

The ultimate ridge splitting solution in narrow alveolar ridge.

Ridge Wider Kit

Safe & Easy Ridge Split

Patent Product



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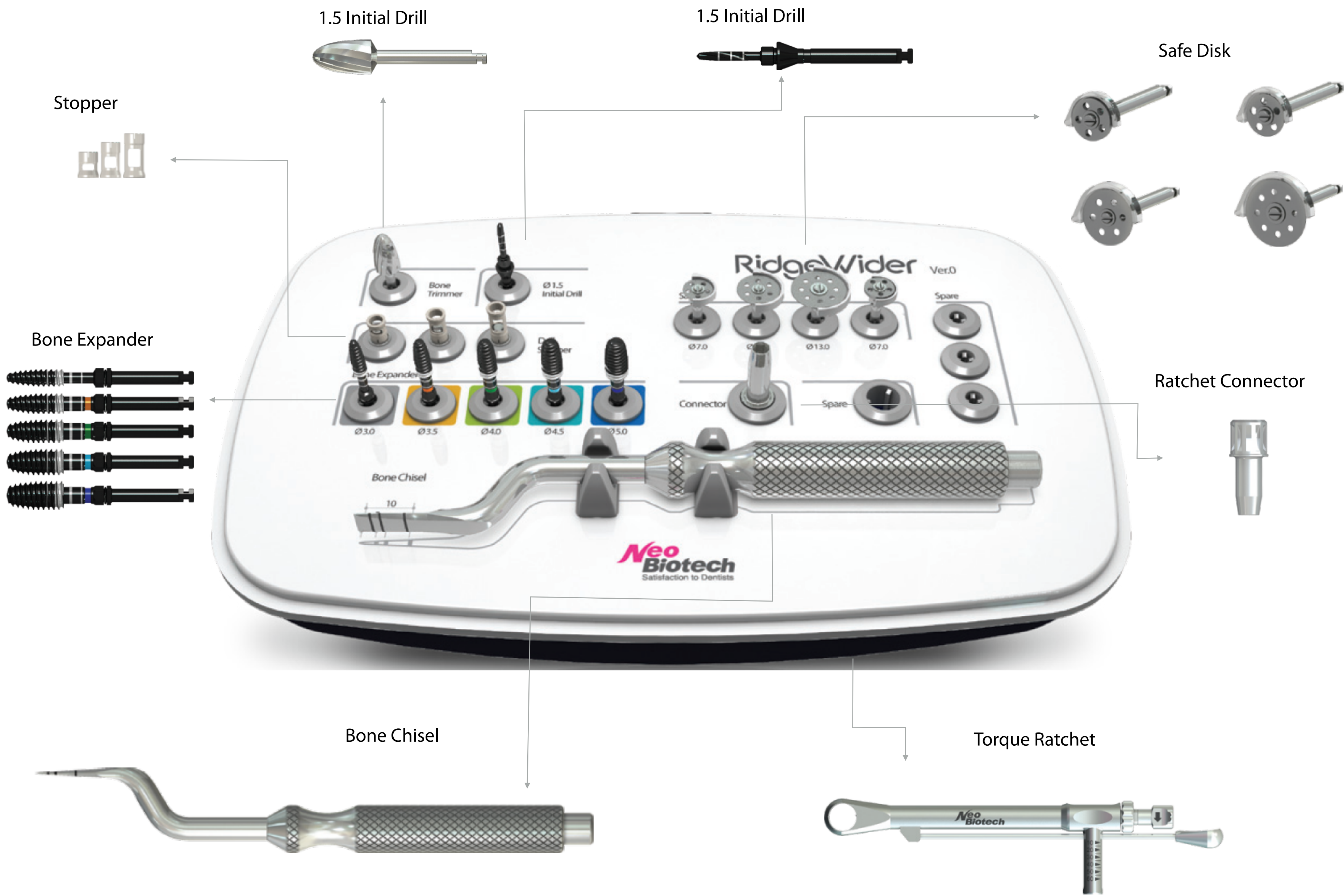


What is the Ridge Wider Kit

The surgery instrument for horizontal expansion utilizing the Safe Disk and Bone Expander in narrow ridge (narrow width bone) to prepare space for implant placement.



Components



Components

1) Bone Trimmer



Used to flatten and smooth out the narrow alveolar crest

- Side blades enable quick trimming of the alveolar crest
- 1,200rpm / Recommended use : 50 times
- CODE : BTRI6010

2) Ø1.5 Initial Drill



Used for initial drilling before bone expansion

- Marks implant positioning and acts as a guide hole prior to using the Safe Disk or Bone Expander
- 1,200rpm / Recommended use : 50 times
- CODE : SFD15

3) Stopper



Stoppers for the Ø1.5 Initial Drill

- 3 / 5 / 7 mm
- CODE : SFDS030 / SFDS050 / SFDS070

4) Safe Disk

Safe cutting in any direction with movable safe cover

① Non-saw type



Used for narrow bone cutting

- Disk-type blade for maximum safety
- Improved cutting performance through diamond powder coating
- 1,200rpm / Recommended use : 50 times

			
Ø7.0mm T0.35mm	Ø10.0mm T0.35mm	Ø13.0mm T0.35mm	※Ø7.0mm T1.0mm
SAWD0703N	SAWD0710N	SAWD1003N	SAWD1303N

