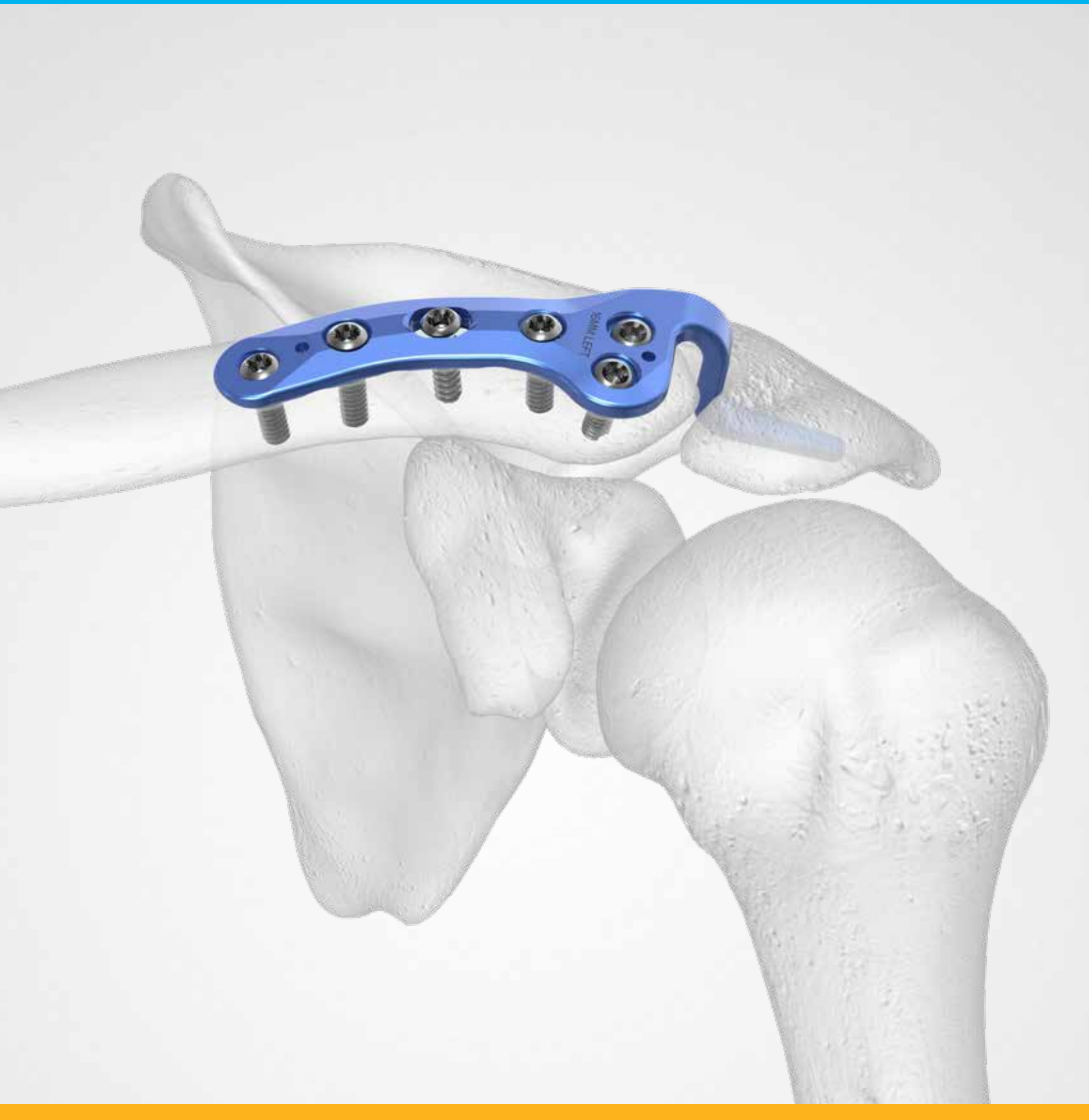
acumed®

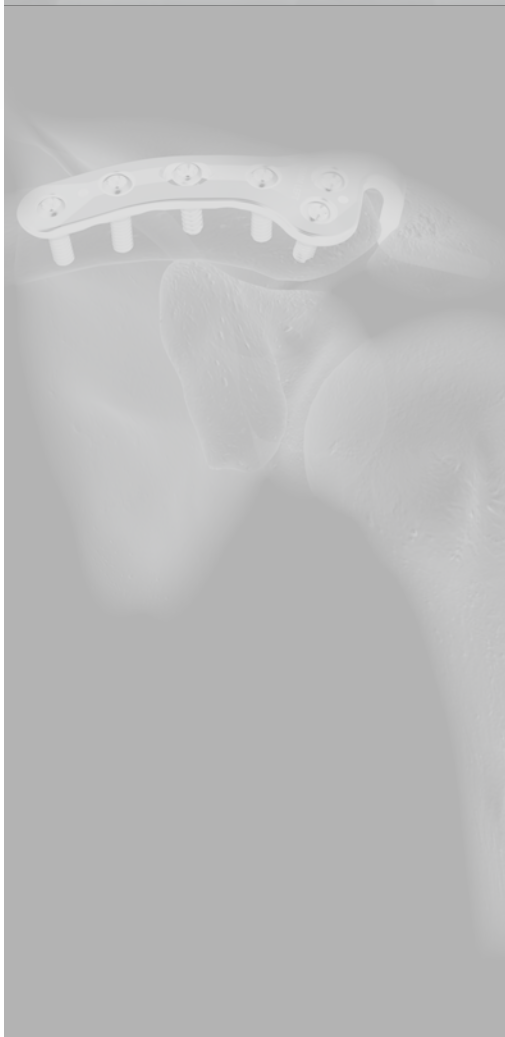
Clavicle Hook Plating System

Surgical Technique



Acumed® is a global leader of innovative orthopaedic and medical solutions.

We are dedicated to developing products, service methods, and approaches that improve patient care.



Acumed Clavicle Hook Plating System

Designed in conjunction with Ken Koval, MD, Bruce Ziran, MD, and Brian Cole, MD, the Acumed Clavicle Hook Plating System includes four plate lengths and three hook depths. The Acumed Clavicle Hook Plating System provides a third solution to acromioclavicular (AC/CC) joint dislocations and lateral clavicle fractures, in addition to both the Acumed Distal Clavicle Plates and Acu-Sinch® Repair System. To assist the surgeon in implant selection, the unique Clavicle Hook Depth Sizer allows for measurement for all three hook depths with a single instrument, and the Clavicle Hook Plate Length Sizer measures for both left and right plate lengths on either side of the instrument.

The Clavicle Hook Plating System must be used in conjunction with the Acumed Clavicle Plating System, which contains the instruments and screws necessary to implant the Clavicle Hook Plates.

Indications for Use

The Acumed Clavicle Hook Plating System is intended for fixation of lateral clavicle fractures, osteotomies, malunions, nonunions and dislocations of the acromioclavicular joint.

	Definition
Warning	Indicates critical information about a potential serious outcome to the patient or the user.
Caution	Indicates instructions that must be followed in order to ensure the proper use of the device.
Note	Indicates information requiring special attention.

