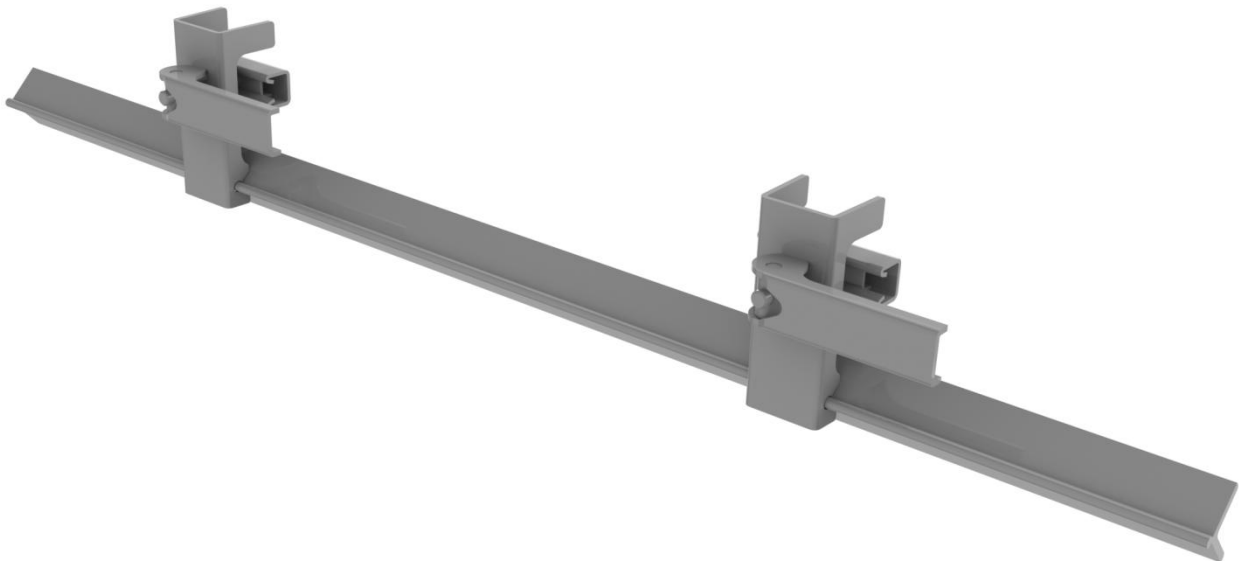


BENETECH®



Quick Release Clamp

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 Personnel 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.

Table of Contents

Important Safety Information.....	4
Provided Components.....	5
Pre-Install Safety.....	6
Installation Overview.....	7
Pre-Installation Instructions.....	8-10
Installation instructions.....	11-15
Maintenance.....	16

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 plow 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 plow, 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 !

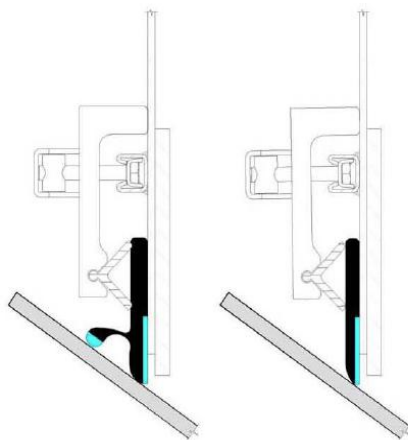
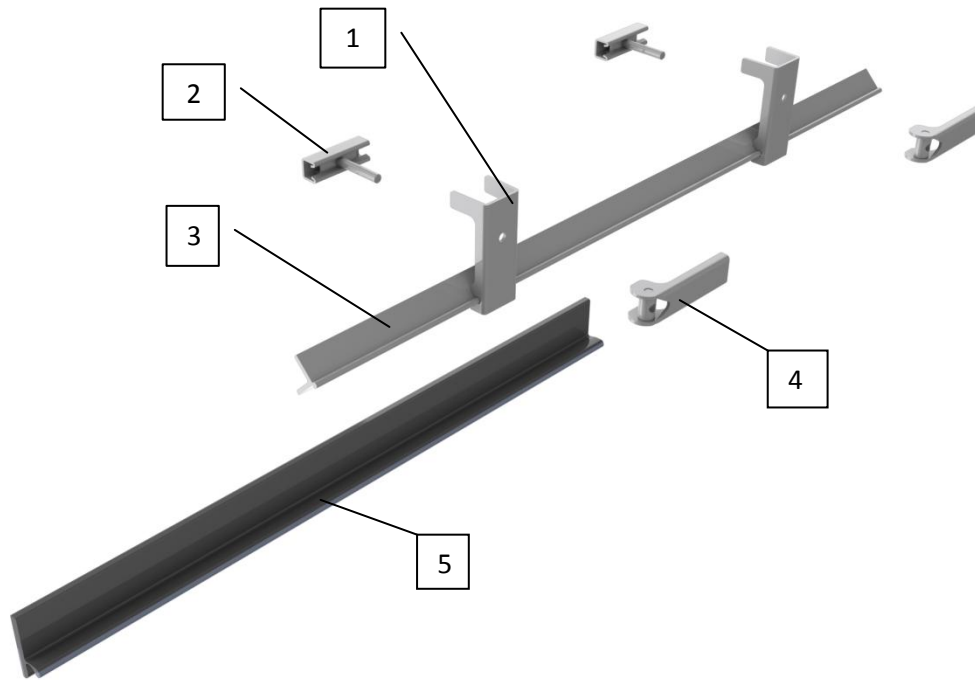
Before using a cutting torch, welders, or grinding equipment, cover the conveyor belt with a fire retardant/resistant cover. Make sure a water source/fire hose is readily available AND OPERATIONAL. Failure to do so can allow the belt to catch fire.

! WARNING !

Conveyor plows are heavy and may require two people to lift. Attempting to lift the plow without assistance could result in injuries or damage to the equipment.

