

# ANTHEM<sup>®</sup> Distal Tibia Fracture System

SURGICAL TECHNIQUE GUIDE

GLOBUSMEDICAL.COM | Life moves us )



Our mission is to deliver cutting-edge technology, research, and innovative solutions to promote healing in patients with musculoskeletal disorders.



The Surgical Technique shown is for illustrative purposes only. The technique(s) actually employed in each case always depends on the medical judgment of the surgeon exercised before and during surgery as to the best mode of treatment for each patient. Additionally, as instruments may occasionally be updated, the instruments depicted in this Surgical Technique may not be exactly the same as the instruments currently available. Please consult with your sales representative or contact Globus directly for more information.

## SURGICAL TECHNIQUE GUIDE

# ANTHEM® Distal Tibia Fracture System

| Overv  | iew   | . 4  |
|--------|---|------|
| Impla  | nt Overview                                   | . 8  |
| Media  | I Locking Distal Tibia Plate                  |      |
| 1.     | Preoperative Planning                         | 10   |
| 2.     | Patient Positioning                           | 10   |
| 3.     | Approach                                      | 10   |
| 4.     | Fracture Reduction                            | . 11 |
| 5.     | Plate Selection                               | .12  |
| 6.     | Plate Placement                               | .12  |
| 7.     | Screw Insertion                               | .13  |
| 8.     | Verify Placement                              | 23   |
| Op     | otional: Removal                              | 24   |
| Anter  | olateral Locking Distal Tibia Plate           |      |
| 1.     | Preoperative Planning                         | 25   |
| 2.     | Patient Positioning                           | 25   |
| 3.     | Approach                                      | 25   |
| 4.     | Fracture Reduction                            | 25   |
| 5.     | Plate Selection                               | 26   |
| 6.     | Plate Placement                               | 26   |
| 7.     | Screw Insertion                               | 27   |
| 8.     | Verify Placement                              | 35   |
| Op     | otional: Removal                              | 36   |
| Auxili | ary T- and L-Plates                           |      |
| 1.     | Preoperative Planning                         | 37   |
| 2.     | Patient Positioning                           | 37   |
| 3.     | Approach                                      | 37   |
| 4.     | Fracture Reduction                            | 38   |
| 5.     | Plate Selection                               | 38   |
| 6.     | Plate Placement.                              | 38   |
| 7.     | Screw Insertion                               | 39   |
| Op     | otional: Tab Removal                          | 42   |
| 8.     | Verify Placement                              | 43   |
| Op     | otional: Removal                              | 45   |
| Metap  | physeal Locking Distal Tibia Plate            |      |
| 1.     | Preoperative Planning                         | 46   |
| 2.     | Approach and Fracture Reduction.              | 46   |
| 3.     | Plate Placement.                              | 47   |
| 4.     | Plate Selection                               | 47   |
| 5.     | Screw Insertion                               | 48   |
| 6.     | Verify Placement                              | 52   |
|        | ,<br>ptional: Removal                         |      |
|        | ment Overview                                 |      |
|        | IEM® Distal Tibia Implant and Instrument Sets |      |
|        | tant Information                              |      |

# ANTHEM<sup>®</sup> Distal Tibia Fracture System

The ANTHEM<sup>®</sup> Distal Tibia Fracture System provides low-profile, anatomically contoured plates in a comprehensive set to treat a variety of distal tibia fractures.

This system offers a variety of polyaxial locking plates, including Medial Locking, Anterolateral Locking (standard and wide), T-Plates, and L-Plates. A Metaphyseal Plate set is also available for fragment-specific plating.

Unique instruments such as the tactile Polyaxial Drill Guides are included in the set to simplify the plating technique.



## Polyaxial Locking Options

All plates feature robust polyaxial locking options, allowing for  $\pm 20^{\circ}$  (40° cone) of angulation



**Optimized screw trajectories** 



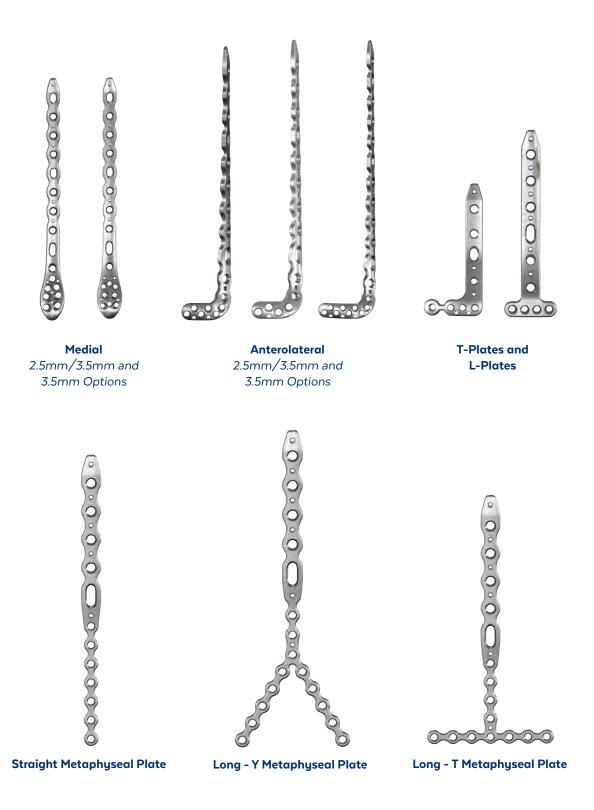
Market-leading angulation designed for stability



Polyaxial design ±20° (40° cone) of angulation

## Comprehensive System

One set provides polyaxial plating options for all distal tibia plating approaches



## MEDIAL LOCKING PLATE

## Anatomic Contour

- Distal end of the plate is designed to optimize medial malleolus stability while also providing a low profile distally (1.8-2.2mm thick)
- Designed for optimal fit to minimize intraoperative contouring and hardware prominence

## Distal Locking Options

- Polyaxial locking rafting screws are designed for maximum screw density to capture multiple fracture fragments while allowing for rafting of the articular surface
- · 2.5mm and 3.5mm options available



## **Kickstand Screws**

• Designed to provide additional stability to the construct and angled inferiorly to cross the most common extra-articular fractures





## ANTEROLATERAL LOCKING PLATE

## Anatomic Contour

- Distal anterior contour is designed to sit more medial to avoid impeding the incisura and to allow visualization of the Chaput fragment area
- Two distal widths offered to accommodate varying patient anatomy





Standard

Wide

## Suture/K-Wire Holes

• Facilitate reattachment of soft tissues distally after plate insertion

## Rafting Screws

• Six 2.5mm polyaxial locking rafting screw options are designed to support simple and very comminuted fractures of the articular surface





## **IMPLANT** OVERVIEW

#### **Medial Plates**

#### 2.5mm/3.5mm Locking Plate

- 2.5mm polyaxial distal locking provides for maximum fixation options
- 3.5mm polyaxial locking options in the shaft of the plate
- 1.8mm thickness distally
- Left/right specific

#### 3.5mm Locking Plate

- 3.5mm polyaxial distal locking provides for maximum fixation options
- 3.5mm polyaxial locking options in the shaft of the plate
- 2.2mm thickness distally
- Left/right specific





2.5mm/3.5mm Medial Locking Plate

3.5mm Medial Locking Plate

#### **Anterolateral Plates**

#### 2.5mm/3.5mm Locking Plate

• 2.5mm polyaxial locking holes distally and 3.5mm polyaxial locking holes proximally

#### Wide 2.5mm/3.5mm Locking Plate

- 2.5mm polyaxial locking holes distally and 3.5mm polyaxial locking holes proximally
- Extended anterior coverage to accommodate various patient anatomies

#### **3.5mm Locking Plate**

• 3.5mm polyaxial locking holes distally and 3.5mm polyaxial locking holes proximally



2.5mm/3.5mm Anterolateral Plate



Wide 2.5mm/3.5mm Anterolateral Plate



3.5mm Anterolateral Plate

#### **Auxiliary Plates**

#### **T-Plate**

- 3.5mm kickstand screws provide additional stability
- ${\scriptstyle \bullet}$  Distal screws are angled 5° superiorly
- Designed for an anterior or posterior approach
- 2.6mm plate thickness

#### **L-Plate**

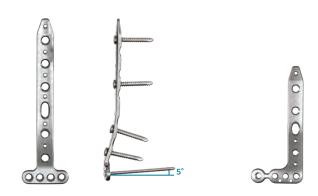
- Removable tab that can be used to buttress fragments or provide additional fixation
- Designed for an anterior or posterior approach
- 1.9mm plate thickness
- Left/right specific

#### **Metaphyseal Plates**

- Comprehensive plate selection that includes 2.5mm polyaxial locking distally and 3.5mm polyaxial locking proximally
- 1.4mm thick distally and 2.0mm thick proximally to minimize plate prominence

#### Screws

- 1 2.5mm Locking
- 2 2.5mm Non-Locking
- 3 3.5mm Locking
- (4) 3.5mm Non-Locking
- 5 4.0 Cancellous\*



T-Plate

L-Plate



**Metaphyseal Plates** 



## SURGICAL TECHNIQUE

# ANTHEM<sup>®</sup> Medial Locking Distal Tibia Plate

Refer to the package insert (also printed at the back of this manual) for information on the intended use/indications, device description, contraindications, precautions, warnings, and potential risks associated with this system.



## PREOPERATIVE PLANNING

Assess the fracture using preoperative radiographs and/or a CT scan. Estimate the appropriate length and location of screws to ensure the proper plate type, plate position, and screw placement.



Posteromedial incision



Position the patient supine. Using fluoroscopy, examine the fracture with AP, mortise, and lateral views.



Create a medial/posteromedial incision to the distal tibia that allows for fracture reduction. Carefully avoid surrounding tissue.



**Medial incision** 



Perform appropriate reduction of the fracture. Ensure that bone length, alignment, and rotation are properly restored. Proper reduction should be confirmed using fluoroscopy. Compression may be achieved by driving lag screws through the fragments. Ensure that lag screw placement does not interfere with the plate.



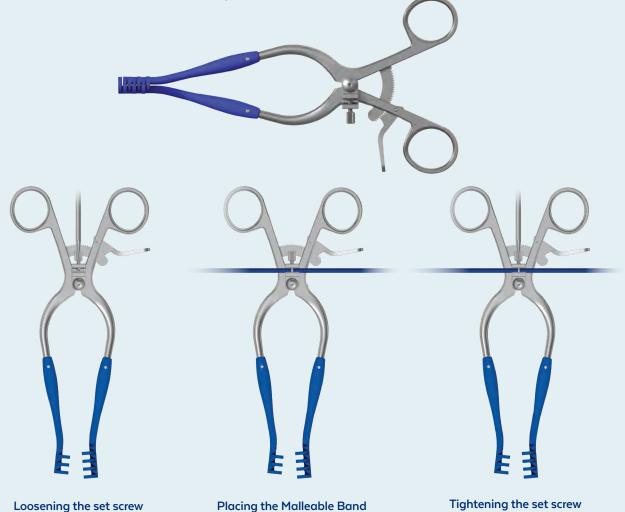
**Fracture Reduction** 

#### PRADIOLUCENT RETRACTION

The **Stabilizing Radiolucent Weitlaners** are designed for fracture site visibility. The **Malleable Band** secures the Stabilizing Radiolucent Weitlaners to the patient.

To assemble the Malleable Band, use a **T8 Driver** to loosen the set screw.

Place the Malleable Band in the slot and tighten the set screw.





Select the Medial Locking Plate type that best accommodates the patient's anatomy and fracture pattern.



2.5mm/3.5mm Medial Locking Plate

3.5mm Medial Locking Plate



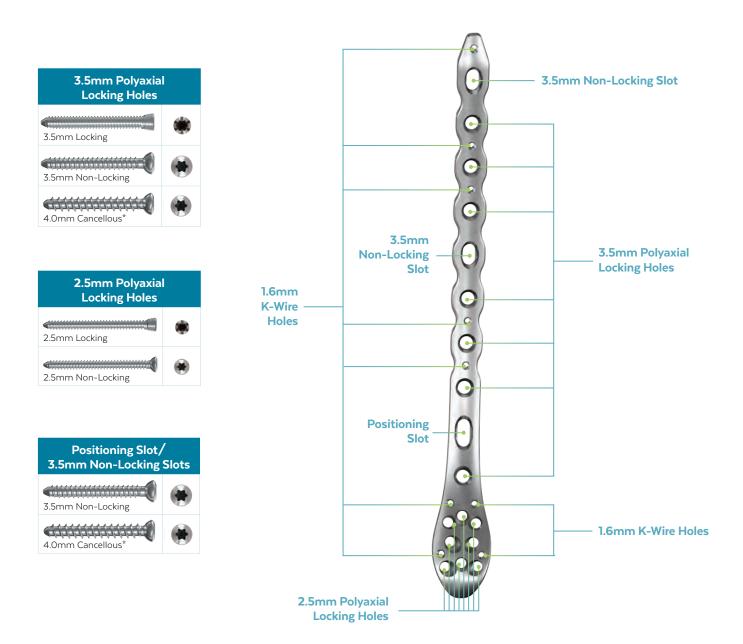
Insert the plate through the incision, taking care to avoid damaging soft tissue. Position the plate on the medial distal tibia. Confirm plate position using fluoroscopy. K-wires or reduction clamps may be used to provisionally fix the plate to the bone.

## STEP 7 SCREW INSERTION

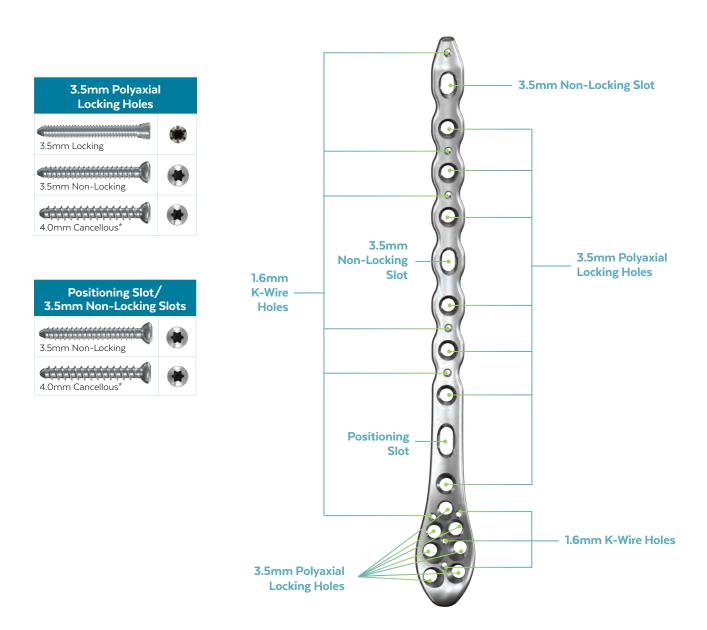
#### Screw compatibility

Screw compatibility is shown below for the Medial Locking Plate. If screw-plate locking is desired in a polyaxial hole, only use locking screws. MonoAx<sup>®</sup> Locking Screws may not be used in polyaxial holes. The 3.5mm Non-Locking Slots may be used for dynamic compression. Screw insertion order depends on fracture type, preliminary reduction, and surgeon preference. All non-locking screws should be placed prior to any locking screws. The positioning slot may be used to adjust plate position (see page 16 for details).

#### 2.5mm/3.5mm Medial Locking Plate



#### **3.5mm Medial Locking Plate**



#### **Positioning Slot Screw**

#### 3.5mm Non-Locking Screws

The positioning slot is used to adjust plate position.





2.5mm/3.5mm Medial Locking Plate 3.5mm Medial Locking Plate

# Color-coded by screw size.ColorScrew DiameterBlue2.5mmFuschia3.5mmLight Green4.0mm

#### **Positioning Slot Screw**

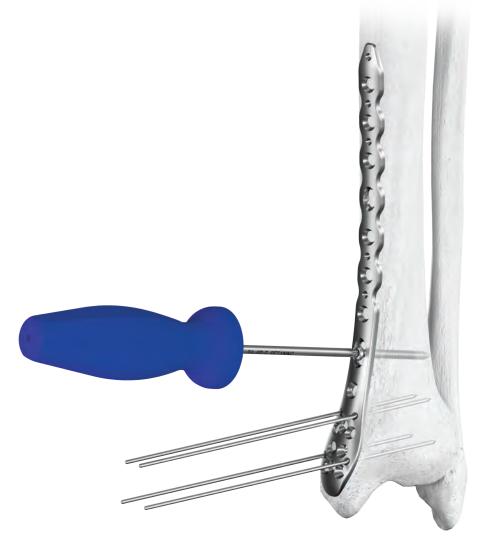
#### 3.5mm Non-Locking and 4.0mm Cancellous Screws

Placing the positioning slot non-locking screw prior to other screws allows for minor plate position adjustments.

