

BENETECH  [®]

BENETECH.
MaxZone [®] **STANDARD**

UNITED STATES PATENT 8,800,756

INSTALLATION GUIDE

! IMPORTANT !**BENETECH, INC. HEREBY DISCLAIMS ANY LIABILITY FOR, BUT NOT LIMITED TO:**

- IMPROPER INSTALLATION OF EQUIPMENT
- IMPROPER SIZING OF EQUIPMENT
- DAMAGE DUE TO CONTAMINATION OF MATERIAL
- USER'S FAILURE TO INSPECT EQUIPMENT
- USER'S FAILURE TO MAINTAIN EQUIPMENT
- USER'S FAILURE TO TAKE REASONABLE CARE OF THE EQUIPMENT
- INJURIES OR DAMAGE RESULTING FROM USE OR APPLICATION OF THIS PRODUCT CONTRARY TO INSTRUCTIONS AND SPECIFICATIONS CONTAINED HEREIN.

BENETECH, INC.'S LIABILITY SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF EQUIPMENT SHOWN TO BE DEFECTIVE.**! SAFETY !**

Review and understand all safety rules given herein along with local and Governmental standards and regulations. Know and understand the American National Standards Institute (ANSI) z244.1-1982 lockout/tagout procedures, the American National Standard for Personal Protection - Lockout/Tagout of Energy Sources - Minimum Safety Requirements and the Occupational Safety and Health Administration (OSHA) Federal Register, Part IV, 29 CFR Part 1910, Control of Hazardous Energy Source (Lockout/Tagout); Final Rule.

Also observe all local and Governmental regulations concerning entry into confined spaces, welding, cutting, grinding, wash-down procedures and all Personal Protective Equipment (PPE) regulations.

The following notations are used throughout in this manual.

! DANGER !

Danger: Denotes immediate hazards that will result in severe personal injury or death.

! WARNING !

Warning: Denotes hazards or unsafe practices that could result in personal injury.

! IMPORTANT !

Important: Denotes instructions that must be followed for proper installation and/or operation of equipment.

NOTE

Note: Denotes general items to assist the reader/ installer/ operator.

Please pay close attention to all of these items and warnings.
They have been included here for your safety and for ease of installation.

All safety rules defined in this document and all owner/employer as well as State and Federal safety rules must be strictly adhered to when working on/with this, or any, conveyor system.



! DANGER !

Do not touch or go near the conveyor belt or conveyor accessories when the belt is running. Your body or clothing can get caught and you can be pulled into the conveyor, resulting in severe injury or death

! DANGER !

Before installing, servicing, or adjusting the MaxZone, turn off AND lock out/tag out all energy sources to the conveyor and conveyor accessories according to ANSI standards. Failure to do so could result in serious injury or death.

! DANGER !

If this equipment is to be installed in an enclosed area, observe all confined space entry regulations and test the atmosphere for gas levels and dust content levels before using a cutting torch, welding equipment or electric hand tools. Using a torch, welding, grinding or drilling in an area with gas or dust may cause an explosion and/or fire resulting in serious injury or death.

! WARNING !

Before using a cutting torch, welders, or grinding equipment, cover the conveyor belt with a fire retardant/resistant cover. Make sure a water source/fire hose is readily available AND OPERATIONAL. Failure to do so can allow the belt to catch fire.

! WARNING !

System components are heavy and may require two people to lift. Attempting to lift heavy items without assistance could result in injuries or damage to the equipment.

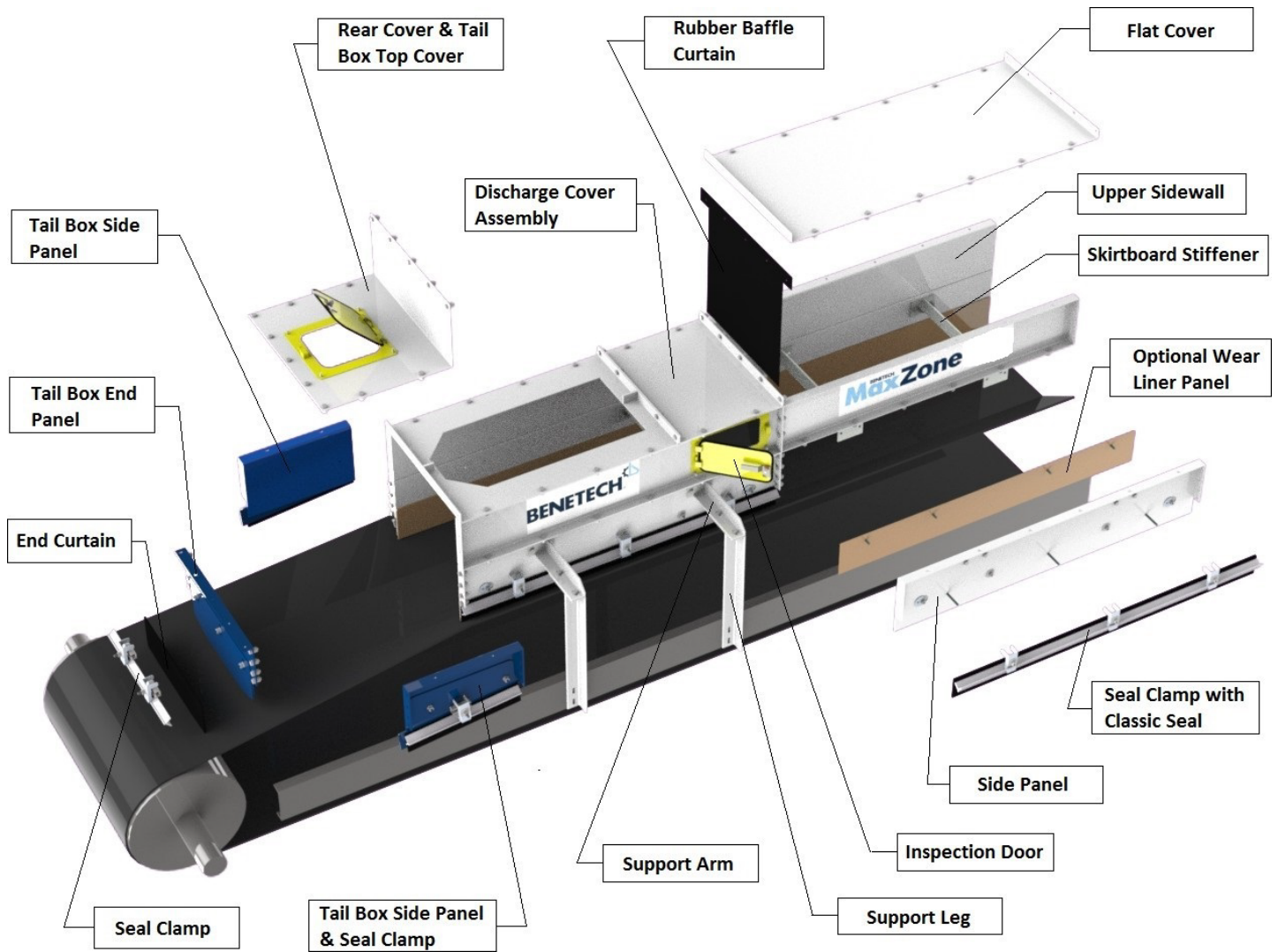
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APPENDIX:

A. DRAWING 30606: CHUTE PENETRATION COVER SEAL KIT

B. DRAWING 30607: PIPE SEAL RUBBER COMPONENTS



Before Installing the MaxZone Standard

1. Inspect ALL shipping containers for damage and correct number of items (skids, pallets, cartons, boxes, etc.) being delivered. Report damage and/or shortages to delivery service immediately and fill out delivery service's claim form. Keep ALL damaged goods for examination. Benetech Inc is NOT responsible for damage occurring during transit.