② Saw type



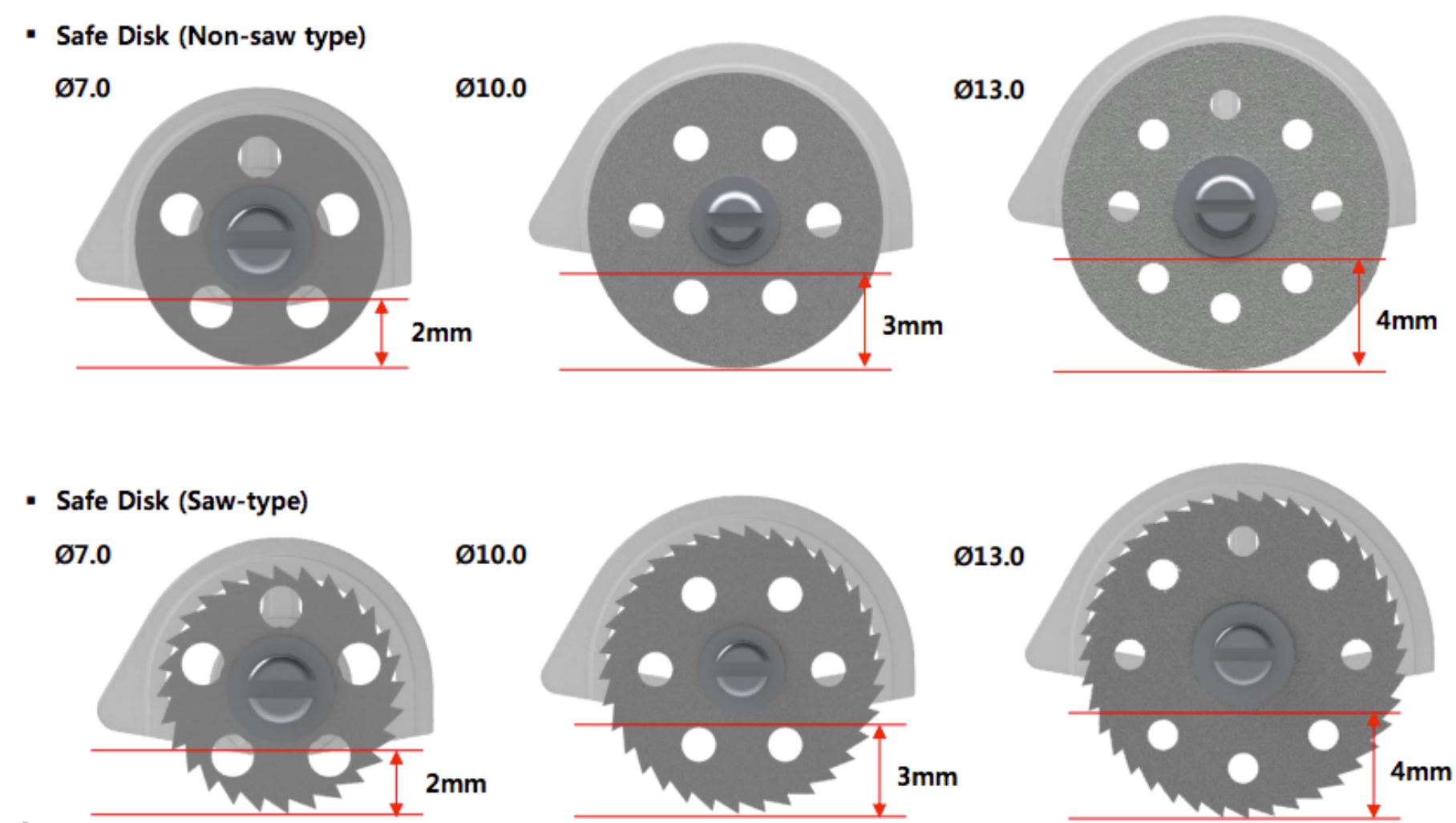
Used for narrow bone cutting

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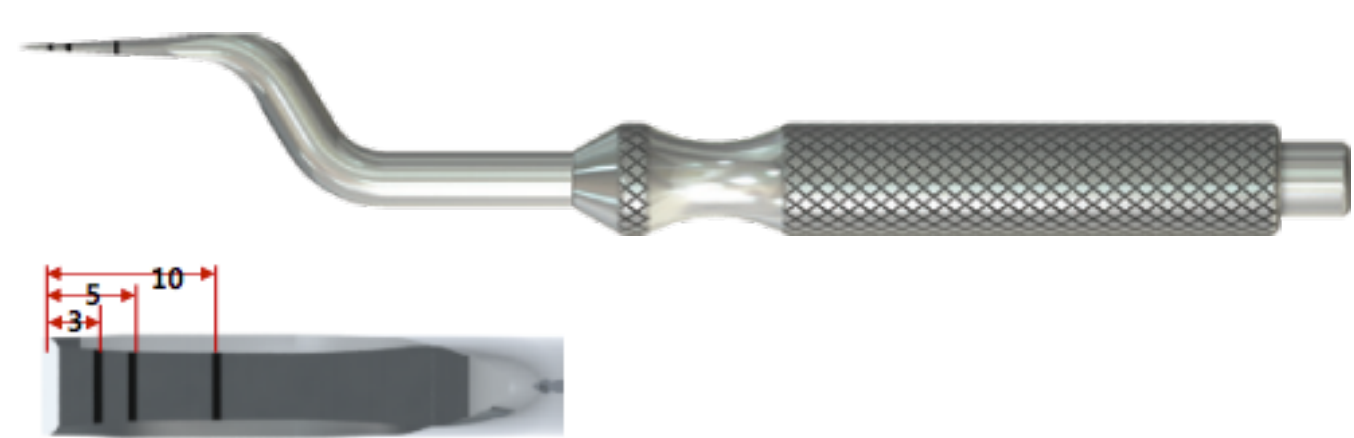
			
Ø7.0mm T0.35mm	Ø10.0mm T0.35mm	Ø13.0mm T0.35mm	Ø7.0mm T1.0mm
SAWD0703S	SAWD0710S	SAWD1003S	SAWD1303S

※ Ø7.0mm, T1.0mm Safe Disk is used after splitting, and before expanding the alveolar bone. Utilize this Safe Disk to cut the lower part of the buccal area by 1mm thickness before bone expansion, therefore prevent alveolar bone fracture

