

GrainWay L.L.C Installation Instructions 060707

Portable Conveyors

Danger: Wear eye protection when using tools.

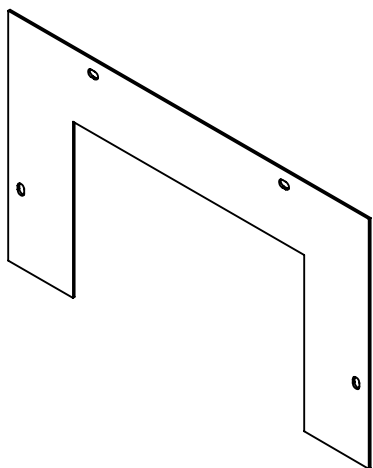
Important: Always have someone near when working in the grain bin.

Important: Read through all the instructions before starting the installation.

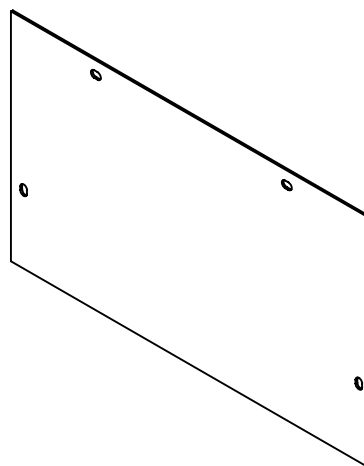
Four different bags of bolts have been provided for installation.

1. Bin Bracket Bolts
2. Intermediate Well Bolts
3. Center Well Bolts
4. Eye Bolts/ Opening Rod Hanger Assembly

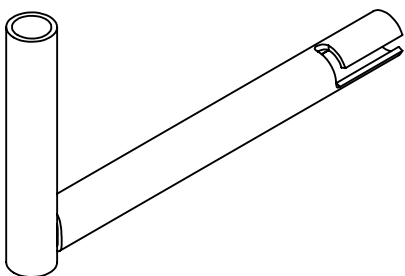
GrainWay Parts Diagram: All part listed below may not be used in every installation.



