



Surgical Technique

2.4mm WISE-LOCK Modular Hand System

about us

Auxein Medical is an integrated, research based, orthopaedic Implants & instruments manufacturing company, producing a wide range of quality, affordable generic implants, trusted by healthcare professionals and patients across geographies. It is the Company's constant endeavor to provide a wide basket of generic and our innovator products that exceed the highest expectations of customers in term of quality and safety. The company has world-class manufacturing unit established in india and serves customers in over 75 countries worldwide.

Our Achievements



Guidelines

This publication sets forth detailed recommended procedures for using Auxein Medical devices and instruments.

It offers guidance that needs to be heeded. However, with any such technical guide, each surgeon must consider the unique needs of each patient and make appropriate adjustments when and as required.

A workshop training under DAIS Academy by Auxein will provide assistance prior to first surgery. It is vital to know that all non-sterile devices must be cleaned and sterilized before use.

Moreover, multi-component instruments must be disassembled for cleaning. The surgeon must discuss all relevant risks, including the finite lifetime of the device, with the patient, when necessary.

Please NOTE that all the bone screws referenced in this document here are not approved for screw attachment or fixation in the areas not mentioned in this publication.

Warning:

This description is not sufficient for immediate application of the instrumentation. Instruction by a surgeon experienced in handling this instrumentation is highly recommended.



1. Combi Hole Feature:-

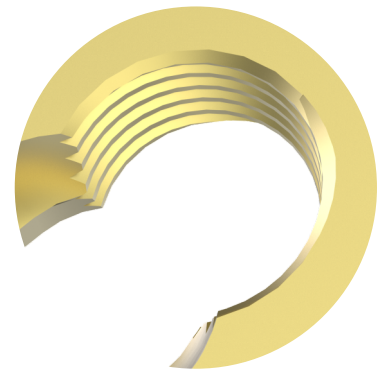
The Combi Hole offer the surgeon choice of using either locking screw or cortical screw, preoperatively and intraoperatively for fracture fixation.



2. Tapered, threaded hole for locking screws.

The self-tapping locking screws can be locked in the tapered threaded hole to ensure angular stability.

Use screw driver shaft with Quick Coupling Handle and Torque limiter to avoid the cold welding in plates and screws.



3. Compression Hole nit:

This unit helps in fracture reduction and plate compression. Securing the plate with cortical screws creates friction between the underside of the plate and the surface of the bone by compression at the interface. In order to ensure absolute stability, the frictional resistance must be greater than the forces produced during rehabilitation.



Surgical Steps:-

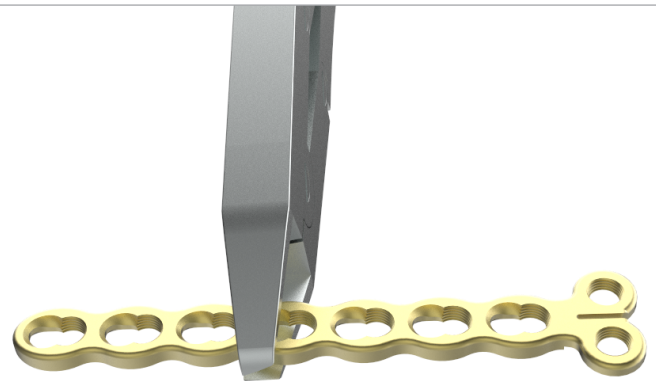
1. Fracture Reduction.

Use the **1138-33** Reduction forcep or K wire to reduce and hold the fracture in place.



2. Trim Plate:

Use the **1138-18** Cutting forcep for hand and foot system to shear the plate to desired length according to fracture site and fixation plan. Remove the burs and sharp edges to avoid soft tissue damage and irritation.



3. Plate Bending or Contouring.

Use the **1137-03** Bending Pin or **1138-31** Bending Plier to contour the plate anatomically.

Avoid hole or thread deformation as it may hinder the locking and compression.



Note: The threaded bending pin can be used to bend the round locking holes.



