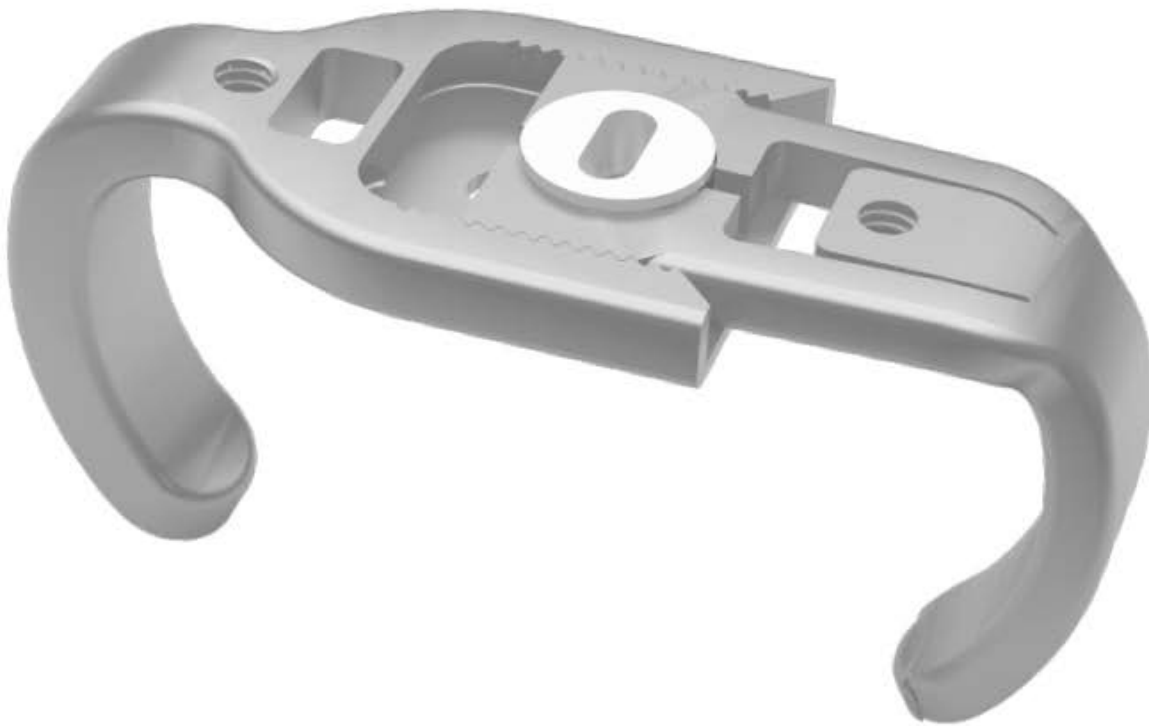


# **Sternal Fixation System**

Fast Rigid Fixation

Surgical Technique



# Sternal Fixation System

The Waston Sternal Claw Plate is used to close the sternum after a sternotomy. Specifically designed to be a fast, efficient closure system, the Sternal Claw Plate achieves rigid fixation without bone penetration. The novel design ensures the forces involved are distributed across a broad bone surface to eliminate the 'cheese cutter' effect seen when using metallic wires. The system is quick and easy to use and can be opened rapidly in an emergency situation.

## Features

- Easy to install
- The device does not need to be drilled or driven into the bone.
- Reduces dehiscence risks
- Pure titanium and titanium alloy with proven bio-compatibility
- Patent design for easy re-open
- Ideal for osteoporotic bone or poor bone quality



Separated



Unlocked



Locked

## Measure Sternum

Choose Sternal Claw Plate size according to the width of sternum.

Hook the sternum width gauge into the sides of the sternum at the intercostal spaces. Measure each side to get L1 and L2.

Chest width  $L = L1 + L2 - 5\text{mm}$ .

Choose the Sternal Claw plate size according to chest width.

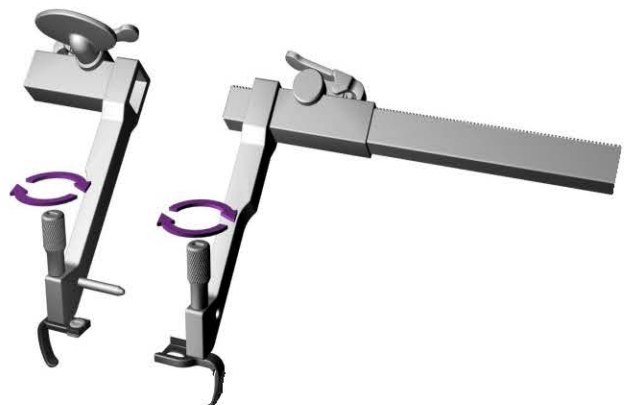
Total measurement - 5mm	Claw Plate size
20 - 25 mm	20
26 - 30 mm	25
31 - 35 mm	30
36 - 40 mm	35
41 - 45 mm	40
46 - 50 mm	45
51 - 55 mm	50



