Anti-Surge Plate

Installation Guide

1. The surge plate should be located past the last load point on the conveyor. This would include dribble chutes. As a general rule the plate should be located up the conveyor line from the last load point approximately five feet. This will deter plugging if a large surge occurs.

2. The surge plate can be installed anywhere in the chute extension lid. If the chute has flanged lids the anti-surge plate can be installed between the lid flanges. One flange would be cut off and a 2" x 2" x ¼" angled support bracket installed in its place.

3. After determining the appropriate location cut a 1/2" slot out of the chute extension lid which will allow the 3/8" AR400 plate to slide freely up and down for adjustment. If installing between lid flanges cut ½" off, including flange, of lid. Measure the inside width of the chute extension or wear plate and cut the surge plate slightly less than that measurement. Just enough to allow for easy up and down adjustment of the plate.

4. The height of the surge plate will be the distance from the bottom of the chute extension side wall to six inches above the chute lid. The bottom of the plate should be cut at the slight angle (see diagram). The bottom edge of the plate may require additional trimming after complete installation.

5. After the plate has been cut to the proper width two adjustment slots should be cut on each side of plate (see diagram). The slot should be approximately 11/16" wide and should start 2"down from the top of the plate and continue until 2" from the bottom of the plate. The outside edge of the slot should be one inch from the side of the plate. One or two handles should be cut in the top of the surge plate for easier handling and adjustments.

6. The two support brackets can be welded or bolted to the chute lids. If bolted a bolt hole should be cut at each end of the bracket and through the chute lid and extension. One half inch bolts are recommended. These brackets are positioned parallel with the slot in the lid. A bolt hole should be cut at each end on the top of the support brackets to match up with the adjustment slots in the surge plate. One half inch bolts are recommended for slots.

7. After the support brackets are in place and the surge plate is cut to fit, slide the plate into place. Insert the adjustment bolts through the support brackets and the surge plate and hand tighten. The surge plate should be adjusted to a position slightly higher than the normal material flow and the adjustment bolts tightened. Make sure that no part of the plate comes into contact with material other than during the surge. Trim the bottom of the plate as necessary to achieve a contour similar to that of the normal material flow.

8. Install 1 support brace, 2"x 2" x ¼" angle, on each side of the chute. The brace will be approximately four inches long and should be welded only to the chute wall. This will provide adequate support for the surge plate.

9. After installation is complete the system should be operated at the required tonnage to determine if the plate is set properly. The surge plate can be raised or lowered as needed.

   Note: These are typical installation guidelines and should be followed. However, these guidelines may have to be modified at times to allow for the variances in conveyor designs. Each job has to be examined to determine the appropriate installation guidelines.