



INSTALLATION INSTRUCTIONS

Quick Cam® Repair Clamp (Patent Pending)

Step 1. Prepare pipe surface by thoroughly cleaning surface of all rust, dirt, scale, and debris. Verify that the clamp is the proper diameter for the main pipe on which it is to be installed. Use a pipe outside diameter (OD) tape to confirm main pipe diameter. Verify that the pipe to be repaired has the structural integrity to withstand the repair clamp mechanical forces. Consult with a piping engineer if needed.

Fig. 1

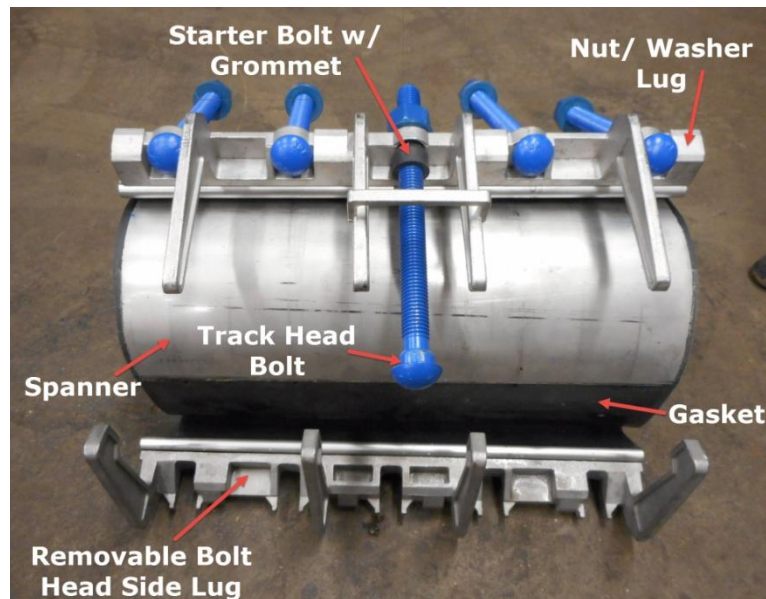
Step 2. If conditions allow, mark the pipe an even distance from the break or leak according to the width of the clamp. These marks will be utilized to center the clamp over the break or leak. (See Fig. 1)



Step 3. Verify sealing surface is free of debris prior to installation. Descale pipe surface if needed. Lubricate the pipe surface, all fitting sealing and spanner surfaces (see Fig.2), with soapy water. For maximum performance Do Not use pipe lubricant except for Asbestos Cement (A/C) Pipe repairs

Step 4. Mount the clamp to the pipe. If needed the bolt head lug may be removed, **but is not required** (See Appendix A for removal process). *Note: The extended range clamp may also be assembled to the side of the break/leak prior to tightening bolts and then positioned over the leak.*

Fig. 2

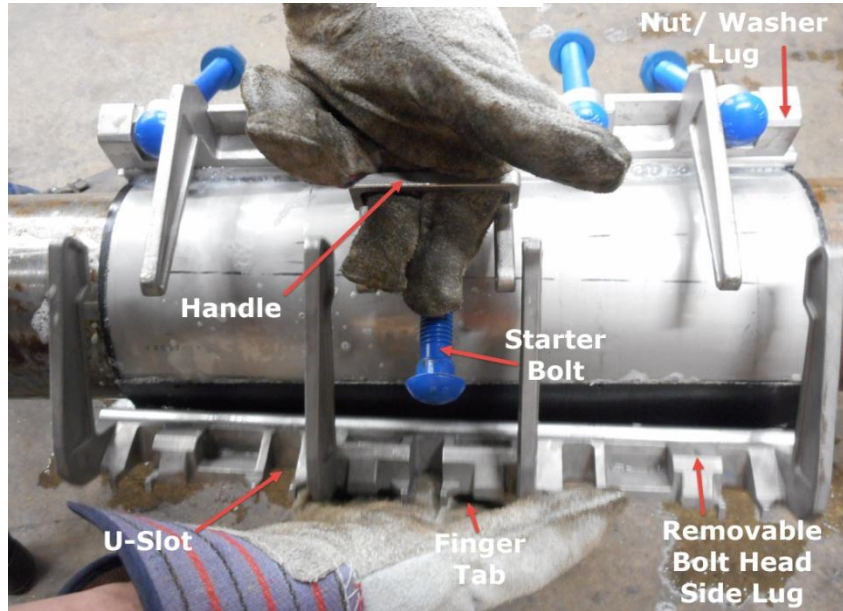


Note. For ease of installation Quick Cam repair clamps may have a Starter Bolt grommet included to keep the starter Bolt in position during installation.

