

Variable Angle LCP Tarsal Plates 2.4/2.7

Navicular Plate and Cuboid Plates

Surgical Technique



 Image intensifier control

This description alone does not provide sufficient background for direct use of DePuy Synthes products. Instruction by a surgeon experienced in handling these products is highly recommended.

Processing, Reprocessing, Care and Maintenance

For general guidelines, function control and dismantling of multi-part instruments, as well as processing guidelines for implants, please contact your local sales representative or refer to:

<http://emea.depuysynthes.com/hcp/reprocessing-care-maintenance>

For general information about reprocessing, care and maintenance of DePuy Synthes reusable devices, instrument trays and cases, as well as processing of DePuy Synthes non-sterile implants, please consult the Important Information leaflet (SE_023827) or refer to:

<http://emea.depuysynthes.com/hcp/reprocessing-care-maintenance>

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Variable Angle LCP Tarsal Plates 2.4/2.7

Navicular Plate and Cuboid Plates

VA Locking Navicular Plate

Variable angle locking

- VA locking holes accept 2.4 and 2.7 mm (head 2.4 LCP) VA locking screws and 2.4 mm cortex screws
- Screw holes allow up to 15° off-axis screw angulation in all directions

Anatomic profile

- The plate fits the specific anatomic profile of the navicular bone
- The ribs between the plate holes facilitate bending and contouring
- Plates can be cut to length for the specific fracture pattern or patient anatomy



VA Locking Cuboid Plates



Variable angle locking

- VA locking holes accept 2.4 and 2.7 mm (head 2.4 LCP) VA locking screws and 2.4 mm cortex screws
- Screw holes allow up to 15° off-axis screw angulation in all directions

Anatomic profile

- Left and right plates for anatomic fit
- The ribs between the plate holes facilitate bending and contouring
- Plates can be cut to length for the specific fracture pattern or patient anatomy

Intended Use, Indications, Contraindications can be found in the corresponding system Instructions for Use.

The AO Principles of Fracture Management

Mission

The AO's mission is promoting excellence in patient care and outcomes in trauma and musculoskeletal disorders.

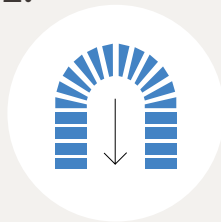
AO Principles^{1,2}

1.



Fracture reduction and fixation to restore anatomical relationships.

2.



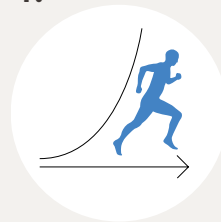
Fracture fixation providing absolute or relative stability, as required by the “personality” of the fracture, the patient, and the injury.

3.



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

4.



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

¹ Müller ME, M Allgöwer, R Schneider, H Willenegger. Manual of Internal Fixation. 3rd ed. Berlin, Heidelberg, New York: Springer. 1991

² Buckley RE, Moran CG, Apivatthakakul T. AO Principles of Fracture Management: 3rd ed. Vol. 1: Principles, Vol. 2: Specific fractures. Thieme; 2017.

Screw Insertion Techniques

The plate holes of the Variable Angle LCP Technology 2.4/2.7 accept 2.4 mm and 2.7 mm Variable Angle (VA) Locking Screws.

Screws can be inserted using two different techniques:

- Variable angle technique
- Pre-defined nominal angle technique

Variable angle technique

To drill variable angle holes at a $\pm 15^\circ$ deviation from the nominal trajectory of the locking hole, insert the tip of the conical VA-LCP drill sleeve (03.211.003/03.110.023) and key into the cloverleaf design of the VA-LCP hole.

▲ Precaution:

It is important not to angulate more than 15° from the central axis of the screw hole. Overangulation may result in difficulty while locking the screw and inadequate screw locking.

Pre-defined nominal angle technique

The fixed-angle VA-LCP drill sleeve (03.211.004/03.110.024) only allows the drill bit to follow the nominal trajectory of the locking hole.