Use the 2.7mm Drill to drill to the desired depth. Measure screw length using the **Depth Gauge**. Use the **Self-Retaining T15 Driver** or **Screw Holding Forceps** to select the desired screw. Verify length and diameter using the gauges within the screw modules.

Insert a 3.5mm Non-Locking Screw into the elongated slot using the T15 Driver and the **Quick-Connect Handle** manually or under power. Confirm plate position using fluoroscopy.

Adjust plate position as necessary before final tightening manually. Confirm screw position using fluoroscopy.



**Positioning slot screw** 

#### **Polyaxial Distal Screws**

#### 2.5mm/3.5mm Locking, 2.5mm/3.5mm Non-Locking, and 4.0mm Cancellous Screws

Determine the appropriate combination of locking and non-locking screws for the desired fixation. If screw-plate locking is desired in a polyaxial hole, only use locking screws.



| 2.5mm Polyaxial<br>Locking Holes |   |
|----------------------------------|---|
| <ul><li>2.5mm Locking</li></ul>  | ۲ |
| 2.5mm Non-Locking                | ۲ |



2.5mm/3.5mm Medial Locking Plate



3.5mm Medial Locking Plate

#### **Polyaxial Distal Screws**

#### 2.5mm Locking and Non-Locking Screws

Pre-drill to the desired depth using the **1.8mm Drill Bit** and the selected drill guide (pages 19-20). Measure hole depth using the Depth Gauge. Use the **Self-Retaining T8 Driver** or Screw Holding Forceps to select the desired screw.

Verify screw length and diameter using the gauges within the screw module. Ensure the plate is in secure contact with bone before placing locking screws. Insert 2.5mm Locking or Non-Locking Screws into the screw holes using the T8 Driver. If under power, final tightening should be performed manually. Confirm screw position using fluoroscopy.



Insert 2.5mm Locking Screws using the 1.2Nm Torque-Limiting Attachment.

#### 3.5mm Locking and Non-Locking Screws

Pre-drill to the desired depth using the 2.7mm Drill Bit and the selected drill guide (pages 19-20). Measure hole depth using the Depth Gauge. Use the Self-Retaining T15 Driver or Screw Holding Forceps to select the desired screw.

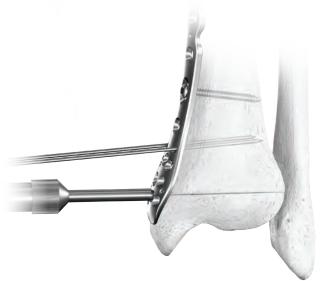
Verify screw length and diameter using the gauges within the screw module. Ensure the plate is in secure contact with bone before placing locking screws. Insert 3.5mm Locking or Non-Locking Screws into the screw holes using the TI5 Driver. If under power, final tightening should be performed manually. Confirm screw position using fluoroscopy.



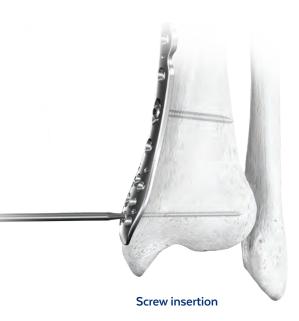
Insert 3.5mm Locking Screws using the 2.5Nm Torque-Limiting Attachment.



**Pre-drilling** 



Measuring with Depth Gauge



#### NOMINAL DRILL GUIDE OPTIONS

## 1.8mm Speed Lock Drill Guide (2.5mm Screws) ● 2.7mm Speed Lock Drill Guide (3.5mm Screws) ●●

The Speed Lock Drill Guide may be used to drill nominal trajectories. The thumb lock locks the drill guide to the plate at the nominal screw trajectory.

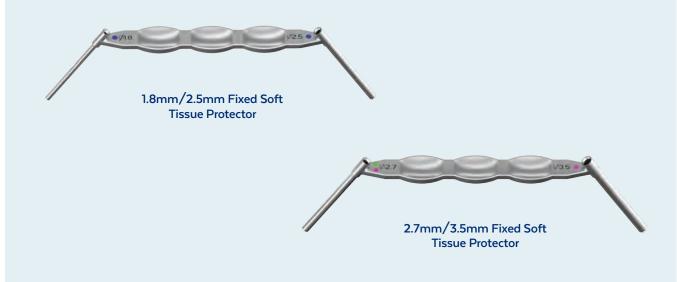




Speed Lock Drill Guide locked in place

#### 1.8mm/2.5mm Fixed Soft Tissue Protector ● 2.7mm/3.5mm Fixed Soft Tissue Protector ● ●

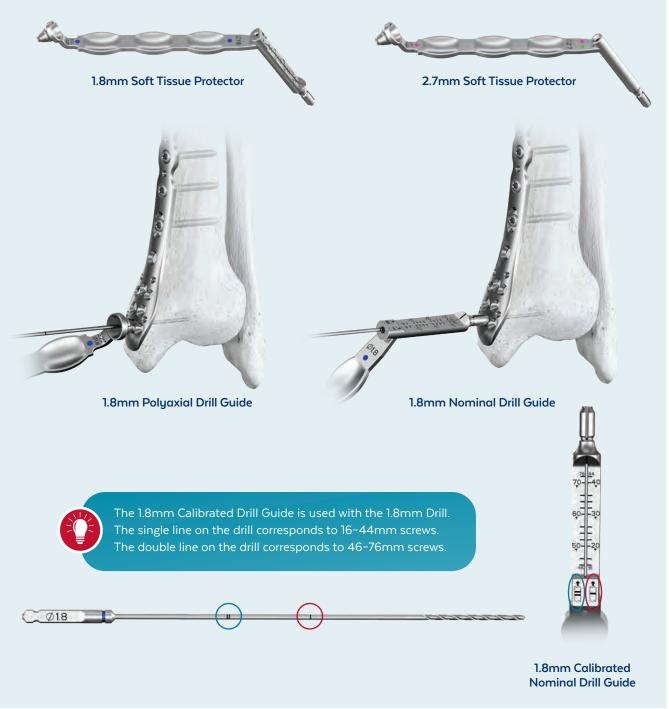
Fixed angle soft tissue protectors may be used to drill nominal trajectories.



#### POLYAXIAL DRILL GUIDE OPTIONS

#### 1.8mm Soft Tissue Protector (2.5mm screws) ● 2.7mm Soft Tissue Protector (3.5mm screws) ●●

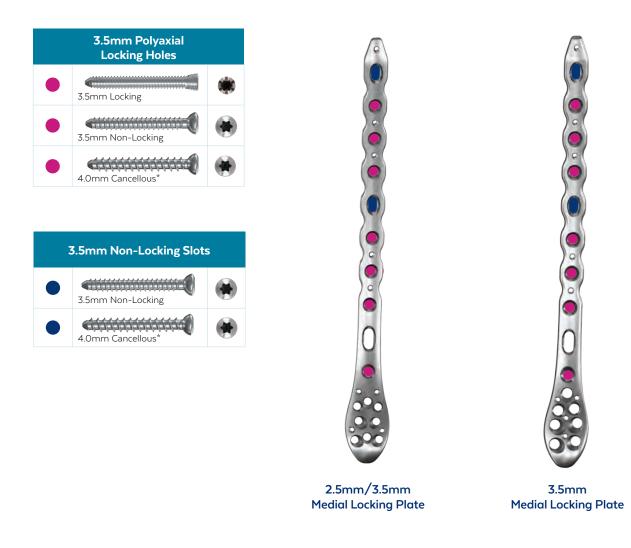
The Soft Tissue Protector allows for  $\pm 20^{\circ}$  (40° cone) of angulation on the polyaxial end and the nominal trajectory on the nominal end.



#### **Shaft Holes**

#### 3.5mm Locking, 3.5mm Non-Locking, and 4.0mm Cancellous Screws

Determine the appropriate combination of locking and non-locking screws for proper fixation. If screw-plate locking is desired in a polyaxial hole, only use locking screws.



Confirm proximal plate positioning using fluoroscopy. Pre-drill to the desired depth using the 2.7mm Drill Bit and the selected drill guide (pages 19-20). Measure hole depth using the Depth Gauge. Use the Self-Retaining T15 Driver or Screw Holding Forceps to select the desired screw.

Verify screw length and diameter using the gauges within the screw module. Insert 3.5mm Locking or Non-Locking Screws with the TI5 Driver with the Quick-Connect Handle manually or under power. If under power, final tightening should be performed manually. Confirm screw position using fluoroscopy.

For hard cortical bone, it is recommended to use the cortical tap before screw insertion.

#### 3.5mm Non-Locking Slot and 4.0mm Cancellous Screw

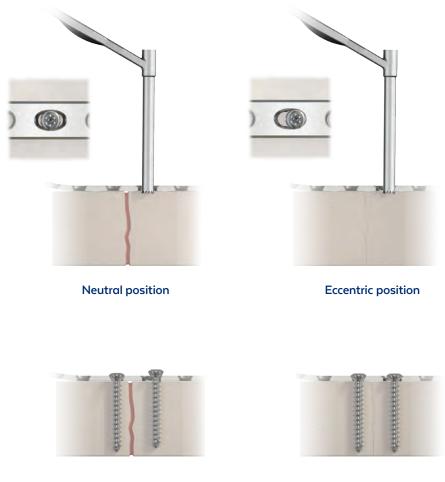
Dynamic compression of the fracture may be achieved by eccentrically placing a Non-Locking Screw through the 3.5mm Non-Locking Slot. If compression is not desired, place the screw in a neutral position.

Place a 3.5mm Non-Locking Screw distal to the fracture. Insert the 2.7mm/3.5mm Fixed Soft Tissue Protector eccentrically in the slotted hole.

Use the 2.7mm Drill to drill to the desired depth. Measure screw length using the Depth Gauge. Use the Self-Retaining T15 Driver or Screw Holding Forceps to select the desired screw. Verify length and diameter using the gauges within the screw module.

Insert a 3.5mm Non-Locking Screw into the elongated slot using the T15 Driver and the Quick-Connect Handle manually or under power. Confirm plate position using fluoroscopy. Adjust plate position as necessary before final tightening manually. Confirm screw position using fluoroscopy.

For hard cortical bone, it is recommended to use the cortical tap before screw insertion.



**Dynamic Compression** 



Confirm reduction and fixation using fluoroscopy. Ensure that screw tips are not intra-articular. Check screw placement in all planes, as angulation and direction may be difficult to visualize.



**AP view** 



Lateral view

## **OPTIONAL: REMOVAL**

If removal is required, unlock and remove all locking screws from the plate with the appropriate screwdriver first. Then remove non-locking screws using the corresponding screwdrivers. This will prevent simultaneous rotation of the plate. Once all screws are removed from the bone, the plate may be removed. For 2.5mm screws, use the **Non-Self-Retaining T8 Driver**. For 3.5mm screws, use the **Non-Self-Retaining T15 Driver**.



## SURGICAL TECHNIQUE

# ANTHEM<sup>®</sup> Anterolateral Locking Distal Tibia Plate

Refer to the package insert (also printed at the back of this manual) for information on the intended use/indications, device description, contraindications, precautions, warnings, and potential risks associated with this system.

### STEP 1

## PREOPERATIVE PLANNING

Assess the fracture using preoperative radiographs and/or a CT scan. Estimate the appropriate length and location of screws to ensure the proper plate type, plate position, and screw placement.

## STEP 2 PATIENT POSITIONING

Position the patient supine. Using fluoroscopy, examine the fracture with AP and lateral views.



Create an anterolateral incision to the distal tibia that allows for fracture reduction. Carefully avoid surrounding tissue.



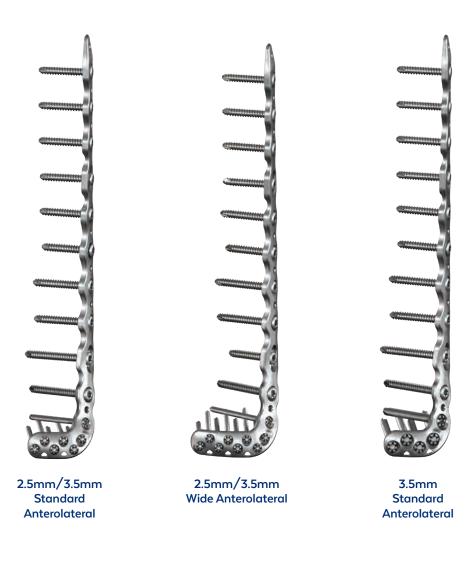
Perform appropriate reduction of the fracture. Ensure that bone length, alignment, and rotation are properly restored. Proper reduction should be confirmed using fluoroscopy. Compression may be achieved by driving lag screws through the fragments. Ensure that lag screw placement does not interfere with the plate.



Anterolateral incision



Select the Anterolateral Locking Plate type that best accommodates the patient's anatomy and fracture pattern.





Position the plate on the anterolateral distal tibia. Confirm plate position using fluoroscopy. K-wires or reduction clamps may be used to provisionally fix the plate to the bone.

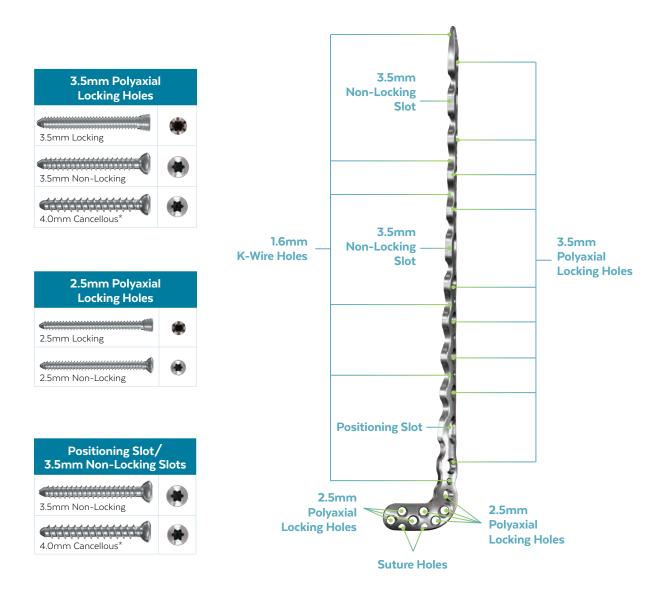
Suture may be used with the **Curved Cobb** to guide the plate during insertion.

## STEP 7 SCREW INSERTION

#### **Screw Compatibility**

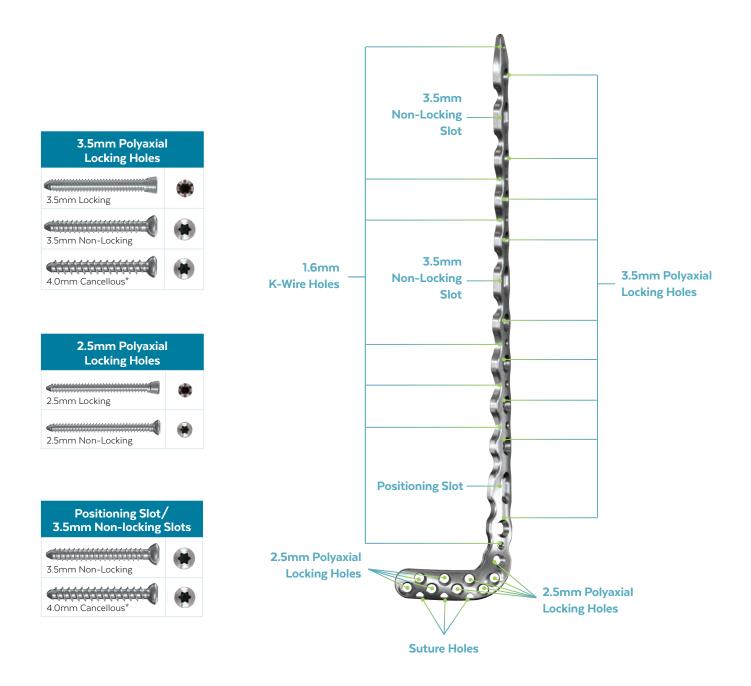
Screw compatibility is shown below for the Anterolateral Locking Plate. If screw-plate locking is desired in a polyaxial hole, only use locking screws. The 3.5mm Non-Locking Slots may be used for dynamic compression. Screw insertion order depends on fracture type, preliminary reduction, and surgeon preference. All non-locking screws should be placed prior to any locking screws. The positioning slot may be used to adjust plate position (see page 31 for details).

