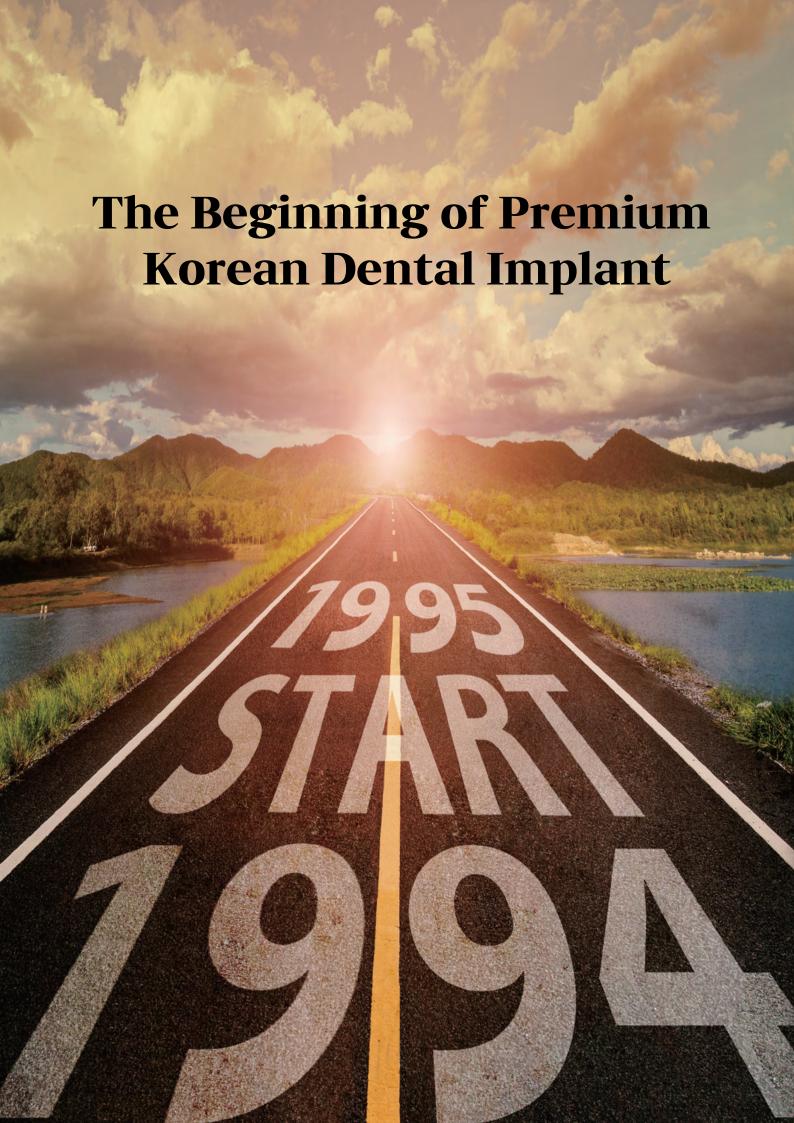




Cowellmedi **Implant Solution**

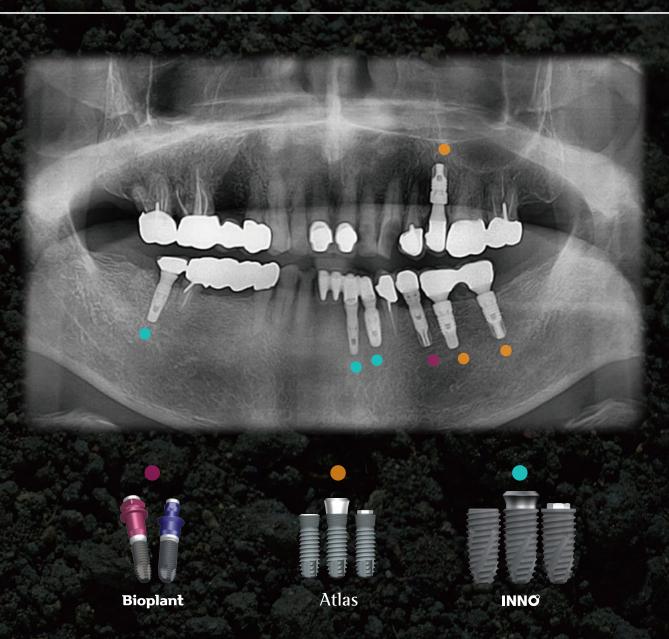
Help your daily practice superior







THE OLDEST IMPLANT CASE IN KOREA



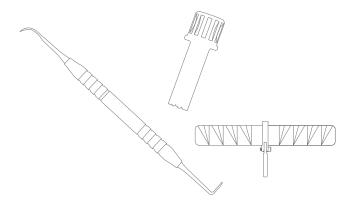
#35: BIOPLANT, 1st generation of the COWELL Implant, Korea's first dental implant developed in 1994. #25, 36 & 37: ATLAS Implant System, 3rd generation of the COWELL Implant, Korea's first ASD treated Implant. #32, 33 & 47: INNO Implant System, Cowellmedi's 4th generation implant surface, SLA-SH treated implant.

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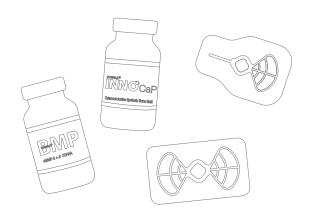
Help your daily practice superior

	Cowellmedi Expert Instruments
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COWELLMEDI HISTORY

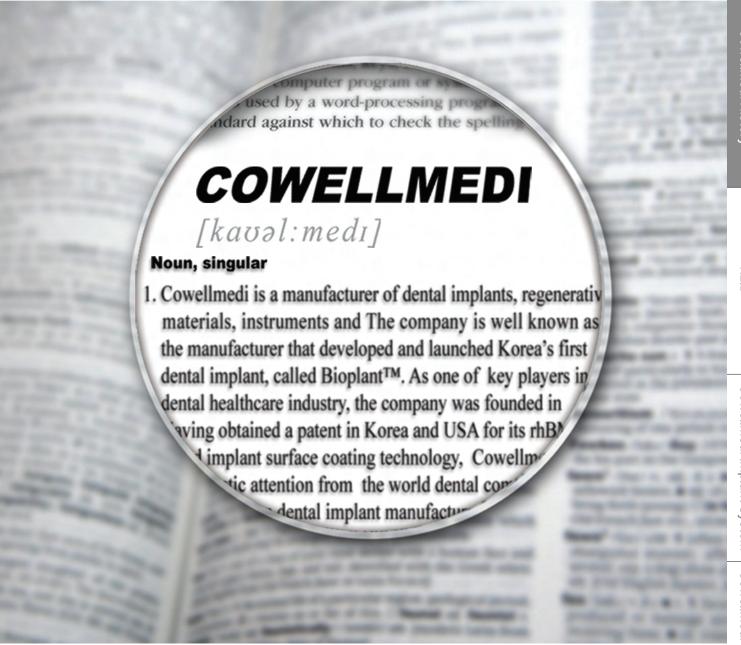
For the first time in Korea,

Beginning with Korea's First Dental Implant, the COWELLMEDI has been leading the way to the future biomedical industry with the fusion technology to its E.rhBMP-2 developed for the first time in the world.

- *Developed KOREA'S FIRST DENTAL IMPLANT, BIOPLANT.
 - Succeed in localizing DENTAL IMPLANT FOR THE FIRST TIME IN KOREA.
- 1998 Founded Asrahi Medical.
- 1999 Established R&D corporation with PNU's Oral and Biotechnology Research Center.
- Converted to COWELLMEDI corporation (Cowellmedi Co., Ltd.).
 Obtained ISO9001 certificate.
- Developed ASD surface treatment technology for dental implant for the first time in Korea.
- Obtained US FDA approval for the BIOPLANT Implant System.
- Medaled for contribution of developing KOREA'S FIRST DENTAL IMPLANT from Korean Government.
- Obtained GMP, ISO13485 and CE certificate.
- Obtained US FDA approval for the ATLAS Implant System.
- Established COWELLMEDI USA and COWELLMEDI Taiwan.
 Established COWELLMEDI Tissue Engineering Institute for Growth Factors.
- Obtained a KR patent for dental implants coated with E.rhBMP-2, E.Coli derived Recombinant Human Bone Morphogenetic Protein type 2, developed for THE FIRST TIME IN THE WORLD.
- Completed preclinical trials on E.rhBMP-2 (COWELL BMP).
- Obtained MFDS approval for clinical trials on the COWELL BMP.



REID



- Obtained MFDS manufacturing and sales approval for the COWELL BMP.

 HANDELD DATA STATEMENT OF THE COWELL BMP.
 - Held the 1st WORLD BMP Symposium in Seoul, Korea.
- Obtained a US patent for E.rhBMP-2 Coated Implant.
- Obtained MFDS Approval for E.rhBMP-2 Spinal Fusion Clinical Test Plan.
 - Launched the INNO Implant System.
- Obtained US FDA approval for the the INNO Implant System.
- Established a R&D and Education Organization, REID (Research & Education in Implant Dentistry).
- Developed implant surface, SLA-SH.
- Established COWELLMEDI China.
 Established educational cooperation with MMS (Miami Medical Seminars).
- Launched the Sonator 80's System, an implant-supported overdenture system.
- Launched the InnoGenic Wifi-Mesh, a non-resorbable membrane.
 - Appointed as a global IP(Intellectual Property) star enterprise.
- Published "20 YEARS OF OUTCOMES, 20 YEARS OF CLINICAL EVIDENCE OF COWELL Implant System", a clinical case collection with a record of COWELL Implant System for over 20 years.
- Obtained MDSAP certificate.
- Obtained CE certificate for the InnoGenic Wifi-Mesh and PTFE-Mesh.
 - Obtained Health Canada approval for the INNO Implant System.
- Obtained a new factory site for Cowellmedi Global Innovation Centre in Busan.
- Published the World's first BMP-2 book.



The REID is a global institute, standing for Research and Education in Implant Dentistry.

The REID has been dedicated to researching technology and knowledge for implant dentistry, creating more predictable concepts of treatment, and developing cutting-edge products in implant dentistry and related fields as its first objective of the establishment.

As its second objective of the establishment, the REID also has been committed to training dental professionals with world-class clinicians, lecturers, and education curricula.

The REID is now reaching more clinicians with easier access to a variety of clinical solutions and open discussions where everyone can attend.

Should you have any to share with us to achieve our mission together, be a part of us. The REID is always open for you.





To improve how the world dental community treats implant dentistry by providing dental professionals with internationally multidisciplinary education service and state of the art treatment concepts as well as comprehensive quality research for the benefit of patients.

- · Constructing the future of implant dentistry and related fields.
- The world-class education provider and research institute.
- Sharing more know-hows to have better ideas by expanding a worldwide network of members.
- · Providing training systems accessible to any dental professional across the globe.

Process Flow Chart

CNC Machining



Precise machining process using state of the art computer numerical control system fused to the COWELL Class 1000, operated by a world-class technical unit.



Surface Treatment



The SLA-SH Surface treatment with biologically active materials to achieve the ideal osseointegration.



Inspection



Absolutely accurate test and quality control system with cutting edge equipment such as optical profiling measurer, stereoscopic microscope, micrometer scope, and other specialized devices for dental implant manufacturing.

Cleansing



The cleansing process by ultrasonic wave using the 3rd distilled water, vacuum dry, and heating dry sterilization leaves no residue and ultimately sterilizes the products.



Packing and Sterilization



Sanitarily packed products at cleanrooms are sterilized by gamma-ray using radiation isotope.



Shipping Warehouse



The finished products are sorted and stored at warehouses for immediate delivery.

COWELL Warranty

* For more details, visit our website at www.cowellmedi.com

1. Guarantee beneficiary and scope

Products	Period	Conditions	Remarks
Implant	Lifetime	Replacement with equivalent Implant	The period shall begin from the sale date

2. Scope of Warranty

- 1) Quality benefits
 - > In case the product material or the manufacturing process is flawed.
- 2) Surgical benefits
 - > In case implants fail to be grafted to the bone.

3. Claim Procedure

- 1) In case certain faults occur after transplanting implants (procedure), the staff in charge shall be contacted within 30 days thereafter.
- 2) When such contact is made, the Customer Complaint Report shall be written out and shall be submitted together with the concerned product.

4. Exclusions from Warranty Service

- 1) In case implants are transplanted onto patients with diabetes and alcohol addiction.
- 2) In case implants are transplanted onto patients for whom surgical procedures are difficult to perform due to the history of the systemic disease.
- 3) In case implants are transplanted onto patients who depend on habitual medications.
- 4) In case the procedure is not conducted according to the protocol of the COWELLMEDI.
- 5) In case the procedure is not performed in compliance with biological indication : (E.g. distance between the buccal wall and implant should be at least 2mm).
- 6) In case the procedure is conducted using contaminated surgical devices.
- 7) In case implants are transplanted onto patients who sustain or are infected with cell issue contamination.
- 8) In case other materials from other companies are mix-used with Implants, prosthetic parts and instruments of the COWELLMEDI.
- 9) In case the result of investigations by COWELL R&D Institute, Div. of QA and QC shows the issue is not related to the products manufactured and provided by the COWELLMEDI.
- 10) Store at room temperature and in a dry place, and care should be taken from contamination after the product is opened.
- 11) In case the information hereby requested, especially, product Lot no., Serial no. or X-ray photos, is missing.
- 12) In case that the concerned products are not returned.
- 13) In case the product is damaged due to negligence of handling.
- 14) In case the product is opened and fails to remain sterilized.
- 15) In case that the expiry date of the concerned product (not opened products only) is not longer than 1/4.

Package System

1. Color classification (Coding) by fixture type and external label marking

A. Color classification by fixture type

Fixture type	Submerged (Sub.)	Submerged Short (Sub.)	Submerged X (Sub.)	Submerged V (Sub.)	Submerged Narrow (Sub-N.)
Package	Company of the second of the s	IR. EXAGON SYSTEM CONTROL OF THE CO	SUB- HEXAGON SYSTEM	SUR HEXAGON SYSTEM HEXAGON SYSTEM	SUB. NARROW HEXAGON STSTEM
Connection			SUB-N. HEXAGON SYSTEM Emerald		

Fixture type	Internal (Int.)	External (Ext.)	Mini Cement (1P-C.)	Mini Ball (1P-B.)
Package	INT. OCTAGON SYSTEM	AND EXT. HEAGON SYSTEM MESSEGON SYSTEM		WINIPUM STANDARD STAN
Connection	INT. OCTAGON SYSTEM Orange	EXT. HEXAGON SYSTEM Green	MINI PINK	

B. External label marking and color coding by fixture diameter & fixture type

- > Color coding by diameter on the external label.
- > Reuse is prohibited after opening as the product is sterilized.
- > After the ampule is opened, care should be taken from dropping, which may be caused by incomplete fastening.
- > Store at room temperature and in a dry place, and care should be taken from contamination after the product is opened.
- > Discard expired products.















Diameter	Ø2.5	Ø3.0	Ø3.1	Ø3.3	Ø3.5	Ø4.0	Ø4.5	Ø5.0	Ø5.5	Ø6.0
Fixture Type(abbr.)	Bisque	Green	Burgundy	Orange	Yellow	Emerald	Red	Pink	Violet	Gray
туре(аррг.)	bisque	dieen	bulgulluy	Olalige	TEIIOW	Lilicialu	neu	FILIK	VIOIEL	Glay
Submerged (Sub.)	-	-	_	-	~	~	~	~	-	~
Submerged Short (Sub.)	-	-	-	-	-	~	~	~	~	~
Internal (Int.)	-	-	-	-	~	~	~	*	-	~
External (Ext.)	-	-	-	-	~	~	~	~	-	~
Submerged Narrow (Sub-N.)	-	-	*	~	-	-	-	_	-	-
Mini Cement (1P-C.)	~	~	-	-	-	_	-	_	-	-
Mini Ball (1P-B.)	~	~	_	_	_	_	-	_	_	_

2. Fixture user guide (Embedded in the packaging)

COWELL IMPLANT SYSTEM Instructions for Use

1. Device Description

The COWELLMEDI implant system includes a variety of precision-machined fixtures manufactured from titanium. These implants are surgically inserted into a mandible (the lower jawbone) or a maxillary bone (the upper jawbone) and serve as a replacement for a patient's tooth root providing a stable foundation for restoration.

2. Intended for use

To support dental prosthesis as a dental device, which is implanted into alveolar bone to recover masticatory function and give better esthetics in patients with partially or full edentulous laws.

3. Directions for use

1) Surgery - The first stage

- a. According to the patient's condition, appropriate dental cleaning operations may be performed and preventive antibiotics may be administered prior to implant operation.
- b. Clean and disinfect the operative site, administer local anesthesia in the area and expose the alveolar bone by making appropriate incisions and reflecting the gingival tissues along the alveolar crest in the area from where teeth were extracted.
- c. Drill into the gum in order to implant a fixture into the planned place with various dental operation tools. The speed of the revolution of the drill should be adjusted by the condition of the bone and the kinds of operation tools. Saline solution should be poured onto the area so that necrosis doesn't occur by heating of the bone (The speed for all drilling should be less than 1,200 rpm).
- d. Remove the external sterile package cover sheet: open the cap of the ampule: affix the Fixture Driver (in case of No-mount Fixture) or the Mount Driver (in case of Pre-mount Fixture) to the Hand-piece and connect it to the fixture: move the assembled piece to the osteotomy site for the implant using care to prevent the assembled piece from being separated or contaminated with foreign materials.
- e. A fixture is implanted into the bone as planned depth by turning (25~30 rpm) a hand-piece clockwise with 15~50 N.cm torque. In event that it is hard to insert, extend the width of bone by Tap Drill or Countersink (less than 1,200 rpm) in order to facilitate better implantation.
- f. After finishing implantation, the treated part should be sutured by using a hex driver to connect to the Cover Screw with torque 10N.cm to prevent the intrusion of a foreign substance in the fixture.

2) Surgery - The second stage

- a. Incise gingival of the upper part of fixture subsequent to bone fusion and remove Cover Screw, tighten up Healing Abutment and start gingival curing for a prosthesis.
- b. In general, surgery is done by a method that makes prosthesis.

4. Contraindication

The operation should be reconsidered when the patient has any of the following conditions.

- a. Patient with oral infection or inflammation.
- b. In the case of low-quality bone which will result in an unstable implant.
- National Control (activity solid minimum research and an activity minimum control minimum research mini
- d. Internal diseases such as hematodyscrasia or diabetes and undernourishment.
- e. Any patient who is not suitable for operation.

5. Warnings

Implant surgery and restoration involve complex dental procedures. For safe and effective use of the COWELLMEDI fixtures, it is strongly suggested that specialized training be undertaken since the surgical techniques required to place dental implants are highly specialized and complex procedures. Improper patient selection and technique can contribute to fixture failure and/or loss of supporting bone. the COWELLMEDI fixtures are intended for use only in the indicated applications. Dental fixtures must not be altered in any way. The use of electro-surgical instruments or lasers around metallic fixtures and their abutments is not recommended due to the risk of electric shock and/or burns. Fixture mobility, bone loss, or chronic infection may indicate fixture failure. The treatment should be done in an aseptic condition by an operator who wears an aseptic costume. If the fixture becomes contaminated by the patient's body fluids in any way, the fixture cannot be used in any other patient.

6. Precautions

The surgical techniques required to place endosseous dental fixtures require specialized and complex procedures. Formal training for the placement of fixtures is recommended.

Important: Determine local anatomy and suitability of the available bone for fixture placement. Thorough screening of prospective fixture candidates must be performed. Visual inspection as well as panoramic and periapical radiographs are essential to determine anatomical landmarks, occlusal conditions, periodontal

status, and adequacy of bone. Lateral cephalometric radiographs, CT scans and tomograms may also be beneficial. Adequate radiographs, direct palpation and visual inspection of the fixture site are necessary prior to treatment, planning and use of the COWELLMEDI fixtures.

7. Adverse Effects

Some of the complications (loss of fixture anchorage, prosthesis etc.) are possible occurrences after surgery. Lack of quantity or poor quality of remaining bone, infections, poor patient oral hygiene or cooperation, patient discomfort, fixture mobility, local soft tissue degeneration, and unfavorable fixture placement or alignment are some potential causes for loss of anchorage.

8. Surgical complications

The implant procedure has risks, including localized swelling, dehiscence, tenderness of short duration, edema, hematoma or bleeding. Numbness of the lower lip and chin region following lower jaw surgery, and of the tissue beside the nose following upper jaw surgery, is a possible side-effect of the surgery. Though it would most probably be of a temporary nature, in very rare cases, the numbness has been permanent. Gingival mucosal (gum tissue) ulceration, tissue reaction, or infection may occur, but generally responds to local care.

9. Post-implant Management

- a. The upper jaw requires a healing period of 6-8 months depending on the bone quality, and the lower jaw requires a healing period of 3-5 months, again depending on the bone quality. If pressure is applied to the fixture during the healing period, such as in mastication, early fixation may not be achieved or osseointegration of the fixture may not occur within the healing period.
- b. Once the operator clinically determines that sufficient osseointegration has been achieved, he/she should begin producing the dental prosthesis.
- c. The Lot Number Identification Tag and the X-ray film should be attached to the patient's chart, to track the product when needed.
- d. The operator should determine the osseointegration status of the implant through X-ray and clinical methods such as percussion and/or reverse torquing.

10. Storage / Sterilization and Handling

- a. Store the product at room temperature and in a dry place.
- b. The fixture, fixture mount, and cover screw have been cleaned and sterilized through radiation (gamma irradiation) and are ready for use.
- c. The product packages should be opened just before their use during the operation. Expired products should not be used.
- d. Only appropriate sterilized surgical tools made specifically for dental implants should be used during the operation.

11. Expiration date

The expiration date of the product is 5 years from manufacturing.

12. Cleaning & Sterilization

Cleaning of surgical instruments supplied non-sterile should be performed according to current dental standard practices. Select a suitable method of cleaning that removes all visible contamination from the product in sterilized and distilled water. After cleaning, package the product appropriately and then sterilized by autoclave at the minimum condition of 250°F (121°C/15 mins).

13. Caution

- a. As this product is sterilized by Gamma radiation, it should not be used under any circumstances if open.
- b. Every product is disposable. It should not be reused.

COWELLMEDI Co., Ltd.

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D/

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EC-REPRESENTATIVE

Certification Experts B.V. Amerlandseweg 7, 3621 ZC Breukelen, The Netherlands





2021. 09. 02 / CWM-I-007 (Ver.4)

3. Fixture packaging opening and the sequence of the product extraction





Taking out the ampule



Press the upper dotted area to open, and take out the sterilized blister pack.



2 Remove the moisture-resistant paper on the back of the blister pack, and drop the ampule lightly on the palm of a practitioner or surgical clothes.

Fixture separation



Hold the ampule with both hands and twist it 45 degrees to separate the middle part. Care should be taken to prevent the fixture from falling off.



Fixtures are fastened in two ways.

1) No-Mount -> Fasten with the Fixture Driver.

2) Pre-Mount -> Fasten with the Mount Driver.

Cover Screw separation



Separate the upper part of the ampule.



2 Fasten the Hex Driver to the Cover Screw completely. Care must be taken to prevent the patient from swallowing the Cover Screw at the time of placing.

4. Abutment packaging and external label marking





5. Surgical Kit packaging and external label marking







Achieving cell-to-cell communication with **SLA-SH**

The dental implant surface, born from 30 years of research and development

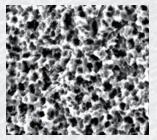
Excellent surface hydrophilicity, Uniform micro-surface geometry, Enhanced bone-implant contact, and Accelerated osseointegration

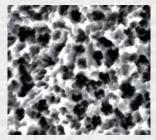


SLA-SH Surface Treatment

SLA-SH: Aspiring the ultimate essence of the dental implant surface

1. Evaluation using SEM(Scanning Electron Microscope) Images









Macro, Micro-Fit / 3,000X

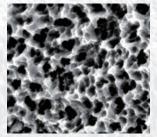
Macro, Micro-Fit / 5,000X

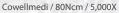
Nano-Fit(Roughness) / 100,000X

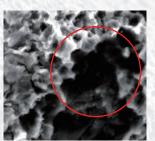
Nano-Fit(Roughness) / 200,000X

- > Cowellmedi's specialized implant surface technology, developed through 30 years of R&D, ensures enhanced surface hydrophilicity for optimal performance.
- > Al₂O₃ free, sandblasted with biocompatible grits unlike the majority of other implants sold in the market.
- > Macro-por & micro of Ti-oxide layer mimicking the etched enamel rod of the tooth.
- > Even distribution of roughness through the whole portion of the implant surface.
- > No distruction or alteration of the surface is caused even with torque force of 120Ncm.
- > Acceleration of osseointegration and maximization of BIC.

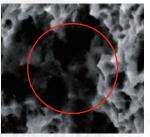
2. Comparison to other SLA treated implants currently sold in the market







Company A / 80Ncm / 5,000X



Company B / 80Ncm / 5,000X



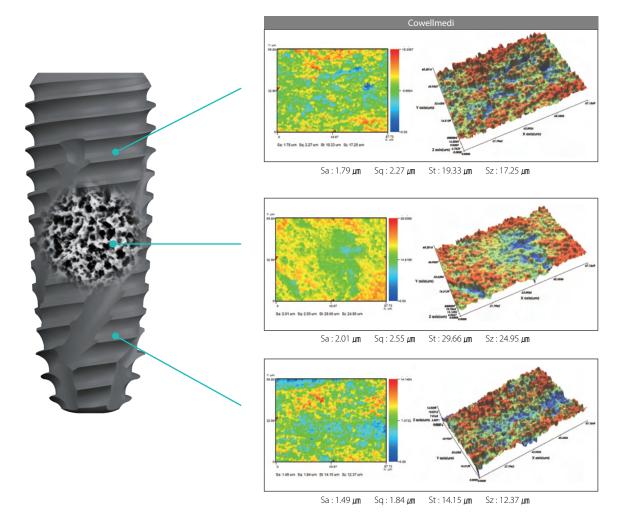
Company C / 80Ncm / 5,000X

Company	Torque(Ncm)	Macro, Micro-fit Extinction Size	Result
Cowellmedi	40N	N/D	Micro-fit Survival
Cowellinear	80N	N/D	Micro-fit Survival
C A	40N	N/D	Micro-fit Survival
Company A	80N	6.5 ∼ 33.3µm	Micro-fit Extinction
Communic	40N	9.7 ~ 39.7μm	Micro-fit Extinction
Company B	80N	10.8 ~ 39.4µm	Micro-fit Extinction
Company C	40N	N/D	Micro-fit Survival
	80N	9.5 ~ 64.3μm	Micro-fit Extinction

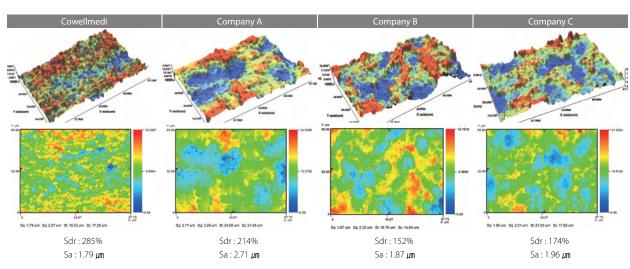
> SLA-SH is robust in Macro, Micro, and Nano-fit, and also have excellent viability even with excessive torque.

2. Evaluation using SSEM (Stereo Scanning Electron Microscope) 3D images

A. SLA-SH Surface



B. Comparison of surface area increases of other SLA treated implants currently available on the market



*Sdr: Surface area increase rate

> SLA-SH's Micro-fit has an excellent increase in surface area compared to other companies, and has expanded the appropriate roughness and surface area, which are important factors for osseointegration.

3. The surface activity increased due to the great surface wetness

A. Contact angle measurement evaluation result for the saline solution









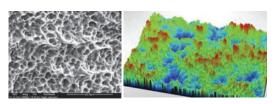
> After the hydrophilic and super-hydrophilic activation by special soaking technology, the sample became extremely hydrophilic and the surface energy increased, which facilitated the expedition of osteoblast activation to fuse to the bone faster.

Capillarity in the actual clinical setting, which accelerated the penetration of blood.

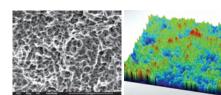
X Quoted from the website of Cowellmedi Clinical Research Group (www.e-cowellmedi.com)



B. Relation between surface wetness and roughness



After SLA treatment (Sa: 1.78 µm)



After SH activation treatment (Sa: 1.90µm)

- > There was almost no difference in surface roughness and micro-geometry, and the difference of surface wetness took place in the same physicochemical properties as surface energy increased by hydrophilic activation treatment.
- C. Physicochemical alteration of surface by hydrophilic activation treatment

Name	Start BE	Peak BE	End BE
C1s	290	284.6	280.5
O1s	535.3	530.42	525.6
Ti2p	468.1	458.78	450.4

Name	Start BE	Peak BE	End BE
C1s	290.46	284.6	284.6
O1s	538.8	533.73	529.3
Ti2p	468.2	456.76	453.4

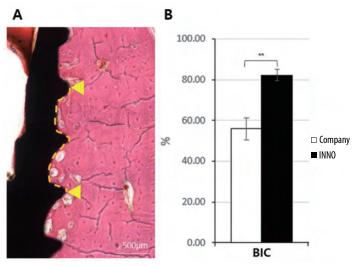
After SLA treatment

After hydrophilicity activation treatment

- > Surface wetness was improved by the increased surface energy of C1s, O1s and Ti2p after hydrophilic activation treatment.
- > To maintain and even to enhance surface wetness, super-hydrophilic activation treatment was carried out and contamination by carbon in the atmosphere is prevented during packing and sterilization.

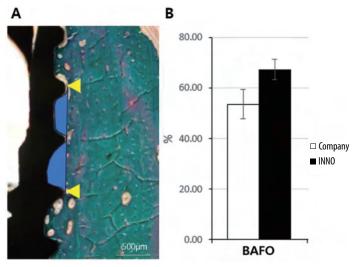
4. Histomorphometric analysis(bone to implant contact, bone area fraction occupancy)

A. Regions Of Interest(ROIs) and analysis of histometric measurements of Bone to Implant Contact(BIC)



- > ROIs were fixed to the two threads in the middle of the screw.
- > (A) ROI of BIC (H&E stain), (B) Result of histometric analysis of BIC
- > Data are expressed as mean \pm standard error. **p<0.01 vs Company.

B. Regions Of Interest(ROIs) and analysis of histometric measurements of Bone Area Fraction Occupancy(BAFO)

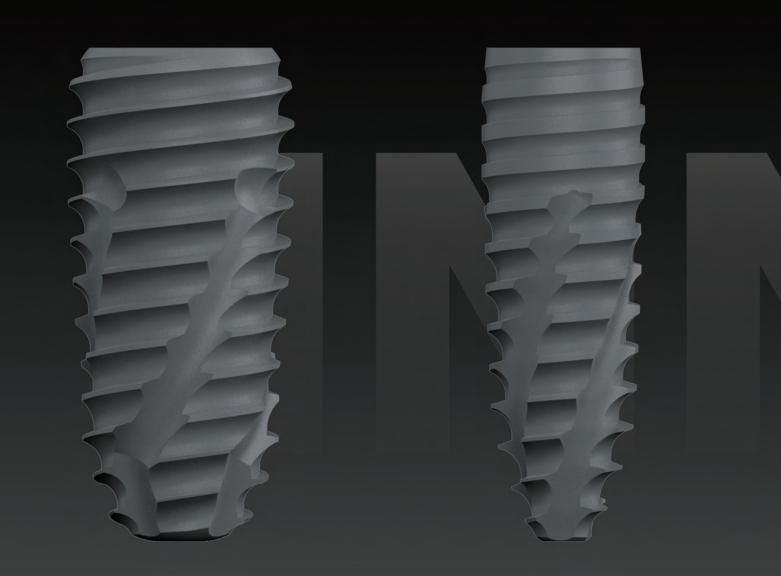


- > ROIs were fixed to the two threads in the middle of the screw.
- > (A) ROI of BAFO (GT stain), (B) Result of histometric analysis of BAFO.
- > Data are expressed as mean \pm standard error.
- > Bone to implant contact (BIC) was calculated as the length of the screw and bone tissue in contact as a % for two screw lengths on each side of the mid screw area and the mean values were compared. Significantly (p<0.01) higher BIC was discovered in the experimental group (82.25±6.96%) as compared to the control group (55.91±13.37%) at eight weeks post implant (A). Bone area fractional occupancy (BAFO) was calculated as the ratio of the bone area occupied by new bone tissue to the total area between the two screw lines on each side of the mid screw area in %, and the mean values were analyzed for comparison. No statistical significance was observed at eight weeks post implant, but a trend toward higher BAFO was obtained in the experimental group (67.34±10.01%) as compared to the control group (53.61±14.34%).

*References: NRP KOREA

SLA-SH

Cowellmedi Implant System Help your daily practice superior



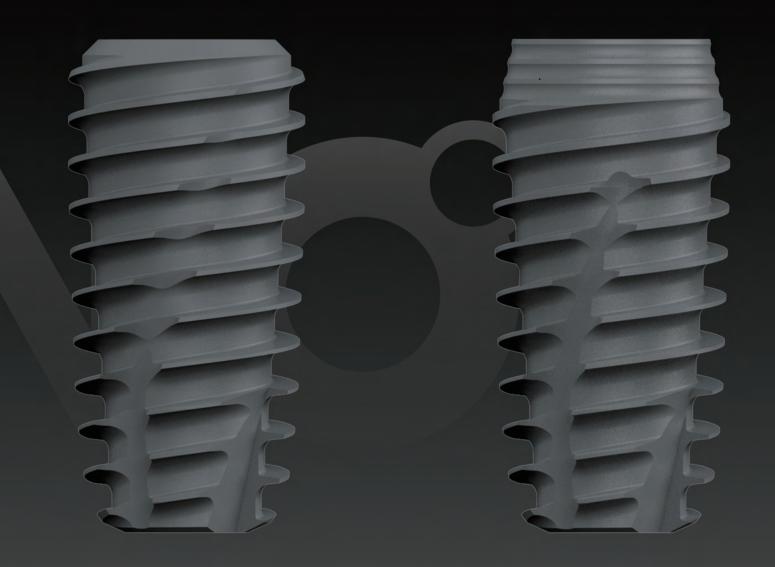
INNO Submerged

Cowellmedi's flagship implant designed for immediate placement, immediate loading, adjustable placement depth, and use in a wide variety of cases, including maxillary sinus applications.

INNO Submerged Narrow

Ideal for narrow alveolar ridges in the anterior region. Features double tapered threads that provide enhanced primary stability through wedge action.

Cowellmedi Implant System

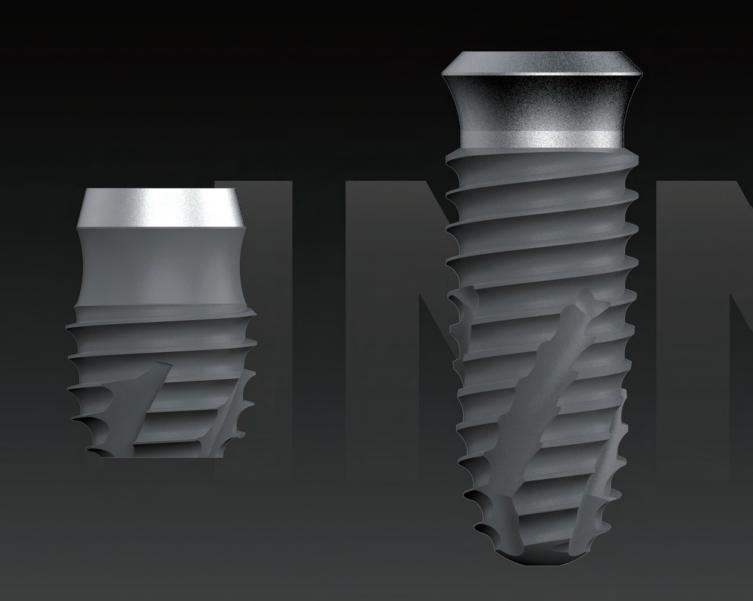


INNO X / V

Innovative implants from Cowellmedi featuring a unique trapezoid buttress thread and wide, deep body threads, delivering superior initial fixation and stability in all bone types.

Optimized for immediate placement and diverse clinical cases.

Cowellmedi Implant System Help your daily practice superior



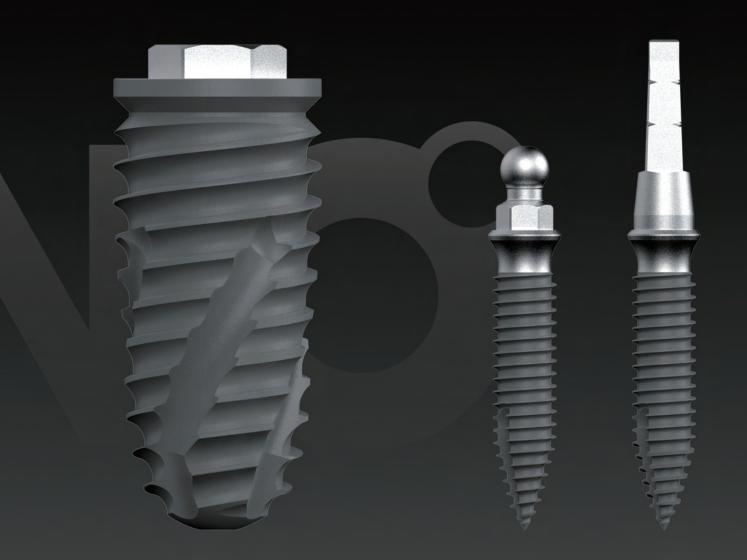
INNO Submerged Short

Designed for severe bone resorption. Wide and deep upper threads prevent the compressive necrosis of the cortical bone.

