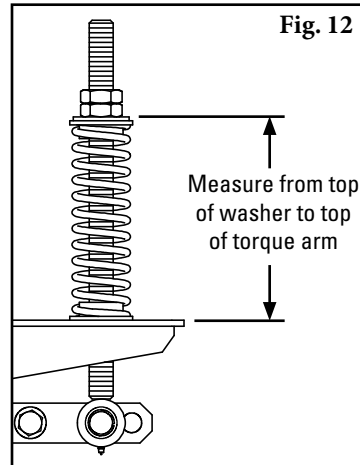
4.1 MXP Precleaner (cont.)

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	
in.	mm	in.	mm		in.	mm	in.	mm	in.	mm
BELT WIDTH MINUS 6" (150mm)										
42	1050	36	900	3	10 1/4	260	N/A	N/A	N/A	N/A
48	1200	42	1050	3.5	9 3/4	250	11 1/8	280	N/A	N/A
54	1350	48	1200	4	9 3/8	240	10 7/8	275	N/A	N/A
60	1500	54	1350	4.5	9	230	10 5/8	270	N/A	N/A
72	1800	66	1650	5.5	8 1/8	205	10 1/8	260	N/A	N/A
84	2100	78	1950	6.5	7 1/4	185	9 3/4	245	10 7/8	275
96	2400	90	2250	7.5	6 1/2	165	9 1/4	235	10 5/8	270
108	2700	102	2550	8.5	N/A	N/A	8 3/4	225	10 3/8	265
120	3000	114	2850	9.5	N/A	N/A	8 1/4	210	10 1/8	255
BELT WIDTH MINUS 12" (300mm)										
42	1050	30	750	2.5	10 5/8	270	N/A	N/A	N/A	N/A
48	1200	36	900	3	10 1/4	260	11 3/8	290	N/A	N/A
54	1350	42	1050	3.5	9 3/4	250	11 1/8	280	N/A	N/A
60	1500	48	1200	4	9 3/8	240	10 7/8	275	N/A	N/A
72	1800	60	1500	5	8 1/2	215	10 3/8	265	N/A	N/A
84	2100	72	1800	6	7 3/4	195	9 7/8	250	N/A	N/A
96	2400	84	2100	7	6 7/8	175	9 1/2	240	10 3/4	275
108	2700	96	2400	8	N/A	N/A	9	230	10 1/2	265
120	3000	108	2700	9	N/A	N/A	8 1/2	215	10 1/4	260

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.

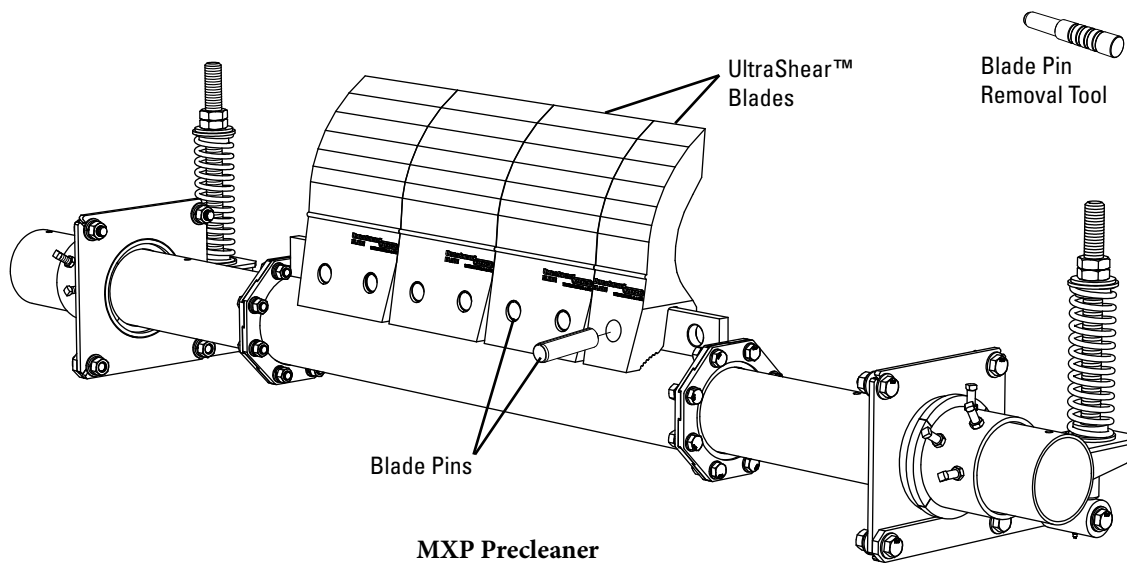
6.3 Routine Physical Inspection (every 6-8 weeks)

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 10.
- When maintenance tasks are completed, test run the conveyor to ensure the cleaner is performing properly.