2. All Benetech Inc. MaxZone Standard assemblies are shipped from our facilities in parts. Care should be taken while unpacking to ensure no parts are lost or damaged as the equipment is moved to its desired location. Dispose of shipping containers in an approved manner

3. If any items are missing, IMMEDIATELY contact BENETECH, INC. or an authorized representative.

4. Gather tools. Minimum tools required for installation are:

- Tape measure/ String
- Torch/Hole Saw
- Level/Straight Edge
- Welder/Drill
- Open/Box End Wrenches
- Socket Set
- Marker/Soapstone (Welders chalk)



5. If using a cutting torch or welding, test atmosphere for gas level or dust content. Cover conveyor belt with fire retardant cover. Verify locations of fire extinguishers and operational water hoses prior to begin cutting/welding operations.

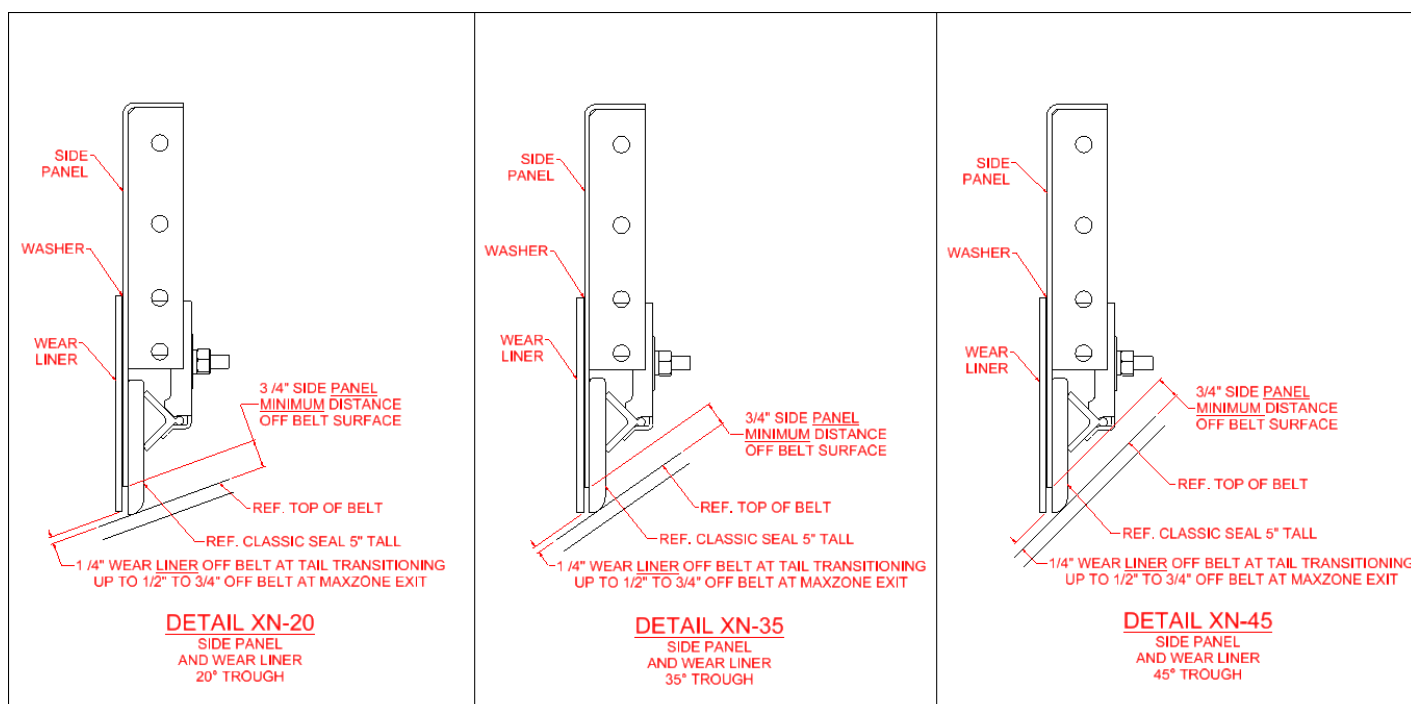
! WARNING !

Before installing equipment, turn off AND lock out/tag out all energy sources to the conveyor and conveyor accessories according to ANSI standards and local plant regulations. Failure to do so could result in serious injury or death.

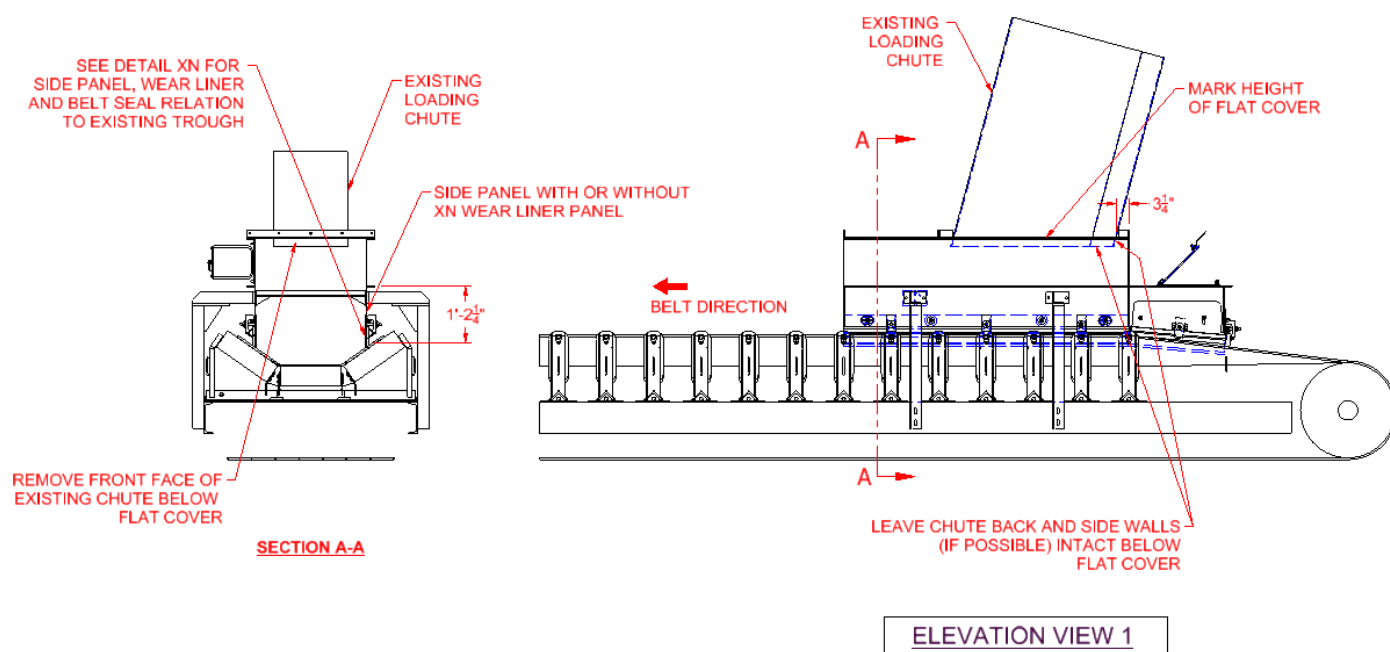
If equipment will be installed in an enclosed area, the atmosphere in the structure/area must be tested for gas levels and dust content levels before using a cutting torch, welding equipment, grinding equipment or electric powered tools. Using a cutting torch, welding, drilling or grinding in an area with gas or dust may cause an explosion.

