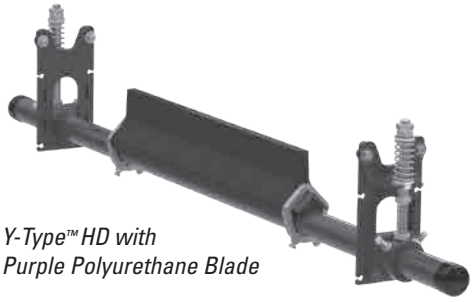
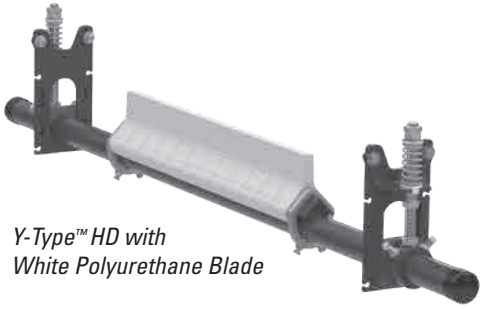
Y-Type™ Heavy-Duty Secondary Belt Cleaner

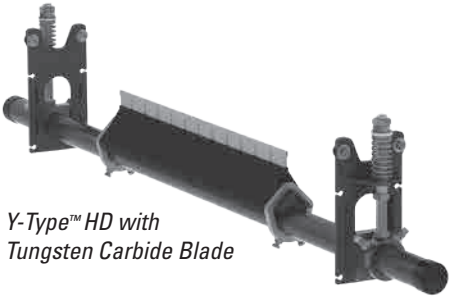
Installation, Operation and Maintenance Manual



