

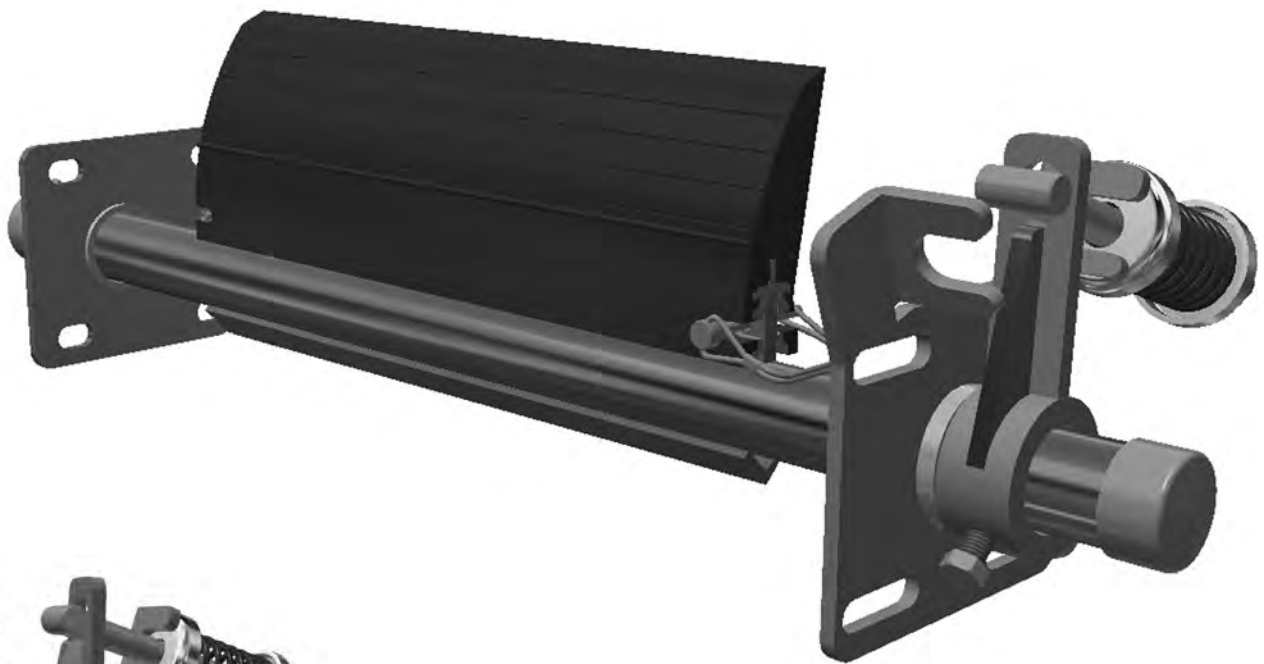
**ASGCO®**

Complete Conveyor Solutions

# PIT-SKALPER®

*with Force-1®*

## INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS



Force-1™

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## Important Safety Notice

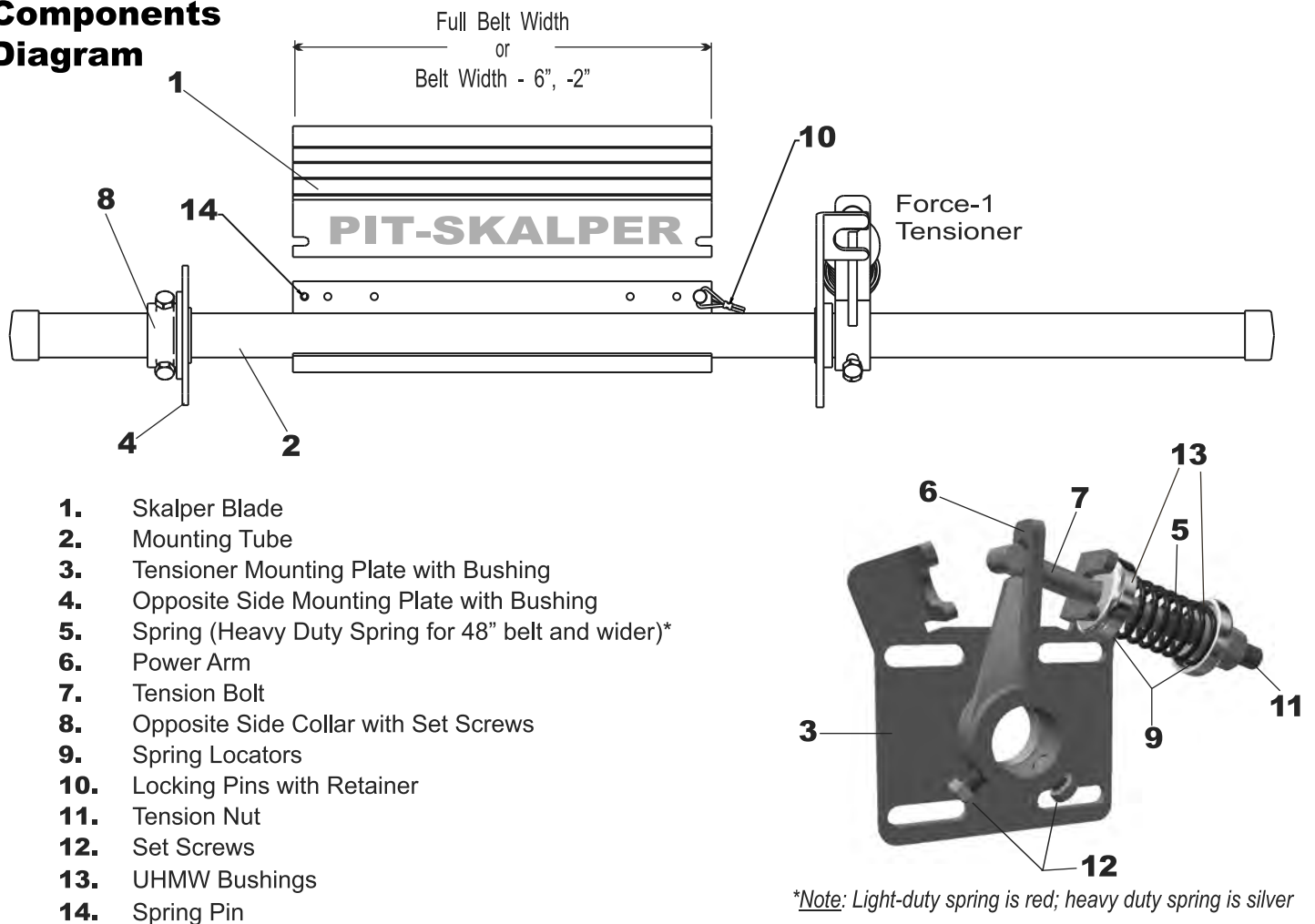
Always observe the basic rules of safety when working with any conveyor system. To avoid injury and equipment damage, be sure that all controls to the conveyor are locked out and the power source is disconnected at all times during installation.



## Overall View

If mounting structure is not available, additional steel may have to be added. *Note: Excess mounting tube may be trimmed after installation. Also note required lubrication of components.*

## Components Diagram



## 1. Determine the Critical "N" Dimension

Determining the "N" dimension, the distance from the belt surface to the mounting tube center, is critical to get the maximum cleaning performance from your system. Make sure mounting tube and tensioner system are clear of obstacles.