Section 6 – Maintenance

6.4 Blade Replacement Instructions

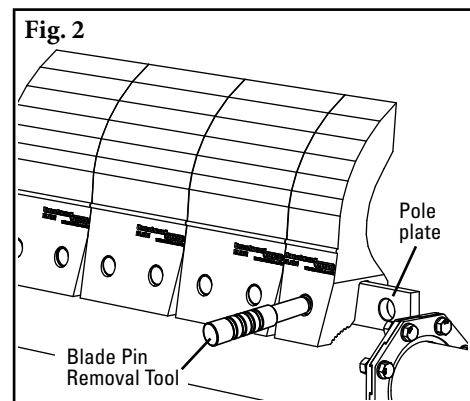
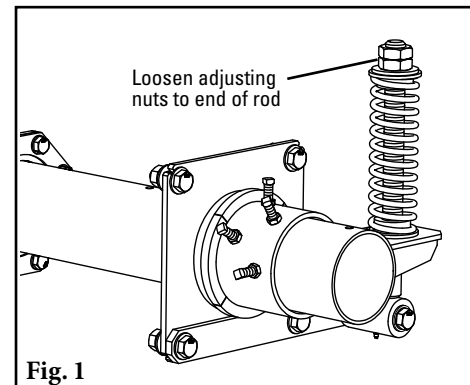


Physically lock out and tag the conveyor at the power source before you begin cleaner installation.

Tools Needed:

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

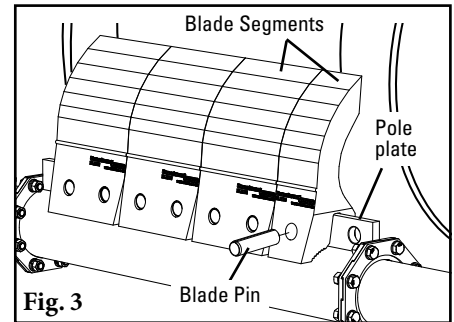
1. **Remove the tension.** Loosen the adjusting nuts on both sides and turn them out until they are flush with ends of the pivot arms (Fig. 1). This releases the tension of the blades on the belt.
2. **Remove the worn blades.** Using hammer and blade pin removal tool, pound out old blade pins and remove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



Section 6 – Maintenance

6.4 Blade Replacement Instructions (cont.)

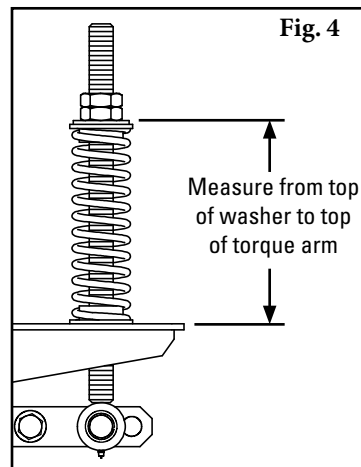
3. **Install the new blade segments.** Seat the new blades onto the pole plate, leaving an open hole on each end of pole plate. Align holes on pole and blade, then install blade pins to lock in place (Fig. 3).
4. **Reset the correct blade tension.** Refer to the charts below for the spring length. Lightly 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.



