

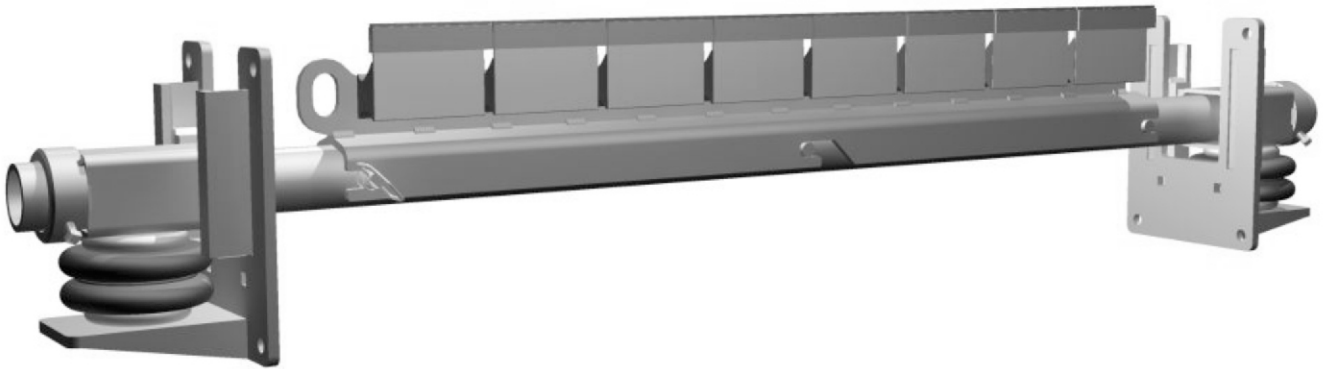
ASGCO[®]

Complete Conveyor Solutions

RAZOR-BACK MDX

WITH AIR-SHOC TENSIONER[®]

INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS



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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.*

Components Diagram

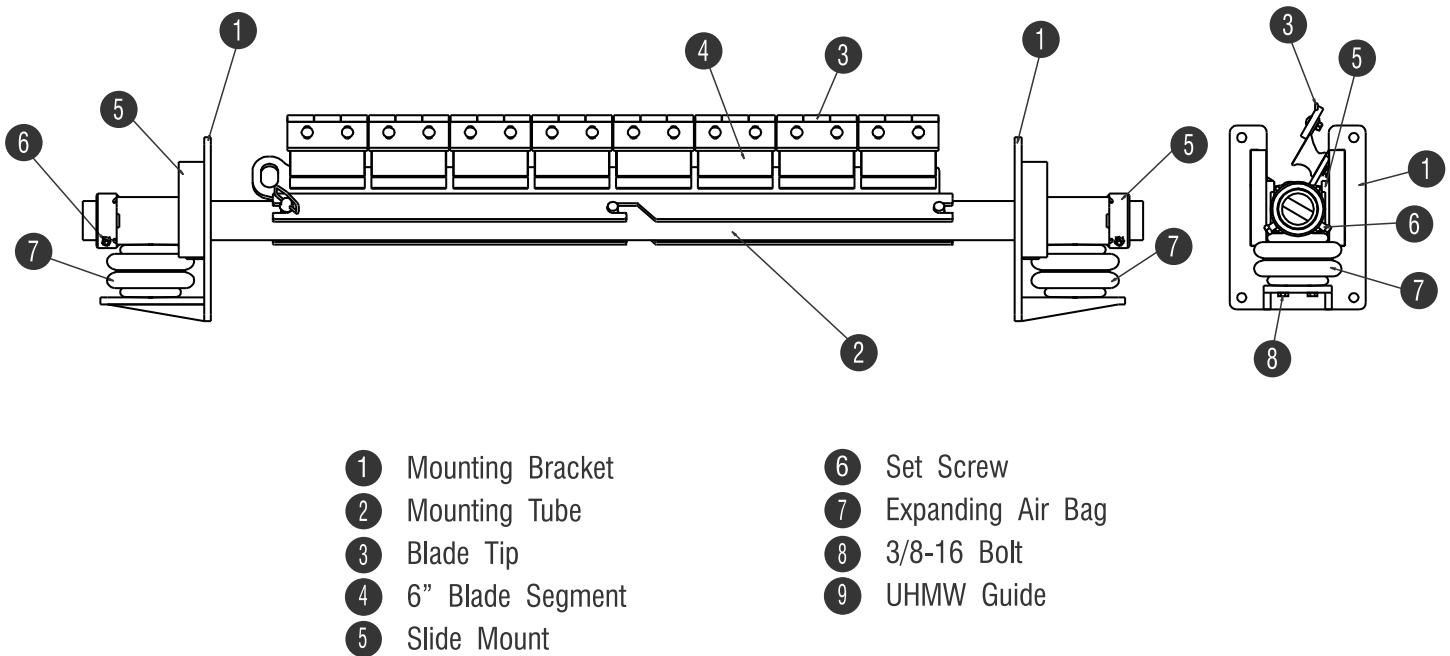


Figure 1. Razor-Back MDX Parts Diagram

The Razor-Back MDX is a Secondary Cleaner designed to be installed on the return side of the belt.

