

SURGICAL KIT/LAYOUT

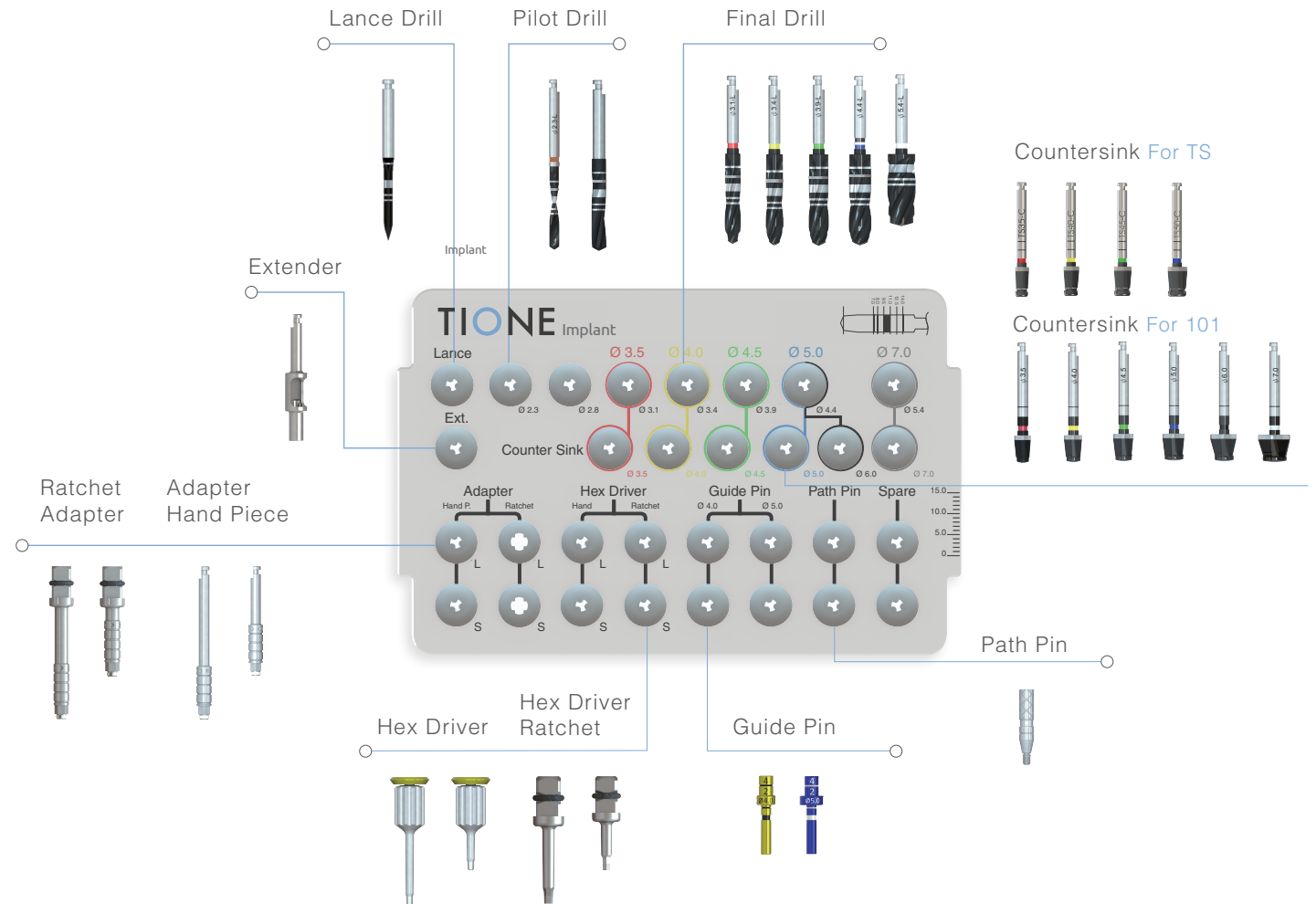
■ Standard Kit



Torque Ratchet



Depth Gauge



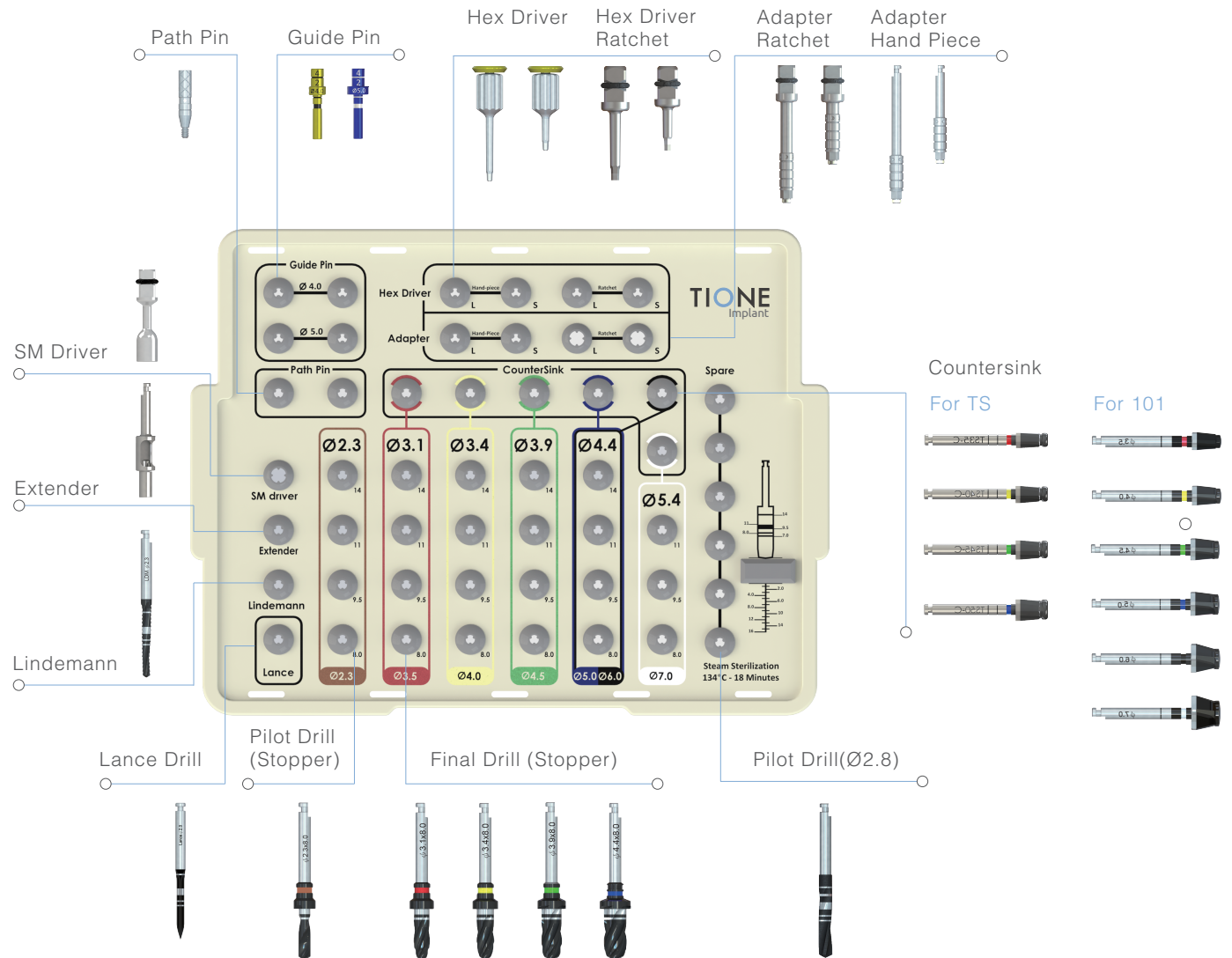
Premium Kit



Torque Ratchet



Depth Gauge

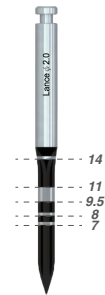


INSTRUMENT SPECIFICATION

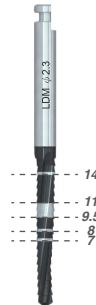
Instrument Information

- Drills with Diamond-Like Coating
- Color-Code management
 - ● Ø3.5 - ● Ø4.0 - ● Ø4.5
 - ● Ø5.0 - ● Ø6.0 - ● Ø7.0
- Stainless steel material
- Drills are compatible with both 101/TS system
- Drills are consumables, should be replaced after used 40 times
- All surgical instruments are Non-Sterilized
- Sterilization at 134°C for 18 mins

Lance Drill(Ø 2.0)



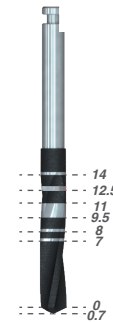
Lindemann



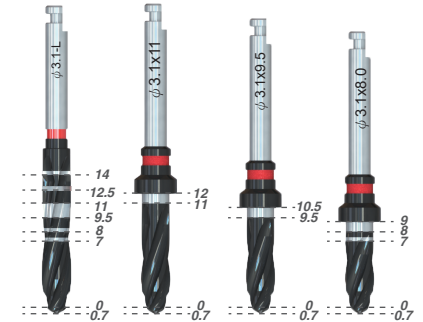
Pilot Drill(Ø 2.3)



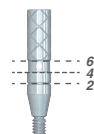
Pilot Drill(Ø 2.8)



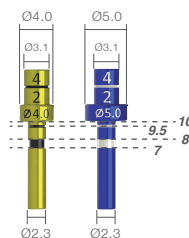
Final Drill (Ø 3.1)



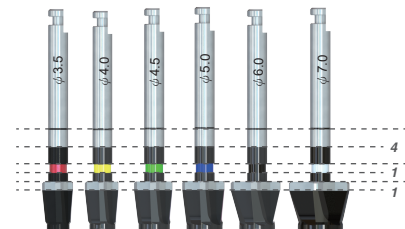
Path Pin



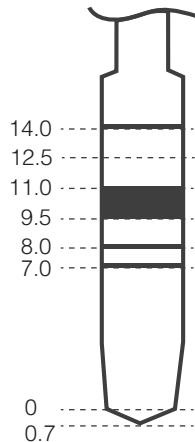
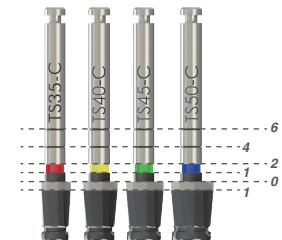
Guide Pin



