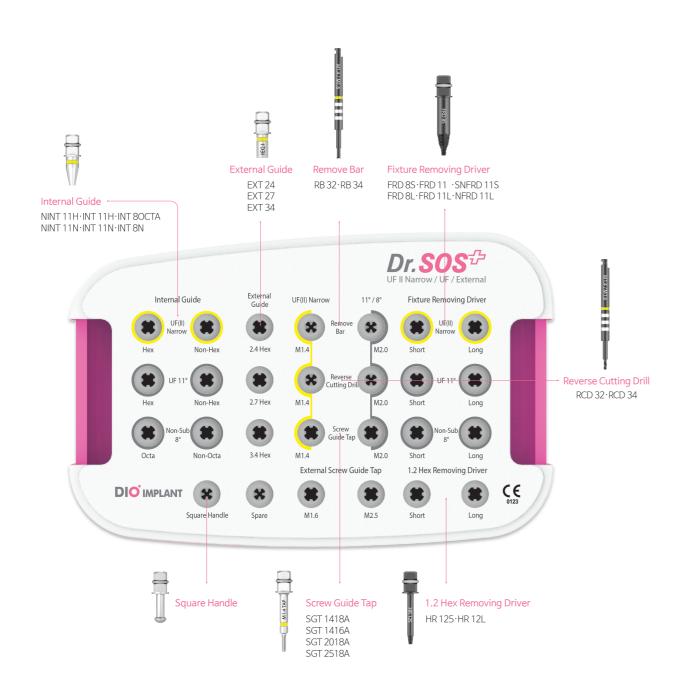
DIO www.dioimplant.com



# Dr.SOS Kit Kit Code | DRS 02

· Problems like fracture of screw from excessive torque, wearing of connections, and jamming of foreign matters during prosthetic part of implant installation are resolved safely and quickly.

Unit mm | Drill Scale 1:0.9





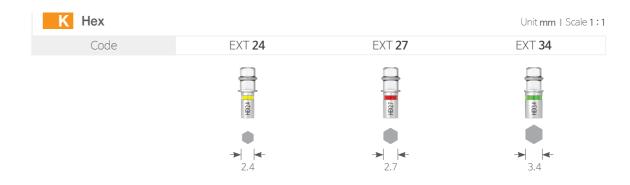
# **Surgical Tool**

### **Internal Guide**

· Guide for accurate entry of the Remove Bar and Reverse Cutting Drill into the fixture

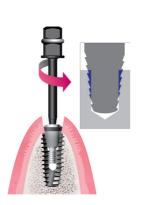


### **External Guide**



# **Fixture Removing Driver**

- · When the fixture placed inside the mouth needs to be removed, a removing driver is connected to the fixture and friction force from reverse rotation is used to remove the fixture.
- · A removing driver is connected to the conical joint inside the fixture and rotated in reverse.



	K Unit mm I So								
F	Fixture Size	UFII Narrow	· External NF	UFII Regu	ılar · Wide	ISF · SM · IFI			
	Code	NFRD 11S	NFRD 11L	FRD 11S	FRD 11L	FRD 8S	FRD <b>8L</b>		
		NED11S	NEG TIL	FRO 11S	Ht Ost	FRO ES	HO St.		
	Туре	Short	Long	Short	Long	Short	Long		

## 1.2 Hex Removing Driver

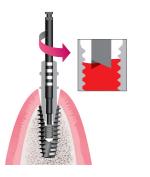
- $\cdot$  When it is difficult to connect a 1.2 hex driver due to jamming of foreign matter in the 1.2 hex connection part and deformations such as wearing of screw thread, the abutment / screw is removed using frictional force created by reverse rotation of the removing driver.
- The removing driver is sufficiently pressed down during reverse rotation to prevent idling.

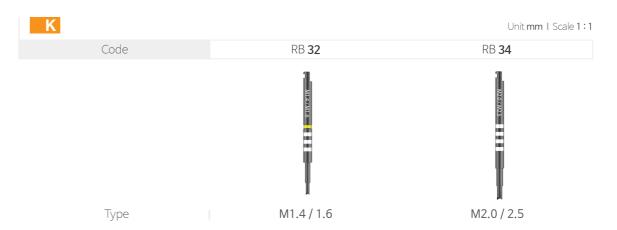


K Hex 1.2		Unit mm   Scale 1:1
Code	HR <b>12S</b>	HR <b>12L</b>
1.2	187.125	HR 12L

#### Remove Bar

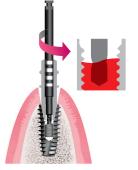
 $\cdot$  By attaching the end blade of the bar to the cross section of the fractured screw remains, remove the remains in a reverse rotation by friction