INNO Internal

4 spiral round cutting edges maximize the efficiency ofself-tapping with a sharp edge and accommodate bone chips as ideal cutting edge pocket space.

Cowellmedi Implant System



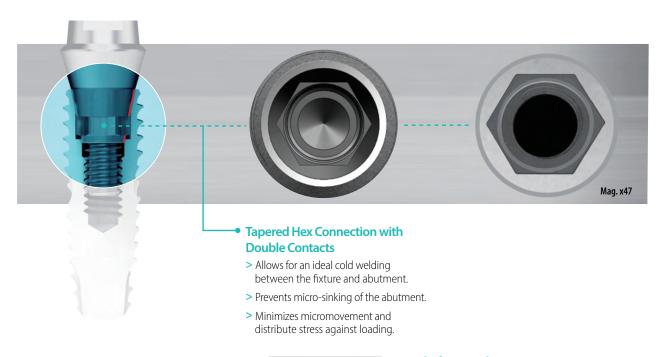
INNO External

The platform neck with open thread aids in the stable engraftment of the periosteum at the bone-implant interface.

Mini Plus

Designed for mandible anterior spaces and edentulous arch. Semi-permanent or temporary solution for anterior spaces with the extremely narrow ridge.

INNO Implant Design

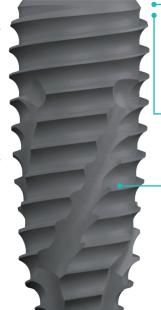


Wide and Deep Upper Threads

- > Prevent the compressive necrosis of the cortical bone.
- > Minimize the need for countersink drills.
- > Increase the mechanical strength by reinforcing the thickness.

Double Tapered Threads

- > Ensure initial stability even in areas with poor bone quality or alveolar socket.
- > Allow the fixture inserted more than half its length into the drilled hole to be placed in only 2 to 4 turns.
- > Achieve higher primary stability with wedge action, even with an additional half turn.



Platform Neck

> Enables stable engraftment of the periosteum at the interface between bone and implant.

Open Threads

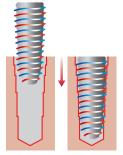
> Allow the fixture to be placed deeper without additional drilling.

4 spiral round cutting edges

- > Maximize the efficiency of self-tapping with sharp edges.
- > Allow for smooth placement of the fixture but provide higher initial stability (see test table below).

Concave Apex Threads with Sharp Cutting Edges

- > Prevent Schneiderian membrane from being ripped.
- > Enhance initial stability of the fixture in extraction sockets.



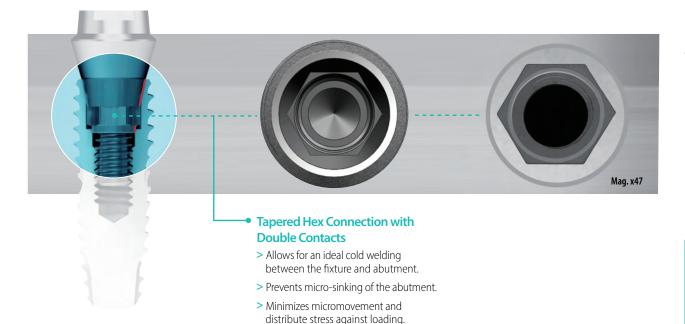
Shortens the placement time with 5mm or more of already entered depth as well as double thread.



** Comparison of the average placement torque force of 4 different fixtures (4pcs each) with dimensions of Ø4.5X10mm in 5.0 and 5.5mm deep holes of type 2 bone quality test block.

Classification	INNO	Α	В	С
Deepth 50mm	2 <u>6</u> 622/N/cm	229922/NAZIM	2 <u>66</u> 881Wcm	2 <u>8</u> 844NVcm
Depth 5.5mm	44.0 Ncm	38.0 Ncm	34.4 Ncm	38.5 Ncm

INNO X Implant Design



Wide and Deep Upper Threads

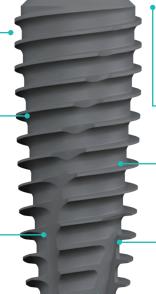
- > Prevent the compressive necrosis of the cortical bone.
- > Minimize the need for countersink drills.
- Increase the mechanical strength by reinforcing the thickness.

Double Tapered Threads

- > Ensure initial stability even in areas with poor bone quality or alveolar socket.
- Allow the fixture inserted more than half its length into the drilled hole to be placed in only 2 to 4 turns.
- Achieve higher primary stability with wedge action, even with an additional half turn.

2 Spiral Round Cutting Edges

- > Maximizes self-tapping efficiency with sharp edges.
- > Ideal cutting-edge pocket design accommodates bone chips effectively.



Platform Neck

- > Enables stable engraftment of the periosteum at the interface between bone and implant.
- > Prevents inflammation around the implant.
- Reduces stress on crestal bone, minimizing crestal bone loss.

Open Threads

> Allow the fixture to be placed deeper without additional drilling.

Wide & Deep Body Thread

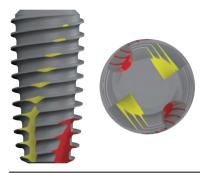
Deep and wide threads (0.9 pitch) increase the functional surface area at the bone-implant interface, enhancing primary stability in low-density bone or high occlusal load areas.

2 Flat Cutting Edge

Minimizes pressure on the gingival bone and improves self-tapping ability.

Flat Apex Thread

- > Provides initial fixation at the lower drill end.
- > Suitable for immediate placement in extraction sockets.
- > Facilitates favorable stress distribution to surrounding bone.



- > 2 Spiral Round Cutting Edges
- > 2 Flat Cutting Edge

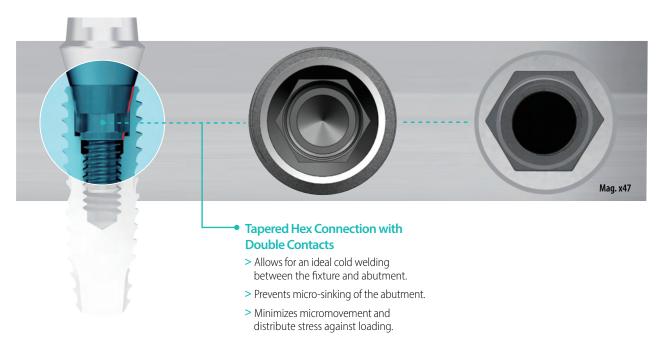




Trapezoid Buttress thread

> A unique design by Cowellmedi combining a basic trapezoid shape with a reverse buttress structure, ensuring optimal primary fixation in any bone quality from D1 to D4. Minimizes bone compression from compressive force and provides excellent stress distribution.

INNO V Implant Design



Wide and Deep Upper Threads

- > Prevent the compressive necrosis of the cortical bone.
- > Minimize the need for countersink drills.
- Increase the mechanical strength by reinforcing the thickness.

Double Tapered Threads

- > Ensure initial stability even in areas with poor bone quality or alveolar socket.
- > Allow the fixture inserted more than half its length into the drilled hole to be placed in only 2 to 4 turns.
- > Achieve higher primary stability with wedge action, even with an additional half turn.

2 Spiral Round Cutting Edges

- > Maximizes self-tapping efficiency with sharp edges.
- > Ideal cutting-edge pocket design accommodates bone chips effectively.



- > Enables stable engraftment of the periosteum at the interface between bone and implant.
- > Prevents inflammation around the implant.
- > The platform switching effect created by the three reduces stress on crestal bone, minimizing crestal bone loss.

Open Threads

Allow the fixture to be placed deeper without additional drilling.

Wide & Deep Body Thread

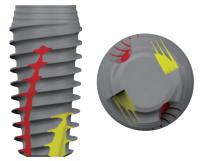
> Deep and wide threads (0.9 pitch) increase the functional surface area at the bone-implant interface, enhancing primary stability in low-density bone or high occlusal load areas.

2 Flat Cutting Edge

Minimizes pressure on the gingival bone and improves self-tapping ability.

Flat Apex Thread

- > Provides initial fixation at the lower drill end.
- > Suitable for immediate placement in extraction sockets.
- > Facilitates favorable stress distribution to surrounding bone.



2 Spiral Round Cutting Edges2 Flat Cutting Edge





Trapezoid Buttress thread

> A unique design by Cowellmedi combining a basic trapezoid shape with a reverse buttress structure, ensuring optimal primary fixation in any bone quality from D1 to D4. Minimizes bone compression from compressive force and provides excellent stress distribution. Advantageous design for all clinical cases such as immediate implant placement and loading, implant placement & immediate loading, implant depth adjustment, maxillary sinus, and etc.

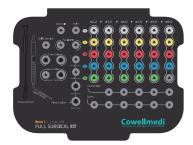
Fixture type	Submerged (Sub.)	Submerged Short (Sub.)	Submerged Narrow (Sub-N.)	Internal (Int.)	External (Ext.)
Fixture Design	INNO INNO X INNO V				
Connection	SUB. HEXAGON SYSTEM	SUB-N. HEXAGON SYSTEM	INT. OCTAGON SYSTEM	EXT. HEXAGON SYSTEM	

Simpler, Speedier, and Safer Surgical Kits

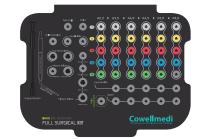
Providing dedicated kits for different types of fixtures.























All in One Drill: Minimal drilling frequency with Initial and Final Drill

Chair time for implantation is shortened because the fixture can be implanted with just three times of drilling for general bone quality (Fixture Ø3.5 to 4.5).



Abutment Prosthetic Protocol

> For digital procedure, refer to the COWELL Digital Products (Refer to the page 166 to 187).

1. Fixture Level Impression - Prosthesis Fabrication

* Two Piece Screw Retained Abutment

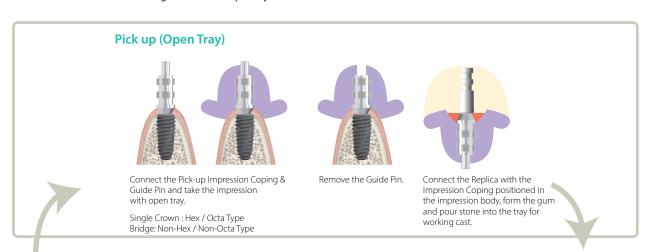
Submerged & Submerged Short : Temporary | Easy Temporary External : Temporary

* Two Piece Screw-Cement Retained / Cement Retained Abutment

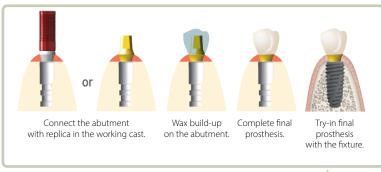
Submerged & Submerged Short : Cemented | Angulated | Beauty-up | Milling | Meta G UCLA | Plastic UCLA Hybrid S | Hybrid L | Hybrid A | Ti-Block

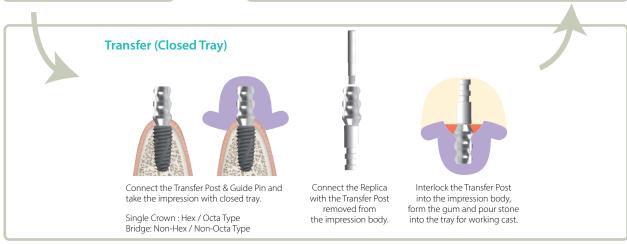
Submerged Narrow: Cemented | Angulated | Temporary | Meta G UCLA | Hybrid S | Hybrid L | Hybrid A

Internal: Cemented | Angulated | Meta G UCLA | Hybrid S | Hybrid L External: Cemented | Angulated | Temporary | Meta G UCLA | Plastic Sleeve









2. Abutment Level Impression - Prosthesis Fabrication

* Two / One Piece Screw Retained Abutment

Submerged & Submerged Short: Multi S | Multi A | Lock

Submerged Narrow: Multi S | Multi A

* One Piece Cemented Retained Abutment

Submerged & Submerged Short : Absolute | Straight (Direct)

Submerged Narrow: Straight Internal: Solid | Shoulder **External: Shoulder**

* Two / One Piece Attachment Retained Abutment

Submerged & Submerged Short: Sonator S | Sonator A | Ball

Internal: Sonator S | Ball

External: Ball

Indirect Impression Technique (No Abutment Modification Applied)







(with Open Tray.



nator Impression Coping





Healing Abutment.



Connect the abutment with the fixture.



Fasten the Impression Cap on the Abutment.



Take impression with closed tray.



Connect the Lab Analog with the Impression Cap positioned in the impression



Form the gum and pour stone into the impression body for working cast.



The working cast with the gum.



Fasten the Plastic Coping on the Lab Analog (Absolute).



Wax build-up

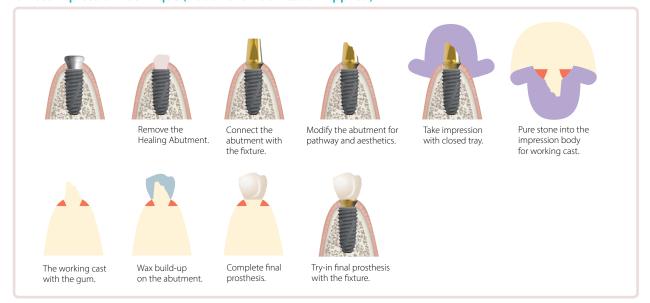


Complete final



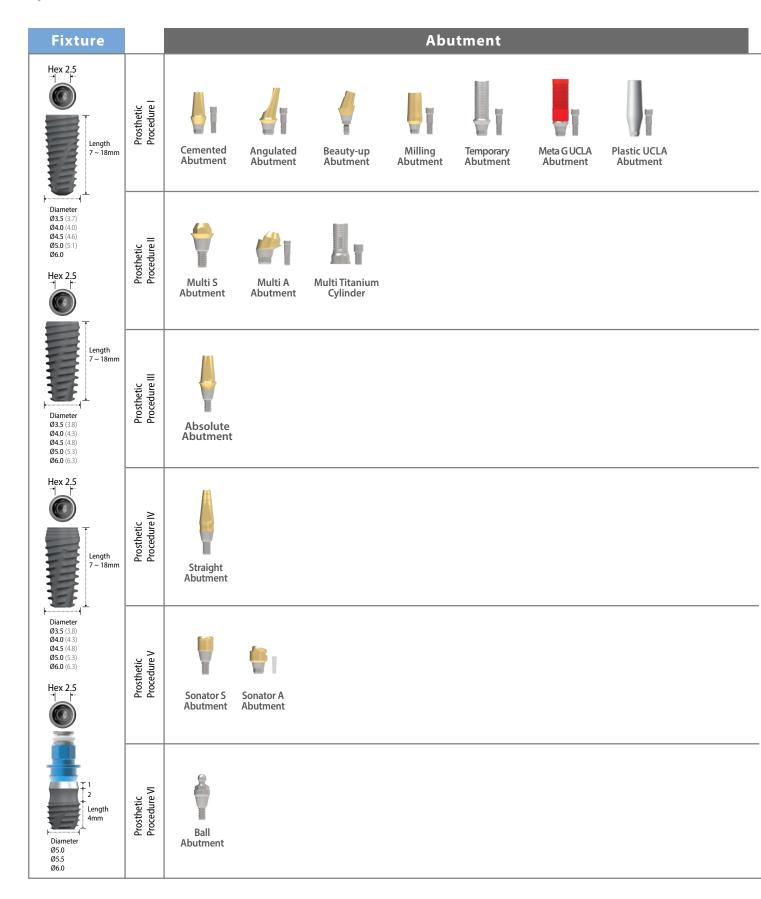
Try-in final prosthesis

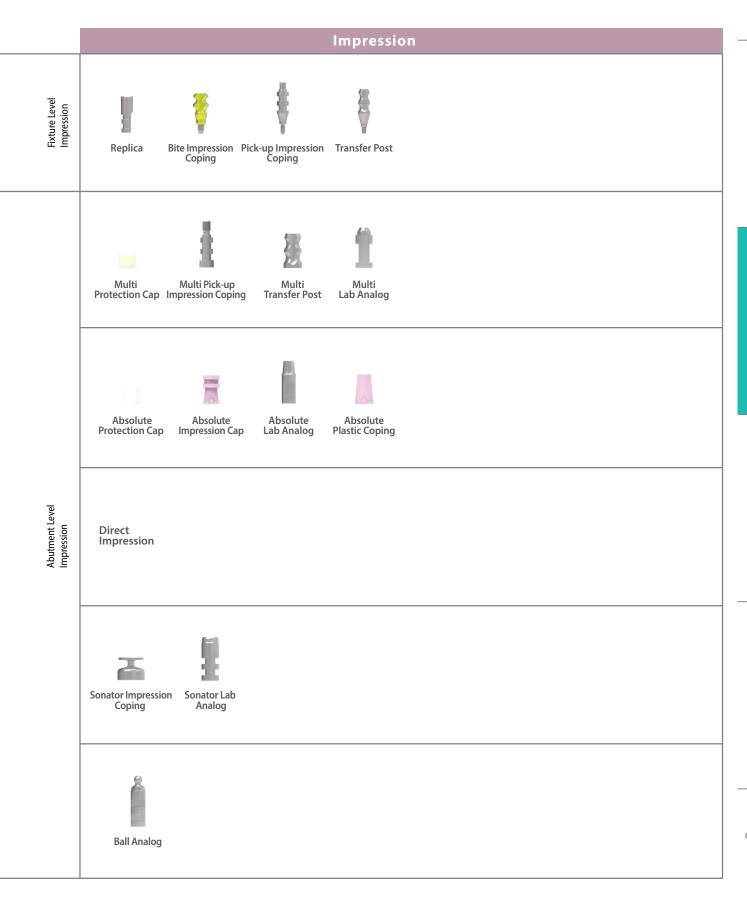
Direct Impression Technique (Abutment Modification Applied)



INNO SUBMERGED IMPLANT (Sub.)

System Flow



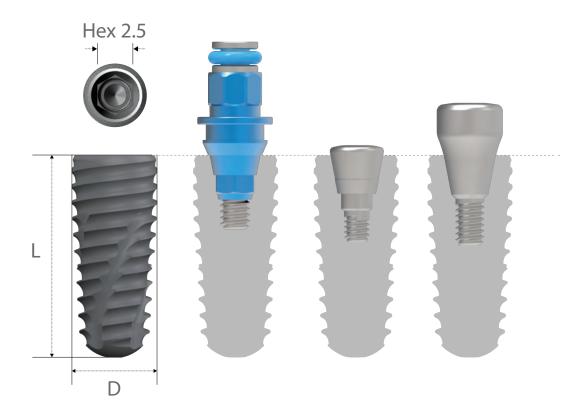


INNO Submerged Implant



Submerged Fixture Surface Treatment: **SLA-SH**

- > Interchangeable with hexagonal morse tapered fixture
- > Internal hex connection (Taper 11°/ Hex 2.5)

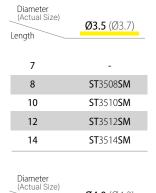


INNO Fixture Code



Type body Diameter Length Submerged Taper Ø4.0 10 S Surface Treatment Mount Pre-Mount ST4010S

No-Mount > Packing unit: 1 Fixture + 1 Cover Screw.







Length	
7	ST 4007 SM
8	ST 4008 SM
10	ST 4010 SM
12	ST 4012 SM
14	ST 4014 SM
16	ST 4016 SM
18	ST 4018 SM

Ø4.0 (Ø4.2)





(ACtual Size)	Ø4.5 (Ø4.6)
Length	9 1.3 (\$1.0)
7	ST 4507 SM
8	ST 4508 SM
10	ST 4510 SM
12	ST 4512 SM
14	ST 4514 SM
16	ST 4516 SM
18	ST 4518 SM

Diameter (Actual Size)





Diameter (Actual Size)	Ø5.0 (Ø5.1)
3	
7	ST 5007 SM
8	ST5008SM
10	ST 5010 SM
12	ST 5012 SM
14	ST 5014 SM

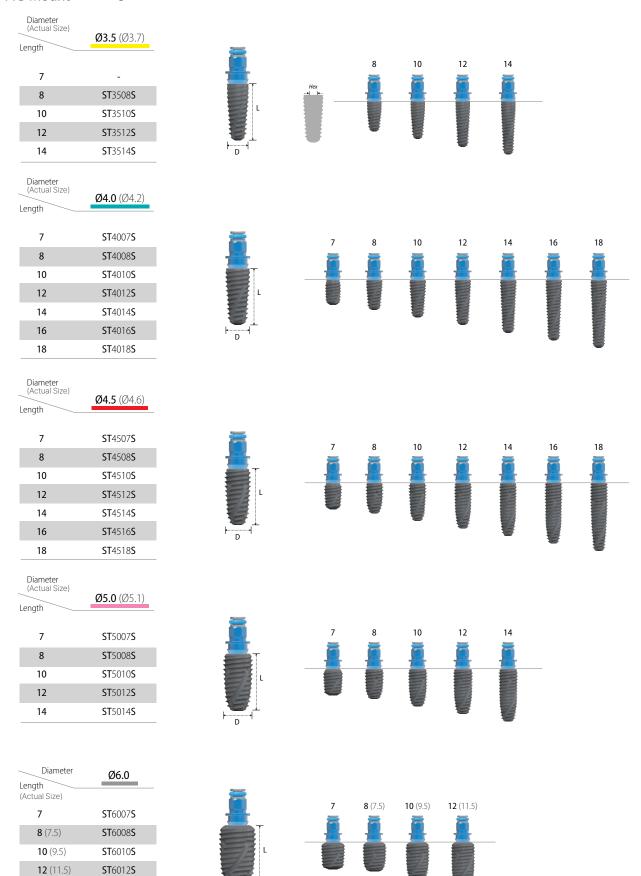




Diameter Length (Actual Size)	Ø6.0
7	ST 6007 SM
8 (7.5)	ST6008SM
10 (9.5)	ST 6010 SM
12 (11.5)	ST 6012 SM
14	-



Pre-Mount > Packing unit: 1 Fixture + 1 Cover Screw + 1 Mount.

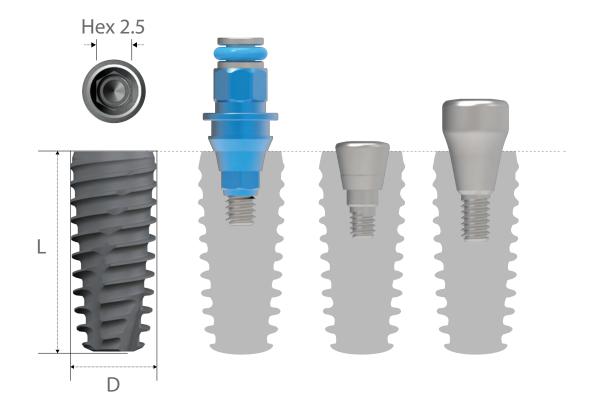


INNO X Implant



Submerged Fixture Surface Treatment: SLA-SH

- > Interchangeable with hexagonal morse tapered fixture
- > Internal hex connection (Taper 11°/ Hex 2.5)
- > 2 spiral round cutting edge & 2 Flat cutting edge



INNO Fixture Code







Taper Ø4.0













SLA No-Mount S2T4010SM











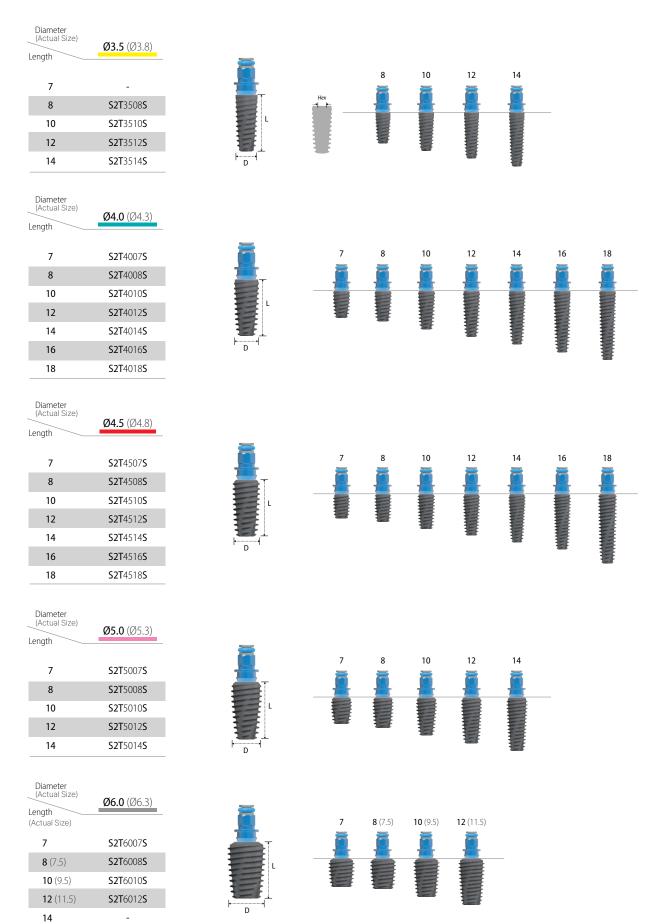


Ex.) SLA Pre-Mount S2T4010S

No-Mount > Packing unit: 1 Fixture + 1 Cover Screw.



Pre-Mount > Packing unit: 1 Fixture + 1 Cover Screw + 1 Mount.

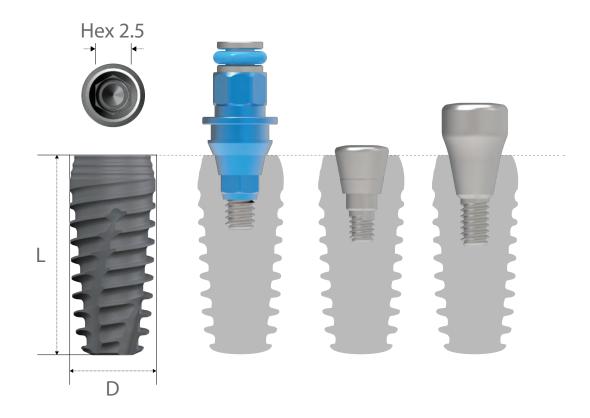


INNO V Implant

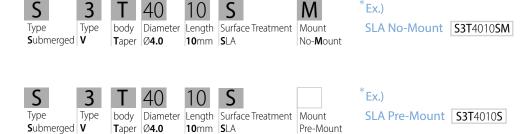


Submerged Fixture Surface Treatment: **SLA-SH**

- > Interchangeable with hexagonal morse tapered fixture
- > Internal hex connection (Taper 11°/ Hex 2.5)
- > 2 spiral round cutting edge & 2 Flat cutting edge



INNO Fixture Code



No-Mount > Packing unit: 1 Fixture + 1 Cover Screw.

7

8 (7.5)

10 (9.5)

12 (11.5)

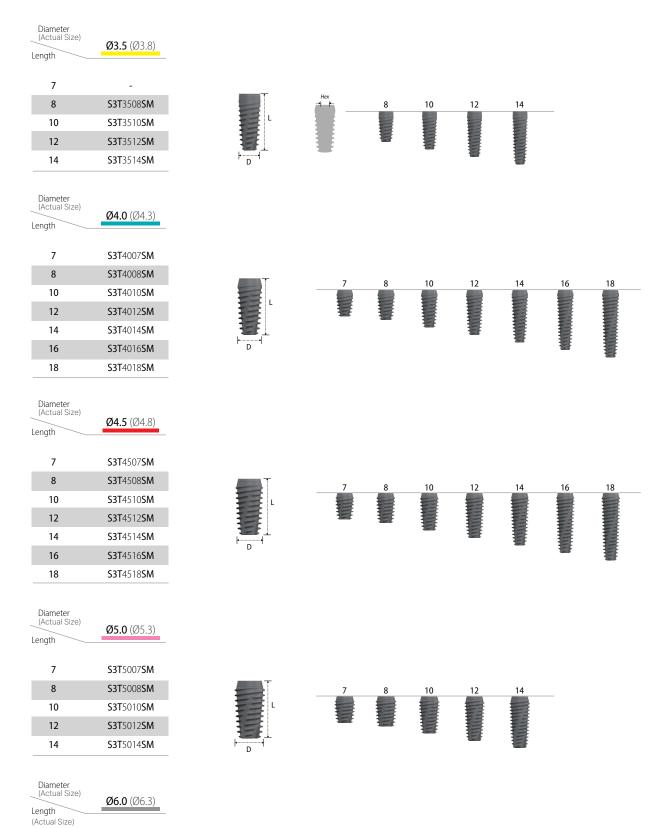
14

S3T6007**SM**

S3T6008SM

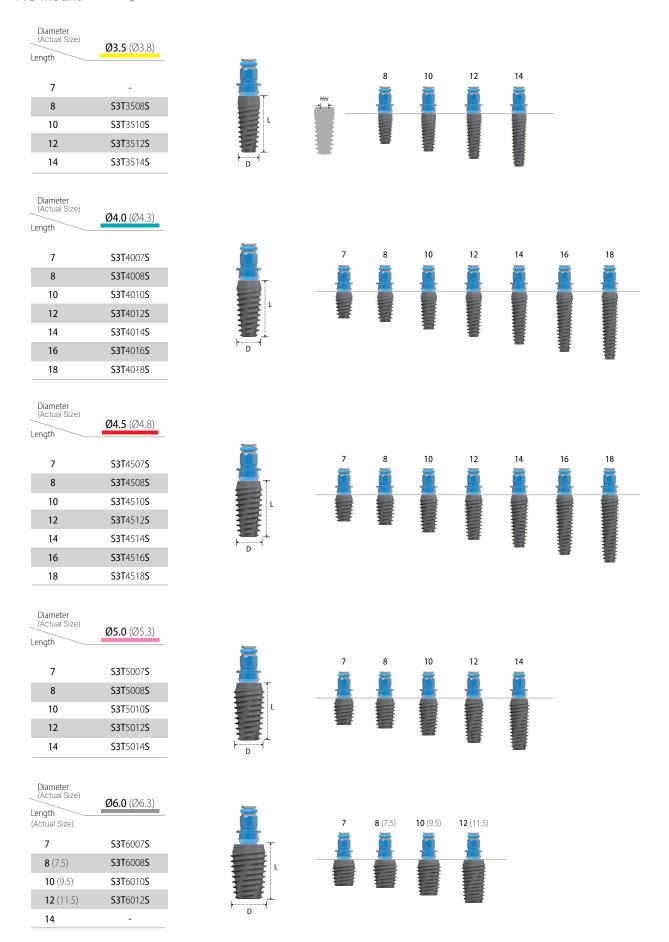
S3T6010SM

S3T6012**SM**



12 (11.5)

10 (9.5)



INNO Submerged Short Implant

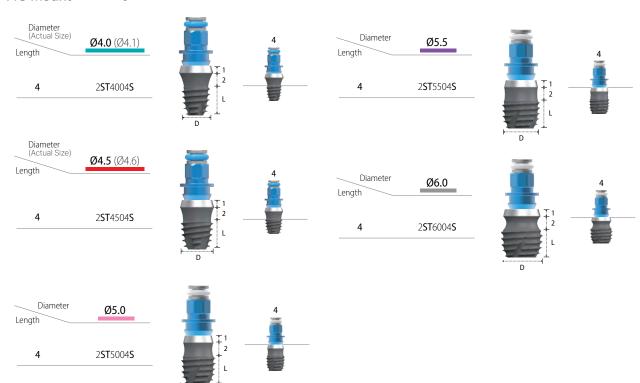


Submerged Short Fixture Surface Treatment: SLA-SH

- > Interchangeable with Hexagonal Morse Tapered Fixture.
- > Internal hex connection (Taper 11°/ Hex 2.5).



Pre-Mount > Packing Unit: 1 Fixture + 1 Cover Screw + 1 Mount.



Fixture Mount





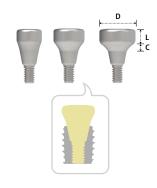
Length	5.4
	2 SMHR 001

- > Packing unit: 1 Mount + 1 Mount Screw.
- > Tightened with the Hex Driver.
- > Tightening torque force: 10N.cm.

Diameter Length	Ø3.35	Ø3.75	Ø4.15
3	2 SCS 000		
4.2		* 2 SCS 001	
5.2			* 2 SCS 002

- > Packing unit: 1 Cover Screw.
- > To seal the conical interface of the fixture.
- > The longer Cover Screw for the deeply inserted fixture.
- > Tightened with the Hex Driver.
- > Tightening torque force: 10N.cm.

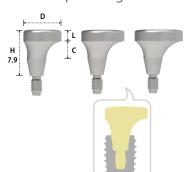
Healing Abutment



D:	a	4.0	a	4.5	a.	- 0	Ø5.5		
Diameter	W ²	4.0	Ø ²	4.5	Ø5	5.0		Ø5.5	
Length Cuff	1	2	1	2	1	2	1	2	
1	2 HS 4011		2 HS 4511		2 HS 5011		2 HS 5	511	
2		2 HS 4022		2 HS 4522		2 HS 5022		2 HS 5522	
3		2 HS 4032		2 HS 4532		2 HS 5032		2 HS 5532	
4		2 HS 4042		2 HS 4542		2 HS 5042		2 HS 5542	
5		2 HS 4052		2 HS 4552		2 HS 5052		2 HS 5552	
6		2 HS 4062		2 HS 4562		2 HS 5062		2 HS 5562	
7		2 HS 4072		2 HS 4572		2 HS 5072		2 HS 5572	
Diameter	Ø	5.0	Ø	5.5	Ø	7.0	Ø7	.5/Ø8.5/Ø9.5	
Diameter Length Cuff	Øe 1	5.0 2	Øe 1	5.5 2	Ø7	7.0	Ø7	.5/Ø8.5/Ø9.5 2	
Length	~						Ø7		
Length Cuff	1		1		1		Ø7		
Length Cuff	1	2	1	2	1	2			
Length Cuff 1	1	2 2HS6022	1	2 2 HS 6522	1	2 2HS7022	Ø7	2	
Length Cuff 1 2 3	1	2 2HS6022 2HS6032	1	2 2HS6522 2HS6532	1	2 2HS7022 2HS7032		2 2 HS 7532	
Length Cuff 1 2 3	1	2 2HS6022 2HS6032 2HS6042	1	2 2HS6522 2HS6532 2HS6542	1	2 2HS7022 2HS7032 2HS7042		2 2HS7532 2HS8532	

- > Packing unit: 1 Healing Abutment.
- > For remodeling gingival contour during soft tissue healing.
- > Select the abutment according to gingival height and abutment type.
- > Tightened with the Hex Driver.
- > Tightening torque force: 10N.cm.

Volume-up Healing Abutment



Diameter	Ø6.5	Ø7.5	Ø8.5
Length Cuff	2	2	2
3	VUHN 6532	VUHN 7532	VUHN 8532

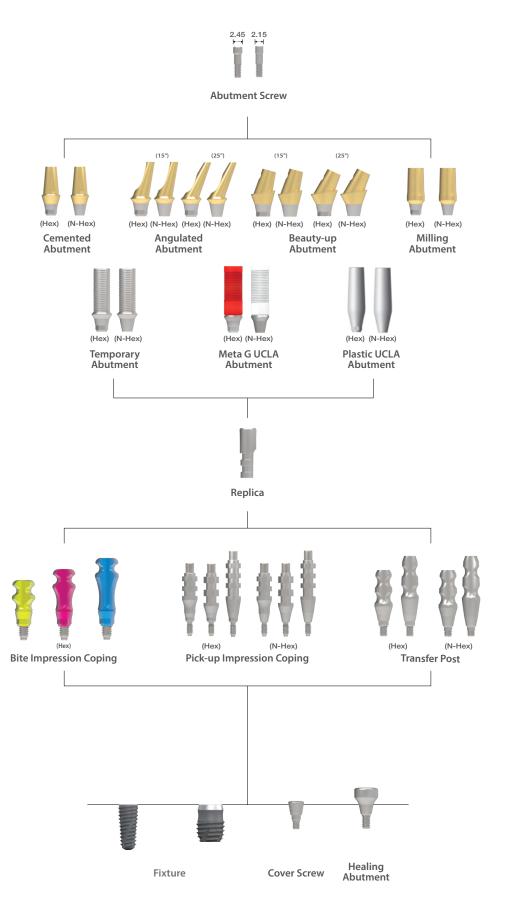
- > Packing unit: 1 Volume-up Healing Abutment (Inbuilt Abutment Screw).
- > Used for an implant procedure to form the gingival tissue and alveolar bone in the form of natural teeth and gums by prevention or minimizing the food penetration.
- > Extremely effective when used with the COWELL BMP.
- > Recommended to use with the Volume-up Guide System.
- > Select the abutment according to gingival height and abutment type.
- > Tightened with the Hex Driver.
- > Tightening torque force: 10N.cm.