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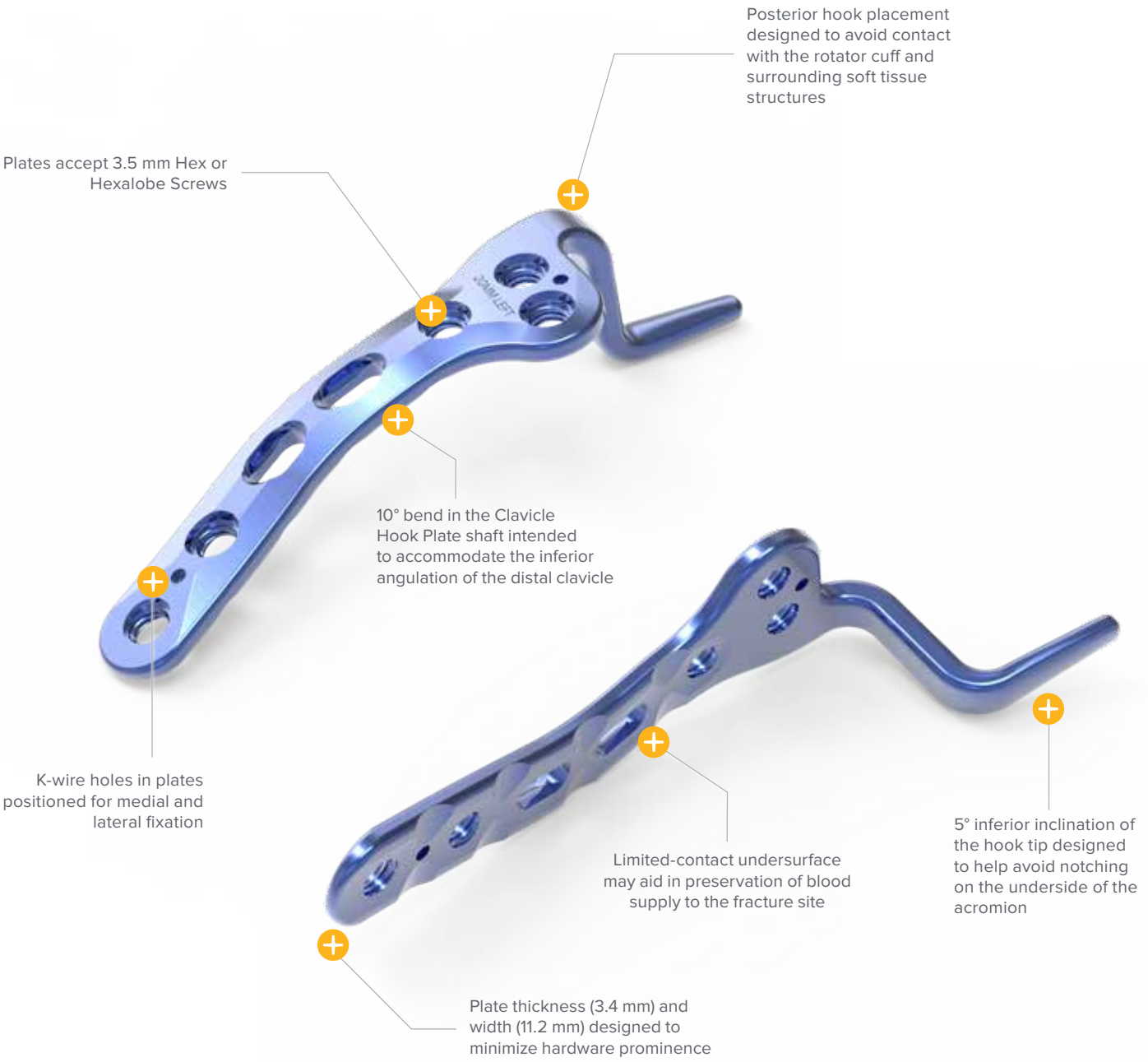
System Features

Clavicle Hook Plates



System Features [continued]

Clavicle Hook Plates

Clavicle Hook Plate Lengths	
5-hole	69 mm
6-hole	80 mm
7-hole	90 mm
*9-hole	111 mm

*The 9-Hole Clavicle Hook Plate is offered sterile-packed only

Three hook depths:
- 12 mm
- 16 mm
- 20 mm

System Features [continued]

Instrumentation

The Clavicle Hook Plating System must be used in conjunction with the Acumed Clavicle Plating System, which contains the instruments and screws necessary to implant the Clavicle Hook Plates.

Clavicle Hook Plate Depth Sizer

The Clavicle Hook Plate Depth Sizer provides the hook depth selection within a single instrument. The hook is inserted under the acromion and the hook depth is chosen by rotating the knob on the depth sizer to trial each of the three hook depth options.

Plate Tacks can be used to temporarily fixate the Clavicle Hook Plate Depth Sizer to the bone while the hook depth measurement is being trialed and/or while the confirmatory fluoroscopic image is being taken.

Clavicle Hook Plate Length Sizer

The Clavicle Hook Plate Length Sizer helps to select plate length for both left and right-sided plates. The Clavicle Hook Plate Length Sizer can be positioned on top of the depth sizer for length and depth measurements. All plate length options can be seen within a single fluoroscopic image.

A 3.5 mm Locking Drill Guide may be threaded into the Clavicle Hook Plate Length Sizer and used as a handle to maneuver the template.

Instrument Overview

Clavicle Hook Plate Length Sizer
(80-4007)

Clavicle Hook Plate Depth Sizer, Hook
(80-4010)

Clavicle Hook Plate Depth Sizer, Left
(80-4011)

Clavicle Hook Plate Depth Sizer, Right
(80-4012)

Depth Gauge 6–65 mm
(80-0623)

.059" x 5" ST Guide Wire
(WS-1505ST)

2.5 mm Easyout, QR
(80-0600)

3.0 mm Easyout, QR
(80-0601)

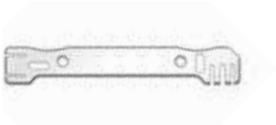


Plate Bender
(PL-2040)

Plate Bender, Large
(PL-2045)

Clavicle Retractor
(PL-CL03)

Large Cannulated Quick Release Driver Handle
(MS-3200)

2.8 mm/3.5 mm Thin Drill Guide
(PL-2196)

Plate Tack
(PL-PTACK)

2.5 mm Quick Release Hex Driver
(HPC-0025)

3.5 mm Cortical Screw Bone Tap
(MS-LTT35)

2.8 mm Quick Release Drill
(80-0387)

3.5 mm x 5" Quick Release Drill
(MS-DC35)

2.8 mm x 5" Quick Release Drill
(MS-DC28)

T15 Stick Fit Hexalobe Driver
(80-0760)

6 mm–70 mm Depth Gauge, 2 mm Increments
(MS-9022)

2.8 mm Hexalobe Locking Drill Guide 6–65 mm
(80-0668)

3.5 mm Locking Drill Guide
(MS-LDG35)

3.5 mm Screw Driver Sleeve
(MS-SS35)

Reduction Forceps w/Serrated Jaw
(PL-CL04)

Surgical Technique Overview

Clavicle Hook Plate Surgical Technique

Preoperative Planning and Patient Positioning

Exposure

Reduction and Lagging

Plate Selection

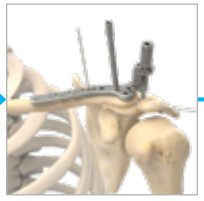
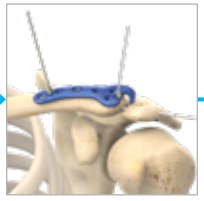
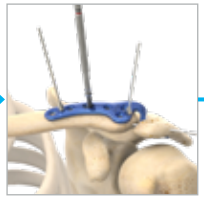


Plate Placement



Screw Insertion



Final Plate and Screw Position

Implant Removal

Clavicle Hook Plate Surgical Technique

Figure 1

1 Preoperative Planning and Patient Positioning

The clinician should perform appropriate radiographic assessment to best determine the location and degree of displacement and comminution of the fracture. Special attention to the status of the acromioclavicular (AC) joint integrity and coracoclavicular (CC) interval is important as the clavicle hook plate is ideal for scenarios where the clavicle fracture is relatively distal with associated soft tissue disruption of the AC and CC ligaments.

Warning: If bone spurs are present in the AC joint, it may affect proper plate positioning and alternative treatment methods may need to be considered.

After a thorough radiographic evaluation, place the patient in either a beach chair or supine position with the head rotated and tilted 5 to 10 degrees away from the operative side (Figure 1). Place a small bump or bolster between the shoulder blades, allowing the injured shoulder girdle to retract posteriorly. This helps facilitate reduction by bringing the clavicle anterior to restore length and improve exposure. Prep the patient's involved upper extremity and drape in a sterile fashion, allowing the arm to be manipulated to help further reduce the fracture if required.

Clavicle Hook Plate Surgical Technique [continued]

2 Exposure

Surgeons may choose one of two incisions:

Option one: Make a 4 cm transverse incision anterosuperior to the distal clavicle and AC joint (Figure 2). The incision is typically placed midway between the medial and lateral migrations of the proximal fragment.

Option two: Make an incision along Langer's lines running perpendicular to the long axis, which may provide better cosmetic results than a transverse incision and may create less damage to the supraclavicular cutaneous nerves (Figure 3).

Carry down dissection to the fascia and elevate the skin flaps while protecting cutaneous nerves. Then, subperiosteally elevate the deltotrapezial musculature and soft tissue off the bone fragments while avoiding the infraclavicular nerve branches below the clavicle (Figure 4). Care must be taken to perform a soft tissue dissection that allows reduction, yet minimizes devitalization of the fracture fragments.

Prepare for placement of the hook under the acromion by locating the posterior border of the AC joint capsule and detaching 5 mm of the extracapsular fibers of the trapezius from the medial aspect of the acromion.

Caution: It is important to retain soft tissue attachments to the butterfly fragments to maintain vascularity.

