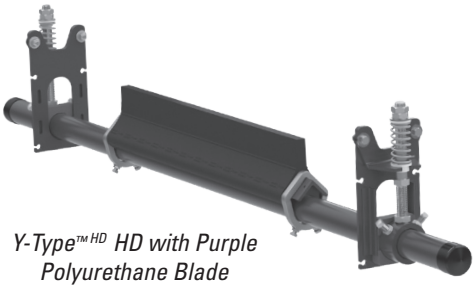
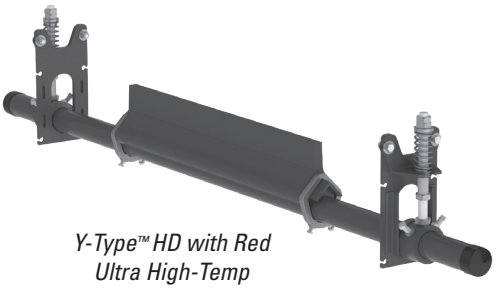
Y-Type™ Heavy-Duty Secondary Cleaner

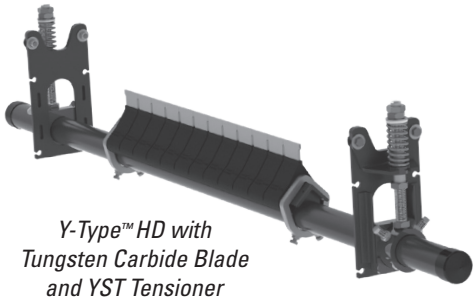
Installation, Operation and Maintenance Manual



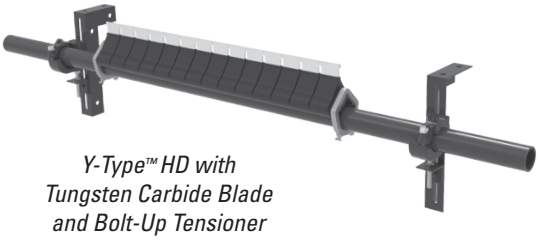
Y-Type™ HD HD with Purple Polyurethane Blade and YST Tensioner



Y-Type™ HD with Red Ultra High-Temp Polyurethane Blade and YST Tensioner



Y-Type™ HD with Tungsten Carbide Blade and YST Tensioner



Y-Type™ HD with Tungsten Carbide Blade and Bolt-Up Tensioner

FLEXCO

Serial Number: _____

Purchase Date:_____

Purchased From: _____

Installation Date: _____

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

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

Table of Contents

Section 1 – Important Information

1.1 General Introduction

We at Flexco are very pleased that you have selected a Y-Type™ Secondary 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.

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 labour
- Lower maintenance budget costs
- Increased service life for the belt cleaner and other conveyor components

1.3 Service Option

The Y-Type™ Secondary 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 Y-Type™ Secondary 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
- Tension adjustments
- Blade replacement
- Cleaning
- Repairs

⚠ 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.

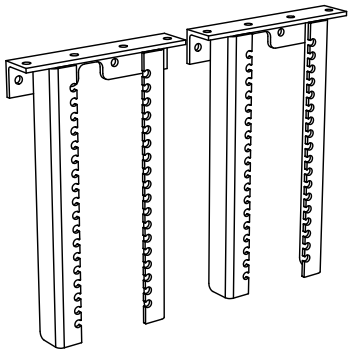
Section 3 – Pre-installation Checks and Options

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 3.2 - Optional Installation Accessories)

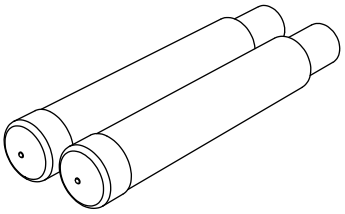
3.2 Optional Installation Accessories

Versatile, adjustable brackets that can be mounted on the conveyor structure so the Y-Type™ Secondary Cleaner can be quickly and easily bolted into place. Pole extenders are also available for wide, non-standard conveyor structures.



YST HD Drop Bracket Kit
(incl. 2 drop brackets)
(Item Code: 79850)

- For Y-Type™ cleaner installations that require extra length legs.



Pole Extender Kit
(incl. 2 pole extenders)
(Item Code: 76024)

- For cleaner sizes 1800 mm (72") and larger
- Provides 750 mm (30") of extended pole length

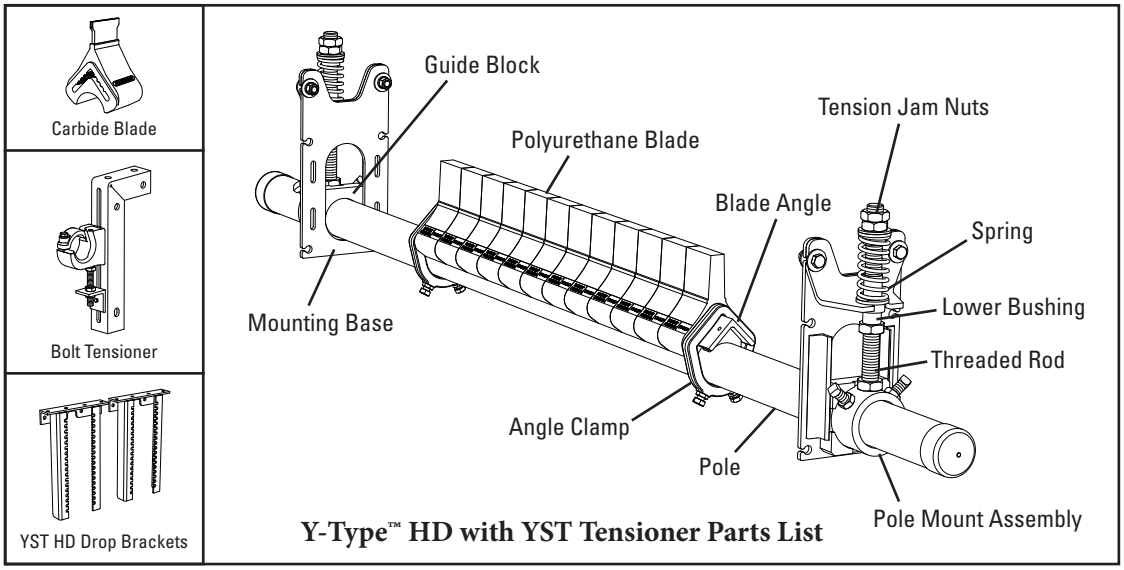
Optional Mounting Kits (includes 2 brackets/bars)

DESCRIPTION	ORDERING NUMBER	ITEM CODE	WT. KG
YST HD Drop Bracket Kit	YSTHDDBK	79850	14.0
Pole Extender Kit	MAPEK	76024	9.9

Lead time: 1 working day

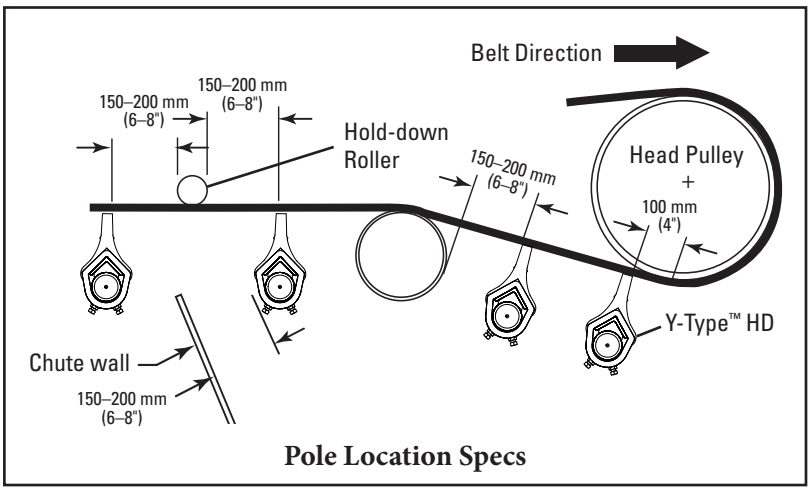
Section 4 – Installation Instructions

4.1 Y-Type™ HD - Pull-Up Tensioning (Polyurethane or Carbide)



Y-Type™ HD with YST Tensioner Parts List

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



Pole Location Specs

Tools Needed:

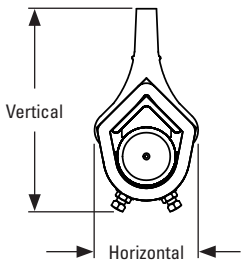
- 19 mm (3/4") Wrench
- 24 mm (15/16") Wrench
- 38 mm (1-1/2") Wrench **OR** Large Adjustable/ Crescent Wrenches
- Ratchet with 19 mm (3/4") Socket
- 152 mm (6") C-Clamps (x2)
- Torch and/or Welder (as needed)
- Marking Pen or Soapstone
- Tape Measure

Before You Begin:

- For chute mounting it may be necessary to cut an access hole to allow for installation and inspections. (See dimensions in Step 1.)
- Follow all safety precautions when using a cutting torch.
- If welding, protect all fastener threads from weld spatter.
- For cleaner clearance requirements see chart.