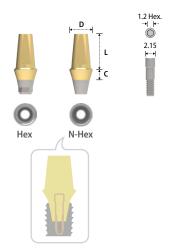
*Extra Product

Prosthetic Procedure I

Components Selection Guide for Cemented and UCLA Abutment



Cemented Abutment

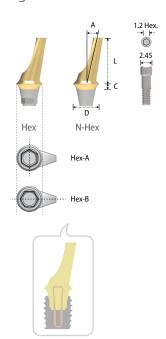


Туре	Hex														
Diameter		Ø4.5		Ø5.0			Ø5.5			Ø6.0			Ø6.5		
Length Cuff	4	5.5	7	4	5.5	7	4	5.5	7	4	5.5	7	4	5.5	7
1	2 SCH 4514	2 SCH 4515	2 SCH 4517	2 SCH 5014	2 SCH 5015	2 SCH 5017	2 SCH 5514	2 SCH 5515	2 SCH 5517	2 SCH 6014	2 SCH 6015	2 SCH 6017	2 SCH 6514	2 SCH 6515	2 SCH 6517
2	2 SCH 4524	2 SCH 4525	2 SCH 4527	2 SCH 5024	2 SCH 5025	2 SCH 5027	2 SCH 5524	2 SCH 5525	2 SCH 5527	2 SCH 6024	2 SCH 6025	2 SCH 6027	2 SCH 6524	2 SCH 6525	2 SCH 6527
3	2 SCH 4534	2 SCH 4535	2 SCH 4537	2 SCH 5034	2 SCH 5035	2 SCH 5037	2 SCH 5534	2 SCH 5535	2 SCH 5537	2 SCH 6034	2 SCH 6035	2 SCH 6037	2 SCH 6534	2 SCH 6535	2 SCH 6537
4	2 SCH 4544	2 SCH 4545	2 SCH 4547	2 SCH 5044	2 SCH 5045	2 SCH 5047	2 SCH 5544	2 SCH 5545	2 SCH 5547	2 SCH 6044	2 SCH 6045	2 SCH 6047	2 SCH 6544	2 SCH 6545	2 SCH 6547
5	2 SCH 4554	2 SCH 4555	2 SCH 4557	2 SCH 5054	2 SCH 5055	2 SCH 5057	2 SCH 5554	2 SCH 5555	2 SCH 5557	2 SCH 6054	2 SCH 6055	2 SCH 6057	2 SCH 6554	2 SCH 6555	2 SCH 6557

Туре		N-Hex													
Diameter		Ø4.5		Ø5.0			Ø5.5			Ø6.0			Ø6.5		
Length Cuff	4	5.5	7	4	5.5	7	4	5.5	7	4	5.5	7	4	5.5	7
1	2 SCN 4514	2 SCN 4515	2 SCN 4517	2 SCN 5014	2 SCN 5015	2 SCN 5017	2 SCN 5514	2 SCN 5515	2 SCN 5517	2 SCN 6014	2 SCN 6015	2 SCN 6017	2 SCN 6514	2 SCN 6515	2 SCN 6517
2	2 SCN 4524	2 SCN 4525	2 SCN 4527	2 SCN 5024	2 SCN 5025	2 SCN 5027	2 SCN 5524	2 SCN 5525	2 SCN 5527	2 SCN 6024	2 SCN 6025	2 SCN 6027	2 SCN 6524	2 SCN 6525	2 SCN 6527
3	2 SCN 4534	2 SCN 4535	2 SCN 4537	2 SCN 5034	2 SCN 5035	2 SCN 5037	2 SCN 5534	2 SCN 5535	2 SCN 5537	2 SCN 6034	2 SCN 6035	2 SCN 6037	2 SCN 6534	2 SCN 6535	2 SCN 6537
4	2 SCN 4544	2 SCN 4545	2 SCN 4547	2 SCN 5044	2 SCN 5045	2 SCN 5047	2 SCN 5544	2 SCN 5545	2 SCN 5547	2 SCN 6044	2 SCN 6045	2 SCN 6047	2 SCN 6544	2 SCN 6545	2 SCN 6547
5	2 SCN 4554	2 SCN 4555	2 SCN 4557	2 SCN 5054	2 SCN 5055	2 SCN 5057	2 SCN 5554	2 SCN 5555	2 SCN 5557	2 SCN 6054	2 SCN 6055	2 SCN 6057	2 SCN 6554	2 SCN 6555	2 SCN 6557

- > Packing unit: 1 Cemented Abutment + 1 Abutment Screw.
- > For Screw-Cement or Cement Retained Prosthesis.
- > Cutting surface for anti-rotation of the prosthesis.
- > Gold color for more translucent restoration.
- > Library available for EXOCAD®, 3Shape® & Others.
- > Connected with the Abutment Screw (2SSHR200).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Use the Scanbody for 3D Work.
- > Fixture level impression.

Angulated Abutment

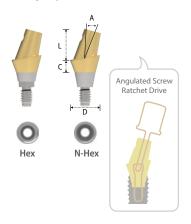


Туре		He	x-A		Hex-B					
Diameter(Angle)	Ø4.5(15°)	Ø4.5(25°)	Ø5.5(15°)	Ø5.5(25°)	Ø4.5(15°)	Ø4.5(25°)	Ø5.5(15°)	Ø5.5(25°)		
Length Cuff	8	8	8	8	8	8	8	8		
1	2 SAH 45151 2 SAH 45251 2 SAH 5515		2 SAH 55151	2 SAH 55251	2 SAH 45151 B	2 SAH 45251 B	2 SAH 55151 B	2 SAH 55251 B		
2	2 SAH 45152	2 SAH 45252	2 SAH 55152	2 SAH 55252	2 SAH 45152 B	2 SAH 45252 B	2 SAH 55152 B	2 SAH 55252 B		
3	2 SAH 45153 2 SAH 45253 2 SAH 55153		2 SAH 55253	2 SAH 45153 B	2 SAH 45253 B	2 SAH 55153 B	2 SAH 55253 B			
4	2 SAH 45154	2 SAH 45254	2 SAH 55154	2 SAH 55254	2 SAH 45154 B	2 SAH 45254 B	2 SAH 55154 B	2 SAH 55254 B		

Туре	N-Hex									
Diameter(Angle)	Ø4.5(15°)	Ø4.5(25°)	Ø5.5(15°)	Ø5.5(25°)						
Length Cuff	8	8	8	8						
1	2 SAN 45151	2 SAN 45251	2 SAN 55151	51 2 SAN 55251						
2	2 SAN 45152	2 SAN 45252	2 SAN 55152	2 SAN 55252						
3	2 SAN 45153	2 SAN 45253	2 SAN 55153	2 SAN 55253						
4	2 SAN 45154	2 SAN 45254	2 SAN 55154	2 SAN 55254						

- > Packing unit: 1 Angulated Abutment + 1 Abutment Screw.
- > For Screw-Cement or Cement Retained Prosthesis.
- > Solution for the anterior esthetic zone.
- > Connected with the Abutment Screw (2SSHR100).
- > Gold color for more translucent restoration.
- > Select Hex-A or Hex-B according to the case.
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Fixture level impression.

Beauty-up Abutment



Туре	Hex	N-Hex	Hex	N-Hex
Diameter(Angle)	Ø3.8 (15°)	Ø3.8 (15°)	Ø3.8 (25°)	Ø3.8 (25°)
Length Cuff	5	5	5	5
2	2 SBH 381525	2 SBN 381525	2 SBH 382525	2 SBN 382525

- > Packing unit: 1 Beauty-up Abutment (Inbuilt Abutment Screw).
- > For Screw-Cement Retained Prosthesis with angulated screw channel.
- > The ultimate solution for the anterior esthetic zone.
- > The gingival line of the Beauty-up Abutment allows more esthetic prosthesis.
- > Oval design allows lower incisal application (Mesiodistal diameter: 3.8mm).
- > Tightened with the Torx A Ratchet Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Library available for EXOCAD®, 3Shape® & Others.
- > Use the Scanbody for 3D Work.
- > Fixture level impression.

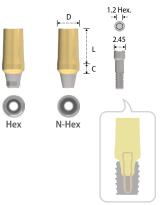
€.	Tory	٨	Date	hot	Driver	
	IOIX	A	Raic	nei	Driver	



Height Type	Ratchet
24(Short)	KRBUD15
29(Long)	KRBUD20

- > Stable to internal slip or fracture due to wide contact area of the Torx A Driver and the dedicated Stargrip Abutment Screw.
- > Tightening torque force: 30N.cm (50N.cm Max.).

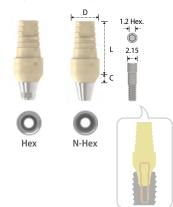
Milling Abutment



Туре	Hex			N-Hex		
Diameter	Ø4.5 Ø5.5 Ø6.5		Ø4.5	Ø5.5	Ø6.5	
Length Cuff	7	7	7	7	7	7
2	2 SMH 4527	2 SMH 5527	2 SMH 6527	2 SMN 4527	2 SMN 5527	2 SMN 6527
4	2 SMH 4547	2 SMH 5547	2 SMH 6547	2 SMN 4547	2 SMN 5547	2 SMN 6547

- > Packing unit: 1 Milling Abutment + 1 Abutment Screw.
- > For Screw-Cement or Cement Retained Prosthesis.
- > Block abutment for customized contouring.
- > Gold color for more translucent restoration.
- Connected with the Abutment Screw (2SSHR100).Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Fixture level impression.

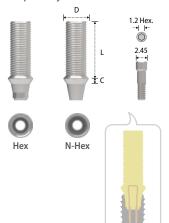
Easy Temporary Abutment



Туре	Hex		N-H	ex
Diameter	Ø4.5	Ø5.5	Ø4.5	Ø5.5
Length Cuff	10	10	10	10
2	2 STHA 45 C	2 STHA 55 C	2 STNA 45 C	2 STNA 55 C

- > Packing unit: 1 Easy Temporary Abutment + 1 Abutment Screw.
- > For Screw Retained Prosthesis.
- > For simpler and speedier chair-side process.
- > Venerable polymer material.
- > Temporary restoration for the anterior esthetic zone.
- > Titanium core for strength.
- > Connected with the Abutment Screw (2SSHR200).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20N.cm.
- > Fixture level impression.

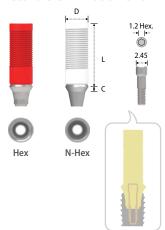
Temporary Abutment



Туре	Hex	N-Hex
Diameter	Ø4.5	Ø4.5
Length Cuff	10	10
1	2 STHA 45	2 STNA 45

- > Packing unit: 1 Temporary Abutment + 1 Abutment Screw.
- > For Screw-Cement Retained Prosthesis.
- > For provisional restoration.
- > Connected with the Abutment Screw (2SSHR100).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20N.cm.
- > Fixture level impression.

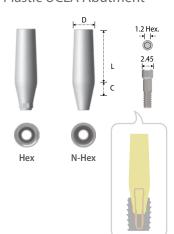
Meta G UCLA Abutment



Туре	Hex	N-Hex
Diameter	Ø4.5	Ø4.5
Length Cuff	12	12
1	2 SGH 45 N	2 SGN 45 N
2	2 SGH 452 N	2 SGN 452 N
3	2 SGH 453 N	2 SGN 453 N

- > Packing unit: 1 Meta G UCLA Abutment + 1 Abutment Screw.
- > For Screw-Cement or Screw Retained Prosthesis.
- > Modification to the angulated abutment, customized abutment, and telescopic abutment.
- > CCM alloy core for precise connection.
- > Cast with non-precious metal or gold alloy.
- > Connected with the Abutment Screw (2SSHR100).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Fixture level impression.

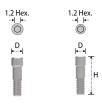
Plastic UCLA Abutment



Туре	Hex		N-Hex	
Diameter	Ø4.5 Ø5.5		Ø4.5 Ø5.5	
Length Cuff	11	11	11	11
3	2 SPHR 001	2 SPHW 001	2 SPNR 001	2 SPNW 001

- > Packing unit: 1 Plastic UCLA Abutment + 1 Abutment Screw.
- > Same purpose of use as the Meta G UCLA Abutment but the low accuracy of connection during lab procedure.
- > PMMA material.
- > Connected with the Abutment Screw (2SSHR200).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: Finger light force during wax pattern fabrication, 30N.cm after casting.
- > Fixture level impression.

Abutment Screw



Diameter Height	Ø2.45	Ø2.15
8.5	2 SSHR 100	2 SSHR 200

- > Packing unit: 1 Abutment Screw.
- > 2SSHR100: Angulated, Milling, Temporary, Meta G UCLA, and Plastic UCLA Abutment. > 2SSHR200: Cemented and Easy Temporary Abutment.
- > Tightened with the Hex Driver and Torque Wrench.

Replica



Diameter Height	Ø4.0
12	2 SRHR 001

- > Packing unit: 1 Replica.
- > Mimicking of the conical interface of the fixture.
- > Analog of fixture for the working cast.

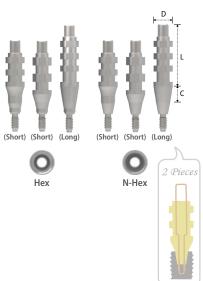
Bite Impression Coping



Туре	Hex(Short)	Hex(Long)	Hex(X-Long)
Diameter	Ø4.5	Ø4.5	Ø4.5
Length Cuff	2	4	6
4.0	2 SBIC 45 S	2 SBIC 45 L	2 SBIC 45 X

- > Packing unit: 1 Bite Impression Coping (Inbuilt Guide Pin).
- > Designed to simultaneously take bite and impression.
- > For closed tray impression (Bite Impression).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.
- > Fixture level impression.

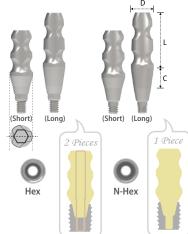
Pick-up Impression Coping



Туре	Hex			N-Hex		
	Ø4.5	Ø5.5	Ø6.5	Ø4.5	Ø5.5	Ø6.5
12 (Short) / 4	2 SIH 454 S	2 SIH 554 S	2 SIH 654 S	2 SIN 454 S	2 SIN 554 S	2 SIN 654 S
14 (Short) / 2	2 SIH 45 S	2 SIH 55 S	2 SIH 65 S	2 SIN 45 S	2 SIN 55 S	2 SIN 65 S
16 (Long) / 4	2 SIH 45 L	2 SIH 55 L	2 SIH 65 L	2 SIN 45 L	2 SIN 55 L	2 SIN 65 L

- > Packing unit: 1 Pick-up Impression Coping + 1 Guide Pin.
- > For open tray impression.
- > Connected with the Guide Pin (2SISR001SS / 2SISR001SL).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm. > Fixture level impression.

Transfer Post	t
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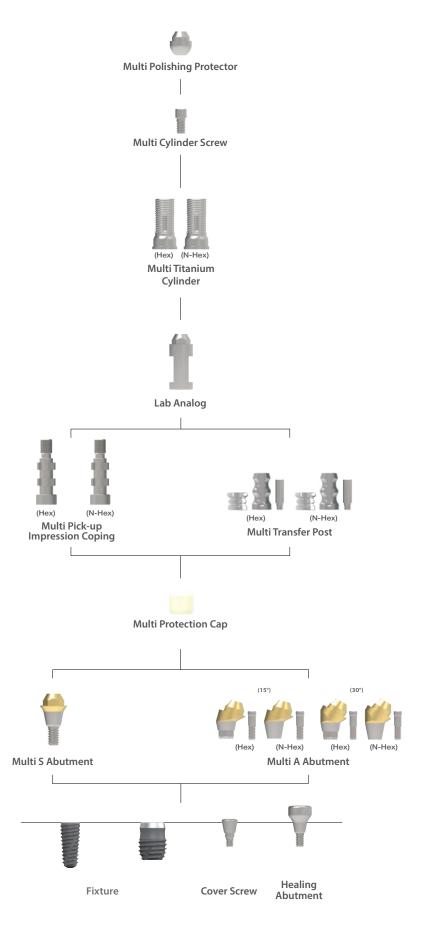


Туре	Hex		N-Hex			
Diameter Length / Cuff	Ø4.5	Ø5.5	Ø6.5	Ø4.5	Ø5.5	Ø6.5
9 (Short) / 2	2 STH 45 S	2 STH 55 S	2 STH 65 S	2 STN 45 S	2 STN 55 S	2 STN 65 S
11 (Long) / 4	2 STH 45 L	2 STH 55 L	2 STH 65 L	2 STN 45 L	2 STN 55 L	2 STN 65 L

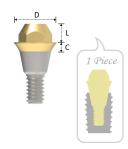
- > Packing unit: Hex 1 Transfer Post + 1 Guide Pin / N-Hex 1 Transfer Post (Solid Type).
- > For closed tray impression.
- > Connected with the Guide Pin (2STH001SS / 2STH001SL).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.
- > Fixture level impression.

Prosthetic Procedure II

Component Selection Guide for Multi S&A Abutment



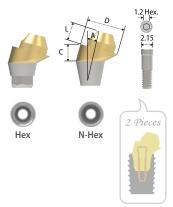
Multi S Abutment



Diameter	Ø4.5	Ø5.5
Cuff Length	2	2
1	2 SMS 451	2 SMS 551
2	2 SMS 452	2 SMS 552
3	2 SMS 453	2 SMS 553
4	2 SMS 454	2 SMS 554
5	2 SMS 455	2 SMS 555

- > Packing unit: 1 Multi S Abutment.
- > For Screw-Retained Prosthesis.
- > Titanium base for the cylinders.
- > Gold color for more translucent restoration.
- > Integrated with screw and abutment.
- > Library available for EXOCAD®, 3Shape® & Others.
- > Use the S Holder for a more stable position.
- > Tightened with the S Machine & S Ratchet Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Abutment level impression.

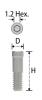
Multi A Abutment



Туре		He	ex	
Diameter(Angle)	Ø4.5(15°)	Ø4.5(30°)	Ø5.5(15°)	Ø5.5(30°)
- Length Cuff	2	2	2	2
2	• 2 SMAH 45152			
3	★ 2 SMAH 45153	• 2 SMAH 45303	★ 2 SMAH 55153	★ 2 SMAH 55303
4	★ 2 SMAH 45154	★ 2 SMAH 45304	★ 2 SMAH 55154	★ 2 SMAH 55304
5			★ 2 SMAH 55155	★ 2 SMAH 55305
Туре		N-F	lex	
Diameter(Angle)	Ø4.5(15°)	Ø4.5(30°)	Ø5.5(15°)	Ø5.5(30°)
Length	2	2	2	2
2	• 2 SMAN 45152			
3	★ 2 SMAN 45153	• 2 SMAN 45303	★ 2 SMAN 55153	★ 2 SMAN 55303
4	★ 2 SMAN 45154	★ 2 SMAN 45304	★ 2 SMAN 55154	★ 2 SMAN 55304
5			★ 2 SMAN 55155	★ 2 SMAN 55305

- > Packing unit: 1 Multi A Abutment + 1 Abutment Screw.
- > For Screw-Retained Prosthesis.
- > Titanium base for the cylinders.
- > Gold color for more translucent restoration.
- > Library available for EXOCAD®, 3Shape® & others.
- $\,>$ Use the A Holder for a more stable position.
- > Connected with the Abutment Screw (2SSHR300: ★ / 2SSHR400:).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Use the Multi Scanbody for digital flow.
- > Abutment level impression.

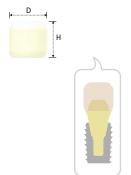
Abutment Screw



Height Diameter	7.5	6.5	
2.15	★ 2 SSHR 300	• 2 SSHR 400	

- > Packing unit: 1 Abutment Screw.
- > To connect the Multi A Abutment.
- > Tightened with the Hex Driver and Torque Wrench.

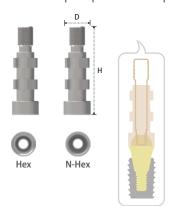
Multi Protection Cap



Multi S & A Abutment Diameter	Ø4.5	Ø5.5
Diameter Height	Ø5.2	Ø6.2
5	2 SMPC 45	2 SMPC 55

- > Packing unit: 1 Multi Protection Cap.
- > Protection from cheek and tongue for gingival healing period.
- > Gingival retraction for prosthodontic margin of the abutment.
- > Alternative usage for sub-structure of the temporary prosthesis.
- > Tightened with the Hex Driver.
- > Tightening torque force: 5~10N.cm.

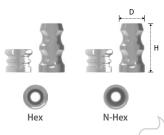
Multi Pick-up Impression Coping

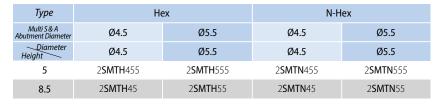


Туре	Hex		N-Hex	
Multi S & A Abutment Diameter	Ø4.5	Ø5.5	Ø4.5	Ø5.5
Diameter Height	Ø4.65	Ø5.65	Ø4.65	Ø5.65
16	2 SMIH 45	2 SMIH 55	2 SMIN 45	2 SMIN 55

- > Packing unit: 1 Multi Pick-up Impression Coping + 1 Guide Pin.
- > For open tray impression.
- > Connected with the Guide Pin (2SMGP012).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.

Multi Transfer Post





- > Packing unit: 1 Multi Transfer Post + 1 Guide Pin.
- > For closed tray impression.
- > Connected with the Guide Pin (2SMTHS100).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.



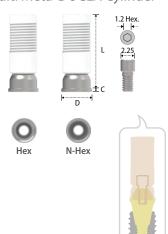
Multi Lab Analog



Multi S & A Abutment Diameter	Ø4.5	Ø5.5
Diameter Length	Ø4.5	Ø5.5
2	2 SMA 45	2 SMA 55

- > Packing unit: 1 Multi Lab Analog.
- > Replacement of abutment shape in working cast.
- > Choose by abutment size.

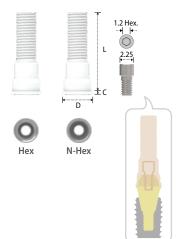
Multi Meta G UCLA Cylinder



Туре	Hex		N-Hex	
Multi S & A Abutment Diameter	Ø4.5	Ø5.5	Ø4.5	Ø5.5
Diameter	Ø4.5	Ø5.5	Ø4.5	Ø5.5
Length Cuff	10.9	10.9	10.9	10.9
0.5	2 SCCH 45	2 SCCH 55	2 SCCN 45	2 SCCN 55

- > Packing unit: 1 Multi Meta G UCLA Cylinder + 1 Multi Cylinder Screw.
- > For Screw, Cement, or Screw-Cement Retained Prosthesis.
- > Modification to various types of abutments.
- > CCM alloy core for precise connection.
- > Cast with non-precious metal or gold alloy.
- > Connected with the Multi Cylinder Screw (2SMCS100).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20N.cm.

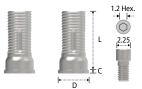
Multi Plastic UCLA Cylinder



Туре	Hex		N-Hex	
Multi S & A Abutment Diameter	Ø4.5	Ø5.5	Ø4.5	Ø5.5
Diameter	Ø4.5	Ø5.5	Ø4.5	Ø5.5
Length Cuff	11.5	11.5	11.5	11.5
0.5	2 SMPH 45	2 SMPH 55	2 SMPN 45	2 SMPN 55

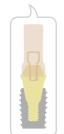
- > Packing unit: 1 Multi Plastic UCLA Cylinder + 1 Multi Cylinder Screw.
- > For Screw, Cement or Screw-Cement Retained Prosthesis.
- > Same purpose of use as the Meta G UCLA Cylinder but the low accuracy of connection.
- > PMMA material.
- > Connected with the Multi Cylinder Screw (2SMCS100).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20N.cm.

Multi Titanium Cylinder









Туре	Hex		N-Hex	
Multi S & A Abutment Diameter	Ø4.5	Ø5.5	Ø4.5	Ø5.5
Diameter	Ø4.5	Ø5.5	Ø4.5	Ø5.5
Length Cuff	8.5	8.5	8.5	8.5
0.5	2 STCH 45	2 STCH 55	2 STCN 45	2 STCN 55

- > Packing unit: 1 Multi Titanium Cylinder + 1 Multi Cylinder Screw.
- > For Screw, Cement or Screw-Cement Retained Prosthesis.
- > Connected with the Multi Cylinder Screw (2SMCS100).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20N.cm.

Multi Cylinder Screw



Diameter Height	Ø2.25
5	2 SMCS 100

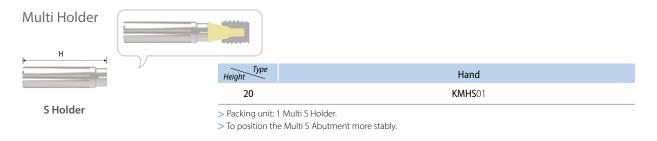
- > Packing unit: 1 Multi Cylinder Screw.
- > Connected with the Meta G UCLA, Plastic UCLA, and Titanium Cylinder.
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20N.cm.

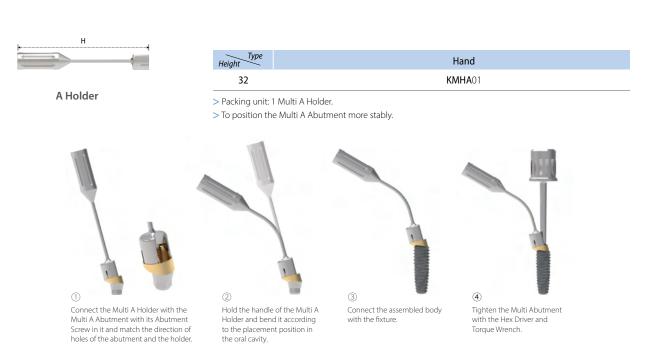
Multi Polishing Protector

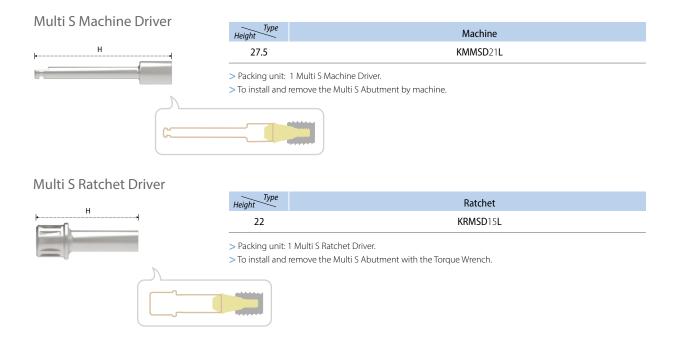


Туре	Hex			
Multi S & A Abutment Diameter	Ø4.5	Ø5.5		
Diameter Length	Ø4.5	Ø5.5		
2	2 SMPP 45	2 SMPP 55		

- > Packing unit: 1 Multi Polishing Protector.
- > To protect margin of the prosthesis while polishing procedure.

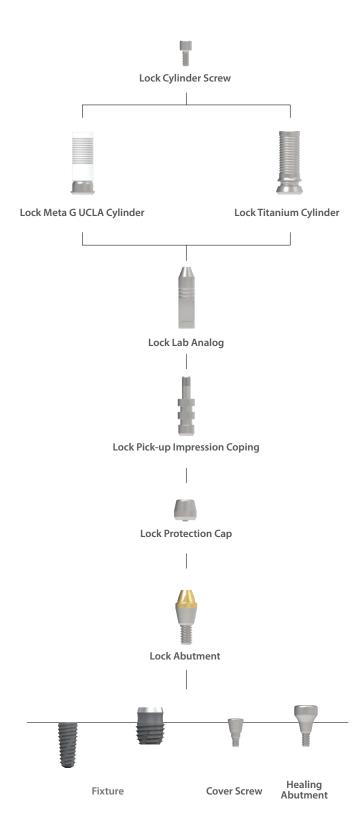




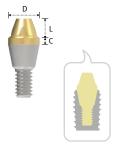


Prosthetic Procedure III

Component Selection Guide for Lock Abutment



Lock Abutment



Diameter	Ø3.5
Length Cuff	2.15
0.5	2 SLA 400
1	2 SLA 410
2	2 SLA 420
3	2 SLA 430
4	2 SLA 440

- > Packing unit: 1 Lock Abutment.
- > For Screw-Retained Prosthesis.
- > Titanium base for the cylinders.
- > Gold color for more translucent restoration.
- > Integrated with screw and abutment.
- > Tightened with the Lock Ratchet Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Abutment level impression.

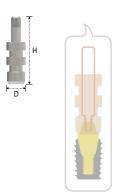
Lock Protection Cap



Lock Abutment Diameter	Ø3.5
Diameter Height	Ø4.3
4	2 SLP 45

- > Packing unit: 1 Lock Protection Cap.
- > Protection from cheek and tongue for gingival healing period.
- > Gingival retraction for prosthodontic margin of the abutment.
- > Tightened with the Hex Driver.
- > Tightening torque force: 5~10N.cm.

Lock Pick-up Impression Coping



Lock Abutment Diameter	Ø3.5
Diameter Height	Ø4.3
16	2 SLIH 45

- > Packing unit: 1 Lock Pick-up Impression Coping + 1 Guide Pin.
- > Connected with the Guide Pin (2SLIH45S).
- > For open tray impression.

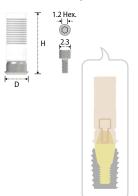
Lock Lab Analog



Lock Abutment Diameter	Ø3.5
Diameter Length	Ø3.5
2.15	2 SLA 45

- > Packing unit: 1 Lock Lab Analog.
- > Replacement of abutment shape in working cast.
- > Tightened with the Hex Driver and Torque Wrench.

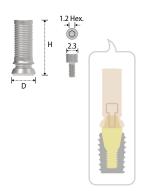
Lock Meta G UCLA Cylinder



Lock Abutment Diameter	Ø3.5
Diameter Height	Ø4.3
11.2	2 SLCH 45

- > Packing unit: 1 Lock Meta G UCLA Cylinder + 1 Lock Cylinder Screw.
- > For Screw, Cement, or Screw-Cement Retained Prosthesis.
- > Modification to various types of abutments.
- > CCM alloy core for precise connection.
- > Cast with non-precious metal or gold alloy.
- > Connected with the Lock Cylinder Screw (2SLCS200).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.

Lock Titanium Cylinder



Lock Abutment Diameter	Ø3.5
Diameter Height	Ø4.3
10	2 SLTH 45

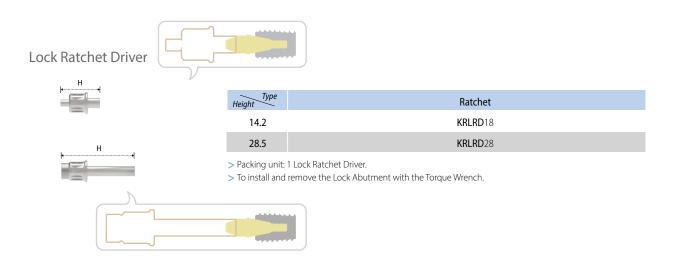
- > Packing unit: 1 Lock Titanium Cylinder + 1 Lock Cylinder Screw.
- $\,>\,$ For Screw, Cement, or Screw-Cement Retained Prosthesis.
- > Connected with the Lock Cylinder Screw (2SLCS200).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force : 30N.cm.

Lock Cylinder Screw



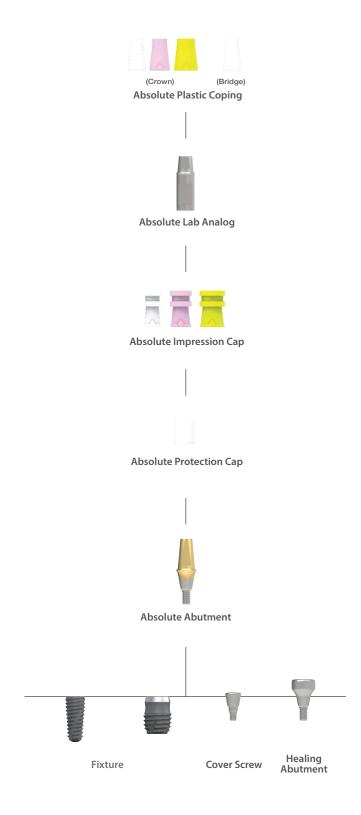
Diameter Height	Ø2.3
4.8	2 SLCS 200

- > Packing unit: 1 Lock Cylinder Screw.
- > Connected with the CCM Cylinder and Titanium Cylinder.
- Tightened with the Hex Driver and Torque Wrench.Tightening torque force: 30N.cm.

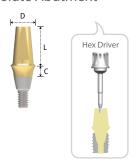


Prosthetic Procedure IV

Component Selection Guide for Absolute Abutment



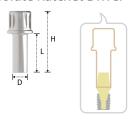
Absolute Abutment



Diameter	Ø4.5			Ø5.5			Ø6.5		
Length	4	5.5	7	4	5.5	7	4	5.5	7
1	2 SAC 4514	2 SAC 4515	2 SAC 4517	2 SAC 5514	2 SAC 5515	2 SAC 5517	2 SAC 6514	2 SAC 6515	2 SAC 6517
2	2 SAC 4524	2 SAC 4525	2 SAC 4527	2 SAC 5524	2 SAC 5525	2 SAC 5527	2 SAC 6524	2 SAC 6525	2 SAC 6527
3	2 SAC 4534	2 SAC 4535	2 SAC 4537	2 SAC 5534	2 SAC 5535	2 SAC 5537	2 SAC 6534	2 SAC 6535	2 SAC 6537
4	2 SAC 4544	2 SAC 4545	2 SAC 4547	2 SAC 5544	2 SAC 5545	2 SAC 5547	2 SAC 6544	2 SAC 6545	2 SAC 6547
5	2 SAC 4554	2 SAC 4555	2 SAC 4557	2 SAC 5554	2 SAC 5555	2 SAC 5557	2 SAC 6554	2 SAC 6555	2 SAC 6557

- > Packing unit: 1 Absolute Abutment + 1 Protection Cap.
- > For Cement Retained Prosthesis.
- > Cutting surface for anti-rotation of the prosthesis.
- > Integrated with the Screw and Abutment.
- > Tightened with the Hex Driver or the Absolute Rachet Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Abutment level impression.

Absolute Ratchet Driver



Diameter	Ø4.6		Ø5	5.6	Ø6.6	
Length Height	12 19		12	19	12	19
19	KRAD 4512 S		KRAD 5512 S		KRAD 6512 S	
26		KRAD4519L		KRAD5519L		KRAD6519L

- > Packing unit: 1 Absolute Ratchet Driver.
- > To install and remove the Absolute with the Torque Wrench.

Absolute Protection Cap



Absolute Abutment Diameter	Ø4.5	Ø5.5	Ø6.5
Diameter Height	Ø5.0	Ø6.0	Ø7.0
6	2 SHPC 454	2 SHPC 554	2 SHPC 654
7.5	2 SHPC 455	2 SHPC 555	2 SHPC 655
9	2 SHPC 457	2 SHPC 557	2 SHPC 657

- > Packing unit: 1 Absolute Protection Cap.
- > Protection from cheek and tongue for gingival healing period.
- > Gingival retraction for prosthodontic margin of the abutment.
- > Alternative usage for sub-structure of the temporary prosthesis.

Absolute Impression Cap



Absolute Abutment Diameter	Ø4.5	Ø5.5	Ø6.5
Diameter Height	Ø5.5	Ø6.5	Ø7.5
10.3	2 SIC 45	2 SIC 55	2 SIC 65

- > Packing unit: 1 Absolute Impression Cap.
- > Confirm locking with abutment by rotation of clockwise and anti-clockwise direction.

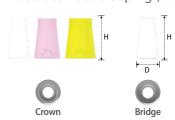
Absolute Lab Analog



Absolute Abutment Diameter	Ø4.5	Ø5.5	Ø6.5
Diameter Length	Ø4.5	Ø5.5	Ø6.5
4.1	2 SHLA 454	2 SHLA 554	2 SHLA 654
5.6	2 SHLA 455	2 SHLA 555	2 SHLA 655
7.1	2 SHLA 457	2 SHLA 557	2 SHLA 657

- > Packing unit: 1 Absolute Lab Analog.
- > Replacement of abutment shape in working cast.
- > Choose according to width and length of the abutment.

Absolute Plastic Coping (Burn Out Cylinder)

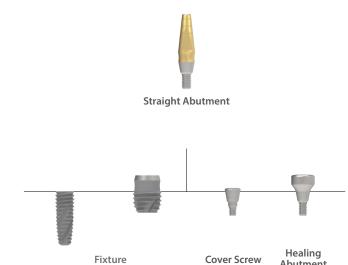


Туре	Crown		Bridge			
Absolute Abutment Diameter	Ø4.5	Ø5.5	Ø6.5	Ø4.5	Ø5.5	Ø6.5
Diameter Height	Ø5.1	Ø6.1	Ø7.1	Ø5.1	Ø6.1	Ø7.1
10	2 SHBC 45	2 SHBC 55	2 SHBC 65	2 SHBB 45	2 SHBB 55	2 SHBB 65

- > Packing unit: 1 Absolute Plastic Coping.
- > Connected with the Lab Analog.
- > Burn out and casting for the metal framework.