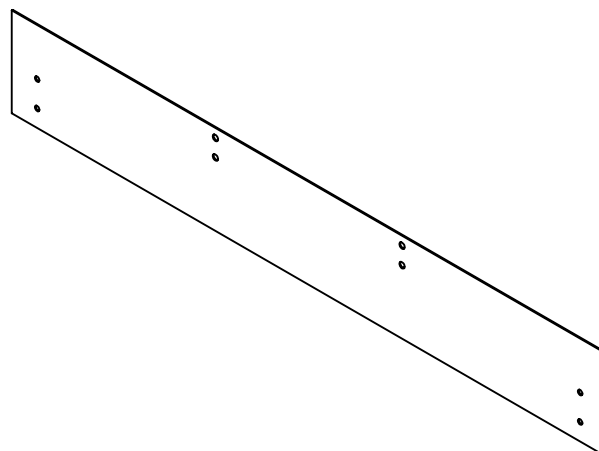
AIRTIGHT U-COVER



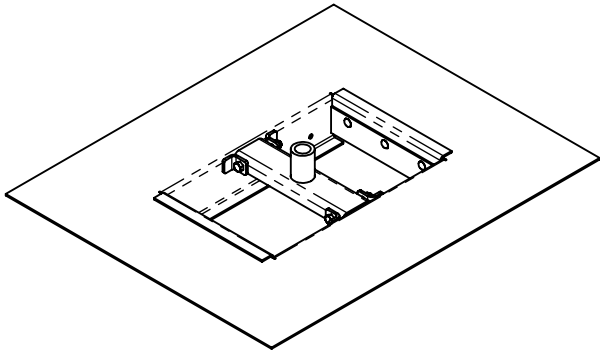
AIRTIGHT SOLID COVER



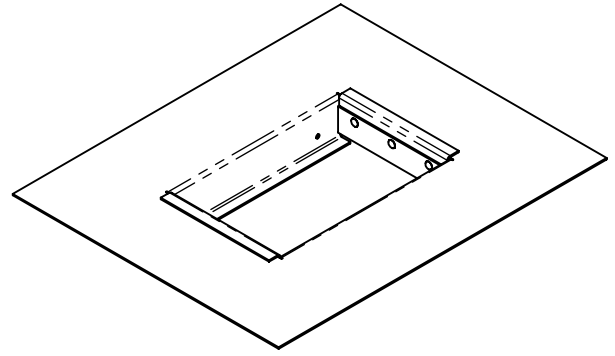
CONTROL ROD HANDLE



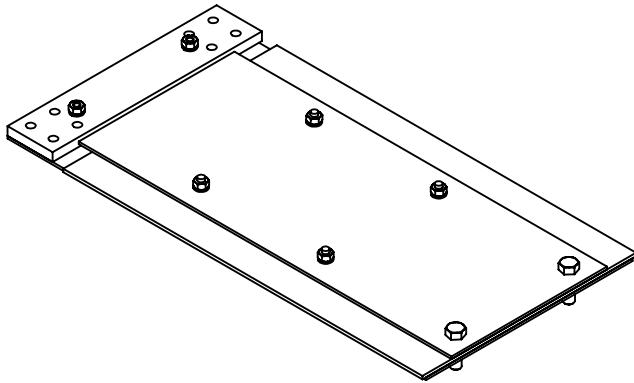
WELL EXTENSION



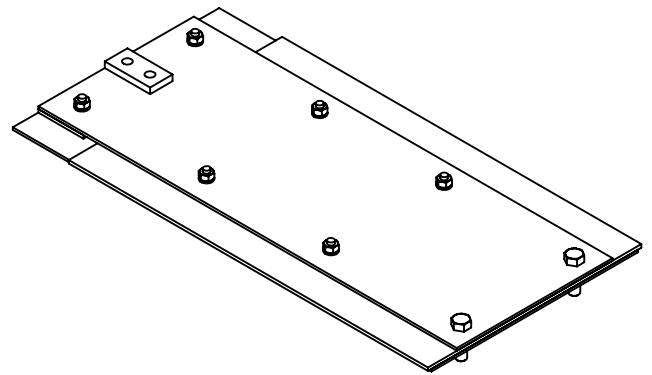
CENTER GRAIN WELL



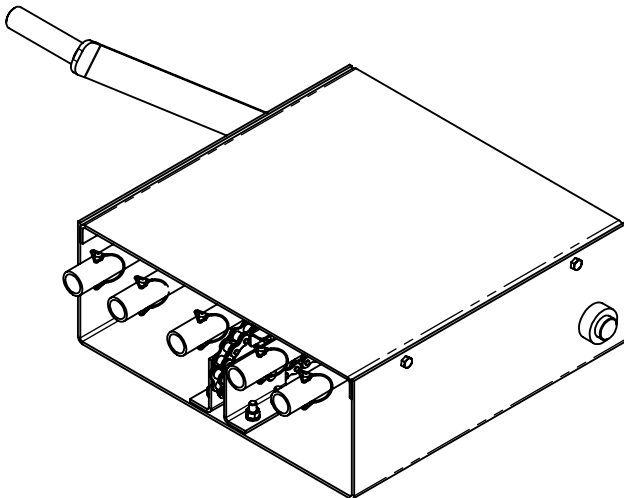
INTERMEDIATE GRAIN WELL



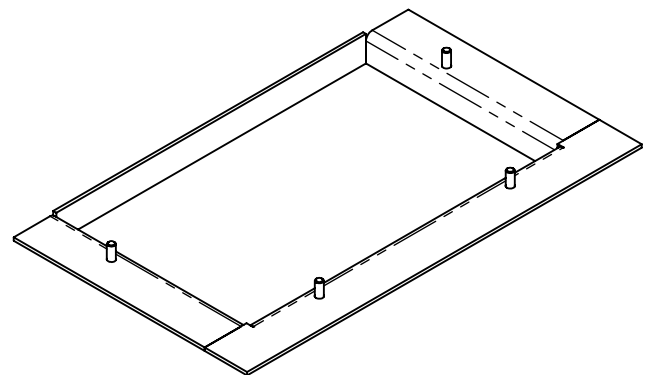
INTERMEDIATE SLIDE PLATE



CENTER SLIDE PLATE



PULL BOX OPENING SYSTEM



BIN BRACKET

Installation of bin equipment on new or old bins for open top GrainWay conveyors

If removing old auger system first, turn to page 6 for further instructions.

- * These directions assume the aeration floor is completely installed. GrainWay's bin equipment can also be installed in place as the aeration floor is being laid.
- * Pictures of bin equipment at beginning of this packet.

Step 1: Installing Bin Bracket

Locate the bin bracket. Determine area on grain bin sheet where conveyor will be located. Then cut a 12 to 17 ½" tall x 18 ¾" wide hole for the bin bracket right above the cement foundation in the grain bin sheet. The *height* of the bin bracket may vary depending on what floor height and bin bracket was purchased. Remove the cut out section.



