

Part of the DePuy Synthes Variable Angle
Periarticular Plating System

3.5 mm VA LCP[®] Proximal Tibia Plate System

Surgical Technique



TABLE OF CONTENTS

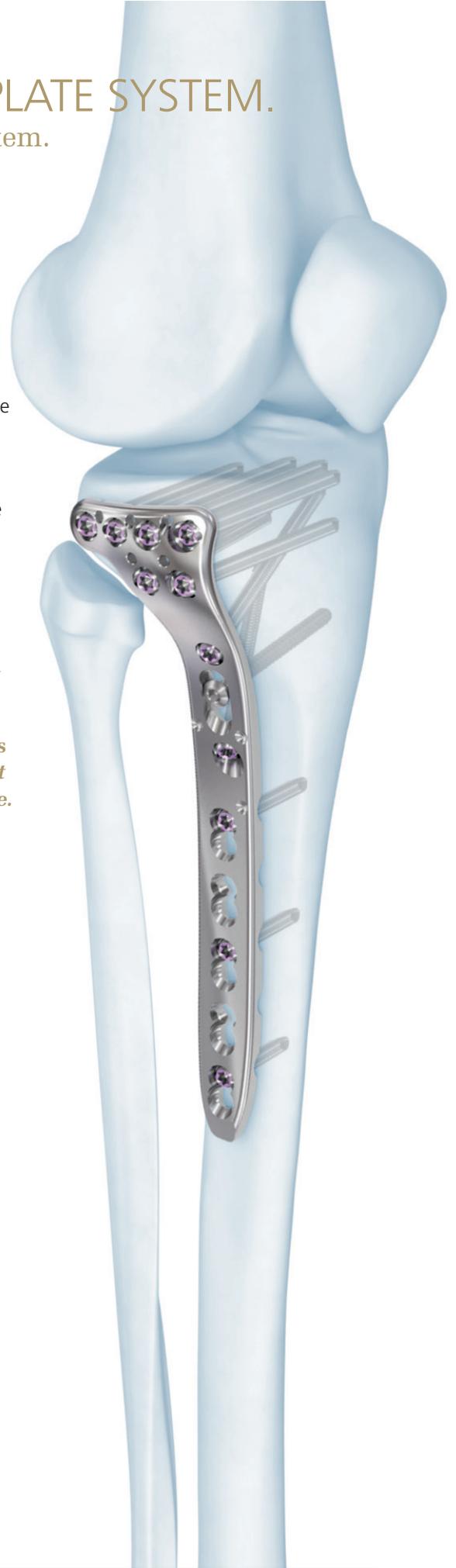
INTRODUCTION	VA LCP® Proximal Tibia Plate	2
	AO Principles	4
	Indications	5
SURGICAL TECHNIQUE	Preparation	6
	Reduce Articular Surface	8
	Plate Insertion and Fixation	9
	Screw Insertion in the Plate Head	
	• 3.5 mm VA Locking Screws in the Proximal Row	23
	• 3.5 mm VA Locking Screws in the Second Row	29
	Screw Insertion in the Plate Shaft	
	• 3.5 mm Cortex Screws in the Plate Shaft	31
	• 3.5 mm VA Locking Screws in the Plate Shaft	37
	Screw Insertion in the Plate Neck	
• 3.5 mm VA Locking Screws in the Distal Neck Hole	42	
• 3.5 mm VA Locking Screws in the Proximal Neck Hole	48	
PRODUCT INFORMATION	Implants	50
	Instruments	54
	Sets	57

MR Information

The 3.5 mm VA LCP Proximal Tibia 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 3.5 mm VA LCP Proximal Tibia Plate System in the MR environment is unknown. Scanning a patient who has this device may result in patient injury.

3.5 MM VA LCP® PROXIMAL TIBIA PLATE SYSTEM.

Part of the Variable Angle Periarticular Plating System.



The DePuy Synthes 3.5 mm VA LCP Proximal Tibia Plate is part of the VA LCP® Periarticular Plating System which merges variable angle locking screw technology with conventional plating techniques.

The 3.5 mm VA LCP Proximal Tibia Plate System has many similarities to standard locking fixation methods, with a few important improvements. Variable angle locking screws provide the ability to create a fixed-angle construct while also allowing the surgeon the freedom to choose the screw trajectory before “fixing” the angle of the screw.

A fixed-angle construct provides advantages in osteopenic bone or multifragmentary bridge-plated fractures where screws do not rely on plate-to-bone compression to resist patient load.

The 3.5 mm VA LCP Proximal Tibia Plate has variable angle holes in the plate head and neck, along with variable angle Combi holes in the plate shaft that combine a dynamic compression unit (DCU) hole with a variable angle locking screw hole. The variable angle Combi hole provides the flexibility of axial compression and variable angle locking capability throughout the length of the plate shaft.

Note: For information on fixation principles using conventional and locked plating techniques, please refer to the DePuy Synthes *Small Fragment LCP Instrument and Implant Set Technique Guide*.

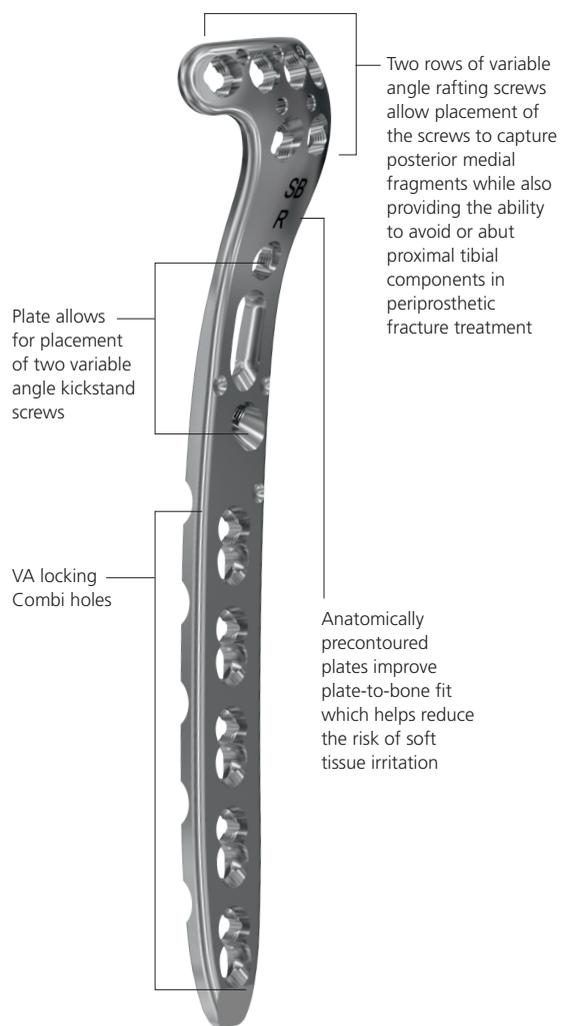
3.5 mm VA LCP Proximal Tibia Plate

- Available in two bends (small and large bend) to accommodate varying tibial anatomies
- SB (small bend) and LB (large bend) are marked on the plates for easy differentiation between the two bends



3.5 mm VA LCP Proximal Tibia Plate System.
Part of the Variable Angle Periarticular Plating System.

- Head includes six variable angle locking screw holes and five K-wire holes with notches that can be used for provisional fixation using K-wires and sutures
- Available with 4, 6, 8, 10, 12, and 14 holes in the plate shaft
- The plate head and neck include VA locking holes, while the plate shaft includes variable angle Combi holes.
- In the plate neck, a long hole allows for compression, preliminary fixation and plate adjustment
- The head of the 3.5 mm variable angle locking screw is rounded to facilitate various angles within the locking hole
- Available in stainless steel
- Available sterile and nonsterile



The variable angle holes of the plate allow a screw angulation of 15° in each direction forming a 30° cone around the central axis of the plate hole.



3.5 mm variable angle locking screws are color-coded for easy differentiation from standard locking screws.

Four columns of threads in the variable angle locking hole provide four points of threaded locking between the VA LCP Plate and the variable angle locking screw, forming a fixed-angle construct at the desired screw angle.

Instruments

- Aiming arm facilitates minimally invasive screw insertion
- Universal aiming arm, which can be used for all plate types (left, right, small bend, large bend)
- Aiming arm attaches at the neck of the plate, which allows for better visualization of the tibial condyle and articular reduction during fixation



AO PRINCIPLES

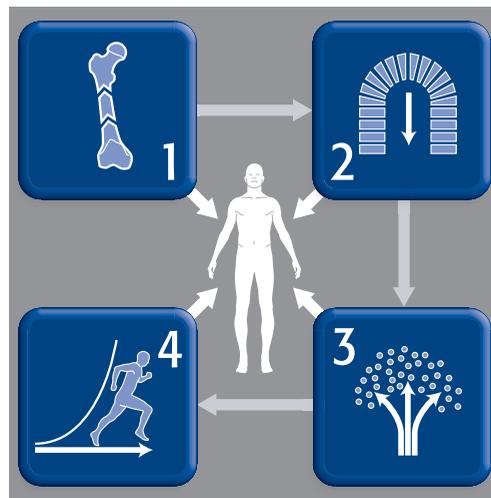
In 1958, the AO formulated four basic principles, which have become the guidelines for internal fixation.^{1,2}

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 DePuy Synthes 3.5 mm VA LCP Proximal Tibia Plates are intended to treat fractures of the proximal tibia in adults and adolescents in which the growth plates have fused including: simple, comminuted, lateral wedge, depression, medial wedge, bicondylar combination of lateral wedge and depression, periprosthetic, and fractures with associated shaft fractures. Plates can also be used for treatment of nonunions, malunions, tibial osteotomies and osteopenic bone.



PREPARATION

1

Preparation

Required sets

01.127.001	3.5 mm VA-LCP Proximal Tibia Implant and Instrument Set
01.127.004	3.5 mm VA-LCP Proximal Tibia Plate Aiming Instrument Set
105.434	Small Fragment LCP Instrument and Implant Set, with self-tapping screws

Optional sets

105.731	Medium Distractor Set
115.700	Large Distractor Set
115.720	Large External Fixator Set with Self-drilling Schanz Screws
115.992	Medium External Fixator Set with Self-drilling Schanz Screws

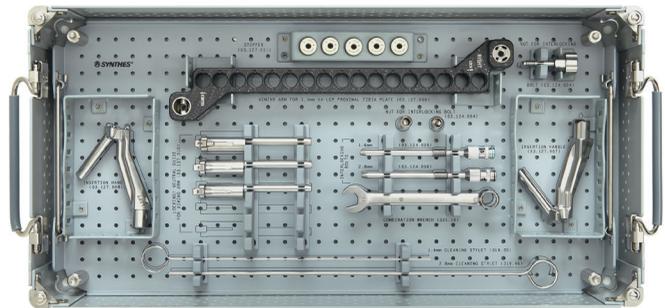
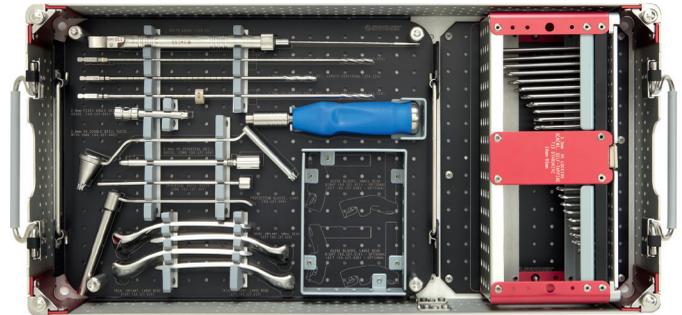
- Complete the preoperative radiographic assessment and prepare the preoperative plan. Determine plate length and instruments to be used.

Note: Preoperative planning of lag screws may be necessary.

It is recommended to position the patient supine on a radiolucent operating table.

- Visualization of the proximal tibia under fluoroscopy in both the lateral and AP views is necessary.

Note: In case of (associated) shaft fractures, it is essential to insert four screws per fragment. Be sure to choose a plate of appropriate length to incorporate these screws.



2

Make incision

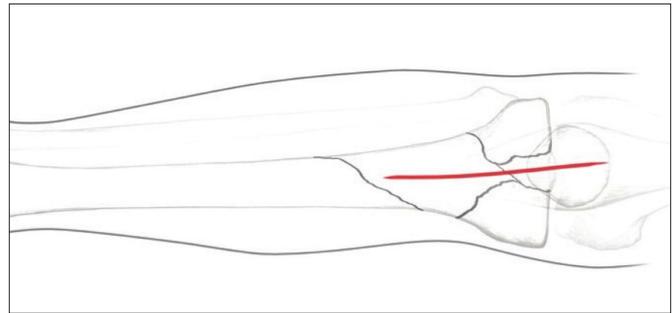
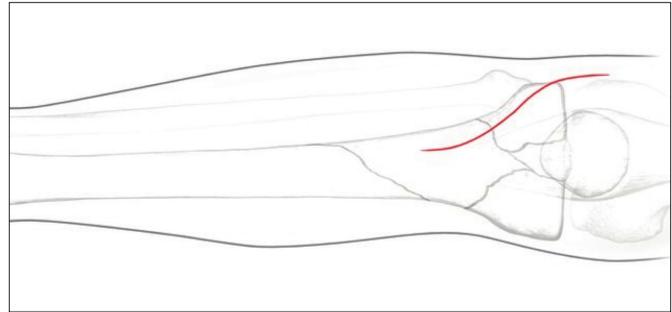
Lateral incision

A lateral "S" incision is recommended when a simple articular fracture (AO classification 41-C) or extra-articular fracture (AO classification 42 or 41A) is present.