Installing the MaxZone Standard

- 6) As needed, work this MaxZone Standard Installation Guide with the XN Wear Liner Installation Guide and the MaxZone Installation Guide. Note: Some assemblies will have plain side panels with no XN Wear Liner.
- a) Use the “Provided Components” section of the XN Wear Liner Installation Guide to put together any shipped portions of the XN Wear Liner panels. These are the lowest level wear panels on both the MaxZone *Standard* assembly and the MaxZone assembly. (Then return to this document as the angle component and installation portion of the XN Wear Liner Installation Guide only apply if they are being attached to an existing skirt board)
- 7) After the existing skirt system is removed, with the existing loading chute left in place, align the Side Panel (the panel the wear liners attach to) spaced as shown below from the top of the belt surface to the bottom of the side panel.
- a) As shown in Elevation View 1 and Section A-A on the next page, mark the height of the new flat cover, as determined by the side panel settings below, plus the remaining height to the cover level, onto the existing discharge chute (this will be approximately 1'- 2 1/4" from the side panel bottom for the MaxZone Standard (standard). Use the tail box assembly or a skirtboard stiffener to set the side panels at the proper width to start the MaxZone assembly installation around the existing chute.



- 8) Start the installation of the side panels a minimum of 3 1/4" from the rear of the loading chute as measured along the top of the flat cover. See ELEVATION VIEW 1 below for illustration.



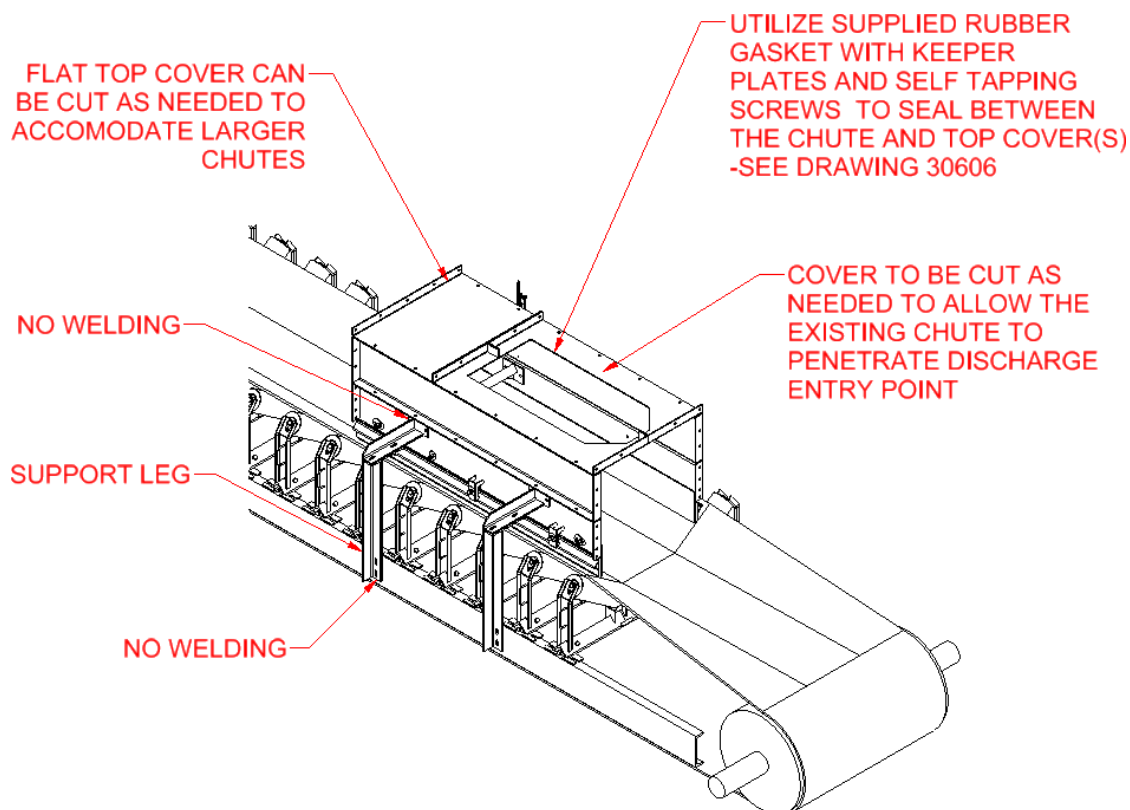
- 9) Position upper sidewall and discharge cover at the height of the drawn line. Space the start of sidewalls and cover a minimum distance of 3 1/4" from the back end of the existing loading chute as shown in Elevation View 1. Measure from the point where the line intersects with the back slope of the chute.

NOTE: The chute can be located anywhere lengthwise on the top cover however, the 3 1/4" minimum distance must be maintained from the rear so material loading is in a lined MaxZone area, and to leave room for hardware to be installed. 1/2"-13 hardware is used for all connections.

- 10) The cover(s) with Part No. 30606-XXBW are supplied in 4 FT. sections to permit trimming to fit. See drawing 30606 for details at the end of this manual.

