### SternaLock<sup>®</sup>Blu PRIMARY CLOSURE SYSTEM



#### One Surgeon. One Patient®.

Over 1 million times per year, Biomet helps one surgeon provide personalized care to one patient.

The science and art of medical care is to provide the right solution for each individual patient. This requires clinical mastery, a human connection between the surgeon and the patient, and the right tools for each situation.

At Biomet, we strive to view our work through the eyes of one surgeon and one patient. We treat every solution we provide as if it's meant for a family member.

Our approach to innovation creates real solutions that assist each surgeon in the delivery of durable personalized care to each patient, whether that solution requires a minimally invasive surgical technique, advanced biomaterials, or a custom, patient-matched implant.

When one surgeon connects with one patient to provide personalized care, the promise of medicine is fulfilled.

#### **DOUBLE-SIDED PLATE DESIGNS**



Plate designs are available to facilitate the fixation of midline sternotomies, mini-sternotomies and mini-thoracotomies. The plates are double-sided and can be contoured to fit the patient's anatomy.

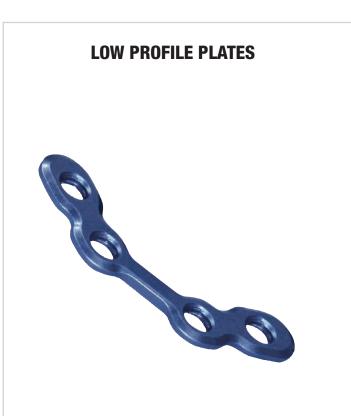
### PLATE AND SCREW THREAD LOCKING



The screw tip engages into the posterior cortex of the sternum, and then locks into the plate at a 90 degree angle, rigidly fixating the bone halves together.

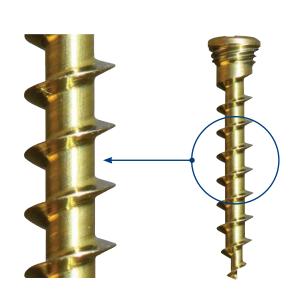


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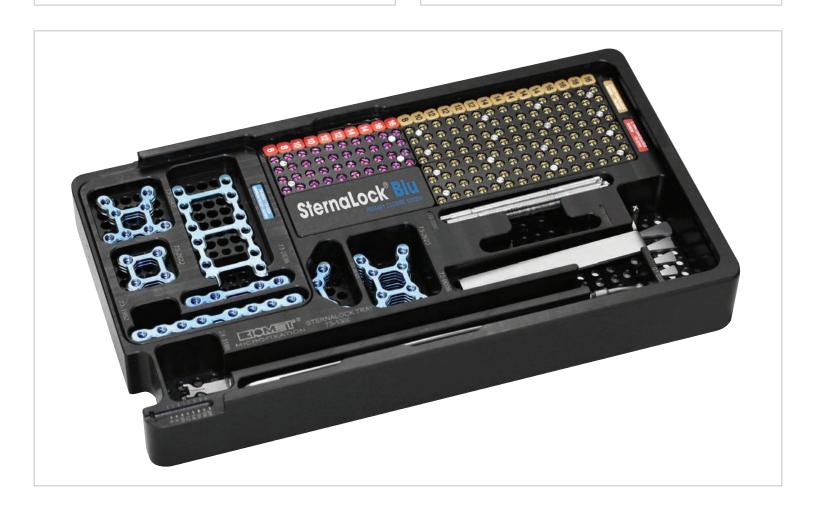


The 1.6mm thin titanium plates provide reduced palpability as compared to other sternal closure systems with higher profile plates.

### **CANCELLOUS SCREW DESIGN**

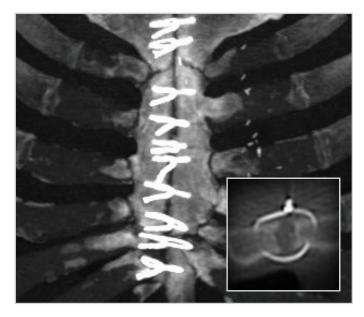


The deep screw threads are specifically designed to grip into the cancellous bone of the sternum and provide stable fixation.

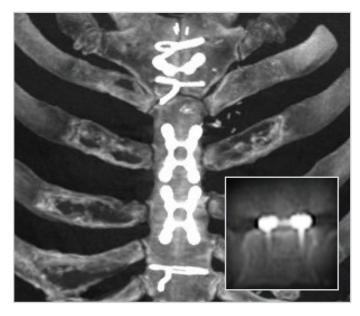


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### **Mechanical Stability Supports Bone Healing**<sup>1</sup>



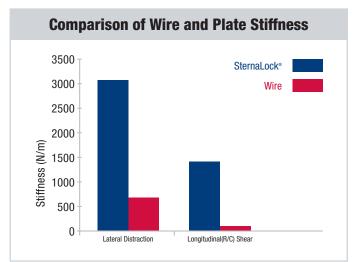
CT scan shows separation of the sternal body with wires.



CT scan shows well-apposed sternum with plates and screws.

### **Rigid Plate Fixation Results in Greater Stiffness** and Strength Compared to Wire Cerclage<sup>2</sup>

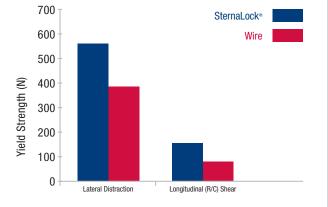
In a cadaveric study, rigid fixation with plates was shown to exhibit superior mechanical properties compared to wire cerclage. When tested in lateral distraction, the stiffness of the plates was more than 400% greater than peristernal wires (p<0.05). Similarly, the yield load (560N vs. 397N) was also significantly better in sterna that were rigidly fixated.

