RIBVERSALOCK VARIABLE ANGLE LOCKING PLATE SYSTEM

FOR RIB FRACTURES

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VERSALOCK RIB PLATE SYSTEM

The Versalock Variable Angle Locking Rib Plate System was developed for the fixation of rib fractures and osteotomies. Rigid fixation of rib fractures is associated with lower risks of mortality, tracheostomy and pneumonia; and considerable reduction in hospital costs with fewer ICU days, hospitalization and mechanical ventilation.



ADVANTAGES OF RIGID FIXATION IN PATIENTIS WITH FLAIL CHEST¹:



¹Swart E, Laratta J, Slobogean G, Mehta S. Operative treatment of rib fractures in flail chest injuries: a meta-analysis and cost-effectiveness analysis. J Orthop Trauma. 2017;31(2):64-70.

Rigid fixation of rib fractures with plates also reduces pain and deformity of the chest wall, compared to conservative treatment.



Versalock Rib Plates are available in 4 models: straight, anatomical, "Wave" and "T" for rib and sternum, with various length options, so that the surgeon can choose the most suitable implants for each patient.





Variable angle locked "wave" plate, allows fixing with two rows of holes, providing convergence of the screws, increasing the rigidity of the fixing.

SURGICAL TECHNIQUE



Perform the anatomical reduction of the rib fragments using the tweezers available in the instrument set.



Define the best plate for fixing the fracture, according to the surgical plan.



To adjust the modeling of the plate, the surgeon can use the Rib Plate Shaper (C: 344-115), or he can perform the modeling "in situ" with the Pin Bender Shapers (C: 344-60) assembled with the Pin Bender Threaded Rods (C: 344-60-02).



The plate can be temporarily fixed with the Bayonet Clamps (C: 344-118-E / 344-118-D), or by using the Threaded Temporary Fixing Pins (C: 344-52-80).



Use the Pachymeter Depth Gauge (C: 344-88) to define the size of the screws that will be used to fix the plate. The instrument is designed to measure with the plate already positioned in the bone (left). If the surgeon measures directly in the bone, without the plate (right), 2 mm should be added to the measurement.



Apply the Ø2.4 mm Versalock Self-Drilling Screws using the T7 Hexalobular Wrench Tip (C: 223-308) coupled with the 0.8Nm Torque Limiter Handle (C: 900-320). Versalock Self-Tapping Screws Ø2.7 mm will be used to replace Ø2.4 mm screws, and in holes where Temporary Fixation Pins have been used.



Apply the remaining screws, check the stability of the fragments and carry out the final image control to check the positioning of the implants.



If the bone fragment is in the posterior region of the ribs, the scapula may cover the area where the plate and screws are implanted.



Make an access route for the screws through the scapula, using the soft tissue protector for the scapula (C: 344-123) and the Ø6.0 x 100.0 mm drill bit (C: 344-124).



The drilled hole will be used to mount the Transscapular which will guide the application of the screws.



Mount the Transscapular Guide (C: 344-92) with its arch below the scapula, and its cannula through the perforation made in the scapula.



Use the T7 Wrench Tip (C: 344-94) to apply the screw through the hole drilled in the scapula.





Another option for applying screws in hard-to-reach areas is to use the Counter Angle Wrench (C: 344-100) coupled with the T7 Counter Angle Wrench (C: 344-126). The Torque Handle (C: 344-100-17) can be attached to the Counter Angle Wrench to make it easier to apply the screw.



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VERSALOCK RIB AND STERNUM SCREW T7 SELF DRILLING

CODE	ø	LENGTH	QUANTITY
344-24-07-BP	2.4	7 mm	36
344-24-08-BP	2.4	8 mm	48
344-24-10-BP	2.4	10 mm	48
344-24-12-BP	2.4	12 mm	48
344-24-14-BP	2.4	14 mm	36
344-24-16-BP	2.4	16 mm	24



VERSALOCK RIB AND STERNUM SCREW T7 SELF TAPPING

CODE	Ø	LENGTH	QUANTITY
344-27-07-BP	2.7	7 mm	6
344-27-08-BP	2.7	8 mm	12
344-27-10-BP	2.7	10 mm	12
344-27-12-BP	2.7	12 mm	6
344-27-14-BP	2.7	14 mm	6
344-27-16-BP	2.7	16 mm	6

Torxdrive connection with T7 self-retainer

Versalock technology - variable angle lock ±15°.





	CODE	DESCRIPTION	QUANTITY
1	344-50	Versalock Rib Fixation Plate Template	1
2	344-51	Versalock Rib Fixation Plate Template - 40 Holes	1
3	344-52-08	Temporary Fixing Pin With Thread M2.0x8.0	2
4	344-88	Depth Gauge	1
5	223-308	T7 Hexalobular Wrench Tip	2
6	900-320	Handle With Torque Limiter 0.8nm	1
7	344-100	Counter Angle Wrench	1
8	344-100-17	Torque Handle of the Counter Angle Wrench	1
9	344-126	T7 Wrench For Counter Angle	1
10	169-323	Quick Coupling Handle	1
11	344-92	Transcapular Guide	1
12	344-123	Scapula Soft Tissue Protector	1
13	344-124	Helicoidal Drill Ø6.0 X 100.0 Mm	1
14	344-94	T7 Hexalobular Wrench Tip for Ribs And Sternum	1
15	344-60	Pin Bender Shaper for Rib And Sternum Plate	2
16	344-60-02	Threaded Rod – Pin Bender	2
17	344-91	Shaper With Threaded Tip for Ribs	1
18	344-122	Rib Lift	2
19	223-301	Small Bone Reduction Forceps	2
20	344-118-E	Left Bayonet Clamp	1
21	344-118-D	Right Bayonet Clamp	1
22	344-115	Rib Plate Shaper	1
23	308-592	Right Mini Micro System Bending Gripper	1
24	308-591	Left Mini Micro System Bending Gripper	1
25	172-19A	Wire Cutter	1



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