

## Ankle Fusion Small Fragment System





# PERI-LOC<sup>◇</sup> Ankle Fusion Plating System

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#### **Nota Bene**

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

# Product overview

## Introduction

The PERI-LOC<sup>®</sup> Ankle Fusion Plating System from Smith & Nephew offers the advantages of locked plating with the flexibility and benefits of traditional plating in one system. Offering both locking and non-locking screw options, the PERI-LOC system can provide a construct that resists valgus, torsional and axial collapse while simultaneously acting as an effective aid to fusion reduction and compression.

A simple and straight forward instrument set features standardized drill bits and color-coded instrumentation, making PERI-LOC efficient and easy to use.

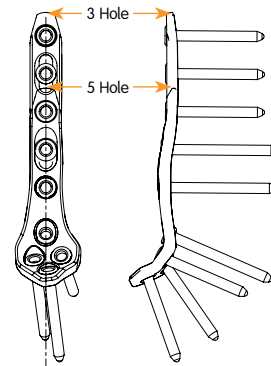
## Indications

The Smith & Nephew PERI-LOC Ankle Fusion 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 PERI-LOC Ankle Fusion Plating System is indicated for ankle arthrodesis and fractures, including the distal tibia, talus and calcaneus.

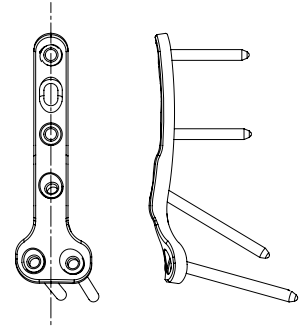
## Design features and benefits

### Anatomic plate designs

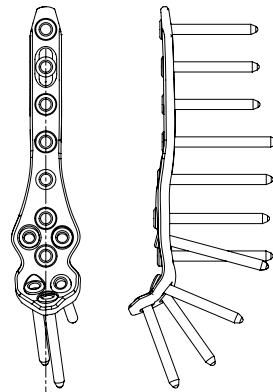
The plate contours and fixed-angle screw trajectories in the PERI-LOC<sup>®</sup> system were determined by studying a large collection of cadaveric specimens at the Cleveland Museum of Natural History.



3.5mm Anterior Ankle Fusion Plate



3.5mm Posterior Ankle Fusion Plate



3.5mm Utility Hindfoot Ankle Fusion Plate

### Compression and distraction instrumentation

Compression and distraction instrumentation is included in the Ankle Fusion Plating System to facilitate joint preparation and compression prior to plate application.



Compression



Distraction

### Surgical approach options

The PERI-LOC Ankle Fusion Plating System includes plates that can be used from anterior, lateral, and posterior approaches. It also includes plates that can fuse the tibia and talus only, or plates that can fuse the entire hindfoot, including the calcaneus, the tibia and the talus. This surgical technique will discuss the plate designs that can be inserted with the small fragment system.

## System overview

The 3.5mm Ankle and Hindfoot Fusion Plates are inserted with the PERI-LOC<sup>®</sup> Small Fragment instruments and implants in addition to the ankle fusion instruments. The Small Fragment Surgical Technique (7118-1685) can be used to provide supplemental information regarding the instrument system. The sets needed for a small fragment ankle fusion case are listed below.

**Note** Either 4.0mm Cancellous or 4.0mm Cannulated Screws are available in the Small Fragment System

### **Ankle Fusion Instrument Set**

### **Ankle Fusion Implant Set**

### **Small Fragment Implant and Instrument Sets**

# Implant overview

## Anterior Primary Plates

- Designed to fuse the tibia and talus from an anterior approach
- Anatomically contoured for optimal fit
- Plates fit 3.5mm Locking and Cortex Screws as well as 4.0mm Cancellous and Cannulated Screws\*
- Plates are left/right specific
- Available in three (67mm) and five (92mm) hole lengths



### Anterior Primary Plates

Plate dimensions	
Profile thickness	3.8mm
Width of head	21.8mm
Width of shaft	10.6mm
Shaft hole spacing	12.7mm
Plate length	3 hole: 67mm
	5 hole: 92mm



Anterior Primary Plate

## Hindfoot Ankle Utility Plates

- Designed to perform fusions from two different approaches
  - Anterior approach
    - Can be used to fuse the tibia and talus
    - Cluster of screws target into graft used to fill talar void
  - Posterior approach
    - Can be used to fuse the tibia, talus and calcaneus
- Anatomically contoured for optimal fit
- Plates fit 3.5mm Locking and Cortex screws as well as 4.0mm Cancellous and Cannulated Screws\*
- Plates are left/right specific
- Available in five (104mm) hole length



### Hindfoot Ankle Utility Plates

Plate dimensions	
Profile thickness	3.8mm
Width of head	23.2mm
Width of shaft	10.6mm
Shaft hole spacing	12.7mm
Plate length	104mm



Anterior placement of Hindfoot Ankle Utility Plate



Posterior placement of Hindfoot Ankle Utility Plate

## Posterior Plates

- Anatomically pre-contoured for optimal fit
- Plates fit 3.5mm Locking and Cortex Screws as well as 4.0mm Cancellous and Cannulated Screws\*
- Plates are left/right specific
- Available in three hole length (80mm)



### Posterior Plates

Plate dimensions	
Profile thickness	3.8mm–5.3mm
Width of head	24.4mm
Width of shaft	11.0mm
Plate length	80mm



Posterior Plate

\*4.0mm Cannulated Screw can be inserted through the plate with the use of an adapter washer.

