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OSSTEM IMPLANT Co., Ltd.
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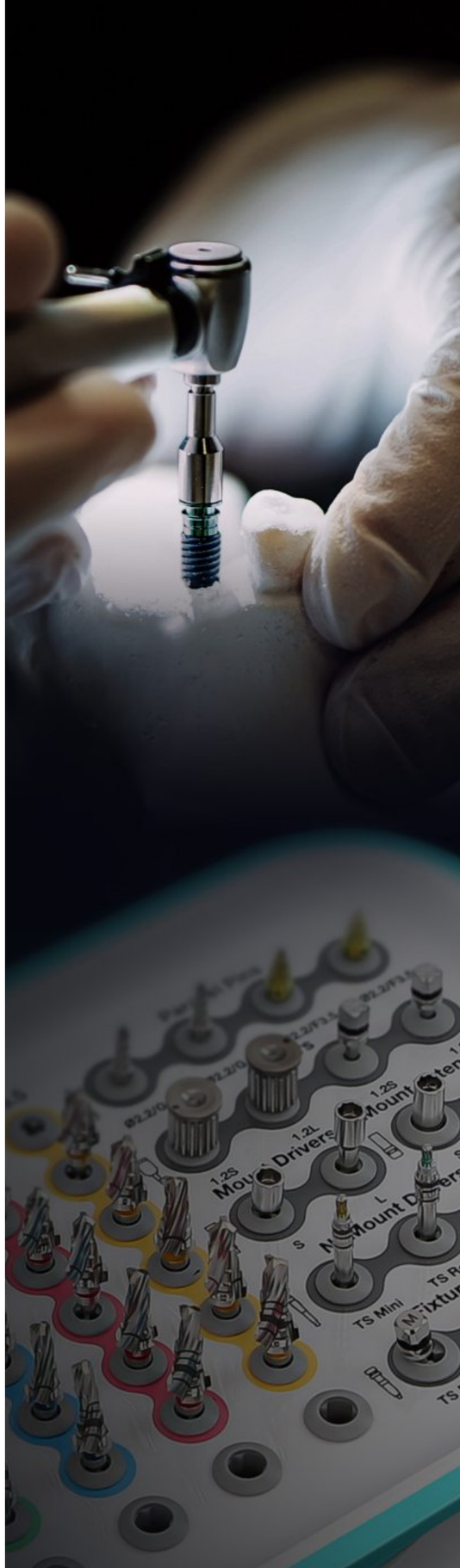
Hands-on Guide

Osstem Implant KIT



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Hands-on Guide

1 **Short Implant** Solution
485 KIT

2 **Simple Drilling** Solution
122 Taper KIT

3 **Implant Aligning** Solution
Positioning Guide KIT

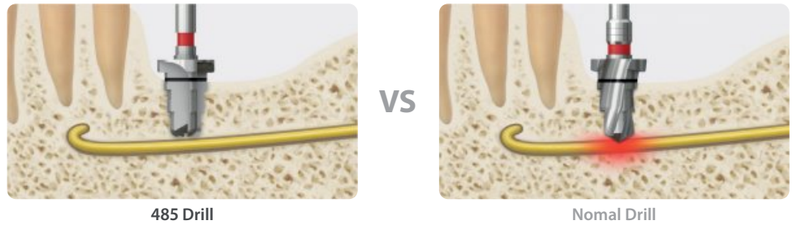
4 **Sinus Surgery** Solution
CAS KIT

5 **Sinus Surgery** Solution
LAS KIT

6 **Narrow Ridge** Solution
ESSET KIT

Short Implant Solution

The KIT is composed of specially designed drills to avoid nerve damage and place short-body implants. (4mm ~ 8.5mm)



485 Drill

VS

Nomal Drill

Procedure

01 KIT & Case Introduction

02 Normal Drilling : 1st Model

03 485 Drilling : 2nd Model

★ 04 Comparing 2 Models (Normal vs 485)

05 Implant Placement

PREPARATION

1. Set the drill speed to 1,200 rpm for drilling.
2. Use 2 models (1st model : normal drill sequence / 2nd model : 485 drill sequence).
3. Prepare normal option drills (122 Taper Drill).

★ **SPECIAL NOTE**

The practice model was designed to show how the 485 KIT is safer for alveolar nerve than the standard KIT by comparing how transparent the nerve is at the drilled hole.

