

For Fragment-Specific Fracture Fixation
With Variable Angle (VA) Locking Technology

2.4 mm Variable Angle LCP[®] Dorsal Distal Radius Plate

Surgical Technique

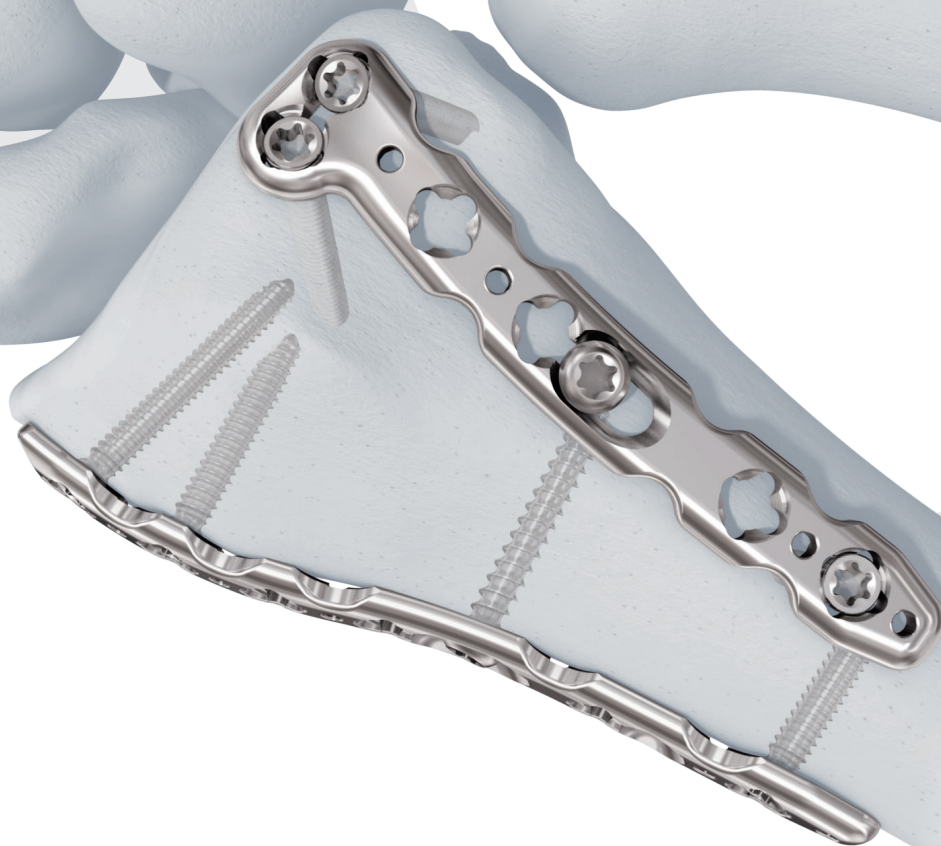


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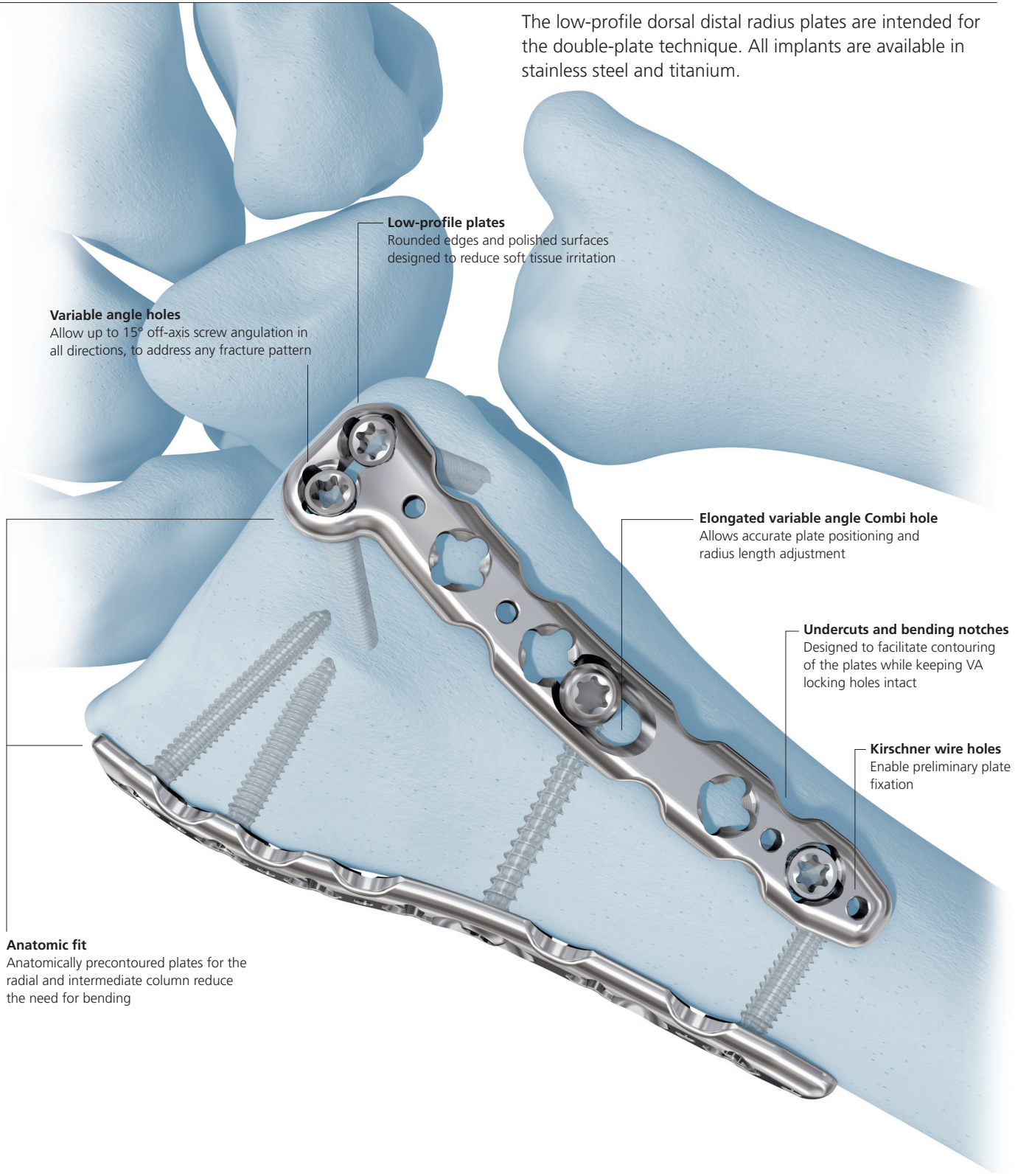
MR Information

The 2.4 mm Variable Angle LCP Dorsal Distal Radius Plate System has not been evaluated for safety and compatibility in the MR environment. It has not been tested for heating, migration or image artifact in the MR environment. The safety of the 2.4 mm Variable Angle LCP Dorsal Distal Radius Plate System in the MR environment is unknown. Scanning a patient who has this device may result in patient injury.

 Image intensifier control

2.4 mm Variable Angle LCP® Dorsal Distal Radius Plate. For fragment-specific fixation with variable angle (VA) locking technology.

The low-profile dorsal distal radius plates are intended for the double-plate technique. All implants are available in stainless steel and titanium.



AO Principles

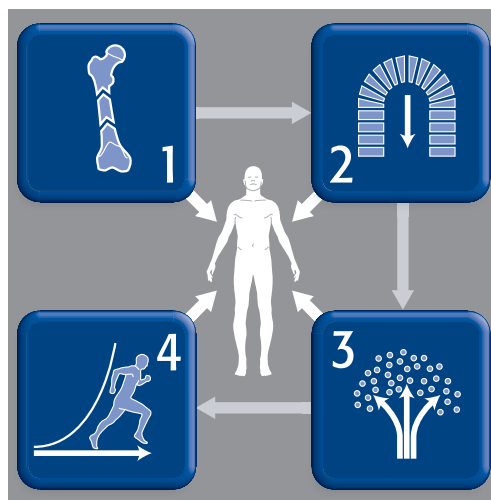
In 1958, the AO formulated four basic principles, which have become the guidelines for internal fixation.^{1,2}

Anatomic reduction

Fracture reduction and fixation to restore anatomical relationships.

Early, active mobilization

Early and safe mobilization and rehabilitation of the injured part and the patient as a whole.



Stable fixation

Fracture fixation providing absolute or relative stability, as required by the patient, the injury, and the personality of the fracture.

Preservation of blood supply

Preservation of the blood supply to soft tissues and bone by gentle reduction techniques and careful handling.

1. Müller ME, Allgöwer M, Schneider R, Willenegger H. *Manual of Internal Fixation*. 3rd ed. Berlin, Heidelberg, New York: Springer-Verlag; 1991.
2. Rüedi TP, RE Buckley, CG Moran. *AO Principles of Fracture Management*. 2nd ed. Stuttgart New York: Thieme; 2007.

