OSSTEM IMPLANT

Surgical Manual

Taper Ultra KIT

Introduction

Welcome,

and thank you for choosing Osstem Implant products. This catalogue is designed to support dental professionals with product information, clinical workflows, and practical guidance for daily use. It is important to inform patients about the option of dental implant treatment and the potential benefits it may provide. For further information, please contact your local Osstem representative.

Important Notice

This document is provided for **informational and educational purposes only** and does not replace the applicable product label, the current product-specific Instructions for Use (IFU), formal clinical training, or independent professional judgment. All product information, specifications, and protocols are subject to change without notice. Not all products may be approved, cleared, released, licensed, or available in all markets. Product illustrations are not shown to scale. Despite careful preparation of this catalogue, typographical, editorial, translation, or printing errors may occur. **All critical information must be verified against the current product-specific IFU and product label before use.**

Electronic IFU (per (EU) 2021/2226)

- Surgical Drill & KIT System is eligible for provision of electronic instructions for use (e-IFU) under Regulation (EU) 2021/2226 for professional users.
- e-IFUs are available at [website URL: ifu.osstem.com] in the official languages required by the Member State(s) where the device is placed on the market.
- The e-IFU content is consistent with the paper version; all updates are promptly reflected in both versions.
- If requested, a paper copy of the IFU will be supplied free of charge, within 7 calendar days.
- The e-IFU website maintains historical versions for traceability of all previously applicable instructions.
- Labeling on the product/package indicates the provision of e-IFU and how to access it online.

Surgical Manual | English Edition

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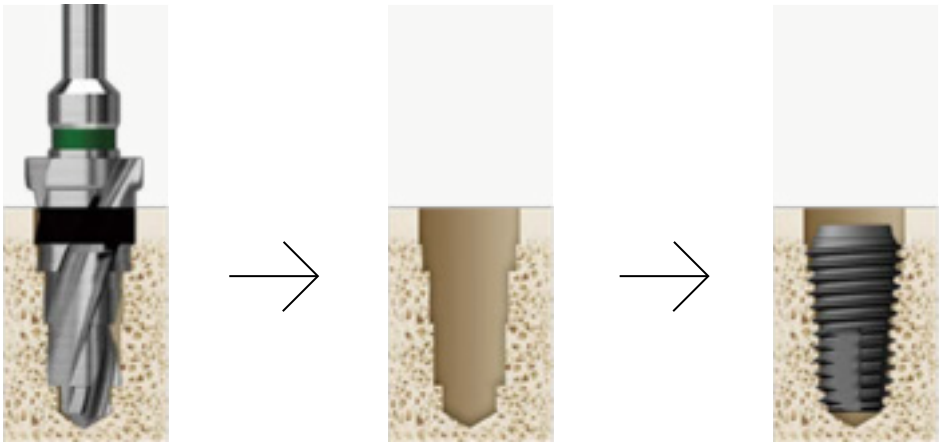
158 00 Prague, Czech Republic

Note: *This brochure is based on the global 2021 Osstem Surgical Manual and has been visually revised and adapted for the European market. Product availability and specifications may vary by country and are subject to change without notice. Images are for illustrative purposes only. For professional use only.*

Taper Ultra KIT

Surgical KIT used to place taper ultra-wide Implants



Create hole using a taper ultra drill

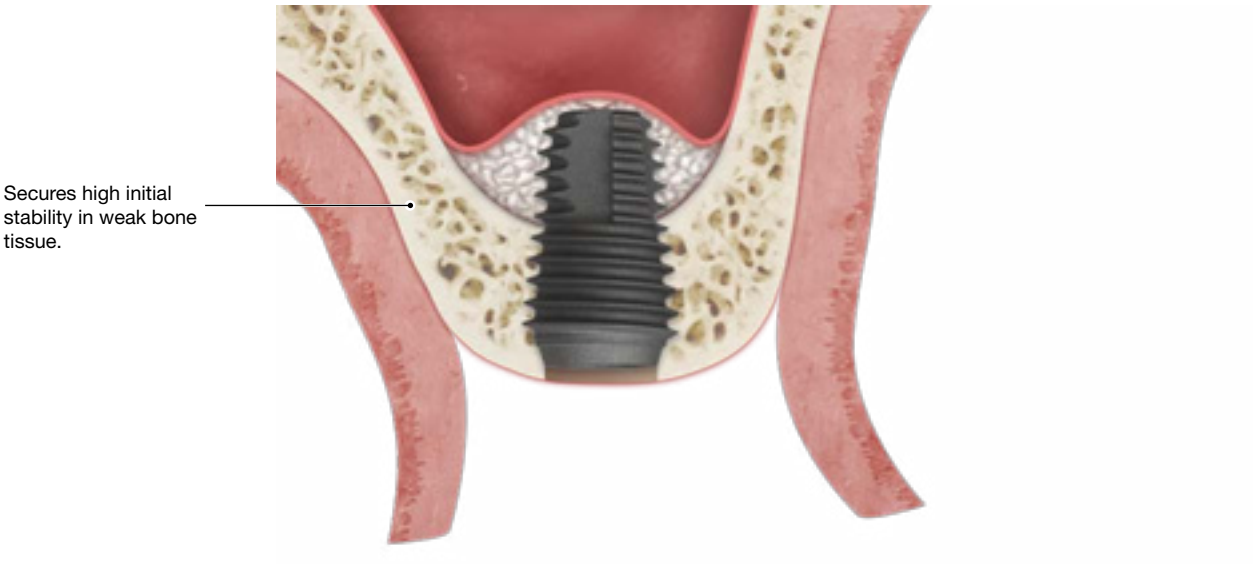
Place taper ultra-wide Implant

System	Diameter (D)	Length (L)
TSIII 	Ø6.0 Ø7.0	6~13mm
TSIV 		7~13mm
KSIII 		6~13mm
SSIII 		6~13mm
USIII 		6~13mm

1 Indication

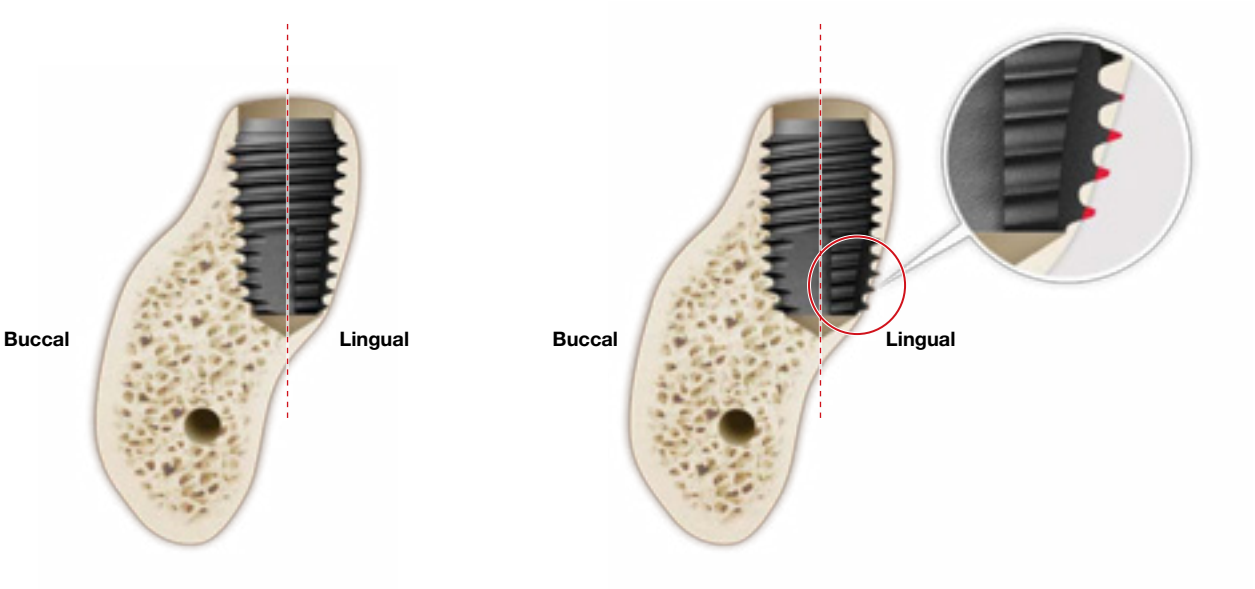
A When placing a Implant in the maxillary sinus or in sites with poor bone quality

· Tapered shape helps secure high initial stability.



B When placing Implant in alveolar bone with a steep slope

· Tapered shape enables Implant placement in alveolar bone with a steep slope.



