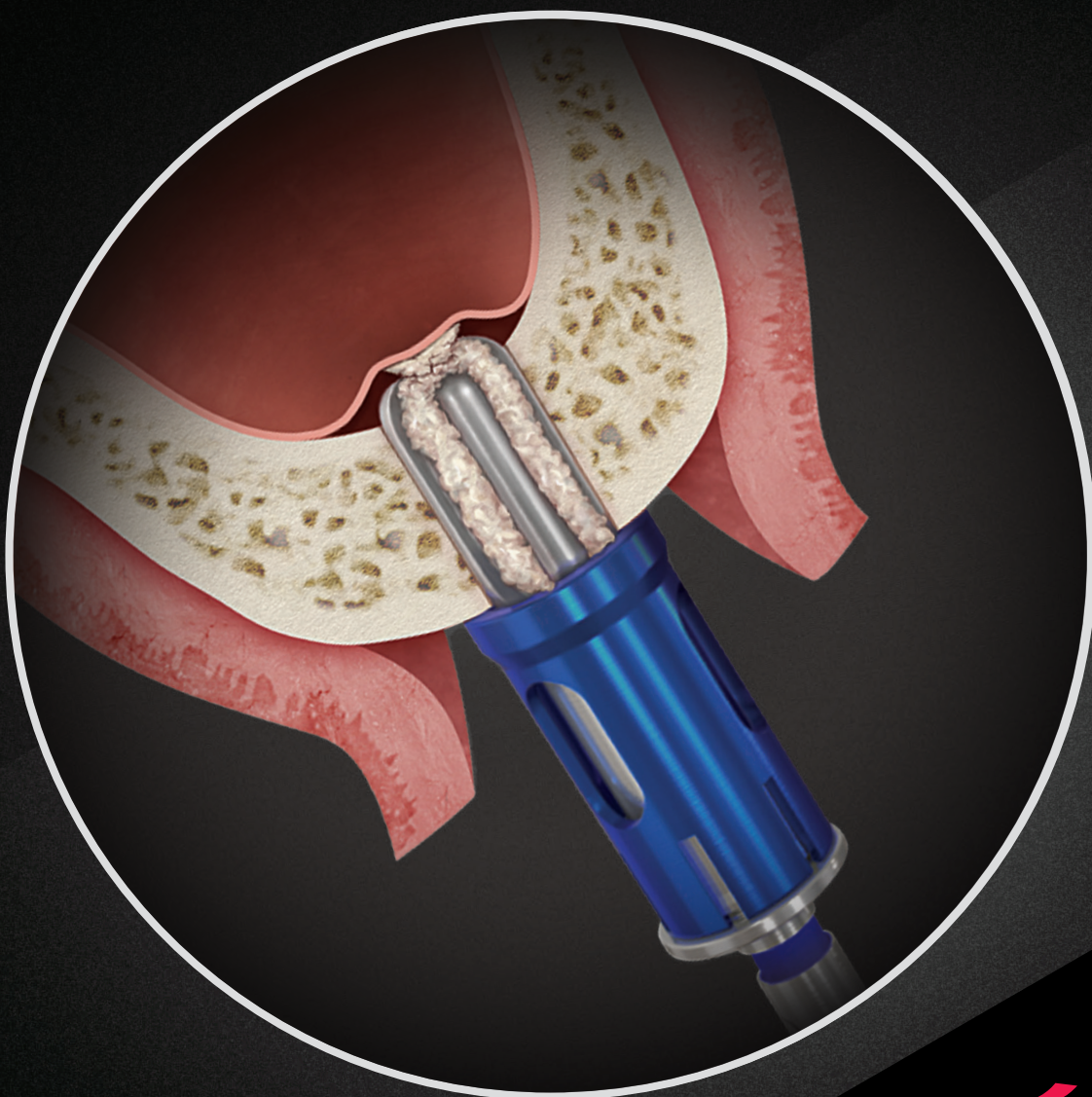


Crestal Approach Sinus Kit that enables safe and faster lifting of the sinus membrane without perforation