Provided Components

The parts listed below make up the Quick Release Clamp assembly. The length and quantity of some parts may vary depending on length of the units that have been selected.



B-Plus Seal
MK200

Classic Plus Seal

ITEM NO.	DESCRIPTION	QUANTITY
1	Skirt Clamp Arm	1
2	Skirt Clamp Stud	1
3	Skirt Clamp Angle	1
4	Quick Release Handle	4
5	Benetech Rubber Seal	4 SETS

Before Installing the Quick Release Clamps

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. Quick Release Clamps are shipped from our facilities assembled. Care should be taken while disassembling the units 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 !

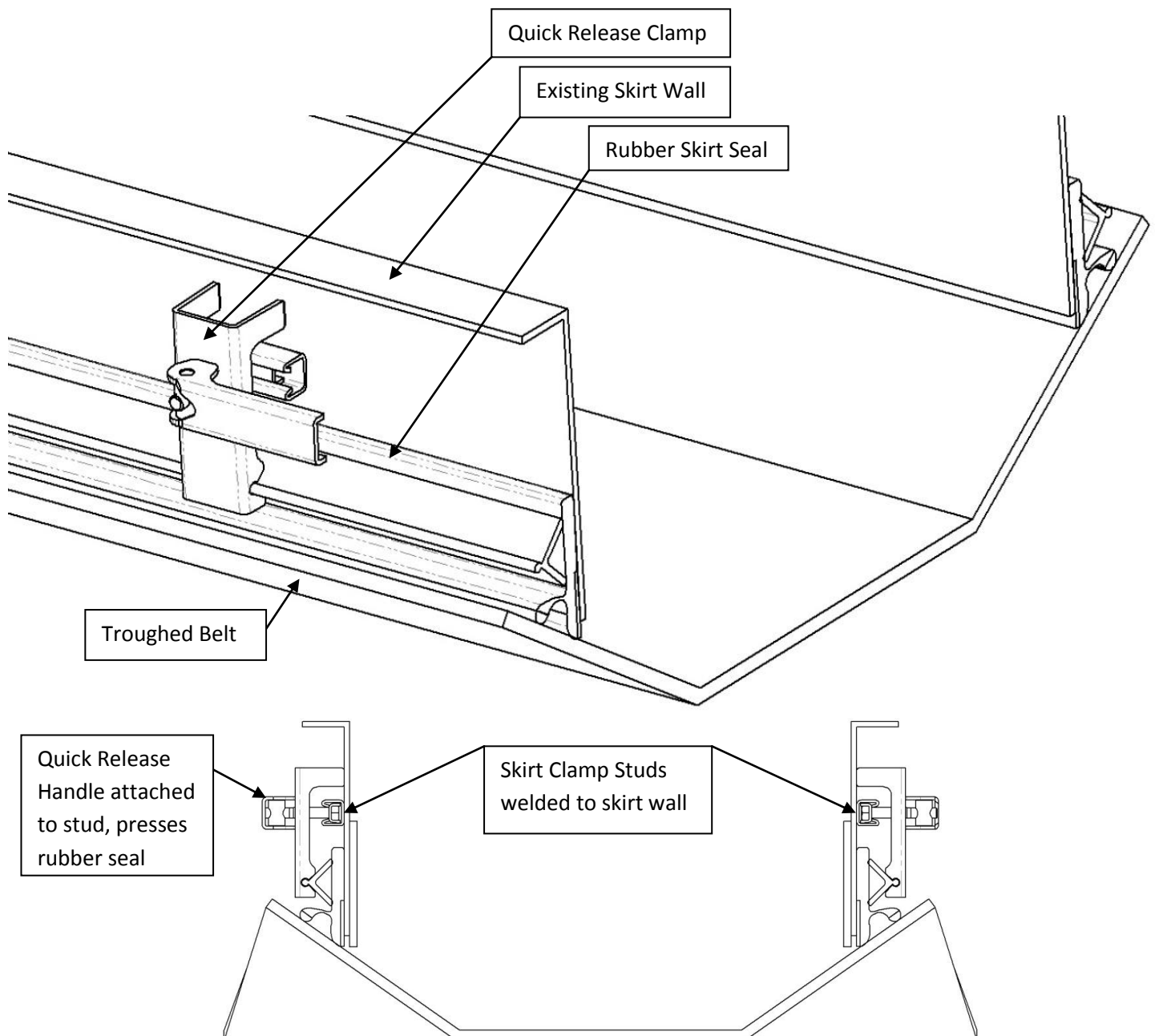
Before installing equipment, turn off AND lock out/tag out all energy sources to the conveyor and conveyor accessories according to ANSI standards and local plant regulations. Failure to do so could result in serious injury or death.

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.

Installation Overview

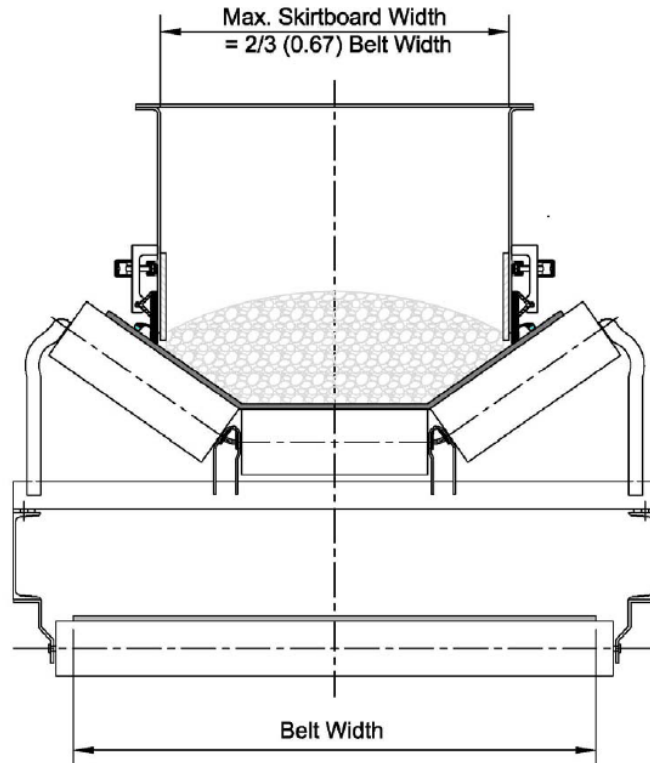
The *Quick Release Clamp* is a skirt board seal clamping system. Rubber seals on the bottom of a receiving skirtboard prevent fine particles from escaping below it. As the rubber seals wear down, it is necessary to adjust them, or replace them. Benetech's *Quick Release Clamping* system makes this maintenance simple and easy compared conventional bolted skirt clamps. The Quick Release Handles are simply rotated outward, releasing pressure on the rubber seal and allowing it to be adjusted or removed with minimal tools and time.