Next install the bin bracket into the cut out bin sheet. Make sure it is evenly spaced against the bin sheet. With the bin bracket against the bin, make three marks on the left and right side of the bracket. Make sure you mark the bin bracket on top of a bin sheet rib and ½" in from the outside of the bin bracket. Then drill out six ⅜" holes through the bin bracket and bin sheet.

Locate the bag of bin bracket bolts. Next, place the ⅜" bolts through the bin bracket and bin sheet, put the nuts on and tighten up the bolts (Do not over tighten). Then caulk around the bracket to keep it weather proof and airtight (Caulk not provided).

Step 2: Cutting Holes for Grain Wells

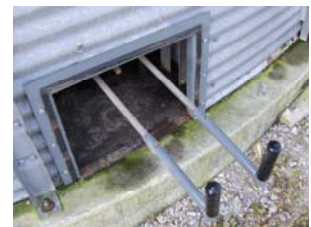
Locate the center and intermediate wells for each bin. Then cut an 11 ½" x 16 ½" hole into the aeration floor for each well. Each hole needs to be in line with each other and center to the bin bracket. Before cutting holes in the aeration floor, keep your opening rod lengths in mind. ****Note:** When using the pull box opening system the ¾" opening rods will run *outside* the grain bin wall 6 to 16" (Figure 10). When using the handle set opening system the ¾" rods will be *inside* the grain bin wall 2 to 5" as shown in *Figure 11*.



Figure 10 Pull Box



Figure 11 Handle Set: Closed Position



Open Position

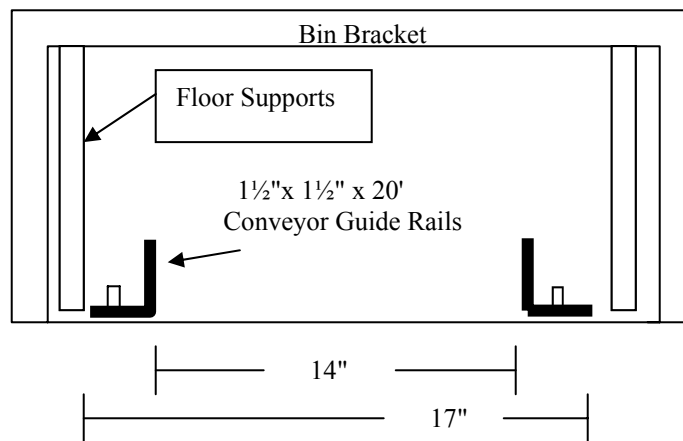
Step 3: Installing Conveyor Guide Rails (1 1/2" x 1 1/2" x 20,' Angle Iron)

Conveyor guide rails help track conveyor directly under the grain wells.

If no guide rails are used make sure your aeration floor stands are 15" apart. If guide rails are used, refer to Figure 12 for dimensions. Cement anchor bolts are not provided to fasten down rails.

Warning: Check with bin manufacturer to make sure the aeration floor can free span the distance in Figure 12. If the floor can't span that distance, bridging may be needed to add support to the floor.

Figure 12



Step 4: Fastening Grain Wells to Aeration Floor

Place the grain wells in the cut holes in the aeration floor. The wells are numbered. Number 1 goes closest to the bin wall. Locate the bag(s) of bolts that say center well and intermediate wells. Make sure the grain well(s) are center to the bin bracket on the outside of the grain bin and fastened down with the provided self tapping screws. ****Note:** The slide gates on the grain well pull out towards the outside of the grain bin.

Step 5: Installing Well Extensions

Locate the well extensions (Figure 13). Use the ¼" bolts and nuts provided in the center and intermediate well bags to attach the well extension to the bottom of the grain well (you can not attach the well extensions if the conveyor is in the bin). When the extensions are installed on the grain well a clearance of 8" from the concrete to the bottom of the well extension is required.

* *Filler strips connecting one well extension to the next are highly recommended so no grain splatters off of the conveyor under the aeration floor.*

* *Well extensions may need to be notched out if they interfere with the aeration floor ribbing.*



Figure 13



Figure 14

Step 6: Opening Rods and Slide Plates

6A: Each well has a bag of bolts. Install the u-bolts (Figure 15) on the intermediate wells. Start the nut so only a few threads are catching the u-bolt. The center well does not have any u-bolts and will be taken care of in the following steps.



