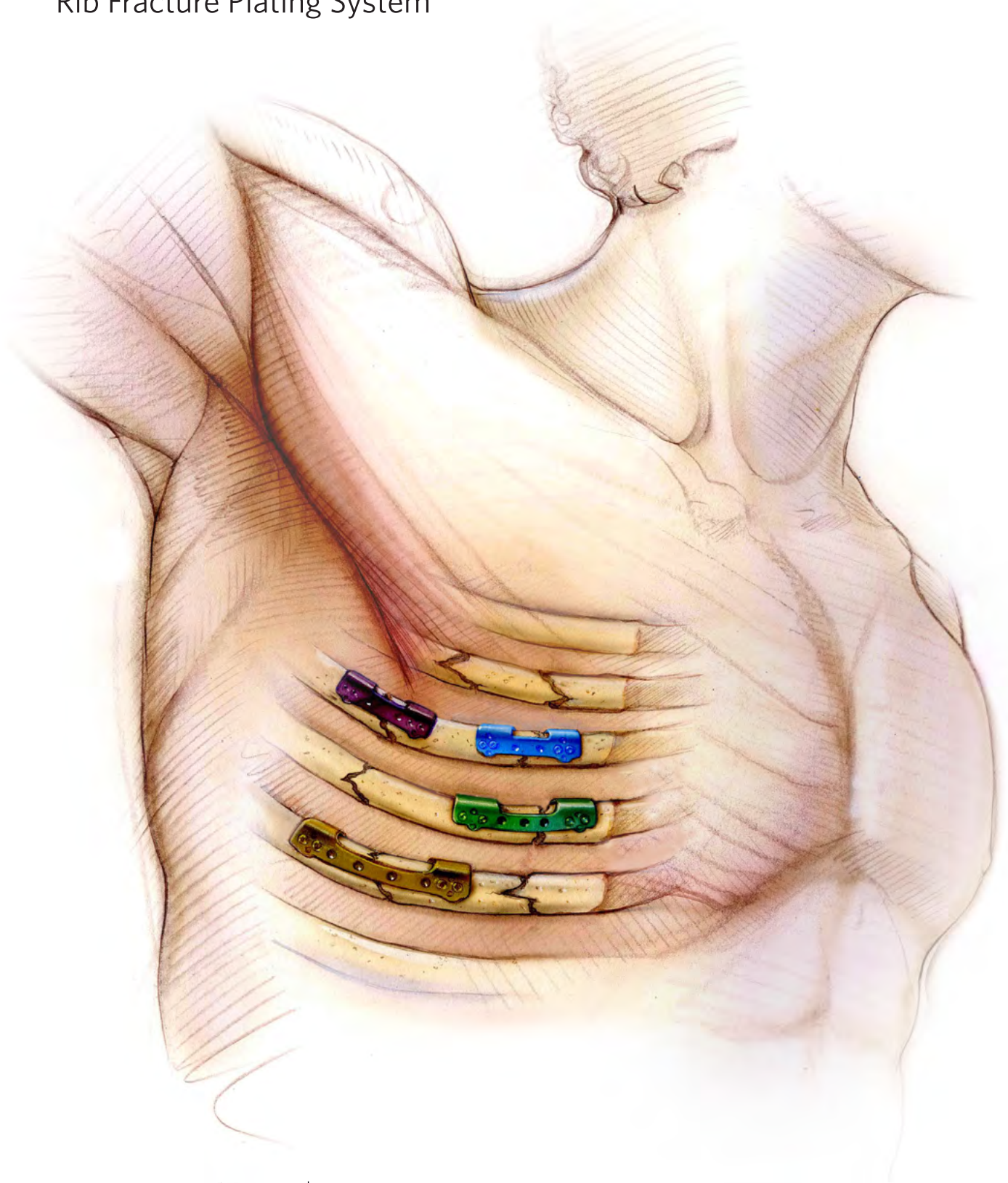


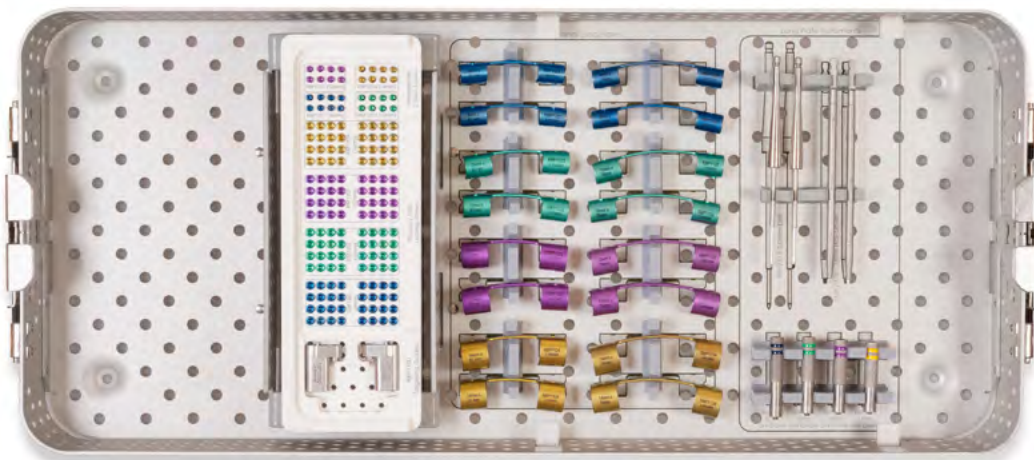
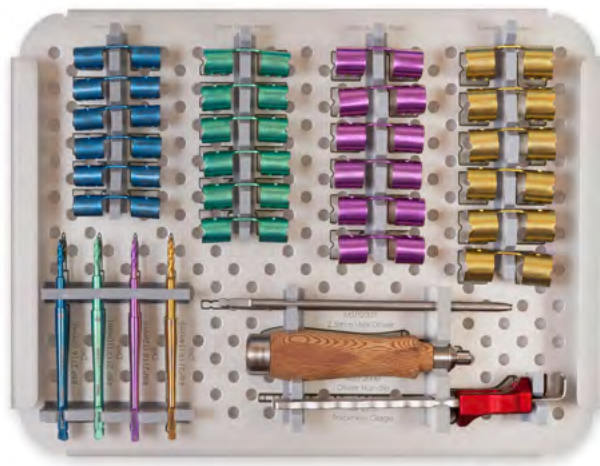
RibLoc[®]
Rib Fracture Plating System

Surgical Technique

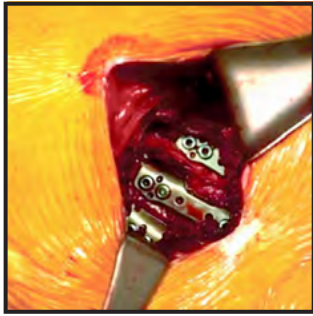


System Overview

Acute Innovations RibLoc Rib Fracture Plating System is designed to be a comprehensive system of implants and instruments specifically for repairing rib fractures. The plate's unique U-shape with locking screw technology provides excellent fixation and allows for a less invasive approach.³ The precise targeting and color-coded instrumentation provide straightforward insertion that reduces OR time.



System Overview [continued]