Countersink For 101



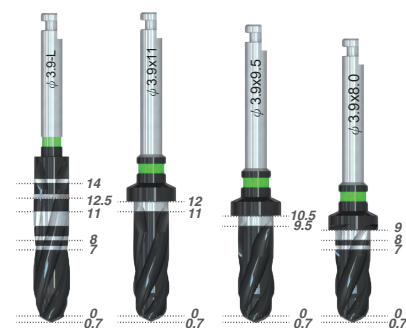
Countersink For TS



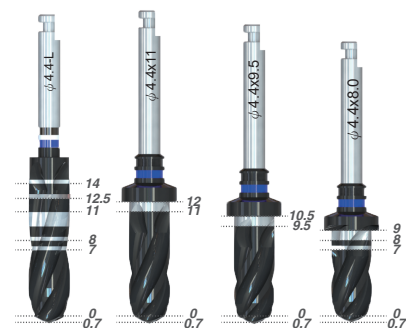
Final Drill (Ø 3.4)



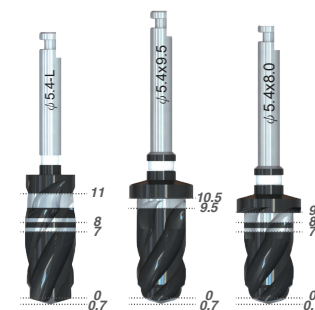
Final Drill (Ø 3.9)



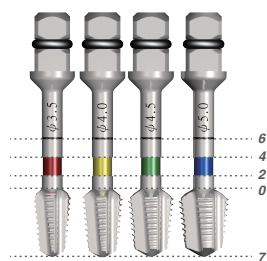
Final Drill (Ø 4.4)



Final Drill (Ø 5.4)

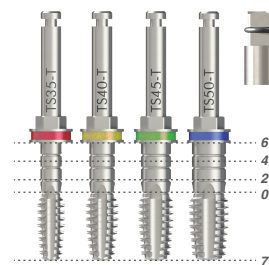


Tap For 101



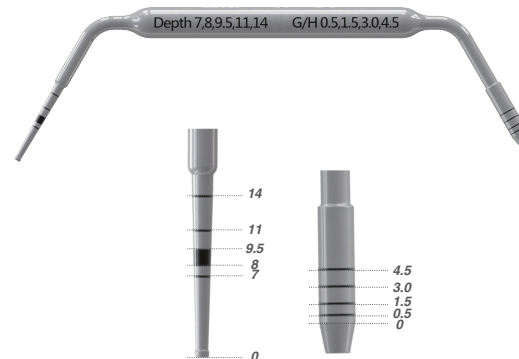
※ Optional

Tap For TS



※ Optional

Depth Gauge



Torque Ratchet



IMPLANT/SPECIFICATION

■ “101” System

- Color-Code Management

- ● Ø3.5 - ● Ø4.0 - ● Ø4.5

- ● Ø5.0 - ● Ø6.0 - ○ Ø7.0

- Special packing prevents implants from being contaminated



Fixture Size (Unit : mm)	Ø3.5	Ø4.0	Ø4.5	Ø5.0	Ø6.0	Ø7.0
Fixture Body (Diameter : Ømm)	Ø3.3	Ø3.8	Ø4.3	Ø4.8	Ø4.8	Ø5.8
Fixture Bevel (Unit : mm)	0.15	0.2	0.4	0.5	0.6	0.7
Final Drill (Diameter : Ømm)	Ø2.9	Ø3.3	Ø3.9	Ø4.4	Ø4.4	Ø5.4
Countersink Drill (Diameter : Ømm)	Ø3.6	Ø4.1	Ø4.6	Ø5.1	Ø6.1	Ø7.1

■ “TS” System

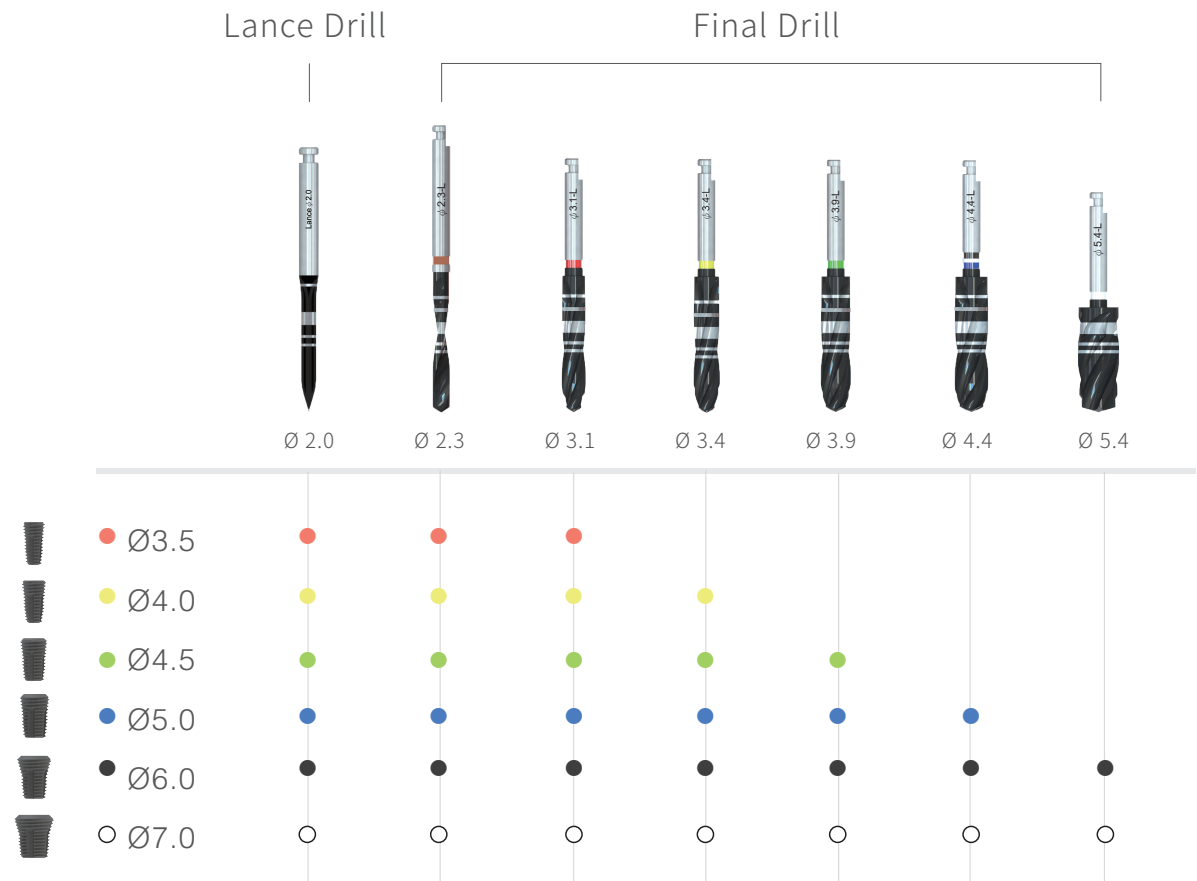
- Color-Code Management
 - ● Ø3.5 - ● Ø4.0
 - ● Ø4.5 - ● Ø5.0
- Special packing prevents implants from being contaminated



Fixture Size (Unit : mm)	Ø3.5	Ø4.0	Ø4.5	Ø5.0
Fixture Body (Diameter : Ømm)	Ø3.3	Ø3.8	Ø4.3	Ø4.8
Fixture Bevel (Unit : mm)	0.15	0.2	0.4	0.5
Final Drill (Diameter : Ømm)	Ø2.9	Ø3.3	Ø3.9	Ø4.4
Countersink Drill (Diameter : Ømm)	Ø3.6	Ø4.1	Ø4.6	Ø5.1

DIMENSIONS CHART

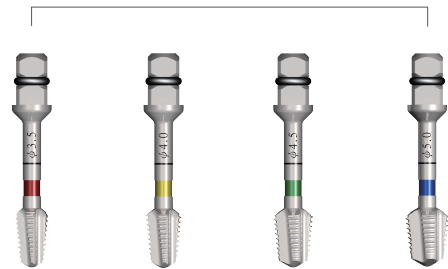
■ Implant/Drill Dimensions Chart



Countersink For 101



Tap For 101



Ø 3.5 Ø 4.0 Ø 4.5 Ø 5.0 Ø 6.0 Ø 7.0



- Ø 3.5
- Ø 4.0
- Ø 4.5
- Ø 5.0
- Ø 6.0
- Ø 7.0

Countersink For TS



Tap For TS



Ø 3.5 Ø 4.0 Ø 4.5 Ø 5.0



- Ø 3.5
- Ø 4.0
- Ø 4.5
- Ø 5.0

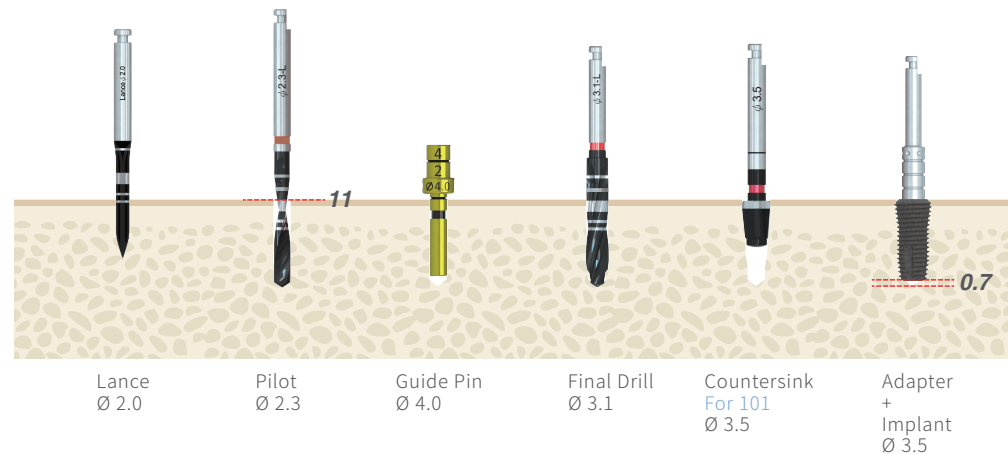
SURGERY PROCEDURES

■ TIONE “101” Operation Guide

- Select the corresponding instrument, according to implant dimensions
- The recommended steps are as follows:

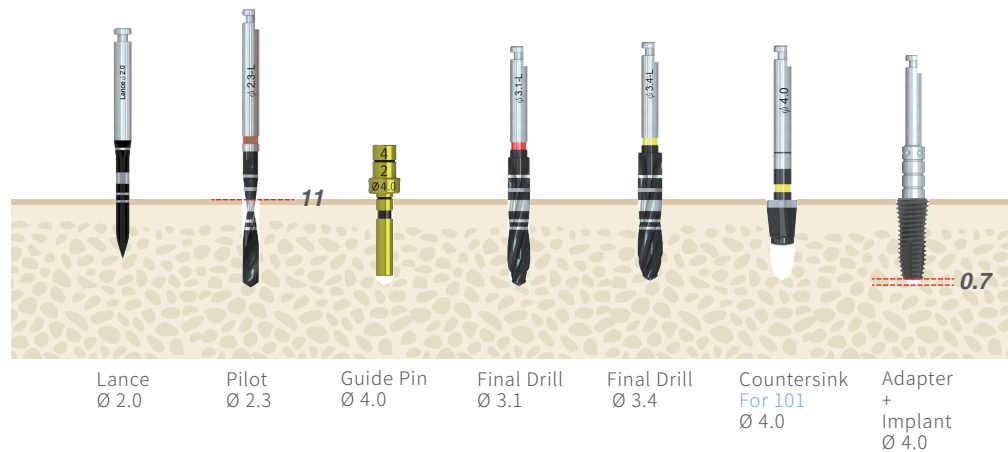
Specification : TIONE “101” Ø3.5 L:11mm

Operation step : Lance→Pilot Drill→Guide Pin→
Final Drill Ø 3.1→Countersink For 101→
Adapter



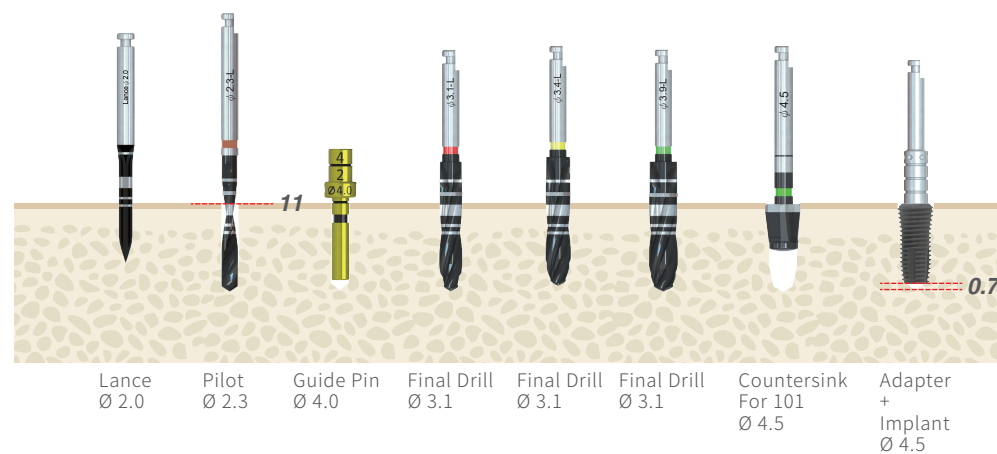
Specification : TIONE “101” Ø4.0 L:11mm

Operation step : Lance→Pilot Drill→Guide Pin→
Final Drill Ø 3.1→Final Drill Ø 3.4→
Countersink For 101→Adapter



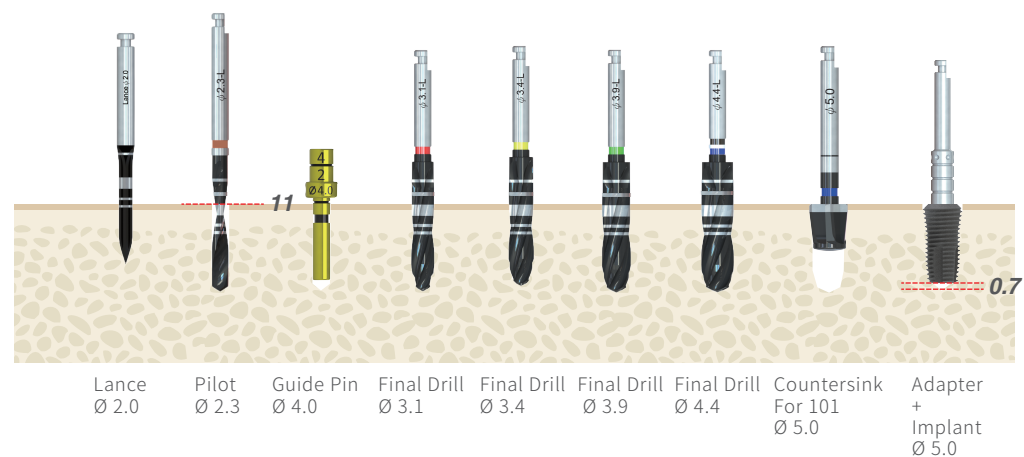
Specification : TIONE "101" Ø4.5 L:11mm

Operation step : Lance→Pilot Drill→Guide Pin→
Final DrillØ 3.1→Final DrillØ 3.4→
Final DrillØ 3.9→Countersink For 101→
Adapter



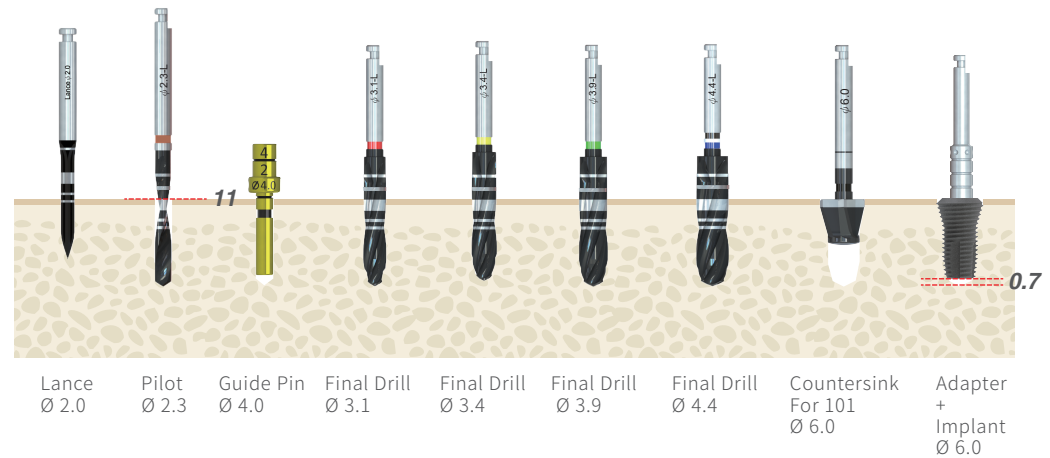
Specification : TIONE "101" Ø5.0 L:11mm

Operation step : Lance→Pilot Drill→Guide Pin→
Final DrillØ 3.1→Final DrillØ 3.4→
Final DrillØ 3.9→Final DrillØ 4.4→
Countersink For 101→Adapter



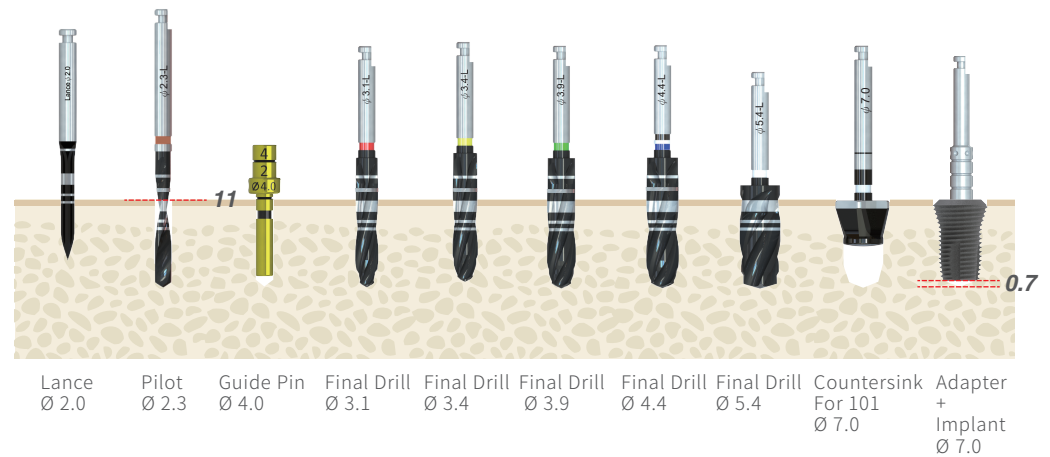
Specification : TIONE "101" Ø6.0 L:11mm

Operation step : Lance→Pilot Drill→Guide Pin→
Final DrillØ 3.1→Final DrillØ 3.4→
Final DrillØ 3.9→Final DrillØ 4.4→
Countersink For 101→Adapter



Specification : TIONE "101" Ø7.0 L:11mm

Operation step : Lance→Pilot Drill→Guide Pin→
Final DrillØ 3.1→Final DrillØ 3.4→
Final DrillØ 3.9→Final DrillØ 4.4→
Final DrillØ 5.4→Countersink For 101→
Adapter

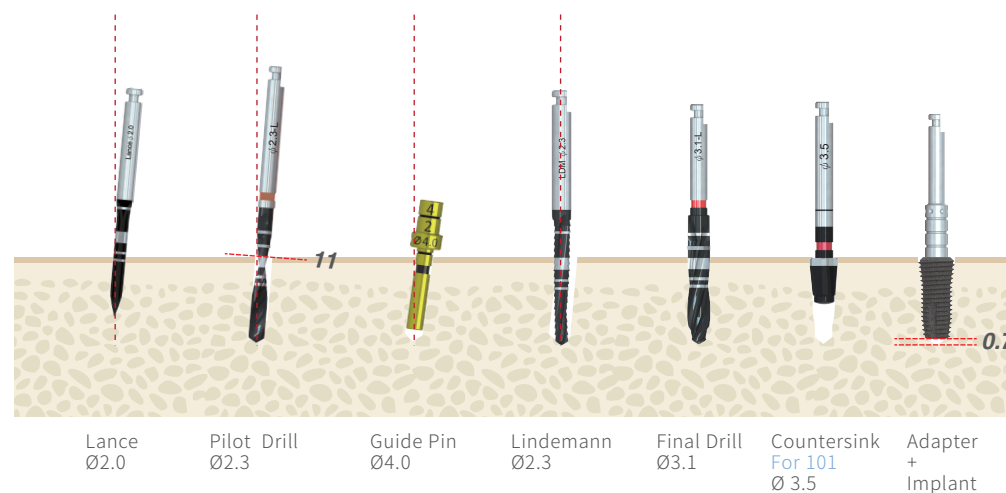


Special case 1. - 101

- If the path is diverted from the unexpected direction, lindemann is used to correct it.