Figure 2

Figure 3

Figure 4

Clavicle Hook Plate Surgical Technique [continued]

Figure 5

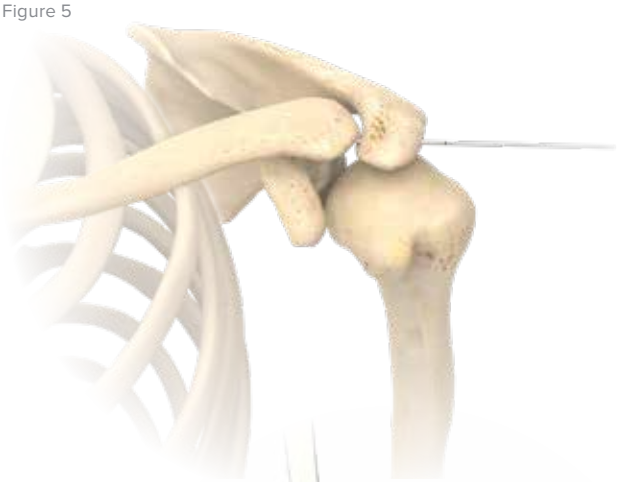


Figure 6

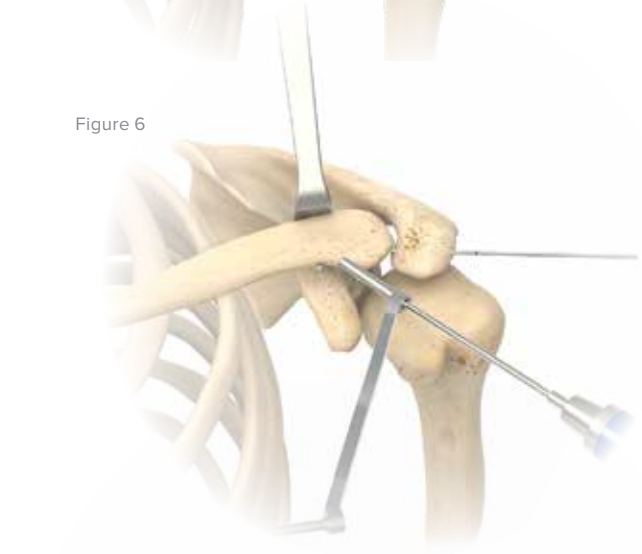


Figure 7

3 Reduction and Lagging

A .059" x 5" ST Guide Wire (WS-1505ST) or Reduction Forceps w/Serrated Jaw (PL-CL04) may be used to stabilize fragments to the main medial and lateral fragments. If an AC joint dislocation is present, reduce the AC joint and provisionally fix using wires (Figure 5).

Note: Prior to placement of the clavicle hook plate, lag screw fixation across the major fracture fragments may be performed. Many Type IIB clavicle fractures have a horizontal cleavage fracture that extends into the AC joint, which may be fixed in this manner.

Caution: Avoid using the Reduction Forceps w/Serrated Jaws in securing the plate to the bone as the serrated jaws may scratch the plate surface.

Using Nonlocking Hexalobe Screws

To lag a 3.5 mm Nonlocking Hexalobe Screw (30-02XX), place the Clavicle Retractor (PL-CL03) under the inferior surface of the clavicle to protect the neurovascular structures from overpenetration when drilling. Drill the near cortex with the 3.5 mm x 5" Quick Release Drill (MS-DC35), then insert the 2.8 mm/3.5 mm Thin Drill Guide (PL-2196) into the far cortex and drill with the 2.8 mm Quick Release Drill (80-0387) (Figure 6). Measure for screw length by using the Depth Gauge 6–65 mm (80-0623) (Figure 7). Insert a Nonlocking Hexalobe Screw by connecting the T15 Stick Fit Hexalobe Driver (80-0760) to the Large Cannulated Quick Release Driver Handle (MS-3200) (Figure 8).

Caution: Care should be taken to ensure the drill does not skive off the Clavicle Retractor and that the drill is not used with excessive force through or past the Clavicle Retractor.

Caution: Replace the drill if it comes in contact with the Clavicle Retractor

Warning: Care should be taken to ensure that neither the K-wire nor the drill are plunged into the subclavian neurovascular bundle.

.059" x 5" ST Guide Wire (WS-1505ST)

Reduction Forceps w/Serrated Jaw (PL-CL04)

Clavicle Retractor (PL-CL03)

3.5 mm x 5" Quick Release Drill (MS-DC35)

3.5 mm Nonlocking Hexalobe Screw (30-02XX)

2.8 mm/3.5 mm Thin Drill Guide (PL-2196)

2.8 mm Quick Release Drill (80-0387)

Depth Gauge 6–65 mm (80-0623)

T15 Stick Fit Hexalobe Driver (80-0760)

Large Cannulated Quick Release Driver Handle (MS-3200)

Clavicle Hook Plate Surgical Technique [continued]

Using Nonlocking Hex Screws

To lag a 3.5 mm Nonlocking Hex Screw (CO-3XX0), place the Clavicle Retractor (PL-CL03) under the inferior surface of the clavicle to protect the neurovascular structures from overpenetration when drilling. Drill the near cortex with the 3.5 mm x 5" Quick Release Drill (MS-DC35), then insert the 2.8 mm/3.5 mm Thin Drill Guide (PL-2196) into the far cortex and drill with the 2.8 mm x 5" Quick Release Drill (MS-DC28). Measure for screw length by using the 6 mm–70 mm Depth Gauge, 2 mm increments (MS-9022). Insert a Nonlocking Hex Screw by placing the 3.5 mm Screw Driver Sleeve (MS-SS35) over the 2.5 mm Quick Release Hex Driver (HPC-0025) and connect both to the Large Cannulated Quick Release Driver Handle (MS-3200).

Caution: Care should be taken to ensure the drill does not skive off the Clavicle Retractor and that the drill is not used with excessive force through or past the Clavicle Retractor.

Caution: Replace the drill if it comes in contact with the Clavicle Retractor

Warning: Care should be taken to ensure that neither the K-wire nor the drill are plunged into the subclavian neurovascular bundle.

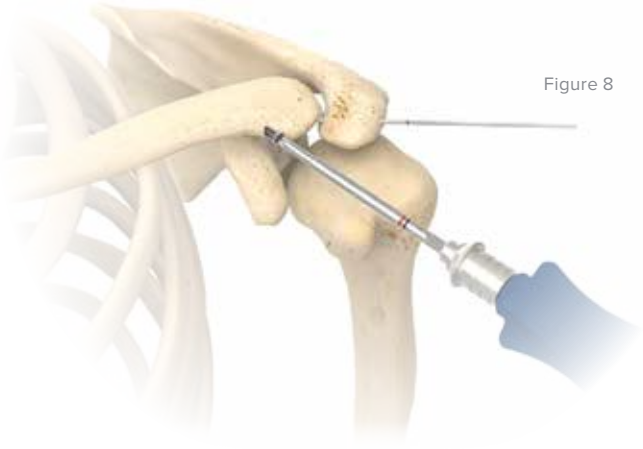


Figure 8

Clavicle Retractor
(PL-CL03)

3.5 mm x 5" Quick Release Drill
(MS-DC35)

2.8 mm/3.5 mm Thin Drill Guide
(PL-2196)

2.8 mm x 5" Quick Release Drill
(MS-DC28)

3.5 mm Nonlocking Hex Screw
(CO-3XX0)

6 mm–70 mm Depth Gauge, 2 mm increments
(MS-9022)

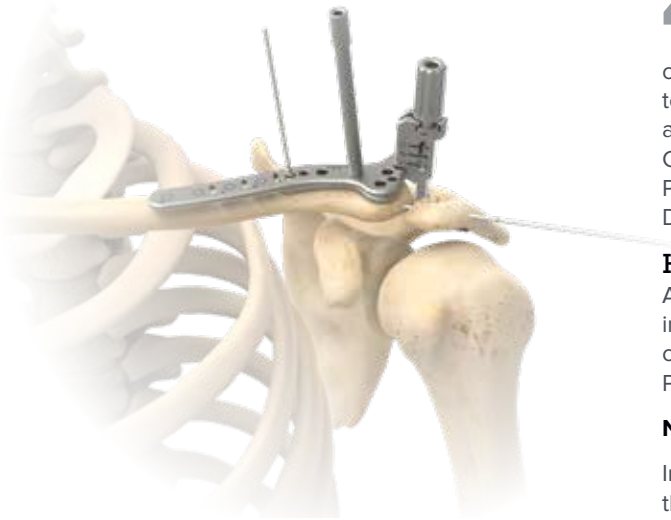
3.5 mm Screw Driver Sleeve
(MS-SS35)

2.5 mm Quick Release Hex Driver
(HPC-0025)

Large Cannulated Quick Release Driver Handle
(MS-3200)

Clavicle Hook Plate Surgical Technique [continued]

Figure 9



4 Plate Selection

Acumed provides a range of clavicle hook plate options to address the fracture or AC dislocation as needed to accommodate different fracture/dislocation morphology and patient anatomic variations. Select the appropriate size Clavicle Hook Plate (7014-0XXXX) using the Clavicle Hook Plate Length Sizer (80-4007) and the Clavicle Hook Plate Depth Sizer (Left, 80-4011 or Right, 80-4012) (Figure 9).

Hook Depth Measurement

Assemble the Clavicle Hook Plate Depth Sizer, Hook (80-4010) into either the Clavicle Hook Plate Depth Sizer, Left (80-4011) or Right (80-4012) depending on which side the Clavicle Hook Plate will be used (Figure 10).

Note: Do not bend the Clavicle Hook Plate Depth Sizer.