CAS Kit

- Prevents perforation of maxillary sinus membrane
- Safely lifts membrane with hydraulic pressure
- Applicable to various sinus floor morphologies

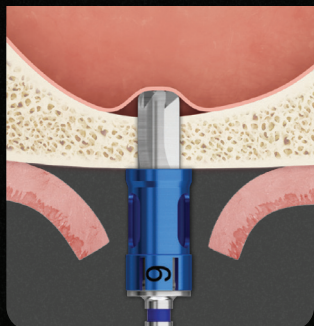


HROSSEN
IMPLANT

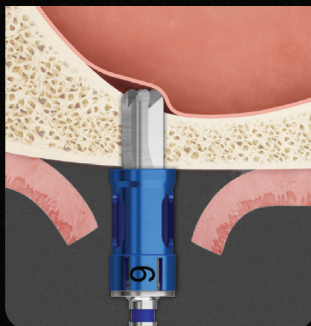
Applicable to various cases

- The inverse conical design of the drill tip allows the user to perform sinus surgery no matter whether the sinus floor is flat, inclined, or adjacent to a septum. The drill is safe in case the inferior alveolar nerve is close to the osteotomy.

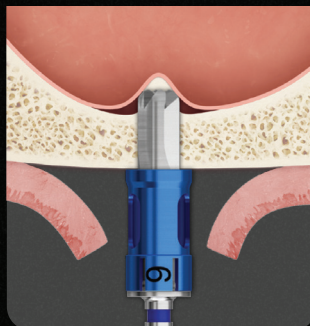
Flat



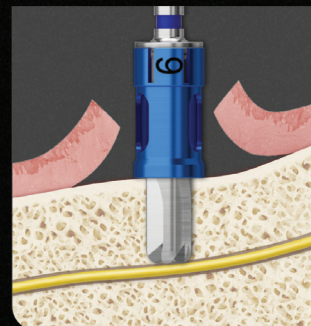
Inclined



Septum



Nerve



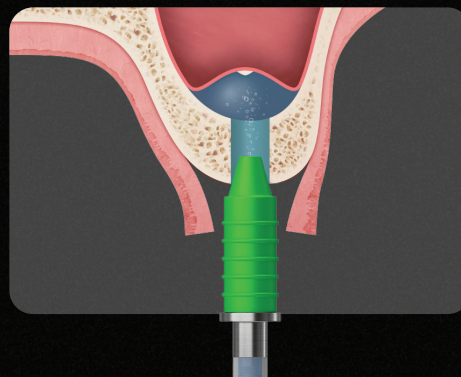
Minimizes risk of maxillary sinus membrane perforation

- The round-shaped cutting edge drill design minimizes the risk of sinus membrane perforation



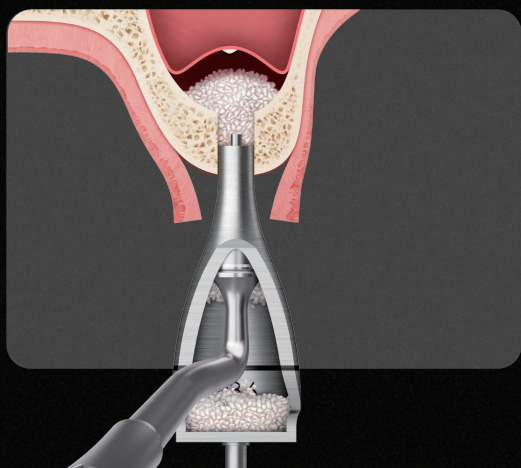
Safely lifts membrane with hydraulic pressure

- Lifts maxillary sinus membrane widely via hydraulic pressure
- The unique design of the membrane lifter tip seals the osteotomy completely to maximize saline pressure and lift the membrane safely.



Provides safer bone grafting and prevents secondary infection

- Funnel shaped bone carrier minimizes the risk of secondary infection from foreign substances.
- Able to inject 0.15cc of bone graft material at a time which leads to faster bone grafting.