#### 2.5mm/3.5mm Anterolateral Locking Plate

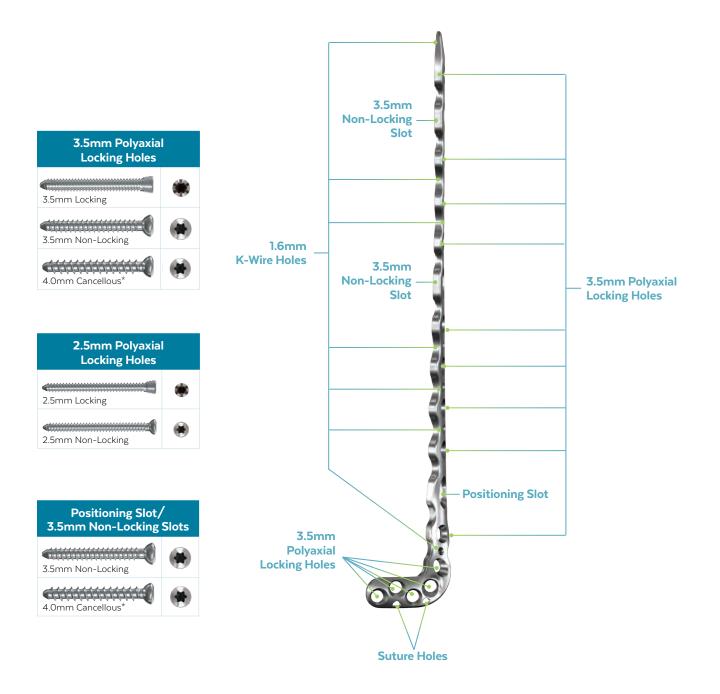


#### **Screw Compatibility**

#### Wide 2.5mm/3.5mm Anterolateral Locking Plate



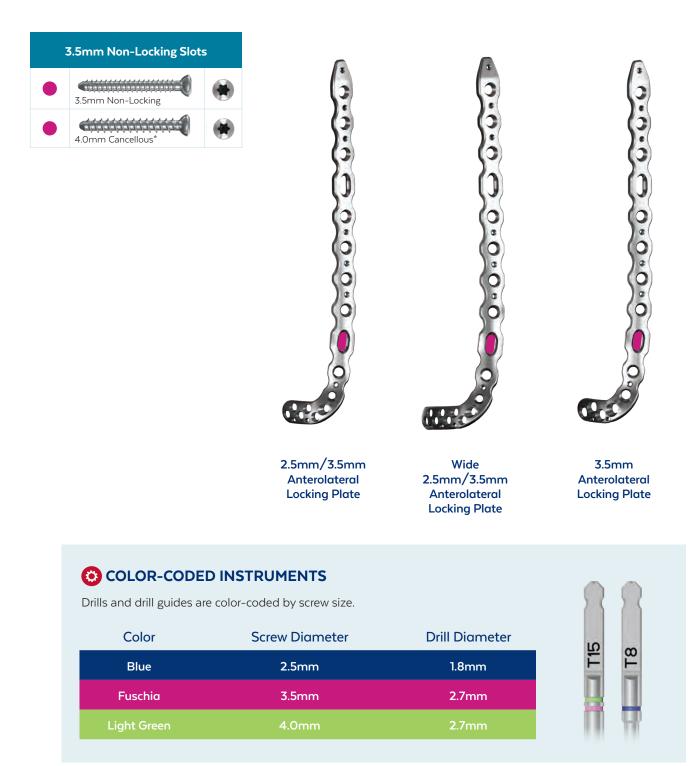
#### **3.5mm Anterolateral Locking Plate**



#### **Positioning Slot Screw**

#### 3.5mm Non-Locking and 4.0mm Cancellous Screws

The positioning slot is used to adjust plate position.



#### **Positioning Slot Screw**

#### 3.5mm Locking, 3.5mm Non-Locking, and 4.0mm Cancellous Screws

Placing the positioning slot non-locking screw prior to other screws allows for minor plate position adjustments.

Use the 2.7mm Drill to drill to the desired depth. Measure screw length using the Depth Gauge. Use the Self-Retaining T15 Driver or Screw Holding Forceps to select the desired screw. Verify length and diameter using the gauges within the screw module.

Insert a 3.5mm Non-Locking Screw into the elongated slot using the T15 Driver and the Quick-Connect Handle manually or under power. Confirm plate position using fluoroscopy.

Adjust plate position as necessary before final tightening manually. Confirm screw position using fluoroscopy.



**Positioning Slot Screw** 

#### 2.5mm/3.5mm Locking, 2.5mm/3.5mm Non-Locking, and 4.0mm Cancellous Screws

Determine the appropriate combination of locking and non-locking screws for the desired fixation. If screw-plate locking is desired in a polyaxial hole, only use locking screws.







2.5mm/3.5mm Anterolateral Locking Plate



Wide 2.5mm/3.5mm Anterolateral Locking Plate



3.5mm Anterolateral Locking Plate

#### **Polyaxial Distal Screws**

#### 2.5mm Locking and Non-Locking Screws

Pre-drill to the desired depth using the 1.8mm Drill Bit and the selected drill guide (pages 19–20). Measure hole depth using the Depth Gauge. Use the Self-Retaining T8 Driver or Screw Holding Forceps to select the desired screw.

Verify screw length and diameter using the gauges within the screw module. Ensure the plate is in secure contact with bone before placing locking screws. Insert 2.5mm Locking or Non-Locking Screws into the screw holes using the T8 Driver. If under power, final tightening should be performed manually. Confirm screw position using fluoroscopy.



Insert 2.5mm Locking Screws using the 1.2Nm Torque-Limiting Attachment.

#### 3.5mm Locking, 3.5mm Non-Locking, and 4.0mm Cancellous Screws

Pre-drill to the desired depth using the 2.7mm Drill Bit and the selected drill guide (pages 19–20). Measure hole depth using the Depth Gauge. Use the Self-Retaining T15 Driver or Screw Holding Forceps to select the desired screw.

Verify screw length and diameter using the gauges within the screw module. Ensure the plate is in secure contact with bone before placing locking screws. Insert 3.5mm Locking or Non-Locking Screws into the screw holes using the TI5 Driver. If under power, final tightening should be performed manually. Confirm screw position using fluoroscopy.



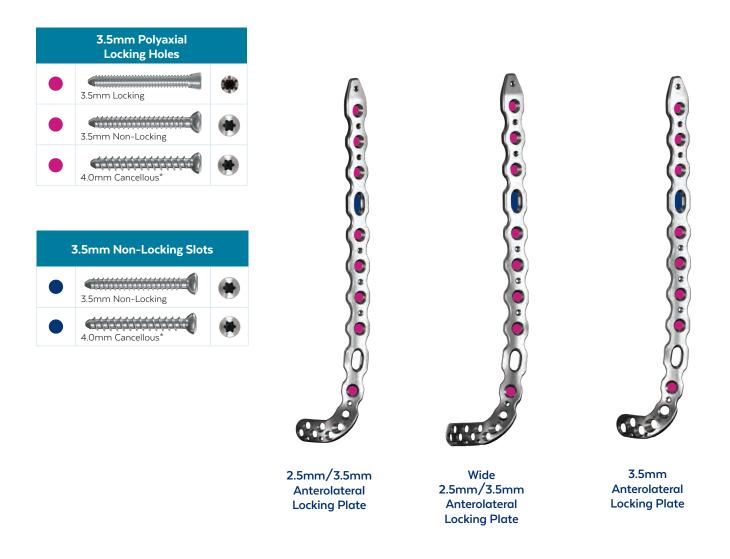
Insert 3.5mm Locking Screws using the 2.5Nm Torque-Limiting Attachment.



Screw insertion

#### **Shaft Holes**

3.5mm Locking, 3.5mm Non-Locking, and 4.0mm Cancellous Screws



Confirm proximal plate positioning using fluoroscopy. Pre-drill to the desired depth using the 2.7mm Drill Bit and the selected drill guide (pages 19-20). Measure hole depth using the Depth Gauge. Use the Self-Retaining T15 Driver or Screw Holding Forceps to select the desired screw.

Verify screw length and diameter using the gauges within the screw module. Ensure the plate is in secure contact with the bone. Insert 3.5mm Locking or Non-Locking Screws into the screw holes using the TI5 Driver. If under power, final tightening should be performed manually. Confirm screw position using fluoroscopy.

For hard cortical bone, it is recommended to use the cortical tap before screw insertion.

## STEP 8 VERIFY PLACEMENT

Confirm reduction and fixation using fluoroscopy. Ensure that screw tips are not intra-articular. Check screw placement in all planes, as angulation and direction may be difficult to visualize.





**AP view** 

Lateral view

## **OPTIONAL: REMOVAL**

If removal is required, unlock and remove all locking screws from the plate with the appropriate screwdriver first. Then remove non-locking screws using the corresponding screwdrivers. This prevents simultaneous rotation of the plate. Once all screws are removed from the bone, the plate may be removed. For 2.5mm screws, use the Non-Self-Retaining T8 Driver. For 3.5mm screws, use the Non-Self-Retaining T15 Driver.



## SURGICAL TECHNIQUE

# ANTHEM<sup>®</sup> Auxiliary T- and L-Plates

Refer to the package insert (also printed at the back of this manual) for information on the intended use/indications, device description, contraindications, precautions, warnings, and potential risks associated with this system.



## PREOPERATIVE PLANNING

Assess the fracture using preoperative radiographs and/or a CT scan. Estimate the appropriate length and location of screws to ensure the proper plate type, plate position, and screw placement.



Anterior incision



Position the patient in the desired operative position. Using fluoroscopy, examine the fracture with AP and lateral views.



Create an anterior or posterior incision to the distal tibia that allows for fracture reduction. Carefully avoid surrounding tissue.



**Posterior incision** 



Perform appropriate reduction of the fracture. Ensure that bone length, alignment, and rotation are properly restored. Proper reduction should be confirmed using fluoroscopy. Compression may be achieved by driving lag screws through the fragments. Ensure that lag screw placement does not interfere with the plate.



Select the auxiliary plate type that best accommodates the patient's anatomy and fracture pattern.



**T-Plate** 



L-Plate



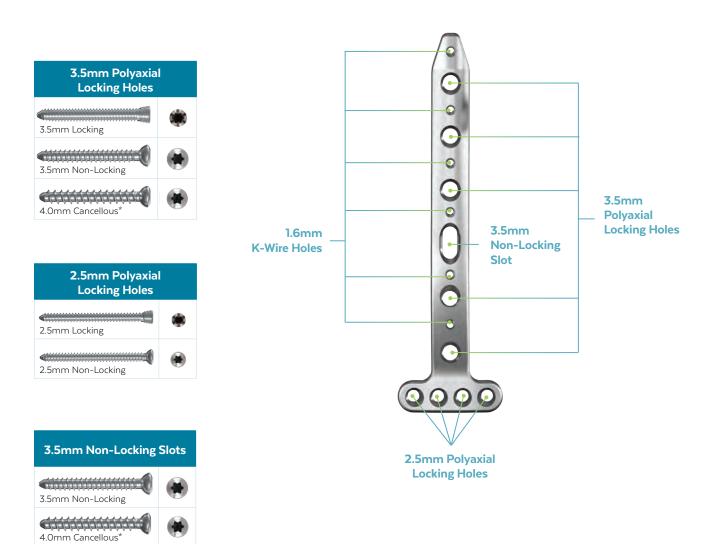
Insert the plate through the incision, taking care to avoid damaging soft tissue. Position the plate. Confirm plate position using fluoroscopy. K-wires or reduction clamps may be used to provisionally fix the plate to the bone.

# STEP 7 SCREW INSERTION

### **Screw Compatibility**

Screw compatibility is shown below for the T-Plate and L-Plate. If screw-plate locking is desired in a polyaxial hole, only use locking screws. The 3.5mm Non-Locking Slots may be used for dynamic compression. Screw insertion order depends on fracture type, preliminary reduction, and surgeon preference.

All non-locking screws should be placed prior to any locking screws.

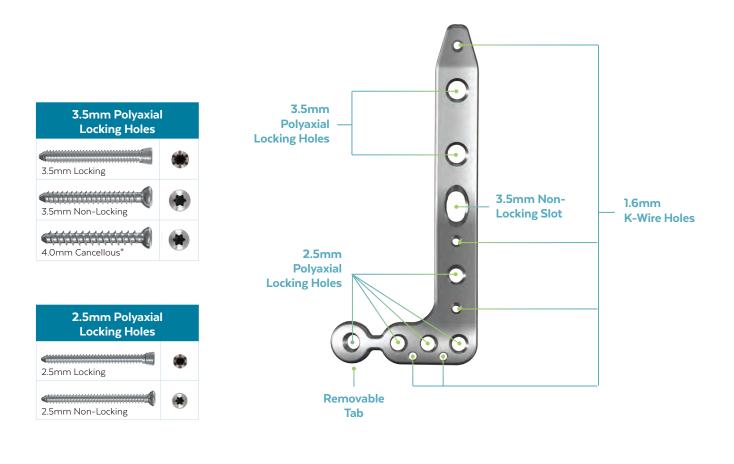


## **T-Plate**

## SCREW INSERTION (CONT'D)

### **Screw Compatibility**

### **L-Plate**



| 3.5mm Non-Locking | Slots |
|-------------------|-------|
| 3.5mm Non-Locking |       |
| 4.0mm Cancellous* | ۲     |

### 3.5mm Non-Locking Slot Screws and 4.0mm Cancellous Screws

Dynamic compression of the fracture may be achieved by eccentrically placing a non-locking screw through the 3.5mm Non-Locking Slot. If compression is not desired, place the screw in a neutral position (page 22).

Place a 3.5mm Non-Locking Screw distal to the fracture. Insert the 2.7mm/3.5mm Fixed Soft Tissue Protector eccentrically in the slotted hole.

Use the 2.7mm Drill to drill to the desired depth. Measure screw length using the Depth Gauge. Use the Self-Retaining T15 Driver or Screw Holding Forceps to select the desired screw. Verify length and diameter using the gauges within the screw module.

Insert a 3.5mm Non-Locking Screw into the elongated slot using the TI5 Driver and the Quick-Connect Handle manually or under power. Confirm plate position using fluoroscopy. Adjust plate position as necessary before final tightening manually. Confirm screw position using fluoroscopy.

For hard cortical bone, it is recommended to use the cortical tap before screw insertion.

### **Polyaxial Distal Screws**

### 2.5mm Locking and Non-Locking Screws

Pre-drill to the desired depth using the 1.8mm Drill Bit and the selected drill guide (pages 19-20). Measure hole depth using the Depth Gauge. Use the Self-Retaining T8 Driver or Screw Holding Forceps to select the desired screw.

Verify screw length and diameter using the gauges within the screw module. Ensure the plate is in secure contact with bone before placing locking screws. Insert 2.5mm Locking or Non-Locking Screws into the screw holes using the T8 Driver. If under power, final tightening should be performed manually. Confirm screw position using fluoroscopy

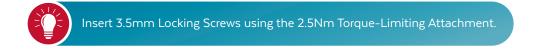


Insert 2.5mm Locking Screws using the 1.2Nm Torque-Limiting Attachment.

### 3.5mm Locking, Non-Locking, and 4.0mm Cancellous Screws

Pre-drill to the desired depth using the 2.7mm Drill Bit and the selected drill guide (pages 19-20). Measure hole depth using the Depth Gauge. Use the Self-Retaining T15 Driver or Screw Holding Forceps to select the desired screw.