Anterolateral incision

In the presence of a complex intra-articular fracture (AO classification 41-C or C3), perform an anterolateral approach. Perform arthrotomy to expose the joint for reduction. Extend the incision for adequate exposure of the joint for reduction and anatomic fixation.

Regardless of the surgical incision used, care should be taken to minimize soft tissue stripping.



REDUCE ARTICULAR SURFACE

3

Reduce articular surface

Optional sets

102.93	Interchangeable Gouge, Chisel and Impactor Set
105.731	Medium Distractor Set
105.907	Collinear Reduction Clamp Set
105.909	Periarticular Reduction Forceps Set
115.720	Large External Fixator Set with Self-drilling Schanz Screws
115.992	Medium External Fixator Set with Self-drilling Schanz Screws

Optional instruments

03.118.001	6.5 mm Periarticular Reduction Forceps, Ball and Pointed Tip, small
394.35	Large Distractor
399.98	Reduction Forceps, with points, ratchet, 205 mm
	Kirschner Wires



Note: Prior to reduction, application of an external fixator or distractor may facilitate reduction and visualization of the joint.

- Reduce the articular fracture fragments and confirm reduction using image intensification and direct visualization when possible. After reduction, fragments may be provisionally fixed using independent Kirschner wires. The independent K-wires can be placed flush with the lateral plateau cortex, thereby preventing conflict with plate insertion. K-wire holes are also provided on the plate to help maintain provisional reduction and establish provisional plate position.

PLATE INSERTION AND FIXATION

1

Determine plate type

Instruments

03.127.012	3.5 mm VA-LCP Proximal Tibia Trial Implant, Small Bend, Right
03.127.013	3.5 mm VA-LCP Proximal Tibia Trial Implant, Small Bend, Left
03.127.014	3.5 mm VA-LCP Proximal Tibia Trial Implant, Large Bend, Right
03.127.015	3.5 mm VA-LCP Proximal Tibia Trial Implant, Large Bend, Left

The trial implants can be used to determine which plate type (small bend or large bend) will best fit the proximal tibia. The trial implants are marked with "SB" and "LB" for easy differentiation.

Note: Take into consideration that the fractured bone might be broadened and lead to the identification of the wrong plate type. In this case, x-ray images of the other limb may be useful for comparison.

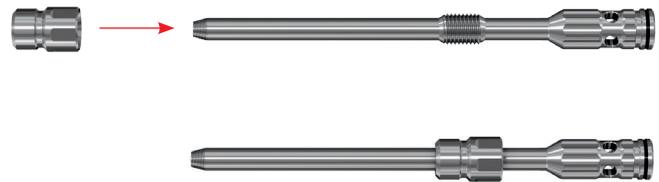


2

Prepare aiming arm instruments

Instruments

03.113.022	1.6 mm Percutaneous Threaded Wire Guide
03.124.004	Nut for Interlocking Bolts
03.124.005 or 03.124.006	1.6 mm Interlocking Bolt or 2.8 mm Interlocking Bolt
03.127.007 or 03.127.008	Insertion Handle for 3.5 mm VA-LCP Proximal Tibia Plate, Right or Insertion Handle for 3.5 mm VA-LCP Proximal Tibia Plate, Left
03.127.009	Aiming Arm for 3.5 mm VA-LCP Proximal Tibia Plate
03.127.010	Locking/Neutral Guide for 3.5 mm VA-LCP Proximal Tibia Aiming Arm
321.16	Combination Wrench, 11 mm width across flats

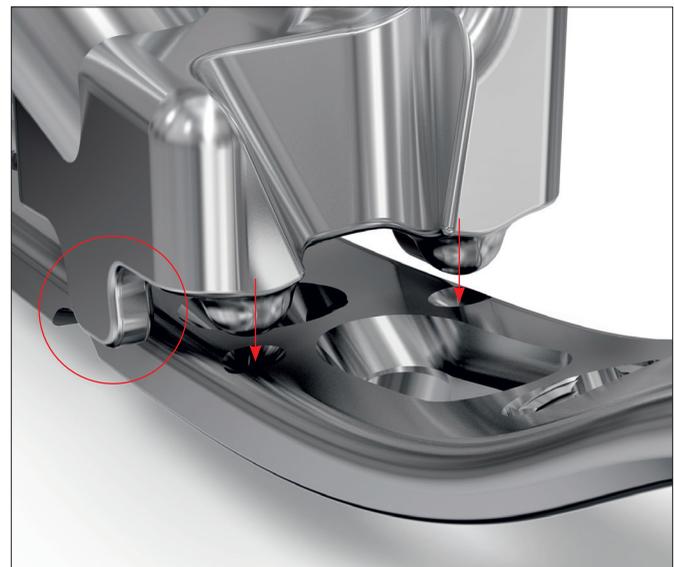


Thread the nut onto an interlocking bolt. Use either a 1.6 mm interlocking bolt to insert a guide wire for preliminary fixation or a 2.8 mm interlocking bolt to predrill the distal neck hole.

Choose the adequate plate length, side and type (small/ large bend) and place it on a flat surface to allow the correct assembly of the insertion handle to the plate.

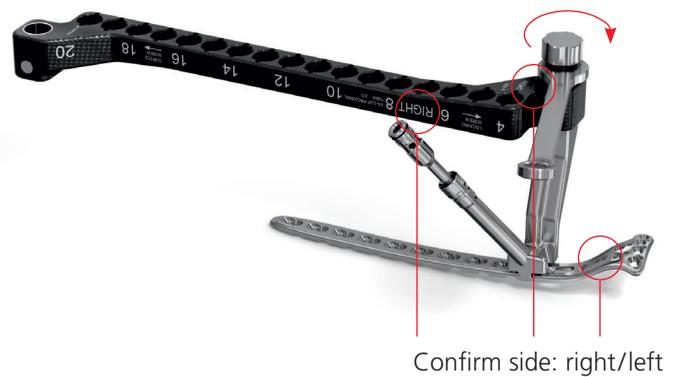
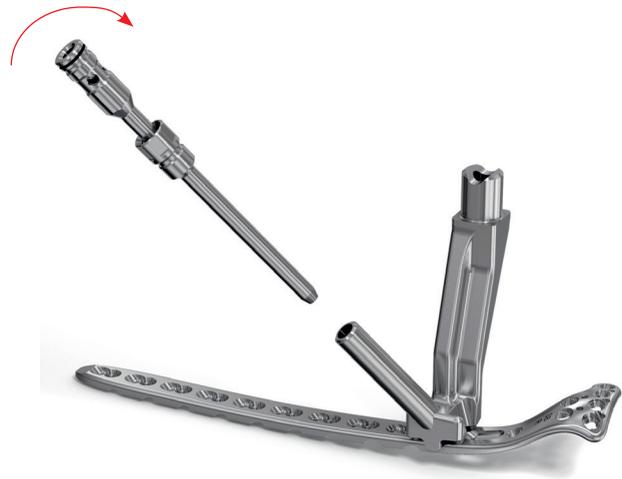
Note: The VA LCP Proximal Tibial Plates are anatomically precontoured. Plate bending is not recommended. If the plate contour is changed, the aiming arm may not properly target the holes in the plate.

Position the insertion handle on the plate so that the pins on the underside of the insertion handle align with the three dimples around the distal neck hole. The flats on the side of the insertion handle help to mount the insertion handle in the correct orientation.



Insert the assembled interlocking bolt with nut into the insertion handle and thread it into the plate hole until it is firmly finger-tightened.

Thread the connection screw into the correct side of the aiming arm and attach the aiming arm to the insertion handle. Firmly finger-tighten the connection screw.



Insert a locking/neutral guide into the hole in the aiming arm corresponding with the most distal Combi hole in the plate. Orient the arrow on the locking/neutral guide in the direction of the "LOCKING ARROW" on the aiming arm.

Insert the 1.6 mm percutaneous wire guide through the locking/neutral guide and securely thread it into the plate. Tighten the wire guide to the plate to achieve a stable construct between the aiming arm and plate.

Using the combination wrench, tighten the interlocking bolt and the nut and the connection screw and aiming arm to the insertion handle.

Note: The aiming arm can be used for all plate types (left, right, small bend, large bend). Make sure to attach the aiming arm in the right orientation by checking the marked side on the top and side part of the aiming arm.



3

Insert and preliminarily fix plate

Instruments

03.113.023	2.5 mm Calibrated Drill Bit, quick coupling, 250 mm length, 95 mm calibration
292.20	2.0 mm Kirschner Wire with trocar point, 150 mm
311.43	Handle with Quick Coupling, Small
314.02	Small Hexagonal Screwdriver with Holding Sleeve
or	
314.03	Small Hexagonal Screwdriver Shaft
319.09	Depth Gauge for Small Screws
323.36	3.5 mm Universal Drill Guide

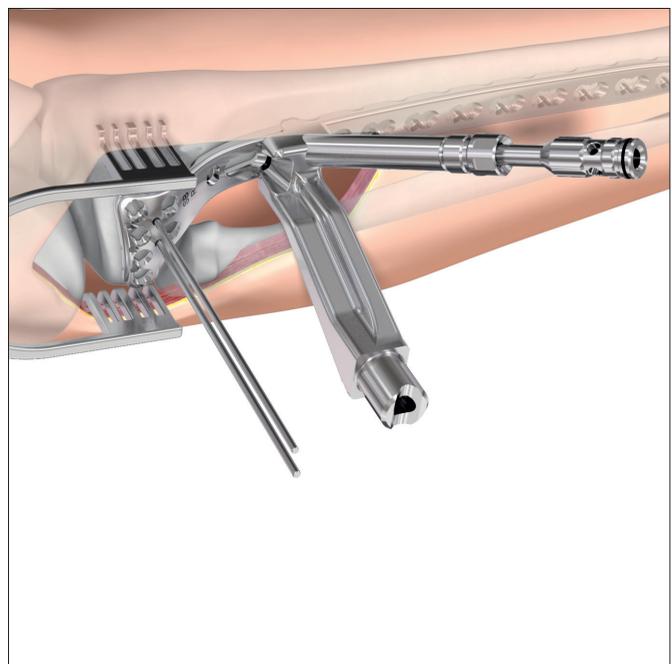
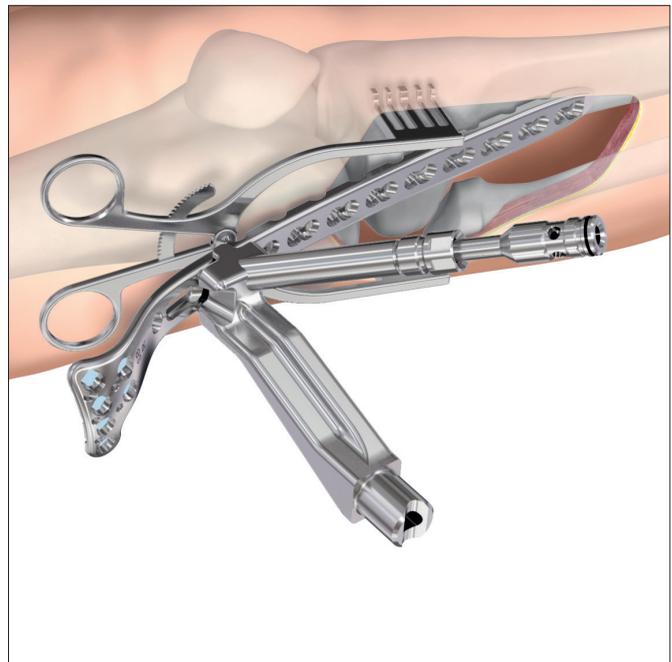
- Using the insertion handle, insert the plate between the anterior tibial muscle and the periosteum. Slide the plate in the distal direction with its distal end in constant contact with the bone. Using anatomic landmarks and fluoroscopy, determine the correct position of the proximal portion of the plate on the lateral condyle and the distal portion of the plate on the tibial shaft.

Note: The aiming arm can be attached either before or after insertion of the plate.

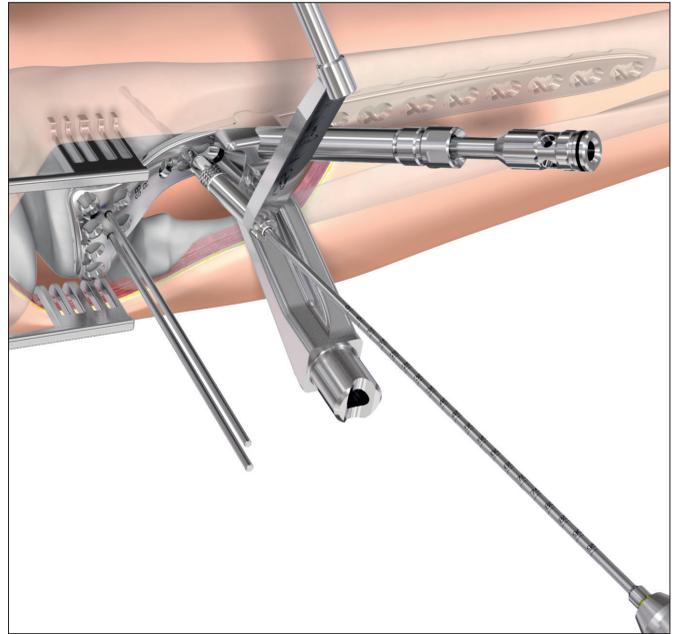
- Insert 2.0 mm Kirschner Wires through the K-wire holes in the plate head to preliminarily fix the plate to the bone. Before proceeding, confirm plate placement through clinical examination and fluoroscopy, readjust the plate position, if necessary.