*** Two models are required for a single hands-on (One for 122 taper drilling / the other for 485 drilling).**

Do the hands-on | No exposure of nerve | Exposure of nerve

Materials

KIT

485 KIT

Drill

122TPD**3504**	122TPD**3505**
122TPD**3506**	122TPD**3507**

122TPD**5004**	122TPD**5005**
122TPD**5006**	122TPD**5007**

Model

485 Model X2

*A Custom order is required.

Implant

5.0 X 4mm	5.0 X 5mm
5.0 X 6mm	5.0 X 7mm

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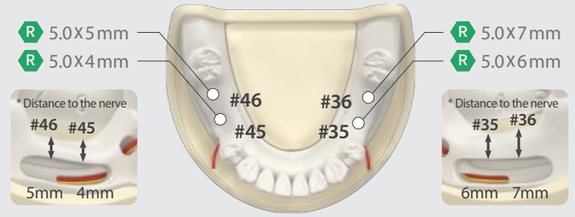
Short Implant Solution

485 KIT

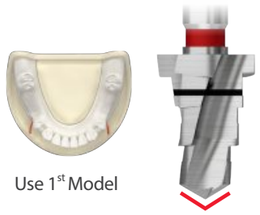
- 485 Model *A Custom order is required.
- RPM: 1,200
- Normal Bone



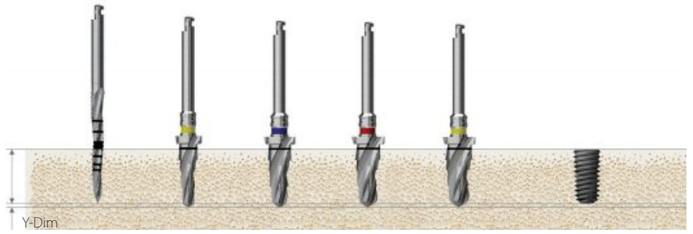
Drilling Sequence for

The Normal Drill

Ø 5.0mm



Use 1st Model

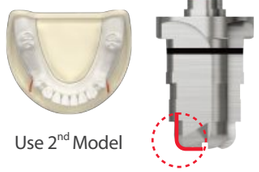


Bone Quality	Sidecut Drill	122 Taper Drill (F3.5)	122 Taper Drill (F4.5)	122 Taper Drill (F5.0)	122 Taper Drill (F5.5)	Ø 5.0 Implant
Soft	▶		▶			
Normal	▶	▶		▶		Implant placement
Hard	▶	▶			▶	

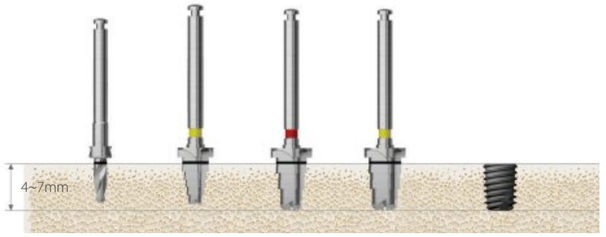
Drilling Sequence for

The 485 Drill

Ø 5.0mm



Use 2nd Model



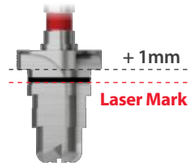
Bone Quality	Twist Drill (Ø 2.2)	Pilot Drill	485 Drill (F5.0)	485 Drill (F5.5)	Ø 5.0 Implant
Normal	▶	▶	▶		
Hard	▶	▶		▶	Implant placement

Caution 1

This Hands-on case was designed to demonstrate the superior safety of 485 KIT comparing the transparencies of alveolar nerves at the drilled holes. Please note that a 2mm distance must be secured between drilling depth (implant size) and alveolar bone in actual clinical case.

Caution 2

The stopper was design to be stopped at +1mm of its size. Please drill to the laser mark.



Simple Drilling Solution

By using 122 Taper KIT, it is able to place an implant with drilling only once for soft bone and twice for normal bone & hard bone.

Sofe Bone | Nomal Bone | Hard Bone

Procedure

01 KIT & Case Introduction

★ 02 Drilling : Bone Block

★ 03 Drilling : Model

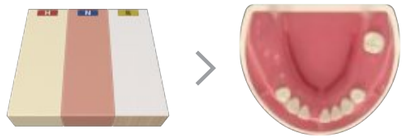
PREPARATION

1. Set the drill speed to 1,200 rpm for drilling.
2. Drill the bone block using three different drill sequences : Soft / Normal / Hard bone.
3. Drill the practice model using the normal bone drill sequence.