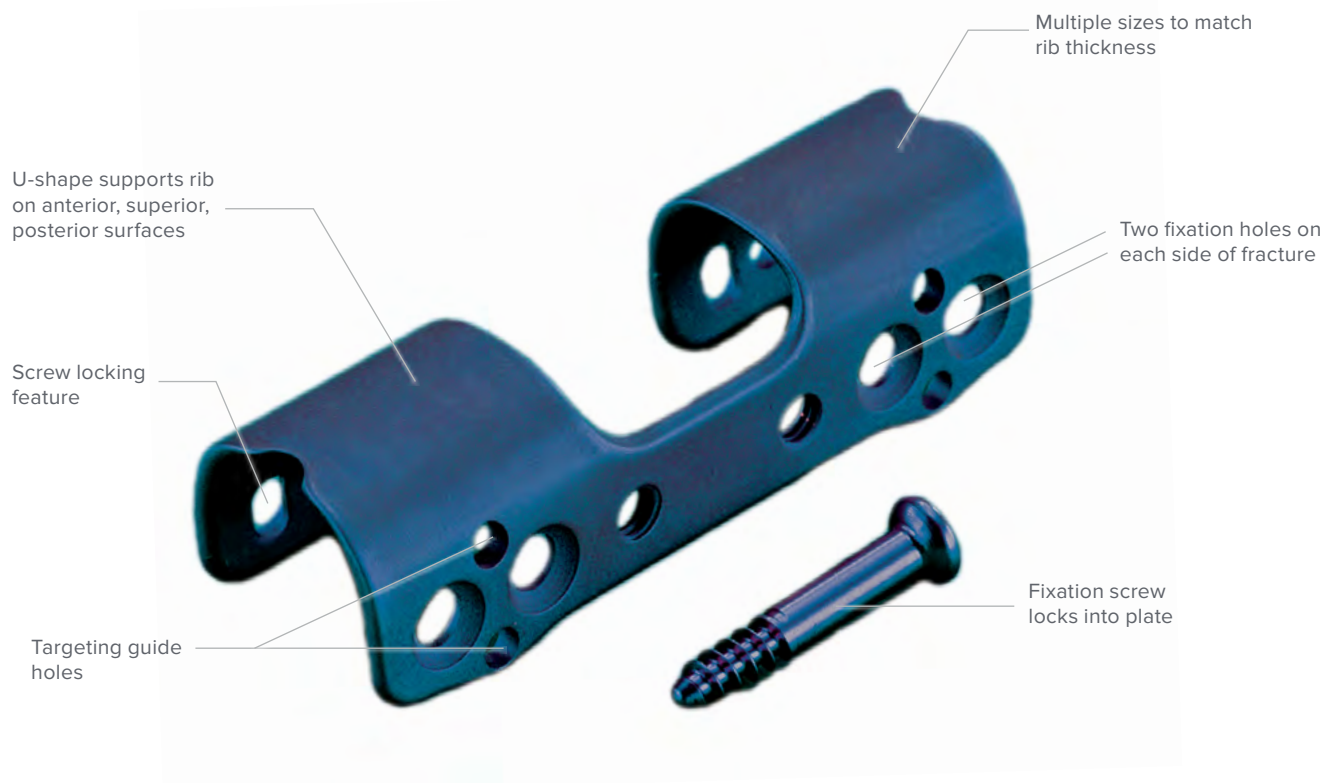
Less Invasive



Stable Fixation

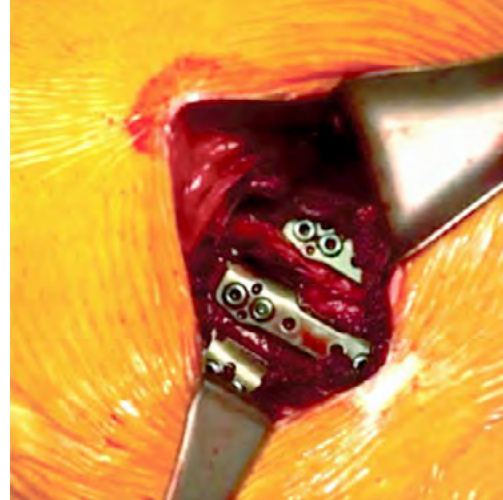
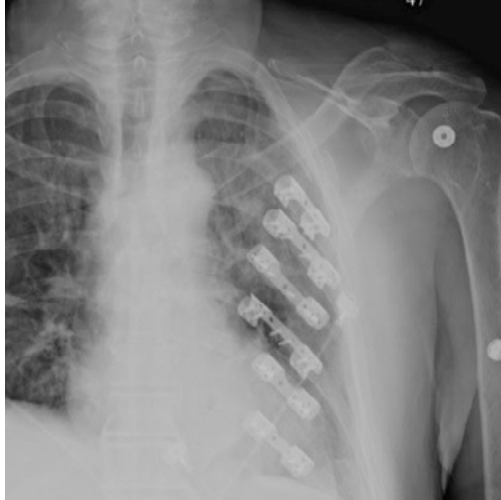


**Color-Coded
Straightforward
Technique**

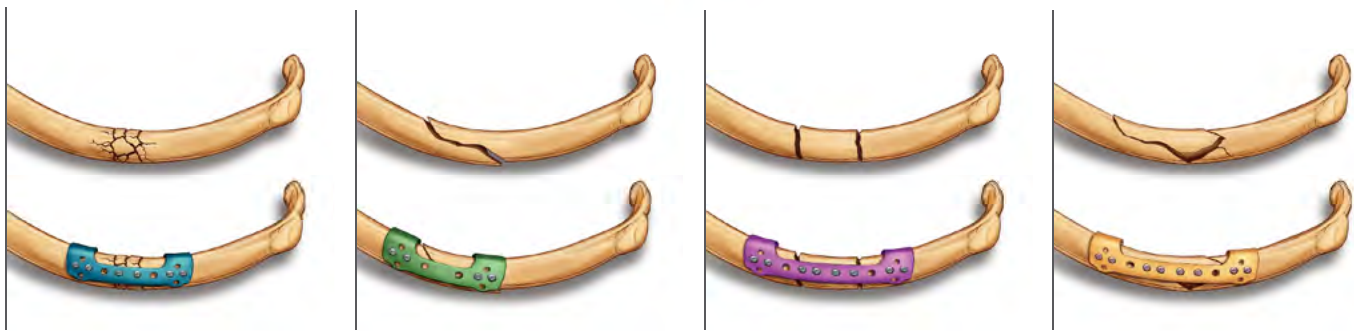


System Overview [continued]

