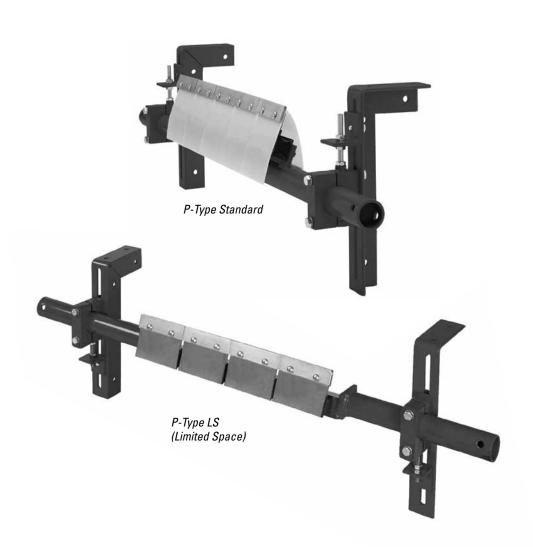
# P-Type® Secondary Belt Cleaner

# Installation, Operation and Maintenance Manual





# P-Type® Secondary Belt Cleaner

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 a P-Type® Secondary 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:

Web site: Flexco.com

**Customer Service: USA: 1-800-541-8028** 

Australia: 61-2-9680-3322 • China: 86-21-33528388

England: 44-1274-600-942 • Germany: 49-7428-9406-0

India: 91-44-4354-2091 • Mexico: 52-55-5674-5326

Singapore: 65-6281-7278 • South Africa: 27-11-608-4180

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 P-Type® Secondary Belt Cleaner 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 P-Type® Secondary Belt Cleaner, 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

#### **A** DANGER

It is imperative that OSHA/MSHA Lockout/Tagout (LOTO) regulations, 9 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

#### **A 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

#### **A** DANGER

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

### **A** 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.

#### **A 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

# 3.2 Optional Installation Accessories

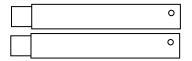
Pole extenders are available for wide, non-standard conveyor structures.

#### 76024

#### Pole Extender Kit

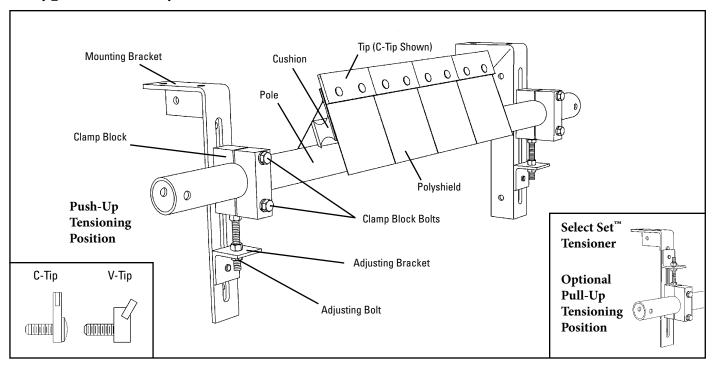
- Provides 30" (750mm) of extended pole length
- Includes 2 pole extenders

Optional Mounting Accessories						
Description	Ordering Number	Item Code	Wt. Lbs.			
Pole Extender Kit	MAPEK	76024	21.9			
Lead time: 1 working day						

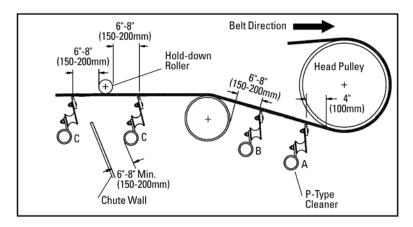


#### **Section 4 – Installation Instructions**

### P-Type Secondary Belt Cleaner



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



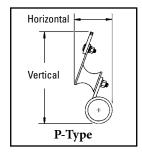
#### **Before You Begin:**

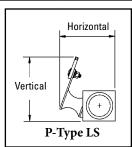
- Double check the tip style needed for your application:
   C-Tip for mechanically spliced and vulcanized belts.
   V-Tip for vulcanized belts only.
- For chute mounting it may be necessary to cut an access hole to allow for installation and inspections. (See dimensions in STEP 2.)
- Follow all safety precautions when using a cutting torch.
- If welding, protect all fastener threads from weld spatter.
- For cleaner clearance requirements see chart. P-Type LS (available with C-Tip only) is designed for tighter space configurations.

#### **Tools Needed**

- Tape Measure
- 3/4" (19mm) Wrench
- Ratchet With 3/4" (19mm) Socket
- (2) 6" C-Clamps (for Temporary Positioning of Mounting Brackets)
- Cutting Torch and/or Welder
- · Marking Pen

Clearance Requirements for Installation							
Vertical Horiz							
P-Type Cleaner	7" (175mm)	4" (100mm)					
P-Type LS Cleaner	5-1/2" (138mm)	5" (125mm)					

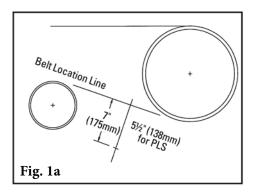


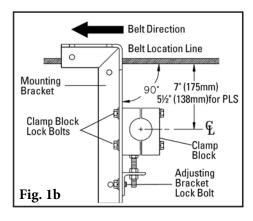


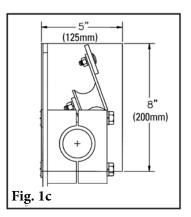


# **Section 4 – Installation Instructions (cont.)**

### P-Type Secondary Belt Cleaner





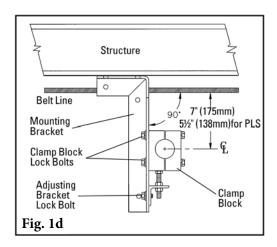


#### 1. Install mounting brackets.

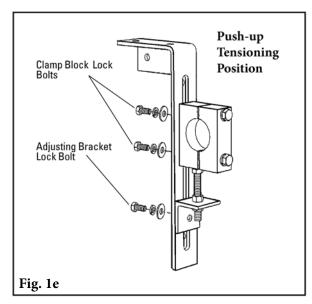
For chute mounting: For a chute installation a belt location line must first be established. Draw a line on the chute replicating this location. If head pulley and snub pulley are close, it may be necessary to assume an approximate belt line between the two. In the determined location draw a line perpendicular to the belt line. Make a mark on this line 7" (175mm) (5-½"/138mm for PLS) below belt location line (Fig. 1a). Locate a mounting bracket along this line allowing the centerline of the clamp block to align with this 7" (175mm) (5-½"/138mm for PLS) mark (Fig. 1b). To move the clamp blocks, if necessary, loosen the clamp block lock bolts and the adjusting bracket lock bolt and move the clamp block to a position where the center of the hole is 7" (175mm) (5-½"/138mm for PLS) below the bottom of the belt. Bolt or weld in place. Repeat this step on the opposite side. On one side an access hole may be required (Fig. 1c). **NOTE:** The brackets must be aligned perpendicular to the belt.