Precautions:

- Instruments and screws may have sharp edges or moving joints that may pinch or tear user's glove or skin.**
- Handle devices with care and dispose worn bone cutting instruments in an approved sharps container.**



Preliminarily secure the plate with a cortex screw through the elongated hole in the neck of the plate. Insert the 2.5 mm drill bit into the 3.5 mm universal drill guide. Advance the drill bit until it reaches the medial cortex. Remove the drill bit and drill guide.



Measure for screw length with the depth gauge.

Note: Do not use the drill bit calibration for screw measurement.

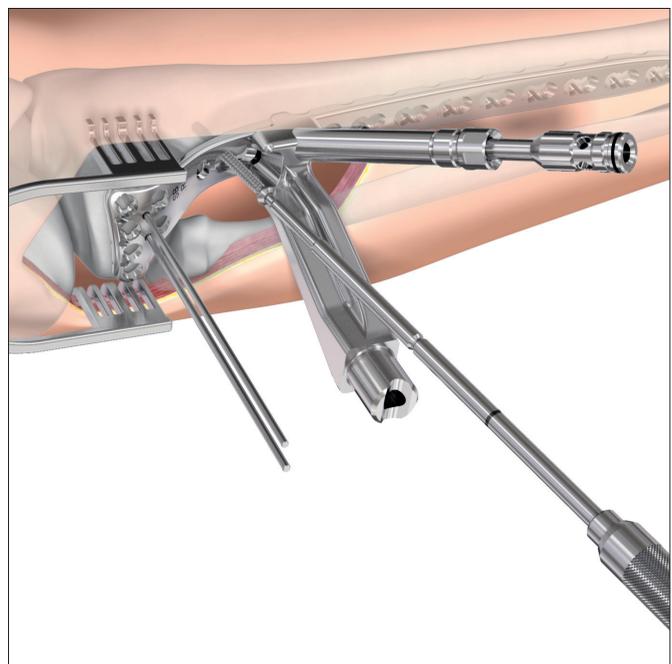
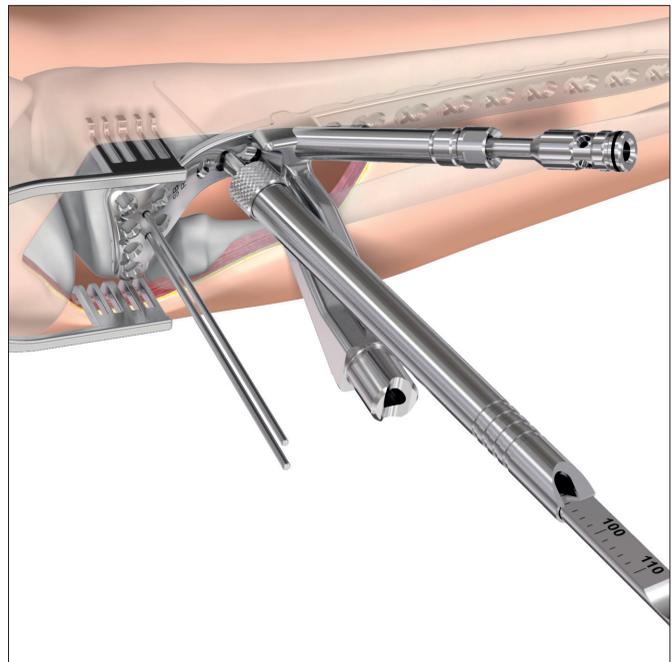
Insert the appropriate length 3.5 mm cortex screw. Before final tightening, check plate position. The 3.5 mm cortex screw can be inserted with power using the hexagonal screwdriver shaft. For final tightening, assemble the screwdriver shaft with the handle and tighten the screw manually or use the small hexagonal screwdriver.

- Prior to proceeding, use clinical examination and fluoroscopy to confirm that
 - The plate is orientated properly on the tibial plateau
 - Screw trajectories in the proximal locking holes are parallel to the joint in the transverse plane (this may vary slightly based on individual anatomy and any bending that occurs in the plate during non-locking screw tightening)
 - The alignment of the plate to the shaft of the tibia is correct in both the AP and lateral views.

If desired, the K-wires inserted for preliminary fixation may be removed.

Precaution: Proper Plate Position is key to success: a plate positioned too distally does not provide adequate rafting support of the articular surface; a plate positioned too proximally may damage the joint area with the proximal screws.

Note: To avoid screw collision of the cortex screws in the long hole and the locking screw in the distal neck hole, insert a long drill guide to check the trajectory. When using an aiming arm, a 1.6 mm K-wire can be inserted through the insertion handle.



4

Secure aiming arm to plate distally

Instruments

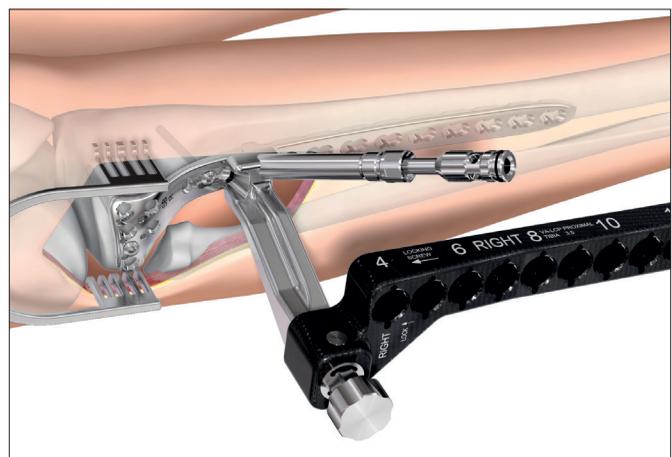
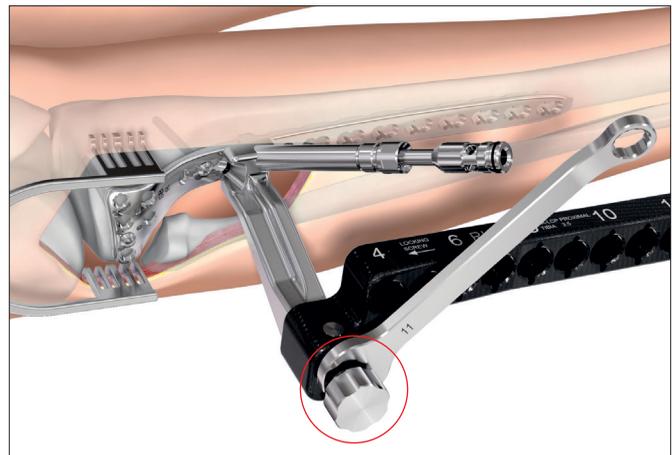
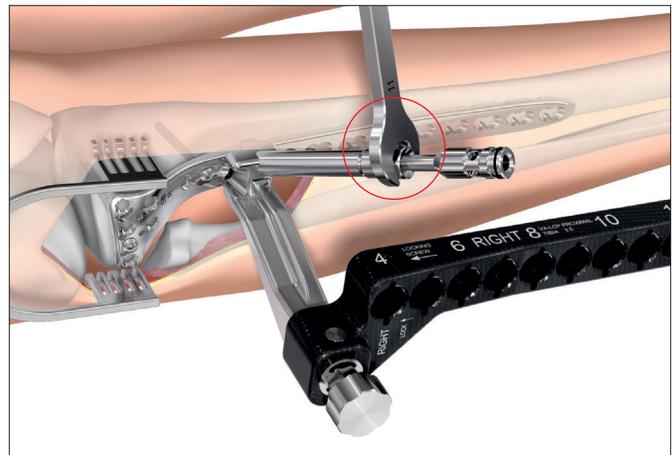
02.113.001	1.6 mm Drill Tip Guide Wire, 200 mm
03.113.010	Trocar with Handle
03.113.014	Handle for Percutaneous Threaded Drill Guides
03.113.022	1.6 mm Percutaneous Threaded Wire Guide
03.127.010	Locking/Neutral Guide for 3.5 mm VA-LCP Proximal Tibia Aiming Arm
321.16	Combination Wrench, 11 mm width across flats

Using the combination wrench, make sure that all connections between aiming arm, insertion handle and plate are fully tightened. Do not tighten any connection excessively to avoid screw hole damage or disassembly problems. To avoid objectionable movement in the aiming arm system, the aiming arm must be secured distally to the plate and bone.

Locate the hole in the aiming arm that corresponds to the most distal Combi hole in the plate. The numbering on the aiming arm indicates the hole location on the plate. Make a skin incision at this location.

Notes:

- **When using a plate with more than 12 holes, perform a careful soft tissue dissection down to the plate before inserting the trocar and guide sleeve in order to visualize and protect the superficial peroneal nerve and anterior neurovascular bundle.**
- **In patients of short stature, the critical area may be reached with a shorter plate.**



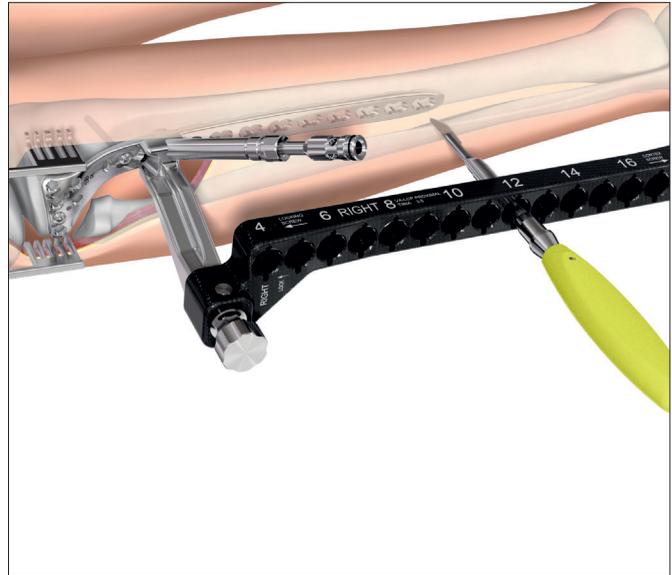
Optional instrument

03.113.011 Scalpel Handle for 3.5 mm LCP
Percutaneous Instrument System

Attach a blade to the scalpel handle. The scalpel handle will pass through the aiming arm holes and assist in performing a minimally invasive and accurate incision.

The scalpel handle should be inserted, backed out, rotated 180 degrees, and reinserted. An adequate incision must be made in order to help prevent soft tissue impingement when inserting a drill guide or wire guide. Remove the scalpel from the aiming arm.

Note: Always remove the scalpel blade before storage in the case.



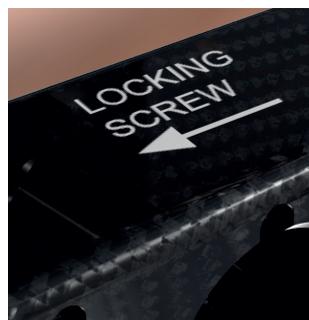
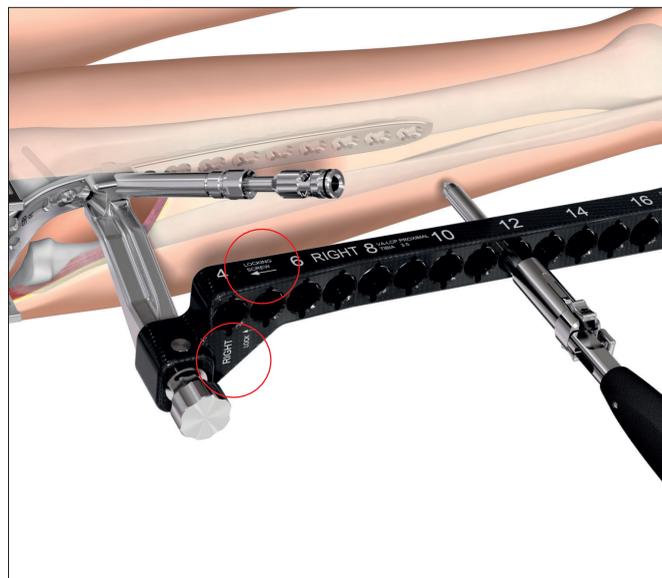
Insert the trocar with handle into a locking/neutral guide for the VA LCP Proximal Tibia Plate. Orient the arrow on the guide sleeve in the direction of the "LOCKING SCREW" arrow on the aiming arm. Use the assembled trocar and locking/neutral guide to push down to the plate through the incision.

Push the assembly down until it snaps completely into the aiming arm. Take care not to place excessive pressure on the guide sleeve as deflection can occur between the guide sleeve and the plate.

Remove the trocar.

Thread the handle into the 1.6 mm percutaneous threaded wire guide. Insert the handle and wire guide assembly through the locking/neutral guide and securely thread it into the most distal plate hole. Turn the handle counterclockwise to disengage and remove it from the wire guide.

Insert a 1.6 mm Kirschner wire through the wire guide into the bone after the appropriate length and rotation have been achieved.