<b>"N" Dimension Table</b>	
Pulley Diameter inches [mm]	"N" Dimension inches [mm]
Note the tolerance is $\pm \frac{1}{4}$ " [6mm]	
12" [300mm]	4" [102mm]
14" [350mm]	3-3/4" [95mm]
16" [400mm]	3-1/2" [89mm]
18" [450mm]	3-3/8" [86mm]
20" [500mm]	3-1/4" [83mm]
24" [600mm]	3" [76mm]

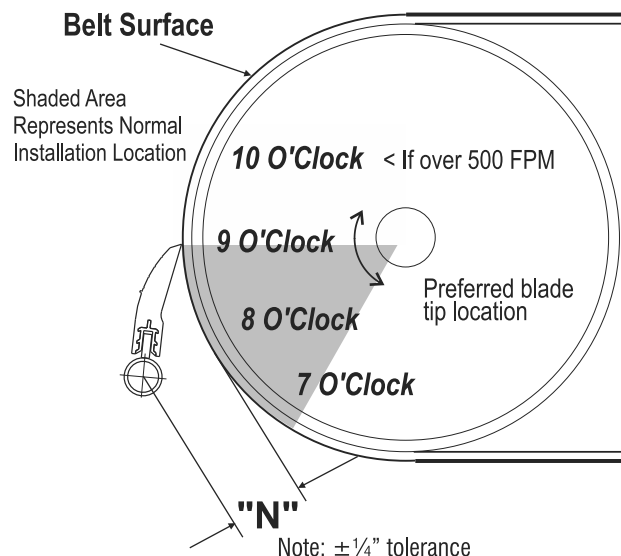
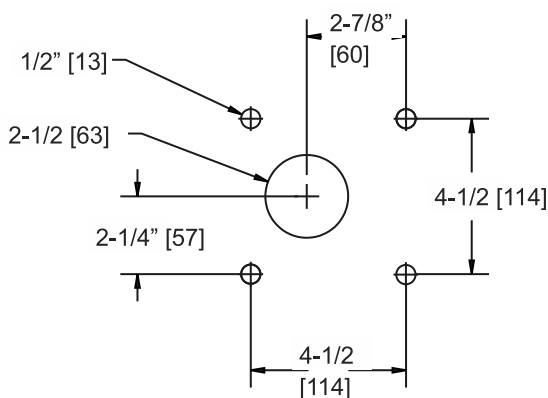


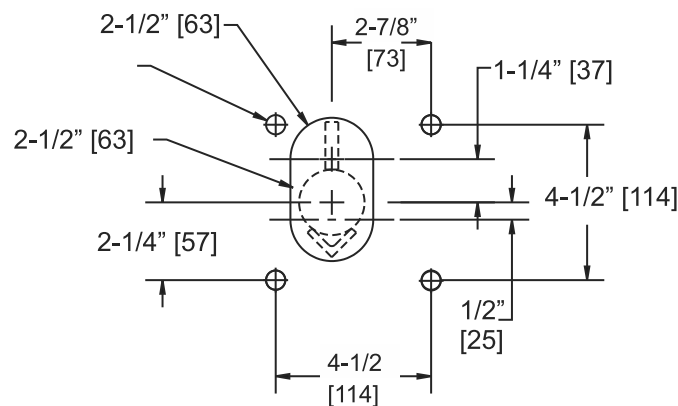
Figure 1: Typical Mounting Position

## 2. Cut Chute Openings

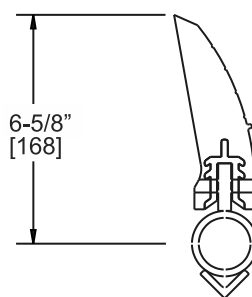
Determine the desired location of the mounting brackets. The required slot sizes/locations are shown for the tensioner side chute cut outs.



**Opposite Side Chute Cut Out**



**Tensioner Side Chute Cut Out**  
Mounting Tube with T-Bar



**Blade Height**

### 3. Mounting Tube through Cut Outs

Place the mounting tube through the chute cut outs so that the long tube end section is on the tensioner side. Place the blade onto the blade holder. Visually check the blade position and contact with the belt/pulley.