Specification : TIONE "101" Ø3.5 L:11mm

Operation step : Lance→Pilot Drill→Guide Pin→
Lindemann→Final Drill Ø 3.1→
Countersink For 101→Adapter

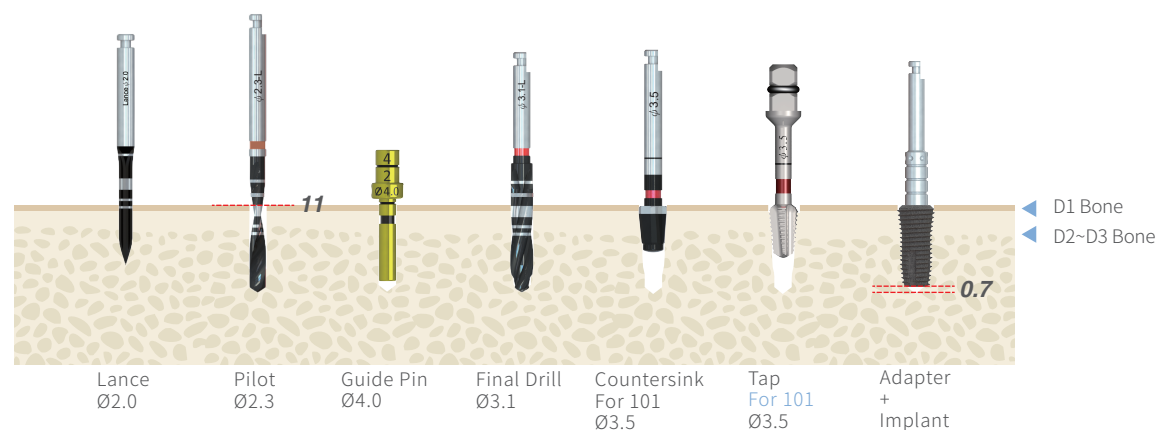


Special case 2. - 101

- Tap will be recommended, when Countersink still not successfully in very high bone density

Specification : TIONE "101" Ø3.5 L:11mm

Operation step : Lance→Pilot Drill→Guide Pin→
Lindemann→Final Drill Ø 3.1→
Countersink For 101→
Tap For 101 Ø3.5→Adapter



* Ø6.0/Ø7.0 Tap is not provided in TIONE IMPLANT SYSTEM

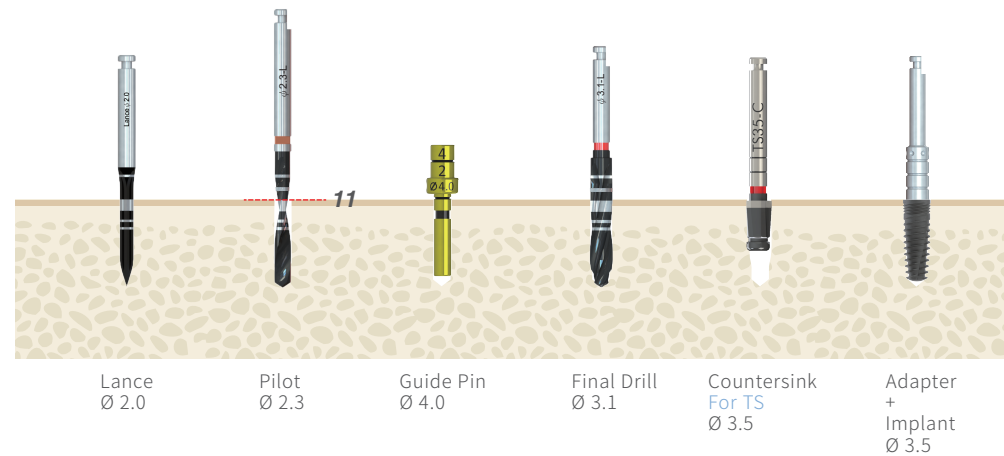
* Ø6.0/Ø7.0 Implants are not recommended use for very high density bone.

■ TIONE “TS” Operation Guide

- Select the corresponding instrument, according to implant dimensions
- The recommended steps are as follows:

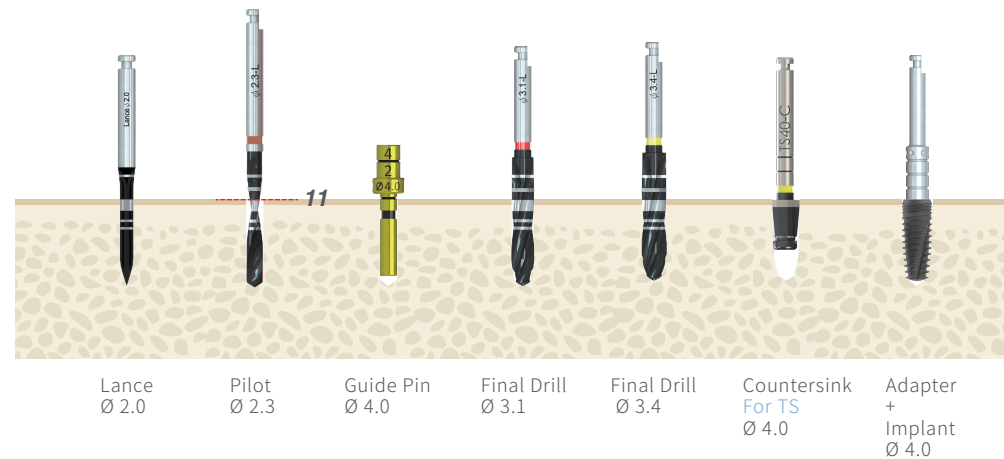
Specification : TIONE “TS” Ø3.5 L:11mm

Operation step : Lance→Pilot Drill→Guide Pin→
Final DrillØ 3.1→Countersink For TS→
Adapter



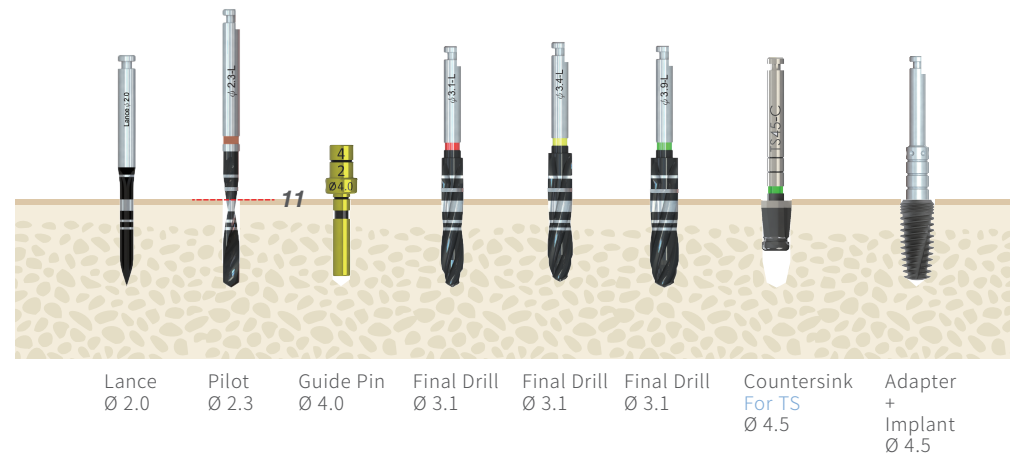
Specification : TIONE “TS” Ø4.0 L:11mm

Operation step : Lance→Pilot Drill→Guide Pin→
Final DrillØ 3.1→Final DrillØ 3.4→
Countersink For TS→Adapter



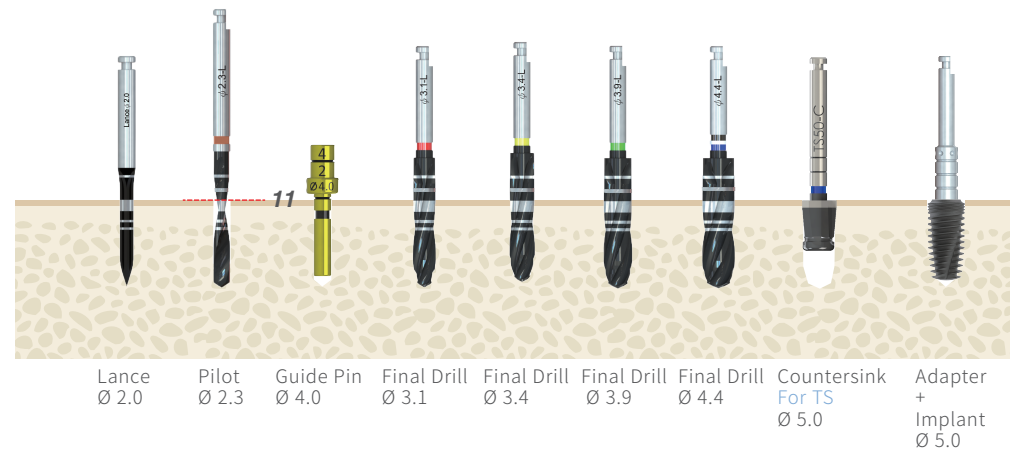
Specification : TIONE "TS" Ø4.5 L:11mm

Operation step : Lance→Pilot Drill→Guide Pin→
Final DrillØ 3.1→Final DrillØ 3.4→
Final DrillØ 3.9→Countersink For TS→
Adapter



Specification : TIONE "TS" Ø5.0 L:11mm

Operation step : Lance→Pilot Drill→Guide Pin→
Final DrillØ 3.1→Final DrillØ 3.4→
Final DrillØ 3.9→Final DrillØ 4.4→
Countersink For TS→Adapter

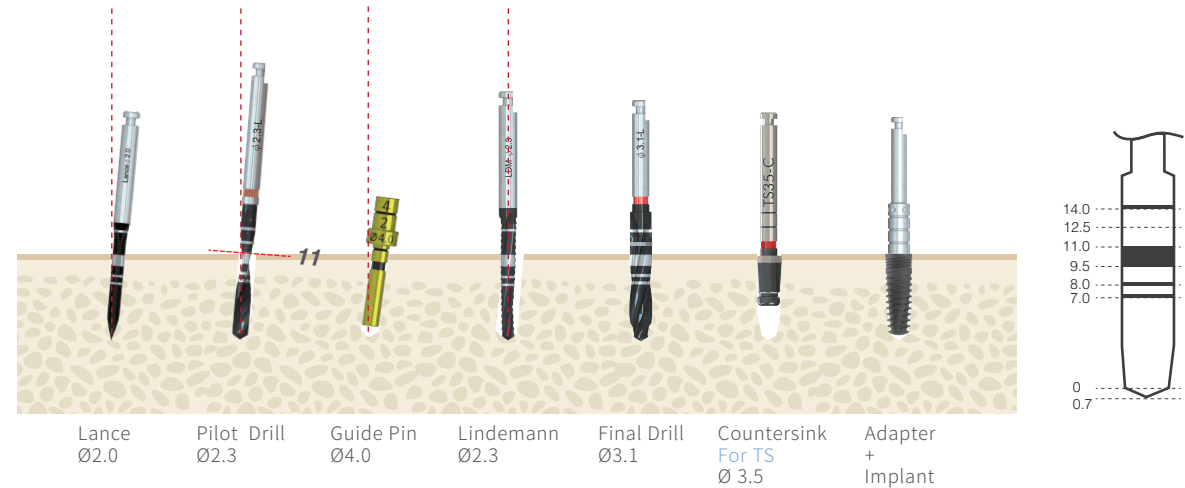


■ Special case 1. - TS

- If the path is diverted from the unexpected direction, lindemann is used to correct it.

