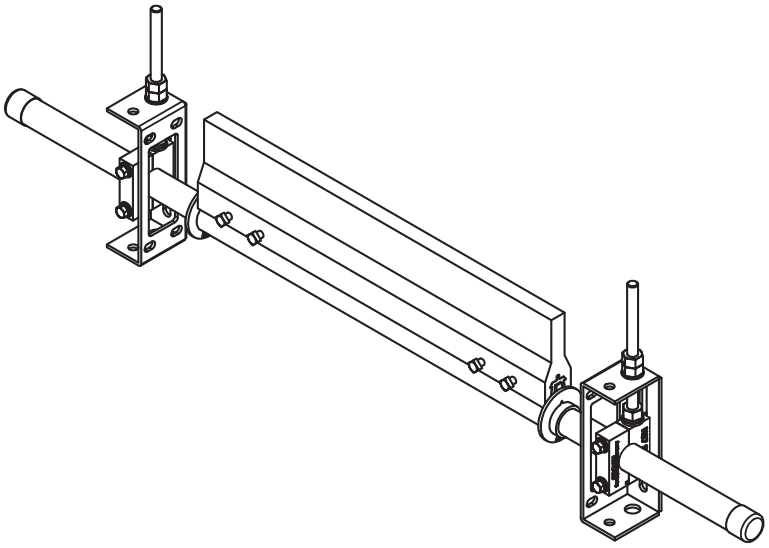
IT'S A NEW ERA OF
INNOVATION
AT AMERICAN EAGLE
MANUFACTURING

AMERICAN EAGLE MANUFACTURING LLC



NS7SC SERIES
INSTRUCTION MANUAL

UNI-BLADE™
PATENT NO. 12246927

FACILITY NAME

CONVEYOR NUMBER

DATE OF INSTALLATION

INSTALLED BY

DISCLAIMER/SAFETY

3.1 Disclaimer

American Eagle Manufacturing LLC disclaims any liability for improper use or application of this product not in compliance with instructions and specifications contained herein or for any damages due to contamination of material as a result of users' failure to maintain and inspect equipment. Liability shall be limited to the repair or replacement of AEM Equipment shown to be defective by cause of manufacturing.

3.2 Safety

Adhere to all safety rules defined by government (OSHA/MSHA) 1910.147, owner/employer and site specific safety rules.

- DANGER -

Lockout/Tagout procedures must be followed before any maintenance, service, repair, or installation of equipment begins on the conveyor. Failure to follow all safety rules can result in injury or death.

CONTINUOUS IMPROVEMENT

BECAUSE WE'RE ON A MISSION TO SET THE STANDARD.

Given everything that we've updated about our secondary cleaners, we're anticipating some questions.

Why do our secondary blades measure in at Belt Width + 3 inches?

Because we're basing it on the CEMA standard measurement for return rollers. CEMA C return rollers are normally at least equal to Belt Width +3 inches, in order to allow for the natural travel of the belt (up to 1-1/2 inches per side). They are designed that way to account for any belt alignment issues, while lessening the chance of the side walls being damaged while the belt is in motion.

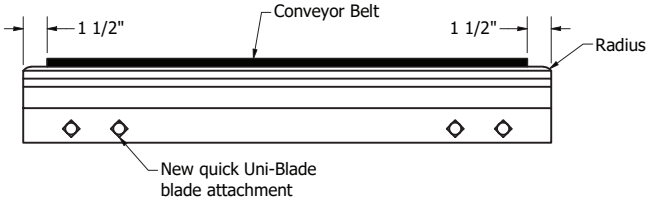
If the cleaner assembly doesn't account for the same variation and movement, you're running a high risk of your belt not being cleaned across the full width. Belt-width secondary cleaners didn't leave the same room for error that the return roller was designed for. So, after years of evaluation, we decided to base our blade width on the same standard, giving the same allowance for imperfection.

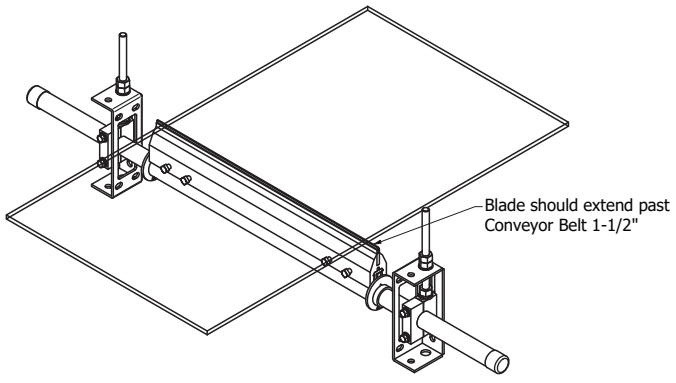
What about the carbide with the rounded corners?