Prosthetic Procedure V

Component Selection Guide for Straight Abutment



Straight Abutment



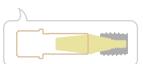
Diameter	Ø3.5	Ø4.5
Length Cuff	8	8
0.5	2 SSCM 308	2 SSCR 408
1	2 SSCM 318	2 SSCR 418
2	2 SSCM 328	2 SSCR 428
3	2 SSCM 338	2 SSCR 438
4	2 SSCM 348	2 SSCR 448

Abutment

- > Packing unit: 1 Straight Abutment.
- > For Cement Retained Prosthesis.
- > Integrated with screw and abutment.
- > Tightened with the Shoulder Driver.
- > Tightening torque force: 30N.cm.
- > Direct impression.

Shoulder Ratchet Driver



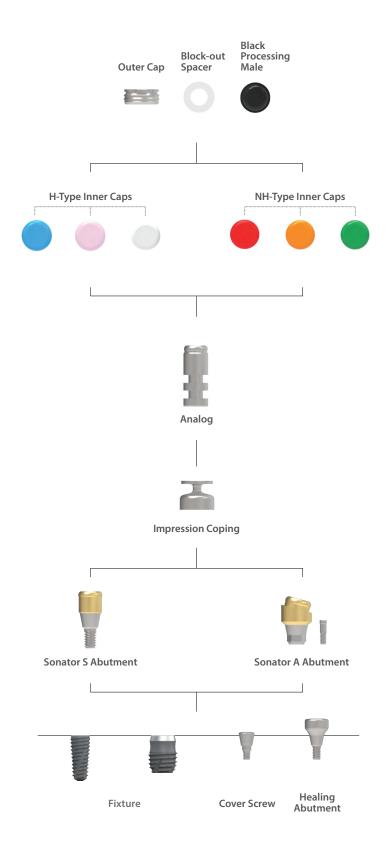


Diameter Height	Ø3.5	Ø4.5
19	KRR12S, KRR19L	KRW12S, KRW19L

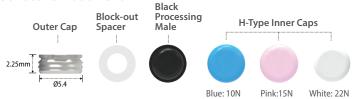
- > Packing unit: 1 Shoulder Ratchet Driver
- > To install and remove the Straight Abutment with the Torque Wrench.

Prosthetic Procedure VI

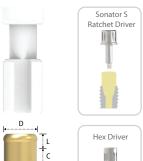
Component Selection Guide for Sonator S&A Abutment



Sonator S Abutment



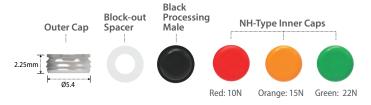
Carrier

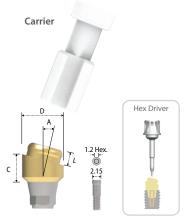


Diameter	Ø4.0					
Length Cuff	1	2	3	4	5	6
1.5	SONS 401	SONS 402	SONS 403	SONS404	SONS 405	SONS406

- > Packing unit: 1 Sonator S Abutment + 1 Carrier + 3 H-Type Inner Caps + 1 Outer Cap
 - + 1 Block-out Spacer + 1 Black Processing Male.
- > For Implant-Supported Overdenture Prosthesis.
- > Stable with low vertical height.
- > 6 kinds of Inner Caps give various holding force (Both, H and NH-Type Inner Caps are used for the Sonator S Abutment).
- > Path compensation up to 20° based on 2 implants.
- > Carrier: Used for delivery of the abutment.
- > Tightened with the Sonator S Ratchet Driver or Hex Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Abutment level impression.

Sonator A Abutment





Diameter	Ø4	1.0
Length	1.5	3.0
Cuff	3	3
Angle \	SONA 415	SONA 430

- > Packing unit: 1 Sonator A Abutment + 1 Abutment Screw + 1 Carrier + 3 NH-Type Inner Caps + 1 Outer Cap
 - + 1 Block-out Spacer + 1 Black Processing Male.
- > For Implant-Supported Overdenture Prosthesis.
- > Stable with low vertical height.
- > 6 kinds of Inner Caps give various holding force (Both, H and NH-Type Inner Caps are used for the Sonator A Abutment).
- > Path compensation up to 40° based on 2 Implants.
- > Connected with the Abutment Screw (2SSHR300).
- > Carrier: Used for delivery of the abutment.
- > Tightened with the Hex Driver and Torque wrench.
- > Tightening torque force: 30N.cm.
- > Abutment level impression.

Abutment Screw

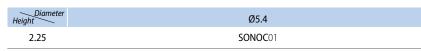


Diameter Height	Ø2.15
7.5	2 SSHR 300

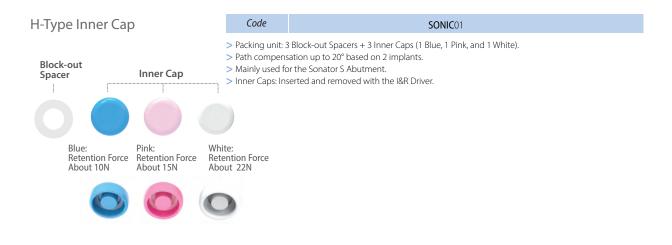
- > Packing unit: 1 Abutment Screw.
- > To connect the Sonator A Abutment.
- > Tighten with the Hex Driver and Torque Wrench.

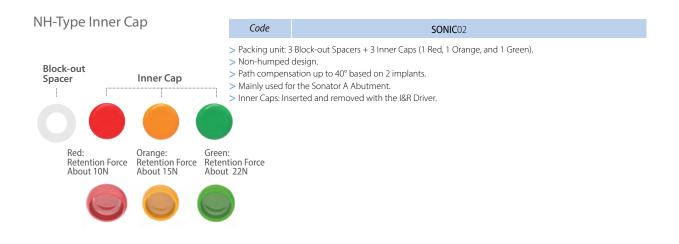
Outer Cap



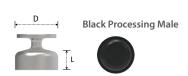


- > Packing unit: 2 Outer Caps and 2 Black Processing Males.
- > Black Processing Male: Inserted and removed with the I&R Driver.





Sonator Impression Coping



	Ø4.8
3	SONIP04

- > Packing unit: 4 Sonator Impression Copings and 4 Black Processing Males.
- > Connected over the Sonator S&A Abutment after placing the Block-out Spacer.
- > For close tray impression.

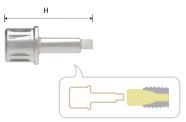
Sonator Lab Analog



Diameter Length	Ø4
1.4	SONLA04

- > Packing unit: 4 Sonator Lab Analogs.
- $\,>\,$ Replacement of abutment shape in working cast.

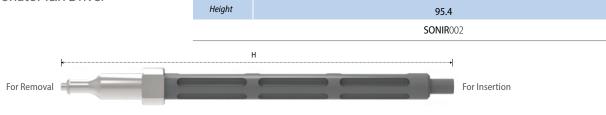
Sonator S Ratchet Driver



Type Height	Ratchet
18	SONRD19L

- > Packing unit: 1 Sonator S Ratchet Driver.
- > To install and remove the Sonator S Abutment with the Torque Wrench.

Sonator I&R Driver



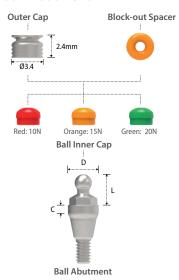
- > Packing unit: 1 Sonator I&R Driver.
- > Used to insert and remove the Inner Caps and Block Processing Male.

Prosthetic Procedure VII

Component Selection Guide for Ball Abutment



Ball Abutment



Diameter	Ø4.0
Length Cuff	4
1	2SBAT414R
2	2SBAT424R
3	2 SBAT 434 R
4	2SBAT444R
5	2 SBAT 454 R

- > Packing unit: 1 Ball Abutment + 3 Inner Caps (1 per each colour) + 1 Block-out Spacer + 1 Outer Cap.
- > For Implant-Supported Overdenture Prosthesis.
- > Tightened with the Ball Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Direct impression.

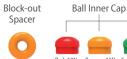
Ball Outer Cap



Diameter Height	Ø3.4
2.4	BATC003C

> Packing unit: 2 Outer Caps.

Ball Inner Cap





BATC003**I**

- > Packing unit: 2 Block-out Spacers + 6 Inner Caps (2 per each color).
- > Retention force: Red 10N, Orange 15N & Green 20N.

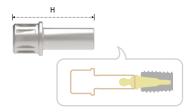
Ball Analog



Diameter Length	Ø4.0
4	SBAL 400

- > Packing unit: 4 Lab Analogs.
- > Replacement of abutment shape in working cast.

Ball Ratchet Driver



Type Height	Ratchet
19	KRB19L

- > Packing unit: 1 Ball Ratchet Driver
- > To install and remove the Ball Abutment with the Torque Wrench.

*Extra Product

Ball I&R Driver



> Packing unit: 1 Ball I&R Driver.

Height

> Used to insert and remove the Inner Caps into and out of the Outer Cap.

INNO SUBMERGED NARROW IMPLANT (Sub-N.)

System Flow

Fixture		Abutment
Hex 2.1 Length 8 (8.5) / 10 / 12 / 14mm	Prosthetic Procedure I	Cemented Angulated Temporary Abutment Abutment
Diameter Ø3.1 (3.3) Ø3.3 (3.5)	Prosthetic Procedure II	Straight Abutment

	Impression	
Fixture Level Impression	Replica Pick-up Transfer Post Impression Coping	
Abutment Level Impression	Direct Impression	

INNO Submerged Narrow Implant (Sub-N.)



Submerged Fixture

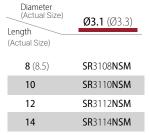
Surface Treatment: SLA-SH

- > Interchangeable with hexagonal morse tapered fixture
- > Internal hex connection (Taper 11°/ Hex 2.1)
- > Narrow 전용 Mount 및 Abutment 사용

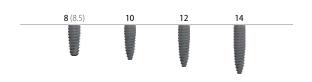


No-Mount > Pa

> Packing unit: 1 Fixture + 1 Cover Screw.

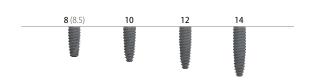




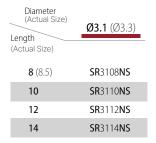


Length (Actual Size)	Ø3.3 (Ø3.5)
8 (8.5)	SR 3308 NSM
10	SR 3310 NSM
12	SR 3312 NSM
14	SR 3314 NSM

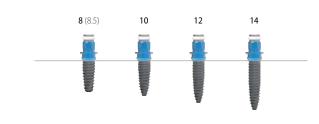




Pre-Mount > Packing unit: 1 Fixture + 1 Cover Screw + 1 Mount.



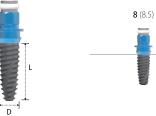




10

12

Diameter (Actual Size) Length (Actual Size)	Ø3.3 (Ø3.5)
8 (8.5)	SR 3308 NS
10	SR 3310 NS
12	SR 3312 NS
14	SR 3314 NS



Fixture Mount



Length	5.4
	RSM 001

- > Packing unit: 1 Mount + 1 Mount Screw.
- > Tightened with the Hex Driver.
- > Tightening torque force: 5~10N.cm.

Cover Screw



Diameter (Actual Size)

Diameter Length	Ø2.85	Ø3.25	Ø3.6
1.7	RCS000		
2.7		RCS 001	
3.7			RCS002

- > Packing unit: 1 Cover Screw.
- > To seal the conical interface of the fixture.
- > The longer the Cover Screw for the deeply inserted fixture.
- > Tightened with the Hex Driver.
- > Tightening torque force: 5~10N.cm.

Healing Abutment

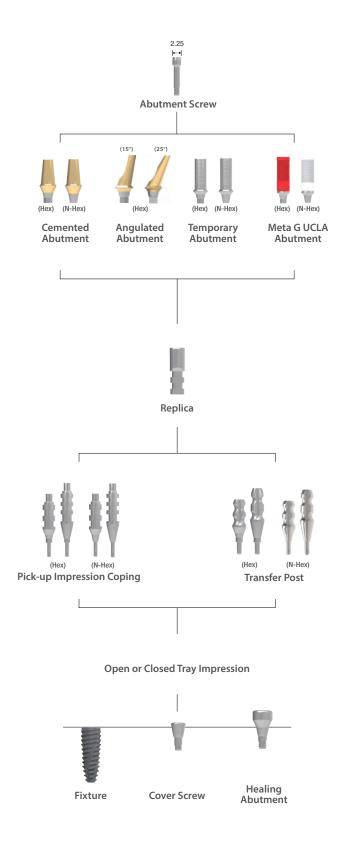


Diameter	Ø3.5		Ø4	l.5
Cuff Length	1	2	1	2
0.5	HR 3501			
1	HR 3511		HS 4511 N	
2		HR 3522		HS 4522 N
3		HR 3532		HS4532N
4		HR 3542		HS4542N
5				HS4552N
7				HS4572N

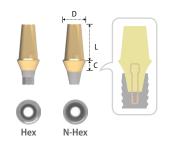
- > Packing unit: 1 Healing Abutment.
- > For remodeling gingival contour during soft tissue healing.
- > Select the abutment according to gingival height and abutment type.
- > Tightened with the Hex Driver.
- > Tightening torque force: 5~10N.cm.

Prosthesis Procedure I

Components Selection Guide for Cemented and UCLA Abutment



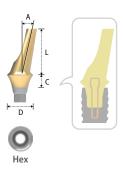
Cemented Abutment



Туре	Hex		Туре			N-Hex	
Diameter	Ø4.5		Ø4.5 Ø4.5				
Length Cuff	4	5.5	7	4	5.5	7	
1	SCH 4514 N	SCH 4515 N	SCH 4517 N	SCN 4514 N	SCN 4515 N	SCN 4517 N	
2	SCH4524N	SCH4525N	SCH4527N	SCN4524N	SCN4525N	SCN4527N	
3	SCH4534N	SCH4535N	SCH 4537 N	SCN4534N	SCN4535N	SCN4537N	
4	SCH4544N	SCH4545N	SCH4547N	SCN4544N	SCN4545N	SCN4547N	
5	SCH4554N	SCH4555N	SCH4557N	SCN4554N	SCN4555N	SCN4557N	

- > Packing unit: 1 Cemented Abutment + 1 Abutment Screw.
- > For Screw-Cement or Cement Retained Prosthesis.
- > Cutting surface for anti-rotation of the prosthesis.
- > Gold color for more translucent restoration.
- > Library available for EXOCAD®, 3Shape® & Others.
- > Connected with the Abutment Screw (SSHR100N).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20~25N.cm.
- > Use the Scanbody for 3D Work.
- > Fixture level impression.

Angulated Abutment

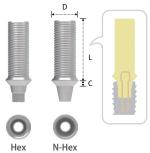




Туре	Hex		
Diameter(Angle)	Ø4.5(15°)	Ø4.5(25°)	
Length Cuff	8	8	
1	SAH 45151 NA	SAH 45251 NA	
2	SAH 45152 NA	SAH 45252 NA	
3	SAH 45153 NA	SAH 45253 NA	
4	SAH 45154 NA	SAH 45254 NA	

- > Packing unit: 1 Angulated Abutment + 1 Abutment Screw.
- > For Screw-Cement or Cement Retained Prosthesis.
- > Solution for the anterior esthetic zone.
- > Gold color for esthetics.
- > Connected with the Abutment Screw (SSHR100N).
- $\,>\,$ Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20~25N.cm.
- > Fixture level impression.

Temporary Abutment

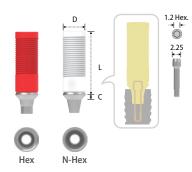




	Туре	Hex	N-Hex
x.	Diameter	Ø4.5	Ø4.5
	Length Cuff	10	10
	1	STHA45N	STNA45N

- > Packing unit: 1 Temporary Abutment + 1 Abutment Screw.
- > For Screw-Cement Retained Prosthesis.
- > For provisional restoration.
- > Connected with the Abutment Screw (SSHR100N).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20~25N.cm.

Meta G UCLA Abutment



Туре	Hex	N-Hex
Diameter	Ø4.5	Ø4.5
Length Cuff	12	12
1	SGH45N	SGN45N
2	SGH452N	SGN 452 N
3	SGH453N	SGN 453 N

- > Packing unit: 1 Meta G UCLA Abutment + 1 Abutment Screw.
- > For Screw Retained Prosthesis.
- > Modification to the angulated abutment, customized abutment and telescopic abutment.
- > CCM alloy core for precise connection.
- > Cast with non-precious metal or gold alloy.
- > Connected with the Abutment Screw (SSHR100N).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20~25N.cm.
- > Fixture level impression.

Abutment Screw



Diameter Height	2.25
10.2	SSHR100N

- > Packing unit: 1 Abutment Screw.
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20~25N.cm.

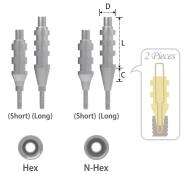
Replica



Diameter Heiaht	Ø4.0
12.1	SRHR001N

- > Packing unit: 1 Replica.
- > Mimicking of the conical interface of the fixture.
- > Analog of fixture for the working cast.

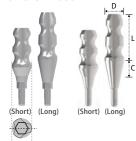
Pick-up Impression Coping



Туре	Hex	N-Hex
	Ø4.5	Ø4.5
14 (Short) / 2	SIH45SN	SIN45SN
16 (Long) / 4	SIH45LN	SIN45LN

- > Packing unit: 1 Pick-up Impression Coping + 1 Guide Pin.
- > For open tray impression.
- > Connected with the Guide Pin (SIS001SN / SIS001LN).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15Ncm.

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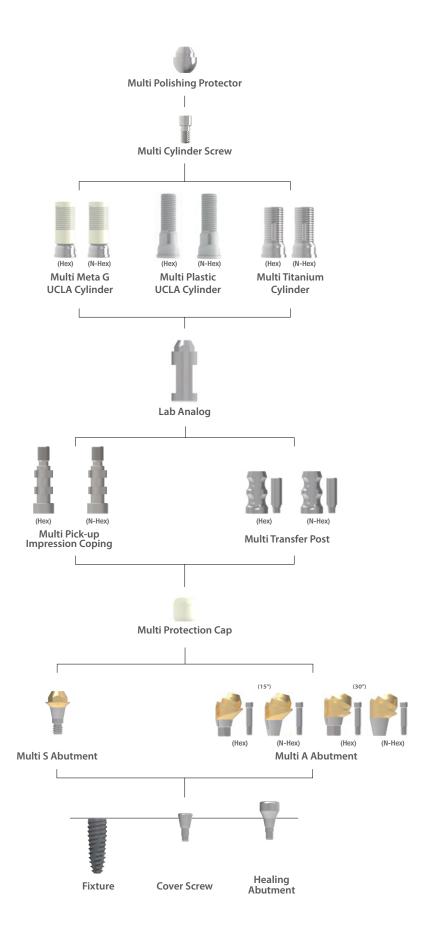


Туре	Hex	N-Hex
Diameter Length/Cuff	Ø4.5	Ø4.5
9 (Short) / 2	STH45SN	STN45SN
11 (Long) / 4	STH45LN	STN45LN

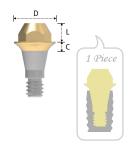
- > Packing unit: Hex 1 Transfer Post + 1 Guide Pin / N-Hex 1 Transfer Post (Solid Type).
- > For closed tray impression.
- > Connected with the Guide Pin (STH001SN / STH001LN).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15Ncm.

Prosthesis Procedure II

Component Selection Guide for Multi S&A Abutment



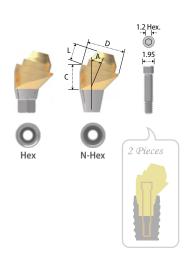
Multi S Abutment



Diameter	Ø4.5
Length Cuff	2
1	SMS 451 N
2	SMS452N
3	SMS 453 N
4	SMS454N

- > Packing unit: 1 Multi S Abutment.
- > For Screw-Retained Prosthesis.
- > Titanium base for the cylinders.
- > Gold color for more translucent restoration.
- > Integrated with screw and abutment.
- > Library available for EXOCAD®, 3Shape® & Others.
- > Use the S Holder for a more stable position.
- > Tightened with the S Machine & S Ratchet Driver and Torque Wrench.
- > Tightening torque force: 20~25N.cm.
- > Abutment level impression.

Multi A Abutment



Туре	Hex	
Diameter(Angle)	Ø4.5(15°)	Ø4.5(30°)
Length	2	2
2	★ SMAH 45152 N	
3	• SMAH45153N	★ SMAH 45303 N
4	• SMAH45154N	• SMAH45304N

Туре	N-Hex	
Diameter(Angle)	Ø4.5(15°)	Ø4.5(30°)
Length	2	2
2	★ SMAN 45152 N	
3	• SMAN45153N	★ SMAN 45303 N
4	• SMAN45154N	• SMAN45304N

- > Packing unit: 1 Multi A Abutment + 1 Abutment Screw.
- > For Screw-Retained Prosthesis.
- > Titanium base for the cylinders.
- > Gold color for more translucent restoration.
- > Library available for EXOCAD®, 3Shape® & Others.
- > Use the A Holder for a more stable position.
- > Connected with the Abutment Screw (SSHR200N: ★ / SSHR300N:).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20~25N.cm.
- > Abutment level impression.

Abutment Screw



Height Diameter	8.7	9.3
Ø1.95	★ SSHR200N	• SSHR300N

- > Packing unit: 1 Abutment Screw.
- > To connect the Multi A Abutment.
- > Tightened with the Hex Driver and Torque Wrench.

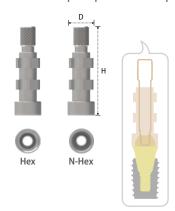
Multi Protection Cap



Multi S & A Abutment Diameter	Ø4.5
Diameter Height	Ø5.2
5	2 SMPC 45

- > Packing unit: 1 Multi Protection Cap.
- > Protection from cheek and tongue for gingival healing period.
- > Gingival retraction for prosthodontic margin of the abutment.
- > Alternative usage for sub-structure of the temporary prosthesis.
- > Tightened with the Hex Driver.
- > Tightening torque force: 5~10N.cm.

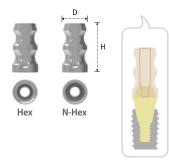
Multi Pick-up Impression Coping



Туре	Hex	N-Hex
Multi S & A Abutment Diameter	Ø4.5	Ø4.5
Diameter Height	Ø4.65	Ø4.65
16	2 SMIH 45	2 SMIN 45

- > Packing unit: 1 Multi Pick-up Impression Coping + 1 Guide Pin.
- > For open tray impression.
- > Connected with the Guide Pin (2SMGP012).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.

Multi Transfer Post



Туре	Hex	N-Hex
Multi S & A Abutment Diameter	Ø4.5	Ø4.5
Diameter Height	Ø4.5	Ø4.5
8.5	2 SMTH 45	2 SMTN 45

- > Packing unit: 1 Multi Transfer Post + 1 Guide Pin.
- > For closed tray impression.
- > Connected with the Guide Pin (2SMTHS100).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.

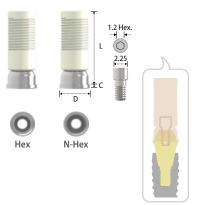
Multi Lab Analog



Multi S & A Abutment Diameter	Ø4.5
Diameter Length	Ø4.5
2	2 SMA 45

- > Packing unit: 1 Multi Lab Analog.
- > Replacement of abutment shape in working cast.

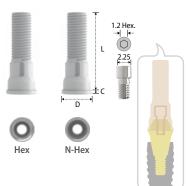
Multi Meta G UCLA Cylinder



Туре	Hex	N-Hex
Multi S & A Abutment Diameter	Ø4.5	Ø4.5
Diameter	Ø4.5	Ø4.5
Length Cuff	10.9	10.9
0.5	2 SCCH 45	2 SCCN 45

- > Packing unit: 1 Multi Meta G UCLA Cylinder + 1 Multi Cylinder Screw.
- > For Screw, Cement, or Screw-Cement Retained Prosthesis.
- > Modification to various types of abutments.
- > CCM alloy core for precise connection.
- > Cast with non-precious metal or gold alloy.
- > Connected with the Multi Cylinder Screw (2SMCS100).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20N.cm.

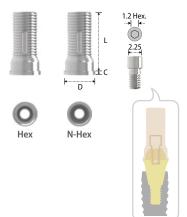
Multi Plastic UCLA Cylinder



Туре	Hex	N-Hex
Multi S & A Abutment Diameter	Ø4.5	Ø4.5
Diameter	Ø4.5	Ø4.5
Length Cuff	11.5	11.5
0.5	2 SMPH 45	2 SMPN 45

- > Packing unit: 1 Multi Plastic UCLA Cylinder + 1 Multi Cylinder Screw.
- > For Screw, Cement or Screw-Cement Retained Prosthesis.
- > Same purpose of use as the Meta G UCLA Cylinder but the low accuracy of connection.
- > PMMA material.
- > Connected with the Multi Cylinder Screw (2SMCS100).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20N.cm.

Multi Titanium Cylinder



Туре	Hex	N-Hex
Multi S & A Abutment Diameter	Ø4.5	Ø4.5
Diameter	Ø4.5	Ø4.5
Length Cuff	8.5	8.5
0.5	2 STCH 45	2 STCN 45

- > Packing unit: 1 Multi Titanium Cylinder + 1 Multi Cylinder Screw.
- > For Screw, Cement or Screw-Cement Retained Prosthesis.
- > Connected with the Multi Cylinder Screw (2SMCS100).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20N.cm.

Multi Cylinder Screw



	Ø2.25
5	2 SMCS 100

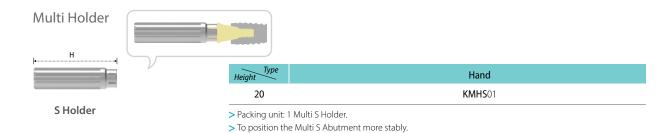
- > Packing unit: 1 Multi Cylinder Screw.
- > Connected with the Meta G UCLA, Plastic UCLA, and Titanium Cylinder.
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20N.cm.

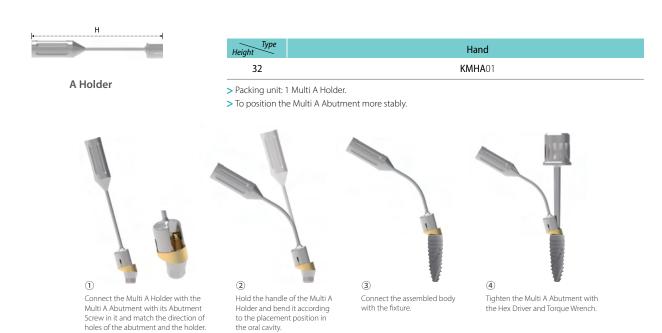
Multi Polishing Protector

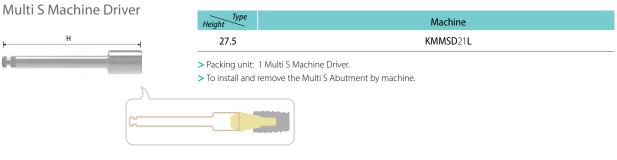


Туре	Hex
Multi S & A Abutment Diameter	Ø4.5
Diameter Length	Ø4.5
2	2 SMPP 45

- > Packing unit: 1 Multi Polishing Protector.
- > To protect margin of the prosthesis while polishing procedure.



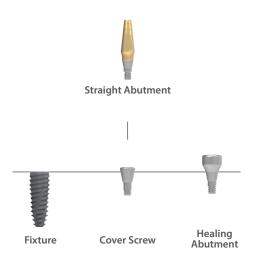






Prosthesis Procedure III

Component Selection Guide for Straight Abutment



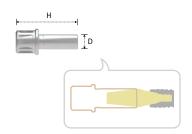
Straight Abutment



Diameter	Ø3.5				
Length [Cuff]	8 [0.5]	8 [0.5] 8 [1] 8 [2] 8 [3] 8 [4]			
	SR 308	SR 318	SR 328	SR 338	SR 348

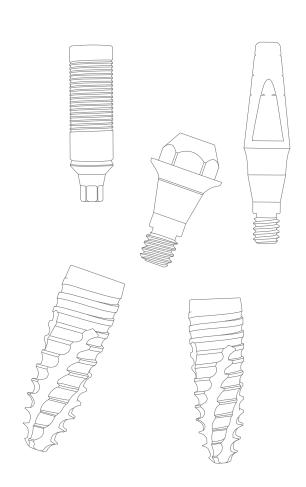
- > Packing unit: 1 Straight Abutment.
- > For Cement Retained Prosthesis.
- > Integrated with screw and abutment.
- > Tightened with the Shoulder Driver.
- > Tightening torque force: 20~25N.cm.
- > Direct impression.

Shoulder Ratchet Driver



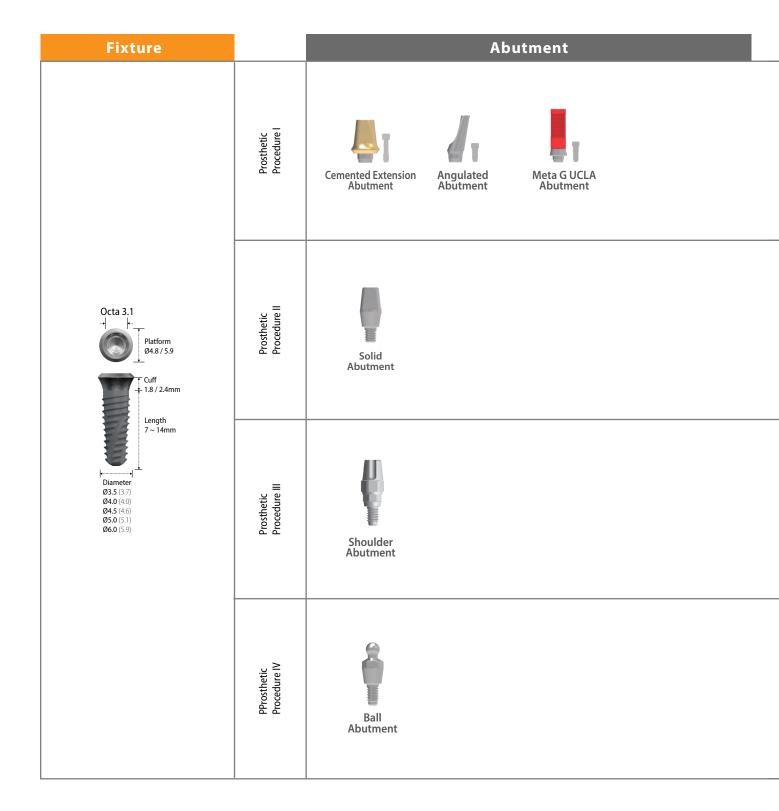
Diameter Height	Ø4.5
19	KRR19L

- > Packing unit: 1 Shoulder Ratchet Driver
- $\,>\,$ To install and remove the Straight Abutment with the Torque Wrench.



INNO INTERNAL IMPLANT (Int.)

System Flow



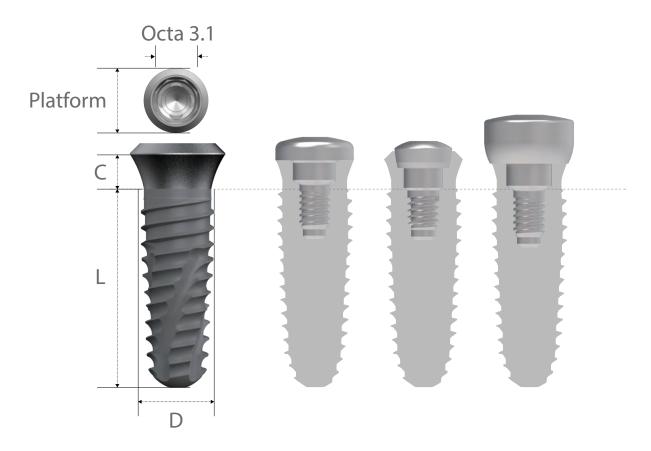


INNO Internal Impant (Int.)



Internal Fixture Surface Treatment: SLA-SH™

- > Interchangeable with 1 staged internal fixture
- > Internal Octa Connection (Taper 8°/ Octa 3.1)
- > No-Mount type



INNO Fixture Code



Internal















SLA Cuff 1.8 No-Mount IPT4010SM



Туре

Internal

Cuff 2.4

body

Taper

Taper

Diameter

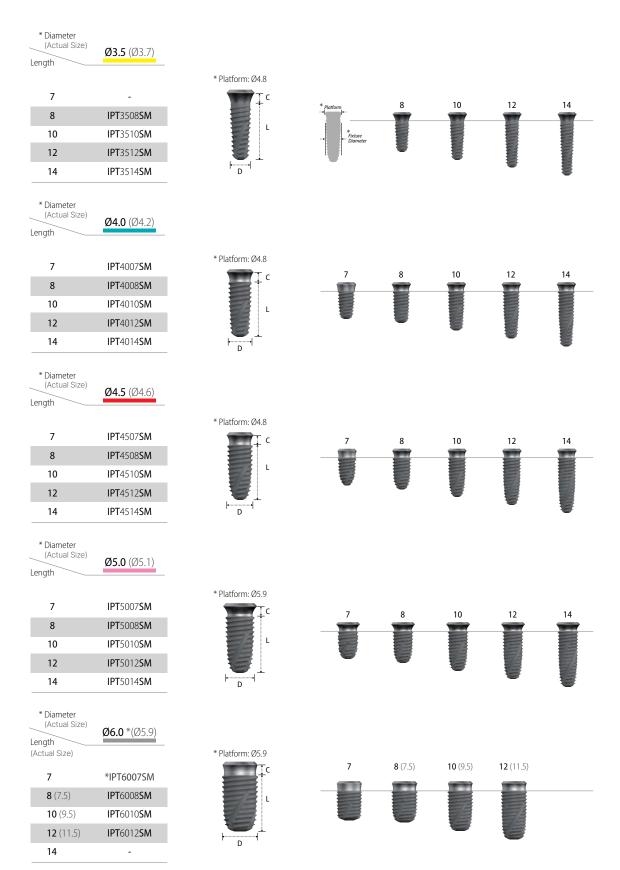
Length **10**mm

Surface Treatment

Mount No-**M**ount

SLA Cuff 2.4 No-Mount IT4010SM

No-Mount *Cuff 1.8mm fixture* > Packing unit: 1 Fixture + 1 Cover Screw.





Cover Screw



Platform [Fixture Dia.]	Ø4.8 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.9 [Ø5.0 / Ø6.0]
Diameter Height	Ø5.0	Ø6.0
6.5	ICVR002	ICVW002

- > Packing unit: 1 Cover Screw.
- > To seal the conical interface of the fixture.
- > Tightened with the Hex Driver.
- > Tightening torque force: 5~10N.cm.

Headless Screw



Diameter Height	Ø3.5
6	ICVR001

- > Packing unit: 1 Headless Screw.
- > For narrow mesiodistal distance.
- > Tightened with the Hex Driver.
- > Tightening torque force: 5~10N.cm.

Healing Abutment

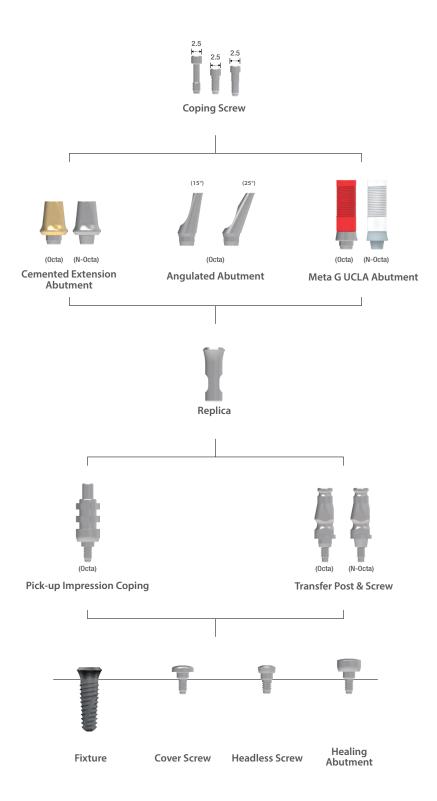


Platform [Fixture Dia.]	Ø4.8 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.9 [Ø5.0 / Ø6.0]
	Ø5.5	Ø6.6
2	IHCR020	IHCW 020
3	IHCR030	IHCW 030
4.5	IHCR 045	IHCW 045

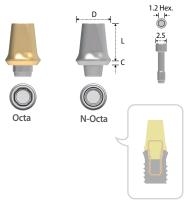
- > Packing unit: 1 Healing Abutment.
- > For remodeling gingival contour during soft tissue healing.
- > Select the abutment according to gingival height and abutment type.
- > Tightened with the Hex Driver.
- > Tightening torque force: 5~10N.cm.

Prosthetic Procedure I

Component Selection Guide for Cemented & UCLA Abutment



Cemented Extension Abutment



Туре	Octa			
Platform [Fixture Dia.]	Ø4.8 [Ø3.5/	Ø4.0/Ø4.5]	Ø5.9 [Ø5	.0 / Ø6.0]
Diameter	Ø4.8	Ø5.8	Ø5.9	Ø6.9
Length Cuff	6	6	6	6
0.5	IECR406		IECW506	
1		IECR416		IECW516
2		IECR426		IECW526
3		IECR436		IECW536

Туре	N-Octa			
Platform [Fixture Dia.]	Ø4.8 [Ø3.5 / Ø4.0 / Ø4.5]		Ø5.9 [Ø5	.0 / Ø6.0]
Diameter	Ø4.8	Ø5.8	Ø5.9	Ø6.9
Length Cuff	6	6	6	6
0.5	IENR406		IENW506	
1		IENR416		IENW 516
2		IENR426		IENW 526
3		IENR436		IENW 536

- > Packing unit: 1 Cemented Extension Abutment + 1 Abutment Screw.
- > For Cement Retained or Screw-Cement Retained Prosthesis.
- > Cutting surface for anti-rotation of the prosthesis.
- > Connected with the Abutment Screw (ISHR110).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Fixture level impression.