Verify screw length and diameter using the gauges within the screw module. Ensure the plate is in secure contact with bone before placing locking screws. Insert 3.5mm Locking or Non-Locking Screws into the screw holes using the TI5 Driver. If under power, final tightening should be performed manually. Confirm screw position using fluoroscopy.



## OPTIONAL: L-PLATE TAB REMOVAL

Clamp onto the tab with large forceps or surgical pliers. Bend the tab downward then upward. Repeat until the tabs break off.



Clamping tab with large forceps



Bending tab upward

## STEP 8 VERIFY PLACEMENT

Confirm reduction and fixation using fluoroscopy. Ensure that screw tips are not intra-articular. Check screw placement in all planes, as angulation and direction may be difficult to visualize.





L-Plate AP view

L-Plate lateral view

# VERIFY PLACEMENT (CONT'D)



T-Plate AP view



**T-Plate lateral view** 

## **OPTIONAL: REMOVAL**

If removal is required, unlock and remove all locking screws from the plate with the appropriate screwdriver first. Then remove non-locking screws using the corresponding screwdrivers. This prevents simultaneous rotation of the plate. Once all screws are removed from the bone, the plate may be removed. For 2.5mm screws, use the Non-Self-Retaining T8 Driver. For 3.5mm screws, use the Non-Self-Retaining T15 Driver.



## SURGICAL TECHNIQUE

# ANTHEM<sup>®</sup> Metaphyseal Locking Distal Tibia Plate

Refer to the package insert (also printed at the back of this manual) for information on the intended use/indications, device description, contraindications, precautions, warnings, and potential risks associated with this system.

## STEP 1 PREOPERATIVE PLANNING

Assess the fracture using preoperative radiographs and/or a CT scan. Estimate the appropriate length and location of screws to ensure the proper plate type, plate position, and screw placement.

## STEP 2 APPROACH AND FRACTURE REDUCTION

Place the patient in the desired operative position. Create an incision to access the fracture site. Reduce the fracture using the appropriate reduction method for the fracture type. Carefully avoid surrounding tissue.

Ensure that bone length, alignment, and rotation are properly restored. Joint fractures often require anatomic reduction while functional reduction is usually sufficient for diaphyseal and meta-diaphyseal fractures.

Once reduction is achieved, Point-to-Point Reduction Forceps or K-wires may be used to provisionally hold the bone fragments in place. Confirm reduction under fluoroscopy. Compression may be achieved by driving lag screws through the fragments. Ensure that lag screw placement does not interfere with the plate.

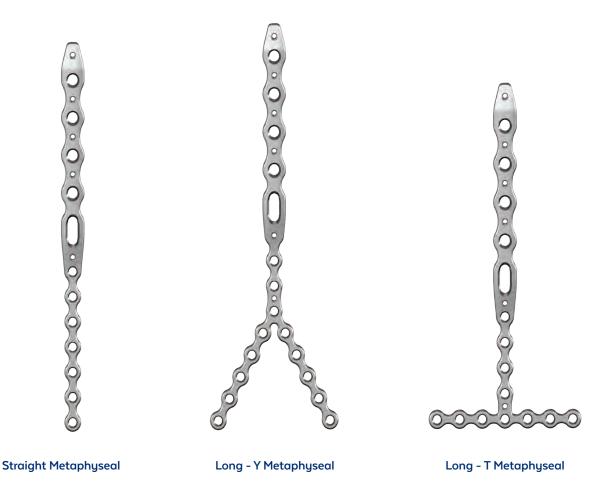


Fracture reduction with forceps



Select the Metaphyseal Locking Plate type that best accommodates the patient anatomy and fracture pattern. Plates can be cut and contoured to fit patient anatomy.

Metaphyseal plates should be used in conjunction with additional plate fixation when used for non-load bearing stabilization and reduction of long bone fragments.





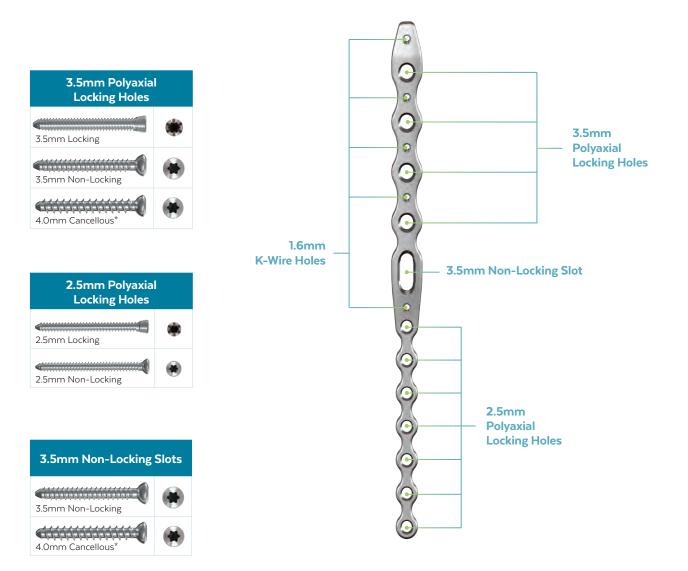
Insert the plate through the incision, taking care to avoid damaging soft tissue. Position the plate. Confirm plate position using fluoroscopy. K-wires or reduction clamps may be used to provisionally fix the plate to the bone. Compression may be achieved by driving lag screws through the fragments.

## STEP 5 SCREW INSERTION

### **Screw Compatibility**

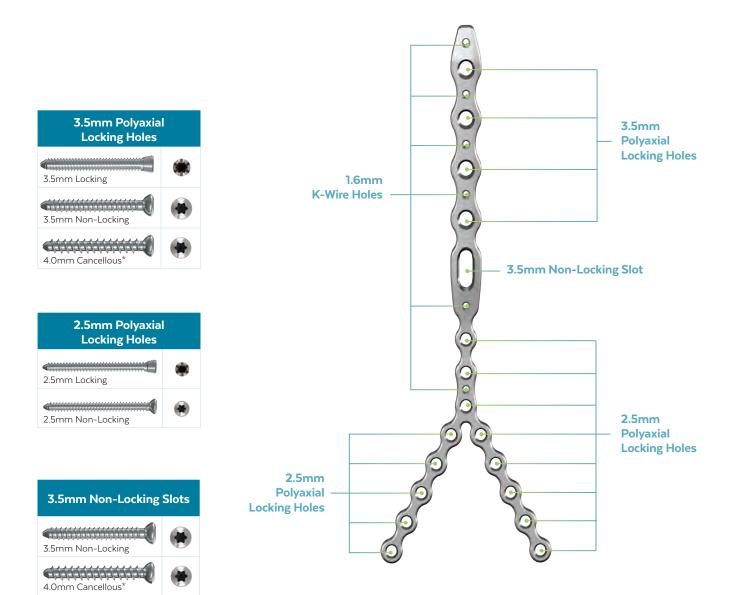
Screw compatibility is shown below for the Metaphyseal Locking Plates. If screw-plate locking is desired in a polyaxial hole, only use locking screws. The 3.5mm Non-Locking Slots may be used for dynamic compression. Screw insertion order depends on fracture type, preliminary reduction, and surgeon preference.

All Non-locking Screws should be placed prior to any locking screws.



## **Straight Metaphyseal**

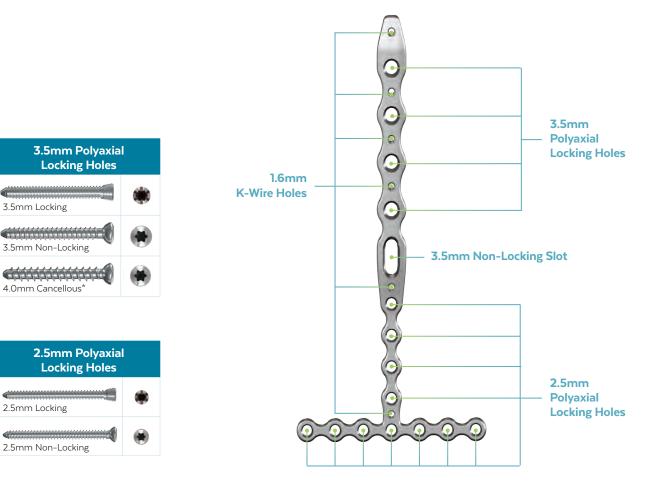
## Long - Y Metaphyseal



## SCREW INSERTION (CONT'D)

### **Screw Compatibility**

### Long - T Metaphyseal



### 50 | ANTHEM<sup>®</sup> Distal Tibia Fracture System

3.5mm Non-Locking Slots

3.5mm Non-Locking 4.0mm Cancellous\*

**199** 

### 3.5mm Non-Locking Slot Screws and and 4.0mm Cancellous Screws

Dynamic compression of the fracture may be achieved by eccentrically placing a non-locking screw through the 3.5mm Non-Locking Slot. If compression is not desired, place the screw in a neutral position (page 22).

Place a 3.5mm Non-Locking Screw distal to the fracture. Insert the 2.7mm/3.5mm Fixed Soft Tissue Protector into the oblong hole with no downward pressure. Place the selected Soft Tissue Protector eccentrically in the slotted hole.

Use the 2.7mm Drill to drill to the desired depth. Measure screw length using the Depth Gauge. Use the Self-Retaining T15 Driver or Screw Holding Forceps to select the desired screw. Verify length and diameter using the gauges within the screw module.

Insert a 3.5mm Non-Locking Screw into the elongated slot using the T15 Driver and the Quick-Connect Handle manually or under power. Confirm plate position using fluoroscopy.

Adjust plate position as necessary before final tightening manually. Confirm screw position using fluoroscopy.

### **Polyaxial Distal Screws**

### 2.5mm Locking and Non-Locking Screws

Pre-drill to the desired depth using the 1.8mm Drill Bit and the selected drill guide (pages 19-20). Measure hole depth using the Depth Gauge. Use the Self-Retaining T8 Driver or Screw Holding Forceps to select the desired screw.

Verify screw length and diameter using the gauges within the screw module. Ensure the plate is in secure contact with bone before placing locking screws. Insert 2.5mm Locking or Non-Locking Screws into the screw holes using the T8 Driver. If under power, final tightening should be performed manually. Confirm screw position using fluoroscopy.



Insert 2.5mm Locking Screws using the 1.2Nm Torque-Limiting Attachment.

### 3.5mm Locking, Non-Locking, and 4.0mm Cancellous Screws

Pre-drill to the desired depth using the 2.7mm Drill Bit and the selected drill guide (pages 19-20). Measure hole depth using the Depth Gauge. Use the Self-Retaining T15 Driver or Screw Holding Forceps to select the desired screw.

Verify screw length and diameter using the gauges within the screw module. Ensure the plate is in secure contact with bone before placing locking screws. Insert 3.5mm Locking or Non-Locking Screws into the screw holes using the TI5 Driver. If under power, final tightening should be performed manually. Confirm screw position using fluoroscopy.



Insert 3.5mm Locking Screws using the 2.5Nm Torque-Limiting Attachment.



Insert the plate through the incision, taking care to avoid damaging soft tissue. Confirm reduction and fixation using fluoroscopy. Ensure that screw tips are not intra-articular. Check screw placement in all planes, as angulation and direction may be difficult to visualize.





Lateral view

## **OPTIONAL: REMOVAL**

If removal is required, unlock and remove all locking screws from the plate with the appropriate screwdriver first. Then remove non-locking screws using the corresponding screwdrivers. This prevents simultaneous rotation of the plate. Once all screws are removed from the bone, the plate may be removed. For 2.5mm screws, use the Non-Self-Retaining T8 Driver. For 3.5mm screws, use the Non-Self-Retaining T15 Driver.



## **INSTRUMENT** OVERVIEW

### **RETRACTION INSTRUMENTS**



Stabilizing Radiolucent Weitlaner 3x4, 8", Sharp Tip 6171.0002

Malleable Wire Replacement 6171.7008

Curved Cobb 6170.7001

1.6mm K-Wire, Drill Tip, 150mm 6170.1016

1.6mm K-Wire, Trocar Tip, 150mm 6179.1116

2.0mm K-Wire, Trocar Tip, 150mm 6179.1120



1.8mm Plate Holding K-Wire, 20mm 6170.1218



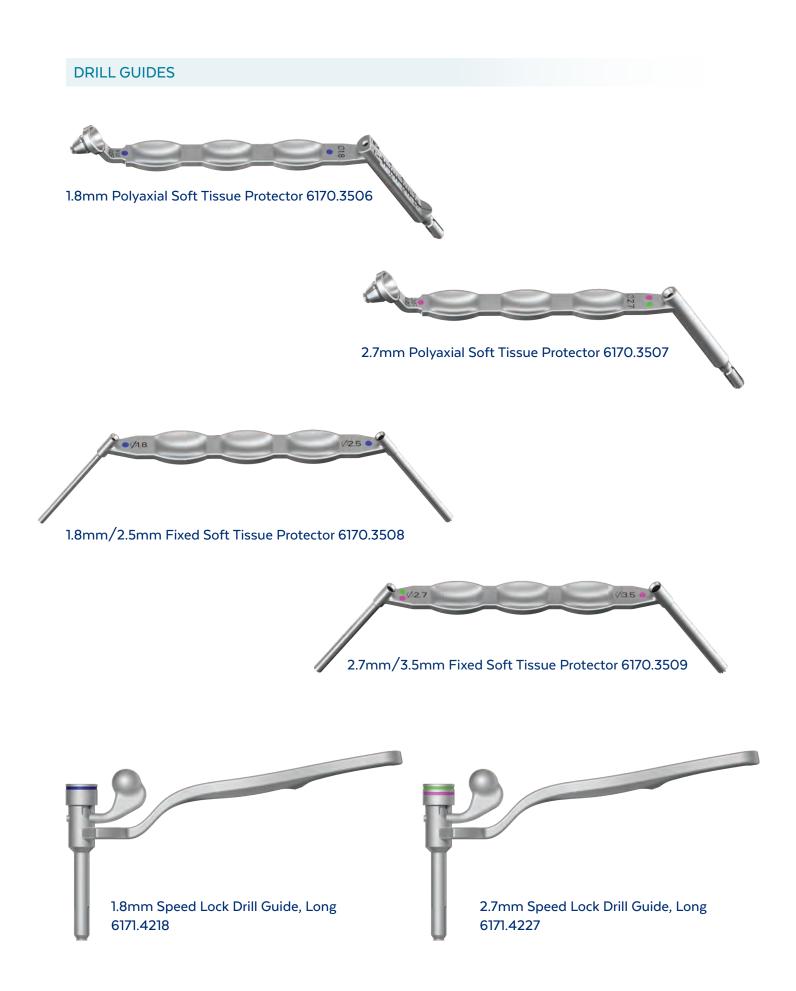
1.8mm Plate Holding K-Wire, 25mm 6170.1219

1.8mm Plate Holding K-Wire, 30mm 6170.1220

Ball Spike Pusher 6170.7003



Dental Pick, Curved Tip, Large Handle 6170.7005



DRILLS

Ø1.8

1.8mm Drill Bit, AO QC, 170mm 6170.5018

2.7mm Drill Bit, AO QC, 180mm 6170.5027

(2.5) (2.5)