### **Section 4 – Installation Instructions (cont.)**

### P-Type Secondary Belt Cleaner



For structure mounting: In most applications the standard mounting brackets will have adequate room to fit on the structure with no cutting. Clamp the mounting bracket into position (use 6" clamps). Move the clamp block to align the center of the block with a point 7" (175mm) (5-½"/138mm for PLS) below the belt (Fig. 1d). To move the clamp blocks, if necessary, loosen the clamp block lock bolts and the adjusting bracket lock bolt and turn the adjusting bolt jam nuts. The bracket can now be bolted or welded in place. Locate and install bracket on the opposite side of belt in alignment with the first bracket. **NOTE:** The brackets must be aligned perpendicular to the belt.

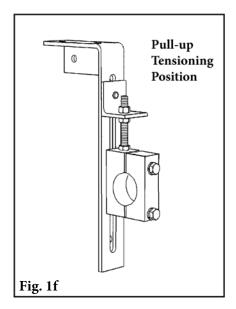


1a. Choose a tensioning position with the Select Set™

Tensioner Kit: Tensioner kits are shipped in the pushup tensioning position. On conveyors with clearance constraints, repositioning to the pull-up tensioning position may be required.

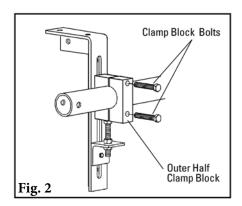
#### To change the tensioning position:

- a. Remove both clamp block lock bolts and the adjusting bracket lock bolt (Fig. 1e).
- b. Rotate the clamp block/adjusting bracket 180° and reinstall the bolts (Fig. 1f).
- c. Continue to STEP 2.

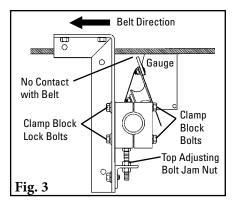


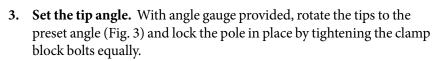
### **Section 4** – **Installation Instructions (cont.)**

### P-Type Secondary Belt Cleaner

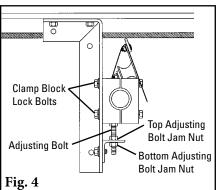


2. Install the pole. Remove the two clamp block bolts from the access side clamp block and remove the outer half of the clamp block. On the opposite side clamp block, just loosen the clamp block bolts to allow the pole to slide freely through (Fig. 2). Slide the pole across the belt, through the loosened clamp block, and locate into the outer clamp block half. Position the outer clamp block half over the pole and reinstall the clamp block bolts. Position the pole so the tips are centered on the belt and snug the clamp block bolts on both sides. Do not fully tighten.

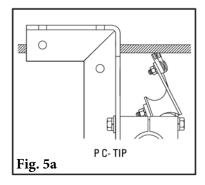


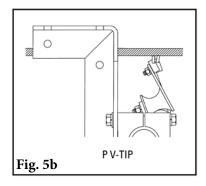


**NOTE:** Make sure there is NO tip-to-belt contact while making this alignment. If contact occurs, lower the pole by loosening the clamp block lock bolts and raising the top adjusting bolt jam nut (Fig. 4). When the tips are not touching the belt, repeat this step.



- 4. Set the tip tension. With all clamp block lock bolts slightly loosened, back down the bottom adjusting bolt jam nut 5-6 turns on both sides (Fig. 4). Turn the top adjusting bolt jam nuts down until light contact is made between the tips and belt across the entire width of the cleaner. Give an additional 1-1/2 turns to both top adjusting bolt jam nuts and tighten both bottom adjusting bolt jam nuts. Tighten all clamp block lock bolts. Double check that all bolts and nuts on the cleaner are tight.
- 5. Check the tip tension. Pull back on the outside tip until the tip-to-belt contact is broken and release. If the cleaner is correctly tensioned the complete blade of the adjacent tip will be visible (Fig. 5a & 5b). If not, add (or reduce) tension by making 1/2 turn adjustments on the adjusting bolt as described in STEP 4 until the adjacent tip is visible.





**Test run the cleaner and inspect its performance.** If vibration occurs or more cleaning efficiency is desired, increase the tip tension by making a 1/2 turn adjustment on each adjusting bolt.

# 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 adjusting brackets and tips for 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 P-Type\* Secondary Belt Cleaner 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 adjusting brackets are set 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.
- Significant signs of carryback

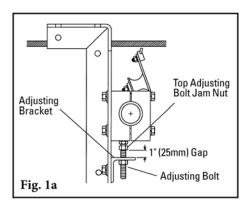
If any of the above conditions exist, a determination should be made on when the conveyor can be stopped for cleaner maintenance.

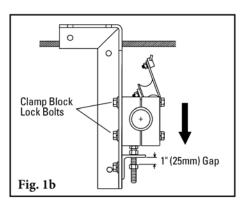
### 6.3 Routine Physical Inspection (every 6-8 weeks)

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 of the cleaner blade to the belt. Adjust the tension if necessary using the steps on page 8.
- When maintenance tasks are completed, test run the conveyor to ensure the cleaner is performing properly.

# 6.4 Blade Replacement Instructions (C-Tips or V-Tips)

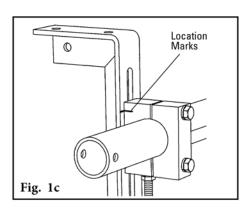


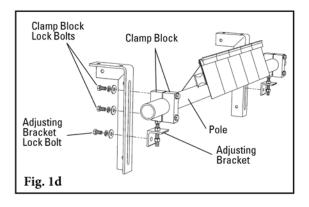


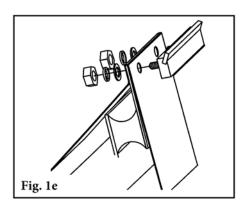


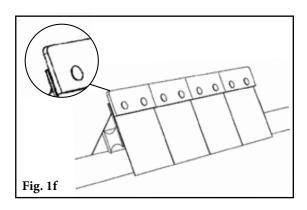
Physically Lock Out And Tag The Conveyor At The Power Source.