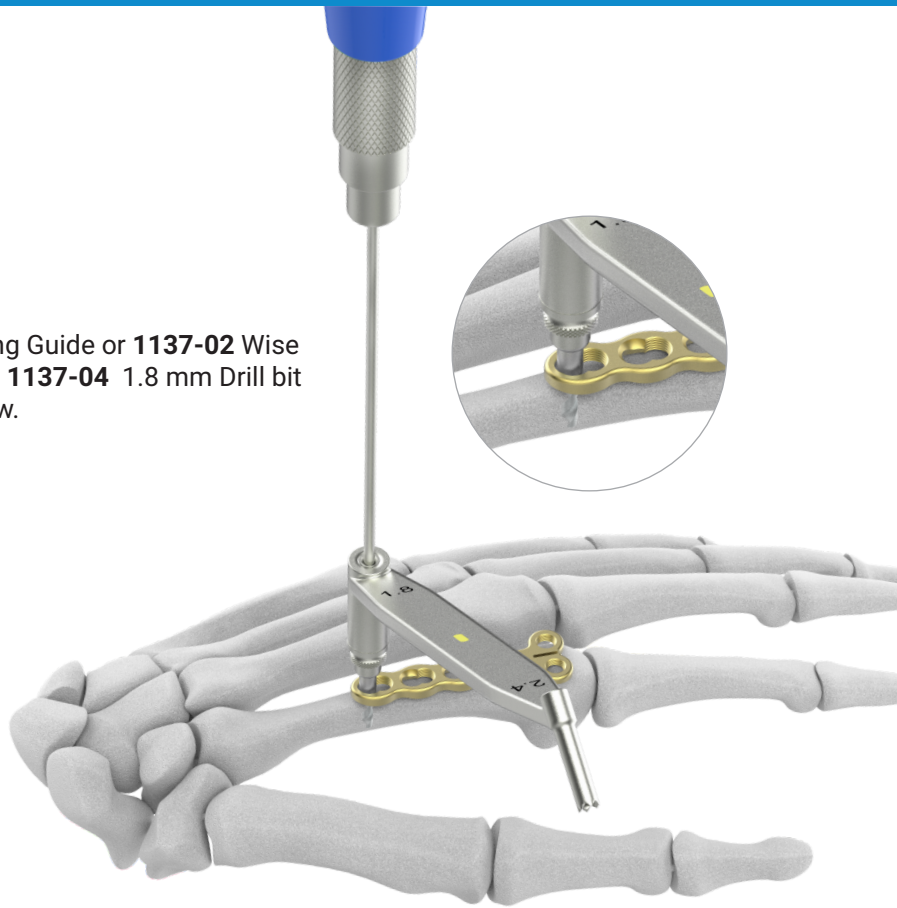
4. Plate Positioning:

Position the plate over the reduced fracture and, if necessary, fix provisionally with Kirschner wires or reduction forceps.



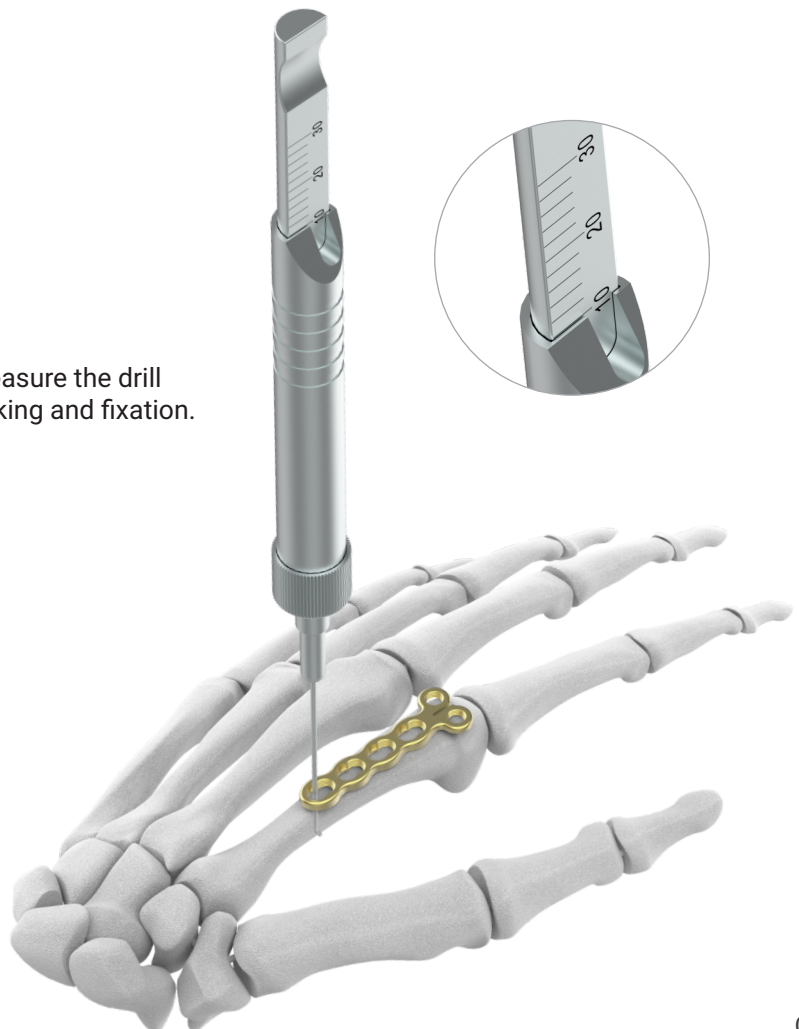
5. Drilling:

Mount the **1137-01** Self Centering Double Drilling Guide or **1137-02** Wise Lock Drill Sleeve 2.4mm into the plate. Pass the **1137-04** 1.8 mm Drill bit through the drill sleeve to drill the bone for screw.