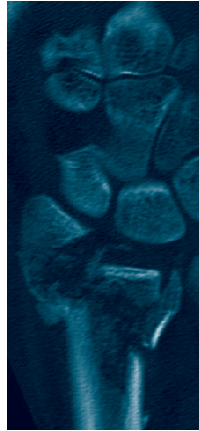
Indications

The 2.4 mm Variable Angle LCP Dorsal Distal Radius Plates are intended for fixation of complex intra- and extra-articular fractures and osteotomies of the distal radius and other small bones in adults, skeletally mature adolescents, and the following adolescent distal radius fractures: intra-articular fractures exiting the epiphysis, intra-articular fractures exiting the metaphysis, physeal crush injuries, and any injuries which cause growth arrest to the distal radius.

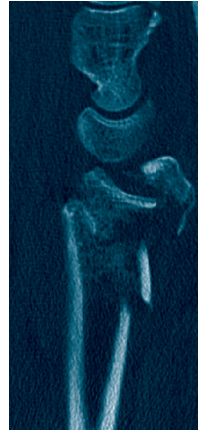
Clinical Cases

Case 1

59-year-old male
AO 23-C2 fracture



Preoperative, AP view



Preoperative, lateral view



Postoperative, AP view



Postoperative, lateral view

Case 2

69-year-old female
AO 23-A2 fracture



Preoperative, AP view



Preoperative, lateral view



Postoperative, AP view



Postoperative, lateral view

Three-Column Theory

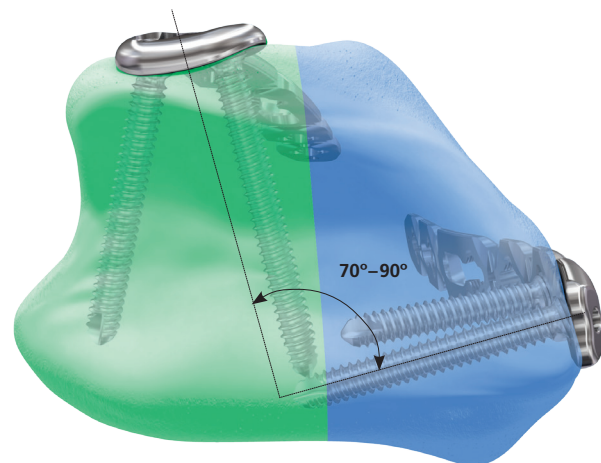
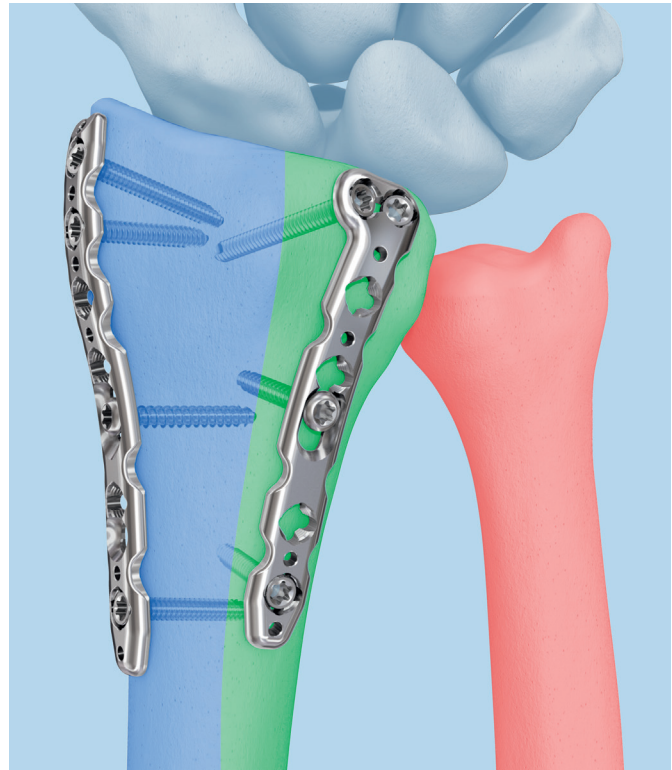
The treatment of distal radius fractures requires reconstruction of the joint surface, stable internal fixation, and early functional postoperative treatment. Extra-articular fractures require restoration of both the volar tilt and the radial length, to reduce the possibility of displacement. Malalignment may result in limitations of movement, changes of load distribution, midcarpal instability, and increased risk of osteoarthritis in the radiocarpal joint. Intra-articular fractures with articular displacement of more than 2 mm in the radiocarpal joint may result in osteoarthritis and functional impairment.

The distal radius and distal ulna form a three-column biomechanical construction³:

- The radial column is the lateral radius with the scaphoid fossa and the styloid process.
- The intermediate column is the medial part of the distal radius, with the lunate fossa and the sigmoid notch.
- The ulnar column is the distal ulna, the triangular fibrocartilage and the distal radioulnar joint.

A dorsally displaced fracture of the distal radius indicates not only dorsiflexion in the sagittal plane, but also radial deviation in the frontal plane and supination in the transverse plane.

Following reduction, stabilization requires optimal fixation of both the intermediate column and the radial column. In a fractured distal ulna that compromises the distal radio-ulnar joint, the ulnar column must be stabilized as well.



- Radial column
- Intermediate column
- Ulnar column

3. D.A. Rikli, P. Regazzoni: "Fractures of the distal end of the radius treated by internal fixation and early function. A preliminary report of 20 cases." *J Bone Joint Surg [Br]* 78 (4): 588–592. 1996

Technique Overview

Screws

Screw insertion technique

Instrument

03.110.000	1.8 mm Universal Variable Angle Locking Drill Guide
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Optional instruments

03.110.023	1.8 mm Universal Variable Angle Locking Drill Guide, cone
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03.110.024	1.8 mm Universal Variable Angle Locking Drill Guide, coaxial
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Variable angle locking screws can be inserted using one of the following techniques:

Option A: Variable angle technique

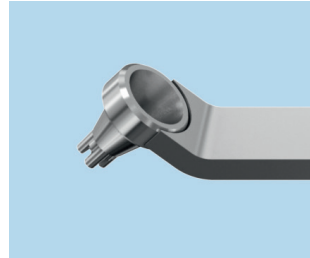
To drill variable angle holes up to 15° off-axis from the nominal trajectory of the locking hole, insert the variable angle locking drill guide tip (cone-shaped end) and key it into the cloverleaf design of the VA locking hole.

Drill variable angle holes at the desired angle. The drill guide should remain in place and the drill bit may be aimed in any direction within the cone.

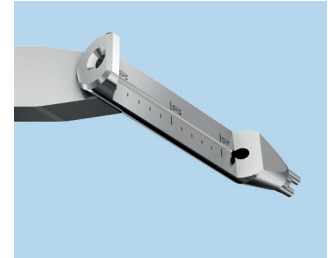
Precaution: It is important not to angulate more than 15° from the central axis of the screw hole. Overangulation could result in inappropriate screw-locking. Moreover, the screw head may not be fully countersunk.

Option B: Predefined nominal angle technique

The fixed-angle end of the variable angle locking drill guide only allows the drill bit to follow the nominal trajectory of the VA locking hole.



Use this guide for off-axis drilling



Use this guide for fixed-angle drilling

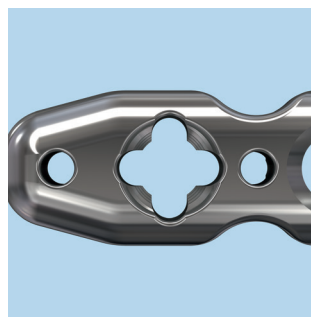


Screw type determination

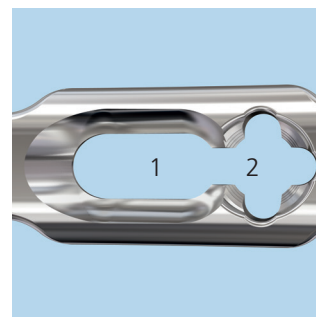
Determine whether standard cortex screws or variable angle locking screws will be used for fixation of the shaft.

VA locking holes accept:

- 2.4 mm VA locking screws
- 1.8 mm VA locking buttress pins
- 2.4 mm locking screws (only at nominal angle)
- 1.8 mm locking buttress pins (only at nominal angle)
- 2.4 mm cortex screws



VA Locking hole



Elongated VA Combi hole

The compression portion (1) of elongated VA Combi holes accept:

- 2.4 mm cortex screws

The threaded portion (2) of elongated VA Combi holes accept:

- 2.4 mm VA locking screws
- 1.8 mm VA locking buttress pins
- 2.4 mm locking screws (only at nominal angle)
- 1.8 mm locking buttress pins (only at nominal angle)
- 2.4 mm cortex screws

VA locking screws in the distal portion of the plate support the articular surface and prevent loss of reduction.

The final screw placement and the use of VA locking and cortex screws are determined by the fracture pattern.

If a VA locking screw is inserted first, ensure that the plate is held securely to the bone, to prevent the plate from spinning as the screw locks into the plate.

When using the pre-defined nominal angle technique, standard locking screws can also be used instead of VA locking screws in a variable angle hole.

