

Item Catalogue

NUPCO CODE: 4232150041700 | SN: 1235

NUPCO ITEM DESCRIPTION

INSTRUMENTATION SET, COMPLETE FOR 2.7 VARIABLE ANGLED CLAVICLE PLATING, WITH NECESSARY CASE AND IMPLANT TRAY

VENDOR PRODUCT DESCRIPTION

Clavicle Plating System instruments

SKU CODES INCLUDED FOR THIS NUPCO CODE

- PL-CL04
- PL-CL03
- PL-2095
- PL-2080
- PL-2045
- PL-2040
- WS-1106ST
- WS-1505ST
- MS-DC35
- 80-0387
- 80-1088
- 80-0627
- 80-0623
- 80-0760
- MS-DC28
- MS-DC5020
- MS-9022
- HPC-0025
- MS-LDG35
- MS-LDG27
- MS-LTT35
- MS-LTT27

Superior Midshaft Clavicle Plate Surgical Technique [continued]

Screw Size Option	Near Cortex Drill	Far Cortex Drill	Depth Gauge
3.5 mm Nonlocking Hexalobe Screws (30-02XX)	3.5 mm x 5" Quick Release Drill (MS-DC35)	2.8 mm Quick Release Drill (80-0387)	Depth Gauge 6–65 mm (80-0623)
3.0 mm Nonlocking Hexalobe Screws (30-03XX)	3.0 mm x 5" Quick Release Drill (80-1088)	2.3 mm Quick Release Drill (80-0627)	Depth Gauge 6–65 mm (80-0623)
Optional 3.5 mm (Nonlocking) Cortical (Hex) Screws (CO-3XX0)	3.5 mm x 5" Quick Release Drill (MS-DC35)	2.8 mm x 5" Quick Release Drill (MS-DC28)	6–70 mm Depth Gauge, 2 mm Increments (MS-9022)
Optional 2.7 mm (Nonlocking) Cortical (Hex) Screws (CO-27XX)	2.8 mm x 5" Quick Release Drill (MS-DC28)	2.0 mm x 5" Quick Release Drill (MS-DC5020)	6–70 mm Depth Gauge, 2 mm Increments (MS-9022)

4 Plate Placement

Once the plate's ideal position has been selected, provisionally stabilize it to the clavicle with .045" or .059" K-wires (WS-1106ST or WS-1505ST). To reduce the risk of delayed union or nonunion, apply the plate in compression mode using the drill guide. The plate may be applied to one of the major fracture fragments and used as a tool to reduce other major fragments to this bone-plate construct. Take care to ensure that the intervening fragments are not stripped.

Preservation of soft tissue attachments helps ensure that the length and rotation of the clavicle are correct.

Note: The reduction forceps should only be used for plate placement and are not designed to be used to reduce the plate to the bone or to hold the plate while attempting to bend or contour it to match the patient's anatomy. Plate Benders (PL-204X) are available in the event that plate contouring is required to achieve the desired fit to the clavicle.

Caution: If bending of the plate is necessary, please observe the following:

- ▶ Do not bend plates more than 30 degrees
- ▶ Bend radii should be greater than 1 inch
- ▶ Do not bend more than once
- ▶ Avoid bending across locking holes



Figure 5

Superior Midshaft Clavicle Plate Surgical Technique [continued]

6 Locking Screw Insertion

For locking screw insertion, reference the chart below for instrumentation related to each screw size option. Note that when utilizing either the 2.8 mm Hexalobe Locking Drill Guide 6–65 mm (80-0668), or the 2.3 mm Locking Drill Guide 6–65 mm (80-0622), the screw length can be estimated by matching the laser line on the drill with the markings on the drill guide. When in between sizes, it is recommended to choose the shorter screw option. Advance screws until the head fully engages the plate.

Note: The outermost medial and lateral holes are angled 10 degrees and the locking drill guides must be inserted appropriately to accommodate these angles.

Note: Tapping with the 2.7 mm Cortical Screw Bone Tap (MS-LTT27) or 3.5 mm Cortical Screw Bone Tap (MS-LTT35) is recommended for patients with dense bone. The locking drill guide must be removed prior to tapping.

Depending on the degree of comminution, demineralized bone matrix, iliac crest autograft, or allograft bone chips may be used to fill areas devoid of bone.¹ In hypertrophic nonunions, callus from the nonunion site may be sufficient to provide graft material.

