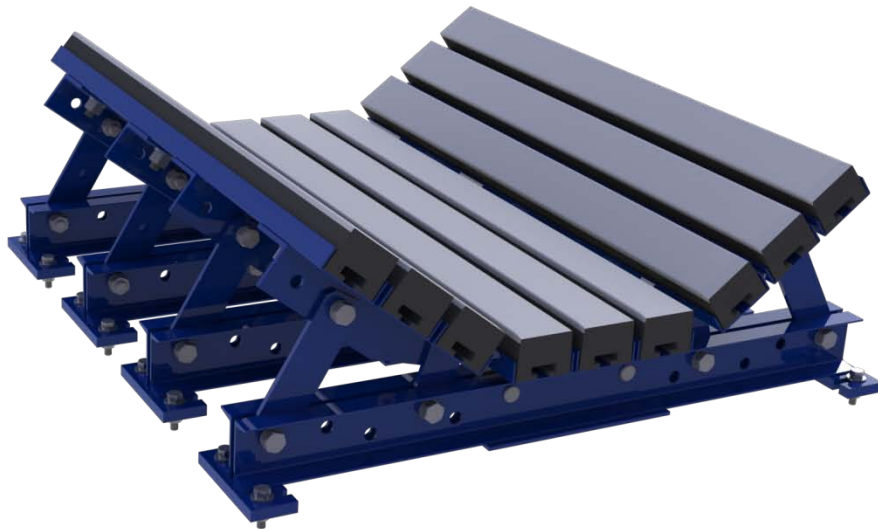


# **BENETECH.** **MaxZone™**

## **Warrior Impact Bed**

### **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.*

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 bed, 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.*

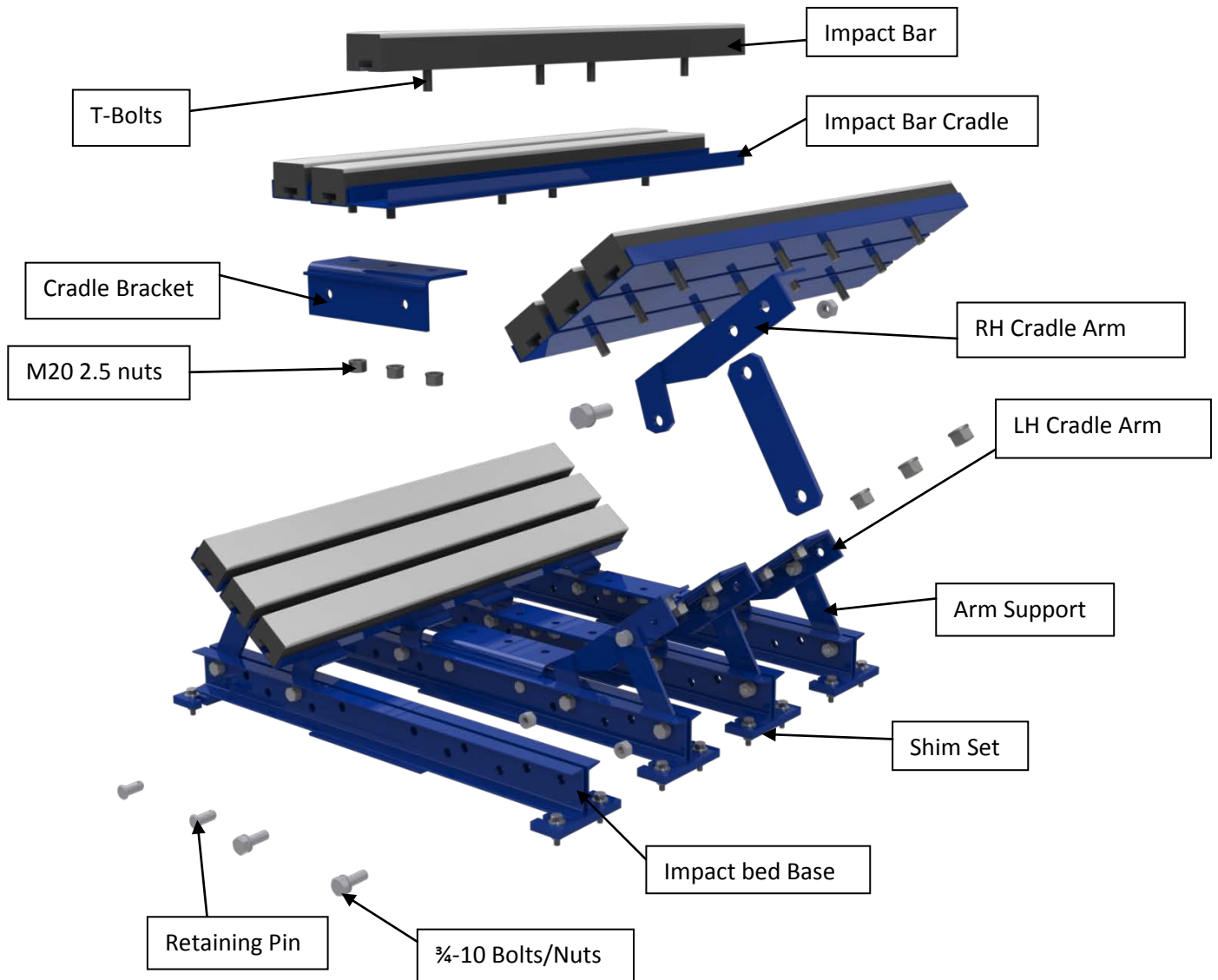
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## Provided Components



### Re-ordering Information for wear components

Part Description	Part Number
Impact Bar (1 Rubber/UHMW Bar)	BBSICB-A1-4
T-Bolt (1 T-Bolt with spring lock washer)	BIB-TB0

## Before Installing the Warrior Impact Bed

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. Warrior Roll & Guide Beds 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.***