★ **SPECIAL NOTE**

Operators can first practice the basic drilling steps on the bone block to experience how simple they are.
Then, they can practice the drilling sequence on the practice model.

***Please explain the 122 drilling sequence at the bone block practice stage.**



Materials

KIT

122 Taper KIT

Model

SUMBB01 X1 | GL07 X1 OR BL07 X1

Implant

3.5x10 mm X1 | 4.5x10 mm X2

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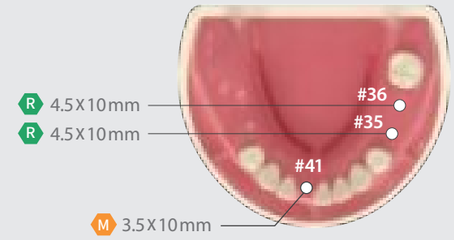
Simple Drilling Solution

122 Taper KIT

- Model: GL07 / BL07
- RPM: 1,200
- Normal Bone

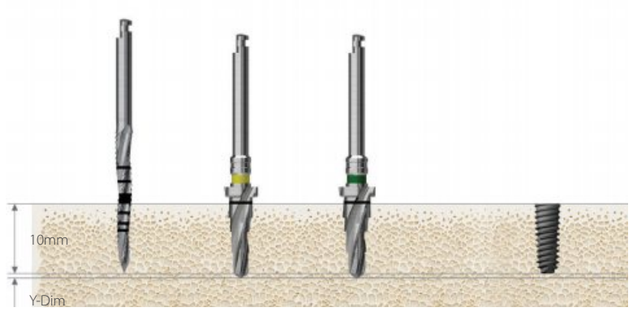


Drilling Sequence for

Mini Implant

Ø 3.5mm #41

M 3.5x10 mm



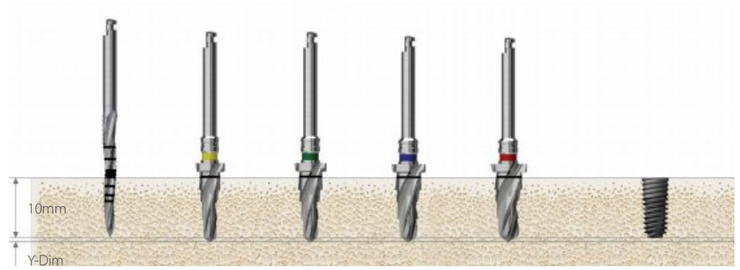
Bone Quality	Sidecut Drill	122 Taper Drill (F3.5)	122 Taper Drill (F4.0)	Ø 3.5 Implant
Soft	▶			Implant placement
Normal	▶	▶		
Hard	▶	▶	▶	

Drilling Sequence for

Regular Implant

Ø 4.5mm #35,36

R 4.5x10 mm

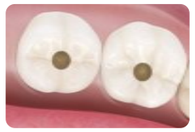


Bone Quality	Sidecut Drill	122 Taper Drill (F3.5)	122 Taper Drill (F4.0)	122 Taper Drill (F4.5)	122 Taper Drill (F5.0)	Ø 3.5 Implant
Soft	▶		▶			Implant placement
Normal	▶	▶		▶		
Hard	▶	▶			▶	

Implant Aligning Solution

The KIT helps to find both right spot and angle for implant placement without using a surgical template.
Also, it can be used to place implants on the center of teeth with the consideration of final prosthesis positions.

Good Case



Implant placement
on the center of teeth

Bad Case

Incorrect
Implant Position

Implant placed too close to
the adjacent teeth

Implant placed too close to
each other

Procedure

01 KIT & Case Introduction

02 Case 1 : Single

03 Case 2 : Bridge

04 Case 3 : Free End

★ 05 (Implant Placement) : 122 Taper KIT

* Optional

PREPARATION

1. Set the drill speed to 1,200 rpm for drilling.
2. Prepare the 122 Taper KIT for implant placement.
3. Prepare Implants for the implant placement.

★ **SPECIAL NOTE**

The Positioning Guide KIT provides guidance of initial drilling. Please follow the instruction of 122 Taper drill for the implant placement.