The *Quick Release Clamps* can be fitted to any existing chute and skirtboard system, but are also used with Benetech's XN Wearliner System. **If you are installing an XN Wearliner system, refer to the XN Wearliner installation manual, as mounting dimensions will differ.**



Pre-Installation Instructions

1. When Benetech Quick Release Clamps are to be installed on existing skirt board systems, it is important to assure the system conforms to CEMA recommendations regarding minimum skirtboard width:



Belt Width (In)	Nom. Max. Skirtboard Width (In)
12	8
18	12
24	16
30	20
36	24
42	28
48	32
54	36
60	40
72	48
84	56
96	64

BELT WIDTH (mm)	Nom. Max. Skirtboard Width (mm)
305	203
457	305
610	406
762	508
914	609
1067	711
1219	813
1371	915
1524	1016
1829	1219
2133	1422
2438	1625

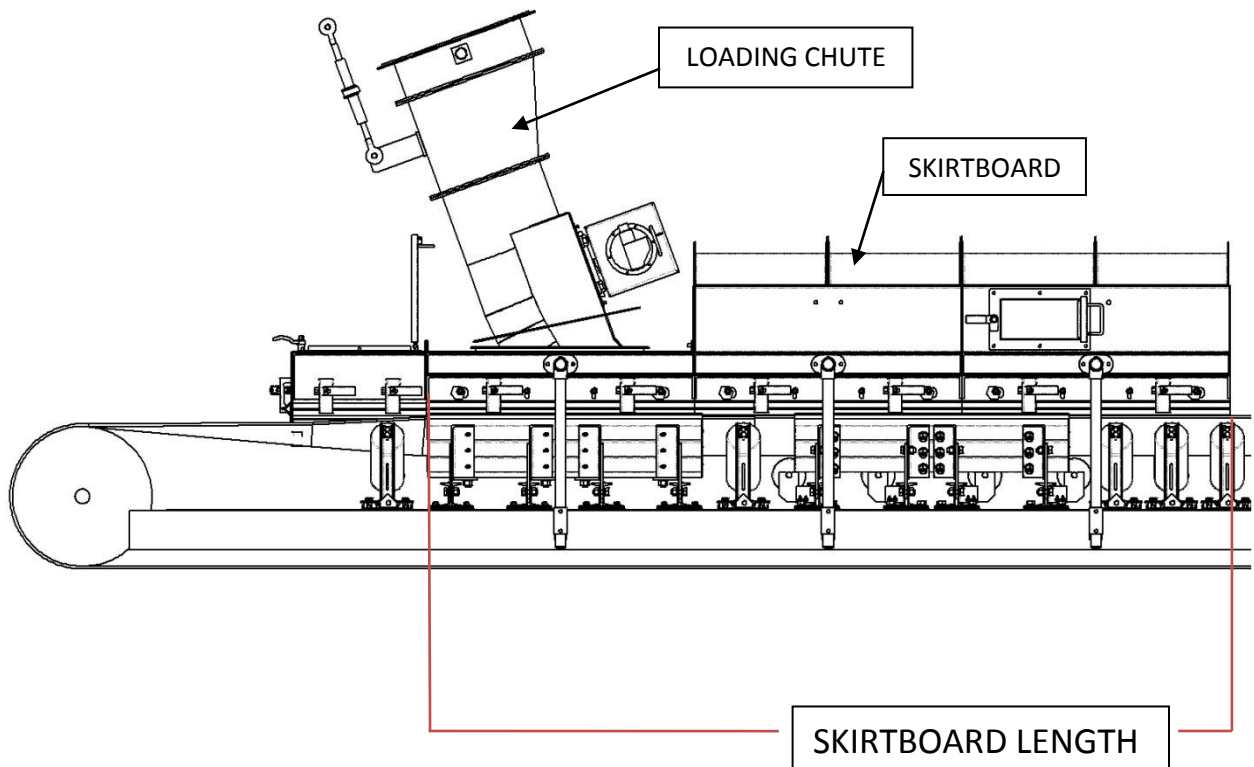
CEMA recommendations are related to maximum skirtboard width. Measured dimensions less than Nominal Maximum Skirtboard Width (see table) satisfy CEMA recommendations.

For measured width dimensions greater than the Nominal Maximum Skirtboard Width, consult your Benetech Sales Representative.

2. When Benetech Quick Release Clamps are to be installed on existing skirt board systems, it is also important to assure the system conforms to CEMA recommendations regarding minimum skirtboard length.

CEMA recommends (2) feet of skirtboard length for each 100FPM of conveyor belt speed with a minimum length of (3) feet.