Clearance Requirements for Installation

CLEANER BLADE TYPE	BELT WIDTH/ CLEANER SIZE		HORIZONTAL CLEARANCE REQUIRED		VERTICAL CLEARANCE REQUIRED	
	mm	in.	mm	in.	mm	in.
Polyurethane	900–1800	36–72	133	5-1/4	241	9-1/2
Carbide	900–1800	36–72	133	5-1/4	248	9-3/4



Section 4 – Installation Instructions

4.1 Y-Type™ HD - Pull-Up Tensioning (Polyurethane or Carbide)

1. **Install the spring tensioner mounting bases. (For push-up tensioning see Page 11)** Clamp the mounting base into position so the top holes are located 32 mm (1-1/4") below the bottom of the belt and bolt in place (Fig. 1). Locate and mark the mounting base's position on the other side but do not install at this time.

   For chute mounting: A belt location line must first be established. Draw a line on chute replicating this location. If the head pulley and snub pulley are close together, it may be necessary to assume an approximate belt line between the two. In the determined location, draw a line perpendicular to belt line and make a mark on this line 32 mm (1-1/4") below the belt location line (Fig. 1a).

   Locate a mounting bracket perpendicular to the belt location line (Fig. 1a), aligning the top holes of the mounting bracket with the mark made 32 mm (1-1/4") below the belt location line. Bolt the mounting base in place. Repeat this step on the opposite side. Cut access holes using provided mounting template.

   NOTE: The mounting bases must be aligned perpendicular to the belt.

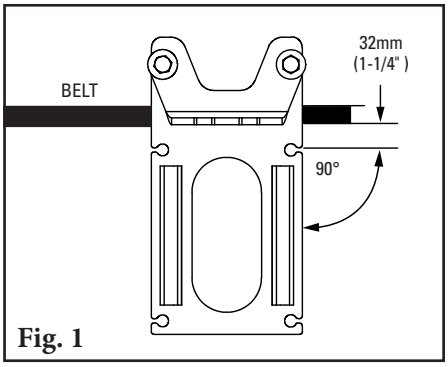


Fig. 1

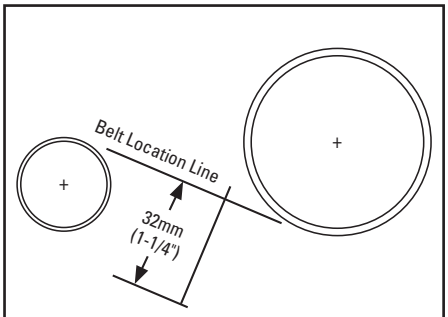


Fig. 1a

2. **Install the pole.** Insert the pole assembly into the already installed mounting base from the inside. Then, slide the opposite side mounting base onto the pole and bolt in place (Fig. 2).

3. **Assemble the tensioners.** Slide the guide blocks over each end of the pole and position them in the mounting base as shown (Fig. 3). Slide the tensioner assembly over each end of the pole and position the lower bushing into the mounting base (Fig. 3a).

Fig. 2

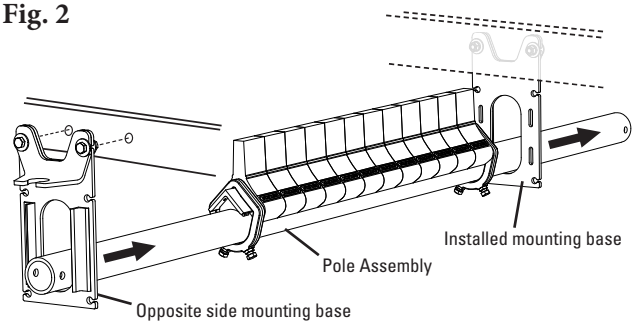
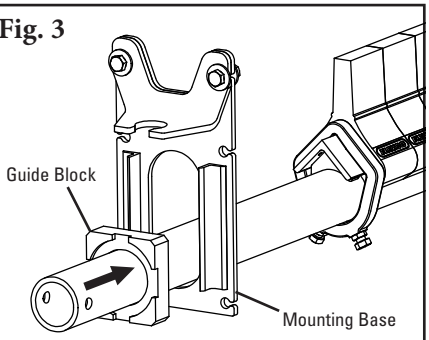


Fig. 3



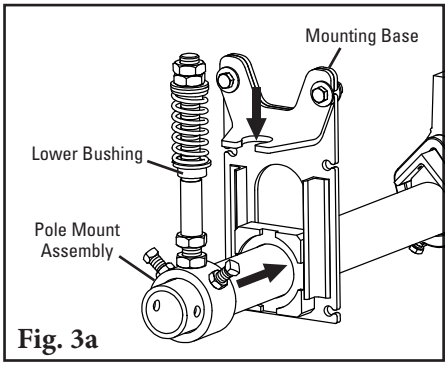


Fig. 3a

Section 4 – Installation Instructions

4.1 Y-Type™ HD - Pull-Up Tensioning (Polyurethane or Carbide)

4. **Secure the pole.** Centre the pole and blades on the belt and rotate the pole until the blades are perpendicular to the belt. Tighten the two locking bolts and nuts on each tensioner assembly to lock the pole in place (Fig. 4).

5. **Set the blade tension.** Loosen the tension jam nuts on both sides and turn the nuts until the correct spring compression is reached (Fig. 5). Spring compression is determined by spring length. See the chart for the correct spring length for your cleaner (polyurethane or carbide) and belt width.

6. **Set the adjusting rod sleeve.** After setting the blade tension, screw the adjusting rod sleeve up into the UHMW bushing until 38 mm (1-1/2") is showing (Fig. 6). Tighten the adjusting rod sleeve jam nut.

7. **Test run the cleaner and inspect the cleaning performance.** If vibration occurs or more cleaning efficiency is desired, increase the blade tension by making 3 mm (1/8") compression adjustments on the tension springs.

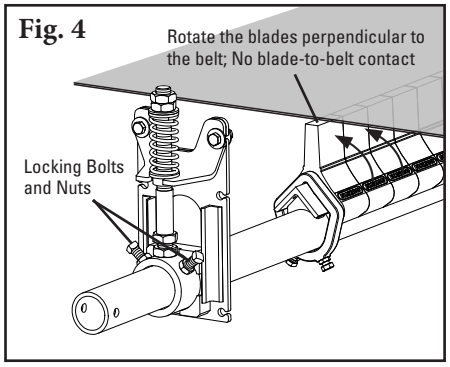


Fig. 4

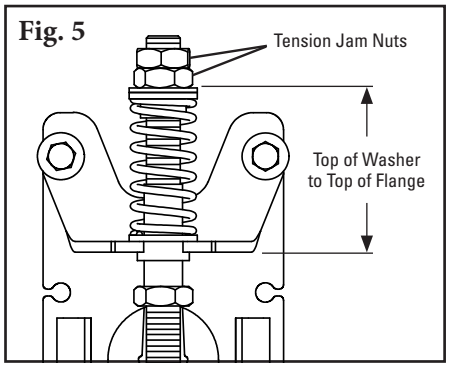


Fig. 5

YST HD Spring Length Chart

Blade Width		Carbide Tip				Polyurethane Tip			
		Silver Springs		Black Springs		Green Springs		Blue Springs	
mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
900	36	98	3 7/8	102	4	76	3	86	3 3/8
1050	42	95	3 3/4	98	3 7/8	73	2 7/8	83	3 1/4
1200	48	92	3 5/8	95	3 3/4	67	2 5/8	79	3 1/8
1350	54	89	3 1/2	95	3 3/4	64	2 1/2	76	3
1500	60	86	3 3/8	92	3 5/8	N/A	N/A	73	2 7/8
1800	72	83	3 1/4	89	3 1/2	N/A	N/A	64	2 1/2

Shading indicates preferred spring option.

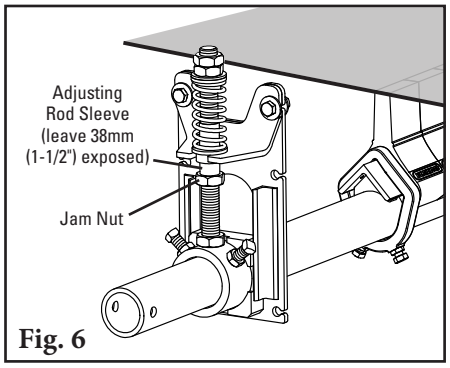


Fig. 6

Section 4 – Installation Instructions

4.2 Y-Type™ HD - Push-Up Tensioning (Polyurethane or Carbide)

1. **Reconfigure the standard pull-up tensioner to the push-up style.** Remove the 3 nuts, flat washer, 2 bushings, spring, and sleeve (Fig. 1). Rotate the mounting base so the two flanges point downward and reposition the angle bracket. Reassemble the components on the threaded rod in the order shown (Fig. 1a).

