# *INSTALLATION INSTRUCTIONS*

## C-SHANK HIGH-RATE SIDE BAND GRANULAR OPENERS

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# IMPORTANT WARRANTY/GUARANTEE INFORMATION

## DO NOT DESTROY

Any claims under the guarantee must be COMPLETED BY OCTOBER 31 IN THE YEAR OF PURCHASE to qualify for a full refund. To satisfy a claim, Atom-Jet Industries must be given the opportunity during the seeding season to rectify the problem or issue, if NOT THE GUARANTEE IS NULL AND VOID. Wear under normal use is not covered by warranty/guarantee.

To activate your warranty registration, scan this QR code using the application on your mobile device and fill out the online form. Upon receipt of the completed form, we will send you a free pair of Atom-Jet work gloves.


WARRANTY IS TO BE COMPLETED BY OCTOBER 31 IN THE YEAR OF PURCHASE. The openers will either be Replaced or Repaired during this period. If you need to return an opener for warranty, please enclose your name, the farm name, address, phone number with area code, dealer purchased from, number of openers purchased, and the date of purchase. Please enclose copy of original invoice. Inclusion of the information will significantly speed up your warranty claim.

Get a GOOD START

"IF SEEDING ISN'T DONE RIGHT, NOTHING ELSE MATTERS."

## Before You Start

The opener is based on a 50° shank angle so shimming may be needed to correctly adjust the opener to the appropriate angle. CHECK YOUR DRILL AND DO NOT ASSUME THE MANUFACTURER'S INFORMATION IS ACCURATE. Atom-Jet reserves the right to refuse warranty if the shank angle is not within tolerances as shown below.

The stainless steel top is designed to adapt to all openers. Until you are sure of your requirements, DO NOT REMOVE any knock out parts.

Following these instructions will ensure the correct angle of the openers, proper placement of seed and fertilizer, and increase the longevity of the opener.

### Verifying The Opener Angle Using an Angle Finder

Install a few openers on your drill, at least one for each rank. Use the following procedure to ensure correct installation:

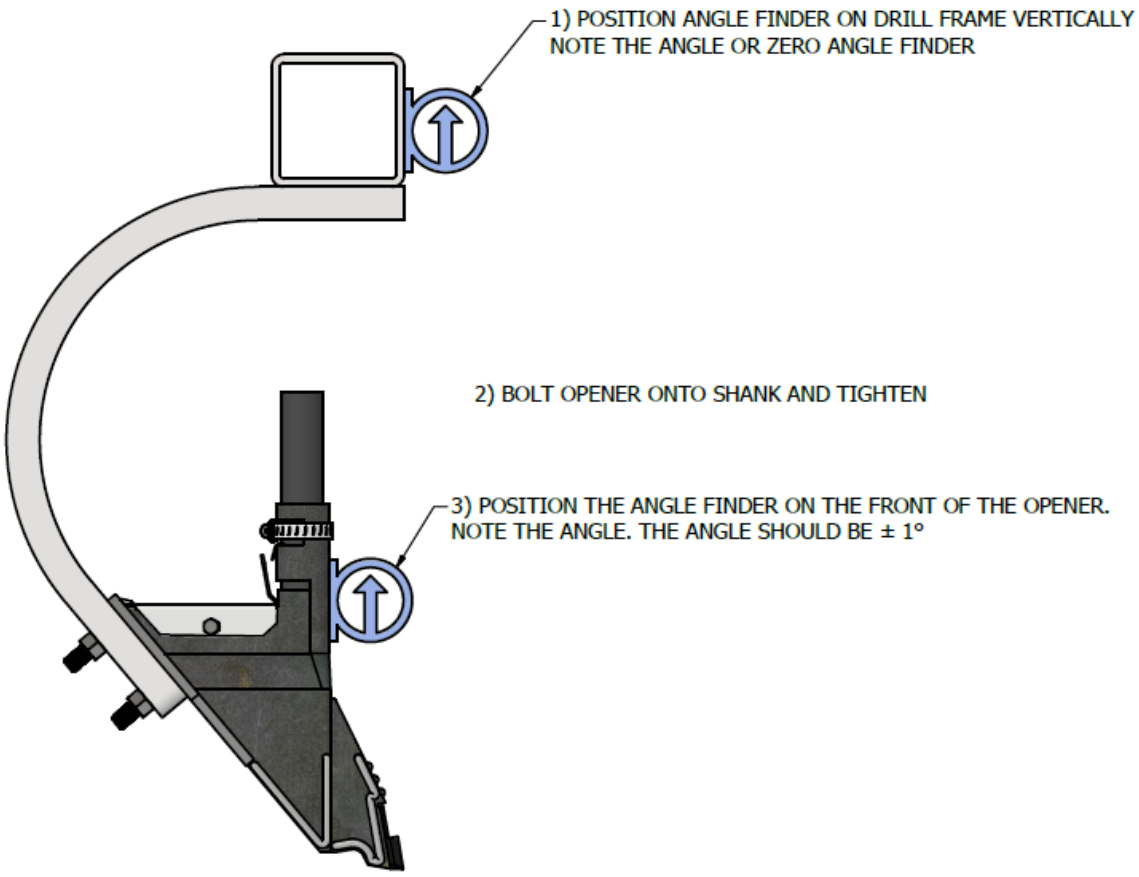



*Figure 1: Angle Measurement Procedure*

Install the rest of the openers shimmed as shown above. Sight down the ranks of your drill and adjust openers that appear to be out of position with the properly installed openers. Shims can be purchased from Atom-Jet to correct the opener angle. Figure 2 on the next page shows which shims are needed and their part numbers.

Most John Deere 737 and 1820 drills require a shim (Part # ZT-CZNJ00) on the bottom hole of the opener to set the correct angle. Without the shim, the opener will be set at the incorrect angle (53°-54°).

Shanks that measure 47° should be shimmed with the part shown below (ZT-CZNK00) on the top bolt hole.

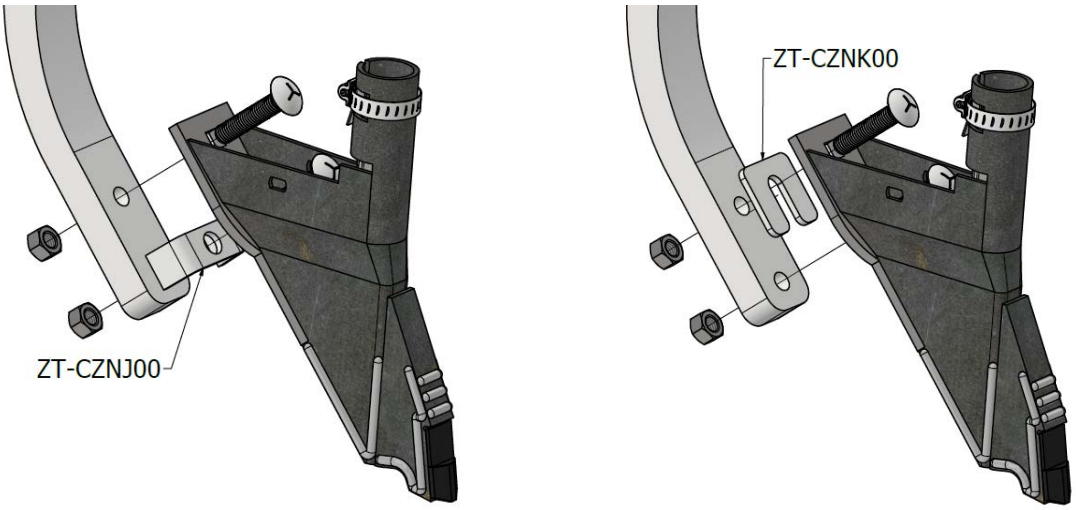



*Figure 2: Shims to correct opener angle*

## Opener Installation

1) Bolt openers to shank using the supplied carriage bolts, washers, and nuts, remembering to check the shank angle as described in Figure 1. Install openers with the stainless steel chute oriented to the center of the drill (see Figure 4 on the next page).

