



Ti⁶

Titanium Internal Fixation System

The Complete Internal Fixation System for
Mid and Forefoot Surgery

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**TC-Series
(Cannulated)**



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MetaSurg offers the latest advancements in lower extremity internal fixation technology. Through a partnership between leading extremity surgeons and implant design engineers, MetaSurg has developed the Ti6 Titanium Internal Fixation System.

This flagship product is a complete internal fixation system featuring four specifically designed implants to cover all mid and forefoot fixation requirements. The Ti6 modular system is essentially six different systems in one and can be built with a choice of modules that address the needs of each surgeon and facility.

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INDICATIONS

The MetaSurg Ti6 Internal Fixation System implants are intended for fixation of fractures, non-unions, arthrodeses and osteotomies of the small bones in the hand and foot.

The implants are intended for single use only.

These implants are not intended for attachment or fixation to the posterior elements (pedicles) of the cervical, thoracic or lumbar spine.

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Titanium Internal Fixation System

Titanium Cannulated TC - SERIES



Overview

The TC-Series module is comprised of cannulated instrumentation and a titanium cannulated implant offered in four diameters:

Diameters	Lengths
2.0mm	6 - 22mm
2.5mm	8 - 30mm
3.0mm	10 - 40mm
4.0mm	12 - 50mm

Features:

- Optimally engineered distal threads provide minimum turns to engagement
- Ultra low profile head
- Hybrid threads designed for cancellous and cortical bone
- Cannulated, self-drilling, self-tapping



The silicon ratchet handle offers a precise feel and eliminates wrist fatigue. The ratchet dial can be set to three positions: forward, stationary and reverse.

The ratchet driver is recommended for TC, TH & TS Series screws.



Combination TC-Series Depth Gauge and Countersink eliminates steps and ensures precise measurement.

Instrument Use Guide

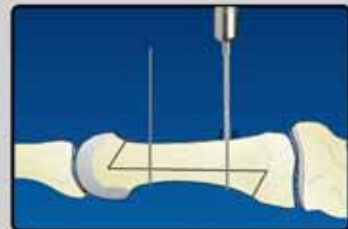
- 1 Insert guide wires to the correct depth using image intensification.

Ensure guide wire size matches the appropriate screw diameter and insert using 15 - 20mm increments to avoid bending the guide wire.



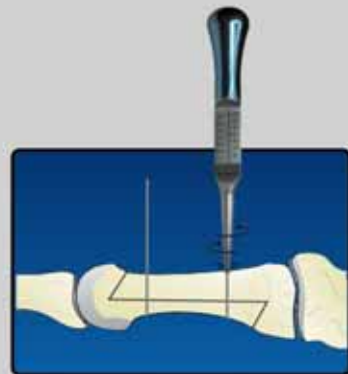
- 2 For 3.0 & 4.0mm screws, pre-drilling the proximal cortex can assist with screw insertion in dense bone.

Use the optional cannulated over-drill for this step.



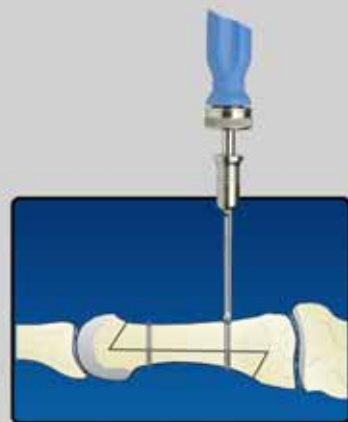
- 3 Countersink and then measure using the combination countersink depth gauge instrument.

Use a reciprocating motion to create the countersink recess.



- 4 Slide the TC-Series screw over the guide wire and drive the screw with the ratchet handle.

If the screw meets unusual resistance, remove the guide wire and continue driving the screw.





Titanium QuickSnap

TQ - SERIES

Overview

The TQ-Series implant is specifically designed for lesser metatarsal and small bone procedures. This implant features a snap-off shank that breaks while the screw is being driven into bone. Available in these sizes:

Diameters	Lengths
2.0mm	8 - 14mm

Features:

- Easy handling and insertion with K-wire driver or manual driver
- Higher torque load eliminates premature snap off
- Head design facilitates maximum loading and compression
- Self-drilling tip easily penetrates the cortical shell



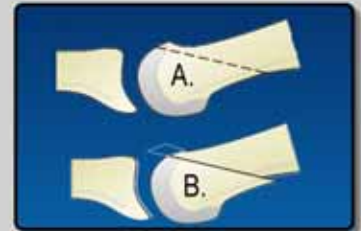
The titanium swivel handle offers a precise delicate feel and is useful for inserting small screws such as the TQ-Series.



