

MMP OE Precleaner

Installation, Operation and Maintenance Manual



MMP OE 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.

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Section 1 - Important Information

1.1 General Introduction

We at Flexco are very pleased that you have selected an MMP OE Belt Cleaner 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: 91-44-6551-7771

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 MMP OE 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 Engineer or your Flexco Distributor.

Section 2 - Safety Considerations and Precautions

Before installing and operating the MMP OE 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
 - Is the install on an open head pulley requiring mounting structure (see 3.3 - Optional Installation Accessories)
 - Are there obstructions that may require cleaner location adjustments (see 3.2 - Cleaner Location Adjustments)

Section 3 - Pre-Installation Checks and Options (cont.)

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.

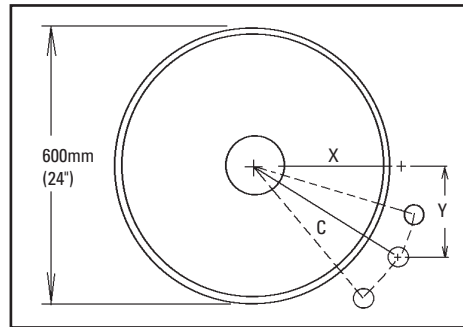
Conveyor situation:

Pulley Diameter: 610mm (24")

X = 321mm (12 5/8")

Y = 305mm (12")

C = 441mm (17 3/8")



- 1. 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).
- 2. Write down known dimensions.** We can now determine two of the three required dimension 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.

$$X = ?"$$

$$Y = 306 + 50 = 356\text{mm (12 + 2 = 14")}$$

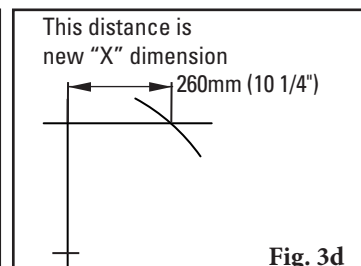
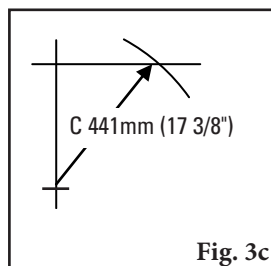
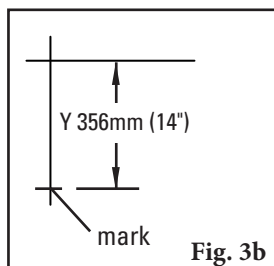
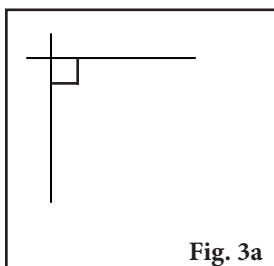
$$C = 441\text{mm (17 3/8")}$$

- 3. Determine final dimension.** On a flat vertical surface, using a level, draw one horizontal line and one vertical line creating a right triangle (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).

$$X = 260\text{mm (10 1/4")}$$

$$Y = 356\text{mm (14")}$$

$$C = 441\text{mm (17 3/8")}$$



Section 3 - Pre-Installation Checks and Options (cont.)

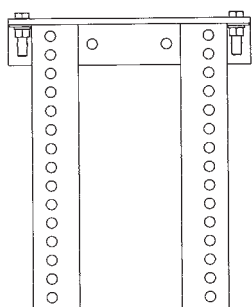
3.3 Optional Installation Accessories

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.

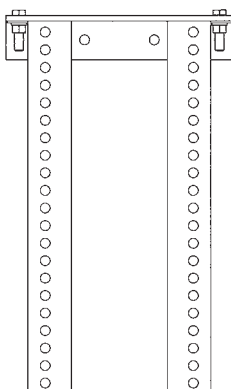
- 75830**
Optional Mounting Bar Kit
(with bolts, nuts and washers)
- For mounting precleaners on open head pulleys.
 - Weld on both sides of pulley and bolt on steel plates.
 - 38mm W x 400mm L (1-1/2" x 16") with (4) 16-279mm (5/8-11") tapped holes



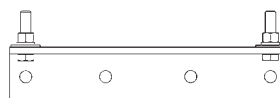
- 76537**
Mounting Plate Kit (incl. 2 plates)
- For use with Mounting Bars to mount cleaners on open head pulleys.
 - 400 x 800mm (16" x 32") with (4) 16mm (5/8") holes



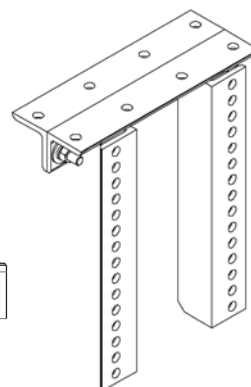
- 76071**
Standard Mounting Bracket Kit
- For most secondary cleaner installs.



- 76072**
Long Mounting Bracket Kit
- For installations that require extra length legs.



- 76073**
Optional Top Angle Kit
- Used with both standard and long mounting bracket kits for additional mounting options.



Optional Mounting Kits (incl. 2 brackets/bars)

Description	Ordering Number	Item Code	Wt. Kg.
Standard Mounting Bracket Kit*	SSTSMB	76071	15.0
Long Mounting Bracket Kit*	SSTLMB	76072	19.0
Optional Top Angle Kit*	SSTOTA	76073	4.0
Optional Mounting Bar Kit *	MMBK	75830	8.0
Mounting Plate Kit (incl. 2 plates)	MMPK	76537	63.0

*Hardware Included
Lead time: 1 working day

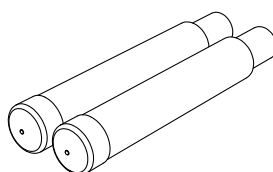
Specs and Notes:

- Standard brackets are 330mm W x 394mm L (13" x 15 1/2").
- Long brackets are 330mm W x 546mm L (13" x 21-1/2").
- Mounting bars are 38mm W x 400mm L (1-1/2" x 16") with (4) 16-279mm (5/8-11") tapped holes.
- Mounting plates are 400 W x 800mm L (16" x 32") (4) 16mm (5/8") holes.

