

# LARGE UNI-CLIP®

DUAL-COMPRESSION STAPLES



**SURGICAL TECHNIQUE**

**LOWER  
EXTREMITY  
SOLUTIONS**

 **INTEGRA™**  
Extremity Reconstruction

# UNI-CLIP®

## DUAL-COMPRESSION STAPLE

### Design Rationale

The Uni-Clip® compression staple is a quick and effective mechanical osteosynthesis system that provides compression between two osseous fragments. While its implementation is simple, the principles and limits of such a compression system must be respected.

The Uni-Clip is manufactured from surgical stainless steel. Compression is achieved with a manually controlled deformation of the diamond in the bridge of the staple. This staple has various indications, including: forefoot, midfoot and hindfoot osseous procedures.

### Indications

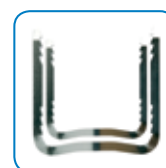
The Large Uni-Clip staples are indicated for fixation of bone fractures or for bone reconstruction:

- Arthrodesis in foot surgery
- Management of foot fractures
- Mono or bi-cortical osteotomies in the foot
- Distal or proximal metatarsal osteotomies
- Fixation of osteotomies for Hallux Valgus treatment

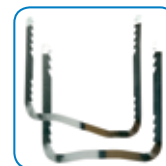
Staple size should be chosen with respect to the specific indication.

### Description

- Controlled dual-compression staple
- Diamond designed bridge
- Internal notches for greater fixation
- Straight staple:
  - Interaxis 20, leg lengths 20-20mm
  - Interaxis 25, leg lengths 25-25mm
- Offset staple:
  - Interaxis 25, leg lengths 20-25mm
  - Interaxis 30, leg lengths 27-32mm
- Material: Stainless Steel  
316L ISO 5832-1 ASTM F138 & F139



2 interaxis sizes



Offset and straight staples



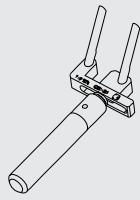
Internal notches for a better grip

### Surgical Site Preparation

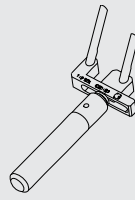
The articular surfaces should be prepared using standard technique to resect the necessary amount of cartilage and, if necessary, to remove bone graft material.

Obtain adequate reduction and provisional fixation using guide wires or reduction forceps.

## PREPARE



119 322ND  
Drill Guide for Straight Staple



119 324ND  
Drill Guide for Offset Staple



219 545ND  
Drill diam. 3.0mm

# Surgical Technique

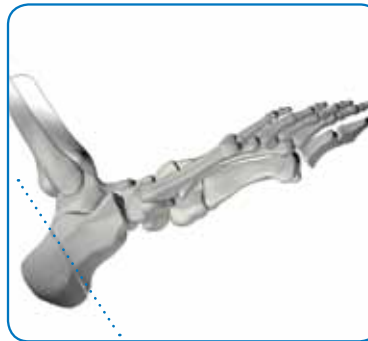
THIS TECHNIQUE HAS BEEN DEVELOPED WITH THE HELP OF JAMES W. BRODSKY, MD.



As the manufacturer of this device, Integra does not practice medicine and does not recommend this or any other surgical technique for use on a specific patient. The surgeon who performs any implant procedure is responsible for determining and using the appropriate techniques for implanting the device in each patient.

## Procedure

Bicortical osteotomy of the calcaneus with internal displacement.

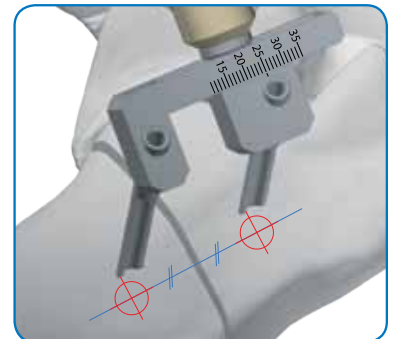
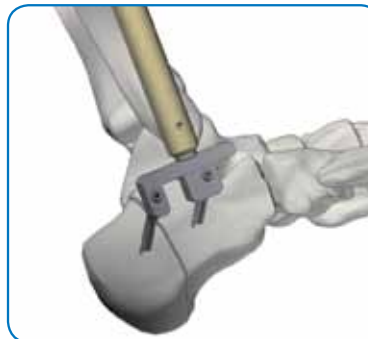


## Step 1 • Drill Guide Positioning

Choose the appropriate implant (straight or offset).