Figure 8

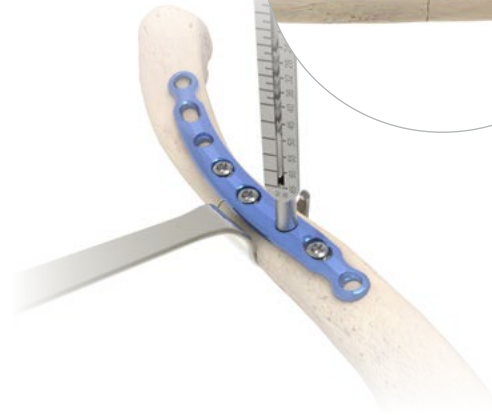


Figure 9

Screw Size Option	Locking Drill Guide	Drill	Depth Gauge	Driver	Driver Handle
3.5 mm Locking Hexalobe Screw (30-02XX)	2.8 mm Hexalobe Locking Drill Guide 6–65 mm (80-0668)	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)
3.0 mm Locking Hexalobe Screw (30-02XX)	2.3 mm Locking Drill Guide 6–65 mm (80-0622)	2.3 mm Quick Release Drill (80-0627)	Depth Gauge 6–65 mm (80-0623)	T15 Stick Fit Hexalobe Driver (80-0760)	Large Cannulated Quick Release Driver Handle (MS-3200)
Optional 3.5 mm Locking Cortical (Hex) Screw (COL-3XX0)	3.5 mm Locking Drill Guide (MS-LDG35)	2.8 mm x 5" Quick Release Drill (MS-DC28)	6–70 mm Depth Gauge, 2 mm Increments (MS-9022)	2.5 mm Quick Release Hex Driver (HPC-0025)	Large Cannulated Quick Release Driver Handle (MS-3200)
Optional 2.7 mm Locking Cortical (Hex) Screw (COL-2XX0)	2.7 mm Locking Drill Guide (MS-LDG27)	2.0 mm x 5" Quick Release Drill (MS-DC5020)	6–70 mm Depth Gauge, 2 mm Increments (MS-9022)	2.5 mm Quick Release Hex Driver (HPC-0025)	Large Cannulated Quick Release Driver Handle (MS-3200)

Anterior Clavicle Plate Surgical Technique [continued]

Figure 4



3 Plate Selection

Reduce the fracture by placing the Reduction Forceps With Serrated Jaw (PL-CL04) on both the medial and lateral fragments. Distract, elevate, and rotate the lateral fragment to obtain reduction. Select an appropriately sized Anterior Clavicle Plate (70-01XX) from the different lengths and curvatures in the system. Place the two middle screw slots or holes on either side of the fracture line, ideally leaving three locking and/or nonlocking holes both medial and lateral to the fracture fragments. The plate may be slid medially or laterally to achieve the best fit. In cases of nonunion or malunion, the curve of the plate may assist in anatomic reduction of the clavicle, reducing strain on the SC and AC joints.

Note: For a more anatomical fit, the plate may be rotated 180 degrees.

Prior to placement of the plate, lag screw fixation across the major fracture fragments may be performed. Reduction forceps or .045" or .059" K-wires (WS-1106ST or WS-1505ST) may be used to reduce and stabilize butterfly fragments to the main medial and lateral clavicle fragments.

If a lag screw technique is desired, reference the chart below for instrumentation related to each screw size option. A CO/CA Countersink (PL-2080) is also available if desired.

Screw Size Option	Near Cortex Drill	Far Cortex Drill	Depth Gauge
3.5 mm Nonlocking Hexalobe Screw (30-02XX)	3.5 mm x 5" Quick Release Drill (MS-DC35)	2.8 mm Quick Release Drill (80-0387)	Depth Gauge 6–65 mm (80-0623)
3.0 mm Nonlocking Hexalobe Screw (30-03XX)	3.0 mm x 5" Quick Release Drill (80-1088)	2.3 mm Quick Release Drill (80-0627)	Depth Gauge 6–65 mm (80-0623)
Optional 3.5 mm (Nonlocking) Cortical (Hex) Screw (CO-3XX0)	3.5 mm x 5" Quick Release Drill (MS-DC35)	2.8 mm x 5" Quick Release Drill (MS-DC28)	6–70 mm Depth Gauge, 2 mm Increments (MS-9022)
Optional 2.7 mm (Nonlocking) Cortical (Hex) Screw (CO-27XX)	2.8 mm x 5" Quick Release Drill (MS-DC28)	2.0 mm x 5" Quick Release Drill (MS-DC5020)	6–70 mm Depth Gauge, 2 mm Increments (MS-9022)

Anterior Clavicle Plate Surgical Technique [continued]

6 Locking Screw Insertion

For locking screw insertion, reference the chart below for instrumentation related to each screw size option. Note that when utilizing either the 2.8 mm Hexalobe Locking Drill Guide 6–65 mm (80-0668), or the 2.3 mm Locking Drill Guide 6–65 mm (80-0622), the screw length can be estimated by matching the laser line on the drill with the markings on the drill guide. When in between sizes, it is recommended to choose the shorter screw option. Advance screws until the head fully engages the plate.