Quick Cam® Repair Clamp
Patent Pending

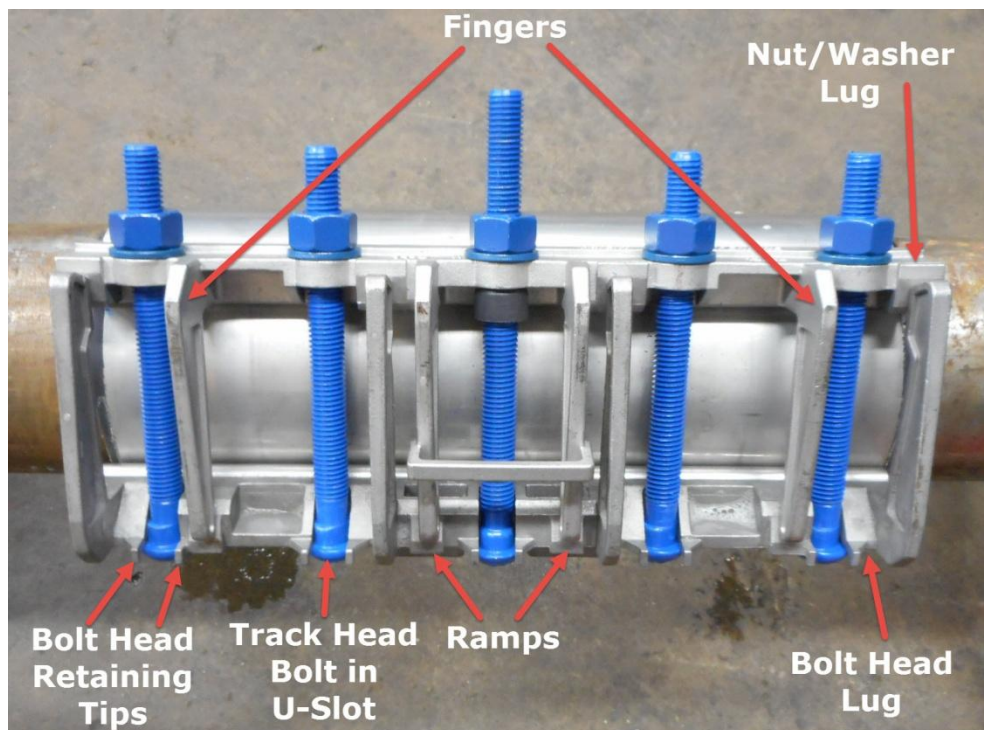
Step 4 (Cont.) Using the handle and finger tab (See Fig 3.), close the clamp together allowing the starter track head bolt to drop into the U-slot on the track head side lug. **Verify that the Gasket/spanner slides under the band when closing the clamp and the gasket tails are laying flat.**

Fig. 3



Step 5. Insert the remaining bolt(s) into the corresponding U-slot. Ensure nut sides of the bolts are secured through the closed holes on Nut/Washer Side Lug. The track head should nest securely behind the two bolt head retaining tips on the track head U-slot. (See Fig. 4) Once the bolts are secured in the bolt slots, but not yet tightened, center the clamp over the break/leak.

Fig. 4



Step 5. Tighten the nuts evenly to maintain an even gap (working from the center bolt(s) outward) to correct torque per requirements (Torque requirements are located on individual product label). As the clamp is tightened, verify that the lug fingers travel along their corresponding/mating ramps. (See Fig. 4)
After Initial Torque, wait 10 minutes and re-torque nuts.

Warning: DO NOT TORQUE BOLTS BEYOND SPECIFIED TORQUE AS LUGS MAY BE DAMAGED

Note: If a pneumatic tool is used to tighten nuts, a torque limiting device must be utilized. A calibrated torque wrench must be used to achieve final torque.

Note: The cam finger is not required to completely drop past the ramp but may when used on pipes at the low end of the range. (See fig. 5 & 6)

Fig. 5

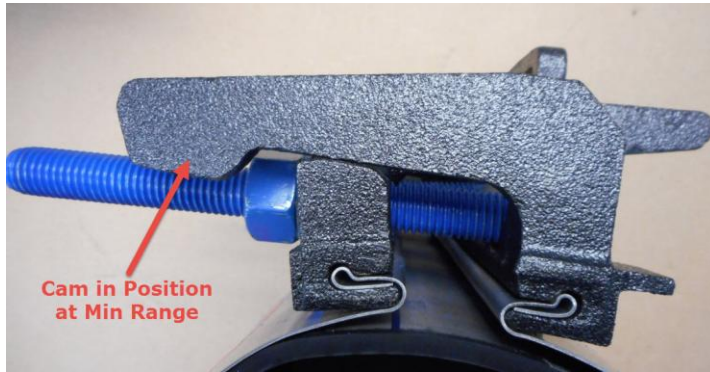
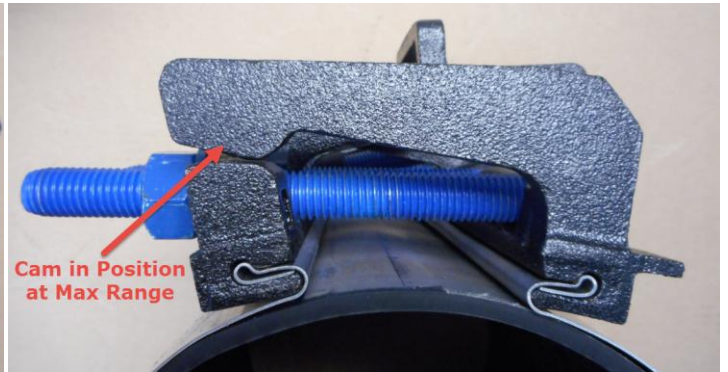


Fig. 6



Step 6. Verify that no leaks are present and retighten nuts, if needed.