Y-Type™ HD with Purple Polyurethane Blade



Y-Type™ HD with White Polyurethane Blade



Y-Type™ HD with Tungsten Carbide Blade

FLEXCO

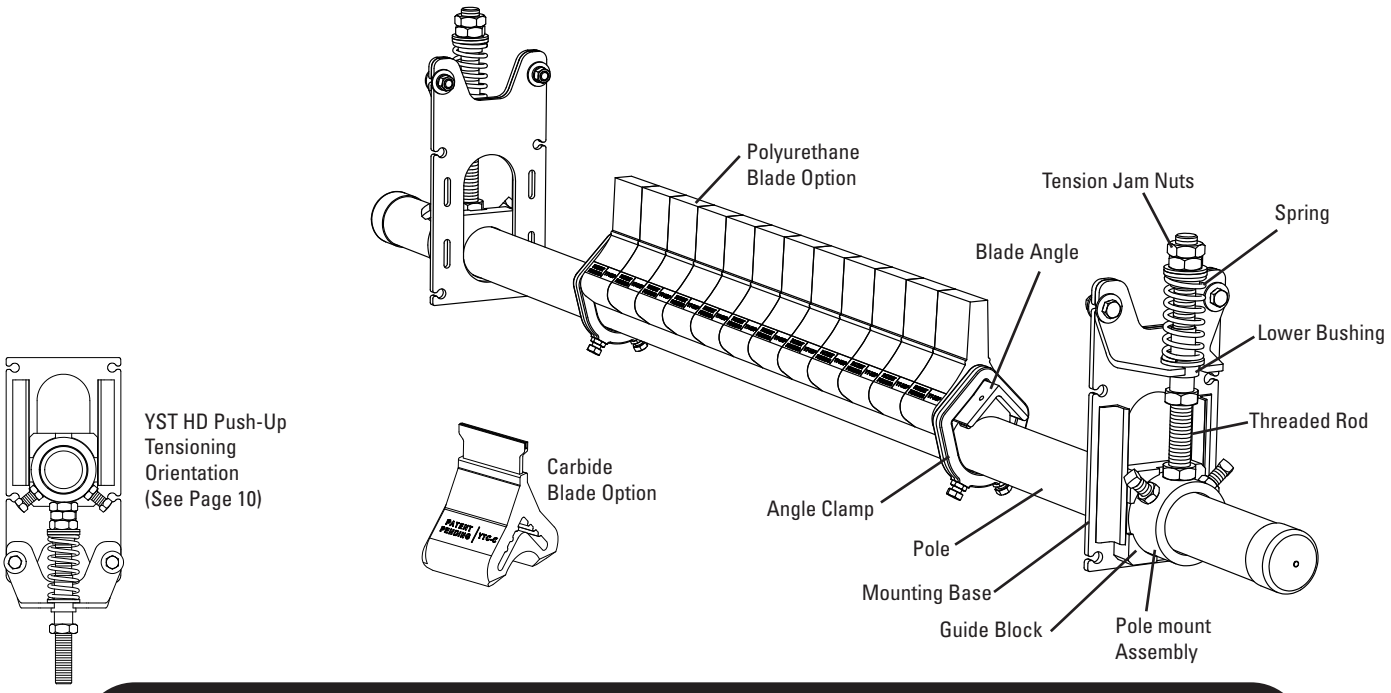
Pre-installation Checks and Options

Checklist

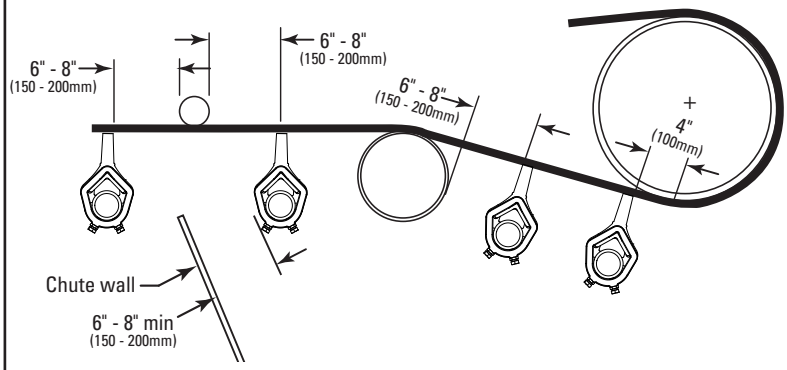
- Check that cleaner size is correct for beltline width
- Check belt cleaner carton and make sure all parts are included
- Review "Tools Needed" list on top of installation instructions
- Check the conveyor site:
  - Will cleaner be installed on a chute
  - Is the install on an open head pulley requiring mounting structure

Installation Instructions

Y-Type™ Heavy-Duty Secondary Belt Cleaner - Pull-Up Tensioning (Polyurethane or Carbide Option)



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



Tools Needed

- 15/16" (24mm) Wrench
- 3/4" (19mm) Wrench
- 1 1/2" (38mm) Wrench

OR

Large Adjustable Wrench & Channel Locks

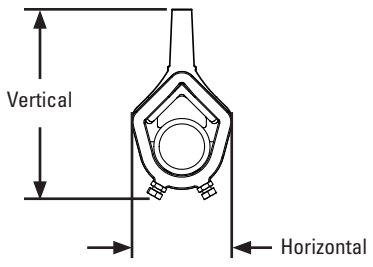
- Tape Measure
- Ratchet with 3/4" (19mm) Socket
- (2) 6" C-Clamps (for Temporary Positioning of Mounting Brackets)
- Cutting Torch and/or Welder
- Marking Pen

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 at right.

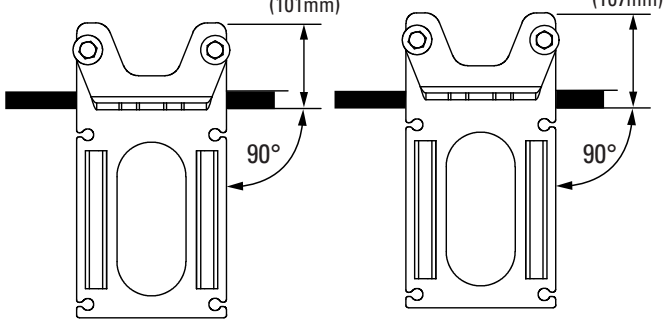
Clearance Requirements for Installation

	Vertical	Horizontal
Y-Type Polyurethane	9-3/4" (248mm)	5-1/4" (133mm)
Y-Type Carbide	9-1/2" (241mm)	5-1/4" (133mm)