The RibLoc 46 mm plate is the shortest plate on the market, requiring two screws at each of the U-clips for fixation. An incision as small as 7 cm has been used for installation, which can allow access to up to three ribs in the field of fractures.



The longer 61 mm and 76 mm plates can address oblique fracture patterns while still allowing a small incision size.



Comminuted Fracture

Oblique Fracture

Segmental Fracture

Spiral Fracture

For more information about fractures and successful bone healing, visit ACUTE Innovations at www.acuteinnovations.com

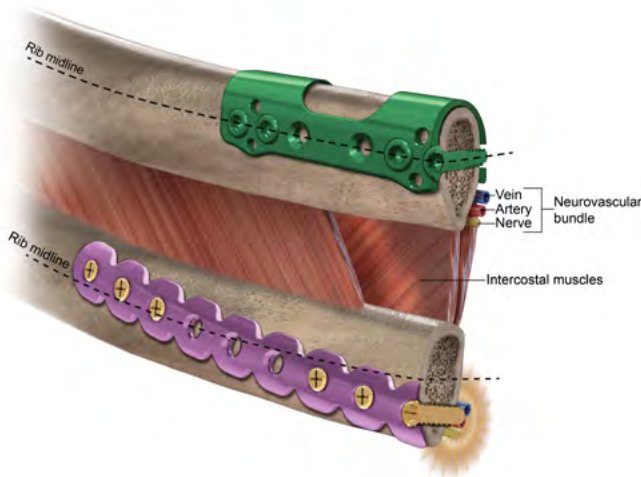
System Overview [continued]

The Acute Innovations RibLoc U-plate and screw system does not rely on fixation into rib bone for its strength. Instead, the RibLoc system screws engage the posterior aspect of the plate and rib to provide added stability.³



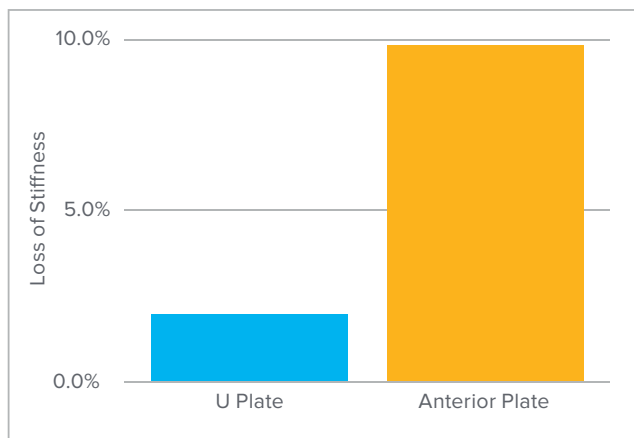
RibLoc Technology

The RibLoc plate is designed so that the rib screw pulls the posterior side of the plate to the rib and locks into place.¹



RibLoc Placement on Rib

The RibLoc plate avoids impingement of the neurovascular bundle by sitting on the superior aspect of the rib and therefore locating the rib midline.²

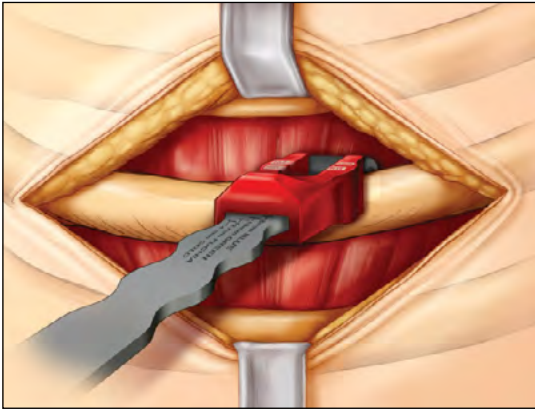


Performance of RibLoc Versus Anterior Plating

A biomechanical study was performed using cadaver ribs plated with a 4.6 cm long RibLoc plate and 4 screws. It was superior in durability to an anterior plate of over twice the length and 6 screws after only 50,000 breathing cycles (typically two days of breathing).³