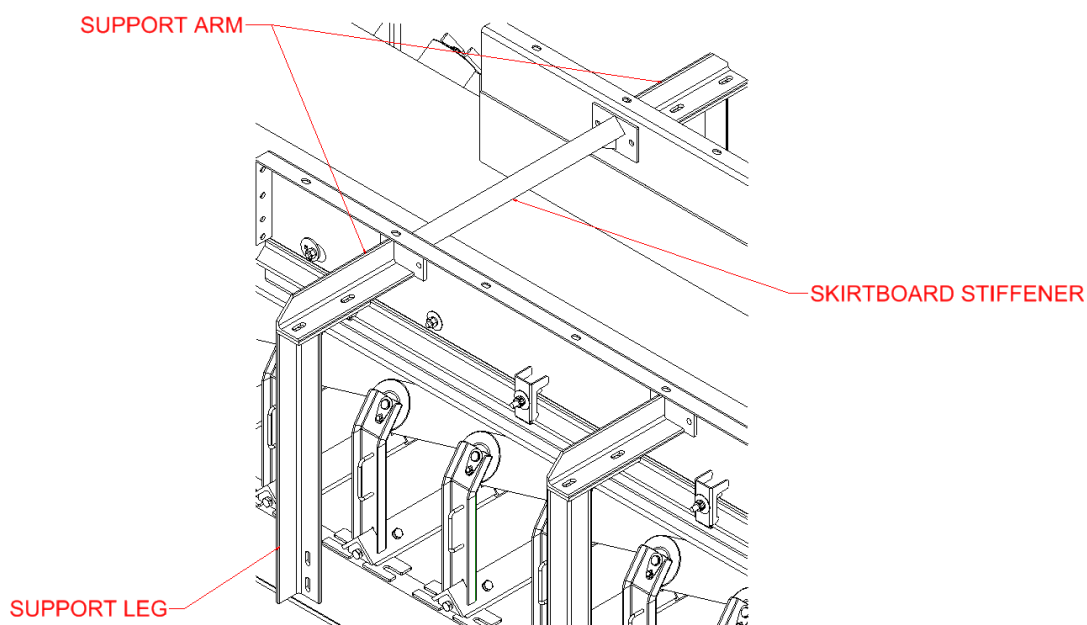
- 11) Cut opening on flat cover (centered) and locate at height determined in step 7.

- 12) Mount support legs and attach side wall/liner panels using 1/2"-13 x 1-1/2" long hex head cap screw with flat and lock washers. Double check the liner panel distance (if used) from the belt (refer to step 7, Detail XN for illustration).



Support Leg mounting details

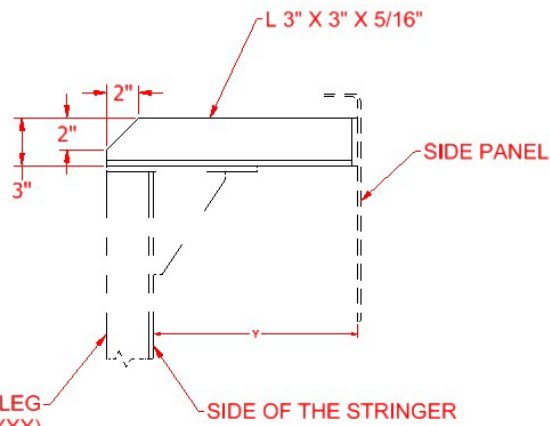
- 13) Additional support material/modifications may be required if piping or other interference is running along the conveyor frame (stringers) where the MaxZone Standard support leg would be attached to the conveyor frame. Benetech highly recommends field drilling and BOLTING the support leg to the conveyor frame "or other suitable structure", Not welding the support leg to the conveyor frame.



Hardware to be used to mount the support arm(s) & leg(s): 1/2" -13

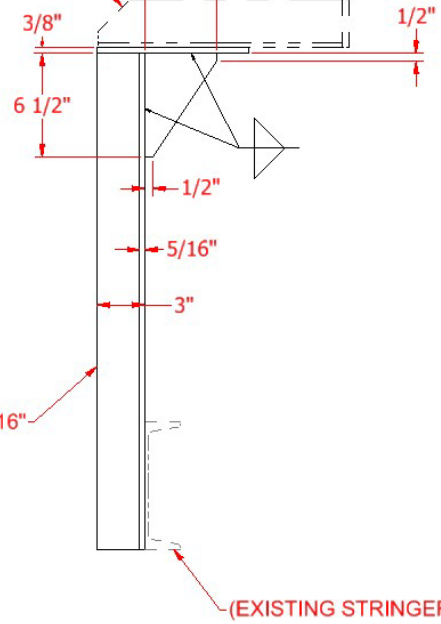
(UPPER SUPPORT ARM REF. DWG. 30543-L-XX)

A (GUSSET ONLY)



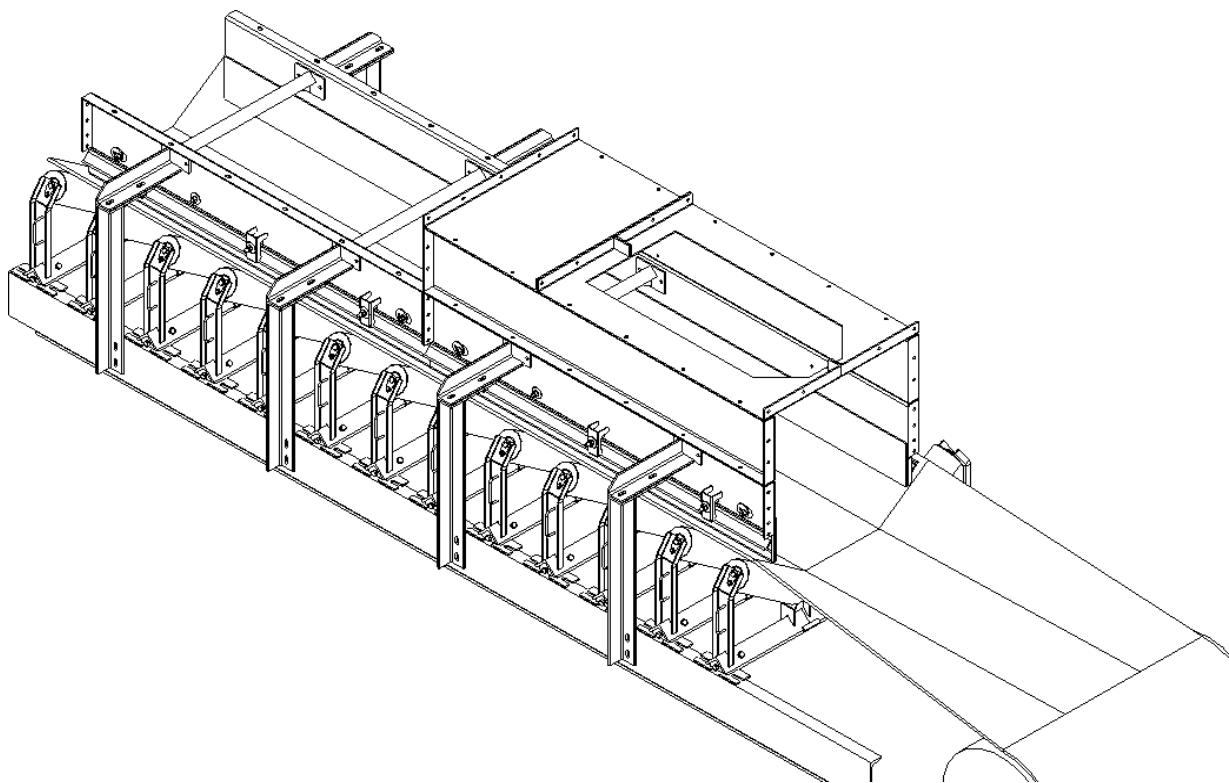
(LOWER SUPPORT LEG REF. DWG. 30544-L-XXX)

