**Installation Guide** 









# ERASER MDP<sup>™</sup>

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Always obey all applicable safety rules.

Be sure all power to the conveyor has been disconnected and controls are locked out.

#### **Installation Tools Required**

- Tape measure
- Cutting Torch or Hole Saw ( $4^{1/2''}$ )
- Level
- Scribe or Chalk

- Welder or Drill
  - 1/2'' Wrench
  - $1^{1}/_{4}^{\prime\prime}$  Wrench or Crescent Wrench
- Bolts, lock washers and nuts for mounting are not supplied

#### Safe Torque Ratchet System - Assembly Breakdown



Number	Part Number	Quantity	Description
1	CP-SE2-M"XX"A	1	SE2 Mainframe
2	CP-MDP-B"XX"-G83	1	MDP Blade
3	CP-SE2-P33R	2	SE2 Ratchet Mounting Spool
4	CP-SE2-P75B-Y83	2	SE2 Dust Cap
5	CP-SE2-P22B	2	SE2 Stub End
6	CP-SE2-P33-RT-B93	2	SE2 Inner Snap Seal
7	CP-SE2-PLC65-G83	2	SE2 Locking Collar
8	CP-SE2-P2075-E-B93	2	SE2 Tensioner
9	CP-SE2-P56F	2	SE2 Ratchet Spool Washer
10	CP-SE2-P52C-G83	2	SE2 Outer Catch
11	CP-SE2-P42C-G83	2	SE2 Inner Catch
12	CP-AR-98407A156	4	Retaining Ring
13	CP-SE2-P550	1	Safety Snap Pin 0.625 x 5.50"
14	CP-AR-505	1	Spring Pin, 3/4" x 4-1/4"
15	CP-AR-90312A720	2	Wire Rope Lanyard; 12" Long, 3/64" Wire
16	BOLT-0.38X1.75NC-ZC	2	Hex Bolt - 3/8"-16UNC 1-3/4" Long Zinc
17	WASH-0.38-F-SAE-ZINC	4	3/8" Flat Washer Zinc
18	NUT-016	2	Nut 3/8"-16UNC, Zinc
19	CP-AR-5150S	4	Set Screw 1/2"-13UNC X 1-1/2" Long SS
20	CP-AR-5125S	2	Set Screw 1/2"-13UNC X 1-1/4" Long SS
21	CP-AR-512540	2	Bolt-0.5-13 NC 1.25" Long, Grade 8 Step Down

\* Systems 34" and above come standard with dual tensioners and require double of each of the noted parts.

#### Note:

This Eraser MDP primary belt cleaning system is designed to be used on conveyor pulleys of 24" in diameter and larger. Using this system on a pulley smaller than the recommended size stated above will not provide proper cleaning of your conveyor system.

#### **Step One: Calculations**

NOTE: Shaded areas in Figures 1 and 1a represent acceptable mounting locations.



# Dimension Table - Table 1 Outside Diameter\* X Z 24" - 31" 7" 15.50" 32" - 47" 6.50" 15.50" 48" & Larger 6.50" 15.50"



#### Step Two: Layout

After you have determined the mounting location for your belt cleaning system, align the template (see page 11 of this guide) with your bisected horizontal and vertical lines on the mounting structure wall and transfer the center hole, bolt holes and perimeter of the template to the chute wall using your scribe.



Inclined belt mounting position



ATTENTION: Tip of blade is below horizontal axis.

Repeat the layout procedure on the opposite mounting structure. For single tensioner, follow instructions on page 4. For dual tensioner, turn to page 6.

## **INSTALLATION - Single Tensioner**

#### Step Three (A): Mounting systems equipped with a single tensioner

Cut the tensioner hole which was scribed on the mounting structure (your finished hole should be approx.  $4^{1}/_{2}''$  in diameter).

#### NOTES:

• For Bolt In Only - Using the bolt circles that you scribed as a guide, drill four  $^{13}/_{16}$ " diameter holes to accept  $^{3}/_{4}$ " diameter grade 8 bolts.

Single tensioner Eraser MDP systems are shipped with the tensioner on the left side, facing the head pulley. If you need to mount your tensioner on the right side please refer to tensioner assembly instructions on page 9.



Remove the urethane locking collars from the stub ends.



Remove the mounting spool from the nontensioner side of the system. Line up the spool with the holes in the chute wall, then bolt it into place using four 3/4'' grade 8 bolts and lock washers. You can also choose to stitch weld on the flat sides of the mounting spool.



Using a  $\frac{1}{2}$ " end wrench, loosen the three setscrews located on the bottom of each end of the mainframe. Remove the entire tension cartridge from the left side of the mainframe.



Lift the mainframe into position. Insert the stub end into the mounting spool on the non-tensioner side.