## Attach Plate

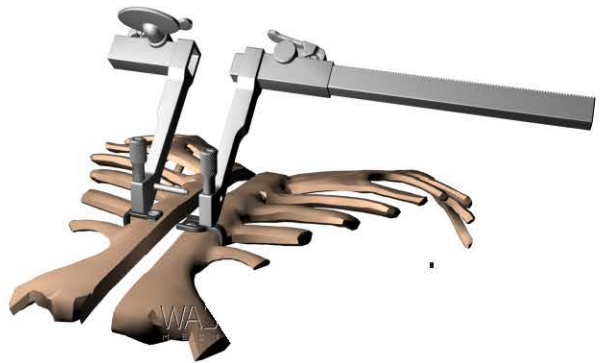
Separate the Sternal Claw Plate and attach to the corresponding parts of the sternal closure device.

Tighten locking screws by hand.

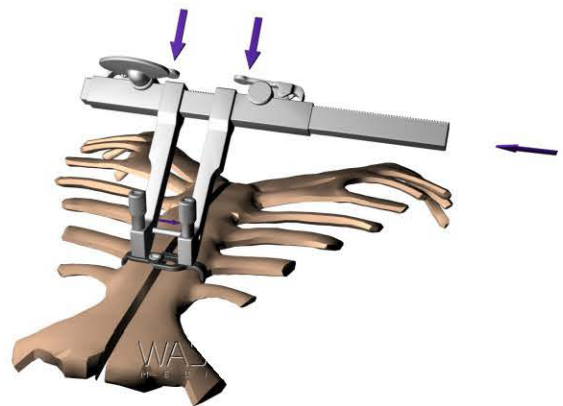


## Close Sternum

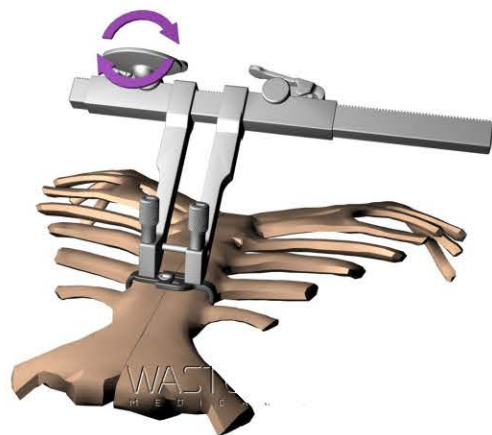
Hook each half of the Sternal Claw Plate into the opposing intercostal spaces and align ready for closure.



Press anti-back buttons on the sternal closure device and insert the rack to join the two halves of the closure device.



Rotate the knob of the sternal closure device to achieve compression across the sternotomy. As the sternum comes together, the two halves of the Sternal Claw Plate will insert into one another. Keep rotating until the sternum is closed without a gap and the desired compression is achieved.

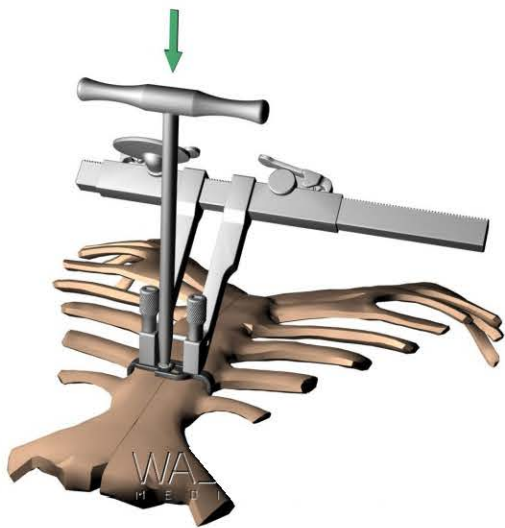


Two implants / closure devices can be used simultaneously to spread the load whilst incrementally closing the sternum.

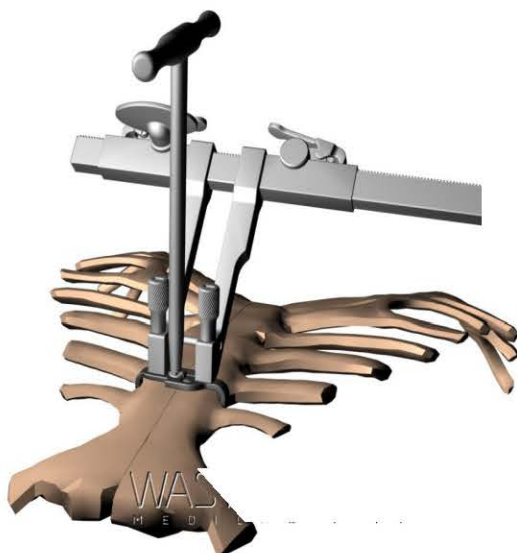
## Lock Plate

Once compression is achieved across the sternotomy, use the slot head screw driver to rotate the cam of the Sternal Claw Plate 90° to lock.