Y-Type™ Heavy-Duty Secondary Belt Cleaner

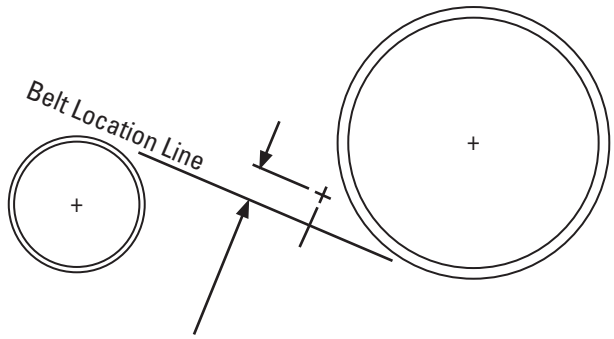
Fig. 1a



Polyurethane Blades
Top of bracket 4-1/4" (109mm) above bottom of belt

Carbide Blades
Top of bracket 4-3/4" (122mm) above bottom of belt

Fig. 1b (Chute Mounting)



Polyurethane: Top of flange 4-1/4" (109mm) above bottom of belt
Carbide: Top of flange 4-3/4" (122mm) above bottom of belt

1. **Install spring tensioner mounting bases. (For push-up tensioning refer to additional instructions on Page 8.)** Clamp mounting base into position so top flange of base is located the proper distance above bottom of belt (Fig. 1a). With angle bracket positioned as shown in Fig. 1a for pull-up tensioning, bolt first mounting base in place. Locate and mark mounting base position on other side but do not install at this time.

   For chute mounting: For 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 at the proper distance above bottom of belt (Fig. 1b).

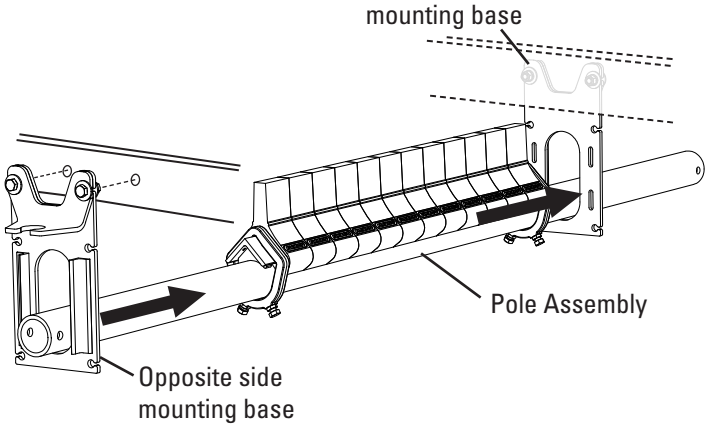
   Locate a mounting bracket perpendicular to belt location line (Fig. 1b), aligning top mounting bracket flange with mark made in previous step. Bolt bracket in place. Repeat this step on opposite side. Cut access holes using provided mounting template.

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

2. **Install pole.**

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

Fig. 2



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

Fig. 3a

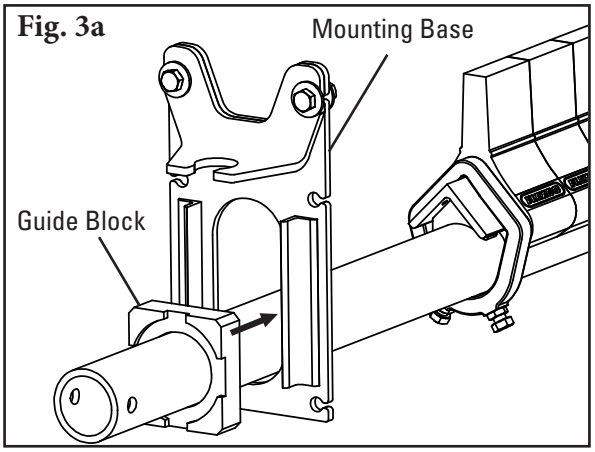
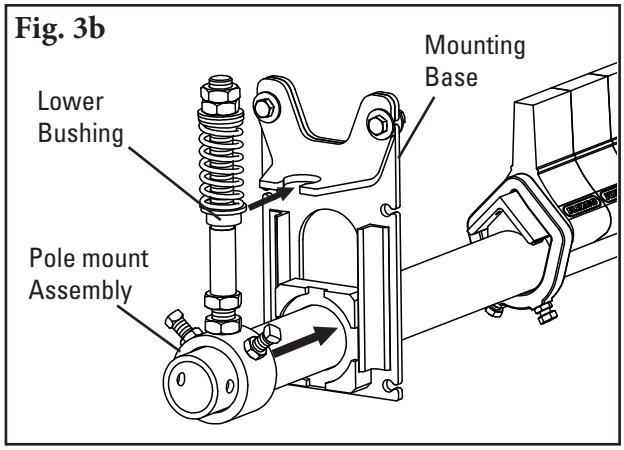