## **INSTALLATION - Single Tensioner**



Temporarily retighten the three setscrews to hold the mainframe in place. Then carefully lower to let system hang in place.



Temporarily retighten the setscrew on tensioner side to stabilize system. Bolt or stitch weld the mounting spool on the tensioner cartridge to the chute wall.



On the other side of the chute, slide the tensioner cartridge through the chute wall and insert it into the mainframe.



Loosen the setscrews and center the mainframe and blade to the belt. Tighten the setscrews to secure the stub ends.



Install the urethane locking collars by sliding them over the stub end, snugging them to the chute wall. Tighten the bolts to secure.

#### IMPORTANT

At the top point of the mounting spool, the inner ratchet catch must always point away from the load pulley.

#### PROCEED TO TENSIONING INSTRUCTIONS ON PAGE 8

## **INSTALLATION - Dual Tensioner**

#### Step Three (B): Mounting systems equipped with a dual tensioner

Cut the tensioner holes which were scribed on the mounting structure (your finished holes should be approx.  $3^{1}/_{2}$ " in diameter).

#### NOTES:

• For Bolt In Only - Using the bolt circles that you scribed as a guide, drill four  $^{13}/_{16}$ " diameter holes to accept  $^{3}/_{4}$ " diameter grade 8 bolts per mounting spool.



Remove the urethane locking collars from the stub ends.



Remove both tension cartridges from the mainframe.



If there is room, slide the first tensioner cartridge through the chute wall and line up the mounting spool with the template that was transferred to the chute wall. Now bolt or weld into place.



Lift the mainframe into position. Slide the mainframe onto the cartridge, then temporarily retighten the three setscrews on the tensioner side to stabilize system.

## **INSTALLATION - Dual Tensioner**



If there is not a lot of room between the chute walls, hold the mainframe in place and slide the tension cartridge into the mainframe. Bolt or weld the mounting spool into position and tighten the setscrews.



Slide the second tensioner cartridge through the chute wall and insert into mainframe. Temporarily retighten the setscrew on tensioner side to stabilize system. Bolt or stitch weld the mounting spool on the tensioner cartridge to the chute wall.



Loosen the setscrews and center the mainframe and blade to the belt. Tighten the setscrews to secure the stub ends.



Install the urethane locking collars by sliding them over the stub end, snugging them to the chute wall. Tighten the bolts to secure.



#### **PROCEED TO TENSIONING INSTRUCTIONS ON PAGE 8**

## **INSTALLATION - Tensioning**

#### **Step Four: Tensioning**

The Eraser MDP system is equipped with our patented internal Perma-Torque tensioner and our Safe Torque ratchet system. The Perma-Torque is an adjustable elastomeric tensioner. The tensioner may be adjusted from a recommended minimum of 30 foot-pounds of force to a maximum of 100 foot-pounds. Exceeding tensioning of 18 clicks or 270° of rotation could damage the tensioner as well as the Safe Torque ratchet system. Four (4) clicks, or 60° of rotation is recommended for most applications.



To tension, first position the alignment notch on the outer ratchet catch with the mounting spool set screw. Grab the blade and rotate to align the ratchet notch.



When notch is aligned, tighten the setscrew. (Arrow indicates proper notch position.)



Use a 1" socket wrench on the exposed tensioner hex rod and turn the tensioner up and towards the pulley until the blade makes contact with the belt. Start tensioning by counting the clicks until you have reached the desired rotation. Four (4) clicks or 60° of rotation is the factory recommended setting. Repeat the same number of clicks on the opposite side for a dual tensioner system. Re-attach the dust cap(s).

Guideline for tensioning belt cleaning systems							
Blade	Blade	No.	Torque				
width	width	of	(ft-lbs)				

28-34 711-864		3	42
40	1016	4	49
46	1168	5	55
52	1321	6	62
58-70	1473-1778	8	74

**Do Not Overtension** Overtensioning will result in increased blade wear



When you need to release tension, just loosen the mounting spool set screw. You will see the outer ratchet rotate as the tension is released.

**NOTE:** On Dual Tensioner systems, tensions should be adjusted equally.

#### **Releasing Tension**

## **INSTALLATION - Left to Right Tensioner Conversion**

#### **Tensioner Conversion Instructions**

To mount a single tensioned Eraser MDP system with the tensioner on the right side instead of the left side, you will need to switch the entire tensioning spool to the other side of the mainframe, as well as the direction that the ratchet gears are oriented. It is recommended that you perform this conversion on the ground before the system is mounted.



Remove the retainer clip from the hex rod using a flat blade screwdriver. Be sure not to lose the retainer clip.



Unscrew the setscrew at the top of the mounting spool and remove both the inner ratchet and outer catch. Make sure you note what direction the gears are pointing.



Flip both the inner ratchet and outer catch so the gear teeth are pointed in the opposite direction and slide both back onto the hex rod.