Pole Extender Kit (incl. 2 pole extenders)

Description	Ordering Number	Item Code	Wt. Kg.
Pole Extender Kit	MAPEK	76024	9.0

Provides 750mm (30") of extended pole length.
Lead time: 1 working day



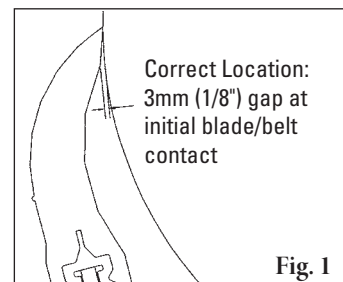
Section 3 - Pre-Installation Checks and Options (cont.)

3.4 Correct Blade Installation and Tensioning

For optimal cleaning efficiency and long wear life, the TuffShear™ blade must be located and tensioned correctly on the belt head pulley. If the cleaner pole is in the wrong location the performance of the new blade may be adversely affected. See "Possible Problems" below. For tensioning, please follow these instructions.

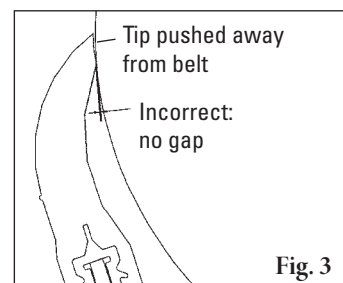
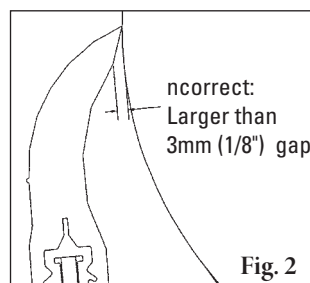
Correct Location:

When blade contact is made against the head pulley (prior to tensioning) there should be a 1.6mm (1/16") to 3mm (1/8") gap at the bottom of the blade face (Fig. 1).



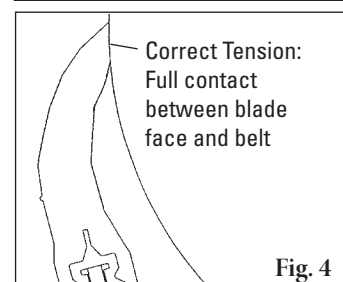
Possible Problems:

- Pole location too far out - The initial blade/belt contact gap will be larger than 3mm (1/8") (Fig. 2). If the blade is correctly tensioned it may flip through before it is fully worn. If tensioned too lightly, it will develop the "smile effect" quickly and not clean properly.
- Pole location too far in - If there is no gap at the initial blade/belt contact (Fig. 3), the tip of the blade may not be touching the belt. In this case, the blade will push away and lose its shearing (cleaning) effect. The blade may also develop a flap at the tip which may trap material.



Correct Tensioning:

The blade should be tensioned until the gap is gone (Fig. 4).



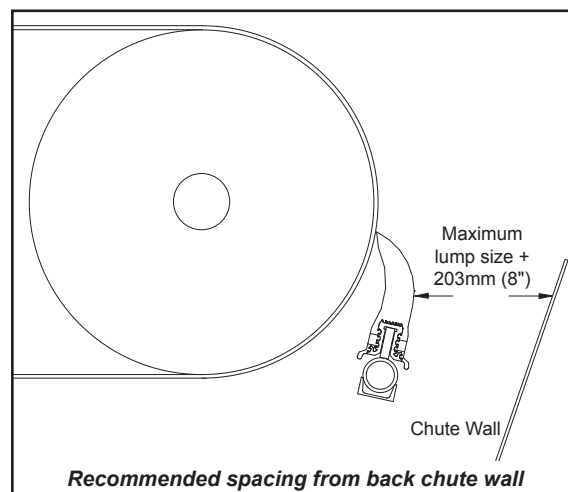
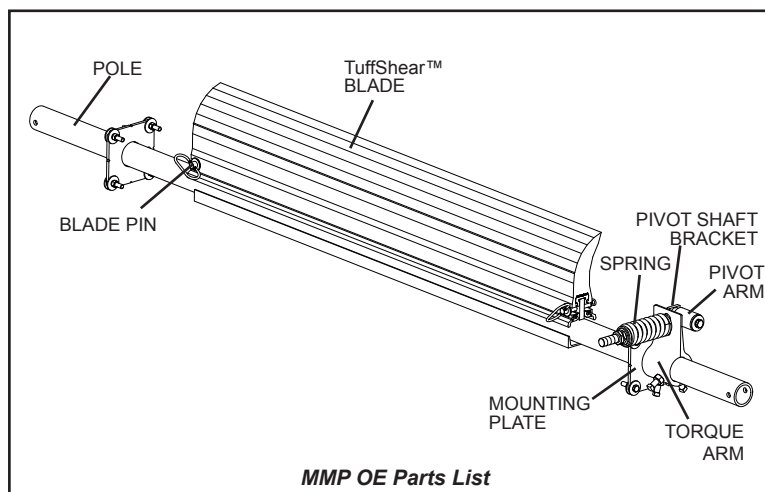
The "Material Path" Option

For optimal cleaning and reduced blade retensioning, the cleaner blade width should be sized to fit the material path of the belt. The material path is typically the center 2/3 of the belt width. Choosing a blade only slightly wider than the material path can decrease differential blade wear which reduces blade retensioning maintenance, as well as reducing the frequency of blade replacement.