Specification : TIONE "TS" Ø3.5 L:11mm

Operation step : Lance→Pilot Drill→Guide Pin→
Lindemann→Final DrillØ 3.1→
Countersink For TS→Adapter

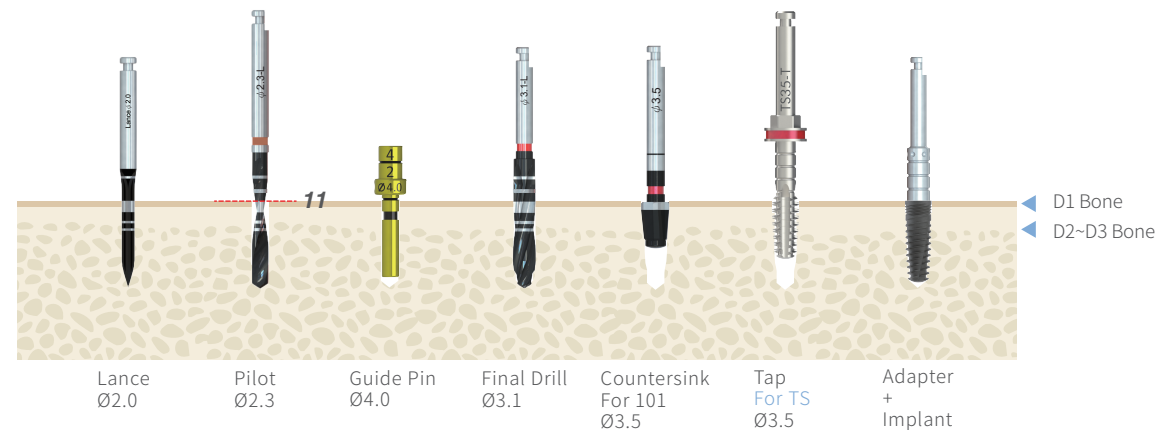


■ Special case 2. - TS

- Tap will be recommended, when Countersink still not successfully in very high bone density

Specification : TIONE "TS" Ø3.5 L:11mm

Operation step : Lance→Pilot Drill→Guide Pin→
Lindemann→Final DrillØ 3.1→
Countersink For TS→
Tap For TS→Adapter



* Ø6.0/Ø7.0 Tap is not provided in TIONE IMPLANT SYSTEM

* Ø6.0/Ø7.0 Implants are not recommended use for very high density bone.

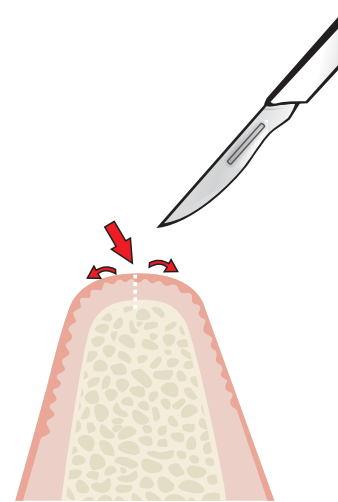
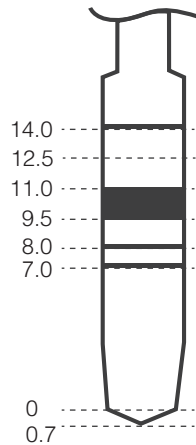
ENJOY YOUR ~~SURGERY~~



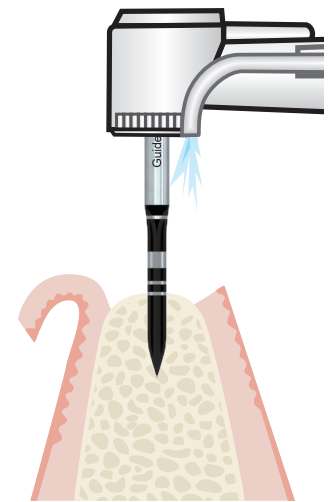
SURGERY/GUIDE

■ TIONE “101” Surgery Step Analysis

Example : TIONE “101” Ø4.5 L:11mm



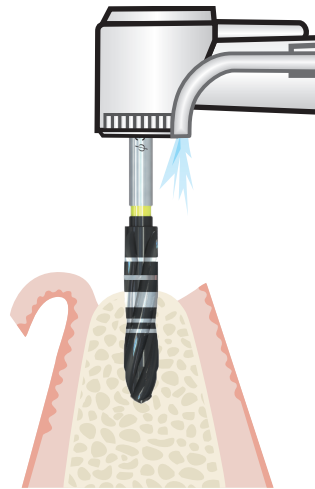
1. Slit



2. Locate

It is important to select the proper incision line while cutting through the gum and periosteum for obtaining the excellent final result.

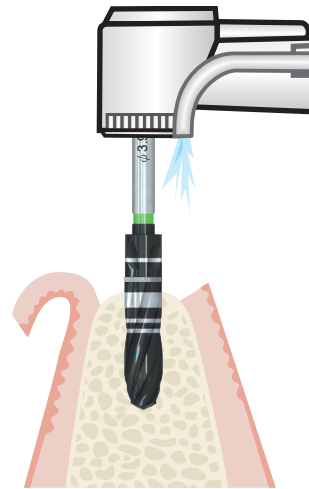
Use Lance drill to locate the point.



6. Expansion drilling Ø4.0

Use Ø3.4mm final drill to reaming for Ø4.0mm implant.

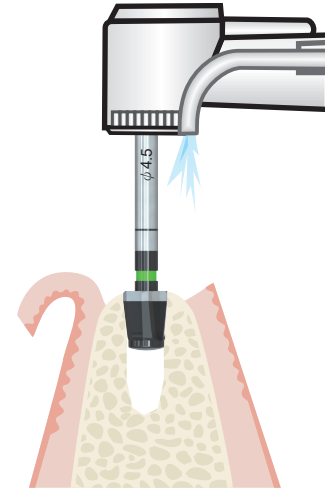
*Recommended rotation speed is 800~1000rpm



7. Expansion drilling Ø4.5

Use Ø3.9mm final drill to reaming for Ø4.5mm implant.

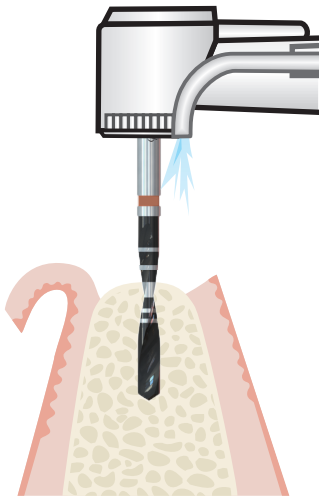
*Recommended rotation speed is 800~1000rpm



8. Countersink Ø4.5

Countersink drill is necessary. For crestal bone and expanding diameter 0.15mm wider than the implant platform.

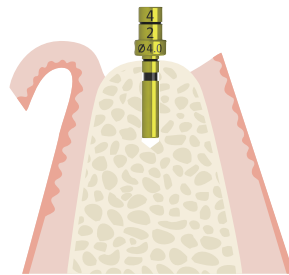
*Recommended rotation speed is 800~1000rpm



3. Pilot Drilling

Explore the proper position marked previously and drill the planned depth by using the Ø2.3mm Pilot Drill.

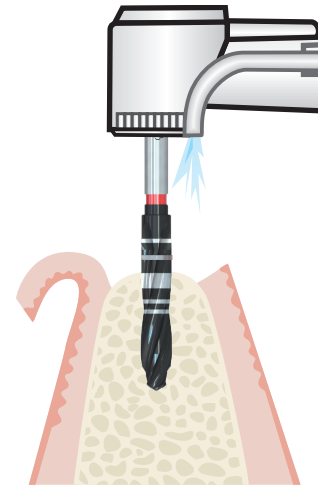
*Recommended rotation speed is 800~1000rpm



4. Position Check

Insert the Ø4.0mm Guide Pin to exam the depth and occlusal position for implant.

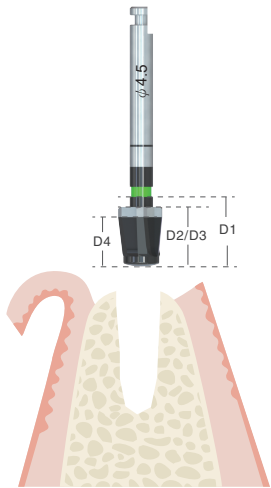
*Modification can be done by using the lindemann drill



5. Expansion drilling Ø3.5

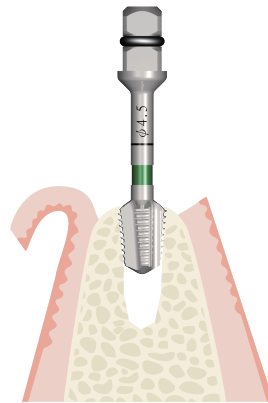
Use Ø3.1mm final drill to reaming for Ø3.5mm implant.

*Recommended rotation speed is 800~1000rpm



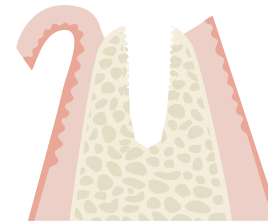
8-1. Countersink

The illustration shows the relative position of countersink and bone type.



9. Tapping Ø4.5

For dense bone, Tap Drill will be suggest to use after countersink. To prevent bone overstress cause osteonecrosis and shallow reabsorption pits.



10. Completed Drilling

Complete drilling process, ready for placing the implant.

■ Surgery Step Analysis(Packing)

TIONE Implant are packed in double sterile package. After the accelerated age testing for 5 years, this specifically developed packaging system proved to be very successfully in preserving the hygienic structure of the product perfectly.

- Cover Screw is in the bottle
- The aseptic vacuum sealed foil bag can effectively prevent interferences caused by any factors.

101

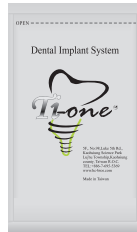


TS



11. Box

Double check the specification before start.



12. First Aseptic Packing

vacuum sealed bag or blister package.

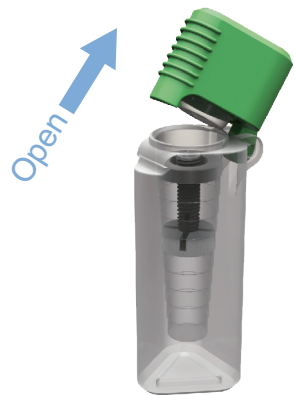


Open



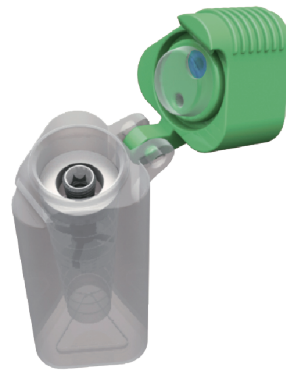
13. Open Aseptic Packing

Take out the bottle from vacuum sealed bag or clamshell. Gently place the bottle onto the sterilized surgical area to prevent contamination.



