

# The Flower TMT Fusion

PROCEDURE GUIDE



# The Flower Foot & Ankle Application



#### **INDICATIONS FOR USE:**

The Flower Small and Medium Implants set is intended for use for internal fixation of fractures and reconstruction of bones, including the scapula, olecranon, humerus, radius, ulna, pelvis, distal tibia, fibula, hand and foot in adults and for use in long bones in adolescents (12-21) in whom the growth plates have fused. Examples of these internal fixations and reconstructions include compression fractures, intra-articular and extra-articular fractures, displaced fractures, osteotomies, non-unions and mal-unions. This system can be used for palmar, ventral, dorsal and orthogonal application.

# The Flower TMT Fusion – Product Rationale





The Flower TMT Fusion plate is a low profile stabalization plate designed to best accommodate the specific biomechanical and anatomic considerations of the tarsal metatarsal joint.

The Flower TMT Plate allows for the use of variable angle locking screws and compression screws. The variable angle compression screws are available for axial compression through the plate's compression slot.

# The Flower TMT Fusion – Design Features

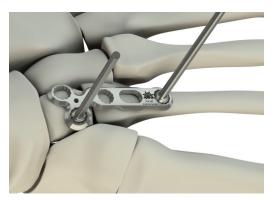
	PLATE RATIONALE	SURGICAL BENEFIT
	Plate accepts 2.7mm, 3.0mm and 3.5mm locking and compression screws	Provides multiple screw options for anatomic variance
	Plates available in straight or left & right configurations with 10° of valgus	Plate options allow for straight and angled fusions
	Plates are pre-contoured to 15° of plantar- flexion to create proper joint alignment	Provide optimal fusion biomechanics and reduces the need to bend plates to match the anatomy
	Anatomic, low-profile	Reduces potential soft tissue irritation

# The Flower TMT Fusion – Surgical Strategy

### Step 1 – Plate Selection and Provisional Fixation

- a. A plate trial (FIS 603) is available to properly size the required plate before opening the sterile packaged plate. The plate is placed on the dorsal aspect of the 2nd, 3rd or 4th tarsal metatarsal joint.
- b. Once the proper plate size is determined, the plate can be temporarily fixed to the bone using the Flower Olive Wires (OWK 200), placed through the olive wire holes in the plate.

**Note:** If using medium cannulated screws in conjunction with the Flower TMT Plate, the Flower E-Kit™ (EWK 200) contains all of the necessary instruments for plate and cannulated screw placement.





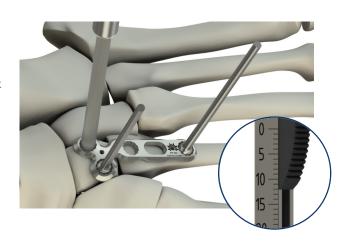
# Step 2 - Drill Pilot Holes

a. 3.0mm variable angle locking screws are recommended for the Flower TMT Fusion Construct. Starting with the proximal locking holes and using a 2.0mm drill bit (DBK 030), pilot holes are drilled. Use the locking end of the drill guide for all locking holes in the plate. All pilot holes are drilled bi-cortically.

### Step 3 – Screw Measurement and Insertion

- a. The depth gauge is part of the Olive Wire Kit (OWK 200).
- b. Ensure that the instrument is fully seated into the screw hole before the hook probe is advanced into the pilot hole.
- c. The hook of the depth gauge is engaged behind the opposite cortex of the pilot hole and the pilot hole depth is read off the distal end of the slider.
- d. Insert the locking screws into the proximal screw holes using the Flower Screwdriver that is part of the Flower Olive Wire Kit (OWK 200) or E-Kit (EWK 200).

**Note:** This is NOT a torque limiting screw driver. Screws are fully inserted once flush with the top of the plate. Do not overtighten.