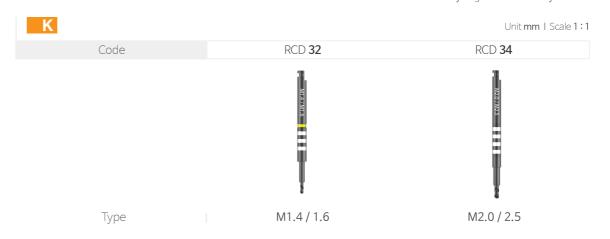


## **Reverse Cutting Drill**

- · After inserting the end blade of the cutting drill in the fractured screw remains, remove the remains in a reverse rotation by friction.
- · When it is difficult to remove with a reverse cutting drill, remove the screw remains by inserting a 1.2 hex removing driver on the hole formed on the screw remains and drilling in a reverse rotation



\*\*Drill Speed: 1,200RPM / Reverse rotation\*\*In order to prevent high heat generation, osteotomy irrigation is necessary.



## **Screw Guide Tap**

- $\cdot$  This restores the screw thread when it is difficult to connect the screw due to screw deformation by jammed debris between the connection, or thread abrasion.
- · Use a square handle by hand. Do not use a square wrench.



K UFII Narro	K UFII Narrow / External Narrow								
Code	SGT <b>1418A</b>	SGT <b>1416A</b>	SGT <b>2018A</b>	SGT <b>2518A</b>					
	₩1.44 Ø1.4	₩ 67AP	₩ Ø2.0	Ø 2.5					
Color	•	•	•	•					

# Sinus Master Kit Kit Code | SMK 01

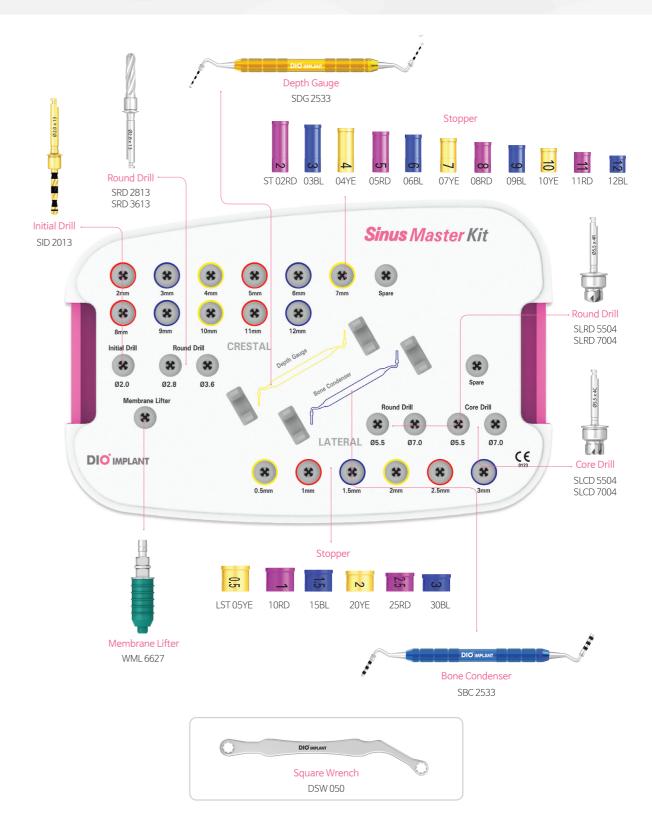
Crestal Approach Technic

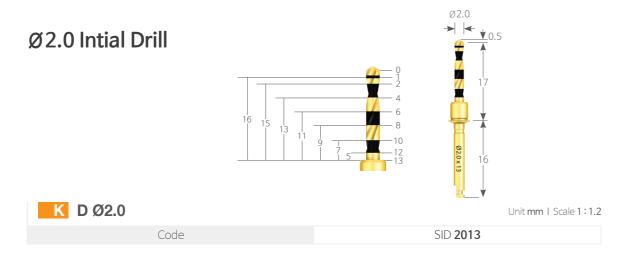
Sinus Technic based on low-speed drilling (50~100rpm) and stopper that perforates the inferior cortical wall and lifts the membrane safely and quickly

Lateral Approach Technic

Round drill or core drill can be selected. The membrane can be lifted safely and quickly based on low-speed drilling (50~100rpm) and stopper.

Unit mm | Drill Scale 1:0.9





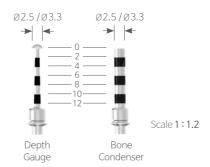
## **Round Drill**



## Stopper

· Stopper must be used for adjusting depth of the drill. It is distinguished by color and number.