Insert the assembled Clavicle Hook Plate Depth Sizer into the subacromial space through the incision created in the extracapsular trapezius fibers on the posterior aspect of the acromion. If desired, provisionally fix the Clavicle Hook Plate Depth Sizer to the superior aspect of the distal clavicle using either Plate Tacks (PL-PTACK) or .059" x 5" ST Guide Wires (WS-1505ST). Adjust the depth of the hook by rotating the knob until the distal end of the clavicle and the acromion are reduced. Using the laser marks on the Clavicle Hook Plate Depth Sizer, identify the optimal hook depth and select the nearest appropriate size (12 mm, 16 mm, or 20 mm) if the measurement is between size offerings (Figure 11).

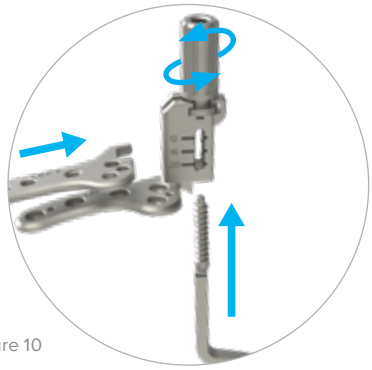


Figure 10

Hook Plate Length Measurement

Place the Clavicle Hook Plate Length Sizer along the superior aspect of the clavicle so that the lateral end is aligned with the lateral end of the clavicle. Using direct visualization or radiographic assessment, determine appropriate plate length, ensuring three plate holes (six cortices of fixation) will be present medial to the fracture.

Optionally, the Clavicle Hook Plate Length Sizer may be positioned based off the back of the Clavicle Hook Plate Depth Sizer after placement. Place the length sizer over the top of the depth sizer, aligning the notch in the length sizer to the tower of the depth sizer (Figures 10 and 11).

Figure 11

Note: A 3.5 mm Locking Drill Guide (MS-LDG35) may be threaded into the length sizer and used as a handle to maneuver the template.

Note: Do not bend the Clavicle Hook Plate Length Sizer.

Clavicle Hook Plate
(7014-0XXXX)

Clavicle Hook Plate Length Sizer
(80-4007)

Clavicle Hook Plate Depth Sizer, Left
(80-4011)

Clavicle Hook Plate Depth Sizer, Right
(80-4012)

Clavicle Hook Plate Depth Sizer, Hook
(80-4010)

Plate Tacks
(PL-PTACK)

.059" x 5" ST Guide Wire
(WS-1505ST)

3.5 mm Locking Drill Guide
(MS-LDG35)

Clavicle Hook Plate Surgical Technique [continued]

5 Plate Placement

Once the Clavicle Hook Plate (7014-0XXX) has been selected, insert the plate hook into the subacromial space through the incision created in the posterior aspect of the acromioclavicular joint capsule. Provisionally stabilize the Clavicle Hook Plate to the clavicle with Plate Tacks (PL-PTACK) or .059" x 5" ST Guide Wires (WS-1505ST) (Figure 12). Under radiographic evaluation, confirm plate and hook placement and sizing, assessing restoration of alignment between the acromion and lateral clavicle.

Caution: If it is necessary to bend the plate, please observe the following:

- Do not bend more than once
- Avoid bending across locking holes and slots
- Excessive bending may compromise the strength of the plate and should be avoided

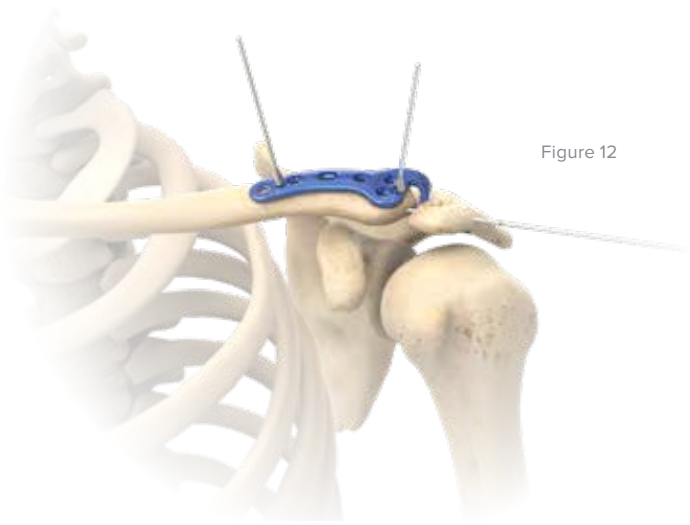


Figure 12

Clavicle Hook Plate
(7014-0XXXX)

Plate Tacks
(PL-PTACK)

.059" x 5" ST Guide Wire
(WS-1505ST)

Clavicle Hook Plate Surgical Technique [continued]

Figure 13

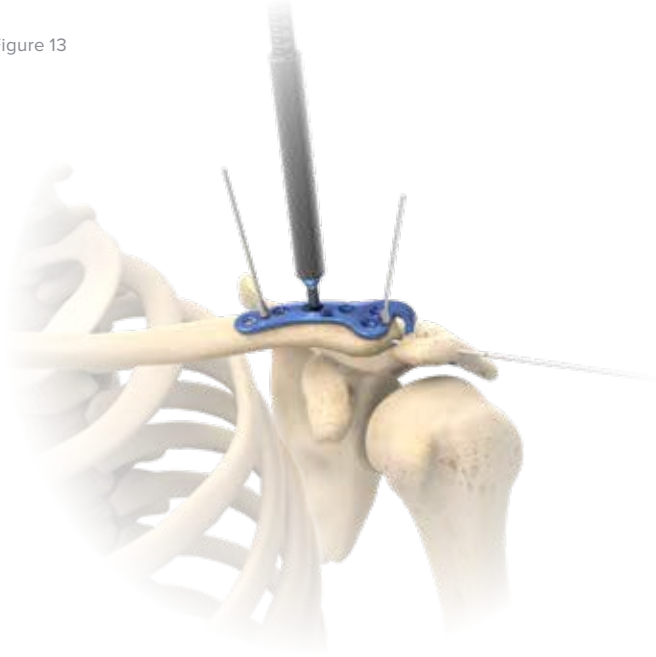
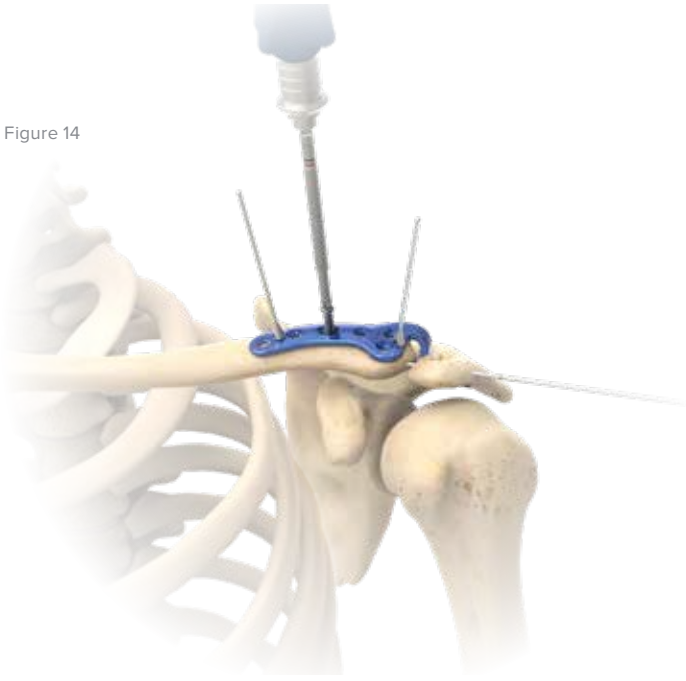


Figure 14



6 Screw insertion

The round plate holes within the Clavicle Hook Plates (7014-0XXXX) can accept 3.5 mm Locking or Nonlocking Hex (COL-3XX0 or CO-3XX0) or Hexalobe Screws (30-02XX) while the plate slots can accept only 3.5 mm Nonlocking Hex or Hexalobe Screws

It is recommended to first place at least one 3.5 mm Nonlocking Hex or Hexalobe Screw in the medial fragment to compress the plate to bone prior to inserting locking screws. If bicortical screws are used, precautions should be taken to avoid over-penetration of the inferior cortex. Place the Clavicle Retractor (PL-CL03) under the inferior surface of the clavicle to protect the neurovascular structures from overpenetration when drilling.

Note: During screw insertion, the surgeon should avoid using excessive force which may result in stripping/damaging screws or driver tip. Proper observation of bone quality, patient size, and screw size can help determine the appropriate insertion torque during screw advancement and final tightening.

Note: Tapping with the 3.5 mm Cortical Screw Bone Tap (MS-LTT35) is recommended for patients with dense bone prior to screw insertion. Drill guides must be removed prior to tapping.

After installing at least two screws, remove any provisional plate tacks or guide wires holding the plate to the clavicle.