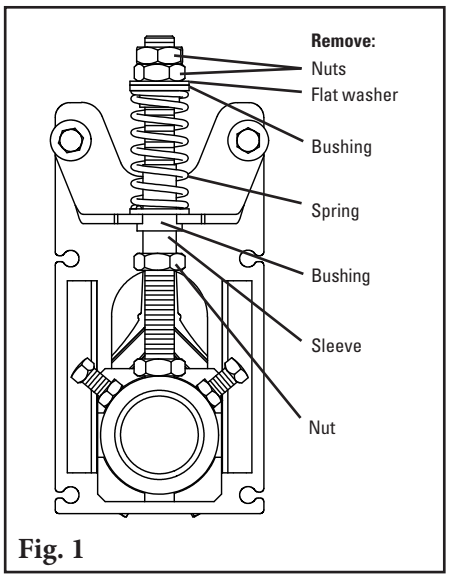


Fig. 1

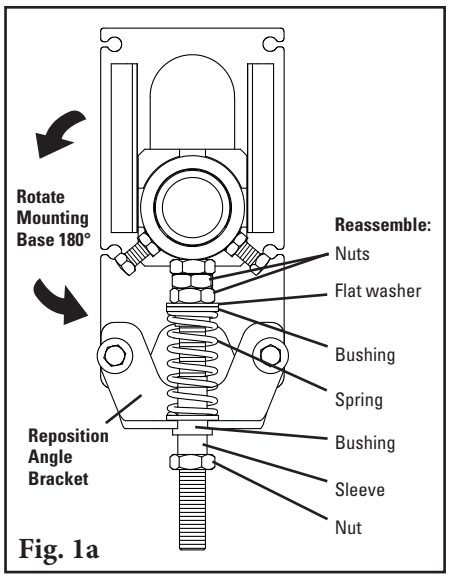


Fig. 1a

2. **Install the tensioner mounting bases.** Mount the bases to the structure or chute so that the top holes of the bases are 32 mm (1-1/4") below the bottom of the belt (Fig. 2).

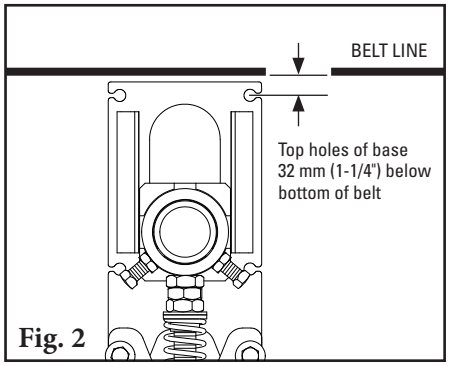


Fig. 2

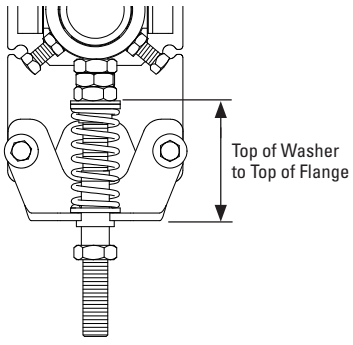
3. **Install the cleaner pole and set the blade angle.** Follow the installation Steps 2–4 from the cleaner instructions on Pages 9 and 10.

   NOTE: Be sure the lock bolts on the torsion pole mount have been securely tightened to lock the pole in place before moving to Step 4.

4. **Set the blade tension.** Turn the 2 upper tension nuts until the spring is compressed to the correct length shown on the Spring Length Chart below. Tighten the 2 tension nuts together to prevent loosening.

5. **Confirm that the pole moves freely.** After adding tension, push the pole down and confirm that it rebounds/moves freely. If there is any binding, confirm that the tensioners are plumb. Loosen the locking bolts and nuts and adjust the collar until the tensioner moves freely, then tighten the locking bolts and nuts.

6. **Test run the cleaner and inspect the cleaning performance.** If vibration occurs or more cleaning efficiency is desired, increase the blade tension by making 3 mm (1/8") compression adjustments on the tension springs.



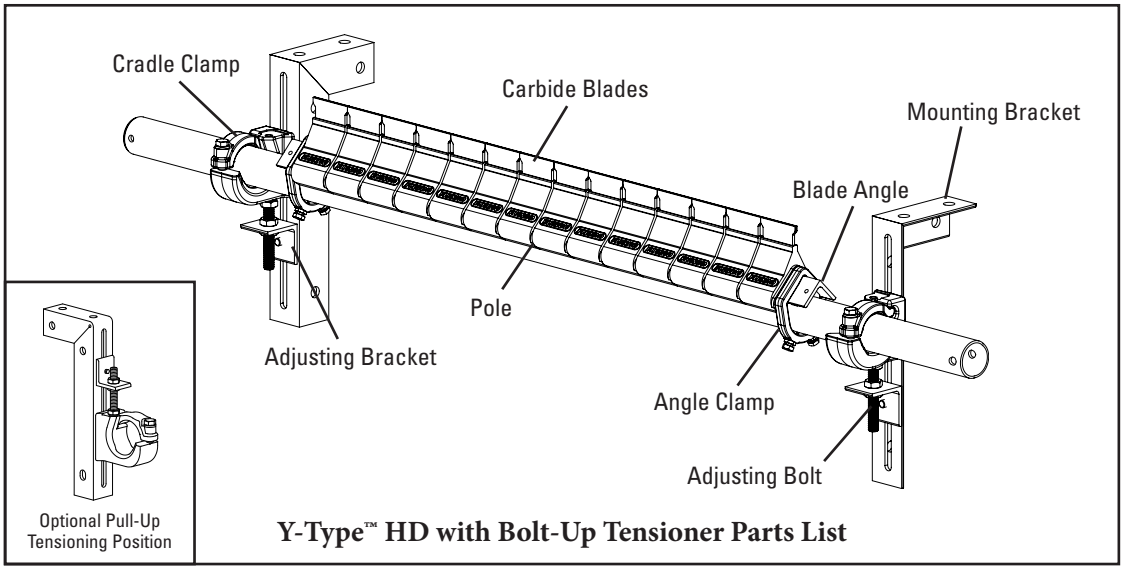
YST HD Spring Length Chart

Blade Width		Carbide Tip				Polyurethane Tip			
		Silver Springs		Black Springs		Green Springs		Blue Springs	
mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
900	36	98	3 7/8	102	4	76	3	86	3 3/8
1050	42	95	3 3/4	98	3 7/8	73	2 7/8	83	3 1/4
1200	48	92	3 5/8	95	3 3/4	67	2 5/8	79	3 1/8
1350	54	89	3 1/2	95	3 3/4	64	2 1/2	76	3
1500	60	86	3 3/8	92	3 5/8	N/A	N/A	73	2 7/8
1800	72	83	3 1/4	89	3 1/2	N/A	N/A	64	2 1/2

Shading indicates preferred spring option.

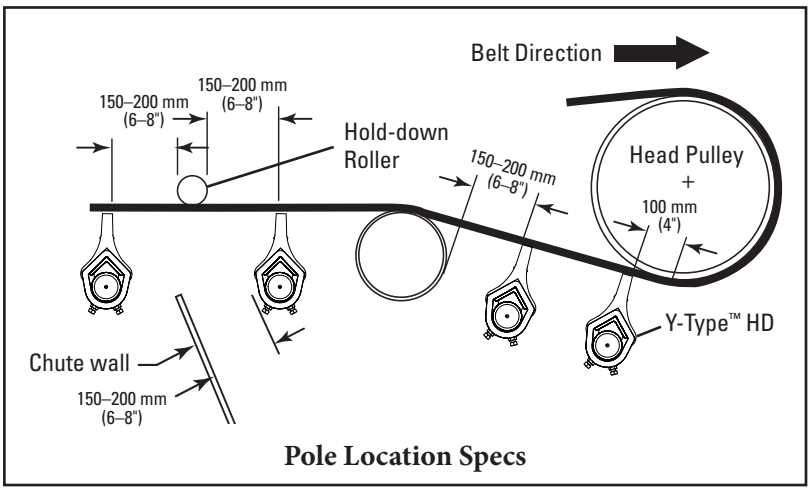
Section 4 – Installation Instructions

4.3 Y-Type™ HD - Bolt-Up Tensioning (Carbide)



Y-Type™ HD with Bolt-Up Tensioner Parts List

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



Pole Location Specs

Tools Needed:

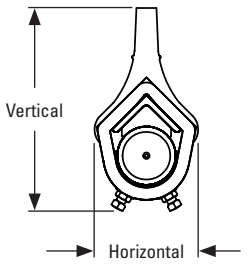
- 19 mm (3/4") Wrench
- 24 mm (15/16") Wrench
- 38 mm (1-1/2") Wrench **OR** Large Adjustable/ Crescent Wrenches
- Ratchet with 19 mm (3/4") Socket
- 152 mm (6") C-Clamps (x2)
- Torch and/or Welder (as needed)
- Marking Pen or Soapstone
- Tape Measure

Before You Begin:

- For chute mounting it may be necessary to cut an access hole to allow for installation and inspections. (See dimensions in Step 1.)
- Follow all safety precautions when using a cutting torch.
- If welding, protect all fastener threads from weld spatter.
- For cleaner clearance requirements see chart.

Clearance Requirements for Installation

CLEANER BLADE TYPE	BELT WIDTH/ CLEANER SIZE		HORIZONTAL CLEARANCE REQUIRED		VERTICAL CLEARANCE REQUIRED	
	mm	in.	mm	in.	mm	in.
Carbide	900–1800	36–72	133	5-1/4	248	9-3/4



Section 4 – Installation Instructions

4.3 Y-Type™ HD - Bolt-Up Tensioning (Carbide)

1. **Determine the correct clamp block (left or right) and bracket needed for each side of the conveyor (Fig. 1 & 1a).** The top strap should be offset away from the belt (you should be able to see the notch for the top strap from the outside of the conveyor).

