Surgical Technique

smith&nephew

VLP◇ FOOT

Variable-Angle
Locked Plating System

VLP◇ FOOT Variable Angle Locked Plating System

Surgical Technique

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Nota Bene

The technique description herein is made available to the healthcare professional to illustrate the author's suggested treatment for the uncomplicated procedure. In the final analysis, the preferred treatment is that which addresses the needs of the specific patient.

Implant selection

Use the following charts to assist with implant selection.

	2.7mm T-Plates	2.7mm L-Plates	2.7mm Quarter Tubular Plates	2.7mm Quarter Tubular Compression Plates	2.7mm MTP Plates	2.7mm TMT Plates	2.7mm Barbell Plates	2.7mm Utility Plates	3.5mm One-Third Tubular Plates	3.5mm One-Third Tubular Compression Plates	3.5mm Calcaneal Plates	3.5mm Column Fusion Plates	3.5mm Multifragment Plates
													
Metatarsal fracture	●	●	●	●					●	●			
Lisfranc dislocation/fracture	●	●				●		●					●
Cuboid fracture			●	●				●					
Navicular fracture			●	●									
Metatarsal osteotomies	●	●	●	●			●		●	●			
Lapidus	●	●	●	●		●	●	●	●	●			●
MTP fusion	●	●	●	●	●								
TMT fusion	●	●	●	●		●	●	●	●	●			
Lateral column lengthening	●	●	●	●				●	●	●			●
Medial column reconstruction								●	●	●		●	●
Calcaneal fracture	●	●						●			●		
Naviculocuneiform fusion							●	●	●	●			●
Talonaviculocuneiform fusion						●			●	●			●
Talonavicular fusion							●	●	●	●			●
Calcaneocuboid fusion							●	●	●	●			
Weil osteotomy							●						

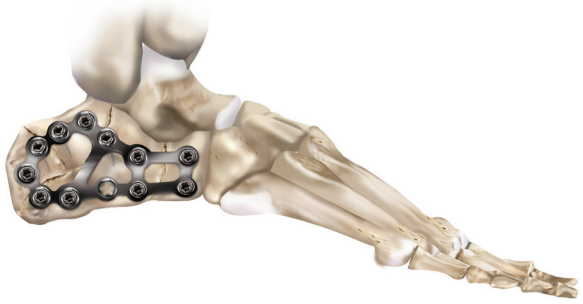
Note: Radiographic templates are available to assist with preoperative radiographic planning.

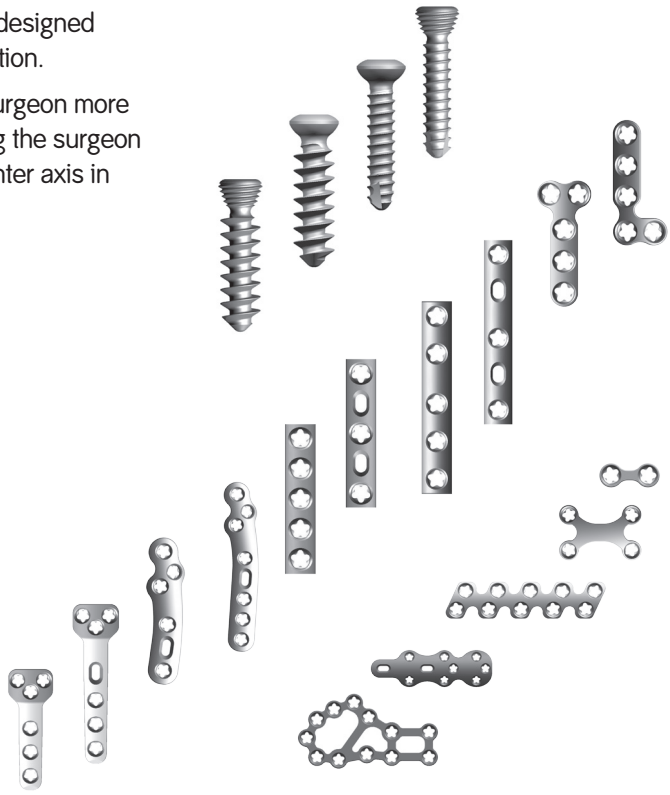
Product overview

Introduction

Different patients require different solutions. The VLP® FOOT system focuses on treating the different types of patients you see in your practice and returning them to their lifestyle.

- Screws for every type of bone, including 4.0mm and 5.0mm Osteopenia Screws designed to provide increased stability in soft bone.[1,2]
- Plates for each indication and surgical technique, including MTP Fusion plates, Calcaneus Fracture plates and a Column Fusion plate designed specifically for Charcot Reconstruction.
- Variable-angle locking gives the surgeon more choice in plate placement, allowing the surgeon to place a locking screw 15° off center axis in any direction.





System overview

Forefoot/Midfoot System

Plates

- T-Plates
- L-Plates
- Quarter Tubular Plates
- Quarter Tubular Compression Plates
- MTP Plates
- TMT Plates
- Barbell Plates
- Utility Plates
- H-Plates (must be ordered separately)

Screws

- 2.7mm Cortex Screws
- 2.7mm Locking Screws
- 4.0mm Fully Threaded Osteopenia Screws
- 4.0mm Locking Osteopenia Screws
- 4.0mm Partially Threaded Osteopenia Screws (must be ordered separately)

Midfoot/Hindfoot System

Plates

- One-third Tubular Plates
- One-third Tubular Compression Plates
- Calcaneal Plates
- Column Fusion Plates
- Multifragment Plates
- Fusion Plates (must be ordered separately)

Screws

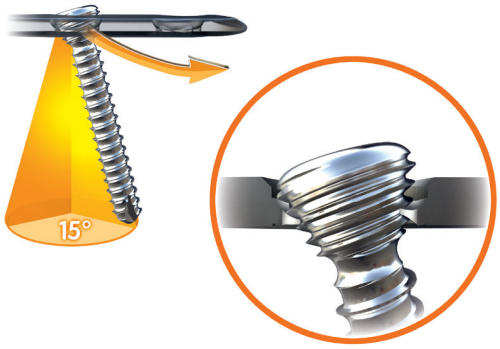
- 3.5mm Cortex Screws
- 3.5mm Locking Screws
- 5.0mm Fully Threaded Osteopenia Screws
- 5.0mm Locking Osteopenia Screws
- 5.0mm Partially Threaded Osteopenia Screws (must be ordered separately)

Indications

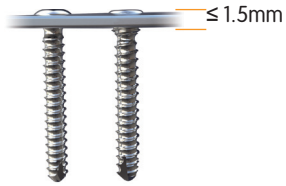
The Smith & Nephew VLP° FOOT Plating System can be used in adolescent (12–18 years) and transitional adolescent (18–21 years) subpopulations and adults, as well as patients with osteopenic bone. The VLP FOOT Plating System is indicated for the treatment of fracture fixation, reconstruction or arthrodeses of small bones, including those in the forefoot, midfoot and hindfoot.