Spring Length Chart

BELT WIDTH		BLADE COVERAGE		NO. OF BLADES	PURPLE SPRINGS		WHITE SPRINGS		BLACK SPRINGS	
in.	mm	in.	mm		in.	mm	in.	mm	in.	mm
BELT WIDTH MINUS 6" (150mm)										
42	1050	36	900	3	10 1/4	260	N/A	N/A	N/A	N/A
48	1200	42	1050	3.5	9 3/4	250	11 1/8	280	N/A	N/A
54	1350	48	1200	4	9 3/8	240	10 7/8	275	N/A	N/A
60	1500	54	1350	4.5	9	230	10 5/8	270	N/A	N/A
72	1800	66	1650	5.5	8 1/8	205	10 1/8	260	N/A	N/A
84	2100	78	1950	6.5	7 1/4	185	9 3/4	245	10 7/8	275
96	2400	90	2250	7.5	6 1/2	165	9 1/4	235	10 5/8	270
108	2700	102	2550	8.5	N/A	N/A	8 3/4	225	10 3/8	265
120	3000	114	2850	9.5	N/A	N/A	8 1/4	210	10 1/8	255
BELT WIDTH MINUS 12" (300mm)										
42	1050	30	750	2.5	10 5/8	270	N/A	N/A	N/A	N/A
48	1200	36	900	3	10 1/4	260	11 3/8	290	N/A	N/A
54	1350	42	1050	3.5	9 3/4	250	11 1/8	280	N/A	N/A
60	1500	48	1200	4	9 3/8	240	10 7/8	275	N/A	N/A
72	1800	60	1500	5	8 1/2	215	10 3/8	265	N/A	N/A
84	2100	72	1800	6	7 3/4	195	9 7/8	250	N/A	N/A
96	2400	84	2100	7	6 7/8	175	9 1/2	240	10 3/4	275
108	2700	96	2400	8	N/A	N/A	9	230	10 1/2	265
120	3000	108	2700	9	N/A	N/A	8 1/2	215	10 1/4	260

Shading indicates preferred spring option.



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

6.5 Maintenance Log

Conveyor Name/No. _____

Date: _____

Work done by: _____

Service Quote # _____

Activity: _____

Date: _____

Work done by: _____

Service Quote # _____

Activity: _____

Date: _____

Work done by: _____

Service Quote # _____

Activity: _____

Date: _____

Work done by: _____

Service Quote # _____

Activity: _____

Date: _____

Work done by: _____

Service Quote # _____

Activity: _____

Date: _____

Work done by: _____

Service Quote # _____

Activity: _____

Date: _____

Work done by: _____

Service Quote # _____

Activity: _____

Section 6 – Maintenance

6.6 Cleaner Maintenance Checklist

Site: _____ Inspected by: _____ Date: _____

Belt Cleaner: _____ Serial Number: _____

Beltline Information:

Beltline Number: _____ Belt Condition: _____

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

Head Pulley Diameter (Belt & Lagging): _____ Belt Speed: _____ fpm 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: ☐ Slide 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

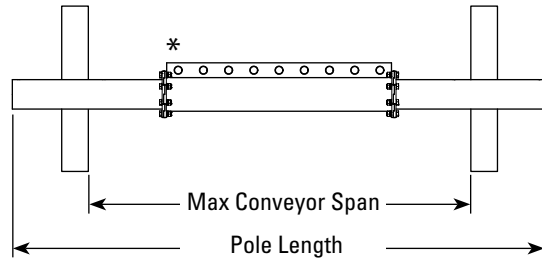
Problem	Possible Cause	Possible Solutions
Poor cleaning performance	Cleaner under-tensioned	Adjust to correct tension – see spring length
	Cleaner over-tensioned	Adjust to correct tension – see spring length
	Cleaner installed in wrong location	Verify "C" dimension, relocate to correct dimension
	Cleaner 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*

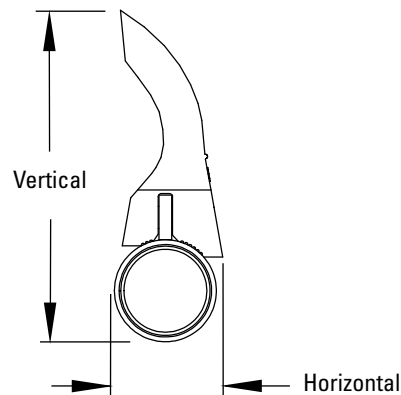
CLEANER SIZE		MAX OVERALL POLE LENGTH		CENTER POLE LENGTH		MAXIMUM CONVEYOR SPAN	
in.	mm	in.	mm	in.	mm	in.	mm
42	1050	121	3050	48	1200	105	2667
48	1200	127	3200	54	1350	111	2819
54	1350	133	3350	60	1500	117	2972
60	1500	139	3500	66	1650	123	3124
72	1800	151	3800	78	1950	135	3429
84	2100	163	4100	90	2250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