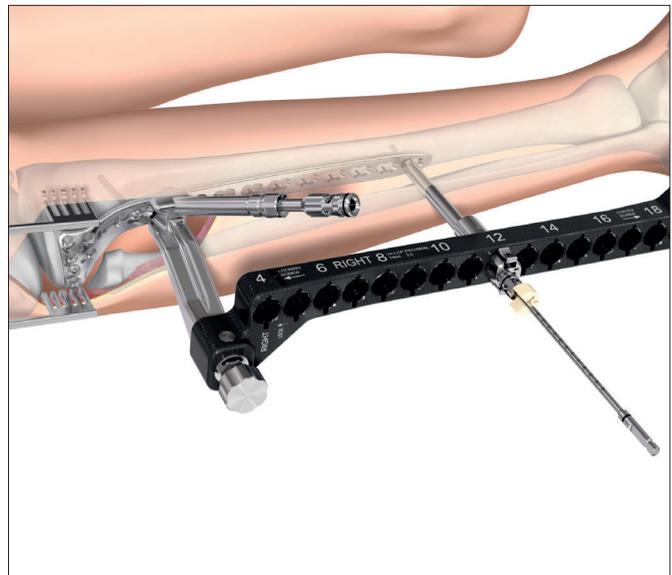
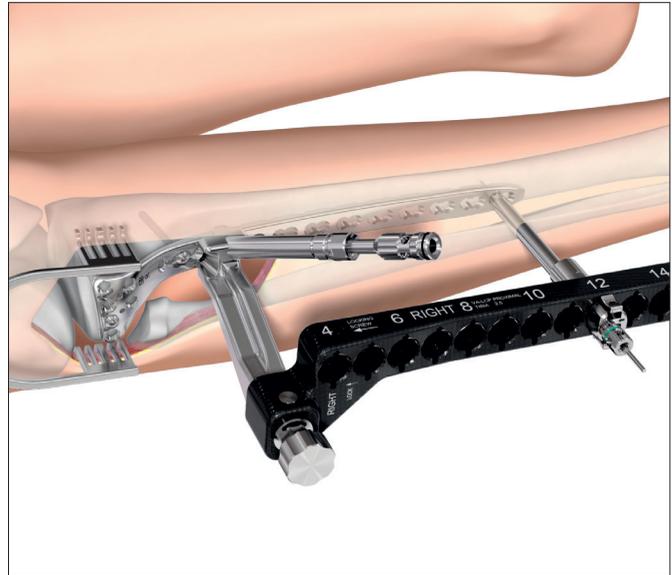
Alternative instruments

03.113.020	2.8 mm Percutaneous Threaded Drill Guide
03.113.024	2.8 mm Calibrated Drill Bit quick coupling, 250 mm length, 95 mm calibration

Alternatively, the 2.8 mm percutaneous threaded drill guide and a 2.8 mm drill bit can be used to stabilize the distal portion of the plate on the bone. Use the 2.8 mm drill bit to drill through the threaded drill guide to the far cortex.

Notes:

- After closing the aiming arm “frame” distally, the range of eccentric compression is limited.
- For clear visualization, soft tissue is not shown in the following steps.



5

Use pull reduction device (optional)

Instruments

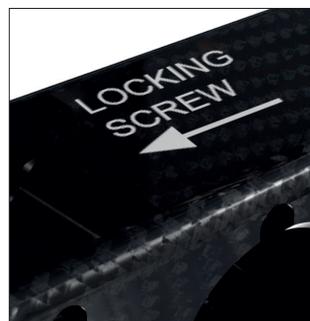
03.113.015*	Pull Reduction Device for Drill Sleeve, for 3.5 mm LCP Percutaneous Instrument System
03.127.010	Locking/Neutral Guide for 3.5 mm VA-LCP Proximal Tibia Aiming Arm
321.16	Combination Wrench, 11 mm width across flats

The insertion of the first screw in the plate shaft may push the bone medially, especially in case of dense bone and/or unstable reduction. Alternatively, a cortex screw can be used.

The pull reduction device must be used with a locking/neutral guide and in the locking portion of the plate. Orient the arrow on the locking/neutral guide in the direction of the "LOCKING SCREW" arrow on the aiming arm. Thread the nut for pull reduction device over the tip of the pull reduction device.

With the nut in its highest position, attach the pull reduction device to a power tool with quick coupling and insert it through a locking/neutral guide.

Note: When inserting the pull reduction device, carefully monitor the advancement of the tip.



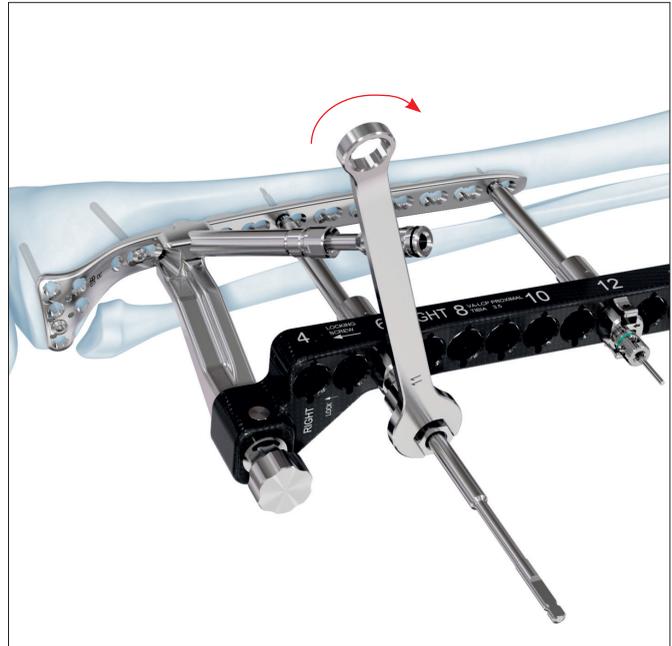
* The nut is included in 03.113.015 and can be reordered under 03.113.016 (Nut for Pull Reduction Device).

- ① Tighten the nut toward the locking/neutral guide while monitoring progress under radiographic imaging to pull the bone towards the plate and fix it in that position.

Note: A combination wrench may be used to facilitate tightening and loosening of the nut.

Stop when the desired reduction is achieved. Do not tighten the nut excessively.

Note: The predrilled hole allows later placement of a 3.5 mm variable angle locking screw in the same hole.



SCREW INSERTION IN THE PLATE HEAD

3.5 MM VA LOCKING SCREWS IN THE PROXIMAL ROW

1

Insert 3.5 mm variable angle locking screws in the proximal rafting row

Option A: Fixed angle insertion

Instruments

03.127.001	2.8 mm Fixed Angle Drill Guide
03.127.016	2.5 Nm Torque Limiting Handle with quick coupling
314.116	StarDrive™ Screwdriver Shaft, T15, quick coupling
or	
03.113.019	StarDrive Screwdriver Shaft, 165 mm
324.214	2.8 mm Percutaneous Drill Bit, quick coupling, 200 mm length, 100 mm calibration

Insert the 2.8 mm fixed angle drill guide into a plate hole of the proximal rafting row. The drill guide is designed to key into the plate.

Drill through the fixed angle drill guide using the 2.8 mm percutaneous drill bit. The four proximal rafting screws should be placed both parallel to the joint axis and parallel to each other. Advance the drill bit until it reaches the medial wall of the tibial condyle.

- Note:** Use radiographic imaging to monitor the direction of the drill bit while drilling. Although the fixed angle drill guide limits the range of motion, a completely fixed angle cannot be guaranteed.

To measure for screw length, read off of the calibrated 2.8 mm drill bit. Remove the drill bit and drill guide.

Precaution: Make sure not to penetrate the articular surface (even in zero position a penetration is possible in unusual tibial plateau inclinations) or to cause screw collision. Furthermore, to avoid degeneration of the overlying articular cartilage, do not place screws too close to the tibial plateau.



Screw Insertion in the Plate Head
3.5 mm VA Locking Screws in the Proximal Row

Insert the appropriate length variable angle locking screw.

Notes:

- **Do not lock the screws to the plate under power. Screw engagement and final locking must be done manually with the torque limiting handle (2.5 Nm).**
- **Only initial insertion of the variable angle locking screws may be done using power equipment.**
- **Confirm screw position and length prior to final tightening. Final tightening must be done manually using the 2.5 Nm torque limiting handle.**
- **Do not use the 2.5 Nm torque limiting handle for screw removal.**



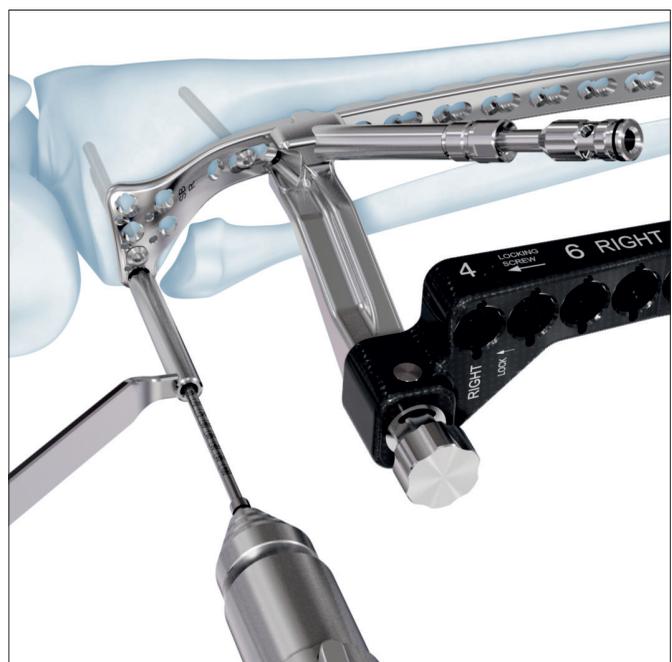
Alternative instrument

03.127.002 2.8 mm Variable Angle Double Drill Guide with Cone

Alternatively, the straight end of the 2.8 mm variable angle double drill guide may be used for fixed angle insertion of the screw. The VA double drill guide allows either off-axis drilling (cone end) or fixed-angle drilling (straight end).

Note: Insert the fixed angle screws first, then insert the variable angle screws. Place the variable angle screws around the fixed angle screws.

Repeat the steps above to insert additional screws.



Screw Insertion in the Plate Head
3.5 mm VA Locking Screws in the Proximal Row

Option B: Variable angle insertion

Instruments

03.127.002	2.8 mm Variable Angle Double Drill Guide with Cone
03.127.016	2.5 Nm Torque Limiting Handle with quick coupling
314.116	StarDrive Screwdriver Shaft, T15, quick coupling
or	
03.113.019	StarDrive Screwdriver Shaft, 165mm
319.09	Depth Gauge for Small Screws
324.214	2.8 mm Percutaneous Drill Bit, quick coupling, 200 mm length, 100 mm calibration

Insert the cone shaped end of the double drill guide into one of the proximal rafting screw holes. The drill guide is designed to be keyed into the plate.

Insert the 2.8 mm drill bit through the cone shaped end at the desired angle. The four proximal rafting screws should be placed parallel to the joint axis. Advance the drill bit until it reaches the medial wall of the tibial condyle.

Note: Monitor the direction of the drill bit carefully while drilling.

Remove the drill bit and drill guide and use the depth gauge to measure for screw length.

Insert the appropriate length variable angle locking screw.

Precaution: Make sure not to penetrate the articular surface or to cause screw collision.



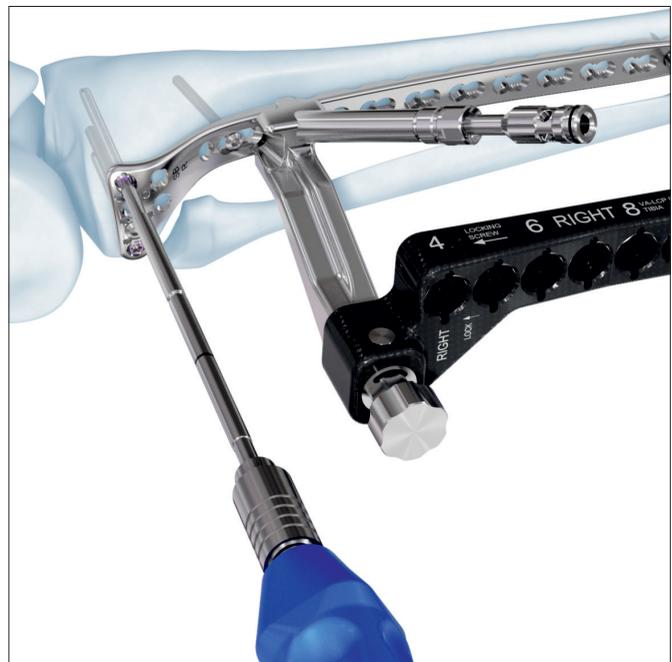
Screw Insertion in the Plate Head
3.5 mm VA Locking Screws in the Proximal Row

Notes:

- Do not lock the screws to the plate under power. Screw engagement and final locking must be done manually with the torque limiting handle (2.5 Nm).
- Only initial insertion of the variable angle locking screws may be done using power equipment.
- Confirm screw position and length prior to final tightening. Final tightening must be done manually using the 2.5 Nm torque limiting handle.
- Do not use the 2.5 Nm torque limiting handle for screw removal.

Repeat the steps above to insert additional screws.

Note: Should some plate head holes be empty, ensure that the screws are distributed between the proximal and the second row rather than filling the proximal row only.



