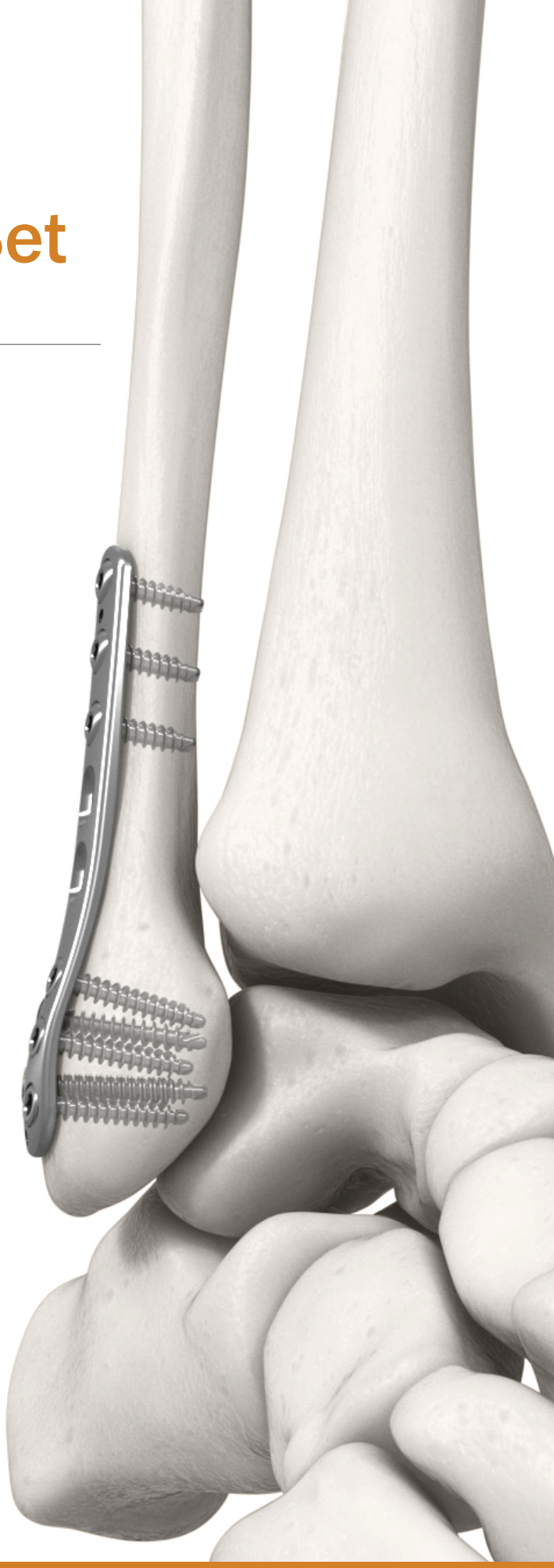
OsteoCentric Small Fragment Set

Technique Guide



OsteoCentric TECHNOLOGIES

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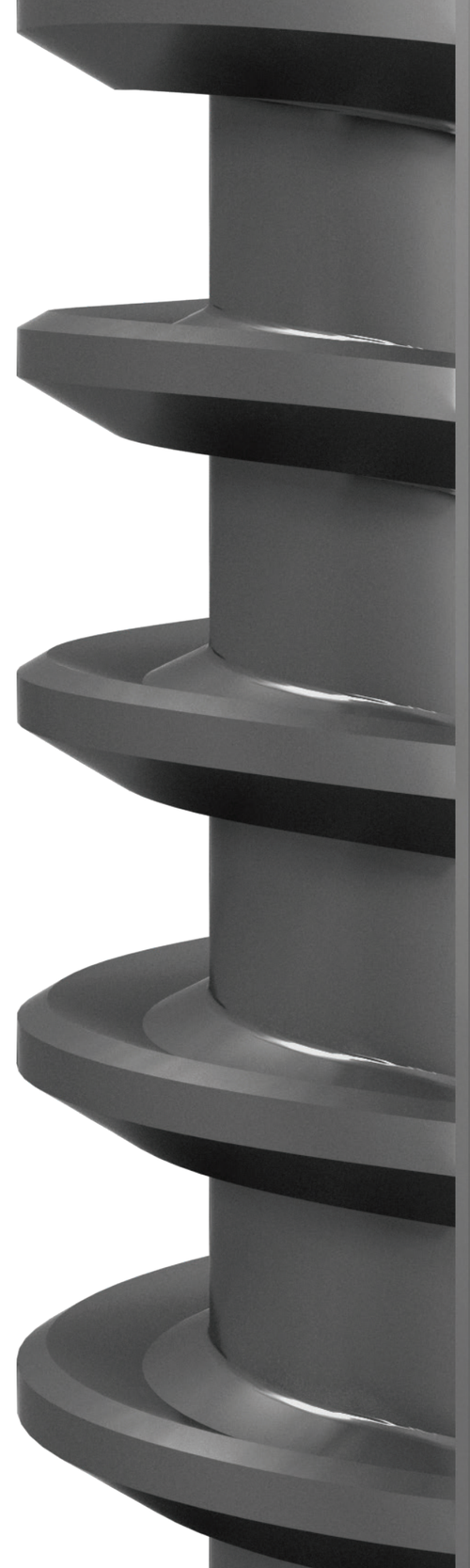


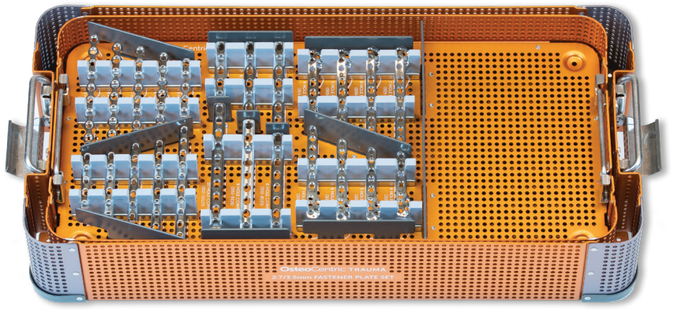
OsteoCentric Trauma is reimagining fixation with its **Unifi*MI*** technology.The screw fasteners in the Small Fragment Set are designed to preserve the integrity of and instantly interlock to the bone with its unique thread geometries. (Figure 1)

THIN PROFILE, INTERLOCKING STRENGTH

Unifi*MI*'s interlocking threads are designed to increase construct stability while maintaining the benefits of low-profile plates.

VERSATILE FIXATION