Razor-Back Air-Shoc Tensioner Components

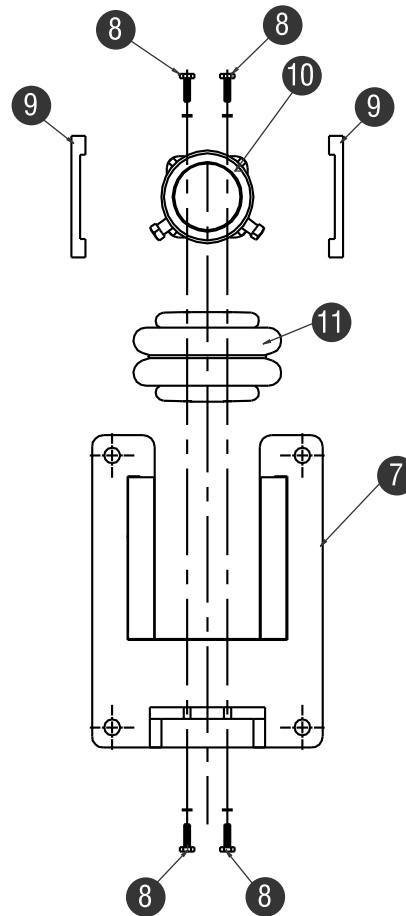


Figure 2. Air-Shoc Tensioner Parts Diagram

Air-Shoc Tensioner Parts List		Qty.
⑦	Mounting Bracket	(2)
⑧	3-8/16" Bolts	(4)
⑨	UHMW Slide	(4)
⑩	Slide Mount	(2)
⑪	Air-Shoc Tensioner	(2)

Determining Location of Cleaner

The Razor-Back MDX is a secondary belt cleaner and as such should be located on the return side of the belt after the belt leaves contact with the head pulley as shown *on next page*. Preferably it should be located within the confines of the head or dribble chute. See *Figure 3*.