L 3" X 3" X 5/16"

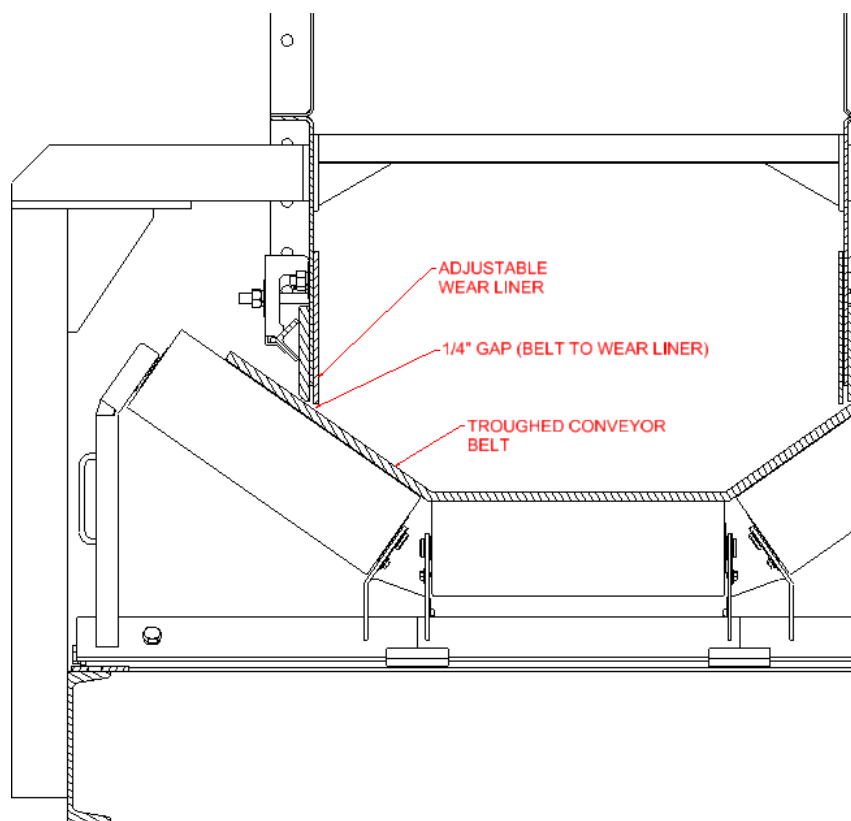
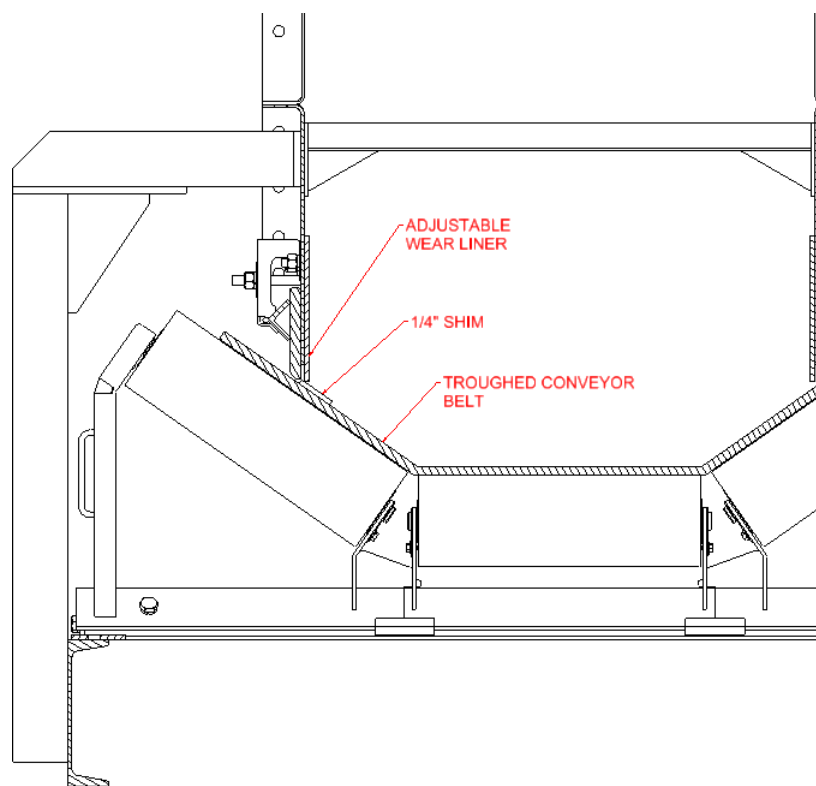


14) Attach the next set of lower sidewalls and supports with the addition of the skirtboard stiffener.

15) Repeat step 14 until the remaining of the supplied sections are completed. **Note:** The side panels can be installed without the XN Wear Liner panel attached (if used) for easier handling of panel.

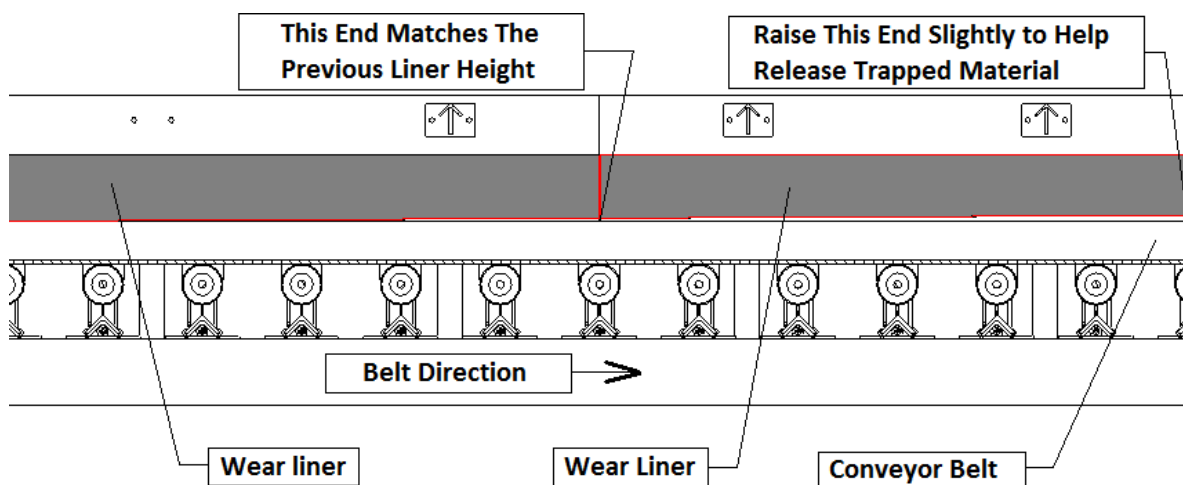


- 16) The adjustable wear liners (if used) that are mounted at the chute discharge should now be adjusted down so the liners are set approximately $\frac{1}{4}$ " from the belt trough. Placing a $\frac{1}{4}$ " shim on the trough (as illustrated below) will make this adjustment easier.