6. Depth Measurement:

Use the **1138-14** or **1138-15** (Depth Gauge to measure the drill depth to acquire the screw length required for locking and fixation.



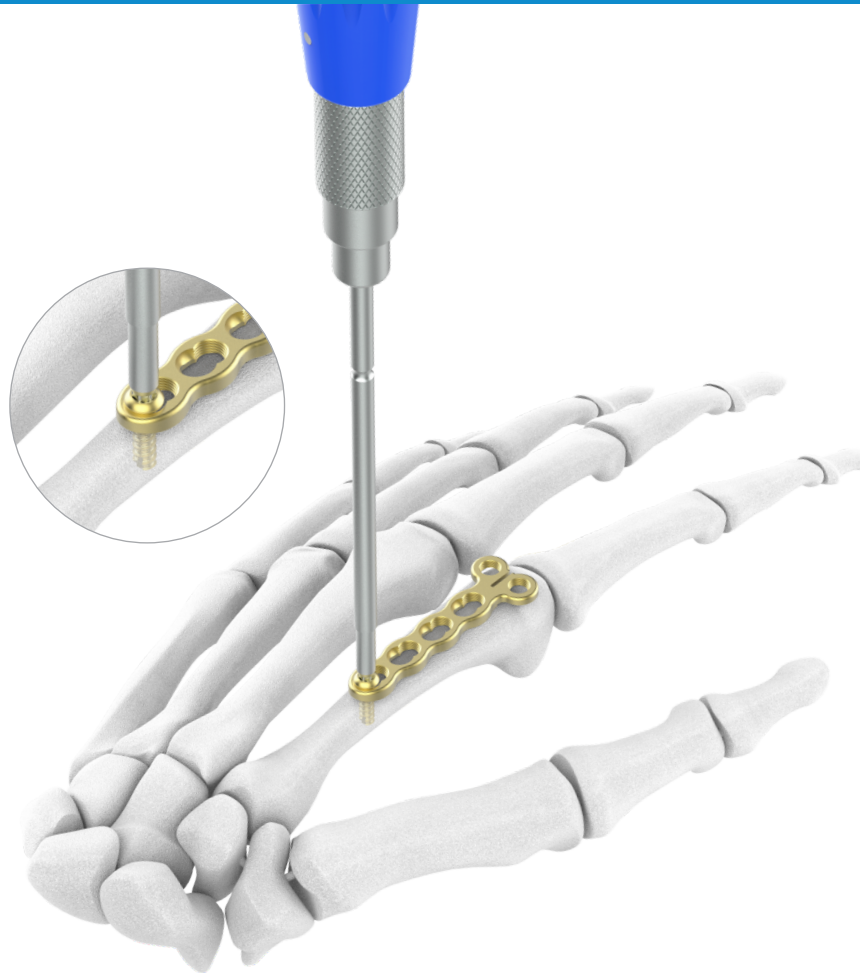
7. Cortical Screw Fixation.

The Holding Sleeve For 2.4mm Cortical Screws **1137-08** is attached with **1137-07** Screwdriver Shaft, T8 For 2.4mm/2.7mm Screws with **1138-13** Handle With Quick Coupling (Straight) already coupled with shaft.

This assembly is use to pick place and fixation of screw in predrilled hole.

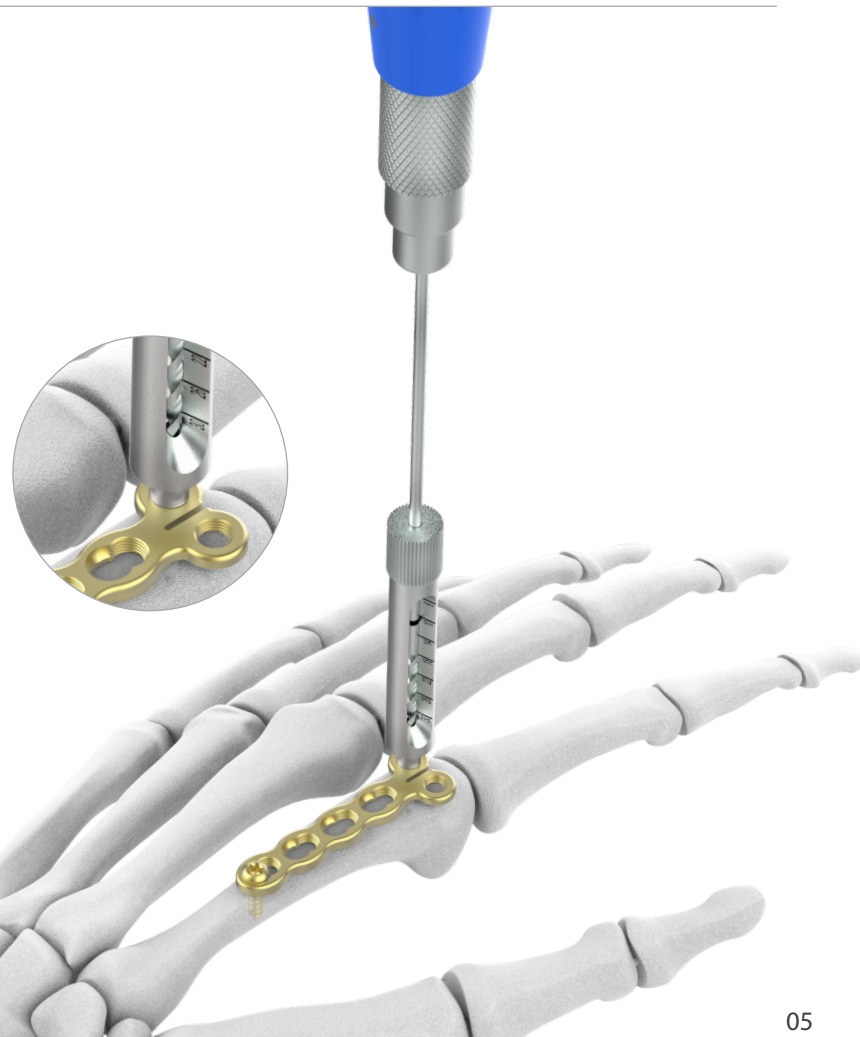
Alternative The Star Screwdriver for 2.4/2.7mm Screws **1138-40** attached with Holding Sleeve For 2.4mm Cortical Screws **1137-08** can be used to pick,place and fixation of screw.