Figure 15

Then locate the opening rods for all the wells. The center well typically opens by itself with one rod (#3) that is in the center of all the other rods. The wells in front of the center well and closest to the walk in door typically have two rods and all open together. These rods (#2 and #4) are located on each side of the center well rod. The wells behind the center well usually open together and their opening rods are the two farthest outside rods (#1 and #5).

****Note:**

- 1) When using the pull box opening system the ¾" opening rods will run *outside* the grain bin wall 6 to 16" with well in the closed position. When using the handle set opening

system the 3/4" rods will be *inside* the grain bin wall 2 to 5" with well in closed position as shown in *Figure 10 and 11*.

- 2) Opening rods over 20' long have couplers that connect the rods together. Make sure when bolting the coupler in place that the bolts are pointing up as in. (Figure 16)
- 3) The hole on the end of the rod sticking outside the bin needs to be vertical.
- 4) When installing rods make sure there is never a span of over 12' where the opening rod is not supported under the aeration floor. If you have over a 12' span, eye bolts need to be slid onto the rod (before it is tightened in place) and then attached to the bottom of the aeration floor as installed. (Figure 17)

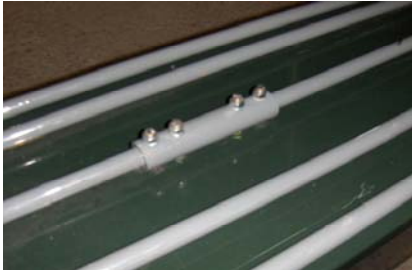


Figure 16



Figure 17

- 6B: Install the center well opening rod. When sliding the center opening rod in, make sure you go through the center hole in each well all the way up to the center. Then bolt the rod to the center slide plate as shown. (Figure 18)



Figure 18

- 6C: Install the opening rods for the intermediate wells. **Note:** Make sure the *front* of opening rods are always in line and that the hole is pointing straight up and down. Then tighten the u-bolts onto the rod. (Figure 19)

If intermediate wells are behind the center well, repeat the same process.



Figure 19

Refer to 6D for Handle Set or 6E for Pull box instructions.

- 6D: Install dowel pin in opening rod (included in bag of bolts). The dowel pin needs to be installed into the 3/4" opening rod flush on the bottom and protruding out the top of the rod. (Figure 11)

6E: Install the pull box assembly onto the top of the conveyor. No bolts or brackets are provided for this as there is no set or standard height. With the rods/wells in the closed position make sure there is a minimum distance of 6" from the end of the rod to the edge of the pull box. Then mount in place.

Figure 20



Next place the u-cover against the opening rods and mark. Then punch the u-cover out with a 1 5/8" hole for each of the opening rods. Install the grommets into the punched out holes. Then slide the cover over the rods and fasten onto to bin bracket.



Figure 21



Figure 22

Next hook the coupler extensions onto the pull box and opening rods. Then try out each set of wells to make sure they open with out obstruction. If obstructed, check out each well to see what is causing the problem.



Figure 23



Figure 24

Step 7: Opening Rod Hanger Assembly

If the opening rods need extra support at the entrance of the grain bin, use the rod hangers and eye bolts. (Figure 25 and 26)



Figure 25



Figure 26

Step 8: Conveyor Installation

When all equipment is installed in grain bin slide the conveyor in place to make sure everything is lined up properly. Then when conveyor has been removed, install the airtight solid cover onto the bin bracket.

Call GrainWay L.L.C with any questions at 877-347-6361

Removing auger from grain bin to replace with GrainWay bin equipment

With the auger system still in the bin, cut a 12 to 17 ½" tall (depending on bin bracket height) x 18 ¾" wide rectangular hole from the bin foundation on up. The 18 ¾" wide dimensions are standard in all bins. **Make sure the auger tube is center to the 18 ¾" wide hole.** This frees up the auger tube as well as makes the opening for the conveyor to eventually slide through.

With the auger tube cut free on the outside of the bin, go inside the bin and cut the corners of the auger wells. Then bend the corners toward the inside. Another option is to cut a small hole to get access to the bolted band that connects the auger tube to the bottom of the grain well. Then you may be able to unbolt the old auger system. This will allow the auger well to drop through the floor to the cement foundation. **Note:** There may be a block holding the auger tube up that needs to be pushed aside.

Once everything is loose, carefully pull the auger system and auger out through the cut hole in the bin sheet.

If you choose not to damage your auger system that you are removing, you may need to pull up the aeration floor.

Call GrainWay L.L.C with any questions at 877-347-6361