Match blade width to belt's material path

Belt Width Minus 150mm (6")	Belt Width Minus 300mm (12")	Belt Width Minus 450mm (18")
<p>Material Path Belt Width Blade Width</p>	<p>Material Path Belt Width Blade Width</p>	<p>Material Path Belt Width Blade Width</p>

Section 4 - Installation Instructions - MMP OE Precleaner



PHYSICALLY LOCK OUT AND TAG OUT THE CONVEYOR AT THE POWER SOURCE BEFORE YOU BEGIN CLEANER INSTALLATION.

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

Tools Needed:

- Tape measure
- Level
- 19mm (3/4") combination wrench
- Ratchet with 19mm (3/4") socket
- Marking pen or soapstone
- Adjustable pliers
- Large adjustable wrench
- Torch or welder

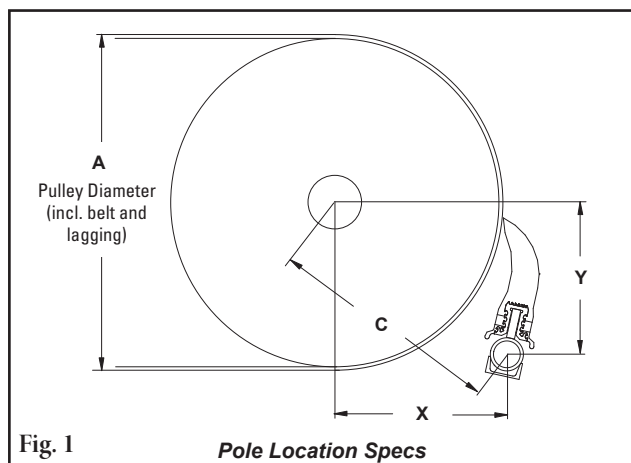
1. **Find the X, Y & C specifications.** Measure the pulley diameter (including the belt and the lagging) (Fig. 1).

Pulley Diameter _____; X=_____; Y=_____; C=_____.

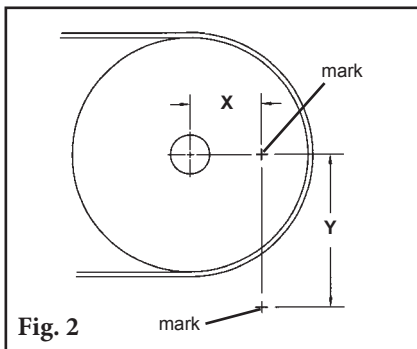
(Adjustments can be made to the X & Y coordinates to move away from obstacles as long as the C dimension remains constant. See Section 3.2.)

Pole Location Chart

A		X		Y		C	
mm	in.	mm	in.	mm	in.	mm	in.
400	16	204	8 1/8	305	12	367	14 1/2
425	17	218	8 3/4	305	12	375	14 7/8
450	18	231	9 1/4	305	12	383	15 1/8
475	19	244	9 3/4	305	12	390	15 1/2
500	20	259	10 3/8	305	12	400	15 7/8
525	21	274	11	305	12	410	16 1/4
550	22	288	11 1/2	305	12	419	16 5/8
575	23	300	12	305	12	428	17
600	24	315	12 5/8	305	12	438	17 3/8
625	25	328	13 1/8	305	12	448	17 3/4
650	26	341	13 5/8	305	12	457	18 1/8
675	27	353	14 1/8	305	12	467	18 1/2
700	28	366	14 5/8	305	12	476	18 7/8
725	29	380	15 1/4	305	12	487	19 3/8
775	30	392	15 5/8	305	12	497	19 3/4
775	31	403	16 1/8	305	12	506	20 1/8
825	32	417	16 3/4	305	12	517	20 5/8
825	33	432	17 1/4	305	12	528	21
850	34	444	17 3/4	305	12	539	21 3/8
875	35	457	18 1/4	305	12	549	21 7/8
900	36	469	18 3/4	305	12	559	22 1/4
925	37	483	19 3/8	305	12	571	22 3/4
950	38	496	19 3/4	305	12	582	23 1/8
975	39	508	20 3/8	305	12	592	23 5/8
1000	40	521	20 3/4	305	12	604	24
1025	41	533	21 3/8	305	12	614	24 1/2
1050	42	550	21 7/8	305	12	629	25
1075	43	569	22 1/2	305	12	646	25 1/2
1100	44	584	23 1/8	305	12	659	26
1125	45	601	23 5/8	305	12	674	26 1/2
1150	46	615	24 1/8	305	12	686	27
1175	47	632	24 3/4	305	12	702	27 1/2
1200	48	645	25 1/4	305	12	714	28

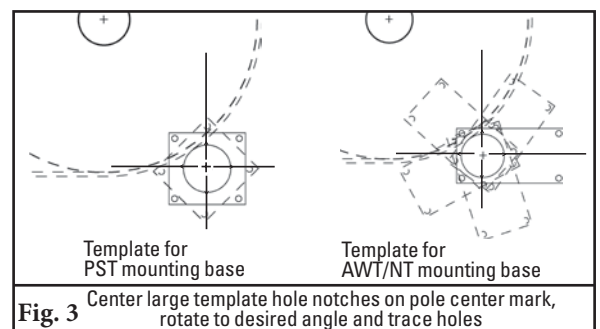


Section 4 - Installation Instructions - MMP OE Precleaner

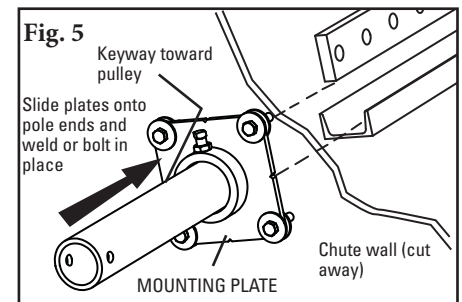


2. **Lay out the dimensions on the chute wall.** Measure out the X dimension horizontally from the center of the pulley shaft and mark. (NOTE: It may be easier to put a level on top of the pulley shaft, draw a horizontal line and then measure down half the diameter of the shaft and make a line from the 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). Lay out and mark the same dimensions on the other side.