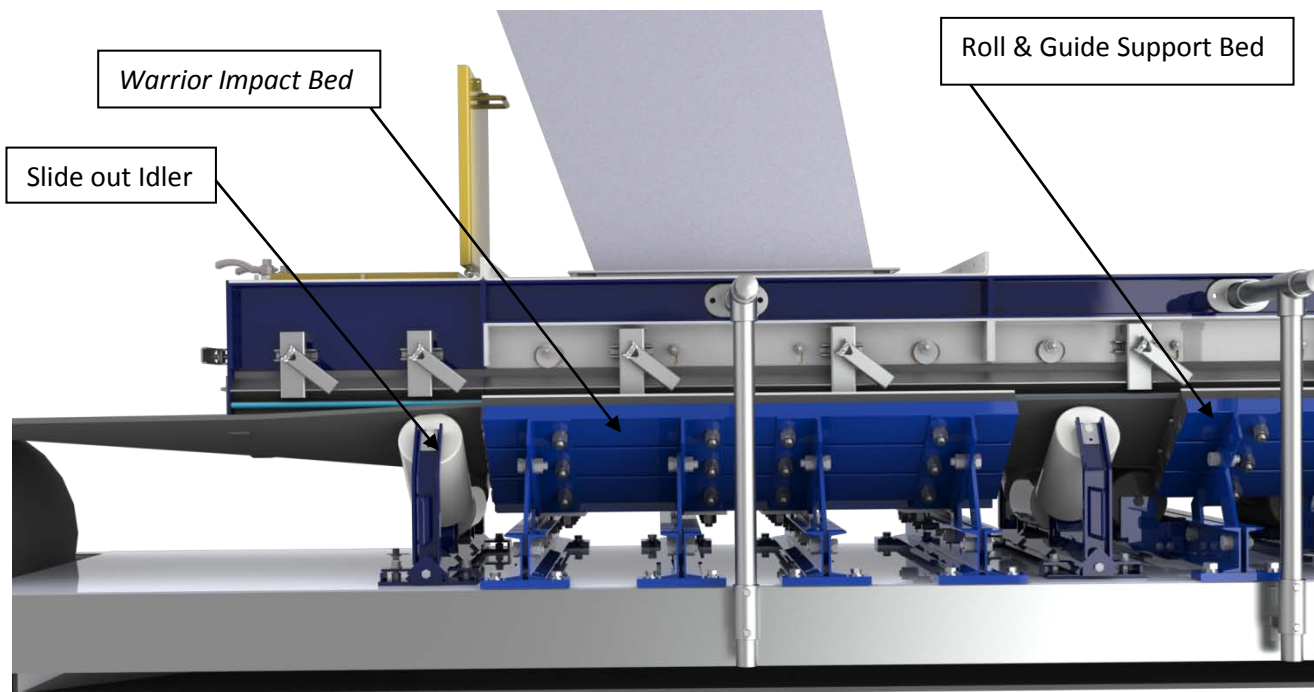
## Installation Overview

Belt support is a critical component when conveying heavy bulk materials. The Benetech *Warrior Impact Bed* is designed to sit beneath conveyor belts at loading points where the discharge impact is most abusive. It cradles the belt and provides stability and shock absorption to prevent spillage and premature belt wear.

The *Warrior Impact Bed* should be placed after the first full trough idler, directly underneath the belt's loading point. If more than one loading point exists, it is acceptable to place *Warrior Impact Beds* under each one.

Each *Warrior Impact bed* should be followed by a Benetech Slide out Idler, and then a Benetech Roll & Guide Support Bed. These components are necessary for optimum performance.

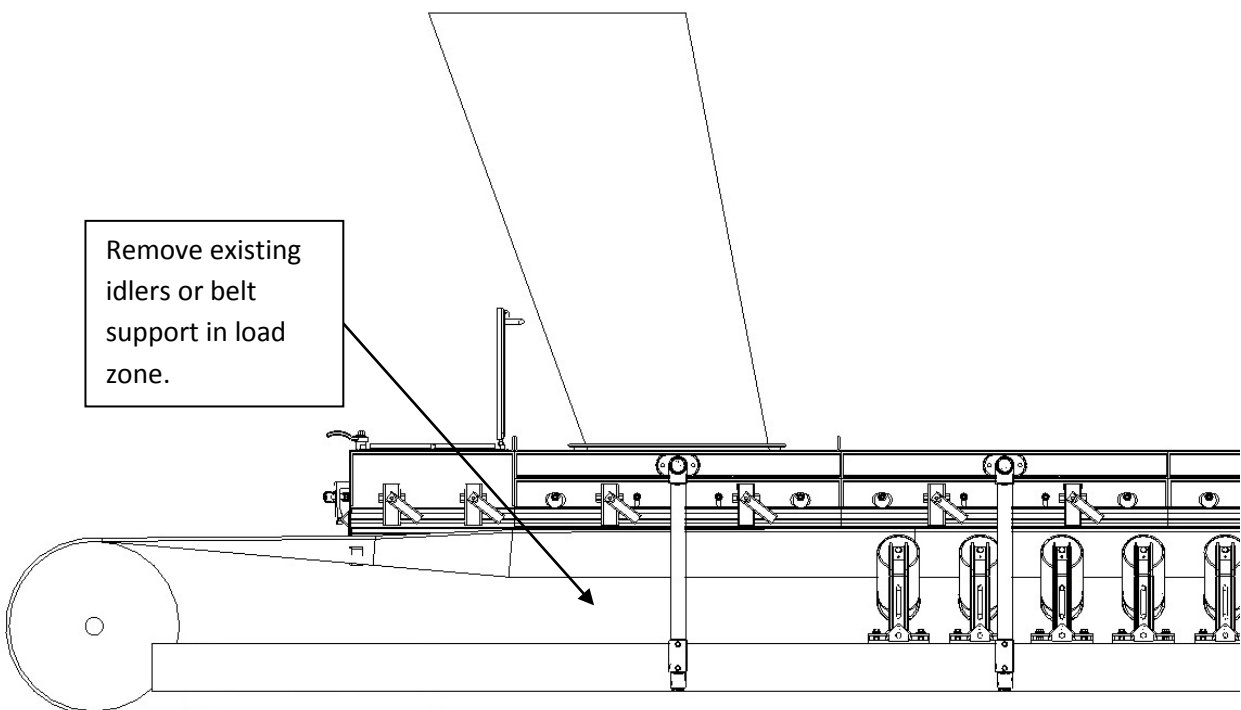
**WARNING:** Benetech Inc.'s belt support products should only be used alongside Benetech troughing Idlers. If idlers from other manufacturers are used, there is a risk that the belt will sit lower causing contact and high friction with the Impact/Roller beds. Excessive heat created by high friction can create situations where fire and explosions can occur.



# Installation Instructions

Step 1. Hose down the work area prior to commencing any deconstruction. Use this time to inspect the stringer and decking where the new parts are to be installed. If the stringer or support system show signs of corrosion, it may be necessary to replace these structural parts before installing your Benetech belt support components.