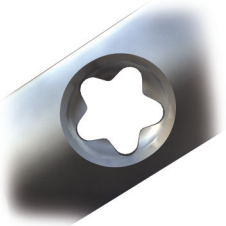
Design features and benefits

Polyaxial locking plate
Each VLP® FOOT screw hole contains five separate tabs that engage with the threads of the locking screw head to form a fixed angle construct. Locking screws can be angled and locked up to 15° in any direction allowing for the creation of customized, multidirectional locked plating constructs.



Low-profile implants
The profile of the VLP FOOT locking plate is designed to ensure low-profile fixation in areas of minimal soft tissue coverage. All screws in the VLP FOOT system have a low-head profile to further reduce the potential for soft tissue irritation in these sensitive areas.





Compression slots
Many of the VLP FOOT plates incorporate a slot used to assist in compression of fractures or fusions. Slots vary in length depending on each plate design. Various reduction clamps are available to be used in conjunction with the slot to achieve maximum compression.

Optimal plate contour
Many of the VLP FOOT locking plates have an optimized contour customized to specific anatomy to facilitate fusion or fracture reduction and stabilization. As the plate is compressed to bone, the plate will further contour to the specific anatomy of the patient.

Forefoot/midfoot plate overview

MTP Fusion Plates

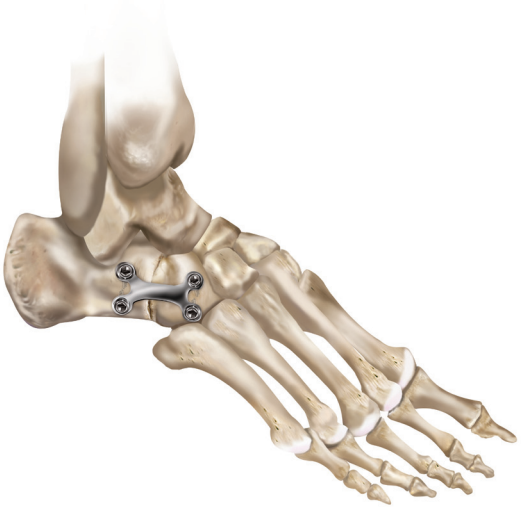
- Distal screw cluster and low-plate profile provide stable fusion fixation
- 1.27mm thickness
- Compression slot provides up to 3mm compression
- Primary and revision plates available
- Left and right specific
- Angled 12.5° valgus

TMT Fusion Plates

- Proximal screw cluster and low-plate profile provide stable fusion fixation
- 1.5mm thickness
- Compression slot on long plate provides up to 3mm compression through the hole or the ability to drive a screw through the slot to further compress the metatarsal and cuneiform
- Short and long length options available

Utility Plates

- Multiuse fusion plate
- Provides minimal plate coverage with required stability
- Plate “arms” can be bent to address specific needs of varying patient anatomy
- 1.5mm thickness
- Available in small, medium and large sizes



Barbell Plates

- Designed for use in small bone fractures or osteotomies
- 1.5mm thickness

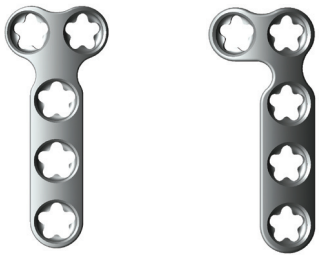
Quarter Tubular Compression Plates

- Compression slots allow for up to 2mm of compression through slot
- Available in multiple lengths ranging from 24mm – 56mm
- 1.5mm thickness

Quarter Tubular Plates

- Available in multiple lengths ranging from 24mm – 64mm
- 1.5mm thickness

Classic Plates



- Classic plate designs used for multiple small bone applications
- Includes left and right L-Plates, and a T-Plate
- 1.5mm thickness

Additional Plates

- H-Plates available in 5 Hole and 8 Hole versions (must be ordered separately)

Forefoot/midfoot screw overview

The following screws are available to be used with the forefoot/midfoot plates:

- Self-tapping 2.7mm Cortex and 2.7mm Locking screws
- 4.0mm Osteopenia and 4.0mm Locking Osteopenia screws provide superior purchase in poor quality bone stock
- Standard 2.5mm hex head recess for all screws
- Low-profile heads to reduce soft tissue irritation
- Screw angulation in each plate hole:
  2.7mm Cortex: 20°
  2.7mm Locking: 15°
  4.0mm Osteopenia: 15°
  4.0mm Locking Osteopenia: 15°
- Standardized 2.0mm drill bit for all 2.7mm and 4.0mm screws
- 2.7mm drill bit available for overdrilling when using lag technique
- 4.0mm Partially Threaded Osteopenia screws available separately

2.7mm Cortex

2.7mm Locking

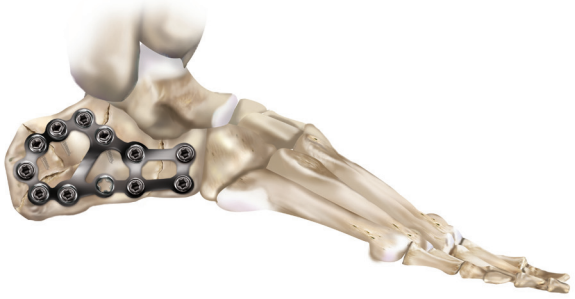
4.0mm Fully Threaded Osteopenia

4.0mm Locking Osteopenia

4.0mm Partially Threaded Osteopenia

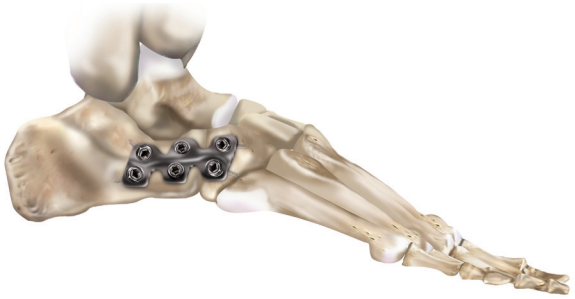
Midfoot/hindfoot plate overview

Calcaneus Fracture Plates



- Anatomically designed to match the lateral aspect of the calcaneus
- 1.27mm thickness
- Small and large options (Medium and Extra-Large available separately)
- Left and right specific

Multifragment Plates



- Ability to fuse multiple joints across medial and lateral columns from talus to metatarsals
- Can be bent to address specific needs of varying patient anatomy
- 4 Hole, 6 Hole, 10 Hole and 14 Hole options
- 1.5mm thickness

Column Fusion Plates

- Large plate profile specifically designed to provide extra stability in patients with soft bone (e.g. Charcot)
- Multiple compression slots that achieve up to 4mm of compression through plate
- 1.5mm thickness

One-Third Tubular Compression Plates

- Compression slots allow for up to 2mm of compression through slot
- Available in multiple lengths ranging from 38mm – 86mm
- 1.5mm thickness