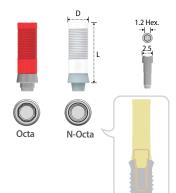
Angulated Abutment



Туре	Octa		
Platform [Fixture Dia.]		Ø4.8 & Ø5.9 [Ø3.5 / Ø4.0 / Ø4.5 / Ø5.0 / Ø6.0]	
Diameter(Angle) Length	3.8 (15°)	3.8 (15°) 3.8 (25°)	
8	IAAR 158 A	IAAR258A	

- > Packing unit: 1 Angulated Abutment + 1 Abutment Screw.
- > For Cement Retained or Screw-Cement Retained Prosthesis.
- > Solution for the anterior esthetic zone.
- > Connected with the Abutment Screw (ISHR100).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Fixture level impression.

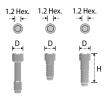
Meta G UCLA Abutment



Туре	Octa		N-Octa	
Platform [Fixture Dia.]			Ø4.8 [Ø3.5/Ø4.0/Ø4.5]	Ø5.9 [Ø5.0 / Ø6.0]
Diameter Length	Ø5	Ø6	Ø5	Ø6
12	IGOR400N	IGOW500N	IGNR400N	IGNW500N

- > Packing unit: 1 Meta G UCLA Abutment + 1 Abutment Screw.
- > For Screw-Cement or Screw Retained Prosthesis.
- > Modification to the angulated abutment, customized abutment and telescopic abutment.
- > CCM alloy core for precise connection.
- > Cast with non-precious metal or gold alloy.
- > Connected with the Abutment Screw (ISHR120).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Fixture level impression.

Abutment Screw



Diameter	Ø2.5	Ø2.5	Ø2.5
6.3		ISHR100	
7.8			ISHR120
9.2	ISHR 110		

- > Packing unit: 1 Abutment Screw.
- > ISHR110: Cemented Abutment.
- > ISHR100: Angulated Abutment.
- > ISHR120: Meta G UCLA Abutment.
- > Tightened with the Hex Driver and Torque Wrench.

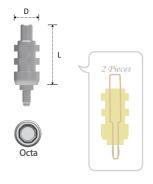
Replica



Platform [Fixture Dia.]	Ø4.8 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.9 [Ø5.0 / Ø6.0]
Diameter Height	Ø4.8	Ø5.9
12	IROR001	IROW 001

- > Packing unit: 1 Replica.
- > Mimicking of the conical interface of the fixture.
- > Analog of fixture for the working cast.

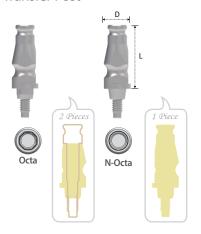
Pick-up Impression Coping



Туре	Octa		
Platform [Fixture Dia.]	Ø4.8 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.9 [Ø5.0 / Ø6.0]	
Diameter Length	Ø5.5	Ø6.6	
13.7	IIOR001	IIOW 001	

- > Packing unit: 1 Pick-up Impression Coping + 1 Guide Pin.
- > For open tray impression.
- > Connected with the Guide Pin (IIOR001S).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.

Transfer Post

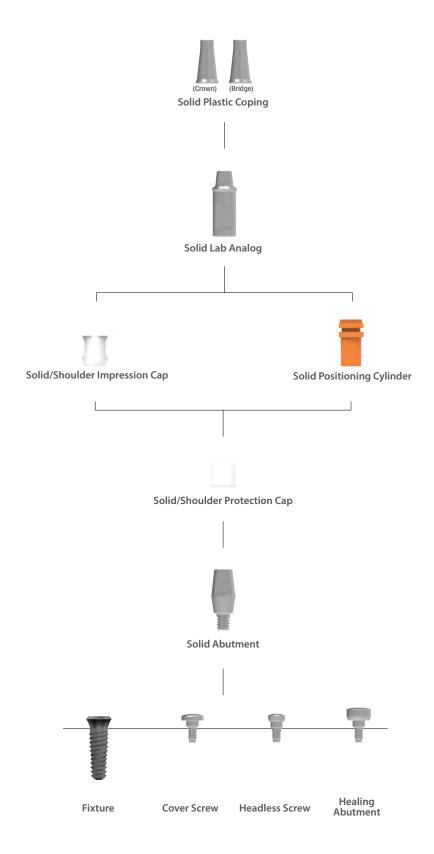


Туре	Octa		N-Octa	
Platform [Fixture Dia.]	Ø4.8 [Ø3.5 / Ø4.0 / Ø4.5] Ø5.9 [Ø5.0 / Ø6.0]		Ø4.8 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.9 [Ø5.0 / Ø6.0]
Diameter Length	Ø4.85	Ø5.95	Ø4.85	Ø5.95
11.6	ITOR400	ITOW500	ITNR400	ITNW 500

- > Packing unit: Octa 1 Transfer Post + 1 Guide Pin / N-Octa 1 Transfer Post (Solid Type).
- > For closed tray impression.
- > Connected with the Guide Pin (Regular: ITOR400S / Wide: ITOW500S).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.

Prosthetic Procedure II

Component Selection Guide for Solid Abutment



Solid Abutment



Platform [Fixture Dia.]	Ø4.8 & Ø5.9 [Ø3.5 / Ø4.0 / Ø4.5 / Ø5.0 / Ø6.0]				
Diameter	Ø3.5				
Length	3	4	5.5	7	
	IASR 030	IASR040	IASR 055	IASR070	

- > Packing unit: 1 Solid Abutment + 1 Protection Cap.
- > For Cement Retained Prosthesis.
- > Cutting surface for anti-rotation of the prosthesis.
- > Integrated with screw and abutment.
- > Tightened with the Shoulder Ratchet Driver.
- > Tightening torque force: 30N.cm.
- > Abutment level impression:

Impression cap in platform \emptyset 4.1 fixture and direct impression in platform \emptyset 5.8 fixture.



Solid/Shoulder Protection Cap



Solid Abutment Diameter	Ø3.5
Diameter Height	Ø5.4
5.2	IASR130
6.2	IASR140
7.7	IASR 155
9.2	IASR170

- > Packing unit: 1 Solid/Shoulder Protection Cap.
- > Protection from cheek and tongue for gingival healing period.
- > Alternative usage for sub-structure of the temporary prosthesis.

Solid/Shoulder Impression Cap



Solid Abutment Diameter	Ø3.5
Diameter Height	8
8	IICR 001

- > Packing unit: 1 Solid/Shoulder Impression Cap.
- > Connected with the Solid Positioning Cylinder.
- > Confirm locking with abutment by rotation of clockwise and anti-clockwise direction.

Solid Positioning Cylinder



Solid Abutment Diameter	Ø3.5
Diameter Height	Ø5.7
10.2	IPCR001

- > Packing unit: 1 Solid Positioning Cylinder.
- > Inner cutting surface for anti-rotation on the abutment.
- > Insert into the Impression Cap.

Solid Lab Analog



Solid Abutment Diameter		Ø3	.5	
Diameter	Ø4.8			
Length	3	4	5.5	7
	ILSR 030	ILSR040	ILSR 055	ILSR070

- > Packing unit: 1 Solid Lab Analog.
- > Replacement of abutment shape in working cast.
- > Choose according to length of the abutment.

Solid Plastic Coping







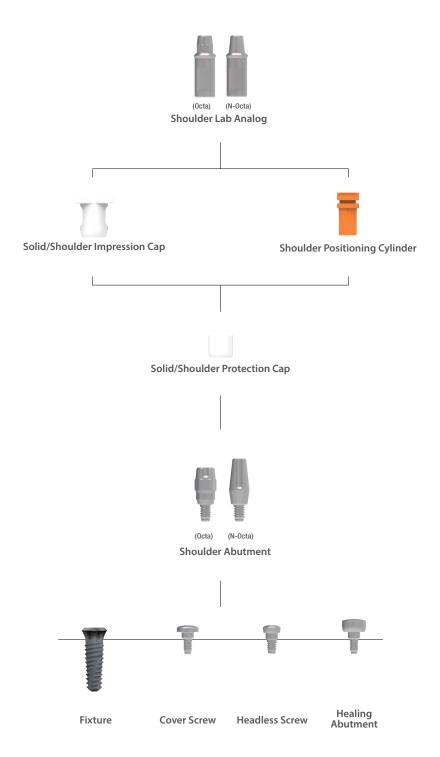


Туре	Crown	Bridge
Solid Abutment Diameter	Ø3.5	Ø3.5
Diameter Height	Ø5.0	Ø5.0
10	IPCC001	IPCB 001

- > Packing unit: 1 Solid Plastic Coping.
- > Connect with the Lab Analog.
- > Burn out and casting for the metal framework.

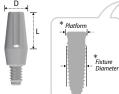
Prosthetic Procedure III

Component Selection Guide for Shoulder Abutment

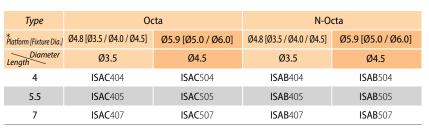


Shoulder Abutment

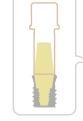








- > Packing unit: 1 Shoulder Abutment + 1 Protection Cap.
- > For Cement Retained Prosthesis.
- > Dual anti-rotation grip with a single crown for prevention of screw loosening.
- > Integrated with the Screw and Abutment.
- > Tightened with the Shoulder Ratchet Driver.
- > Tightening torque force: 30N.cm.
- > Abutment level impression.



		Shoulder Ø4.5	KRR19L		Shoulder Ø5.0	KRW19L	
--	--	---------------	--------	--	---------------	--------	--

Solid/Shoulder Protection Cap



Shoulder Abutment Diameter	Ø3.5	Ø4.5
Diameter Height	Ø5.4	Ø5.4
6.2	IASR 140	IASW 140
7.7	IASR 155	IASW 155
9.2	IASR170	IASW 170

- > Packing unit: 1 Solid/Shoulder Protection Cap.
- > Protection from cheek and tongue for gingival healing period.
- > Alternative usage for sub-structure of the temporary prosthesis.

Solid/Shoulder Impression Cap



Shoulder Abutment Diameter	Ø3.5	Ø4.5
Diameter Height	8	9
8	IICR001	IICW001

- > Packing unit: 1 Solid/Shoulder Impression Cap.
- > Connected with the Shoulder Positioning Cylinder.
- > Confirm locking with abutment by rotation of clockwise and anti-clockwise direction.

Shoulder Positioning Cylinder



Shoulder Abutment Diameter	Ø3.5	Ø4.5
Diameter Height	5.7	6.8
10.7	SAPR001	SAPW 001

- > Packing unit: 1 Shoulder Positioning Cylinder.
- > Inner cutting surface for anti-rotation on the abutment.
- > Insert into the Impression Cap.

Shoulder Lab Analog







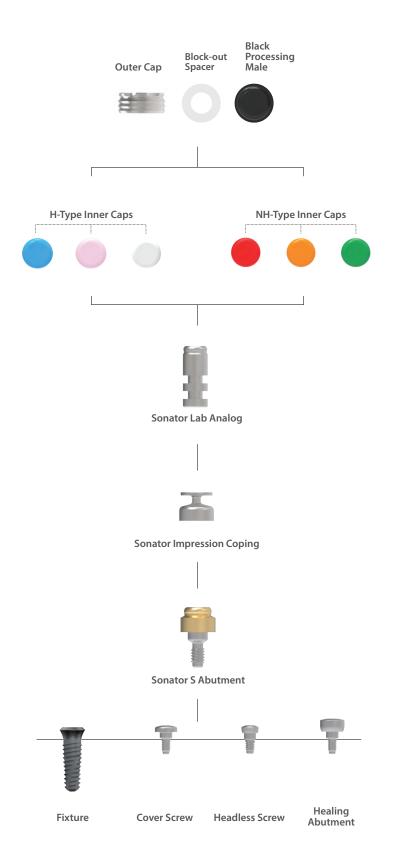


Туре	Octa		N-Octa	
Shoulder Abutment Diameter	Ø3.5	Ø4.5	Ø3.5	Ø4.5
Diameter Length	Ø4.8	Ø5.9	Ø4.8	Ø5.9
4	SLCR040 SLCW040		SLBR040	SLBW 040
5.5	SLCR055	SLCW 055	SLBR055	SLBW 055
7	SLCR070	SLCW 070	SLBR 070	SLBW 070

- > Packing unit: 1 Shoulder Lab Analog.
- > Replacement of abutment shape in working cast.
- > Choose according to width and length of the abutment.

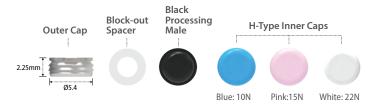
Prosthetic Procedure IV

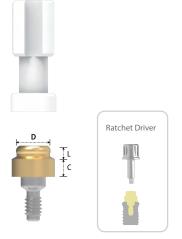
Component Selection Guide for Sonator S&A Abutment



Sonator S Abutment

Carrier





Diameter	Ø4.0			
Length Cuff	0.6	2	3	4
1.5	IONS401	IONS402	IONS 403	IONS404

- > Packing unit: 1 Sonator S Abutment + 1 Carrier + 3 H-Type Inner Caps + 1 Outer Cap + 1 Block-out Spacer + 1 Black Processing Male.
- > For Implant-Supported Overdenture Prosthesis.
- > Stable with low vertical height.
- > 6 kinds of Inner Caps give various holding force (Both, H and NH-Type Inner Caps are used for the Sonator S Abutment).
- > Path compensation up to 20° based on 2 implants.
- > Carrier: Used for delivery of the abutment.
- > Tightened with the Ratchet Driver and Torque wrench.
- > Tightening torque force: 30N.cm.
- > Abutment level impression.

Outer Cap



Diameter Height	Ø5.4
2.25	SONOC01

- > Packing unit: 2 Outer Caps and 2 Black Processing Males.
- > Black Processing Male: Inserted and Removed with the I&R Driver.





Code SONIC02

- > Packing unit: 3 Block-out Spacers + 3 Inner Caps (1 Red, 1 Orange, and 1 Green).
- > Path compensation up to 40° based on 2 implants.
- > Mainly used for the Sonator A Abutment.
- > Inner Caps: Inserted and Removed with the I&R Driver.









Sonator Impression Coping



	Ø4.8	
3	SONIP04	

- > Packing unit: 4 Impression Copings and 4 Black Processing Males.
- > Abutment level pick-up impression.
- > Connected over the Sonator Abutment after placing the Block-out Spacer.
- > For close tray impression.

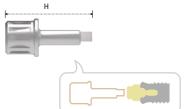
Sonator Lab Analog



Diameter Length	Ø4
1.4	SONLA04

- > Packing unit: 4 Sonator Lab Analogs.
- > Replacement of abutment shape in working cast.

Sonator S Ratchet Driver



Type Height	Ratchet
18	SONRD19L

- > Packing unit: 1 Sonator S Ratchet Driver.
- > To install and remove the Sonator S Abutment with the Torque Wrench.

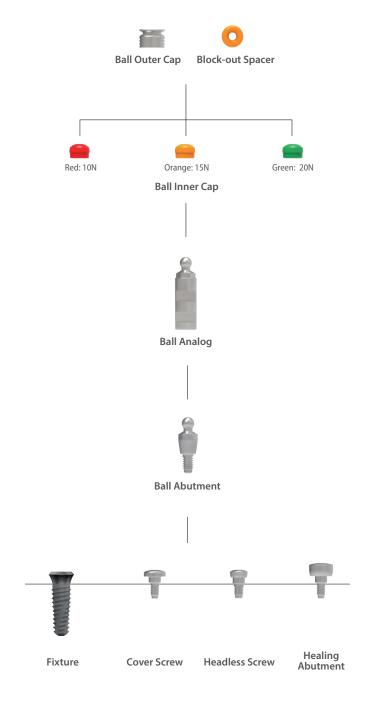
Sonator I&R Driver



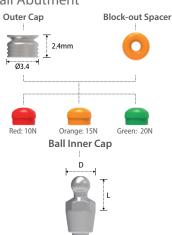
> Used to insert and remove the Inner Caps and Block Processing Male.

Prosthetic Procedure V

Component Selection Guide for Ball Abutment



Ball Abutment



Ball Abutment



- > Packing unit: 1 Ball Abutment + 3 Inner Caps (1 per each color) + 1 Block-out Spacer + 1 Outer Cap.
- > For Implant-Supported Overdenture Prosthesis.
- > Tightened with the Ball Ratchet Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Direct impression.

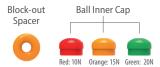
Ball Outer Cap



Diameter Height Ø3.4 BATC003C 2.4

> Packing unit: 2 Outer Caps.

Ball Inner Cap



BATC003**I**

- > Packing unit: 2 Block-out Spacers + 6 Inner Caps (2 per each color).
- > Retention force: Red 10N, Orange 15N & Green 20N.

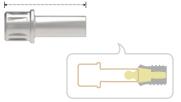
Ball Lab Analog



	Ø4.0	
4	SBAI 400	

- > Packing unit: 4 Ball Lab Analogs.
- > Replacement of abutment shape in working cast.

Ball Ratchet Driver



Type Height Type		Ratchet	
19		KRB19L	
> Packing unit: 1	Ball Ratchet Driver.		*Extra Product

> Packing unit: 1 Ball Ratchet Driver.

> To install and remove the Ball Abutment with the Torque Wrench.

Ball I&R Driver



- > Packing unit: 1 Ball I&R Driver.
- > Used to insert and remove the Inner Caps into and out of the Outer Cap.

INNO EXTERNAL IMPLANT (Ext.)

System Flow



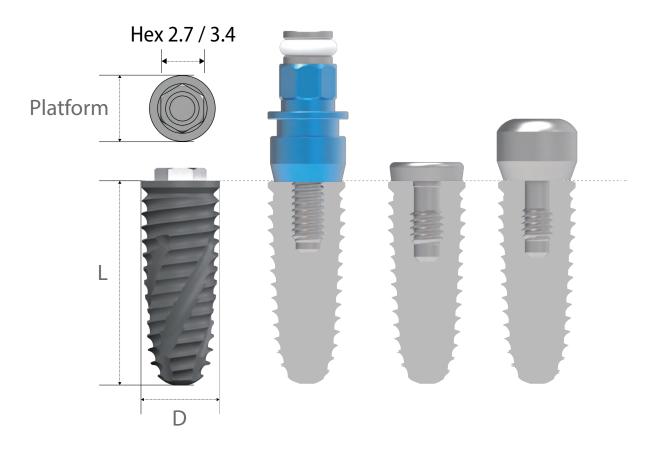
	Impression	
Fixture Level Impression	Replica Pick-up Squared Transfer Post Impression Coping	
Level	Solid/Shoulder Shoulder Positioning Shoulder Protection Cap Impression Cap Cylinder Lab Analog	
Abutment Level Impression	Ball Analog	

INNO External Implant (Ext.)



External Fixture Surface Treatment: SLA-SH

- > Interchangeable with external hexagonal fixture.
- > External hex connection (Hex 2.7 / 3.4).



INNO Fixture Code





External Taper

40 Diameter Length

Ø4.0

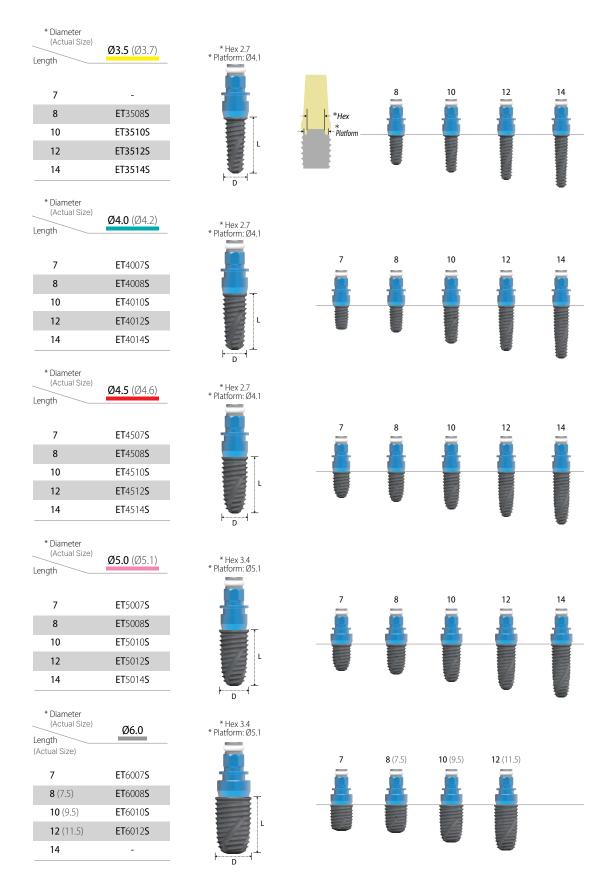
10mm

Surface Treatment Mount SLA

Pre-Mount

SLA Pre-Mount ET4010S

Pre-Mount > Packing unit: 1 Fixture + 1 Mount + 1 Mount Screw.



Fixture Mount



Нех	Hex2.7	Hex3.4
Platform [Fixture Dia.]	Ø4.1 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.1 [Ø5.0 / Ø6.0]
Diameter Length	Ø4.6	Ø5.5
7.2	MER 001	MEW 002

- > Packing unit: 1 Mount + 1 Mount Screw.
- > Tightened with the Hex Driver.
- > Tightening torque force: 5~10N.cm.

Cover Screw



Нех	Hex2.7	Hex3.4	
Platform [Fixture Dia.]	Ø4.1 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.1 [Ø5.0 / Ø6.0]	
Diameter Height	Ø4.3	Ø5.4	
5.8	VNR 001	VNW 001	

- > Packing unit: 1 Cover Screw.
- > To seal the conical interface of the fixture.
- > Tightened with the Hex Driver.
- > Tightening torque force: 5~10N.cm.

Healing Abutment

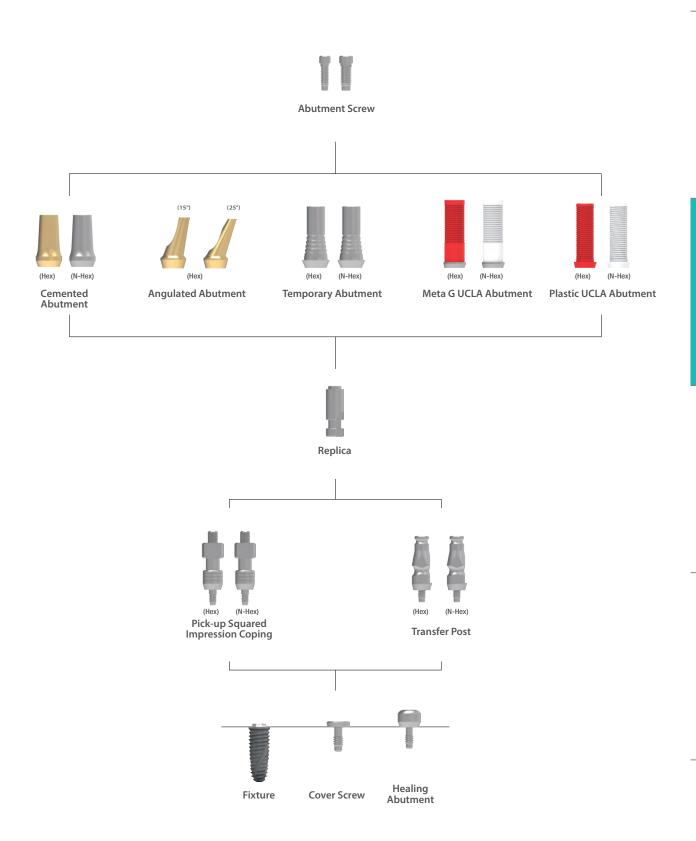


Нех	Hex2.7	Hex3.4
Platform [Fixture Dia.]	Ø4.1 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.1 [Ø5.0 / Ø6.0]
Diameter Length	Ø5.0	Ø6.0
2.8	HNR 502	HNW 602
3.8	HNR 503	HNW 603
4.8	HNR 504	HNW 604
5.8	HNR 505	HNW 605
6.8	HNR 506	HNW606
7.8	HNR 507	HNW 607

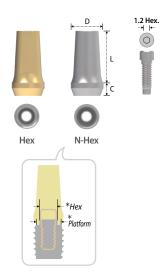
- > Packing unit: 1 Healing Abutment.
- > For remodeling gingival contour during soft tissue healing.
- > Select the abutment according to gingival height and abutment type.
- Tightened with the Hex Driver.Tightening torque force: 5~10N.cm.

Prosthetic Procedure I

Component Selection Guide for Cemented & UCLA Abutment



Cemented Abutment

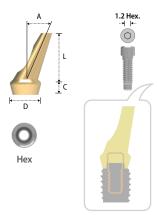


* Type[Hex]	Hex[2.7]		Hex	:[3.4]
* Platform [Fixture Dia.]	Ø4.1 [Ø3.5 / Ø4.0 / Ø4.5]		Ø5.1 [Ø5.0 / Ø6.0]	
Diameter	Ø5.0		Ø6.0	
Length Cuff	6	8	6	8
1	CHR 516	CHR 518	CHW 616	CHW 618
2	CHR 526	CHR 528	CHW 626	CHW 628
3	CHR 536	CHR 538	CHW 636	CHW 638
4	CHR 546	CHR 548	CHW646	CHW648

Type[Hex]	N-Hex			
Platform [Fixture Dia.]	Ø4.1 [Ø3.5 / Ø4.0 / Ø4.5]		Ø5.1 [Ø5.0 / Ø6.0]	
Diameter	Ø5.0		Ø6.0	
Length Cuff	6	8	6	8
1	CNR 516	CNR 518	CNW 616	CNW 618
2	CNR 526	CNR 528	CNW 626	CNW 628
3	CNR 536	CNR 538	CNW 636	CNW 638
4	CNR546	CNR 548	CNW646	CNW 648

- > Packing unit: 1 Cemented Abutment + 1 Abutment Screw.
- > For Cement Retained and Screw-Cement Retained Prosthesis. > Tightening torque force: 30N.cm
- > Cutting surface for anti-rotation of the prosthesis.
- > Connected with the Abutment Screw.
- > Tightened with the Hex Driver and Torque Wrench.
- > Fixture level impression.

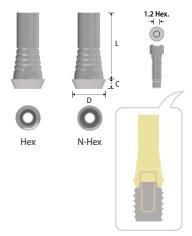
Angulated Abutment



Type[Hex]	Hex[2.7]	Hex[3.4]	Hex[2.7]	Hex[3.4]
Platform [Fixture Dia.]	Ø4.1 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.1 [Ø5.0 / Ø6.0]	Ø4.1 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.1 [Ø5.0 / Ø6.0]
Diameter (Angle)	Ø5 (15°)	Ø6 (15°)	Ø5 (25°)	Ø6 (25°)
Length Cuff	8	8	8	8
2	AAR 152	AAW 152	AAR 252	AAW 252
3	AAR 153	AAW 153	AAR 253	AAW 253
4	AAR 154	AAW 154	AAR 254	AAW 254

- > Packing unit: 1 Angulated Abutment + 1 Abutment Screw.
- > For Screw-Cement or Cement Retained Prosthesis.
- > Solution for the anterior esthetic zone.
- > Connected with the Abutment Screw.
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Fixture level impression.

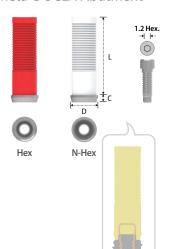
Temporary Abutment



Type[Hex]	Hex[2.7]	Hex[3.4]	N-Hex	N-Hex
Platform [Fixture Dia.]	Ø4.1 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.1 [Ø5.0 / Ø6.0]	Ø4.1 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.1 [Ø5.0 / Ø6.0]
Diameter	Ø5.4	Ø5.95	Ø5.4	Ø5.95
Length Cuff	12	12	12	12
1.5	THR 001	THW 001	TNR 001	TNW 001

- > Packing unit: 1 Temporary Abutment + 1 Abutment Screw.
- > For Screw-Cement Retained Prosthesis.
- > For provisional restoration.
- > Connected with the Abutment Screw.
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20N.cm.

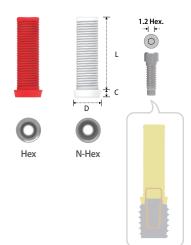
Meta G UCLA Abutment



Type[Hex]	Hex[2.7]	Hex[3.4]	N-Hex	N-Hex
Platform [Fixture Dia.]	Ø4.1 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.1 [Ø5.0 / Ø6.0]	Ø4.1 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.1 [Ø5.0 / Ø6.0]
Diameter	Ø4.5	Ø5.5	Ø4.5	Ø5.5
Length Cuff	13	13	13	13
1.2	GHR 001 N	GHW 001 N	GNR 001 N	GNW 001 N

- > Packing unit: 1 Meta G UCLA Abutment + 1 Abutment Screw.
- > For Screw-Cement or Screw Retained Prosthesis.
- > Modification to the angulated abutment, customized abutment and telescopic abutment.
- > CCM alloy core for precise connection.
- > Cast with non-precious metal or gold alloy.
- > Connected with the Abutment Screw.
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Fixture level impression.

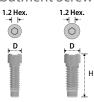
Plastic UCLA Abutment



Type[Hex]	Hex[2.7]	Hex[3.4]	N-Hex	N-Hex
Platform [Fixture Dia.]	Ø4.1 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.1 [Ø5.0 / Ø6.0]	Ø4.1 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.1 [Ø5.0 / Ø6.0]
Diameter	Ø4.5	Ø5.5	Ø4.5	Ø5.5
Length Cuff	11.8	11.8	11.8	11.8
1.2	PHR 001	PHW 001	PNR001	PNW 001

- > Packing unit: 1 Plastic UCLA Abutment + 1 Abutment Screw.
- > Same purpose of use as Meta G UCLA Abutment but the low accuracy of connection.
- > PMMA material.
- > Connected with the Abutment Screw.
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: Finger light force during wax Pattern fabrication, 30N.cm after casting.

Abutment Screw



Type[Hex]	Hex[2.7]	Hex[3.4]	
Platform [Fixture Dia.]	(, , ,	Ø5.1 [Ø5.0 / Ø6.0]	
Diameter Height	Ø2.5	Ø3.0	
8	SHR 100	SHW 100	

- > Packing unit: 1 Abutment Screw.
- > Tightened with the Hex Driver and Torque Wrench.

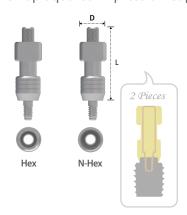
Replica



Type[Hex]	Hex[2.7]	Hex[3.4]	
Platform [Fixture Dia.]	Ø4.1 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.1 [Ø5.0 / Ø6.0]	
Diameter Height	Ø4.1	Ø5.1	
12	LHR 001	LHW 001	

- > Packing unit: 1 Replica.
- Mimicking of the conical interface of the fixture.Analog of fixture for the working cast.

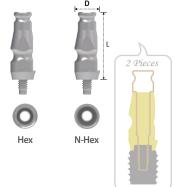
Pick-up Squared Impression Coping



Type[Hex]	Hex[2.7]	Hex[3.4]	N-Hex	N-Hex
Platform [Fixture Dia.]	Ø4.1 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.1 [Ø5.0 / Ø6.0]	Ø4.1 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.1 [Ø5.0 / Ø6.0]
Diameter Length	Ø5.0	Ø5.8	Ø5.0	Ø5.8
17	IHR500	IHW600	INR500	INW600

- > Packing unit: 1 Pick-up Squared Impression Coping + 1 Guide Pin.
- > Connected with the Guide Pin (Regular: UHR115 / Wide: UHW115).
- > For open tray impression.
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.



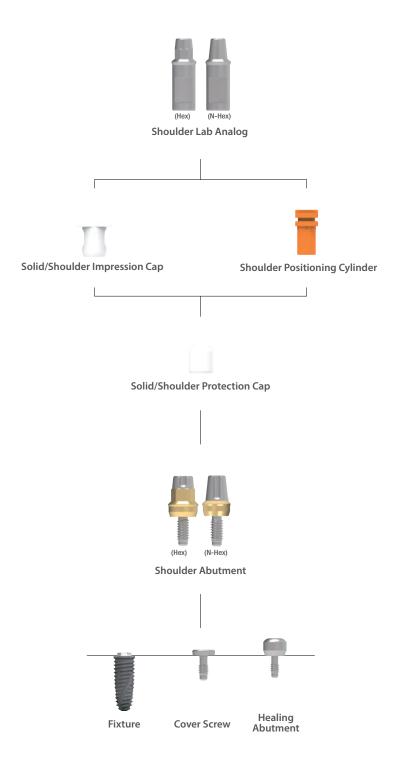


Type[Hex]	Hex[2.7]	Hex[3.4]	N-Hex	N-Hex
Platform [Fixture Dia.]	Ø4.1 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.1 [Ø5.0 / Ø6.0]	Ø4.1 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.1 [Ø5.0 / Ø6.0]
Diameter Length	Ø4.8	Ø5.8	Ø4.8	Ø5.8
13.1	IHR 510	IHW 610	INR 510	INW 610

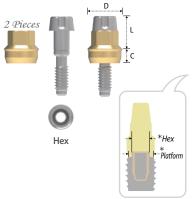
- > Packing unit: 1 Transfer Post + 1 Guide Pin.
- > Connected with the Guide Pin (Regular: IHR510S, IHR610S / Wide: IHW610S).
- > For closed tray impression.
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.

Prosthetic Procedure II

Component Selection Guide for Shoulder Abutment



Shoulder Abutment

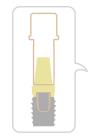


Type[Hex]	Hex[2.7]		Hex[3.4]			
* Platform [Fixture Dia.]	Ø4.1 [Ø3.5 / Ø4.0 / Ø4.5]		Ø5.1 [Ø5.0 / Ø6.0]			
Diameter	Ø4.8		Ø5.9			
Length Cuff	4	5.5	7	4	5.5	7
1	SAC 414	SAC 415	SAC 417	SAC 514	SAC 515	SAC 517
2	SAC 424	SAC 425	SAC 427	SAC 524	SAC 525	SAC 527
3	SAC 434	SAC 435	SAC 437	SAC 534	SAC 535	SAC 537
4	SAC444	SAC 445	SAC447	SAC 544	SAC 545	SAC 547



Type[Hex]		N-Hex			N-Hex	
Platform [Fixture Dia.]	Ø4.1 [Ø3.5 / Ø4.0 / Ø4.5]		Ø	Ø5.1 [Ø5.0 / Ø6.0]		
Diameter	Ø4.8		Ø5.9			
Length Cuff	4	5.5	7	4	5.5	7
1	SAB 414	SAB 415	SAB 417	SAB 514	SAB 515	SAB 517
2	SAB 424	SAB 425	SAB 427	SAB 524	SAB 525	SAB 527
3	SAB 434	SAB 435	SAB 437	SAB 534	SAB 535	SAB 537
4	SAB444	SAB 445	SAB 447	SAB 544	SAB 545	SAB 547

- > Packing unit: 1 Shoulder Abutment.
- > For Cement Retained Prosthesis.
- > Dual anti-rotation grip with a single crown for prevention of screw loosening.
- > Integrated with screw and abutment.
- > Tightened with the Shoulder Ratchet Driver.
- > Tightening torque force: 30N.cm.
- > Abutment level impression: Impression cap in platform Ø4.1 fixture and direct impression in platform Ø5.8 fixture.





Solid/Shoulder Protection Cap



Shoulder Abutment Diameter	Ø4.8	Ø5.9
Diameter Height	Ø5.4	Ø6.5
6.2	IASR140	IASW 140
7.7	IASR 155	IASW 155
9.2	IASR 170	IASW 170

- > Packing unit: 1 Solid/Shoulder Protection Cap.
- $\,>\,$ Protection from cheek and tongue for gingival healing period.
- > Alternative usage for sub-structure of the temporary prosthesis.

Solid/Shoulder Impression Cap



Shoulder Abutment Diameter	Ø4.8	Ø5.9
Diameter Height	8	9
8	IICR001	IICW001

- > Packing unit: 1 Solid/Shoulder Impression Cap.
- > Connected with the Shoulder Positioning Cylinder.
- > Confirm locking with abutment by rotation of clockwise and anti-clockwise direction.

Shoulder Positioning Cylinder



Shoulder Abutment Diameter	Ø4.8	Ø5.9
Diameter Height	Ø4.4	Ø5.5
10.7	SAPR001	SAPW 001

- > Packing unit: 1 Shoulder Positioning Cylinder.
- > Inner cutting surface for anti-rotation on the abutment.
- > Insert into the Impression Cap.