VA-LCP drill sleeve, conical, for Drill Bits (03.211.003/03.110.023)



Use of funnel-shaped VA-LCP Drill Sleeve



VA-LCP Drill Sleeve, coaxial, for Drill Bits (03.211.004/03.110.024)



VA Locking Navicular Plate

1. Approach

Make a dorsal longitudinal incision from the midneck of the talus towards the base of the second metatarsal. It is important to preserve neurovascular and tendinous structures.

It may be necessary to open the talonavicular joint capsule to allow visualization of the joint.

▲ WARNING:

To minimize the potential for vascular damage, strip only a small segment of the capsule from the navicular bone.



2. Contour plates

Instrument

03.211.005 Bending Pliers for VA Locking Plates

The VA Locking Navicular Plate can be contoured to fit the specific anatomy and fixation options.

The bending pliers protect the variable angle holes during contouring. The feature on the pliers lines up with the cloverleaf design in the plate. Two pliers are used to contour the plate.

▲ Precaution:

If possible, bend the plate between the VA holes. Do not deform the threaded part of the holes or over-bend the plates during bending as this may adversely affect insertion of VA locking screws.

▲ WARNING:

Do not repeatedly bend the plates back and forth as this may weaken the plate.




3. Drill and insert 2.4 mm cortex screw

Instruments

310.509	Drill Bit Ø 1.8 mm, with marking, length 110/85 mm, 2-flute, for Quick Coupling
310.530	Drill Bit Ø 2.4 mm, length 100/75 mm, 2-flute, for Quick Coupling
323.202	Universal Drill Guide 2.4
03.111.005	Depth Gauge for Screws Ø 2.0 to 2.7 mm, measuring range up to 40 mm
311.430	Handle with Quick Coupling, length 110 mm
314.467	Screwdriver Shaft, Stardrive, T8, self-holding

If a combination of cortex screws and locking screws will be used, a cortex screw should be inserted first.

Use the 2.4 mm universal drill guide when inserting the cortex screws. Use the 1.8 mm drill bit for the threaded hole and 2.4 mm drill bit for the gliding hole.

Drill to the desired depth. Verify drill depth using  image intensification. Remove the drill guide and measure for screw length using the depth gauge.

Insert the cortex screw manually with the self-retaining Stardrive screwdriver shaft and handle.

4. Pre-drill for VA locking screws

Instruments – VA screws 2.7 mm

310.534	Drill Bit Ø 2.0 mm, with marking, length 110/85 mm, 2-flute, for Quick Coupling
03.211.003	VA-LCP Drill Sleeve 2.7, conical, for Drill Bits Ø 2.0 mm
03.211.004	VA-LCP Drill Sleeve 2.7, coaxial, for Drill Bits Ø 2.0 mm
323.260	Universal Drill Guide 2.7
03.111.005	Depth Gauge for Screws Ø 2.0 to 2.7 mm, measuring range up to 40 mm

Instruments – VA screws 2.4 mm

310.509	Drill Bit Ø 1.8 mm, with marking, length 110/85 mm, 2-flute, for Quick Coupling
03.110.023	VA-LCP Drill Sleeve 2.4, conical, for Drill Bits Ø 1.8 mm
03.110.024	VA-LCP Drill Sleeve 2.4, coaxial, for Drill Bits Ø 1.8 mm
323.202	Universal Drill Guide 2.4
03.111.005	Depth Gauge for Screws Ø 2.0 to 2.7 mm, measuring range up to 40 mm

Determine the size of the screws to be used, 2.4 or 2.7 mm, and whether they will be inserted at a variable angle (4a) or at the pre-defined nominal angle (4b).



