

QC1 XHD Primary Belt Cleaner

Installations without chutework

These procedures were written for equipment that is being installed on enclosed pulley chutework. If the pulley is not enclosed, the equipment should be installed using the best available field resources and methods to ensure that the critical dimensions are followed for proper installation.

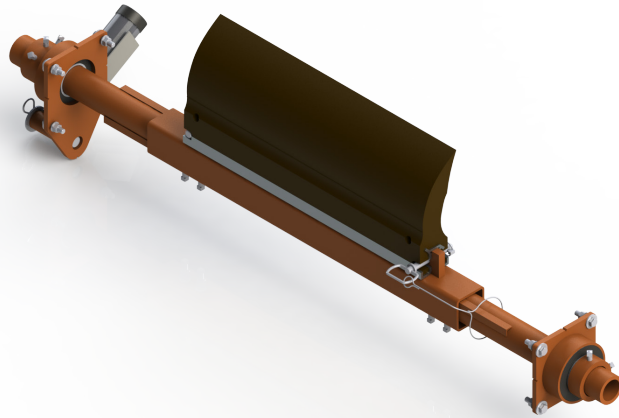
Belt cleaner inspection access

If the belt cleaner is installed on enclosed pulley chutework, at least one Martin® Inspection Door should be installed. Martin® Inspection Doors are available from Martin Engineering or a representative.

Materials required

Installation of this equipment requires the use of standard hand tools, grinder, welder, and cutting torch.

PLEASE ENSURE THAT YOU ARE WEARING THE NECESSARY PPE BEFORE ATTEMPTING INSTALLATION

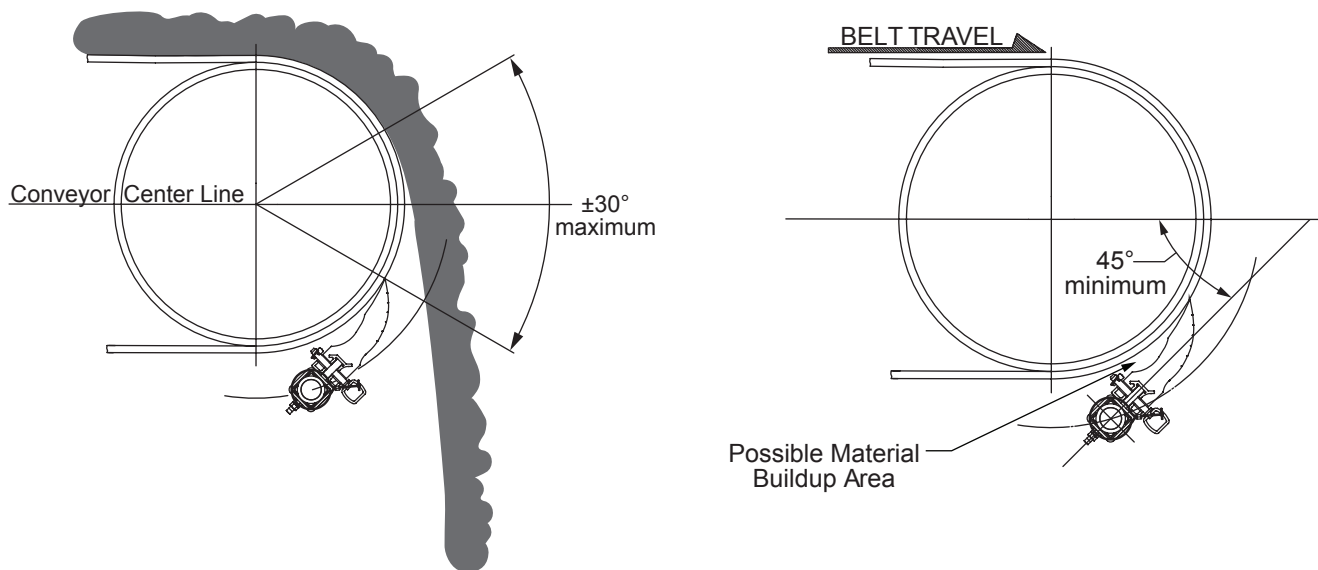


1. Inspect shipping container for damage. Report damage to delivery service immediately and fill out delivery service's claim form. Keep any damaged goods subject to examination.
2. Remove belt cleaner assembly from shipping container.
3. If anything is missing contact Martin Engineering or a representative.
4. Turn off and lockout / tagout / blockout / testout energy source according to customer specific requirements
5. If this equipment will be installed in an enclosed area, test the gas level or dust content before using a cutting torch or welding. Using a torch or welding in an area with gas or dust may cause an explosion resulting in serious injury or death. Follow local confined space procedures.
6. If using a cutting torch or welding, test atmosphere for gas level or dust content. Cover conveyor belt with fire retardant cover.
7. Center the belt cleaner blades to clean an area narrower than the conveyor belt width. This allows for side-to-side movement of the belt and prevents damage to the belt edge.