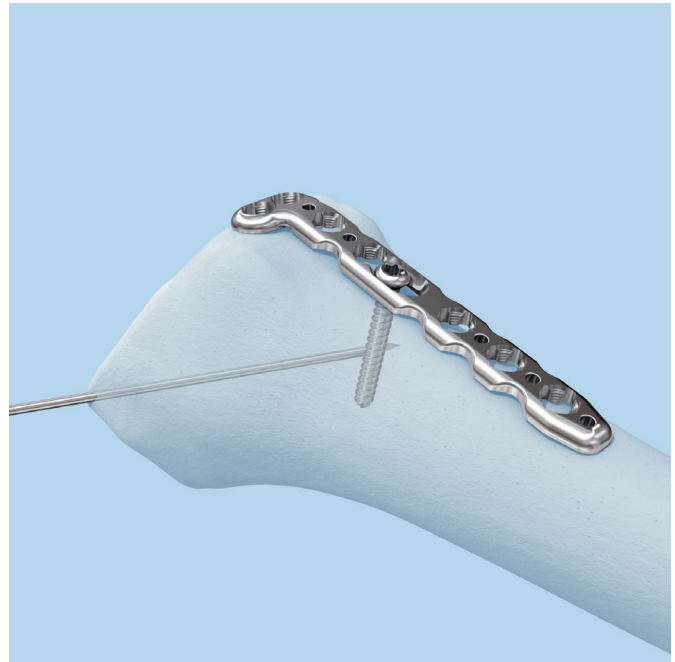
Precaution: The screwhead is not completely countersunk if a cortex screw is inserted in a variable angle hole.

Plates

1. Apply dorso-ulnar plate

It is recommended to apply the dorso-ulnar plate first and fix it by inserting a 2.4 mm cortex screw in the elongated VA Combi hole in the proximal shaft.

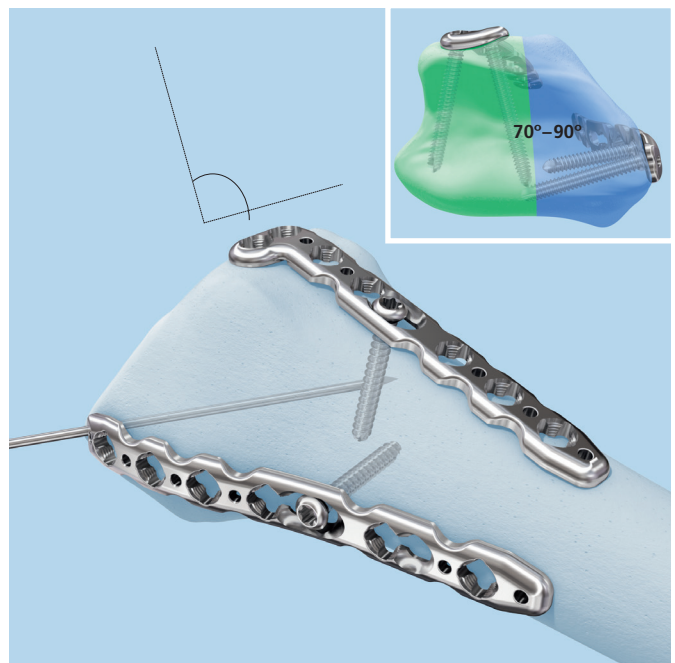
The plate supports the intermediate column and fixes the dorso-ulnar fragment.



2. Apply dorso-radial plate

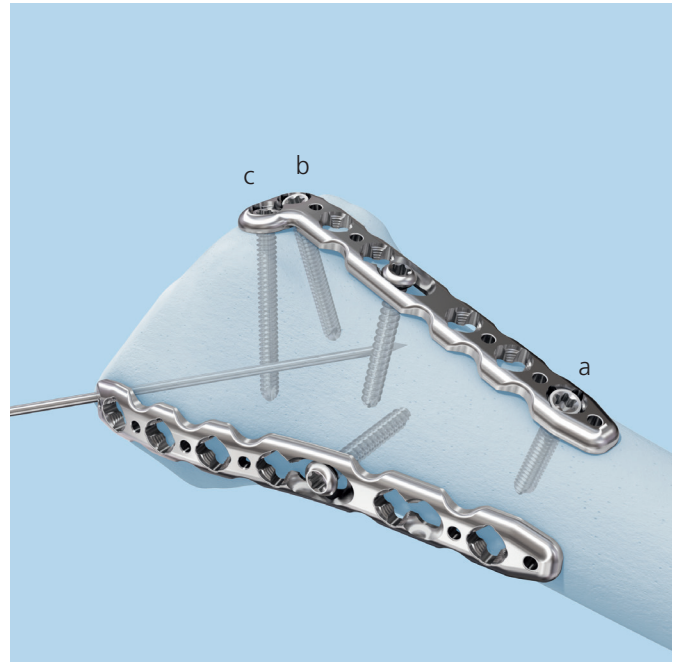
Apply the dorso-radial plate after provisional positioning of the dorso-ulnar plate by inserting a 2.4 mm cortex screw in the elongated VA Combi hole in the proximal shaft. It should form an angle of approximately 70° to the dorso-ulnar plate.

Use the small notch (horse-shoe tip) in the distal end of the plate to position the dorso-radial plate properly.



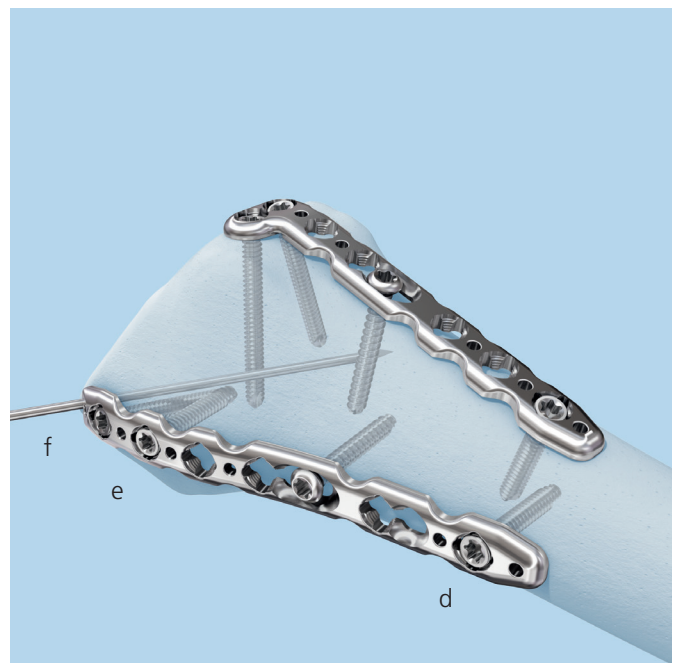
3. Insert screws in dorso-ulnar plate

Insert a 2.4 mm VA locking screw in the most proximal hole in the shaft of the dorso-ulnar plate (a). Complete internal fixation by inserting 2.4 mm VA locking screws in the distal arm of the plate (b, c).



4. Insert screws in dorso-radial plate

Insert a 2.4 mm VA locking screw in the most proximal hole in the shaft of the dorso-radial plate (d). Complete internal fixation by inserting 2.4 mm VA locking screws in the distal arm of the plate (e, f).



Preparation

Select Implants

Select the plates according to the fracture pattern and anatomy of the bone.

Note: This surgical technique describes the application of 2.4 mm VA LCP® Dorsal Distal Radius Plates, using the plates 02.115.151 and 02.115.540.

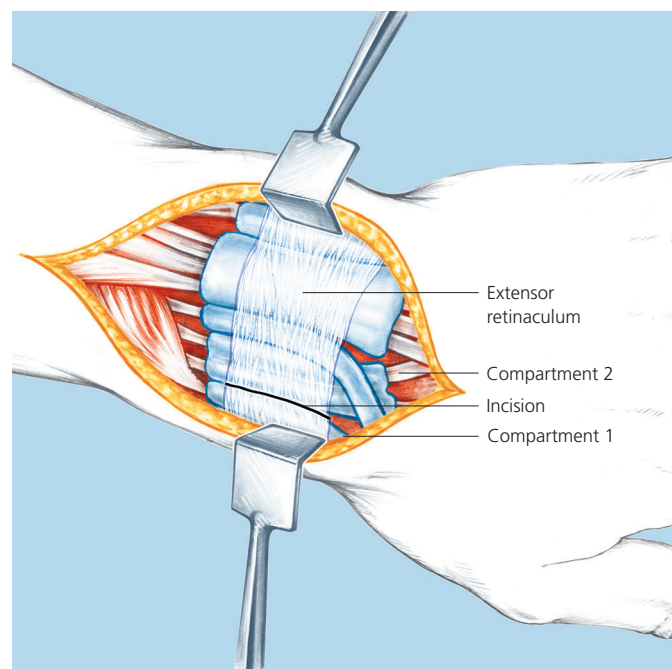
Approach

Make a straight longitudinal incision over the dorsal radius extending 5 cm to 10 cm between the second and third dorsal extensor compartments. Open the extensor retinaculum performing a longitudinal incision between the first and second extensor compartments.

Elevate and mobilize the third compartment (extensor pollicis longus) proximally and distally, and translocate it radially for better access to the fracture site.

Elevate the second and fourth dorsal compartments subperiosteally to preserve their integrity.