Caution: Replace the drill if it comes in contact with the Clavicle Retractor.

Nonlocking Hexalobe Screw Insertion

To insert 3.5 mm Nonlocking Hexalobe Screws, drill with the 2.8 mm Quick Release Drill (80-0387) through the 2.8 mm/3.5 mm Thin Drill Guide (PL-2196) to the desired depth. Measure for screw length by using the Depth Gauge 6–65 mm (80-0623) (Figure 13). Insert 3.5 mm Nonlocking Hexalobe Screws by connecting the T15 Stick Fit Hexalobe Driver (80-0760) to the Large Cannulated Quick Release Driver Handle (MS-3200) (Figure 14).

3.5 mm Locking Hex Screw (COL-3XX0)

3.5 mm Nonlocking Hex Screw (CO-3XX0)

3.5 mm Nonlocking Hexalobe Screw (30-02XX)

Clavicle Retractor (PL-CL03)

3.5 mm Cortical Screw Bone Tap (MS-LTT35)

2.8 mm Quick Release Drill (80-0387)

2.8 mm/3.5 mm Thin Drill Guide (PL-2196)

Depth Gauge 6–65 mm (80-0623)

T15 Stick Fit Hexalobe Driver (80-0760)

Large Cannulated Quick Release Driver Handle (MS-3200)

Clavicle Hook Plate Surgical Technique [continued]

Locking Hexalobe Screw Insertion

To insert 3.5 mm Locking Hexalobe Screws (30-02XX), thread the 3.5 mm Locking Drill Guide (MS-LDG35) into the round plate holes. Drill through the 3.5 mm Locking Drill Guide with the 2.8 mm Quick Release Drill (80-0387) to the desired depth. Measure for screw length by using the Depth Gauge 6–65 mm (80-0623). Alternatively, the 2.8 mm Quick Release Drill can be used in conjunction with the 2.8 mm Hexalobe Locking Drill Guide 6–65 mm (80-0668) to obtain screw length (hexalobe screws only) by reading directly off the drill (Figure 15). Insert 3.5 mm Locking Hexalobe Screws by connecting the T15 Stick Fit Hexalobe Driver (80-0760) to the Large Cannulated Quick Release Driver Handle (MS-3200) (Figure 16).

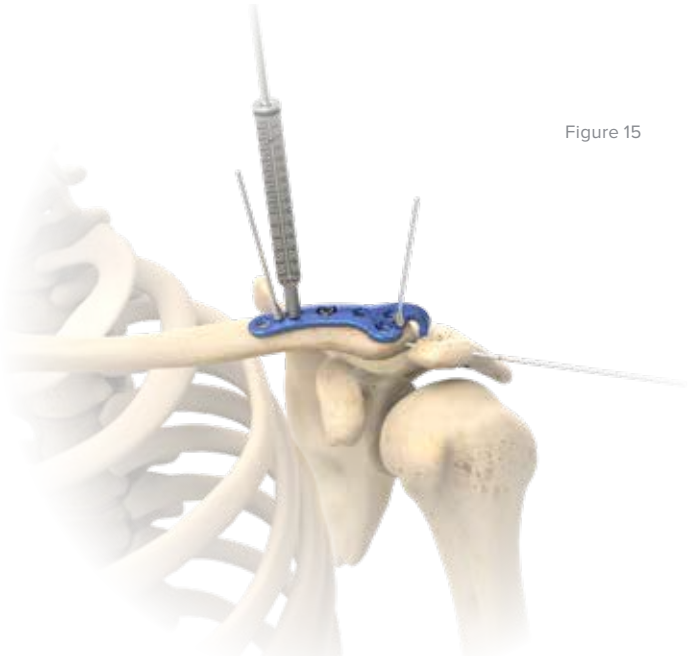


Figure 15

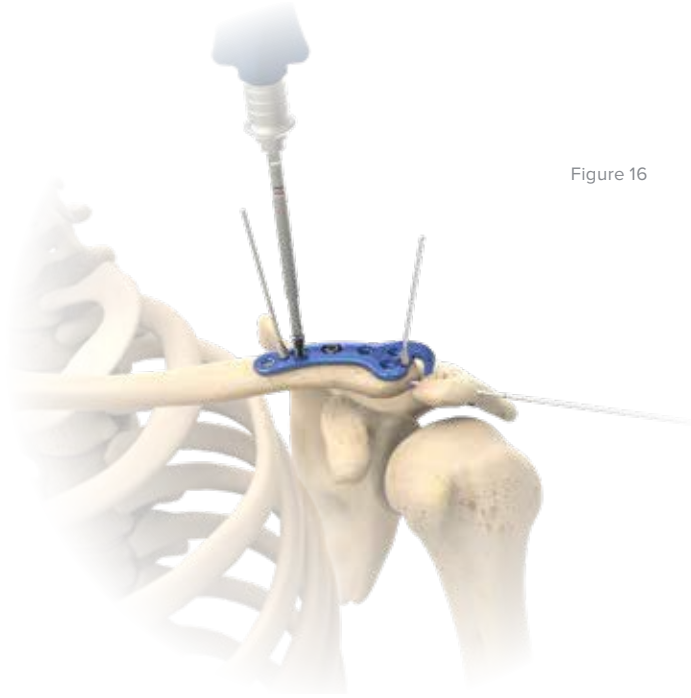


Figure 16

3.5 mm Locking Hexalobe Screw (30-02XX)

3.5 mm Locking Drill Guide (MS-LDG35)

2.8 mm Quick Release Drill (80-0387)

Depth Gauge 6–65 mm (80-0623)

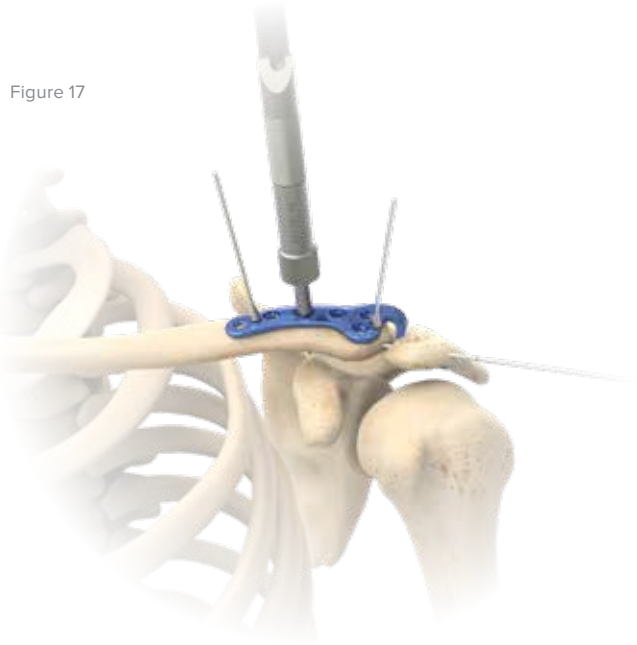
2.8 mm Hexalobe Locking Drill Guide 6–65 mm (80-0668)

T15 Stick Fit Hexalobe Driver (80-0760)

Large Cannulated Quick Release Driver Handle (MS-3200)

Clavicle Hook Plate Surgical Technique [continued]

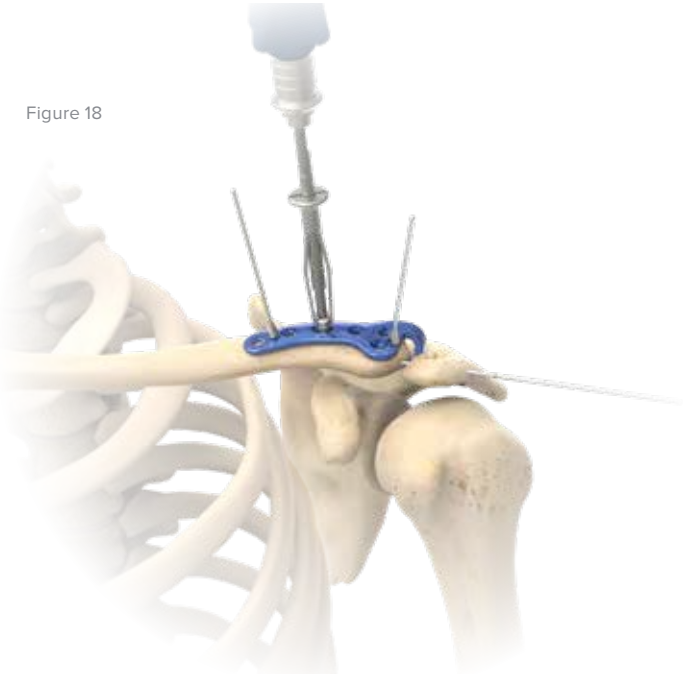
Figure 17



Nonlocking Hex Screw Insertion

To insert 3.5 mm Nonlocking Hex Screws (CO-3XX0), drill with the 2.8 mm x 5" Quick Release Drill (MS-DC28) through the 2.8 mm/3.5 mm Thin Drill Guide (PL-2196) to the desired depth. Measure for screw length by using the 6 mm–70 mm Depth Gauge, 2 mm Increments (MS-9022) (Figure 17). Insert 3.5 mm Nonlocking Hex Screws by placing the 3.5 mm Screw Driver Sleeve (MS-SS35) over the 2.5 mm Quick Release Hex Driver (HPC-0025) and connect both to the Large Cannulated Quick Release Driver Handle (MS-3200) (Figure 18).