Tapered Implant

Straight Implant

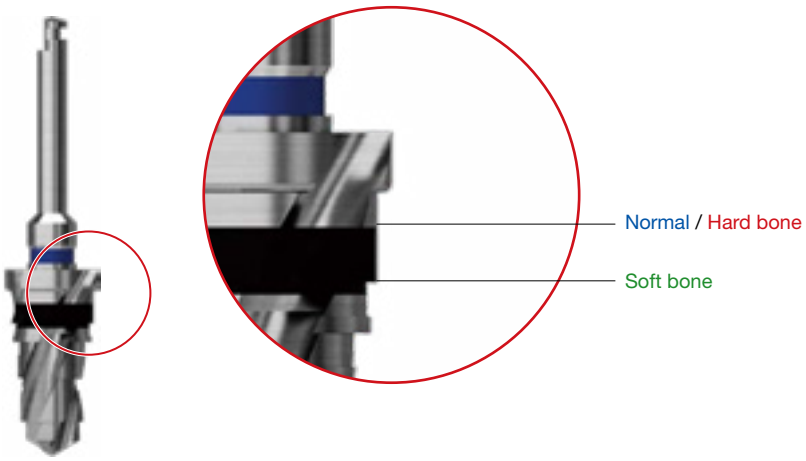
2 Feature

A Easy and quick surgery (Taper ultra drill)

· Multi-stage drilling (no pilot drill required).

· Easy to adjust the placement depth with a stopper drill.

· Drilling depth can be adjusted according to bone tissue.

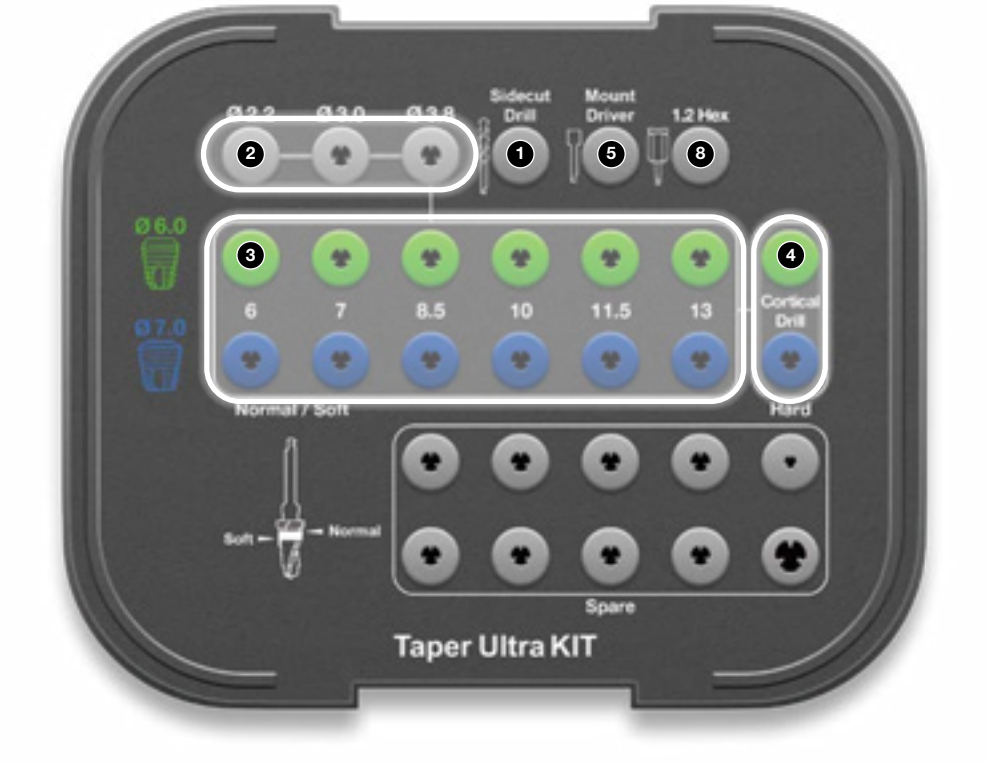


B KIT optimized for taper ultra-wide Implant

3 KIT (included components)

Taper Ultra KIT

Drilling Tool (1~4) | Implant placement tool (5~7) | Superstructure assembly tool (8)



1 Sidecut drill

2 Twist drill

3 Taper ultra drill

F6.0

F7.0

4 Cortical drill

5 Mount driver

6 Open wrench (bottom panel component)

7 Ratchet wrench (bottom panel component)

8 Hand driver

4 KIT (user instructions)

When placing an implant, it is composed of a tool that forms a drilling hole.

❶ SideCut drill

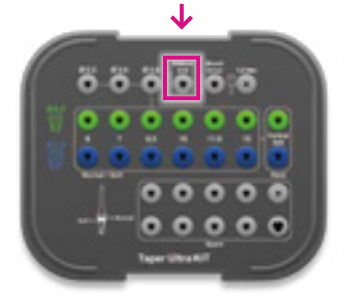
❷ Twist drill

❸ Taper ultra drill

❹ Cortical drill

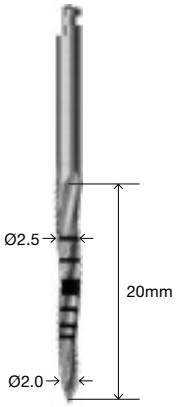
❶ SideCut drill

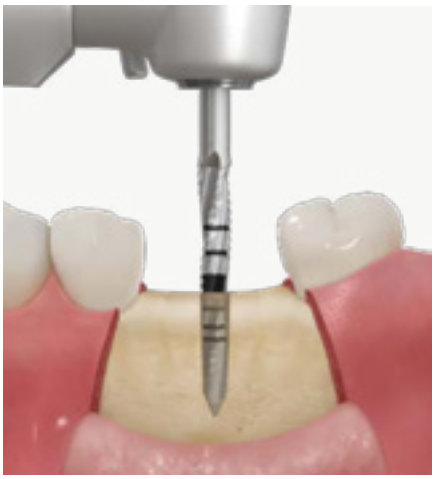
Drill used to correct the path or ream the drilling site.



User instructions

· Assemble the drill to the handpiece.
· Instead of a lance drill, another alternative is to use the tip of the drill to mark the placement position.
· Drill up to the marking line that matches the length of the Implant to be placed.
· Can be used when reaming a drilling hole, to clean up the bone when modifying a path, or when cleaning up the septal bone from an extraction site.
· Recommended RPM is 1,200~1,500rpm.
· Available diameters: Ø2.0

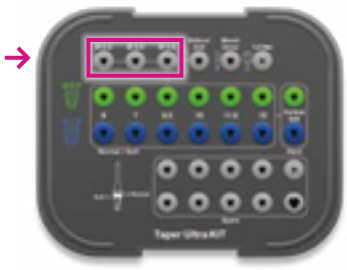




Correct path after initial drilling.

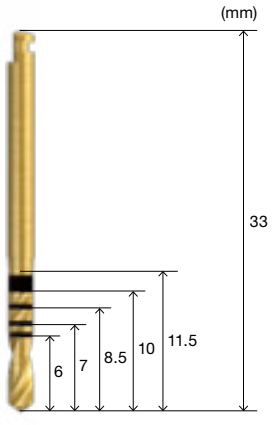
❷ Twist drill

Tool used to check the inner width and depth of the extraction socket and the failed implant socket



User instructions

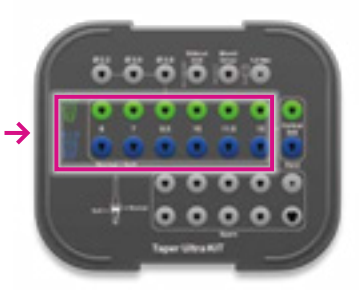
· Assemble the drill to the handpiece.
· Drill up to the marking line that matches the length of the Implant to be placed.
· Recommended RPM (depending on bone tissue): 800~1,200rpm
· Available diameters: Ø2.2, Ø3.0, Ø3.8



Correct path after initial drilling.

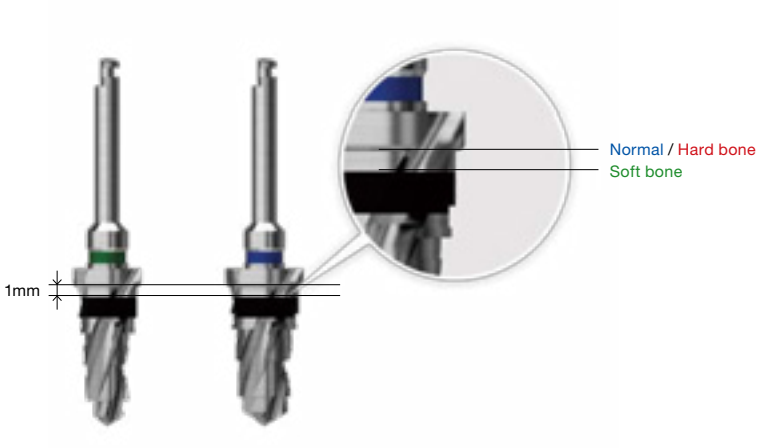
❸ Taper ultra drill (F6.0/F7.0)

Used to form a hole according to the Implant length and diameter



User instructions

· Select a drill suitable for the diameter and length of the Implant to be placed.
· Assemble the drill to the handpiece.
· For normal/hard bone, drill to the top of the marking line, and for soft bone to the bottom of the marking line.
· Recommended RPM (depending on bone tissue): 800~1,200rpm
· Available length specifications: 6, 7, 8.5, 10, 11.5, 13mm
· Available diameters: F6.0, F7.0

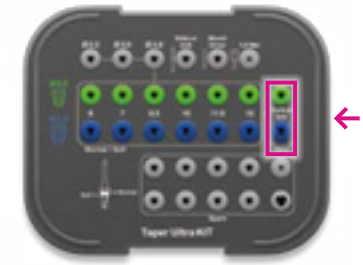


F6.0 F7.0

Drill according to bone tissue.