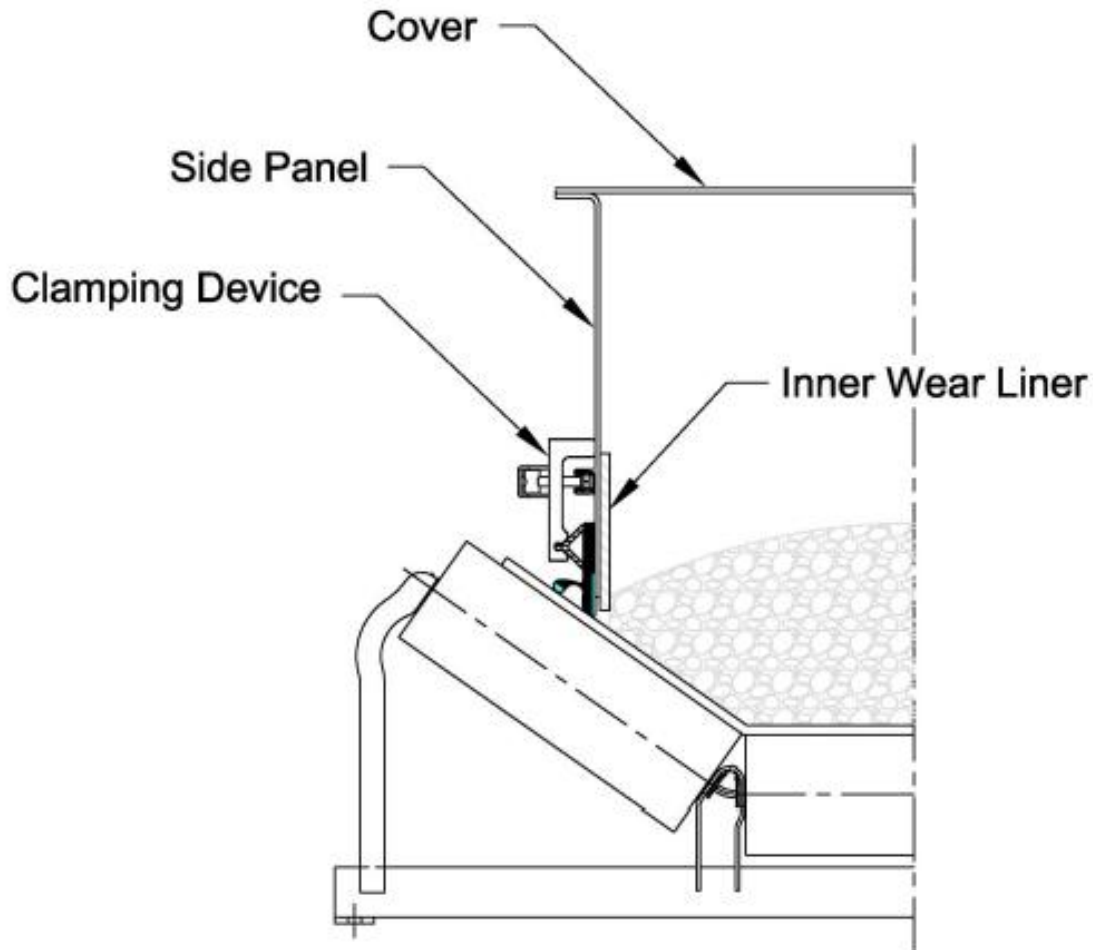
(The image below depicts a Benetech discharge chute and skirtboard system)



! NOTE !

Recommended Skirtboard length is vital for proper dust containment. Skirtboards should always remain covered with side panels in place.

3. When Benetech Quick Release Clamps are to be installed on existing skirt board systems, it is also important to assure the system conforms to recommendations regarding skirtboard configuration.



- a. Skirtboard cover is required for proper containment. The cover should be free of deterioration and should be arranged to prevent area dusting.
- b. Skirtboard Side Panels should be free of deterioration to properly contain material. Liner panels should be $\frac{1}{2}$ " (12.7mm) to $\frac{1}{4}$ " (6.3mm) from the belt surface.
- c. If existing skirt seal clamping devices are to be reused, confirm condition, functionality, and conformance with dimensional data tables.

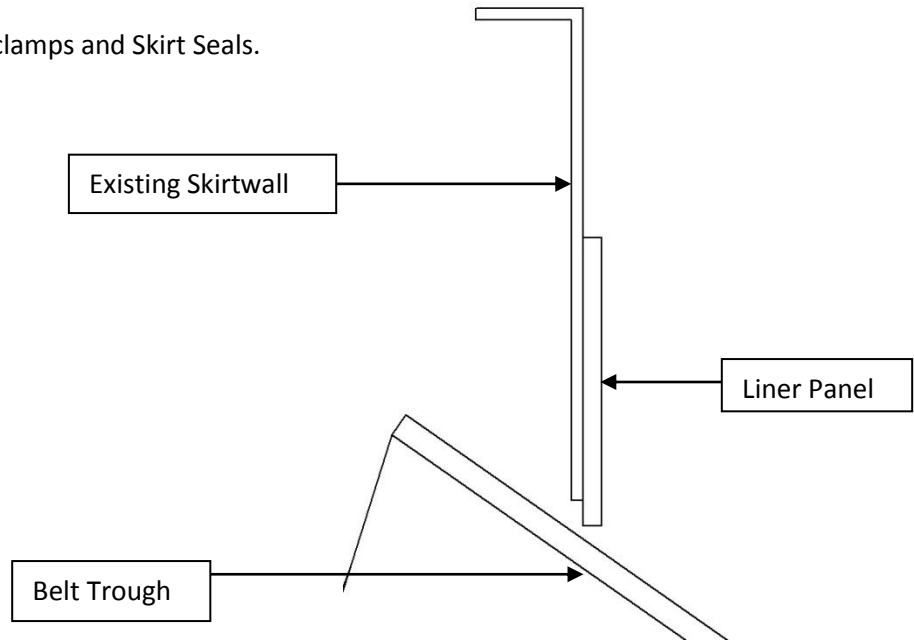
If repairs need to be made to the existing skirtboard, they should be made prior to installing the Quick Release Clamp and rubber seals to ensure proper system containment.

! WARNING !