2.5mm Drill Bit, 110mm, AO Quick-Connect 6179.5025

Ø 3.5

3.5mm Drill Bit, 110mm, AO Quick-Connect 6179.5035

DEPTH GAUGE



Depth Gauge, 70mm 6170.7004

### COUNTERSINK

Countersink, AO Quick-Connect 6179.7000

HANDLES



Medium Handle, AO Quick-Connect 6188.7001

| DF | RIV | 'ER | S |
|----|-----|-----|---|
|    |     |     |   |

T8 REMOVAL DRIVER

T8 Driver, Non-Self-Retaining, 100mm, AO Quick-Connect 6179.6108

TI5. REMOVAL DRIVER

T15 Driver, Non-Self-Retaining, 100mm, AO Quick-Connect 6179.6115

TB

Driver, T8 SR, 100mm, AO Quick-Connect 6187.5708

T15

Driver, T15 SR, 100mm, AO Quick-Connect 6187.5715

T15

Driver, T15 NSR, 200mm, AO Quick-Connect 6187.3815



Screw Retention Sleeve 6187.3350



Torque-Limiting Attachment, 2.5Nm, AO Quick-Connect 6187.3801



Torque-Limiting Attachment, 1.2Nm, AO Quick-Connect 6171.5012

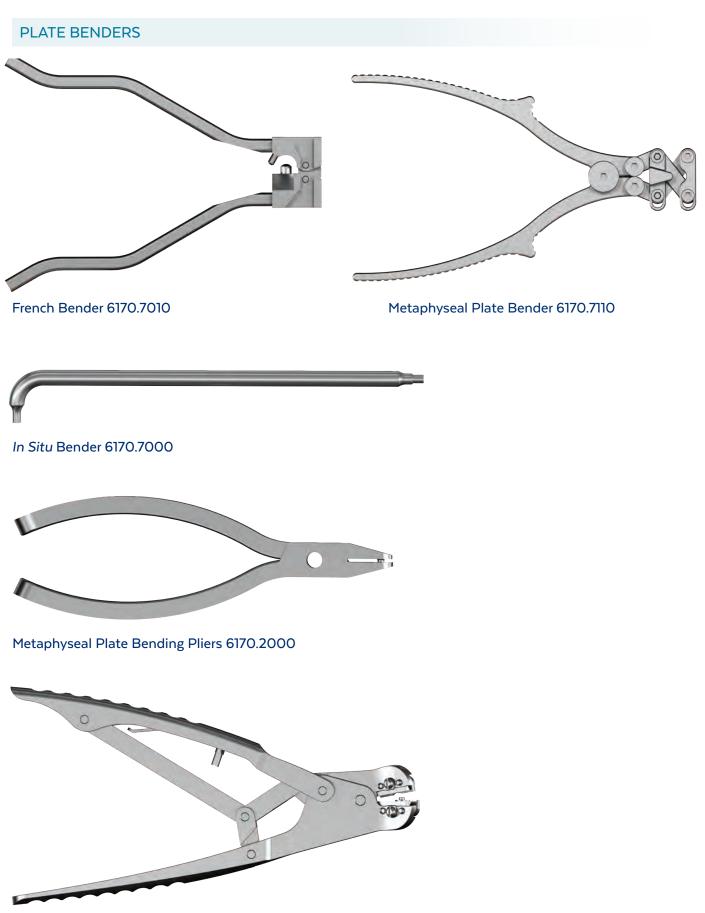


Plate Cutting Pliers 6170.2001

# ANTHEM<sup>®</sup> SS Distal Tibia IMPLANT AND INSTRUMENT SET 9170.9001

| Part No.  | Description   | Qty    |
|-----------|---|--------|
| 2170.0204 | T-Plate, 2.5mm/3.5mm Polyaxial,<br>4 hole, 76mm, SS         | 1      |
| 2170.0206 | T-Plate, 2.5mm/3.5mm Polyaxial,<br>6 hole, 106mm, SS        | 1      |
| 2170.0208 | T-Plate, 2.5mm/3.5mm Polyaxial,<br>8 hole, 136mm, SS        | 1<br>1 |
| 2170.1203 | L-Plate, 2.5mm/3.5mm Polyaxial,<br>Left, 3 hole, 80mm, SS   | 1      |
| 2170.1204 | L-Plate, 2.5mm/3.5mm Polyaxial,<br>Left, 4 hole, 95mm, SS   | 1      |
| 2170.2203 | L-Plate, 2.5mm/3.5mm Polyaxial,<br>Right , 3 hole, 80mm, SS | 1      |
| 2170.2204 | L-Plate, 2.5mm/3.5mm Polyaxial,<br>Right , 4 hole, 95mm, SS | 1      |
| 6170.1016 | 1.6mm K-Wire, Drill Tip, 150mm                              | 15     |
| 6170.1218 | 1.8mm Plate Holding K-Wire                                  | 3      |
| 6170.3506 | 1.8mm Polyaxial Soft Tissue Protector                       | 1      |
| 6170.3507 | 2.7mm Polyaxial Soft Tissue Protector                       | 1      |
| 6170.3508 | 1.8mm/2.5mm Fixed Soft Tissue Protector                     | 1      |
| 6170.3509 | 2.7mm/3.5mm Fixed Soft Tissue Protector                     | 1      |
| 6170.5018 | 1.8mm Drill Bit, AO QC, 170mm                               | 2      |
| 6170.5027 | 2.7mm Drill Bit, AO QC, 180mm                               | 2      |
| 6170.7001 | Curved Cobb   | 1      |
| 6170.7003 | Ball Spike Pusher   | 1      |
| 6170.7004 | Depth Gauge, 70mm   | 1      |
| 6170.7005 | Dental Pick, Curved Tip, Large Handle                       | 1      |
| 6170.7010 | French Bender   | 1      |
| 6171.0002 | Stabilizing Radiolucent Weitlaner 3x4,<br>8", Sharp Tip     | 1      |
| 6171.4218 | 1.8mm Speed Lock Drill Guide, Long                          | 1      |
| 6171.4227 | 2.7mm Speed Lock Drill Guide, Long                          | 1      |
| 6171.5012 | Torque-Limiting Attachment, 1.2Nm,<br>AO Quick-Connect      | 1      |
| 6171.7008 | Malleable Wire Replacement                                  | 4      |
| 6179.1116 | 1.6mm K-Wire, Trocar Tip, 150mm                             | 15     |
| 6179.1120 | 2.0mm K-Wire, Trocar Tip, 150mm                             | 15     |
| 6179.5025 | 2.5mm Drill Bit, 110mm, AO Quick-Connect                    | 1      |

| Part No.  | Description  | Qty |
|-----------|--|-----|
| 6179.5035 | 3.5mm Drill Bit, 110mm, AO Quick-Connect                   | 1   |
| 6179.6108 | T8 Driver, Non-Self-Retaining, 100mm,<br>AO Quick-Connect  | 1   |
| 6179.6115 | T15 Driver, Non-Self-Retaining, 100mm,<br>AO Quick-Connect | 1   |
| 6179.7000 | Countersink, AO Quick-Connect                              | 1   |
| 6187.3350 | Screw Retention Sleeve                                     | 1   |
| 6187.3801 | Torque-Limiting Attachment, 2.5Nm,<br>AO Quick-Connect     | 1   |
| 6187.3815 | Driver, T15 NSR, 200mm, AO Quick-Connec                    | t 1 |
| 6187.5708 | Driver, T8 SR, 100mm, AO Quick-Connect                     | 2   |
| 6187.5715 | Driver, T15 SR, 100mm, AO Quick-Connect                    | 2   |
| 6188.7001 | Medium Handle, AO Quick-Connect                            | 2   |
| 9170.0001 | SS Implant and Instrument Graphic Case                     |     |

# ANTHEM<sup>®</sup> Ti Distal Tibia IMPLANT AND INSTRUMENT SET 9170.9002

| Part No.  | Description  | Qty | Part No.               | Description  | Qty    |
|-----------|--|-----|------------------------|--|--------|
| 1170.0204 | T-Plate, 2.5mm/3.5mm Polyaxial,                            | 1   | 6179.5025              | 2.5mm Drill Bit, 110mm, AO Quick-Connect                     | 1      |
|           | 4 hole, 76mm, Ti   |     | 6179.5035              | 3.5mm Drill Bit, 110mm, AO Quick-Connect                     | 1      |
| 1170.0206 | T-Plate, 2.5mm/3.5mm Polyaxial,<br>6 hole, 106mm, Ti       | 1   | 6179.6108              | T8 Driver, Non-Self-Retaining, 100mm,<br>AO Quick-Connect    | 1      |
| 1170.0208 | T-Plate, 2.5mm/3.5mm Polyaxial,<br>8 hole, 136mm, Ti       | 1   | 6179.6115              | T15 Driver, Non-Self-Retaining, 100mm,<br>AO Quick-Connect   | 1      |
| 1170.1203 | L-Plate, 2.5mm/3.5mm Polyaxial,<br>Left, 3 hole, 80mm, Ti  | 1   | 6179.7000              | Countersink, AO Quick-Connect                                | 1      |
| 1170.1204 | L-Plate, 2.5mm/3.5mm Polyaxial,<br>Left, 4 hole, 95mm, Ti2 | 1   | 6187.3350<br>6187.3801 | Screw Retention Sleeve<br>Torque-Limiting Attachment, 2.5Nm, | ו<br>ו |
| 1170.2203 | L-Plate, 2.5mm/3.5mm Polyaxial,<br>Right, 3 hole, 80mm, Ti | 1   | 6187.3815              | AO Quick-Connect<br>Driver, T15 NSR, 200mm, AO Quick-Connec  | ct 1   |
| 1170.2204 | L-Plate, 2.5mm/3.5mm Polyaxial,                            | 1   | 6187.5708              | Driver, T8 SR, 100mm, AO Quick-Connect                       | 2      |
|           | Right, 4 hole, 95mm, Ti                                    |     | 6187.5715              | Driver, T15 SR, 100mm, AO Quick-Connect                      | 2      |
| 6170.1016 | 1.6mm K-Wire, Drill Tip, 150mm                             | 15  | 6188.7001              | Medium Handle, AO Quick-Connect                              | 2      |
| 6170.1218 | 1.8mm Trocar Tip Plate Holding<br>K-wire, 20mm             | 3   | 9170.0002              | Ti Implant and Instrument Graphic Case                       |        |
| 6170.3506 | 1.8mm Polyaxial Soft Tissue Protector                      | 1   |                        |  |        |
| 6170.3507 | 2.7mm Polyaxial Soft Tissue Protector                      | 1   |                        |  |        |
| 6170.3508 | 1.8mm/2.5mm Fixed Soft Tissue Protector                    | · 1 |                        |  |        |
| 6170.3509 | 2.7mm/3.5mm Fixed Soft Tissue Protector                    | r 1 |                        |  |        |
| 6170.5018 | 1.8mm Drill Bit, AO QC, 170mm                              | 2   |                        |  |        |
| 6170.5027 | 2.7mm Drill Bit, AO QC, 180mm                              | 2   |                        |  |        |
| 6170.7001 | Curved Cobb  | 1   |                        |  |        |
| 6170.7003 | Ball Spike Pusher  | 1   |                        |  |        |
| 6170.7004 | Depth Gauge, 70mm  | 1   |                        |  |        |
| 6170.7005 | Dental Pick, Curved Tip, Large Handle                      | 1   |                        |  |        |
| 6170.7010 | French Bender  | 1   |                        |  |        |
| 6171.0002 | Stabilizing Radiolucent Weitlaner 3x4,<br>8", Sharp Tip    | 1   |                        |  |        |
| 6171.4218 | 1.8mm Speed Lock Drill Guide, Long                         | 1   |                        |  |        |
| 6171.4227 | 2.7mm Speed Lock Drill Guide, Long                         | 1   |                        |  |        |
| 6171.5012 | Torque-Limiting Attachment, 1.2Nm,<br>AO Quick-Connect     | 1   |                        |  |        |
| 6171.7008 | Malleable Wire Replacement                                 | 4   |                        |  |        |
| 6179.1116 | 1.6mm K-Wire, Trocar Tip, 150mm                            | 15  |                        |  |        |
| 6179.1120 | 2.0mm K-Wire, Trocar Tip, 150mm                            | 15  |                        |  |        |

# ANTHEM<sup>®</sup> SS Distal Tibia Screw Module IMPLANT SET 9170.9003

### Non-Locking Screws

| Part No.  | Description                     | Qty | Part No.  | Description                     | Qty |
|-----------|---------------------------------|-----|-----------|---------------------------------|-----|
| 2171.6508 | Non-Locking Screw, 2.5x8mm, SS  | 2   | 2179.3020 | Non-Locking Screw, 3.5x20mm, SS | 4   |
| 2171.6510 | Non-Locking Screw, 2.5x10mm, SS | 2   | 2179.3022 | Non-Locking Screw, 3.5x22mm, SS | 4   |
| 2171.6512 | Non-Locking Screw, 2.5x12mm, SS | 2   | 2179.3024 | Non-Locking Screw, 3.5x24mm, SS | 6   |
| 2171.6514 | Non-Locking Screw, 2.5x14mm, SS | 2   | 2179.3026 | Non-Locking Screw, 3.5x26mm, SS | 6   |
| 2171.6516 | Non-Locking Screw, 2.5x16mm, SS | 2   | 2179.3028 | Non-Locking Screw, 3.5x28mm, SS | 6   |
| 2171.6518 | Non-Locking Screw, 2.5x18mm, SS | 2   | 2179.3030 | Non-Locking Screw, 3.5x30mm, SS | 6   |
| 2171.6520 | Non-Locking Screw, 2.5x20mm, SS | 2   | 2179.3032 | Non-Locking Screw, 3.5x32mm, SS | 6   |
| 2171.6522 | Non-Locking Screw, 2.5x22mm, SS | 2   | 2179.3034 | Non-Locking Screw, 3.5x34mm, SS | 6   |
| 2171.6524 | Non-Locking Screw, 2.5x24mm, SS | 2   | 2179.3036 | Non-Locking Screw, 3.5x36mm, SS | 6   |
| 2171.6526 | Non-Locking Screw, 2.5x26mm, SS | 2   | 2179.3038 | Non-Locking Screw, 3.5x38mm, SS | 6   |
| 2171.6528 | Non-Locking Screw, 2.5x28mm, SS | 2   | 2179.3040 | Non-Locking Screw, 3.5x40mm, SS | 6   |
| 2171.6530 | Non-Locking Screw, 2.5x30mm, SS | 4   | 2179.3042 | Non-Locking Screw, 3.5x42mm, SS | 6   |
| 2171.6532 | Non-Locking Screw, 2.5x32mm, SS | 4   | 2179.3044 | Non-Locking Screw, 3.5x44mm, SS | 6   |
| 2171.6534 | Non-Locking Screw, 2.5x34mm, SS | 4   | 2179.3046 | Non-Locking Screw, 3.5x46mm, SS | 4   |
| 2171.6536 | Non-Locking Screw, 2.5x36mm, SS | 4   | 2179.3048 | Non-Locking Screw, 3.5x48mm, SS | 4   |
| 2171.6538 | Non-Locking Screw, 2.5x38mm, SS | 4   | 2179.3050 | Non-Locking Screw, 3.5x50mm, SS | 4   |
| 2171.6540 | Non-Locking Screw, 2.5x40mm, SS | 6   | 2179.3052 | Non-Locking Screw, 3.5x52mm, SS | 3   |
| 2171.6542 | Non-Locking Screw, 2.5x42mm, SS | 6   | 2179.3054 | Non-Locking Screw, 3.5x54mm, SS | 3   |
| 2171.6544 | Non-Locking Screw, 2.5x44mm, SS | 6   | 2179.3056 | Non-Locking Screw, 3.5x56mm, SS | 3   |
| 2171.6546 | Non-Locking Screw, 2.5x46mm, SS | 6   | 2179.3058 | Non-Locking Screw, 3.5x58mm, SS | 3   |
| 2171.6548 | Non-Locking Screw, 2.5x48mm, SS | 6   | 2179.3060 | Non-Locking Screw, 3.5x60mm, SS | 3   |
| 2171.6550 | Non-Locking Screw, 2.5x50mm, SS | 6   | 2179.3065 | Non-Locking Screw, 3.5x65mm, SS | 3   |
| 2171.6552 | Non-Locking Screw, 2.5x52mm, SS | 6   | 6179.2000 | Screw Holding Forceps           | 1   |
| 2171.6554 | Non-Locking Screw, 2.5x54mm, SS | 6   |           |                                 |     |
| 2171.6556 | Non-Locking Screw, 2.5x56mm, SS | 6   |           |                                 |     |
| 2171.6558 | Non-Locking Screw, 2.5x58mm, SS | 6   |           |                                 |     |
| 2171.6560 | Non-Locking Screw, 2.5x60mm, SS | 6   |           |                                 |     |
| 2171.6565 | Non-Locking Screw, 2.5x65mm, SS | 6   |           |                                 |     |
| 2179.3008 | Non-Locking Screw, 3.5x8mm, SS  | 2   |           |                                 |     |
| 2179.3010 | Non-Locking Screw, 3.5x10mm, SS | 2   |           |                                 |     |
| 2179.3012 | Non-Locking Screw, 3.5x12mm, SS | 2   |           |                                 |     |
| 2179.3014 | Non-Locking Screw, 3.5x14mm, SS | 2   |           |                                 |     |
| 2179.3016 | Non-Locking Screw, 3.5x16mm, SS | 2   |           |                                 |     |
| 2179.3018 | Non-Locking Screw, 3.5x18mm, SS | 2   |           |                                 |     |