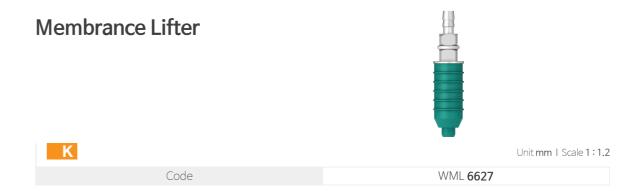


# **Depth Gauge**



## **Bone Condenser**





## **Round Drill**



### **Core Drill**



# Stopper

 $\cdot \ \, \text{Stopper must be used for adjusting depth of the drill. It is distinguished by color and number.}$ 

K									
Code	LST 05YE	10RD	15BL	20YE	25RD	30BL			
	0.5		2	1.5	2.5	ω			
Туре	0.5	1	2	1.5	2.5	3			

# **Surgical Protocol**

# **Lateral Approach Technic**

 $\cdot$  Sinus Technic based on low-speed drilling (50~100rpm) and stopper that perforates the inferior cortical wall and lifts the membrane safely and quickly

### **Drilling** Round Drill

Rounded tip to perform drilling

Caution

The stopper must be used. Irrigation at 1,200~1,400rpm

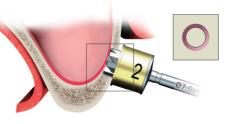


#### **Drilling** Core Drill

The edge of the rounded tip only can perform drilling Beware of the remaining bone chips returning to original position after lifting of the maxillary sinus.

Caution

The stopper must be used. Irrigation at 600~800rpm



### **Lifting of the sinus membrane** Sinus Lift

Lifting of the membrane on the lateral side



# **Surgical Protocol**

### **Crestal Approach Technic**

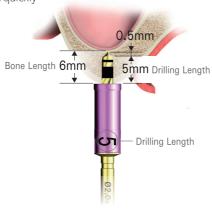
· Sinus Technic based on low-speed drilling (50~100rpm) and stopper that perforates the inferior cortical wall and lifts the membrane safely and quickly

#### **Drilling** Initial Drill

Drilling is done 1~2mm short from the floor of the maxillary sinus measured by CT after attaching a stopper.

#### Caution

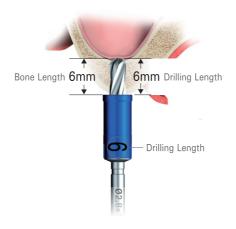
The stopper must be used to adjust depth. Non-irritation and low-speed drilling at 50rpm



#### Sinus drill to perforate the bone underneath the maxillary sinus

Drilling is done to the same length as height of the residual bone of the maxillary sinus measured on CT after attaching a stopper.

The stopper must be used to adjust depth. Non-irritation and low-speed drilling at 50rpm



Lifting height o

#### Membrane lifter to lift the sinus membrane

The membrane lifter is used to inject saline solution into the osteotomy site.

#### Amount of injection measurement starts when pressure is felt, excluding the first

0.2cc~0.5cc before pressure is applied.

\* Amount of injection before pressure can differ according to height and expansion of the bone. For 1mm of sinus lifted, 0.1cc is injected.

#### Caution

#### If inferior border (A) of the maxillary sinus is well open

If pressure can be felt during injection of saline solution,

the membrane is lifted and the pressure drops and saline solution injected.

#### If inferior border (A) of the maxillary sinus is not open well

After pressure felt from injection of saline solution,

no more pressure can be applied or the nozzle is pushed out.

→ Drill the sinus drill 1mm deeper and retry.

#### Aspiration of saline solution with the nozzle kept in the hole

If negative pressure results after asipration of injected saline solution mixed with blood, the membrane is fully lifted.



border of the maxillary sinus.









#### Bone condenser to inject bone graft material

The bone condenser is used to push bone graft material into the maxillary sinus through the osteotomy site.

Sinus drill (2nd) to open and expand inferior

#### Caution

The stopper must be used to adjust depth. Non-irrigation, low-speed drilling at 50rpm.

#### Caution

Determine volume of bone graft material.

When pressure is felt during injection of saline solution, the membrane is lifted.

ifting height of the sinus membrane (mm)			2	3	4	5	6	7	8	9	10
Gone graft	If implant is placed	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
GBR (cc)	If implant is not placed	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0

#### Dispersion of bone graft material

Insert a depth gauge into the maxillary sinus and rotate it to evenly disperse bone graft material.

#### Final Drilling Final Drill

Drill 2mm deeper than depth of the sinus drill used earlier.

Caution Use a drill shorter than implant.

#### Sinus drill (2nd) to open and expand inferior border of the maxillary sinus

Implant that enters into the maxillary sinus pushes bone graft material away to disperse it. If amount of residual bone is 4mm or larger, satisfactory initial fixing force can be obtained. Also, temporary prosthesis can be restored immediately upon placement of implant.

If remaining bone is very thin with thickness of 3mm or less and initial fixing of impaint fails, only bone graft on the maxillary sinus is performed without implant placement.