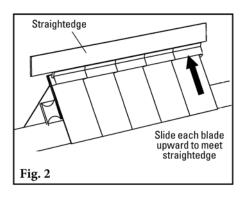
- 1. Release the blade tension and remove worn blade tips.
- a. Loosen the top adjusting bolt jam nuts 1" (25mm) on the top of the adjusting brackets (Fig. 1a).
- b. Loosen the clamp block lock bolts on both sides and allow the pole to move down and rest on the raised top adjusting bolt jam nuts (Fig. 1b).
- c. Place location marks across the mounting bracket and the clamp block for quick positioning after blade replacement (Fig. 1c).
- d. Remove the clamp block lock bolts and adjusting bracket lock bolts on each side and remove the pole with the clamp blocks and adjusting brackets attached (Fig. 1d).
- e. Remove the nuts, flat washers and lock washers from the tips and remove worn tips (Fig. 1e).
- f. Insert new blade tips and install flat washers, lock washers and nuts finger tight. Buff the outside corners of the last tip on each side of the cleaner (Fig. 1f).



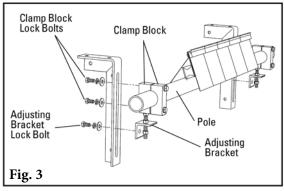




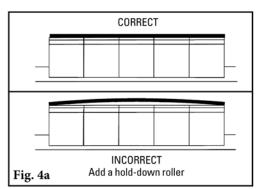


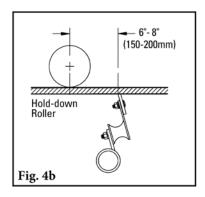


2. Align the blade tips. Push tips together so there is no more than a .010" to .015" gap between them. Position a straightedge along the top surface of new blade tips. Pull upward on each blade to align with the bottom of the straightedge and tighten the nuts (Fig. 2).



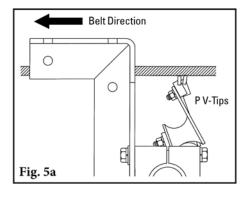
- 3. Reinstall the pole. Slide the pole back into position on the mounting brackets, aligning marks made on the bracket and the clamp block. Install the two adjusting bracket lock bolts and tighten. Install the four clamp block lock bolts finger tight (Fig. 3).
- **4. Set the blade tension.** Turn the top adjusting bolt jam nuts down until light tip to belt contact is made across the entire width of the cleaner. Add an additional 1½ turns on the top

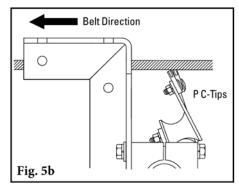




adjusting bolt jam nuts and lock the bottom adjusting bolt jam nuts. Tighten all clamp block lock bolts. **NOTE:** If the belt is cupped, do not overtension the blades to contact the belt. A hold-down roller should be installed to flatten the belt (Fig. 4a and 4b). (Try the Stabilizing Return Roller or Stabilizing Roller Bracket Kit.)

5. Check the blade tip tension. Pull back on the outer blade in the direction of belt travel until the blade breaks contact with the belt. Let go of the blade. With correct tension the full thickness of the adjacent blade tip should be visible in front of the outer blade (Fig. 5a and 5b). Also check the center blade in same manner. Add tension in 1/2-turn increments on the top adjusting bolt jam nuts until view of full thickness of the adjacent blade tip is achieved.





**6. Test run cleaner and inspect operation.** If vibration occurs, increase tip tension by making 1/2-turn adjustments.

# 6.5 Maintenance Log

Conveyor Name/No.			
Date:	Work done by:	Service Quote #	
•			
		Service Quote #	
Activity:			
Date:	Work done by:	Service Quote #	
Activity:			
		Service Quote #	
		Service Quote #	
		Service Quote "	
	Work done by:	Service Quote #	
Date:	Work done by:	Service Quote #	
Activity:			

# **6.6 Cleaner Maintenance Checklist**

Belt Cleaner:	Serial Number:							
Beltline Information: Beltline Number:		_ Belt Con	dition:					
Belt Width: 18" (450mm)	24" (600mm)	30" (750mm)	36" (900mm)	42" (1050mm)	48" (1200mm)	54" (1350mm)	60" (1500mm)	72" (1800mm)
Head Pulley Diameter (Be				Belt Speed:		fpm	Belt Thickne	
Belt Splice	Conditi	on of Splice		_ Number	of splices		Skived	Unskived
Material conveyed								
Days per week run		_ Hours pe	er day run					
Blade Life: Date blade installed:		_ Date blac	de inspected:		Estimat	ed blade life:		
Is blade making complete	contact with b	elt?	Yes	No				
Blade wear:	LEF*	т	MIDDLE		_ RIGH	IT	_	
Blade condition:	Good	Grooved	Smiled	Not cont	tacting belt	Damag	ed	
Was Cleaner Adjusted:  Pole Condition:  Lagging: Slide lag		Yes Good Ceramic	☐No ☐Bent	☐ Worn ☐ Rubber		Other		None
Condition of lagging:	Good	Bad	Other					
Cleaner's Overall Performance:  Location:	mance:	( Rate th Comments:	e following 1 -		_			
Maintenance:		Comments:						
Performance:		Comments:						
Other Comments:								