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

Clearance Guidelines for Installation

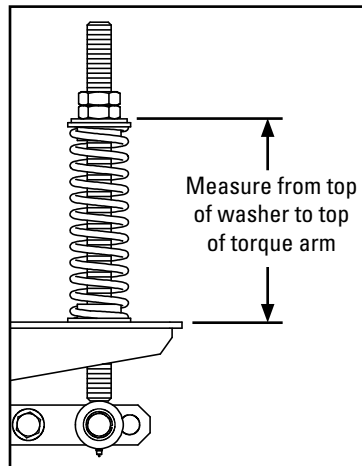
HORIZONTAL CLEARANCE REQUIRED		VERTICAL CLEARANCE REQUIRED	
in.	mm	in.	mm
12	300	27 1/2	700



Spring Length Chart

BELT WIDTH		BLADE COVERAGE		NO. OF BLADES	PURPLE SPRINGS		WHITE SPRINGS		BLACK SPRINGS	
in.	mm	in.	mm		in.	mm	in.	mm	in.	mm
BELT WIDTH MINUS 6" (150mm)										
42	1050	36	900	3	10 1/4	260	N/A	N/A	N/A	N/A
48	1200	42	1050	3.5	9 3/4	250	11 1/8	280	N/A	N/A
54	1350	48	1200	4	9 3/8	240	10 7/8	275	N/A	N/A
60	1500	54	1350	4.5	9	230	10 5/8	270	N/A	N/A
72	1800	66	1650	5.5	8 1/8	205	10 1/8	260	N/A	N/A
84	2100	78	1950	6.5	7 1/4	185	9 3/4	245	10 7/8	275
96	2400	90	2250	7.5	6 1/2	165	9 1/4	235	10 5/8	270
108	2700	102	2550	8.5	N/A	N/A	8 3/4	225	10 3/8	265
120	3000	114	2850	9.5	N/A	N/A	8 1/4	210	10 1/8	255
BELT WIDTH MINUS 12" (300mm)										
42	1050	30	750	2.5	10 5/8	270	N/A	N/A	N/A	N/A
48	1200	36	900	3	10 1/4	260	11 3/8	290	N/A	N/A
54	1350	42	1050	3.5	9 3/4	250	11 1/8	280	N/A	N/A
60	1500	48	1200	4	9 3/8	240	10 7/8	275	N/A	N/A
72	1800	60	1500	5	8 1/2	215	10 3/8	265	N/A	N/A
84	2100	72	1800	6	7 3/4	195	9 7/8	250	N/A	N/A
96	2400	84	2100	7	6 7/8	175	9 1/2	240	10 3/4	275
108	2700	96	2400	8	N/A	N/A	9	230	10 1/2	265
120	3000	108	2700	9	N/A	N/A	8 1/2	215	10 1/4	260

Shading indicates preferred spring option.



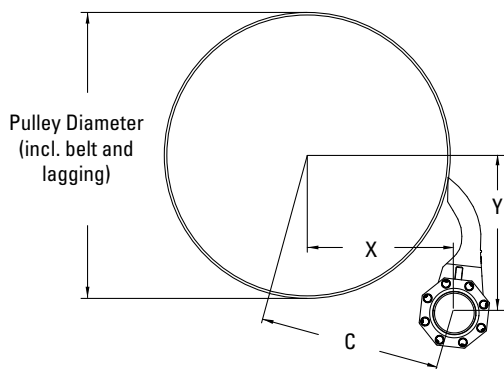
Specifications:

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

Section 8 – Specs and CAD Drawings

8.1 Specifications & Guidelines (cont.)

Pole Location Specs



IMPERIAL

X & Y Chart for Pole Location

Pulley Diameter (including belt and lagging)	X	Y	C
48	20 1/2	26 1/4	33 1/4
49	21	26 3/8	33 5/8
50	21 1/2	26 3/8	34
51	22	26 1/2	34 3/8
52	22 1/2	26 5/8	34 3/4
53	23	26 5/8	35 1/8
54	23 1/2	26 3/4	35 5/8
55	24	26 7/8	36
56	24 1/2	26 7/8	36 3/8
57	24 7/8	27	36 3/4
58	25 3/8	27 1/8	37 1/8
59	25 7/8	27 1/8	37 1/2
60	26 3/8	27 1/4	38
61	26 7/8	27 3/8	38 3/8
62	27 3/8	27 1/2	38 3/4
63	27 7/8	27 1/2	39 1/8
64	28 3/8	27 5/8	39 5/8
65	28 7/8	27 3/4	40
66	29 3/8	27 3/4	40 3/8
67	29 7/8	27 7/8	40 7/8
68	30 3/8	28	41 1/4
69	30 7/8	28	41 3/4
70	31 3/8	28 1/8	42 1/8
71	31 7/8	28 1/4	42 1/2
72	32 3/8	28 1/4	43

X & Y Chart for Pole Location (cont.)

Pulley Diameter (including belt and lagging)	X	Y	C
73	32 3/4	28 3/8	43 3/8
74	33 1/4	28 1/2	43 7/8
75	33 3/4	28 5/8	44 1/4
76	34 1/4	28 5/8	44 3/4
77	34 3/4	28 3/4	45 1/8
78	35 1/4	28 7/8	45 1/2
79	35 3/4	28 7/8	46
80	36 1/4	29	46 3/8
81	36 3/4	29 1/8	46 7/8
82	37 1/4	29 1/8	47 1/4
83	37 3/4	29 1/4	47 3/4
84	38 1/4	29 3/8	48 1/4
85	38 3/4	29 1/2	48 5/8
86	39 1/4	29 1/2	49 1/8
87	39 3/4	29 5/8	49 1/2
88	40 1/4	29 3/4	50
89	40 3/4	29 3/4	50 3/8
90	41 1/8	29 7/8	50 7/8
91	41 5/8	30	51 3/8
92	42 1/8	30	51 3/4
93	42 5/8	30 1/8	52 1/4
94	43 1/8	30 1/4	52 5/8
95	43 5/8	30 1/4	53 1/8
96	44 1/8	30 3/8	53 5/8

METRIC

X & Y Chart for Pole Location

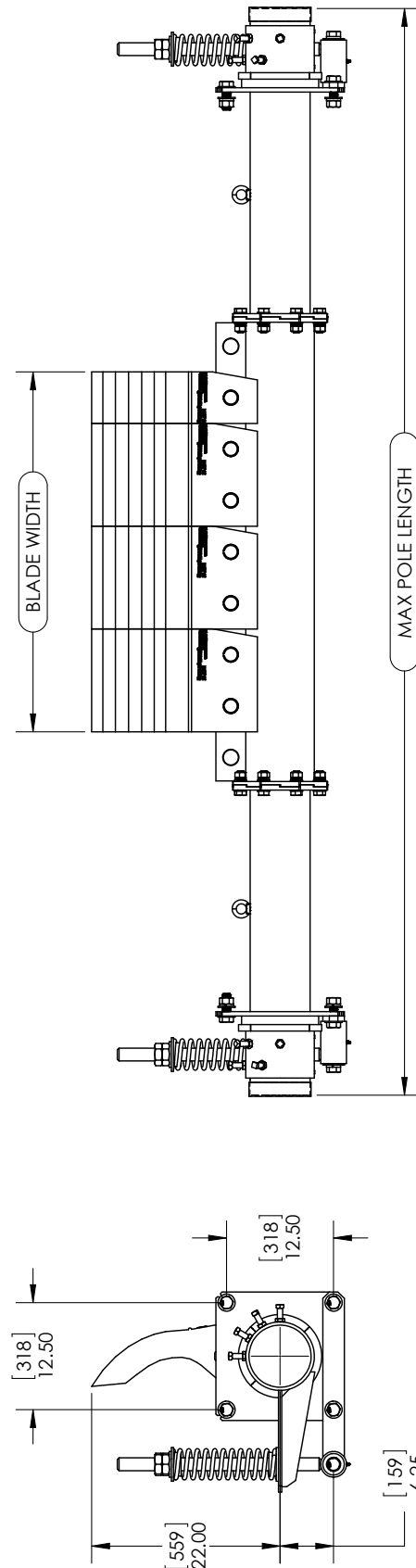
Pulley Diameter (including belt and lagging)	X	Y	C
1225	520	665	845
1250	535	670	855
1275	545	670	865
1300	560	675	875
1325	570	675	885
1350	585	675	895
1375	595	680	905
1400	610	680	915
1425	620	685	925
1450	635	685	935
1475	645	690	945
1500	660	690	955
1525	670	695	965
1550	685	695	975
1575	695	695	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 (cont.)