The TQ-Series driver shaft is cannulated to accept the QuickSnap screw shank. It has 3 prongs that grasp the slots of both the screw shank as well as the screw head.

Instrument Use Guide

- 1 Perform the appropriate cuts for the lesser metatarsal procedure and remodel the dorsal shelf.



- 2 Optionally, a small guide wire can be used to initiate a 1mm deep pilot hole that penetrates the proximal cortex.



- 3 Load the QuickSnap screw into the QuickSnap Driver until the proximal head is engaged by the 3 prongs.



- 4 While compressing the osteotomy with hand pressure, drive the screw until the distal head is flush with the proximal cortex.



If necessary, snap the screw shank by tilting the driver forward.

Important Notes:

If the screw shank snaps prior to completion, remove the shank from the driver, then re-engage the driver over the remaining screw head to finish driving the screw.

Using a Power Drill or Pin Driver:

The Quiksnap screw is also designed to be driven with a power drill or pin driver. Use the 3 prong driver to complete insertion if the screw snaps off before reaching the proximal cortex.

Titanium Headless TH - SERIES



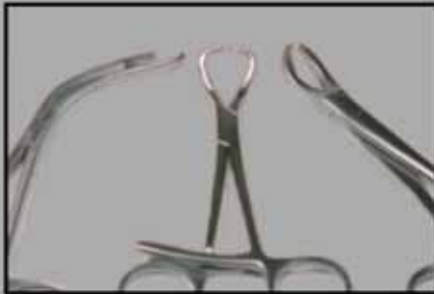
Overview

The TH-Series implant is a dual thread cannulated bone screw. This implant offers variable pitched threads that create maximum compression by pulling the bone fragments together. Offered in these sizes:

Diameters	Lengths
2.5mm	10 - 22mm
3.0mm	14 - 34mm

Features:

- Variable thread pitch creates maximum compression
- Screw sits below bone surface eliminating soft tissue irritation
- TORX drive system provides superior interface between driver and screw
- Cannulated, self-drilling, self-tapping



The Ti⁶ System base instrument set provides three variations of bone clamps. Utilize the desired bone clamp whenever possible to hold and/or compress the bone cuts during screw insertion.

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Instrument Use Guide

- 1 After making the appropriate bone cuts, drive the TH-Series guide wire to the correct depth.

Drive the guide wire using 10 - 15mm increments to prevent bending the wire.



- 2 Measure for the proper screw length by sliding the TH-Series depth gauge over the K-wire until it reaches the bone surface.



- 3 Use the TH-Series Cannulated Relief Drill to enlarge the proximal cortex.

Drill with the 1st notch for 2.5 mm screws and the 1st & 2nd notches for 3.0 mm screws.



- 4 Slide the screw and driver shaft over the K-wire and drive the screw through the bone until the top of the screw sits just below the bone surface.

Drive the screw with the ratchet driver handle.



Titanium Solid TS - SERIES



Overview

The TS-Series implant offers the latest advances in screw design. This implant has the traditional reliability of a solid core screw coupled with features that enhance its efficacy. It is offered in these sizes:

<u>Diameters</u>	<u>Lengths</u>
2.0mm	6 - 22mm
2.5mm	8 - 30mm
3.0mm	10 - 40mm
4.0mm	12 - 50mm

Features:

- Ultra low profile & self-retaining head
- Aggressive hybrid thread pattern designed for lower extremity cancellous and cortical bone
- Smaller screw core preserves more bone
- Large thread-to-core ratio increases pull-out strength



The TS-Series driver shaft retains the screw to allow for simple single-hand operation.



TS-Series countersinks are engineered to easily cut at any angle. The depth gauge markings are clearly legible and correlate directly to screw sizes.

Instrument Use Guide

- 1 Make the bone cuts, then use the correctly sized drill bit to create a pilot hole for the screw.



- 2 Using a reciprocating motion with the countersink instrument, shape the proximal cortex to the desired depth.



- 3 Slide the depth gauge probe into the pilot hole to gauge the correct screw length.



- 4 Drive the screw until the desired level of compression is achieved.