Note: Tapping with the 2.7 mm Cortical Screw Bone Tap (MS-LTT27) or 3.5 mm Cortical Screw Bone Tap (MS-LTT35) is recommended for patients with dense bone. The locking drill guide must be removed prior to tapping.

Depending on the degree of comminution, demineralized bone matrix, iliac crest autograft, or allograft bone chips may be used to fill areas devoid of bone.¹ In hypertrophic nonunions, callus from the nonunion site may be sufficient to provide graft material.



Figure 7

Screw Size Option	Locking Drill Guide	Drill	Depth Gauge	Driver	Driver Handle
3.5 mm Locking Hexalobe Screw (30-02XX)	2.8mmHexalobe Locking Drill Guide 6–65 mm (80-0668)	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)
3.0 mm Locking Hexalobe Screw (30-02XX)	2.3 mm Locking Drill Guide 6–65 mm (80-0622)	2.3 mm Quick Release Drill (80-0627)	Depth Gauge 6–65 mm (80-0623)	T15 Stick Fit Hexalobe Driver (80-0760)	Large Cannulated Quick Release Driver Handle (MS-3200)
Optional 3.5 mm Locking Cortical (Hex) Screw (COL-3XXO)	3.5 mm Locking Drill Guide (MS-LDG35)	2.8 mm x 5" Quick Release Drill (MS-DC28)	6–70 mm Depth Gauge, 2 mm Increments (MS-9022)	2.5 mm Quick Release Hex Driver (HPC-0025)	Large Cannulated Quick Release Driver Handle (MS-3200)
Optional 2.7 mm Locking Cortical (Hex) Screw (COL-2XXO)	2.7 mm Locking Drill Guide (MS-LDG27)	2.0 mm x 5" Quick Release Drill (MS-DC5020)	6–70 mm Depth Gauge, 2 mm Increments (MS-9022)	2.5 mm Quick Release Hex Driver (HPC-0025)	Large Cannulated Quick Release Driver Handle (MS-3200)

Superior Distal Clavicle Plate Surgical Technique [continued]

For remaining proximal locking screw insertion, refer to the chart below for instrumentation related to each screw size option. Note that when utilizing either the 2.8 mm Hexalobe Locking Drill Guide 6–65 mm (80-0668), or the 2.3 mm Locking Drill Guide 6–65 mm (80-0622), the screw length can be estimated by matching the laser line on the drill with the markings on the drill guide. When in between sizes, it is recommended to choose the shorter screw option. Advance screws until the head fully engages the plate.

Note: Tapping with the 2.7 mm Cortical Screw Bone Tap (MS-LTT27) or 3.5 mm Cortical Screw Bone Tap (MS-LTT35) is recommended for patients with dense bone. The locking drill guide must be removed prior to tapping. Depending on the degree of comminution, demineralized bone matrix, iliac crest autograft, or allograft, bone chips may be used to fill areas devoid of bone.¹ In hypertrophic nonunions, callus from the nonunion site may be sufficient to provide graft material.

Figure 13



Screw Size Option	Locking Drill Guide	Drill	Depth Gauge	Driver	Driver Handle
3.5 mm Locking Hexalobe Screw (30-02XX)	2.8 mm Hexalobe Locking Drill Guide 6–65 mm (80-0668)	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)
3.0 mm Locking Hexalobe Screw (30-02XX)	2.3 mm Locking Drill Guide 6–65 mm (80-0622)	2.3 mm Quick Release Drill (80-0627)	Depth Gauge 6–65 mm (80-0623)	T15 Stick Fit Hexalobe Driver (80-0760)	Large Cannulated Quick Release Driver Handle (MS-3200)
Optional 3.5 mm Locking Cortical (Hex) Screw (COL-3XX0)	3.5 mm Locking Drill Guide (MS-LDG35)	2.8 mm x 5" Quick Release Drill (MS-DC28)	6–70 mm Depth Gauge, 2 mm Increments (MS-9022)	2.5 mm Quick Release Hex Driver (HPC-0025)	Large Cannulated Quick Release Driver Handle (MS-3200)
Optional 2.7 mm Locking Cortical (Hex) Screw (COL-2XX0)	2.7 mm Locking Drill Guide (MS-LDG27)	2.0 mm x 5" Quick Release Drill (MS-DC5020)	6–70 mm Depth Gauge, 2 mm Increments (MS-9022)	2.5 mm Quick Release Hex Driver (HPC-0025)	Large Cannulated Quick Release Driver Handle (MS-3200)