③ Cutting depth



5) Bone Chisel



Used for initial ridge expansion

- Used for slight expansion of the ridge through inserting the Chisel between the cortical plates
- Used for additionally separating the attached remaining bone
- 3 / 5 / 10mm
- Code : BCHI60

6) Bone Expander



Used for sequential bone expansion

- Used for gradual bone expansion of the splitted ridge through inserting the bone expander into the initially drilled site
- 25~35rpm / Recommended use : 50 times

	Ø 3.0	Ø 3.5	Ø 4.0	Ø 4.5	Ø 5.0
Product No.	BEXP30	BEXP35	BEXP40	BEXP45	BEXP50

7) Torque Ratchet



Ratchet for bone expander

- Code : TW60

8) Ratchet Connector



Connects Torque Ratchet and Bone Expander

- Code : RC10



HOW TO USE RIDGE WIDER KIT



Narrow Ridge Case

Identify the narrow ridge case that is difficult to place implant



Bone Trimming

Use the Bone Trimmer to flatten and trim the narrow ridge where the implants would be placed (Recommended rpm : 1,200)



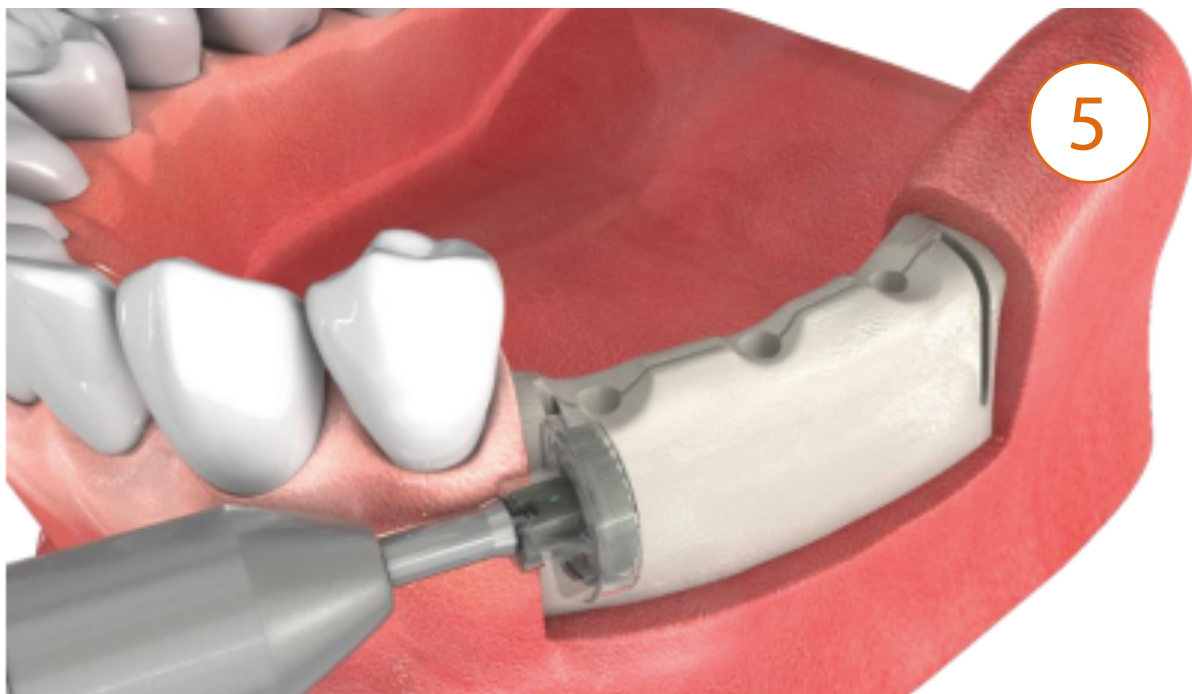
Initial Drilling

Connect the appropriate stopper to the Ø 1.5 Initial Drill and perform initial drilling (Recommended rpm : 1,200)



Narrow Ridge Cutting

Cut across the narrow ridge with the Safe Disk (Recommended rpm : 1,200~2,000)



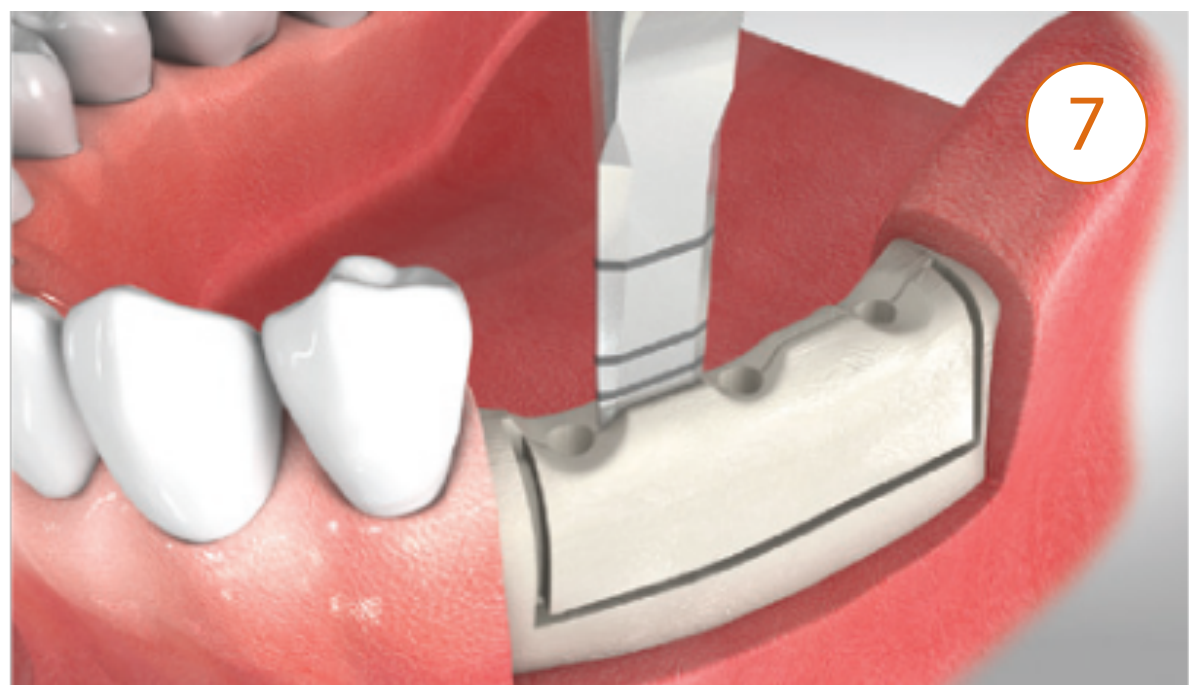
Buccal Cutting (vertical)