### 4. Selecting Correct Orientation

The location of the tensioner determines the orientation of the spring / bolt / arm assembly. Facing the head pulley as material would come towards you, configure the tensioner as shown:



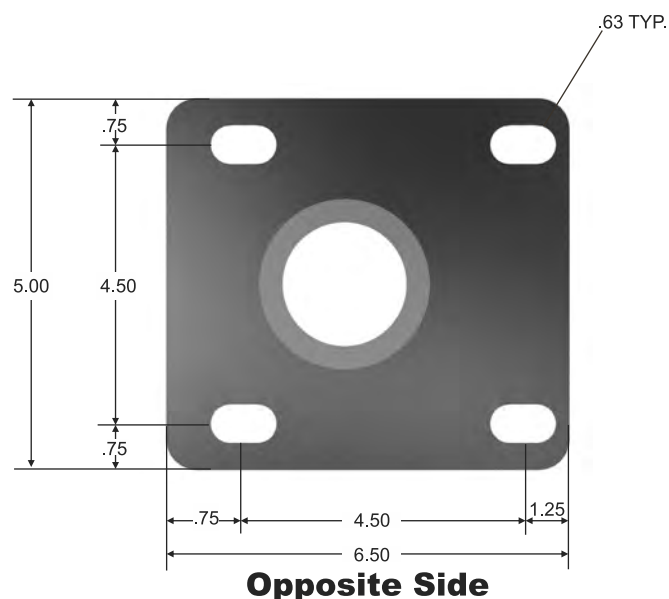
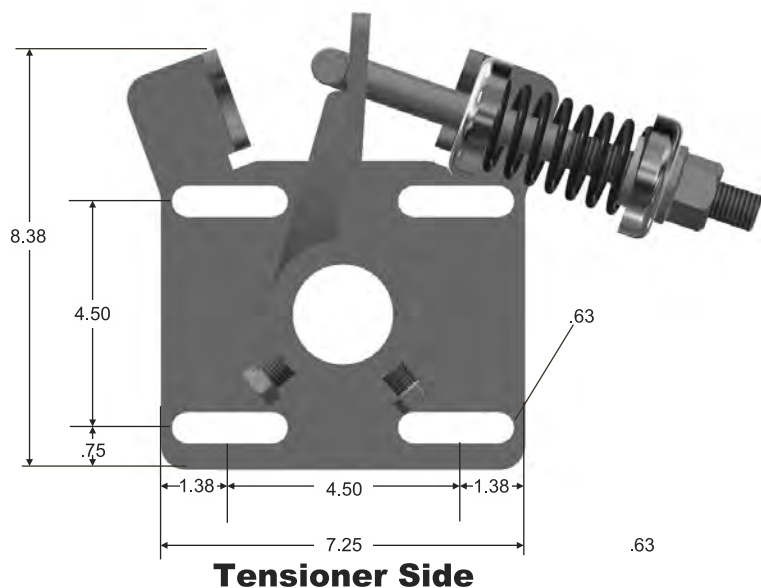
Assemble this way if tensioner is on the left.



Assemble this way if tensioner is on the right.

### 5. Mounting Brackets

Determine the desired location of the mounting brackets. Attach the mounting brackets to the conveyor frame by welding or bolting.

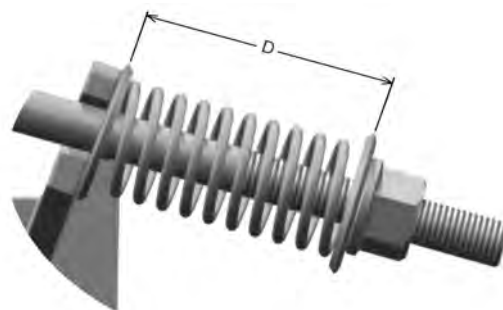


## OPERATION & MAINTENANCE

### Tensioning the Force-1 Tensioner

- 1.)** The following chart shows the “D” dimensions for a particular blade width. Once Force-1 tensioner in place, tighten all set screws to 70 ft-lbs (95 N-m).