One-Third Tubular Plates

- Available in multiple lengths ranging from 38mm – 98mm
- 1.5mm thickness

Additional Plates

- Fusion plates available in short and long versions (must be ordered separately)

Midfoot/hindfoot screw overview

The following screws are available to be used with the midfoot/hindfoot plates:

- Self-tapping 3.5mm Cortex and 3.5mm Locking screws
- 5.0mm Osteopenia and 5.0mm Locking Osteopenia screws provide superior purchase and compression in poor quality bone stock
- Standard 2.5mm hex head recess for all screws
- Low-profile heads to reduce soft tissue irritation
- Screw angulation in each plate hole:
  3.5mm Cortex: 20°
  3.5mm Locking: 15°
  5.0mm Osteopenia: 15°
  5.0mm Locking Osteopenia: 15°
- Standardized 2.7mm drill bit for 3.5mm and 5.0mm screws
- 3.5mm drill bit available for overdrilling when using lag technique
- 5.0mm Partially Threaded Osteopenia screws available separately

3.5mm Cortex

3.5mm Locking

5.0mm Fully Threaded Osteopenia

5.0mm Locking Osteopenia

5.0mm Partially Threaded Osteopenia

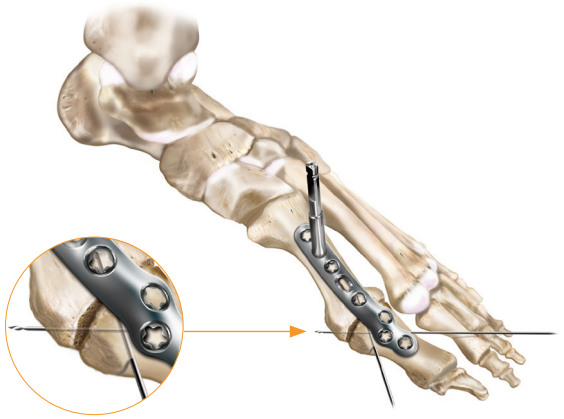
Surgical technique

Fracture/arthrodesis reduction

Articular fracture or arthrodesis components must be anatomically reduced prior to plate application and screw insertion. Reduction aids should be placed so as not to interfere with final plate placement. Reduce and provisionally secure bone fragments using:

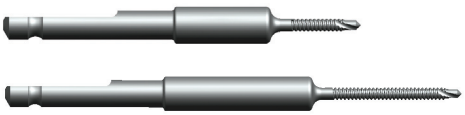
Drill Tip Wires*

Drill Tip Wires are made of cobalt chrome with a fluted tip to provide greater stiffness and easier insertion.



Cat No	Description
7110-1413	1.1mm x 150mm Drill Tip Wire
7110-1503	1.25mm x 150mm Drill Tip Wire
7110-1506	1.25mm x 150mm Threaded Drill Tip Wire
7110-1502	1.6mm x 150mm Drill Tip Wire
7110-1505	1.6mm x 150mm Threaded Drill Tip Wire
7110-1501	2.0mm x 150mm Drill Tip Wire
7110-1504	2.0mm x 150mm Threaded Drill Tip Wire

Provisional Fixation Pins



Cat No	Description
7117-3807	2.0mm x 14mm
7117-3808	2.0mm x 25mm
7117-1228	2.7mm x 14mm
7117-1229	2.7mm x 25mm

Note: When inserting provisional fixation pins, be sure to tighten by hand to avoid pin stripping and/or loss of reduction.

Reduction Clamps

Cat No	Description
7117-3377	Reduction Forceps, Broad
7117-0044	Reduction Forceps, 205mm
7117-3817	Redler Pin Clamp
7117-3818	Compression Forceps with Screw Holders
7117-3863	Compression Forceps with Sharp Point

*Located in the Smith & Nephew Drill Wire Module

Implant positioning

Select the VLP® FOOT plate that best accommodates patient anatomy.

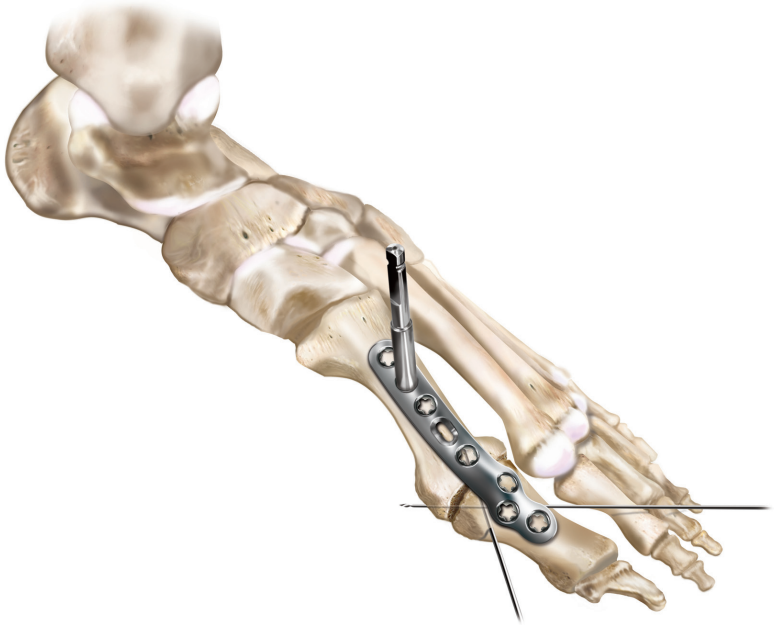
Note: VLP FOOT Preoperative Templates are available to assist with pre-operative radiographic planning (Set 7118-1413). Metal templates are available (Set 7117-0030) to assist with intraoperative plate selection.

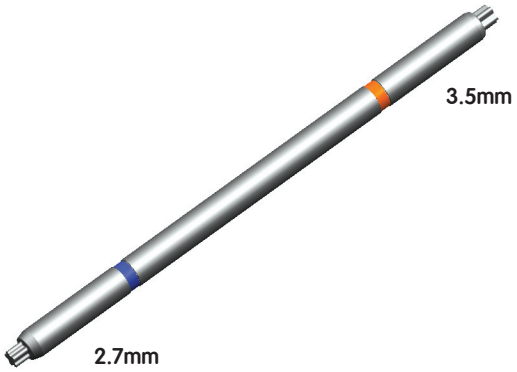
After choosing the appropriate plate for the fracture, osteotomy or fusion, the plate can be provisionally fixed to the bone using the PF Pins and Reduction Clamps mentioned above.

If the plate does not properly fit the anatomy, Plate Bending Irons (7117-3815) and the Plate Bending Handle (7117-3816) can be used to additionally contour the implant before the plate is fixed to bone.

The 2.7/3.5mm Plate Bending Rod (7117-3864) can be used to bend the plate when it is partially fixed to bone. To use the Plate Bending Rod, insert the appropriate end into the plate hole to maintain the locking capabilities. For 2.7mm screw holes, use the blue end of the tool. For 3.5mm screw holes, use the orange end of the tool.