Acu-Sinch® Repair System [continued]

Figure 8

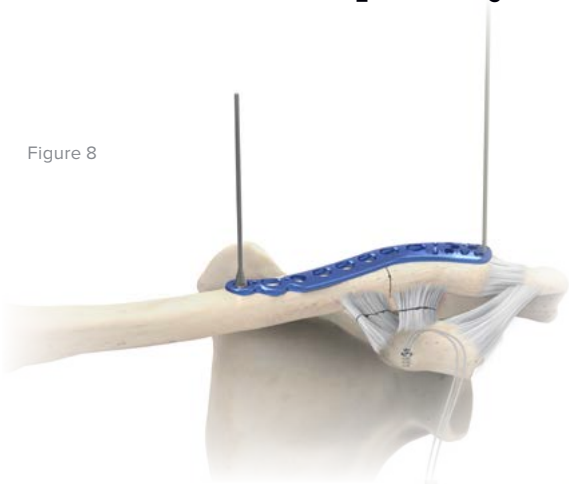


Figure 9

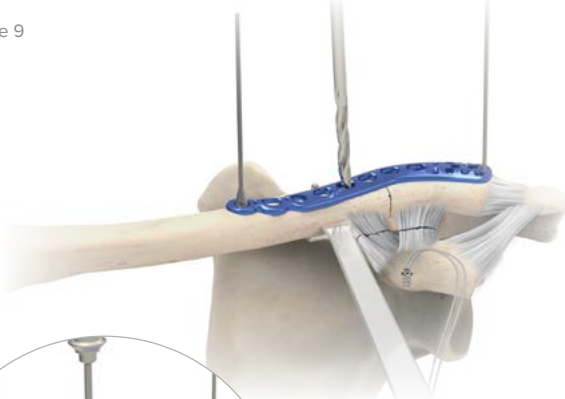


Figure 10

6 Plate Placement

Once the plate's ideal positioning has been selected, provisionally stabilize it to the clavicle with Plate Tacks (PL-PTACK) or Plate Clamps (80-0223). Under radiographic evaluation, place a .059" x 5" K-wire (WS-1505ST) through the designated K-wire hole at the far distal end of the plate to ensure that the plate does not infringe upon the AC joint.

7 Nonlocking Screw Insertion

For early stability, place the first two screws medial and lateral to the fracture site.

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 over-penetration when drilling.

Caution: Replace the drill if it comes in contact with the clavicle retractor.

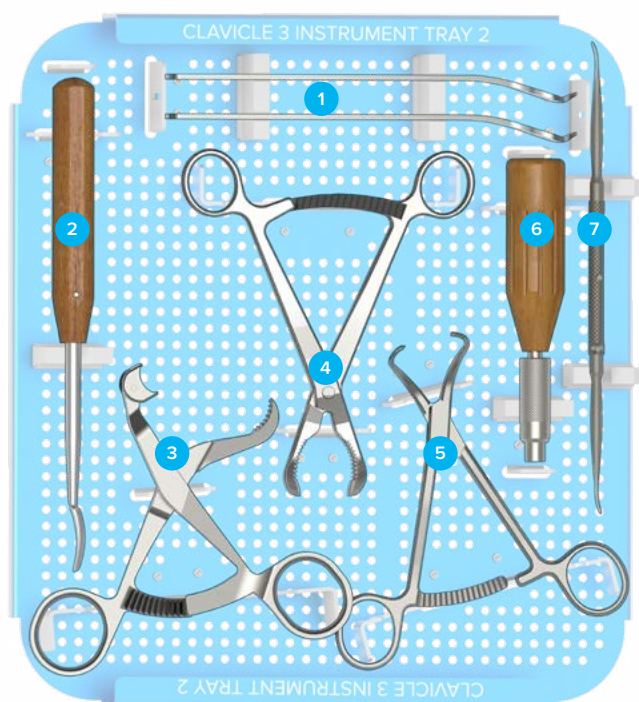
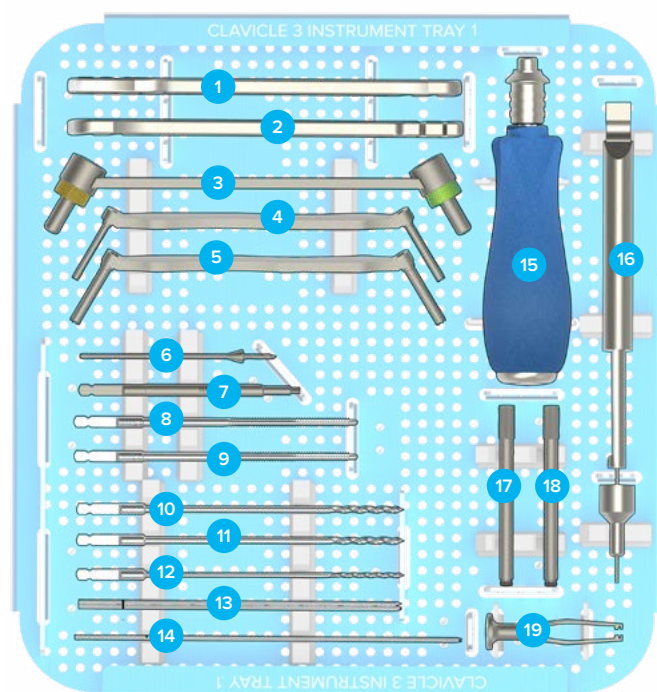
Note: Based on the number of anchors, make sure to leave one or two of the compression slots located above the coracoid empty to allow for insertion of the suture retainer.