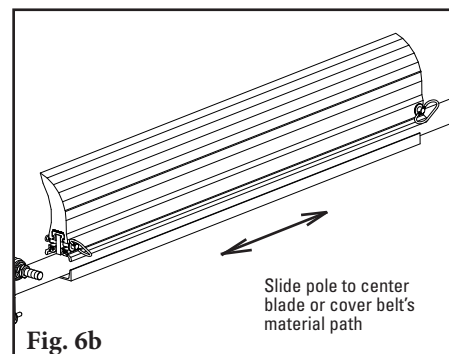
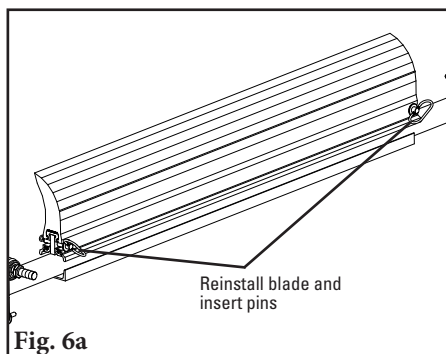
3. **Mark and cut the mounting base holes.** Using the mounting base template provided in the instruction packet, position the large pole hole of the template on the chute with the hole notches aligned with the layout lines. Trace the pole hole and mounting holes (Fig. 3). Each base can be mounted in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



4. **Install the mounting plates.** Position both mounting plates with the keyways toward the pulley and weld or bolt the mounting plates in place using bolts provided (Fig. 5).



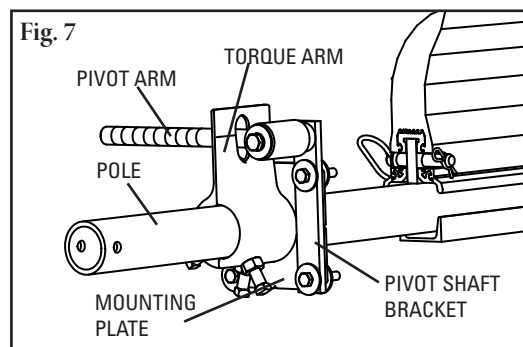
5. **Center the cleaner on the belt and lock in place.** Reinstall the blade (Fig 6a). Slide the pole until the blade is centered or covers the material path (Fig. 6b). NOTE: Standard blade coverage is belt width minus 150mm (6"). If less blade coverage is required, there are additional blade hole positions available on the pole for use of belt width minus 305 & 457mm (12" & 18").



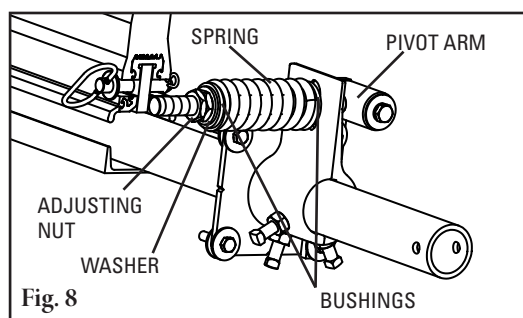
Section 4 - Installation Instructions - MMP OE Precleaner (cont.)

Installing the QMT Spring Tensioner

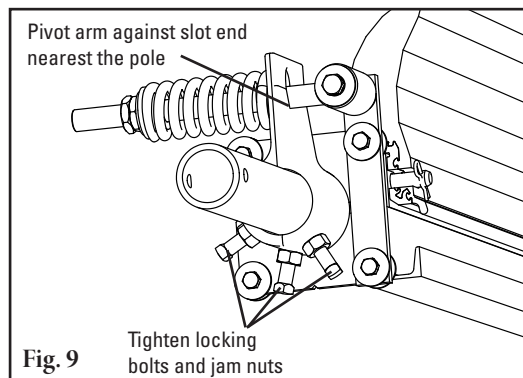
6. **Install the QMT spring tensioner.** Remove the adjusting nuts and springs from the pivot rod. Insert the pivot arm through the slot in the torque arm. Slide the torque arm onto the pole end (be sure the rotation of the arm is correct to tension the blade) and rotate it until the pivot shaft bracket lines up with the desired bolt holes (Fig. 7). Remove bolts, nuts and washers from mounting plate and reinstall through pivot shaft bracket and mounting plate.



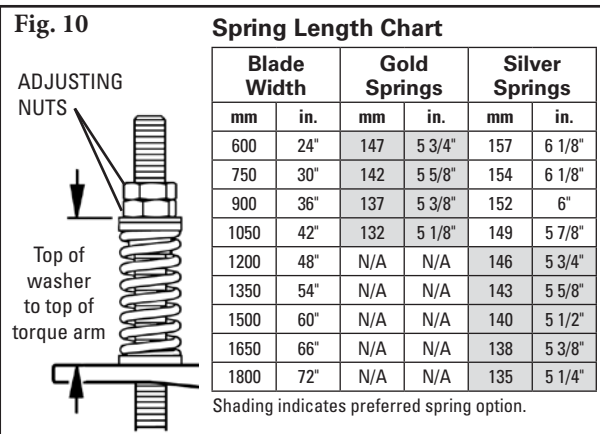
7. **Reassemble the spring assembly.** Slide the spring, washer and bushings onto the pivot arm and turn the two adjusting nuts so about 6mm (1/4") of the pivot arm is exposed above the nuts (Fig. 8).