4a. Pre-drill using variable angle technique

Instruments – VA screws 2.7 mm

310.534	Drill Bit Ø 2.0 mm, with marking, length 110/85mm, 2-flute, for Quick Coupling
03.211.003	VA-LCP Drill Sleeve 2.7, conical, for Drill Bits Ø 2.0 mm
03.111.005	Depth Gauge for Screws Ø 2.0 to 2.7 mm, measuring range up to 40 mm

Instruments – VA screws 2.4 mm

310.509	Drill Bit Ø 1.8 mm, with marking, length 110/85mm, 2-flute, for Quick Coupling
03.110.023	VA-LCP Drill Sleeve 2.4, conical, for Drill Bits Ø 1.8 mm
03.111.005	Depth Gauge for Screws Ø 2.0 to 2.7 mm, measuring range up to 40 mm



Variable angle locking screws allow for manipulation around the independent lag screw.

Insert and lock the VA-LCP drill sleeve tip into the clover-leaf design of the VA-LCP hole. The cone will self retain in the hole.

Use the 2.0 mm drill bit (2.7 mm VA screw) or the 1.8 mm drill bit (2.4 mm VA screw) to drill at the desired angle and to the desired depth.

The cone of the drill sleeve allows the drill bit to be angled up to 15° around the central axis of the locking hole.

▲ Precaution:

To ensure that the drill guide is locked correctly, do not angle the drill bit in excess of $\pm 15^\circ$ from the nominal trajectory of the hole.

- ① To achieve the desired angle, verify the drill bit angle and depth under image intensifier control. If necessary, drill at a different angle and verify again under image intensification.

Use the according depth gauge to measure the correct screw length.



4b. Pre-drill using pre-defined nominal angle technique

Instruments – VA screws 2.7 mm

310.534	Drill Bit \varnothing 2.0 mm, with marking, length 110/85 mm, 2-flute, for Quick Coupling
03.211.004	VA-LCP Drill Sleeve 2.7, coaxial for Drill Bits \varnothing 2.0 mm
03.111.005	Depth Gauge for Screws \varnothing 2.0 to 2.7 mm, measuring range up to 40 mm

Optional instrument

323.260	Universal Drill Guide 2.7
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Instruments – VA screws 2.4 mm

310.509	Drill Bit \varnothing 1.8 mm, with marking, length 110/85 mm, 2-flute, for Quick Coupling
03.110.024	VA-LCP Drill Sleeve 2.4, coaxial for Drill Bits \varnothing 1.8 mm
03.111.005	Depth Gauge for Screws \varnothing 2.0 to 2.7 mm, measuring range up to 40 mm

Optional instrument

323.202	Universal Drill Guide 2.4
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Variable angle locking screws and standard locking screws can be inserted into the plate at the predefined hole angle, or coaxial.

Insert and lock the VA-LCP drill sleeve tip into the clover-leaf design of the VA-LCP hole. The coaxial drill guide will self retain in the hole.

Use the 2.0 mm drill bit (for VA locking screw and standard 2.7 mm locking screws) or the 1.8 mm drill bit (for VA locking screw and standard 2.4 mm locking screws) to drill to the desired depth.

- ① Verify the drill bit depth under image intensification.

Use the according depth gauge to measure the correct screw length.



5. Insert VA locking screws

Instruments – VA screws 2.4/2.7 mm

314.467 Screwdriver Shaft, Stardrive, T8,
self-holding

311.430 Handle with Quick Coupling,
length 110 mm

or

03.111.038 Handle with Quick Coupling

Insert the correct length variable angle locking screw manually using the screwdriver shaft and handle with quick coupling. Insert the screw until the screw head is seated (with limited force) in the variable angle locking hole.

▲ **Precaution:**

Do not over-tighten screws. This allows the screws to be easily removed should they not be in the desired position.

Insert additional screws as needed.

- Confirm proper reconstruction, screw placement and screw length under image intensification.



6. Lock VA locking screws

Instruments – VA screws 2.4/2.7 mm

314.467	Screwdriver Shaft, Stardrive, T8, self-holding
03.110.002	Torque Limiter, 1.2 Nm, with AO/ASIF Quick Coupling
03.110.005	Handle for Torque Limiters 0.4/0.8/1.2 Nm

Use the 1.2 Nm torque limiting attachment (TLA) to perform the final locking step for variable angle locking screws. The torque limiting attachment attaches to the T8 Stardrive screwdriver shaft and the blue handle for torque limiting attachment.