Figure 18



3.5 mm Nonlocking Hex Screw
(CO-3XX0)

2.8 mm x 5" Quick Release Drill
(MS-DC28)

2.8 mm/3.5 mm Thin Drill Guide
(PL-2196)

6 mm–70 mm Depth Gauge, 2 mm increments
(MS-9022)

3.5 mm Screw Driver Sleeve
(MS-SS35)

2.5 mm Quick Release Hex Driver
(HPC-0025)

Large Cannulated Quick Release Driver Handle
(MS-3200)

Clavicle Hook Plate Surgical Technique [continued]

Locking Hex Screw Insertion

To insert 3.5 mm Locking Hex Screws (COL-3XX0), thread the 3.5 mm Locking Drill Guide (MS-LDG35) into the round plate holes. Drill through the 3.5 mm Locking Drill Guide with the 2.8 mm x 5" Quick Release Drill (MS-DC28) to the desired depth (Figure 19). Measure for screw length by using the 6 mm–70 mm Depth Gauge, 2 mm increments (MS-9022). Insert 3.5 mm Locking Hex Screws by placing the 3.5 mm Screw Driver Sleeve (MS-SS35) over the 2.5 mm Quick Release Hex Driver (HPC-0025) and connect both to the Large Cannulated Quick Release Driver Handle (MS-3200) (Figure 20).

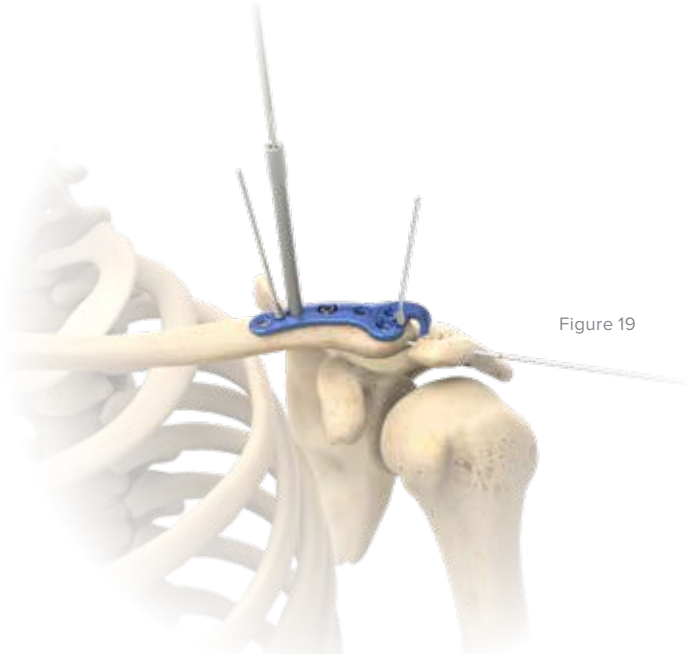


Figure 19

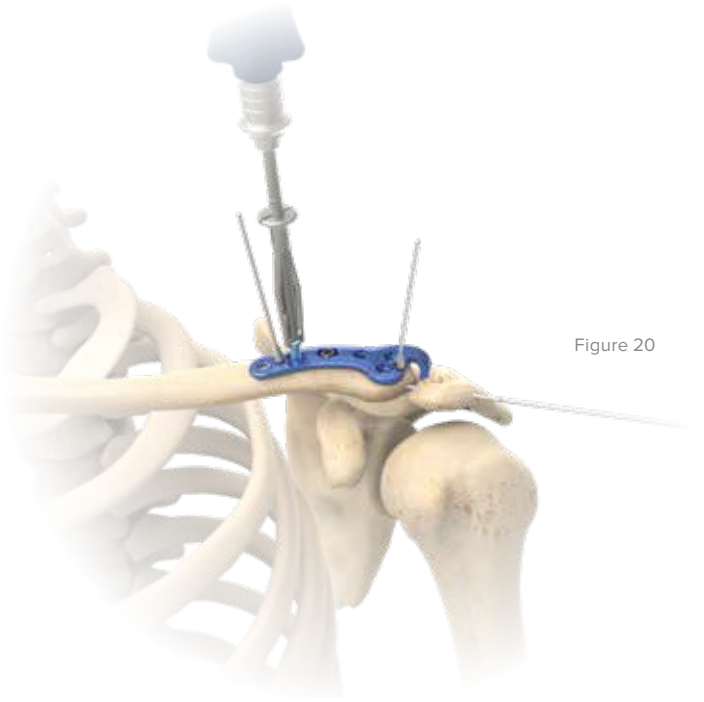


Figure 20

3.5 mm Locking Hex Screw
(COL-3XX0)

3.5 mm Locking Drill Guide
(MS-LDG35)

2.8 mm x 5" Quick Release Drill
(MS-DC28)

6 mm–70 mm Depth Gauge, 2 mm increments
(MS-9022)

3.5 mm Screw Driver Sleeve
(MS-SS35)

2.5 mm Quick Release Hex Driver
(HPC-0025)

Large Cannulated Quick Release Driver Handle
(MS-3200)

Clavicle Hook Plate Surgical Technique [continued]

Figure 21

7 Final Plate and Screw Position

An intraoperative radiograph is recommended to check the final reduction of the fracture/AC joint, hook placement, and the position of the screws (Figure 21). After radiographic evaluation and routine irrigation, close the deltotrapezial fascia over the clavicle and AC joint. Follow by closing the subcutaneous tissue and skin. Dress the wound and place the arm in an abduction pillow to bring the arm up and the clavicle down, unloading the AC joint.

8 Postoperative Protocol

Postoperative management may include an initial period in which the arm is kept in a sling while commencing pendulum exercises. Forward flexion and abduction greater than 90 degrees along with internal rotation should be avoided until implant removal.[1]

Note: Irritation above the clavicle is possible due to the small amount of soft tissue coverage over the Hook Plate in some patients.

Note: The postoperative protocol should be prescribed at the discretion of the performing surgeon.

Warning: It is recommended that the Hook Plate be removed after healing, prior to full return to activities of daily living.

Clavicle Hook Plate Surgical Technique [continued]

9 Implant Removal Instructions

Implant removal is typically performed once healing has occurred.

To remove a Clavicle Hook Plate (7014-0XXXX), identify which Acumed 3.5 mm Hexalobe or 3.5 mm Hex Screws are implanted in the plate.

To remove 3.5 mm Locking or Nonlocking Hexalobe Screws (30-02XX), use the T15 Stick Fit Hexalobe Driver (80-0760) and Large Cannulated Quick Release Driver Handle (MS-3200) (Figure 22).

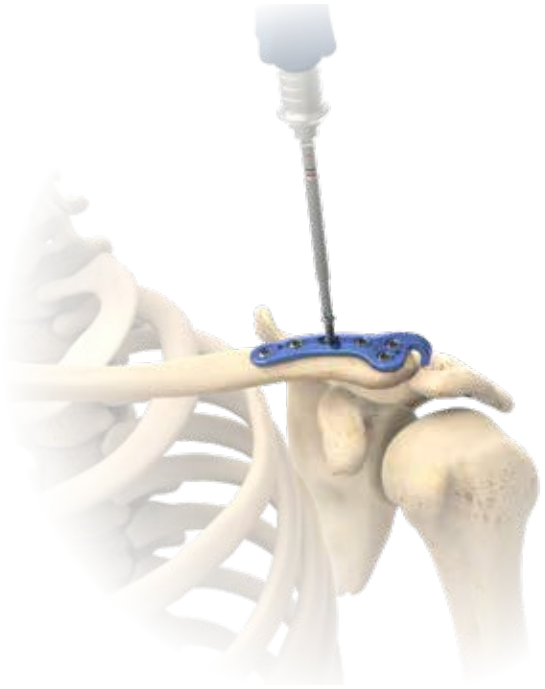


Figure 22

To remove 3.5 mm Locking Hex Screws (COL-3XX0) or Nonlocking Hex Screws (CO-3XX0), place the 3.5 mm Screw Driver Sleeve (MS-SS35) over the 2.5 mm Quick Release Hex Driver (HPC-0025) and connect both to the Large Cannulated Quick Release Driver Handle.

If there is resistance or risk of stripping the drive interface with the screw, an Easyout Driver can be used as an alternative to the drivers.