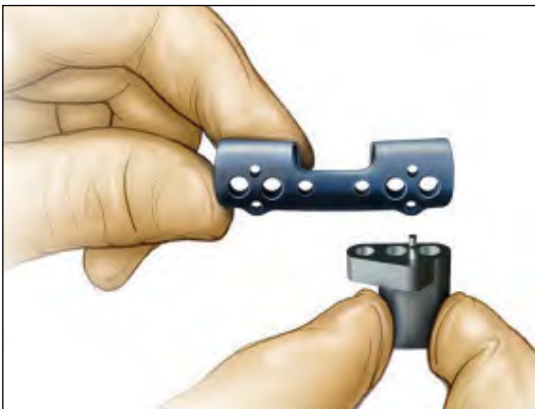
This was evaluated based on stiffness loss, as shown in the graph. Additionally, the reduced length of the RibLoc plate may facilitate a less invasive technique.³

RibLoc Rib Fracture Plating System Surgical Technique

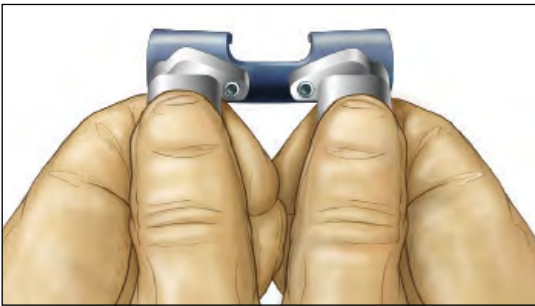


1 Measure the Rib

- Measure the anterior/posterior rib thickness near the fracture using the thickness gauge.
- Read the size from the back or top center of the red sleeve. If between sizes select the larger size.
- Select the plate size based on the rib thickness.



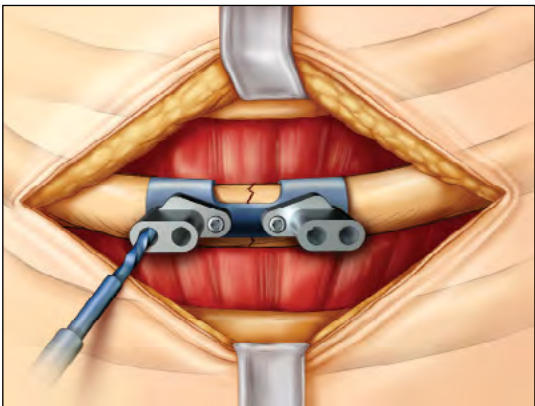
a)



b)

2 Prepare the Plate

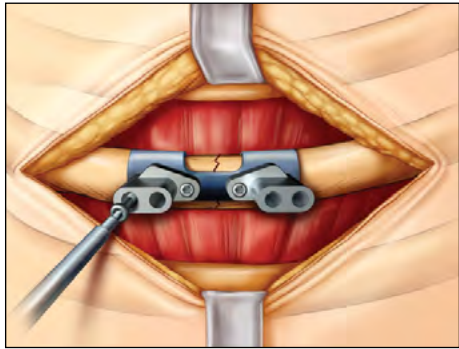
- Assemble both targeting guides to the plate.
- Contour the plate, if necessary, by leveraging off the target guides. If more than minor adjustment is needed for a long plate (61 mm or 76 mm) then insert the intermediate screws into the threaded holes of the plate prior to bending.



3 Drill Bone for Screw Insertion

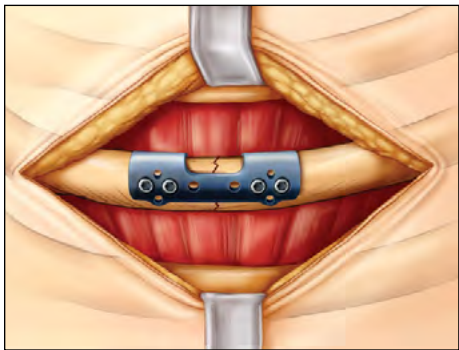
- Place the plate onto the rib, centered over the fracture.
- Use the drill or drill guide that matches the color of the plate.
- Insert the drill bit into the targeting guide barrel and advance until the drill bottoms out on the guide.
- Use one drill bit per case and discard when finished.