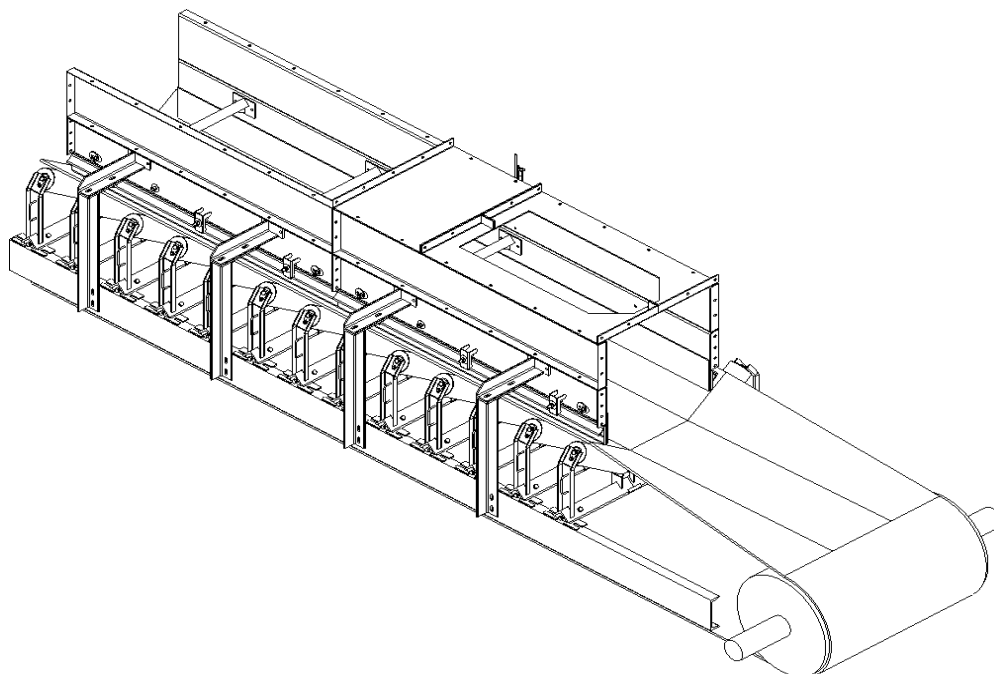


- 17) The adjustable wear liners (if used) need to be lowered and shimmed from the trough just like the first set in step 6. *However*, the exit side of these liners should be adjusted slightly upward to allow any trapped material to loosen and move away with the belt.

NOTE: The first set of wear liners may need to be re-positioned.



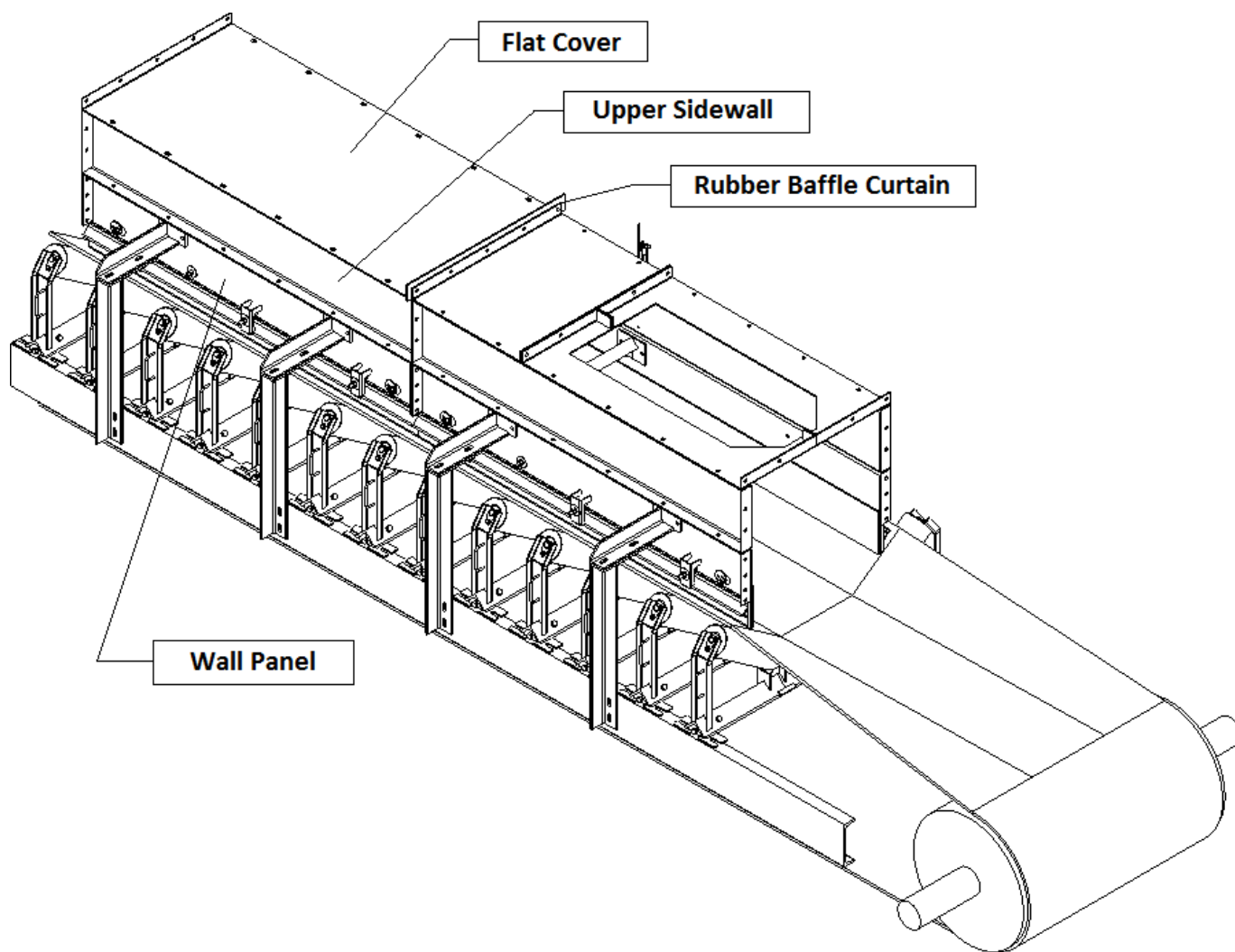
- 18) Attach first set of upper sidewalls. **NOTE:** Since space restrictions vary, these pieces may not have been included for all sections on the system. **Note:** Use ½-13 hardware to fasten all details.