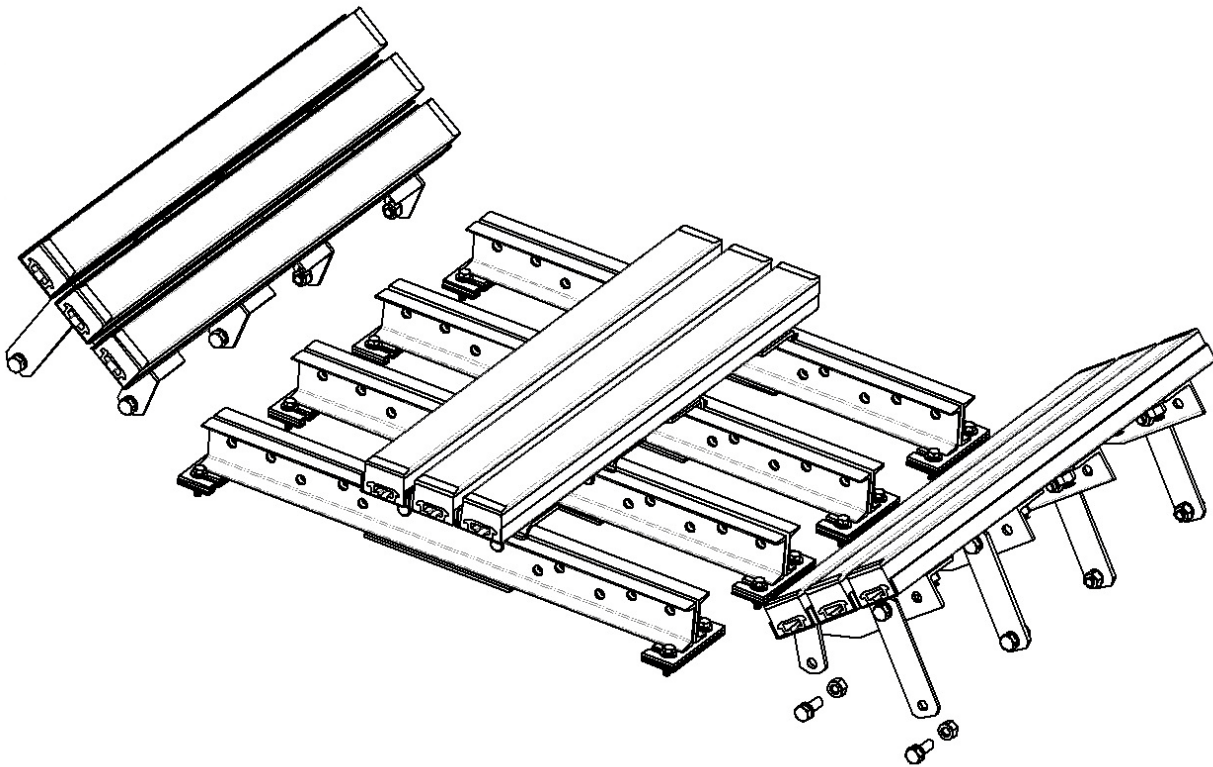
Step 2. Remove the first set of existing idlers or belt support. Remove only as many as are needed to fit the first Benetech Troughing Idler and *Warrior Impact Bed*.



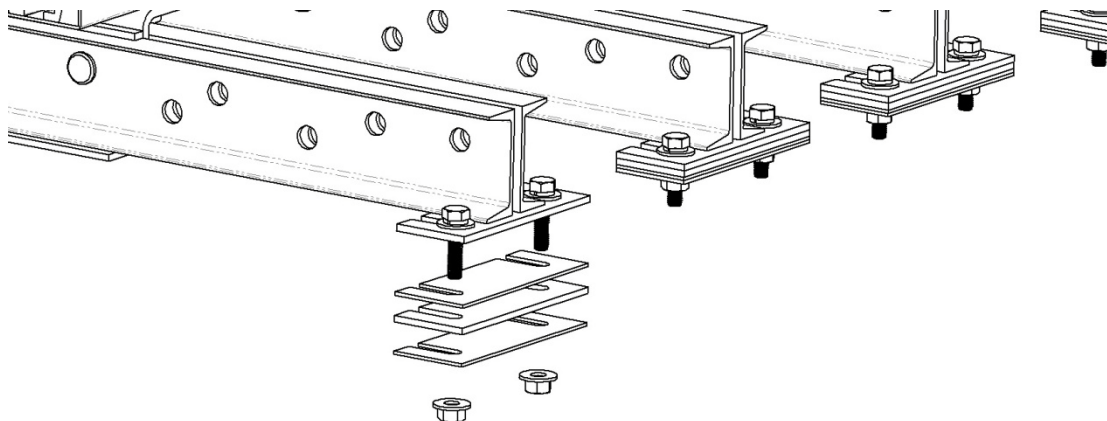


Step 3. For ease of installation, removal of the trough bars is recommended. This can be done by unbolting the lower bolts on each set of support arms. See picture below.

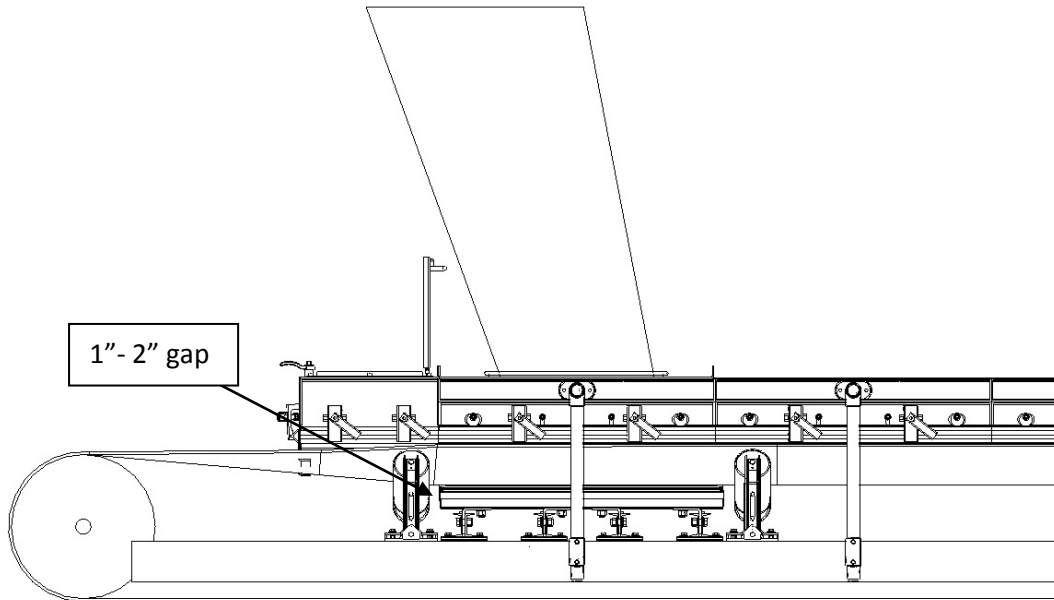
**IMPORTANT:** Even without the trough bars attached, the center assembly can weigh up to 300 pounds. Use caution when lifting and moving these parts.