For the 3.5 mm Locking or Nonlocking Hexalobe Screws, attach the 3.0 mm Easyout (80-0601) to the Large Cannulated Quick Release Driver Handle.

For the 3.5 mm Locking or Nonlocking Hex Screws, attach the 2.5 mm Easyout (80-0600) to the Large Cannulated Quick Release Driver Handle (MS-3200).

Note: If the 2.5 mm Easyout (80-0600) is spinning, size up to the 3.0 mm Easyout (80-0601) and repeat removal attempt.

Turn the 2.5 mm or 3.0 mm Easyout with firm constant pressure in line with the screw. If the 2.5 mm or 3.0 mm Easyout does not engage the screw, it may help to slightly angle the Easyout so it wedges into the head of the screw. If the 2.5 mm or 3.0 mm Easyout is spinning, tap it with a mallet to move it further inside the drive feature before turning it again.

T15 Stick Fit Hexalobe Driver
(80-0760)

Large Cannulated Quick Release Driver Handle
(MS-3200)

3.5 mm Screw Driver Sleeve
(MS-SS35)

2.5 mm Quick Release Hex Driver
(HPC-0025)

3.0 mm Easyout
(80-0601)

2.5 mm Easyout
(80-0600)

Ordering Information

Tray Components

Clavicle Hook Plate Implants

1	Clavicle Hook Plate, 7-Hole 12 mm, Left	7014-0712L
2	Clavicle Hook Plate, 6-Hole 12 mm, Left	7014-0612L
3	Clavicle Hook Plate, 5-Hole 12 mm, Left	7014-0512L*
4	Clavicle Hook Plate, 7-Hole 16 mm, Left	7014-0716L
5	Clavicle Hook Plate, 6-Hole 16 mm, Left	7014-0616L
6	Clavicle Hook Plate, 5-Hole 16 mm, Left	7014-0516L*
7	Clavicle Hook Plate, 7-Hole 20 mm, Left	7014-0720L
8	Clavicle Hook Plate, 6-Hole 20 mm, Left	7014-0620L
9	Clavicle Hook Plate, 5-Hole 20 mm, Left	7014-0520L*
10	Clavicle Hook Plate, 7-Hole 12 mm, Right	7014-0712R
11	Clavicle Hook Plate, 6-Hole 12 mm, Right	7014-0612R
12	Clavicle Hook Plate, 5-Hole 12 mm, Right	7014-0512R*
13	Clavicle Hook Plate, 7-Hole 16 mm, Right	7014-0716R
14	Clavicle Hook Plate, 6-Hole 16 mm, Right	7014-0616R
15	Clavicle Hook Plate, 5-Hole 16 mm, Right	7014-0516R*
16	Clavicle Hook Plate, 7-Hole 20 mm, Right	7014-0720R
17	Clavicle Hook Plate, 6-Hole 20 mm, Right	7014-0620R
18	Clavicle Hook Plate, 5-Hole 20 mm, Right	7014-0520R*

Instrumentation

19	Clavicle Hook Plate Length Sizer	80-4007
20	Clavicle Hook Plate Depth Sizer, Left	80-4011
21	Clavicle Hook Plate Depth Sizer, Right	80-4012
22	Clavicle Hook Plate Depth Sizer, Hook	80-4010
23	3.0 mm Easyout, QR	80-0601
24	2.5 mm Easyout, QR	80-0600

Trays

25	Clavicle Hook Plate Tray	80-4020
26	Clavicle Hook Plate Essential Tray**	80-4019
27	Clavicle Hook Plate Tray Lid**	80-4021

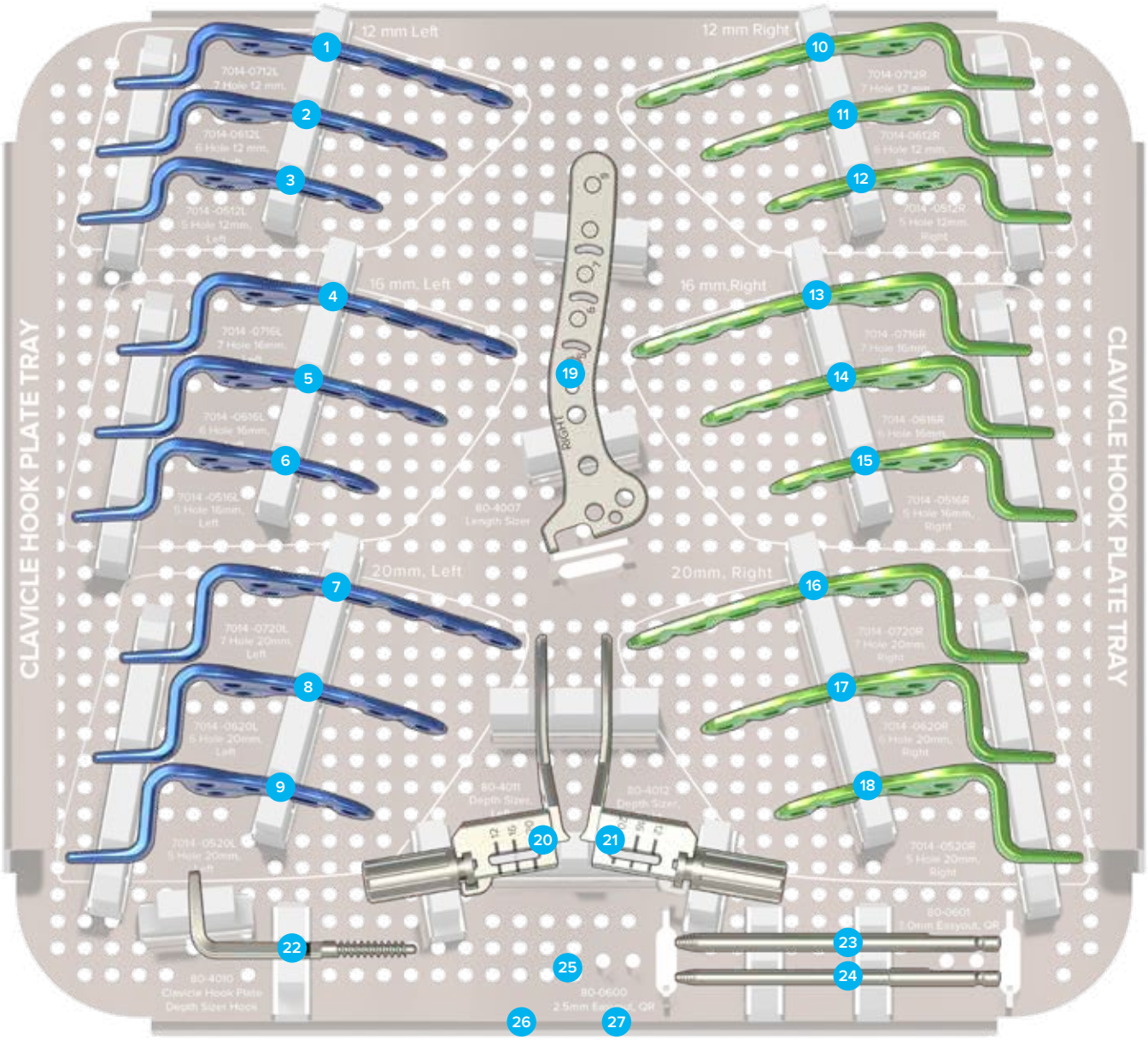
*5-hole Clavicle Hook Plates are optional

** Not shown

Optional

Sterile Implants

Clavicle Hook Plate, 9-Hole 12 mm, Left	7014-0912L-S
Clavicle Hook Plate, 9-Hole 12 mm, Right	7014-0912R-S
Clavicle Hook Plate, 9-Hole 16 mm, Left	7014-0916L-S
Clavicle Hook Plate, 9-Hole 16 mm, Right	7014-0916R-S
Clavicle Hook Plate, 9-Hole 20 mm, Left	7014-0920L-S
Clavicle Hook Plate, 9-Hole 20 mm, Right	7014-0920R-S


CLAVICLE HOOK PLATE TRAY
12 mm Left
12 mm Right
16 mm, Left
16 mm,Right
20mm, Left
20mm, Right
1
2
3
4
5
6
7
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9
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11
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24
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27

Ordering Information [continued]