## 3.5mm T20 Cortex Screws

- Aggressive self-tapping cutting flutes for ease of insertion in dense cortical bone
- T20 recess accepts self-retaining T20 driver



### 3.5mm T20 Cortex Screws

Screw dimensions	
Head height	3.0mm
Head outer diameter	6.8mm
Driver size	T20
Thread outer diameter	3.5mm
Core diameter	2.7mm
Thread pitch	1.25mm
Number of Self-tapping flutes	3

## 3.5mm T20 Locking Screws

- Aggressive self-tapping cutting flutes for ease of insertion in dense cortical bone
- Head of locking screw has a triple-lead thread to facilitate ease of insertion
- T20 recess accepts self-retaining T20 driver



### 3.5mm T20 Locking Screws

Screw dimensions	
Head height	3.2mm
Head outer diameter	6.8mm
Driver size	T20
Thread outer diameter	3.5mm
Core diameter	2.7mm
Thread pitch	1.25mm
Number of Self-tapping flutes	3



## 4.0mm T20 Cancellous Screws

- Available fully threaded or partially threaded
- Designed to be used inside or outside of the plate at the surgeon's discretion
- T20 recess accepts self-retaining T20 driver



### 4.0mm T20 Cancellous Screws

Screw dimensions	
Head height	3.3mm
Head outer diameter	6.8mm
Driver size	T20
Thread outer diameter	4.0mm
Core diameter	1.9mm
Thread pitch	1.75mm
Number of Self-tapping flutes	NA

## 4.0mm Cannulated Screws

- Available partially threaded
- Self-drilling, self-tapping design
- Can be used through a locking hole with the 4.0mm Cannulated Screw Adapter
- 1.3mm cannulation



### 4.0mm Cannulated Screws

Screw dimensions	
Head height	2.9mm
Head outer diameter	6.0mm
Driver size	2.5mm
Thread outer diameter	4.0mm
Core diameter	2.7mm
Thread pitch	1.8mm

# Surgical technique

## Anterior approach

The patient should be positioned supine on a radiolucent table with a bump under the ipsilateral hip.

An anterior incision is made and dissection is carried out between the extensor hallucis longus and tibialis anterior tendons. The incision is typically begun approximately 10cm proximal to the ankle joint, and continued as a straight incision to the level of the talonavicular joint. The neurovascular bundle is identified and retracted laterally. Care must be taken not to injure sensory nerve branches at the distal extent of the incision. The joint capsule is opened and minimal periosteal stripping is performed.



## Posterior approach

Either a posterolateral or direct posterior midline approach can be used for this procedure. With both approaches, care must be taken to avoid injury to the tibial nerve and artery by staying lateral to the flexor hallucis longus.

### Posterolateral approach

The patient may be positioned lateral or prone on a radiolucent table. A posterolateral incision is made between the posterior border of the fibula and the lateral border of the achilles tendon, starting level with the tip of the fibula and working proximally. The sural nerve and short saphenous vein should be protected anterior to the incision. The peroneal retinaculum is divided, the peroneal tendons are retracted laterally, and the flexor hallucis longus is mobilized medially. Dissection is continued through the interval of the flexor hallucis longus and the peroneal tendons, down to the posterior ankle joint.



### Direct posterior midline approach

The patient should be positioned prone on a radiolucent table. A direct midline approach is used, and the Achilles tendon is split by performing a Z-shaped cut. To better visualize the joint, a partial posterior malleolar excision can be performed. Both the ankle and subtalar joints are easily visualized with this technique. The Achilles tendon should be repaired at the conclusion of the case if this method is selected.

### Joint preparation

Joint reduction can be performed with the assistance of the Distraction Instrument (7117-4052). Insert 3.2mm x 230mm Threaded Tip Guide Pins (7111-0056) through both holes in the distraction instrument, and into the bones that will be distracted. Ensure that the instrument hinge is closed, and squeeze the arms of the distraction instrument.

Once the joint is sufficiently distracted, prepare the joint(s) for fusion, preserving as much bone as possible while still removing residual cartilage and osteophytes. Attempt to maintain the subchondral anatomy by perforating the bone with a drill bit or osteotome. Flat cuts should be avoided if at all possible. A combination of methods are often used to prepare the joint for fusion including: rongeurs, osteotomes, drill bits, and/or burrs.

Controlled compression can be performed with the assistance of the Compression Instrument (7117-4054). Insert 3.2mm x 230mm Threaded Tip Guide Pins through both holes in the compression instrument, and into the bones that will be compressed.