*** For the practice of the implant placement, 122 Taper KIT is required.**

Positioning Guide KIT

122 Taper KIT

Materials

KIT

Positioning Guide KIT

122 Taper KIT
*** Optional**

Model

GL07 X1

BL07 X1

Implant

3.5X10 mm X1
*** Optional**

4.5X10 mm X4
*** Optional**

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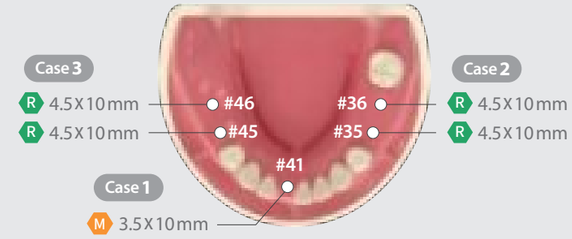
Implant Aligning Solution

Positioning Guide KIT

- Model: GL07 / BL07
- RPM: 1,200
- Normal Bone



Case 1 Single (Mini)

Single Guide X1

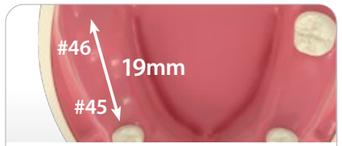
Ø 5.0

Case 2 Bridge (Regular)

Single Guide X2

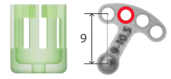
Ø 9.0 Ø 10.0

Case 3 Free End Case



Single X1

Bridge X1



Ø 9.0 9-10.5mm

Drilling Sequence for

Single Guide

Case 1 Case 2

Select Guide

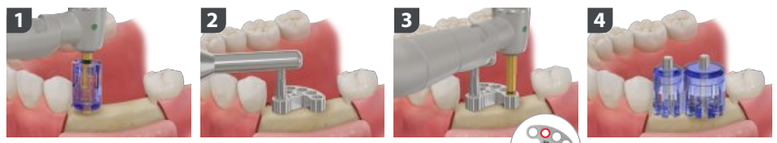
Connect guide and perform drilling

Check path and crown width

Drilling Sequence for

Single & Bridge Guide

Case 3



Select single guide and perform drilling

Connect bridge guied

Perform drilling

Check path and crown width, then place implant

Caution 1

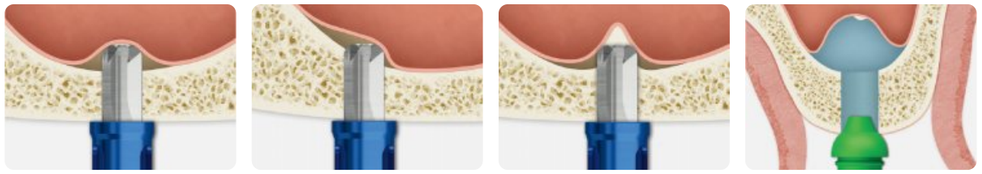
- When using the single guide, drill the guide towards the adjacent teeth.
- Check Buccal & lingual part carefully and drill the guide at the center of them.

Caution 2

When connecting the single guide to the drill, make sure that the open side is facing up.

Sinus Surgery Solution

Crestal Approach Sinus Surgery KIT is designed to perform sinus lifting without causing membrane perforation.
The KIT is composed of patented conical inverse drills and secures easier and safer sinus membrane elevation.



Flat | Inclined | Septum | Hydraulic Pressure Sinus Menbrane Lifting

Procedure

01 KIT & Case Introduction
02 Drilling
03 Membrane Lifting
04 ★ Check Perforation
05 Bone Graft
06 Implant Placement

* Optional

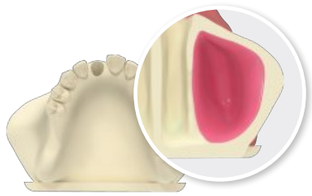
PREPARATION

1. Set the drill speed to 800 rpm for drilling.
2. Fill 3cc syringe with 1.5 cc of water.
3. Prepare bone graft materials.

★ **SPECIAL NOTE**

The practice model was designed to check the condition of sinus membrane from the open window.
An operator can check the sinus perforation during the hands-on practice in real time.