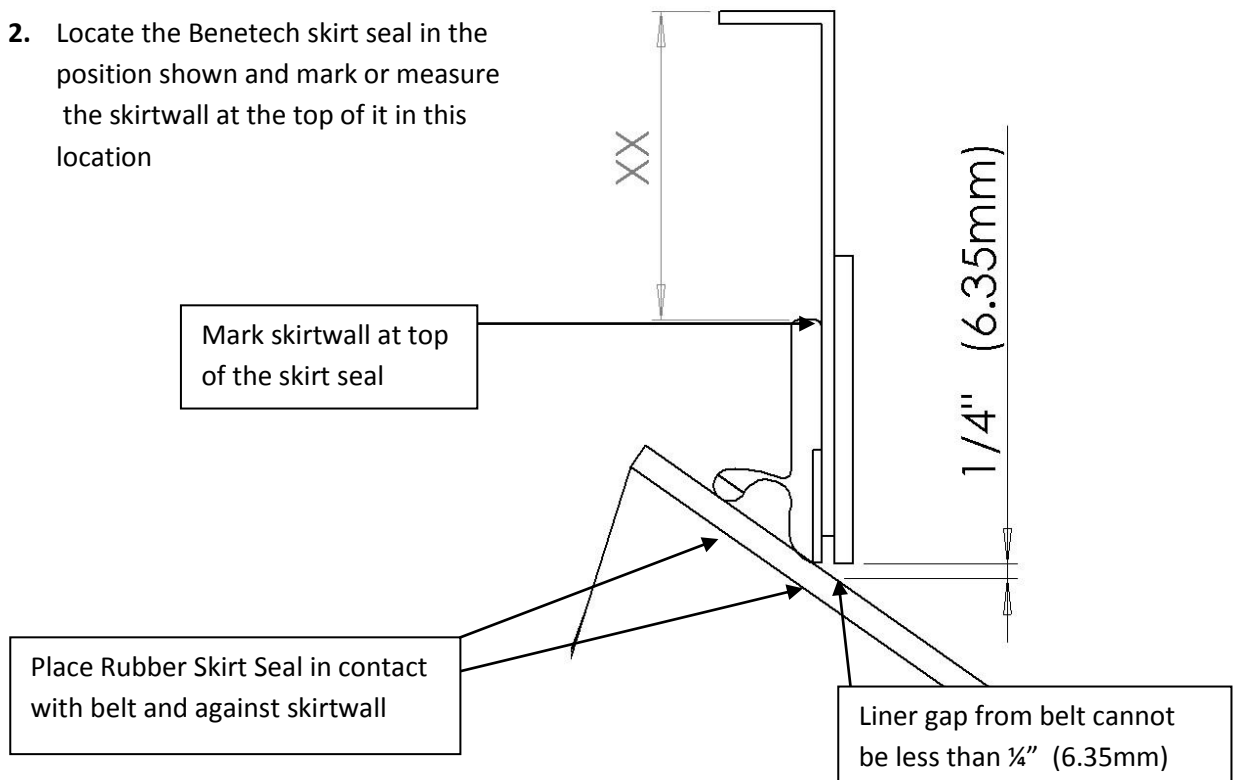
Placing liner panels closer than $\frac{1}{4}$ " to the belt trough, WILL cause serious belt damage.

Installation Instructions

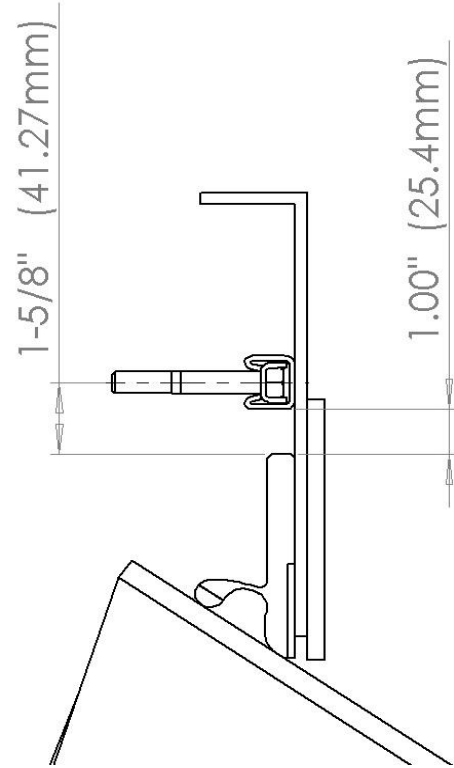
1. Remove existing clamps and Skirt Seals.



2. Locate the Benetech skirt seal in the position shown and mark or measure the skirtwall at the top of it in this location