Adjust the drill guide (119 322ND–straight or 119 324ND–offset) according to the chosen staple's interaxis.

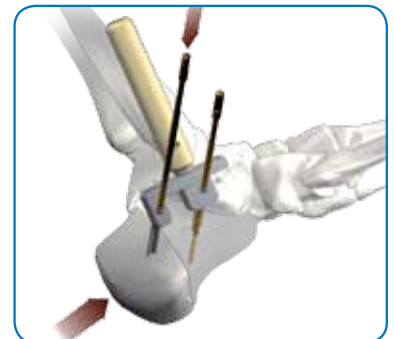
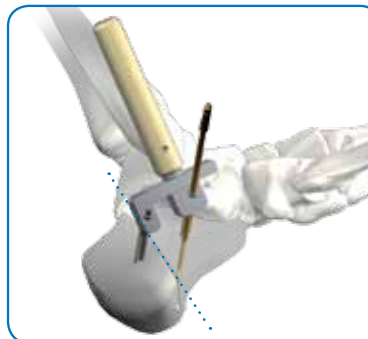
The drill guide is positioned with the osteotomy centered between the two sleeves.

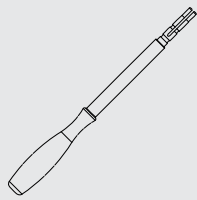


## Step 2 • Drilling

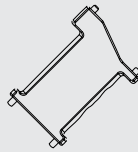
Prior to drilling, approximate the osteotomy. Prepare the proximal hole with the drill (219 545ND), and leave the drill in place. This will ensure proper positioning of the staple.

The distal hole should then be prepared with the second drill. Leave both drills in place. **Warning: Large Uni-Clip staples are intended for mono-cortical use: no measurements are needed.**





119 319ND  
Impactor Handle



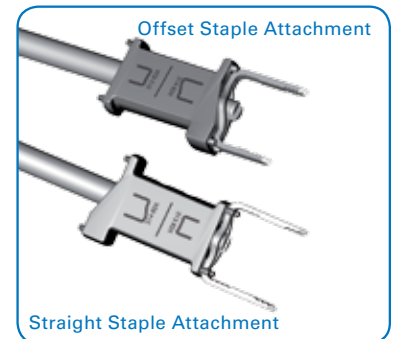
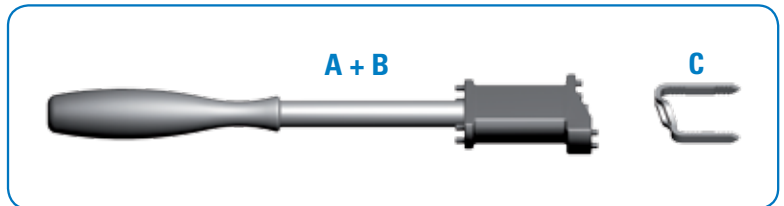
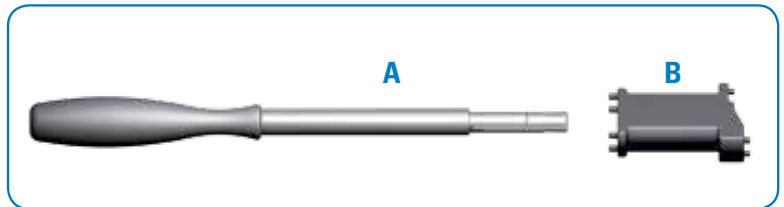
119 321ND  
Impactor Attachment

PREPARE

### Step 3 • Assembly of the Impaction Device

Assemble the impaction device. Slide the impactor handle "A" (119 319ND) onto either side of the impactor attachment "B" (119 321ND).

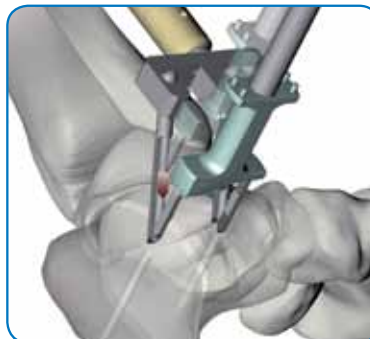
The side of the impactor attachment to be used, is determined by staple "C". Place the chosen staple on the end of the impaction device.