Note:- For final tightening use the torque limiting attachment **1138-24** with screw driver. The torque limiting attachment ensures maximum strength of screw plate interface and prevent overtightening and distortion of screw recess.



8. Head Fixation.

Mount the Wise-Lock Drill Sleeve 2.4mm For Drill Bit $\text{\O}1.8\text{m}$ **1137-02** onto the rounded head hole. Pass the drill bit through the sleeve with Handle With Quick Coupling (Straight), for Hand & Foot System **1138-13** engaged with Drill bit. Observe the drill depth by observing the marking on the drill respective to the drill sleeve.

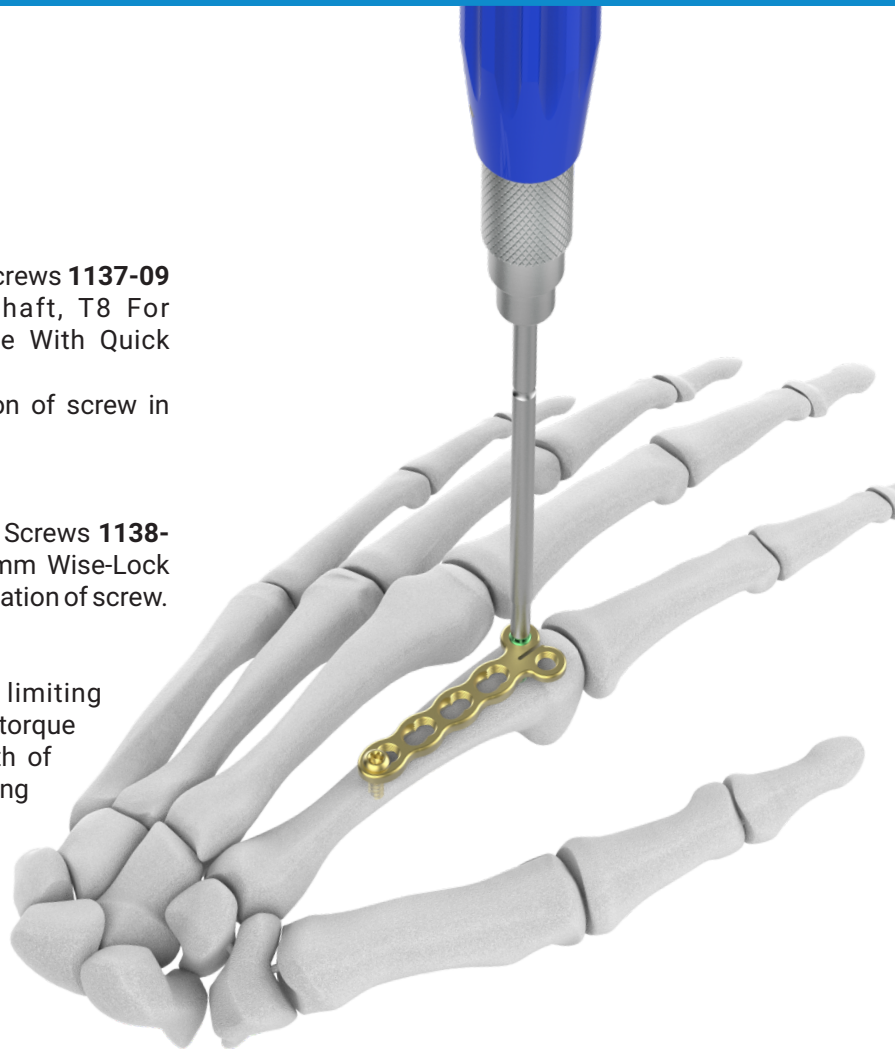


9. Head Screw fixation.

The Holding Sleeve For 2.4/2.7mm Wise-Lock Screws **1137-09** is attached with **1137-07** Screwdriver Shaft, T8 For 2.4mm/2.7mm Screws with **1138-13** Handle With Quick Coupling (Straight) already coupled with shaft. This assembly is used to pick place and fixation of screw in predrilled hole.