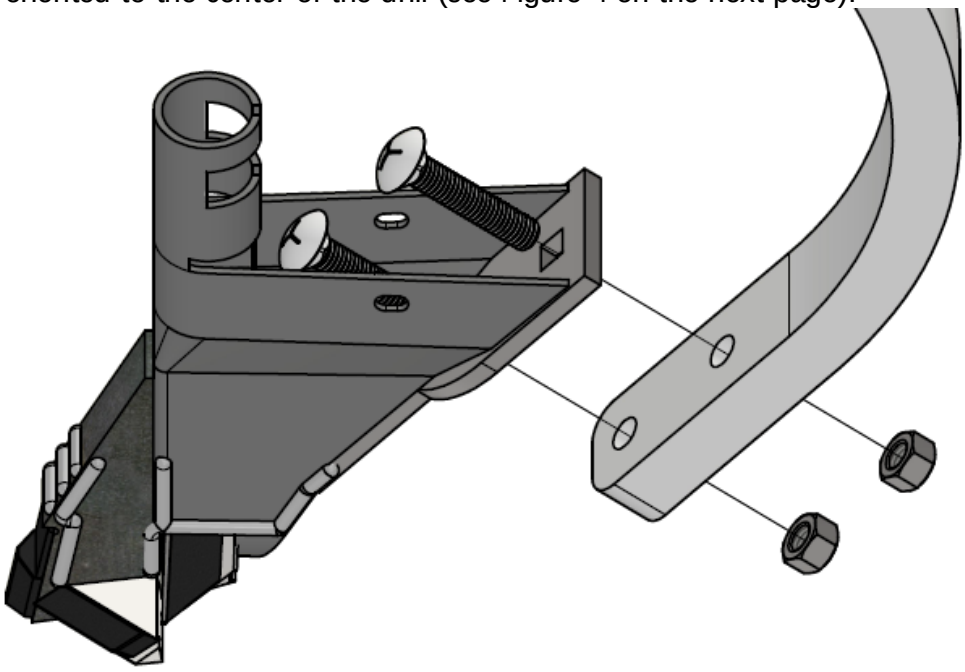


*Figure 3: Bolting opener to shank*

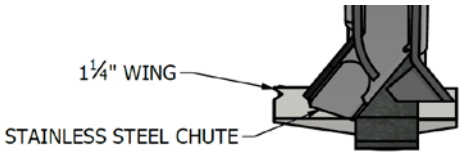
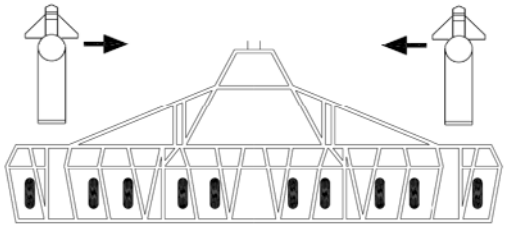



*Figure 4: Left opener from the back*

Mounting your openers on the correct side of the drill will reduce the chances of plugging while turning with the drill in the ground. A “left” opener will have the chute pointed to the left when viewed from the back shown above in Figure 4. In Figure 5, the arrows represent the orientation of the seed chute.

Right opener is mounted on the left side of the drill



Left opener is mounted on the right side of the drill

*Figure 5: Opener orientation*

Atom-Jet high-rate side band granular openers can deliver seed through either chute. This is a producer decision based on soil conditions, weather factors, and equipment packer configurations. Consider your options before installing hoses.

2) Install front delivery tube by inserting it into the tube to the point where the opener narrows. This ensures product will not exit past the divider in the top of the opener to the rear delivery chamber. Secure with supplied #20 hose clamp.