Note: Avoid excessive plate contouring as this could compromise plate locking mechanism. When using the Plate Bending Rod, holes adjacent to the tool may lose the ability to lock. If this occurs, a nonlocking screw can be used.





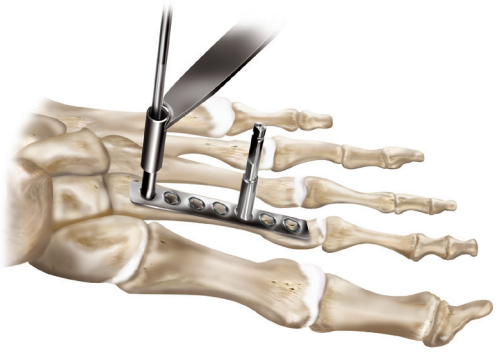
Screw holes on the VLP® FOOT Forefoot/Midfoot Plating System were designed to accept 2.7mm Cortex, 2.7mm Locking, 4.0mm Osteopenia and 4.0mm Locking Osteopenia screws.

Screw holes on the VLP FOOT Midfoot/Hindfoot Plating System were designed to accept 3.5mm Cortex, 3.5mm Locking, 5.0mm Osteopenia, and 5.0mm Locking Osteopenia screws.

In addition to the screw holes, many of the plates also have compression slots. After partially inserting a screw through a compression slot, compression can be achieved when used in conjunction with the Compression Forceps with Screw Holders (7117-3818) or with the Compression Forceps with Sharp Point (7117-3863).

Screw insertion technique

2.7mm Cortex Screw



Step 1
Position the 2.0mm x 2.7mm Drill Guide (7117-3809) on bone into the desired screw hole and drill accordingly with the 2.0mm drill. Depending upon plate selection and location, either the 2.0mm Drill, 130mm (7117-3801) or 2.0mm Drill, 191mm (7117-3802) will be used.

Note: The 2.0mm x 2.7mm Drill Guide may also be used for lag screw placement within the plate or independent of the plate.

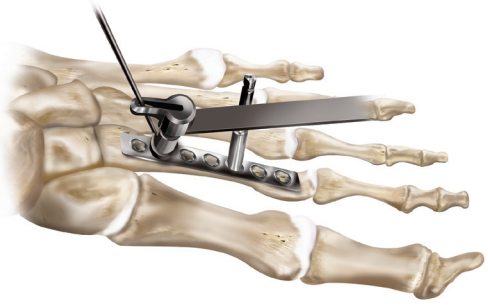
Step 2
Measure for screw length by reading the exposed calibrations off the drill bit or by using the 2.7mm/ 3.5mm Depth Gauge (7117-1231). Depth gauge must be flush with bone for correct measurement.

Step 3
Insert the appropriate length 2.7mm Self-Tapping Cortex Screw using the 2.5mm Hex Screwdriver (7117-0029).

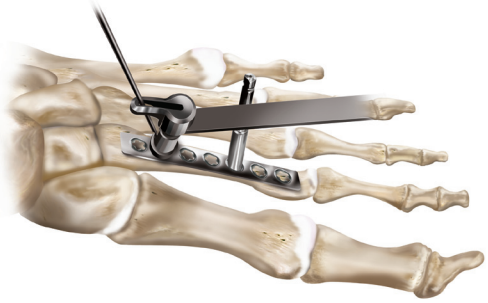
2.7mm Locking Screw, 4.0mm Osteopenia Screw and 4.0mm Locking Osteopenia Screw

Step 1
Insert the 2.0mm Angled Drill Guide (7117-3811) into the desired screw hole. The drill guide is correctly aligned when the star-shaped tip engages with the tabs in the hole. Adjust screw trajectory by rotating the tip of the variable angle drill guide up to 360° within the plate hole and angling the drill up to 15° in any direction. Drill accordingly with either the 2.0mm Drill, 130mm (7117-3801) or 2.0mm Drill, 191mm (7117-3802), depending on plate type and location.

Note: The 2.0mm/2.7mm Drill Guide (7117-3809) is available for placement of a 4.0mm Osteopenia screw outside the plate.



Step 2
Measure for screw length by reading the exposed calibrations off the drill bit or by using the 2.7mm/3.5mm Depth Gauge (7117-1231). Depth gauge must be flush with bone for correct measurement.



Step 3
Insert the appropriate length 2.7mm Locking Screw or 4.0mm Osteopenia Locking Screw using the 1.7Nm Torque Limiting Handle* (7117-1238) and the 2.5mm Hexdriver Shaft (7117-0033). Usage of the torque limiting screwdriver will prevent over-insertion of the locking screw through the locking hole. For insertion of a nonlocking screw, the 2.5mm Hex Screwdriver (7117-0029) can be used.

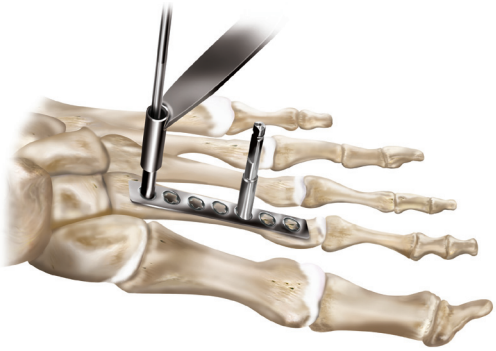
Note: Locking screws may be inserted on power, but should always be tightened by hand in order to avoid loss of reduction, stripping of the screw head or damage to the screwdriver.

*The 1.7Nm Torque Limiting Screwdriver should be calibrated every six months to ensure optimal instrument performance.

3.5mm Cortex Screw

Step 1
Position the 2.7mm x 3.5mm Drill Guide (7117-3810) on bone into the desired screw hole and drill accordingly with the 2.7mm drill. Depending upon plate selection and location, either the 2.7mm Drill, 130mm (7117-3803) or 2.7mm Drill, 191mm (7117-3804) will be used.

Note: The 2.7mm x 3.5mm Drill Guide may also be used for lag screw placement within the plate or independent of the plate.



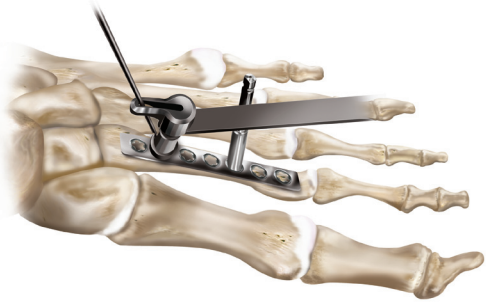
Step 2
Measure for screw length by reading the exposed calibrations off the drill bit or by using the 2.7mm/ 3.5mm Depth Gauge (7117-1231). Depth gauge must be flush with bone for correct measurement.