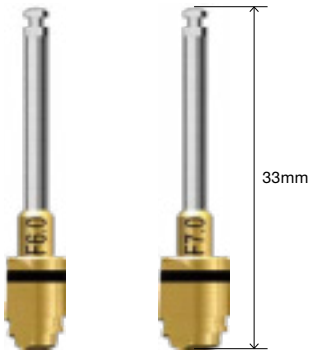
❹ Cortical drill (F6.0/F7.0)

Drill to remove cortical bone to reduce torque when placing Implants in hard bone (prevents torque overload)

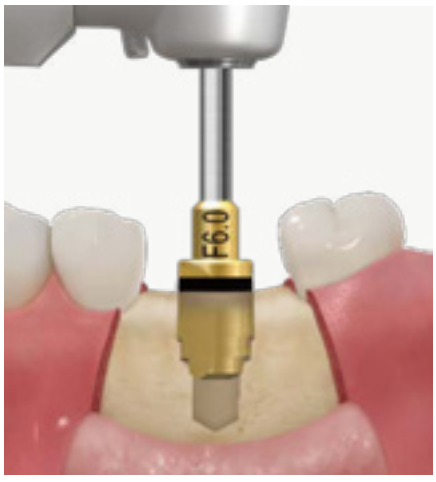


User instructions

· Select a drill with the diameter of the Implant to be placed.
· Assemble the drill to the handpiece.
· Drill down to the lower border of the laser marking line.
· Recommended RPM is 800~1,200rpm.
· Available diameters are F6.0, F7.0



F6.0 F7.0



Remove cortical bone.

It consists of a driver for placing a pre-mounted Implant, a ratchet wrench, and an open wrench used to separate the mount from the Implant.

5 Mount driver

6 Open wrench

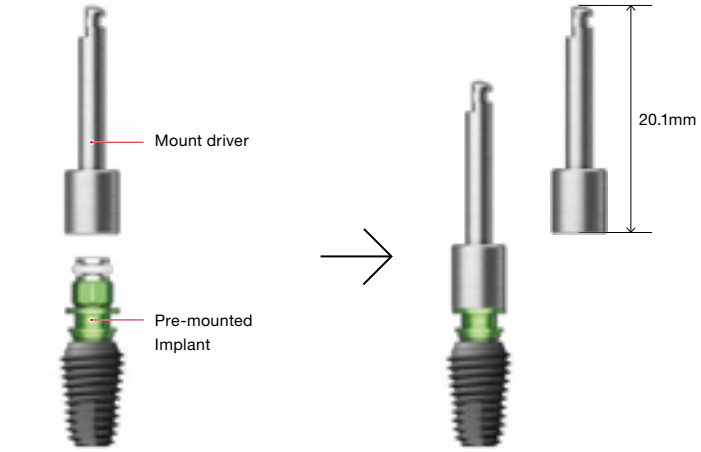
7 Ratchet wrench

❺ Mount driver

Used when installing a pre-mount Implant using an engine.

User instructions

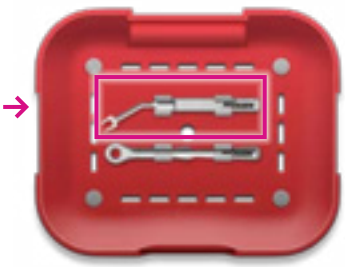
· Assemble the mount driver to the handpiece.
· Assemble the mount driver to the Implant mount and take out the Implant.
· When moving the Implant into the mouth, move it with the Implant facing up so that it does not fall off.
· Place only approx. 80% of the Implant, and adjust the additional depth with the torque wrench.
· Recommended RPM: Max. 50rpm/ Recommended torque: 40Ncm
· Short specification available.



Place Implant using a mount drive.

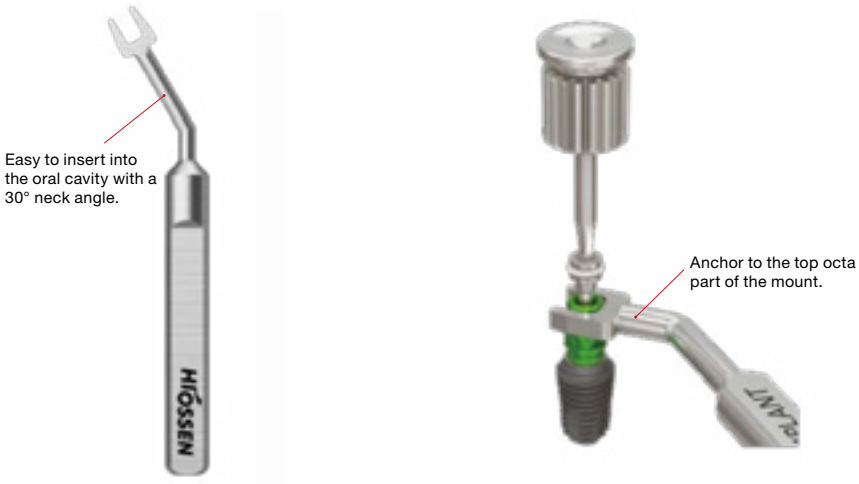
❻ Open wrench

A tool that prevents force from being applied to the Implant when loosening the mount screw



User instructions

· Insert the open part into the octa part of the mount.
· Remove the mount screw with a 1.2 hex hand driver.
· Remove the mount screw, then lower the wrench, and make sure that the concave part of the wrench. The Implant mount can be moved out of the oral cavity by inserting it into the lower part of the octa of the mount.

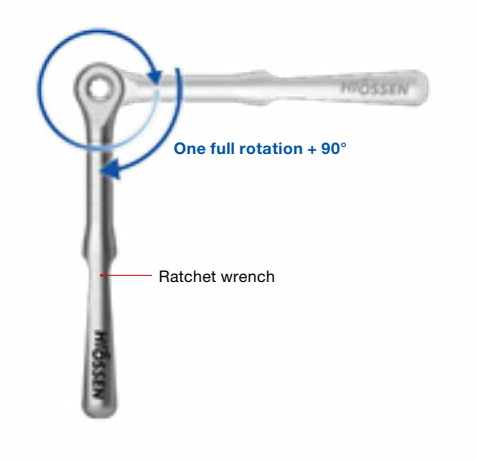


❼ Ratchet wrench

A wrench engine that can apply torque without limitation, and is mainly used for final depth adjustment after Implant placement.

User instructions

· Assemble the torque driver to the ratchet wrench.
· Turn clockwise to finally adjust the depth.
· To place 1mm, turn one full rotation + 90°.



To place 1mm = Lead 1 ¼

Adjust placement depth using ratchet wrench.

Includes a tool used to fasten or remove the cover screw, healing Abutment, and Abutment screw after installation of the Implant.

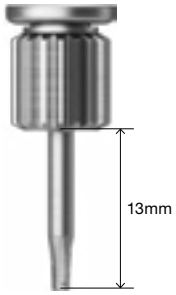
8 Mount driver

❽ Hand driver

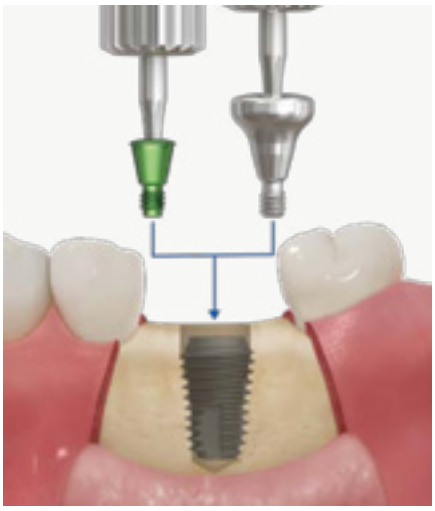
A driver used to tighten or loosen the cover screw, healing Abutment, and Abutment screw by hand after Implant placement.

User instructions

· Insert the hand driver hex with the cover screw or healing Abutment hex.
· To tighten, turn clockwise at 5~8Ncm.
· To loosen, turn counterclockwise.
· If excessive force (above 20Ncm) is applied, hex slip may occur at the tip of the driver or the screw head. Be careful of torque overload.
· When an adult male wears gloves and tightens with his fingers only, he can generate approx. 12 ~ 18Ncm of force (female: 8~12Ncm).
· Available hex specifications: 0.9 hex (long). 1.2 hex (short. long).



When removing a mount



When assembling/removing a cover screw or haling Abutment

5 KIT sequence

Normal bone TSIII Ø6.0×10mm placement (122 Taper KIT+Taper Ultra KIT)

1

Gingival incision

· After the incision, lift the valve to check the treatment area.