# Section 7 - Trouble shooting

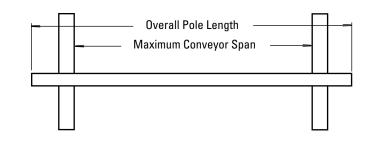
Problem	Possible Cause	<b>Possible Solutions</b>			
	Cleaner secure bolts not set	Ensure all locking nuts are tight (Loctite)			
	Cleaner not set up correctly	Ensure cleaner set up properly (check tip angle with gauge)			
Vibration	Belt tension too high	Ensure cleaner can conform to belt, or replace with alternate Flexco secondary cleaner			
vibration	Belt flap	Introduce hold-down roller to flatten belt			
	Cleaner over-tensioned	Ensure cleaner is correctly tensioned			
	Cleaner under-tensioned	Ensure cleaner is correctly tensioned			
	Cleaner not set up correctly	Ensure cleaner set up properly (check tip angle with gauge)			
Material buildup on cleaner	Buildup on chute	Ensure cleaner is not located too close to back of chute, allowing buildup			
cleaner	Cleaner being overburdened	Introduce Flexco precleaner			
	Excessive sticky material	Frequently clean unit of buildup			
	Cleaner over-tensioned	Ensure cleaner is correctly tensioned			
Damaged belt cover	Cleaner blade damage	Check blade for wear, damage and chips, replace where necessary			
C	Attack angle not correct	Ensure cleaner set up properly (check tip angle with gauge)			
	Material buildup in chute	Frequently clean unit of buildup			
	Cleaner not set up correctly	Ensure cleaner set up properly (check tip angle with gauge)			
Cleaner not conforming to belt	Belt tension too high	Ensure cleaner can conform to belt, introduce hold-down roller, or replace with alternate Flexco secondary cleaner			
	Belt flap	Introduce hold-down roller to flatten belt			
	Cleaner cannot conform	Ensure cleaner can conform to belt, introduce hold-down roller, or replace with alternate Flexco secondary cleaner			
	Cleaner not set up correctly	Ensure cleaner set up properly (check tip angle with gauge)			
	Cleaner tension too low	Ensure cleaner is correctly tensioned			
Material passing	Cleaner blade worn/damaged	Check blade for wear, damage and chips, replace where necessary			
cleaner	Cleaner being overburdened	Introduce Flexco precleaner			
	Belt flap	Introduce hold-down roller to flatten belt			
	Belt worn or grooved	Introduce water spray pole			
	Cleaner cannot conform	Ensure cleaner can conform to belt, introduce hold-down roller, or replace with alternate Flexco secondary cleaner			
	Incorrect cleaner blade selection	Change blade type to accomodate fastener style (C-Tip or V-Tip)			
Damage to mechanical fastener	Belt not skived correctly	Spot and redo splice correctly, lowering the profile flush or below belt surface			
	Blade angle incorrect	Reset with gauge			
Missing material in	Cupped Belt	Install hold-down roller and reset blade angle with gauge			
belt center only	Cleaner blade worn/damaged	Check blade for wear, damage and chips, replace where necessary			
Missing material on	Cupped Belt	Install hold-down roller and reset blade angle with gauge			
outer edges only	Cleaner blade worn/damaged	Check blade for wear, damage and chips, replace where necessary			



# **Section 8 – Specifications and CAD Drawings**

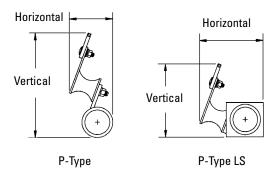
# 8.1 Specifications and Guidelines

Pole Length Specifications									
	aner ze		Pole Cor		mum reyor an				
in.	mm	in.	mm	in.	mm				
18	450	48	1200	43	1075				
24	600	54	1350	49	1225				
30	750	60	1500	55	1375				
36	900	66	1650	61	1525				
42	1050	72	1800	67	1675				
48	1200	78	1950	73	1825				
54	1350	88	2200	83	2075				
60	1500	94	2350	89	2225				
72	1800	106	2650	101	2525				



Pole Diameter - 2-3/8" (60mm)

Clearance Guidelines for Installation							
Cleaner Type	Belt Width/ Cleaner Size		Horizontal Clearance Required		Vertical Clearance Required		
	in.	in. mm i		mm	in.	mm	
P-Type	18 - 72	450 - 1800	4	100	8	200	
P-Type LS	18 - 54	450 - 1350	5	125	5 1/2	138	



P-Type Cushion Specifications							
Cushion	Durometer	Temperature Range					
Standard	55A	-30° to 180°F -35° to 82° C					
Neoprene	55A	-4° to 230°F -20° to 110°C					

#### Specifications:

•	Maximum Belt Speed	1000 FPM (	5M/sec)
---	--------------------	------------	---------

Temperature Rating.....-30°F to 180°F (-35°C to 82°C)

Useable Blade Wear Length......3/8" (9mm)

(works with mechanical fasteners)

V-Tip: Long Life Tungsten Carbide

(works on vulcanized belts only)

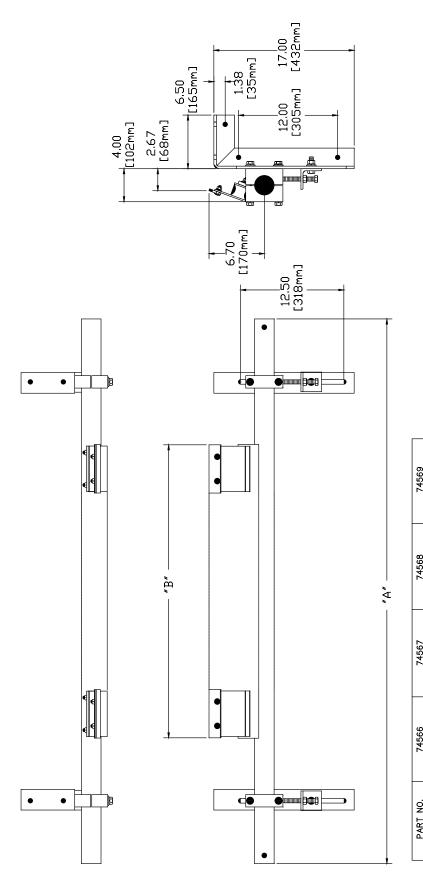
• Available for Belt Widths......P-Type: 18" to 72" (450 to 1800mm)

P-Type LS: 18" to 54" (450 to 1350mm)

Other sizes available upon request.