Fig. 3b

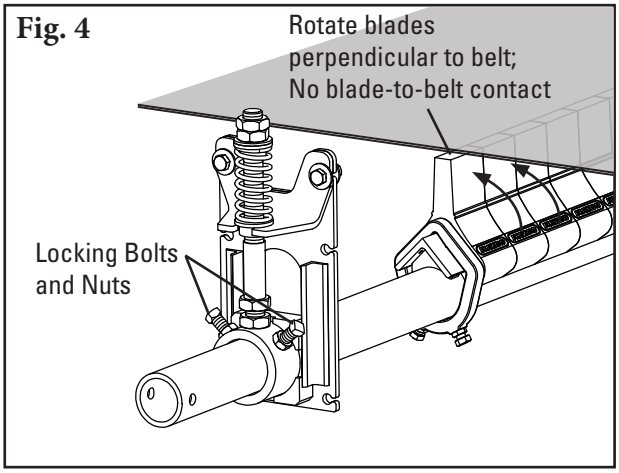


4. **Secure pole.** Center pole/blades on belt and rotate pole until blades are perpendicular to belt. Tighten the two locking bolts and nuts on each pole mount assembly to lock pole in place (Fig. 4).

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

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

Fig. 4



YST HD Tensioner Spring Length Chart

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

Shading indicates preferred spring option.

Fig. 5

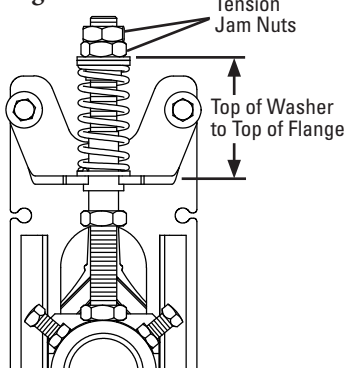
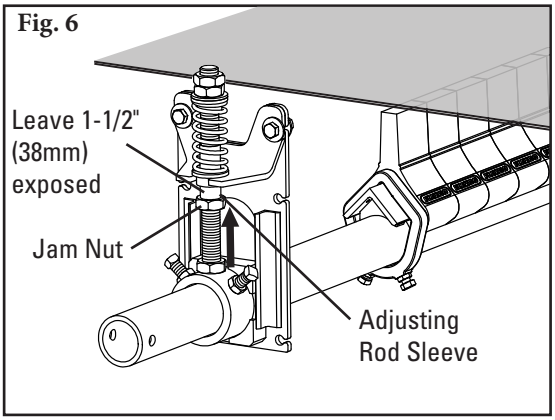


Fig. 6



Y-Type™ Heavy-Duty Secondary Belt Cleaner - Push-Up Tensioning (Polyurethane or Carbide Option)