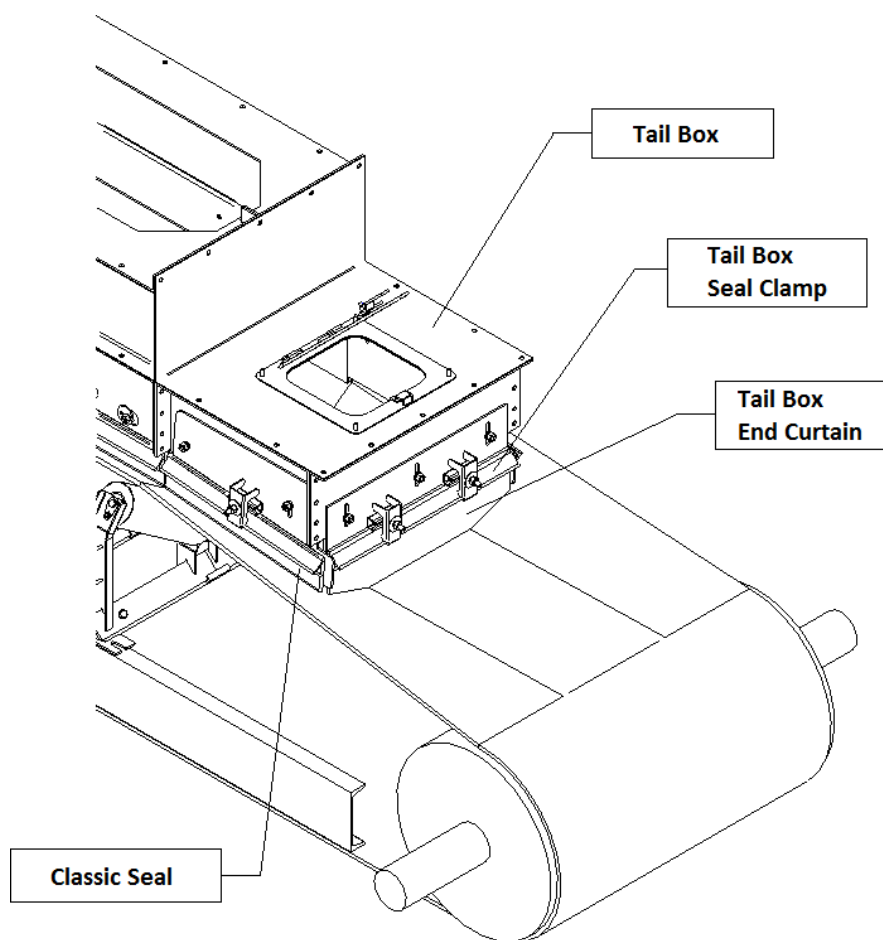
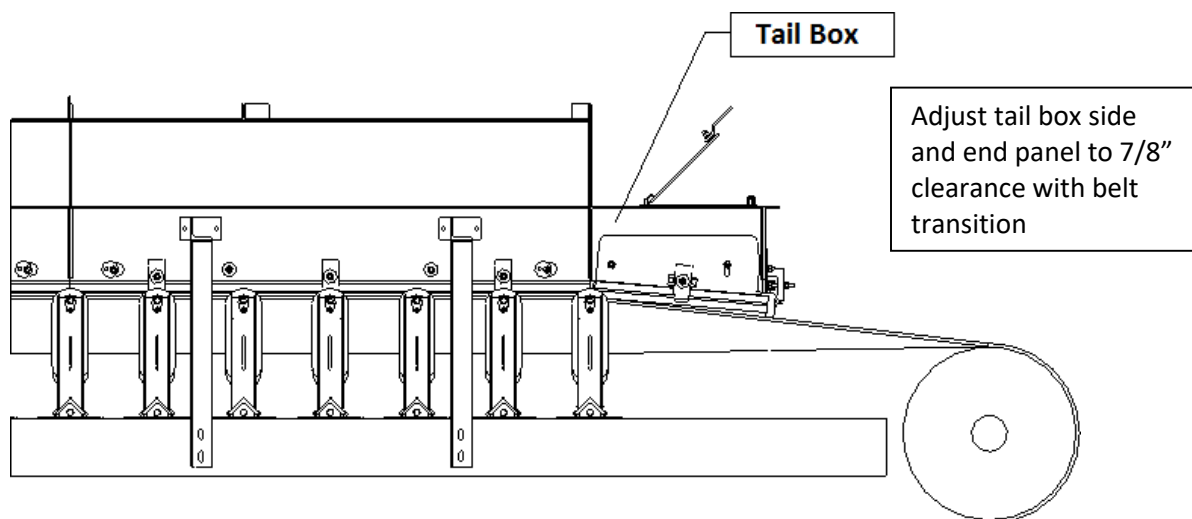
19) Attach one of the provided flat panel covers to the upper sidewalls.

NOTE: These can also be attached to the wall panel in the event that the upper sidewalls were not used/provided.

20) Attach the next flat cover *with* a rubber baffle curtain if provided.



21) The tail box side panels are designed to be field adjusted. Loosen the side and rear panel fasteners and adjust the panels to approximately 7/8" clearance off the belt (similar to side panels in step 7) and tighten the tail box side panels, end panel and cover.



22) Attach tail box seal and end curtain, field trim seal and curtain as needed.

23) Test run conveyor to ensure there's no belt contact with side panels or wear liners (if used).

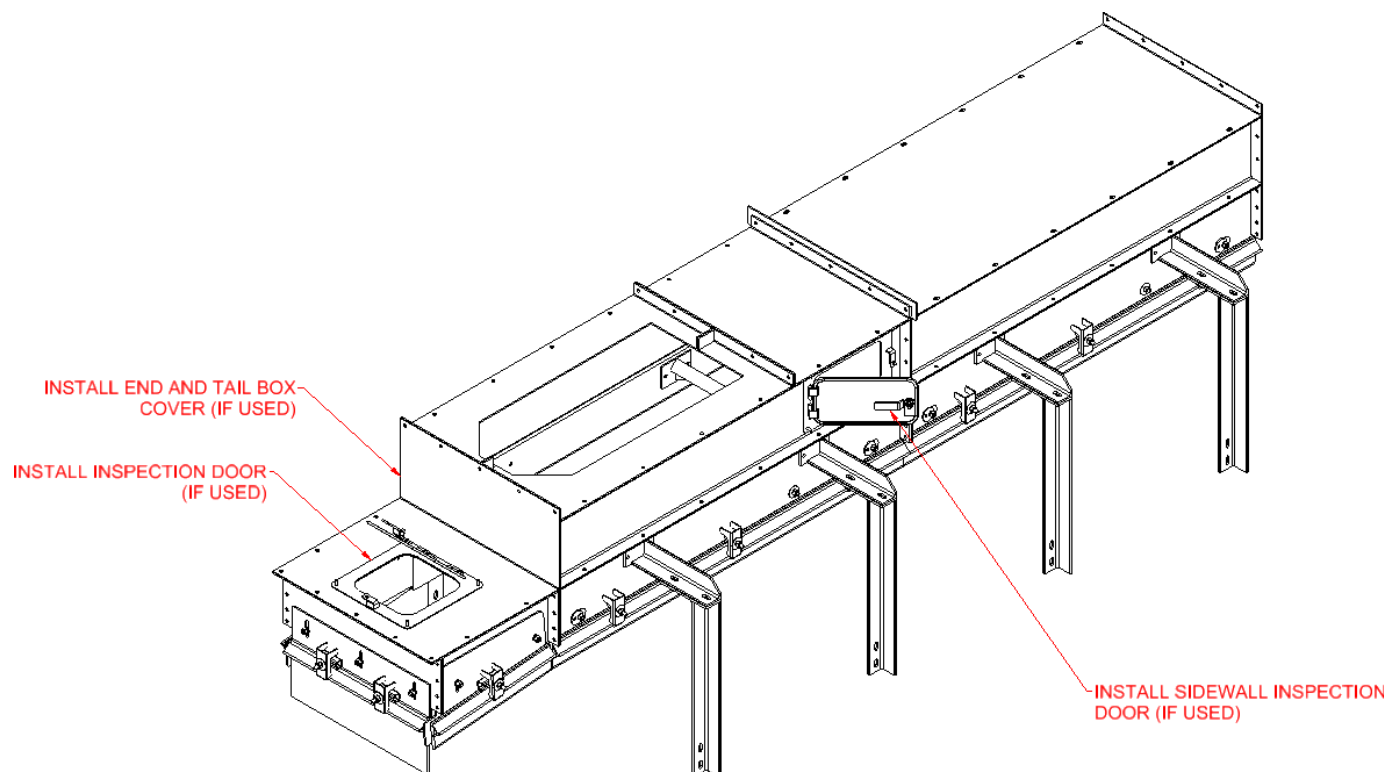
! WARNING !