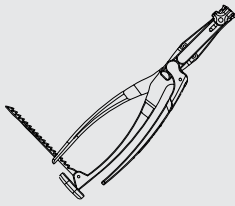
### Step 4 • Setting the Staple

Once the impaction device is fully assembled, remove the drills from the drill guide, maintaining contact between the guide and the drill holes. Angle the guide, keeping it in contact with the holes. Introduce the Large Uni-Clip staple by sliding the legs down the open side of the sleeves on the drill guide.

Remove the drill guide. Impact the staple with the impaction device, so that the staple is flush with the surface.



## PREPARE

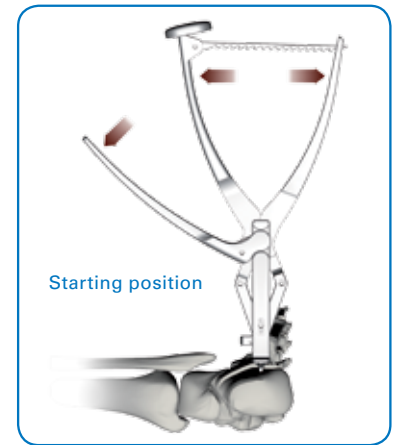
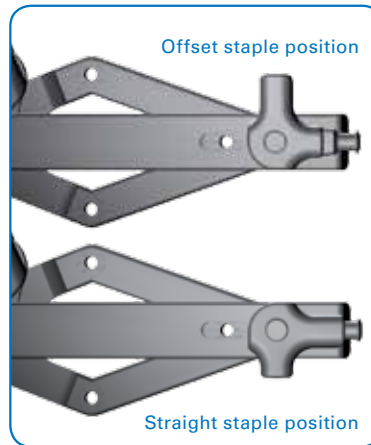


119 314ND  
Large Uni-Clip Spreading Forceps

### Step 5 • Forceps Positioning

Set the spreading forceps to the position corresponding to the appropriate implant. (straight or offset).

Ensure the clamp is in the starting position, and insert the end of the spreading forceps (119 314ND) into the diamond of the staple.

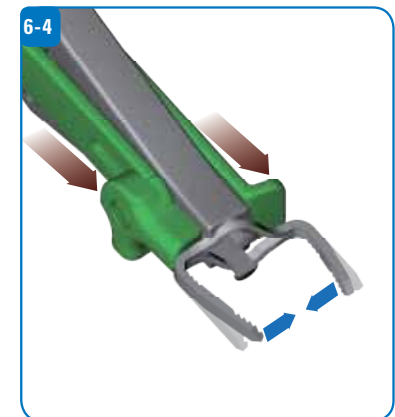
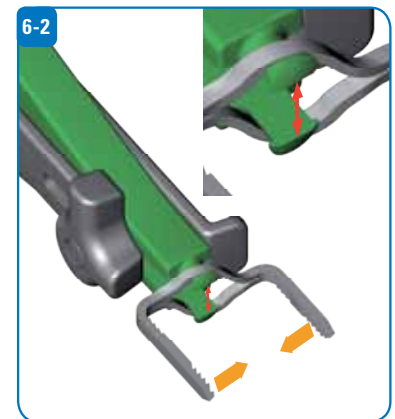
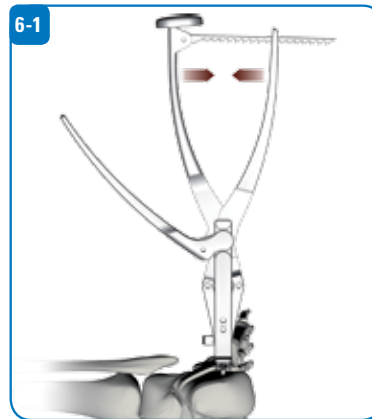


### Step 6 • Compression and Convergence

Apply slight compression by bringing the two arms of the spreading forceps together, as shown in figure 6-1. The legs of the staple will come together in a parallel fashion, as shown in figure 6-2.

**Warning:** The action provided by the spreading forceps should not be used to approximate the positioning of the osseous fragments. The fragments should have been previously positioned, along with any reduction that may be necessary. In this way, the spreading forceps provide compression between fragments.

After the initial compression, the lever of the instrument can be used to apply the additional compression, as shown in figure 6-3. The staple legs converge, providing the additional compression, as shown in figure 6-4.