# **Section 8 – Specifications and CAD Drawings (cont.)**

# 8.2 CAD Drawing – P-Type with C-Tips

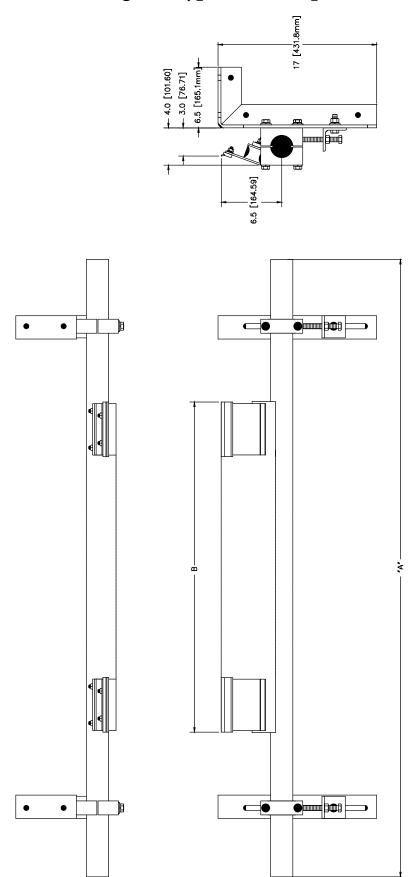


PART NO.   74000   74000   74000   74000   74000   74000   74000   74000   74000   74000   74000   74000   74000   74000   76" [1670mm]   30" [762mm]   36" [1670mm]   36" [1670mm]   24" [1372mm]   54" [1519mm]   25-1/2" [751mm]   35-1/2" [902mm]   74570   74571   74572   74572   74574   74570   74571   74572   74574   74570   74571   74572   74574   74574   72" [1829mm]   106" [1624mm]   106" [1624mm]   106" [1600mm]   100"										_
PART NO.   74300   74304   74308   7						74574	72" [1829mm]	106" [2692mm]	70-7/8" [1800mm]	12
PART NO.   /4500   /4500   /4500   /4500   /4500   /4500     /4500   /4500     /4500   /4000	/4069	36" [914mm]	66" [1676mm]	35-1/2" [902mm]	9	74573	60" [1524mm]	94" [2388mm]	59-1/8" [1500mm]	10
PART NO.	/4268	30" [762mm]		29-1/2" [751mm]	5	74572	54" [1372mm]	88" [2235mm]	53-1/4" [1353mm]	6
18" [457mm]   18" [457mm]   18" [457mm]   18" [457mm]   17-3/4" [451mm]   17-3/4" [451mm]   17-3/4" [451mm]   17-3/4" [451mm]   18ELT WIDTH   42" [1057mm]   1ENGTH "8"   72" [1829mm]   1ENGTH "8"   72" [1829mm]   1800 OF BLADES   7	/426/	24" [610mm]	54" [1372mm]	23-5/8" [600mm]	4	74571	48" [1219mm]	78" [1981mm]	47-1/4" [1200mm]	80
PART NO.  BELT WIDTH  LENGTH "B"  NO. OF BLADES  PART NO.  BELT WIDTH  LENGTH "A"  LENGTH "A"  NO. OF BLADES	/4566	18" [457mm]	48" [1219mm]	17-3/4" [451mm]	3	74570	42" [1067mm]	72" [1829mm]	41-3/8" [1051mm]	7
	TARI NO.	BELT WIDTH	LENGTH "A"	LENGTH "B"	NO. OF BLADES	PART NO.	BELT WIDTH	LENGTH "A"	LENGTH "B"	NO. OF BLADES



# **Section 8 – Specifications and CAD Drawings (cont.)**

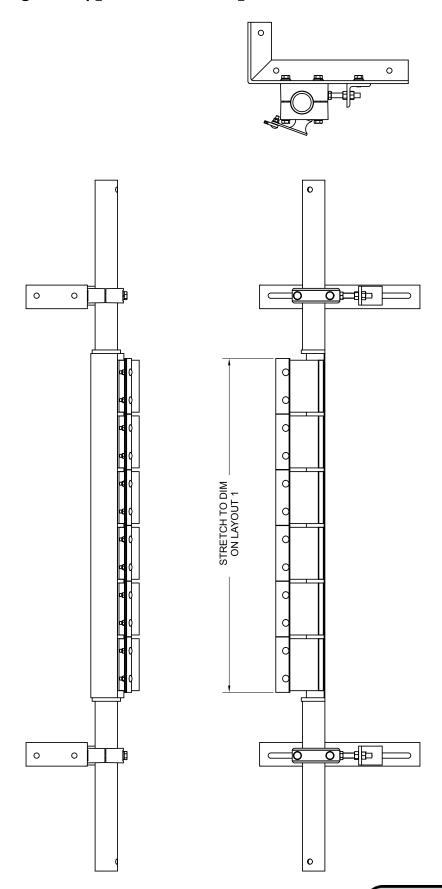
# 8.3 CAD Drawing – P-Type with V-Tips



73438	72" [1629mm]	106" [2692mm]	70-7/8" [1800mm]	12
73437	60" [1524mm]	94" [2388mm]	000mm  29-9/16" [751mm] $ 35-1/2"$ [902mm] $ 41-3/8"$ [1051mm] $ 47-1/4"$ [1200mm] $ 17-13/32"$ [442mm] $ 59-1/16"$ [1500mm] $ 70-7/8"$ [1800mm]	10
73436	54" [1372mm]	88" [2235mm]	17-13/32" [442mm]	6
73012	48" [1219mm]	78" [1981mm]	47-1/4" [1200mm]	8
73010	42" [1067mm]	60" [1524mm]   66" [1676mm]   72" [1829mm]   78" [1981mm]	41-3/8" [1051mm]	7
73008	30" [762mm] 36" [914mm]	66" [1676mm]	35-1/2" [902mm]	9
73006	30" [762mm]	60" [1524mm]	29-9/16" [751mm]	5
73004	73004 24" [610mm]		<u> </u> _	4
73435	BELT WDTH 18" [457mm]	LENGTH "A" 48" [1219mm]	17-3/4" [451mm] 23-5/8"	3
PART NO.	BELT WIDTH	LENGTH "A"	LENGTH "B" 1	NO. OF BLADES

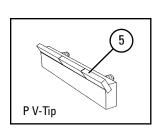
# **Section 8 – Specifications and CAD Drawings (cont.)**

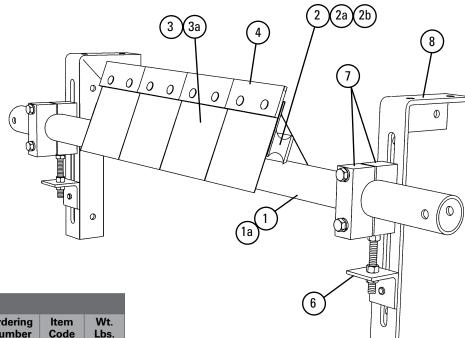
# 8.4 CAD Drawing – P-Type LS with C-Tips