## Locking Screws

| Part No.  | Description                   | Qty | Part No.  | Description                                  | Qty  |
|-----------|-------------------------------|-----|-----------|--|------|
| 7171.5508 | Locking Screw, 2.5x8mm CoCr   | 2   | 7179.5020 | Locking Screw, 3.5x20mm, CoCr                | 6    |
| 7171.5510 | Locking Screw, 2.5x10mm, CoCr | 2   | 7179.5022 | Locking Screw, 3.5x22mm, CoCr                | 6    |
| 7171.5512 | Locking Screw, 2.5x12mm, CoCr | 2   | 7179.5024 | Locking Screw, 3.5x24mm, CoCr                | 6    |
| 7171.5514 | Locking Screw, 2.5x14mm, CoCr | 2   | 7179.5026 | Locking Screw, 3.5x26mm, CoCr                | 6    |
| 7171.5516 | Locking Screw, 2.5x16mm, CoCr | 2   | 7179.5028 | Locking Screw, 3.5x28mm, CoCr                | 6    |
| 7171.5518 | Locking Screw, 2.5x18mm, CoCr | 2   | 7179.5030 | Locking Screw, 3.5x30mm, CoCr                | 6    |
| 7171.5520 | Locking Screw, 2.5x20mm, CoCr | 6   | 7179.5032 | Locking Screw, 3.5x32mm, CoCr                | 6    |
| 7171.5522 | Locking Screw, 2.5x22mm, CoCr | 6   | 7179.5034 | Locking Screw, 3.5x34mm, CoCr                | 6    |
| 7171.5524 | Locking Screw, 2.5x24mm, CoCr | 6   | 7179.5036 | Locking Screw, 3.5x36mm, CoCr                | 6    |
| 7171.5526 | Locking Screw, 2.5x26mm, CoCr | 6   | 7179.5038 | Locking Screw, 3.5x38mm, CoCr                | 6    |
| 7171.5528 | Locking Screw, 2.5x28mm, CoCr | 6   | 7179.5040 | Locking Screw, 3.5x40mm, CoCr                | 6    |
| 7171.5530 | Locking Screw, 2.5x30mm, CoCr | 6   | 7179.5042 | Locking Screw, 3.5x42mm, CoCr                | 6    |
| 7171.5532 | Locking Screw, 2.5x32mm CoCr  | 6   | 7179.5044 | Locking Screw, 3.5x44mm, CoCr                | 6    |
| 7171.5534 | Locking Screw, 2.5x34mm CoCr  | 6   | 7179.5046 | Locking Screw, 3.5x46mm, CoCr                | 6    |
| 7171.5536 | Locking Screw, 2.5x36mm CoCr  | 6   | 7179.5048 | Locking Screw, 3.5x48mm, CoCr                | 6    |
| 7171.5538 | Locking Screw, 2.5x38mm CoCr  | 6   | 7179.5050 | Locking Screw, 3.5x50mm, CoCr                | 6    |
| 7171.5540 | Locking Screw, 2.5x40mm CoCr  | 6   | 7179.5052 | Locking Screw, 3.5x52mm, CoCr                | 6    |
| 7171.5542 | Locking Screw, 2.5x42mm CoCr  | 6   | 7179.5054 | Locking Screw, 3.5x54mm, CoCr                | 6    |
| 7171.5544 | Locking Screw, 2.5x44mm CoCr  | 6   | 7179.5056 | Locking Screw, 3.5x56mm, CoCr                | 6    |
| 7171.5546 | Locking Screw, 2.5x46mm CoCr  | 6   | 7179.5058 | Locking Screw, 3.5x58mm, CoCr                | 6    |
| 7171.5548 | Locking Screw, 2.5x48mm CoCr  | 6   | 7179.5060 | Locking Screw, 3.5x60mm, CoCr                | 6    |
| 7171.5550 | Locking Screw, 2.5x50mm CoCr  | 6   | 7179.5065 | Locking Screw, 3.5x65mm, CoCr                | 6    |
| 7171.5552 | Locking Screw, 2.5x52mm CoCr  | 6   |           |  |      |
| 7171.5554 | Locking Screw, 2.5x54mm CoCr  | 6   | 9170.0003 | ANTHEM <sup>®</sup> Distal Tibia SS Screw Mo | dule |
| 7171.5556 | Locking Screw, 2.5x56mm CoCr  | 6   |           |  |      |
| 7171.5558 | Locking Screw, 2.5x58mm CoCr  | 6   |           |  |      |
| 7171.5560 | Locking Screw, 2.5x60mm CoCr  | 6   |           |  |      |
| 7171.5565 | Locking Screw, 2.5x65mm CoCr  | 6   |           |  |      |
| 7179.5008 | Locking Screw, 3.5x8mm, CoCr  | 2   |           |  |      |
| 7179.5010 | Locking Screw, 3.5x10mm, CoCr | 2   |           |  |      |
| 7179.5012 | Locking Screw, 3.5x12mm, CoCr | 2   |           |  |      |
| 7179.5014 | Locking Screw, 3.5x14mm, CoCr | 2   |           |  |      |
| 7179.5016 | Locking Screw, 3.5x16mm, CoCr | 2   |           |  |      |
| 7179.5018 | Locking Screw, 3.5x18mm, CoCr | 2   |           |  |      |

# **ANTHEM<sup>®</sup> Ti Distal Tibia Screw Module** IMPLANT SET 9170.9004

### Non-Locking Screws

| Part No.  | Description                     | Qty | Part No.  | Description                     | Qty |
|-----------|---------------------------------|-----|-----------|---------------------------------|-----|
| 1171.6508 | Non-Locking Screw, 2.5x8mm, Ti  | 2   | 1179.3020 | Non-Locking Screw, 3.5x20mm, Ti | 4   |
| 1171.6510 | Non-Locking Screw, 2.5x10mm, Ti | 2   | 1179.3022 | Non-Locking Screw, 3.5x22mm, Ti | 4   |
| 1171.6512 | Non-Locking Screw, 2.5x12mm, Ti | 2   | 1179.3024 | Non-Locking Screw, 3.5x24mm, Ti | 6   |
| 1171.6514 | Non-Locking Screw, 2.5x14mm, Ti | 2   | 1179.3026 | Non-Locking Screw, 3.5x26mm, Ti | 6   |
| 1171.6516 | Non-Locking Screw, 2.5x16mm, Ti | 2   | 1179.3028 | Non-Locking Screw, 3.5x28mm, Ti | 6   |
| 1171.6518 | Non-Locking Screw, 2.5x18mm, Ti | 2   | 1179.3030 | Non-Locking Screw, 3.5x30mm, Ti | 6   |
| 1171.6520 | Non-Locking Screw, 2.5x20mm, Ti | 2   | 1179.3032 | Non-Locking Screw, 3.5x32mm, Ti | 6   |
| 1171.6522 | Non-Locking Screw, 2.5x22mm, Ti | 2   | 1179.3034 | Non-Locking Screw, 3.5x34mm, Ti | 6   |
| 1171.6524 | Non-Locking Screw, 2.5x24mm, Ti | 2   | 1179.3036 | Non-Locking Screw, 3.5x36mm, Ti | 6   |
| 1171.6526 | Non-Locking Screw, 2.5x26mm, Ti | 2   | 1179.3038 | Non-Locking Screw, 3.5x38mm, Ti | 6   |
| 1171.6528 | Non-Locking Screw, 2.5x28mm, Ti | 2   | 1179.3040 | Non-Locking Screw, 3.5x40mm, Ti | 6   |
| 1171.6530 | Non-Locking Screw, 2.5x30mm, Ti | 4   | 1179.3042 | Non-Locking Screw, 3.5x42mm, Ti | 6   |
| 1171.6532 | Non-Locking Screw, 2.5x32mm, Ti | 4   | 1179.3044 | Non-Locking Screw, 3.5x44mm, Ti | 6   |
| 1171.6534 | Non-Locking Screw, 2.5x34mm, Ti | 4   | 1179.3046 | Non-Locking Screw, 3.5x46mm, Ti | 4   |
| 1171.6536 | Non-Locking Screw, 2.5x36mm, Ti | 4   | 1179.3048 | Non-Locking Screw, 3.5x48mm, Ti | 4   |
| 1171.6538 | Non-Locking Screw, 2.5x38mm, Ti | 4   | 1179.3050 | Non-Locking Screw, 3.5x50mm, Ti | 4   |
| 1171.6540 | Non-Locking Screw, 2.5x40mm, Ti | 6   | 1179.3052 | Non-Locking Screw, 3.5x52mm, Ti | 3   |
| 1171.6542 | Non-Locking Screw, 2.5x42mm, Ti | 6   | 1179.3054 | Non-Locking Screw, 3.5x54mm, Ti | 3   |
| 1171.6544 | Non-Locking Screw, 2.5x44mm, Ti | 6   | 1179.3056 | Non-Locking Screw, 3.5x56mm, Ti | 3   |
| 1171.6546 | Non-Locking Screw, 2.5x46mm, Ti | 6   | 1179.3058 | Non-Locking Screw, 3.5x58mm, Ti | 3   |
| 1171.6548 | Non-Locking Screw, 2.5x48mm, Ti | 6   | 1179.3060 | Non-Locking Screw, 3.5x60mm, Ti | 3   |
| 1171.6550 | Non-Locking Screw, 2.5x50mm, Ti | 6   | 1179.3065 | Non-Locking Screw, 3.5x65mm, Ti | 3   |
| 1171.6552 | Non-Locking Screw, 2.5x52mm, Ti | 6   | 6179.2000 | Screw Holding Forceps           | 1   |
| 1171.6554 | Non-Locking Screw, 2.5x54mm, Ti | 6   |           |                                 |     |
| 1171.6556 | Non-Locking Screw, 2.5x56mm, Ti | 6   |           |                                 |     |
| 1171.6558 | Non-Locking Screw, 2.5x58mm, Ti | 6   |           |                                 |     |
| 1171.6560 | Non-Locking Screw, 2.5x60mm, Ti | 6   |           |                                 |     |
| 1171.6565 | Non-Locking Screw, 2.5x65mm, Ti | 6   |           |                                 |     |
| 1179.3008 | Non-Locking Screw, 3.5x8mm, Ti  | 2   |           |                                 |     |
| 1179.3010 | Non-Locking Screw, 3.5x10mm, Ti | 2   |           |                                 |     |
| 1179.3012 | Non-Locking Screw, 3.5x12mm, Ti | 2   |           |                                 |     |
| 1179.3014 | Non-Locking Screw, 3.5x14mm, Ti | 2   |           |                                 |     |
| 1179.3016 | Non-Locking Screw, 3.5x16mm, Ti | 2   |           |                                 |     |
| 1179.3018 | Non-Locking Screw, 3.5x18mm, Ti | 2   |           |                                 |     |

## Locking Screws

| Part No.  | Description                   | Qty | Part No.  | Description                                   | Qty |
|-----------|-------------------------------|-----|-----------|---|-----|
| 7171.5508 | Locking Screw, 2.5x8mm CoCr   | 2   | 7179.5020 | Locking Screw, 3.5x20mm, CoCr                 | 6   |
| 7171.5510 | Locking Screw, 2.5x10mm, CoCr | 2   | 7179.5022 | Locking Screw, 3.5x22mm, CoCr                 | 6   |
| 7171.5512 | Locking Screw, 2.5x12mm, CoCr | 2   | 7179.5024 | Locking Screw, 3.5x24mm, CoCr                 | 6   |
| 7171.5514 | Locking Screw, 2.5x14mm, CoCr | 2   | 7179.5026 | Locking Screw, 3.5x26mm, CoCr                 | 6   |
| 7171.5516 | Locking Screw, 2.5x16mm, CoCr | 2   | 7179.5028 | Locking Screw, 3.5x28mm, CoCr                 | 6   |
| 7171.5518 | Locking Screw, 2.5x18mm, CoCr | 2   | 7179.5030 | Locking Screw, 3.5x30mm, CoCr                 | 6   |
| 7171.5520 | Locking Screw, 2.5x20mm, CoCr | 6   | 7179.5032 | Locking Screw, 3.5x32mm, CoCr                 | 6   |
| 7171.5522 | Locking Screw, 2.5x22mm, CoCr | 6   | 7179.5034 | Locking Screw, 3.5x34mm, CoCr                 | 6   |
| 7171.5524 | Locking Screw, 2.5x24mm, CoCr | 6   | 7179.5036 | Locking Screw, 3.5x36mm, CoCr                 | 6   |
| 7171.5526 | Locking Screw, 2.5x26mm, CoCr | 6   | 7179.5038 | Locking Screw, 3.5x38mm, CoCr                 | 6   |
| 7171.5528 | Locking Screw, 2.5x28mm, CoCr | 6   | 7179.5040 | Locking Screw, 3.5x40mm, CoCr                 | 6   |
| 7171.5530 | Locking Screw, 2.5x30mm, CoCr | 6   | 7179.5042 | Locking Screw, 3.5x42mm, CoCr                 | 6   |
| 7171.5532 | Locking Screw, 2.5x32mm CoCr  | 6   | 7179.5044 | Locking Screw, 3.5x44mm, CoCr                 | 6   |
| 7171.5534 | Locking Screw, 2.5x34mm CoCr  | 6   | 7179.5046 | Locking Screw, 3.5x46mm, CoCr                 | 6   |
| 7171.5536 | Locking Screw, 2.5x36mm CoCr  | 6   | 7179.5048 | Locking Screw, 3.5x48mm, CoCr                 | 6   |
| 7171.5538 | Locking Screw, 2.5x38mm CoCr  | 6   | 7179.5050 | Locking Screw, 3.5x50mm, CoCr                 | 6   |
| 7171.5540 | Locking Screw, 2.5x40mm CoCr  | 6   | 7179.5052 | Locking Screw, 3.5x52mm, CoCr                 | 6   |
| 7171.5542 | Locking Screw, 2.5x42mm CoCr  | 6   | 7179.5054 | Locking Screw, 3.5x54mm, CoCr                 | 6   |
| 7171.5544 | Locking Screw, 2.5x44mm CoCr  | 6   | 7179.5056 | Locking Screw, 3.5x56mm, CoCr                 | 6   |
| 7171.5546 | Locking Screw, 2.5x46mm CoCr  | 6   | 7179.5058 | Locking Screw, 3.5x58mm, CoCr                 | 6   |
| 7171.5548 | Locking Screw, 2.5x48mm CoCr  | 6   | 7179.5060 | Locking Screw, 3.5x60mm, CoCr                 | 6   |
| 7171.5550 | Locking Screw, 2.5x50mm CoCr  | 6   | 7179.5065 | Locking Screw, 3.5x65mm, CoCr                 | 6   |
| 7171.5552 | Locking Screw, 2.5x52mm CoCr  | 6   |           |   |     |
| 7171.5554 | Locking Screw, 2.5x54mm CoCr  | 6   | 9170.0004 | ANTHEM <sup>®</sup> Distal Tibia Ti Screw Mod | ule |
| 7171.5556 | Locking Screw, 2.5x56mm CoCr  | 6   |           |   |     |
| 7171.5558 | Locking Screw, 2.5x58mm CoCr  | 6   |           |   |     |
| 7171.5560 | Locking Screw, 2.5x60mm CoCr  | 6   |           |   |     |
| 7171.5565 | Locking Screw, 2.5x65mm CoCr  | 6   |           |   |     |
| 7179.5008 | Locking Screw, 3.5x8mm, CoCr  | 2   |           |   |     |
| 7179.5010 | Locking Screw, 3.5x10mm, CoCr | 2   |           |   |     |
| 7179.5012 | Locking Screw, 3.5x12mm, CoCr | 2   |           |   |     |
| 7179.5014 | Locking Screw, 3.5x14mm, CoCr | 2   |           |   |     |
| 7179.5016 | Locking Screw, 3.5x16mm, CoCr | 2   |           |   |     |
| 7179.5018 | Locking Screw, 3.5x18mm, CoCr | 2   |           |   |     |