	BLADE	“D” DIMENSION
STARTING DIMENSION = 3.6250”		
LIGHT DUTY SPRING (RED)	18	3.250
	24	3.125
	30	3.000
	36	2.750
	42	2.625
HEAVY DUTY SPRING (SILVER)	48	3.430
	54	3.375
	64	3.250
	72	3.125
	84	2.875



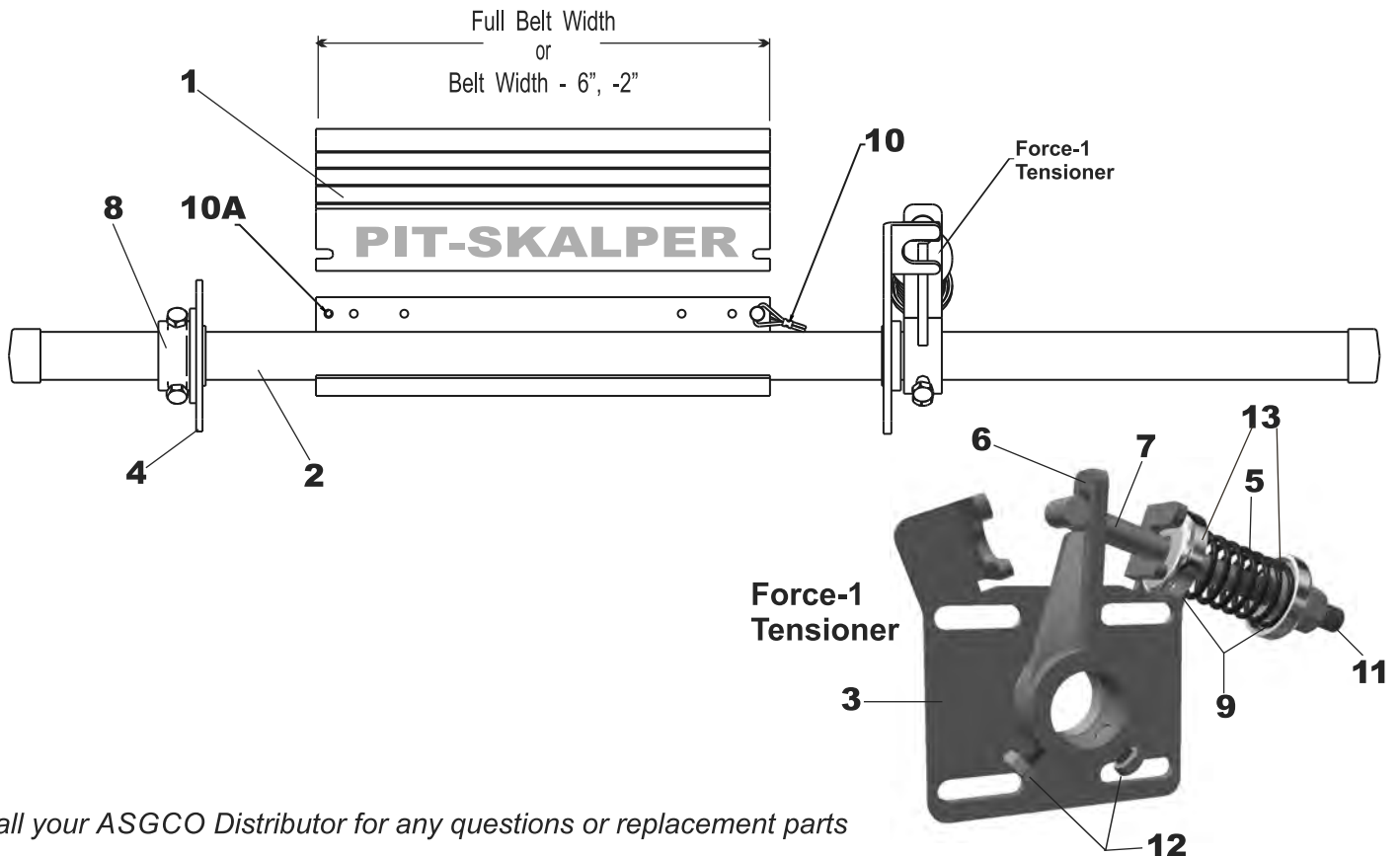
- 2.)** Select the “D” dimension for your application from the table above. Use the hex nut to adjust the spring force via the “D” dimension. Begin with D = 3.625” (roughly) and tighten until the proper value is reached.