Note: The chute wall that the tensioner will be located on is referred to as the "operator side." The other side of the chute is referred to as the "far side." (If installing dual tensioners, side that is most accessible is "operator side.")

INSTALLATION PROCEDURE

Figure 1. Belt Cleaner Mounting Locations



8. Inspect belt cleaner mounting area for possible obstructions that could interfere with proper mounting. Refer to following guidelines:

a. The cleaner can be mounted anywhere on the arc from +30 degrees to -30 degrees from a center line parallel to the belt line as long as:

- (1) The blade is not in the direct flow of discharging material causing premature blade wear.
- (2) The diameter of the pulley is big enough that the blade does not trap or hold material between the inside of the blade and the belt.
- (3) There is at least the equivalent of a 45 degree angle between the blade and belt to prevent material buildup in this space.

b. Lack of service is the main cause of poor belt cleaning performance.

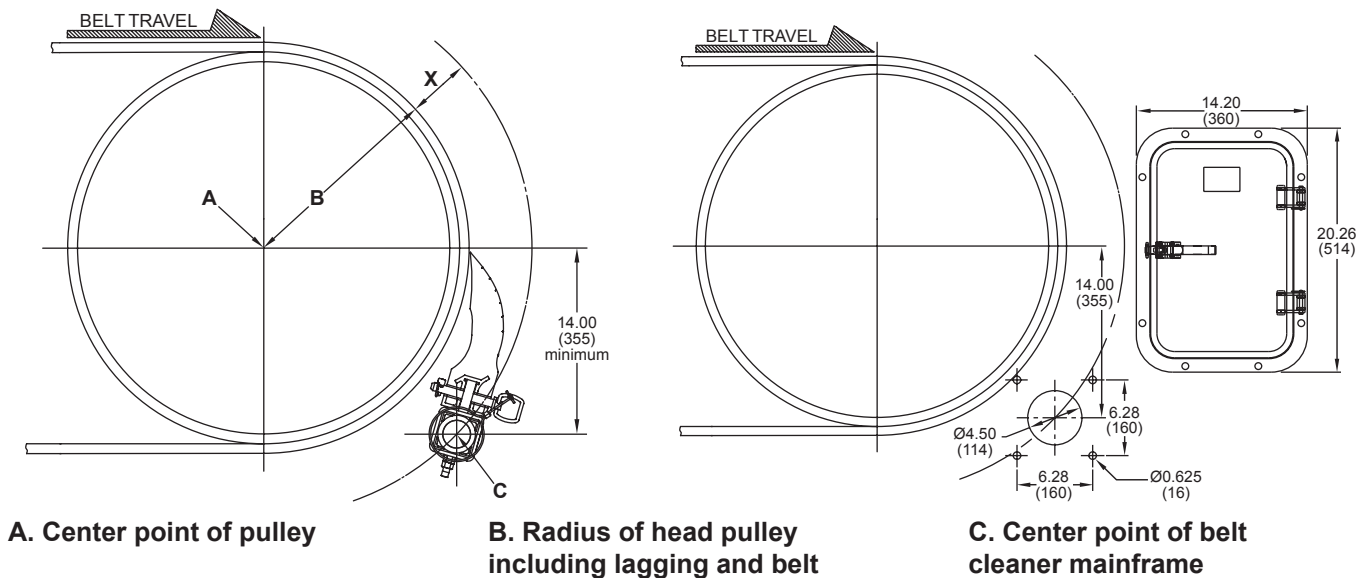
Follow CEMA guidelines for access:

- (1) Clearance for service outside the chute must be at least equal to the belt width.
- (2) Cleaners must have service platforms. CEMA recommends cleaners be mounted at least 600mm. above the work platform.
- (3) If the belt width is 1400 mm or larger consider access doors on both sides of the chute.

c. Refer to "Installing Belt Cleaner and Tensioner" and "Part Numbers" sections of this manual for specific mounting and cleaner dimensions.