Another note we made during our research was the capacity for carbide-tipped blades to remove rubber while removing debris. So, in order to protect your belt, we also developed custom carbide inserts, with radiuses at the ends, to decrease the chance of damage, effectively avoiding the cutting points.

And how does the UniBlade design work for secondaries?

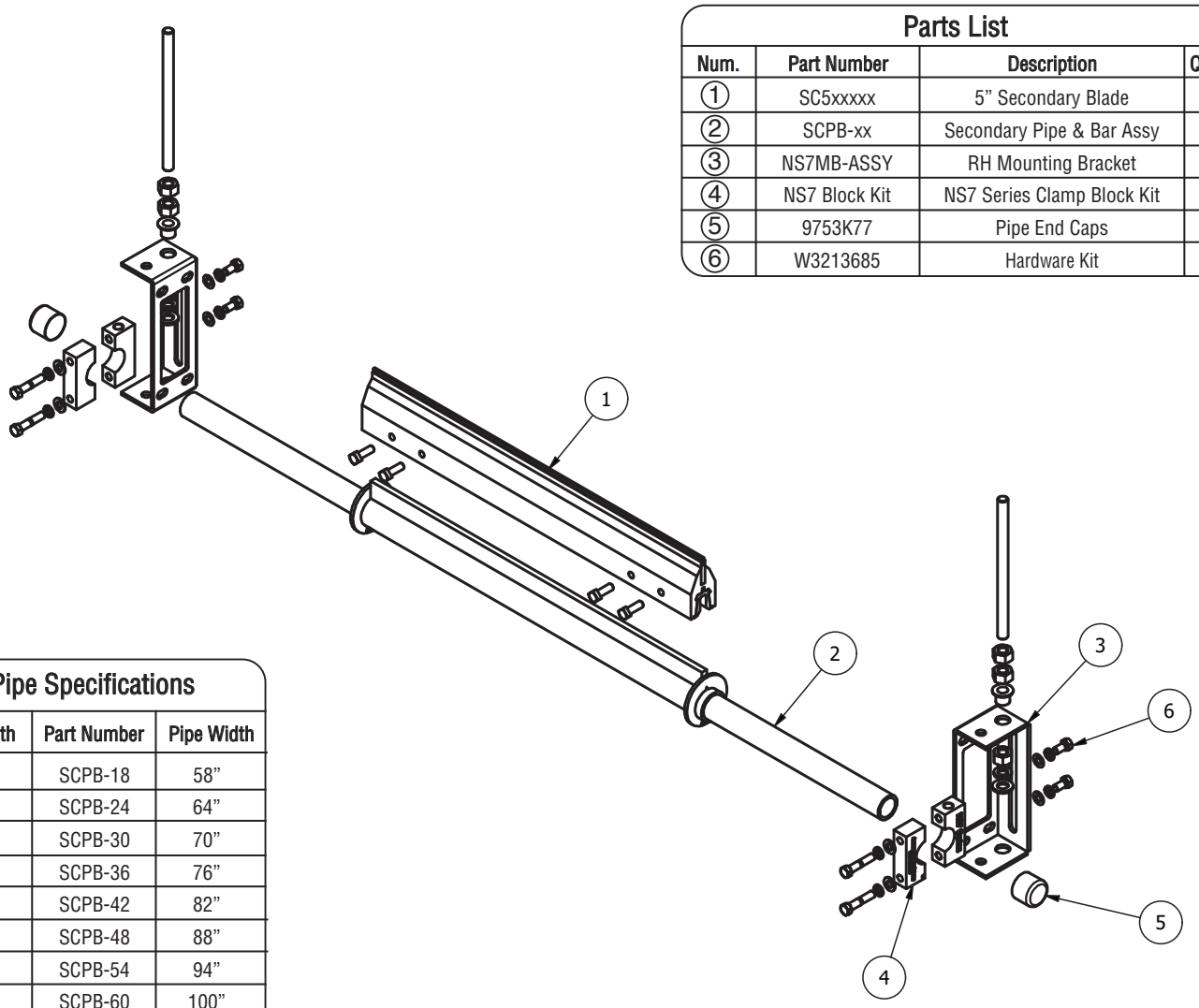
Regardless of OEM, the blade will simply drop onto the bar. Tighten the four included bolts after confirming placement, and the blade is installed. We really wish there were more words, but unfortunately, it's that simple.