**Note** The wires used during distraction can be used for compression if they are appropriately aligned for compression, and will not interfere with final plate placement.

Ensure that the instrument hinge is closed, and squeeze the arms of the compression instrument. Once the joint is sufficiently compressed, the implant can be selected and applied.



## Implant selection

Select the fusion plate that corresponds to the correct approach, anatomy and procedure. Metal templates are available to verify that the implant will fit the patient as expected.

## Arthrodesis reduction/ plate positioning

### PERI-LOC® Reduction Instruments

The plate can be provisionally fixed to the bone using the PF Pins and Reduction Clamps available in the small fragment instrument tray. In addition, various distraction and compression clamps can be used to assist with joint preparation and placement.

### K-Wires

1.25mm x 150mm	7116-1012
1.6mm x 150mm	7116-1016
2.0mm x 150mm	7116-1020

### Provisional Fixation Pins

2.7mm x 14mm	7117-3582
2.7mm x 25mm	7117-3583
2.7mm x 40mm	7117-0812

**Note** These Provisional Fixation Pins are designed to be used with the 2.7mm Locking Drill Guide. This allows the provisional fixation pin to be placed in the center of the locking screw hole. Once the provisional fixation pin is removed, either a 3.5mm Cortex or a 3.5mm Locking Screw can be used in the same hole. Provisional fixation pins may be inserted on power, but final seating should be performed by hand to avoid stripping of the threads and loss of purchase.

### Reduction Forceps

Reduction Forceps with Points, Broad	7117-3377
Reduction Forceps with Serrated Jaw	7117-3378



# Screw insertion

The choice of screws, and the order and configuration, is a decision to be made by the individual surgeon depending on the patient's circumstances and needs. Smith & Nephew does not recommend any particular screw insertion order or configuration of the various types of screws available in the system.

## 3.5mm Cortex Screws

3.5mm Cortex Screws may be used in either neutral or compression mode. Neutral mode will place the screw directly in the center of the screw hole and is ideal when axial compression is not desired. Compression mode will place the screw eccentrically in the screw hole and allow the screw head to travel down the ramped hole so that axial compression is achieved during final seating. Each screw hole allows for 1mm of axial compression. If desired, distraction or translation can also be achieved using this technique.

### **Drill (neutral mode)**

Position the neutral side (green) of the 2.7mm Neutral x 2.7mm Compression Drill Guide (7117-3570) into the desired screw hole. Drill to the desired depth using the 2.7mm Drill Bit (7117-3502).

### **Drill (compression mode)**

Insert the compression side (yellow) of the 2.7mm Neutral x 2.7mm Compression Drill Guide (7117-3570) into the desired screw hole. To gain axial compression, position the drill guide in the desired screw hole so that it is against the wall of the hole furthest away from the fusion. Drill to the desired depth using the 2.7mm Drill Bit (7117-3502).



**Measure**

Measure for screw length by using the 3.5mm Screw Depth Gauge (7117-3534).

**Screw insertion**

Insert the appropriate length 3.5mm Cortex Screw using the T20 Self Retaining Screwdriver (7117-3592). This should be done manually using the Large Screwdriver Handle (7117-3547).

**Note** In the event that a 3.5mm Cortex screw needs to be used outside the plate for interfragmentary compression, the Small Fragment instrumentation set includes a 2.7mm Drill Guide Insert (7117-3590) to assist with lag screw technique. This 2.7mm Drill Guide Insert is used in conjunction with the 3.5mm side of the 2.7mm x 3.5mm Drill Guide (7117-3572).



## 3.5mm Locking Screws

There are two techniques that can be used to insert 3.5mm Locking Screws. If using a percutaneous technique, the 3.5mm Locking Screw Guide (7117-3538) with the 2.7mm Locking Drill Guide Insert (7117-3529) will provide a channel through the soft tissue to insert screws. This option also ensures correct screw trajectory in osteopenic bone. However, this two-piece assembly drill guide may be substituted with the one-piece 2.7mm Locking Drill Guide (7117-3450). This is a one-piece drill guide and may be found easier to thread into the locking holes located on highly contoured areas of the plate.

### Using the 3.5mm Locking Screw Guide with the 2.7mm Locking Drill Guide Insert

**Note** This option may only be used with screws longer than 24mm. If the screw is 24mm or shorter, use the 2.7mm Locking Drill Guide.

#### Drill

Thread the 3.5mm Locking Screw Guide (7117-3538) with the 2.7mm Locking Drill Guide Insert (7117-3529) into the threaded hole. Drill to the desired depth using the 2.7mm Drill Bit (7117-3503).

#### Measure

Measure for screw length by reading the exposed calibrations off the drill bit. If the measurement is longer than 24mm proceed with the described technique. If the measurement is 24mm or shorter, remove the 3.5mm Locking Screw Guide and insert the screw without the guide.