Shoulder Lab Analog







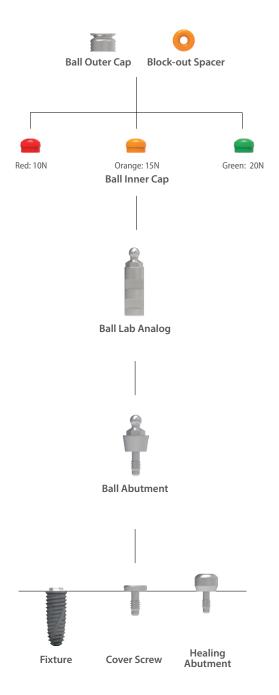


Type[Hex]	Hex[2.7&3.4]		N-H	lex
Shoulder Abutment Diameter	Ø4.8	Ø5.9	Ø4.8	Ø5.9
Diameter Length	Ø4.8	Ø5.9	Ø4.8	Ø5.9
4	SLCR040	SLCW040	SLBR040	SLBW 040
5.5	SLCR055	SLCW 055	SLBR055	SLBW 055
7	SLCR070	SLCW 070	SLBR070	SLBW 070

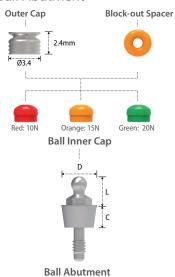
- > Packing unit: 1 Shoulder Lab Analog.
- > Replacement of abutment shape in working cast.
- > Choose according to width and length of the abutment.

Prosthetic Procedure III

Component Selection Guide for Ball Abutment



Ball Abutment



Diameter	Ø5.0	Ø6.0
Length Cuff	4	4
1	EBAT411R	EBAT 511 R
2	EBAT412R	EBAT512R
3	EBAT413R	EBAT 513 R
4	EBAT414R	EBAT514R

- > Packing unit: 1 Ball Abutment + 3 Inner Caps (1 per each color) + 1 Block-out Spacer + 1 Outer Cap.
- > For Implant-Supported Overdenture Prosthesis.
- > Tightened with the Ball Ratchet Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Direct impression.

Ball Outer Cap



	Ø3.4
2.4	BATC003C

> Packing unit: 2 Outer Caps.

Ball Inner Cap



BATC003**I**

- > Packing unit: 2 Block-out Spacers + 6 Inner Caps (2 per each color).
- > Retention force: Red 10N, Orange 15N & Green 20N.

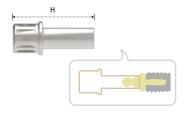
Ball Lab Analog



Diameter Length	Ø4.0
4	SBAL 400

- > Packing unit: 4 Ball Lab Analogs.
- > Replacement of abutment shape in working cast.

Ball Ratchet Driver



Type Height	Ratchet
19	KRB19L

- > Packing unit: 1 Ball Ratchet Driver.
- > To install and remove the Ball Abutment with the Torque Wrench.

*Extra Product

Ball I&R Driver

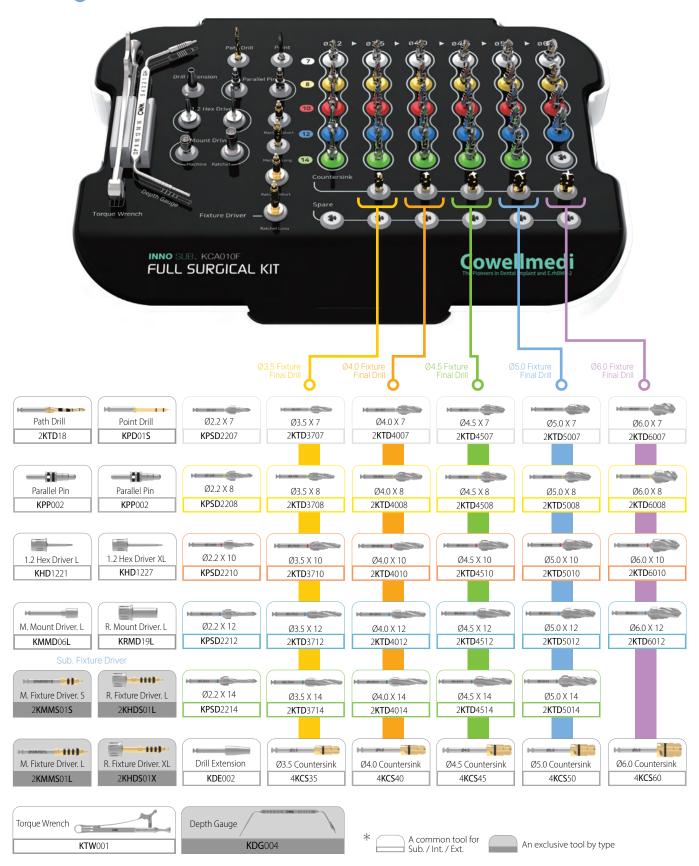


- > Packing unit: 1 Ball I&R Driver.
- > Used to insert and remove the Inner Caps into and out of the Outer Cap.

INNO SUB. FULL SURGICAL KIT [KCA010F]



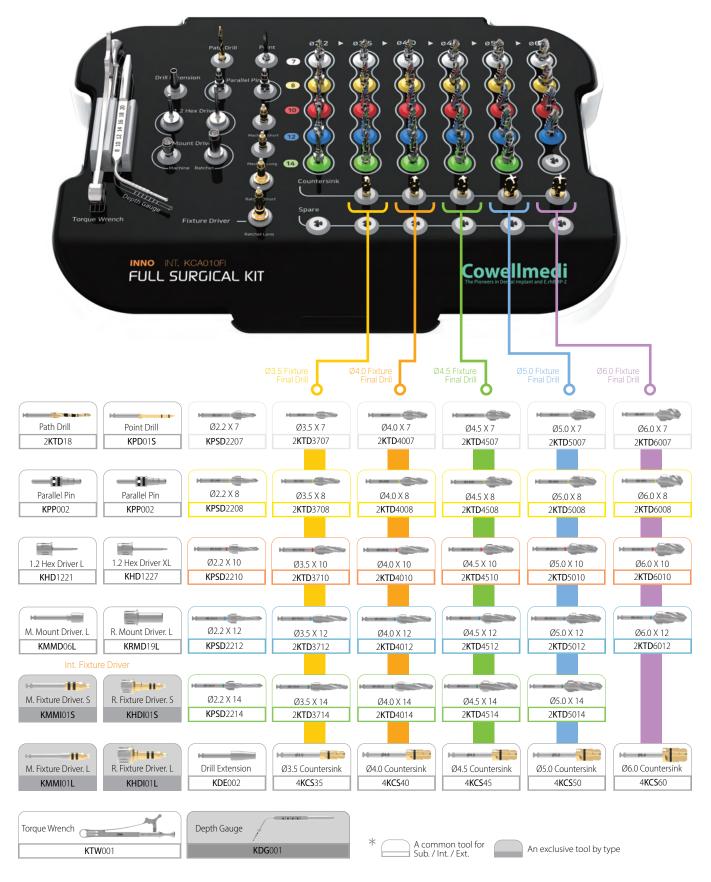
- > For INNO Submerged Implant System (Sub.).
- > All components are for Sub. / Int. / Ext. except for the Fixture Drivers and the Depth Gauge used for Sub. exclusively.



INNO INT. FULL SURGICAL KIT [KCA010FI]



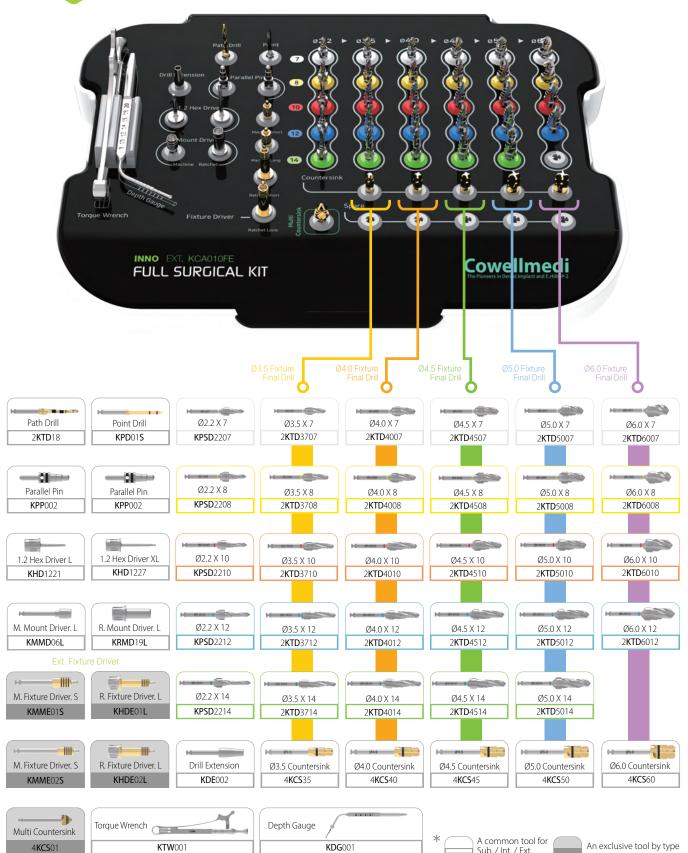
- > For the INNO Internal Implant System (Int.).
- > All components are for Sub. / Int. / Ext. except for the Fixture Drivers used for Int. exclusively.



INNO EXT. FULL SURGICAL KIT [KCA010FE]



- > For the INNO External Implant System (Ext.).
- > All components are for Sub. / Int. / Ext. except for the Fixture Drivers and the Multi Countersink used for Ext. exclusively.



01

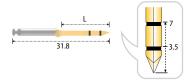






Drill / Surgical Tool

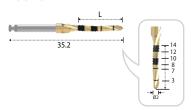
Point Drill



- > Primarily used to mark the implant recipient site and determine the spacing.
- > The point drill has a unique pointed tip, making this an excellent drill for starting the osteotomy through the hard cortical plate.

Length	15
	KPD01S

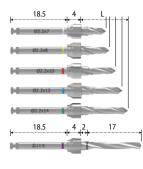
Path Drill



- > Used for the case that path modification is required.
- > Excellent ablation force that does not slip in slanted bone.
- > Easy to drill even in extraction socket without slipping.

Length	15
	2 KTD 18

Initial Drill

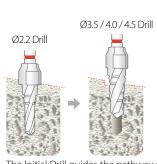


> Initial stepped drill - Ø2.2, Ø2.8, and Ø3.3mm stepped drilling at the Ø1.8 drilled site.

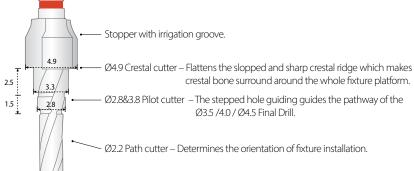
7mm Fixture
8mm Fixture
10mm Fixture
12mm Fixture
14mm Fixture
■ 16&18mm Fixture

Length	8	9	11	13	15	17&19
	KPSD 2207	KPSD 2208	KPSD 2210	KPSD 2212	KPSD 2214	*KPSD2218

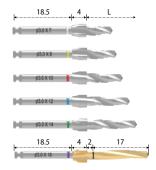
*Extra product



The Initial Drill guides the pathway of the Final Drills. The Final Drill is inserted a half into the hole created by the Initial Drill without additional drilling.



Final Drill



> Ø3.5 / 4.0 / 4.5 / 5.0 / 6.0 fixture's Final Drill. > 7 / 8 / 10 / 12 / 14 / 16 / 18mm fixture's Final Drill.

Fixture Dia. Length	Ø3.0	Ø3.5	Ø4.0	Ø4.5	Ø5.0	Ø6.0
8	2 KTD 3007	2 KTD 3707	2 KTD 4007	2 KTD 4507	2 KTD 5007	2 KTD 6007
9	2 KTD 3008	2 KTD 3708	2 KTD 4008	2 KTD 4508	2 KTD 5008	2 KTD 6008
11	2 KTD 3010	2 KTD 3710	2 KTD 4010	2 KTD 4510	2 KTD 5010	2 KTD 6010
13	2 KTD 3012	2 KTD 3712	2 KTD 4012	2 KTD 4512	2 KTD 5012	2 KTD 6012
15	2 KTD 3014	2 KTD 3714	2 KTD 4014	2 KTD 4514	2 KTD 5014	
17&19	*2 KTD 3018	*2 KTD 3718	*2 KTD 4018	*2 KTD 4518		

*Extra product

Countersink



- > Used to prevent compressive necrosis of dense cortical bone by decreasing torque force (Ø4.0 Fixture: 80N.cm -> 45N.cm / Ø5.0 Fixture: 150N.cm -> 45N.cm).
- > Bone quality 1: high compressive placement of fixtures induces the failure of osseointegration and bone loss.

Diameter	Ø3.7	Ø4.2	Ø4.6	Ø5.1	Ø6.0
	4 KCS 35	4 KCS 40	4 KCS 45	4 KCS 50	4 KCS 60



The lower margin of the depth marking indicates exactly the level of the fixture platform.



The upper margin of the depth marking indicates 1 mm higher than the level of fixture platform.

Multi Countersink



Diar	neter	Ø6.5	4	
		4 KCS 01		7
> Only for the Ext.				



Tap Drill

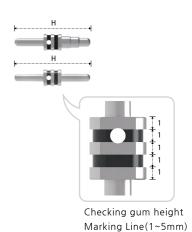


> Selectively used for hard bones with bone quality 1 or higher.

Fixture Dia.	Ø3.5	Ø4.0	Ø4.5	Ø5.0	Ø6.0
	* 3 KMTD 35 A	*3KMTD40A	*3KMTD45A	*3 KMTD 50 A	*3KMTD60A

*Extra product

Parallel Pin



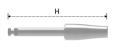
- > Insert the Parallel Pin after the Ø2.2 or 3.5 Drill to check the drilling path.
- > In order to prevent losing Parallel Pin in the patient's mouth, be sure to tie floss through the hole in the Parallel Pin.

Height	21
	KPP 002
	* KPP002P

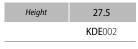




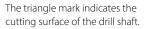
- > Used for lengthening the Drill when using a Hand-piece.
- > Do not go over recommended torque when using the Drill Extension.

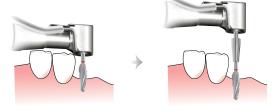


Drill Extension









Mount Driver



> The Machine Drivers are used with a contra-angle, while the Ratchet Drivers are used with the Torque Wrench.

Type Height	Machine
20.5(Short)	* KMMD06S
26.3(Long)	KMMD06L
32.3(X-Long)	*KMMD12X

*Extra product

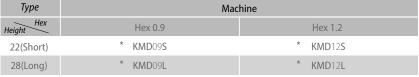


Type Height Type	Ratchet
12(Short)	* KRMD12S
19(Long)	KRMD19L

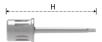
*Extra product

Hex Driver

- > Used to install or remove the Cover Screw, Healing Abutment, and Abutment Screw, etc.
- > The Machine Drivers are used with contra angle, while the Ratchet Drivers are used with the Torque Wrench.



*Extra product



Туре	Ratchet		
Height Hex	Hex 0.9	Hex 1.2	
12(X-Short)	-	* KHD 1212	
17(Short)	* KHD 0915	* KHD 1215	
23(Long)	* KHD 0921	KHD 1221	
29(X-Long)	* KHD0927	KHD 1227	

*Extra product



Fixture Driver

- > Used to install No-Mount type fixtures.
- > The Machine Drivers are used with a contra-angle, while the Ratchet Drivers are used with the Torque Wrench.

Sub.	2KMMS01L	
Int.	-	1102
Ext.	н	

Туре	Machine			
System	Sub.	Int.	Ext.(Hex 2.7)	Ext.(Hex 3.4)
28.1 / 26.3 / 26.4 (Short)	2 KMMS 01 S	KMMI01S	KMME01S	KMME02S
33.3 / 30.5 / 31.4 (Long)	2 KMMS 01 L	KMMI01L	* KMME01L	
40.3 / 35.5 / 36.4 (X-Long)	* 2KMMS01X	* KMMI01X	* KMME01X	

*Extra product

Sub.	
Int.	
Ext.	

Туре	Ratchet			
Length System	Sub.	Int.	Ext.(Hex 2.7)	Ext.(Hex 3.4)
20.7 / 19.5 / 19.9 (Short)	* 2KHDS01S	KHDI01S	* KHDE01S	
25.7 / 24.5 / 24.9 (Long)	2 KHDS 01 L	KHDI01L	KHDE01L	KHDE02L
30.7 / 29.5 / 29.9 (X-Long)	2 KHDS 01 X	* KHDI01X	* KHDE01X	

*Extra product





Torque Wrench



- > Used to control torque force in the fixture and abutment placement.
- > Torque force 10, 25, 30 & 35N.cm are able to be controlled by pulling the elastic bar.
- > Maximal torque force 120N.cm with pulling the rigid main bar.

Code **KTW**001

Code



Depth Gauge

> Used to measure the drilling depth with the scale rod.

KDG001

> The flat end on the other side measures the 5mm space between adjacent fixtures.







> One side of the Depth Gauge measures the drilling depth and the other side measures the gingival height from the top of the fixture.

Code	KDG 004	* Exclusive for the Sub.
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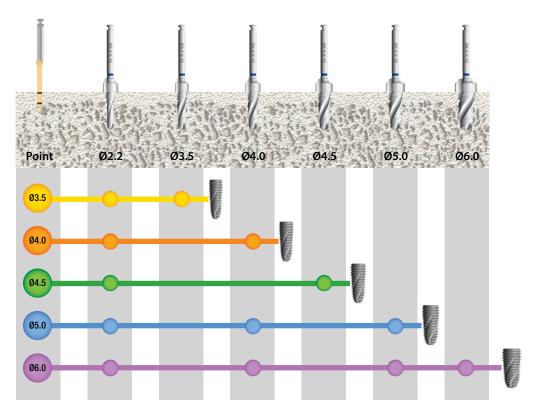
Drilling Sequence E.g. 12mm Fixture

> Minimal drilling sequence with the Point Drill, Initial Drill and Final Drills (Ø3.5, Ø4.0 and Ø4.5 Fixtures).





Actual length of the Drill: Fixture + 1mm



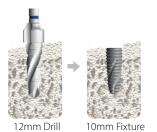
- > Ø5.0 fixture: a series of the Point Drill, Initial Drill, Ø4.0 Final Drill, and Ø5.0 Final Drill.
- > Ø6.0 fixture: a series of the Point Drill, Initial Drill, Ø4.0 Final Drill, Ø5.0 Final Drill, and Ø6.0 Final Drill.

^{*}The Countersink and Tap Drill should be used in hard bone quality. *Extra product

****Sloped edentulous ridge adjacent to tooth**



> Use the crestal cutter of the Initial Drill and Final Drill. > Longer drill than fixture's length can be used as well.



Longer Final Drill

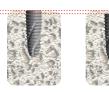
***Wide extraction socket**

- > Absence of the cortical bone & spongy bone.
- > Use the drill with narrower diameter than the fixture's diameter.



*Torque force control

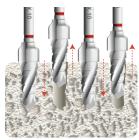
> 0.5mm deeper placement increases the initial torque force of the fixture.



::::: 0.5mm deeper level.

Fixture placement level							
Level	Crestal Level 0.5mm Deeper Level						
Density	D1	D2	D3	D1	D2	D3	
Torque	34.1	29	15.5	44.4	38.4	19.1	

- > The pumping action while drilling removes the bone chip in the hole.
- > In dense bone, the debridement removal decreases the torque force.



Pumping action while final drilling					
Density	D1	D2	D3		
Non-Debridement	34.1	29	19.6		
Debridement	30	25	15.5		

*In maxillary tuberosity with bone quality 4

- > No pumping action.
- > 0.5mm deeper placement of the fixture.
- > Wider fixture than the Final Drill.



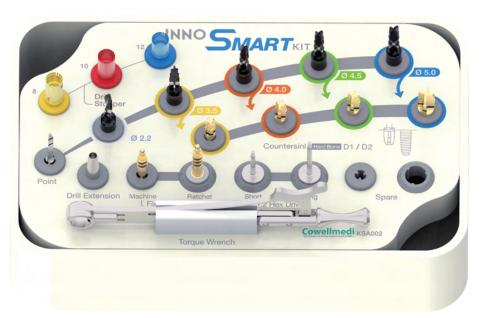
...: 0.5mm deeper level.

Level	Cresta	l level	0.5mm Deeper Level	
Debridement	with	without	with	without
Ø4.5 Fixture	4.4	10.2	-	12.9
Ø5.0 Fixture	11.6	19.9	14.1	24.5

INNO SUB. SMART SURGICAL KIT [KSA002]



- > For the INNO Submerged Implant System (Sub. / Diameter: 3.5, 4.0, 4.5 & 5.0mm / Length: 8, 10, 12 & 14mm).
- > A simple surgical kit mainly used with the Drills and Stoppers.







Initial Drill



F



Final Drill





Ø5.0 Final Drill

Stopper



10 Drill Stopper

KSDS10S

12 Drill Stopper
KSDS12S

Countersink









Drill Extension



Fixture Driver



R. Fixture Driver L
2KHDS01L

Hex Driver

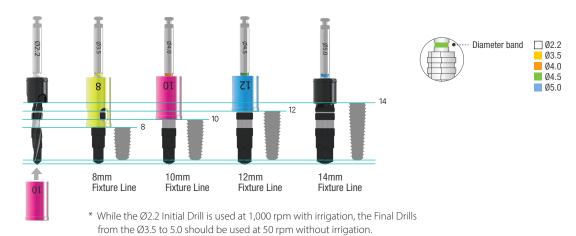


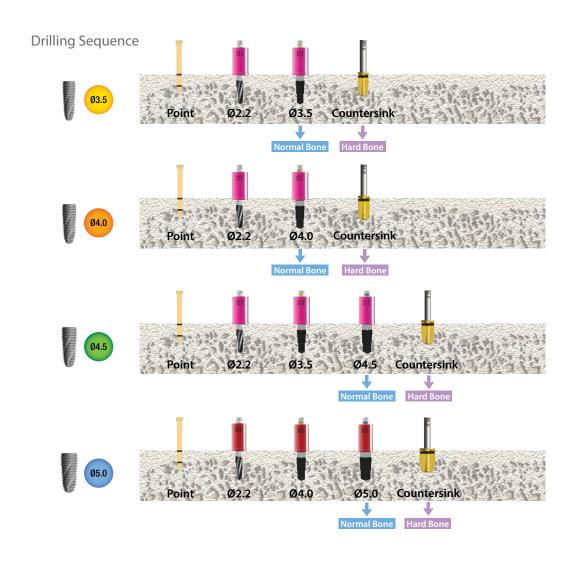




^{*} For Pre-Mount type of fixtures, use the Mount Drivers (*Extra product).







INNO SUB. SHORT SURGICAL KIT [KS1001]



> For the INNO Submerged Short Implant System (Sub.).





Step Drill















Stopper

4mm Drill Stopper SIDS04















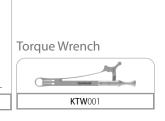
Mount Driver

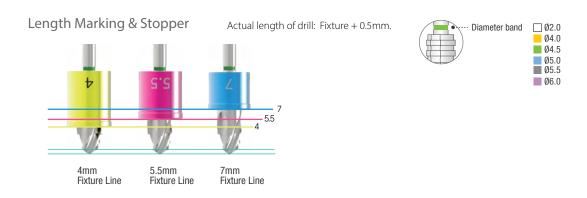
Hex Driver





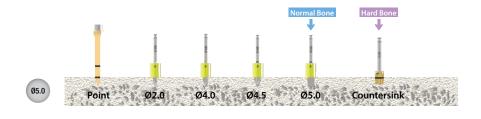


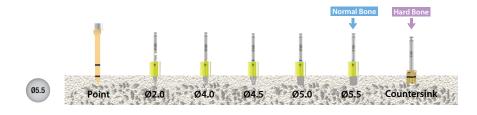














INNO SUB. NARROW SURGICAL KIT [KNA001]



> For the INNO Submerged Narrow Implant System (Sub-N).



Point Drill



Twist Drill



Ø2.6 Twist Drill

KNSD26L





Stopper



10 Drill Stopper

KNDS10







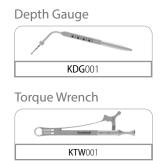
Fixture Driver



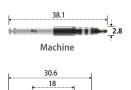








Fixture Driver



Ratchet

Туре	Machine	Ratchet
	KMMS01XN	KHDS01XN

- > Used to install No-Mount type fixtures.
- > The Machine Driver is used with a contra-angle, while the Ratchet Driver is used with the Torque Wrench.
- > For Pre-Mount type of fixtures, use the Mount Drivers (*Extra product).

Parallel Pin



Code **KPP**003 After Ø2.2 After Ø3.1 / Ø3.3 Drilling. Drilling.

Cuff Height



INNO PROSTHETIC PLANNING KIT [KIPP001]





- > Exclusive for the INNO Submerged and Submerged Narrow Implant System.
- > Try-in Kit for determining abutment specifications.
- > Insert the Abutment Gauge after INNO Submerged and Submerged Narrow fixture fixation to check the abutment size.



Straight

> Predicting Straight Type Diameter, Cuff, and Length to help select the correct size abutment and crown. Cemented | Absolute | Straight Abutment



Breakaway Stopper

Prevents breakaway from intraoral cavity by connection silk.

Cuff Marking

Marked Cuff 2 or 4.

Cuff Height

Select Cuff 2 or 4 according to the case.

Diameter

Colored by diameter.









Abutment Gauge



Type	Regular			
Diameter	Ø4.5	Ø4.5 Ø5.5 Ø6.5		
Cuff Length		7		
2	P 2 SCH 4527	P 2 SCH 5527	P 2 SCH 6527	
4	P 2 SCH 4547	P 2 SCH 5547	P 2 SCH 6547	

- > Packing unit: 1 Abutment Gauge.
- > Solution for the straight type abutment.
- > Connected with the INNO Submerged Fixture.
- > Select Ø4.5/5.5/6.5 according to the case.

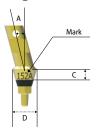
Abutment Gauge-N	Ab	utment	Gauge-	-N
------------------	----	--------	--------	----



Туре	Narrow		
Diameter	Ø3.8	Ø4.5	
Cuff Length	7		
2	PSCH 3827 N	PSCH 4527 N	
4	PSCH 3847 N	PSCH 4547 N	

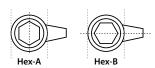
- > Packing unit: 1 Abutment Gauge-N.
- > Solution for the straight type abutment.
- > Connected with the INNO Submerged Narrow Fixture.
- > Select Ø3.8 or 4.5 according to the case.

Angulated



> Predicting Angulated Type Diameter, Cuff, and Length to help select the correct size abutment and crown.

Angulated I Beauty-up™ Abutment



Abutment Gauge



Type	Hex-A	
Diameter(Angle)	Ø4.5(15°)	Ø4.5(25°)
Cuff Length	8	
2	P 2 SAH 45152 A	P2SAH45252A
4	P 2 SAH 45154 A	P2SAH45254A

		B	
152B	154B	252B	254B

Type	Hex-B	
Diameter(Angle)	Ø4.5(15°) Ø4.5(25°	
Cuff Length	8	
2	P 2 SAH 45152 B	P2SAH45252B
4	P 2 SAH 45154 B	P2SAH45254B

- > Packing unit: 1 Abutment Gauge.
- > Solution for the anterior esthetic zone.
- > Connected with the INNO Submerged Fixture.
- > Select 15° or 25° according to the case.
- > Select Hex-A or Hex-B according to the case.

Abutment Gauge-N



Type	Hex-A			
Diameter(Angle)	Ø3.8(15°) Ø3.8(25°) Ø4.5(15°) Ø4.5(25°)			Ø4.5(25°)
Cuff Length	8			
2	PSAH 38152 NA	PSAH 38252 NA	PSAH 45152 NA	PSAH 45252 NA
4	PSAH 38154 NA	PSAH 38254 NA	PSAH 45154 NA	PSAH 45254 NA



Type	Hex-B			
Diameter(Angle)	Ø3.8(15°)	Ø3.8(25°)	Ø4.5(15°)	Ø4.5(25°)
Cuff Length	8			
2	PSAH 38152 NB	PSAH 38252 NB	PSAH 45152 NB	PSAH 45252 NB
4	PSAH 38154 NB	PSAH 38254 NB	PSAH 45154 NB	PSAH 45254 NB

- > Packing unit: 1 Abutment Gauge-N.
- > Solution for the anterior esthetic zone.
- > Connected with the INNO Submerged Narrow Fixture.
- > Select 15° or 25° according to the case.
- > Select Hex-A or Hex-B according to the case.

INNO PROSTHETIC INSTRUMENT KIT [KPA004]



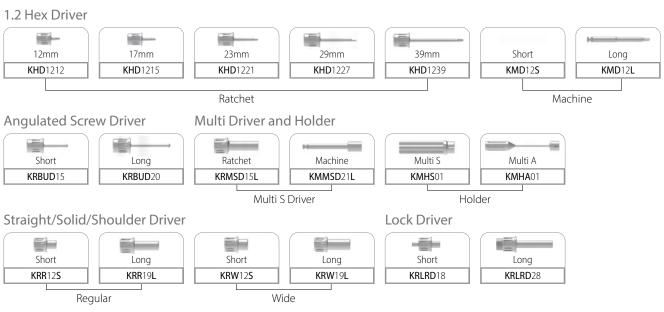




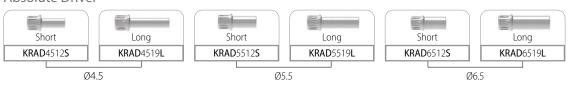


> All-in-one kit for all types of the INNO Implant System (Sub. Sub-N. Int. Ext.)





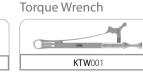
Absolute Driver









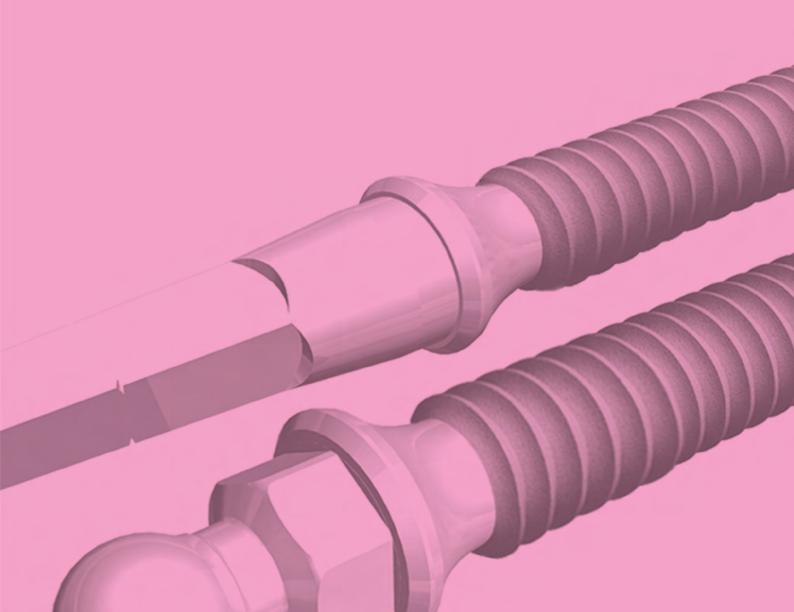


I&R Driver

KBIR01

Mini Plus Implant system

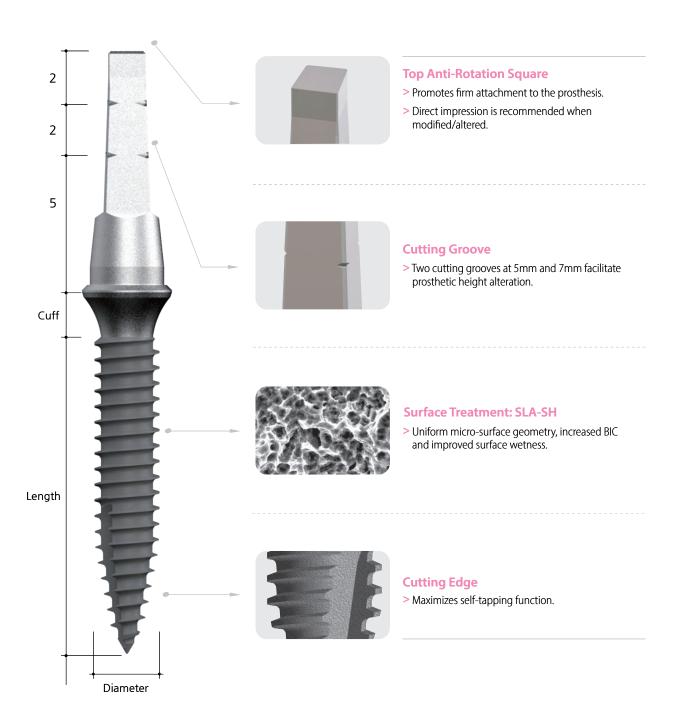
Mini Plus Implant
Cement Type
Ball Type
Surgical kit



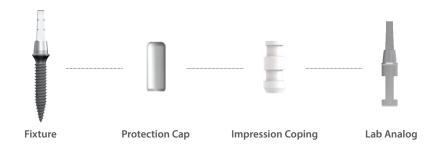
DESIGN OF MINI PLUS FIXTURE (1P-C.)

Cement Type

- > For mandible anterior spaces and edentulous arch.
- > For semi-permanent or temporary solution.



System Flow



Fixture



Diameter	Ø2.5	
Length Cuff	2.0mm	4.0mm
10mm	AMC 2210 S	AMC 2410 S
12mm	AMC2212S	AMC2412S
14mm	AMC 2214 S	AMC2414S

- > Packing unit: 1 Fixture.
- > Abutment level impression.



Diameter	Ø3.0	
Length Cuff	2.0mm	4.0mm
10mm	AMC 3210 S	AMC 3410 S
12mm	AMC 3212 S	AMC 3412 S
14mm	AMC 3214 S	AMC3414S

- > Packing unit: 1 Fixture.
- > Abutment level impression.

Impression Coping / Lab Analog



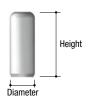
Impression Coping

- > Packing unit: 1 Impression Coping.
- > Used for impression taking of the post of the fixture.
- > Direct impression is recommended when modified/altered.

Lab Analog

- > Packing unit: 1 Lab Analog.
- > The same adjustment must be made for the Lab Analog when the abutment portion of the fixture is modified/altered.
- > Replacement of the cement post shape in working cast.

Protection Cap



Diameter Height	Ø4.0
7mm	AMCC 001
9mm	AMCC 002
11mm	AMCC 003

- > Packing unit: 1 Protection Cap.
- > Provides temporary protection from mucosa, gingiva, and tongue after implantation.

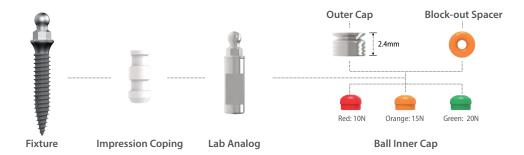
DESIGN OF MINI PLUS FIXTURE (1P-B.)

Ball Type

> For semi-permanent or temporary solution for overdenture prosthesis.



System Flow



Fixture



Diameter	Ø2.5	
Length Cuff	2.0mm	4.0mm
10mm	AMB 2210 S	AMB 2410 S
12mm	AMB2212S	AMB2412S
14mm	AMB 2214 S	AMB2414S

> Packing unit: 1 Fixture.



Diameter	Ø3.0	
Length Cuff	2.0mm	4.0mm
10mm	AMB 3210 S	AMB 3410 S
12mm	AMB 3212 S	AMB 3412 S
14mm	AMB 3214 S	AMB 3414 S

> Packing unit: 1 Fixture.

Ball Outer Cap



Diameter Height	Ø3.4
2.4	BATC003C

> Packing unit: 2 Outer Caps.

Ball Inner Cap





- Code BATC003I
- > Packing unit: 2 Block-out Spacers + 6 Inner Caps (2 per each color).
- > Retention force: Red 10N, Orange 15N & Green 20N.

Impression Coping / Lab Analog



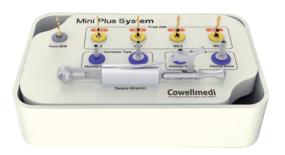
Impression Coping

- > Packing unit: 1 Impression Coping.
- > Used for impression taking of the post of the fixture.

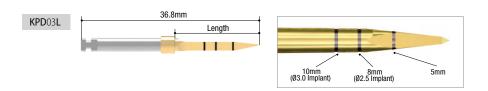
Lab Analog

- > Packing unit: 1 Lab Analog.
- > Replacement of the ball post shape in working cast.

SURGICAL KIT [KMA003]



Point Drill



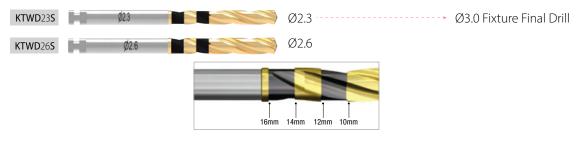
Ø1.3 Twist Drill



Ø1.8 Twist Drill



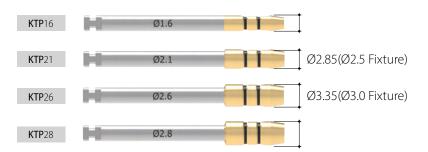
Ø2.3 / Ø2.6 Twist Drill

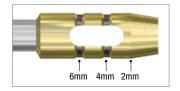


Driver



Tissue Punch *Extra product



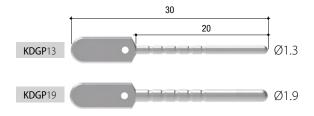


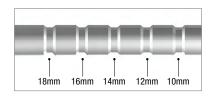
- > Easy removal of soft tissue for flapless surgery.
- > 0.3mm wider than fixture diameter allows more predictable results.