Vertically cut the buccal side with the Safe Disk (Recommended rpm : 1,200~2,000)
※ If necessary, you may cut the mesial and distal side of the cortical bone with the Safe Disk (for buccal cutting use Ø7.0mm, T1.0mm Safe Disk)



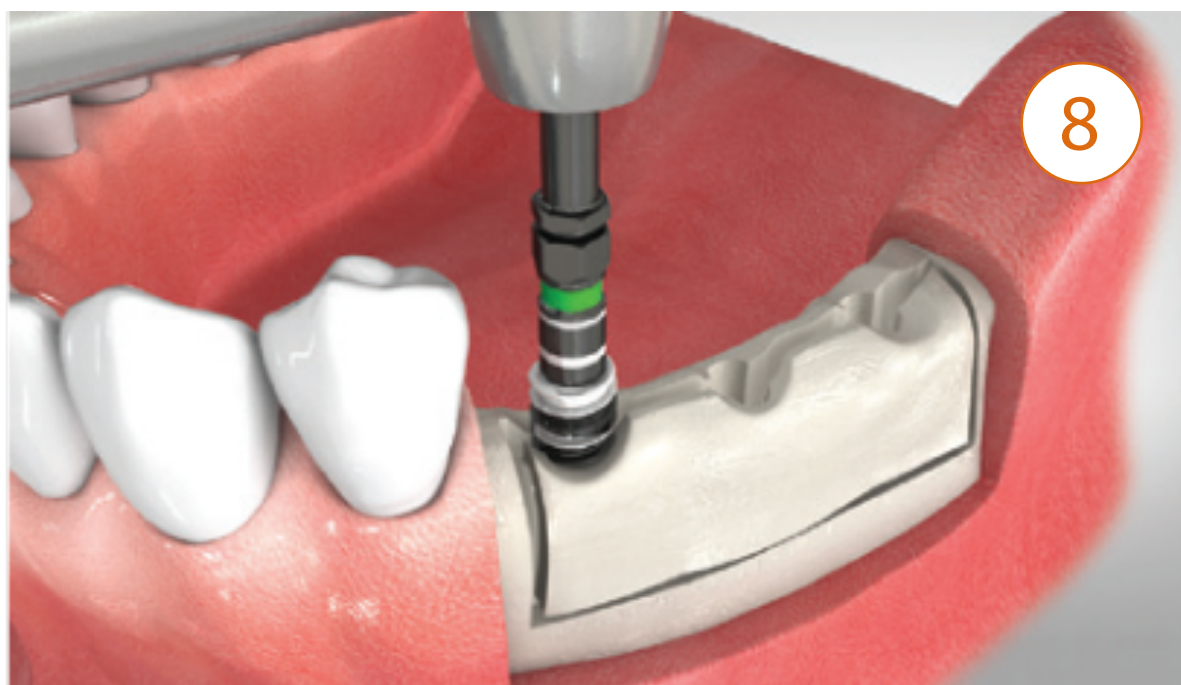
Buccal Cutting (horizontal)

Horizontally cut the lower part of the buccal side with the Safe Disk (Recommended rpm : 1,200~2,000)
※ If necessary, you may cut the lower cortical bone with the Safe Disk (for buccal cutting use Ø7.0mm, T1.0mm Safe Disk)