For additional information on technique alternatives see Rikli (2005).⁴



4. D.A. Rikli, A. Businger, R. Babst: "Dorsal double-plate fixation of the distal radius." Oper Orthop. Trauma Vol 17(6): 624-640. 2005

Plate Insertion

1

Reduce fracture

Reduce the fracture under radiographic imaging and, if necessary, fix with Kirschner wires or reduction forceps. The reduction method will be fracture-specific.

2

Contour plate

Instrument

329.12	Bending Pliers, 140 mm, for 1.5 mm and 2.0 mm plates
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If necessary, twist and bend the plate to suit anatomical conditions as indicated. Avoid repetitive bending.

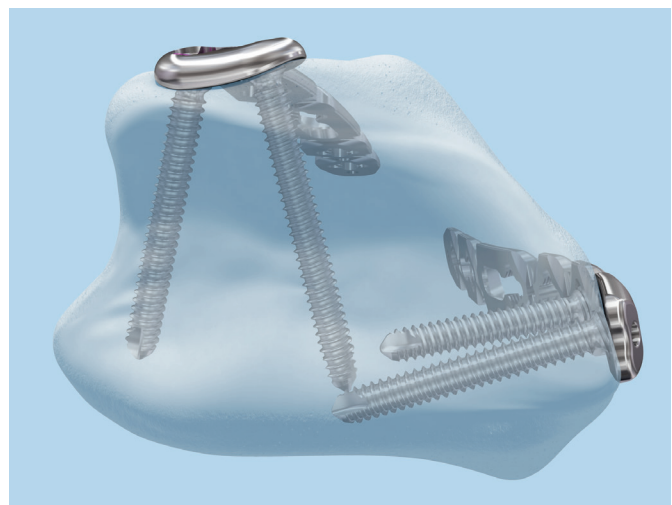
The anatomically precontoured plates do not usually require any contouring.

Note: Use nonserrated bending pliers for preservation of the plate's smooth finish.

Precautions:

The design of the plate holes allows a certain degree of deformation. Undercuts help protect the threaded holes from distortion. Significant deformation of the VA locking holes reduces the locking effectiveness.

Reverse bending or use of the incorrect instrumentation for bending may weaken the plate and lead to premature plate failure (e.g., breakage). Do not bend the plate beyond what is required to match the anatomy.



3

Position plate

Instruments

292.12	1.25 mm Kirschner Wire, 150 mm trocar point, 10/pkg.
399.97	Reduction Forceps, with points, 130 mm length, ratchet

Position the plate over the reduced fracture and, if necessary, fix provisionally with 1.25 mm Kirschner wires or reduction forceps.

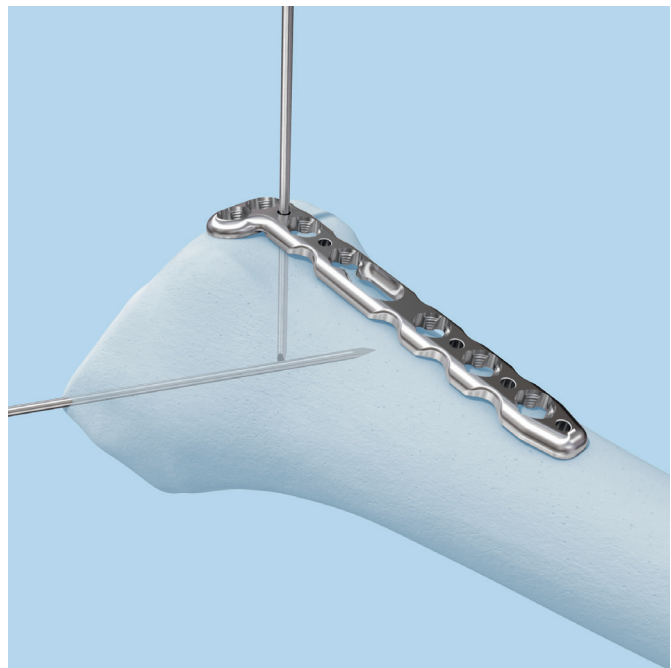
Optional instruments

02.111.500.10	1.25 mm Plate Reduction Wire, with threaded tip with small stop, 150 mm, 10/pkg.
02.111.501.10	1.25 mm Plate Reduction Wire, with threaded tip with large stop, 150 mm, 10/pkg.

If necessary, a 1.25 mm plate reduction wire, with small stop, may be used through a K-wire hole to temporarily hold the plate to the bone, and in position.

Alternatively, a 1.25 mm plate reduction wire, with large stop, may be used through the DCU portion of the Combi hole.

Precaution: The plate reduction wires are single-use items; do not reuse.



Screw Insertion

Cortex Screws

1

Drill screw hole for cortex screw

Instruments

310.509	1.8 mm Drill Bit with depth mark, quick coupling, 110 mm
323.202	2.4 mm Universal Drill Guide

Using the 2.4 mm universal drill guide, drill through the nonthreaded portion of the elongated Combi hole.

Note: Use the 1.8 mm drill bit when inserting a 2.4 mm cortex screw.



2

Determine screw length

Instrument

03.111.005	Depth Gauge, for 2.0 mm, 2.4 mm and 2.7 mm screws
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Using the depth gauge, determine screw length.



3

Insert cortex screw

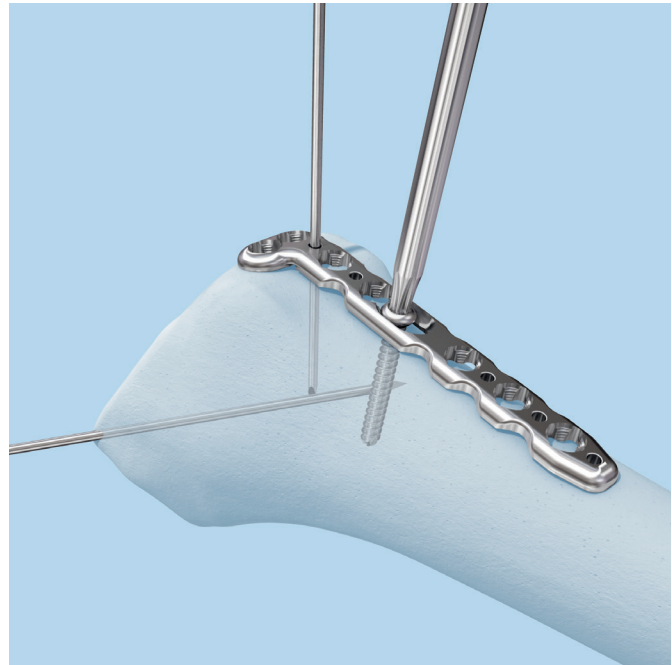
Instruments

311.43	Handle, with quick coupling
314.453	Short StarDrive Screwdriver Shaft, T8, self-holding, quick coupling, 55 mm

Optional instrument

314.467	StarDrive Screwdriver Shaft, T8, 105 mm
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Insert the self-tapping cortex screw, using a T8 StarDrive™ Screwdriver. Adjust the plate position as necessary, and tighten the screw.



Variable Angle Locking Screws

1

Drill screw hole over VA locking screw

Option A: Using variable angle technique

Instruments

03.110.000	1.8 mm Universal Variable Angle Locking Drill Guide
310.509	1.8 mm Drill Bit with depth mark, quick coupling, 110 mm

Alternative instrument

03.110.023	1.8 mm Variable Angle Locking Drill Guide, cone
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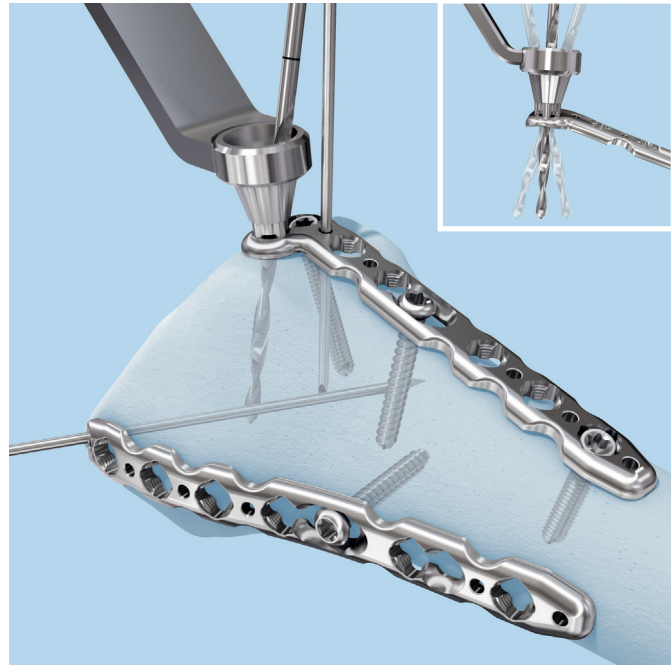
Insert and lock the variable angle locking drill guide tip into the cloverleaf design of the VA LCP Plate hole.

Use the 1.8 mm drill bit to drill to the desired depth, at the desired angle.

The cone-shaped end of the drill guide allows the drill bit up to 15° angulation around the central axis of the locking hole.

To achieve the desired angle, verify the drill bit angle under radiographic imaging. If necessary, drill at a different angle and verify again.