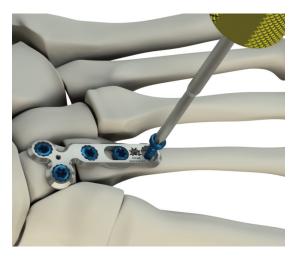


# The Flower TMT Fusion – Surgical Strategy

### Step 4 – Axial Compression Through the Plate

- a. If dynamic compression is desired, eccentrically drill the slot using the compression end of the drill guide (DBK 035) placed distally in the slot and with the arrow pointing towards the joint.
- b. Remove the olive wires.
- c. Measure the pilot hole using the Flower Depth Gauge and insert a 3.5mm variable angle compression screw. Screws are fully inserted once flush with the top of the plate. Do not overtighten.



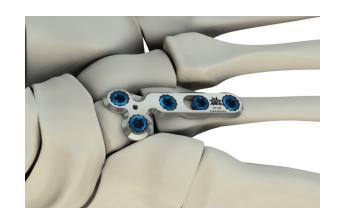


### Step 5 – Distal Screw Insertion

- a. After the compression screw is placed, the remaining distal locking screws can be inserted.
- b. Use a drill guide to create distal pilot holes. Insert the locking screws into the distal screw holes using the Flower Screw Driver that is part of the Flower Olive Wire Kit (OWK 200) or E-Kit (EWK 200). Screws are fully inserted once flush with the top of the plate. Do not over tighten.

# Step 6 – The Final Construct

The Flower TMT Fusion plate provides ideal anatomic fixation for straight and angled fusions. The procedure specific plate expedites surgical efficiencies, reducing the need for intraoperative plate bending and aiding in proper joint alignment. The low profile design limits the potential for soft tissue irritation.



# The Flower TMT Fusion – Implant Selection

### **VARIABLE ANGLE LOCKING SCREWS**

Screw Diameters	Product Description	Lengths
2.7mm*	2.7mm Variable Angle Locking Screw	8mm-30mm
3.0mm	3.0mm Variable Angle Locking Screw	8mm-30mm
3.5mm	3.5mm Variable Angle Locking Screw	8mm-30mm

<sup>\*</sup>Additionally available. Not included in the Midfoot IndicationCube $^{\mathsf{TM}}$ .



### **VARIABLE ANGLE COMPRESSION SCREWS**

Screw Diameters	Product Description	Lengths
2.7mm*	2.7mm Variable Angle Compression screw	10mm-24mm
3.5mm	3.5mm Variable Angle Compression Screw	10mm-30mm

<sup>\*</sup>Additionally available. Not included in the Midfoot IndicationCube.



### FLOWER TMT FUSION PLATE PORTFOLIO

Part #	Product Description	Lengths
FFP 001	1.7mm TMT Plate (left)	5-Hole
FFP 002	1.7mm TMT Plate (right)	5-Hole
FFP 006	1.7mm TMT Straight Plate	6-Hole



# The Flower TMT Fusion – Single-Use Instrument Overview

### **TMT FUSION PLATE TRIALS**

Part #	Content of Kit	
FIS 603	TMT Plate Trials	



### **DRILL BIT KITS**

Part #	Contents of Kit
DBK 027	2.0mm Drill Bit and Drill Guide
DBK 030	2.0mm Drill Bit and Drill Guide
DBK 035	2.5mm Drill Bit and Drill Guide



### **OLIVE WIRE KIT, MEDIUM**

Part #	Contents of Kit
	T15 Medium Screw Driver
OWK 200	Medium Depth Gauge
	Olive Wires D: 1.0mm (2)



### **FLOWER E-KIT**

Part #	Contents of Kit
	T15 Medium Cannulated Screw Driver
	Cannulated Depth Gauge and Countersink
EWK 200	Plating Depth Gauge
	1.8mm Olive Wires (2)
	CoCr Guide Wires (2)

Note: For use with plates and cannulated screws



### **PLATE BENDERS**

Part #	Content of Kit
FIS 231	Plate Benders



# FlowerCube™: Schedule. Treat. Turn.



Schedule Case Sooner. (Ready-for-Surgery<sup>TM</sup>)

- No cleaning and sterilization
- FlowerCube is always ready to complete the case
- No time consuming set drop off



Treat Confidently. (Sterile & Single-Use)

- Instrument kits are always complete
- Drill bits are always sharp
- Reliable sterility



**Turn OR Faster.** (FlowerCube)

- FlowerCube is always ready for the next surgery
- No delay with back to back cases
- Enough sterile inventory for multiple cases