After appropriate screw angle and screw length has been finalized, manually insert the screw using the TLA assembly.

Use of the TLA is mandatory for variable angle locking holes to ensure the nominal amount of torque is applied when inserting the screws.

With this final locking step, the screws are securely locked in the plate.



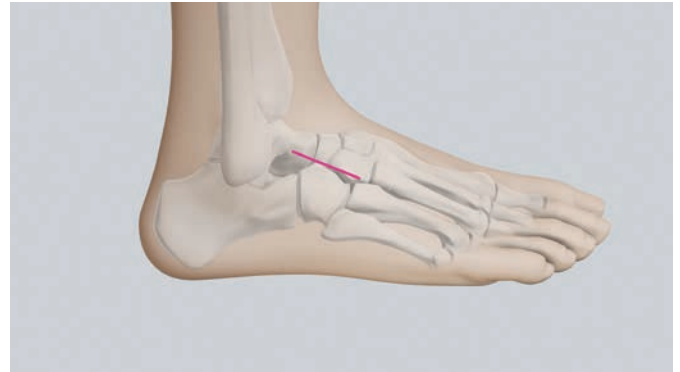
VA Locking Cuboid Plates

1. Approach

Make a linear dorsolateral incision starting at the sinus tarsi and extending to the base of the fourth metatarsal.

▲ WARNING:

This incision may run parallel to or directly over the sural nerve, and crosses the peroneus tertius, care must be taken to avoid injuring these structures.



2. Contour plate

Instrument

03.211.005 Bending Pliers for VA Locking Plates

The VA Locking Cuboid Plate can be contoured to fit the specific anatomy and fixation options.

The bending pliers protect the variable angle holes during contouring. The feature on the pliers lines up with the cloverleaf design in the plate. Two pliers are used to contour the plate.

▲ Precaution:

If possible, bend the plate between the VA holes. Do not deform the threaded part of the holes or over-bend the plates during bending as this may adversely affect insertion of VA locking screws.

▲ WARNING:

Do not repeatedly bend the plates back and forth as this may weaken the plate.



3. Drill and insert 2.4 mm cortex screw

Instruments

310.509	Drill Bit Ø 1.8 mm, with marking, length 110/85 mm, 2-flute, for Quick Coupling
310.530	Drill Bit Ø 2.4 mm, length 100/75 mm, 2-flute, for Quick Coupling
323.202	Universal Drill Guide 2.4
03.111.005	Depth Gauge for Screws Ø 2.0 to 2.7 mm, measuring range up to 40 mm
311.430	Handle with Quick Coupling, length 110 mm
314.467	Screwdriver Shaft, Stardrive, T8, self-holding

If a combination of cortex screws and locking screws will be used, a cortex screw should be inserted first.

Use the 2.4 mm universal drill guide when inserting the cortex screws. Use the 1.8 mm drill bit for the threaded hole and 2.4 mm drill bit for the gliding hole.

- ① Drill to the desired depth. Verify drill depth using image intensification. Remove the drill guide and measure for screw length using the depth gauge.

Insert the cortex screw manually with the self-retaining Stardrive screwdriver shaft and handle.

4. Pre-drill for VA locking screws

Instruments – VA screws 2.7 mm

310.534	Drill Bit Ø 2.0 mm, with marking, length 110/85 mm, 2-flute, for Quick Coupling
03.211.003	VA-LCP Drill Sleeve 2.7, conical, for Drill Bits Ø 2.0 mm
03.211.004	VA-LCP Drill Sleeve 2.7, coaxial, for Drill Bits Ø 2.0 mm
323.260	Universal Drill Guide 2.7
03.111.005	Depth Gauge for Screws Ø 2.0 to 2.7 mm, measuring range up to 40 mm

Instruments – VA screws 2.4 mm

310.509	Drill Bit Ø 1.8 mm, with marking, length 110/85 mm, 2-flute, for Quick Coupling
03.110.023	VA-LCP Drill Sleeve 2.4, conical, for Drill Bits Ø 1.8 mm
03.110.024	VA-LCP Drill Sleeve 2.4, coaxial, for Drill Bits Ø 1.8 mm
323.202	Universal Drill Guide 2.4
03.111.005	Depth Gauge for Screws Ø 2.0 to 2.7 mm, measuring range up to 40 mm

Determine the size of the screws to be used, 2.4 or 2.7 mm, and whether they will be inserted at a variable angle (4a) or at the pre-defined nominal angle (4b).