14. Open Bottle

Smart-Open Designed. Open bottle within one hand, easier and smarter.



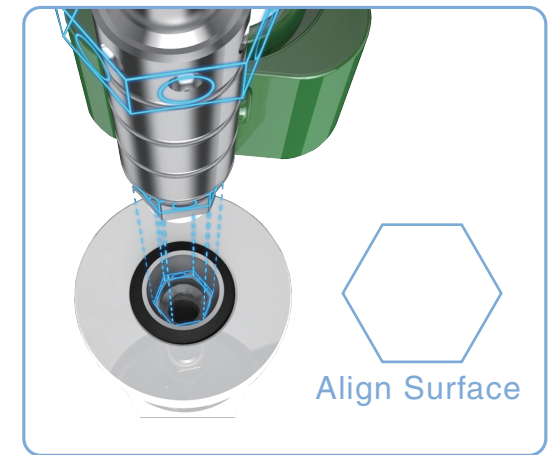
15. Check

Double check the appearance by eye.



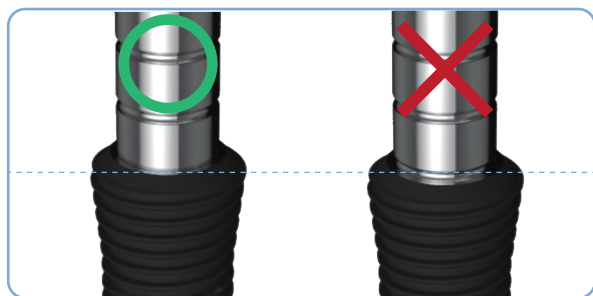
16. Adapter

Connect the implant with the hand-piece adapter or ratchet adapter.



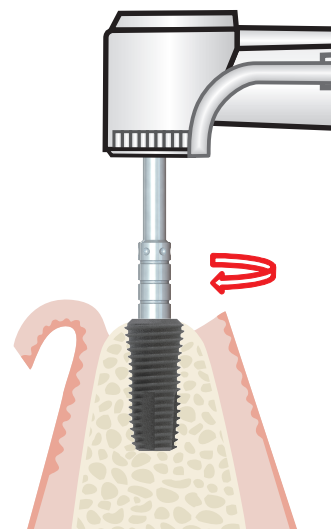
16-1. Hex Connection

Adapter has to fit into the internal hex of the implant to carry the implant



17. Connect Implant

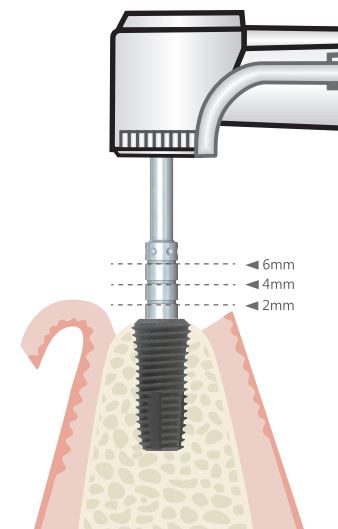
The connection should be complete combination.



18. Place Implant

Placing the implant by using hand-piece.

* Recommended rotation speed is 20~30rpm within 30~35 N-cm



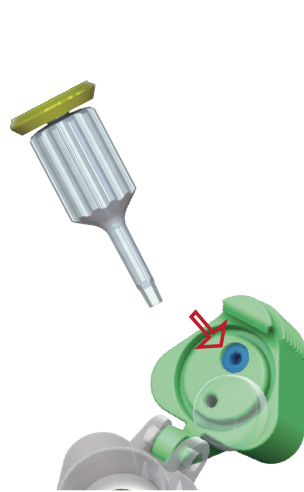
19. Determination of Platform Level

Platform of the implant is 0.5~1mm lower than the compact bone(cortical bone) to prevent the peri-implant bone resorption.

* If the torque is too high, re-expansion is suggested to be done again.

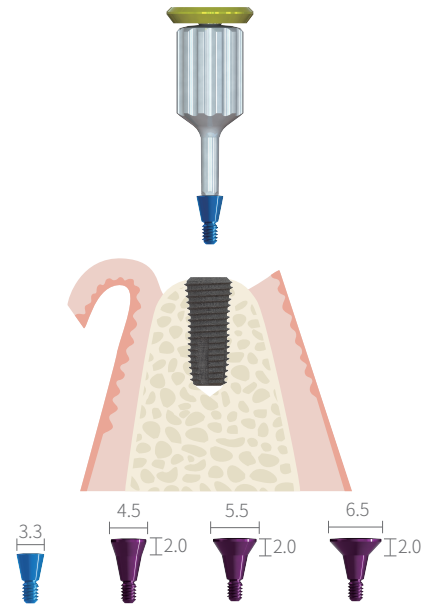
TWO STAGE ~~ONE~~ STAGE

TWO-STAGE SURGRAY



19-1-1. Lid Remove

Remove the lid and use hex driver to remove the blue cover screw carefully.

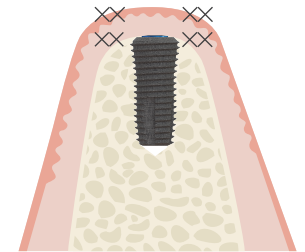


19-1-2. Place Cover Screw

If submerged healing is planned, the cover screw must be placed after the implant.

Use hex driver with finger force of 10~15 N-cm to tighten the cover screw.

Purple cover Screw is Optional

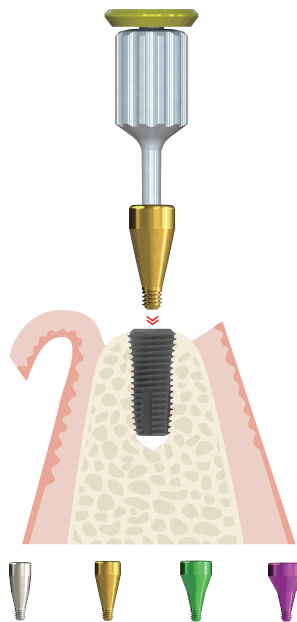


19-1-3. Suture

Reposition the gum with suture.

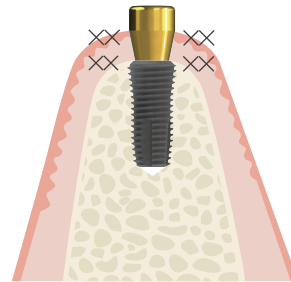
Recommended rotation speed is 20~30rpm within 30~35 N-cm

ONE-STAGE SURGRAY



Ø4.0mm / Ø4.5mm / Ø5.5mm / Ø6.5mm

19-2-1. Place Healing Screw



19-2-2. Suture

When the circumstance is allowed, an exposed healing screw with appropriate diameter and high can be used to prevent micro-resorption of alveolar due to repeated flap.

Select the healing screw at appropriate diameter and height.

Using the hex driver with finger force 10~15N-cm to fasten into implant.

Reposition the gum with suture

After soft tissue healed, gingival will be shaped formed with the healing screw exposed(2mm above soft tissue)

ABUTMENT/IMPRESSION

■ Abutment Impression Steps

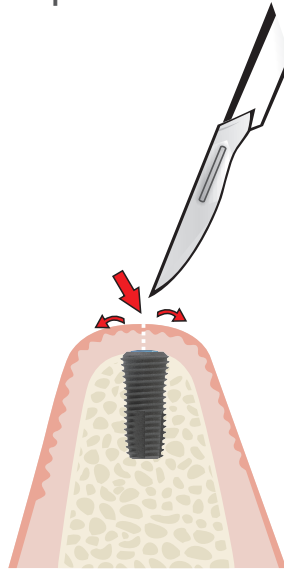
- Suitable for below Abutment:



S1

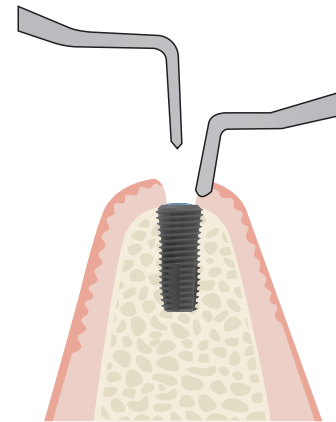


S2



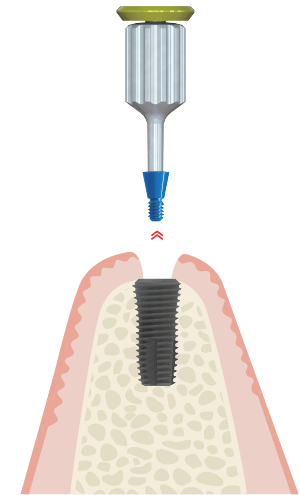
1. Incision Marking

Before making an incision, dental explorer or periodontal probe can be used to locate the exact position of the Cover Screw.



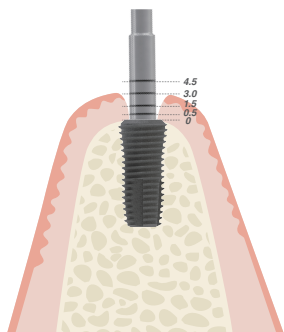
2. Gingival Flap Operation

Flap is elevated along the incision. If bone growth extends onto the Cover Screw, round bur or dental explorer should be used to remove it.



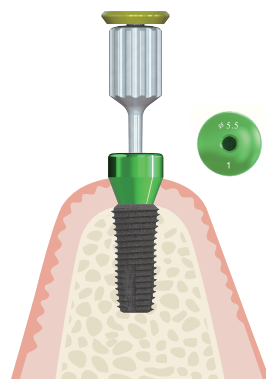
3. Remove Cover Screw

Cover screw is removed with the Hex Driver in a counter clockwise direction.



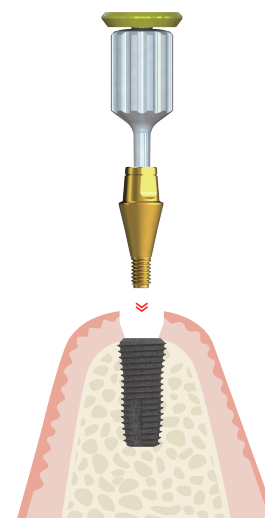
4. Measuring of Gingival Depth

Measure the gingival depth with the Depth Gauge, then select the appropriate size for both Healing Screw and Abutment. The scales on the Depth-Gauge are 0.5mm, 1.5mm, 3.0mm and 4.5mm, respectively.