Step 3
Insert the appropriate length 3.5mm Self-Tapping Cortex screw using the 2.5mm Hex Screwdriver (7117-0029).

3.5mm Locking Screw, 5.0mm Osteopenia Screw and 5.0mm Locking Osteopenia Screw

Step 1
Insert the 2.7mm Angled Drill Guide (7117-3812) into the desired screw hole. The drill guide is correctly aligned when the star-shaped tip engages with the tabs in the hole. Adjust screw trajectory by rotating the tip of the variable angle drill guide up to 360° within the plate hole and angling the drill up to 15° in any direction. Drill accordingly with either the 2.7mm Drill, 130mm (7117-3803) or 2.7mm Drill, 191mm (7117-3804) depending on plate type and location.

Note: The 2.7mm/3.5mm Drill Guide (7117-3810) is available for placement of a 5.0mm Osteopenia screw outside the plate.



Step 2
Measure for screw length by reading the exposed calibrations off the drill bit or by using the 2.7mm/3.5mm Depth Gauge (7117-1231). Depth gauge must be flush with bone for correct measurement.

Step 3
Insert the appropriate length 3.5mm Locking screw or 5.0mm Osteopenia Locking screw using the 1.7Nm Torque Limiting Handle* (7117-1238) and the 2.5mm Hexdriver Shaft. Usage of the torque limiting screwdriver will prevent over-insertion of the locking screw through the locking hole. For insertion of a nonlocking screw, the 2.5mm Hex Screwdriver (7117-0029) can be used.

Note: Locking screws may be inserted on power, but should always be tightened by hand in order to avoid loss of reduction, stripping of the screw head or damage to the screwdriver.

*The 1.7Nm Torque Limiting Screwdriver should be calibrated every six months to ensure optimal instrument performance.

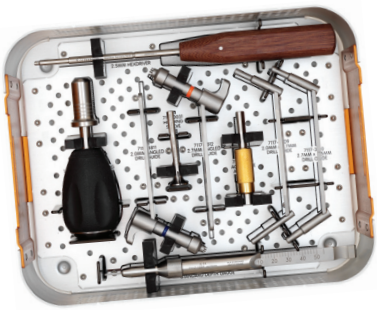
Stripped Hex Screw removal

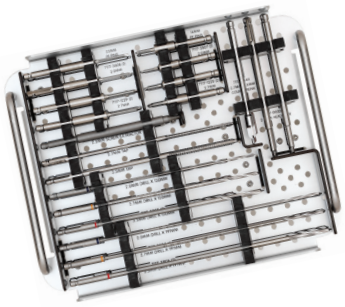
In the event that a screw strips, attach the 2.5mm Screw Extractor (7117-1237) to either the Small Quick Coupling Handle (7117-0015) or the 1.7Nm Torque Limiting Handle (7117-1238) and insert into the recess of the screw. Turn the extractor assembly **counterclockwise** to remove the screw. The Screw Extractor is compatible with all VLP® screws.

Closure

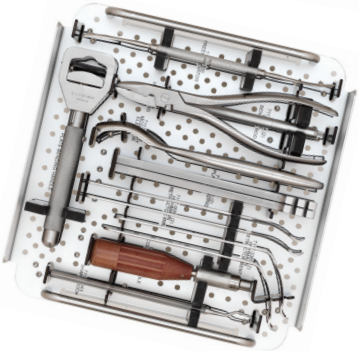
Using fluoroscopy, obtain final images to confirm proper placement of implants.

Catalog Information

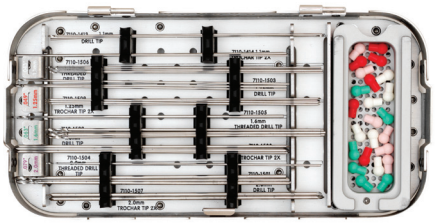




Base Instrument Set



Ancillary Instrument Set



Drill Wire Module

Base Instrument Set

Set No 7117-0018

Cat No	Description	Qty
7117-3845	Base Instrument Tray	1
7117-3856	Base Instrument Tray Lid	1
7117-3801	2.0mm Drill, 130mm	2
7117-3802	2.0mm Drill, 191mm	2
7117-3803	2.7mm Drill, 130mm	2
7117-3804	2.7mm Drill, 191mm	2
7117-3805	3.5mm Drill, 130mm	2
7117-3806	3.5mm Drill, 191mm	2
7117-3807	2.0mm PF Pin, 14mm	2
7117-3808	2.0mm PF Pin, 25mm	2
7117-1228	2.7mm PF Pin, 14mm	2
7117-1229	2.7mm PF Pin, 25mm	2
7117-1231	2.7mm/3.5mm Depth Gauge	1
7117-3809	2.0mm/2.7mm Drill Guide	1

Cat No	Description	Qty
7117-3810	2.7mm/3.5mm Drill Guide	1
7117-3811	2.0mm Angled Drill Guide	1
7117-0033	2.5mm Hexdriver with AO	2
7117-3812	2.7mm Angled Drill Guide	1
7117-1238	1.7Nm Torque Limiting Handle	1
7117-0031	2.7mm/3.5mm Holding Sleeve/ Screw Capture	1
7117-3344	2.7mm/3.5mm Countersink	1
7117-3366	2.7mm Tap	1
7117-0029	2.5mm Hexdriver with Handle	1
7117-3528	AO-Trinkle	1
7117-1237	2.5mm Hex Screw Extractor	1
7117-3318	3.5mm Tap	1

Ancillary Instrument Set

Set No 7117-0020

Cat No	Description	Qty
7117-3846	Ancillary Instrument Tray	1
7117-3857	Ancillary Instrument Tray Lid	1
7110-1530	Freer Elevator	1
7117-0043	Sharp Hook	1
7117-3369	Bent Hohmann	2
7117-0057	Straight 8mm Hohmann	2
7117-3814	Wire Bending/Cutting Pliers	1
7117-3815	Plate Bending Irons	2
7117-3816	Plate Bending Handle	1

Cat No	Description	Qty
7117-3377	Reduction Forceps, broad	2
7117-0044	Reduction Forceps, 205mm	2
7117-3817	Redler Pin Clamp	1
7117-0015	Small Quick-Coupling Handle	1
7117-3818	Compression Forceps with Screw Holders	1
7117-3863	Compression Forceps with Sharp Point	1
7117-3819	McGlamry Elevator	1
7117-3864	2.7mm/3.5mm Plate Bending Rod	2

Drill Wire Set

Set No 7110-1600

Cat No	Description	Qty
7110-1531	Drill Wire Module	1
7110-1532	Drill Wire Module Lid	1
7110-1533	Wire Cap Tray	1
7110-1534	Wire Cap Lid	1
7110-1401	1.1mm Wire Cap	6
7110-1402	1.25mm Wire Cap	6
7110-1403	1.6mm Wire Cap	6
7110-1404	2.0mm Wire Cap	6
7110-1413	1.1mm Drill Tip Wire, 150mm	6
7110-1414	1.1mm Trocar Tip Wire 2X Ended, 150mm	6
7110-1506	1.25mm Drill Tip Threaded Wire, 150mm	6