### Screw insertion

Remove the 2.7mm Locking Drill Guide Insert. Insert the appropriate length 3.5mm Locking Screw through the 3.5mm Locking Screw Guide using the T20 Self Retaining Screwdriver (7117- 3592) to a depth where the top of the screw guide is in between the two black lines on the Screwdriver shaft. Remove the 3.5mm Locking Screw Guide and proceed with final seating of the screw. This may be done manually using the Large Screwdriver Handle (7117-3547) or on power using the 2.0Nm Torque Limiter Power Adapter (7117-3622).



### Using the 2.7mm Locking Drill Guide

#### Drill

Thread the 2.7mm Locking Drill Guide (7117-3450) into the desired 3.5mm locking screw hole. Drill through the guide to the desired depth using the 2.7mm Drill Bit (7117-3503).

#### Measure

Measure for screw length by reading the exposed calibrations off the drill bit or by removing the locking drill guide and using the 3.5mm Screw Depth Gauge (7117-3534).



### Screw insertion

Remove the 2.7mm Locking Drill Guide and insert the appropriate length 3.5mm Locking Screw using the T20 Self Retaining Screwdriver (7117-3592). This may be done manually using the Large Screwdriver Handle (7117-3547) or on power using the 2.0Nm Torque Limiter Power Adapter (7117-3622).



## 4.0mm Cancellous Screws

The PERI-LOC® Small Fragment Instrument and Implant Set features an optional 4.0mm Cancellous Screw Caddy. This may be replaced with the 4.0mm Cannulated Screw Caddy depending on the individual surgeon preference. The 4.0mm Cancellous Screws may be used through the plate or outside of the plate for joint surface reduction.

### **Drill (through the plate)**

Position the neutral side of the 2.7mm Neutral x 2.7mm Compression Drill Guide (7117-3570) into the desired screw hole. Drill to the desired depth using the 2.7mm Drill Bit (7117-3502).

### **Drill (outside the plate)**

Position the 2.7mm side of the 2.0mm x 2.7mm Drill Guide (7117-3571) against the bone. Drill to the desired depth using the 2.7mm Drill Bit (7117-3502).

### **Countersink (if outside the plate)**

Countersinking the head will reduce implant profile. Prepare the bone surface by placing the Small Fragment Countersink (7117-3344) into the predrilled hole and turn to the right. Do not countersink on power. This should be performed manually using the Small T-Handle (7117-3542).

**Measure**

Measure for screw length by using the 3.5mm Depth Gauge (7117-3534).

**Tap (optional)**

In areas of increased bone density, it may be beneficial to tap prior to screw insertion. Tap by using the 4.0mm Cancellous Tap (7117-3386). This should be performed manually using the Small T-Handle (7117-3542).

**Screw insertion**

Insert the appropriate length 4.0mm Cancellous Screw using the T20 Self Retaining Screwdriver (7117-3592). This should be done manually using the Large Screwdriver Handle (7117-3547).

## 4.0mm Cannulated Screws

### (Outside the plate) Guide pin insertion

Position the 1.3mm side of the 1.3mm x 2.7mm Drill Guide (7117-3576) against the bone. Insert a 1.3mm Guide Pin (12-8047) through the drill guide to the desired depth.



### Countersink

Countersinking the head will reduce implant profile. Prepare the bone surface by placing the 1.3mm Cannulated Countersink (7117-7188) over the guide pin and against the bone and turn to the right. Do not countersink on power. This should be performed manually using the Small T-Handle (7117-3542).

### Measure

Place the K-Wire Direct Measuring Gauge over the wire and against the bone. Measure for screw length by reading the exposed calibrations on the gauge.



### Drill (optional)

Due to the self-drilling tip of the 4.0mm Cannulated Screws, it is not necessary to drill prior to screw insertion. However, in areas of increased bone density, drilling prior to screw insertion may be beneficial. Using the 2.7mm side of the 1.3mm x 2.7mm Drill Guide (7117-3576) as a soft tissue protector, insert the 2.7mm Cannulated Drill Bit (7117-3581) over the guide pin. Drill to the desired depth.



### Tip

Drilling 5mm short of the screw measurement prevents the drill from engaging the threaded tip of the pin, avoiding inadvertent guide pin removal.

### Tap (optional)

In areas of increased bone density, it may be beneficial to tap prior to screw insertion. Tap by using the 4.0mm Cannulated Tap (7117-3584). This should be performed manually using the Small T-Handle (7117-3542).

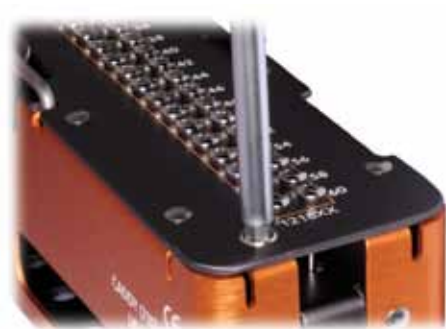


### Screw Insertion

Load the appropriate length 4.0mm Cannulated Screw onto the 2.5mm Cannulated Hexdriver (7117-3580) with Holding Sleeve (7117-0031) and insert over the guide pin into the bone. This should be performed manually with the Large Screwdriver Handle (7117-3547).