2

Mark drilling position (SideCut drill)

· Use the SideCut drill to mark the area where the cortical bone will be drilled by 2~3mm.

· Recommended RPM: 1,200~1,500rpm

3

Initial drilling (SideCut drill)

· Drill up to the 10mm marking line with a SideCut drill

· Sidecut blade makes path modification easy

· Recommended RPM: 1,200~1,500 rpm

4

Check depth (depth gauge)

· After initial drilling, check the depth of the hole and the condition of the bottom.

* Marking line: Use lower border. When marking line is 10, 11.5mm, it is easier to check length.

Ⓝ: Tool number

5

Check drilling position and path (parallel pin)

· After initial drilling, insert a parallel pin into the hole to check the drilling position and path.

6

Ream drilling hole (F3.5x10mm 122 taper drill)

· Full drilling up to the stopper F3.5 × 10mm 122 taper drill.
· Use by connecting a drill extension when caught on adjacent teeth
· Recommended RPM: 800~1,200rpm

7

Check drilling position and path (parallel pin)

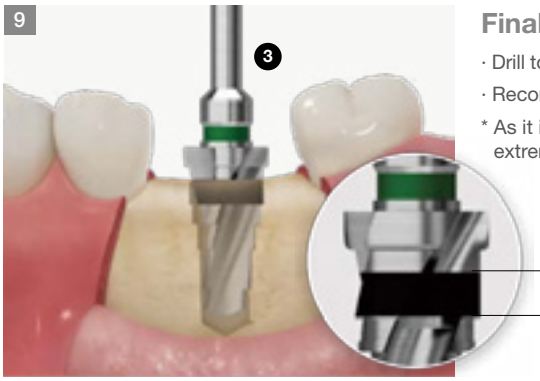
· Check the position and path of the hole after drilling with an F3.5 drill.

8

Ream drilling hole (F5.0×10mm 122 Taper drill)

· Full drilling up to the stopper F5.0 × 10mm 122 taper drill.
· Use by connecting a drill extension when caught on adjacent teeth
· Recommended RPM: 800~1,200rpm

9



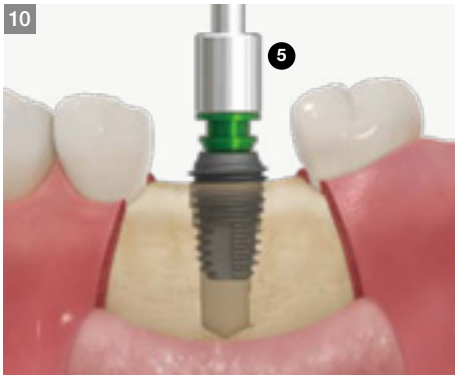
Final drilling (F6.0 × 10mm taper ultra drill)

· Drill to the top of the marking line with an F6.0×b10mm using a taper ultra drill.

· Recommended RPM: 800~1,200rpm

* As it is the final step that determines the size and depth of the hole, exercise extreme precaution.

10



Implant placement (TSIII Ø6.0×10mm)

· After setting the maximum torque of the engine to 40Ncm using a mount driver. Then, place to 80% (up to the second screw thread)

· If the implantation torque is above 55Ncm, bone necrosis or the mount may not be separated.

· Recommended RPM: Max. 50rpm

11

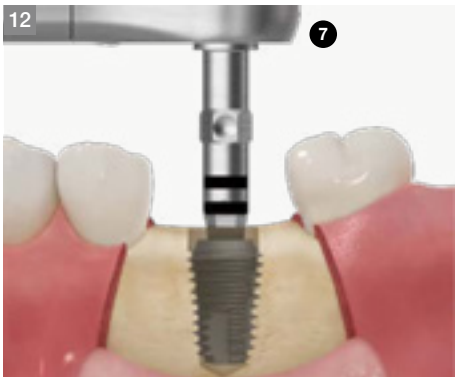
Remove mount (when placing a pre-Mount Implant)

· Remove the mount screw with a 1.2 hex hand driver.

· If the mount screw cannot be removed, it can be separated using a 1.2 torque driver and a torque wrench or a 1.2 machine screw driver (sold separately) and a handpiece.

· When removing the mount, fix the top octa part of the mount with an open wrench so that no torque is applied to the Implant, then loosen the screw to remove.

12

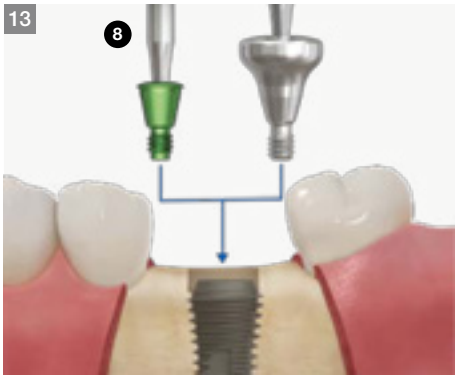


Adjust placement depth

· After fastening the Implant driver to the rachet wrench, turn it clockwise to place the Implant up to 1mm below the bone level. Place Implant up to 1mm below bone level.

· Recommended torque: Max. 30Ncm

13



Assemble cover screw or healing Abutment

· Consider initial fixation force, and fasten the cover screw or healing Abutment with a 1.2 hex hand driver.

14

Suture

· Suture so that soft tissue is not exposed to strong tension.

* In some cases, suture after releasing incision or GBR

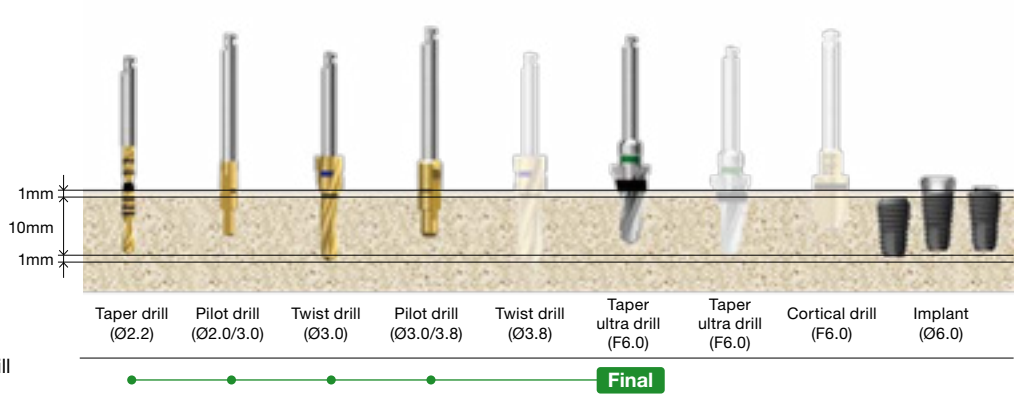
Quick Guide | TSIII, KSIII, SSIII, USIII | New Hanaro KIT + Taper Ultra KIT (Length: 10mm)

Ø6.0×10mm Implant placement

Soft bone

Since bone tissue is soft, use the F6.0 Taper ultra drill as the final drill to drill to the lower border of the marking line to increase bone interference and secure sufficient initial stability.

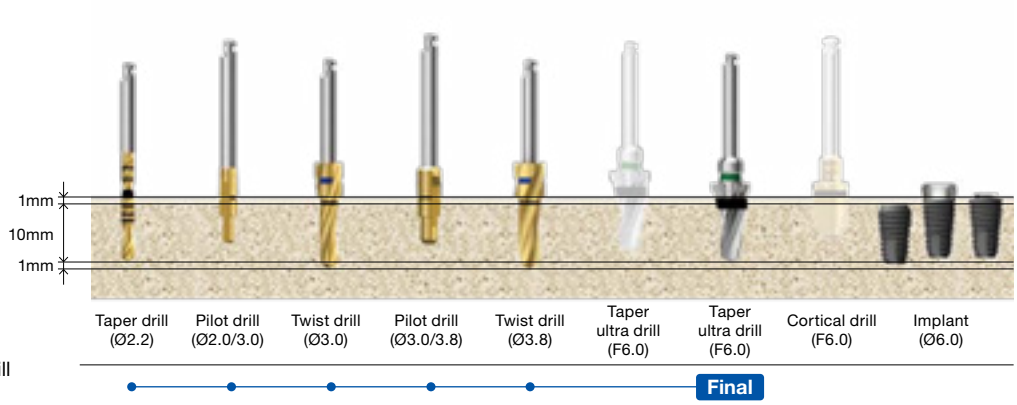
Final drill
F6.0 Taper ultra drill
Lower border



Normal bone

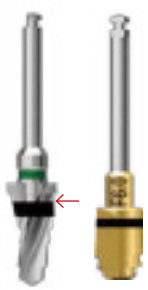
Since bone tissue is good, use a F6.0 taper ultra drill as the final drill and drill a hole to the upper border of the marking line.