# **Section 9 – Replacement Parts List**

# 9.1 Replacement Parts List- P-Type Seconday Belt Cleaner





Number   N	Replacement Parts							
24" (600mm) Pole       PP-24       78416       26.0         30" (750mm) Pole       PP-30       78418       32.3         36" (900mm) Pole       PP-36       78420       33.0         42" (1050mm) Pole       PP-42       78422       43.0         48" (1200mm) Pole       PP-48       78424       47.5         54" (1350mm) Pole       PP-54       78425       55.0         60" (1500mm) Pole       PP-60       78451       58.0         72" (1800mm) Pole       PP-72       73017       64.0         18" (450mm) LS Pole       PLSP18       75595       32.3         24" (600mm) LS Pole       PLSP24       75596       36.0         30" (750mm) LS Pole       PLSP30       75597       38.7         42" (1050mm) LS Pole       PLSP36       75598       42.4         42" (1050mm) LS Pole       PLSP42       75599       46.1         48" (1200mm) LS Pole       PLSP42       75599       46.1         48" (1200mm) LS Pole       PLSP48       75600       49.8         54" (1350mm) LS Pole       PLSP44       75601       53.5         2       P2 C-Tip Cushion*       PHA       73626       2.0         2a       P Cushion Neoprene	Ref	Description						
30" (750mm) Pole	1	18" (450mm) Pole	PP-18	78414	22.5			
36" (900mm) Pole		24" (600mm) Pole	PP-24	78416	26.0			
1       42" (1050mm) Pole       PP-42       78422       43.0         48" (1200mm) Pole       PP-48       78424       47.5         54" (1350mm) Pole       PP-54       78425       55.0         60" (1500mm) Pole       PP-60       78451       58.0         72" (1800mm) Pole       PP72       73017       64.0         18" (450mm) LS Pole       PLSP18       75595       32.3         24" (600mm) LS Pole       PLSP24       75596       36.0         30" (750mm) LS Pole       PLSP30       75597       38.7         36" (900mm) LS Pole       PLSP36       75598       42.4         42" (1050mm) LS Pole       PLSP42       75599       46.1         48" (1200mm) LS Pole       PLSP48       75600       49.8         54" (1350mm) LS Pole       PLSP48       75601       53.5         2       P2 C-Tip Cushion*       PHA       73626       2.0         2a       P Cushion Neoprene* (oil resistant)       PSSC       77045       3.5         2b       P Cushion Neoprene* (oil resistant)       PNC       74984       3.5         3       P Polyshield       PPS6       78450       0.5         3a       P SS Shield       PSSS		30" (750mm) Pole	PP-30	78418	32.3			
48" (1200mm) Pole		36" (900mm) Pole	PP-36	78420	33.0			
54" (1350mm) Pole     PP-54     78425     55.0       60" (1500mm) Pole     PP-60     78451     58.0       72" (1800mm) Pole     PP-60     78451     58.0       18" (450mm) LS Pole     PLSP18     75595     32.3       24" (600mm) LS Pole     PLSP24     75596     36.0       30" (750mm) LS Pole     PLSP30     75597     38.7       42" (1050mm) LS Pole     PLSP36     75598     42.4       42" (1050mm) LS Pole     PLSP42     75599     46.1       48" (1200mm) LS Pole     PLSP48     75600     49.8       54" (1350mm) LS Pole     PLSP54     75601     53.5       2     P2 C-Tip Cushion*     PHA     73626     2.0       2a     P Cushion SS Neoprene* (oil resistant)     PSSC     77045     3.5       2b     P Cushion Neoprene* (oil resistant)     PNC     74984     3.5       3     P Polyshield     PPS6     78450     0.5       3a     P SS Shield     PSSS     78434     0.5       4     C-Tip* Kit (1 ea.)     ICT6     74535     0.7       5     P V-Tip* (for vulcanized belts only)     PSA150     73156     1.0       6     Adjusting Bracket Kit (1 ea.)     EZS2ABK     75664     2.0       <		42" (1050mm) Pole	PP-42	78422	43.0			
60" (1500mm) Pole		48" (1200mm) Pole	PP-48	78424	47.5			
72" (1800mm) Pole		54" (1350mm) Pole	PP-54	78425	55.0			
18" (450mm) LS Pole		60" (1500mm) Pole	PP-60	78451	58.0			
24" (600mm) LS Pole     PLSP24     75596     36.0       30" (750mm) LS Pole     PLSP30     75597     38.7       36" (900mm) LS Pole     PLSP36     75598     42.4       42" (1050mm) LS Pole     PLSP42     75599     46.1       48" (1200mm) LS Pole     PLSP48     75600     49.8       54" (1350mm) LS Pole     PLSP54     75601     53.5       2     P2 C-Tip Cushion*     PHA     73626     2.0       2a     P Cushion SS Neoprene* (oil resistant)     PSSC     77045     3.5       2b     P Cushion Neoprene* (oil resistant)     PNC     74984     3.5       3     P Polyshield     PPS6     78450     0.5       3a     P SS Shield     PSSS     78434     0.5       4     C-Tip* Kit (1 ea.)     ICT6     74535     0.7       5     P V-Tip* (for vulcanized belts only)     PSA150     73156     1.0       6     Adjusting Bracket Kit* (1 ea.)     EZS2ABK     75664     2.0       7     Pole Clamp Kit* (1 ea.)     EZS2MBK     75665     10.0       8     Mounting Bracket Kit     EZS2MBK     75666     13.0       1     Mounting Kit*     EZS2MK     75667     31.5       6     Select Set™ Tension Kit*		72" (1800mm) Pole	PP72	73017	64.0			
30" (750mm) LS Pole   PLSP30   75597   38.7     36" (900mm) LS Pole   PLSP36   75598   42.4     42" (1050mm) LS Pole   PLSP42   75599   46.1     48" (1200mm) LS Pole   PLSP48   75600   49.8     54" (1350mm) LS Pole   PLSP54   75601   53.5     2 P2 C-Tip Cushion*   PHA   73626   2.0     2a P Cushion SS Neoprene* (oil resistant)   PSC   77045   3.5     2b P Cushion Neoprene* (oil resistant)   PNC   74984   3.5     3 P Polyshield   PPS6   78450   0.5     3a P SS Shield   PSSS   78434   0.5     4 C-Tip* Kit (1 ea.)   ICT6   74535   0.7     5 P V-Tip* (for vulcanized belts only)   PSA150   73156   1.0     6 Adjusting Bracket Kit* (1 ea.)   EZS2ABK   75664   2.0     7 Pole Clamp Kit* (1 ea.)   EZS2PCK   75665   10.0     8 Mounting Bracket Kit (1 Right and 1 Left)   EZS2MBK   75666   13.0     6 Mounting Kit* (1 ea.)   EZS2MK   75667   31.5     6 Select Set™ Tension Kit*   EZS2MK   75667   31.5     8 Select Set™ Tension Kit*   EZS2MK   74883   34.0     8 SEINT Tension Kit*   SSTK   74883   34.0     9 STK   STK		18" (450mm) LS Pole	PLSP18	75595	32.3			