Screw Insertion in the Plate Head
3.5 mm VA Locking Screws in the Proximal Row

Alternative instruments

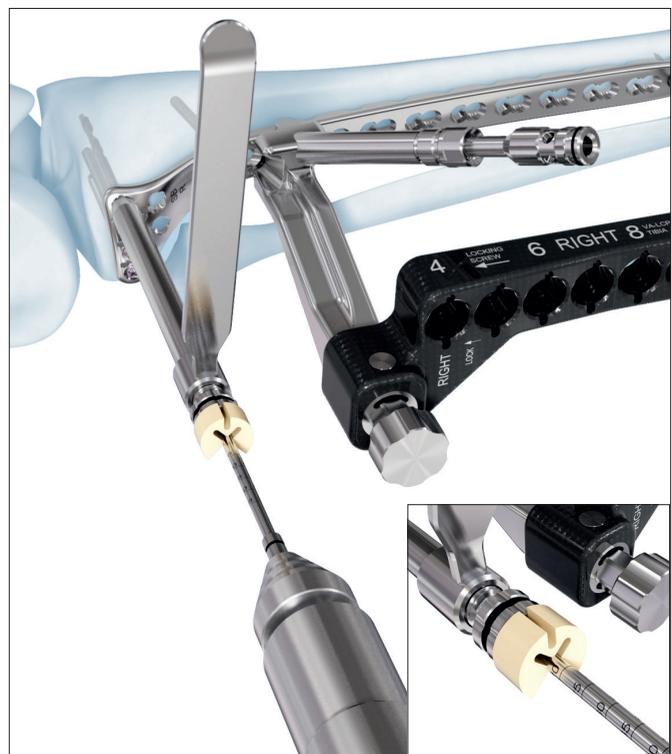
03.127.004	2.8 mm Variable Angle Spherical Drill Guide, long
03.127.006	Protection Sleeve for 2.8 mm Variable Angle Drill Guide, long
03.127.016	2.5 Nm Torque Limiting Handle with quick coupling
03.113.024	2.8 mm Calibrated Drill Bit, quick coupling, 250 mm length, 95 mm calibration
314.116	StarDrive Screwdriver Shaft, T15, quick coupling
or	
03.113.019	StarDrive Screwdriver Shaft, 165 mm

Alternatively, the 2.8 mm variable angle spherical drill guide can be used for variable angle insertion of the screw. Assemble the spherical drill guide by threading it into the protection sleeve. The spherical tip of the drill guide should be gently pressed into the variable angle hole. To prevent drilling beyond 15°, continue to provide light pressure while holding the drill guide at the desired angle.

Use the 2.8 mm calibrated drill bit to drill to the desired depth. Verify that the plastic stop sits on the drill guide before removing the drill bit. To measure for screw length, remove the drill bit and read the indicated drill depth below the plastic stop. The first visible number indicates the correct screw length.

Remove the drill guide and protection sleeve.

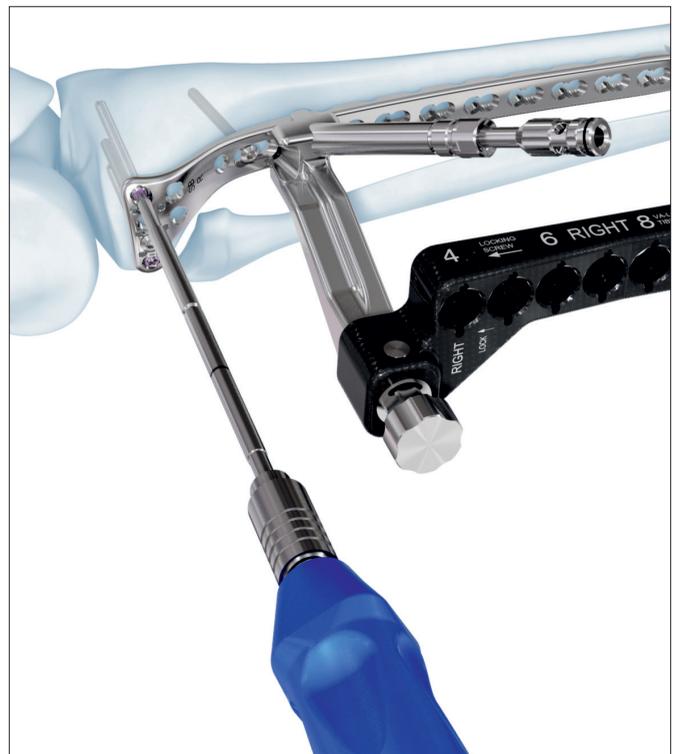
Insert the appropriate length variable angle locking screw.



Screw Insertion in the Plate Head
3.5 mm VA Locking Screws in the Proximal Row

Notes:

- Do not lock the screws to the plate under power. Screw engagement and final locking must be done manually with the torque limiting handle (2.5 Nm).
- Only initial insertion of the variable angle locking screws may be done using power equipment.
- Confirm screw position and length prior to final tightening. Final tightening must be done manually using the 2.5 Nm torque limiting handle.
- Do not use the 2.5 Nm torque limiting handle for screw removal.



3.5 MM VA LOCKING SCREWS IN THE SECOND ROW

2

Insert 3.5 mm variable angle locking screws in the second row

Option A: Fixed angle insertion

Instruments

03.127.001	2.8 mm Fixed Angle Drill Guide
03.127.016	2.5 Nm Torque Limiting Handle with quick coupling
314.116	StarDrive Screwdriver Shaft, T15, quick coupling
or	
03.113.019	StarDrive Screwdriver Shaft, 165 mm
324.214	2.8 mm Percutaneous Drill Bit, quick coupling, 200 mm length, 100 mm calibration

To insert fixed angle variable angle locking screws in the second row, follow the procedure described in Step 1, Option A.



Screw Insertion in the Plate Head
3.5 mm VA Locking Screws in the Second Row

Option B: Variable angle insertion

Instruments

03.113.024	2.8 mm Calibrated Drill Bit, quick coupling, 250 mm length, 95 mm calibration
03.127.002	2.8 mm Variable Angle Double Drill Guide with Cone
03.127.004	2.8 mm Variable Angle Spherical Drill Guide, long
03.127.006	Protection Sleeve for 2.8 mm Variable Angle Drill Guide, long
03.127.016	2.5 Nm Torque Limiting Handle with quick coupling
314.116	StarDrive Screwdriver Shaft, T15, quick coupling
or	
03.113.019	StarDrive Screwdriver Shaft, 165 mm
319.09	Depth Gauge for Small Screws
324.214	2.8 mm Percutaneous Drill Bit, quick coupling, 200 mm length, 100 mm calibration

To insert variable angle locking screws in the second row, follow the procedure described in Step 1, Option B.



SCREW INSERTION IN THE PLATE SHAFT

3.5 MM CORTEX SCREWS IN THE PLATE SHAFT

1

Insert 3.5 mm cortex screws in the plate shaft

Instruments

03.113.010	Trocar with Handle
03.113.012	Neutral Drill Guide
03.113.023	2.5 mm Calibrated Drill Bit, quick coupling, 250 mm length, 95 mm calibration
03.127.010	Locking/Neutral Guide for 3.5 mm VA-LCP Proximal Tibia Aiming Arm
311.43	Handle with Quick Coupling, Small
314.02	Small Hexagonal Screwdriver with Holding Sleeve
314.55	Small Hexagonal Screwdriver Shaft, long

Choose an aiming arm hole and make an incision through it.

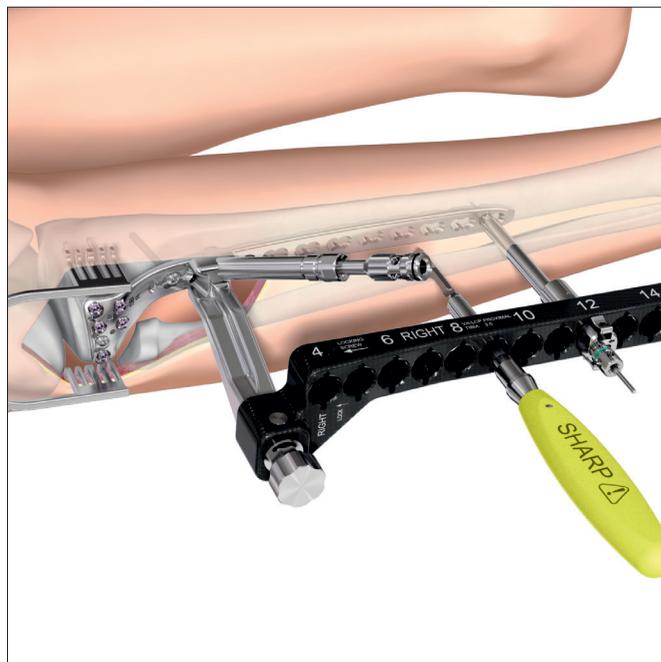
Notes:

- When using a plate with more than 12 holes, perform a careful soft tissue dissection down to the plate before inserting the trocar and guide sleeve in order to visualize and protect the superficial peroneal nerve and anterior neurovascular bundle.
- In patients of short stature the critical area might be reached with a shorter plate.

Optional instrument

03.113.011	Scalpel Handle for 3.5 mm LCP Percutaneous Instrument System
------------	--

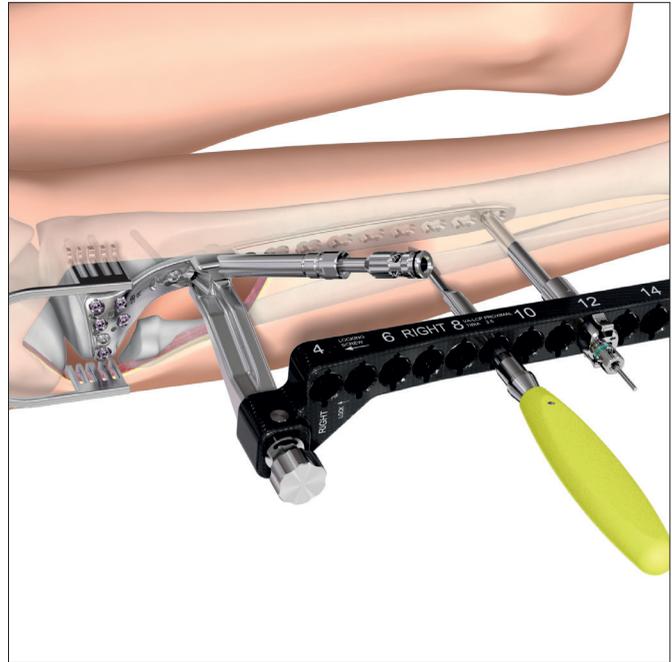
Optionally the scalpel handle can be used. Attach a blade to the scalpel handle. The scalpel handle will pass through the aiming arm holes and assist in performing a minimally invasive and accurate incision.



Screw Insertion in the Plate Shaft
3.5 mm Cortex Screws in the Plate Shaft

The scalpel handle should be inserted, backed out, rotated 180 degrees, and reinserted. An adequate incision must be made in order to prevent soft tissue impingement when inserting a drill guide or wire guide. Then remove the scalpel from the aiming arm.

Note: Always remove the scalpel blade before storage in the case.



Screw Insertion in the Plate Shaft
3.5 mm Cortex Screws in the Plate Shaft

Insert the trocar with handle into a locking/neutral guide for the VA LCP Proximal Tibia Plate. Orient the arrow on the guide sleeve in the direction of the "CORTEX SCREW" arrow on the aiming arm. Use the assembled trocar and locking/neutral guide to push down to the plate through the incision.

Push the assembly down until it snaps completely into the aiming arm.

Remove the trocar.



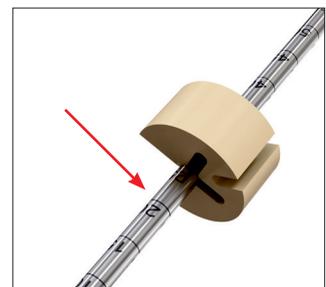
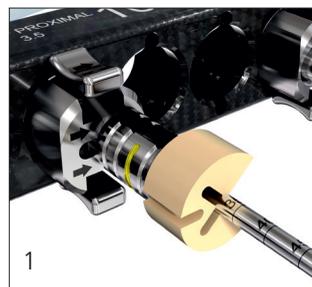
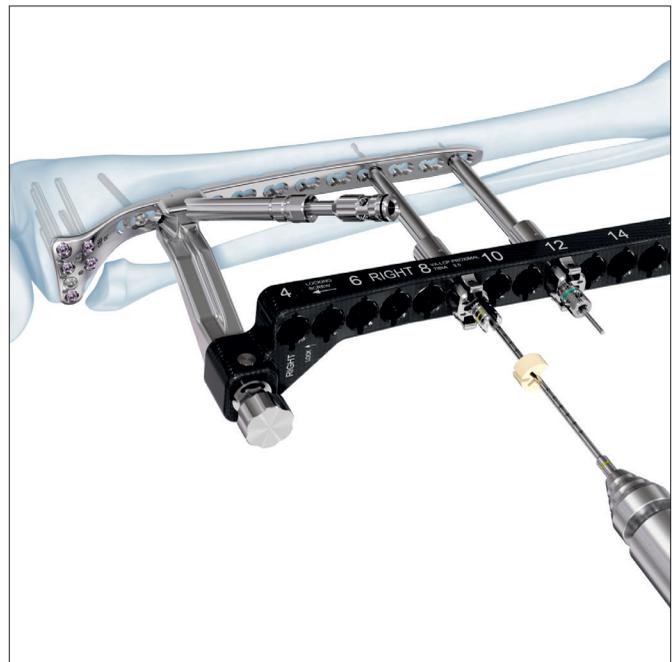
Screw Insertion in the Plate Shaft
3.5 mm Cortex Screws in the Plate Shaft

Insert the neutral drill guide into the locking/neutral guide until it securely snaps into place.