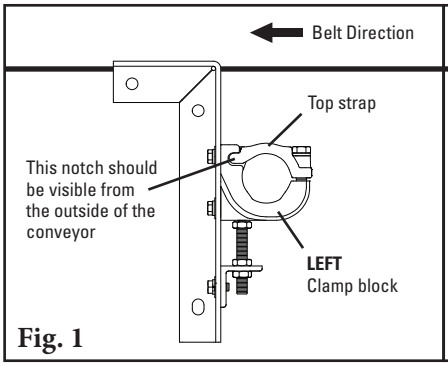


Fig. 1

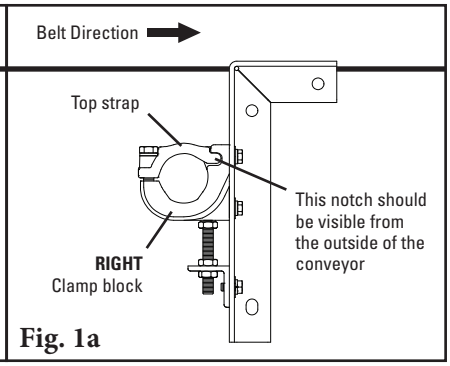


Fig. 1a

2. **Install mounting brackets.** Clamp the mounting bracket into position to align the centre of the clamp block hole 150 mm (6") below the beltline (Fig. 2). 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.

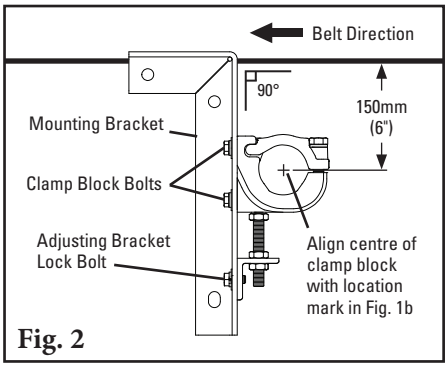


Fig. 2

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 and make a mark 150 mm (6") below belt location line (Fig. 2a).

Locate a mounting bracket along the belt location line, allowing the centre of the clamp block hole to align with the 150 mm (6") mark. Bolt or weld in place. Repeat this step on the opposite side. On one side an access hole may be required.

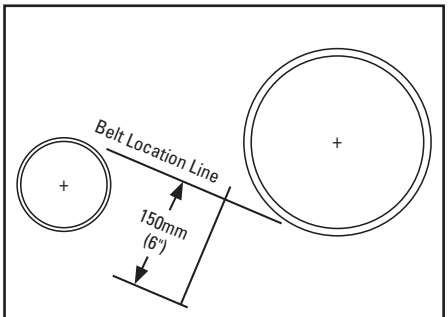


Fig. 2a

NOTE: The mounting brackets must be aligned perpendicular to the belt.

2. **Choose the tensioner position.** The tensioner is shipped mounted in the push-up position. Depending upon the space constraints of the installation, the tensioner can be optionally mounted in a pull-up position. To do this, loosen the adjusting bolt jam nuts, unscrew the threaded rod, and remove the adjusting bracket and adjusting bracket lock bolt. Move the bracket, lock bolt, threaded rod, and nuts to the top of the clamp blocks and reassemble (Fig. 2).

Pull-up Tensioning Position

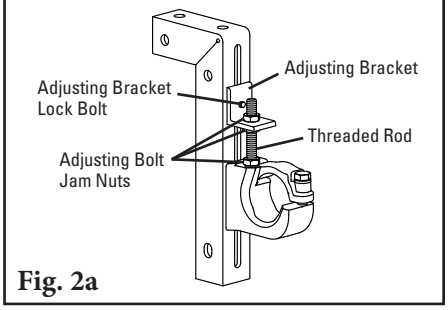


Fig. 2a

Section 4 – Installation Instructions

4.3 Y-Type™ HD - Bolt-Up Tensioning (Carbide)

3. **Install the pole.** Remove the clamp block top strap on the access side of the conveyor, and on the opposite side loosen the clamp block bolt. Slide the pole across and into the loosened clamp block, place near end of pole in bottom section of clamp block (Fig. 3). Replace the top strap on the clamp block, centre the blades on the belt, rotate the pole until the blades are perpendicular to the belt and tighten both clamp block bolts finger tight (Fig. 4).

   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 jam nut (Fig.4). When tips are lowered and not touching the belt, repeat this step.

4. **Set the blade tension.** With all of the clamp block lock bolts slightly loosened, back down the bottom adjusting bolt jam nut 4–5 turns on both sides (Fig. 5). 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 turn (6 flats) to both of the top adjusting bolt jam nuts and tighten both of the bottom adjusting bolt jam nuts. Tighten all clamp block lock bolts. Double check that all bolts and nuts on the cleaner are tight.

5. **Test run the cleaner and inspect the performance.** If more cleaning efficiency is desired, the blade tension can be increased in 1/4 turns on the adjusting nuts (see Step 4).

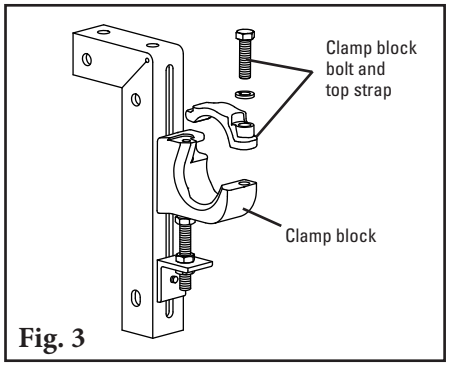


Fig. 3

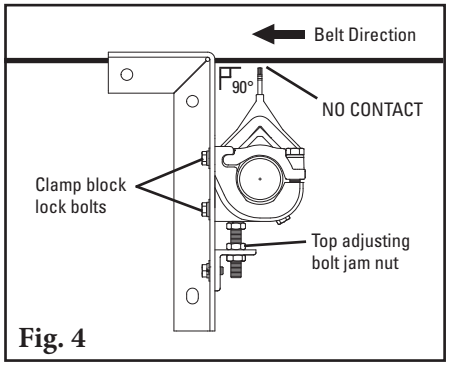


Fig. 4

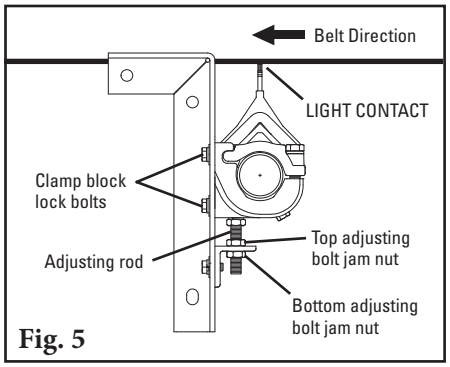


Fig. 5

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 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 Y-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:

- Spring length is correct length for optimal tensioning.
- Pole can move up and down with no binding of the tensioners.
- Belt looks clean or if there are areas that are dirty.
- Blade is worn out and needs to be replaced.
- There is damage to the blade or other cleaner components.
- Fugitive material is built up on cleaner or in transfer area.
- There is cover damage to the belt.
- There is vibration or bouncing of the cleaner on the belt.
- There is material buildup on snub pulley (if used).
- Significant signs of carryback exist.

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, perform a physical inspection of the cleaner through the following tasks:

- Clean material buildup from cleaner blade and pole.
- Verify pole can move smoothly up and down.
- Closely inspect blade for wear and any damage. Replace if needed.
- Ensure full blade to belt contact.
- Inspect cleaner pole for damage.
- Inspect all fasteners for tightness and wear. Tighten or replace as needed.
- Replace any worn or damaged components.
- Check tension of cleaner blade to belt. Adjust tension if necessary using the steps on pages 10, 11, or 14.
- When maintenance tasks are completed, test run conveyor to ensure cleaner is performing properly.

Section 6 – Maintenance

6.4 Blade Replacement Instructions - YST Tensioner (Polyurethane or Carbide)

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

1. **Lower the cleaner away from the belt.** Loosen the jam nuts on the threaded rods to remove the tension and lower the cleaner. (Fig. 1: Pull-up Tensioning; Fig. 2: Push-up Tensioning). If mounted on a chute, remove near side tensioner assembly to access the blade cartridge.

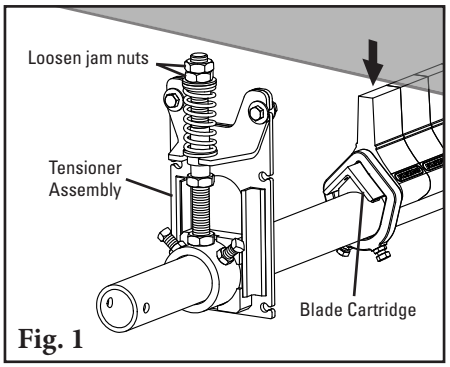


Fig. 1

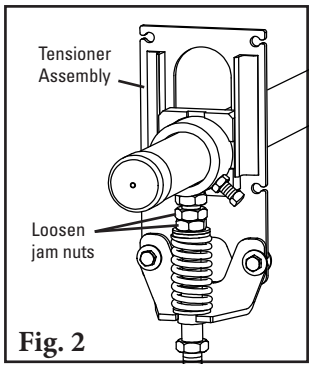


Fig. 2

2. **Remove the blade angle from the pole.** Loosen the angle clamp lock nuts and set screws on both sides of the cleaner (Fig. 3). Slide the angle clamps off each end of the angle and remove the blade angle assembly from the pole.