INSTALLATION PROCEDURE

Figure 2. Belt Cleaner Mainframe Location & Chute Wall Cutouts



Locating belt cleaner mainframe

Pulley Diameter* in mm.	Dimension X mm.
400	146
500	140
600	133
700	127
750	120
*Includes lagging & belt	

9. On operator side of chute, find pulley center point (A).

10. Measure radius of head pulley including lagging and belt thickness (B). To this dimension, add dimension X from table.

11. Starting from center point (A), measure the total distance calculated in step 2 ($B + X$) and draw an arc on chute wall.

12. Measure down from pulley's horizontal centerline the distance shown in Figure 2 and draw a horizontal line parallel to it. Locate center point of belt cleaner mainframe (C) where this line intersects the arc on the chute wall.

13. Make sure mainframe and blade do not lie in path of material unloading from conveyor belt.

14. Repeat steps 9 through 13 for far side chute wall.

15. Drill or cut holes for tensioner mounting plates on chute walls as follows:

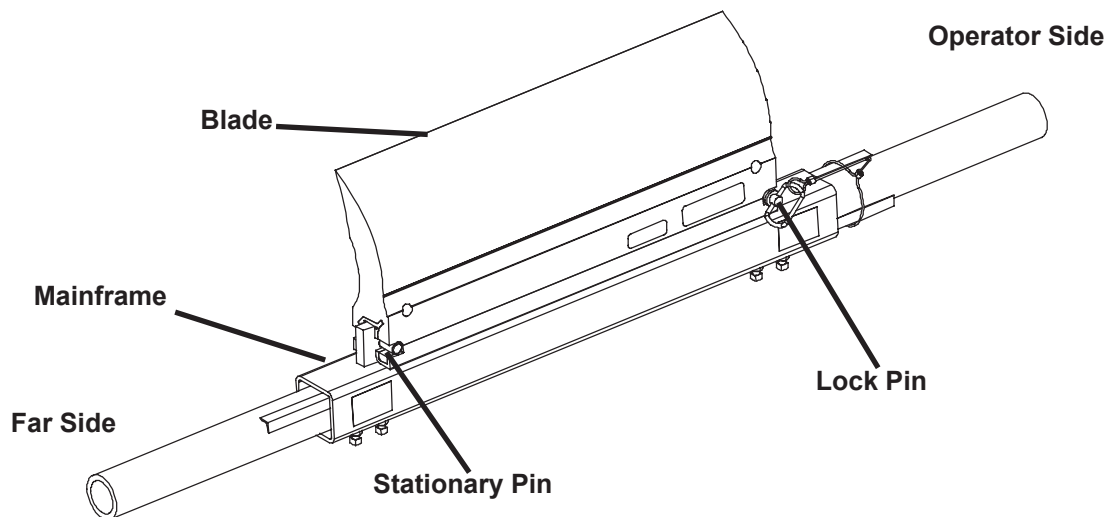
a. If bolting tensioner mounting plates to chute walls, do the following:

(1) Drill or cut one 114mm. hole for mainframe and four 16mm. holes for screws in both operator side and far side chute walls. Remove burrs and sharp edges.

b. If welding tensioner mounting plates to chute walls, do the following:

(1) Drill or cut one 114mm. hole for mainframe in both operator side and far side chute walls. Remove burrs and sharp edges.

Figure 3. Removing and Installing Blade



16. Disengage lock pin from operator side of mainframe and blade.

17. Pull blade away from stationary pin on far side of mainframe, and remove from mainframe. Make sure lock pin lanyard remains attached to mainframe.

18. Installing tensioner

19. Position blade on mainframe with blade curve facing conveyor belt. Push far side end of blade against stationary pin until it locks.

20. Insert lock pin in mainframe and blade.

21. Make sure blades are centered on belt and mainframe is parallel to belt.

22. Tension belt cleaner.

23. Remove locks.

24. Turn on conveyor belt for 1 hour, then turn off.

a. Make sure all fasteners are tight. Tighten if necessary.

b. Inspect belt cleaner for the following:

- (1) Wear. (A small amount of “break-in” wear may be found. This will stop once blades wear to conveyor belt contour.)
- (2) Material buildup. (No material between blades and return side of conveyor belt should be found.)



Martin Engineering Africa
Cnr Antwerpen str & Arnheimsingel
Die Heuwel, Witbank, Emalahleni
Tel +27 13 656 5135
Fax +27 13 656 5129
www.martin-eng.co.za