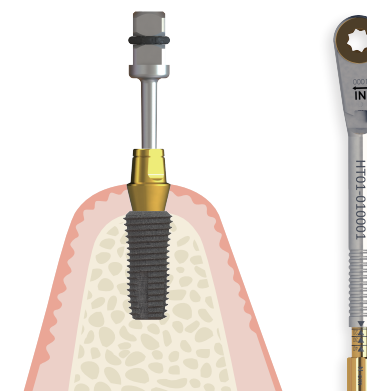
5. Remove Healing Screw

Thread the selected Healing Screw into the Implant by using the Hex Driver with finger force in a clockwise direction. Remove the Healing Screw after the gingival contour forms in seven to fourteen days.



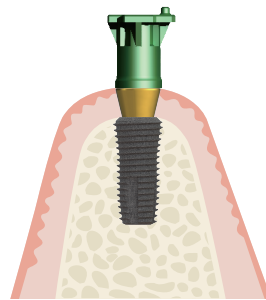
6. Place Abutment

Place the selected Abutment when gingival formation completes. Use the Hex Driver with finger force to thread the Abutment into the Implant in a clockwise direction.



7. Torque On

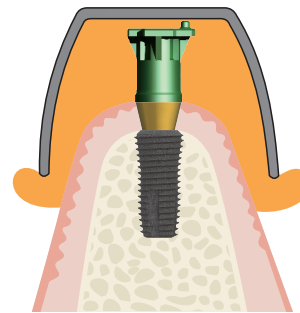
Preset the Torque Ratchet at 30 ~ 35 N-cm. Turn the Torque Ratchet in a clockwise direction to thread the Abutment into the Implant. The Universal Torque Ratchet will bend once it reaches the preset torque. To avoid exceeding the suggested torque, it is not necessary to tighten the Abutment any further. The bending motion is shown below:



8-1-1. Impression Taking

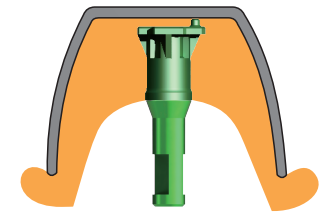
Line up the protrusion on the flat end of the Impression Coping with the flat surface on the Abutment. Snap the Impression Coping over the Abutment until feeling and hearing the audible and tactile click.

The protrusion on the impression coping aids in determining the correct position when placing it onto the Abutment



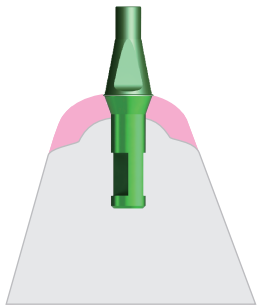
8-1-2. Impression Transferring

Remove the impression tray from the patient's mouth after the impression material is set per the manufacturer's instruction. The Impression Coping will be picked-up in the impression.

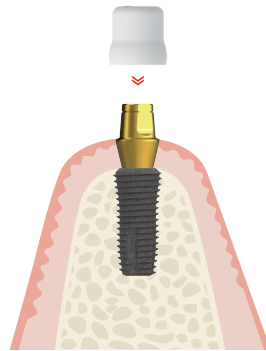


8-1-3. Insert Analog

Line up the flat side of the Abutment Analog with the flat surface in the Impression Coping and snaps it into the Impression Coping.



8-1-4. Cast Fabrication



8-1-5. Place Temporary Cap

Place the soft tissue material around the Abutment Analog to replicate the gingival contour before pouring. Send the Wax-Up Coping along with the working cast to the laboratory for further fabrication after the working cast is set.

After impression taking, evaluate the necessity for placing the Temporary Cap. Protect the Abutment by snapping the Temporary Cap onto the Abutment.

OPEN TRAY/IMPRESSION

■ Open Tray Impression Steps

- Suitable for below Abutment:



S2



Angel



Smiler



Narrow



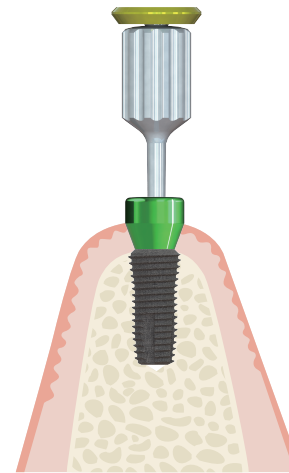
UCLA



Ti-Base

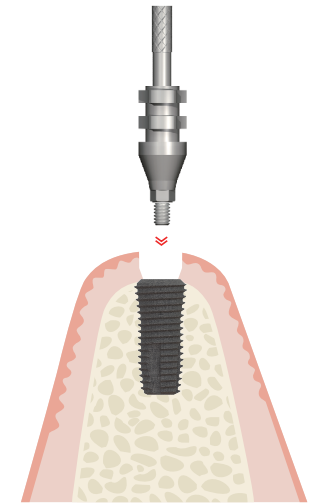


Temporary



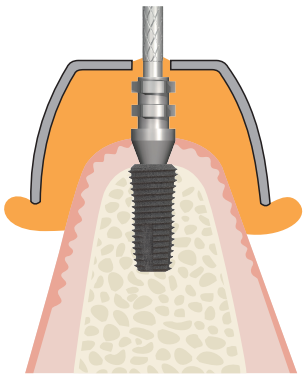
1. Remove Healing Screw

Hex Driver is turned with finger force in a counterclockwise direction to remove the Healing Screw.



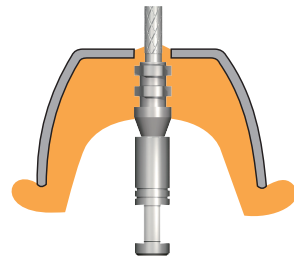
2. Select Open Tray

Select the appropriate length and diameter for the Open Tray and the Transfer Pin. Apply finger force on the Transfer Pin in a clockwise direction to thread the OpenTrayCoping into the Implant.



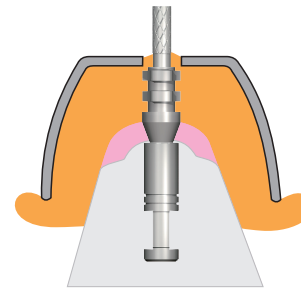
3. Prepare the Impression Tray

Prepare the customized impression tray by creating access hole for the Transfer Pin. Apply preferred impression material around the Open Tray. After the impression material is set, loosen the Transfer Pin in a counterclockwise direction and remove the customized impression tray from patient's mouth. The Open Tray Coping will be picked up in the impression.



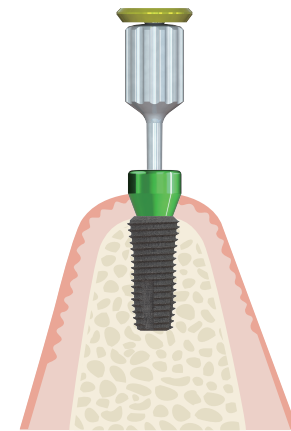
4. Connect the Implant Analog

Use the hexagonal locator on the Open Tray Coping to line up with the Implant Analog and tighten them with the Transfer Pin by turning it in a clockwise direction.



5. Cast Fabrication

Place the soft tissue material around the Open Tray Coping to replicate the gingival contour before pouring cast. Send the selected Abutment Analog along with the working cast to the laboratory for further fabrication when ready.



6. Place Back Healing Screw

CLOSED TRAY/~~IMPRESSION~~

■ Closed Tray Impression Steps

- Suitable for below Abutment:



S2



Angel



Smiler



Narrow



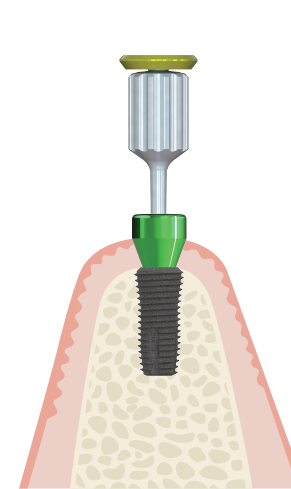
UCLA



Ti-Base

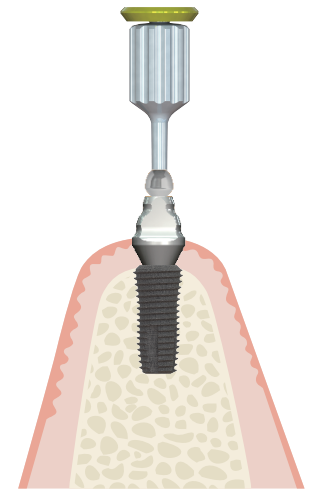


Temporary



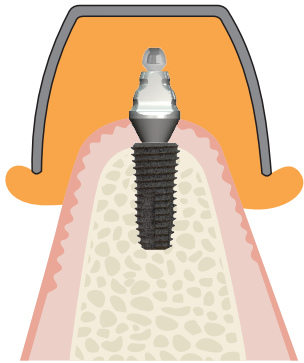
1. Remove Healing Screw

Hex Driver is turned with finger force in a counterclockwise direction to remove the Healing Screw.



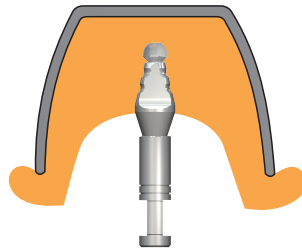
2. Select Close Tray

Select the appropriate length and diameter for the Closed Tray and the Transfer Pin. Thread the Closed Tray Coping into the Implant with the Transfer Pin in a clockwise direction. Hex driver aids in tightening the Transfer Pin further when necessary.



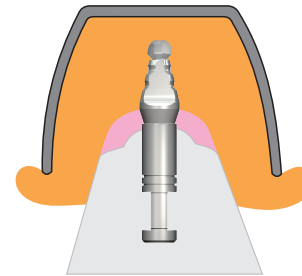
3. Impression Transferring

Select the preferred impression material for impression taking. After the impression material is set, the impression tray is removed from the patient's mouth while the Transfer Pin stays inside of the patient's mouth.



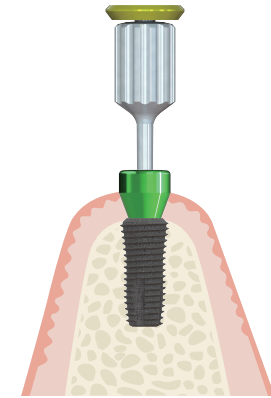
4. Connect Implant Analog

Remove the Closed Tray Coping from patient's mouth by applying finger force on the Transfer Pin in a counterclockwise direction. Use the hexagonal locator on the Closed Tray Coping to line up with Implant Analog and connects them with the Transfer Pin by turning it in a clockwise direction and squeeze them back into the impression.



5. Cast Fabrication

Place the soft tissue material around the Open Tray Coping to replicate the gingival contour before pouring cast. Send the selected Abutment Analog along with the working cast to the laboratory for further fabrication when ready.



6. Place Back Healing Screw

Thread the Healing Screw back into the Implant while waiting for fabrication of the prosthesis.