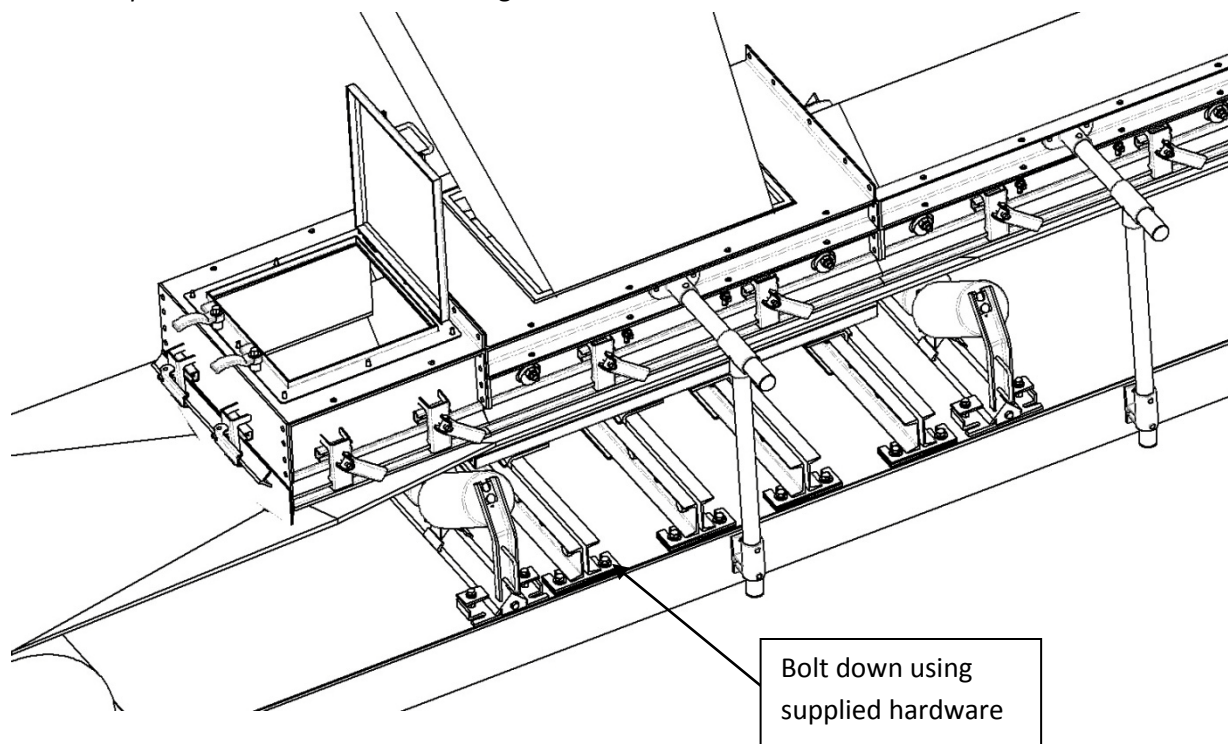
Step 4. A shim kit is supplied with each *Warrior Impact Bed*. If the roll diameter of the idlers being used is 5", the shims should be left off. If the roll diameter is 6", the shims must be installed.



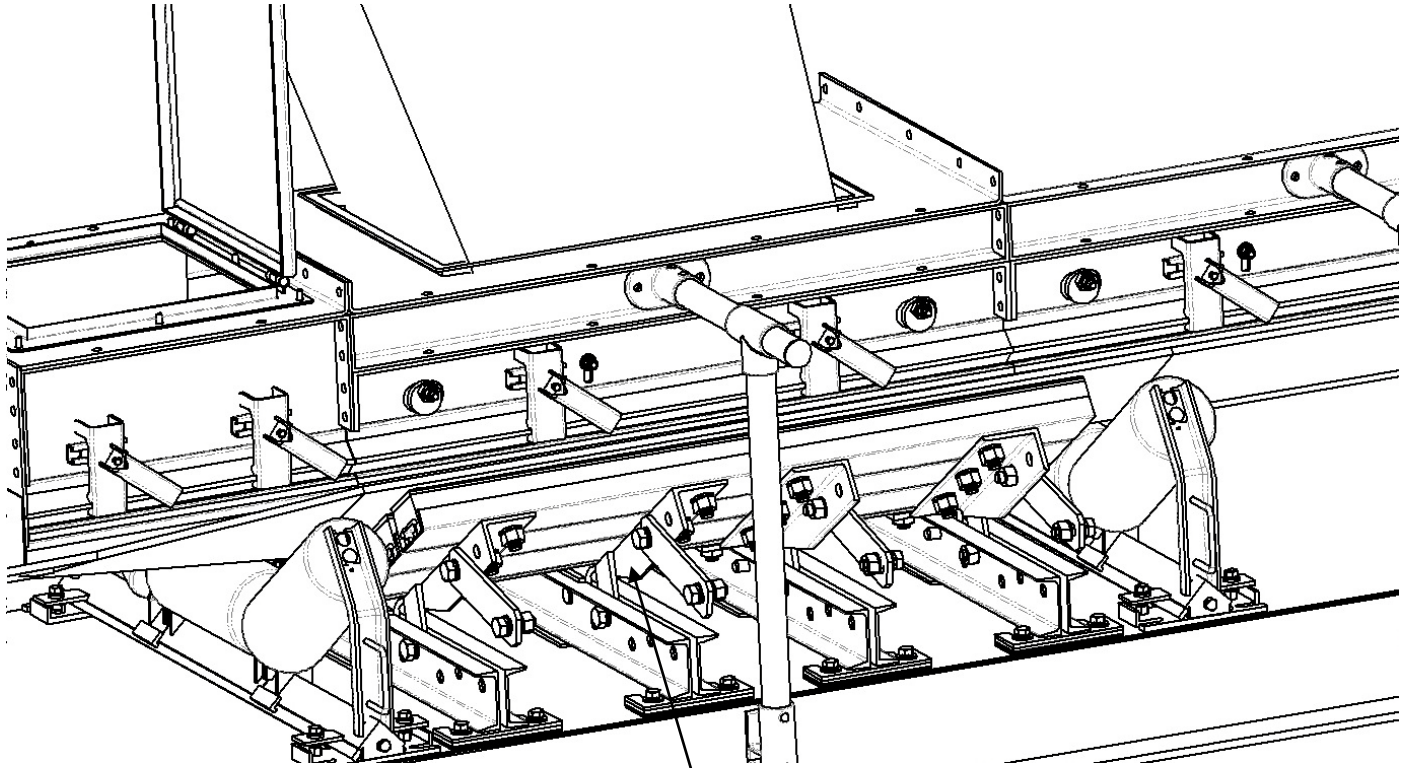
Step 5. Center and square two Benetech *troughing idlers* and the *Warrior impact Bed* on the stringer channels. The idler rolls should be 1" - 2" from the end of the impact bed to the tangent roll surface.