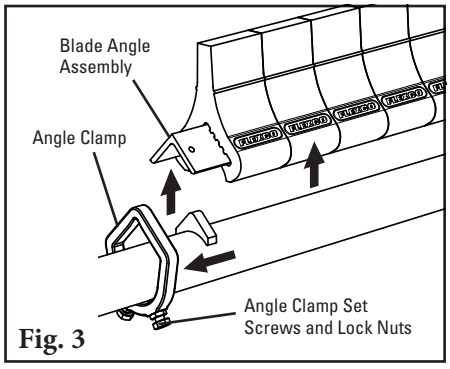


Fig. 3

3. **Replace the blades.** Blades may be removed from the angle by sliding them off each end, or the entire angle with all blade segments may be replaced at once.

4. **Reinstall the blade angle.** Set new blade segments and angle back on the pole and slide the angle clamps back onto the angle (Fig. 4). Tighten the angle clamp set screws and lock nuts on both sides. Verify the blades are centered and perpendicular to belt.

5. **Set the blade tension.** Turn the adjustment nuts until the correct spring compression is reached. Spring compression is determined by spring length. See chart below for correct spring length for your belt width.

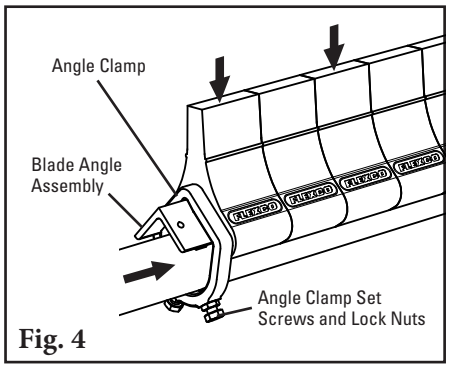
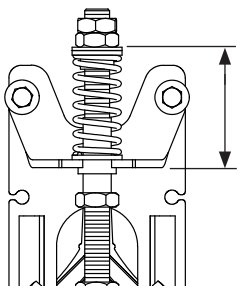


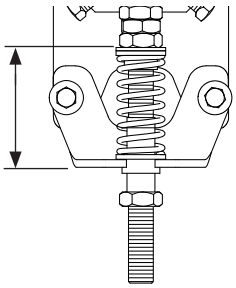
Fig. 4

6. **Test run cleaner and inspect cleaning performance.** If vibration occurs or more cleaning efficiency is desired, increase blade tension by making 3 mm (1/8") compression adjustments on tension springs.

Pull-Up Tensioning



Push-Up Tensioning



YST HD Spring Length Chart

Blade Width		Carbide Tip				Polyurethane Tip			
		Silver Springs		Black Springs		Green Springs		Blue Springs	
mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
900	36	98	3 7/8	102	4	76	3	86	3 3/8
1050	42	95	3 3/4	98	3 7/8	73	2 7/8	83	3 1/4
1200	48	92	3 5/8	95	3 3/4	67	2 5/8	79	3 1/8
1350	54	89	3 1/2	95	3 3/4	64	2 1/2	76	3
1500	60	86	3 3/8	92	3 5/8	N/A	N/A	73	2 7/8
1800	72	83	3 1/4	89	3 1/2	N/A	N/A	64	2 1/2

Shading indicates preferred spring option.

Section 6 – Maintenance

6.5 Blade Replacement Instructions - Bolt Tensioner (Carbide)

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

1. **Release the blade tension and remove the worn blades.**

   a. Loosen and turn the top adjusting bolt jam nuts 25 mm (1") above the tops 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).

2. **Remove the blade angle from the pole.** Loosen the angle clamp lock nuts and set screws on both sides of the cleaner (Fig. 2). Slide the angle clamps off each end of the angle and remove the blade angle assembly from the pole.

3. **Replace the blades.** Blades may be removed from the angle by sliding them off each end, or the entire angle with all blade segments may be replaced at once.

4. **Reinstall the blade angle.** Set new blade segments and angle back on the pole and slide the angle clamps back onto the angle (Fig. 3). Tighten the angle clamp set screws and lock nuts on both sides. Verify blades are centered and perpendicular to belt.

5. **Set the blade tension.** Refer to Section 4 on how to correctly set blade tension. Page 10 or 11 for YST tension, or 14 for bolt tension.

6. **Test run cleaner and inspect cleaning performance.** If vibration occurs or more cleaning efficiency is desired, increase blade tension.

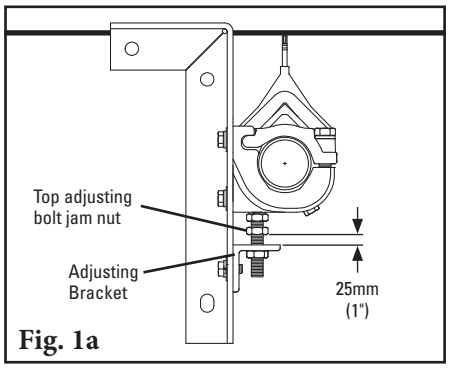


Fig. 1a

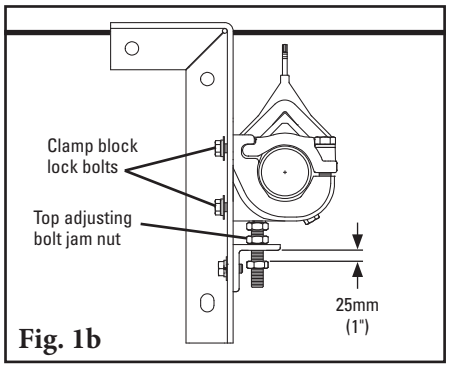


Fig. 1b

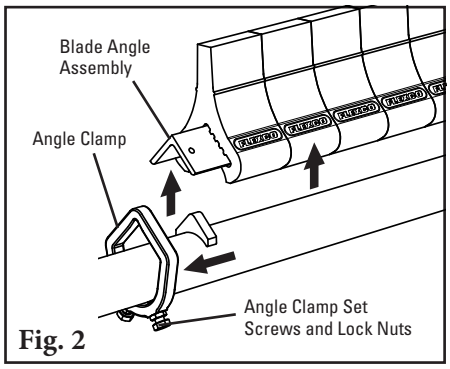


Fig. 2

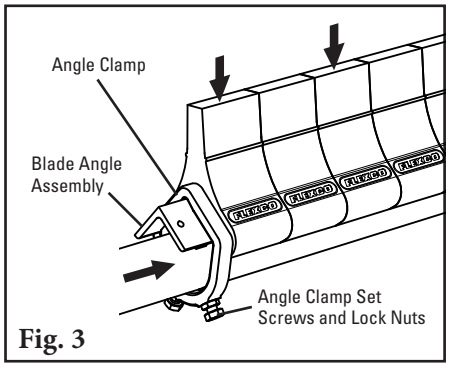


Fig. 3

6.6 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: _____

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

Activity: _____

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

Activity: _____

Section 6 - Maintenance

6.7 Cleaner Maintenance Checklist

Site: _____ **Inspected by**: _____ **Date:** _____

Belt Cleaner: _____ **Serial Number:** _____

Beltline Information:

Beltline Number: _____ Belt Condition: _____

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

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

Blade wear: 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
Vibration	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)
	Belt tension too high	Ensure cleaner can conform to belt, or replace with alternate Flexco® secondary cleaner
	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
Material buildup on cleaner	Cleaner not set up correctly	Ensure cleaner set up properly (check tip angle)
	Buildup on chute	Ensure cleaner is not located too close to back of chute, allowing buildup
	Cleaner being overburdened	Introduce Flexco Primary Cleaner
	Excessive sticky material	Frequently clean unit of buildup
Cleaner not conforming to belt	Cleaner not set up correctly	Ensure cleaner set up properly (check tip angle)
	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
Material passing cleaner	Cleaner not set up correctly	Ensure cleaner set up properly (check tip angle)
	Cleaner tension too low	Ensure cleaner is correctly tensioned
	Cleaner blade worn/damaged	Check blade for wear, damage and chips, replace where necessary
	Cleaner being overburdened	Introduce Flexco Primary Cleaner
	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
Missing material in belt centre only	Cupped Belt	Install hold-down roller and reset blade angle
	Cleaner blade worn/damaged	Check blade for wear, damage and chips, replace where necessary
Missing material on outer edges only	Cupped Belt	Install hold-down roller and reset blade angle
	Cleaner blade worn/damaged	Check blade for wear, damage and chips, replace where necessary
Tensioners binding	Tensioners not aligned properly	Adjust mounting bases until tensioners travel without binding

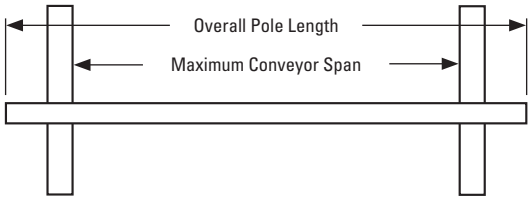
Section 8 – Specifications and CAD Drawings

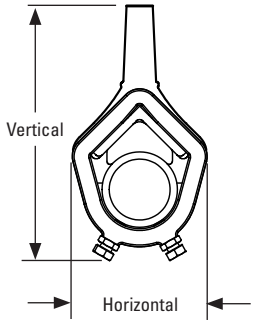
8.1 Specifications and Guidelines

Pole Length Specifications

CLEANER SIZE		POLE LENGTH		MAXIMUM CONVEYOR SPAN	
mm	in.	mm	in.	mm	in.
900	36	2286	90	2083	82
1050	42	2438	96	2235	88
1200	48	2590	102	2388	94
1350	54	2743	108	2540	100
1500	60	2895	114	2692	106
1800	72	3200	126	2997	118