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
2375	1095	770	1340
2400	1110	770	1350
2425	1120	770	1360

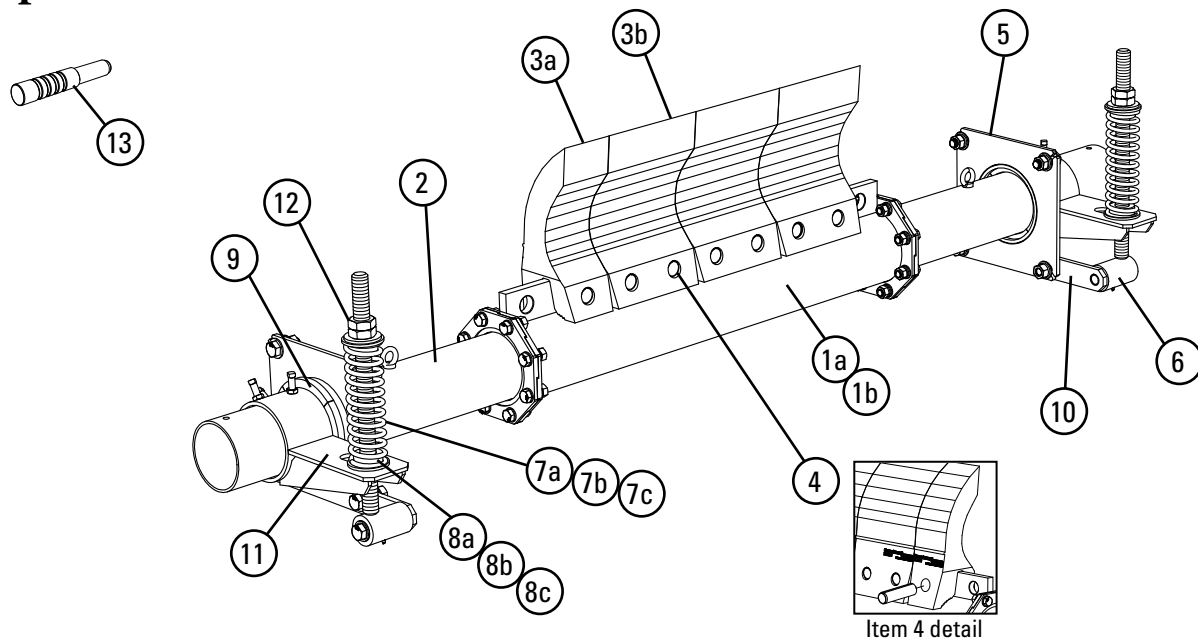
8.2 CAD Drawing - MXP with XDST Tensioner

SPECIFICATIONS			MXP CLEANER ASSY			
BELT WIDTH (in)	MAX POLE LENGTH (mm)	MAX POLE LENGTH (in)	MINUS 6		MINUS 12	
			ORDER NUMBER	ITEM CODE	ORDER NUMBER	ITEM CODE
42	1050	120 7/8				
48	1200	126 7/8				
54	1350	132 7/8				
60	1500	138 7/8				
72	1800	150 7/8				
84	2100	162 7/8				
96	2400	174 7/8				
108	2750	186 7/8				
120	3000	198 7/8				