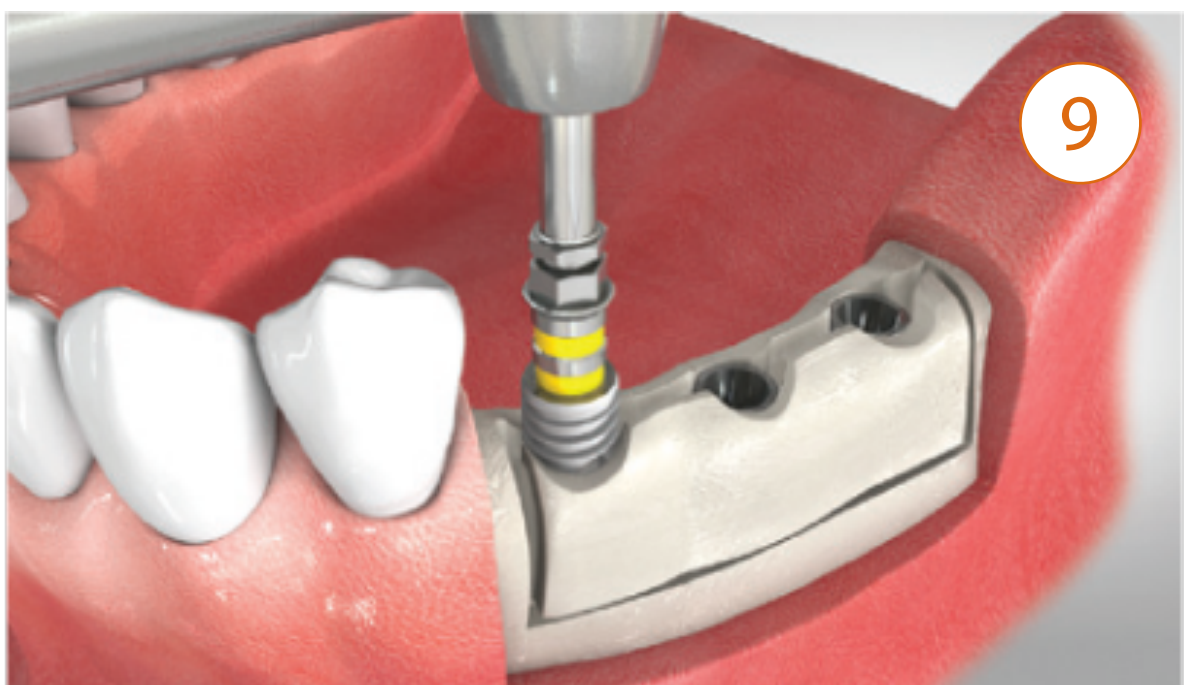
Initial Expansion with Bone Chisel

Insert the Bone Chisel between the cutted space to split and expand the ridge



Sequential Bone Expansion

Gradually expand the ridge by sequentially inserting the Bone Expander up to the fixture size (Recommended rpm : 25~35)
※ In the case of Ø3.5 fixture, use Bone Expander up to Ø3.0 if necessary (for placing implant in the posterior region, fixture diameter larger than Ø4.5 is recommended)