4a. Pre-drill using variable angle technique

Instruments – VA screws 2.7 mm

310.534	Drill Bit Ø 2.0 mm, with marking, length 110/85mm, 2-flute, for Quick Coupling
03.211.003	VA-LCP Drill Sleeve 2.7, conical, for Drill Bits Ø 2.0 mm
03.111.005	Depth Gauge for Screws Ø 2.0 to 2.7 mm, measuring range up to 40 mm

Instruments – VA screws 2.4 mm

310.509	Drill Bit Ø 1.8 mm, with marking, length 110/85mm, 2-flute, for Quick Coupling
03.110.023	VA-LCP Drill Sleeve 2.4, conical, for Drill Bits Ø 1.8 mm
03.111.005	Depth Gauge for Screws Ø 2.0 to 2.7 mm, measuring range up to 40 mm



Variable angle locking screws allow manipulation around the independent lag screw.

Insert and lock the VA-LCP drill sleeve tip into the clover-leaf design of the VA-LCP hole. The cone will self retain in the hole.

Use the 2.0 mm drill bit (2.7 mm VA screw) or the 1.8 mm drill bit (2.4 mm VA screw) to drill at the desired angle and to the desired depth.

The funnel of the drill sleeve allows the drill bit to be angled up to 15° around the central axis of the locking hole.

▲ Precaution:

To ensure that the drill guide is locked correctly, do not angle the drill bit in excess of $\pm 15^\circ$ from the nominal trajectory of the hole.

- ① To achieve the desired angle, verify the drill bit angle and depth under image intensifier control. If necessary, drill at a different angle and verify again under image intensification.

Use the according depth gauge to measure the correct screw length.



4b. Pre-drill using pre-defined nominal angle technique

Instruments – VA screws 2.7 mm

310.534	Drill Bit Ø 2.0 mm, with marking, length 110/85mm, 2-flute, for Quick Coupling
03.211.004	VA-LCP Drill Sleeve 2.7, coaxial, for Drill Bits Ø 2.0 mm
03.111.005	Depth Gauge for Screws Ø 2.0 to 2.7 mm, measuring range up to 40 mm

Optional instrument

323.260	Universal Drill Guide 2.7
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Instruments – VA screws 2.4 mm

310.509	Drill Bit Ø 1.8 mm, with marking, length 110/85mm, 2-flute, for Quick Coupling
03.110.024	VA-LCP Drill Sleeve 2.4, coaxial, for Drill Bits Ø 1.8 mm
03.111.005	Depth Gauge for Screws Ø 2.0 to 2.7 mm, measuring range up to 40 mm

Optional instrument

323.202	Universal Drill Guide 2.4
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Variable angle locking screws and standard locking screws can be inserted into the plate at the predefined hole angle, or coaxial.

Insert and lock the VA-LCP drill sleeve tip into the clover-leaf design of the VA-LCP hole. The coaxial drill guide will self retain in the hole.

Use the 2.0 mm drill bit (for VA locking screw and standard 2.7 mm locking screws) or the 1.8 mm drill bit (for VA locking screw and standard 2.4 mm locking screws) to drill to the desired depth.

- ① Verify the drill bit depth under image intensification.

Use the according depth gauge to measure the correct screw length.