# ANTHEM<sup>®</sup> SS Distal Tibia 2.5mm/3.5mm Plate IMPLANT SET 9170.9005

| Part No.  | Description  | Qty |
|-----------|--|-----|
| 2170.1004 | ANTHEM® Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 4 hole, 100mm, SS                      | 1   |
| 2170.1006 | ANTHEM® Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 6 hole, 130mm, SS                      | 1   |
| 2170.1008 | ANTHEM® Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 8 hole, 160mm, SS                      | 1   |
| 2170.1010 | ANTHEM® Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 10 hole, 190mm, SS                     | 1   |
| 2170.1012 | ANTHEM® Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 12 hole, 220mm, SS                     | 1   |
| 2170.1014 | ANTHEM® Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 14 hole, 250mm, SS                     | 1   |
| 2170.1104 | ANTHEM® Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 4 hole, 85mm, SS                | 1   |
| 2170.1106 | ANTHEM® Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 6 hole, 115mm, SS               | 1   |
| 2170.1108 | ANTHEM® Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 8 hole, 145mm, SS               | 1   |
| 2170.1110 | ANTHEM® Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 10 hole, 175mm, SS              | 1   |
| 2170.1112 | ANTHEM® Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 12 hole, 205mm, SS              | 1   |
| 2170.1114 | ANTHEM® Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 14 hole, 235mm, SS              | 1   |
| 2170.1704 | ANTHEM® SS Wide Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 4 hole, 85mm            | 1   |
| 2170.1706 | ANTHEM® SS Wide Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 6 hole, 115mm           | 1   |
| 2170.1708 | ANTHEM® SS Wide Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 8 hole, 145mm           | 1   |
| 2170.1710 | ANTHEM® SS Wide Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 10 hole, 175mm          | 1   |
| 2170.2004 | ANTHEM® Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 4 hole, 100mm, SS                     | 1   |
| 2170.2006 | ANTHEM® Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 6 hole, 130mm, SS                     | 1   |
| 2170.2008 | ANTHEM® Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 8 hole, 160mm, SS                     | 1   |
| 2170.2010 | ANTHEM® Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 10 hole, 190mm, SS                    | 1   |
| 2170.2012 | ANTHEM® Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 12 hole, 220mm, SS                    | 1   |
| 2170.2014 | ANTHEM® Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 14 hole, 250mm, SS                    | 1   |
| 2170.2104 | ANTHEM® Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 4 hole, 85mm, SS               | 1   |
| 2170.2106 | ANTHEM® Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 6 hole, 115mm, SS              | 1   |
| 2170.2108 | ANTHEM® Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 8 hole, 145mm, SS              | 1   |
| 2170.2110 | ANTHEM® Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 10 hole, 175mm, SS             | 1   |
| 2170.2112 | ANTHEM® Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 12 hole, 205mm, SS             | 1   |
| 2170.2114 | ANTHEM <sup>®</sup> Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 14 hole, 235mm, SS | 1   |
| 2170.2704 | ANTHEM® Wide Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 4 hole, 85mm, SS          | 1   |
| 2170.2706 | ANTHEM® Wide Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 6 hole, 115mm, SS         | 1   |
| 2170.2708 | ANTHEM® Wide Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 8 hole, 145mm, SS         | 1   |
| 2170.2710 | ANTHEM® Wide Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 10 hole, 175mm, SS        | 1   |
| 9170.0005 | ANTHEM <sup>®</sup> Distal Tibia SS 2.5mm/3.5mm Plate Module   |     |

# ANTHEM<sup>®</sup> Ti Distal Tibia 2.5mm/3.5mm Plate IMPLANT SET 9170.9006

| Part No.  | Description   | Qty |
|-----------|---|-----|
| 1170.1004 | ANTHEM <sup>®</sup> Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 4 hole, 100mm, Ti               | 1   |
| 1170.1006 | ANTHEM <sup>®</sup> Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 6 hole, 130mm, Ti               | 1   |
| 1170.1008 | ANTHEM <sup>®</sup> Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 8 hole, 160mm, Ti               | 1   |
| 1170.1010 | ANTHEM <sup>®</sup> Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 10 hole, 190mm, Ti              | 1   |
| 1170.1012 | ANTHEM <sup>®</sup> Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 12 hole, 220mm, Ti              | 1   |
| 1170.1014 | ANTHEM <sup>®</sup> Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 14 hole, 250mm, Ti              | 1   |
| 1170.1104 | ANTHEM <sup>®</sup> Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 4 hole, 85mm, Ti         | 1   |
| 1170.1106 | ANTHEM <sup>®</sup> Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 6 hole, 115mm, Ti        | 1   |
| 1170.1108 | ANTHEM <sup>®</sup> Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 8 hole, 145mm, Ti        | 1   |
| 1170.1110 | ANTHEM <sup>®</sup> Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 10 hole, 175mm, Ti       | 1   |
| 1170.1112 | ANTHEM <sup>®</sup> Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 12 hole, 205mm, Ti       | 1   |
| 1170.1114 | ANTHEM <sup>®</sup> Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 14 hole, 235mm, Ti       | 1   |
| 1170.1704 | ANTHEM <sup>®</sup> Wide Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 4 hole, 85mm, Ti    | 1   |
| 1170.1706 | ANTHEM® Wide Anterolateral Distal Tibia Plate, 2.5mm/ 3.5mm Polyaxial, Left, 6 hole, 115mm, Ti              | 1   |
| 1170.1708 | ANTHEM <sup>®</sup> Wide Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 8 hole, 145mm, Ti   | 1   |
| 1170.1710 | ANTHEM <sup>®</sup> Wide Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Left, 10 hole, 175mm, Ti  | 1   |
| 1170.2004 | ANTHEM <sup>®</sup> Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 4 hole, 100mm, Ti              | 1   |
| 1170.2006 | ANTHEM <sup>®</sup> Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 6 hole, 130mm, Ti              | 1   |
| 1170.2008 | ANTHEM <sup>®</sup> Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 8 hole, 160mm, Ti              | 1   |
| 1170.2010 | ANTHEM <sup>®</sup> Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 10 hole, 190mm, Ti             | 1   |
| 1170.2012 | ANTHEM <sup>®</sup> Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 12 hole, 220mm, Ti             | 1   |
| 1170.2014 | ANTHEM <sup>®</sup> Medial Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 14 hole, 250mm, Ti             | 1   |
| 1170.2104 | ANTHEM <sup>®</sup> Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 4 hole, 85mm, Ti        | 1   |
| 1170.2106 | ANTHEM <sup>®</sup> Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 6 hole, 115mm, Ti       | 1   |
| 1170.2108 | ANTHEM <sup>®</sup> Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 8 hole, 145mm, Ti       | 1   |
| 1170.2110 | ANTHEM <sup>®</sup> Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 10 hole, 175mm, Ti      | 1   |
| 1170.2112 | ANTHEM <sup>®</sup> Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 12 hole, 205mm, Ti      | 1   |
| 1170.2114 | ANTHEM <sup>®</sup> Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 14 hole, 235mm, Ti      | 1   |
| 1170.2704 | ANTHEM <sup>®</sup> Wide Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 4 hole, 85mm, Ti   | 1   |
| 1170.2706 | ANTHEM <sup>®</sup> Wide Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 6 hole, 115mm, Ti  | 1   |
| 1170.2708 | ANTHEM <sup>®</sup> Wide Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 8 hole, 145mm, Ti  | 1   |
| 1170.2710 | ANTHEM <sup>®</sup> Wide Anterolateral Distal Tibia Plate, 2.5mm/3.5mm Polyaxial, Right, 10 hole, 175mm, Ti | 1   |
| 9170.0006 | ANTHEM <sup>®</sup> Distal Tibia Ti 2.5mm/3.5mm Plate Module  |     |
|           |   |     |

# ANTHEM<sup>®</sup> SS Distal Tibia 3.5mm Plate IMPLANT SET 9170.9007

| Part No.  | Description  | Qty |
|-----------|--|-----|
| 2170.1024 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Left, 4 hole, 100mm, SS                      | 1   |
| 2170.1026 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Left, 6 hole, 130mm, SS                      | 1   |
| 2170.1028 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Left, 8 hole, 160mm, SS                      | 1   |
| 2170.1030 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Left, 10 hole, 190mm, SS                     | 1   |
| 2170.1032 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Left, 12 hole, 220mm, SS                     | 1   |
| 2170.1034 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Left, 14 hole, 250mm, SS                     | 1   |
| 2170.1124 | ANTHEM® Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Left, 4 hole, 85mm, SS                | 1   |
| 2170.1126 | ANTHEM® Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Left, 6 hole, 115mm, SS               | 1   |
| 2170.1128 | ANTHEM® Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Left, 8 hole, 145mm, SS               | 1   |
| 2170.1130 | ANTHEM® Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Left, 10 hole, 175mm, SS              | 1   |
| 2170.1132 | ANTHEM® Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Left, 12 hole, 205mm, SS              | 1   |
| 2170.1134 | ANTHEM® Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Left, 14 hole, 235mm, SS              | 1   |
| 2170.2024 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Right, 4 hole, 100mm, SS                     | 1   |
| 2170.2026 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Right, 6 hole, 130mm, SS                     | 1   |
| 2170.2028 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Right, 8 hole, 160mm, SS                     | 1   |
| 2170.2030 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Right, 10 hole, 190mm, SS                    | 1   |
| 2170.2032 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Right, 12 hole, 220mm, SS                    | 1   |
| 2170.2034 | ANTHEM <sup>®</sup> Medial Distal Tibia Plate, 3.5mm Polyaxial, Right, 14 hole, 250mm, SS        | 1   |
| 2170.2124 | ANTHEM <sup>®</sup> Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Right, 4 hole, 85mm, SS   | 1   |
| 2170.2126 | ANTHEM® Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Right, 6 hole, 115mm, SS              | 1   |
| 2170.2128 | ANTHEM <sup>®</sup> Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Right, 8 hole, 145mm, SS  | 1   |
| 2170.2130 | ANTHEM <sup>®</sup> Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Right, 10 hole, 175mm, SS | 1   |
| 2170.2132 | ANTHEM <sup>®</sup> Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Right, 12 hole, 205mm, SS | 1   |
| 2170.2134 | ANTHEM <sup>®</sup> Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Right, 14 hole, 235mm, SS | 1   |
| 9170.0007 | ANTHEM <sup>®</sup> Distal Tibia SS 3.5mm Plate Module   |     |

# ANTHEM<sup>®</sup> Ti Distal Tibia 3.5mm Plate IMPLANT SET 9170.9008

| Part No.  | Description   | Qty |
|-----------|---|-----|
| 1170.1024 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Left, 4 hole, 100mm, Ti               | 1   |
| 1170.1026 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Left, 6 hole, 130mm, Ti               | 1   |
| 1170.1028 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Left, 8 hole, 160mm, Ti               | 1   |
| 1170.1030 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Left, 10 hole, 190mm, Ti              | 1   |
| 1170.1032 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Left, 12 hole, 220mm, Ti              | 1   |
| 1170.1034 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Left, 14 hole, 250mm, Ti              | 1   |
| 1170.1124 | ANTHEM® Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Left, 4 hole, 85mm, Ti         | 1   |
| 1170.1126 | ANTHEM® Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Left, 6 hole, 115mm, Ti        | 1   |
| 1170.1128 | ANTHEM® Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Left, 8 hole, 145mm, Ti        | 1   |
| 1170.1130 | ANTHEM® Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Left, 10 hole, 175mm, Ti       | 1   |
| 1170.1132 | ANTHEM® Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Left, 12 hole, 205mm, Ti       | 1   |
| 1170.1134 | ANTHEM® Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Left, 14 hole, 235mm, Ti       | 1   |
| 1170.2024 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Right, 4 hole, 100mm, Ti              | 1   |
| 1170.2026 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Right, 6 hole, 130mm, Ti              | 1   |
| 1170.2028 | ANTHEM <sup>®</sup> Medial Distal Tibia Plate, 3.5mm Polyaxial, Right, 8 hole, 160mm, Ti  | 1   |
| 1170.2030 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Right, 10 hole, 190mm, Ti             | 1   |
| 1170.2032 | ANTHEM <sup>®</sup> Medial Distal Tibia Plate, 3.5mm Polyaxial, Right, 12 hole, 220mm, Ti | 1   |
| 1170.2034 | ANTHEM® Medial Distal Tibia Plate, 3.5mm Polyaxial, Right, 14 hole, 250mm, Ti             | 1   |
| 1170.2124 | ANTHEM® Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Right, 4 hole, 85mm, Ti        | 1   |
| 1170.2126 | ANTHEM® Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Right, 6 hole, 115mm, Ti       | 1   |
| 1170.2128 | ANTHEM® Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Right, 8 hole, 145mm, Ti       | 1   |
| 1170.2130 | ANTHEM® Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Right, 10 hole, 175mm, Ti      | 1   |
| 1170.2132 | ANTHEM® Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Right, 12 hole, 205mm, Ti      | 1   |
| 1170.2134 | ANTHEM® Anterolateral Distal Tibia Plate, 3.5mm Polyaxial, Right, 14 hole, 235mm, Ti      | 1   |
| 9170.0008 | ANTHEM® Distal Tibia Ti 3.5mm Plate Module  |     |

# ANTHEM<sup>®</sup> SS Metaphyseal Plate IMPLANT SET 9170.9009

| Part No.  | Description   | Qty |
|-----------|---|-----|
| 2170.9003 | ANTHEM® Metaphyseal Straight Plate 2.5mm/3.5mm Polyaxial 3 hole 125mm SS                | 2   |
| 2170.9005 | <code>ANTHEM®</code> Metaphyseal Straight Plate 2.5mm/3.5mm Polyaxial 5 hole 155mm SS   | 2   |
| 2170.9007 | <code>ANTHEM®</code> Metaphyseal Straight Plate 2.5mm/3.5mm Polyaxial 7 hole 185mm SS   | 2   |
| 2170.9363 | ANTHEM $^{\circ}$ Metaphyseal Y Long Plate 2.5mm/3.5mm Polyaxial 3 hole 131mm SS        | 2   |
| 2170.9365 | ANTHEM $^{\circ}$ Metaphyseal Y Long Plate 2.5mm/3.5mm Polyaxial 5 hole 161mm SS        | 2   |
| 2170.9367 | ANTHEM $^{\circ}$ Metaphyseal Y Long Plate 2.5mm/3.5mm Polyaxial 7 hole 191mm SS        | 2   |
| 2170.9723 | <code>ANTHEM®</code> Metaphyseal T Long Plate 2.5mm $/$ 3.5mm Polyaxial 3 hole 105mm SS | 2   |
| 2170.9725 | ANTHEM $^{\circ}$ Metaphyseal T Long Plate 2.5mm/3.5mm Polyaxial 5 hole 135mm SS        | 2   |
| 2170.9727 | <code>ANTHEM®</code> Metaphyseal T Long Plate 2.5mm $/$ 3.5mm Polyaxial 7 hole 165mm SS | 2   |
| 6170.2000 | Metaphyseal Plate Bending Pliers  | 2   |
| 6170.2001 | Plate Cutting Pliers  | 1   |
| 6170.7000 | In Situ Bender  | 2   |
| 6170.7110 | Metaphyseal Plate Bender  | 1   |
| 9170.0009 | ANTHEM® Distal Tibia SS Metaphyseal Plate and Instrument Set                            |     |

# ANTHEM<sup>®</sup> Ti Metaphyseal Plate IMPLANT SET 9170.9010

| Part No.  | Description  | Qty |
|-----------|--|-----|
| 1170.9003 | ANTHEM® Metaphyseal Straight Plate 2.5mm/3.5mm Polyaxial 3 hole 125mm Ti           | 2   |
| 1170.9005 | ANTHEM® Metaphyseal Straight Plate 2.5mm/3.5mm Polyaxial 5 hole 155mm Ti           | 2   |
| 1170.9007 | ANTHEM® Metaphyseal Straight Plate 2.5mm/3.5mm Polyaxial 7 hole 185mm Ti           | 2   |
| 1170.9363 | ANTHEM <sup>®</sup> Metaphyseal Y Long Plate 2.5mm/3.5mm Polyaxial 3 hole 131mm Ti | 2   |
| 1170.9365 | ANTHEM <sup>®</sup> Metaphyseal Y Long Plate 2.5mm/3.5mm Polyaxial 5 hole 161mm Ti | 2   |
| 1170.9367 | ANTHEM <sup>®</sup> Metaphyseal Y Long Plate 2.5mm/3.5mm Polyaxial 7 hole 191mm Ti | 2   |
| 1170.9723 | ANTHEM <sup>®</sup> Metaphyseal T Long Plate 2.5mm/3.5mm Polyaxial 3 hole 105mm Ti | 2   |
| 1170.9725 | ANTHEM <sup>®</sup> Metaphyseal T Long Plate 2.5mm/3.5mm Polyaxial 5 hole 135mm Ti | 2   |
| 1170.9727 | ANTHEM <sup>®</sup> Metaphyseal T Long Plate 2.5mm/3.5mm Polyaxial 7 hole 165mm Ti | 2   |
| 6170.2000 | Metaphyseal Plate Bending Pliers   | 2   |
| 6170.2001 | Plate Cutting Pliers   | 1   |
| 6170.7000 | In Situ Bender   | 2   |
| 6170.7110 | Metaphyseal Plate Bender   | 1   |
| 9170.0010 | ANTHEM® Distal Tibia Ti Metaphyseal Plate and Instrument Set                       |     |

## IMPORTANT INFORMATION ON THE ANTHEM® DISTAL TIBIA FRACTURE SYSTEM

#### DESCRIPTION

The ANTHEM® Fracture System is a family of plates and screws designed to be used for internal bone fixation. The implants are available in various sizes and shapes to accommodate patient anatomy, and may be contoured or straight, with locking and non-locking screws. ANTHEM® implants are manufactured from titanium, titanium alloy, cobalt chromium molybdenum alloy, or stainless steel, as specified in ASTM F67, F136, F1295, F1472, F1537, F2229, F138 and F139. All implants are for single use only.