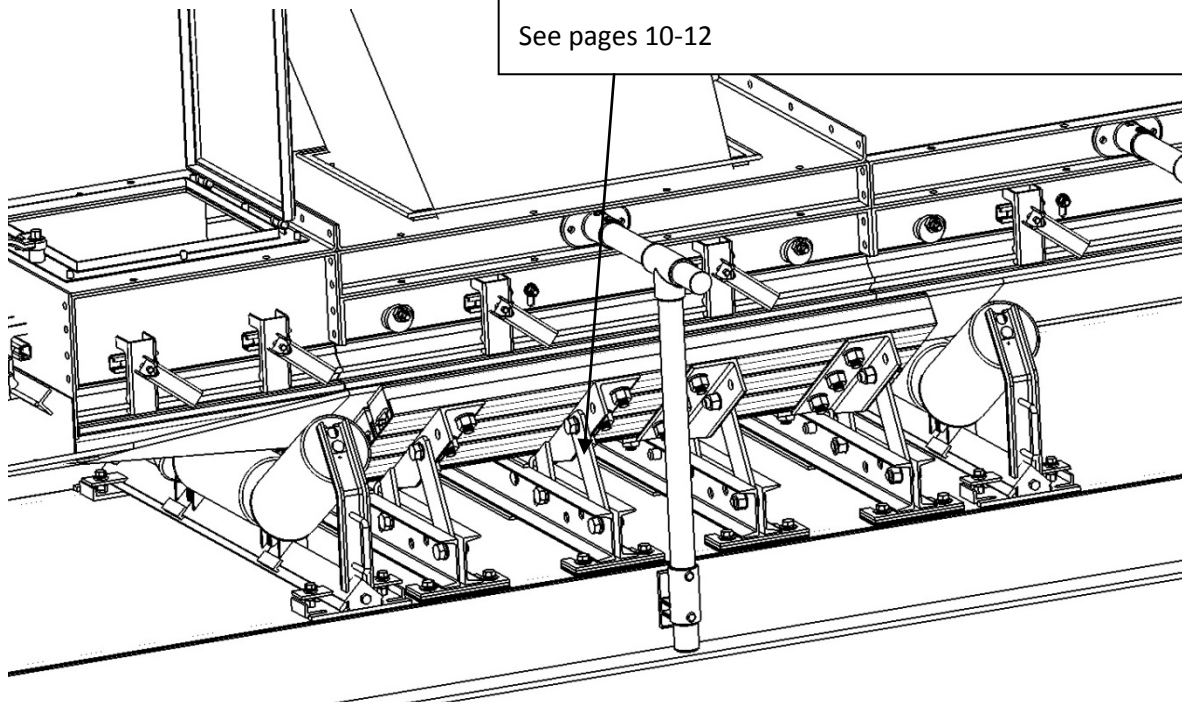
Step 6. Using the idlers and Bed as a guide, mark and drill mounting holes through the stringer. Bolt the *Warrior Impact Bed* and Idlers to the stringer.



Step 7. Move the trough bar assembly back into place and bolt it down. Refer to pages 10-12 for trough angle settings.



Bolt down trough Bars using correct hole combination.  
See pages 10-12



## Trough Settings

Benetech's line of belt support beds are all trough adjustable. Regardless of belt width, it is possible for each unit to be re-positioned to fit 20, 35, or 45 degree trough angles.

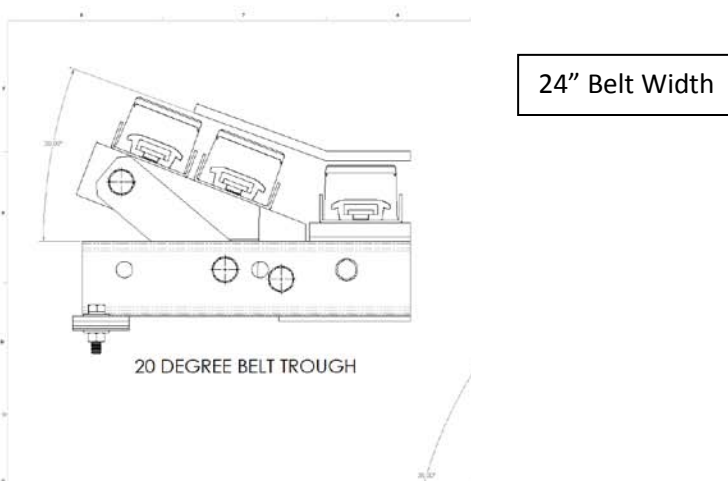
Refer to the guides listed on the following pages to determine the correct position to mount your units.