Multi Gauge

*Extra product

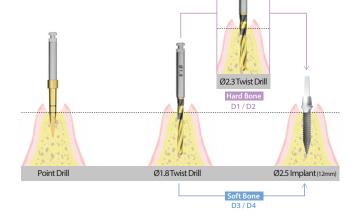
> Allows precise measurement of drilling depth and path.

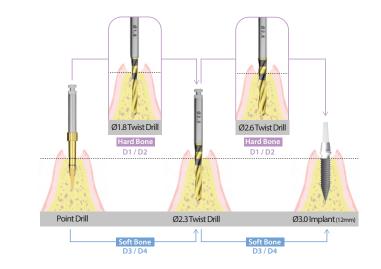




Drilling Sequence

Ø2.5





Ø3.0

* For bone quality 4, the Mini Plus fixtures should be self-tapped and placed by making proper adjustments in drilling as they have self-tapping characteristics, and their diameter is narrow.





What is the INNO PLAN?

Free software for creating implant planning and surgical guides for Cowellmedi users only

Advantage of INNO PLAN



Guide Creation

Supports creating various surgical guides (bone-supported, stackable,mucosa -supported, tooth-supported, and more).

Universal and Flexible Planner

Allows detailed planning of dental implant procedures.



Individual Implant Planning

Customizable planning for specific patient needs, Reduced chair time for enhanced patient satisfaction.

Free Software

Cowellmedi users can freely access design services with no annual fee.



Optimized Library Integration

Providing a tailored library solution exclusively for the Cowellmedi Implant System.



System requirements

	Minimum System Requirements	Recommended
os	Windows 7 PRO Mac OS 12 and higher	Windows 10 Home Windows 10 PRO Windows 11 Mac OS 12 and higher
Central Processing Unit (CPU)		Intel Core i5 or higher
Memory (RAM)	4GB	8GB and more
Graphics Card	Any discrete or integrated graphics card supporting OpenGL 3.2	A dedicated NVIDIA 2GB or more
HDD	3GB of free space	100GB of free space or more
Monitor resolution	1600 x 900 pixels	1920 x 1080 pixels or higher



Window OS INNO PLAN



Mac OS INNO PLAN

Cowellmedi Digital Products

Drive yourself to Cowellmedi's Digital Transformation

Digital Guided Surgery Kits

Lodestar Plus Kit

Lodestar Kit

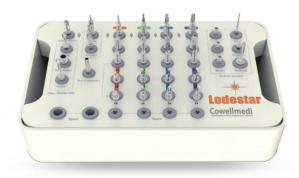
Lodestar Sinus Kit

Lodestar Plus Kit



Exclusive for the INNO Submerged and Submerged Narrow Implant System.

Lodestar Kit



Universal to any Implant System.

Lodestar Sinus Kit



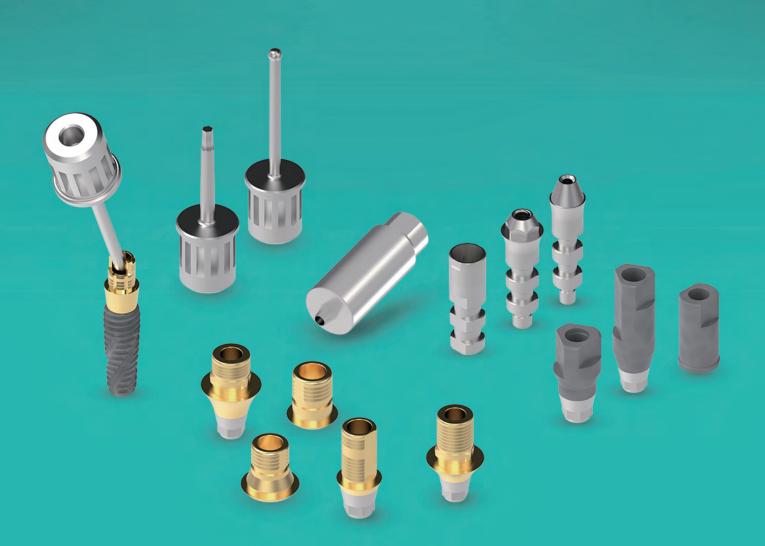
Safety and Precision in maxillary sinus procedures with the surgical guide template.



Digital Prosthesis

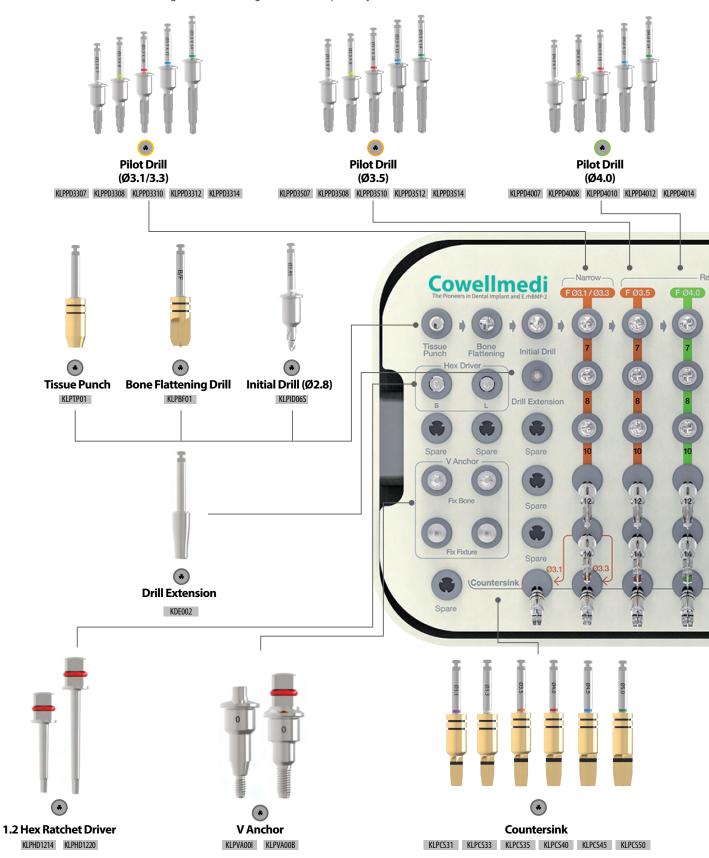
Hybrid Ti-Base System

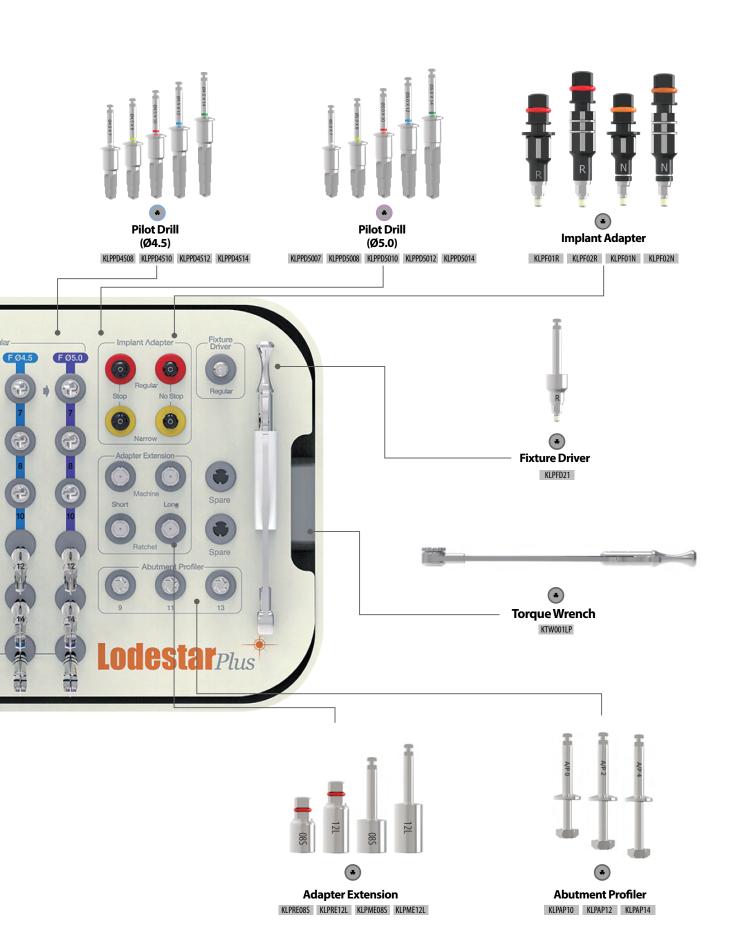
- · Sub. Hybrid Ti-Base System
- · Sub. & Sub-N. Multi Hybrid Ti-Base System
- · Sub. Lock Hybrid Ti-Base System
- · Sub-N. Hybrid Ti-Base System
- · Int. Hybrid Ti-Base System



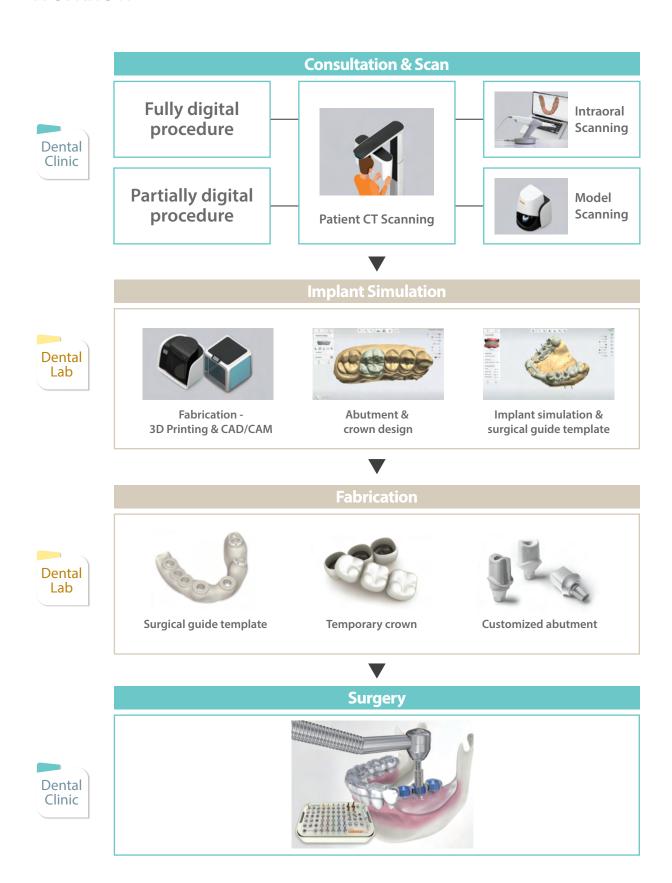
Lodestar Plus Kit [KLSP001]

- > A total guided surgery solution applicable to various types of clinical cases.
- > Exclusive for the INNO Submerged and Submerged Narrow Implant System.





Workflow



Preparation before Operation



Disinfection of surgical guide template

Disinfection must be done before the operation. Immerse the surgical guide template into the alcohol and chlorhexidine solution in a ratio of 9:1 or disinfection fluids such as Cidex OPA, betadine, etc. for more than 20 minutes. Then rinse with the saline solution and install in patient's oral cavity.



Installation of surgical guide template

- Check if inward of the surgical guide template and outward of teeth are accurately contacted through the windows of mounted surgical guide template. In case of insufficient scan data, delete and adjust the inner side of the surgical guide template to contact precisely.
- Install the surgical guide template while scanning CT to check implantation path and precision before the operation (Implantation path may also be checked in post operation by scanning CT with installation of the surgical guide template).



Verification of dental implant

Check if the marked dental implant is in the surgical report.

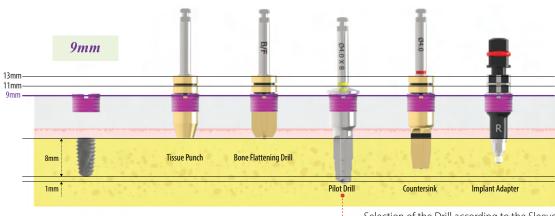


Confirmation of protocol

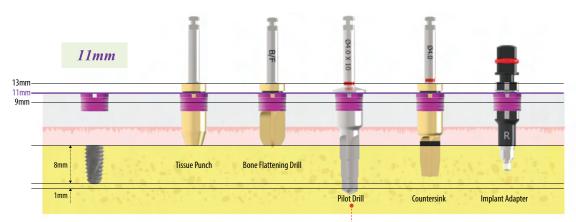
Confirm the surgical report and surgical protocol for sure.

Comprehension and Usage of Offset

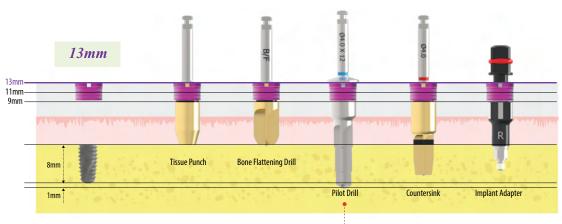
- > The basic length is 9mm from the fixture platform to the top of the Sleeve.
- > In case the gingiva is thick or fixture needs to be placed deeper due to low bone density, use the Sleeve 2 or 4mm upright to the top.
- > The higher the offset value, the less accurate it is, so use 9mm if possible.



Selection of the Drill according to the Sleeve offset (In case of placing 8mm Fixture)
: In case of offset 9mm(0mm) – Select 8mm Drill.



Selection of the Drill according to the Sleeve offset (In case of placing 8mm Fixture)
 : In case of offset 11mm(2mm) – Select 10mm Drill.



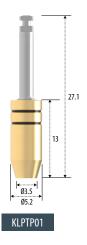
* Caution

Please note that the actual depth of drilling is 1mm longer than the Drill mark.

Ex) Ø4.0 X 8mm Drill - Drilling depth: 9mm.

Selection of the Drill according to the Sleeve offset (In case of placing 8mm Fixture)
 : In case of offset 13mm(4mm) – Select 12mm Drill.

Tissue Punch



- > Used for soft tissue elimination (the gingiva in the position where the implant is to be placed can be incised in a circular shape).
- > Hemostatic effect, small scar, or fast wound healing effect occurs after the operation due to the small diameter of tissue punch.
- > Able to apply offset (9mm, 11mm, 13mm).
- > 50rpm without irrigation.

Double blade

The internal cutting edge of the Tissue Punch cuts the gingiva into small pieces so that those can be removed by suction without extra work.



* Caution The Tissue Punch must be kept clean. Otherwise, it may cause rust or damage on the blade due to residual gingival pieces or others in the Tissue Punch after the operation (remove the residual gingiva piece by explorer, steam etc.).

Bone Flattening Drill

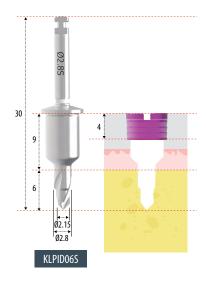


- > Flattens the bone level of the operation site.
- > Inclined bone level may glide the Drill and can not drill as planned.
- > Eliminates the soft tissue after using the Tissue Punch.
- > The point in the middle of the Drill guides the position of the Drill and helps to the drill in an accurate site.
- > Able to apply offset (9mm, 11mm, 13mm).
- > 400rpm without irrigation / 800rpm with irrigation.



The point in the middle of the Drill guides the position of the Drill and helps to the drill in an accurate site.

Initial Drill



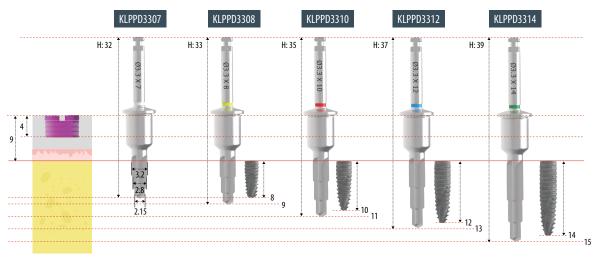
> High speed, 1,000rpm with irrigation.

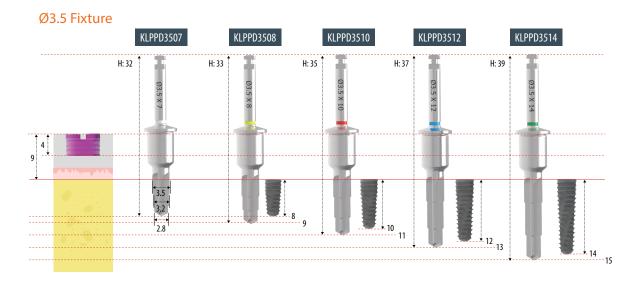


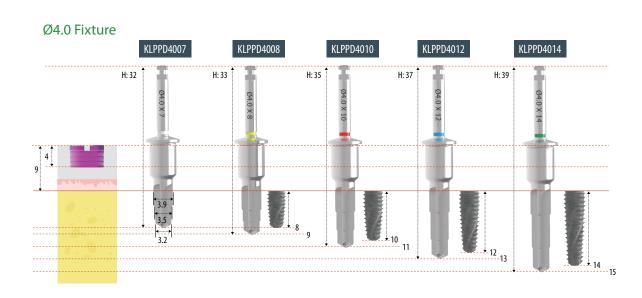
Point

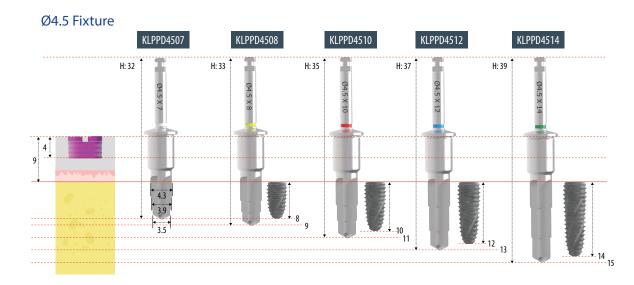
Creates the hole on the bone surface so that the axis of the next step Drill is not moved and it guides the Drill position by preventing slip even at the inclined bone level.

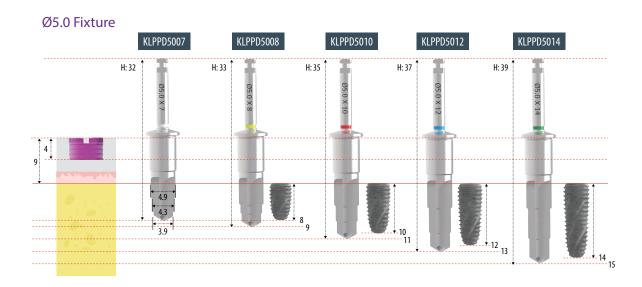
Ø3.1/Ø3.3 Fixture





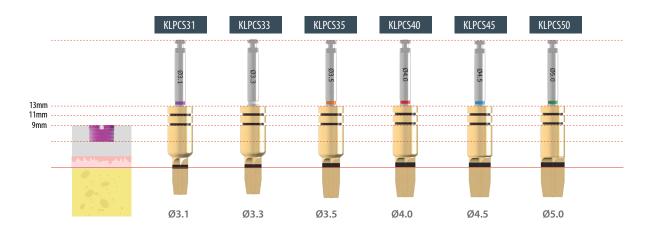






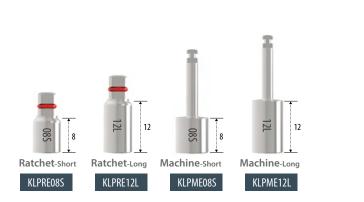
Countersink

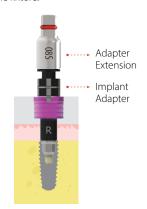
- > Expands the cortical bone in D1/D2 bone to prevent excessive implantation of the fixture.
- > Able to apply offset (9mm, 11mm, 13mm).
- > 50rpm without irrigation.



Adapter Extension

> In case the Implant Adapter is too short to use, connect the Ratchet or Machine Adapter Extension to place the fixture.





Implant Adapter

> Moves fixture to the Sleeve to implant safely.

Regular-Stop

KLPF01R

> Matches the depth of laser marks of the Sleeve offset and the Implant Adapter.

Regular-Non-Stop

KLPF02R

Groove for Removal > When implanting the fixture, the direction of the Implant Adapter and directional identification In case of cold welding, groove of the Sleeve are matched, and it lines with the hex direction of the temporary abutment. hang the crown remover > In case the Implant Adapter can not be removed by cold welding after placing the fixture, on the groove to remove. hang the crown remover on the groove to remove. O-ring Color Regular - Red Narrow - Yellow 13mm 11mm Hex-directional 9mm identification groove.

Narrow-Non-Stop

KLPF02N

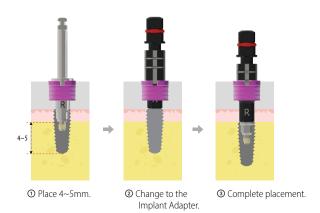
Narrow-Stop

KLPF01N

Fixture Driver - Molar

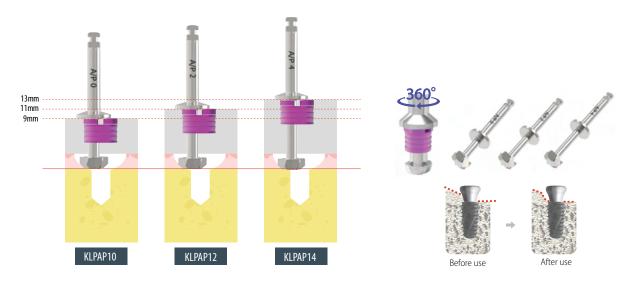


- > Used in case the Implant Adapter can not be used due to the low occlusal height.
- > After implanting 4~5mm, change to the Implant Adapter to complete the placement.



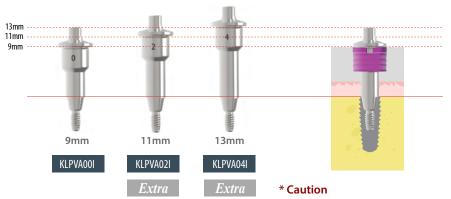
Abutment Profiler

- > Used for the elimination of the alveolar bone that interferes with the accurate connection of abutment. Remove residual bone by rotating and drilling 360°.
- > In case of thick cortical bone, drill higher rpm with irrigation (within 100rpm).



V Anchor - Fix Fixture

> Used with the 1.2 Hex Driver to fix the surgical guide template to the fixture in such cases as edentulous teeth.



- > Install by aligning to the Sleeve offset of the placed fixture.
- > The V Anchors for the offset 11 and 13mm in length are extra products.

V Anchor - Fix Bone

> Used with the Torque Wrench to fix the surgical guide template into the hole of the bone created after initial drilling in such cases as edentulous teeth.



- > Install by aligning to the Sleeve offset of the placed fixture.
- > The V Anchors for the offset 11 and 13mm in length are extra products.

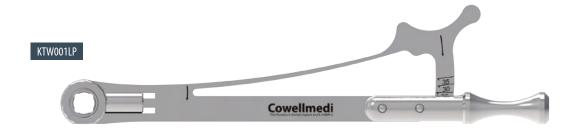
1.2 Hex Ratchet Driver

> Used to install or remove the Cover Screw, and Healing Abutment.



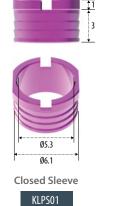
Torque Wrench(Square)

- > Used to control torque force in the fixture and abutment placement.
- > Used with the Implant Adapter, 1.2 Hex Driver, and V Anchor, etc.
- > Torque force 10, 25, 30 & 35N.cm are able to be controlled by pulling the elastic bar.
- > Maximal torque force 120N.cm with pulling the rigid main bar.



Sleeve

Extra







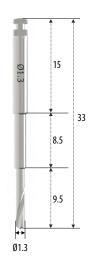
Open Sleeve KLPS02

* Packing Unit: 5 Sleeves

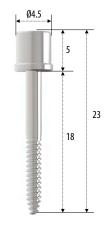


Anchor System

Extra



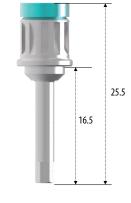
Anchor Drill KLSAD13



Anchor Screw KLSAS18



Anchor Driver KLSMD23



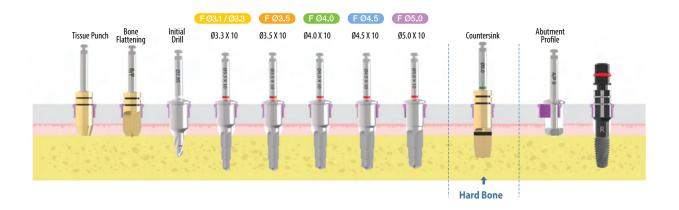
Anchor Driver KLSRD16



Anchor Sleeve KLSAS01

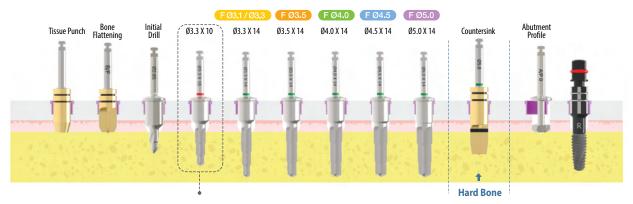
* Packing Unit: 5 Sleeves

Drilling Sequence (7~10mm)INNO Sub Fixture Ø5 x 10mm



Drilling Sequence (12~14mm)

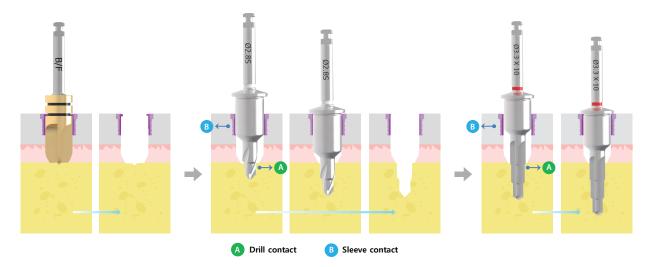
INNO Sub Fixture Ø5 x 14mm



8~10mm drilling should be done in advance for the sleeve contact.

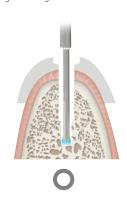
* Drilling method

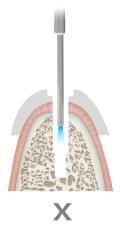
- > Make sure with drilling in the desired direction without a change in the path through the primary drill contact (A) with the hole created by the previous drilling and the secondary contact (B) with the sleeve.
- > Create the hole using the initial drill and insert the next drill into the hole made during the previous step and drill after achieving the drill and sleeve contact (A&B).
- > If drilling only with the sleeve contact (B) without the drill contact (A), the path may not be correct.



* Precaution when irrigating

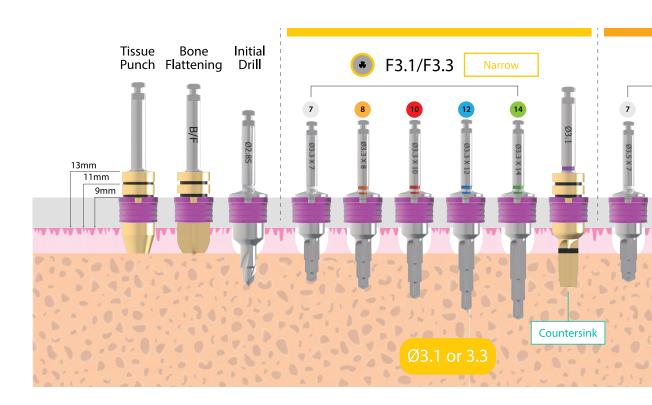
> Irrigate enough to the end of the drill hole.

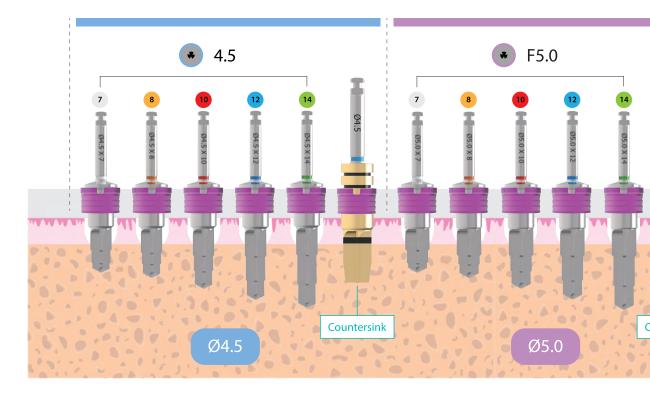


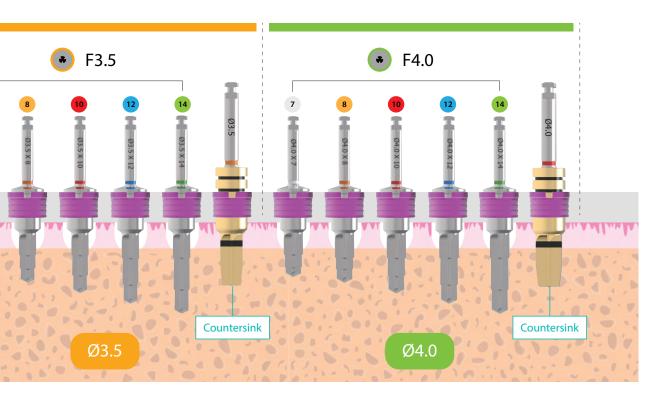


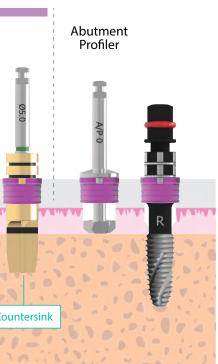
Drilling Sequence

> Total drilling sequence with the Tissue Punches, Bone Flattening Drills, Initial Drills, and Pilot Drills, Abutment Profilers, and Implant Adapters.



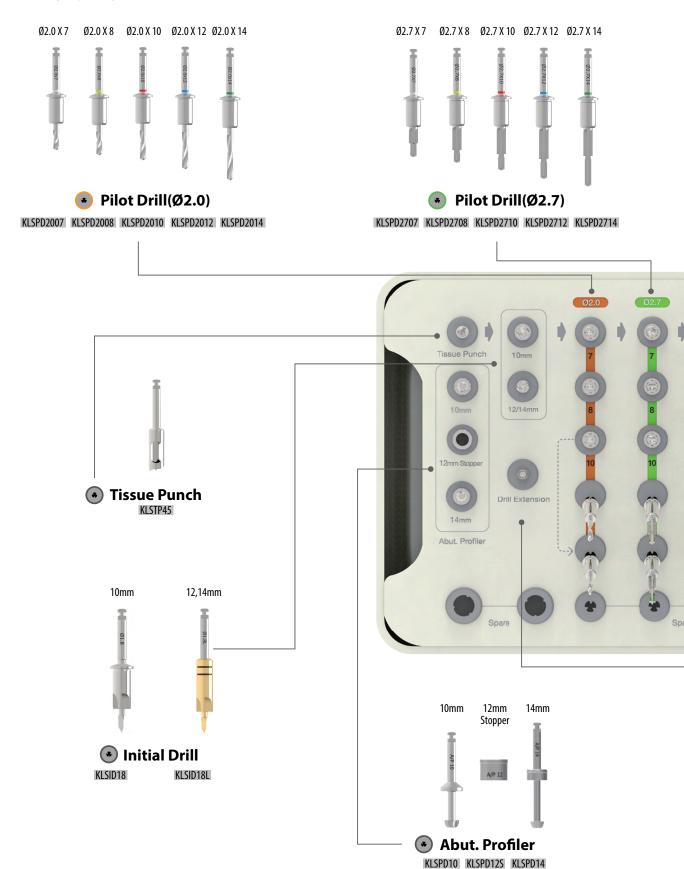


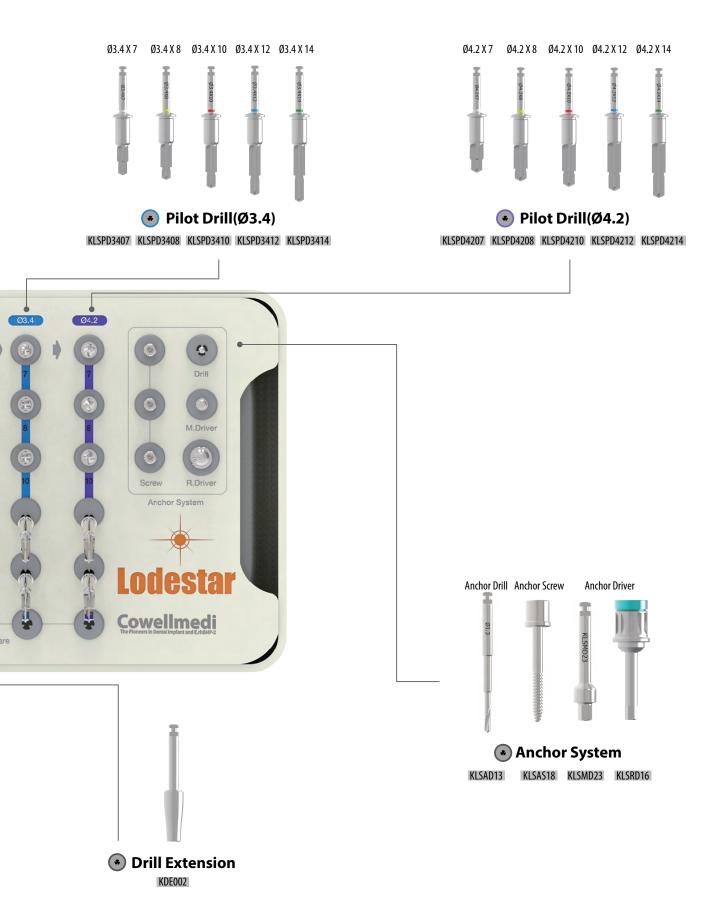




Lodestar Kit [KLS001]

- > A cost-effective guided surgery solution applicable to various types of clinical cases.
- > Universal to any implant system.

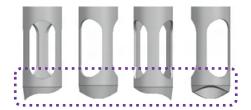




Tissue Punch

> The gingiva in the position where the implant is to be placed can be incised in a circular shape and can also be used in inclined bones (50rpm without irrigation).





The gingiva can be incised in a circular shape although the bone level is inclined or not parallel.

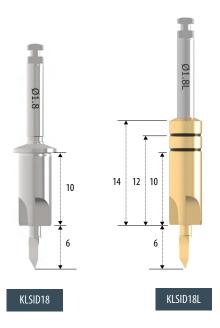


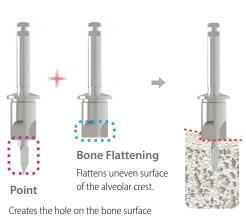
The internal cutting edge of the Tissue Punch cuts the gingiva into small pieces so that those can be removed by suction without extra work.



Initial Drill

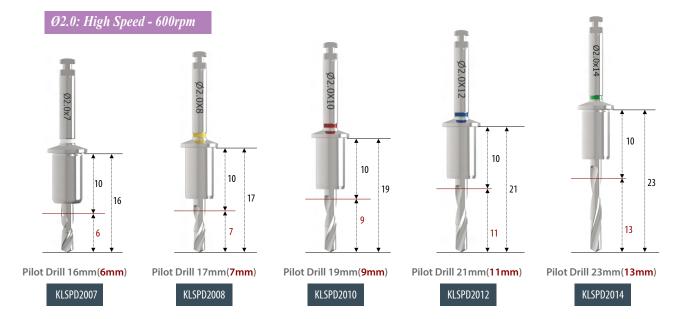
> The Drill combined with Bone Flattening Drill and Point Drill which no separate Bone Flattening Drill is required provides a simpler procedure and shorter chair time (1,000rpm with irrigation).