NS7SC5 SECONDARY REPLACEMENT PARTS

Parts List			
Num.	Part Number	Description	Qty.
①	SC5xxxxx	5” Secondary Blade	1
②	SCPB-xx	Secondary Pipe & Bar Assy	1
③	NS7MB-ASSY	RH Mounting Bracket	2
④	NS7 Block Kit	NS7 Series Clamp Block Kit	2
⑤	9753K77	Pipe End Caps	2
⑥	W3213685	Hardware Kit	2



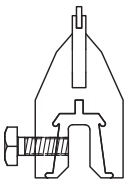
②

Pipe Specifications		
Belt Width	Part Number	Pipe Width
18”	SCPB-18	58”
24”	SCPB-24	64”
30”	SCPB-30	70”
36”	SCPB-36	76”
42”	SCPB-42	82”
48”	SCPB-48	88”
54”	SCPB-54	94”
60”	SCPB-60	100”
72”	SCPB-72	112”

URETHANE BLADE

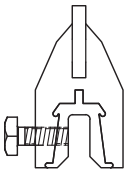
Belt Width	+3 Blade Width	AEM Part Number	Weight
24”	27”	SC5MUR27	13.5 lbs.
30”	33”	SC5MUR33	15 lbs.
36”	39”	SC5MUR39	19 lbs.
42”	45”	SC5MUR45	22 lbs.
48”	51”	SC5MUR51	25 lbs.
54”	57”	SC5MUR57	28 lbs.
60”	63”	SC5MUR63	31 lbs.
66”	69”	SC5MUR69	32.5 lbs.
72”	75”	SC5MUR75	35.5 lbs.
84”	87”	SC5MUR87	42.5 lbs.
96”	99”	SC5MUR99	48.5 lbs.

CARBIDE BLADE



Belt Width	+3 Blade Width	AEM Part Number	Weight
24”	27”	SC5MGC27	16.5 lbs.
30”	33”	SC5MGC33	20 lbs.
36”	39”	SC5MGC39	23.5 lbs.
42”	45”	SC5MGC45	27 lbs.
48”	51”	SC5MGC51	30.5 lbs.
54”	57”	SC5MGC57	34.5 lbs.
60”	63”	SC5MGC63	37.8 lbs.
66”	69”	SC5MGC69	41.5 lbs.
72”	75”	SC5MGC75	45 lbs.
84”	87”	SC5MGC87	52.5 lbs.
96”	99”	SC5MGC99	59.5 lbs.