Failure to remove tools from installation area and conveyor belt before turning on energy source can cause serious injury to personnel and damage to belt.

! WARNING !

Do not touch or go near conveyor belt or conveyor accessories when conveyor belt is running. Body or clothing can get caught and pull body into conveyor belt, causing severe injury or death.

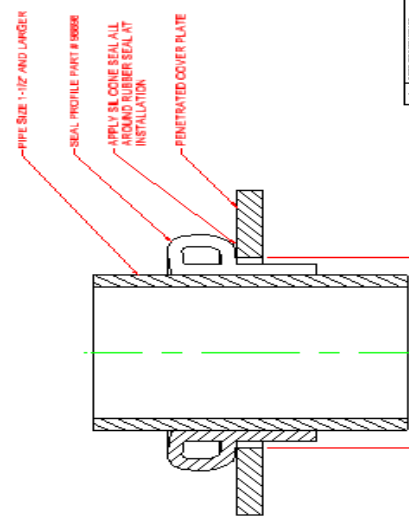
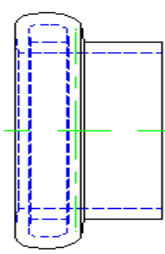
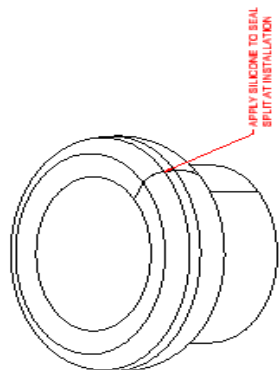
24) Repeat all steps above until required sections are completed including inspection doors (if used).



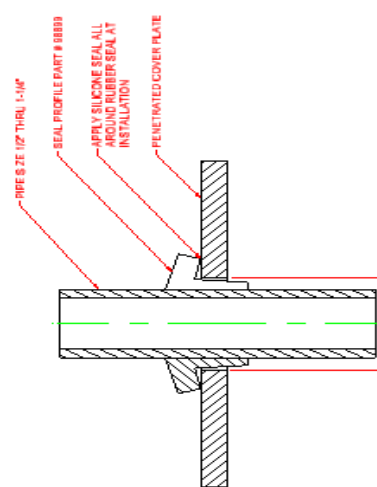
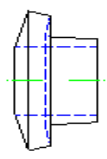
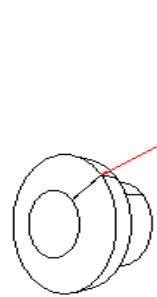
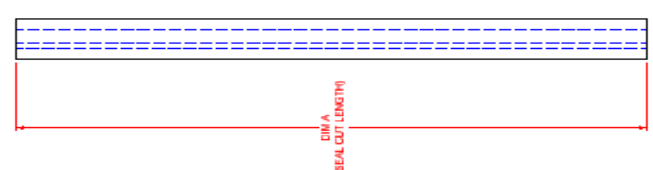
COMPLETED MAXZONE AG ASSEMBLY

25) Penetration Sealing, see appendix drawings 30606 and 30607.

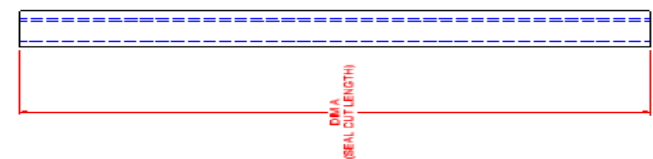
SEAL LENGTH AND HOLE SIZE TABLE				
PART NUMBER	PIPE SIZE	ACTUAL PIPE O.D.	DIM A (CUT LENGTH)	DIM B (DIA-HOLE)
3007-200	1/2"	.84 in	2.70 in	1.10 in
3007-175	3/4"	1.05 in	3.21 in	1.38 in
3007-100	1"	1.31 in	4.20 in	1.50 in
3007-125	1-1/4"	1.66 in	5.28 in	2 in
3007-150	1-1/2"	1.90 in	6.00 in	2.38 in
3007-200	2"	2.38 in	7.59 in	2.70 in
3007-250	2-1/2"	2.88 in	9.16 in	3.38 in
3007-300	3"	3.50 in	11.12 in	4 in
3007-300	3-1/2"	4.00 in	12.09 in	4-1/2 in
3007-400	4"	4.50 in	14.20 in	5 in



DIM B
HOLE SIZE IN
COVER PLATE
SCALE 1:5



DIM B
HOLE SIZE IN
COVER PLATE
SCALE 1:5



PART # 8889 SEAL PROFILE
SCALE 1:5

SEE SEAL DETAIL		For Construction											
<p>REVISIONS:</p> <table border="1"> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> <th>APP.</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>				NO.	DATE	DESCRIPTION	BY	APP.					
NO.	DATE	DESCRIPTION	BY	APP.									
<p>DESIGNED BY: [Signature]</p> <p>CHECKED BY: [Signature]</p> <p>APPROVED BY: [Signature]</p>		<p>TECH. MANAGER: [Signature]</p> <p>APPROVAL: [Signature]</p> <p>CUSTOMER APPROVAL: [Signature]</p>											
<p>SKIRTBARD SYSTEM COMPONENTS</p> <p>BENETECH</p> <p>Benetech, Inc. 2008 Highway 111, Suite 1000, Dallas, TX 75243-1000 (972) 412-1100</p>													
<p>QUANTITY: 1</p> <p>DATE: 10/20/14</p>		<p>PIPE SEAL RUBBER</p> <p>3007</p>											

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