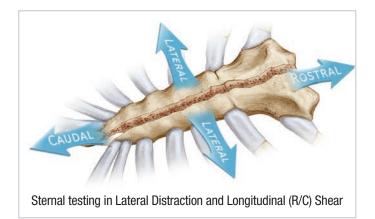


1. www.clinicaltrials.gov • NCT00819286

2. A cadaveric biomechanical analysis of sternal fixation systems, B.Hatcher, Ph.D. \* Non-clinical studies are not necessarily indicative of human clinical results.

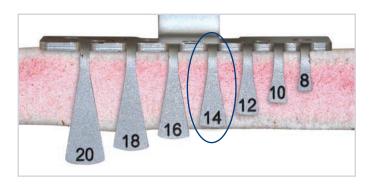






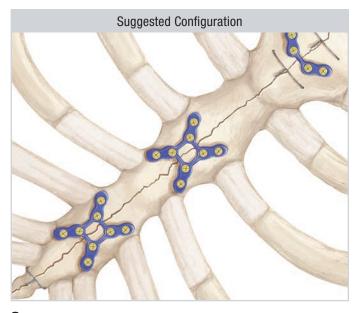
## Primary Closure System

### **Surgical Technique**<sup>3</sup>



**1.** Measure sternal depth where plate placement will occur. Measure at 3 points (manubrium, body & xiphoid). In the photo above, the measuring device indicates that a 14mm screw length would be recommended for plate placement in the circled region. The measuring device accounts for the thickness of the plate, so a 14mm screw would be used in this example.

\*Note, if using a standard ruler to measure the thickness of the sternum, you should use the next highest even numbered length screw to account for the plate thickness. For example a sternal thickness of 8mm -9mm should utilize a 10mm screw, while a sternal thickness of 10mm-11mm should use a 12mm screw. Surgeons should always determine screw size based on the patient's anatomy.



**3.** Select plate configuration. Place the lower X-plate as inferiorly as possible on the sternum. (see illustration for suggested configuration).



5. Select screws based on sternal depth measurements from step 1.



**2.** Wire the manubrium and xiphoid to reduce the top and bottom of the sternum. Complete the full approximation by placing reduction forceps at the mid-body.



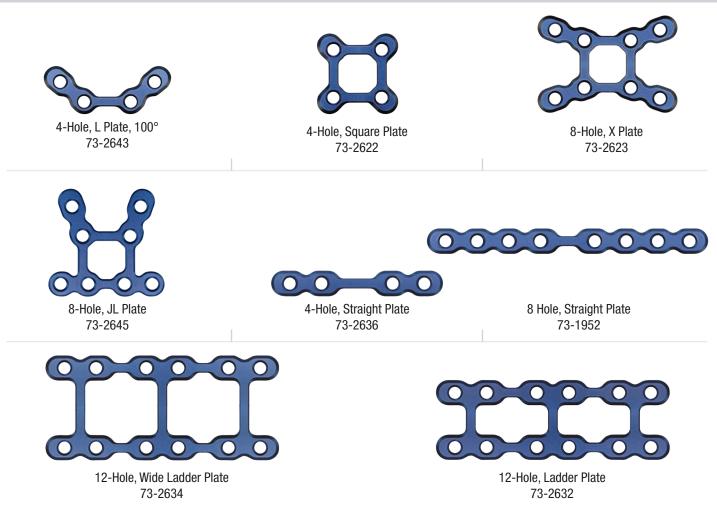
**4.** Plates are two-sided to facilitate placement. Bend plates as needed to ensure they lay flat on the sternum.



**6.** Insert screws into plate. Do not lock initial screw to avoid plate rotation. Fully tighten once additional screws are in place.

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#### **SCREWS**

#### **Self-Drilling Locking Screws**

Part #	Description	9
73-2408	2.4mm x 8mm	
73-2410	2.4mm x 10mm	
73-2412	2.4mm x 12mm	
73-2414	2.4mm x 14mm	4
73-2416	2.4mm x 16mm	
73-2418	2.4mm x 18mm	
73-2420	2.4mm x 20mm	73-54XX Five Pack

#### **Emergency Screws**

Part #	Description	9
73-2708	2.7mm x 8mm	
73-2710	2.7mm x 10mm	
73-2712	2.7mm x 12mm	
73-2714	2.7mm x 14mm	
73-2716	2.7mm x 16mm	
73-2718	2.7mm x 18mm	
73-2720	2.7mm x 20mm	73-57XX Five Pack

#### BLADES

2.4mm Power Driver Blade 73-1191





## Primary Closure System





Power Driver™ 50-1000



Power Driver<sup>™</sup> Battery 50-1010



2.0/2.4mm Screw Driver Handle 01-7600



What fascinates you about the body is also what drives us. That's why we're always pushing the boundaries of engineering to make products that help you keep the human form as glorious as it was intended. To learn more about our breadth of products, call 800-874-7711 or visit us online at biometmicrofixation.com. We'd love to join you in a conversation about the future.



One Surgeon. One Patient:

For more information on SternaLock<sup>™</sup> Blu, please contact us at:

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