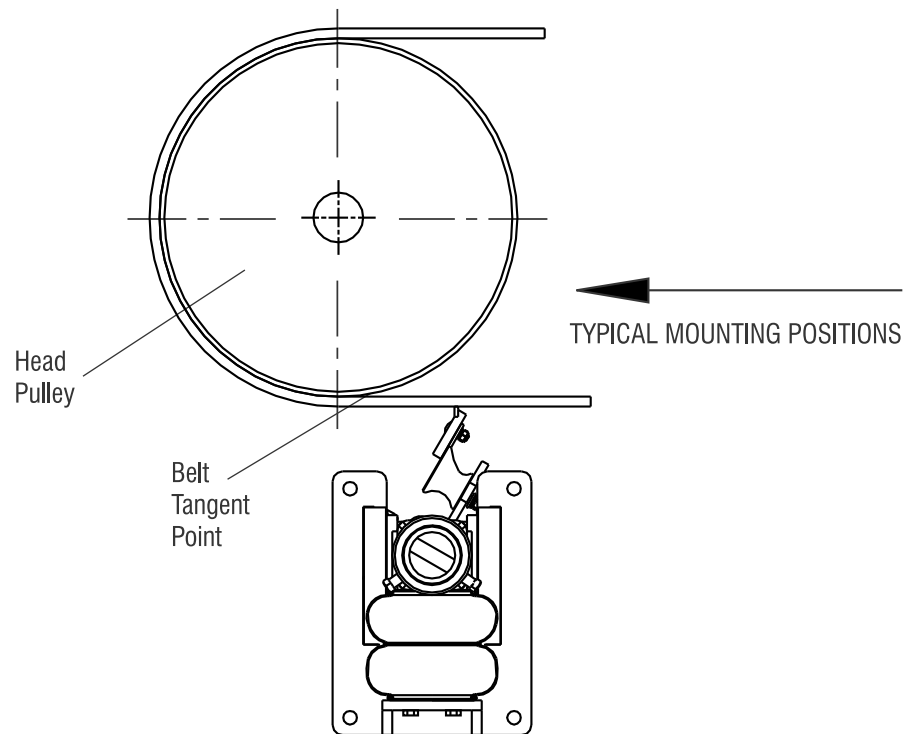


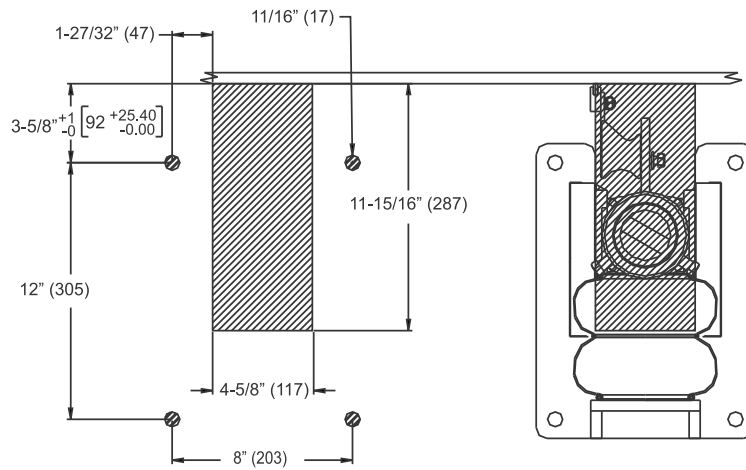
Figure 3. Typical Cleaner Mounting Locations

- The Tips of the Razor-Back MDX should be horizontally located as close as possible to Belt Tangent Point (the point where the belt leaves contact with the head pulley). This will ensure the belt is as flat as possible, to provide the most effective cleaning.
- Do not place the Tips of the Razor-Back MDX against the belt where it is still in contact with the pulley, as this can cause damage to the belt surface.
- Make sure the Mounting Brackets are mounted perpendicular to the belt.
- The recommended minimum clearance between the Tips of the Razor-Back MDX and a snub pulley or dribble chute is 5 ½ inches (140 mm).

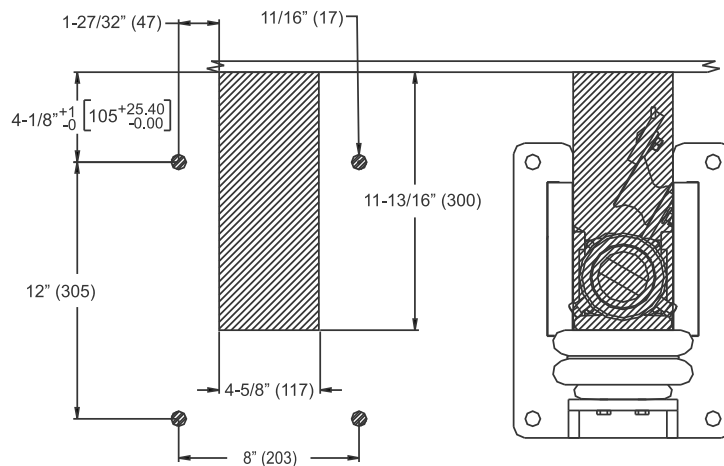
Locate Mounting Bracket

The Mounting Bracket should be attached to the chute wall or conveyor structure using the four mounting holes and ½ -13 UNC x 2 ½ inch hex head bolts. See Figure 4 for mounting hole dimensions.

NOTE: The Mounting Brackets can also be welded in place.



C-TIP INSTALLATION



V-TIP INSTALLATION

Figure 4. Mounting Bracket Hole Dimensions

- To determine the desired vertical location of the Mounting Brackets. Locate the Mounting Bracket so that the bracket mounting holes are located below the bottom edge of the belt, at the dimensions shown in *Figure 4*.
- If the Razor-Back MDX is to be installed on a conveyor with an enclosed chute, it may require that slots and holes be cut to mount the cleaner. If required, mark and cut slots of the chute side wall to allow the Mounting Tube to pass. The required slot size/location and hole size/location are shown in *Figure 4*.
- Attach Mounting Brackets to conveyor structure or chute sidewall, with provided Hardware or Welding.

Install Razor-Back MDX

- With the Mounting Brackets attached, now assemble the Air-Shoc Tensioners as shown in *Figure 2*.
- Slide the Mounting Tube through the Slide Blocks of the assembled Air-Shoc Tensioners.
- Install Blade Holder with Hitch Pin. Then center the Blade Tips on the belt by sliding the Mounting Tube in the Slide Blocks.
- With the Blade Tips centered on the belt, firmly tighten the set screws (to approximately 75 ft-lbs) on the Slide Blocks to affix the translation of the Mounting Tube. See *Figure 5*.

