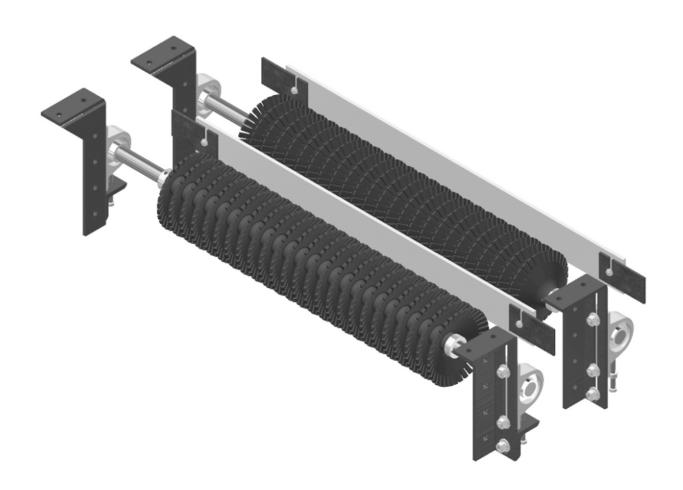


## CHEVRON BELT CLEANERS

# INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS





24 Hour Emergency Service and Parts 610-821-0210 ASGCO Mfg., Inc. 301 Gordon Street Allentown, PA 18102 610-821-0216 FAX 610-778-8991

#### Important Safety Notice

Always observe the basic rules of safety when working with any conveyor system. To avoid injury and equipment damage, be sure that all controls to the conveyor are locked out and the power source is disconnected at all times during installation.

### Installation Tools

In addition to the items provided by ASGCO, the following will be needed to install the Chevron Cleaner

- 1. Grinder
- 2. Drill with 9/16" and 1/2" bits
- 3. Cutting or burning equipment
- 4. Adjustable wrench, Ratchet, Sockets
- 5. Tape measure
- 6. Carpenter's square
- 7 Straight edge
- 8. Allen wrench set

To ensure the most efficient cleaning operation possible, ASGCO supplies a wide range of Chevron assemblies.

#### **ASGCO Chevron Cleaners:**

#### SOLID or NOTCHED - 8 IN DIA. - 1 1/2 IN SHAFT

 Custom-made shafts in various lengths and with a varying number of discs

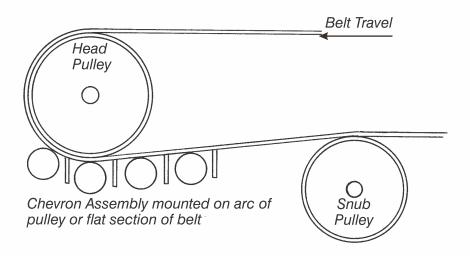
## Selecting a location for the Chevron

The Chevron assembly is designed to remove the fine carryback material. When choosing a mounting location for the Chevron, it is important to consider the space available. The Chevron assembly can be mounted on the arc of a pulley or any section of the belt that is flat and tight.

The belt length required is determined by number of shafts.

The following chart provides the distance in inches required to install the various assemblies.

MIN-MAX BELT SPEED: 300 to 550 FPM



Disc Four Three Shaft Two Shaft
Diameter Assembly 8" 50" Assembly 38" 26"

**NOTE:** The center point of the last shaft must be at least 14" away from any pulley or idler that is mounted below the belt.

It is also important that the mounting location is adequate to allow the scraped material to fall back into the main discharge chute or a dribble chute. To ensure sufficient flow of the scraped material down the chute, an unlined chute should have at least a 75° angle (to the horizontal); and UHMW plastic lined chute should have at least a 65° angle (to the horizontal).

**BELT TENSION REQUIREMENTS** - Because of the unique design of the Chevron, the shafts must be mounted in a flat, tight area of the belt. The Chevron cannot operate to its maximum effectiveness on a belt that is loose or bowed.

**ADDING IDLERS OR PULLEYS -** If a sufficient mounting location cannot be found between the head and snub pulleys, the Chevron can be located elsewhere, provided that the proper steps have been taken to prevent the belt from loosening or troughing in the contact area. This can be done by mounting standard return idlers or small pulleys above the belt.

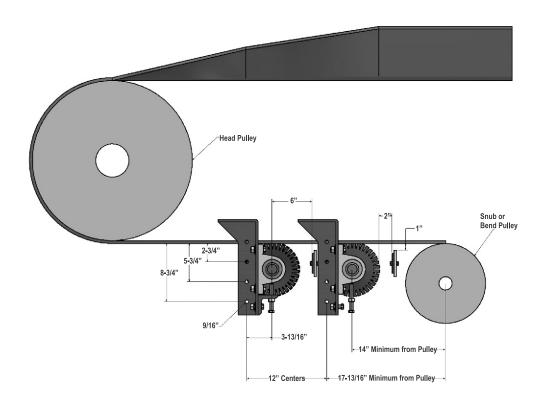
**FABRICATING MOUNTING PLATES -** If a chute is not present in the desired mounting location, mounting plates can be fabricated to simulate the sides of the chute and provide a mounting base for the Chevron shafts. These plates are made from 1/4" to 3/8" flat stock steel and should measure 12" to 16" high. Extend the plates the length of the Chevron installation, with an extra 6" on each end.