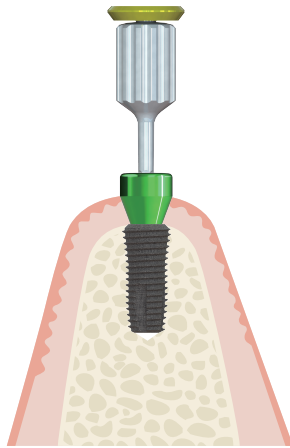
SCREWMAN/IMPRESSION

■ Screwman Open Tray Impression Steps

- Suitable for below Abutment:

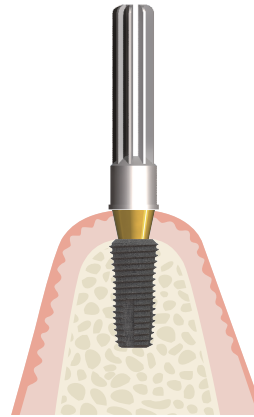


Screwman



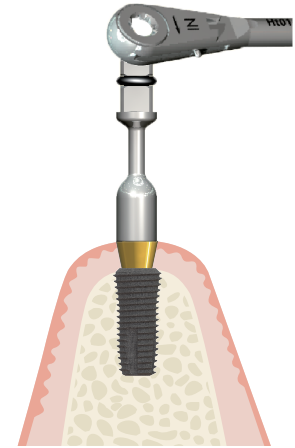
1. Remove Healing Screw

Hex Driver is turned with finger force in a counterclockwise direction to remove the Healing Screw.



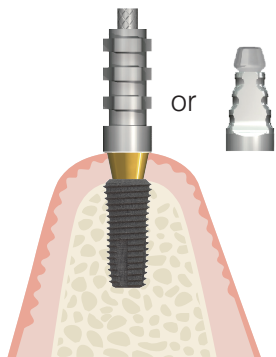
2. Place Screwman

Use the hexagonal locator on the Delivery Holder to line up with the Screwman Abutment. Thread the Screwman Abutment with the Implant by applying finger force on the Delivery Holder and tightens it in a clockwise direction.



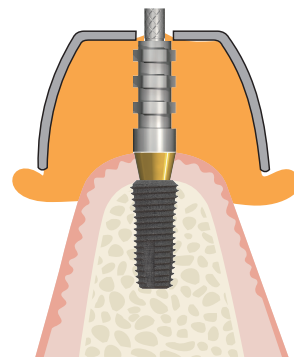
3. Torque On

Preset the Torque Ratchet at 30 ~ 35 N-cm. Turn the Torque Ratchet in a clockwise direction to tighten the Screwman Abutment. The Universal Torque Ratchet bends once the preset torque is reached.



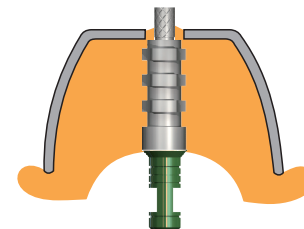
4. Select

Select appropriate length and diameter for Screwman Open Tray / Screwman Closed Tray. Choose the impression taking method according to the type of tray is used. Thread the Screwman Open Tray / Closed Tray into the Screwman Abutment in a clockwise direction with finger force on the Transfer Pin.



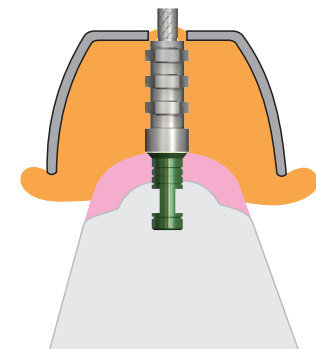
4-1.1. Impression Transferring

Prepare the customized impression tray by creating access hole for the Transfer Pin. Choose the preferred impression material. After the impression material is set, loosen the Transfer Pin in a counter-clockwise direction and remove the customized impression tray from patient's mouth. The Open Tray Coping will be picked-up in the impression.



4-1.2. Place Back Screwman Analog

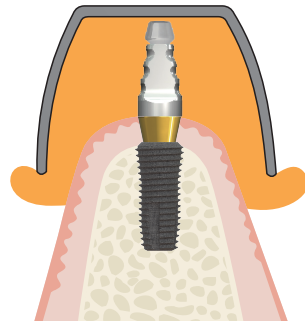
Thread the Healing Screw back into the Implant while waiting for fabrication of the prosthesis.



4-1.3. Cast Fabrication

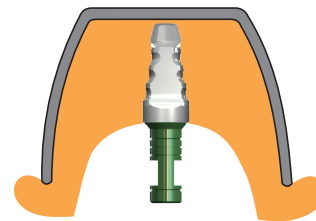
Place the soft tissue material around the Screwman Abutment analog to replicate the gingival contour before pouring cast.

■ Screwman Closed Tray Impression Steps



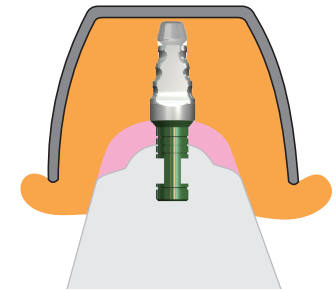
4-2.1. Impression Transferring

Select the preferred impression material. After the impression material is set, the impression tray is removed from the patient's mouth while the Screwman Closed Tray stays connected with the Screwman Abutment.



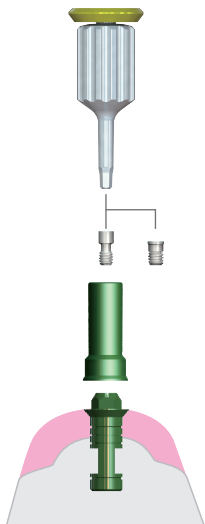
4-2.2. Place Back Screwman Analog

Remove the Screwman Closed Tray from the patient's mouth by applying finger force on the Transfer Pin in a counter-clockwise direction. Use the hexagonal locator on the Screwman Close Tray to line up the Screwman Analog. Turn the Transfer Pin in a clockwise direction with finger force to thread the Screwman Analog into the Close Tray Coping and squeeze them back into the impression.



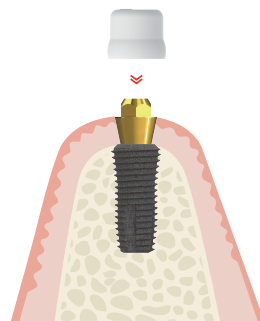
4.2.3. Cast Fabrication

Place the soft tissue material around the Screwman Abutment Analog to replicate the gingival contour before pouring cast.



5. Select Wax-up

Send the Screwman Wax-Up Coping along with the working cast to the laboratory for further fabrication when ready . Note:Ti-Retaining Screw can be used as an alternative for Screwman Abutment.



6. Place Temporary cap

After impression taking is finished, snap the Screwman Temporary Cap on the Screwman Abutment for protection.

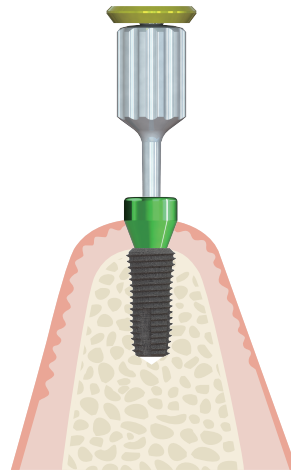
BALLTYPE/IMPRESSION

Balltype Impression Steps

- Suitable for below Abutment:

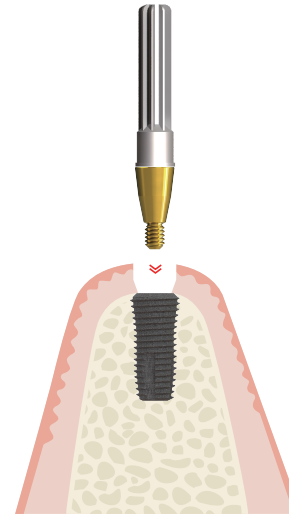


Ball Type



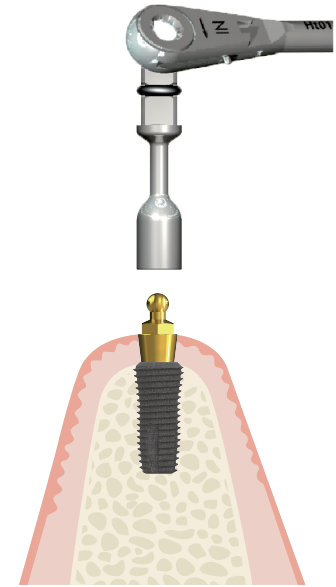
1. Remove Healing Screw

Hex Driver is turned with finger force in a counterclockwise direction to remove the Healing Screw.



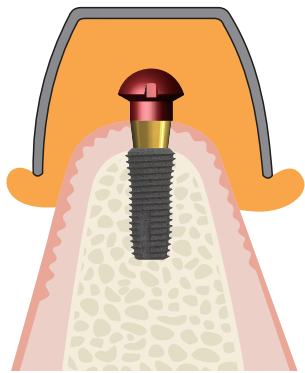
2. Place Balltype

Hexagonal locator on the Delivery Holder is used to line up with the Ball Type Abutment. Thread the Ball Type Abutment with the Implant by applying finger force on the Delivery Holder and tightens it in a clockwise direction.



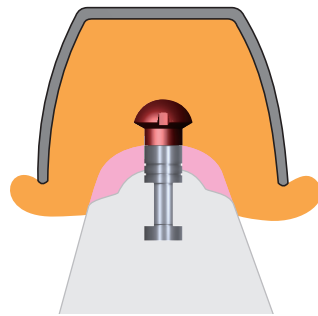
3. Torque On

Preset the Universal Torque Ratchet at 30 ~ 35 Ncm. Torque is applied onto the abutment when Universal Torque Ratchet is turned in clockwise direction and bends once the preset torque is reached.



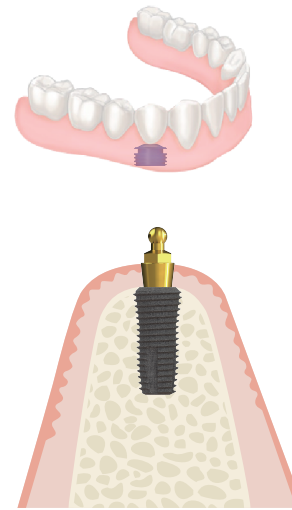
4. Impression Transferring

Transfer cap is snapped onto the Ball Type Abutment . Preferred impression material is selected After the impression material is set, remove the impression tray from the patient's mouth and the TransferCap will be picked-up in the impression. Line up the hexagonal surface inside of the Transfer Cap with the Ball Type Abutment Analog and snaps it into the impression.



5. Cast Fabrication

Place the soft tissue material around the abutment analog to replicate the gingival contour before pouring cast. Send the Cap along with the working cast to the laboratory for further fabrication when ready.



6. Place Cap

Insert the complete denture onto the Ball Type Abutment.