## 4.0mm Cannulated Screws (through the plate)

In the event that a 4.0mm Cannulated Screw is required to be placed through a locking plate, a 4.0mm Cannulated Screw Adapter (7380-1012) is required.



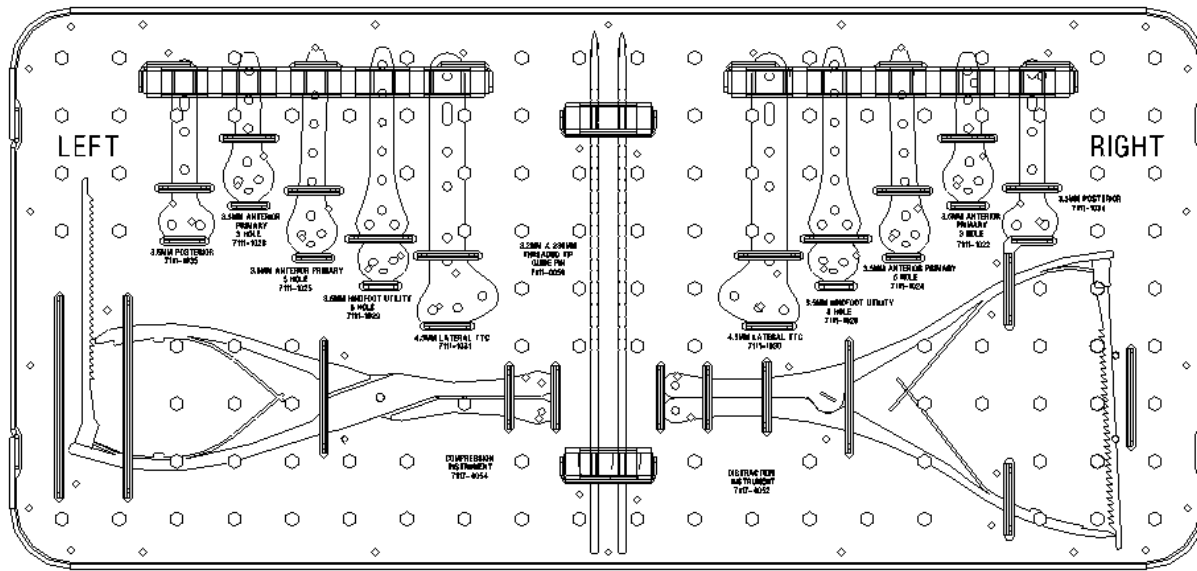
### Adapter insertion

Using the 4.7mm Cannulated Hexdriver (7117-3579), remove a Cannulated Screw Adapter from the 4.0mm Cannulated Screw Caddy. Hand tighten the adapter into the appropriate locking plate hole. Follow the same technique for inserting a 4.0mm Cannulated Screw outside of the plate, described within this document.

**Note** When using a 4.0mm Cannulated Screw through a locking plate hole, the head of the screw will make contact with the Cannulated Screw Adapter, rather than the plate. To account for this, add 1mm to the measurement displayed on the K-Wire Direct Measuring Gauge.

# Catalog information

## PERI-LOC<sup>®</sup> Ankle Fusion Plating System



### Ankle Fusion Instrument Set

Set No. 7117-0150

Cat No.	Description	Qty
7111-0056	3.2mm X 230mm Threaded Tip Guide Pin	4
7111-1022	3.5mm Ankle Fusion Plate, Anterior Primary, Right, 3 Hole, 67mm Template	1
7111-1023	3.5mm Ankle Fusion Plate, Anterior Primary, Left, 3 Hole, 67mm Template	1
7111-1024	3.5mm Ankle Fusion Plate, Anterior Primary, Right, 5 Hole, 92mm Template	1
7111-1025	3.5mm Ankle Fusion Plate, Anterior Primary, Left, 5 Hole, 92mm Template	1
7111-1028	3.5mm Hindfoot Ankle Fusion Utility Plate, Right, 5 Hole, 104mm Template	1
7111-1029	3.5mm Hindfoot Ankle Fusion Utility Plate, Left, 5 Hole, 104mm Template	1
7111-1030	4.5mm Ankle Fusion Plate Lateral Tibiotalocalcaneal, Right, 120mm Template	1
7111-1031	4.5mm Ankle Fusion Plate Lateral Tibiotalocalcaneal, Left, 120mm Template	1
7111-1034	3.5mm Ankle Fusion Plate Posterior, Right, 80mm Template	1
7111-1035	3.5mm Ankle Fusion Plate Posterior, Left, 80mm Template	1
7117-4052	Distraction Instrument	1
7117-4054	Compression Instrument	1
7117-4060	Ankle Fusion Instrument Tray	1
7117-4061	Ankle Fusion Instrument Tray Lid	1