Cat No	Description	Qty
7110-1503	1.25mm Drill Tip Wire, 150mm	6
7110-1509	1.25mm Trocar Tip Wire 2X Ended, 150mm	6
7110-1505	1.6mm Drill Tip Threaded Wire, 150mm	6
7110-1502	1.6mm Drill Tip Wire, 150mm	6
7110-1508	1.6mm Trocar Tip Wire 2X Ended, 150mm	6
7110-1504	2.0mm Drill Tip Threaded Wire, 150mm	6
7110-1501	2.0mm Drill Tip Wire, 150mm	6
7110-1507	2.0mm Trocar Tip Wire 2X Ended, 150mm	6

Complete Outer Case Set

Set No 7117-0060

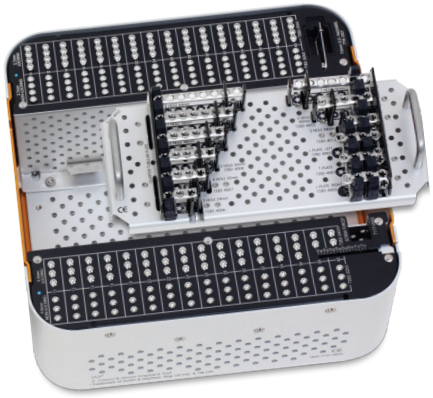
Cat No	Description	Qty
7117-3848	VLP 2.7mm/3.5mm Instrument Tray	1
7117-3849	VLP FOOT Implant Tray	1

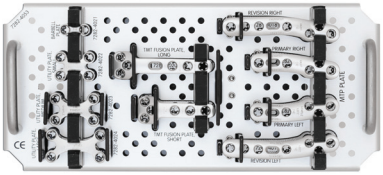
Cat No	Description	Qty
7117-3859	VLP 2.7mm/3.5mm Instrument Tray Lid	1
7117-3860	VLP FOOT Implant Tray Lid	1

Outer Instruments Case Set

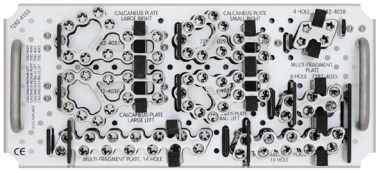
Set No 7117-0070

Cat No	Description	Qty
7117-3848	VLP 2.7mm/3.5mm Instrument Tray	1
7117-3859	VLP 2.7mm/3.5mm Instrument Tray Lid	1





Forefoot/Midfoot Implant Set



Midfoot/Hindfoot Implant Set

Implants

Forefoot/Midfoot Plate Set

Set No 7282-4000

*Forefoot/Midfoot Plate Set available without trays and lid as set 7282-6000

Cat No	Description	Qty
7117-3841	2.7mm/4.0mm Implant Tray	1
7117-3852	2.7mm/4.0mm Implant Tray Lid	1
7282-4052	VLP FOOT 2.7mm Lower Plate Tray	1
7282-4053	VLP FOOT 2.7mm Upper Plate Tray	1
7282-4001S	2.7mm T-Plate	1
7282-4002S	2.7mm L-Plate, Left	1
7282-4003S	2.7mm L-Plate, Right	1
7282-4006S	2.7mm Quarter Tubular Plate, 3 Hole	1
7282-4007S	2.7mm Quarter Tubular Plate, 4 Hole	1
7282-4008S	2.7mm Quarter Tubular Plate, 5 Hole	1
7282-4009S	2.7mm Quarter Tubular Plate, 6 Hole	1
7282-4010S	2.7mm Quarter Tubular Plate, 7 Hole	1
7282-4011S	2.7mm Quarter Tubular Plate, 8 Hole	1

Cat No	Description	Qty
7282-4012S	2.7mm Quarter Tubular Compression Plate, 3 Hole	1
7282-4013S	2.7mm Quarter Tubular Compression Plate, 5 Hole	1
7282-4014S	2.7mm Quarter Tubular Compression Plate, 7 Hole	1
7282-4015S	2.7mm MTP Plate Primary, Left	1
7282-4016S	2.7mm MTP Plate Primary, Right	1
7282-4017S	2.7mm MTP Plate Revision, Left	1
7282-4018S	2.7mm MTP Plate Revision, Right	1
7282-4019S	2.7mm TMT Fusion Plate, Short	1
7282-4020S	2.7mm TMT Fusion Plate, Long	1
7282-4021S	2.7mm Barbell Plate	1
7282-4022S	2.7mm Utility Plate, Small	1
7282-4023S	2.7mm Utility Plate, Medium	1
7282-4024S	2.7mm Utility Plate, Large	1
7282-4004S	2.7mm H-Plate, 5 Hole	0*
7282-4005S	2.7mm H-Plate, 8 Hole	0*

*Must be ordered separately

Forefoot/Midfoot Screw Set

Set No 7282-5000

Cat No	Description	Qty
2.7mm Self-Tapping Cortex Screws		
7182-3010	10mm	4
7182-3012	12mm	4
7182-3014	14mm	4
7182-3016	16mm	4
7182-3018	18mm	4
7182-3020	20mm	4
7182-3022	22mm	4
7182-3024	24mm	4
7182-3026	26mm	4
7182-3028	28mm	4
7182-3030	30mm	4
7182-3032	32mm	4
7182-3034	34mm	4
7182-3036	36mm	4
7182-3038	38mm	4
7182-3040	40mm	4
2.7mm Self-Tapping Locking Cortex Screws		
7282-3110	10mm	4
7282-3112	12mm	4
7282-3114	14mm	4
7282-3116	16mm	4
7282-3118	18mm	4
7282-3120	20mm	4
7282-3122	22mm	4
2.7mm Self-Tapping Locking Cortex Screws *(continued)*		
7282-3124	24mm	4
7282-3126	26mm	4
7282-3128	28mm	4
7282-3130	30mm	4
7282-3132	32mm	4
7282-3134	34mm	4
7282-3136	36mm	4
7282-3138	38mm	4
7282-3140	40mm	4
4.0mm Fully Threaded Osteopenia Screws		
7282-3210	10mm	3
7282-3212	12mm	3
7282-3214	14mm	3
7282-3216	16mm	3
7282-3218	18mm	3
7282-3220	20mm	3
7282-3222	22mm	3
7282-3224	24mm	3
7282-3226	26mm	3
7282-3228	28mm	3
7282-3230	30mm	3
7282-3232	32mm	3
7282-3234	34mm	3
7282-3236	36mm	3
7282-3238	38mm	3
7282-3240	40mm	3
4.0mm Locking Osteopenia Screws		
7282-3410	10mm	3
7282-3412	12mm	3
7282-3414	14mm	3
7282-3416	16mm	3
7282-3418	18mm	3
7282-3420	20mm	3
7282-3422	22mm	3
7282-3424	24mm	3
7282-3426	26mm	3
7282-3428	28mm	3
7282-3430	30mm	3
7282-3432	32mm	3
7282-3434	34mm	3
7282-3436	36mm	3
7282-3438	38mm	3
7282-3440	40mm	3
Additional Items		
7114-3107	7.0mm O.D. Washer	6
7117-0002	Screw Forceps	6