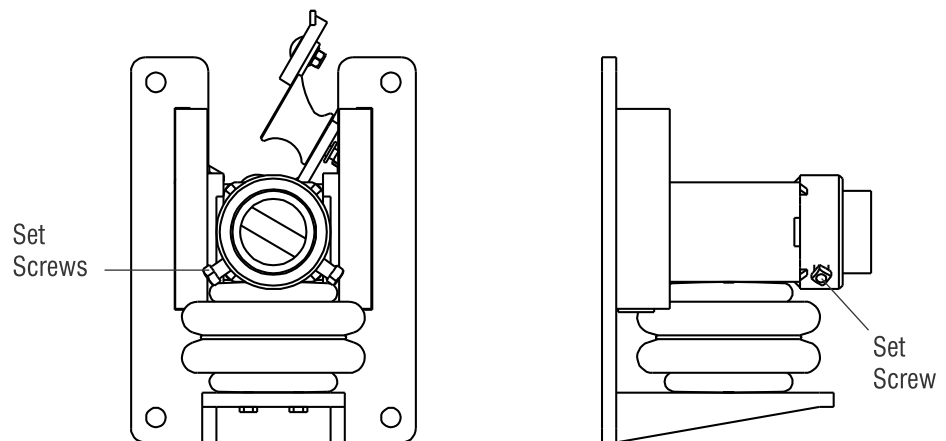


Figure 5. Tighten Set Screws

Blade Positioning and Alignment

With the support tube in position, align the blade tip so that it is perpendicular to the belt. Center the blade on the belt by sliding the support tube in the support tube square collars. Firmly tighten the set screws (to about 70 ft-lbs.) on the support tube collar to affix the translation of the support tube.

Assembling the Tensioner

The Tensioner will be packaged unassembled. The package will include all of the required parts and hardware to assemble one complete Razor-Back MDX unit. The package will also include 25 ft of airline and all necessary fittings to feed both air bags. The Air control box will be delivered assembled. (See Figure 6)

Tensioning and Operation

The tension of the blade against the belt is determined by the pressure applied to the expending air bags. Most MDX applications will have an air-bag located on both sides of the blade mounting tube as shown below. The air pressure can be controlled by the air control box supplied by ASGCO. Or by an owner supplied air regulator. The pressure should range from 8 psi to 20 psi. *A good place to start is $\frac{1}{4}$ psi. per every inch of blade width.*

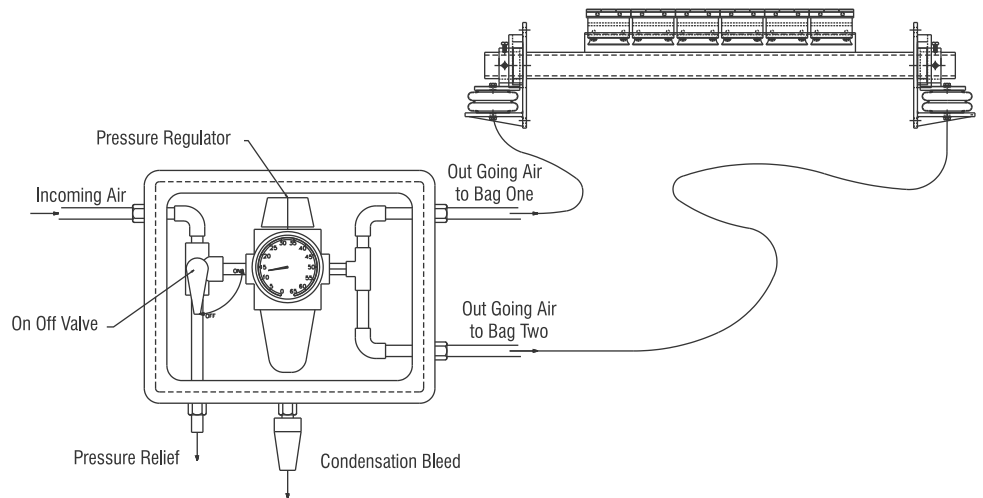


Figure 6

MAINTENANCE

After one day of operation:

- 1.) Inspect the cleaner for proper belt cleaning and operation.

Weekly:

- 1.) Frequent inspection is 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.
- 2.) Wash the entire cleaner regularly to prevent excessive buildup. If material tends to accumulate on the Scraper Assembly then possible scraper relocation may be in order.
- 3.) Carefully inspect the wear tips of the cleaner blades. Make sure blades are not chipped or worn out.
- 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.