Implant Placement

Place the fixture into the expanded alveolar bone



Connect Cover Screw

Connect the Cover Screw to the placed implant using the 1.2 Hex Driver



Application of Graft Material

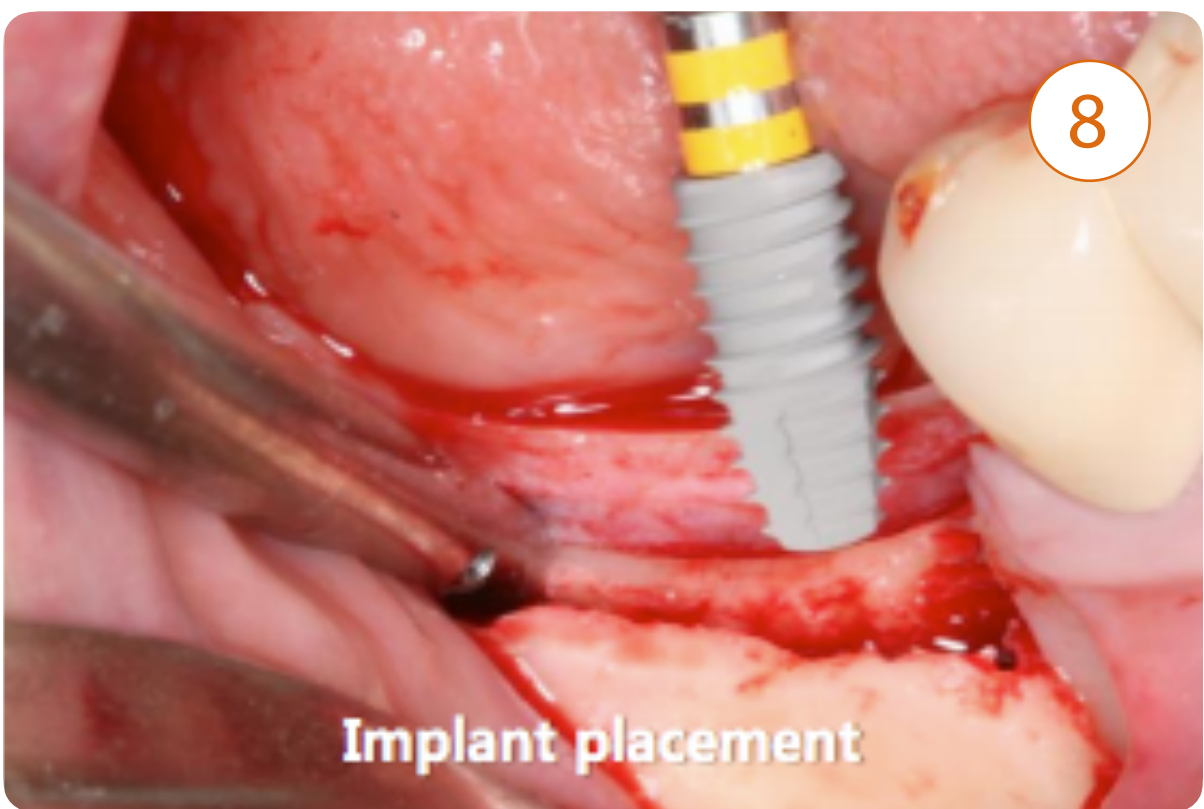
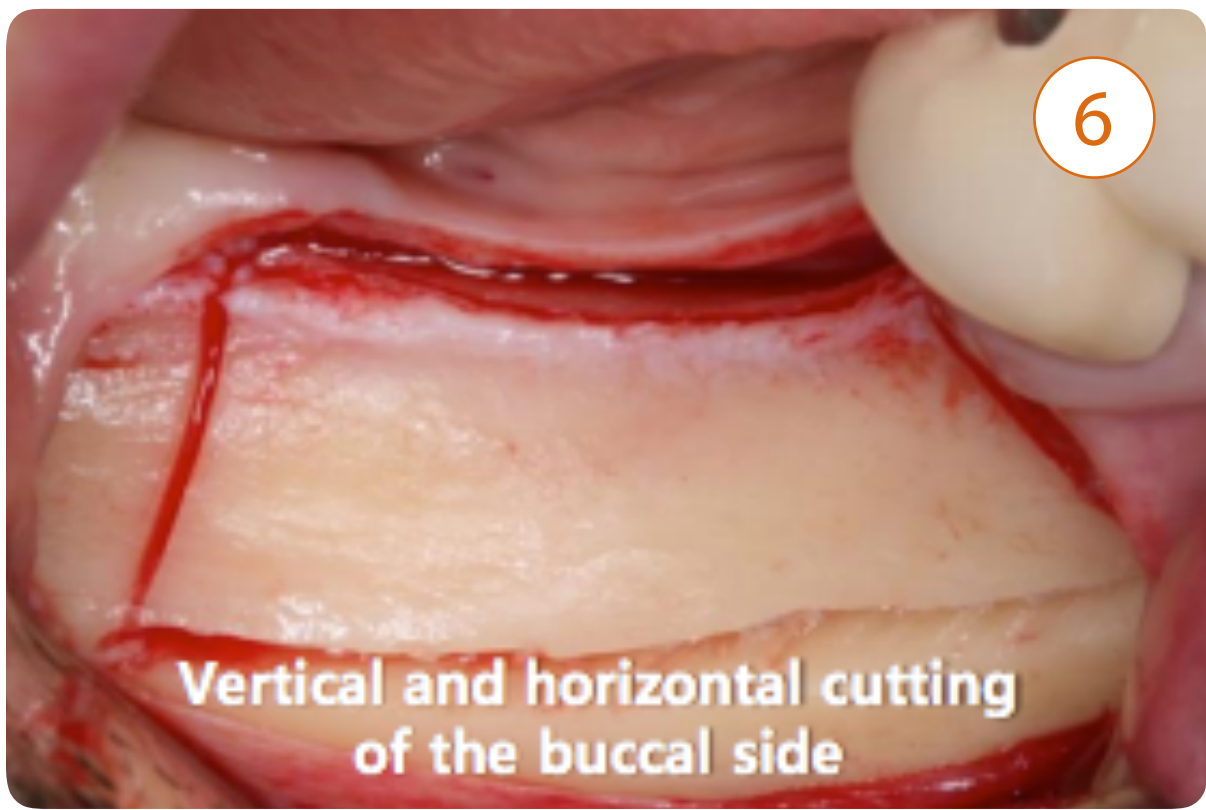
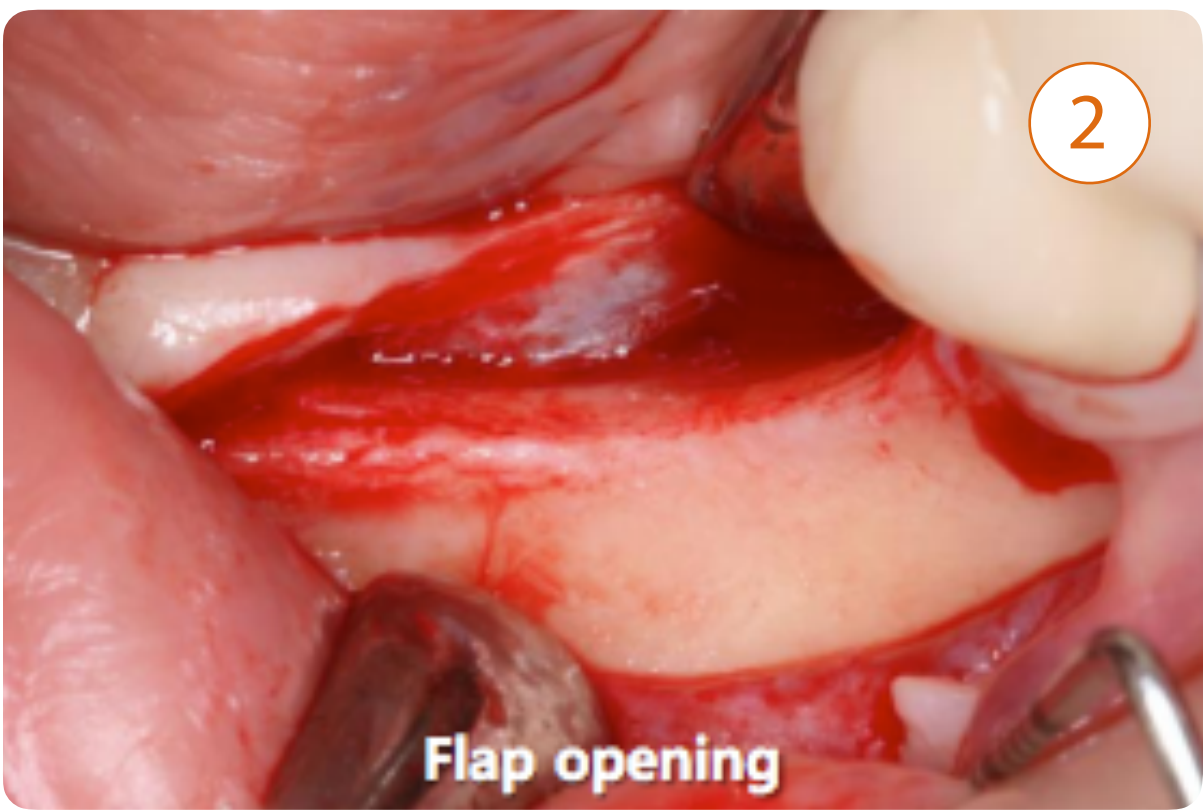
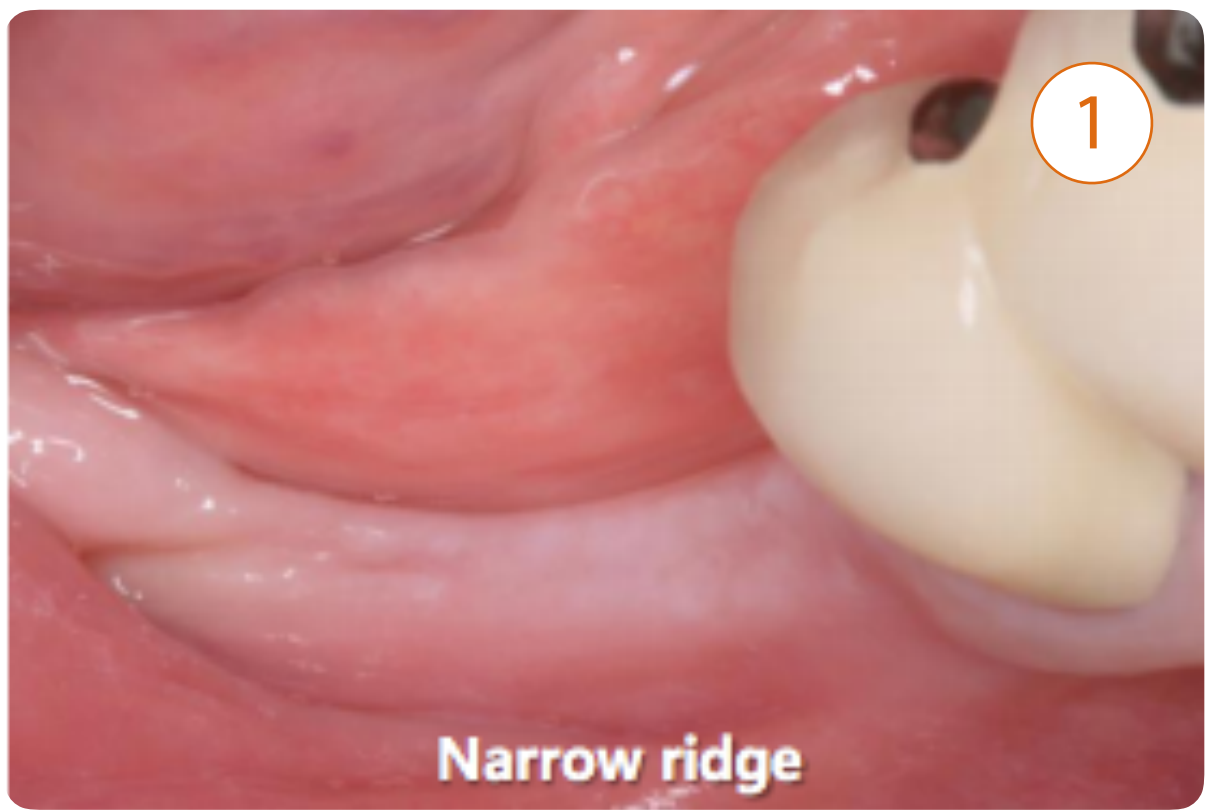
Graft bone in the expanded space after implant placement. (Optional)



