# SINUS SURGICAL KIT

Crestal & Lateral Approach One Stop Solution







REF.NO : GSK-SS

# G•D#FF Sinus Surgical Kit

#### Feature & Benefit

G·DIFF Sinus surgical kit is specifically designed to easily and safely lift the membrane in the maxillary sinus from both crestal and lateral approach in ONE kit.

#### Safety

- Sinus Reamer Drill provides safely lifts the sinus membrane while drilling.
- Drill stoppers may prevent over drilling into the sinus cavity.

#### Easy to Use

- Simple and intuitive surgical process
- Aqua lift provides easily lifts the membrane
- Designed to minimize the steps for sinus membrane elevation.

#### **Onestop Solution**

It gives accurate implant placement solution with GDIFF implant system.

# **Crestal Approach**

## **Reamer Drill**

The Reamer Drill is designed to safe lift the maxillary sinus membrane from a crestal approach.

This tip design assists with safely lifting the sinus membrane without perforation.

It has 1mm increment stopper system (from 2mm to 12mm) and it prevents over drilling.

Reamer Drill diameter is 0.2 mm narrower than Final Drill from Surgical kit. Depending on bone density or quality, a Final Drill could be used after using a Reamer Drill.



Straight

#### Side Wall Drill

Facilitate membrane detachment with hydraulic pressure from side wall drills internal irrigation hole.

Enlarges the window after using side wall drill.

For limited space at the surgical site, Dome Drill can be tilted to drill.

Recommended to use cutting edge 1mm from the bottom. (can be used with stopper)





#### Aqua Lift

The serration of sinus membrane is safely carried out through crestal using Hydraulic pressure during an implant surgery in the maxillary sinus.

The principle of using hydraulic pressure prevents the sinus membrane from repturing.

Uses normal saline and lift the membrane slowly.





## Lateral Approach

 Round-shaped cutting edge minimises direct contact with the membrane.

**Recommended RPM** 1,000rpm with irrigation

Formation of bone particles between the cutting blades.

## **Core Drill**

Create bone lid to minimize direct contact with Sinus membrane.

The bone lid could be replaced after bone grafting.

The stopper system (from 1mm to 3mm) allows more precise depth control and reduce the risk of sinus membrane perforation.

\* Caution : over drilling may causesinus membrane perforation







Detailed pictures of the Core Drill







## Dome Shape Bur

Dome shape bur can be used to prepare a lateral window using light pressure and rotating strokes.

The Diamond-coated surface of the burs is designed to minimize the risk of sinus membrane perforation.

Minimize direct contact with the sinus membrane.

\* Caution : over drilling may causesinus membrane perforation





Detailed pictures of the Dome Shape Bur





# Instrument Sinus Surgical Kit



#### **Initial Drill**



D	REF.NO
Ø2.0	SNID-20

Unit : mm, Scale 1 : 1.2 / mm

Initial drill is to mark a fixture location.

· Easily marking and creating a hole on the bone.

• Recommended RPM : 1,000rpm with irrigation

#### **Reamer Drill**



D	REF.NO
Ø2.5	SNRD-25
Ø2.8	SNRD-28
Ø3.1	SNRD-31
Ø3.6	SNRD-36
Ø4.1	SNRD-41

• Round end design without cutting edge for safe membrane elevation / Connect the crestal stopper for use : 1,000rpm.

· irrigation with saline solution is recommended.

· Can be used up to 40 times depending on type of bone

#### **Drill Stopper**



Drilling Depth	Stopper Length	REF.NO
2.0	16.5	SNRDS-02
3.0	15.5	SNRDS-03
4.0	14.5	SNRDS-04
5.0	13.5	SNRDS-05
6.0	12.5	SNRDS-06
7.0	11.5	SNRDS-07
8.0	10.5	SNRDS-08
9.0	9.5	SNRDS-09
10.0	8.5	SNRDS-10
11.0	7.5	SNRDS-11
12.0	6.5	SNRDS-12

Stopper system for more precise depth control

• Each stopper is anodized and color coded for easy to use

· Marking indicate the remaining length of the drill (from drill tip to stopper)

#### Side Wall Drill



REF.NO	
SNWD-33	

 ${\boldsymbol \cdot}$  When the sinus cavity is accessed, Diamond coating beneath the disk can help enlarge the antrostomy