5. Insert VA locking screws

Instruments – VA screws 2.4/2.7 mm

314.467	Screwdriver Shaft, Stardrive, T8, self-holding
311.430	Handle with Quick Coupling, length 110 mm
or	
03.111.038	Handle with Quick Coupling

Insert the correct length variable angle locking screw manually using the screwdriver shaft and handle with quick coupling. Insert the screw until the screw head is seated (with limited force) in the variable angle locking hole.

▲ **Precaution:**

Do not over-tighten screws. This allows the screws to be easily removed should they not be in the desired position.

Insert additional screws as needed.

Confirm proper reconstruction, screw placement and screw length under image intensification.



6. Lock VA locking screws

Instruments – VA screws 2.4/2.7 mm

314.467	Screwdriver Shaft, Stardrive, T8, self-holding
03.110.002	Torque Limiter, 1.2 Nm, with AO/ASIF Quick Coupling
03.110.005	Handle for Torque Limiters 0.4/0.8/1.2 Nm

Use the 1.2 Nm torque limiting attachment (TLA) to perform the final locking step for variable angle locking screws. The torque limiting attachment attaches to the T8 Stardrive screwdriver shaft and the blue handle for torque limiting attachment.

After appropriate screw angle and screw length has been finalized, manually insert the screw using the TLA assembly.

Use of the TLA is mandatory for variable angle locking holes to ensure the minimal amount of torque is applied when inserting the screws.

With this final locking step, the screws are securely locked in the plate.



Implant Removal

Instruments – VA screws 2.4/2.7 mm

314.467	Screwdriver Shaft, Stardrive, T8, self-holding
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03.111.038	Handle with Quick Coupling
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To remove locking screws, first unlock all locking screws before removing them completely. Otherwise, the plate may rotate and damage the soft tissue.



Plates

OX.211.220 Navicular Plate 2.4 / 2.7, VA Locking



OX.211.221 Cuboid Plate 2.4 / 2.7, VA Locking, left



OX.211.222 Cuboid Plate 2.4 / 2.7, VA Locking, right



All plates are available non-sterile and sterile packed.
Add suffix "S" to article number to order sterile product.

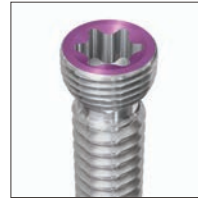
X = 2: Stainless steel
X = 4: TAN

Screws

Variable angle locking screws (VA-LCP) 2.7 mm

0X.211.010–040 VA Locking Screw Stardrive \varnothing 2.7 mm (head 2.4), self-tapping, length 10–40 mm

0X.211.042S–060S VA Locking Screw Stardrive \varnothing 2.7 mm (head 2.4), self-tapping, length 42–60 mm, sterile



Threaded, rounded head locks securely into the threaded VA-LCP holes.

Also securely locks into standard locking holes (LCP) of the plate at the pre-defined angle.

■ Note:

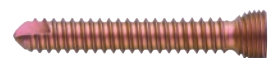
For final locking, the 1.2 Nm TLA torque limiting attachment is required.

Optional:

Variable angle locking screws (VA-LCP) 2.4 mm

0X.210.106–140 VA Locking Screw Stardrive \varnothing 2.4 mm, self-tapping, length 6–40 mm

0X.210.142S–160S VA Locking Screw Stardrive \varnothing 2.4 mm, self-tapping, length 42–60 mm, sterile



All non-sterile screws are also available sterile packed.
Add suffix "S" to article number to order sterile product.

X = 2: Stainless steel
X = 4: TAN

Cortex screws 2.7 mm

X02.870–900 Cortex Screw Stardrive Ø 2.7 mm, self-tapping, length 10–40 mm

X02.962S–969S Cortex Screw Stardrive Ø 2.7 mm, self-tapping, length 42–60 mm, sterile



Cortex screws 2.4 mm

X01.756 – 790 Cortex Screw Stardrive Ø 2.4 mm, self-tapping, length 6–40 mm

0X.210.942S – 960S Cortex Screw Stardrive Ø 2.4 mm, self-tapping, length 42–60 mm, sterile



For use in round or combi-holes.