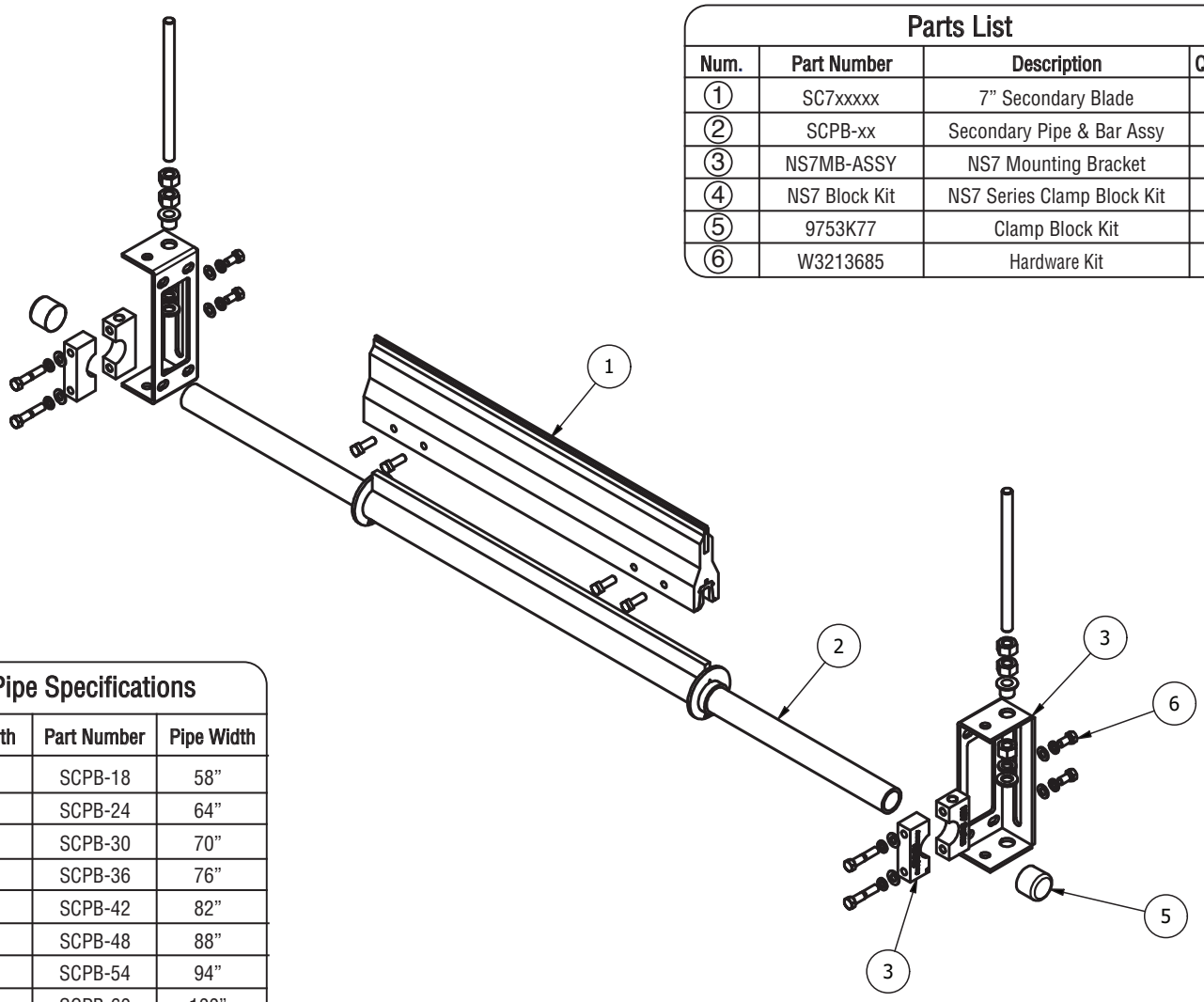
AR BLADE



Belt Width	+3 Blade Width	AEM Part Number	Weight
24”	27”	SC5MGA27	16.5 lbs.
30”	33”	SC5MGA33	20 lbs.
36”	39”	SC5MGA39	23.5 lbs.
42”	45”	SC5MGA45	27 lbs.
48”	51”	SC5MGA51	30.5 lbs.
54”	57”	SC5MGA57	34.5 lbs.
60”	63”	SC5MGA63	37.8 lbs.
66”	69”	SC5MGA69	41.5 lbs.
72”	75”	SC5MGA75	45 lbs.
84”	87”	SC5MGA87	52.5 lbs.
96”	99”	SC5MGA99	59.5 lbs.

NS7SC7 SECONDARY REPLACEMENT PARTS

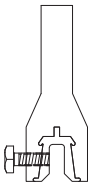
Parts List			
Num.	Part Number	Description	Qty.
①	SC7xxxxx	7" Secondary Blade	1
②	SCPB-xx	Secondary Pipe & Bar Assy	1
③	NS7MB-ASSY	NS7 Mounting Bracket	2
④	NS7 Block Kit	NS7 Series Clamp Block Kit	2
⑤	9753K77	Clamp Block Kit	2
⑥	W3213685	Hardware Kit	2



②

Pipe Specifications		
Belt Width	Part Number	Pipe Width
18"	SCPB-18	58"
24"	SCPB-24	64"
30"	SCPB-30	70"
36"	SCPB-36	76"
42"	SCPB-42	82"
48"	SCPB-48	88"
54"	SCPB-54	94"
60"	SCPB-60	100"
72"	SCPB-72	112"

URETHANE BLADE



Belt Width	+3 Blade Width	AEM Part Number	Weight
24"	27"	SC7MUR27	16.5 lbs.
30"	33"	SC7MUR33	20 lbs.
36"	39"	SC7MUR39	23.5 lbs.
42"	45"	SC7MUR45	27 lbs.
48"	51"	SC7MUR51	30.5 lbs.
54"	57"	SC7MUR57	34.5 lbs.
60"	63"	SC7MUR63	38 lbs.
66"	69"	SC7MUR69	41.5 lbs.
72"	75"	SC7MUR75	45 lbs.
84"	87"	SC7MUR87	52.5 lbs.
96"	99"	SC7MUR99	59.5 lbs.

CARBIDE BLADE

Belt Width	+3 Blade Width	AEM Part Number	Weight
24"	27"	SC7MGC27	20.5 lbs.
30"	33"	SC7MGC33	28 lbs.
36"	39"	SC7MGC39	33 lbs.
42"	45"	SC7MGC45	38.5 lbs.
48"	51"	SC7MGC51	43.5 lbs.
54"	57"	SC7MGC57	48.5 lbs.
60"	63"	SC7MGC63	53.5 lbs.
66"	69"	SC7MGC69	59 lbs.
72"	75"	SC7MGC75	64 lbs.
84"	87"	SC7MGC87	74 lbs.
96"	99"	SC7MGC99	85 lbs.

AR BLADE

Belt Width	+3 Blade Width	AEM Part Number	Weight
24"	27"	SC7MGA27	20.5 lbs.
30"	33"	SC7MGA33	28 lbs.
36"	39"	SC7MGA39	33 lbs.
42"	45"	SC7MGA45	38.5 lbs.
48"	51"	SC7MGA51	43.5 lbs.
54"	57"	SC7MGA57	48.5 lbs.
60"	63"	SC7MGA63	53.5 lbs.
66"	69"	SC7MGA69	59 lbs.
72"	75"	SC7MGA75	64 lbs.
84"	87"	SC7MGA87	74 lbs.
96"	99"	SC7MGA99	85 lbs.