Use the 2.5 mm calibrated drill bit to drill to the desired depth. Verify that the plastic stop sits on the drill guide before removing the drill bit (Figure 1).

To measure for screw length, remove the drill bit and read the indicated drill depth below the plastic stop (Figure 2). The first visible number indicates the correct screw length.

Remove the drill guide by gently depressing its release mechanism and slowly pulling it away from the locking/neutral guide.



Screw Insertion in the Plate Shaft
3.5 mm Cortex Screws in the Plate Shaft

Alternative instruments

03.113.028	Depth Gauge for 3.5 mm Percutaneous Instrument System
------------	---

311.431	Large Handle, with quick coupling
---------	-----------------------------------

314.55	Small Hexagonal Screwdriver Shaft, long
--------	---

Alternatively, screw length can be determined with the help of the depth gauge. Remove the drill guide and insert the depth gauge into the locking/neutral guide to the previously drilled depth. The screw length is indicated by the gauge marking aligned with the top of the guide sleeve. Remove the depth gauge.

Insert the appropriate length cortex screw. The cortex screw may be inserted using power equipment and the hexagonal screwdriver shaft. Switch to manual screw insertion using the screwdriver shaft with handle when the marking on the screwdriver shaft approaches the end of the guide sleeve. Alternatively the small hexagonal screwdriver can be used for final tightening.



Screw Insertion in the Plate Shaft
3.5 mm Cortex Screws in the Plate Shaft

Optional instrument

03.127.011 Stopper for 3.5 mm VA-LCP Proximal Tibia
Plate Aiming Arm

Mark each screw location in the aiming arm using a stopper for reference as screw insertion proceeds.

Repeat the steps above to insert additional screws.

Note: All 3.5 mm cortex screws must be inserted before inserting locking screws.



3.5 MM VA LOCKING SCREWS IN THE PLATE SHAFT

2

Insert 3.5 mm variable angle locking screws in the plate shaft

Option A: Fixed angle insertion

Instruments

03.113.010	Trocar with Handle
03.113.014	Handle for Percutaneous Threaded Drill Guides
03.113.019	StarDrive Screwdriver Shaft, 165 mm
03.113.020	2.8 mm Percutaneous Threaded Drill Guide
03.113.024	2.8 mm Calibrated Drill Bit, quick coupling, 250 mm length, 95 mm calibration
03.127.010	Locking/Neutral Guide for 3.5 mm VA-LCP Proximal Tibia Aiming Arm
03.127.016	2.5 Nm Torque Limiting Handle with quick coupling

Choose an aiming arm hole through which to make an incision and create the incision.

Optional instrument

03.113.011	Scalpel Handle for 3.5 mm LCP Percutaneous Instrument System
------------	--

Optionally, the scalpel handle can be used (see page 18).

Notes:

- **When using a plate with more than 12 holes, perform a careful soft tissue dissection down to the plate before inserting the trocar and guide sleeve in order to visualize and protect the superficial peroneal nerve and anterior neurovascular bundle.**
- **In patients of short stature the critical area might be reached with a shorter plate.**

Insert the trocar with handle into a locking/neutral guide for the VA LCP Proximal Tibia Plate. Orient the arrow on the guide sleeve in the direction of the "LOCKING SCREW" arrow on the aiming arm.



Screw Insertion in the Plate Shaft

3.5 mm VA Locking Screws in the Plate Shaft

Use the assembled trocar and locking/neutral guide to push down to the plate through the incision.

Push the assembly down until it snaps completely into the aiming arm.

Remove the trocar.

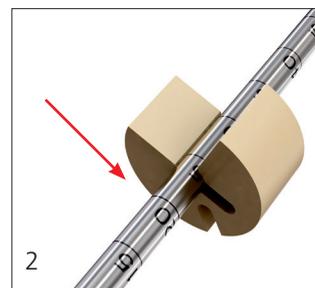
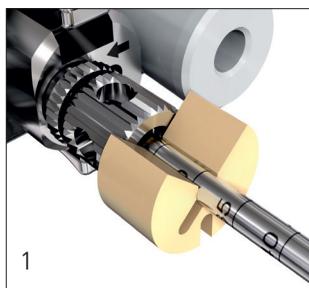
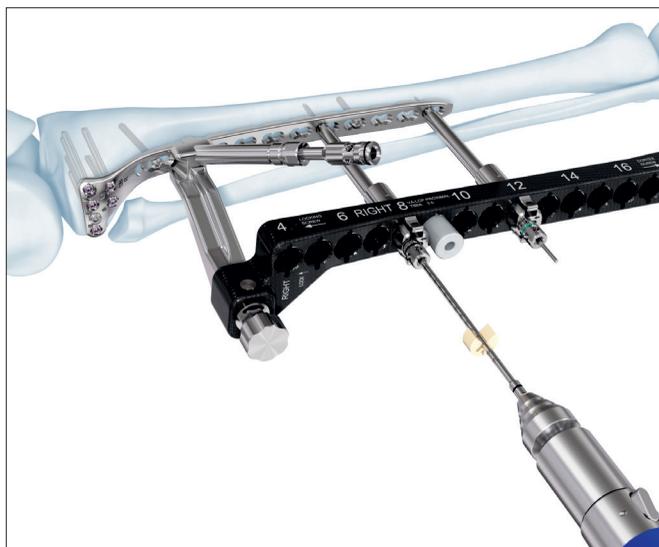
Insert the threaded drill guide into the locking/neutral guide and securely thread it into the plate. To facilitate the insertion, the handle for percutaneous drill guides can be used.

Use the 2.8 mm calibrated drill bit to drill to the desired depth. Verify that the plastic stop sits on the drill sleeve before removing the drill bit (Figure 1).

To measure for screw length, remove the drill bit and read the indicated drill depth below the plastic stop (Figure 2). The first visible number indicates the correct screw length.

Alternatively, screw length can be determined with the help of the depth gauge (see page 35).

Remove the threaded drill guide.



Screw Insertion in the Plate Shaft
3.5 mm VA Locking Screws in the Plate Shaft

Insert the appropriate length variable angle locking screw.

Notes:

- **Do not lock the screws to the plate under power.** Screw engagement and final locking must be done manually with the torque limiting handle (2.5 Nm).
- **Only initial insertion of the variable angle locking screws may be done using power equipment.**
- **Confirm screw position and length prior to final tightening.** Final tightening must be done manually using the 2.5 Nm torque limiting handle.
- **Do not use the 2.5 Nm torque limiting handle for screw removal.**

Mark each screw location in the aiming arm using a stopper for reference as screw insertion proceeds.

Repeat the steps above to insert additional screws.

Note: Use the handle to loosen the locking drill sleeve from the plate.



Option B: Variable angle insertion

Instruments

03.113.019	StarDrive Screwdriver Shaft, 165 mm
03.113.024	2.8 mm Calibrated Drill Bit, quick coupling, 250 mm length, 95 mm calibration
03.127.004	2.8 mm VA Spherical Drill Guide, long
03.127.005	Trocar for 2.8 mm VA Spherical Drill Guide, long
03.127.006	Protection Sleeve for 2.8 mm VA Spherical Drill Guide, long
03.127.016	2.5 Nm Torque Limiting Handle with quick coupling

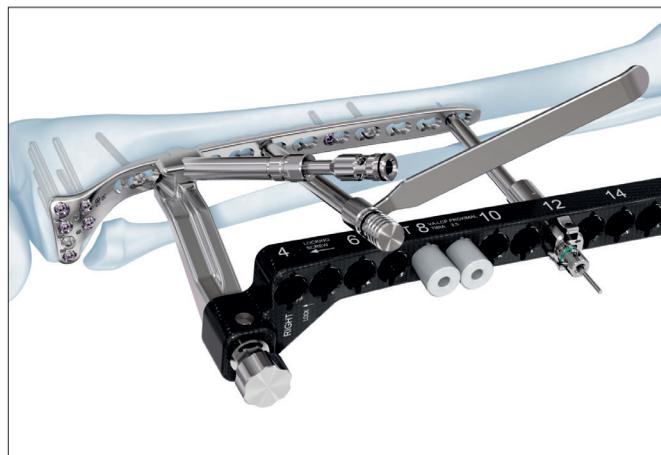
Assemble the spherical drill guide by threading the 2.8 mm VA spherical drill guide into the protection sleeve and then insert the trocar into the VA spherical drill guide.

The trocar/drill guide/protection sleeve assembly can be placed outside of the aiming arm. Choose an aiming arm hole and make an incision through it. When using the instrument outside of the aiming arm, it may be necessary to extend the incision.

If necessary, the aiming arm may have to be removed in order to achieve the desired angle with the spherical drill guide.

Notes:

- **When using a plate with more than 12 holes, perform a careful soft tissue dissection down to the plate before inserting the trocar and guide sleeve in order to visualize and protect the superficial peroneal nerve and anterior neurovascular bundle.**
- **In patients of short stature the critical area might be reached with a shorter plate.**



Screw Insertion in the Plate Shaft
3.5 mm VA Locking Screws in the Plate Shaft

Insert the assembly to the plate through the previously created incision. The spherical tip of the VA drill guide should be gently pressed into the variable angle hole to prevent drilling beyond 15°. Continue to provide light pressure while holding the drill guide at the desired angle. Remove the trocar from the assembly.

Use the 2.8 mm calibrated drill bit to drill to the desired depth. Verify that the plastic stop sits on the drill guide. Remove the drill bit and read the indicated drill depth below the plastic stop as described in Option A.

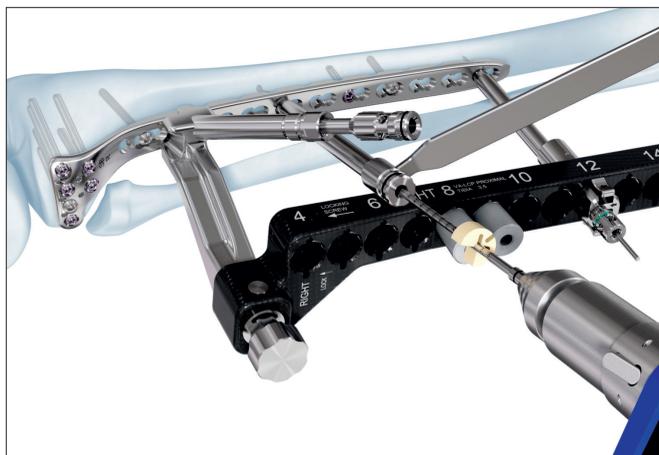
Remove the drill bit and prepare the appropriate length variable angle locking screw. Carefully remove the drill guide and make sure that the protection sleeve keeps the proper position above the screw hole.

Insert the screw through the protection sleeve.

Notes:

- **Do not lock the screws to the plate under power. Screw engagement and final locking must be done manually with the torque limiting handle (2.5 Nm).**
- **Only initial insertion of the variable angle locking screws may be done using power equipment.**
- **Confirm screw position and length prior to final tightening. Final tightening must be done manually using the 2.5 Nm torque limiting handle.**
- **Do not use the 2.5 Nm torque limiting handle for screw removal.**

Repeat the steps above to insert additional screws.



SCREW INSERTION IN THE PLATE NECK

3.5 MM VA LOCKING SCREWS IN THE DISTAL NECK HOLE

1

Predrilling/removal of aiming arm

03.113.024	2.8 mm Calibrated Drill Bit, quick coupling 250 mm length, 95 mm calibration
03.124.006	2.8 mm Interlocking Bolt
321.16	Combination Wrench, 11 mm width across flats

If the aiming arm is attached and a fixed angle screw will be inserted in the distal neck hole, predrilling can be done with the 2.8 mm calibrated drill bit through the interlocking bolt that is still connected to the insertion handle and plate.

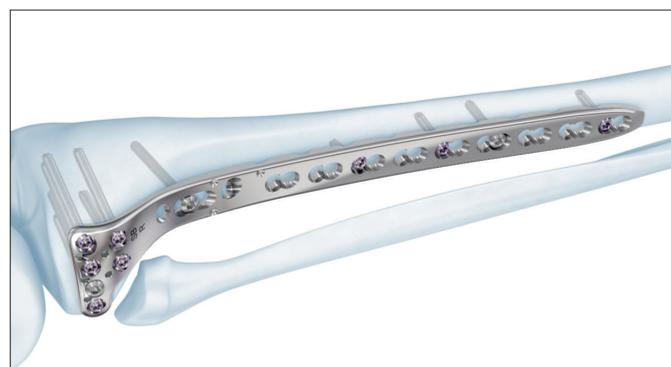
Screw length can be read off the calibrated drill bit below the plastic stop.

For screw insertion, all aiming arm instruments have to be removed.

Remove all guide sleeves, drill sleeves and the pulling device.

Turn the connecting bolt on the aiming arm counterclockwise to loosen it and remove the aiming arm from the insertion handle.

Use the combination wrench to loosen the nut for the interconnecting bolt. Remove the interlocking bolt with nut and the insertion handle.