ORDERING INFORMATION

Ti6 Modules

Base Instruments



TC-Series (Cannulated)



TH / TQ-Series (Headless / QuickSnap)



TS-Series (Solid Core)



Instrument & Implant Catalog

Cat #	Instrument Description
FS1000	Ti6 System with Sterilization Tray
FS1005	Titanium Swivel Driver Handle
FS1006	Silicon Ratchet Driver Handle
FS1010	Sweetheart Bone Clamp
FS1012	Serrated Bone Clamp
FS1014	Scarf Style Bone Clamp
FS1030	Screw Pickup Forceps
FS1040	Screw Removal Instrument
FS1080	Ti6 Sterilization Tray

FS2001	TS-Series Pilot Drill Bit - 2.0
FS2002	TS-Series Pilot Drill Bit - 2.5
FS2003	TS-Series Pilot Drill Bit - 3.0
FS2004	TS-Series Pilot Drill Bit - 4.0
FS2010	TS-Series Driver Shaft - 2.0/2.5
FS2020	TS-Series Driver Shaft - 3.0/4.0
FS2030	TS-Series Depth Gauge - 2.0
FS2040	TS-Series Depth Gauge - 2.5/3.0/4.0
FS2050	TS-Series Drill Guide - 2.0/2.5
FS2060	TS-Series Drill Guide - 3.0/4.0
FS2070	TS-Series Countersink - 2.0/2.5
FS2080	TS-Series Countersink - 3.0/4.0

FS3010	TC-Series Driver Shaft - 2.0/2.5
FS3020	TC-Series Driver Shaft - 3.0/4.0
FS3030	TC-Series Cannulated Depth Gauge - 2.0/2.5
FS3040	TC-Series Cannulated Depth Gauge - 3.0/4.0
FS3050	TC-Series Cannulated Over Drill Bit - 3.0/4.0
FS4010	TH-Series Driver Shaft
FS4020	TH-Series Cannulated Depth Gauge
FS4030	TH-Series Cannulated Over Drill Bit
FS5010	TQ-Series 3-Prong Driver Shaft

Guide wires	
KW1102	TC-Series Guide wire - 2.0/2.5
KW1103	TC-Series Guide wire - 3.0/4.0 (Smooth)
KW1104	TC-Series Guide wire - 3.0/4.0 (Threaded)
KW1105	TH-Series Guide wire (.8mm x 70mm)

TH-Series (Titanium Headless) Implant Catalog #'s

2.5mm	3.0mm
TH-2510	TH-3014
TH-2512	TH-3016
TH-2514	TH-3018
TH-2516	TH-3020
TH-2518	TH-3022
TH-2520	TH-3024
TH-2522	TH-3026
	TH-3028
	TH-3030
	TH-3032
	TH-3034

TQ-Series (Titanium Quicksnap) Implant Catalog #'s

2.0mm
TQ-2008
TQ-2010
TQ-2011
TQ-2012
TQ-2014

TC-Series (Titanium Cannulated) Implant Catalog #'s

2.0mm	2.5mm	3.0mm	4.0mm
TC-2006	TC-2508	TC-3010	TC-4012
TC-2008	TC-2510	TC-3012	TC-4014
TC-2010	TC-2512	TC-3014	TC-4016
TC-2012	TC-2514	TC-3016	TC-4018
TC-2014	TC-2516	TC-3018	TC-4020
TC-2016	TC-2518	TC-3020	TC-4022
TC-2018	TC-2520	TC-3022	TC-4024
TC-2020	TC-2522	TC-3024	TC-4026
TC-2022	TC-2524	TC-3026	TC-4028
	TC-2526	TC-3028	TC-4030
	TC-2528	TC-3030	TC-4032
	TC-2530	TC-3032	TC-4034
		TC-3034	TC-4036
		TC-3036	TC-4038
		TC-3040	TC-4040
			TC-4042
			TC-4046
			TC-4050

TS-Series (Titanium Solid) Implant Catalog #'s

2.0mm	2.5mm	3.0mm	4.0mm
TS-2006	TS-2508	TS-3010	TS-4012
TS-2008	TS-2510	TS-3012	TS-4014
TS-2010	TS-2512	TS-3014	TS-4016
TS-2012	TS-2514	TS-3016	TS-4018
TS-2014	TS-2516	TS-3018	TS-4020
TS-2016	TS-2518	TS-3020	TS-4022
TS-2018	TS-2520	TS-3022	TS-4024
TS-2020	TS-2522	TS-3024	TS-4026
TS-2022	TS-2524	TS-3026	TS-4028
	TS-2526	TS-3028	TS-4030
	TS-2528	TS-3030	TS-4032
	TS-2530	TS-3032	TS-4034
		TS-3034	TS-4036
		TS-3036	TS-4038
		TS-3038	TS-4040
		TS-3040	TS-4042
			TS-4046
			TS-4050

Implant Cat # Naming Reference

XX-YYZZ

XX = Screw Type
YY = Screw Diameter
ZZ = Screw Length

T = Titanium
C = Cannulated
S = Solid
H = Headless
Q = QuickSnap



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