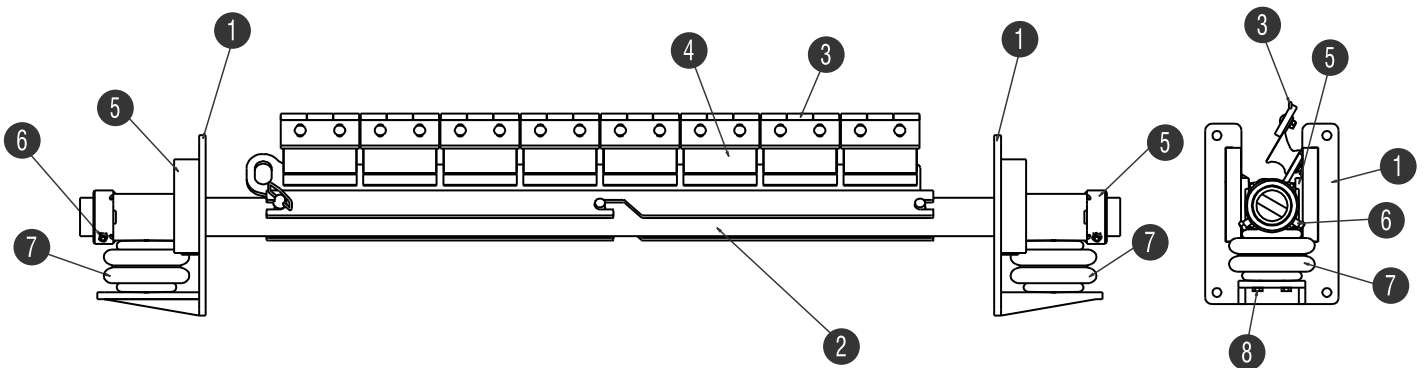
REPLACEMENT AND RE-TENSIONING OF CLEANER BLADES

- 1.) Disengage air pressure to lower blades from the belt.
- 2.) If blades are accessible with out removing the mounting tube, the tube can remain in place and you can move on to step 5.
- 3.) To remove the mounting tube, loosen the mounting tube set screws on the opposite side that the tube will be removed from.
- 4.) On the side the tube is being removed, unbolt the tensioner assembly and slide the tensioner and the tube toward you supporting the opposite side of the tube. The tensioner can be removed later if needed.
- 5.) Loosen and remove the bolts holding the blades to the rubber cushions.
- 6.) Remove the worn blades and discard.
- 7.) Inspect all of the rubber cushions before installing new blades
- 8.) Position and align new blades, reinstall bolts and tighten.
- 9.) If needed re-install the mounting tube and tensioner according to instructions.

Information

Key	Description	Part Number
1	Razor-Back MDX Mounting Bracket	ASG-MDX-RB-MTG-BRACKET-(BW) [BW]=Belt Width
2	Razor-Back Mounting Tube	ASG-MDX-RBMT - (BW)
3a	MDX V-Tip Carbide Blade	ASG-MDX-BLD-RZ-6-TC (Tungsten Carbide)
3b	MDX F-Tip AR Blade	ASG-MDX-BLD-RZ-6-AR (AR-Steel)
4	MDX Blade Holder Cushion	ASG-CUS-RZ-6C
5	Slide Mount	ASG-MDX-RB-SLIDE
6	Set Screw	AS-SSH-8X1.5-NCG8
7	Expanding Air Bag	ASG-MDX-AIRBAG
8	3/8-16 x 1" Bolt	ASG-BOLT-C06X016
9	UHMW Guide	ASG-MDX-RZ-UHMW-GUIDE
10	Air Control Box	ASG-MDX-ACB
11	3/8 ID Air Hose	HS-AIRFLEX-06
12	3/8 ID Power Crimp Coupling	CV-6-6MBX

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.</p> <p>If belt is non-reversing, rotate the blade about 5 degrees in the direction of the belt movement.</p>
<i>Excess carryback.</i>	<p>Check for proper Scraper tension. Put additional tension on cleaner.</p> <p><i>Check for wear on the cleaning tips</i></p> <p>Check thickness of carryback. If the cleaner must remove more than about 1/8" of material then an additional cleaner may be needed.</p>
<i>Excess belt movement, cupping</i>	<p>Install a hold down roller to stabilize the belt surface.</p>
<i>Unable to tension scraper properly, belt moves away from blades.</i>	<p>Install a hold down roller to reduce sag of the belt when tensioning.</p>
<i>Frozen material on scraper.</i>	<p>Place heaters near scraper to melt frozen material. <i>(Use caution not to burn belt or cleaner)</i></p>