Once a suitable mounting location has been chosen, the initial setup work can begin. Proceed as follows:

#### Initial Setup

- 1. When using the 8" discs with the 1-1/2" bearings, measure the distance to a point 2-3/4" or 5-3/4" or 8-3/4" (You will be using any 2 of these dimensions) down from (perpendicular to) the belt on the chute wall. Mark this point "X'.
- 2. Transfer point "X' to the other side of the chute wall, making sure that the two marks are in the exact same location on both sides. These marks represent the location points of the mounting bracket bolt holes of the last Chevron shaft. Keep in mind that they must be at least 14" away from any pulleys or idlers mounted below the returning belt.

- 3. Use the illustration to determine the center to center distance of the remaining Chevron bracket mounting points. The distance between the mounting points is 12" center to center. While moving towards the head pulley, mark the remaining mounting point locations on both chute walls with "X" marks as was done in Step1, following the course of the belt for the distance that the Chevron's will be mounted.
- **4.** On both chute walls, scribe a line parallel to the belt and connecting each of the "X" end points. The intersecting points are the mounting points for the Chevron assembly and must be identical on both chute walls.

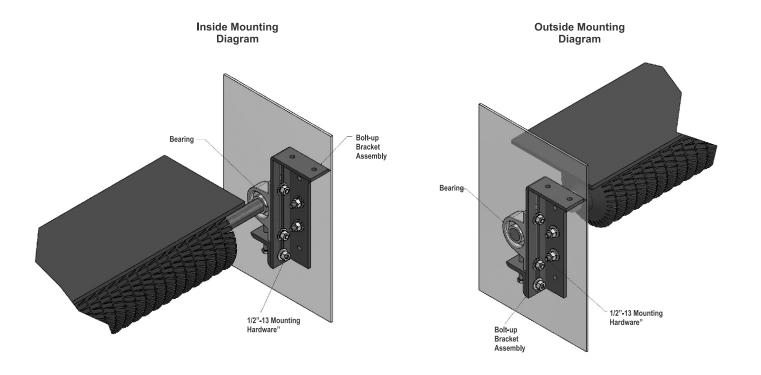


- 5. Burn or drill a 9/16" diameter hole at each of the "X" points on both chute walls.
- 6. Insert a ½" bolt into each of the 9/16" diameter holes. Be sure to insert the bolts from the outside of the chute wall when installing the mounting brackets on the inside or insert the bolt from inside the chute walls if mounting the brackets on the outside of the chute walls, then place a nut and washer on each bolt from the inside. Only hand tighten the nuts at this time.
- 7. Tack weld the heads of each of the bolts on both sides of the chute wall.

When all of the bolt heads have been welded, the Chevron installation can begin. Start with the last shaft installation and work forward toward the head pulley.

#### Chevron Installation

- 1. Install a bolt up mounting bracket on each of the bolts. To do this, loosen the nut; slide the bracket into position, then snug up the nut by hand tightening.
- 2. Do this to all the Bolt-up mounting brackets.



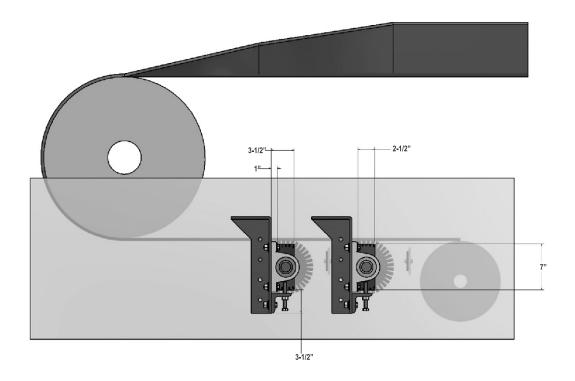
#### Chute Cut-Out

Using a torch or other cutting tool, all of the cut-outs need to be made according to the illustration shown below. All dimensions are to be made off of the already installed Bolt-up brackets.

### ! WAIT FOR THE CUT-OUTS TO COOL DOWN BEFORE PERFORMING THE FINAL STEPS!

From inside the chute, on an angle, slide the Chevron through the openings. Do all the cleaners at the same time to avoid going in and out of the chute multiple times.

Install the Pillow Block Bearings onto the ends of all shafts being used. Now with the supplied hardware, install the bearings to the Bolt-up brackets.