The set includes Compression, Reconstruction, 1/3 Tubular, and Distal Fibula plates along with 3.5mm, 3.3mm, and 2.7mm interlocking screw fasteners that work in any plate hole for customized constructs for each patient.



Fastener Plate Set

The unique **Unifi*MI*** technology provides the benefits of robust fixation and immediate mechanical interlocking with the bone without the need for special techniques or instruments. The **Osteo**Centric Small Fragment set uses all standard instrumentation familiar to orthopedic surgeons.

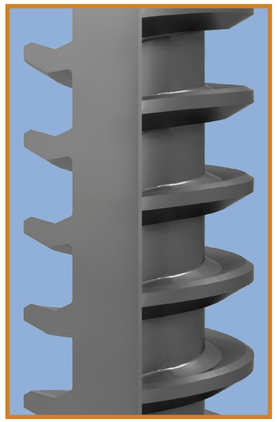
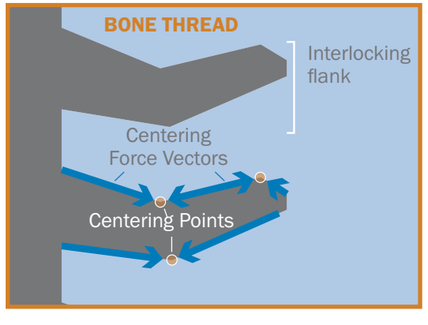


Figure 1



Unifi*MI* Technology

Fasteners and implants are currently available in stainless steel.