Collection of Autogenous bone

- Autogenous bone is collected as bone chips are formed between the cutting blades



Clinical indications & Case study

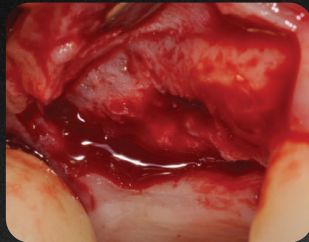
HIOSSEN
IMPLANT

Missing second molar case

Data source : Apsun Dental Clinic. Dr. Y.S. Cho



Pre-operative



Flap elevated



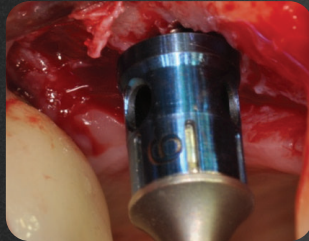
Ø2.2 Twist Drill
with 4.0 mm stopper



Ø3.6 CAS Drill
with 8.0 mm stopper



Depth gauge
with 9.0 mm stopper



Gently release and lift the sinus
membrane



Hydraulic membrane lifter



Detach the sinus membrane to create
adequate space for bone grafting using
Hydraulic membrane lifter



- * Bone Carrier: Cone shaped with an extended tip that reaches the sinus cavity and prevents bone graft material from spilling out
- * Bone Condenser: Safely pushes bone material through the bone carrier into the sinus cavity



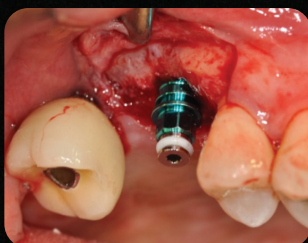
Fill and distribute bone graft material evenly
into the created space using bone condenser



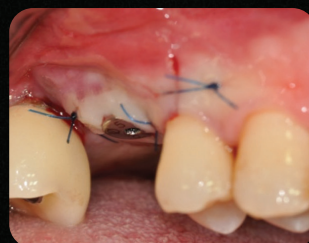
Bone grafting is completed



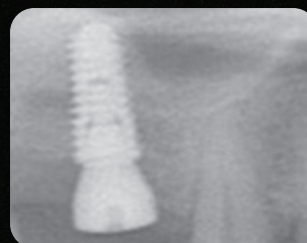
ETIII SA Ø4.5x10.0mm



Placed Hiossen ETIII SA (Ø4.5x10.0mm,
insertion torque: 14Ncm, ISQ:66/66)
into the osteotomy