Caution: When drilling through the slot (or slots), care should be taken to protect the Acu-Sinch Repair System suture from the drill bit and to avoid damage of neurovascular structures.

If drilling for 3.5 mm size screws, the Offset Drill Guide (PL-2095) is available to assist in providing compression. The green side of the drill guide is neutral, while the gold side will generate compression when used in a compression slot on the plate.

Screw Size Option	Drill	Depth Gauge	Driver	Driver Handle
3.5 mm Nonlocking Hexalobe Screw (30-02XX)	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)
3.0 mm Nonlocking Hexalobe Screw (30-03XX)	2.3 mm Quick Release Drill (80-0627)	Depth Gauge 6–65 mm (80-0623)	T15 Stick Fit Hexalobe Driver (80-0760)	Large Cannulated Quick Release Driver Handle (MS-3200)
Optional 3.5 mm (Nonlocking) Cortical (Hex) Screw (CO-3XX0)	2.8 mm x 5" Quick Release Drill (MS-DC28)	6–70 mm Depth Gauge, 2 mm Increments (MS-9022)	2.5 mm Quick Release Hex Driver (HPC-0025)	Large Cannulated Quick Release Driver Handle (MS-3200)
Optional 2.7 mm (Nonlocking) Cortical (Hex) Screw (CO-27XX)	2.0 mm x 5" Quick Release Drill (MS-DC5020)	6–70 mm Depth Gauge, 2 mm Increments (MS-9022)	2.5 mm Quick Release Hex Driver (HPC-0025)	Large Cannulated Quick Release Driver Handle (MS-3200)

Ordering Information [continued]



Tray Components

Instrumentation

1	Plate Bender	PL-2040
2	Plate Bender, Large	PL-2045
3	Offset Drill Guide	PL-2095
4	2.0 mm/2.8 mm Thin Drill Guide	PL-2118
5	2.8 mm/3.5 mm Thin Drill Guide	PL-2196
6	Plate Tack	PL-PTACK
7	2.5 mm Quick Release Hex Driver	HPC-0025
8	3.5 mm Cortical Screw Bone Tap	MS-LTT35
9	2.7 mm Cortical Screw Bone Tap	MS-LTT27
10	3.5 mm x 5" Quick Release Drill*	MS-DC35
11	2.8 mm x 5" Quick Release Drill*	MS-DC28
12	2.0 mm x 5" Quick Release Drill*	MS-DC5020
13	.059" x 5" ST Guide Wire†	WS-1505ST
14	.045" x 6" ST Guide Wire**	WS-1106ST
15	Large Cannulated Quick Release Driver Handle	MS-3200
16	6 mm–70 mm Depth Gauge, 2 mm Increments	MS-9022
17	2.7 mm Locking Drill Guide	MS-LDG27
18	3.5 mm Locking Drill Guide	MS-LDG35
19	3.5 mm Screw Driver Sleeve	MS-SS35

Tray Components

Instrumentation

1	15 mm Hohmann Retractor	MS-46827
2	Periosteal Elevator	MS-46212
3	Plate Clamp	80-0223
4	Reduction Forceps With Serrated Jaw	PL-CL04
5	Small Pointed Reduction Forceps	OW-1200
6	Quick Release Handle	MS-1210
7	Freer Elevator, 7.5	MS-57614

†Also used as a K-wire

*Implants and screws are also available sterile-packed. Add an “-S” at end of product number for sterile product. For more details on sterile products, including pricing, contact our Business Services Department toll free at 888.627.9957.