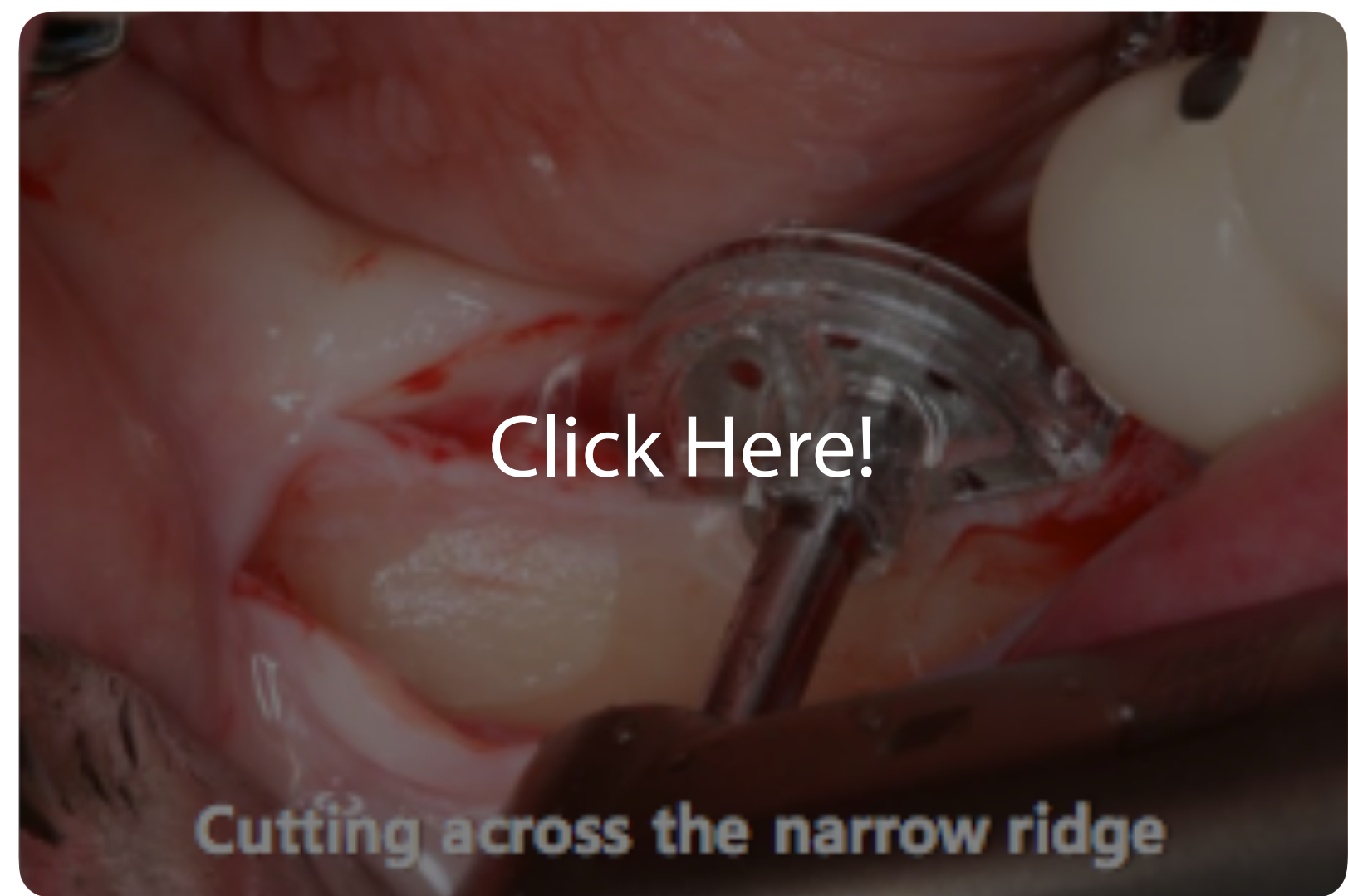
Complete

Fix the splitted ridge with the Fixing Screw

CLINICAL CASE



CLINICAL Movie



How to Sterilize

- 1) Because the product is a non-sterilized medical device, select either a pre-vacuum or a gravity autoclave. (Plastic products must not be sterilized at or above 170°C (338°F)
- 2) Before sterilization, the inner wrapper must be removed from the tray. Assembled components must be separated in order to improve the efficiency of sterilization.
- 3) Using surgical wrap, wrap the tray, seal with autoclave tape, and sterilize.

< Recommended Steam Sterilization Conditions >

	Cycle Type	Temperature	Pressure ³	Exposure Time	Dry Time
Instrument, Wrapped	Pre-Vacuum ^{1,2}	132°C 270°F	2 bars 28.5 psi	3 minutes	30 minutes
Instrument, Wrapped	Gravity ¹	121°C 250°F	1 bars 14.5 psi	40 minutes	30 minutes

In order to effectively carry out high-pressure steam sterilization, the use of biological indicators at a regular interval must be considered. (Dry heat sterilization or chemical sterilization is not recommended.)

- (1) Minimum time and temperature conditions for steam sterilization to reach the sterilization guarantee level of 10⁻⁶
- (2) If regional or national sterilization requirements are stricter than the conditions provided above, they must be followed.

If the above sterilization conditions are exceeded, it is possible that the plastic and components may be damaged. The sterilization device must be adjusted to ensure that the recommended temperatures are not exceeded.

How to wash after use

Surgical Tools

- 1) After the procedure ends, detach all surgical tools from the tray, soak them in alcohol, and rinse them using conventional means.
- 2) After washing by using distilled water or owing water and rinsing, remove any traces of blood or foreign objects remaining. Use a syringe or pipe cleaner for areas that are difficult to wash.
- 3) Following the instructions of the cleaner manufacturer, dilute the enzyme cleaner using tap water and, after ten minutes of ultrasound washing, rinse using tap water for three minutes.
- 4) Completely remove the moisture using a dry cloth or a warm-air circulator.

KIT Tray

- 1) Remove all visible foreign objects using distilled water or owing water and a soft brush. For areas that are difficult to clean, use a syringe or pipe cleaner.
- 2) Following the instructions of the cleaner manufacturer, dilute the enzyme cleaner using tap water and soak for one minute. Afterwards, using a soft brush, remove any foreign objects remaining on any part.
- 3) After washing, rinse for three minutes using tap water to remove the remaining enzyme cleaner.
- 4) Completely remove the moisture using a dry cloth or a warm-air circulator.
- 5) Organize the dry surgical tools in the kit case and sterilize, following the sterilization procedure. (At this time, refer to the colors to make the setup easy.)

How to store and maintain after use

- 1) All surgical tools that were used must be immediately detached, washed, and dried, after the procedure, then stored at room temperature.
- 2) Do not store in a soiled area or where there is a risk of infection.
- 3) This product is a non-sterilized medical device. Accordingly, it may be used only after sterilizing in an autoclave before and after any procedure. (See How to Sterilize)

Precaution

- 1) Only dentists who have completed implant procedure education and training courses can use this product.
- 2) For each patient, a procedure plan must be established, based on a treatment plan after testing and analyzing for whole-body ailments, infectious disease, whether they are receiving treatment for other ailments, and whether there is any oral lesion.
- 3) The surgeon must use the product only after becoming completely familiar with how to use the product and the relevant warnings, and must select products that fit the treatment plan.
- 4) Before each procedure, the tools must be examined for wear and tear.
- 5) Any external contact with the surfaces is prohibited.
- 6) Improper selection of the patient or procedure may cause failure of the implant or post-surgical bone loss around the implant.
- 7) Hydrogen peroxide is prohibited for disinfection and washing, as it could damage or discolor the TIN coating, laser markings, or colors.

Contraindication

- 1) Patients with serious internal ailments: endocrinal ailments such as diabetes or hypertension, circulatory ailments, and ailments related to the blood, organ, or immune systems.
- 2) Patients receiving high-level radiation treatment for malignant tumors or other reasons.
- 3) Patients who have unsuitable jaw relations or problematic occlusions.
- 4) Patients with dry mouths.
- 5) Patients with unrestored teeth who maintain bad oral health conditions.
- 6) Patients with acute inflammatory ailments and patients who are at risk of infection.
- 7) Pregnant patients.
- 8) Smokers.
- 9) Patients with blood clotting conditions or with severe cardiac ailments.
- 10) Children aged 16 years or younger.
- 11) Patients who are allergic to titanium or stainless steel.
- 12) Patients without ordinary wound-healing function.
- 13) Patients who are taking other drugs.
- 14) Patients who are vulnerable to physical and mental stress due to temporary use of a specific medication.
- 15) Patients who are emotionally unstable, such as due to alcohol addiction, drug abuse, neurological ailments, or mental ailments.
- 16) Patients who have unrealistic expectations regarding the treatment.

Side effect

- 1) Using surgical techniques in a skillful manner minimizes the occurrence of complications.
- 2) Paresthesia due to nerve damage or malocclusion, infection, edema, hypodermic bleeding, pain, or opening of the sutures, ulcer in the soft tissues, and other localized adverse reactions may occur.
- 3) Localized and general allergic reactions.