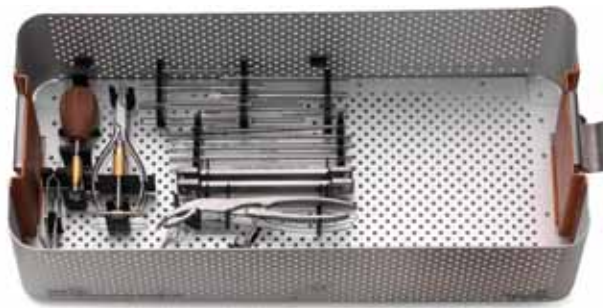
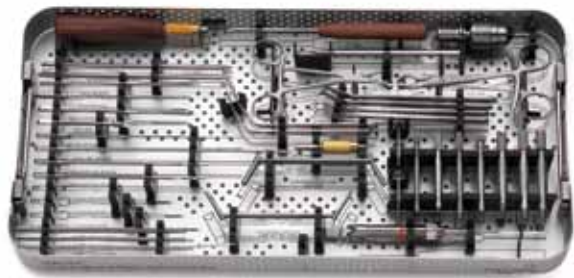
## Ankle Fusion Implant Set

Set No. 7282-6050

<b>Cat No.</b>	<b>Description</b>	<b>Qty</b>
7282-1030S	4.5mm Ankle Fusion Plate, Lateral Tibiototalcalcaneal, Right, 120mm, Sterile	1
7282-1031S	4.5mm Ankle Fusion Plate, Lateral Tibiototalcalcaneal, Left, 120mm, Sterile	1
7282-1034S	3.5mm Ankle Fusion Plate, Posterior, Right, 80mm, Sterile	1
7282-1035S	3.5mm Ankle Fusion Plate, Posterior, Left, 80mm, Sterile	1
7282-1042S	3.5mm Ankle Fusion Plate Anterior Primary Compression Slot, Right, 3 Hole, 67mm, Sterile	1
7282-1043S	3.5mm Ankle Fusion Plate Anterior Primary Compression Slot, Left, 3 Hole, 67mm, Sterile	1
7282-1044S	3.5mm Ankle Fusion Plate Anterior Primary Compression Slot, Right, 5 Hole, 92mm, Sterile	1
7282-1045S	3.5mm Ankle Fusion Plate Anterior Primary Compression Slot, Left, 5 Hole, 92mm, Sterile	1
7282-1046S	3.5mm Hindfoot Ankle Fusion Utility Plate Compression Slot, Right, 5 Hole, 104mm, Sterile	1
7282-1047S	3.5MM Hindfoot Ankle Fusion Utility Plate Compression Slot, Left, 5 Hole, 104mm, Sterile	1
7117-4045	PERI-LOC® Ankle Fusion Implant and Disposable Box	1

# Catalog information

## PERI-LOC<sup>®</sup> Small Fragment System



### Small Fragment Instrument Set

Set No. 7181-0500

Cat No.	Description	Qty	Cat No.	Description	Qty
7117-0057	Hohmann Retractor, 8mm	2	7117-3593	T20 Self-retaining Screwdriver Shaft, 178mm	1
7117-3369	Hohmann Retractor, 8mm, Bent	2	7117-3637	T20 Self Retaining Screwdriver	1
7117-0095	Hohmann Retractor, 15mm	2	7117-3580	2.5mm Cannulated Hexdriver Shaft, 120mm	1
7117-3377	Reduction Forceps with Points, Broad	2	7117-3535	2.5mm Hexdriver Shaft w/Quick Connect	1
7117-3378	Reduction Forceps with Serrated Jaw	2	7117-3537	3.5mm Hexdriver Shaft w/Quick Connect	1
7117-3576	1.3mm x 2.7mm Drill Guide	1	7117-3579	4.7mm Cannulated Hexdriver Shaft, 127mm	1
7117-3571	2.0mm x 2.7mm Drill Guide	1	7117-3612	T20 Removal Screwdriver Shaft, 178mm	1
7117-3570	2.7mm Neutral/2.7mm Compression Drill Guide	1	7117-3613	T15 Removal Screwdriver Shaft, 178mm	1
7117-3594	2.7mm Neutral Slot Drill Guide	1	7117-3542	Small T-Handle, Quick Coupling	1
7117-3572	2.7mm x 3.5mm Drill Guide	1	7117-3543	Tear Drop Screwdriver Handle	1
7117-3589	2.0mm Drill Guide Insert	1	7117-3547	Large Screwdriver Handle	1
7117-3590	2.7mm Drill Guide Insert	1	7117-0031	Holding Sleeve	1
7117-3491	2.0mm K-Wire Locking Guide, One Piece	1	7117-0043	Sharp Hook	1
7117-3448	2.0mm Locking Drill Guide	1	7117-0045	Screw Forceps	1
7117-3450	2.7mm Locking Drill Guide	1	7117-3613	T15 Removal Screwdriver Shaft, 178mm	1
7117-3452	2.7mm Locking Screw Guide	1	7117-3542	Small T-Handle, Quick Coupling	1
7117-3538	3.5mm Locking Screw Guide	1	7117-3543	Tear Drop Screwdriver Handle	1
7117-3449	2.0mm Locking Drill Guide Insert	1	7117-3547	Large Screwdriver Handle	1
7117-3529	2.7mm Locking Drill Guide Insert	1	7117-0031	Holding Sleeve	1
7117-3525	2.7mm Screw Depth Gauge	1	7117-0063	Wire Bending Pliers	1
7117-3523	3.5mm Short Screw Depth Gauge	1	7117-3544	Reverse Verbrugge, 190mm	1
7117-3534	3.5mm Screw Depth Gauge	1	7117-0097	Curved Periosteal Elevator, 6mm	1
7111-7083	4.0mm Cannulated Direct Measuring Device	1	7117-3344	Small Fragment Countersink	1
7117-3614	T15 Self-retaining Screwdriver Shaft, 120mm	1	7117-3528	Cannulated AO to Trinkle Adapter	1
7117-3585	T15 Self-retaining Screwdriver Shaft, 178mm	1	7117-3622	2.0Nm Torque Limiter Adapter	1
7117-3592	T20 Self-retaining Screwdriver Shaft, 120mm	1	7117-3636	Small Fragment Bending Irons	2