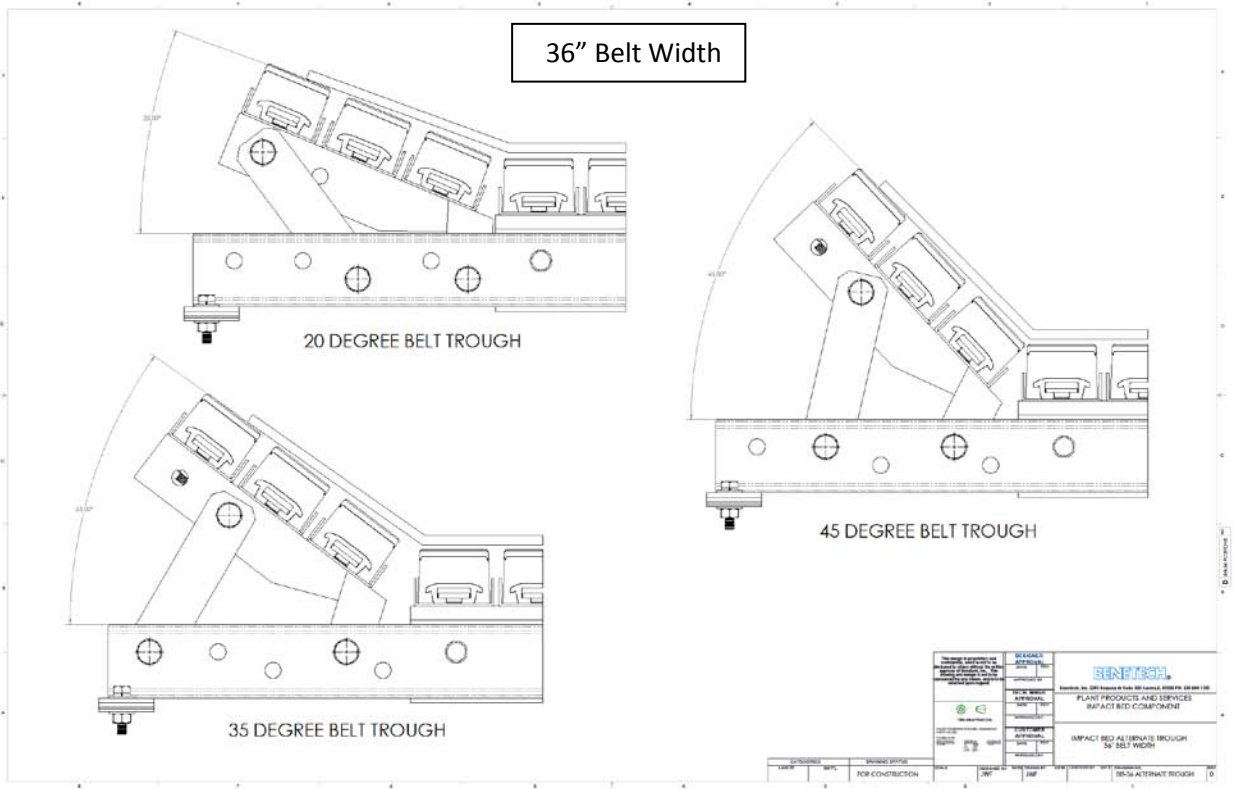
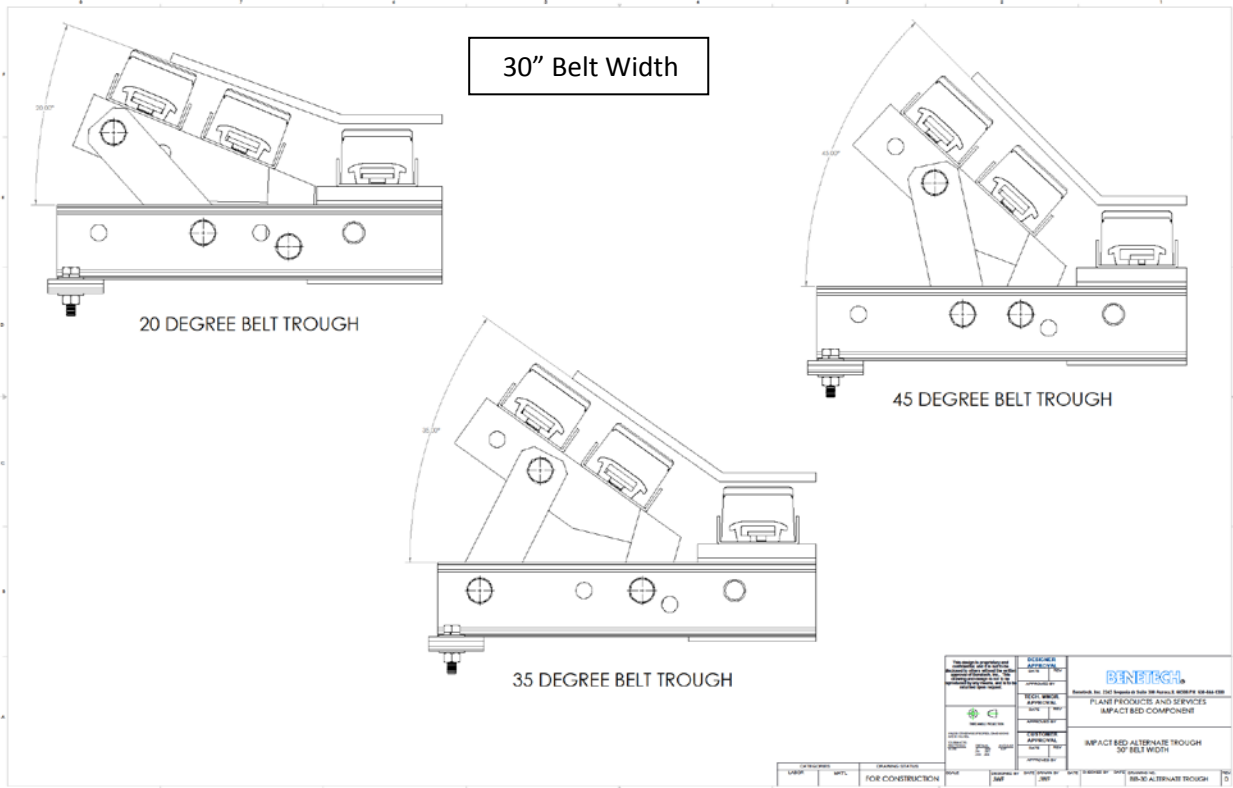
**! WARNING !**