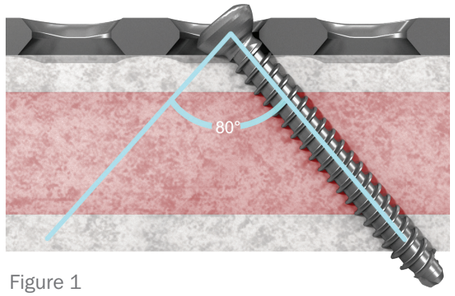


Figure 1

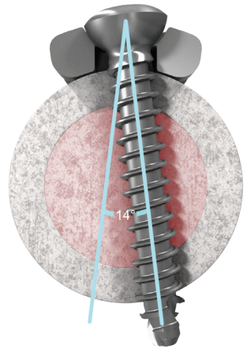


Figure 2

The 3.5mm Screw Fastener provides 80° of total angulation proximal-distal and 14° of total angulation axially to allow for variation in the fixation needs. (Figures 1 and 2)

INDICATIONS FOR USE

The **Osteo**Centric Trauma 2.7mm Screw Fastener is intended for fractures and osteotomies of small bones and bone fragments, including the foot, ankle, and hand in adults and in both children (2-12 years) and adolescents (12-21 years) in which growth plates have fused or in which growth plates will not be crossed by screw fixation.

The **Osteo**Centric Trauma 3.5mm Screw Fasteners are intended for fixation of fractures, osteotomies and non-unions of the clavicle, scapula, olecranon, humerus, radius, ulna, pelvis, tibia, calcaneus, femur and fibula in adults and in both children (2-12 years) and adolescents (12- 21 years) in which growth plates have fused or in which growth plates will not be crossed by fastener fixation.

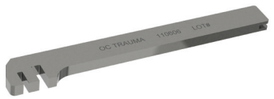
The **Osteo**Centric Trauma Bone Plate and Screw System is intended for fixation of fractures, osteotomies, and non-unions of the clavicle, scapula, olecranon, humerus, radius, ulna, pelvis, tibia, and fibula, including, periarticular and intraarticular fractures.

Fasteners and implants are currently available in stainless steel.

COMPRESSION, 1/3 TUBULAR, & RECONSTRUCTION PLATE TECHNIQUE

1. Select the type of plate appropriate for the fracture and anatomic area.
2. If bending is needed, use the Bending Iron L and R or the Bending Iron Reconstruction to customize the plate contour.
3. Hold the plate to the bone using the Reduction Forceps provided.

INSTRUMENTS



Bending Iron
Left: 110605
Right: 110606

Bending Iron Reconstruction
110610

Reduction Forceps, Points
Narrow: 110630
Broad: 110631

Reduction Forceps, Serrated
110632

4. Drill for the first screw fastener in the neutral position (Figure 1) with the appropriate drill bit for the screw size selected.

Screw Fastener	Drill Bit
2.7mm	2.0mm
3.5mm	2.5mm

5. Measure using the Depth Gauge. (Figure 2)

Figure 1

Figure 2

Fasteners and implants are currently available in stainless steel.

INSTRUMENTS

Drill Sleeve
3.5mm/2.5mm: 110520
2.7mm/2.0mm: 110521

Universal Drill Sleeve
3.5mm/2.5mm: 110522

Insert Drill Sleeve
3.5mm/2.5mm: 110524

Drill Bit
2.0mm, 100mm: 110007
2.5mm, 110mm: 110013
2.5mm, 145mm: 110014

Depth Gauge
60mm: 110205

6. If dense, hard bone is detected, please check to be sure the proper drill bit size has been utilized. If it has, it is recommended to use the appropriately sized tap to prepare the bone for screw insertion.
7. Insert the screw fastener using the preferred 2.5mm hex screwdriver.
8. Drill for a screw fastener on the opposite side of the fracture. For compression at the fracture with Compression Plates, drill eccentrically (Figure 3) with the drill bit away from the fracture.
9. Measure using the Depth Gauge and insert the screw fastener using the preferred 2.5mm hex screwdriver.
10. For additional compression at the fracture site, lag screw technique can be used through the plate by overdrilling the near cortex (Figure 4) with the 3.5mm Drill Bit or 2.7mm Drill Bit.
11. Insert remaining screw fasteners as appropriate for the fracture.