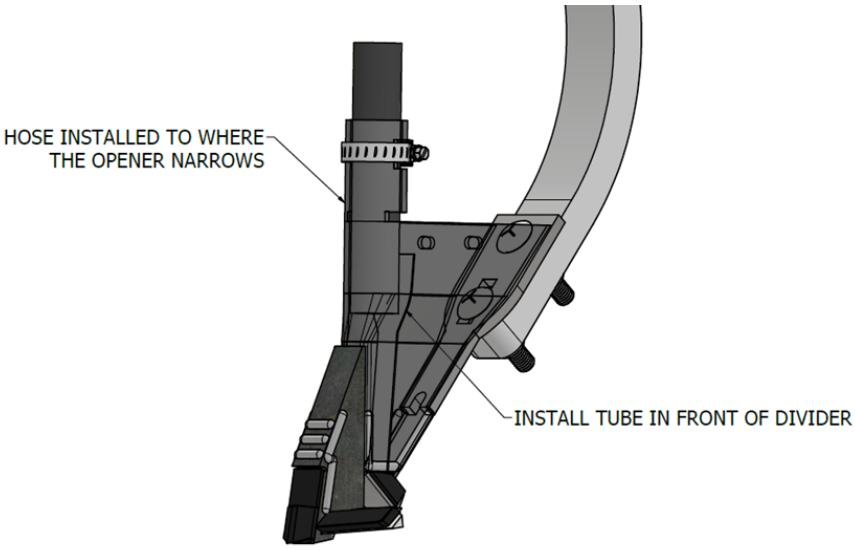



*Figure 6: Front hose installation*

The openers are designed to allow hoses of different diameters. Hose bushings will be required for ¾” ID hoses. Short pieces of delivery hose sliced vertically and slipped over the delivery hose make good bushings. If desired, a bushing can be purchased through Atom-Jet: part OP-CB15 TUBE SPACER.

3) Install top on the opener using the 2 ½” x ¼” bolt and locknut.

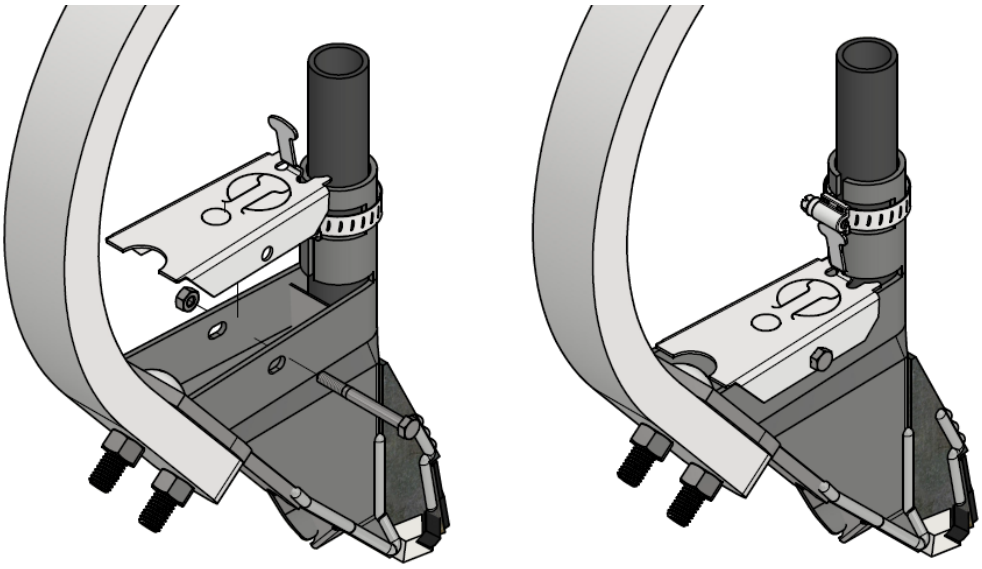


*Figure 7: Top installation*

4) Remove knock outs from the large hole in the stainless steel top, fold the second hose retainer tab up into place, loosely slip supplied #20 hose clamp over hose retainer tabs and insert rear hose down into the opener to the point where the opener narrows. As with the front hose, this ensures product will not escape past the divider to the front chamber. Secure the hose with supplied #20 hose clamp.