## Trays and Caddies

Cat. No.	Description	Qty	Cat No.	Description	Qty
7117-0650	Basic Instrument Tray	1	7117-0657	Plate Caddy	1
7117-0654	Screw Caddy	1	7117-0659	Instrument and Implant Set Tray	1
7117-0655	Screw Caddy Lid	1	7117-0660	Instrument and Implant Set Tray Lid	1

## Small Fragment Disposables Set

Set No. 7181-0417

### K-Wires and Guide Pins

Cat. No.	Description	Qty
128047	1.3 x 140mm Guide Pin	1
7116-1012	1.25mm K-Wire	1
7116-1016	1.6mm K-Wire	1
7116-1020	2.0mm K-Wire	1



### Drill Guide Provisional Fixation Pins

Cat. No.	Description	Qty
7117-3582	2.7mm Drill Guide PF Pin, 14mm	2
7117-3583	2.7mm Drill Guide PF Pin, 25mm	2
7117-0812	2.7mm Drill Guide PF Pin, 40mm	2



### Taps with Quick Connect

Cat. No.	Description	Qty
7117-3366	2.7mm Tap	1
7117-3318	3.5mm Tap	1
7117-3386	4.0mm Cancellous Tap	1
7117-3584	4.0mm Cannulated Tap	1



### Calibrated Drills with Quick Connect

Cat. No.	Description	Qty
7117-3501	2.0mm Drill	1
7117-3502	2.7mm Short Drill	2
7117-3503	2.7mm Drill	2
7117-3581	3.5mm Short Drill	1
7117-3504	2.7mm Cannulated Drill, 155mm	1



# Catalog information

## PERI-LOC<sup>®</sup> Small Fragment System



### Small Fragment Screw Set

Set No. 7181-0420

#### 2.7mm T15 Cortex Screws, Self-tapping

Cat No.	Description	Qty	Cat No.	Description	Qty
7382-3010	10mm	4	7382-3036	36mm	2
7382-3012	12mm	4	7382-3038	38mm	2
7382-3014	14mm	4	7382-3040	40mm	4
7382-3016	16mm	4	7382-3042	42mm	4
7382-3018	18mm	2	7382-3044	44mm	4
7382-3020	20mm	2	7382-3046	46mm	4
7382-3022	22mm	2	7382-3048	48mm	4
7382-3024	24mm	2	7382-3050	50mm	4
7382-3026	26mm	2	7382-3055	55mm	4
7382-3028	28mm	2	7382-3060	60mm	2
7382-3030	30mm	2	7380--3065	65mm	0
7382-3032	32mm	2	7380--3070	70mm	0
7382-3034	34mm	2			



#### 2.7mm T15 Locking Screws, Self-tapping

Cat No.	Description	Qty	Cat No.	Description	Qty
7382-2310	10mm	6	7382-2334	34mm	3
7382-2312	12mm	6	7382-2336	36mm	3
7382-2314	14mm	6	7382-2338	38mm	3
7382-2316	16mm	6	7382-2340	40mm	6
7382-2318	18mm	6	7382-2342	42mm	6
7382-2320	20mm	6	7382-2344	44mm	6
7382-2322	22mm	3	7382-2346	46mm	6
7382-2324	24mm	3	7382-2348	48mm	6
7382-2326	26mm	3	7382-2350	50mm	6
7382-2328	28mm	3	7382-2355	55mm	6
7382-2330	30mm	3	7382-2360	60mm	3
7382-2332	32mm	3			



### 3.5mm T20 Cortex Screws, Self-tapping



Cat No.	Description	Qty	Cat No.	Description	Qty
7382-4010	10mm	8	7382-4044	44mm	4
7382-4012	12mm	8	7382-4046	46mm	4
7382-4014	14mm	8	7382-4048	48mm	4
7382-4016	16mm	8	7382-4050	50mm	4
7382-4018	18mm	8	7382-4055	55mm	4
7382-4020	20mm	4	7382-4060	60mm	4
7382-4022	22mm	4	7380-4065	65mm	0
7382-4024	24mm	4	7380-4070	70mm	0
7382-4026	26mm	4	7380-4075	75mm	0
7382-4028	28mm	4	7380-4080	80mm	0
7382-4030	30mm	4	7380-4085	85mm	0
7382-4032	32mm	4	7380-4090	90mm	0
7382-4034	34mm	4	7380-4095	95mm	0
7382-4036	36mm	4	7380-4100	100mm	0
7382-4038	38mm	4	7380-4105	105mm	0
7382-4040	40mm	4	7380-4110	110mm	0
7382-4042	42mm	4			