1a       36" (900mm) LS Pole       PLSP36       75598       42.4         42" (1050mm) LS Pole       PLSP42       75599       46.1         48" (1200mm) LS Pole       PLSP48       75600       49.8         54" (1350mm) LS Pole       PLSP54       75601       53.5         2       P2 C-Tip Cushion*       PHA       73626       2.0         2a       P Cushion SS Neoprene* (oil resistant)       PSSC       77045       3.5         2b       P Cushion Neoprene* (oil resistant)       PNC       74984       3.5         3       P Polyshield       PPS6       78450       0.5         3a       P SS Shield       PSSS       78434       0.5         4       C-Tip* Kit (1 ea.)       ICT6       74535       0.7         5       P V-Tip* (for vulcanized belts only)       PSA150       73156       1.0         6       Adjusting Bracket Kit* (1 ea.)       EZS2ABK       75664       2.0         7       Pole Clamp Kit* (1 ea.)       EZS2MBK       75665       10.0         8       Mounting Bracket Kit       EZS2MBK       75666       13.0         1       Mounting Kit*       EZS2MK       75667       31.5         Select Set™ Tension Kit		24" (600mm) LS Pole	PLSP24	75596	36.0			
42" (1050mm) LS Pole  48" (1200mm) LS Pole  48" (1200mm) LS Pole  54" (1350mm) LS Pole  PLSP48  75600  49.8  54" (1350mm) LS Pole  PLSP54  75601  20  P2 C-Tip Cushion*  PHA  73626  2.0  P Cushion SS Neoprene* (oil resistant)  PSSC  77045  3.5  P PC Ushion Neoprene* (oil resistant)  PNC  74984  3.5  PPS6  78450  0.5  PSS Shield  PSSS  78434  0.5  C-Tip* Kit (1 ea.)  PSA150  73156  Adjusting Bracket Kit* (1 ea.)  PSA150  Adjusting Bracket Kit* (1 ea.)  POle Clamp Kit* (1 ea.)  Mounting Bracket Kit  (1 Right and 1 Left)  Mounting Kit*  (incl. 2 ea. items 6 & 7 and 1 ea. item 8)  Select Set™ Tension Kit*  74883  34.0		30" (750mm) LS Pole	PLSP30	75597	38.7			
48" (1200mm) LS Pole  54" (1350mm) LS Pole  54" (1350mm) LS Pole  PLSP54  75601  2 P2 C-Tip Cushion*  PHA  73626  2.0  P Cushion SS Neoprene* (oil resistant)  PSSC  POLSHION Neoprene* (oil resistant)  PNC  74984  3.5  P POlyshield  PSS  78450  0.5  PSS  PSS Shield  PSS  78434  0.5  C-Tip* Kit (1 ea.)  PSA150  PSA150  Adjusting Bracket Kit* (1 ea.)  POLE Clamp Kit* (1 ea.)  Mounting Bracket Kit  (1 Right and 1 Left)  Mounting Kit*  (incl. 2 ea. items 6 & 7 and 1 ea. item 8)  Select Set™ Tension Kit*  PSS  75601  53.5  PNC  74984  3.5  74984  3.5  78450  0.5  78450  0.5  PSS  78434  0.5  78450  75666  10.0  EZS2ABK  75666  13.0  13.0	1a	36" (900mm) LS Pole	PLSP36	75598	42.4			
54" (1350mm) LS Pole     PLSP54     75601     53.5       2     P2 C-Tip Cushion*     PHA     73626     2.0       2a     P Cushion SS Neoprene* (oil resistant)     PSSC     77045     3.5       2b     P Cushion Neoprene* (oil resistant)     PNC     74984     3.5       3     P Polyshield     PPS6     78450     0.5       3a     P SS Shield     PSSS     78434     0.5       4     C-Tip* Kit (1 ea.)     ICT6     74535     0.7       5     P V-Tip* (for vulcanized belts only)     PSA150     73156     1.0       6     Adjusting Bracket Kit* (1 ea.)     EZS2ABK     75664     2.0       7     Pole Clamp Kit* (1 ea.)     EZS2PCK     75665     10.0       8     Mounting Bracket Kit     EZS2MBK     75666     13.0       1     Mounting Kit*     EZS2MK     75667     31.5       2     Select Set™ Tension Kit*     SSTK     74883     34.0		42" (1050mm) LS Pole	PLSP42	75599	46.1			
2       P2 C-Tip Cushion*       PHA       73626       2.0         2a       P Cushion SS Neoprene* (oil resistant)       PSSC       77045       3.5         2b       P Cushion Neoprene* (oil resistant)       PNC       74984       3.5         3       P Polyshield       PPS6       78450       0.5         3a       P SS Shield       PSSS       78434       0.5         4       C-Tip* Kit (1 ea.)       ICT6       74535       0.7         5       P V-Tip* (for vulcanized belts only)       PSA150       73156       1.0         6       Adjusting Bracket Kit* (1 ea.)       EZS2ABK       75664       2.0         7       Pole Clamp Kit* (1 ea.)       EZS2PCK       75665       10.0         8       Mounting Bracket Kit       EZS2MBK       75666       13.0         1       Mounting Kit*       EZS2MK       75667       31.5         2       Select Set™ Tension Kit*       SSTK       74883       34.0		48" (1200mm) LS Pole	PLSP48	75600	49.8			
2a         P Cushion SS Neoprene* (oil resistant)         PSSC         77045         3.5           2b         P Cushion Neoprene* (oil resistant)         PNC         74984         3.5           3         P Polyshield         PPS6         78450         0.5           3a         P SS Shield         PSSS         78434         0.5           4         C-Tip* Kit (1 ea.)         ICT6         74535         0.7           5         P V-Tip* (for vulcanized belts only)         PSA150         73156         1.0           6         Adjusting Bracket Kit* (1 ea.)         EZS2ABK         75664         2.0           7         Pole Clamp Kit* (1 ea.)         EZS2PCK         75665         10.0           8         Mounting Bracket Kit         EZS2MBK         75666         13.0           1         Mounting Kit*         EZS2MK         75667         31.5           2         Select Set™ Tension Kit*         SSTK         74883         34.0		54" (1350mm) LS Pole	PLSP54	75601	53.5			