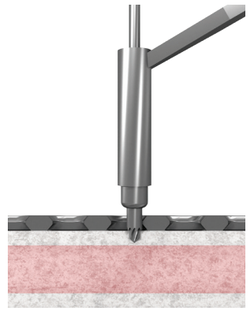


Figure 3

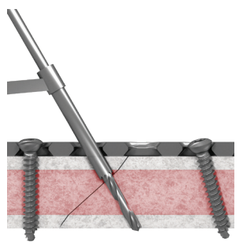


Figure 4

INSTRUMENTS

Drill Bit
2.7mm, 100mm: 110016
3.5mm, 110mm: 110028

Fasteners and implants are currently available in stainless steel.

DISTAL FIBULA PLATE TECHNIQUE

- The Distal Fibula Plate is implanted using the previous techniques. (Figure 1) Every screw hole can accept any screw size, however, 2.7mm or 3.3mm Screw Fasteners are often used in the distal cluster with 3.5mm used in the shaft (Figure 2).

Screw Fastener	Drill Bit
2.7mm	2.0mm
3.3mm	2.0mm
3.5mm	2.5mm

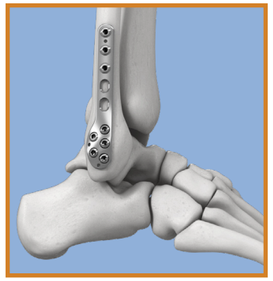


Figure 1

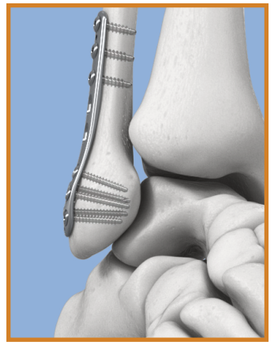


Figure 2

LOCKING DISTAL FIBULA PLATE TECHNIQUE

Leveraging the Unifi*MI* proprietary design, the Locking Distal Fibula Plate allows surgeons to place both locking or non-locking fasteners into the same hole, resulting in lower head prominence (Figure 1). Determine the required length of the fastener by using the scale on the 2.0mm calibrated drill guide (Figure 2).

Screw Fastener	Drill Bit
3.3mm	2.0mm

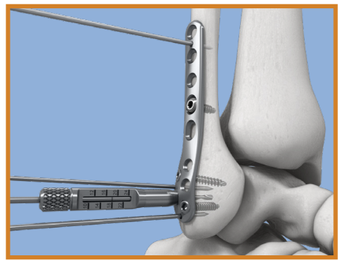


Figure 1

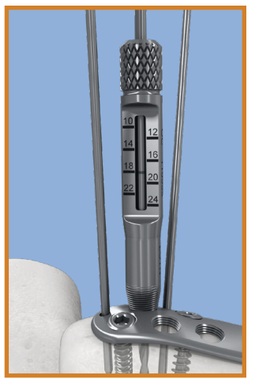


Figure 2

Fasteners and implants are currently available in stainless steel.

FASTENER ONLY TECHNIQUE

- Screw Fastener implantation uses standard techniques with the appropriate drill bit for the implant chosen.