*** After lifting the sinus membrane, check the sinus perforation.**



Materials

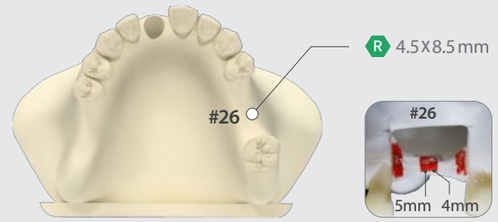
KIT	Model	Syringe	Bone	Implant
				
CAS KIT	BU05 X1	3cc Syringe X1	A-oss 1cc X1 *** Alternative**	4.5X8.5mm X1

HANDS-ON GUIDE 04

Sinus Surgery Solution

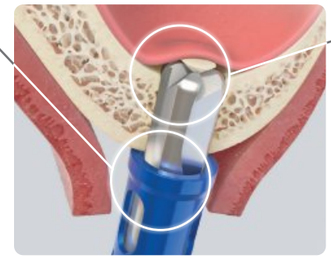
CAS KIT

- Model: BU05
- RPM: 800
- Normal Bone



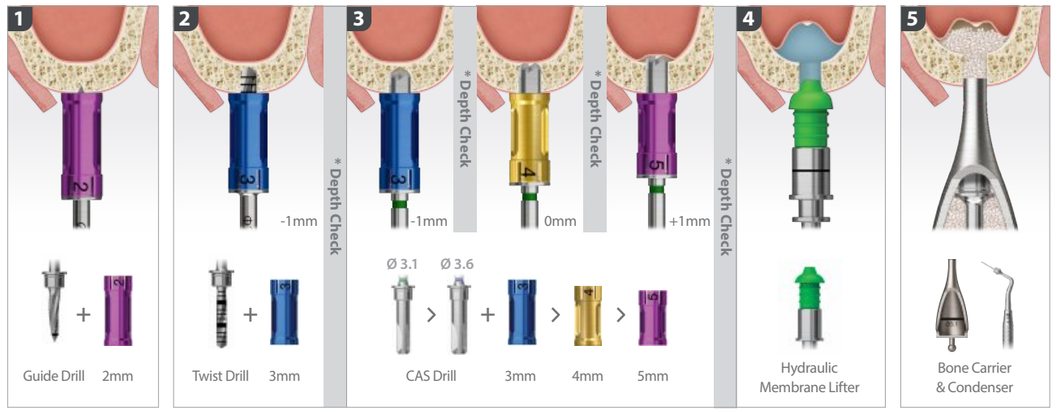
Adjust the Depth by Fastening the Stopper

Stopper | Drill



Exclusive Design for Sinus Surgery

Initial Drilling | **Drilling** | **Drilling (CAS Drill)** | *** Lifting** | *** Bone Graft**



Guide Drill 2mm | Twist Drill 3mm | CAS Drill 3mm 4mm 5mm | Hydraulic Membrane Lifter | Bone Carrier & Condenser

Depth Check

Connect a stopper to the depth gauge to check the condition of a drilled hole whether it is open and ready to be lifted.

Membrane Lifting

· Fill the 3cc Syringe with 1.5cc of saline
· Repeat injecting and drawing saline in the following volumes. : 0.5cc – 1 cc – 1,5 cc

Bone Graft

Herry Y and Lee DY, 2005	
Lift Heigh	Volume of Bone Matrix
3mm	0.36cc
4mm	0.5cc
5mm	**0.7cc**
6mm	0.9cc

Sinus Surgery Solution

LAS KIT is composed with dome drills, used to form a lateral window for sinus surgery. It is safer and less time consuming to form a lateral window, compared to cut the plate by using a round bur. Different size of stoppers can be connected to the drill to control the drilling depth.

Round Bur VS LAS Drill

Procedure

01 KIT & Case Introduction

02 ★ Drill Choice : Core or Dome Drill

03 Drilling

04 Check Perforation

05 (Implant Placement) : 122 Taper KIT

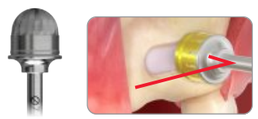
PREPARATION

1. Set the drill speed to 1,200 rpm for drilling.
2. Give the two options : the core drill and the dome drill
3. Follow the drill sequence for the selected drill.

*** Optional**

★ **SPECIAL NOTE**

When using a **Dome Drill,**
Please explain that a large lateral window can be secured by sliding the dome drill.



VS

When using a **Core Drill,**
Please explain that the bone lid generated by the core drill can be used to cover the window.