Sterile Clavicle Hook Plate Implants

Clavicle Hook Plate, 7-Hole 12 mm, Left	7014-0712L-S	Clavicle Hook Plate, 7-Hole 12 mm, Right	7014-0712R-S
Clavicle Hook Plate, 6-Hole 12 mm, Left	7014-0612L-S	Clavicle Hook Plate, 6-Hole 12 mm, Right	7014-0612R-S
Clavicle Hook Plate, 5-Hole 12 mm, Left	7014-0512L-S	Clavicle Hook Plate, 5-Hole 12 mm, Right	7014-0512R-S
Clavicle Hook Plate, 7-Hole 16 mm, Left	7014-0716L-S	Clavicle Hook Plate, 7-Hole 16 mm, Right	7014-0716R-S
Clavicle Hook Plate, 6-Hole 16 mm, Left	7014-0616L-S	Clavicle Hook Plate, 6-Hole 16 mm, Right	7014-0616R-S
Clavicle Hook Plate, 5-Hole 16 mm, Left	7014-0516L-S	Clavicle Hook Plate, 5-Hole 16 mm, Right	7014-0516R-S
Clavicle Hook Plate, 7-Hole 20 mm, Left	7014-0720L-S	Clavicle Hook Plate, 7-Hole 20 mm, Right	7014-0720R-S
Clavicle Hook Plate, 6-Hole 20 mm, Left	7014-0620L-S	Clavicle Hook Plate, 6-Hole 20 mm, Right	7014-0620R-S
Clavicle Hook Plate, 5-Hole 20 mm, Left	7014-0520L-S	Clavicle Hook Plate, 5-Hole 20 mm, Right	7014-0520R-S

Tray Components

Instrumentation

Plate Bender	PL-2040	2.8 mm Quick Release Drill	80-0387
Plate Bender, Large	PL-2045	.059" x 5" ST Guide Wire*	WS-1505ST
Depth Gauge 6–65 mm	80-0623	T15 Stick Fit Hexalobe Driver	80-0760
2.8 mm/3.5 mm Thin Drill Guide	PL-2196	Large Cannulated Quick Release Driver Handle	MS-3200
2.8 mm Hexalobe Locking Drill Guide 6–65 mm	80-0668	6 mm–70 mm Depth Gauge, 2 mm Increments	MS-9022
2.5 mm Quick Release Hex Driver	HPC-0025	Reduction Forceps w/Serrated Jaw	PL-CL04
3.5 mm Cortical Screw Bone Tap	MS-LTT35	3.5 mm Locking Drill Guide	MS-LDG35
Plate Tack	PL-PTACK	3.5 mm Screw Driver Sleeve	MS-SS35
3.5 mm x 5" Quick Release Drill	MS-DC35	Clavicle Retractor	PL-CL03
2.8 mm x 5" Quick Release Drill	MS-DC28		

*Also used as a K-wire

Ordering Information [continued]

Screws

3.5 mm Locking Hexalobe Screws

3.5 mm x 8 mm Locking Hexalobe Screw	30-0232
3.5 mm x 10 mm Locking Hexalobe Screw	30-0233
3.5 mm x 12 mm Locking Hexalobe Screw	30-0234
3.5 mm x 14 mm Locking Hexalobe Screw	30-0235
3.5 mm x 16 mm Locking Hexalobe Screw	30-0236
3.5 mm x 18 mm Locking Hexalobe Screw	30-0237
3.5 mm x 20 mm Locking Hexalobe Screw	30-0238
3.5 mm x 22 mm Locking Hexalobe Screw	30-0239
3.5 mm x 24 mm Locking Hexalobe Screw	30-0240
3.5 mm x 26 mm Locking Hexalobe Screw	30-0241

3.5 mm Nonlocking Hexalobe Screws

3.5 mm x 8 mm Nonlocking Hexalobe Screw	30-0255
3.5 mm x 10 mm Nonlocking Hexalobe Screw	30-0256
3.5 mm x 12 mm Nonlocking Hexalobe Screw	30-0257
3.5 mm x 14 mm Nonlocking Hexalobe Screw	30-0258
3.5 mm x 16 mm Nonlocking Hexalobe Screw	30-0259
3.5 mm x 18 mm Nonlocking Hexalobe Screw	30-0260
3.5 mm x 20 mm Nonlocking Hexalobe Screw	30-0261
3.5 mm x 22 mm Nonlocking Hexalobe Screw	30-0262
3.5 mm x 24 mm Nonlocking Hexalobe Screw	30-0263
3.5 mm x 26 mm Nonlocking Hexalobe Screw	30-0264

3.5 mm (Nonlocking) Cortical (Hex) Screws

3.5 mm x 8 mm Cortical Screw	CO-3080
3.5 mm x 10 mm Cortical Screw	CO-3100
3.5 mm x 12 mm Cortical Screw	CO-3120
3.5 mm x 14 mm Cortical Screw	CO-3140
3.5 mm x 16 mm Cortical Screw	CO-3160
3.5 mm x 18 mm Cortical Screw	CO-3180
3.5 mm x 20 mm Cortical Screw	CO-3200
3.5 mm x 22 mm Cortical Screw	CO-3220
3.5 mm x 24 mm Cortical Screw	CO-3240
3.5 mm x 26 mm Cortical Screw	CO-3260

3.5 mm Locking Cortical (Hex) Screws

3.5 mm x 8 mm Locking Cortical Screw	COL-3080
3.5 mm x 10 mm Locking Cortical Screw	COL-3100
3.5 mm x 12 mm Locking Cortical Screw	COL-3120
3.5 mm x 14 mm Locking Cortical Screw	COL-3140
3.5 mm x 16 mm Locking Cortical Screw	COL-3160
3.5 mm x 18 mm Locking Cortical Screw	COL-3180
3.5 mm x 20 mm Locking Cortical Screw	COL-3200
3.5 mm x 22 mm Locking Cortical Screw	COL-3220
3.5 mm x 24 mm Locking Cortical Screw	COL-3240
3.5 mm x 26 mm Locking Cortical Screw	COL-3260

Ordering Information [continued]

Sterile Screws

Sterile 3.5 mm Locking Hexalobe Screws

3.5 mm x 8 mm Locking Hexalobe Screw	30-0232-S
3.5 mm x 10 mm Locking Hexalobe Screw	30-0233-S
3.5 mm x 12 mm Locking Hexalobe Screw	30-0234-S
3.5 mm x 14 mm Locking Hexalobe Screw	30-0235-S
3.5 mm x 16 mm Locking Hexalobe Screw	30-0236-S
3.5 mm x 18 mm Locking Hexalobe Screw	30-0237-S
3.5 mm x 20 mm Locking Hexalobe Screw	30-0238-S
3.5 mm x 22 mm Locking Hexalobe Screw	30-0239-S
3.5 mm x 24 mm Locking Hexalobe Screw	30-0240-S
3.5 mm x 26 mm Locking Hexalobe Screw	30-0241-S

Sterile 3.5 mm Nonlocking Hexalobe Screws

3.5 mm x 8 mm Nonlocking Hexalobe Screw	30-0255-S
3.5 mm x 10 mm Nonlocking Hexalobe Screw	30-0256-S
3.5 mm x 12 mm Nonlocking Hexalobe Screw	30-0257-S
3.5 mm x 14 mm Nonlocking Hexalobe Screw	30-0258-S
3.5 mm x 16 mm Nonlocking Hexalobe Screw	30-0259-S
3.5 mm x 18 mm Nonlocking Hexalobe Screw	30-0260-S
3.5 mm x 20 mm Nonlocking Hexalobe Screw	30-0261-S
3.5 mm x 22 mm Nonlocking Hexalobe Screw	30-0262-S
3.5 mm x 24 mm Nonlocking Hexalobe Screw	30-0263-S
3.5 mm x 26 mm Nonlocking Hexalobe Screw	30-0264-S

Sterile 3.5 mm (Nonlocking) Cortical (Hex) Screws

3.5 mm x 8 mm Cortical Screw	CO-3080-S
3.5 mm x 10 mm Cortical Screw	CO-3100-S
3.5 mm x 12 mm Cortical Screw	CO-3120-S
3.5 mm x 14 mm Cortical Screw	CO-3140-S
3.5 mm x 16 mm Cortical Screw	CO-3160-S
3.5 mm x 18 mm Cortical Screw	CO-3180-S
3.5 mm x 20 mm Cortical Screw	CO-3200-S
3.5 mm x 22 mm Cortical Screw	CO-3220-S
3.5 mm x 24 mm Cortical Screw	CO-3240-S
3.5 mm x 26 mm Cortical Screw	CO-3260-S

Sterile 3.5 mm Locking Cortical (Hex) Screws

3.5 mm x 8 mm Locking Cortical Screw	COL-3080-S
3.5 mm x 10 mm Locking Cortical Screw	COL-3100-S
3.5 mm x 12 mm Locking Cortical Screw	COL-3120-S
3.5 mm x 14 mm Locking Cortical Screw	COL-3140-S
3.5 mm x 16 mm Locking Cortical Screw	COL-3160-S
3.5 mm x 18 mm Locking Cortical Screw	COL-3180-S
3.5 mm x 20 mm Locking Cortical Screw	COL-3200-S
3.5 mm x 22 mm Locking Cortical Screw	COL-3220-S
3.5 mm x 24 mm Locking Cortical Screw	COL-3240-S
3.5 mm x 26 mm Locking Cortical Screw	COL-3260-S

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References

1. Kashii M, Inui H, Yamamoto K. Surgical treatment of distal clavicle fractures using the clavicular hook plate. *Clin Orthop Relat Res.* 2006;447:158-164.

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