INSTALLATION CHECK LIST

Confirmation of Cleaner Series and Size

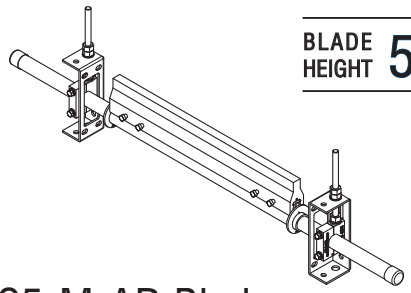
- Check that the cleaner size is correct for the belt width
- Check the belt cleaner assembly and confirm all the parts are included

Tools Required

- (2) 6” C Clamps (for positioning and brackets)
- Tape Measure
- 3/4” (19mm) wrench
- Rachet with 3/4” socket
- Cutting torch and/or drill

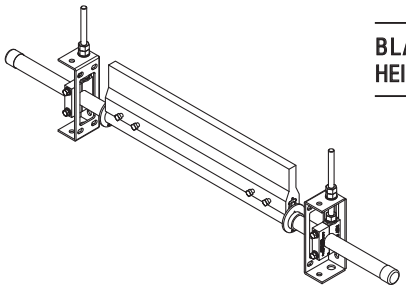
NS7SC SERIES OPTIONS

NS7SC5-M-UR Urethane Blade



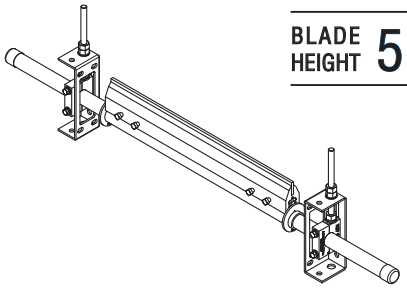
BLADE HEIGHT 5”

NS7SC7-M-UR Urethane Blade



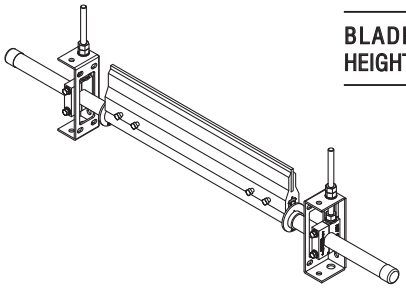
BLADE HEIGHT 7”

NS7SC5-M-AR Blade



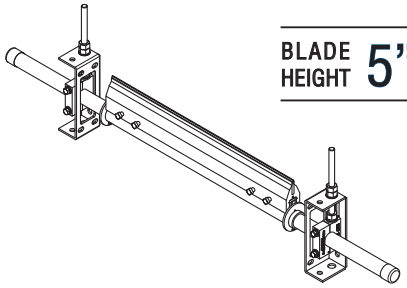
BLADE HEIGHT 5”

NS7SC7-M-AR Blade



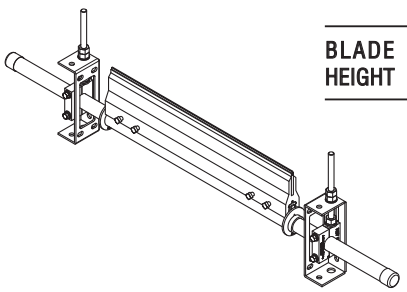
BLADE HEIGHT 7”

NS7SC5-M-GC Carbide Blade

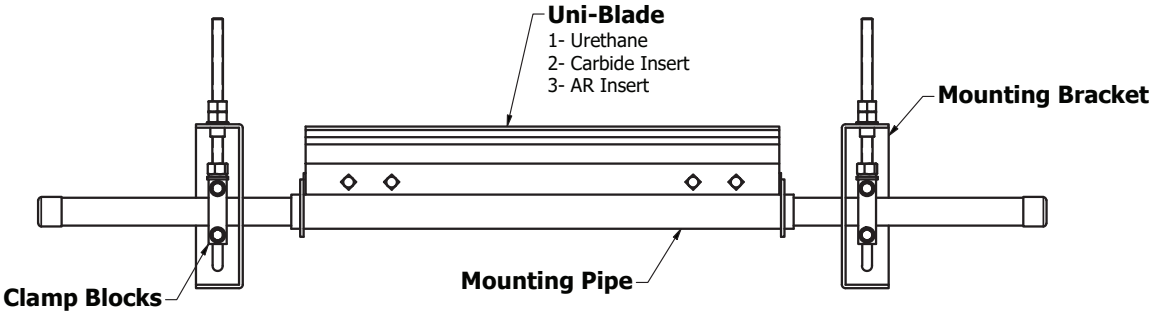


BLADE HEIGHT 5”

NS7SC7-M-GC Carbide Blade



BLADE HEIGHT 7”



***IMPORTANT:** MAKE SURE CONVEYOR IS LOCKED OUT/TAGGED OUT BEFORE ANY WORK BEGINS.

Step 1. - Location

It is preferred to install the Cleaner with Blade contact 4" downstream from the point where the Conveyor Belt leaves the Head Pulley (see Fig. A).