(The rotation should not exceed or be less than 90°)



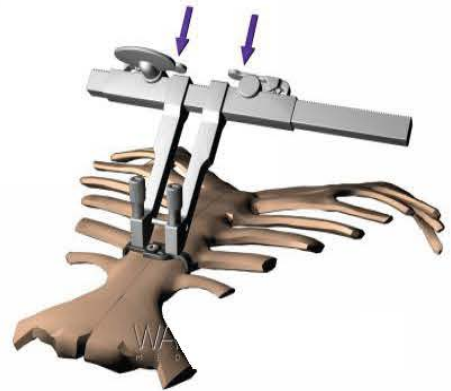
Unlocked position



Locked position

## Release Plate

To separate sternal fixation device from the Sternal Claw Plate, the anti-back buttons of the sternal closure device should be pressed. This will release the tension on the locking screws.



Release the locking screws from sternal closure device using the slot head screwdriver to rotate and separate.



## Emergency re-opening

RE-OPEN THE CHEST: If the Sternal Claw Plate needs to be removed. Use the slot head screw driver to rotate the cam of plate to 90° and unlock.

If this fails to open the plate, use the cutting clamp by fixing it into the rectangular slot on the Sternal Claw Plate and cutting the outer part of the claw.



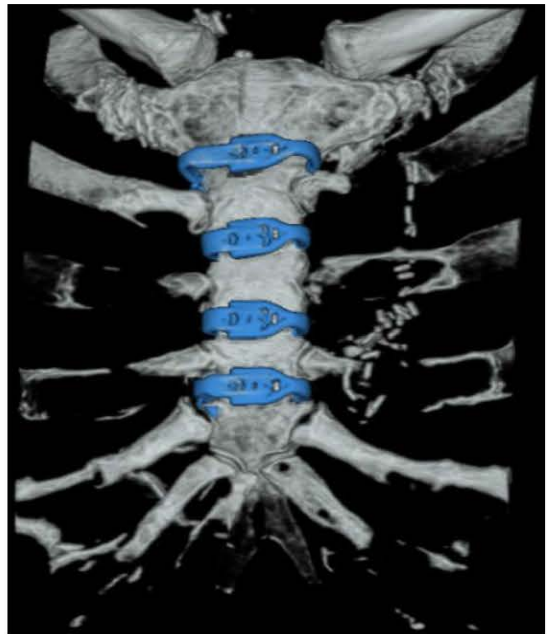
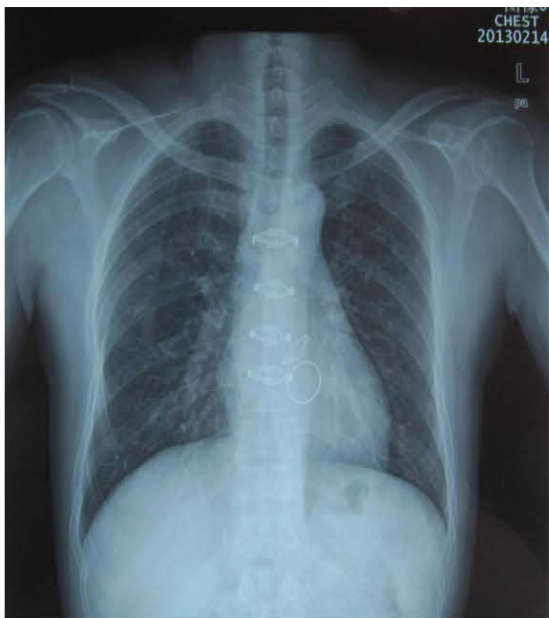


### Contraindication

1. Severe mental disorder
2. Generalized nervous disease, Immune suppression disorder, calcified tissue metabolism disorder, systemic or local infection and allergic to metal materials

### Attention

1. Single used sternal fixation system
2. Sterility guaranteed unless package opened or damaged
3. Determine the number of Sternal Claw Plates according to actual situation, generally 4 plates per patient, if not use together with binding wires
4. Surgeons should be familiar with product implantation technology



## Instruments & Package



Sternal Closure Device



Slotted Screwdriver



Plate Cutting Forceps



Width Gauge