2b         P Cushion Neoprene* (oil resistant)         PNC         74984         3.5           3         P Polyshield         PPS6         78450         0.5           3a         P SS Shield         PSSS         78434         0.5           4         C-Tip* Kit (1 ea.)         ICT6         74535         0.7           5         P V-Tip* (for vulcanized belts only)         PSA150         73156         1.0           6         Adjusting Bracket Kit* (1 ea.)         EZS2ABK         75664         2.0           7         Pole Clamp Kit* (1 ea.)         EZS2PCK         75665         10.0           8         Mounting Bracket Kit         EZS2MBK         75666         13.0           1         Mounting Kit*         EZS2MK         75667         31.5           2         Select Set™ Tension Kit*         SSTK         74883         34.0	2	P2 C-Tip Cushion*	PHA	73626	2.0			
3         P Polyshield         PPS6         78450         0.5           3a         P SS Shield         PSSS         78434         0.5           4         C-Tip* Kit (1 ea.)         ICT6         74535         0.7           5         P V-Tip* (for vulcanized belts only)         PSA150         73156         1.0           6         Adjusting Bracket Kit* (1 ea.)         EZS2ABK         75664         2.0           7         Pole Clamp Kit* (1 ea.)         EZS2PCK         75665         10.0           8         Mounting Bracket Kit (1 Right and 1 Left)         EZS2MBK         75666         13.0           -         Mounting Kit* (incl. 2 ea. items 6 & 7 and 1 ea. item 8)         EZS2MK         75667         31.5           Select Set™ Tension Kit*         SSTK         74883         34.0	2a	P Cushion SS Neoprene* (oil resistant)	PSSC	77045	3.5			
3a         P SS Shield         PSSS         78434         0.5           4         C-Tip* Kit (1 ea.)         ICT6         74535         0.7           5         P V-Tip* (for vulcanized belts only)         PSA150         73156         1.0           6         Adjusting Bracket Kit* (1 ea.)         EZS2ABK         75664         2.0           7         Pole Clamp Kit* (1 ea.)         EZS2PCK         75665         10.0           8         Mounting Bracket Kit (1 Right and 1 Left)         EZS2MBK         75666         13.0           -         Mounting Kit* (incl. 2 ea. items 6 & 7 and 1 ea. item 8)         EZS2MK         75667         31.5           Select Set™ Tension Kit*         SSTK         74883         34.0	2b	P Cushion Neoprene* (oil resistant)	PNC	74984	3.5			
4 C-Tip* Kit (1 ea.) ICT6 74535 0.7  5 P V-Tip* (for vulcanized belts only) PSA150 73156 1.0  6 Adjusting Bracket Kit* (1 ea.) EZS2ABK 75664 2.0  7 Pole Clamp Kit* (1 ea.) EZS2PCK 75665 10.0  8 Mounting Bracket Kit (1 Right and 1 Left) EZS2MBK 75666 13.0  - Mounting Kit* (incl. 2 ea. items 6 & 7 and 1 ea. item 8) EZS2MK 75667 31.5  Select Set™ Tension Kit* SSTK 74883 34.0	3	P Polyshield	PPS6	78450	0.5			
5         P V-Tip* (for vulcanized belts only)         PSA150         73156         1.0           6         Adjusting Bracket Kit* (1 ea.)         EZS2ABK         75664         2.0           7         Pole Clamp Kit* (1 ea.)         EZS2PCK         75665         10.0           8         Mounting Bracket Kit (1 Right and 1 Left)         EZS2MBK         75666         13.0           -         Mounting Kit* (incl. 2 ea. items 6 & 7 and 1 ea. item 8)         EZS2MK         75667         31.5           Select Set™ Tension Kit*         SSTK         74883         34.0	3a	P SS Shield	PSSS	78434	0.5			
6 Adjusting Bracket Kit* (1 ea.) EZS2ABK 75664 2.0 7 Pole Clamp Kit* (1 ea.) EZS2PCK 75665 10.0  8 Mounting Bracket Kit (1 Right and 1 Left) EZS2MBK 75666 13.0  - Mounting Kit* EZS2MBK 75667 31.5  Select Set™ Tension Kit* SSTK 74883 34.0	4	C-Tip* Kit (1 ea.)	ICT6	74535	0.7			
7 Pole Clamp Kit* (1 ea.) EZS2PCK 75665 10.0  8 Mounting Bracket Kit (1 Right and 1 Left) EZS2MBK 75666 13.0  - Mounting Kit* (incl. 2 ea. items 6 & 7 and 1 ea. item 8) EZS2MK 75667 31.5  Select Set™ Tension Kit* SSTK 74883 34.0	5	P V-Tip* (for vulcanized belts only)	PSA150	73156	1.0			
8	6	Adjusting Bracket Kit* (1 ea.)	EZS2ABK	75664	2.0			
8	7	Pole Clamp Kit* (1 ea.)	EZS2PCK	75665	10.0			
(1 Right and 1 Left)  - Mounting Kit* (incl. 2 ea. items 6 & 7 and 1 ea. item 8)  Select Set™ Tension Kit*  - SSTK 74883 34.0	8	Mounting Bracket Kit	FZCOMPY		12.0			
- (incl. 2 ea. items 6 & 7 and 1 ea. item 8)    Select Set™ Tension Kit*   SSTK   74883   34.0		(1 Right and 1 Left)	EZSZIVIBK	75000	13.0			
(incl. 2 ea. items 6 & 7 and 1 ea. item 8)  Select Set™ Tension Kit*	-	Mounting Kit*	FZCONAL	75007	21.5			
- SSTK 74883 34.0		(incl. 2 ea. items 6 & 7 and 1 ea. item 8)	EZSZIVIK	/566/	31.5			
(incl. 1 ea. items 6 & 7)		Select Set™ Tension Kit*	0071/	74000				
	-	(incl. 1 ea. items 6 & 7)	SSIK	/4883	34.0			

Tips	Tips Required per Cleaner Size									
	in.	18	24	30	36	42	48	54	60	72
	mm	450	600	750	900	1050	1200	1350	1500	1800
	ps or V-Tips lequired	3	4	5	6	7	8	9	10	12

\*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:

#### Rockline® EZP1 Precleaner



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

#### Rockline® 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

#### 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

#### **DRX Impact Beds**



- Exclusive Velocity Reduction Technology<sup>™</sup> to better protect the belt
- Slide-Out Service<sup>™</sup> 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

#### 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 or freeze up
- Available for topside and return side belts

#### **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.