2

Insert 3.5 mm variable angle locking screws in the distal neck hole (if predrilling was not performed)

Option A: Fixed angle insertion

Instruments

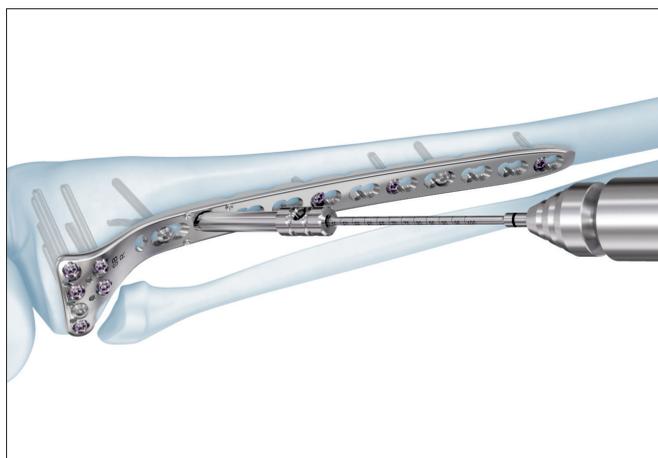
03.127.001	2.8 mm Fixed Angle Drill Guide
03.127.016	2.5 Nm Torque Limiting Handle with quick coupling
314.116	StarDrive Screwdriver Shaft, T15, quick coupling
or	
03.113.019	StarDrive Screwdriver Shaft, 165 mm
324.214	2.8 mm Percutaneous Drill Bit, quick coupling, 200 mm length, 100 mm calibration

Insert the 2.8 mm fixed angle drill guide into the distal neck hole. Drill through the fixed angle drill guide using the 2.8 mm calibrated drill bit. Advance the drill bit until it reaches the medial wall of the tibial condyle.

- Note:** Use radiographic imaging to monitor the direction of the drill bit while drilling. Although the fixed angle drill guide limits the range of motion a completely fixed angle cannot be guaranteed.

Read the measurement from the 2.8 mm calibrated drill bit. Remove the drill bit and drill guide.

Precaution: Make sure not to cause screw collision, especially if the second row screws have been angled away from the nominal axis.

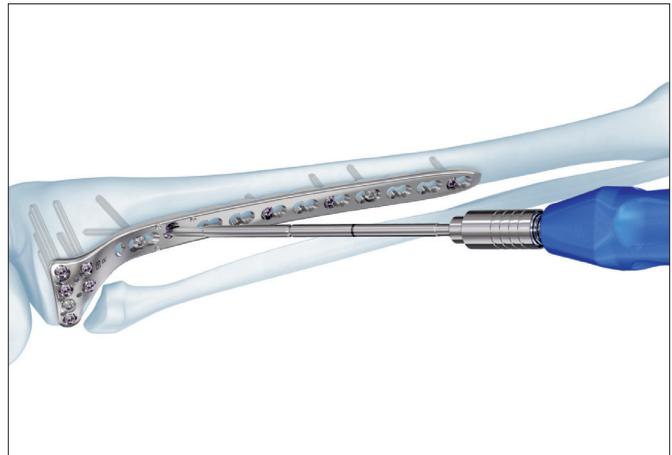


Screw Insertion in the Plate Neck
3.5 mm VA Locking Screws in the Distal Neck Hole

Insert the appropriate length variable angle locking screw.

Notes:

- **Do not lock the screws to the plate under power.** Screw engagement and final locking must be done manually with the torque limiting handle (2.5 Nm).
- **Only initial insertion of the variable angle locking screws may be done using power equipment.**
- **Confirm screw position and length to final tightening.** Final tightening must be done manually using the 2.5 Nm torque limiting handle.
- **Do not use the 2.5 Nm torque limiting handle for screw removal.**



Option B. Variable angle insertion

Instruments

03.127.002	2.8 mm Variable Angle Double Drill Guide with Cone
03.127.016	2.5 Nm Torque Limiting Handle with quick coupling
314.116	StarDrive Screwdriver Shaft, T15, quick coupling
or	
03.113.019	StarDrive Screwdriver Shaft, 165 mm
319.09	Depth Gauge for Small Screws
324.214	2.8 mm Percutaneous Drill Bit quick coupling, 200 mm length, 100 mm calibration

Insert the cone shaped end of the double drill guide into the distal neck hole. The drill guide is designed to be keyed into the plate.

Insert the 2.8 mm calibrated drill bit through the cone shaped end at the desired angle. Advance the drill bit until it reaches the medial wall of the tibial condyle.

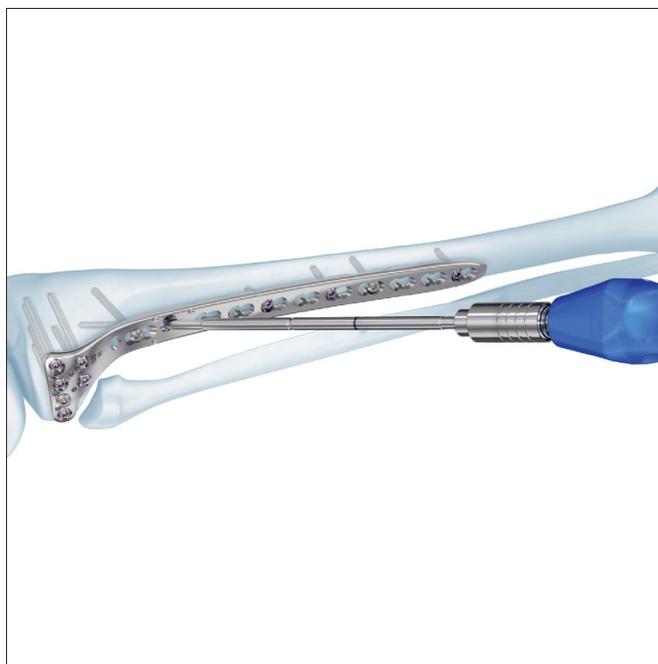
Note: Use radiographic imaging to monitor the direction of the drill bit while drilling.

Remove the drill bit and drill guide and use the depth gauge to measure for screw length.

Insert the appropriate length variable angle locking screw.

Notes:

- **Do not lock the screws to the plate under power. Screw engagement and final locking must be done manually with the torque limiting handle (2.5 Nm).**
- **Only initial insertion of the variable angle locking screws may be done using power equipment.**
- **Confirm screw position and length prior to final tightening. Final tightening must be done manually using the 2.5 Nm torque limiting handle.**
- **Do not use the 2.5 Nm torque limiting handle for screw removal.**

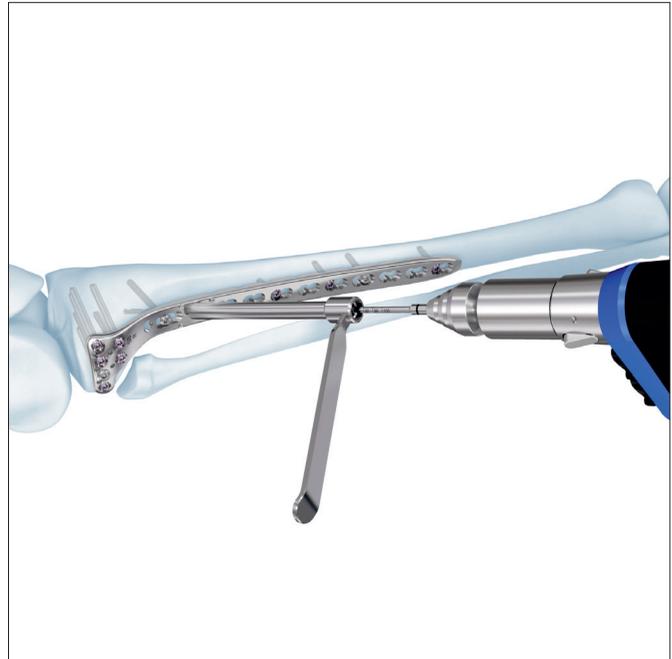


Screw Insertion in the Plate Neck
3.5 mm VA Locking Screws in the Distal Neck Hole

Alternative instruments

03.113.024	2.8 mm Calibrated Drill Bit, quick coupling, 250 mm length, 95 mm calibration
03.127.004	2.8 mm Variable Angle Spherical Drill Guide, long
03.127.006	Protection Sleeve for 2.8 mm Variable Angle Drill Guide, long
03.127.016	2.5 Nm Torque Limiting Handle with quick coupling
314.116	StarDrive Screwdriver Shaft, T15, quick coupling
or	
03.113.019	StarDrive Screwdriver Shaft, 165 mm

Alternatively, the 2.8 mm variable angle spherical drill guide can be used for variable angle insertion of the screw in the distal neck hole. Assemble the spherical drill guide by threading the 2.8 mm VA spherical drill guide into the protection sleeve. The spherical tip of the VA drill guide should be gently pressed into the variable angle hole to prevent drilling beyond 15°. Continue to provide light pressure while holding the drill guide at the desired angle.



Screw Insertion in the Plate Neck
3.5 mm VA Locking Screws in the Distal Neck Hole

Use the 2.8 mm calibrated drill bit to drill to the desired depth. Verify that the plastic stop sits on the drill guide. To measure for screw length, remove the drill bit and read the indicated drill depth below the plastic stop. The first visible number indicates the correct screw length. Remove the drill guide.

Insert the appropriate length variable angle locking screw.

Notes:

- **Do not lock the screws to the plate under power. Screw engagement and final locking must be done manually with the torque limiting handle (2.5 Nm).**
- **Only initial insertion of the variable angle locking screws may be done using power equipment.**
- **Confirm screw position and length prior to final tightening. Final tightening must be done manually using the 2.5 Nm torque limiting handle.**
- **Do not use the 2.5 Nm torque limiting handle for screw removal.**



3.5 MM VA LOCKING SCREWS IN THE PROXIMAL NECK HOLE

3

Insert 3.5 mm variable angle locking screws in the proximal neck hole

Option A: Fixed angle insertion

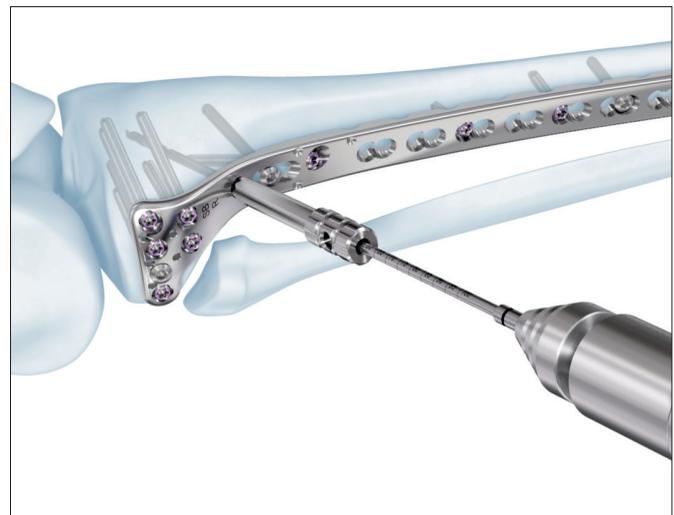
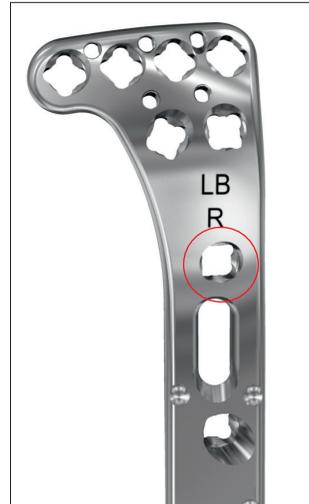
Instruments

03.127.001	2.8 mm Fixed Angle Drill Guide
324.214	2.8 mm Percutaneous Drill Bit
03.127.016	2.5 Nm Torque Limiting Handle with quick coupling
314.116	StarDrive Screwdriver Shaft, T15, quick coupling
or	
03.113.019	StarDrive Screwdriver Shaft, 165 mm

Insert a 2.8 mm fixed angle drill guide into the proximal neck hole. Drill through the fixed angle drill guide using the 2.8 mm drill bit. Advance the drill bit until it reaches the medial wall of the tibial condyle.

- **Note: Use radiographic imaging to monitor the direction of the drill bit while drilling.**

Read the measurement from the calibrated 2.8 mm drill bit. Remove the drill bit and drill guide.



Screw Insertion in the Plate Neck
3.5 mm VA Locking Screws in the Proximal Neck Hole

Insert the appropriate length variable angle locking screw.

Notes:

- **Do not lock the screws to the plate under power. Screw engagement and final locking must be done manually with the torque limiting handle (2.5 Nm).**
- **Only initial insertion of the variable angle locking screws may be done using power equipment.**
- **Confirm screw position and length prior to final tightening. Final tightening must be done manually using the 2.5 Nm torque limiting handle.**
- **Do not use the 2.5 Nm torque limiting handle for screw removal.**



Option B: Variable Angle Insertion

Insert variable angle locking screws in the proximal neck hole; follow the procedure described in Step 2, Option B.



PLATES

Small Bend Plates

3.5 mm Variable Angle LCP Proximal Tibia Plate, Small Bend[◇]

Stainless Steel	Holes	Length (mm)	
02.127.210	4	87	right
02.127.211	4	87	left
02.127.220	6	117	right
02.127.221	6	117	left
02.127.230	8	147	right
02.127.231	8	147	left
02.127.240	10	177	right
02.127.241	10	177	left
02.127.250	12	207	right
02.127.251	12	207	left
02.127.260	14	237	right
02.127.261	14	237	left



[◇] Available nonsterile or sterile-packed. Add "S" to catalog number to order sterile product.