Final drill
F6.0 Taper ultra drill
Upper border

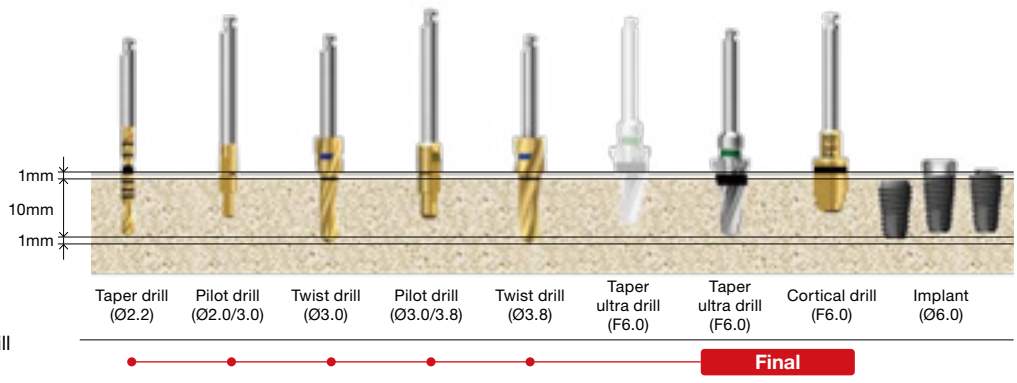


Hard bone

Since bone tissue is hard, use a F6.0 taper ultra drill as the final drill to drill a hole to the upper border of the marking line, and then use a F6.0 cortical drill as the final drill to prevent osteonecrosis and torque overload.



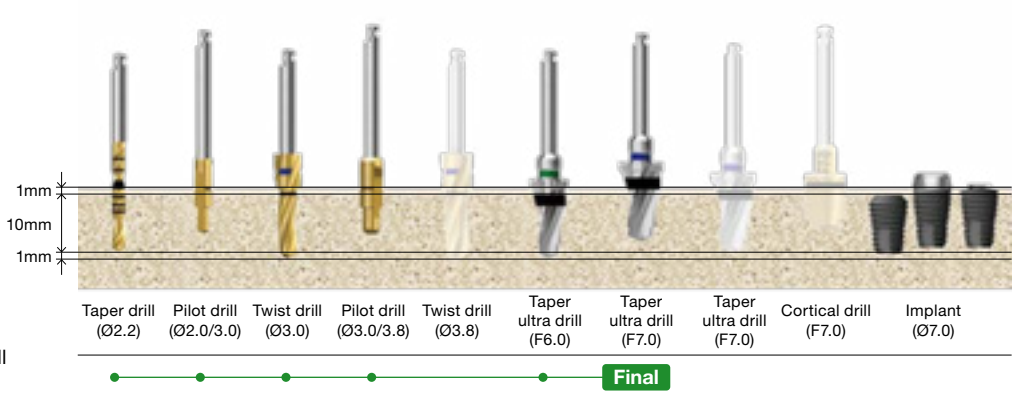
Final drill
F6.0 Taper ultra drill
upper border
+ F6.0 cortical drill



Ø7.0×10mm Implant placement

Soft bone

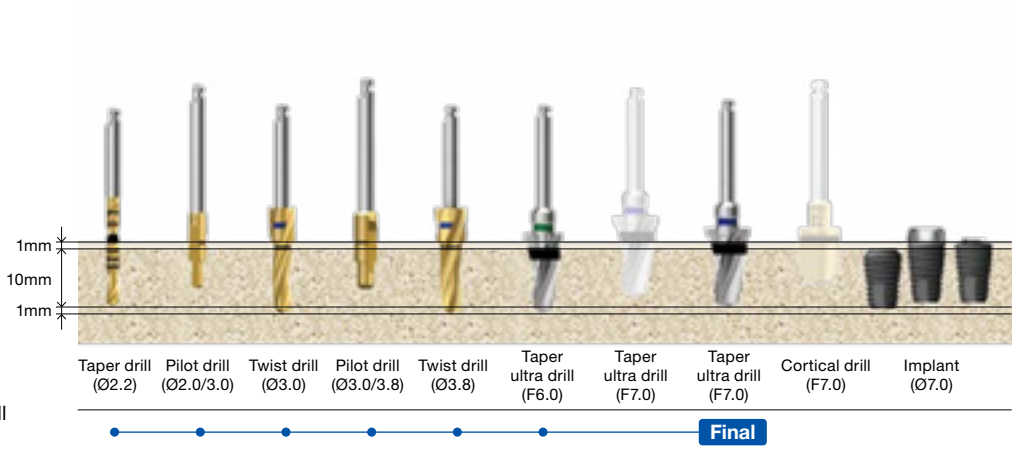
Since bone tissue is soft, use the F7.0 Taper ultra drill as the final drill to drill to the lower border of the marking line to increase bone interference and secure sufficient initial stability.



Final drill
F7.0 Taper ultra drill
Lower border

Normal bone

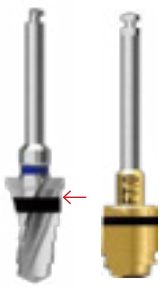
Since bone tissue is good, use a F7.0 taper ultra drill as the final drill and drill to the upper border of the marking line.

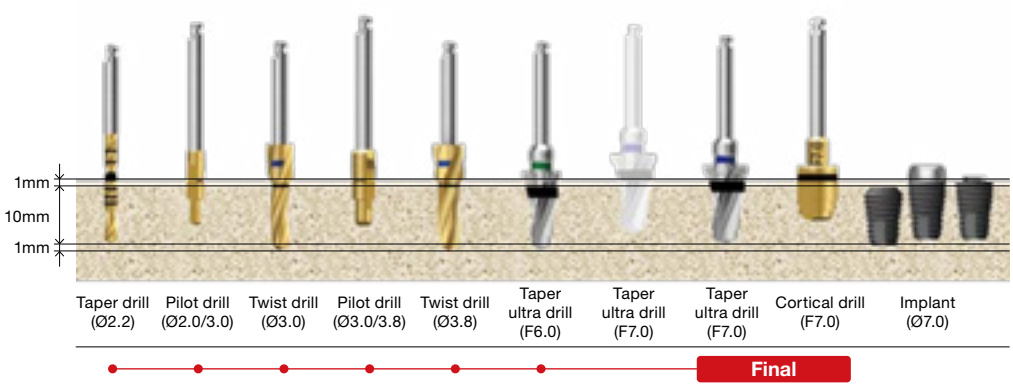


Final drill
F7.0 Taper ultra drill
Upper border

Hard bone

Since bone tissue is hard, use a F7.0 taper ultra drill as the final drill to drill a hole to the upper border of the marking line, and then use the F7.0 cortical drill as the final drill to prevent osteonecrosis and torque overload.





Final drill
F7.0 Taper ultra dril
upper border
+ F7.0 cortical drill

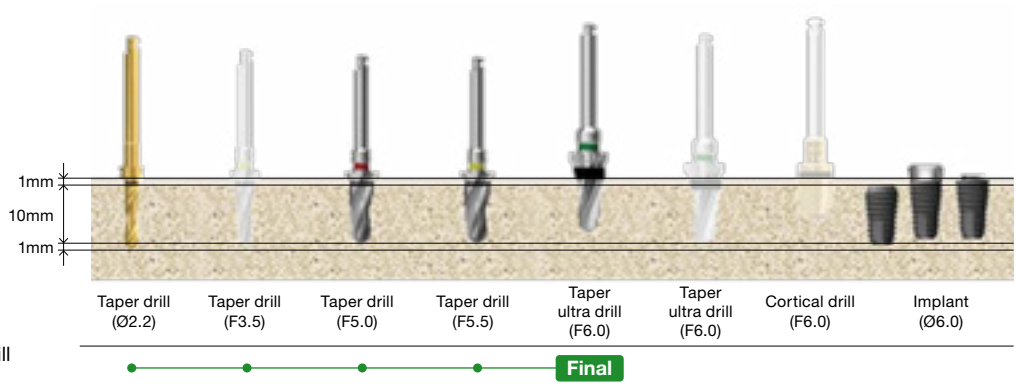
Quick Guide | TSIII, KSIII, SSIII, USIII | Taper KIT + Taper Ultra KIT (Length: 10mm)

Ø6.0×10mm Implant placement

Soft bone

Since bone tissue is soft, use the F6.0 Taper ultra drill as the final drill to drill to the lower border of the marking line to increase bone interference and secure sufficient initial stability.

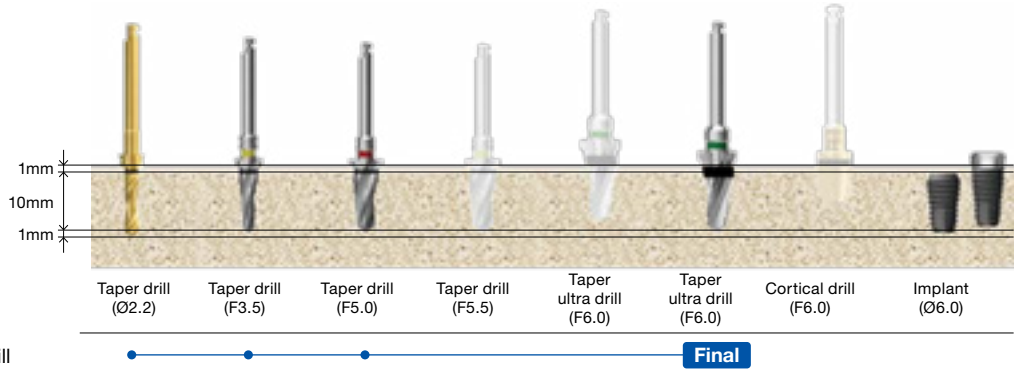
Final drill
F6.0 Taper ultra drill
Lower border



Normal bone

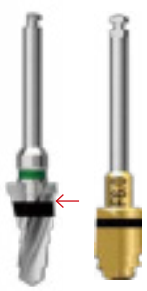
Since bone tissue is good, use a F6.0 taper ultra drill as the final drill and drill a hole to the upper border of the marking line.