RibLoc Rib Fracture Plating System Surgical Technique [continued]



4 Insert Screws

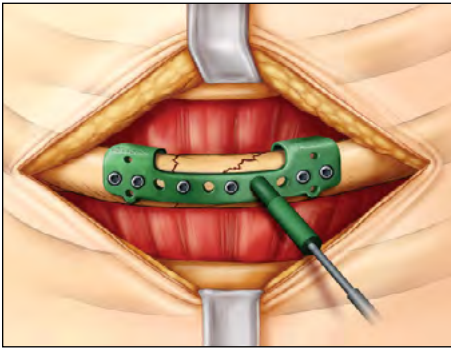
- Remove the drill.
- Insert the screw through the guide and tighten until the groove on the driver shaft is flush with the entrance of the targeting guide barrel.
- Repeat drilling and screw insertion for all four holes.



5 Tighten Screws

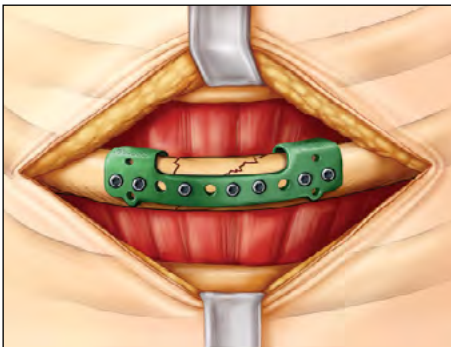
- Remove the targeting guides.
- Sequentially tighten each set of screws until snug; do not overtighten.

RibLoc Rib Fracture Plating System Long Plate Surgical Technique



1 Drilling for 2.3 mm Screws

- a. Thread the corresponding colored drill guide into one of the center holes.
- b. Use the 2.0 mm drill bit. Insert the drill through the drill guide, advancing until the drill bottoms out on the guide.
- c. Use one drill bit per case.



2 Insert Screws

- a. Remove the drill guide.
- b. Insert screws using the 1.5 mm hex driver for the 2.3 mm screws.
- c. Tighten each screw until snug; do not overtighten.

RibLoc Rib Fracture Plating System Long Plate Surgical Technique [continued]



Long Plate for Extreme Bending

- a. If more than minor contouring of a long plate (61 mm or 76 mm) is needed, insert the screws into the threaded holes prior to bending to preserve the integrity of the threads in the plate.
- b. Remove the screws after bending. Install the plate onto the rib and follow the steps above.

Keys to Success

- a. Select the correct thickness of plate for the rib.
- b. Firmly attach both targeting guides to the plate.
- c. Use the correct drill and screw size by matching colors.
- d. Tighten screws in pairs until snug; overtightening may cause stripping.
- e. Use one drill per case.

References

1. Data on file at ACUTE Innovations
2. Nirula R, Mayberry JC. Rib fracture fixation: controversies and technical challenges. *Am Surg*. 2010 Aug;76(8):793-802
3. Sales JR, Ellis TJ, Gillard J, Liu Q, Chen JC, Ham B, Mayberry JC. Biomechanical testing of a novel, minimally invasive rib fracture plating system. *J Trauma* 2008 May; 64:1270-1274



Acumed Headquarters
5885 NE Cornelius Pass Road
Hillsboro, OR 97124
Office: +1.888.627.9957
Office: +1.503.627.9957
Fax: +1.503.520.9618
www.acuteinnovations.com

Back to health. Back to work. Back to **life.**

RBP7000-J | Effective: 2020/12 | © 2020 Acumed® LLC

These materials contain information about products that may or may not be available in any particular country or may be available under different trademarks in different countries. The products may be approved or cleared by governmental regulatory organizations for sale or use with different indications or restrictions in different countries. Products may not be approved for use in all countries. Nothing contained in these materials should be construed as a promotion or solicitation for any product or for the use of any product in a particular way that is not authorized under the laws and regulations of the country where the reader is located. Nothing in these materials should be construed as a representation or warranty as to the efficacy or quality of any product, nor the appropriateness of any product to treat any specific condition. Physicians may direct questions about the availability and use of the products described in these materials to their authorized Acumed distributor. Specific questions patients may have about the use of the products described in these materials or the appropriateness for their own conditions should be directed to their own physician.

Not all products may currently be available in all markets.

Please also refer to the package insert(s) or other labeling associated with the devices identified in this reference guide for additional information.