Note: The previously inserted K-wire may be used as a reference for screw angulation by using radiographic imaging.



Option B: Using nominal angle technique

Instruments

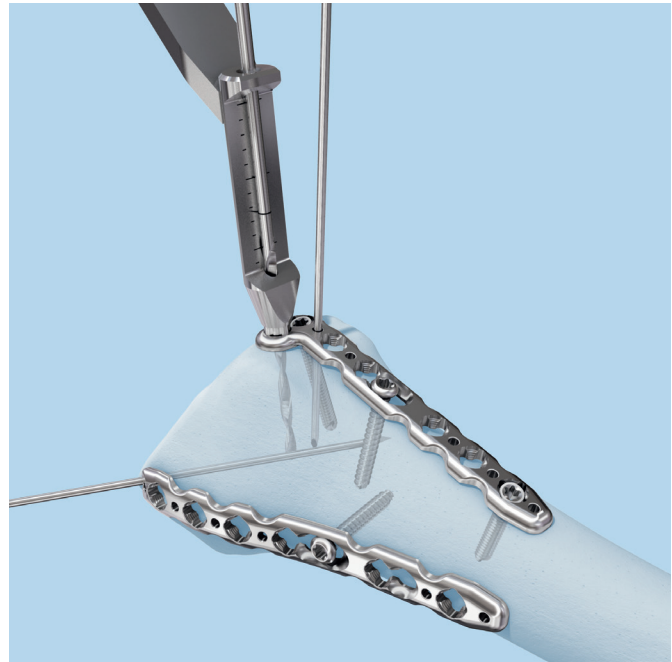
03.110.000	1.8 mm Universal Variable Angle Locking Drill Guide
310.509	1.8 mm Drill Bit with depth mark, quick coupling, 110 mm

Alternative instrument

03.110.024	1.8 mm Variable Angle Locking Drill Guide, coaxial
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Insert and lock the fixed-angle end of the drill guide into the cloverleaf design of the VA LCP Plate hole. This end of the drill guide only allows the drill bit to follow the nominal trajectory of the locking hole.

Use the 1.8 mm drill bit to drill to the desired depth.



2

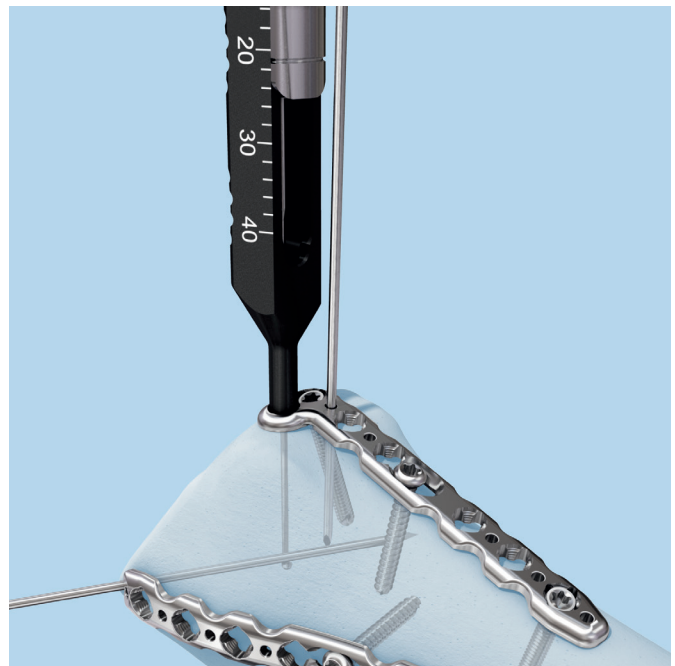
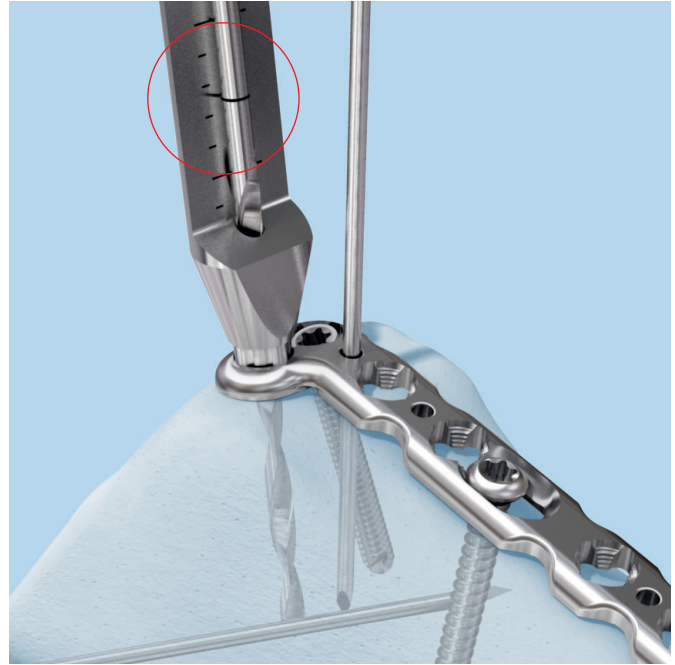
Determine screw length

Read the screw length directly from the laser mark on the drill bit.

Alternative instrument

03.111.005	Depth Gauge, for 2.0 mm, 2.4 mm and 2.7 mm screws
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Alternatively, use the depth gauge to determine the screw length.



3

Insert VA locking screws

Instruments

311.43	Handle, with quick coupling
314.453	Short StarDrive Screwdriver shaft, T8, self-holding, quick coupling, 55 mm

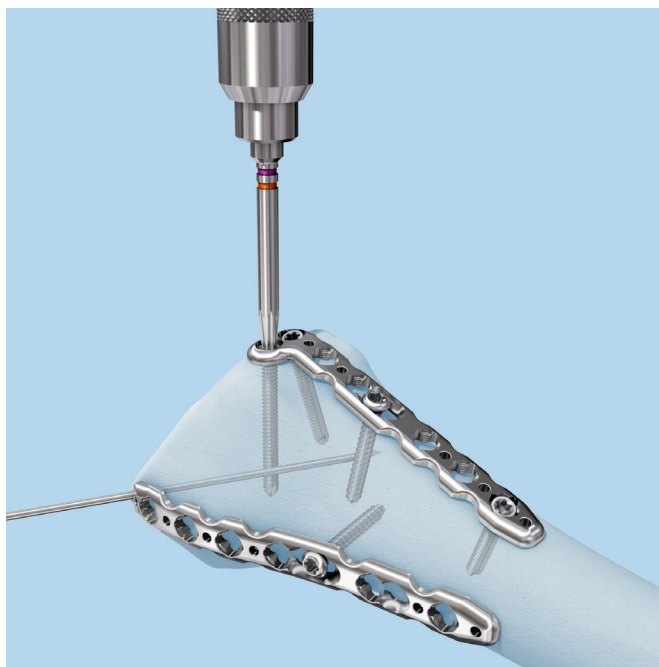
Alternative instrument

314.467	Short StarDrive Screwdriver shaft, T8, 105 mm
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Insert the 2.4 mm VA locking screws or 1.8 mm VA locking buttress pins manually, using a T8 StarDrive Screwdriver. Tighten just enough for the screwhead to fully seat in the locking hole.

When using the pre-defined nominal angle technique, standard locking screws can also be used instead of VA locking screws.

Do not overtighten the screws. This allows the screws to be easily removed and repositioned before final locking.

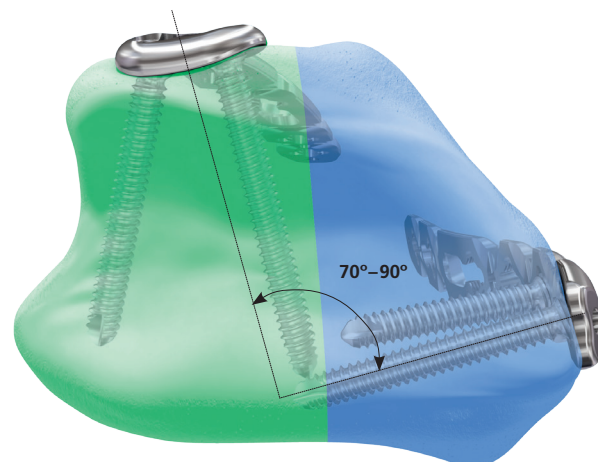
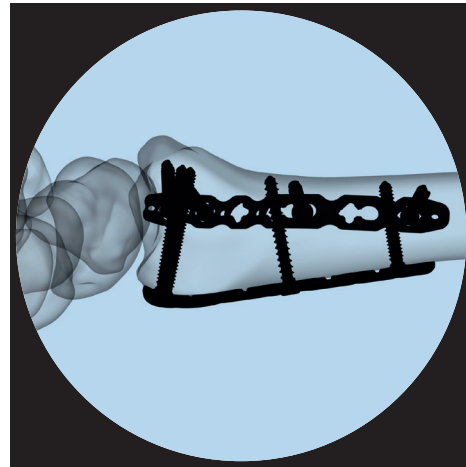


4

Confirm proper joint reconstruction

- Confirm proper joint reconstruction, screw placement and screw length using multiple radiographic images. To ensure that the screws are not in the joint, use additional views such as 10° dorsally tilted, 20° inclined lateral, and 45° pronated oblique.