The “D” dimension relates to approximately one (1) lb. of force per inch of blade width - approximately 30 lbs of force for a 30” blade. Observe the operation of the Skalper blade. Loosen the nut until cleaning performance suffers; then tighten it slightly to obtain adequate cleaning. Using the minimum amount of blade force required to clean the belt will extend blade life.

- 3.)** Frequent inspections the key to proper belt cleaning and easy scraper servicing. Weekly inspections are recommended, but actual service frequency may vary widely depending on various plant operating conditions.
- 4.)** Inspect the belt surfaces and edges for cracks, splits, tears, holes, or any other worn or damaged condition occurring on the surfaces or edges of the belt itself. If necessary, make repairs to the belt. Wash the entire cleaner regularly to prevent excessive build-up. Check the tightness of all fasteners.
- 5.)** Inspect the cleaner for proper operation. Adjust torque as required.
- 6.)** Replace the Skalper blade as required. Use only ASGCO Manufacturing approved replacement scraper blades

## Information

Key	Description	Part Number
1	Skalper Blade Replacement	ASG-PS4-[BW]-A [X] = Blade Type, [BW] = Blade Width
2	Mounting Tube	ASG-PSMT-(BW)-A (BW) Belt Width
3	Mounting Bracket Tension Side	ASG-F1-MB-TS-PS
4	Mounting Bracket Opposite Side	ASG-F1-MB-OS-PS-1
	Bushing (Off-Side)	ASG-F1-UHMW-BUSHING
5	Coil Spring	ASG-ECONO-T-[XXXX]-SPRING [XXXX] = 1242 OR 4896
6	Power Adjustment Arm	ASG-F1-PAA
7	Tensioner Bolt	ASG-ECONO-T-AB-3/4X10-1/2
8	Opposite Side Collar w-Set Screws	ASG-F1-LC-PS-1
9	Spring Locator	ASG-ECONO-T-SL-1
10	Locking "D" Pin	ASG-PS-LP-1/4X3-1/8
10A	Spring Pin	ASG-PS-RP-5/16x2-1/2
11	Tension Nut	ASG-NYLOCNUT-3/4G5
12	Set Screw	AS-SSH-8X1.0-NCG8
13	Spring cup Locator Bushing	ASG-F1-SL-BUSHING-1
	Force-1 Tensioner	M-ASG-DURAPS-T (Belt Width 48" + : M-ASG-DURA-T-A)
	Bushing (Tension Side)	ASG-F1-UHMW-BUSHING



Call your ASGCO Distributor for any questions or replacement parts

## TROUBLE SHOOTING

PROBLEM	SOLUTION
<i>Excess vibration of the scraper.</i>	<p>Make certain all bolts are tight and the pin is securely engaged on the tensioner.</p> <p>Ensure the cleaners n-dimension is proper (See Table and Figure 1).</p>
<i>Excess carryback.</i>	<p>Check for excess build-up on the scraper.</p> <p>Check for proper Scraper tension. Put additional tension on cleaner.</p> <p>Check for non-uniform scraper wear.</p> <p>Check n-dimension.</p> <p>Clean the back-side of the belt cleaner.</p>
<i>Check for wear on the cleaning tips.</i>	<p>Check thickness of carry-back. If the cleaner must remove more than about 1/8" of material then an additional cleaner may be needed.</p>
<i>Frozen material on scraper.</i>	<p>Place heaters near scraper to melt frozen material. (Use caution not to burn belt or cleaner)</p>
<i>Blade wearing in center</i>	<p>BVW-6" BW-12 (Put a new blade on the concentrates cleaning in the center of the flow of the material.</p>
<i>Blade wearing more on one side</i>	<p>Check n-dimension.</p>

