



ERASER SHD[™]

Conveyor Belt Cleaning System







LIB-CP-SHD-03-01 Rev. 2

ERASER SHD[™]

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
- ³/₄" Wrench
- 1" 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 - see pricing on previous pages
2	CP-MDE-RTT-"XX"-G83	varies	Blade Tip - see pricing on previous pages
3	CP-SHD-RTB-"XX"-B93	1	Blade Base - see pricing on previous pages
4	CP-SE2-P33R	2	SE2 Ratchet Mounting Spool
5	CP-SE2-P75B-Y83	2	SE2 Dust Cap
6	CP-SE2-P22B	2	SE2 Stub End
7	CP-SE2-P33-RT-B93	2	SE2 Inner Snap Seal
8	CP-SE2-PLC65-G83	2	SE2 Locking Collar
9	CP-SE2-P2075-E-B93	2	SE2 Tensioner
10	CP-SE2-P56F	2	SE2 Ratchet Spool Washer
11	CP-SE2-P52C-G83	2	SE2 Outer Catch
12	CP-SE2-P42C-G83	2	SE2 Inner Catch
13	CP-AR-98407A156	4	Retaining Ring
14	CP-SE2-P550	1	Safety Snap Pin 0.625 x 5.50"
15	CP-AR-505	1	Spring Pin, 3/4" x 4-1/4"
16	CP-AR-90312A720	2	Wire Rope Lanyard; 12" Long, 3/64" Wire
17	BOLT-0.38X1.75NC-ZC	2	Hex Bolt - 3/8"-16UNC 1-3/4" Long Zinc
18	WASH-0.38-F-SAE-ZINC	4	3/8" Flat Washer Zinc
19	NUT-016	2	Nut 3/8"-16UNC, Zinc
20	CP-AR-5150S	6	Set Screw 1/2"-13UNC X 1-1/2" Long SS
21	CP-AR-5125S	2	Set Screw 1/2"-13UNC X 1-1/4" Long SS
22	CP-AR-512540	2	Bolt-0.5-13 NC 1.25" Long, Grade 8 Step Down
23	CP-AR-153	2	Retainer Clip
24	CP-SHD-5075S	2	Set Screw, Cup Point
25	CP-SHD-P34A-B93	1	Fastener Cover

Note:

This Eraser SHD 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.



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.



Dimension Table - Table 1				
Outside Diameter*	Х	Z		
24" - 31"	7"	14 ¹ / ₂ "		
32" - 47"	6 ¹ / ₂ "	14 ¹ /2″		
48″ & Larger	6 ¹ /4″	14 ¹ / ₂ "		

* Includes lagging and belt thickness



Inclined belt mounting position



ATTENTION: Tip of blade is below horizontal axis.

Repeat the layout procedure on the opposite mounting structure.

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. $4^{1/2''}$ in diameter).

NOTES:

• For Bolt In Only - Using the bolt circles that you scribed as a guide, drill four $\frac{13}{16}''$ diameter holes to accept $\frac{3}{4}''$ 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 SHD 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 20 foot-pounds of force to a maximum of 80 foot-pounds. Exceeding tensioning of 24 clicks or 480° of rotation could damage the tensioner as well as the Safe Torque ratchet system. Four (4) clicks, or 90° 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 90° 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 width (mm)	Blade width (in)	No. of clicks	Lbs of force				
250- 700	10-26	4	50	gle ioner			
725- 1150	28-44	5	60	Sin Tens			
1175- 1750	46-68	4	50	oner			
1775- 2700	70-106	5	60	Tensi			
2725- 3000	108-120	6	70	Dual			

Do Not Overtension Overtensioning will result in increased blade wear



WATCH THE TENSIONING VIDEO

Releasing Tension



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.

Installation of your Argonics Eraser SHD belt cleaning system is now complete. Maintenance or re-tensioning should not be required throughout the life of the blade.

TROUBLESHOOTING GUIDE

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	
	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.



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