8. **Tension the blade to the belt.** Rotate the blade until it contacts the belt. While holding the spring bushing flat on the torque arm, rotate the torque arm until the pivot arm is against the end of the slot nearest the pole. Tighten the locking bolts and jam nuts on the torque arm (Fig. 9). **NOTE:** The torque arm should be up against the mounting plate.



9. **Set the correct blade tension.** Refer to the chart on the pivot shaft bracket for the spring length required for the belt width. 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. 10).



Section 5 - Pre-Operation Checklist and Testing

5.1 Pre-Op Checklist

- Recheck 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

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 MMP OE 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.

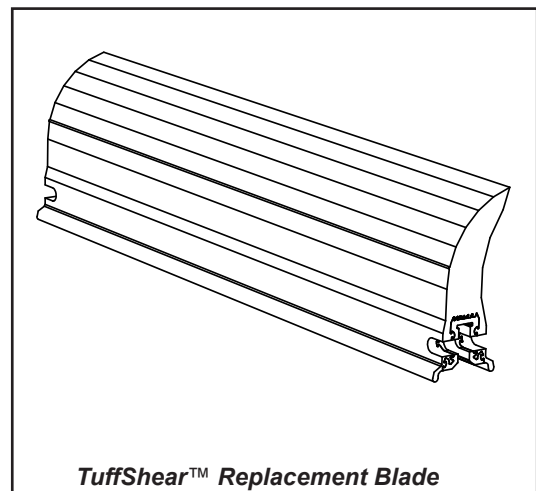
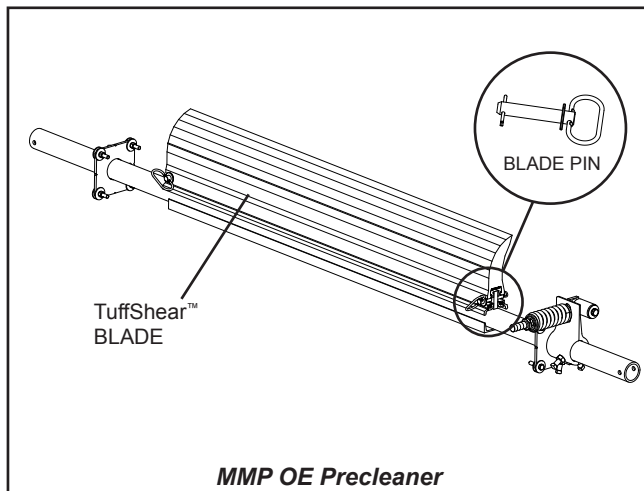
6.3 Routine Physical Inspection (every 6-8 weeks)

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.
- Check both blade pins and retaining clips for proper installation and condition. 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 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 (cont.)

6.4 Blade Replacement Instructions



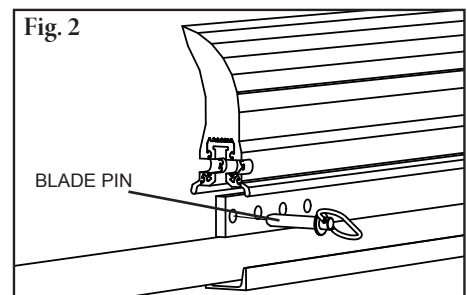
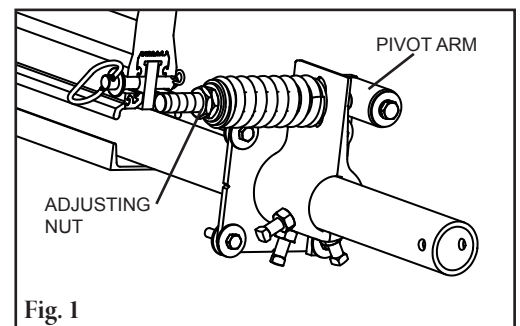
PHYSICALLY LOCK OUT AND TAG OUT THE CONVEYOR AT THE POWER SOURCE BEFORE YOU BEGIN CLEANER MAINTENANCE.

Tools Needed:

- Tape measure
- (2) 38mm (1½") wrenches or crescent wrenches
- Wire brush (for cleaning pole)
- Small putty knife (for cleaning pole)

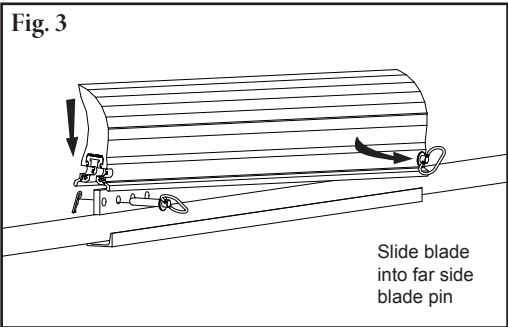
1. **Remove the tension.** Loosen the adjusting nuts on both sides and turn them out until they are flush with ends of the pivot arms (Fig. 1) or release pressure from air control box. This releases the tension of the blade on the belt.
2. **Remove the worn blade.** Remove one blade pin and remove the blade from the pole (Fig. 2). Clean all fugitive material from the pole.

NOTE: If blade is hard to remove use a screwdriver or hammer to loosen it and then remove.



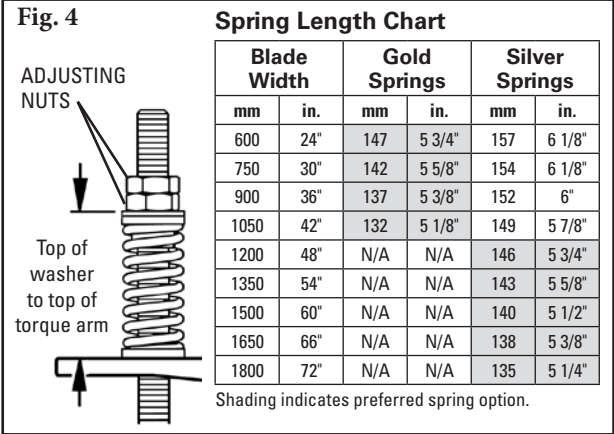
Section 6 - Maintenance (cont.)