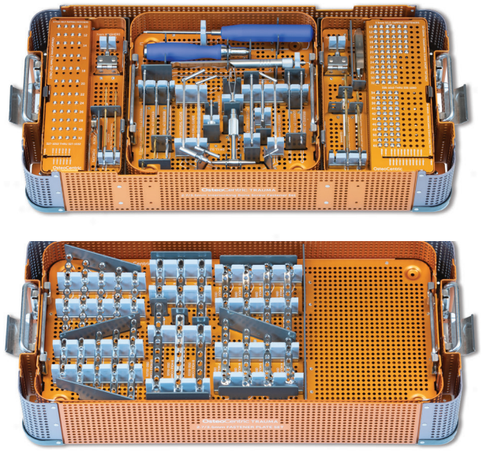
Screw Fastener	Underdrill	Overdrill
2.7mm	2.0mm	2.7mm
3.5mm	2.5mm	3.5mm

- After drilling and before measuring, the Countersink can be used to reduce the profile of the head on the near cortex.

INSTRUMENTS

Countersink: 110500

Note: If during any fastener insertion technique excessive insertion torque is encountered, it is highly recommended to remove fastener and utilize the correctly sized tap to prepare the bone for fastener insertion.



OsteoCentric Trauma Small Fragment Set

LONG FASTENER TECHNIQUE

Fixation needs may require the use of extra-long fasteners and corresponding instruments. The following are part of the Long Fastener Instrument Set:

INSTRUMENTS

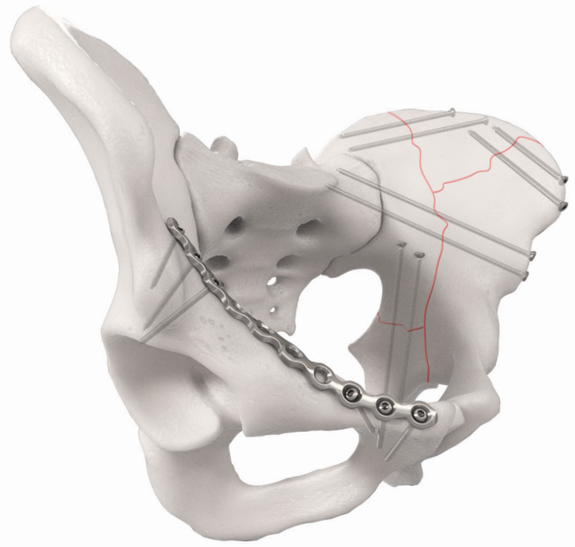
Drill Bit

3.5mm Drill Bit 110mm: 110028
2.5mm Drill Bit Calibrated 200mm: 110040

Hex Driver

Long Hex Driver: 110104
Long Hex Driver Fixed 300mm: 110703
2.5mm Hex Driver Sleeve: 110701

Depth Gauge For Small Frag 150mm: 110206
3.5mm Cortical Screw Fastener Tap 200mm: 110454
Screw Fastener Holding Forceps: 110705



Note: If during any long fastener insertion technique excessive insertion torque is encountered, it is highly recommended to remove fastener and utilize the correctly sized tap to prepare the bone for fastener insertion.

Fasteners and implants are currently available in stainless steel.

SMALL FRAGMENT SET IMPLANTS

3.5MM COMPRESSION PLATE

Part #	Holes	Length
302-564	5	64mm
302-677	6	77mm
302-790	7	90mm
302-8103	8	103mm
302-9116	9	116mm
302-10129	10	129mm

1/3 TUBULAR PLATE WITH COLLAR

Part #	Holes	Length
303-557	5	57mm
303-669	6	69mm
303-781	7	81mm
303-893	8	93mm
303-10117	10	117mm

STRAIGHT RECONSTRUCTION PLATE

Part #	Holes	Length
304-565	5	65mm
304-678	6	78mm
304-791	7	91mm
304-8104	8	104mm
304-9117	9	117mm

K-WIRES

Part #	Diameter	Length
130005	1.25mm	150mm
130010	1.6mm	150mm
130015	2.0mm	150mm

2.7MM/3.5MM LATERAL DISTAL FIBULA PLATE

Part# L	Part# R	Holes	Length
305-470L	305-470R	4	70mm
305-580L	305-580R	5	80mm
305-690L	305-690R	6	90mm
305-7100L	305-7100R	7	100mm