Ø5.0 Healing abutment connection



Post-operative X-ray

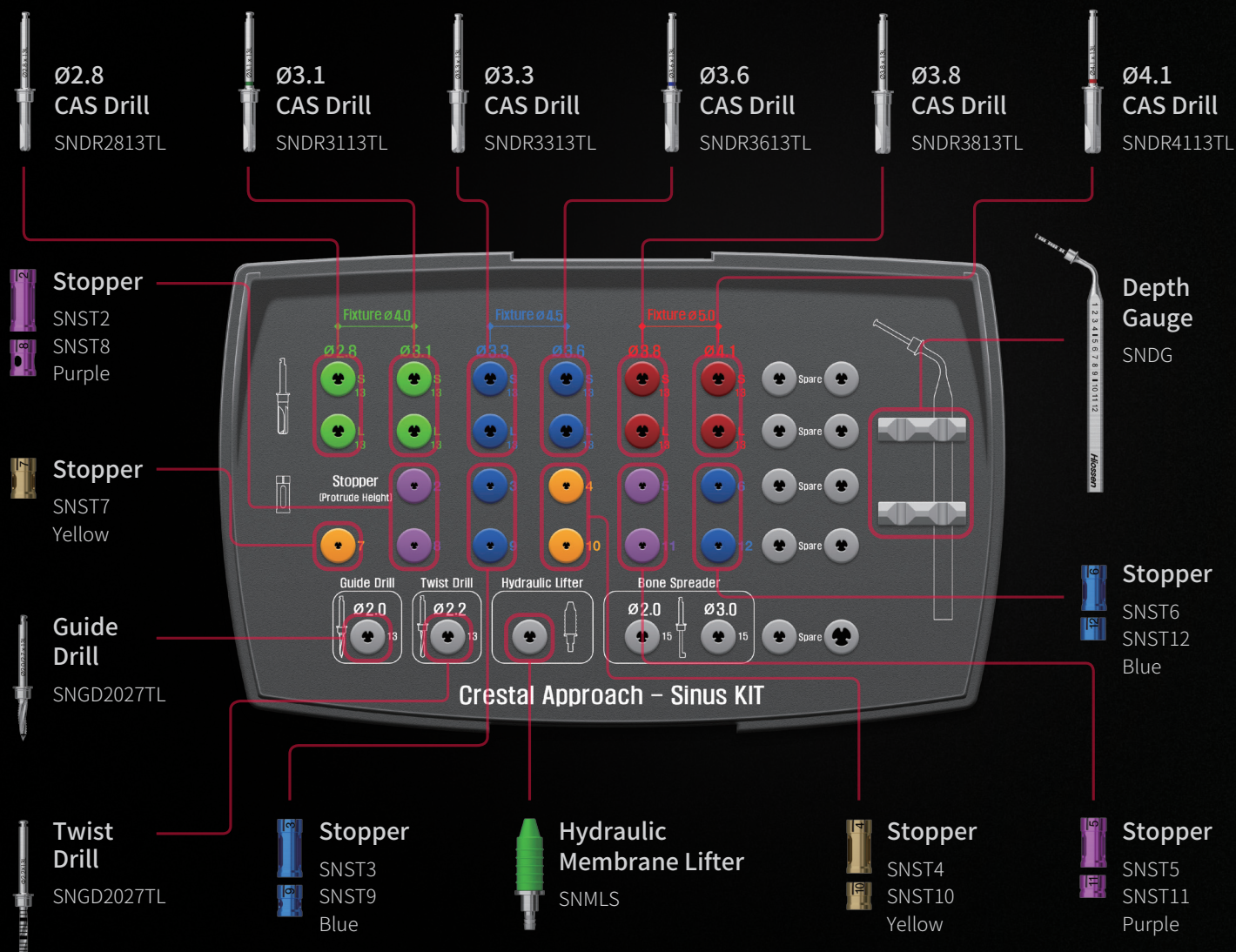


Post-operative CT view

The CAS Drill is designed to safely and conveniently lift the maxillary sinus membrane from a crestal approach. The CAS Drill can be used for either general-straight or tapered implants. It is recommended to use the Hiossen implant system to obtain the optimized insertion torque, initial fixation, and tactile feedback in placing the implant(s) in the sinus cavity with a CAS kit.

* Refer to the implant manufacturer's guideline for more details.

CAS Kit layout and components



► : Required ► : Optional

Implant Selection		Guide Drill	Twist Drill	CAS Drill						Depth gauge	Hydraulic Memb. Lifter	Bone carrier	Bone condenser
F(Ø)	Bone Density	Ø2.0/2.7	Ø2.2	Ø2.8	Ø3.1	Ø3.3	Ø3.6	Ø3.8	Ø4.1				
Ø4.0	Soft	►	►	►						►	►	►	►
Ø4.5		►	►	►		►				►	►	►	►
Ø5.0		►	►	►				►		►	►	►	►
Ø4.0	Normal	►	►		►					►	►	►	►
Ø4.5		►	►		►		►			►	►	►	►
Ø5.0		►	►		►				►	►	►	►	►

Use the matrix above to prepare for surgery. There are a few things that need to be taken into consideration, the diameter of the implant, bone density of the sinus floor, and the optimized insertion torque and the initial fixation to stabilize the implant. In the case of a general straight type implant, use a CAS Drill that is 1mm smaller in diameter than the actual implant.