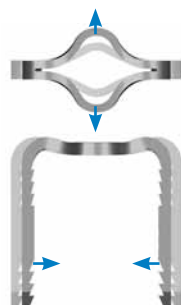


Step 6 • (Continued)

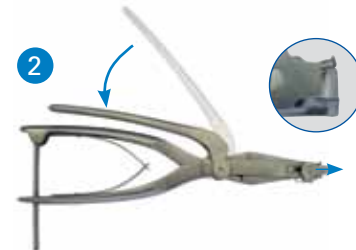
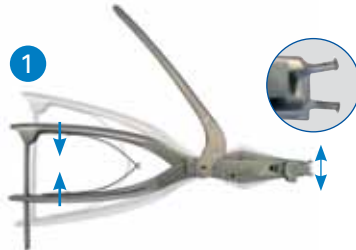
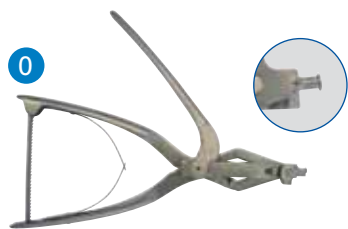
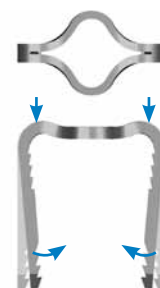
0 Starting position



1 Parallel compression



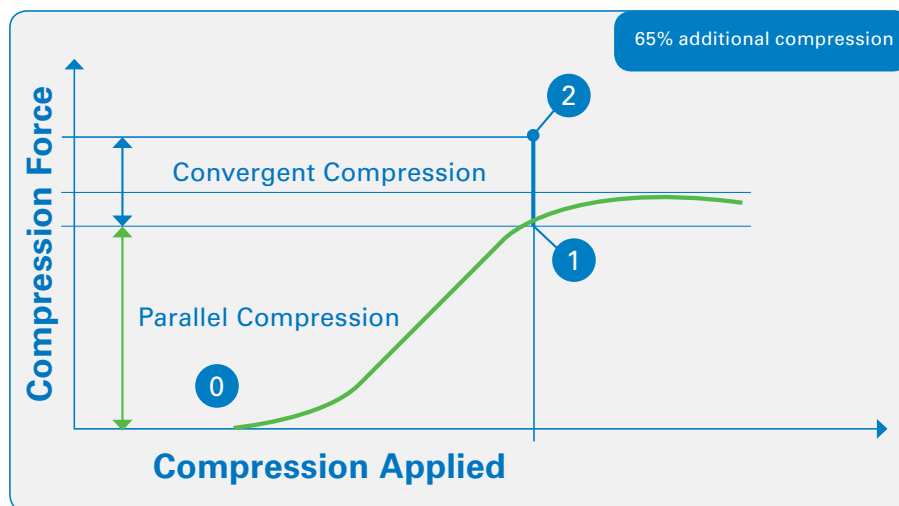
2 Convergent compression



A specific spreading forceps was developed for the Large Uni-Clip staples.

With the first action, the device provides compression by pulling legs together in a parallel fashion.

A second, separate action can then be applied to converge the staple legs toward one another, creating additional compression.