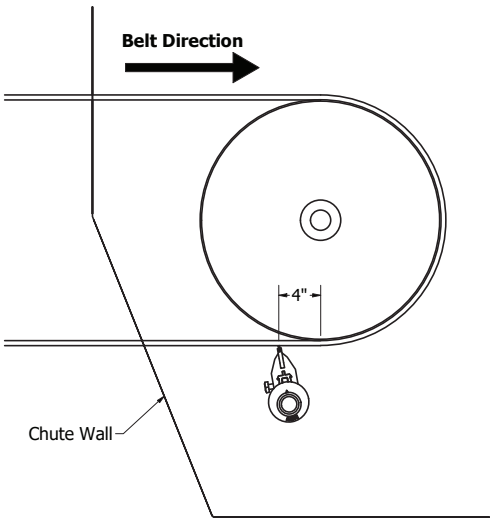


Fig. A

Step 2. - Mounting Bracket Installation to Conveyor Frame

Draw a Blade Tip Location line on the belt and transfer the line to Chute Wall shown in Fig. B.

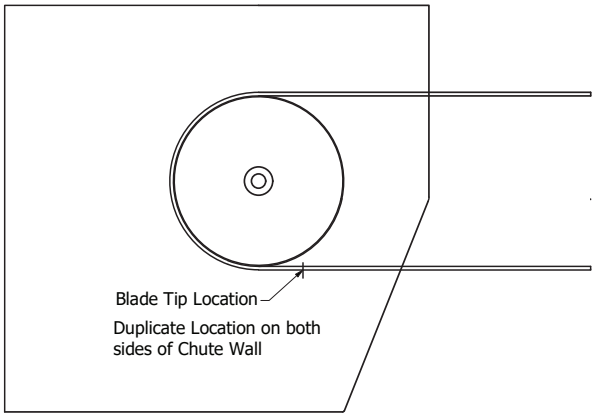
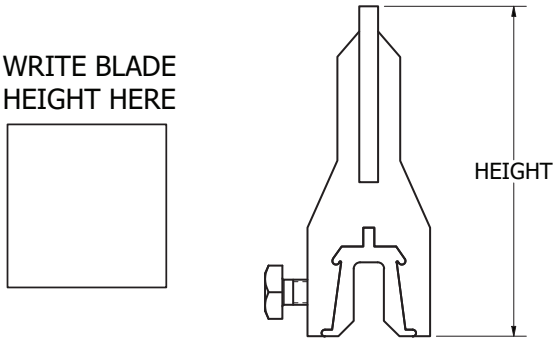


Fig. B

Step 3 - Blade and Mounting Pipe Access Hole

1) Measure your overall Uni-Blade height.



2) Measure and cut an access hole for the Blade and Mounting Pipe to the dimensions shown in Fig. C.

*IMPORTANT:
Use 4-1/2” x 8-3/4” if a 5” Blade is installed or 4-1/2” x 10-3/4” if a 7” Blade is installed.

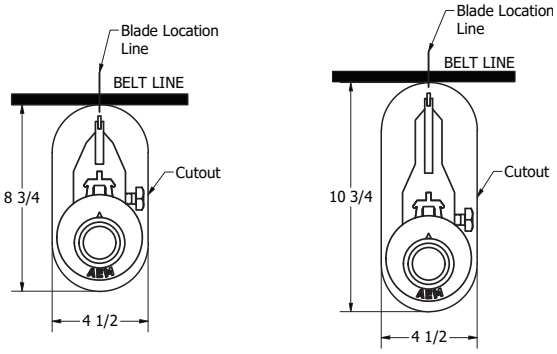


Fig. C

Step 4 - Mounting Pipe Access Hole

Measure and cut an access hole for the Mounting Pipe to through the opposite side of the Chute Wall to the dimensions shown in Fig. D.

*IMPORTANT:
Make sure the top of the access hole is 2-3/4” from the Conveyor Belt for a Cleaner with a 5” Blade or 4-3/4” from the Conveyor Belt for a Cleaner with a 7” Blade.