Alternative The Star Screwdriver for 2.4/2.7mm Screws **1138-40** attached with Holding Sleeve For 2.4/2.7mm Wise-Lock Screws **1137-09** can be used to pick, place and fixation of screw.

Note:- For final tightening use the torque limiting attachment **1138-24** with screw driver. The torque limiting attachment ensures maximum strength of screw plate interface and prevent overtightening and distortion of screw recess.




10. Final fixation.

For final fixation repeat the same procedure shown in the previous steps from 5 to 9.




2.4mm Wise-Lock Plate, Straight

STERILE			
Sterile	Non Sterile		Holes
TI-505.304-S	TI-505.304		4
TI-505.305-S	TI-505.305		5
TI-505.306-S	TI-505.306		6
TI-505.307-S	TI-505.307		7
TI-505.308-S	TI-505.308		8
TI-505.310-S	TI-505.310		10




2.4mm Adaption Plate, Straight

STERILE			
Sterile	Non Sterile		Holes
TI-821.312-S	TI-821.312		12




2.4mm Wise-Lock Adaption Plate, Straight

STERILE			
Sterile	Non Sterile		Holes
TI-555.312-S	TI-555.312		12



2.4mm Wise-Lock Condylar Plate

STERILE			
Sterile	Non Sterile		Holes
TI-559.304-S	TI-559.304		Shaft 4, Head 2
TI-559.305-S	TI-559.305		Shaft 5, Head 2
TI-559.306-S	TI-559.306		Shaft 6, Head 2
TI-559.307-S	TI-559.307		Shaft 7, Head 2



2.4mm Wise-Lock T-Adaption Plate

STERILE



Sterile	Non Sterile	Holes
TI-555.307T-S	TI-555.307T	Shaft 7, Head 2



2.4mm Wise-Lock T-Plate

STERILE



Sterile	Non Sterile	Holes
TI-556.304-S	TI-556.304	Shaft 4, Head 3
TI-556.305-S	TI-556.305	Shaft 5, Head 3
TI-556.306-S	TI-556.306	Shaft 6, Head 3
TI-556.307-S	TI-556.307	Shaft 7, Head 3



2.4mm Wise-Lock Y-Adaption Plate

STERILE



Sterile	Non Sterile	Holes
TI-555.304Y-S	TI-555.304Y	Shaft 4, Head 3
TI-555.305Y-S	TI-555.305Y	Shaft 5, Head 3
TI-555.306Y-S	TI-555.306Y	Shaft 6, Head 3
TI-555.307Y-S	TI-555.307Y	Shaft 7, Head 3



2.4mm Cortical Screw, Self-Tapping, (Star Head)



STERILE

Code	Length
TI-1144.06	6mm
TI-1144.07	7mm
TI-1144.08	8mm
TI-1144.09	9mm
TI-1144.10	10mm
TI-1144.11	11mm
TI-1144.12	12mm
TI-1144.13	13mm
TI-1144.14	14mm
TI-1144.16	16mm
TI-1144.18	18mm
TI-1144.20	20mm
TI-1144.22	22mm
TI-1144.24	24mm
TI-1144.26	26mm
TI-1144.28	28mm
TI-1144.30	30mm
TI-1144.32	32mm
TI-1144.34	34mm
TI-1144.36	36mm
TI-1144.38	38mm
TI-1144.40	40mm

Code	Length
TI-1144.06-S	6mm
TI-1144.07-S	7mm
TI-1144.08-S	8mm
TI-1144.09-S	9mm
TI-1144.10-S	10mm
TI-1144.11-S	11mm
TI-1144.12-S	12mm
TI-1144.13-S	13mm
TI-1144.14-S	14mm
TI-1144.16-S	16mm
TI-1144.18-S	18mm
TI-1144.20-S	20mm
TI-1144.22-S	22mm
TI-1144.24-S	24mm
TI-1144.26-S	26mm
TI-1144.28-S	28mm
TI-1144.30-S	30mm
TI-1144.32-S	32mm
TI-1144.34-S	34mm
TI-1144.36-S	36mm
TI-1144.38-S	38mm
TI-1144.40-S	40mm

2.4mm Wise-Lock Screw, Self-Tapping, (Star Head)