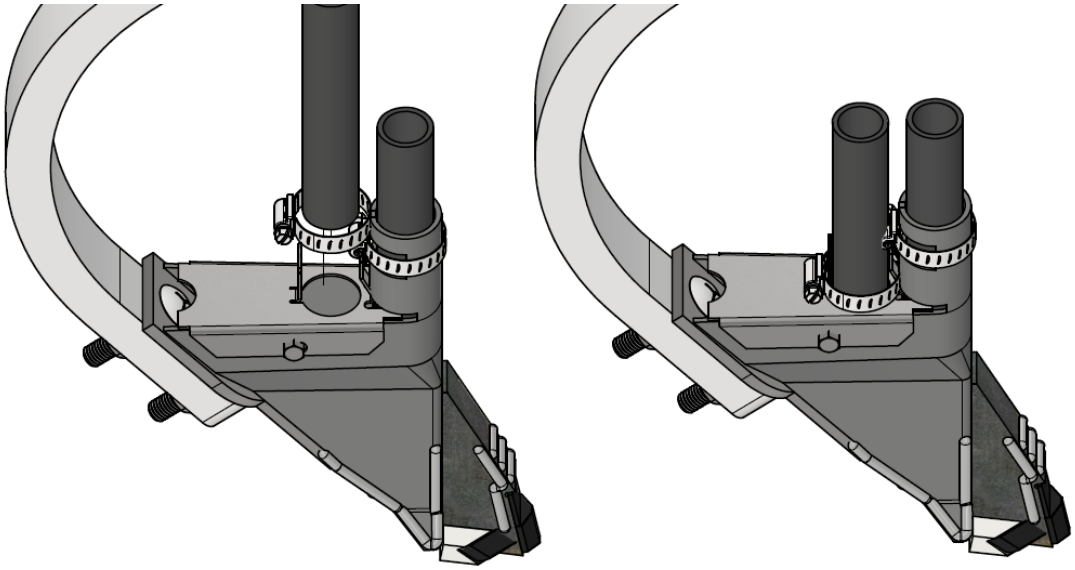


*Figure 8: Rear hose installation*

## Opener Maintenance

Atom Jet openers are designed to be tough, durable, and reliable in all soil conditions. To extend the life of your openers even further, follow these steps:

1) Exchange openers from the wheel tracks with other areas of the drill or cultivator.
2) Maintain hard surfacing on the openers by building up the areas that were hard surfaced at the factory. Detailed instructions on how to do this are shown below. Hard surface welding sticks and hard surface wire can be purchased through your local welding supply store.
3) Carbide protected wings for side band openers can be purchased through Atom-Jet to weld on to replace broken and worn-out wings. Remember the designation of left and right wings based on the side of the drill shown in Figure 5.

### Hard Surfacing

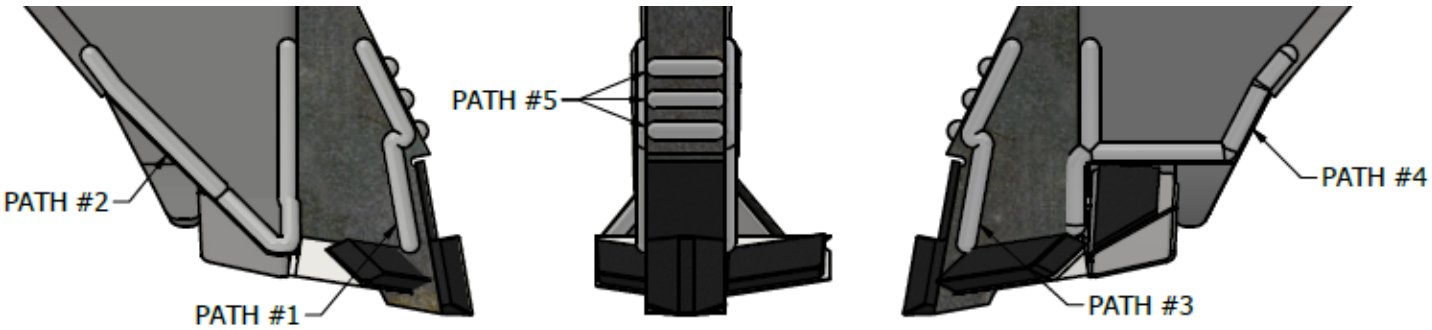



*Figure 9: Hard surfacing paths*

One of the reasons we chose steel to build our openers is the ease with which they can be maintained by rebuilding the hard surface welds. Here is the process for rebuilding the welds:

1) Clean off the openers and work on at least ten (10) openers at a time. The idea is to minimize the heat build-up in the opener, preventing any damage to the carbide.
2) Follow this order:
    a. First, starting ⅛" away from the carbide, do PATH #1 on all openers.
    b. Then, do PATH #2 on the skirting of all openers. It may help to clamp a piece of steel inside the boot plate to give backing to the weld and to act as a heat sink.
    c. Turn the openers over and do PATH #3 on all openers, starting ⅛" away from the carbide.
    d. Now, do PATH #4 on the skirting using the same method as the other side.
    e. Finally, starting ⅛" away from the carbide, do PATH #5 on all openers.
3) Atom-Jet Industries regularly performs this process for many customers. Call today for a quote at 1-800-573-5048.