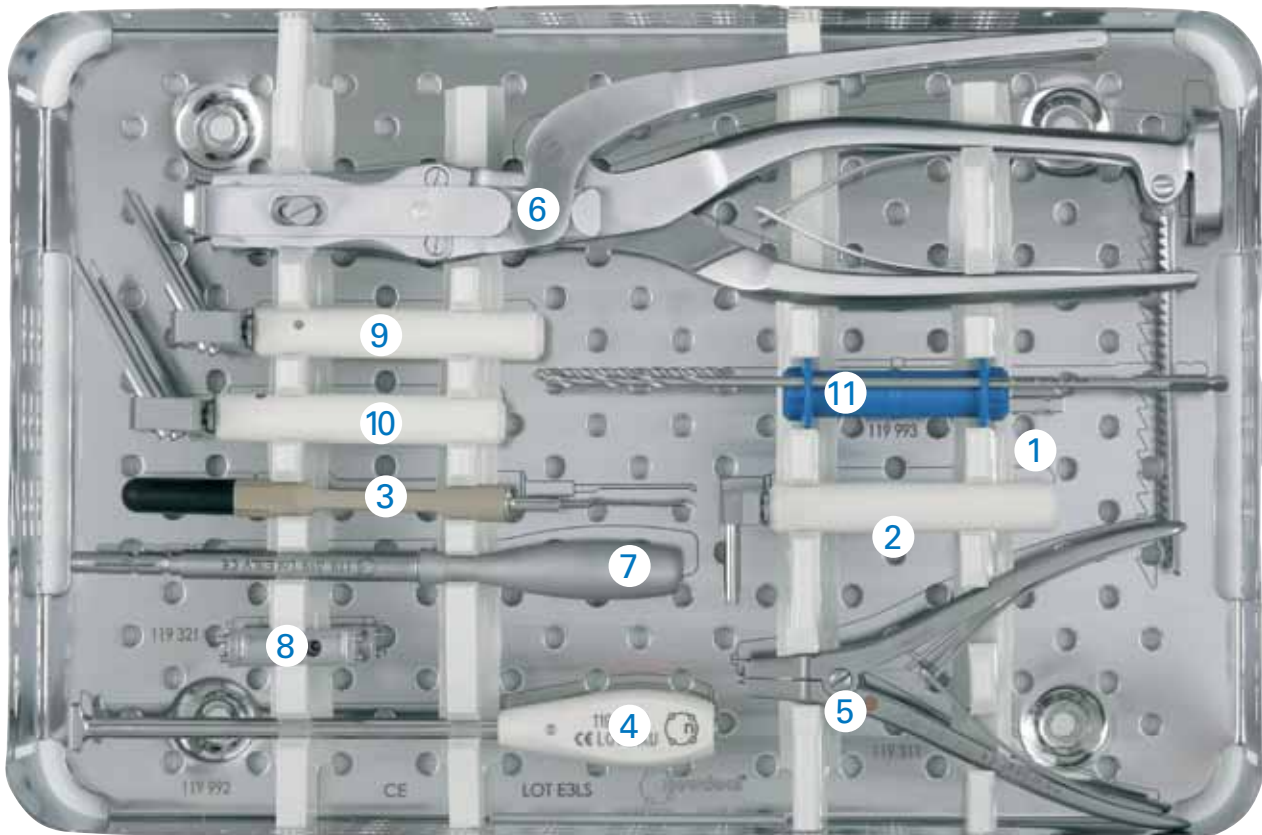


Depending on bone quality and parallel compression, convergence can increase initial compression by 65%. (Data on file at Newdeal)

# UNI-CLIP®

## DUAL-COMPRESSION STAPLE

### Instrumentation



### Instruments

1	119 016ND	Drill diam. 2.2mm Lg. 180mm AO attachment
2	119 301ND	Uni-Clip drilling guide
3	119 307ND	Uni-Clip depth gauge
4	119 309ND	Uni-Clip staple impactor
5	119 311ND	Uni-Clip spreading forceps
6	119 314ND	Large Uni-Clip spreading forceps
7	119 319ND	Large Uni-Clip impactor handle
8	119 321ND	Large Uni-Clip impactor attachment
9	119 322ND	Large Uni-Clip straight drilling guide
10	119 324ND	Large Uni-Clip offset drilling guide
11	219 545ND	Drill diam 3.0mm AO attachment

# LARGE UNI-CLIP®

## DUAL - COMPRESSION STAPLES

### Large Uni-Clip

References	Description
313 820SND	Interaxis 20mm - L. 20-20mm
313 825SND	Interaxis 25mm - L. 25-25mm
314 820SND	Interaxis 25mm - L. 20-25mm
314 827SND	Interaxis 30mm - L. 27-32mm

### INSTRUMENTATION

References	Description
119 016ND	Drill diam. 2.2mm Lg. 180mm AO attachment
119 301ND	Uni-Clip drilling guide
119 307ND	Uni-Clip depth gauge
119 309ND	Uni-Clip staple impactor
119 311ND	Uni-Clip spreading forceps
119 314ND	Large Uni-Clip spreading forceps
119 319ND	Large Uni-Clip impactor handle
119 321ND	Large Uni-Clip impactor attachment
119 322ND	Large Uni-Clip straight drilling guide
119 324ND	Large Uni-Clip offset drilling guide
219 545ND	(Locking system) drill diam 3.0mm AO attachment



### Container

References	Description
119 990ND	Large Uni-Clip container
119 991ND	Large Uni-Clip container lid
119 992ND	Large Uni-Clip container basis
119 993ND	Large Uni-Clip container cylinder

- The products are manufactured and referenced within the frame of the standards in force.
- Implantation procedures are described in the surgical technique.
- Non contractual document. The manufacturer reserves the right, without prior notice, to modify the products in order to improve their quality.
- WARNING: Federal law (USA) restricts this device to sale by or on the order of a physician.

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Extremity Reconstruction

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