STERILE

Code	Length
TI-1145.06	6mm
TI-1145.07	7mm
TI-1145.08	8mm
TI-1145.09	9mm
TI-1145.10	10mm
TI-1145.11	11mm
TI-1145.12	12mm
TI-1145.13	13mm
TI-1145.14	14mm
TI-1145.16	16mm
TI-1145.18	18mm
TI-1145.20	20mm
TI-1145.22	22mm
TI-1145.24	24mm
TI-1145.26	26mm
TI-1145.28	28mm
TI-1145.30	30mm
TI-1145.32	32mm
TI-1145.34	34mm
TI-1145.36	36mm
TI-1145.38	38mm
TI-1145.40	40mm
TI-1145.42	42mm
TI-1145.44	44mm
TI-1145.46	46mm
TI-1145.48	48mm
TI-1145.50	50mm

Code	Length
TI-1145.06-S	6mm
TI-1145.07-S	7mm
TI-1145.08-S	8mm
TI-1145.09-S	9mm
TI-1145.10-S	10mm
TI-1145.11-S	11mm
TI-1145.12-S	12mm
TI-1145.13-S	13mm
TI-1145.14-S	14mm
TI-1145.16-S	16mm
TI-1145.18-S	18mm
TI-1145.20-S	20mm
TI-1145.22-S	22mm
TI-1145.24-S	24mm
TI-1145.26-S	26mm
TI-1145.28-S	28mm
TI-1145.30-S	30mm
TI-1145.32-S	32mm
TI-1145.34-S	34mm
TI-1145.36-S	36mm
TI-1145.38-S	38mm
TI-1145.40-S	40mm
TI-1145.42-S	42mm
TI-1145.44-S	44mm
TI-1145.46-S	46mm
TI-1145.48-S	48mm
TI-1145.50-S	50mm

1137-01 Self-Centering Double Drill Guide Ø2.4/1.8mm



1137-02 Wise-Lock Drill Sleeve 2.4mm For Drill Bit Ø1.8mm



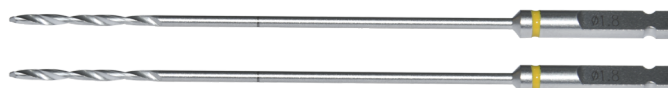
1136-06 Countersink For 2.0/2.4/2.7mm Screws



1137-03 Bending Pin With Thread For 2.4mm/2.7mm Wise-Lock Plates



1137-04 Drill Bit Quick Coupling Ø1.8mm x Length 110/82mm, 2-Flute



1137-05 Drill Bit Quick Coupling Ø2.4mm x Length 100/73mm, 2-Flute



1137-07 Screwdriver Shaft, T8 For 2.4mm/2.7mm Screws



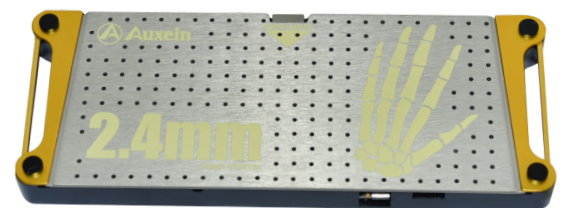
1137-08 Holding Sleeve For 2.4mm Cortical Screws