4.0mm Partially Threaded Osteopenia Screw Set

Set No 7282-3300

4.0mm Partially Threaded Osteopenia Screws (Sterile)		
7282-3326S	26mm	3
7282-3328S	28mm	3
7282-3330S	30mm	3
7282-3332S	32mm	3
7282-3334S	34mm	3
7282-3336S	36mm	3
7282-3338S	38mm	3
7282-3340S	40mm	3

Forefoot/Midfoot Sterile Screw Set

Set No 7282-5005

Cat No	Description	Qty
2.7mm Self-Tapping Cortex Screws (Sterile)		
7180-3010	10mm	3
7180-3012	12mm	3
7180-3014	14mm	3
7180-3016	16mm	3
7180-3018	18mm	3
7180-3020	20mm	3
7180-3022	22mm	2
7180-3024	24mm	2
7180-3026	26mm	2
7180-3028	28mm	2
7180-3030	30mm	2
7180-3032	32mm	2
7180-3034	34mm	2
7180-3036	36mm	2
7180-3038	38mm	2
7180-3040	40mm	2
2.7mm Self-Tapping Locking Cortex Screws (Sterile)		
7282-3110S	10mm	3
7282-3112S	12mm	3
7282-3114S	14mm	3
7282-3116S	16mm	3
7282-3118S	18mm	3
7282-3120S	20mm	3
7282-3122S	22mm	2

Cat No	Description	Qty
2.7mm Self-Tapping Locking Cortex Screws (Sterile) *(continued)*		
7282-3124S	24mm	2
7282-3126S	26mm	2
7282-3128S	28mm	2
7282-3130S	30mm	2
7282-3132S	32mm	2
7282-3134S	34mm	2
7282-3136S	36mm	2
7282-3138S	38mm	2
7282-3140S	40mm	2
4.0mm Fully Threaded Osteopenia Screws (Sterile)		
7282-3210S	10mm	3
7282-3212S	12mm	3
7282-3214S	14mm	3
7282-3216S	16mm	3
7282-3218S	18mm	3
7282-3220S	20mm	3
7282-3222S	22mm	2
7282-3224S	24mm	2
7282-3226S	26mm	2
7282-3228S	28mm	2
7282-3230S	30mm	2
7282-3232S	32mm	2
7282-3234S	34mm	2
7282-3236S	36mm	2
7282-3238S	38mm	2
7282-3240S	40mm	2

Cat No	Description	Qty
4.0mm Locking Osteopenia Screws (Sterile)		
7282-3410S	10mm	3
7282-3412S	12mm	3
7282-3414S	14mm	3
7282-3416S	16mm	3
7282-3418S	18mm	3
7282-3420S	20mm	3
7282-3422S	22mm	2
7282-3424S	24mm	2
7282-3426S	26mm	2
7282-3428S	28mm	2
7282-3430S	30mm	2
7282-3432S	32mm	2
7282-3434S	34mm	2
7282-3436S	36mm	2
7282-3438S	38mm	2
7282-3440S	40mm	2
Additional Items (Sterile)		
7114-3007	7.0mm O.D. Washer	6

Midfoot/Hindfoot Plate Set

Set No 7282-4100

*Midfoot/Hindfoot Plate Set available without trays and lid as set 7282-6100

Cat No	Description	Qty
7117-3843	3.5mm/5.0mm Implant Tray	1
7117-3854	3.5mm/5.0mm Implant Tray Lid	1
7282-4102	VLP FOOT 3.5mm Lower Plate Tray	1
7282-4103	VLP FOOT 3.5mm Upper Plate Tray	1
7282-3003S	3.5mm One-Third Tubular Plate, 3 Hole	1
7282-3004S	3.5mm One-Third Tubular Plate, 4 Hole	1
7280-3005	3.5mm One-Third Tubular Plate, 5 Hole	1
7280-3006	3.5mm One-Third Tubular Plate, 6 Hole	1
7280-3007	3.5mm One-Third Tubular Plate, 7 Hole	1
7280-3008	3.5mm One-Third Tubular Plate, 8 Hole	1
7282-4025S	3.5mm One-Third Tubular Compression Plate, 3 Hole	1
7282-4026S	3.5mm One-Third Tubular Compression Plate, 5 Hole	1
7282-4027S	3.5mm One-Third Tubular Compression Plate, 7 Hole	1

Cat No	Description	Qty
7282-4028S	3.5mm Calcaneus Plate, Small Left	1
7282-4029S	3.5mm Calcaneus Plate, Small Right	1
7282-4030S	3.5mm Calcaneus Plate, Large Left	1
7282-4031S	3.5mm Calcaneus Plate, Large Right	1
7282-4034S	3.5mm Column Fusion Plate	1
7282-4038S	3.5mm Multifragment Plate, 4 Hole	1
7282-4035S	3.5mm Multifragment Plate, 6 Hole	1
7282-4036S	3.5mm Multifragment Plate, 10 Hole	1
7282-4037S	3.5mm Multifragment Plate, 14 Hole	1
7282-4032S	3.5mm Fusion Plate	0*
7282-4033S	3.5mm Fusion Plate, Long	0*
7282-4039S	3.5mm Calcaneus Plate, Medium Left	0*
7282-4040S	3.5mm Calcaneus Plate, Medium Right	0*
7282-4041S	3.5mm Calcaneus Plate, Extra-Large Left	0*
7282-4042S	3.5mm Calcaneus Plate, Extra-Large Right	0*