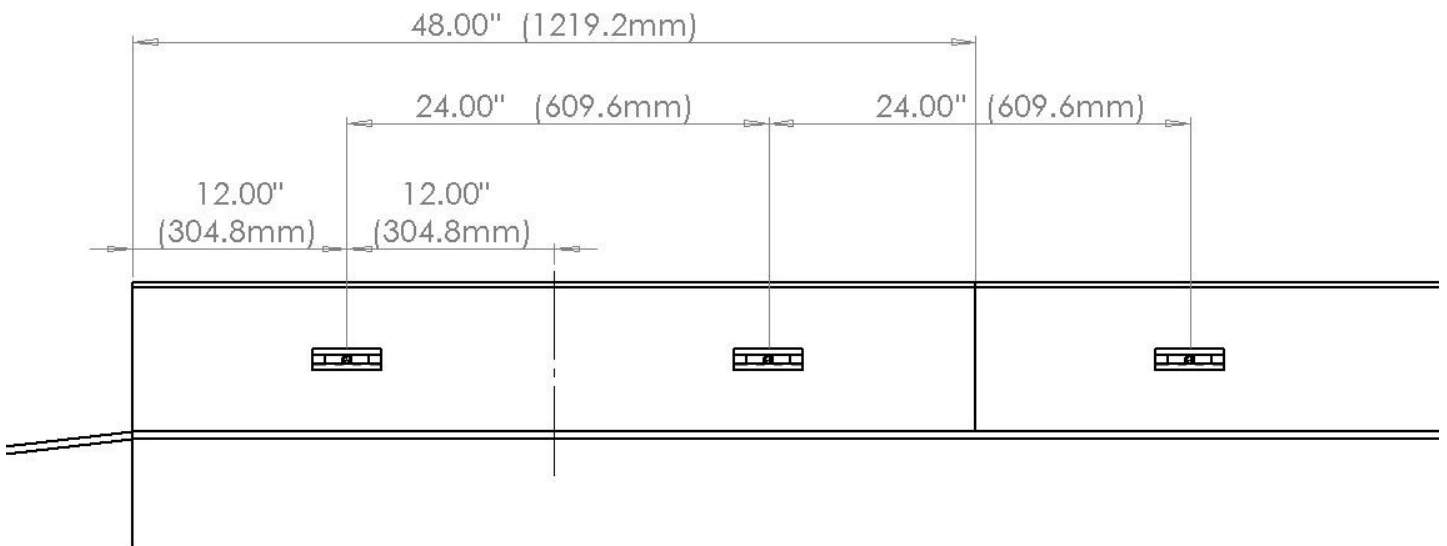


3. The Quick Release Clamp's Skirt Clamp Studs **will** be located 1-5/8" (41.27mm) above the mark made at the top of the Rubber Skirt Seal.

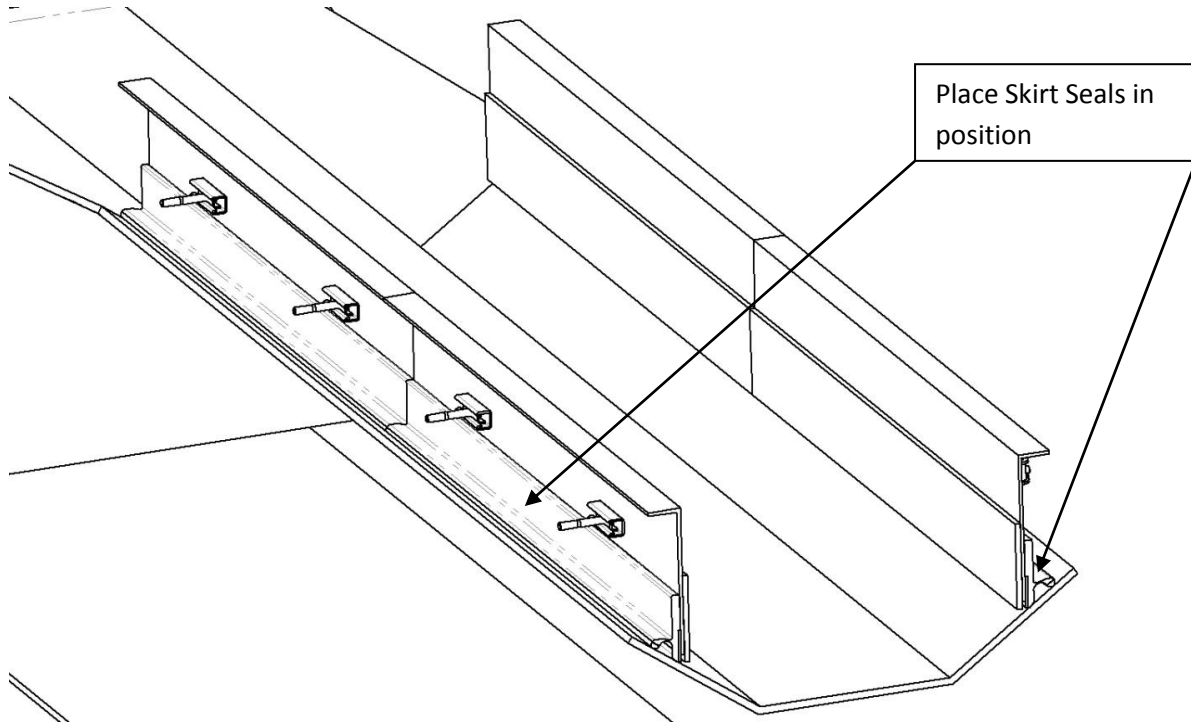


4. Length wise, the Skirt Clamp Studs are spaced 24" (609.6mm) apart, centered on 4' (1419.2mm) sections of skirtwall. Sealing should begin on the tailbox, so if one exists, shorter Quick Release Clamps will be provided.