Optional: Locking head screws 2.4/2.7 mm

X12.806–830 Locking Screw Stardrive Ø 2.4 mm, self-tapping, length 6–30 mm

X02.206–260 Locking Screw Stardrive Ø 2.7 mm (head LCP 2.4), self-tapping, length 6–60 mm



All non-sterile screws are also available sterile packed. Add suffix "S" to article number to order sterile product.

X = 2: Stainless steel
X = 4: TAN

Instruments

311.430 Handle with Quick Coupling,
length 110 mm



314.467 Screwdriver Shaft, Stardrive, T8,
self-holding



03.110.002 Torque Limiter, 1.2 Nm,
with AO/ASIF Quick Coupling



03.110.005 Handle for Torque Limiters 0.4/0.8/
1.2 Nm



03.111.005 Depth Gauge for Screws \varnothing 2.0 to
2.7 mm, measuring range up to 40 mm



03.111.038 Handle with Quick Coupling



03.211.001 Holding Pin for VA Locking Plates
2.4/2.7



Instruments for insertion of 2.7 mm screws

310.260 Drill Bit Ø 2.7 mm, length 100/75 mm, 2-flute, for Quick Coupling



310.534 Drill Bit Ø 2.0 mm, with marking, length 110/85 mm, 2-flute, for Quick Coupling



03.211.003 VA-LCP Drill Sleeve 2.7, conical, for Drill Bits Ø 2.0 mm



03.211.004 VA-LCP Drill Sleeve 2.7, coaxial, for Drill Bits Ø 2.0 mm



Instruments for insertion of 2.4 mm screws

310.509 Drill Bit \varnothing 1.8 mm, with marking, length 110/85 mm, 2-flute, for Quick Coupling

310.530 Drill Bit \varnothing 2.4 mm, length 100/75 mm, 2-flute, for Quick Coupling



323.202 Universal Drill Guide 2.4



03.110.023 VA-LCP Drill Sleeve 2.4, conical, for Drill Bits \varnothing 1.8 mm



03.110.024 VA-LCP Drill Sleeve 2.4, coaxial, for Drill Bits \varnothing 1.8 mm



Additional instruments

03.211.005 Bending Pliers for VA Locking Plates



MRI Information

Torque, Displacement and Image Artifacts according to ASTM F2213, ASTM F2052 and ASTM F2119

Non-clinical testing of worst case scenario in a 3 T MRI system did not reveal any relevant torque or displacement of the construct for an experimentally measured local spatial gradient of the magnetic field of 3.69 T/m. The largest image artifact extended approximately 169 mm from the construct when scanned using the Gradient Echo (GE). Testing was conducted on a 3 T MRI system.

Radio-Frequency-(RF-)induced heating according to ASTM F2182

Non-clinical electromagnetic and thermal testing of worst case scenario lead to peak temperature rise of 9.5 °C with an average temperature rise of 6.6 °C (1.5 T) and a peak temperature rise of 5.9 °C (3 T) under MRI Conditions using RF Coils (whole body averaged specific absorption rate [SAR] of 2 W/kg for 6 minutes [1.5 T] and for 15 minutes [3 T]).

▲ Precautions:

The above mentioned test relies on non-clinical testing. The actual temperature rise in the patient will depend on a variety of factors beyond the SAR and time of RF application. Thus, it is recommended to pay particular attention to the following points:

- It is recommended to thoroughly monitor patients undergoing MR scanning for perceived temperature and/or pain sensations.
- Patients with impaired thermoregulation or temperature sensation should be excluded from MR scanning procedures.
- Generally, it is recommended to use a MR system with low field strength in the presence of conductive implants. The employed specific absorption rate (SAR) should be reduced as far as possible.
- Using the ventilation system may further contribute to reduce temperature increase in the body.

Not all products are currently available in all markets.
This publication is not intended for distribution in the USA.
Intended use, Indications and Contraindications can be found in the corresponding system Instructions for Use.
All Surgical Techniques are available as PDF files at www.depuysynthes.com/ifu



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