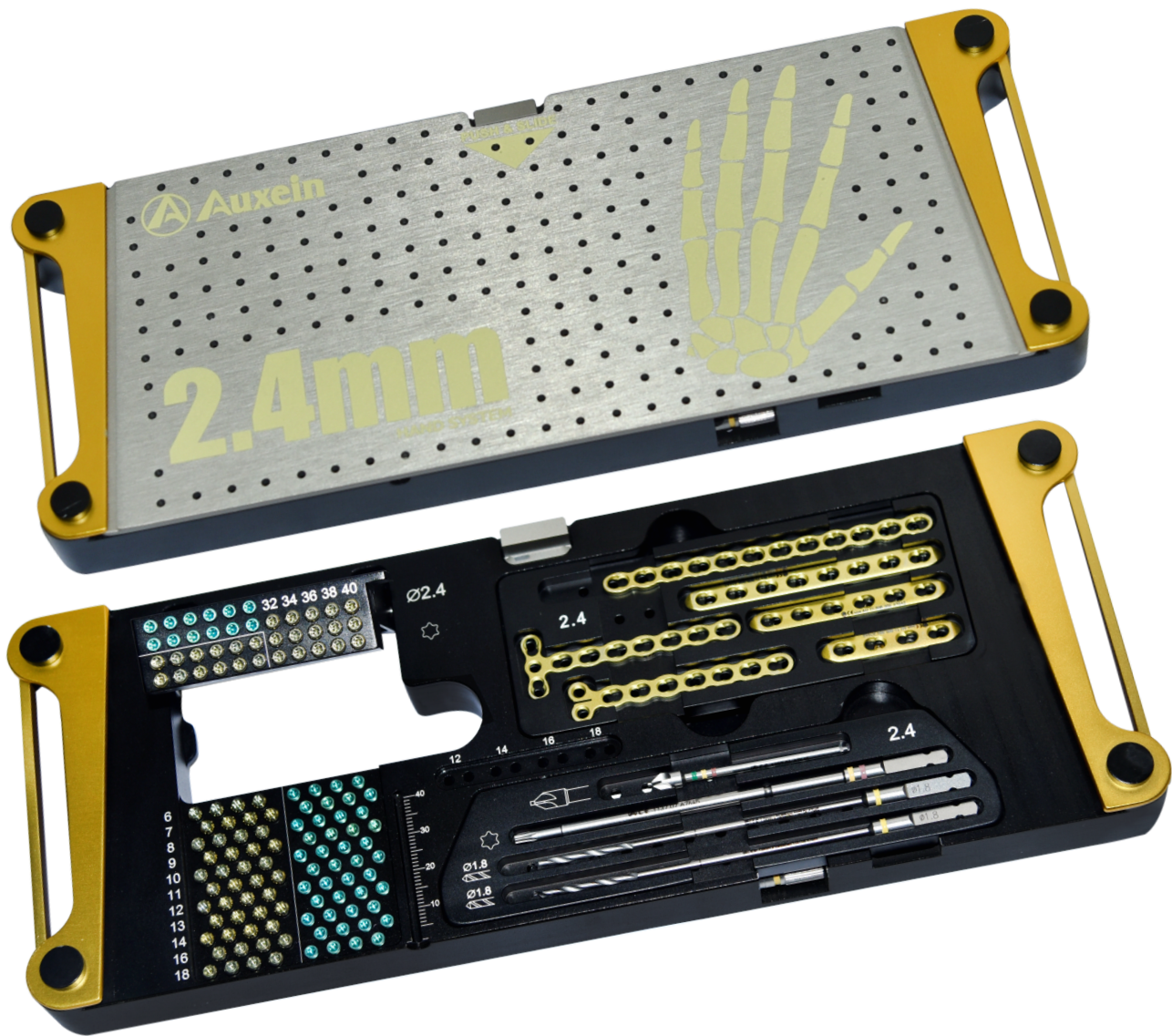
1137-09 Holding Sleeve For 2.4/2.7mm Wise-Lock Screws



1138-10 Container with Tray and Lid For 2.4mm Implant & Instrument Set



1138-10 Container with Tray and Lid For 2.4mm Implant & Instrument Set



Instruments for 2.4mm Wise-Lock Modular Hand System

Code	Items	Qty
1137-01	Self-Centering Double Drill Guide Ø2.4/1.8mm	1
1137-02	Wise-Lock Drill Sleeve 2.4mm For Drill Bit Ø1.8mm	2
1136-06	Countersink For 2.0/2.4/2.7mm Screws	1
1137-03	Bending Pin With Thread For 2.4mm/2.7mm Wise-Lock Plates	2
1137-04	Drill Bit Quick Coupling Ø1.8mm x Length 110/82mm, 2- Flute	2
1137-05	Drill Bit Quick Coupling Ø2.4mm x Length 100/73mm, 2-Flute	2
1137-07	Screwdriver Shaft, T8 For 2.4mm/2.7mm Screws	1
1137-08	Holding Sleeve For 2.4mm Cortical Screws	1
1137-09	Holding Sleeve For 2.4/2.7mm Wise-Lock Screws	1
1138-10	Container with Tray and Lid For 2.4mm Implant & Instrument Set	1

1138-12 Handle with Mini Quick Coupling, for Hand & Foot System



1138-13 Handle With Quick Coupling (Straight), for Hand & Foot System



1138-14 Depth Gauge measuring upto 30mm, for Hand & Foot System



1138-15 Depth Gauge measuring upto 50mm, for Hand & Foot System



1138-17 Screw Holding Forcep, for Hand & Foot System



1138-18 Cutting Forcep, for Hand & Foot System



1138-23 Torque Limiting attachment, 0.8Nm, with AO quick coupling - Hand & Foot System



1138-24 Torque Limiting attachment, 0.4Nm, with AO Quick Coupling - Hand & Foot System



1138-26 Hohmann Retractor, 15mm, for Hand & Foot System



1138-27 Hohmann Retractor, 6.5mm, for Hand & Foot System



1138-28 Periosteal Elevator, Round, for Hand & Foot System



1138-29 Periosteal Elevator, Flat, for Hand & Foot System



1138-30 Cutting Plier (For pins and plates), for Hand & Foot System



1138-31 Bending Pliers for Hand & Foot System



1138-33 Reduction Forcep, Pointed, Small, for Hand & Foot System



1138-36 Plate File, for Hand & Foot System



1138-37 Reduction Forcep, Serrated Jaws, for Hand & Foot System



1138-38 Star Screwdriver for 1.5mm Screws - Hand & Foot System



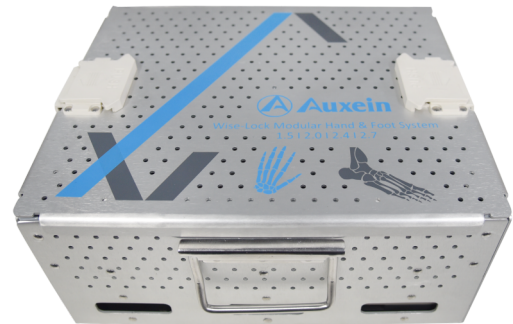
1138-39 Star Screwdriver for 2.0mm Screws - Hand & Foot System