Large Bend Plates3.5 mm Variable Angle LCP Proximal Tibia Plate, Large Bend[◇]

Stainless Steel	Holes	Length (mm)	
02.127.310	4	87	right
02.127.311	4	87	left
02.127.320	6	117	right
02.127.321	6	117	left
02.127.330	8	147	right
02.127.331	8	147	left
02.127.340	10	177	right
02.127.341	10	177	left
02.127.350	12	207	right
02.127.351	12	207	left
02.127.360	14	237	right
02.127.361	14	237	left



[◇] Available nonsterile or sterile-packed. Add "S" to catalog number to order sterile product.

SCREWS

3.5 mm Variable Angle Locking Screws

May be used in all variable angle locking holes including the locking portion of the Combi holes.

- Threaded rounded head
- Self-tapping tip
- StarDrive Recess
- Special color coding for easy differentiation from locking screws
- Lengths of 10 mm–95 mm



The following existing screws are compatible with the 3.5 mm VA LCP Proximal Tibial Plate:

- 3.5 mm Locking Screws
- 3.5 mm Cortex Screws
- 3.7 mm Dynamic Locking Screws
- 3.7 mm Cannulated Locking Screws

Note: The 3.7 mm Dynamic Locking Screws should be inserted at zero degrees and tightened with the 1.5 Nm TLA and handle.

3.5 mm Locking Screws

- Threaded conical head
- Self-tapping tip
- StarDrive or hexagonal recess
- Lengths of 10 mm–95 mm



3.5 mm Cortex Screws

- May be used in the DCU portion of the VA Combi holes, in the long hole in the plate neck and in the plate head through a VA locking hole to create compression.
- Self-tapping tip
- Hexagonal recess
- Lengths of 10 mm–95 mm



3.7 mm Dynamic Locking Screws

- May be used in the locking portion of the VA Combi holes and should only be used in the shaft of the plate
- Pin sleeve design
- Standard locking head
- Rounded screw tip with five flute design
- StarDrive Recess
- Sterile only
- Lengths of 22 mm–70 mm



Note: Please consult the DePuy Synthes Dynamic Locking Screw (DLS) Technique Guide (J10966) for additional information.

3.7 mm Cannulated Locking Screws

- Self-drilling, self-tapping tip
- Fully threaded
- StarDrive Recess
- Lengths 10 mm–95 mm



INSTRUMENTS

VA Instruments

03.127.001 2.8 mm Fixed Angle Drill Guide



03.127.002 2.8 mm Variable Angle Double Drill Guide with Cone



03.127.004 2.8 mm VA Spherical Drill Guide, long



03.127.005 Trocar for 2.8 mm VA Spherical Drill Guide, long



03.127.006 Protection Sleeve for 2.8 mm VA Drill Guide, long



03.127.012 3.5 mm VA-LCP Proximal Tibia Trial Implant, Small Bend, right



03.127.013 3.5 mm VA-LCP Proximal Tibia Trial Implant, Small Bend, left



03.127.014 3.5 mm VA-LCP Proximal Tibia Trial Implant, Large Bend, right



03.127.015 3.5 mm VA-LCP Proximal Tibia Trial Implant, Large Bend, left



03.127.016 2.5 Nm Torque Limiting Handle with quick coupling*



Aiming Arm Instruments

03.124.004 Nut for Interlocking Bolts for Percutaneous Insertion Handle



03.124.005 1.6 mm Interlocking Bolt for Percutaneous Insertion Handle



* Recalibration of the Torque Limiting Handle 03.127.016
 DePuy Synthes recommends annual servicing and inspection by the original manufacturer. The Torque Limiting Handle has to be sent to your DePuy Synthes repair center annually for calibration. The user accepts the responsibility for this annual calibration.

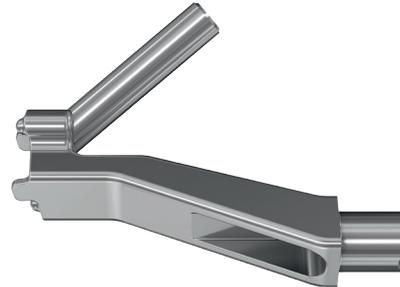
03.124.006 2.8 mm Interlocking Bolt for Percutaneous Insertion Handle



03.127.007 Insertion Handle for 3.5 mm VA-LCP Proximal Tibia Plate, right



03.127.008 Insertion Handle for 3.5 mm VA-LCP Proximal Tibia Plate, left



03.127.009 Aiming Arm for 3.5 mm VA-LCP Proximal Tibia Plate



03.127.010 Locking/Neutral Guide for 3.5 mm VA-LCP Proximal Tibia Aiming Arm



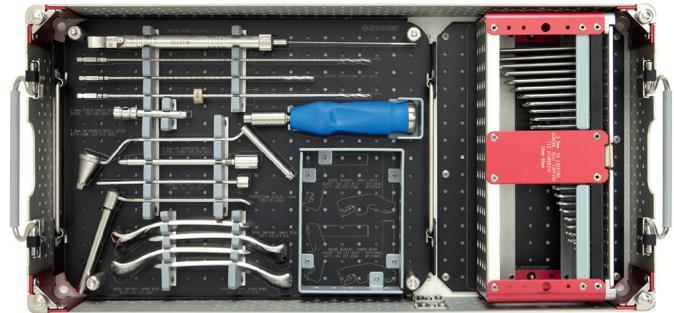
03.127.011 Stopper for 3.5 mm VA-LCP Proximal Tibia Plate Aiming Arm



3.5 MM VA LCP PROXIMAL TIBIA IMPLANT AND INSTRUMENT SET (01.127.001)

Graphic Case

- 60.127.001 3.5 mm VA-LCP Proximal Tibia Implant and Instrument Case
- 60.127.008 Tray for 3.5 mm VA-LCP Proximal Tibia Small/Large Bend Plates



Instruments

- 03.113.023 2.5 mm Calibrated Drill Bit, quick coupling, 250 mm length, 95 mm calibration
- 03.113.024 2.8 mm Calibrated Drill Bit, quick coupling, 250 mm length, 95 mm calibration
- 03.127.001 2.8 mm Fixed Angle Drill Guide
- 03.127.002 2.8 mm Variable Angle Double Drill Guide with Cone
- 03.127.004 2.8 mm Variable Angle Spherical Drill Guide, long
- 03.127.005 Trocar for 2.8 mm Variable Angle Spherical Drill Guide, long
- 03.127.006 Protection Sleeve for 2.8 mm Variable Angle Drill Guide, long
- 03.127.012 3.5 mm VA-LCP Proximal Tibia Trial Implant, Small Bend, Right
- 03.127.013 3.5 mm VA-LCP Proximal Tibia Trial Implant, Small Bend, Left
- 03.127.014 3.5 mm VA-LCP Proximal Tibia Trial Implant, Large Bend, Right
- 03.127.015 3.5 mm VA-LCP Proximal Tibia Trial Implant, Large Bend, Left
- 03.127.016 2.5 Nm Torque Limiting Handle with Quick Coupling
- 319.09 Depth Gauge for Small Screws
- 324.214 2.8 mm Percutaneous Drill Bit, quick coupling, 200 mm, 100 mm calibration



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.

Implants3.5 mm Variable Angle LCP Proximal Tibia Plate, Small Bend[◇]

Stainless Steel	Holes	Length (mm)	
02.127.210	4	87	right
02.127.211	4	87	left
02.127.220	6	117	right
02.127.221	6	117	left
02.127.230	8	147	right
02.127.231	8	147	left
02.127.240	10	177	right
02.127.241	10	177	left
02.127.250	12	207	right
02.127.251	12	207	left
02.127.260	14	237	right
02.127.261	14	237	left

3.5 mm Variable Angle LCP Proximal Tibia Plate, Large Bend[◇]

Stainless Steel	Holes	Length (mm)	
02.127.310	4	87	right
02.127.311	4	87	left
02.127.320	6	117	right
02.127.321	6	117	left
02.127.330	8	147	right
02.127.331	8	147	left
02.127.340	10	177	right
02.127.341	10	177	left
02.127.350	12	207	right
02.127.351	12	207	left
02.127.360	14	237	right
02.127.361	14	237	left

3.5 mm Variable Angle Locking Screws, StarDrive Recess, self-tapping, T15

Stainless Steel	Length (mm)	Qty.
02.127.110	10	2
02.127.112	12	2
02.127.114	14	2
02.127.116	16	2
02.127.118	18	2
02.127.120	20	2
02.127.122	22	2
02.127.124	24	2
02.127.126	26	4
02.127.128	28	4
02.127.130	30	4
02.127.132	32	4
02.127.134	34	4
02.127.136	36	4
02.127.138	38	4
02.127.140	40	4
02.127.142	42	4
02.127.144	44	4
02.127.146	46	4
02.127.148	48	4
02.127.150	50	4
02.127.152	52	4
02.127.154	54	4
02.127.156	56	4
02.127.158	58	4
02.127.160	60	6
02.127.165	65	6
02.127.170	70	6
02.127.175	75	6
02.127.180	80	6
02.127.185	85	6
02.127.190	90	6
02.127.195	95	6

[◇] Available nonsterile or sterile-packed. Add "S" to catalog number to order sterile product.

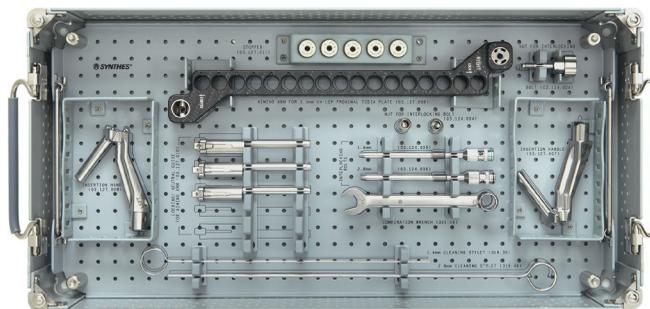
3.5 MM VA LCP PROXIMAL TIBIA PLATE AIMING INSTRUMENT SET (01.127.004)

Graphic Case

60.127.002 3.5 mm VA-LCP Proximal Tibia Aiming Instruments Case

Instruments

- 02.113.001 1.6 mm Drill Tip Guide Wire, 200 mm
- 03.113.010 Trocar with Handle for 3.5 mm LCP Percutaneous Instrument System
- 03.113.011 Scalpel Handle for 3.5 mm LCP Percutaneous Instrument System
- 03.113.012 Neutral Drill Guide for 3.5 mm LCP Percutaneous Instrument System
- 03.113.014 Handle for Percutaneous Threaded Drill Guides
- 03.113.015 Pull Reduction Device, for 3.5 mm LCP Percutaneous Instrument System
- 03.113.019 StarDrive Screwdriver Shaft, 165 mm
- 03.113.020 2.8 mm Percutaneous Threaded Drill Guide
- 03.113.021 StarDrive Screwdriver, T15, self-retaining
- 03.113.022 1.6 mm Percutaneous Threaded Wire Guide
- 03.113.023 2.5 mm Calibrated Drill Bit, quick coupling, 250 mm length, 95 mm calibration
- 03.113.024 2.8 mm Calibrated Drill Bit, quick coupling, 250 mm length, 95 mm calibration
- 03.113.028 Depth Gauge for 3.5 mm LCP Percutaneous Instrument System
- 03.124.004 Nut for Interlocking Bolts for Percutaneous Insertion Handle
- 03.124.005 1.6 mm Interlocking Bolt for Percutaneous Insertion Handle
- 03.124.006 2.8 mm Interlocking Bolt for Percutaneous Insertion Handle
- 03.127.007 Insertion Handle for 3.5 mm VA-LCP Proximal Tibia Plate–Right
- 03.127.008 Insertion Handle for 3.5 mm VA-LCP Proximal Tibia Plate–Left
- 03.127.009 Aiming Arm for 3.5 mm VA-LCP Proximal Tibia Plate



3.5 mm VA LCP Proximal Tibia Plate Aiming Instrument Set (01.127.004)

03.127.010	Locking/Neutral Guide for 3.5 mm VA-LCP Proximal Tibia Plate Aiming Arm
03.127.011	Stopper for 3.5 mm VA-LCP Proximal Tibia Plate Aiming Arm
311.431	Large Handle, with quick coupling
314.55	Small Hexagonal Screwdriver Shaft, long
314.57	Small Hexagonal Screwdriver, long
319.35	1.6 mm Cleaning Stylet
319.46	2.8 mm Cleaning Stylet
321.16	Combination Wrench, 11 mm width across flats
323.060	Direct Measuring Device

ALSO AVAILABLE

60.127.007 Tray for 3.5 mm VA-LCP Proximal Tibia Small Bend Plates



Limited Warranty and Disclaimer: DePuy Synthes products are sold with a limited warranty to the original purchaser against defects in workmanship and materials. Any other express or implied warranties, including warranties of merchantability or fitness, are hereby disclaimed.

Please also refer to the package insert(s) or other labeling associated with the devices identified in this surgical technique for additional information.

CAUTION: Federal Law restricts these devices to sale by or on the order of a physician.

Some devices listed in this technique guide may not have been licensed in accordance with Canadian law and may not be for sale in Canada. Please contact your sales consultant for items approved for sale in Canada.

Not all products may currently be available in all markets.



Manufactured or distributed by:

Synthes USA Products, LLC
1302 Wrights Lane East
West Chester, PA 19380

Synthes USA, LLC
1101 Synthes Avenue
Monument, CO 80132

Synthes GmbH
Luzernstrasse 21
4528 Zuchwil, Switzerland

To order (USA): 800-523-0322

To order (Canada): 844-243-4321

Note: For recognized manufacturer, refer to the product label.

www.depuysynthes.com