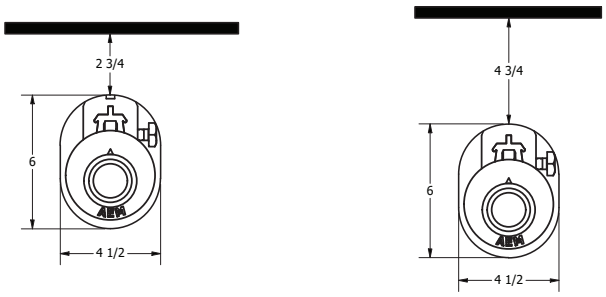


Fig. D

Step 5 – Attaching the Mounting Brackets to the Chute Wall

1) Place and hold the Mounting Bracket to the side of the Chute Wall over the Blade and Mounting Pipe access hole and mark the locations for the bolt holes. Remove the Mounting Bracket and drill or burn the holes as shown in Fig. E.

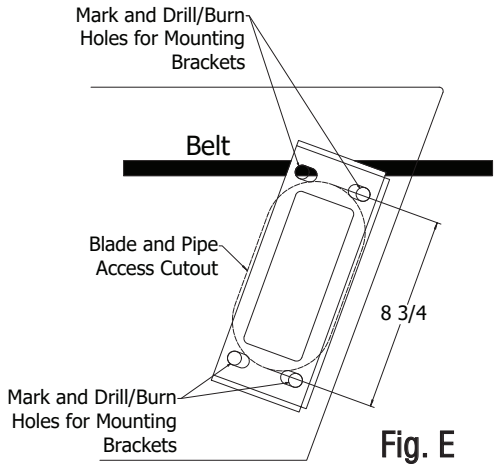


Fig. E

2) Place and hole the Mounting Bracket to the side of the Chute Wall over the Pipe access hole on the opposite side of the Chute. Mark the locations for the bolt holes. Remove the Mounting Bracket and drill or burn the holes as shown in Fig. F.

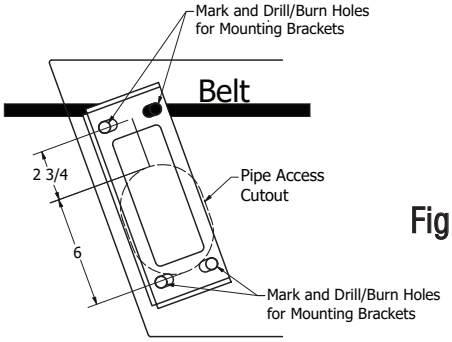
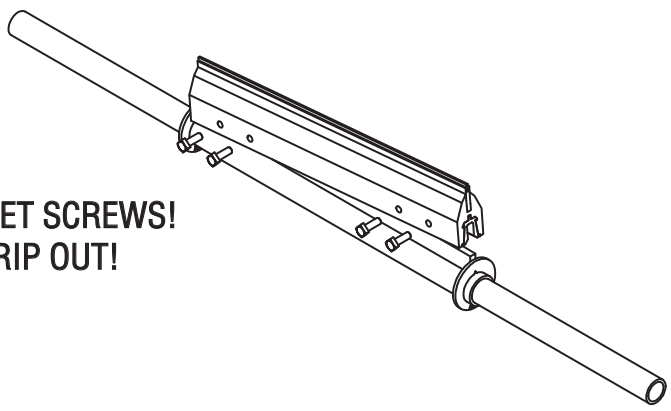


Fig. F

Step 6 – Attaching Uni-Blade to Mounting Pipe

Install the Uni-Blade to the Mounting Pipe. Tighten the set screws on the Uni-Blade.
***NOTE: If enough clearance is possible to allow access to the set screws, install the Uni-Blade with the set screws on the back of the Cleaner to prevent wear on the set screws.**



***IMPORTANT: DO NOT OVERTIGHTEN THE SET SCREWS!**
THIS WILL CAUSE THE THREADS TO STRIP OUT!

Step 7 – Installing Uni-Blade and Mounting Pipe

1) Pass the Mounting Pipe and Uni-Blade through the access hole in the Chute Wall as shown in Fig. G. Make sure the end of the Mounting Pipe is passed through the Pipe access hole in the opposite Chute Wall.

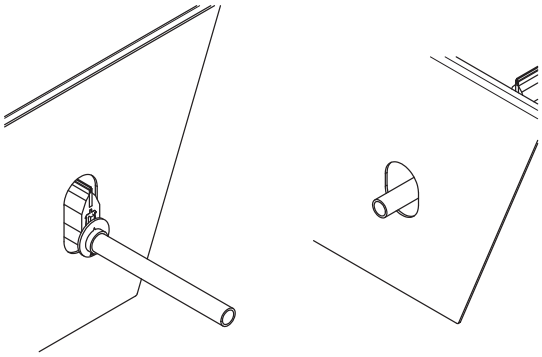


Fig. G

2) Install Mounting Brackets with Clamp Blocks and hardware to the Chute Walls. Remove the lower Clamp Blocks to install the Mounting Pipe and Uni-Blade in the Mounting Bracket assemblies (See Fig. H).