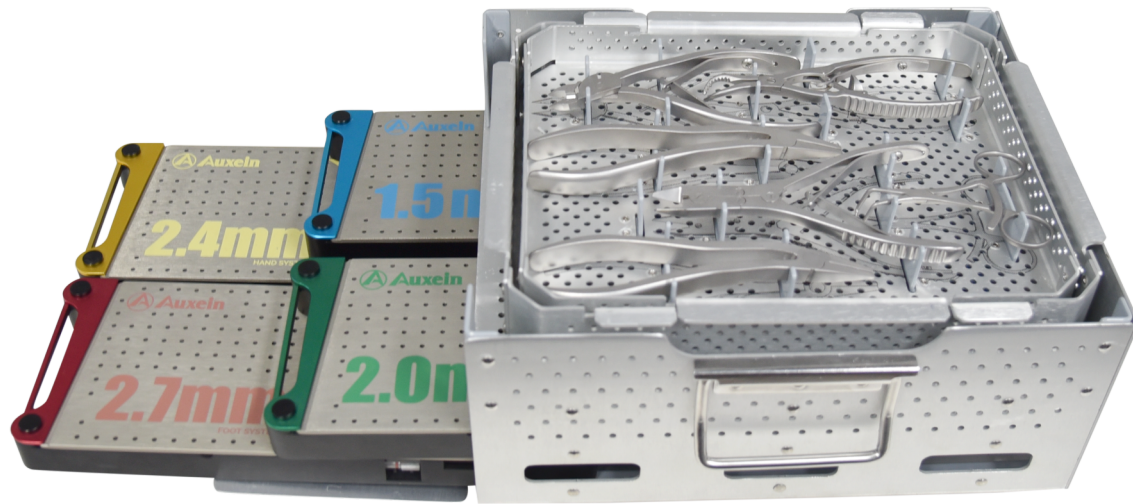
1138-40 Star Screwdriver for 2.4/2.7mm Screws - Hand & Foot System



1138-35 Container for Hand & Foot Instrument & Implant set



5001-000 Modular Hand & Foot System Instrument Set



Code	Items	Qty
1138-12	Handle with Mini Quick Coupling, for Hand & Foot System	1
1138-13	Handle With Quick Coupling (Straight), for Hand & Foot System	1
1138-14	Depth Gauge measuring upto 30mm, for Hand & Foot System	1
1138-15	Depth Gauge measuring upto 50mm, for Hand & Foot System	1
1138-17	Screw Holding Forcep, for Hand & Foot System	1
1138-18	Cutting Forcep, for Hand & Foot System	1
1138-23	Torque Limiting attachment, 0.8Nm, with AO quick coupling - Hand & Foot System	1
1138-24	Torque Limiting attachment, 0.4Nm, with AO Quick Coupling - Hand & Foot System	1
1138-26	Hohmann Retractor, 15mm, for Hand & Foot System	1
1138-27	Hohmann Retractor, 6.5mm, for Hand & Foot System	1
1138-28	Periosteal Elevator, Round, for Hand & Foot System	1
1138-29	Periosteal Elevator, Flat , for Hand & Foot System	1
1138-30	Cutting Plier (For pins and plates), for Hand & Foot System	1
1138-31	Bending Pliers for Hand & Foot System	2
1138-33	Reduction Forcep, Pointed, Small, for Hand & Foot System	1
1138-36	Plate File, for Hand & Foot System	1
1138-37	Reduction Forcep, Serrated Jaws, for Hand & Foot System	1
1138-38	Star Screwdriver for 1.5mm Screws - Hand & Foot System	1
1138-39	Star Screwdriver for 2.0mm Screws - Hand & Foot System	1
1138-40	Star Screwdriver for 2.4/2.7mm Screws - Hand & Foot System	1
1138-35	Container for Hand & Foot Instrument & Implant set	1

**USA**

Auxein Inc.
1500 Nw 89th Court, Suite 107-108
Doral, Florida 33172
Tel: +1 305 395 6062
E Fax: +1 305 395 6262
Email: USoffice@auxein.com

MEXICO

Auxein México, S.A. de C.V.
Tepic 139 int 801, Colonia Roma Sur,
Alcaldía Cuauhtémoc, CDMX,
México, C.P. 06760
Tel: +521 55 7261 0318
Email: info@auxein.mx

INDIA

Auxein Medical Pvt. Ltd.
Plot No. 168-169-170, Phase-4,
Kundli Industrial Area,
HSIIDC, Sector-57, Sonapat - 131028, Haryana
Tel: +91 99106 43638 | Fax: +91 86077 70197
Email: info@auxein.com