Pole Length - Belt +1350mm (54")
Pole Diameter - 73mm (2-7/8")





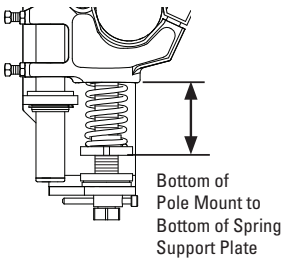
Clearance Guidelines for Installation

CLEANER TYPE	BELT WIDTH/ CLEANER SIZE		HORIZONTAL CLEARANCE REQUIRED		VERTICAL CLEARANCE REQUIRED	
	mm	in.	mm	in.	mm	in.
Y-Type® HD Polyurethane	900–1800	36–72	133	5-1/4	241	9-1/2
Y-Type® HD Carbide	900–1800	36–72	133	5-1/4	248	9-3/4

MST Spring Length Chart

Blade Width		White Springs		Silver Springs		Black Springs		Gold Springs	
mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
900	36	54	2 1/8	79	3 1/8	83	3 1/4	89	3 1/2
1050	42	N/A	N/A	76	3	79	3 1/8	88	3 1/2
1200	48	N/A	N/A	73	2 7/8	79	3 1/8	86	3 3/8
1350	54	N/A	N/A	73	2 7/8	76	3	85	3 3/8
1500	60	N/A	N/A	70	2 3/4	73	2 7/8	84	3 1/4
1650	66	N/A	N/A	67	2 5/8	73	2 7/8	83	3 1/4
1800	72	N/A	N/A	N/A	N/A	70	2 3/4	80	3 1/8

Shading indicates preferred spring option.



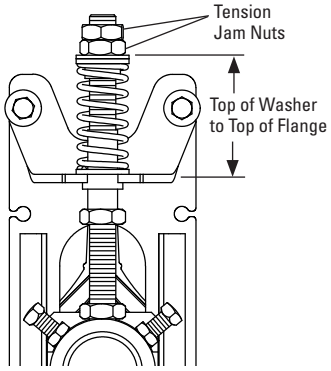
Y-Type® Blade Specifications

CUSHION	DUROMETER	TEMPERATURE RANGE
Purple (Standard)	86A	-35 to 82°C (-30 to 180°F)
Red (Ultra High-Temp)	90A	Up to 200°C (400°F) Spikes to 232°C (450°F)
Carbide	86A	-35 to 82°C (-30 to 180°F)

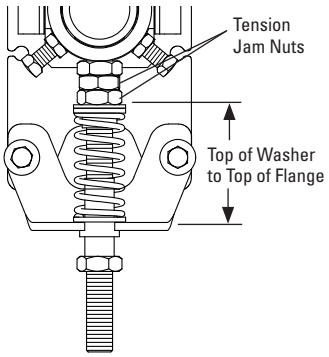
YST HD Spring Length Chart

Blade Width		Carbide Tip				Polyurethane Tip			
		Silver Springs		Black Springs		Green Springs		Blue Springs	
mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
900	36	98	3 7/8	102	4	76	3	86	3 3/8
1050	42	95	3 3/4	98	3 7/8	73	2 7/8	83	3 1/4
1200	48	92	3 5/8	95	3 3/4	67	2 5/8	79	3 1/8
1350	54	89	3 1/2	95	3 3/4	64	2 1/2	76	3
1500	60	86	3 3/8	92	3 5/8	N/A	N/A	73	2 7/8
1800	72	83	3 1/4	89	3 1/2	N/A	N/A	64	2 1/2

Shading indicates preferred spring option.



Pull-Up Tensioner
Configuration (HD)



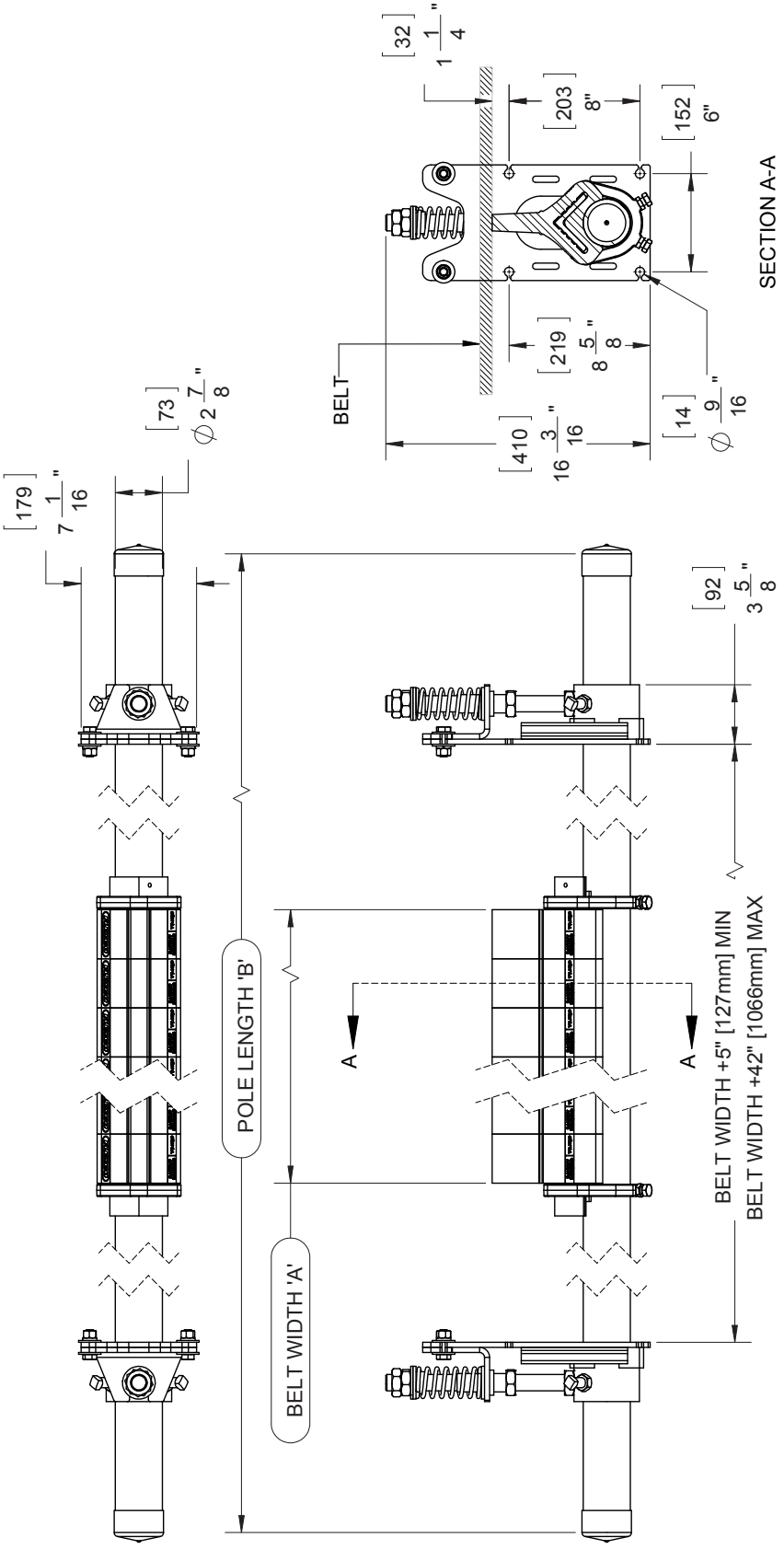
Push-Up Tensioner
Configuration (HD)

Specifications:

- Maximum Belt Speed .....3.8 m/s (750 FPM)
- Temperature Rating .....-35 to 82°C (-30 to 180°F)
- Usable Blade Wear Length.....Polyurethane: 75 mm (3")
  Carbide: 10 mm (3/8")
- Blade Materials .....Purple: Polyurethane (proprietary blend for abrasion resistance and long wear)
  Red: Polyurethane (ultra high-temp)
  Carbide: Tungsten Carbide
- Available for Belt Widths .....900 to 1800 mm (36 to 72"). Other sizes available upon request.
- CEMA Cleaner Rating .....Class 3 (Heavy-duty with polyurethane or carbide blades)