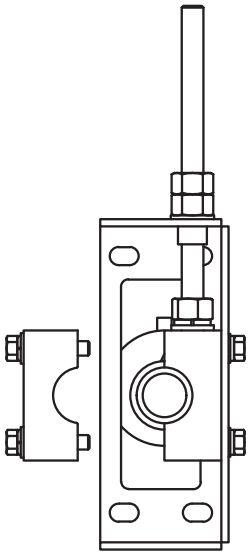
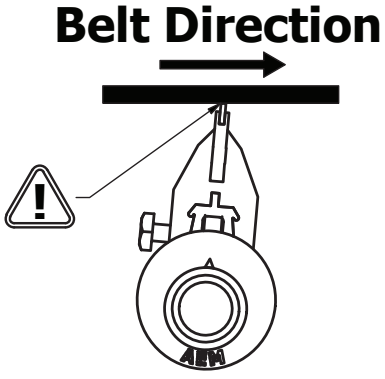


Fig. H

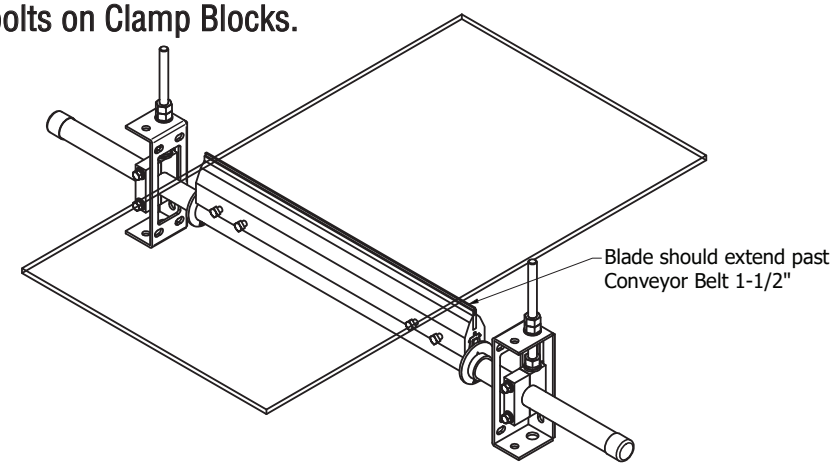
3) Reinstall the lower Clamp Blocks to the assembly. Tighten the Clamp Blocks to hold the Mounting Pipe but loose enough to allow the Mounting Pipe and Uni-Blade to be rotated to the proper angle. The Uni-Blade should be installed at a negative angle of 6-8º to the Belt direction (See Fig. I).



CAUTION

6-8º Setting the Blade Angle is CRITICAL!

4) Center the Uni-Blade on the Conveyor Belt, making sure that the Uni-Blade extends past the Belt 1-1/2" on both sides. Tighten bolts on Clamp Blocks.



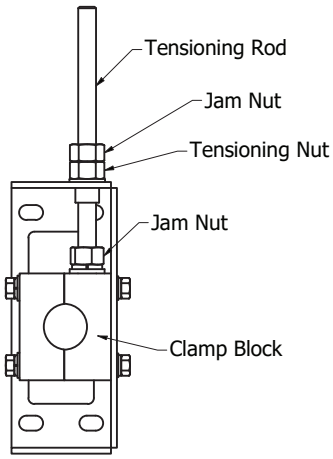
Step 8 - Adjusting Uni-Blade Tension

Loosen the Jams Nuts on top of the Tensioning Nuts on both Mounting Bracket assemblies (see Fig. J). Turn the Tensioning Nut to bring the Uni-Blade tip to touch the Conveyor Belt ***equally*** on both sides. Using a tape measure, adjust the tension equally on both sides. The adjustments should be NO MORE THAN 1/8" for Carbide- and AR-tipped Uni-Blades, and NO MORE THAN 1/4" for Urethane Uni-Blades.

CAUTION

DO NOT EXCEED 1/8" INCREMENTS ON CARBIDE AND AR TIP UNI-BLADES

DO NOT EXCEED 1/4" INCREMENTS ON URETHANE UNI-BLADES



CAUTION

For Carbide Tip and AR Tip Blades, DO NOT OVER TENSION!

CAUTION

Carbide Tip Blades are NOT RECOMMENDED WITH MECHANICAL SPLICES!

Step 9

Once everything is set at the proper tension, tighten all bolts on both sides of the Clamp Blocks along with the Jam Nuts on the Mounting Brackets.

Step 10

TEST RUN THE CLEANER. Make sure there is full coverage of the Belt with the Uni-Blade and full Blade contact. If vibration occurs or cleaning is insufficient, adjust Blade tension on both sides at 1/16" increments.

American Eagle Manufacturing LLC
1 866 713 8985
252 633 0603
New Bern, North Carolina 28560
AmericanEagleManufacturing.com