Section 9 – Replacement Parts

9.1 Replacement Parts List



Replacement Poles

REF	DESCRIPTION	ORDERING NUMBER	ITEM CODE	WT. LBS.
1a	42" (1050mm) Center Pole BW-6	MXPP-642	90589	177.0
	48" (1200mm) Center Pole BW-6	MXPP-648	90590	198.0
	54" (1350mm) Center Pole BW-6	MXPP-654	90591	218.0
	60" (1500mm) Center Pole BW-6	MXPP-660	90592	239.0
	72" (1800mm) Center Pole BW-6	MXPP-672	90593	280.0
	84" (2100mm) Center Pole BW-6	MXPP-684	90594	320.0
	96" (2400mm) Center Pole BW-6	MXPP-696	90595	361.0
	108" (2700mm) Center Pole BW-6	MXPP-6108	90644	402.0
	120" (3000mm) Center Pole BW-6	MXPP-6120	90596	443.0
1b	42" (1050mm) Center Pole BW-12	MXPP-1242	90622	178.0
	48" (1200mm) Center Pole BW-12	MXPP-1248	90623	198.0
	54" (1350mm) Center Pole BW-12	MXPP-1254	90624	219.0
	60" (1500mm) Center Pole BW-12	MXPP-1260	90625	239.0
	72" (1800mm) Center Pole BW-12	MXPP-1272	90626	280.0
	84" (2100mm) Center Pole BW-12	MXPP-1284	90627	321.0
	96" (2400mm) Center Pole BW-12	MXPP-1296	90628	362.0
	108" (2700mm) Center Pole BW-12	MXPP-12108	90645	401.0
	120" (3000mm) Center Pole BW-12	MXPP-12120	90629	442.0
2	Extreme Duty Pole Ends* (pair)	MXPPE	90598	133.0

*Hardware Included

Lead Time: 2 weeks

Spring Tensioner Selection Chart

CLEANER BLADE WIDTH	90612 XDST-P	90611 XDST-W	90613 XDST-B
UltraShear 42" - 60" (1050 - 1500mm)	X		
UltraShear 72" - 108" (1800 - 2700mm)		X	
UltraShear 120" (3000mm)			X

Replacement Parts

REF	DESCRIPTION	ORDERING NUMBER	ITEM CODE	WT. LBS.
3a	UltraShear Blade 6" (150mm)	USB6	90410	20.0
3b	UltraShear Blade 12" (300mm)	USB12	90409	40.0
4	UltraShear Blade Pin (1 ea.)	USBP	90411	1.0
5	XDST Mounting Plate Kit* (2 ea.)	XDSTMPK	90599	64.0
6	XDST Pivot Arm Kit* (1 ea.)	XDSTPAK	90600	20.0
7a	XDST Tension Spring - Purple (1 ea.) for blades 42" - 60" (1050 - 1500mm)	XDSTS-P	90602	10.0
7b	XDST Tension Spring - White (1 ea.) for blades 72" - 108" (1800 - 2700mm)	XDSTS-W	90601	13.0
7c	XDST Tension Spring - Black (1 ea.) for blades 120" (3000mm)	XDSTS-B	90603	17.0
8a	XDST Bushing Kit - Purple (2 ea.)	XDSTBK-P	90605	0.5
8b	XDST Bushing Kit - White (2 ea.)	XDSTBK-W	90604	0.5
8c	XDST Bushing Kit - Black (2 ea.)	XDSTBK-B	90606	0.5
9	MXP Pole Bearing Kit (8 segments) Replacements for both tensioners	MXPPBK	90607	2.5
10	XDST Pivot Shaft Bracket* (1 ea.)	XDSTPSBK	90608	15.0
11	XDST Torque Arm Kit* (1 ea.)	XDSTTAK	90609	15.0
12	XDST Jam Nut Kit (2 nuts, 1 washer)	XDSTJNK	90610	1.0
13	USB Blade Pin Removal Tool	USBBRP	90412	9.0
-	XDST Spring Tensioner* - Purple (incl. 1 ea. items 5, 9; 2 ea. items 6, 7a, 8a, 10, 11, 12) for blades 42" - 60" (1050 - 1500mm)	XDST-P	90612	206.0
-	XDST Spring Tensioner* - White (incl. 1 ea. items 5, 9; 2 ea. items 6, 7b, 8b, 10, 11, 12) for blades 72" - 108" (1800 - 2700mm)	XDST-W	90611	212.0
-	XDST Spring Tensioner* - Black (incl. 1 ea. items 5, 9; 2 ea. items 6, 7c, 8c, 10, 11, 12) for blades 120" (3000mm)	XDST-B	90613	220.0

*Hardware Included

Lead Time: 1 working day

Section 10 – Other Flexco Conveyor Products

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

The Flexco Vision

To become the leader in maximising
belt conveyor productivity for our customers worldwide
through superior service and innovation.



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