In an AP view, the dorso-ulnar plate should be projected almost antero-posteriorly, the dorso-radial plate almost laterally, and vice versa for the lateral view. If the plates appear to be parallel, the dorso-radial plate is positioned too far on the ulnar side.



- Radial column
- Intermediate column

5

Lock variable angle screws

Instruments

03.110.005	Handle for Torque Limiting Attachment
314.453	Short StarDrive Screwdriver Shaft, T8, self-holding, quick coupling, 55 mm
511.776	Torque Limiting Attachment, 0.8 Nm, quick coupling

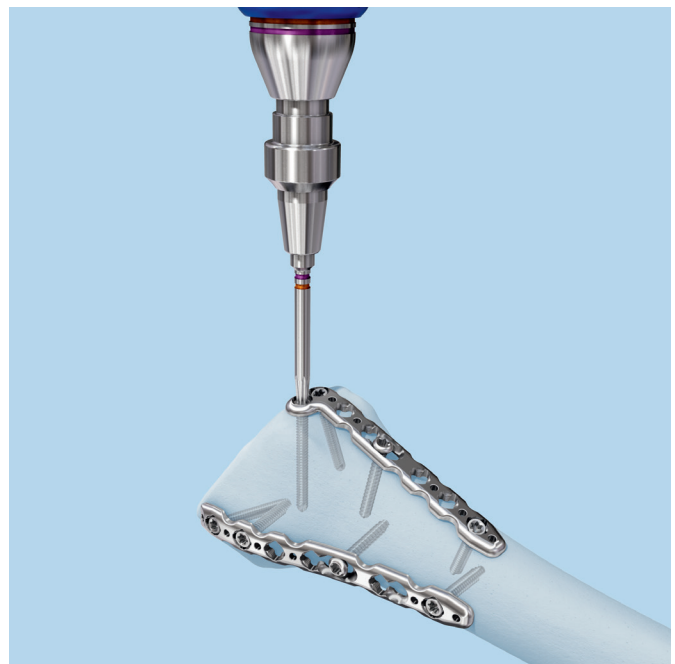
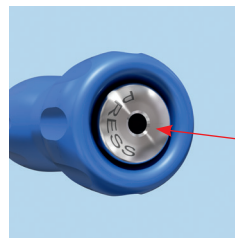
Alternative instrument

314.467	StarDrive Screwdriver Shaft, T8, 105 mm
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Use the 0.8 Nm torque limiting attachment (TLA) for final tightening of the 2.4 mm VA locking screws or 1.8 mm VA locking buttress pins.

The TLA attaches to the blue handle for torque limiting attachment, and a T8 StarDrive Screwdriver shaft.

Precaution: Use of the TLA is mandatory when inserting locking screws into variable angle locking holes, to ensure the adequate torque is applied. Final locking must be done manually using the TLA.



6

Close incision

Use the appropriate method for surgical closure of the incision.

Postoperative Treatment

Postoperative treatment with VA LCP Plates does not differ from conventional internal fixation procedures.

Implant Removal

Instruments

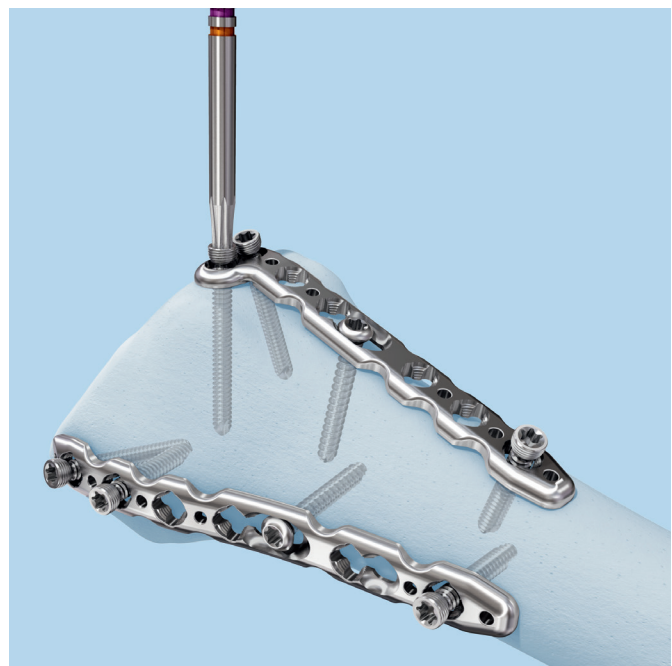
311.43	Handle, with quick coupling
314.453	Short StarDrive Screwdriver Shaft, T8, self-holding, quick coupling, 55 mm

Alternative instruments

314.467	Short StarDrive Screwdriver Shaft, T8, 105 mm
314.468	Holding Sleeve, for StarDrive Screwdriver Shaft, T8

To remove locking screws, first unlock all screws from the plate; then remove the screws completely from the bone.

The last screw removed should be a non-locking screw on the shaft. This prevents the plate from spinning when locking screws are removed.



Implants

Plates

2.4 mm Variable Angle LCP Dorsal Distal Radius Plates, Radial Column

Stainless Steel	Titanium	Shaft Holes	Length (mm)	Angle
02.115.530	04.115.530	5	46	
02.115.540	04.115.540	6	57	



2.4 mm Variable Angle LCP Dorsal Distal Radius Plates, Intermediate Column, 2 holes head

Note: The plates for the right radius (0x.115.630 and 0x.115.640) are angled left and the plates for the left radius (0x.115.631 and 0x.115.641) are angled right.

Stainless Steel	Titanium	Shaft Holes	Length (mm)	Angle
02.115.630	04.115.630	3	41	+90°
02.115.631	04.115.631	3	41	-90°
02.115.640	04.115.640	4	49	+90°
02.115.641	04.115.641	4	49	-90°



2.4 mm Variable Angle LCP Dorsal Distal Radius L-Plates, 2 holes head

Stainless Steel	Titanium	Shaft Holes	Length (mm)	Angle
02.115.130	04.115.130	3	37	+90°
02.115.131	04.115.131	3	37	-90°
02.115.150	04.115.150	5	51	+90°
02.115.151	04.115.151	5	51	-90°



All plates are also available sterile packed.
Add "S" to catalog number to order sterile product.

2.4 mm Variable Angle LCP Dorsal Distal Radius L-Plates, 3 holes head

Stainless Steel	Titanium	Shaft Holes	Length (mm)	Angle
02.115.230	04.115.230	3	37	+90°
02.115.231	04.115.231	3	37	-90°
02.115.250	04.115.250	5	51	+90°
02.115.251	04.115.251	5	51	-90°



2.4 mm VA-LCP Dorsal Distal Radius L-Plates, oblique, 3 holes head

Stainless Steel	Titanium	Shaft Holes	Length (mm)	Angle
02.115.430	04.115.430	3	41	+20°
02.115.431	04.115.431	3	41	-20°
02.115.450	04.115.450	5	55	+20°
02.115.451	04.115.451	5	55	-20°



2.4 mm VA-LCP Dorsal Distal Radius T-Plates, 3 holes head

Stainless Steel	Titanium	Shaft Holes	Length (mm)
02.115.330	04.115.330	3	37
02.115.350	04.115.350	5	51



All plates are also available sterile packed.
Add "S" to catalog number to order sterile product.

Implants

Screws

2.4 mm Variable Angle Locking Screws

- For use in VA locking holes
- Self-tapping, StarDrive Recess
- Lengths from 8 mm to 30 mm
- Available in stainless steel or titanium alloy*



Important: For final locking the 0.8 Nm torque limiting attachment is required.

2.4 mm Cortex Screws

- For use in round or Combi holes
- Self-tapping, StarDrive Recess
- Lengths from 6 mm to 30 mm
- Available in stainless steel or titanium alloy*



1.8 mm Variable Angle Locking Buttress Pins

- For use in VA locking holes
- StarDrive Recess
- Lengths from 8 mm to 30 mm
- Available in stainless steel or titanium alloy*



Important: For final locking the 0.8 Nm torque limiting attachment is required.

2.4 mm Locking Screws

- For use in VA locking holes but only in the predefined nominal angle
- Self-tapping, StarDrive Recess
- Lengths from 6 mm to 30 mm
- Available in stainless steel or titanium alloy*



Important: For final locking the 0.8 Nm torque limiting attachment is required.

* Implant-quality 316L stainless steel
Titanium alloy (Ti-6Al-7Nb)

Instruments

03.110.000 1.8 mm Universal Variable Angle Locking Drill Guide



03.110.005 Handle for Torque Limiting Attachment



03.111.005 Depth Gauge, for 2.0 mm, 2.4 mm and 2.7 mm screws



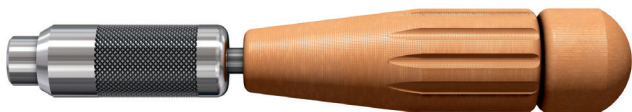
292.12 1.25 mm Kirschner Wire, 150 mm, trocar point, 10/pkg.