Materials

KIT

LAS KIT

122 Taper KIT
*** Optional**

Model

BU05 X1

Bone

A-oss 3cc X1
*** Alternative**

Implant

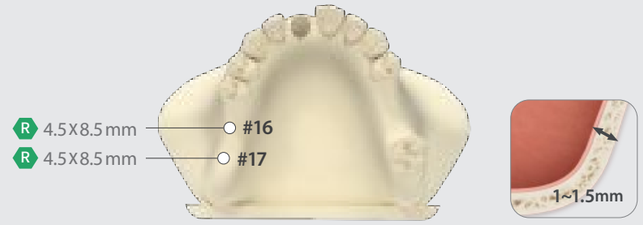
4.5X8.5mm X2
*** Optional**

HANDS-ON GUIDE 05

Sinus Surgery Solution

LAS KIT

- Model: BU05
- RPM: 1,200



Prevents the Membrane Damage using Special Drills

OR

\+

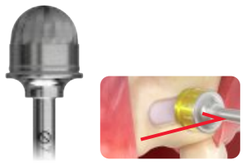
Adjust the Depth by connecting the Stopper to the Drill

Smooth cutting and minimal unseating

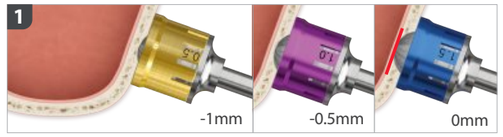
Safely creation of the bone lid

* Use side wall drill after sequence (1,500 rpm)

Drilling Sequence for
The Dome Drill

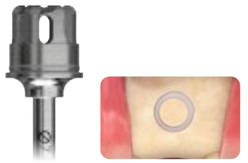


Approaching the Sinus Membrane

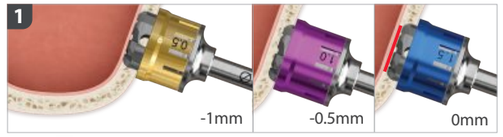


Widening the Window

Drilling Sequence for
The Core Drill



Approaching the Sinus Membrane



Separating the Bone Lid

Bone Separator

Narrow Ridge Solution

By using ESSET KIT, ridge split and expansion can be much less traumatic for patients.
No need to use a chisel or a mallet.

Prep | Cut | Expand | Implant Placement

Procedure

01 KIT & Case Introduction
02 Ridge Removal
★ 03 Sawing
★ 04 Expansion
★ 05 Implant Placement

PREPARATION

1. Set the drill speed to 1,200 and 35rpm for drilling and expansion.
2. Prepare a saw protector. (*Optional)

★ **SPECIAL NOTE**

To prevent buccal plate fracture, Follow the guided process in the order of middle, distal and mesial.

Sawing | Expansion | Implant Placement

Materials

KIT

ESSET KIT

Model

RS-01 X1

Implant

4.0X10mm X1 | 4.5X10mm X2

HANDS-ON GUIDE 06

Narrow Ridge Solution

ESSET KIT

- Model: RS-01
- RPM: 1,200 / 35

Approaching Sinus

RPM: 1,200

* Move the cresta remover in a counter drill wise to prevent irregular vibrations

Crestal Remover

Cut Alveolar Bone

RPM: 1,200

Twist Drill & Saw

Expand Alveolar Bone

RPM: 35

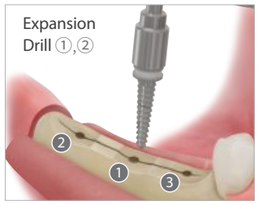
Expansion Drill

Place Implant

Implant

Secure 4mm in bone width

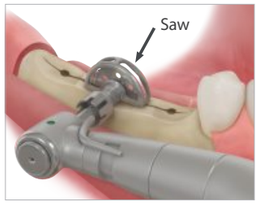
Mark the positions for expansion drills



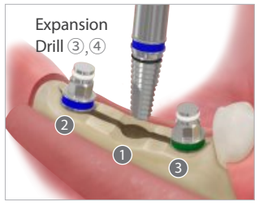
Expand alveolar bone (Middle-Distal-Mesial)

Remove expansion drills and place implants

Make a flat area for position marking



Saw alveolar bone (Middle-Distal-Mesial)



Maintain each of the last expansion drills after the final expansion

Place implants (Middle-Distal-Mesial)