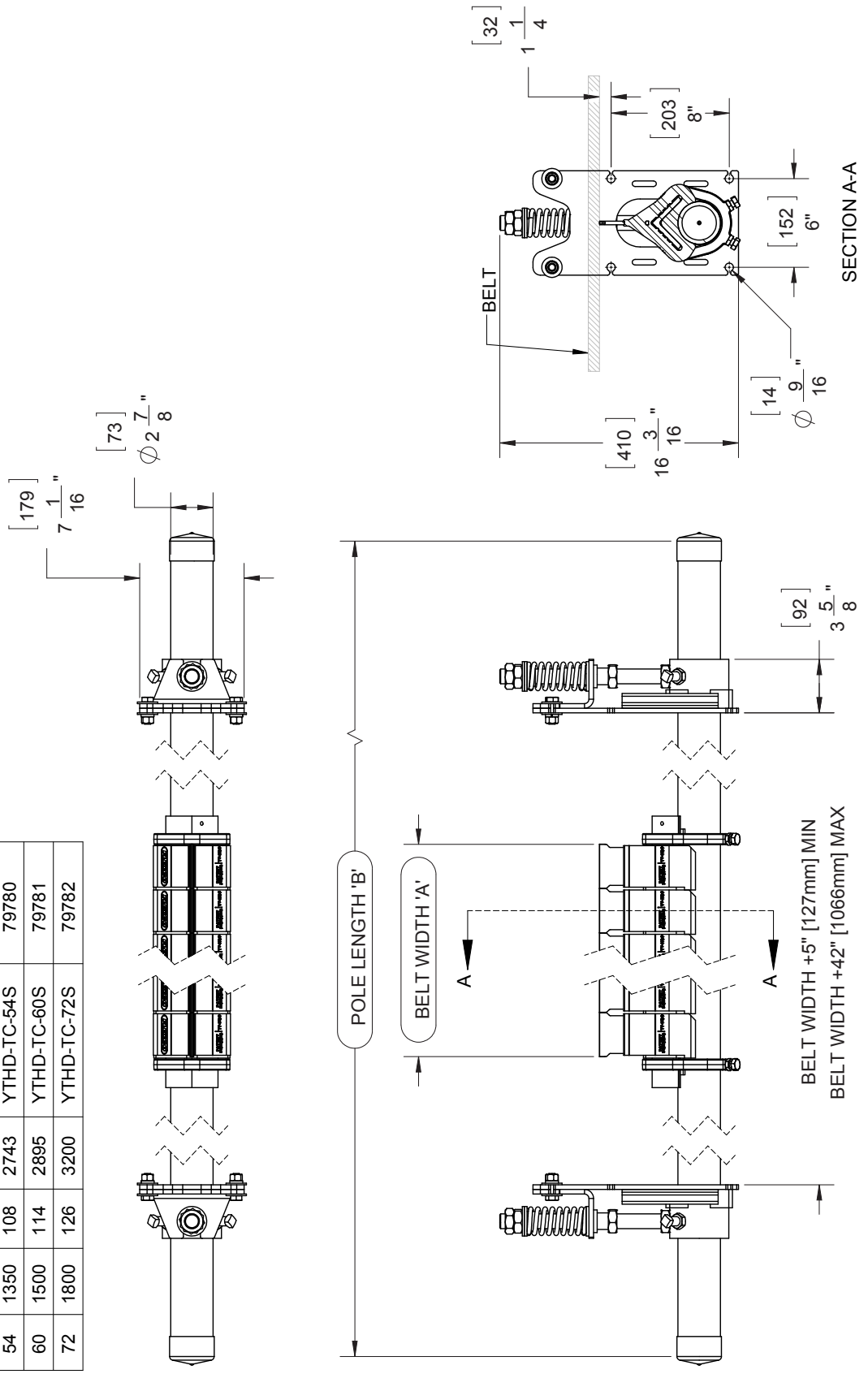
8.2 CAD Drawing - Y-Type™ HD - Polyurethane Blades & YST Tensioner

SPECIFICATIONS				PURPLE BLADES		RED BLADES	
BELT WIDTH 'A'		POLE LENGTH 'B'		ORDER NUMBER	ITEM CODE	ORDER NUMBER	ITEM CODE
in	mm	in	mm				
36	900	90	2286	YTHD-36S	79783	YTHDR-36S	91816
42	1050	96	2438	YTHD-42S	79784	YTHDR-42S	91817
48	1200	102	2590	YTHD-48S	79785	YTHDR-48S	91818
54	1350	108	2743	YTHD-54S	79786	YTHDR-54S	91819
60	1500	114	2895	YTHD-60S	79787	YTHDR-60S	91820
72	1800	126	3200	YTHD-72S	79788	YTHDR-72S	91821



Section 8 – Specifications and CAD Drawings

8.3 CAD Drawing - Y-Type™ HD - Carbide Blades & YST Tensioner

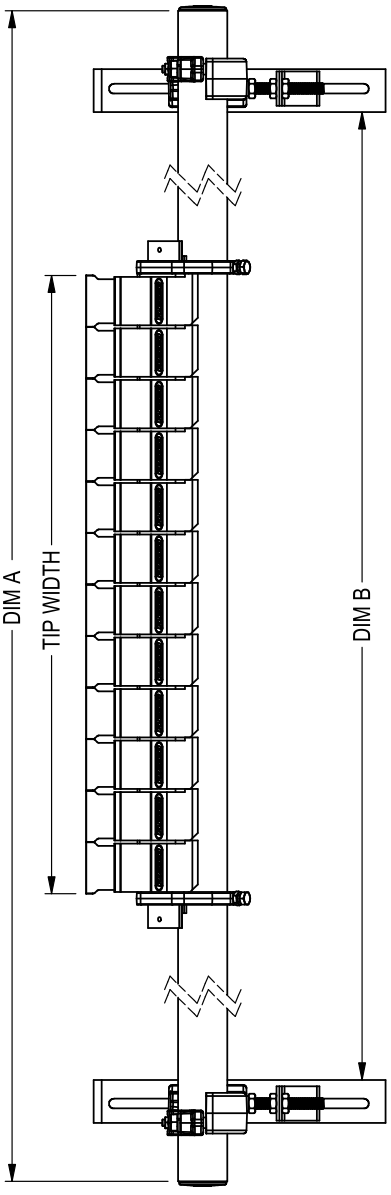


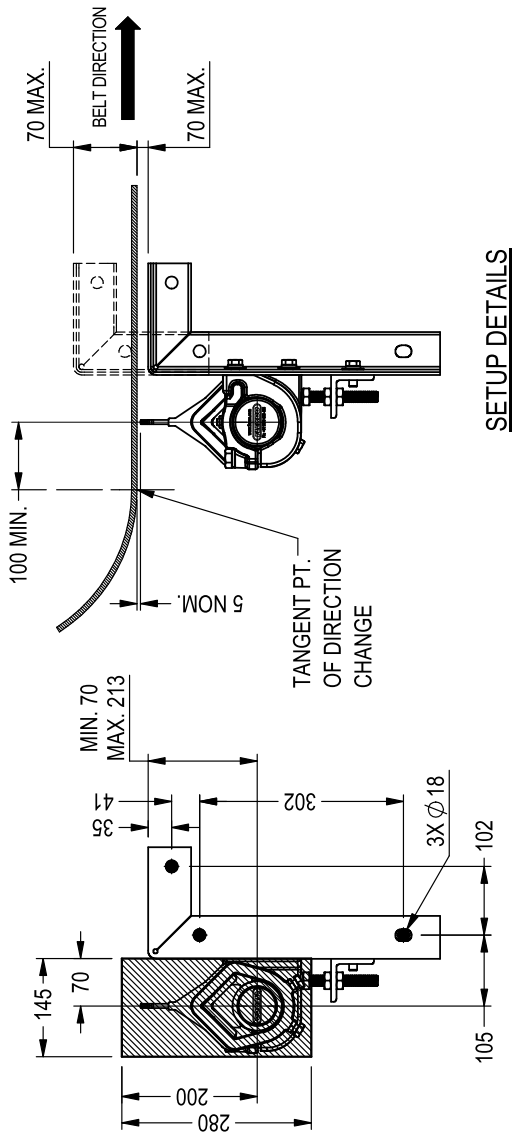
SPECIFICATIONS				ORDER NUMBER	ITEM CODE
BELT WIDTH 'A'		POLE LENGTH 'B'			
(IN)	(mm)	(IN)	(mm)		
36	900	90	2286	YTHD-TC-36S	79777
42	1050	96	2438	YTHD-TC-42S	79778
48	1200	102	2590	YTHD-TC-48S	79779
54	1350	108	2743	YTHD-TC-54S	79780
60	1500	114	2895	YTHD-TC-60S	79781
72	1800	126	3200	YTHD-TC-72S	79782