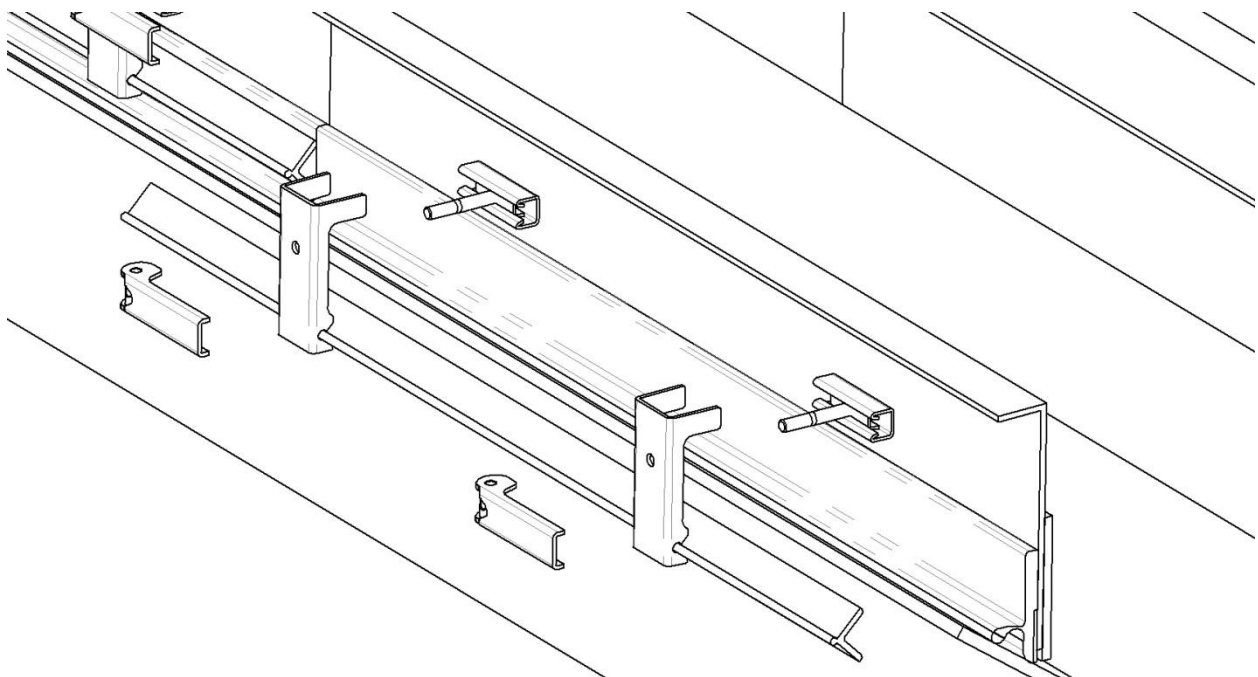
- a. Weld Studs to the skirtwall according to these dimensions.



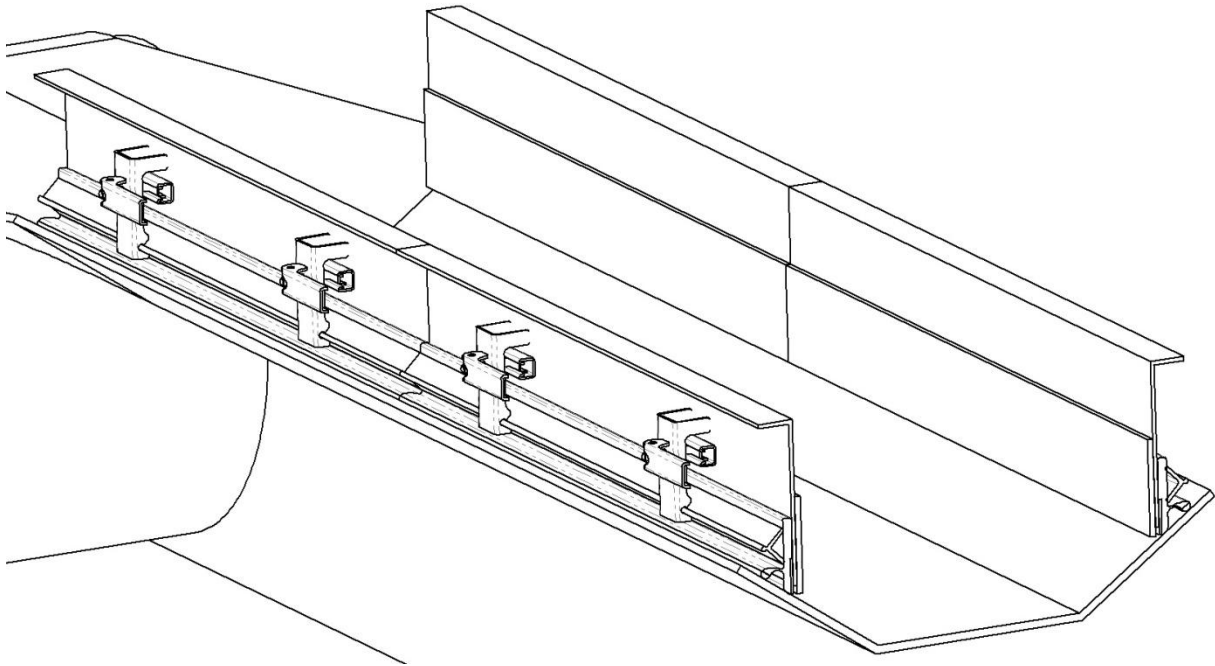
5. Place rubber seals in correct position on skirtwall, and cut to length. If needed, cut the seal in to sections to ease handling difficulty.



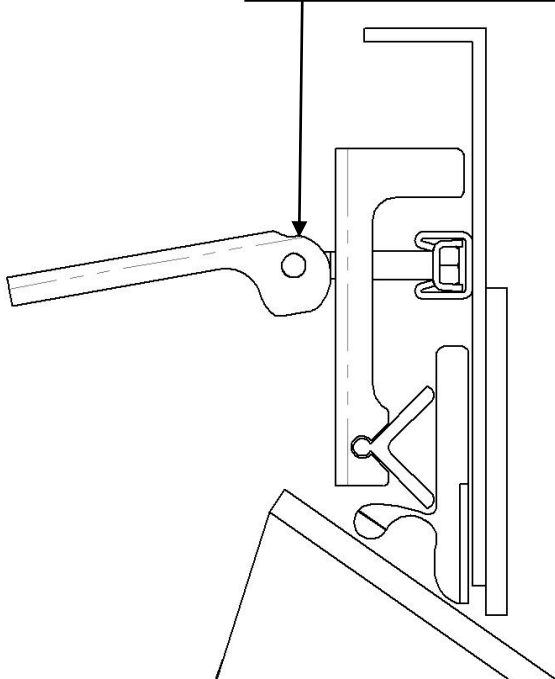
6. Install clamps and handles.