#### INDICATIONS

The ANTHEM<sup>®</sup> Fracture System is indicated for fixation of fractures, osteotomies, arthrodesis and reconstruction of bones for the appropriate size of the device to be used in adult patients, including the clavicle, scapula, humerus, radius, ulna, small bones (metacarpals, metatarsals, phalanges), wrist, pelvis, femur, tibia, fibula, ankle, and foot. The clavicle hook plate may be used for dislocations of the acromioclavicular joint. Mini fragment plates are also indicated for fixation of fractures of the acetabulum, patella, and bone fragments, replantation, malunions and nonunion, and for non-load bearing stabilization and reduction of long bone fragments. Metaphyseal plates are indicated for fixation of bones including the radius and ulna.

Small fragment, mini fragment, proximal tibia, clavicle, metaphyseal, and distal fibula plates may be used in all pediatric subgroups (except neonates) and small stature adults. Distal radius, distal tibia, metaphyseal, and mini fragment plates may be used in adolescents (12-21 years of age). Plating may be used in patients with osteopenic bone.

#### CONTRAINDICATIONS

Use of these implants is contraindicated in patients with the following conditions:

- Any active or suspended latent infection or marked local inflammation in or about the affected area.
- Compromised vascularity that would inhibit adequate blood supply to the fracture or the operative site.
- Bone stock compromised by disease, infection or prior implantation that cannot provide adequate support and/or fixation of the devices.
- Use of plating on or around growth plates in pediatric patients.
- Material sensitivity, documented or suspected.
- Obesity. An overweight or obese patient can produce loads on the implant that can lead to failure of the device itself.
- Patients having inadequate tissue coverage over the operative site.
- Implant utilization that would interfere with anatomical structures or physiological performance.
- Any mental or neuromuscular disorder which would create an unacceptable risk of fixation failure or complications in postoperative care.
- Other medical or surgical conditions which would preclude the potential benefit of surgery.

#### WARNINGS

The correct implant selection is extremely important. Failure to use the appropriate implant for the fracture condition may accelerate clinical failure. Failure to use the proper component to maintain adequate blood supply and provide rigid fixation may result in loosening, bending, cracking or fracture of the implant and/or bone. The correct implant size for a given patient can be determined by evaluating the patient's height, weight, functional demands and anatomy. Every implant must be used in the correct anatomic location, consistent with accepted standards of internal fixation.

#### PRECAUTIONS

The implantation of fixation devices should be performed only by experienced surgeons with specific training in the use of this system because this is a technically demanding procedure presenting a risk of serious injury to the patient. Preoperative planning and patient anatomy should be considered when selecting implant size.

Surgical implants must never be reused. Even though the device appears undamaged, it may have small defects and internal stress patterns which could lead to breakage.

#### MR SAFETY INFORMATION

These devices have not been evaluated for safety and compatibility in the MR environment. It has not been tested for heating, migration, or image artifact in the MR environment. The safety of these devices in the MR environment is unknown. Scanning a patient who has this device may result in patient injury.

### CAUTIONS

Pre-operative

- These implants are for single use only.
- 72 | ANTHEM<sup>®</sup> Distal Tibia Fracture System

- Implants that came in contact with body fluids should never be reused.
- Ensure that all components needed for surgery are available in the surgical suite.
- Inspection is recommended prior to surgery to determine if implants have been damaged during storage.
- While rare, intra-operative fracture or breakage of instruments can occur. Instruments which have experienced excessive use or excessive force are susceptible to fracture. Instruments should be examined for wear or damage prior to surgery.

#### Intra-operative

- Avoid surface damage of implants.
- · Discard all damaged or mishandled implants.
- Contouring or bending of an implant should be avoided where possible, because it may reduce its fatigue strength and can cause failure under load.
- Implants are available in different versions, varying for example in length, diameter, material and number of drilled holes. Select the required version carefully.
- During the course of the operation, repeatedly check to ensure that the connection between the implant and the instrument, or between the instruments, is secure.
- Implants which consist of several components must only be used in the prescribed combination (refer to the ANTHEM® Surgical Technique Guide).
- After the procedure check the proper positioning of all implants using the image intensifier.
- Do not use components from this system in conjunction with components from any other manufacturer's system unless otherwise specified (refer to the ANTHEM<sup>®</sup> Surgical Technique Guide).

#### Post-operative

- Post-operative patient activity: These implants are neither intended to carry the full load of the patient acutely, nor intended to carry a significant portion of the load for extended periods of time. For this reason post-operative instructions and warnings to patients are extremely important. External immobilization (e.g. bracing or casting) may be employed until X-rays or other procedures confirm adequate bone consolidation.
- The implant is a short-term implant. In the event of a delay in bone consolidation, or if such consolidation does not take place, or if explantation is not carried out, complications may occur, for example fracture or loosening of the implant or instability of the implant system. Regular post-operative examinations (e.g., X-ray checks) are advisable.
- The risk of post-operative complication (e.g. failure of an implant) is higher if patients are obese and/or cannot follow the recommendations of the physician because of any mental or neuromuscular disorder. For this reason those patients must have additional post-operative follow-up.
- Implant removal should be followed by adequate postoperative management to avoid fracture or refracture of the bone.

#### Informing the Patient

The implant affects the patient's ability to carry loads and her/his mobility and general living circumstances. The surgeon must counsel each patient individually on correct behavior and activity after the implantation.

The surgeon must warn each patient that the device cannot and does not replicate a normally healthy bone, that the device can break or become damaged as a results of strenuous activity, trauma, mal-union or non-union and that the device has a finite expected service life and may need to be removed at some time in the future.

#### ADVERSE EFFECTS

In many instances, adverse results may be clinically related rather than device related. The following are the most frequent adverse effects involving the use of internal fracture fixation devices:

- · Delayed union or non-union of the fracture site.
- These devices can break when subjected to the increased loading associated with delayed unions and/or non-unions. Internal fixation devices are load sharing devices which are intended to hold fracture bone surface in a position to facilitate healing. If healing is delayed or does not occur, the appliance may eventually break due to metal fatigue. Loads on the device produced by load bearing and the patient's activity level will dictate the longevity of the device.
- Conditions attributable to non-union, osteoporosis, osteomalicia, diabetes, inhibited revascularization and poor bone formation can cause loosening, bending, cracking, fracture of the device or premature loss of rigid fixation with the bone.

## IMPORTANT INFORMATION ON THE ANTHEM® DISTAL TIBIA FRACTURE SYSTEM

- Improper alignment can cause a mal-union of the bone and/or bending, cracking or even breakage of the device.
- Increased fibrous tissue response around the fracture site due to unstable comminuted fractures.
- Early or late infection, deep or superficial.
- Deep venous thrombosis.
- Avascular necrosis.
- Shortening of the effected bone/fracture site.
- Subclinical nerve damage may possibly occur as a result of the surgical trauma.
- Material sensitivity reactions in patients following surgical implantation have rarely been reported, however their significance awaits further clinical evaluation.

#### PACKAGING

These implants may be supplied pre-packaged and sterile, using gamma irradiation. The integrity of the sterile packaging should be checked to ensure that sterility of the contents is not compromised. Packaging should be carefully checked for completeness and all components should be carefully checked to ensure that there is no damage prior to use. Damaged packages or products should not be used, and should be returned to Globus Medical. During surgery, after the correct size has been determined, remove the products from the packaging using aseptic technique.

The instruments are provided nonsterile and are steam sterilized prior to use, as described in the STERILIZATION section below. Following use or exposure to soil, instruments and instrument trays and cases must be cleaned, as described in the CLEANING section below.

#### HANDLING

All instruments and implants should be treated with care. Improper use or handling may lead to damage and/or possible malfunction. Instruments should be checked to ensure that they are in working order prior to surgery.

Implants are single use devices and should not be cleaned. Re-cleaning of single use implants might lead to mechanical failure and/or material degradation. Discard any implants that may have been accidently contaminated.

#### CLEANING

Instruments should be cleaned separately from instrument trays and cases. Lids should be removed from cases for the cleaning process, if applicable. All instruments that can be disassembled must be disassembled for cleaning. All handles must be detached. Instruments may be reassembled following sterilization. The products should be cleaned using neutral cleaners before sterilization and introduction into a sterile surgical field or (if applicable) return of the product to Globus Medical.

Cleaning and disinfecting can be performed with aldehyde-free solvents at higher temperatures. Cleaning and decontamination must include the use of neutral cleaners followed by a deionized water rinse. Note: certain cleaning solutions such as those containing formalin, glutaraldehyde, bleach and/or other alkaline cleaners may damage some devices, particularly instruments; these solutions should not be used.

The following cleaning methods should be observed when cleaning instruments and instrument trays and cases after use or exposure to soil, and prior to sterilization:

- 1. Immediately following use, ensure that the instruments are wiped down to remove all visible soil and kept from drying by submerging or covering with a wet towel.
- 2. Disassemble all instruments that can be disassembled.
- 3. Rinse the instruments under running tap water to remove all visible soil. Flush the lumens a minimum of 3 times, until the lumens flush clean.
- 4. Prepare Enzol® (or a similar enzymatic detergent) per manufacturer's recommendations.
- 5. Immerse the instruments in the detergent and allow them to soak for a minimum of 2 minutes.
- 6. Use a soft bristled brush to thoroughly clean the instruments. Use a pipe cleaner for any lumens. Pay close attention to hard to reach areas.
- 7. Using a sterile syringe, draw up the enzymatic detergent solution. Flush any lumens and hard to reach areas until no soil is seen exiting the area.
- 8. Remove the instruments from the detergent and rinse them in running warm tap water.
- 9. Prepare Enzol® (or a similar enzymatic detergent) per manufacturer's recommendations in an ultrasonic cleaner.

- 10. Completely immerse the instruments in the ultrasonic cleaner and ensure detergent is in lumens by flushing the lumens. Sonicate for a minimum of 3 minutes.
- 11. Remove the instruments from the detergent and rinse them in running deionized water or reverse osmosis water for a minimum of 2 minutes.
- 12. Dry instruments using a clean soft cloth and filtered pressurized air.
- 13. Visually inspect each instrument for visible soil. If visible soil is present, then repeat cleaning process starting with Step 3.

#### CONTACT INFORMATION

Globus Medical may be contacted at 1-866-GLOBUS1 (456-2871). A surgical technique manual may be obtained by contacting Globus Medical.

#### STERILIZATION

These implants may be available sterile or nonsterile. Instruments are available nonsterile.

Sterile implants are sterilized by gamma radiation, validated to ensure a Sterility Assurance Level (SAL) of  $10^{-6}$ . Sterile products are packaged in a heat sealed, Tyvek pouch or in a container/pouch. The expiration date is provided in the package label. These products are considered sterile unless the packaging has been opened or damaged. Sterile implants meet pyrogen limit specifications.

Nonsterile implants and instruments have been validated to ensure an SAL of 10<sup>-6</sup>. The use of an FDA-cleared wrap is recommended, per the Association for the Advancement of Medical Instrumentation (AAMI) ST79, *Comprehensive Guide to Steam Sterilization and Sterility Assurance in Health Care Facilities.* It is the end user's responsibility to use only sterilizers and accessories (such as sterilization wraps, sterilization pouches, chemical indicators, biological indicators, and sterilization cassettes) that have been cleared by the FDA for the selected sterilization cycle specifications (time and temperature).

When using a rigid sterilization container, the following must be taken into consideration for proper sterilization of Globus devices and loaded graphic cases:

- Recommended sterilization parameters are listed in the table below.
- Only FDA-cleared rigid sterilization containers for use with pre-vacuum steam sterilization may be used.
- When selecting a rigid sterilization container, it must have a minimum filter area of 176 in<sup>2</sup> total, or a minimum of four (4) 7.5in diameter filters.
- No more than one (1) loaded graphic case or its contents can be placed directly into a rigid sterilization container.
- Stand-alone modules/racks or single devices must be placed, without stacking, in a container basket to ensure optimal ventilation.
- The rigid sterilization container manufacturer's instructions for use are to be followed; if questions arise, contact the manufacturer of the specific container for guidance.
- Refer to AAMI ST79 for additional information concerning the use of rigid sterilization containers.

For implants and instruments provided NONSTERILE, sterilization is recommended (wrapped or containerized) as follows:

| Method | Cycle Type | Temperature   | Exposure Time | Drying Time |
|--------|------------|---------------|---------------|-------------|
| Steam  | Pre-vacuum | 132°C (270°F) | 4 Minutes     | 30 Minutes  |

These parameters are validated to sterilize only this device. If other products are added to the sterilizer, the recommended parameters are not valid and new cycle parameters must be established by the user. The sterilizer must be properly installed, maintained, and calibrated. Ongoing testing must be performed to confirm inactivation of all forms of viable microorganisms.

**CAUTION:** Federal (USA) Law Restricts this Device to Sale by or on the order of a Physician.

| SYMBOL TRANSLATION |                  |           |  |
|--------------------|------------------|-----------|--|
| REF                | CATALOGUE NUMBER | STERILE R | STERILIZED BY IRRADIATION                              |
| LOT                | LOT NUMBER       | EC REP    | AUTHORISED REPRESENTATIVE IN<br>THE EUROPEAN COMMUNITY |
|                    | CAUTION          | ***       | MANUFACTURER   |
| 8                  | SINGLE USE ONLY  | X         | USE BY (YYYY-MM-DD)                                    |
| QTY                | QUANTITY         | Rx ONLY   | PRESCRIPTION USE ONLY                                  |

DI201A REV E

## NOTES

## NOTES

| <br> |
|------|
| <br> |
| <br> |
|      |
|      |
| <br> |
| <br> |
| <br> |
|      |
|      |
|      |
| <br> |
| <br> |
|      |
|      |
| <br> |
| <br> |
| <br> |
|      |
|      |
| <br> |
| <br> |
| <br> |
|      |
|      |
| <br> |
| <br> |
| <br> |
|      |
|      |
| <br> |
|      |



Globus Medical Valley Forge Business Center 2560 General Armistead Avenue Audubon, PA 19403 www.globusmedical.com

©2020 Globus Medical. All rights reserved. Patent www.globusmedical.com/patents. Life moves us is a registered trademark of Globus Medical. Please refer to package insert for description, indications, contraindications, warnings, precautions and other important information. Customer Service:

 Phone
 1-866-GLOBUS1 (or 1-866-456-2871)

 Fax
 1-866-GLOBUS3 (or 1-866-456-2873)

GMTGD256 12.20 Rev A