3. **Install the new blade.** Slide the new blade onto the pole, locking it into the far blade pin, then reinstall the removed blade pin, washer and clip (Fig. 3).



4. **Reset the correct blade tension.** Refer to the charts for the spring length required for the belt width. For QMT 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).

NOTE: The chart is also on the cleaner's pivot shaft bracket for future reference for retensioning maintenance.



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 (cont.)

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: _____

Date: _____ Work done by: _____ Service Quote #: _____

Activity: _____

Section 6 - Maintenance (cont.)

6.6 Cleaner Maintenance Checklist

Site: _____ Inspected by: _____ Date: _____

Belt Cleaner: _____ Serial Number: _____

Blade Width: ☐ Belt minus 6" (150mm) ☐ Belt minus 12" (300mm) ☐ Belt minus 18" (450mm)

Beltline Information:

Beltline Number: _____ Belt Condition: _____

Belt Width: ☐ 600mm (24") ☐ 750mm (30") ☐ 900mm (36") ☐ 1050mm (42") ☐ 1200mm (48") ☐ 1350mm (54") ☐ 1500mm (60") ☐ 1800mm (72")

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: ☐ 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 chart
	Cleaner over-tensioned	Adjust to correct tension - see chart
	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 chart
	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 chart
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

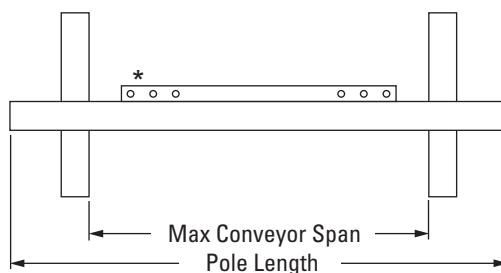
Section 8 - Specs and CAD Drawing

8.1 Specs and Guidelines

Pole Length Specifications*

Cleaner Size		Max Overall Pole Length		Maximum Conveyor Span	
mm	in.	mm	in.	mm	in.
600	24	1950	78	1700	68
750	30	2100	84	1850	74
900	36	2200	88	1950	78
1050	42	2350	94	2100	84
1200	48	2650	106	2400	96
1350	54	2700	108	2450	98
1500	60	2950	118	2700	108
1650	66	3050	122	2800	112
1800	72	3100	124	2850	114
2100	84	3500	140	3250	130

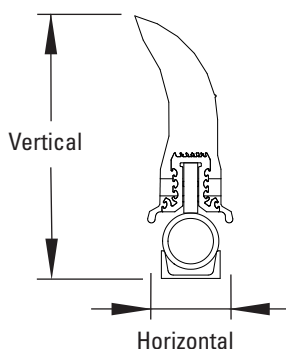
*For special extra long pole length requirements a Pole Extender Kit (#76024) is available that provides 750mm (30") of extended pole length.



*Each pole size can be used with a blade size either belt width minus 150mm (6"), belt width minus 300mm (12"), or belt width minus 450mm (18").

Clearance Guidelines for Installation

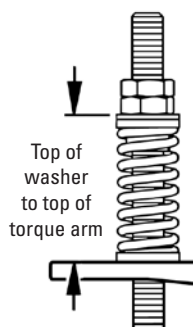
Horizontal Clearance Required		Vertical Clearance Required	
mm	in.	mm	in.
105	4.25	343	12.5



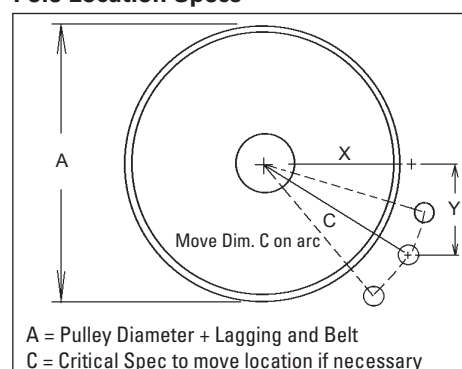
Spring Length Chart

Blade Width		Gold Springs		Silver Springs	
mm	in.	mm	in.	mm	in.
600	24"	147	5 3/4"	157	6 1/8"
750	30"	142	5 5/8"	154	6 1/8"
900	36"	137	5 3/8"	152	6"
1050	42"	132	5 1/8"	149	5 7/8"
1200	48"	N/A	N/A	146	5 3/4"
1350	54"	N/A	N/A	143	5 5/8"
1500	60"	N/A	N/A	140	5 1/2"
1650	66"	N/A	N/A	138	5 3/8"
1800	72"	N/A	N/A	135	5 1/4"

Shading indicates preferred spring option.