**Chute Cut-Outs** 

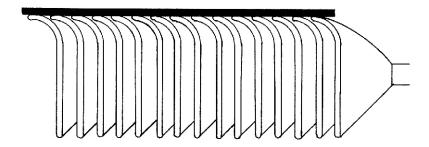
#### **Height Adjustment**

To adjust the Chevron to its proper cleaning pressure:

Use the supplied adjusting angles and hardware that needs to be mounted to the bottom of the Bolt-up mounting brackets.

For 1/4" tall cleated belts adjust the Chevron cleaner so that the discs touch the top of the cleats across the width of the belt. Then adjust the Chevron cleaner upwards into the belt another 1/4". Then tighten up all hardware.

For 3/8" tall cleated belts adjust the Chevron cleaner so that the discs touch the top of the cleats across the width of the belt. Then adjust the Chevron cleaner upwards into the belt another 3/8", Then tighten up all hardware.



**CAUTION:** Over-adjustment of the Chevron against the belt will result in premature wear and under-adjustment will result in poor cleaning action. Do not allow the discs to touch each other when bending them into position.

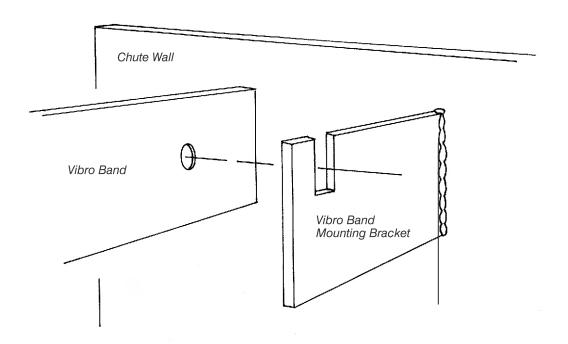
When the Chevron has been properly adjusted, tighten the two nuts with a slugger wrench so that vibration during operation will not cause the adjustment to be altered.

## Vibro Band and Bearing Cover Installation

Before installing the remaining Chevron shafts, the Vibro Band must be located and installed on this shaft. Proceed as follows:

1. Position a Vibro Band mounting bracket on each side of the chute wall. The bracket should be located with its top edge approximately 1" below the belt and perpendicular to the ground (not the belt). The notched end of the bracket should face up toward the belt and the center of the chute.

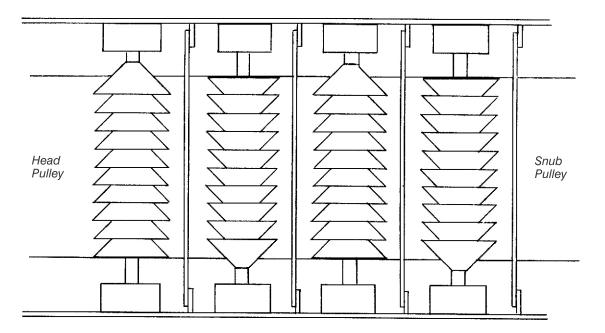
**IMPORTANT:** There should be a 2" distance between the Vibro Band mounting bracket and Chevron discs.



- 2. Weld the Vibro Band mounting brackets into position.
- 3. Take one of the Vibro Bands and hold it up to but not touching the belt while resting it against the front of the brackets. From the back, mark the two slot locations on the plastic. Drill a ½" diameter hole at the bottom of the slot location on each side.
- 4. Install the Vibro Band on the side of the mounting bracket facing the head pulley with two 3/8" X I" long bolts and hardware. Adjust it so that it just kisses the belt across the full width.

**CAUTION:** The Vibro Bands do not provide cleaning action; their function is to direct the scraped material away from the next Chevron and direct it down into the chute. Adjusting the Vibro Bands too tightly will cause premature wear.

The second shaft is installed with all of the discs bending in the opposite direction. Continue to alternate the direction of the discs in each subsequent shaft installation.



Move on to the next Chevron shaft installation, using this same step-bystep procedure. Remember that the direction of the discs must be alternated on each subsequent installation.

#### **Maintenance**

- When used in a 24-hour operation, the Chevron must be adjusted every four months. Grease hoses should be installed if the Chevron mounting location prevents easy lubrication.
- Grease the bearing periodically.
- Operation of the conveyor belt without material should be kept to a minimum.

#### Information

Key	Description	Part Number
1	Shaft Assembly w/o Bearings	Call Customer Service w/original part number of cleaner
2	Bearing - 11/2" Diameter	ASG-FOD-BR2
3	Bolt-Up Bracket	M-NW3-BU
4	Disc 8" Diameter - Notched 1.5" Shaft	ASG-FOD-8.5D-N
4	Disc 8" Diameter - Plain 1.5" Shaft	ASG-FOD-8.5D
5	UHMW Vibroband	ASG-FOD-VB
6	Vibroband Bracket	ASG-FOD-VBB
7	Adjusting Angle	ASG-NW3-BU-HT-ADJ-SS
8	All 1/2" Hardware	ASG-SKMT-AC

Call your ASGCO Distributor for any questions or replacement parts

#### Components Diagram