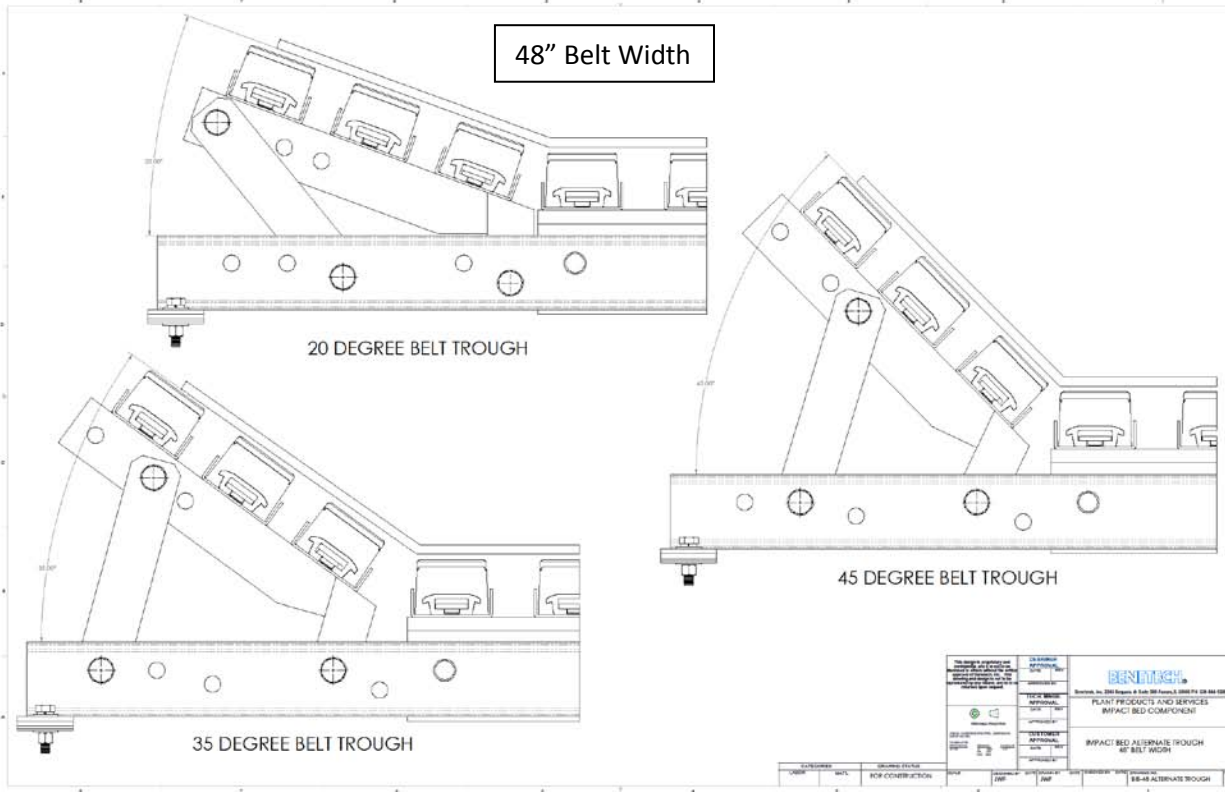
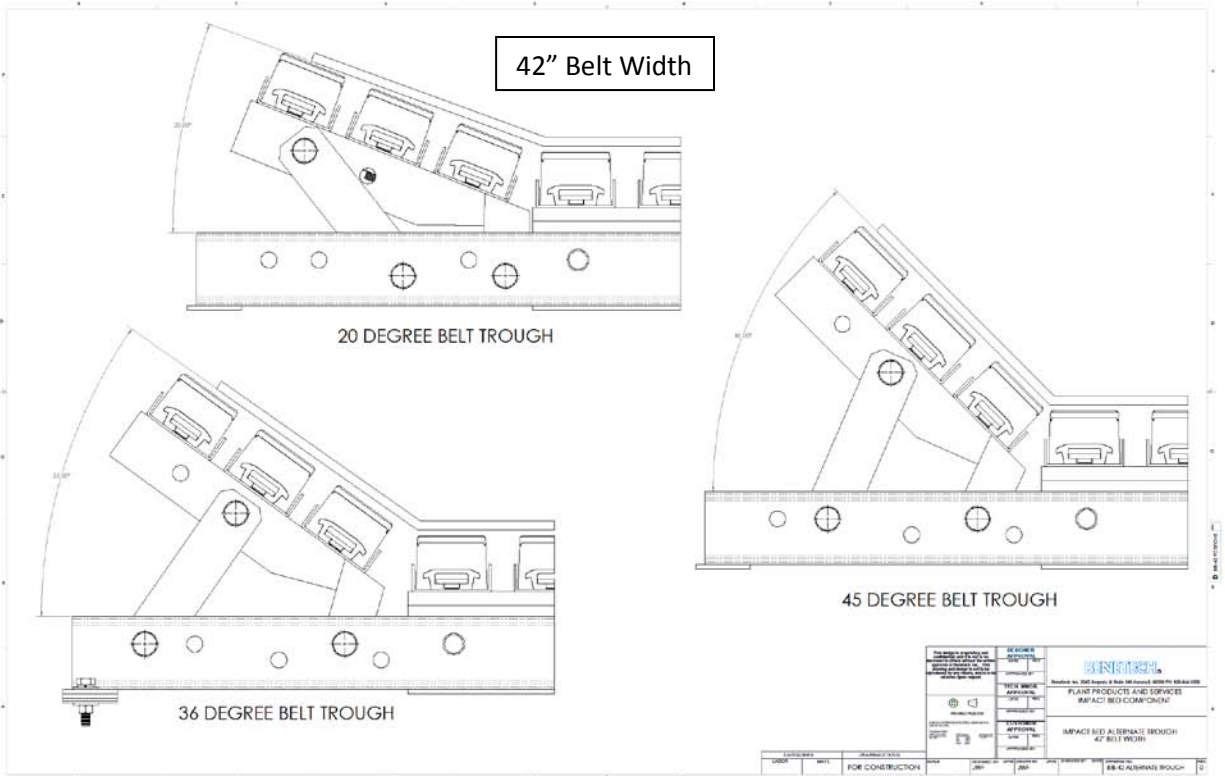
***Failure to remove tools from installation area and conveyor belt before turning on energy source can cause serious injury to personnel and damage to belt.***

**! 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.***







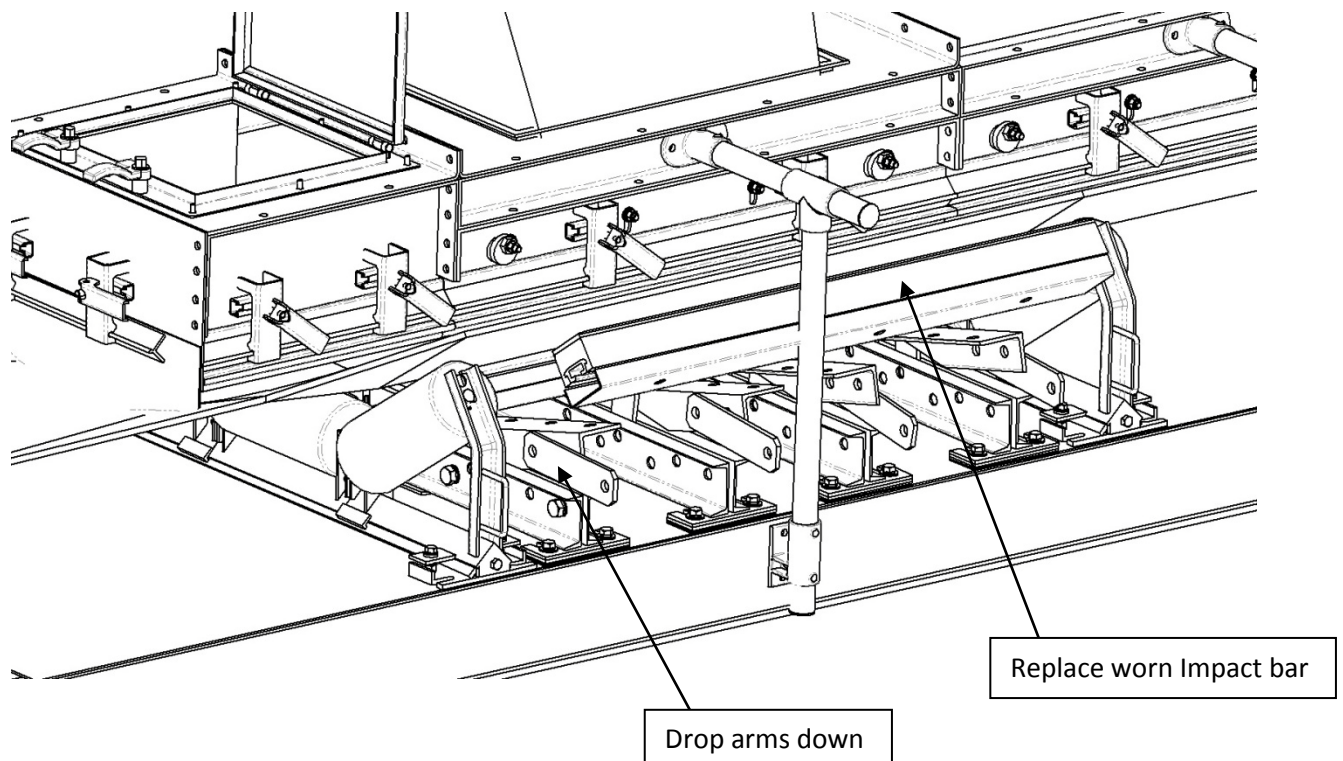
# Impact Bar Replacement

This process is the same for both *Warrior Impact Beds* and *Warrior Roll & Guide Beds*.