310.509 1.8 mm Drill Bit with depth mark, quick coupling, 110 mm



311.43 Handle, with quick coupling



314.453 Short StarDrive Screwdriver Shaft, T8, self-holding, quick coupling, 55 mm



314.467 StarDrive Screwdriver Shaft, T8, 105 mm



323.202 2.4 mm Universal Drill Guide



511.776 Torque Limiting Attachment, 0.8 Nm, quick coupling



Optional Instruments

02.111.500.10 1.25 mm Plate Reduction Wire, threaded tip with small stop, 150 mm, 10/pkg.



02.111.501.10 1.25 mm Plate Reduction Wire, threaded tip with large stop, 150 mm, 10/pkg.



03.110.023 1.8 mm Variable Angle Locking Drill Guide, cone



03.110.024 1.8 mm Variable Angle Locking Drill Guide, coaxial



2.4 mm Variable Angle LCP Dorsal Distal Radius Plate Module Set

Stainless Steel (01.115.000) and Titanium (01.115.001)

Module

60.111.476 Module for 2.4 mm VA-LCP Dorsal Distal Radius Plates

Implants

2.4 mm Variable Angle LCP Dorsal Distal Radius Plates, Radial Column

Stainless Steel	Titanium	Holes	Length (mm)
02.115.530	04.115.530	5	46
02.115.540	04.115.540	6	57

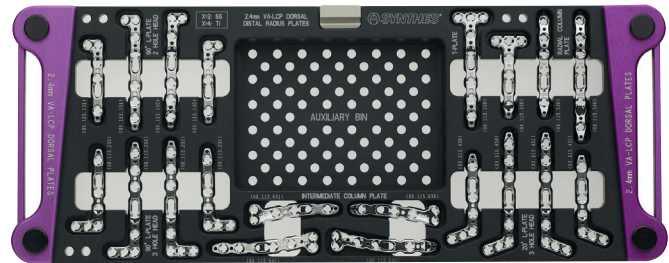
2.4 mm Variable Angle LCP Dorsal Distal Radius Plates, Intermediate Column, 2 holes head

Note: The plates for the right radius (0x.115.630 and 0x.115.640) are angled left and the plates for the left radius (0x.115.631 and 0x.115.641) are angled right.

Stainless Steel	Titanium	Shaft Hole	Length (mm)	Angled
02.115.630	04.115.630	3	41	+90°
02.115.631	04.115.631	3	41	-90°
02.115.640	04.115.640	4	49	+90°
02.115.641	04.115.641	4	49	-90°

2.4 mm Variable Angle LCP Dorsal Distal Radius L-Plates, 2 holes head

Stainless Steel	Titanium	Shaft Hole	Length (mm)	Angled
02.115.130	04.115.130	3	37	+90°
02.115.131	04.115.131	3	37	-90°
02.115.150	04.115.150	5	51	+90°
02.115.151	04.115.151	5	51	-90°



Note: For additional information, please refer to the package insert or www.e-ifu.com.

For detailed cleaning and sterilization instructions, please refer to www.depuysynthes.com/hcp/cleaning-sterilization or sterilization instructions, if provided in the instructions for use.

2.4 mm Variable Angle LCP Dorsal Distal Radius L-Plates,
3 holes head

Stainless Steel	Titanium	Shaft Hole	Length (mm)	Right Angled
02.115.230	04.115.230	3	37	+90°
02.115.231	04.115.231	3	37	-90°
02.115.250	04.115.250	5	51	+90°
02.115.251	04.115.251	5	51	-90°

2.4 mm Variable Angle LCP Dorsal Distal Radius L-Plates,
oblique, 3 holes head

Stainless Steel	Titanium	Shaft Hole	Length (mm)	Oblique Angled
02.115.430	04.115.430	3	41	+20°
02.115.431	04.115.431	3	41	-20°
02.115.450	04.115.450	5	55	+20°
02.115.451	04.115.451	5	55	-20°

2.4 mm Variable Angle LCP Dorsal Distal Radius T-Plates,
3 holes head

Stainless Steel	Titanium	Shaft Hole	Length (mm)
02.115.330	04.115.330	3	37
02.115.350	04.115.350	5	51

Instrument

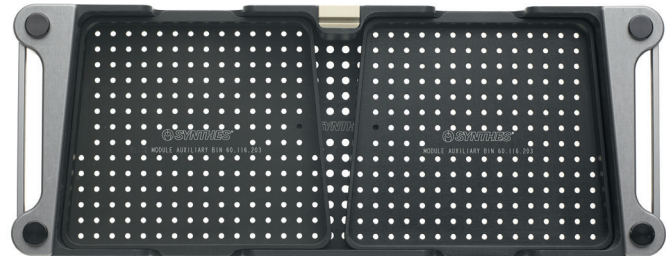
511.776 Torque Limiting Attachment, 0.8 Nm,
quick coupling*

* 0.8 TLA must be used with the 2.4 mm VA LCP Dorsal Distal Radius Plates.
This TLA can be housed on the instrument tray in the main graphic case.

2.4 mm Variable Angle LCP Dorsal Distal Radius Plate Bin Set Stainless Steel (01.115.010) and Titanium (01.115.011)

Module

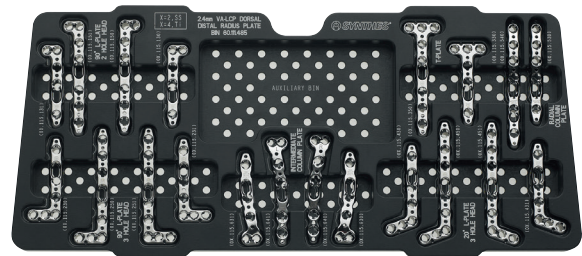
60.111.485	Module Bin, Full Length, ½ Height, for 2.4 mm VA-LCP Dorsal Distal Radius Plates
60.116.203	Auxiliary Bin, ½ length, ½ height, 2 ea.
60.116.052	Module Shell, for Plate Trays and Auxiliary Trays



Implants

2.4 mm Variable Angle LCP Dorsal Distal Radius Plates, Radial Column

Stainless Steel	Titanium	Holes	Length (mm)
02.115.530	04.115.530	5	46
02.115.540	04.115.540	6	57



2.4 mm Variable Angle LCP Dorsal Distal Radius Plates, Intermediate Column, 2 holes head

Note: The plates for the right radius (0x.115.630 and 0x.115.640) are angled left and the plates for the left radius (0x.115.631 and 0x.115.641) are angled right.

Stainless Steel	Titanium	Shaft Hole	Length (mm)	Angled
02.115.630	04.115.630	3	41	+90°
02.115.631	04.115.631	3	41	-90°
02.115.640	04.115.640	4	49	+90°
02.115.641	04.115.641	4	49	-90°

2.4 mm Variable Angle LCP Dorsal Distal Radius L-Plates, 2 holes head

Stainless Steel	Titanium	Shaft Hole	Length (mm)	Angled
02.115.130	04.115.130	3	37	+90°
02.115.131	04.115.131	3	37	-90°
02.115.150	04.115.150	5	51	+90°
02.115.151	04.115.151	5	51	-90°

2.4 mm Variable Angle LCP Dorsal Distal Radius L-Plates,
3 holes head

Stainless Steel	Titanium	Shaft Hole	Length (mm)	Angled
02.115.230	04.115.230	3	37	+90°
02.115.231	04.115.231	3	37	-90°
02.115.250	04.115.250	5	51	+90°
02.115.251	04.115.251	5	51	-90°

2.4 mm Variable Angle LCP Dorsal Distal Radius L-Plates,
oblique, 3 holes head

Stainless Steel	Titanium	Shaft Hole	Length (mm)	Angled
02.115.430	04.115.430	3	41	+20°
02.115.431	04.115.431	3	41	-20°
02.115.450	04.115.450	5	55	+20°
02.115.451	04.115.451	5	55	-20°

2.4 mm Variable Angle LCP Dorsal Distal Radius T-Plates,
3 holes head

Stainless Steel	Titanium	Shaft Hole	Length (mm)
02.115.330	04.115.330	3	37
02.115.350	04.115.350	5	51

Instrument

511.776 Torque Limiting Attachment, 0.8 Nm, quick
coupling*

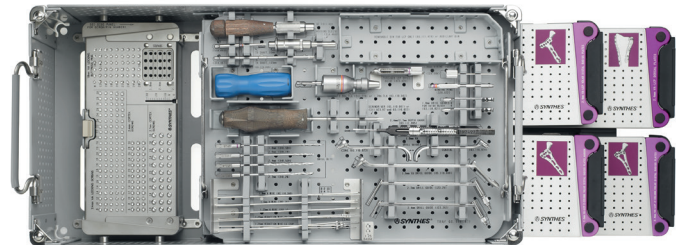
* 0.8 TLA must be used with the 2.4 mm VA LCP Dorsal Distal Radius Plates.
This TLA can be housed on the instrument tray in the main graphic case.