Final drill
F6.0 Taper ultra drill
Upper border

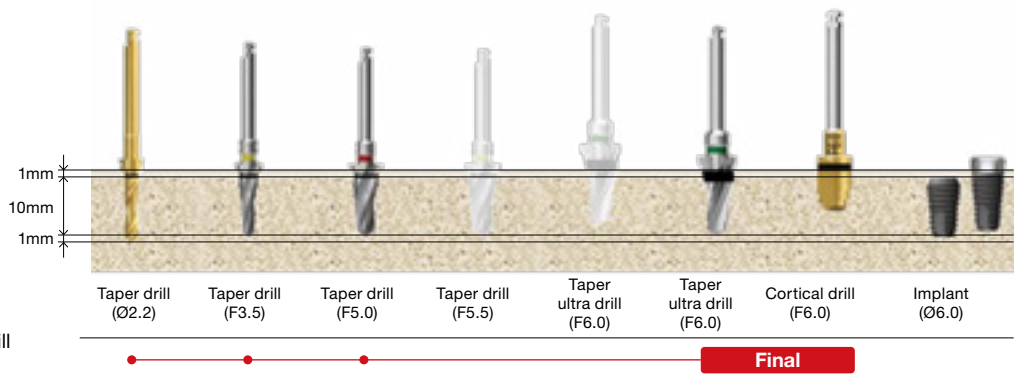


Hard bone

Since bone tissue is hard, use a F6.0 taper ultra drill as the final drill to drill a hole to the upper border of the marking line, and then use a F6.0 cortical drill as the final drill to prevent osteonecrosis and torque overload.



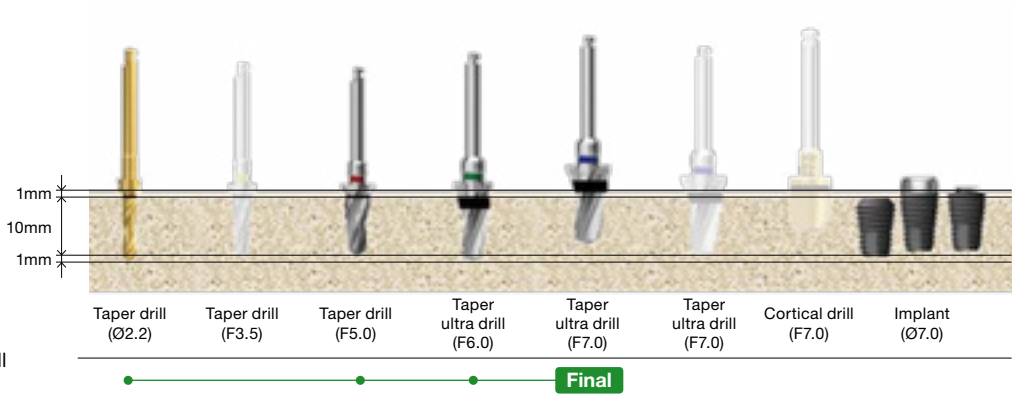
Final drill
F6.0 Taper ultra drill
upper border
+ F6.0 cortical drill



Ø7.0×10mm Implant placement

Soft bone

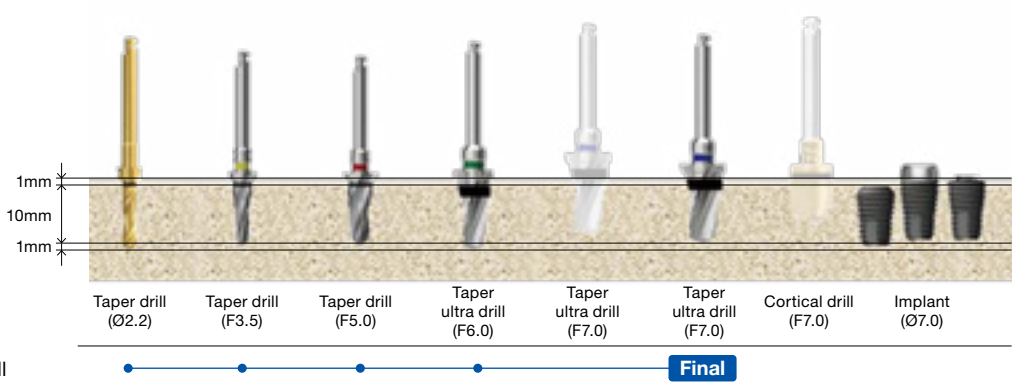
Since bone tissue is soft, use the F7.0 Taper ultra drill as the final drill to drill to the lower border of the marking line to increase bone interference and secure sufficient initial stability.



Final drill
F7.0 Taper ultra drill
Lower border

Normal bone

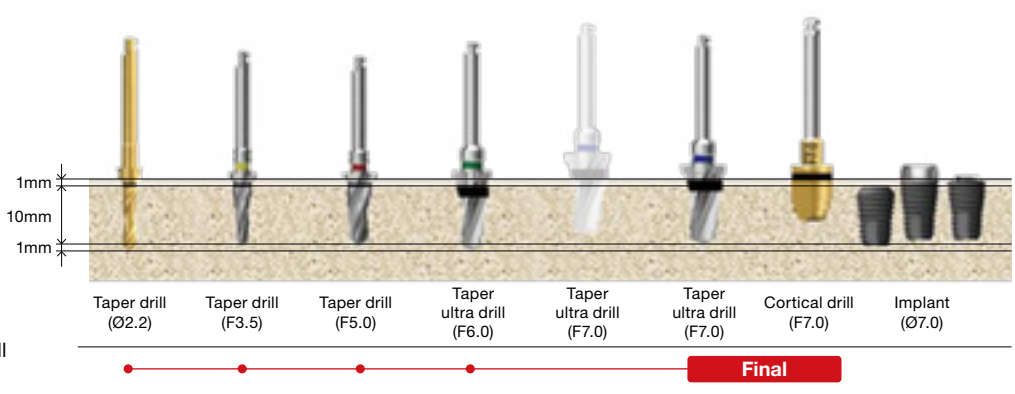
Since bone tissue is good, use a F7.0 taper ultra drill as the final drill and drill to the upper border of the marking line.



Final drill
F7.0 Taper ultra drill
Upper border

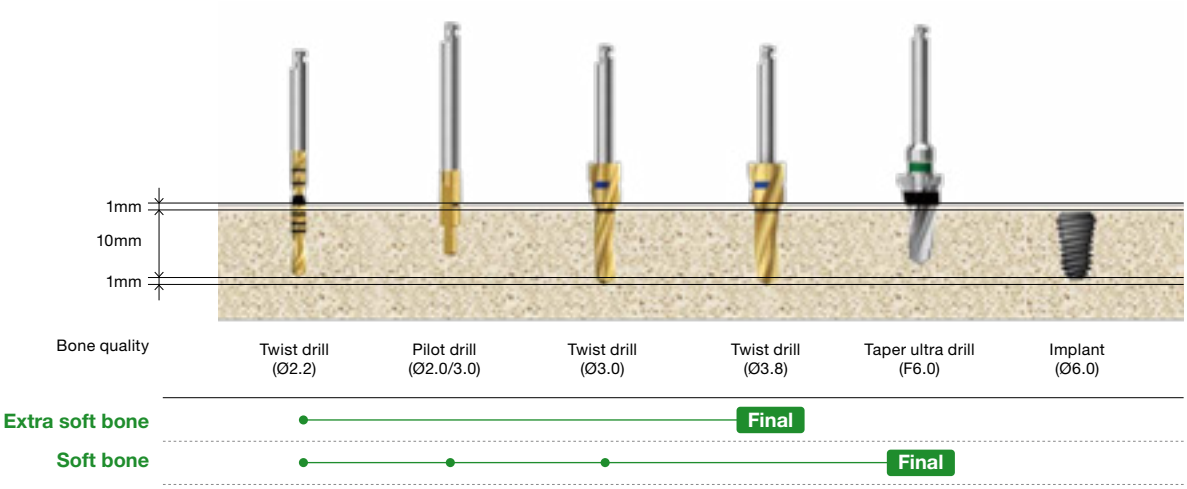
Hard bone

Since bone tissue is hard, use a F7.0 taper ultra drill as the final drill to drill a hole to the upper border of the marking line, and then use the F7.0 cortical drill as the final drill to prevent osteonecrosis and torque overload.