Pole Location Specs



Pole Location Chart

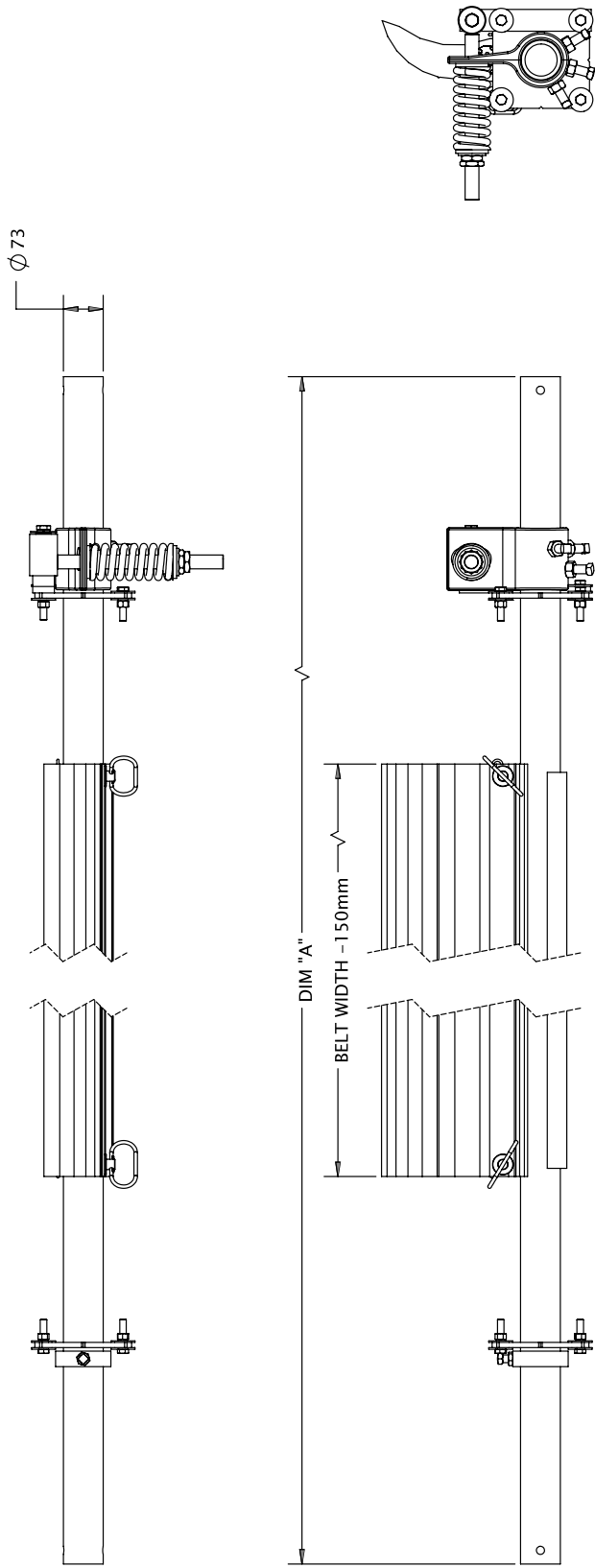
A		X		Y		C	
mm	in.	mm	in.	mm	in.	mm	in.
400	16	204	8 1/8	305	12	367	14 1/2
425	17	218	8 3/4	305	12	375	14 7/8
450	18	231	9 1/4	305	12	383	15 1/8
475	19	244	9 3/4	305	12	390	15 1/2
500	20	259	10 3/8	305	12	400	15 7/8
525	21	274	11	305	12	410	16 1/4
550	22	288	11 1/2	305	12	419	16 5/8
575	23	300	12	305	12	428	17
600	24	315	12 5/8	305	12	438	17 3/8
625	25	328	13 1/8	305	12	448	17 3/4
650	26	341	13 5/8	305	12	457	18 1/8
675	27	353	14 1/8	305	12	467	18 1/2
700	28	366	14 5/8	305	12	476	18 7/8
725	29	380	15 1/4	305	12	487	19 3/8
775	30	392	15 5/8	305	12	497	19 3/4
775	31	403	16 1/8	305	12	506	20 1/8
825	32	417	16 3/4	305	12	517	20 5/8
825	33	432	17 1/4	305	12	528	21
850	34	444	17 3/4	305	12	539	21 3/8
875	35	457	18 1/4	305	12	549	21 7/8
900	36	469	18 3/4	305	12	559	22 1/4
925	37	483	19 3/8	305	12	571	22 3/4
950	38	496	19 3/4	305	12	582	23 1/8
975	39	508	20 3/8	305	12	592	23 5/8
1000	40	521	20 3/4	305	12	604	24
1025	41	533	21 3/8	305	12	614	24 1/2
1050	42	550	21 7/8	305	12	629	25
1075	43	569	22 1/2	305	12	646	25 1/2
1100	44	584	23 1/8	305	12	659	26
1125	45	601	23 5/8	305	12	674	26 1/2
1150	46	615	24 1/8	305	12	686	27
1175	47	632	24 3/4	305	12	702	27 1/2
1200	48	645	25 1/4	305	12	714	28

Specifications:

- Maximum Belt Speed 5m/s (1000 FPM)
- Temperature Rating 35°C to 82°C (-30°F to 180°F)
- Minimum Pulley Diameter..... 400mm (16")
- Usable Blade Wear Length..... 150mm (6")
- Blade Polyurethane (proprietary blend for abrasion resistance and long wear)
- Available for Belt Widths 600 to 2100mm (24" to 84").
Other sizes available upon request.
- CEMA Cleaner Rating..... Class 4