Fig. 1a

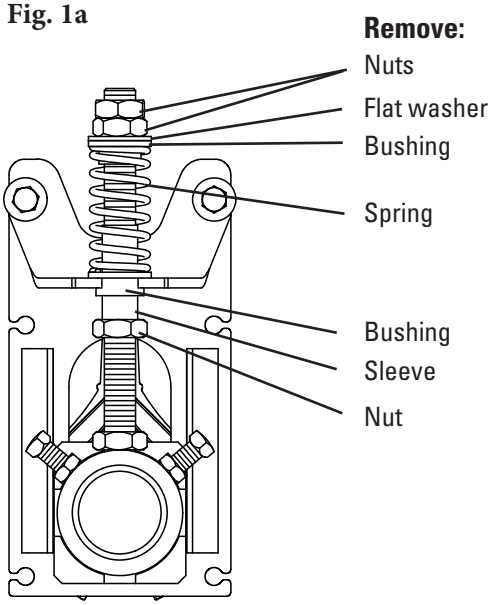
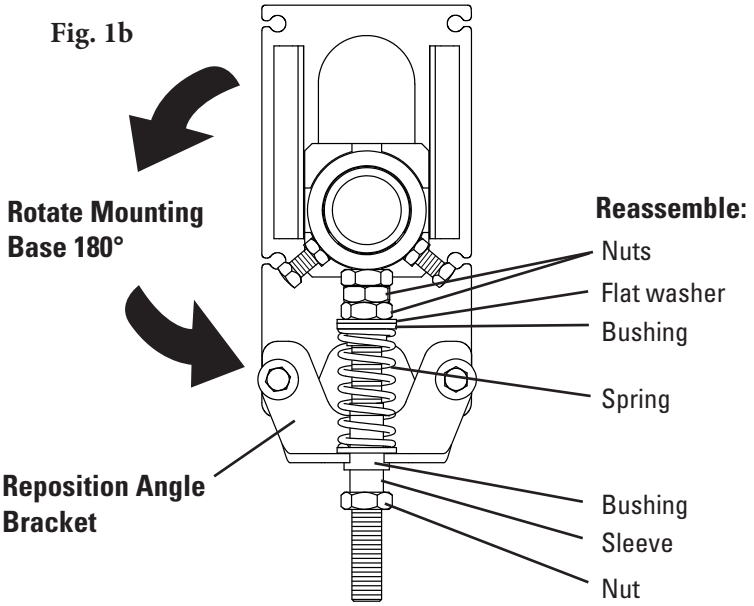


Fig. 1b



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

2. **Install the tensioner mounting bases.** Mount the bases to the structure or chute so that the tops of the bases are aligned with the bottom of the belt (urethane blades) or 9/16" (14mm) above the bottom of the belt (carbide blades) (Fig. 2).

3. **Install the cleaner pole and set the blade angle.** Follow installation steps 2-4 from the cleaner instructions on Page 6 and 7. **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 length shown on the Spring Length Chart below. Tighten the 2 tension nuts together to prevent loosening.

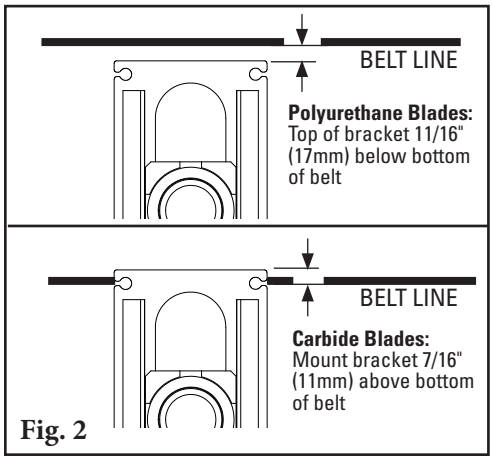
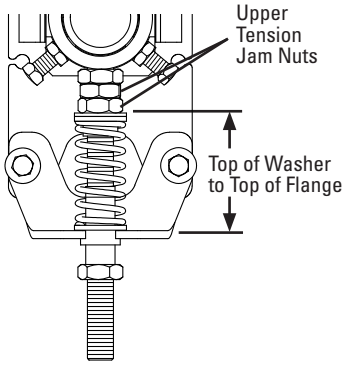


Fig. 2



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60	1500	3 3/8	86	3 5/8	92	NA	NA	2 7/8	73
72	1800	3 1/4	83	3 1/2	89	NA	NA	2 1/2	64

Shading indicates preferred spring option.

Pre-Operation Checklist and Testing

Pre-Op Checklist

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

Test Run the Conveyor

- Run conveyor for at least 15 minutes and inspect the cleaning performance.
- If vibration occurs or more cleaning efficiency is desired, increase blade tension by making 1/8" (3mm) compression adjustments on the tension springs.
- 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 and determine when adjustments are needed.

Visit our website or contact your local distributor to learn more.
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