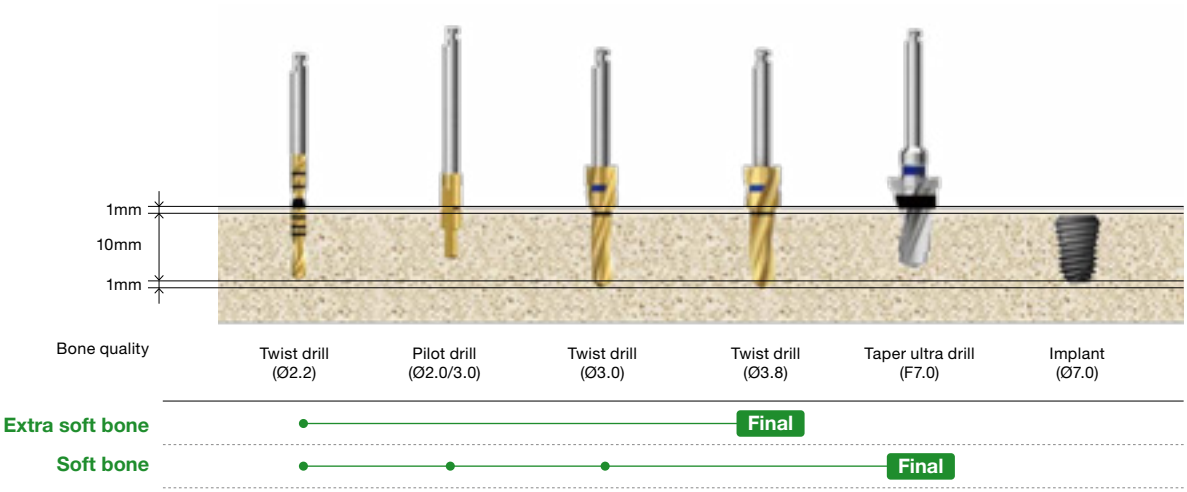


Final drill
F7.0 Taper ultra drill
upper border
+ F7.0 cortical drill

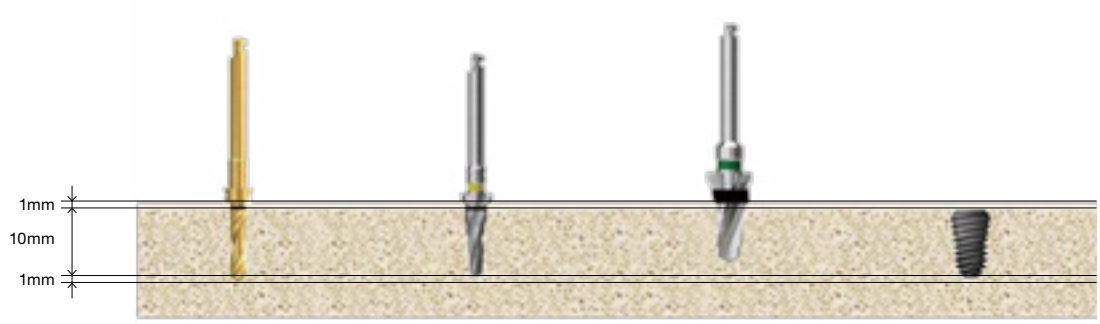
Ø6.0×10mm Implant placement



Ø7.0×10mm Implant placement

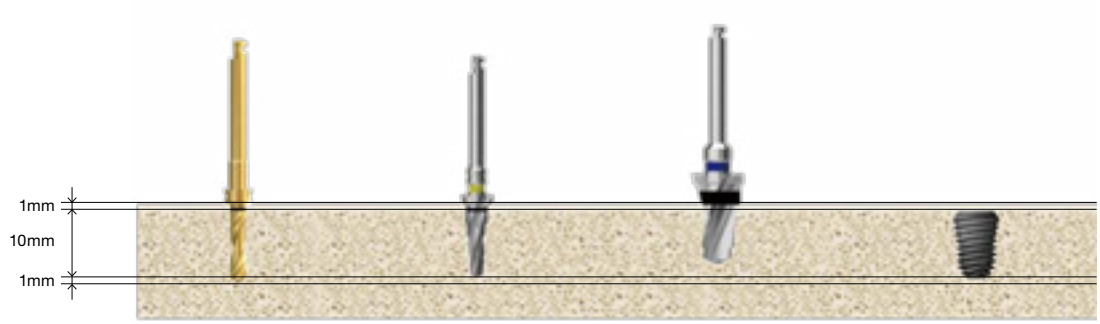


Ø6.0×10mm Implant placement



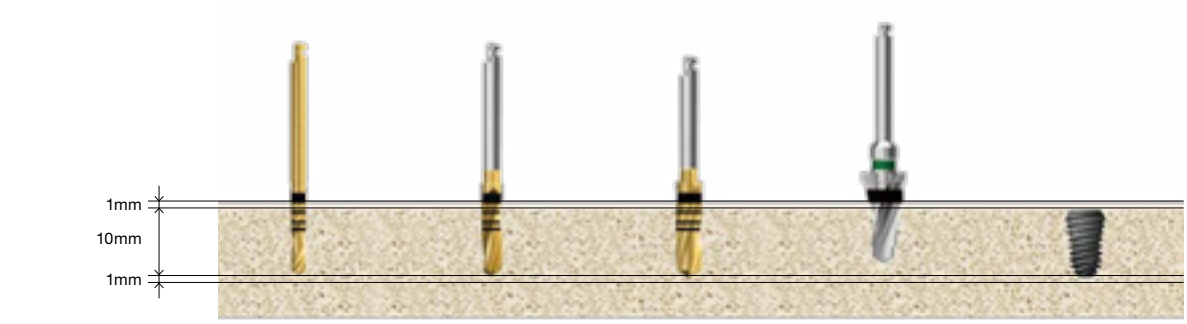
Bone quality	Twist drill (Ø2.2)	Taper drill (F3.5)	Taper ultra drill (F6.0)	Implant (Ø6.0)
Extra soft bone			Final	
Soft bone			Final	

Ø7.0×10mm Implant placement



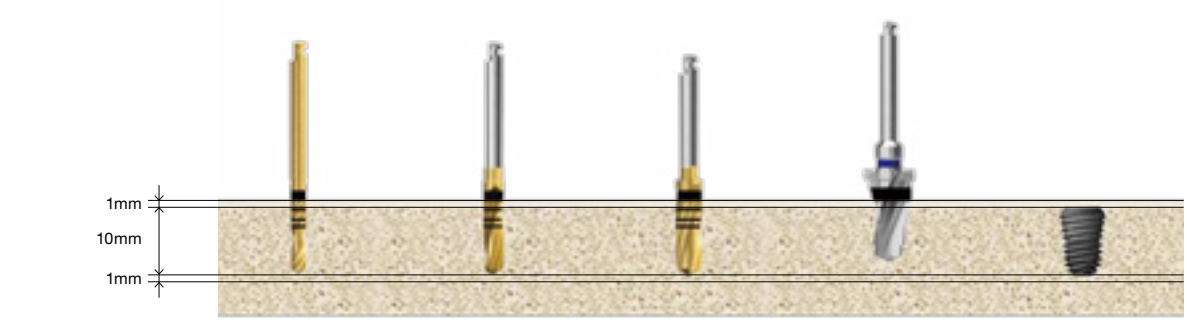
Bone quality	Twist drill (Ø2.2)	Taper drill (F3.5)	Taper ultra drill (F7.0)	Implant (Ø7.0)
Extra soft bone		Final		
Soft bone			Final	

Ø6.0×10mm Implant placement



Bone quality	Drill (Ø2.2)	Drill (Ø3.3)	Drill (Ø3.8)	Taper ultra drill (F6.0)	Implant (Ø6.0)
Extra soft bone			Final		
Soft bone				Final	

Ø7.0×10mm Implant placement



Bone quality	Drill (Ø2.2)	Drill (Ø3.3)	Drill (Ø3.8)	Taper ultra drill (F7.0)	Implant (Ø7.0)
Extra soft bone			Final		
Soft bone				Final	

How to take care of the KITS

1

Soak (saline/distilled water)

· Soak the surgical instruments in saline or distilled water

2

Drying (remove moisture)

· Completely dry all drills, drivers, tools, etc by using a towel or fan.

3

First wash

· After surgery, immediately separate and wash all the used instruments.

4

Organize instruments in the KIT

· Place the completely dried instruments in the KIT
· Make sure they are properly placed in the correct location
· Refer to the color coding for reference

5

Second wash

· Thoroughly wash with distilled water or running water to avoid remnants of blood or foreign debris.

6

Sterilization and storage at room temperature

· Wrap clean kit in a sterilization wrap or pouch and place into sterilizer.
· Sterilize temperature - 121°C to 132°C, time duration 15 - 30 minutes, dried and stored at room temperature.
· KIT re-sterilization is recommended immediately before surgery.
· Before and after sterilization, thoroughly dry (the drills will corrode if not fully dried after sterilization)

Important Information and Legal Notices 2026.03 ver.1.1

1. IMPORTANT NOTICE

This catalogue is intended solely as an informational and educational guide for trained dental professionals. It does not replace the applicable Instructions for Use (IFU), product labelling, formal clinical training, treatment planning, or independent professional judgment.