Align the outer catch notch to the top of the mounting spool, tighten the set screw and then re-insert the retaining clip to the outer groove of the hex rod.



Your Eraser MDP system comes with the tensioner mounted on the left. You will need to switch the entire mounting spool assembly to the right side of the mainframe.

#### IMPORTANT

At the top point of the mounting spool, the inner ratchet catch must always point away from your conveyor load pulley.

Continue following the installation instructions located on page 4.

Problem	Probable Cause	Suggested Solutions	
	Cleaner under/over tensioned	Adjust to correct tension	
	Cleaner installed in wrong location	Ensure the "Z" dimension is correct and adjust if necessary	
Excessive Blade Wear	Wrong urethane for material	Consult Argonics or your distributor for proper urethane selection	
	Mechanical splice damaging blade	Repair, skive or replace splice	
	Damaged belt	Fix damaged area or replace belt	
Wear on center	Blade wider than material path	Replace with shorter blade (just outside material path)	
effect)	Wrong urethane for material	Consult Argonics or your distributor for proper urethane selection	
	Mechanical splice damaging blade	Repair, skive or replace splice	
Unusual wear or damage to blade	Belt damaged or ripped	Repair or replace belt	
	Cleaner installed in wrong location	Ensure the "Z" dimension is correct and adjust if necessary	
	Cleaner installed in wrong location	Ensure the "Z" dimension is correct and adjust if necessary	
	Cleaner running on empty belt	Use a spray pole to lubricate belt when running dry	
Vilevetice evening	Cleaner under/over tensioned	Adjust to correct tension	
Vibration or noise	Cleaner not securely fastened	Check and tighten all bolts and nuts	
	Cleaner not square to head pulley	Ensure the "Z" dimension is correct and adjust if necessary	
	Material buildup in chute	Clean up buildup on cleaner and in chute	
	Cleaner under/over tensioned	Adjust to correct tension	
Poor Cleaning Performance	Cleaner installed in wrong location	Ensure the "Z" dimension is correct and adjust if necessary	
	Urethane blade worn or damaged	Install new blade	
	Cleaner tension set too low	Increase tension, add a second tensioner if system only has one	
	Sticky material is overpowering cleaner	Ensure that set screw is seated in the notch of the outer ratchet catch (see page 8 of install guide)	
Blade pushed away		Add a second tensioner if a single tensioned system	
from pulley		Replace with shorter blade (just outside material path), use a harder ure- thane and increase tension of system	
		Replace with larger size cleaner	
	Cleaner not set up correctly	Ensure the "Z" dimension is correct and equal on both sides	
Blade flipping	Cleaner installed too far away from pulley	Ensure the "Z" dimension is correct and adjust if necessary	
through	Cleaner too small for pulley	Replace with larger size cleaner	

## Transfer the drawing below to cardboard, and use as your mounting spool template.



Template is drawn to actual size.

## **OTHER QUALITY PRODUCTS FROM ARGONICS**

#### THE MOST RELIABLE AND COST-EFFECTIVE SKIRTING AVAILABLE

#### MADE WITH KRYPTANE<sup>®</sup> POLYURETHANE

Argonics formulates unique proprietary Kryptane polyurethane materials tailored to meet the demands of your wear application, whether it be sliding or impact abrasion, sticking or corrosion.

#### **BENEFITS OF ARGONICS POLYURETHANE SKIRTING:**

- 6 10 times the wear life over rubber
- 60% lower coefficient of friction compared to rubber, which reduces drag on conveyor motor
- Will not groove your conveyor belt when installed correctly



#### DUO SEAL™

Engineered from 100% urethane, Duo Seal seamlessly integrates with most manufacturers' clamping systems, including our proprietary Wedge-Loc clamp.

The Duo Seal is designed with a flexible secondary seal that aligns perfectly with the belt, effectively containing dust and material. Its streamlined, compact design minimizes the amount of belt space needed outside the conveyor for installation.



#### SNAP-LOC<sup>™</sup> DUST SEAL

Snap-Loc is the gold standard for dust containment skirting. This straight-forward, no-nonsense design for dust control snaps into standard unistrut railing that can be bolted or welded into place.

Snap-Loc Dust Seal is engineered to create a perfect seal that follows the contours and low spots of the belt between trough rollers. No additional adjustments are needed for the life of the seal, saving you in both cost and hours of maintenance.



#### LOAD ZONE CONTAINMENT SKIRTING

Designed to do one thing and do it well: contain material at the transfer points on your belt line. The extra-rugged reinforced design with 1/4" steel means that our Containment Skirting is extremely effective in reducing spillage, resulting in reduced clean-up labor.

Containment skirting is available with either a flat or 20° beveled edge, and in 60" and 96" lengths. Varying heights and thicknesses available.





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