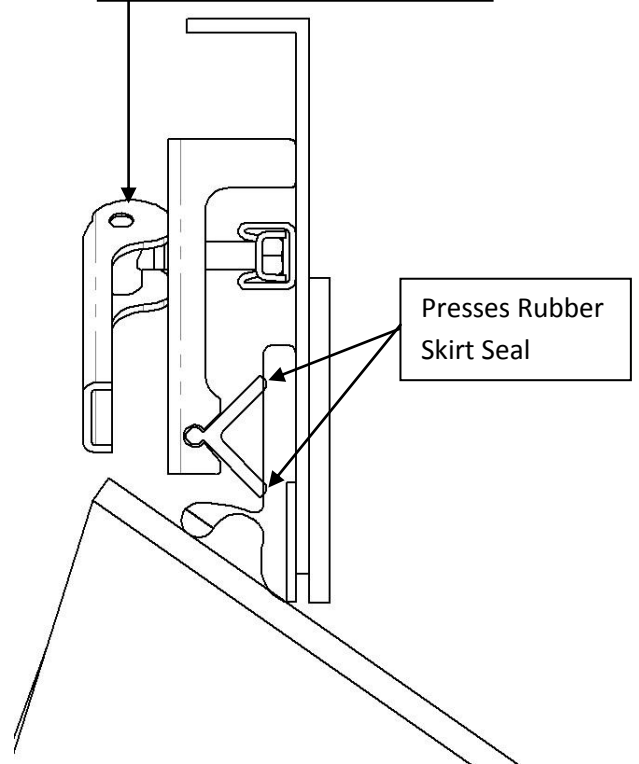
7. Thread Quick Release Handles onto studs and press handles down to apply pressure to rubber skirt seal.



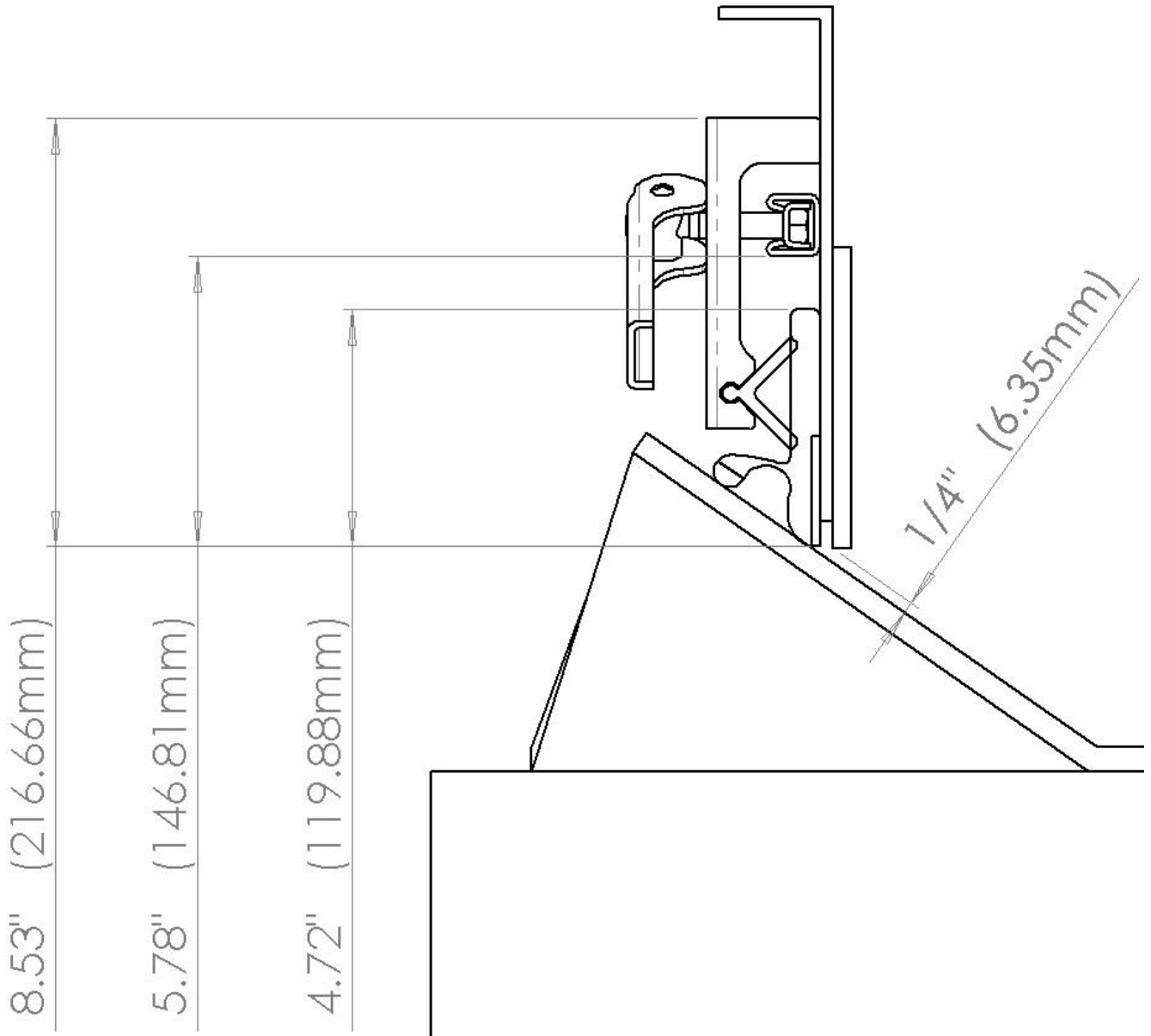
Thread handles onto studs



Swivel handles down to lock



Presses Rubber Skirt Seal



Maintenance

Rubber Skirt Seals along skirt walls should be checked periodically for proper positioning and excessive wear, especially in the first few weeks of operation. Adjustments should be made to the rubber seal as soon as seal leaks or wear areas are observed.

To re order rubber seals or quick release clamps, contact your Benetech sales Representative.

! WARNING !

When adjusting liner panels, use ¼" shims to measure ¼" of space from the belt trough. Liner contact to the belt WILL cause catastrophic belt damage.

! 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.