All clinical protocols, drilling sequences, cleaning instructions, sterilization requirements, torque recommendations, indications, contraindications, warnings, and procedural steps must be verified against the current product-specific IFU and the applicable product label for the relevant REF/product code prior to use.

In the event of any discrepancy between this catalogue and the applicable IFU, product labelling, or other official Osstem documentation, the IFU, labelling, and official product documentation shall prevail.

2. PRODUCT INFORMATION, CHANGES, AND AVAILABILITY

All products, specifications, protocols, recommendations, illustrations, and other information contained in this catalogue are subject to change without prior notice.

Not all products may be approved, cleared, released, licensed, or otherwise available in all markets. Product availability, indications, and regulatory status may vary by country. For information on the current product portfolio, approved indications, and local availability, please contact your local Osstem representative or Customer Service and consult the current official Osstem documentation.

3. PROFESSIONAL USE ONLY

Osstem Implant products are intended for use by appropriately trained dental professionals only. Dental implant treatment involves complex professional procedures and requires appropriate education, clinical training, patient selection, treatment planning, and radiographic as well as clinical evaluation.

The suitability of any procedure must be assessed individually for each patient, taking into account anatomy, bone quality and quantity, occlusion, systemic conditions, oral hygiene, compliance, and any other relevant clinical factors.

4. PRODUCT DESCRIPTION AND COMPATIBILITY

Osstem Implant offers implant fixtures, prosthetic components, surgical instruments, and related materials for dental implant treatment. Product codes, specifications, lot numbers, dates of manufacture, and expiration dates, where applicable, must be checked on the product label before use.

Unless expressly stated otherwise in the applicable product documentation, Osstem Implant abutments, prosthetic components, instruments, and related accessories are intended to be used only with compatible Osstem Implant fixtures and components. Use in combination with components or instruments from other manufacturers may result in improper fit, incomplete locking, loosening, fracture, reduced performance, or other clinical complications.

5. STERILITY, CLEANING, REPROCESSING, AND STORAGE

Sterile products supplied in sterile packaging must be used only if the packaging is intact and the expiration date has not passed. If sterile packaging has been opened, damaged, or has expired, the product must not be used.

Single-use products must not be reused, reprocessed, or resterilized.

Reusable instruments must be cleaned, disinfected, inspected, maintained, and sterilized strictly in accordance with the applicable Osstem IFU before reuse.

Products must be stored in accordance with the applicable labelled storage conditions and protected from moisture, contamination, direct sunlight, and other adverse environmental conditions.

6. CLINICAL PROTOCOLS AND PROCEDURAL GUIDANCE

Any surgical, prosthetic, drilling, insertion, loading, cleaning, maintenance, or other procedural guidance shown in this catalogue is provided for general informational purposes only and must be adapted to the individual patient, the specific product, and the current approved IFU.

Clinicians remain solely responsible for selecting the appropriate treatment protocol and for determining whether the intended procedure, component selection, loading protocol, and clinical application are appropriate for the individual case and within the approved indications for the relevant product.

7. WARNINGS, CONTRAINDICATIONS, AND POSSIBLE COMPLICATIONS

Improper patient selection, inadequate treatment planning, non-compliance with the applicable IFU, improper use, off-label use, product modification, poor oral hygiene, infection, insufficient bone quality or quantity, excessive occlusal loading, or other unfavorable clinical conditions may result in complications or treatment failure.

Possible complications and adverse events may include, without limitation, implant instability or failure, loosening, fracture, bone loss, infection, soft- or hard-tissue complications, prosthetic complications, delayed healing, or the need for revision or removal.

Contraindications and precautions must always be assessed in accordance with the applicable Osstem product documentation and accepted professional standards of care.

8. INTENDED PURPOSE

The products are tools and instruments for surgical placement of Osstem implant fixtures. The drill is used to make implant sites. The cortical drill and tap removes cortical bones or forms threads on bone for the purpose of preventing excessive torque generated when implanting a fixture on hard bone. The drivers are for the placement of the fixture, and the prosthesis is used for setting. In addition, other instruments and tools will be used as aids in the Implant procedure.

The applicable product-specific IFU must always be consulted to confirm the intended purpose, indications, limitations, and approved clinical applications of the relevant product.

9. ACCURACY OF INFORMATION

Although reasonable care has been taken in preparing this catalogue, typographical, editorial, translation, printing, and formatting errors may occur. Information may also become outdated as a result of product updates, regulatory changes, technical revisions, or clinical developments.

No representation is made that this catalogue is complete, current, or error-free in every respect. Users must verify all critical information against the current IFU, product labels, and other official Osstem documentation before clinical use.

10. ILLUSTRATIONS AND EXAMPLES

Product illustrations, diagrams, radiographic examples, case images, and step-by-step demonstrations are for illustrative purposes only. Unless expressly stated otherwise, they are not shown to scale and do not guarantee any clinical outcome.

Example cases do not constitute a promise or representation of treatment success in any individual case.

11. TRADEMARKS AND COMPANY NAMES

All trademarks, trade names, product names, brand names, and company names are the property of their respective owners.

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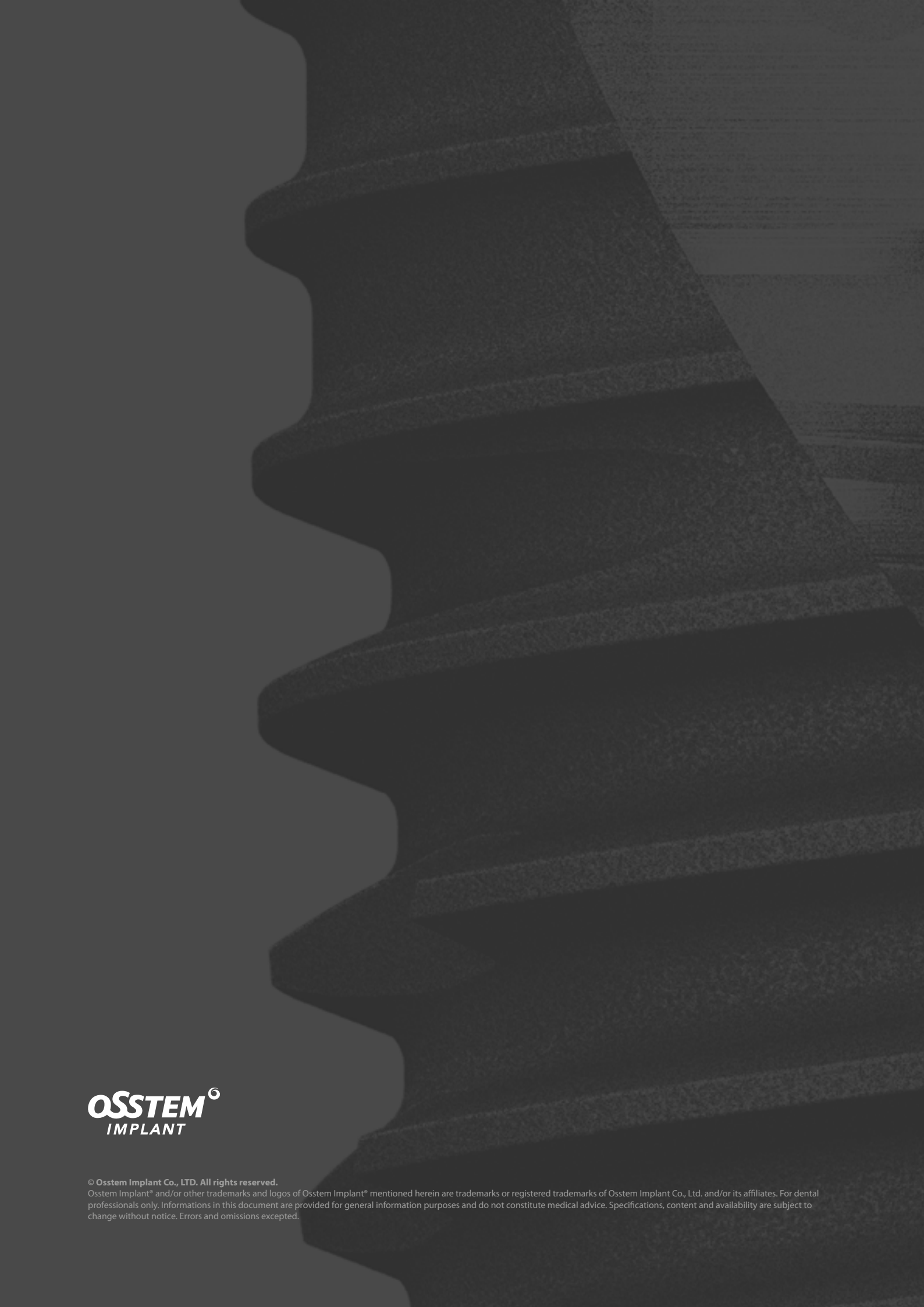

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