Section 8 - Specs and CAD Drawing

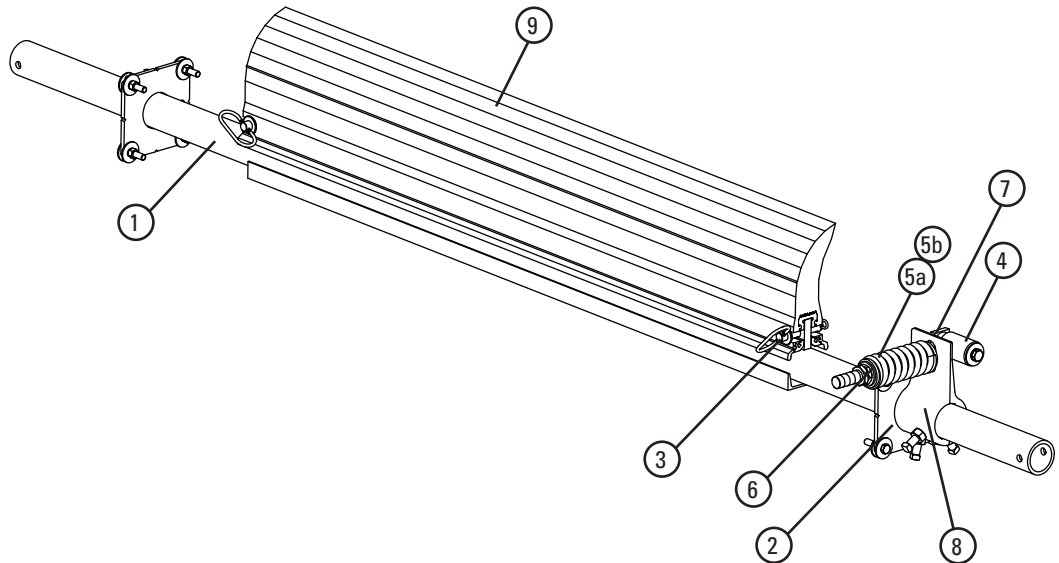
8.2 CAD Drawing- MMP OE



ITEM	BELT WIDTH	POLE 1	DIM "A"	BLADE 2	TENSIONER 3	SPRING COLOR
83751	600	83723	1950	76485	C6728	GOLD
83752	750	83724	2100	76486	C6728	GOLD
83753	900	83725	2200	76487	C6728	GOLD
83754	1050	83726	2350	76488	C6728	GOLD
83755	1200	83727	2650	76489	C6985	SILVER
83756	1350	83728	2700	76490	C6985	SILVER
83757	1500	83729	2950	76491	C6985	SILVER
83758	1650	83730	3048	76492	C6985	SILVER
83759	1800	83731	3100	76493	C6985	SILVER

Section 9 - Replacement Parts

9.1 Replacement Parts List



Replacement Parts

Ref	Description	Ordering Number	Item Code	WT. KG.
1	600mm (24") Center Pole	CMMPUP600	83723	15.6
	750mm (30") Center Pole	CMMPUP750	83724	19.5
	900mm (36") Center Pole	CMMPUP900	83725	23.4
	1050mm (42") Center Pole	CMMPUP1050	83726	27.3
	1200mm (48") Center Pole	CMMPU1200	83727	31.2
	1350mm (54") Center Pole	CMMPUP1350	83728	35.1
	1500mm (60") Center Pole	CMMPUP1500	83729	39
	1800mm (72") Center Pole	CMMPUP1800	83730	46.8
	2100mm (84") Center Pole	CMMPUP2100	83731	54.6
	2400mm (96") Center Pole	CMMPUP2400	83732	62.4
2	Mounting Plate Kit* (2 ea.)	MSPMPK	75811	3.8
3	Blade Pin Kit* (1 ea.)	MMPBPK	76466	0.4
4	Pivot Arm Kit* (1 ea.)	QMTPAK	76096	2.0
5a	Tension Spring - Gold (1 ea.) for blades 600 - 1050mm (24" - 42")	QMTS-G	76484	1.1
5b	Tension Spring - Silver (1 ea.) for blades 1200 - 1800mm (48" - 72")	PSTS-S	75899	1.1
6	Bushing Kit - White & Silver (2 ea.)	QMTBK-W	76098	0.1
7	Pivot Shaft Bracket Kit* (1 ea.)	QMTPSBK	76099	2.0
8	Torsion Arm Kit* (1 ea.)	PSTA	75896	5.2
-	QMT Spring Tensioner* - Gold (incl. 1 ea. Items 4, 5a, 6, 7, & 8) for blades 600 - 1050mm (24" - 42")	QMT-G	76483	10.5
-	QMT Spring Tensioner* - Silver (incl. 1 ea. Items 4, 5b, 6, 7, & 8) for blades 1200 - 1800mm (48" - 72")	QMT-S	79039	10.5

*Hardware Included
Lead Time: 1 working day

Replacement TuffShear Blades

Ref	Blade Width		Ordering Number	Item Code	Wt. Kg.
	in.	mm			
9	18	450	TRB18	76485	9.5
	24	600	TRB24	76486	12.7
	30	750	TRB30	76487	15.9
	36	900	TRB36	76488	19.1
	42	1050	TRB42	76489	22.2
	48	1200	TRB48	76490	25.4
	54	1350	TRB54	76491	28.6
	60	1500	TRB60	76492	31.8
	66	1650	TRB66	76493	34.9
	72	1800	TRB72	76494	38.1
	78	1950	TRB78	76697	41.3
	84	2100	TRB84	77047	44.5
	90	2250	TRB90	77048	47.6

Order blade width for your belt width's material path: Belt Width Minus 150mm (6"), Belt Width Minus 300mm (12") or Belt Width Minus 450mm (18").
Lead Time: 1 working day

Spring Tensioner Selection Chart

CLEANER BLADE WIDTH	76483 QMT-G	79039 QMT-S
TuffShear 18" - 42" (450 - 1050mm)	X	
TuffShear 48" - 72" (1200 - 1800mm)		X

Section 10 - Other Flexco Conveyor Products

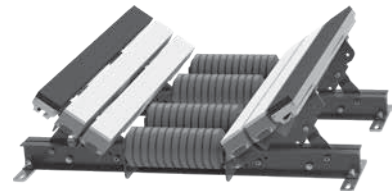
Flexco provides many conveyor products that help your conveyors to run more efficiently and safely. These components solve typical conveyor problems and improve productivity. Here is a quick overview on just a few of them:

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

Flexco Slider and Impact Beds



- Adjusting troughing angles for easy installation and adjustability
- Long-wearing UHMW for sealing the load zone
- Offered in both Light & Medium-duty designs to affordably fit your 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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