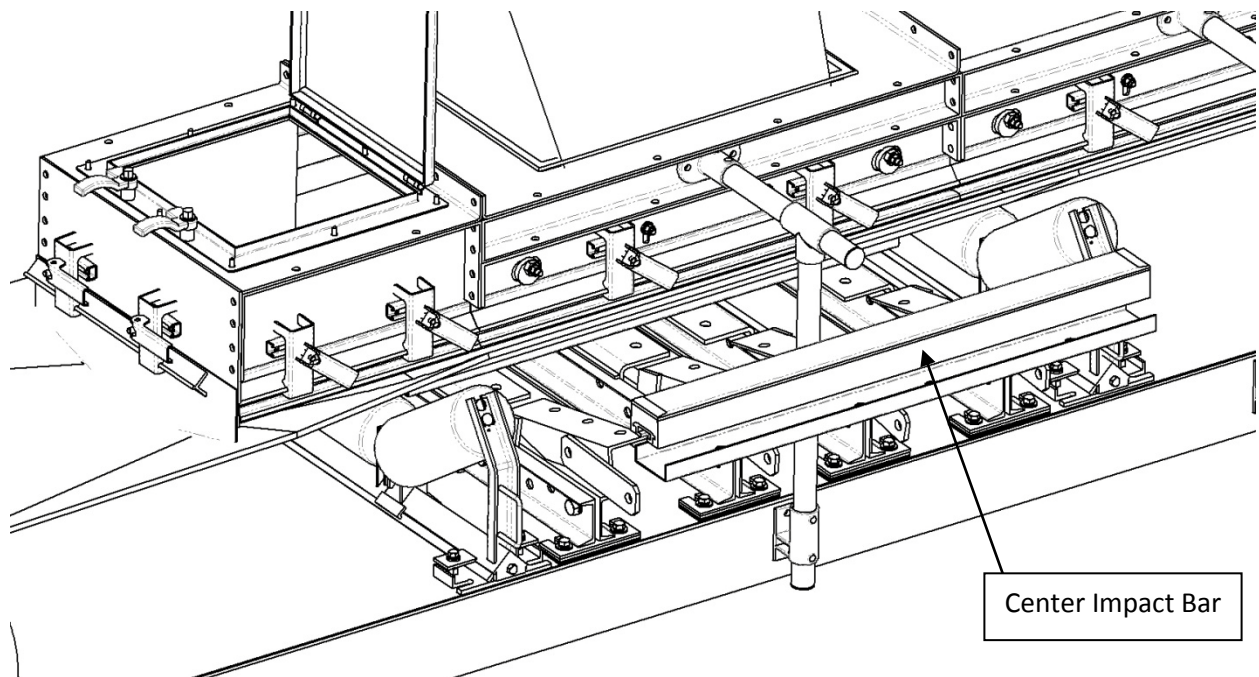
Periodic visual checks should be made once the Benetech belt support products are in use. Operators should check for loosening hardware and impact bar wear. The center bars on the *Warrior Impact Bed* are likely to face higher friction than the bars on the side, and therefore are more likely to show wear. However, the material used on top of the bars can be expected to last at least 12 months before requiring replacement.

**For replacement bars, contact BENETECH, INC. or an authorized representative.** See page 3 for part number information.

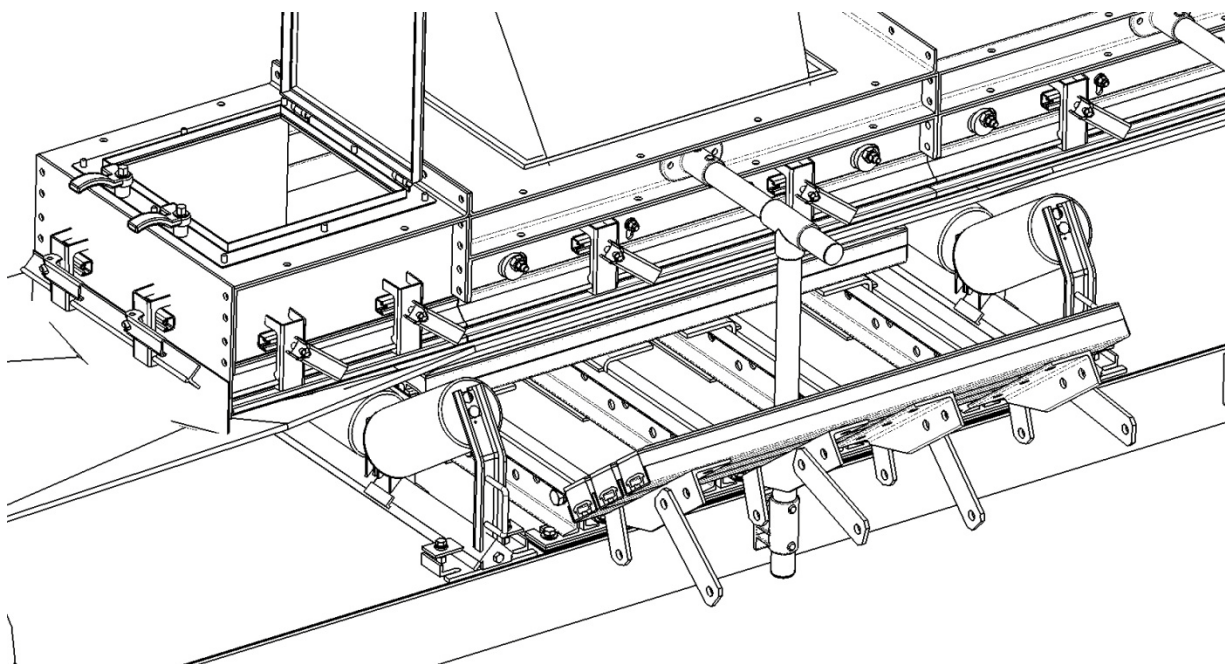
To replace the troughing bars, simply unbolt and drop the arms down. At this point it's possible to remove the worn troughing impact bars.



To replace the center bars, remove the side bars as described above, then unbolt and remove the center bars.



Alternatively, the side arms can be removed with the bars still attached.





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