*Must be ordered separately

Midfoot/Hindfoot Screw Set

Set No 7282-5010

Cat No	Description	Qty
3.5mm Self-Tapping Cortex Screws		
7182-1310	10mm	4
7182-1312	12mm	4
7182-1314	14mm	4
7182-1316	16mm	4
7182-1318	18mm	4
7182-1320	20mm	4
7182-1322	22mm	4
7182-1324	24mm	4
7182-1326	26mm	4
7182-1328	28mm	4
7182-1330	30mm	4
7182-1332	32mm	4
7182-1334	34mm	4
7182-1336	36mm	4
7182-1338	38mm	4
7182-1340	40mm	4
7182-1342	42mm	4
7182-1344	44mm	4
7182-1346	46mm	4
7182-1348	48mm	4
7182-1350	50mm	4
7182-1355	55mm	4
7182-1360	60mm	4
3.5mm Self-Tapping Locking Cortex Screws		
7182-1210	10mm	4
7182-1212	12mm	4
7182-1214	14mm	4
7182-1216	16mm	4
7182-1218	18mm	4
7182-1220	20mm	4
7182-1222	22mm	4
7182-1224	24mm	4
7182-1226	26mm	4
7182-1228	28mm	4
7182-1230	30mm	4
7182-1232	32mm	4
7182-1234	34mm	4
7182-1236	36mm	4
7182-1238	38mm	4
3.5mm Self-Tapping Locking Cortex Screws *(continued)*		
7182-1240	40mm	4
7182-1242	42mm	4
7182-1244	44mm	4
7182-1246	46mm	4
7182-1248	48mm	4
7182-1250	50mm	4
7182-1255	55mm	4
7182-1260	60mm	4
5.0mm Fully Threaded Osteopenia Screws		
7182-2010	10mm	3
7182-2012	12mm	3
7182-2014	14mm	3
7182-2016	16mm	3
7182-2018	18mm	3
7182-2020	20mm	3
7182-2022	22mm	3
7182-2024	24mm	3
7182-2026	26mm	3
7182-2028	28mm	3
7182-2030	30mm	3
7182-2032	32mm	3
7182-2034	34mm	3
7182-2036	36mm	3
7182-2038	38mm	3
7182-2040	40mm	3
7182-2042	42mm	3
7182-2044	44mm	3
7182-2046	46mm	3
7182-2048	48mm	3
7182-2050	50mm	3
7182-2055	55mm	3
7182-2060	60mm	3
5.0mm Locking Osteopenia Screws		
7282-3510	10mm	3
7282-3512	12mm	3
7282-3514	14mm	3
7282-3516	16mm	3
7282-3518	18mm	3
7282-3520	20mm	3
7282-3522	22mm	3
7282-3524	24mm	3
5.0mm Locking Osteopenia Screws *(continued)*		
7282-3526	26mm	3
7282-3528	28mm	3
7282-3530	30mm	3
7282-3532	32mm	3
7282-3534	34mm	3
7282-3536	36mm	3
7282-3538	38mm	3
7282-3540	40mm	3
7282-3542	42mm	3
7282-3544	44mm	3
7282-3546	46mm	3
7282-3548	48mm	3
7282-3550	50mm	2
7282-3555	55mm	2
7282-3560	60mm	2
Additional Items		
7114-3107	7.0mm O.D. Washer	6
7117-0002	Screw Forceps	1

5.0mm Partially Threaded Osteopenia Screw Set

Set No 7181-2205

Cat No	Description	Qty
5.0mm Partially Threaded Osteopenia Screws (Sterile)		
7180-1126	26mm	2
7180-1128	28mm	2
7180-1130	30mm	2
7180-1132	32mm	2
7180-1134	34mm	2
7180-1136	36mm	2
7180-1138	38mm	2
7180-1140	40mm	2
7180-1142	42mm	2
7180-1144	44mm	2
7180-1146	46mm	2
7180-1148	48mm	2
7180-1150	50mm	2
7180-1155	55mm	2
7180-1160	60mm	2
7180-1165	65mm	2
7180-1170	70mm	2
7180-1175	75mm	2
7180-1180	80mm	2

Midfoot/Hindfoot Sterile Screw Set

Set No 7282-5015

Cat No	Description	Qty
3.5mm Self-Tapping Cortex Screws (Sterile)		
7180-1310	10mm	3
7180-1312	12mm	3
7180-1314	14mm	3
7180-1316	16mm	3
7180-1318	18mm	3
7180-1320	20mm	3
7180-1322	22mm	3
7180-1324	24mm	3
7180-1326	26mm	3
7180-1328	28mm	3
7180-1330	30mm	3
7180-1332	32mm	3
7180-1334	34mm	3
7180-1336	36mm	3
7180-1338	38mm	3
7180-1340	40mm	3
7180-1342	42mm	2
7180-1344	44mm	2
7180-1346	46mm	2
7180-1348	48mm	2
7180-1350	50mm	2
7180-1355	55mm	2
7180-1360	60mm	2
3.5mm Self-Tapping Locking Cortex Screws (Sterile)		
7180-1210	10mm	3
7180-1212	12mm	3
7180-1214	14mm	3
7180-1216	16mm	3
7180-1218	18mm	3
7180-1220	20mm	3
7180-1222	22mm	3
7180-1224	24mm	3
7180-1226	26mm	3
7180-1228	28mm	3

Cat No	Description	Qty
3.5mm Self-Tapping Locking Cortex Screws (Sterile) *(continued)*		
7180-1230	30mm	3
7180-1232	32mm	3
7180-1234	34mm	3
7180-1236	36mm	3
7180-1238	38mm	3
7180-1240	40mm	3
7180-1242	42mm	2
7180-1244	44mm	2
7180-1246	46mm	2
7180-1248	48mm	2
7180-1250	50mm	2
7180-1255	55mm	2
7180-1260	60mm	2
5.0mm Fully Threaded Osteopenia Screws (Sterile)		
7180-2010	10mm	3
7180-2012	12mm	3
7180-2014	14mm	3
7180-2016	16mm	3
7180-2018	18mm	3
7180-2020	20mm	3
7180-2022	22mm	2
7180-2024	24mm	2
7180-2026	26mm	2
7180-2028	28mm	2
7180-2030	30mm	2
7180-2032	32mm	2
7180-2034	34mm	2
7180-2036	36mm	2
7180-2038	38mm	2
7180-2040	40mm	2
7180-2042	42mm	2
7180-2044	44mm	2
7180-2046	46mm	2
7180-2048	48mm	2
7180-2050	50mm	2
7180-2055	55mm	2
7180-2060	60mm	2

Cat No	Description	Qty
5.0mm Locking Osteopenia Screws (Sterile)		
7282-3510S	10mm	3
7282-3512S	12mm	3
7282-3514S	14mm	3
7282-3516S	16mm	3
7282-3518S	18mm	3
7282-3520S	20mm	3
7282-3522S	22mm	2
7282-3524S	24mm	2
7282-3526S	26mm	2
7282-3528S	28mm	2
7282-3530S	30mm	2
7282-3532S	32mm	2
7282-3534S	34mm	2
7282-3536S	36mm	2
7282-3538S	38mm	2
7282-3540S	40mm	2
7282-3542S	42mm	2
7282-3544S	44mm	2
7282-3546S	46mm	2
7282-3548S	48mm	2
7282-3550S	50mm	2
7282-3555S	55mm	2
7282-3560S	60mm	2
Additional Items (Sterile)		
7114-3007	7.0mm O.D. Washer	6

References

1. "Evaluation of Stripping Torque and Pull-Out Strength of an Osteopenia Bone Screw." South Lake Tahoe, CA: 11th Biennial International Society for Fracture Repair. Paper 8, 2008.
2. Hartsell Z, Cooper P. "The Need for a Bail-Out Plan: Screw Options for Osteoporotic Bone." Smith & Nephew, Inc. Georgetown University Hospital, 2009.

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