2.7MM/3.5MM LOCKING LATERAL DISTAL FIBULA PLATE

Part# L	Part# R	Holes	Length
314-470L	314-470R	4	70mm
314-580L	314-580R	5	80mm
314-690L	314-690R	6	90mm
314-7100L	314-7100R	7	100mm

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2.7MM SCREW FASTENER SELF-TAPPING

10-32mm, 2mm increments
327-10xx

3.3MM SCREW FASTENER SELF-TAPPING

12-22mm, 2mm increments
333-10xx

3.3MM LOCKING SCREW FASTENER SELF-TAPPING

12-22mm, 2mm increments
333-60xx

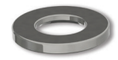
3.5MM SCREW FASTENER SELF-TAPPING

10-88mm, 2mm increments
335-10xx

90-130mm, 5 mm increments
335-1090-1130

7MM WASHER

300-0701



FULL INSTRUMENT LIST

Part #	Description
110007	2.0mm Drill Bit 100mm
110013	2.5mm Drill Bit 110mm
110014	2.5mm Drill Bit 145mm
110016	2.7mm Drill Bit 100mm
110028	3.5mm Drill Bit 110mm
110040	2.5mm Drill Bit Calibrated 200mm
110045	2.0mm Drill Bit Calibrated 110mm
110103	2.5mm Hex Driver QC Shaft 110mm
110104	Long Hex Driver
110205	Depth Gauge for Small Frag 60mm
110206	Depth Gauge For Small Frag 150mm
110302	2.5mm Hex Driver QC Shaft 135mm
110310	QC Handle
110422	2.7mm Screw Fastener Tap 110mm
110424	3.5mm Screw Fastener Tap 110mm
110444	3.5mm Screw Fastener Tap 135mm
110454	3.5mm Cortical Screw Fastener Tap 200mm
110500	3.5mm Countersink
110520	3.5mm/2.5mm Drill Sleeve
110521	2.7mm/2.0mm Drill Sleeve
110522	3.5mm/2.5mm Universal Drill Sleeve
110524	3.5mm/2.5mm Insert Drill Sleeve
110535	2.0mm Threaded Drill Guide Calibrated
110600	Sharp Hook
110605	Bending Iron
110606	Bending Iron
110610	Bending Iron Reconstruction
110620	Hohmann Retractor 8mm Width
110621	Hohmann Retractor 15mm Width
110625	Periosteal Elevator 6mm Width
110630	Reduction Forceps Narrow
110631	Reduction Forceps Broad
110632	Reduction Forceps Serrated
110701	2.5mm Hex Driver Sleeve
110702	2.0mm Threaded Drill Guide Calibrated
110703	Long Hex Driver Fixed 300mm
110705	Screw Fastener Holding Forceps
130005	1.25mm X 150mm K-Wire Smooth
130010	1.6mm X 150mm K-Wire Smooth
130015	2.0mm X 150mm K-Wire Smooth
A2200	Small Fragment Fastener Set Outer Case
A2200-01	Lid
A2200-02	Small Fragment Set Instrument Tray Upper
A2200-03	Small Fragment Set Instrument Tray Lower
A2200-04	3.5mm Small Fragment Fastener Caddy
A2200-06	2.7/3.3mm Small Fragment Fastener Caddy
A2200-07	2.7/3.3/3.3mm Locking Fastener Caddy
A2300	Small Fragment Plate Set Outer Case
A2300-01	Small Fragment Plate Set Instrument Tray
A2300-02	Small Fragment Plate Set Implant Tray
A2300-03	Locking LDFP and Instrument Tray
A2400	Long Fastener Outer Tray
A2400-02	Long 3.5mm Fastener Caddy
A2400-03	Long Fastener Instrument Tray

Fasteners and implants are currently available in stainless steel.

OsteoCentric
TECHNOLOGIES

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