2.4 mm Variable Angle LCP (VA LCP) Distal Radius System

Stainless Steel (01.111.478) and Titanium (01.111.479)

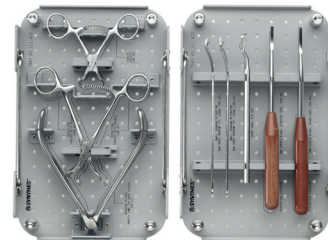
Graphic Cases and Trays

- 60.116.001 Graphic Case, Full Length, 4 bay for Modular Graphic Case System
- 60.111.471 $\frac{2}{3}$ Instrument Tray for LCP and VA-LCP Distal Radius Systems
- 60.111.472 $\frac{1}{2}$ Instrument Tray for Distal Radius, Forceps and Bending Pliers
- 60.111.473 $\frac{1}{3}$ Instrument Tray for Distal Radius, Retractors, Hook and Elevators



Instruments

- 02.111.500.10 1.25 mm Plate Reduction Wire, threaded tip with small stop, 150 mm, 1 pkg. of 10 ea.
- 02.111.501.10 1.25 mm Plate Reduction Wire, threaded tip with large stop, 150 mm, 1 pkg. of 10 ea.
- 03.110.000 1.8 mm Universal Variable Ankle Locking Drill Guide
- 03.110.005 Handle for Torque Limiting Attachment
- 03.110.007 StarDrive Screwdriver, T8
- 03.110.021 1.8 mm Drill Guide with Measuring for Guide Block
- 03.110.023 1.8 mm Variable Angle Locking Drill Guide, cone
- 03.110.024 1.8 mm Variable Angle Locking Drill Guide, coaxial
- 03.111.005 Depth Gauge for 2.4 to 2.7 mm Screws
- 03.111.007 Positioning Screw for Variable Angle LCP Two-Column Plate Guide Block
- Drill Bits, quick coupling, 100 mm
- 310.19 2.0 mm
- 310.26 2.7 mm
- 310.509 1.8 mm
- 310.530 2.4 mm
- 311.43 Handle, with quick coupling
- 314.453 Short StarDrive Screwdriver Shaft, T8, 55 mm
- 314.467 StarDrive Screwdriver Shaft, T8, 105 mm
- 314.468 Holding Sleeve, for StarDrive Screwdriver Shaft, T8
- 319.39 Sharp Hook



323.029	Threaded LCP Drill Guide	Includes implant sets:		
323.202	2.4 mm Universal Drill Guide	Stainless Steel	Titanium	
323.26	2.7 mm Universal Drill Guide	01.111.461	01.111.462	2.4 mm Variable Angle LCP (VA-LCP) Two-Column Volar Distal Radius Plate Set
324.084	1.25 mm K-wire Insert			
329.12	Bending Pliers, 140 mm, for 1.5 mm and 2.0 mm plates	01.111.480	01.111.481	2.4 mm Variable Angle LCP (VA-LCP) Narrow Two-Column Volar Distal Radius Plate Set
398.41	Reduction Forceps with Points, broad, ratchet, 132 mm			
398.95	Termite Forceps, 90 mm length	01.111.482	01.111.483	2.4 mm Variable Angle LCP (VA-LCP) Extra-Articular Distal Radius Plate Set
399.18	Hohmann Retractor, 6 mm width, small, short narrow top, 160 mm length			
399.48	Periosteal Elevator, 3 mm width, curved blade, straight edge	01.111.486	01.111.487	Screw Set for 2.4 mm Variable Angle LCP (VA-LCP) Distal Radius System
399.481	Periosteal Elevator, 3 mm width, curved blade, round edge	01.115.000	01.115.001	2.4 mm Variable Angle LCP (VA-LCP) Dorsal Distal Radius Plate Module Set
399.97	Reduction Forceps, with points, 130 mm length, ratchet			
511.776	Torque Limiting Attachment, 0.8 Nm, quick coupling			

Kirschner Wires, 150 mm, trocar point, 1 pkg. of 10 ea.

	Stainless Steel*	Titanium**	
02.110.300	04.110.300	1.8 mm	
292.12	492.12	1.25 mm	
292.16	492.16	1.6 mm	

60.116.054 Module Adapters, 4 pkg. of 2 ea.

Assembled on both ends of any 1-high module to prevent movement when housed in the module bay of the following graphic cases: 60.116.001, 60.116.003, 60.116.004, 60.116.005, 60.116.006

* 316L stainless steel

** Titanium alloy (Ti-6Al-4V)

Also Available. Components for use with Modular Graphic Case System.

Graphic Cases and Accessories

60.116.001	Graphic Case, Full Length, 4 Bay
60.116.003	Graphic Case, Full Length, One High
60.116.004	Graphic Case, $\frac{2}{3}$ Length, 4 Bay
60.116.005	Graphic Case, $\frac{2}{3}$ Length, 2 Bay
60.116.006	Graphic Case, $\frac{2}{3}$ Length, One High
60.116.014	Support Screws for Trays and Screw Racks, for use with Full Length Modular Graphic Cases
60.116.015	Lid, Full Length for Modular Graphic Case System
60.116.016	Lid, $\frac{2}{3}$ Length for Modular Graphic Case System

Instrument Trays

60.111.471	$\frac{2}{3}$ Length Instrument Tray for LCP and VA-LCP Distal Radius Systems
60.111.472	$\frac{1}{3}$ Instrument Tray for Distal Radius, Forceps and Bending Pliers
60.111.473	$\frac{1}{3}$ Instrument Tray for Distal Radius, Retractors, Hook and Elevators
60.116.114	$\frac{1}{3}$ Length Auxiliary Tray
60.116.020	$\frac{1}{3}$ Length Instrument Tray for 2.4 mm Cortex and Variable Angle Screws

Plate Module and Bins

60.116.052	Module Shell for Plate Trays and Auxiliary Trays, for Modular Graphic Case System
60.116.200	Auxiliary Bin, full length, full height
60.116.203	Auxiliary Bin, $\frac{1}{2}$ length, $\frac{1}{2}$ height
	Module Bins $\frac{1}{2}$ length, $\frac{1}{2}$ height
60.111.481	For 6 hole head, volar column plates
60.111.482	For 7 hole head, volar column plates
60.111.483	For 8 hole head, volar column plates
60.111.484	For 9 hole head, volar column plates
60.111.478	Narrow 6 Hole Head, Two-Column Plates
60.111.479	6 Hole Head, Two-Column Plates
60.111.480	7 Hole Head, Two-Column Plates

Screw Module, Screw Blocks, and Accessories

60.116.050	Screw Module Shell, for Modular Graphic Case System
60.116.051	Lid for Screw Module Shell
60.116.058	2.4 mm Screw Block for Screw Module Shell
60.116.059	2.7 mm Screw Block for Screw Module Shell
60.116.013	Assembly Screws, for Screw Module Shell (5 pkg.)

Label Sheets

60.111.475	Graphic Case Label Sheet for Distal Radius Systems
60.116.554	Label Pack, for 2.4 mm screws and instruments for Modular Graphic Case System
60.116.555	Label Pack, for 2.7 mm screws and instruments for Modular Graphic Case System

Screw Type Push Pins (5 each)

60.116.452	Blank
60.116.503	Buttress
60.116.507	Cortex
60.116.513	Locking
60.116.521	VA Locking

Length Marker Push Pins (5 each)

	Length (mm)		Length (mm)
60.116.451	Blank	60.116.318	18
60.116.306	6	60.116.320	20
60.116.308	8	60.116.322	22
60.116.310	10	60.116.324	24
60.116.312	12	60.116.326	26
60.116.314	14	60.116.328	28
60.116.316	16	60.116.330	30

Alternative Distal Radius Sets. Sets for use with Modular Graphic Case System.

Stainless Steel	Titanium	
01.111.484	01.111.485	2.4 mm LCP and VA-LCP Distal Radius Instrument Set*

Instrument Tray Sets:

Stainless Steel	Titanium	
01.111.500	01.111.501	⅓ Instrument Tray, for LCP and Variable Angle LCP Distal Radius Systems
01.116.020		⅓ Instrument Tray for 2.4 mm Cortex and Variable Angle Locking Screws
01.111.516		⅓ Instrument Tray for Distal Radius, Forceps and Bending Pliers
01.111.517		⅓ Instrument Tray for Distal Radius, Retractors, Hook and Elevators

Screw Rack Set:

Stainless Steel	Titanium	
01.111.486	01.111.487	Screw Set for 2.4 mm Variable Angle LCP (VA-LCP) Distal Radius System

Screw Module Sets:

Stainless Steel	Titanium	
01.111.502	01.111.503	2.4 mm and 2.7 mm Variable Angle Locking Screw Module for Distal Radius
01.111.504	01.111.505	2.4 mm and 2.7 mm LCP Screw Module, for Distal Radius
01.111.506	01.111.507	2.4 mm and 2.7 mm LCP and Variable Angle Locking Screw Module, for Distal Radius
01.111.508	01.111.509	2.4 mm LCP and Variable Angle Locking Screw Module, for Distal Radius

Plate Module with Bin Sets

Stainless Steel	Titanium	
01.111.510	01.111.511	2.4 mm Variable Angle LCP Two-Column Plate Module, with Bins
01.111.512	01.111.513	2.4 mm LCP Volar Column Plate Module, with Bins
01.111.514	01.111.515	2.4 mm Two-Column and Volar Column Plate Module, with Bins

* Includes 60.116.001 Graphic Case.

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