Step 7. Backfill carefully around the fitting to prevent fitting damage and to provide earth support.

INSTALLATION NOTES

- Note 1:** Refer to individual product label for actual pressure rating. Pressure rating will never be greater than Pressure rating of main pipe.
- Note 2:** Maximum Fitting Operating Temperature: See Product Label
- Note 3:** Use of a pipe diameter (PI) tape is strongly recommended to verify main conductor pipe diameter prior to final installation.
- Note 4:** Nut Size is 1-1/16 across flats. Use of appropriate socket wrench is recommended. Pneumatic/Air powered tools may be used to torque bolts as long as tightening sequence and multistage torque application steps are followed.
- Note 5:** Extra Long deep well socket available from TPS to aid in installation. (See Picture below)



1/2" Drive 1-1/16" Six Point Extra Deep Socket
(Available at TPS)

APPENDIX A

Bolt Head Lug Removal Process

When the clamp is being installed on a pipe with a tight clearance, the bolt head lug may be removed to aid in installation.

- Remove the Bolt Head Lug from the band. Light tapping with a non-metallic hammer may be utilized. (See Fig. 6) Do Not use a carbon steel hammer as the carbon steel material will cause iron contamination to occur on the stainless steel Lugs

Fig. 7

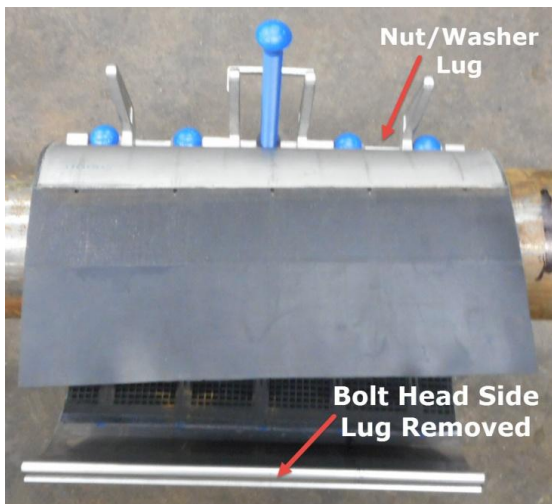


Fig. 8



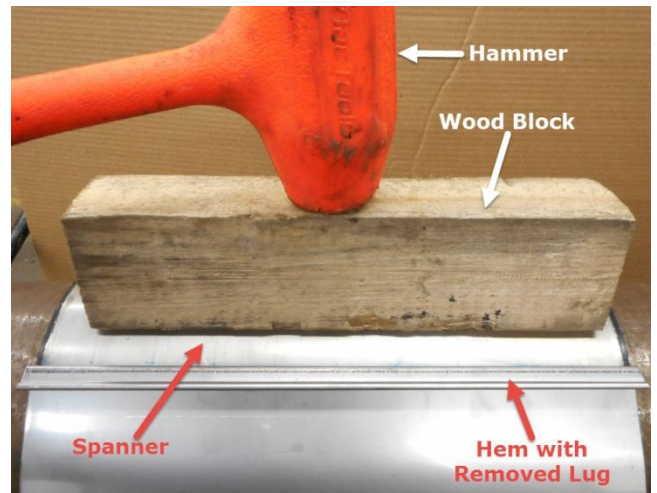
- Once the clamp is mounted, slide the Bolt Head Lug (See Fig 8) back onto the band (light tapping with a non metallic hammer may be utilized).

Appendix B


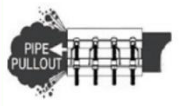

Multi Panel Repair Clamp Installation

This procedure is **NOT** required when clamps specifically ordered for 14" through 30" Diameter ranges. Spanners will have been pre-formed at TPS.

- Remove Nut Side/Spanner Side Lug
- Lay Spanner on Pipe to repaired
- Place a wood block on spanner and using several Hits with a hammer, form the spanner radius to the Pipe.
- Continue with Installation per instructions.



Product Labels & Warnings

 <p>WARNING</p>  <p>PIPE PULLOUT</p>	<p>This is a non-restraining product. If pipe pullout can occur, proper anchoring of the pipe joint is required. Failure to anchor the pipe could result in the escape of line content, and may cause property damage, serious injury or death.</p>
 <p>WARNING</p>	<p>This product is intended for use on HDPE SDR-17 or greater wall thicknesses, and shall be used for buried service only. The Quick Cam® Rapid Seal Repair Clamp is not approved for above ground applications on HDPE or other plastic pipe</p>

<p><u>WARNING</u></p> <p>DUCTILE IRON LUG MAXIMUM TORQUE</p> <p>BLUE COATED BOLTS—80 FT LBS</p> <p>BARE BOLTS—110 FT LBS</p>
<p>See individual product labeling for unit specific torque ratings</p>

<p>Pneumatic Tools:</p>
<p>If a pneumatic tool is used to tighten the nuts, a torque limiting device <u>MUST</u> be used.</p>



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