• Recommended RPM : 1,000rpm with irrigation

#### Aqua lift



D	REF.NO
Ø5.0	SNALT-50
Ø6.0	SNALT-60

• It is used to elevate sinus membrane by hydraulic pressure in crest-

al approach technique

 $\boldsymbol{\cdot}$  use normal salire and inject salire solution very slowly

\* Aqua Lifts are packed in 5 pieces for individual orders

\* All the accessories of the Aqua Lift are disposable



Tube



Connector

D	REF.NO	D	REF.NO
Ø5.0	ALTUBE-43	Ø4.9	SNALC

#### **Core Drill**





D	REF.NO
Ø6.0	SNID-60
Ø8.0	SNID-80

 $\boldsymbol{\cdot}$  Curved blade relieve the impact of sinus membrane and generate bone lid

Connect the lateral stopper for use

• Recommended RPM : 1,000rpm with irrigation

#### **Core Drill Stopper**



Drilling Depth	Stopper Length	REF.NO
1.0	7.0	SNCDS-01
2.0	6.0	SNCDS-02
3.0	5.0	SNCDS-03

Stopper system for more precise depth control

#### **Dome Shape Bur**



Drilling Depth	Stopper Length	REF.NO
9.5	13.5	TMDS08
11.0	12	TMDS10
12.5	10.5	TMDS11
14.0	9.0	TMDS13

 $\boldsymbol{\cdot}$  can be used to prepare a lateral sinus window using light pressure rotating strokes

• The diamond-coated surface of the burs is designed to minimized the risk od sinus membrane perforation

• Recommended RPM : 1,000rpm with irrigation

#### **Drill Extension**

Unit : mm, Scale 1 : 1.2 / mm



REF.NO
TDESP

Extension of drills for hand piece

• Connect the flat surface of the drill with the flat surface of the drill extension



- Tip sizes come in Ø2.4 and Ø2.7
- This tool is used to measure the thickness of the remaining bone
- The depth can be safely verified when a stopper is attached

Fixtu	ire selection	Initial Drill	Sinus Reamer Drill Point Twist Drill			Sinus Reamer Drill							
Fixture	Bone Density	Ø2.0	Ø2.5	Ø2.8	Ø3.1	Ø3.6	Ø4.1	Ø2.0	Ø2.0	Ø2.5	Ø3.3	Ø3.8	Ø4.3
F3.5		•	•					•	•				
F4.0	Coft Dono	•	•	•				•	•	•			
F4.5	SOIL BONE	•	•		•			•	•	•	•		
F5.0		•	•			•		•	•	•	•	•	
F3.5		•		•				•	•	•			
F4.0		•		•	•			•	•	•	•		
F4.5		•		•		•		•	•	•	•	•	
F5.0				•			•	•	•	•	•	•	•

#### **Drilling Sequence**

#### **Sterilization**

This medical device is non-sterile. Sterilize before each use, either using pre-vacuum or gravity in an autoclave. Please avoid sterilizing plastic products at temperatures exceeding 170°C(=338°F). Remove the inner packaging from tray before sterilization and disassemble the assembled components. If any, to in crease the sterilization efficiency. Before sterilizing the tray, wrap it with a surgical drape and seal it with an autoclave tape.

Autoclave Type	Gravity	Pre-Vacuum		
Set point Temperature	132°C / 270°F	132°C / 270°F		
Exposure Time	15min	4min		
Drying Time	30min	30min		

The recommended number of uses per drill is up to 40 times but a drill should not be used when its cutting force is reduced

\* Since the durability of the drill varies depending on many factors, such as bone density of the patient, be sure to check the drill condition before every use.

#### **Prepare Before Use**

1.Prior to using this product, the clinician must completely understand the condition, performance and function of the product.

2. Use only after raising any doubts and verifying any issues with the manufacturer.

3. For the procedure, a plan must be first established, based on checking the patient's oral condition and accurate judgments.

4. After taking into consideration the condition of the patient, tools appropriate for the procedure must be prepared.

#### Washing after Use 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 flowing 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.

#### Trays

1. Remove all visible foreign objects using distilled water or flowing 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.)

#### Precaution

Only dentists who have completed implant procedure education and training courses can use this product.

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.

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. Before each procedure, the tools must be examined for wear and tear. Any external contact with the surfaces is prohibited.

Improper selection of the patient or procedure may cause failure of the implant or postsurgical bone loss around the implant. Hydrogen peroxide is prohibited for disinfection and washing, as it could damage or discolor the coating, laser markings, or colors.





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