### 3.5mm T20 Locking Screws, Self-tapping



Cat No.	Description	Qty	Cat No.	Description	Qty
7382-5010	10mm	8	7382-5044	44mm	4
7382-5012	12mm	8	7382-5046	46mm	4
7382-5014	14mm	8	7382-5048	48mm	4
7382-5016	16mm	8	7382-5050	50mm	4
7382-5018	18mm	8	7382-5055	55mm	4
7382-5020	20mm	4	7382-5060	60mm	4
7382-5022	22mm	4	7380-5065	65mm	0
7382-5024	24mm	4	7380-5070	70mm	0
7382-5026	26mm	4	7380-5075	75mm	0
7382-5028	28mm	4	7380-5080	80mm	0
7382-5030	30mm	4	7380-5085	85mm	0
7382-5032	32mm	4	7380-5090	90mm	0
7382-5034	34mm	4	7380-5095	95mm	0
7382-5036	36mm	4	7380-5100	100mm	0
7382-5038	38mm	4	7380-5105	105mm	0
7382-5040	40mm	4	7380-5110	110mm	0
7382-5042	42mm	4			

### Washer

Cat. No.	Description	Qty
7114-3107	7.0mm Outer Diameter	6

# Catalog information

## PERI-LOC<sup>◊</sup> Small Fragment System

### 4.0mm Cancellous Screw Set

Set No. 7181-5200

#### 4.0mm T20 Cancellous Screws, Fully Threaded

Cat No.	Description	Qty	Cat No.	Description	Qty
7382-5210	10mm	2	7382-5238	38mm	2
7382-5212	12mm	2	7382-5240	40mm	2
7382-5214	14mm	2	7382-5245	45mm	2
7382-5216	16mm	2	7382-5250	50mm	2
7382-5218	18mm	2	7382-5255	55mm	2
7382-5220	20mm	2	7382-5260	60mm	2
7382-5222	22mm	2	7380--5265	65mm	0
7382-5224	24mm	2	7380--5270	70mm	0
7382-5226	26mm	2	7380--5275	75mm	0
7382-5228	28mm	2	7380--5280	80mm	0
7382-5230	30mm	2	7380--5285	85mm	0
7382-5232	32mm	2	7380--5290	90mm	0
7382-5234	34mm	2	7380--5295	95mm	0
7382-5236	36mm	2	7380--5300	100mm	0



#### 4.0mm T20 Cancellous Screws, Partially Threaded

Cat No.	Description	Qty	Cat No.	Description	Qty
7382-5310	10mm	2	7382-5345	45mm	2
7382-5312	12mm	2	7382-5350	50mm	2
7382-5314	14mm	2	7382-5355	55mm	2
7382-5316	16mm	2	7382-5360	60mm	2
7382-5318	18mm	2	7380-5365	65mm	0
7382-5320	20mm	2	7380-5370	70mm	0
7382-5322	22mm	2	7380-5375	75mm	0
7382-5324	24mm	2	7380-5380	80mm	0
7382-5326	26mm	2	7380-5385	85mm	0
7382-5328	28mm	2	7380-5390	90mm	0
7382-5330	30mm	2	7380-5395	95mm	0
7382-5335	35mm	2	7380-5400	100mm	0
7382-5340	40mm	2			



#### 4.0mm Cancellous Screw Caddies

Cat. No.	Description	Qty
7117-0680	4.0mm Cancellous Screw Caddy	1
7117-0681	4.0mm Cancellous Screw Caddy Lid	1



## 4.0mm Cannulated Screw Set, Partially Threaded

Set No. 7181-1800

### 4.0mm Cannulated Screws, Partially Threaded

Cat No.	Description	Qty	Cat No.	Description	Qty
121810	10mm	2	121836	36mm	2
121812	12mm	2	121838	38mm	2
121814	14mm	2	121840	40mm	2
121816	16mm	2	121842	42mm	2
121818	18mm	2	121844	44mm	2
121820	20mm	2	121846	46mm	2
121822	22mm	2	121848	48mm	2
121824	24mm	2	121850	50mm	2
121826	26mm	2	121852	52mm	2
121828	28mm	2	121854	54mm	2
121830	30mm	2	121856	56mm	2
121832	32mm	2	121858	58mm	2
121834	34mm	2	121860	60mm	2



### Caddies

Cat. No.	Description	Qty
7117-0686	4.0mm Partially Threaded Cannulated Screw Caddy	1
7117-0687	4.0mm Partially Threaded Cannulated Screw Caddy Lid	1







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