8.4 CAD Drawing - Y-Type™ HD - Carbide Blades & Bolt-Up Tensioner

ORDERING INFORMATION & DIMENSIONS

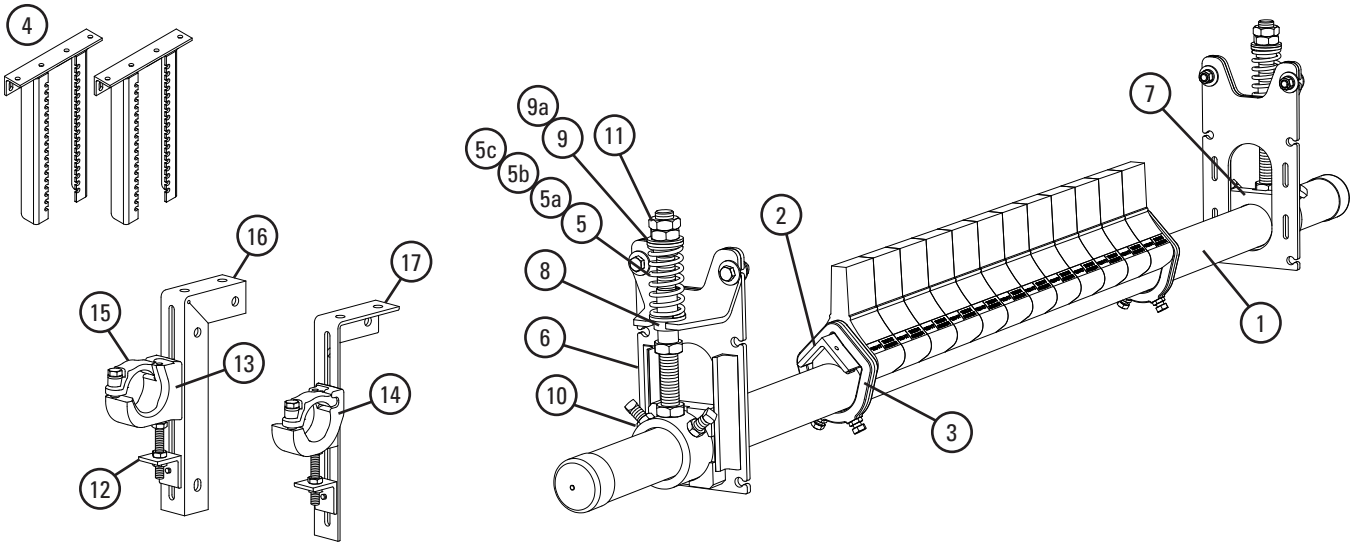
Belt Width		Tip Width	Steel			Stainless Steel			Tip Count	DIM 'A'	DIM 'B'	
(mm)	(in)		Order Code	Item Code	Mass	Order Code	Item Code	Mass			Max	Min
900	36	900	YTHDC-900-BT	83099	62.8	YTHDC-900-BT-S/S	67290	64.7	12	2200	1900	1100
1050	42	1050	YTHDC-1050-BT	83100	67.4	YTHDC-1050-BT-S/S	67291	69.3	14	2350	2050	1250
1200	48	1200	YTHDC-1200-BT	83101	73.6	YTHDC-1200-BT-S/S	67292	75.6	16	2650	2350	1400
1350	54	1350	YTHDC-1350-BT	83102	77.0	YTHDC-1350-BT-S/S	67293	79.1	18	2700	2400	1550
1500	60	1500	YTHDC-1500-BT	83103	82.7	YTHDC-1500-BT-S/S	67294	84.8	20	2950	2650	1700
1650	66	1650	YTHDC-1650-BT	83104	87.3	YTHDC-1650-BT-S/S	68157	89.4	22	3100	2800	1850
1800	72	1800	YTHDC-1800-BT	83105	89.0	YTHDC-1800-BT-S/S	67295	91.1	24	3000	2700	2000





Section 9 – Replacement Parts

9.1 Replacement Parts List



Replacement Parts

REF	DESCRIPTION	ORDERING NUMBER	ITEM CODE	WT. KG
1	900mm Y-Type HD Pole	YTPHD-36/900	83106	27.3
	1050mm Y-Type HD Pole	YTPHD-42/1050	83107	28.8
	1200mm Y-Type HD Pole	YTPHD-48/1200	83108	30.4
	1350mm Y-Type HD Pole	YTPHD-54/1350	83109	31.9
	1500mm Y-Type HD Pole	YTPHD-60/1500	83110	33.5
	1800mm Y-Type HD Pole	YTPHD-72/1800	83112	35.0
2	900mm Y-Type HD Cushion Angle	YTAHD-36/900	79805	7.5
	1050mm Y-Type HD Cushion Angle	YTAHD-42/1050	79806	8.6
	1200mm Y-Type HD Cushion Angle	YTAHD-48/1200	79807	9.7
	1350mm Y-Type HD Cushion Angle	YTAHD-54/1350	79808	10.9
	1500mm Y-Type HD Cushion Angle	YTAHD-60/1500	79809	12.0
	1800mm Y-Type HD Cushion Angle	YTAHD-72/1800	79810	14.2
3	Y-Type HD Angle Clamp* (2 Clamps)	YTACHD	79835	2.2
4	YST HD Drop Bracket Kit (2 Brackets)	YSTHDDBK	79850	14.6
5	YST HD Tension Spring - Green	YSTHDS-GR	79797	0.2
5a	SST Tension Spring - Silver	STS-S	75843	0.4
5b	YST HD Tension Spring - Blue (Carbide Cleaners)	YSTHDS-BL	79798	0.3
5c	SST Tension Spring - Black (Carbide Cleaners)	STS-B	75844	0.5
6	YST HD Mounting Bracket (incl. Angle Bracket)	YSTHDMB	79849	3.0
7	YST HD Guide Block Kit (Pair)	YSTHDGBK	79851	0.5
8	YST HD Lower Bushing Kit (Pair)	YSTHDLBK	79852	0.05
9	YST HD Top Bushing Kit White (Pair)	YSTHDBK-W	79853	0.05
9a	YST HD Top Bushing Kit Black (Pair)	YSTHDBK-B	79856	0.05
10	YST HD Pole Mount Kit*	YSTPHDMK	79854	3.5
11	YST Adjusting Rod Nut Kit	YSTANKHD	79858	0.1

*Hardware included

Lead time: 4 weeks

Shaded items are made to order.
Contact Flexco for lead times.

Blades Required per Cleaner Size

mm	900	1050	1200	1350	1500	1800
No. Blades Required	12	14	16	18	20	24

Replacement Parts

REF	DESCRIPTION	ORDERING NUMBER	ITEM CODE	WT. KG
-	YST Tension Silver - Spring (Pair) (incl. 2 ea. item 5a, 6, 10, 11 & 1 ea. items 7, 8, 9)	YSTHD-S	79840	15.2
-	YST Tension Spring - Black (Pair) (incl. 2 ea. item 5c, 6, 10, 11 & 1 ea. items 7, 8, 9a)	YSTHD-BK	79842	15.5
-	YST Tension Spring - Green (Pair) (incl. 2 ea. item 5, 6, 10, 11 & 1 ea. items 7, 8, 9)	YSTHD-GR	79839	14.9
-	YST Tension Spring - Blue (Pair) (incl. 2 ea. item 5b, 6, 10, 11 & 1 ea. items 7, 8, 9a)	YSTHD-BL	79841	15.0
12	Adjusting Bracket Kit* (1 ea.)	PAB	75513	1.0
13	HD Pole Clamp Kit Left* (1ea.) (for sizes 1400–2400mm) (incl. item 15)	CCKHDL	79225	4.0
14	HD Pole Clamp Kit Right* (1ea.) (for sizes 1400–2400mm) (incl. item 15)	CCKHDR	79229	4.0
15	HD Cradle Clamp Top Strap (1ea.) (for use on L or R HD Pole Clamp Kit)	CCKHDTS	79233	0.8
16	Mounting Bracket Repair Kit (incl. L or R mounting bracket)	PMBL	75516	3.8
17		PMBR	75519	3.8
-	HD Cradle Clamp Mounting Kit* (incl. 2 ea. item 12; 1 ea. items 13, 14, 16, 17)	CCMKHD	78920	16.7

Spring Tensioner Selection Chart

CLEANER BLADE WIDTH	79840 YSTHD-S	79842 YSTHD-BK	79839 YSTHD-GR	79841 YSTHD-BL
Carbide 900–1350mm	X			
Carbide 1500–1800mm		X		
Polyurethane 900–1200mm			X	
Polyurethane 1350–1800mm				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:

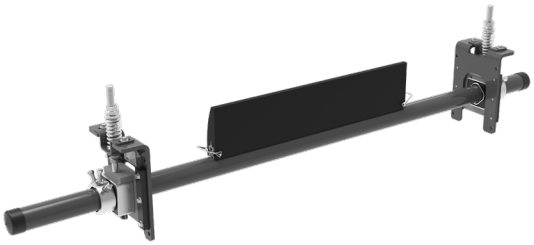
MMP Precleaner

- Extra cleaning power right on the head pulley
- A 250 mm (10") TuffShear™ blade provides increased blade tension on the belt to peel off abrasive materials
- The unique Visual Tension Check™ ensures optimal blade tensioning and quick, accurate retensioning
- Easy to install and simple to service

DRX Impact Beds

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

MDWS DryWipe Secondary Cleaner

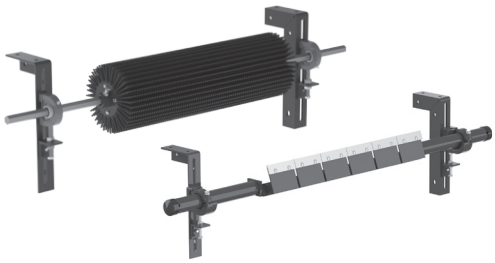


- Wipes the belt dry as final cleaner in system
- Automatic blade tensioning to the belt
- Easy, visual blade tension check
- Simple, one-pin blade replacement

PT Max™ Belt Trainer

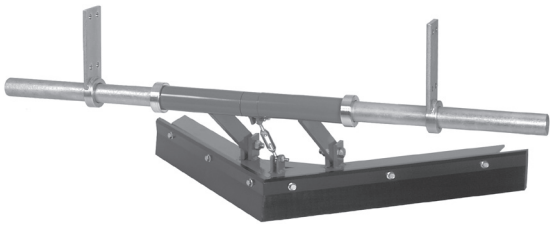
- Patented "pivot & tilt" design for superior training action
- Dual sensor rollers on each side to minimize belt damage
- Pivot point guaranteed not to freeze up
- Available for topside and return side belts

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

Visit **www.flexco.com** for other Flexco locations and products, or to find an authorised distributor.