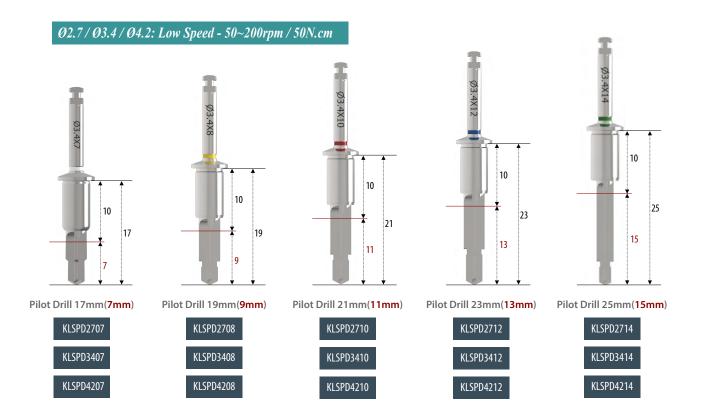




so that the axis of the next step Drill is not moved and it guides the Drill position by preventing slip even at the inclined bone level. Pilot Drill

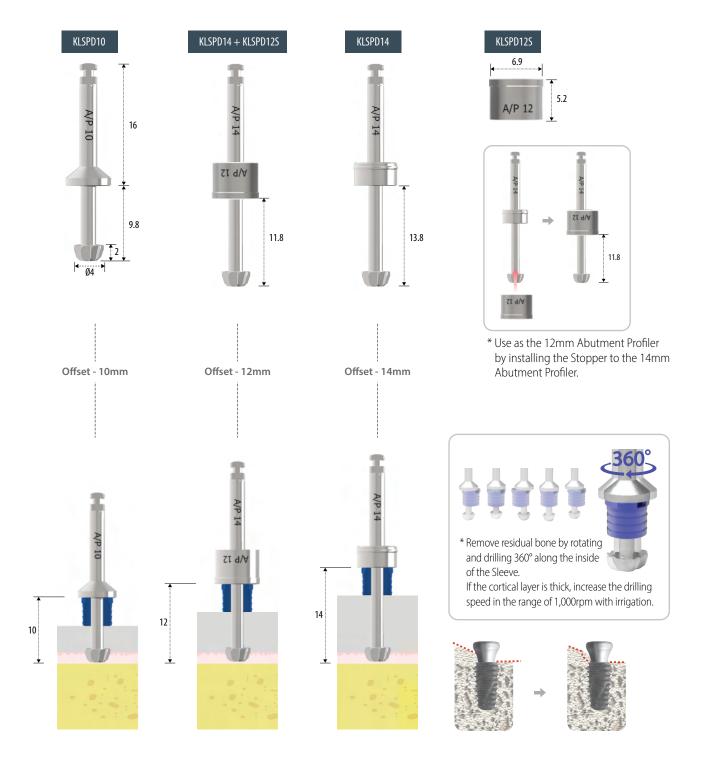
> Ø2.0 / Ø2.7 / Ø3.4 / Ø4.2.





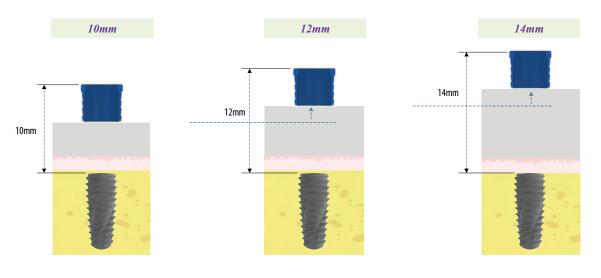
Abutment Profiler

> Used for the elimination of the alveolar bone that interferes with the accurate connection of abutment.

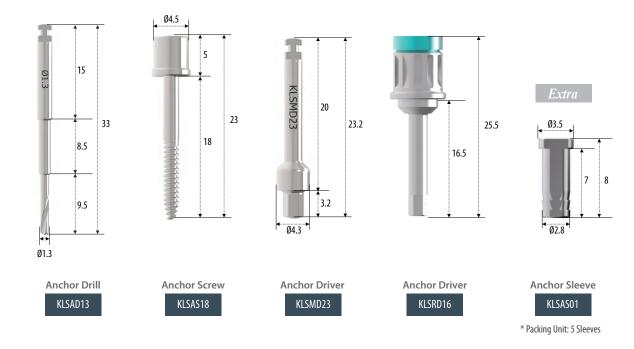


* Comprehension and Usage of Offset

- > The basic length is 10mm from the fixture platform to the top of the Sleeve.
- > In case the gingival is thick or fixture needs to be placed deeper due to low bone density, use the Sleeve 2 or 4mm upright to the top.
- > The higher the offset value, the less accurate it is, so use 10mm if possible.



Anchor System

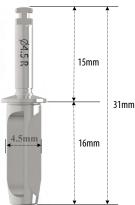


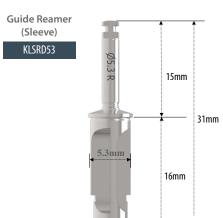
Guide Reamer

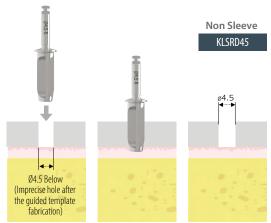
Extra

Used for precise contact of Drill and Sleeve (Sleeve / Non-Sleeve).
Use the 4.5mm Guide Reamer for Non-Sleeve, and the 5.3 Guide Reamer for Sleeve (800rpm without irrigation).

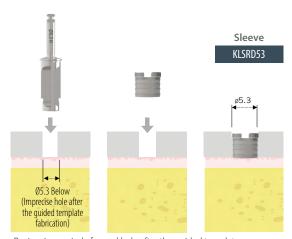
Guide Reamer (Non-Sleeve) KLSRD45



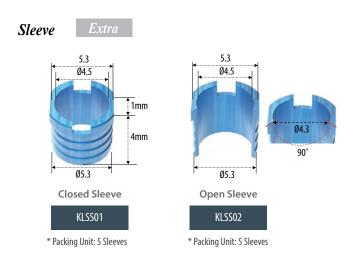


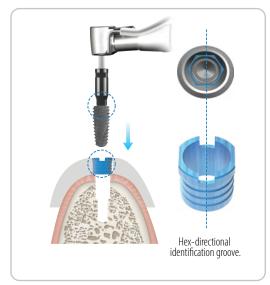


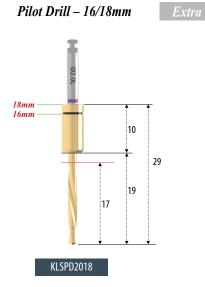
Revises imprecisely formed hole after the guided template fabrication using the 4.5 Guide Reamer to create the hole to be in exact contact with the Drill.

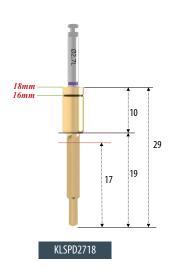


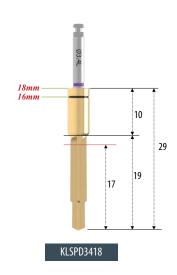
Revises imprecisely formed hole after the guided template fabrication using the 5.3mm Guide Reamer to precisely insert the Sleeve.

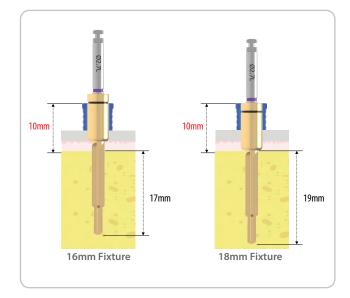






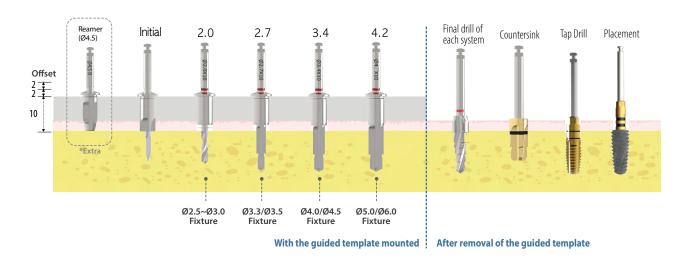




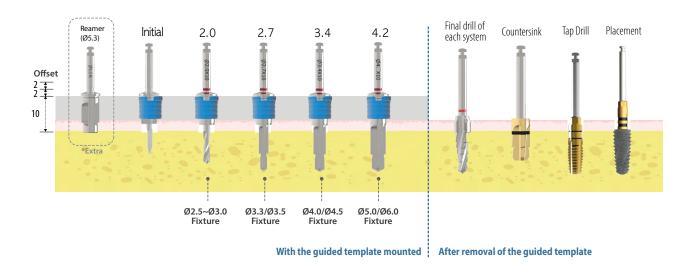


Drilling Sequence

Drilling Sequence (without sleeve)



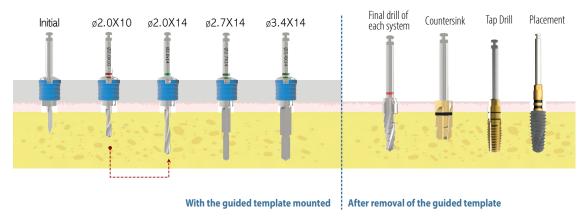
Drilling Sequence (with sleeve)



* Use 10mm Drill prior to 14mm Drill

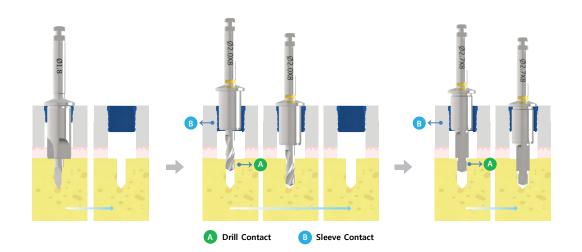
For the use of the 14mm Drill with accurate contact to the Sleeve, use the Ø2.0x10mm Drill before using the 14mm Drill.

e.g.) 3.4 X 14mm Drilling Sequence



* Drilling method

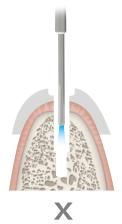
- > Make sure with drilling in the desired direction without a change in the path through the primary Drill contact (A) with the hole created by the previous drilling and the secondary contact (B) with the Sleeve.
- > Create the hole using the Initial Drill and insert the next drill into the hole made during the previous step and Drill after achieving the Drill and Sleeve contact (A&B).
- > If drilling only with the Sleeve contact (B) without the Drill contact (A), the path may not be correct.



* Precaution when irrigating

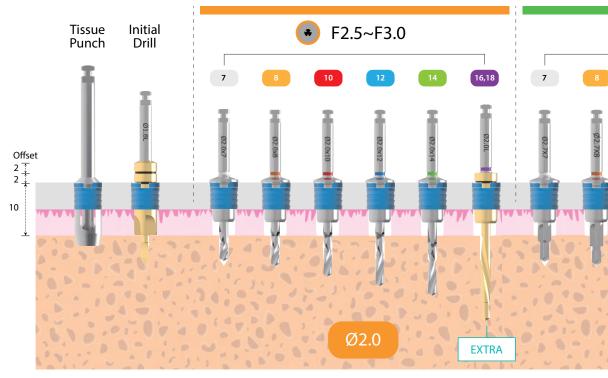
> Irrigate enough to the end of the drill hole.

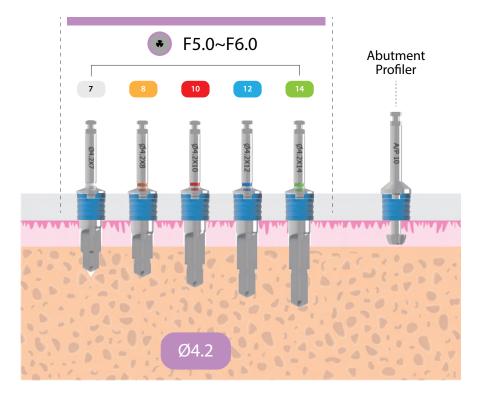




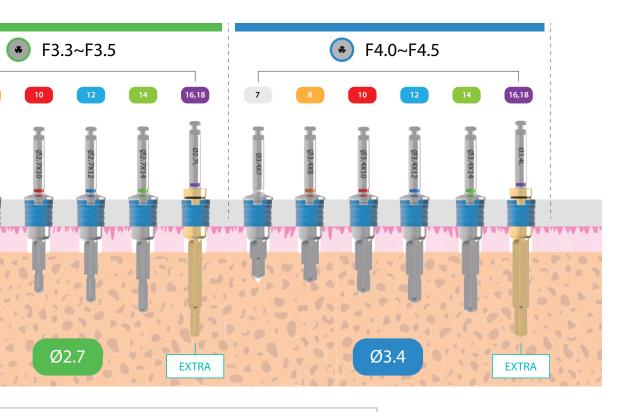
Drilling Sequence

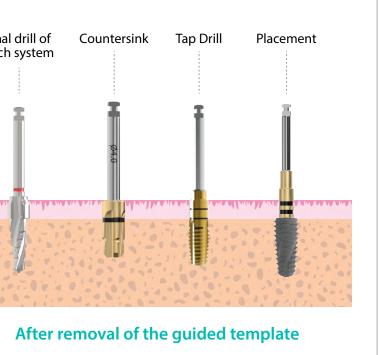
 $> Total\ drilling\ sequence\ with\ the\ Tissue\ Punches,\ Initial\ Drills,\ Pilot\ Drills,\ and\ Abutment\ Profilers.$





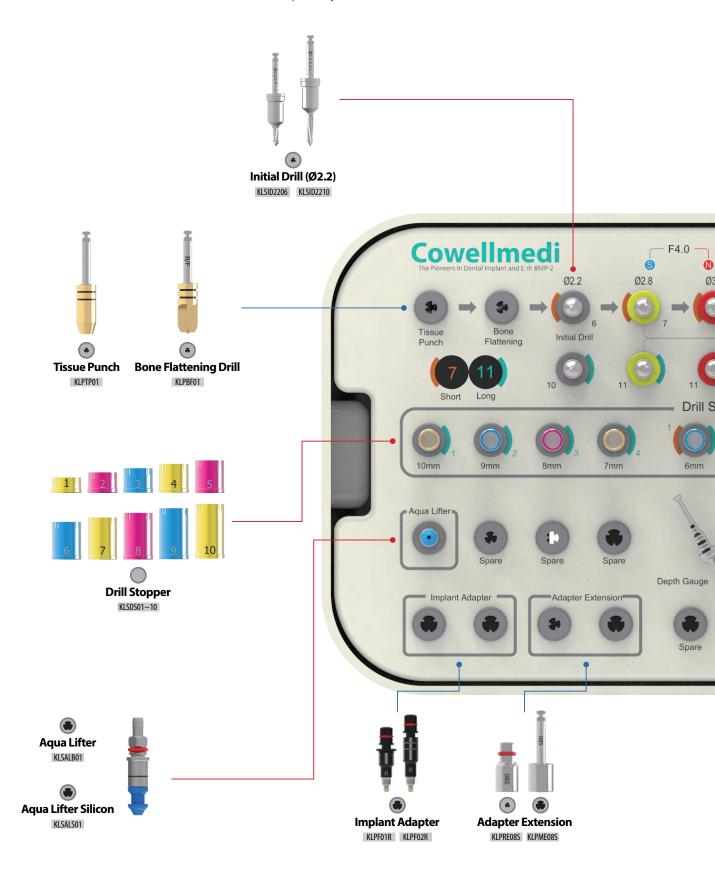


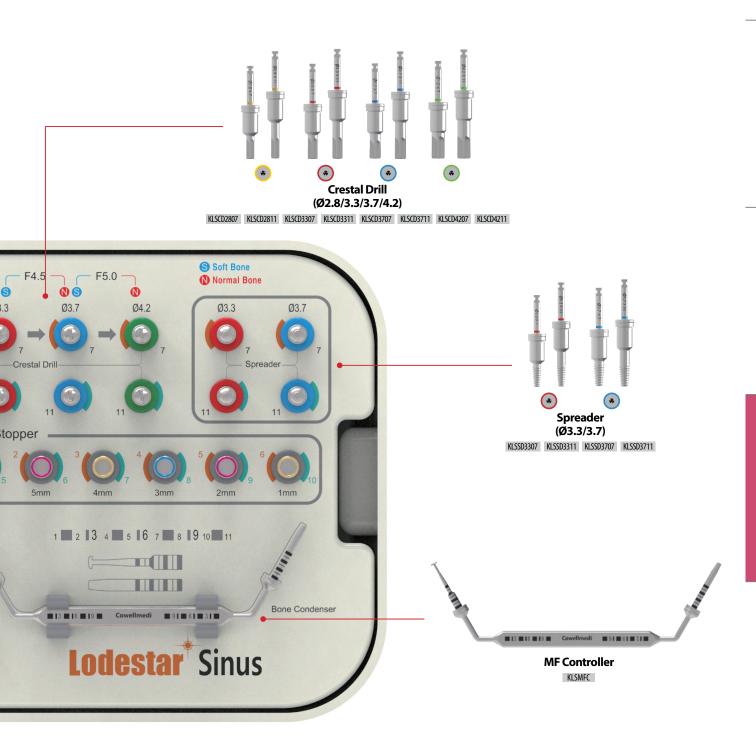




Lodestar Sinus Kit [KLSS001]

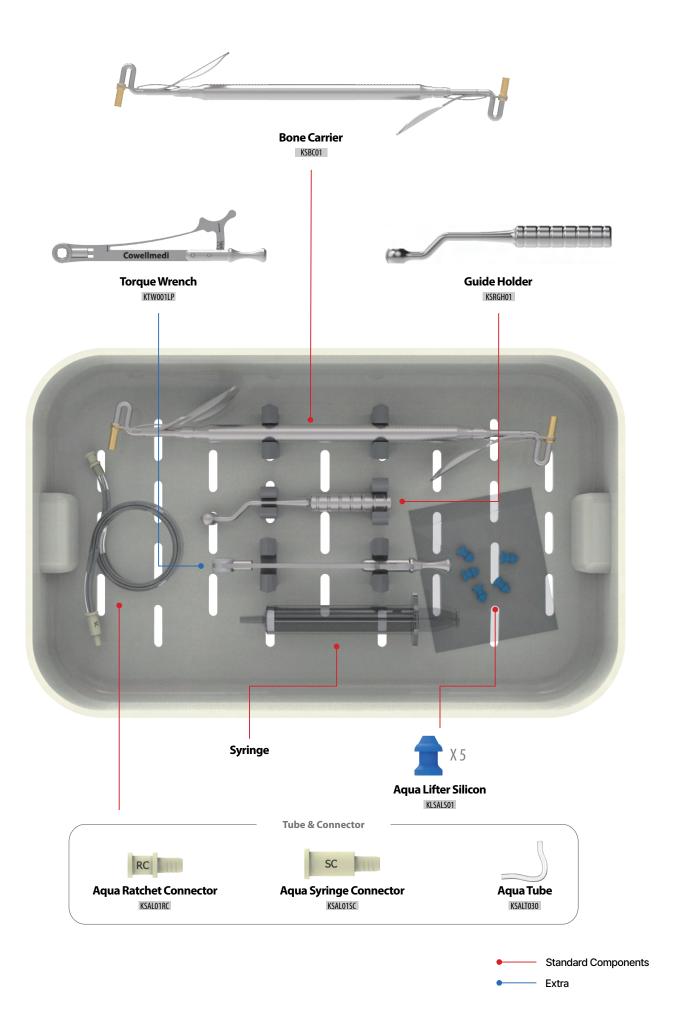
- > Safety and Precision in maxillary sinus procedures with the surgical guide template.
- > Use the same sleeve as in the Lodestar Plus Kit for compatibility with all drills and instruments.





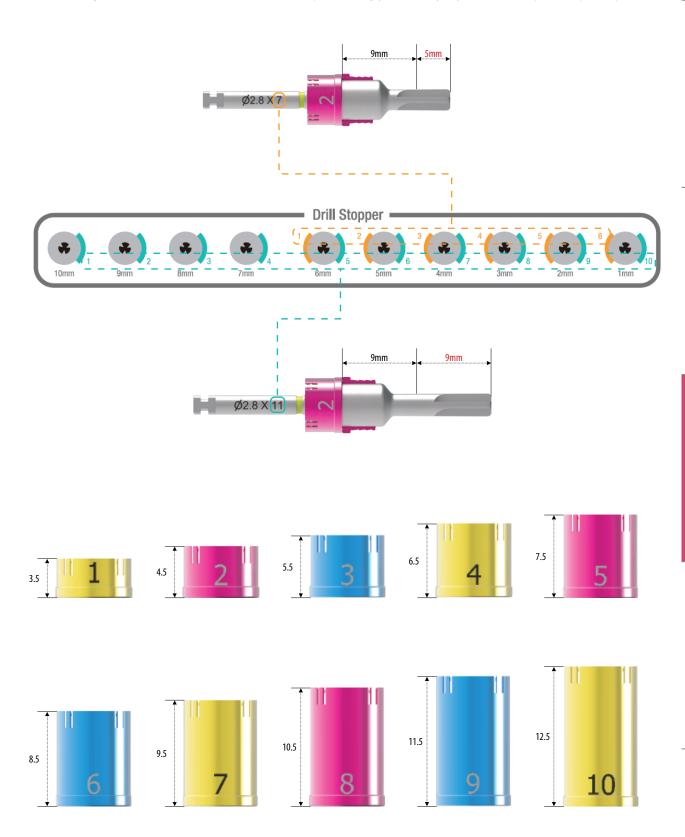
Standard Components

Extra



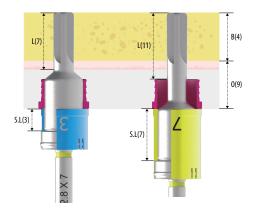
Drill Stopper

- > Use the Drill Stopper Sequentially, depending on the Residual Bone Height
- > Use stoppers of different colors based on lengths
- > Indicate the drilling depth when attaching the stopper to the drill: 7mm Drill Orange, 11mm Drill Blue
- > Have a range of sizes from 1mm to 10mm in 1mm steps, allowing you to easily adjust the drill depth for optimal precision

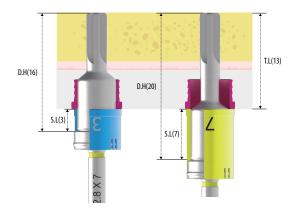


Drill Stopper Selection Guide

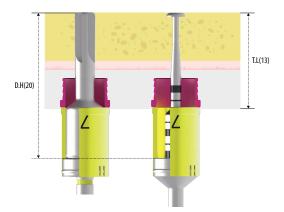
- > Drill Offset 9mm
- 1. Choose an appropriate stopper based on the Residual Bone Height
 - · Drill Length(L) Residual Bone Height(B) = Drill Stopper(D.S)
 - Ex) When the height of the bone is 4mm
 - · Short Drill: 7(Drill Length) 4(Residual Bone Height) = 3(Drill Stopper)
 - · Long Drill: 11(Drill Length) 4(Residual Bone Height) = 7(Drill Stopper)



- 2. Choose an appropriate stopper based on Total length (Surgical Guide Top Membrane)
 - · Drill height(D.H) Total Length(T.L) = Drill Stopper(D.S)
 - Ex) When the total length is 13mm
 - · Short Drill: 16(Drill Height) 13(Total Length) = 3(Stopper Length)
 - · Long Drill: 20(Drill Heigth) 13(Total Length) = 7(Stopper Length)



- 3. MF Controller
 - · Use stopper for a long drill



S.L: Stopper LengthT.L: Total LengthD.H: Drill Height

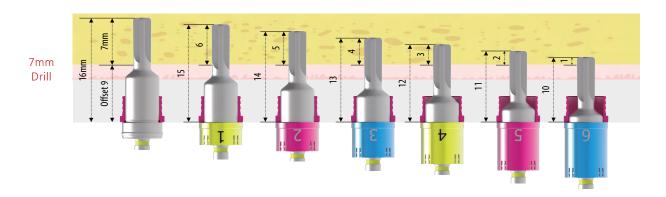
> B: Residual Bone Height

> O: Offset > L: Drill Length

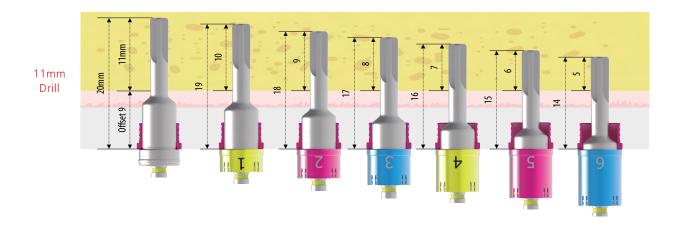
* When dealing with an 11mm offset, choose a stopper 2mm shorter, and if it is 13mm, it is recommended to utilize a stopper 2mm shorter,

The drilling depth is determined by the drill chosen, with variations

>7mm Drill + Drill Stopper



> 11mm Drill + Drill Stopper



Tissue Punch Extra



- > It is utilized for the excision of soft tissue, facilitating the precise incision of gingiva in a circular configuration
- > Small-diameter punch for postoperative hemostasis, minimal surgical traces, and rapid healing effects of wounds
- > Offset can be applied (9mm, 11mm, 13mm)
- > 50rpm without irrigation

Double blade

The internal cutting edge of the Tissue Punch cuts the gingiva into small pieces so that those can be removed by suction



* Caution The Tissue Punch must be kept clean. Otherwise, it may cause rust or damage on the blade due to residual gingival pieces or others in the Tissue Punch after the operation (remove the residual gingiva piece by explorer, steam etc.).

Bone Flattening Drill



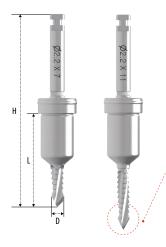


- > Flattens the bone level of the operation site
- > Inclined bone level may glide the Drill and can not drill as planned
- > Eliminates the soft tissue after using the Tissue Punch
- > The point in the middle of the Drill guides the position of the Drill and helps to the drill in an accurate site
- > Offset can be applied (9mm, 11mm, 13mm)
- > 400rpm without irrigation / 800rpm with irrigation



The point in the middle of the Drill guides the position of the Drill and helps to the drill in an accurate site

Initial Drill



- > Use to make a guide hole before using crestal drill > Are used as the point drill and the Lindermann Drill.
- It ensures stability in drilling processes, enabling precise control over the drilling direction and preventing any sliding on challenging bone angles during procedures
- > The drill stoppers are used based on gingiva height for optimal precision
- > Is shorter than Crestal Drill by 1mm
- > Should be used at 800~1000 rpm

Point Drill

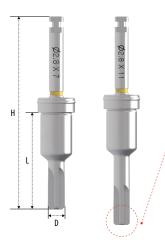
·Are used as the point drill and the Lindermann Drill. It ensures stability in drilling processes, enabling precise control over the drilling direction and preventing any sliding on challenging bone angles during procedures

Code	D(Ø)	L(mm)	H(mm)	Color Band
KLSID2206	2.2	15	31	White
KLSID2210	2.2	19	35	White

* Crestal Drill: L-1mm

Lindermann

Crestal Drill



- > Be able to Safely elevate the membrane during maxillary sinus procedures with the rounded design of the drill edge.
- > To ensure safe membrane elevation, securely attach and use the Drill Stopper based on the height of the remaining bone
- > The diameter of Final drill can be chosen based on the bone density
- > When Drilling, autogenous bones would be harvested
- > Should be used at 500 ~ 800 rmp



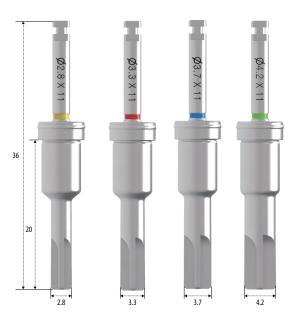
* Flat floor edge minimize damage to membrane

Code	D(Ø)	L(mm)	H(mm)	Color Band
KLSCD2807	2.8	16	32	Yellow
KLSCD2811	2.8	20	36	Yellow
KLSCD3307	3.3	16	32	Red
KLSCD3311	3.3	20	36	Red
KLSCD3707	3.7	16	32	Blue
KLSCD3711	3.7	20	36	Blue
KLSCD4207	4.2	16	32	Green
KLSCD4211	4.2	20	36	Green

Crestal Drill - 7mm



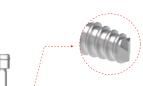
Crestal Drill - 11mm



Yellow	Ø2.8
Red	Ø3.3
Blue	Ø3.7
Green	Ø4.2

Spreader

- > When the remaining bone height is greater than 4mm, it is advisable to use a speed of 20-30 rpm for a gradual perforation of the maxillary sinus
- > Applying a taper design compresses the bone, leading to an initial boost in fixation strength
- > Choose an appropriate stopper based on the remaining bone
- > Should be used at 20-30rpm / 45Ncm



* Be safely elevated the maxillary sinus membrane by slowly trimming with the cutting blade of the front

Code	D(Ø)	L(mm)	H(mm)	Color Band
KLSSD3307	3.3	16	32	Red
KLSSD3311	3.3	20	36	Red
KLSSD3707	3.7	16	32	Blue
KLSSD3711	3.7	20	36	Blue

Aqua membrane Lifter System

> After confirming elevation of the cartilage of maxillary sinus, elevate membrane with the Aqua Membrane Lifter System



Membrane is elevated by injecting saline solution (0,1cc inject -> elevation height 1mm)

* After injecting 0,2~0,5cc and pressure is applied, measure the volume of injection and height of elevation

Syringe

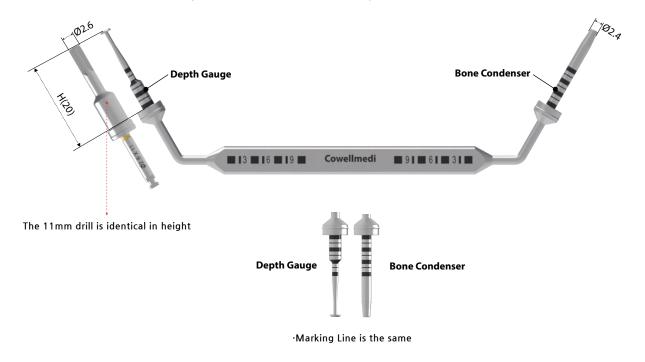
Aqua Syringe Connector

*After elevation, injected saline solution and blood are mixed

Aqua Tube

MF Controller

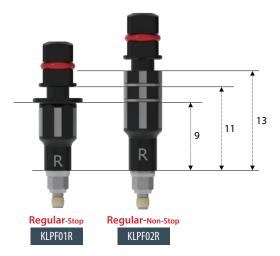
- > Use a single tool interchangeably for depth measurement and bone condensing purposes
- > Use drill stopper for the safe elevation
- > An 11mm drill is congruent in length with its 20mm height, featuring precise 1mm interval marking lines for accurate measurements
- > Depth Gauge: to assess the remaining bone depth and verify the elevation of the membrane
- > Bone Condenser: Insert bone graft materials to inside of maxillary sinus

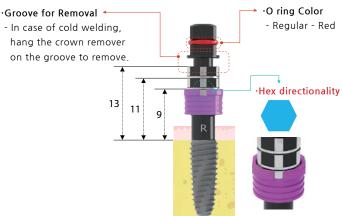


MF Controller + Stopper



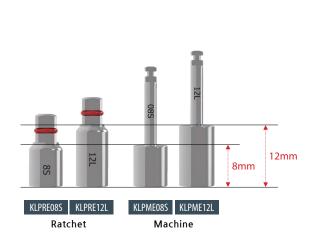
Implant Adapter Extra

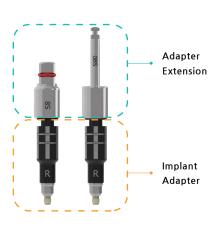




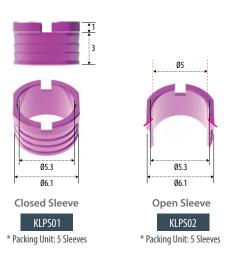
Adapter Extension Extra

> In case the Implant Adapter is too short to use, connect the Ratchet or Machine to Adapter Extension to place the fixture.





Sleeve





Bone Carrier

> Insert bone graft material, using the Bone Carrier



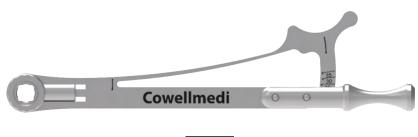
Guide Holder

> Should be used with an Aqua lifter

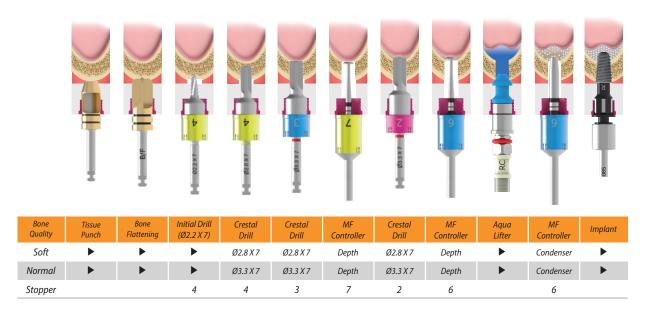


Torque Wrench Extra

> Use during implant placement and should be attached to the implant connector

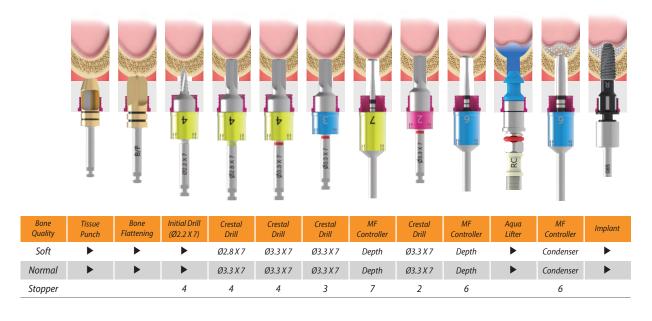


> Residual Bone Height 4mm, Fixture Ø4.0



Drill Protocol

> Residual Bone Height 4mm, Fixture Ø4.5



> Residual Bone Height 4mm, Fixture Ø5.0



Bone Quality	Tissue Punch	Bone Flattening	Initial Drill (Ø2.2 X 7)	Crestal Drill	Crestal Drill	Crestal Drill	MF Controller	Crestal Drill	MF Controller	Aqua Lifter	MF Controller	Implant
Soft	•	•	•	Ø2.8 X 7	Ø3.7 X 7	Ø3.7 X 7	Depth	Ø3.7 X 7	Depth	•	Condenser	•
Normal	•	•	•	Ø3.3 X 7	Ø4.2 X 7	Ø4.2 X 7	Depth	Ø4.2 X 7	Depth	•	Condenser	•
Stopper			4	4	4	3	7	2	6		6	

> Residual Bone Height 8mm, Fixture Ø4.0



Bone Quality	Tissue Punch	Bone Flattening	Initial Drill (Ø2.2 X 7)	Crestal Drill	Crestal Drill	MF Controller	Crestal Drill	MF Controller	Aqua Lifter	MF Controller	Implant
Soft	>	>	>	Ø2.8 X 7	Ø2.8 X 11	Depth	Ø2.8 X 11	Depth	•	Condenser	>
Normal	>	>	>	Ø3.3 X 7	Ø3.3 X 11	Depth	Ø3.3 X 11	Depth	•	Condenser	>
Stopper					3	3	2	2		2	

Drill Protocol

> Residual Bone Height 8mm, Fixture Ø4.5



Bone Quality	Tissue Punch	Bone Flattening	Initial Drill (Ø2.2 X 7)	Crestal Drill	Crestal Drill	Crestal Drill	MF Controller	Crestal Drill	MF Controller	Aqua Lifter	MF Controller	Implant
Soft	>	>	>	Ø2.8 X 7	Ø3.3 X 7	Ø3.3 X 11	Depth	Ø3.3 X 11	Depth	>	Condenser	>
Normal	>	•	•	Ø3.3 X 7	Ø3.7 X 7	Ø3.7 X 11	Depth	Ø3.7 X 11	Depth	•	Condenser	>
Stopper						3	3	2	2		2	

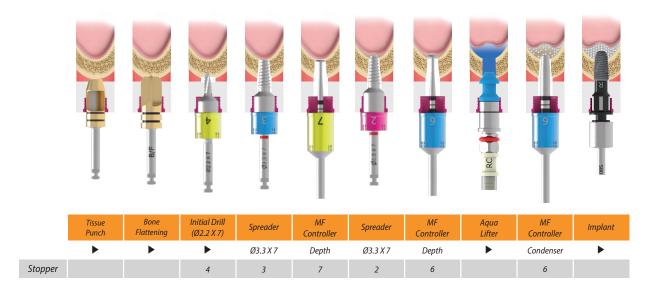
> Residual Bone Height 8mm, Fixture Ø5.0



Bone Quality	Tissue Punch	Bone Flattening	Initial Drill (Ø2.2 X 7)	Crestal Drill	Crestal Drill	Crestal Drill	MF Controller	Crestal Drill	MF Controller	Aqua Lifter	MF Controller	Implant
Soft	>	>	>	Ø2.8 X 7	Ø3.7 X 7	Ø3.7 X 11	Depth	Ø3.7 X 11	Depth	>	Condenser	>
Normal	>	>	>	Ø3.3 X 7	Ø4.2 X 7	Ø4.2 X 11	Depth	Ø4.2 X 11	Depth	>	Condenser	>
Stopper						3	3	2	2		2	

Drill Protocol - Spreader

> Residual Bone Height 4mm, Fixture Ø4.0, Ø4.5



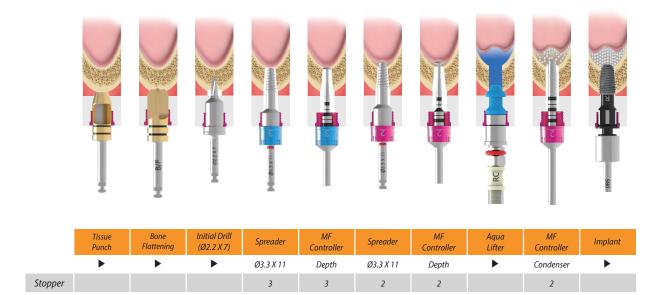
Drill Protocol - Spreader

> Residual Bone Height 4mm, Fixture Ø5.0



Drill Protocol - Spreader

> Residual Bone Height 8mm, Fixture Ø4.0, Ø4.5



Drill Protocol - Spreader

> Residual Bone Height 8mm, Fixture Ø5.0

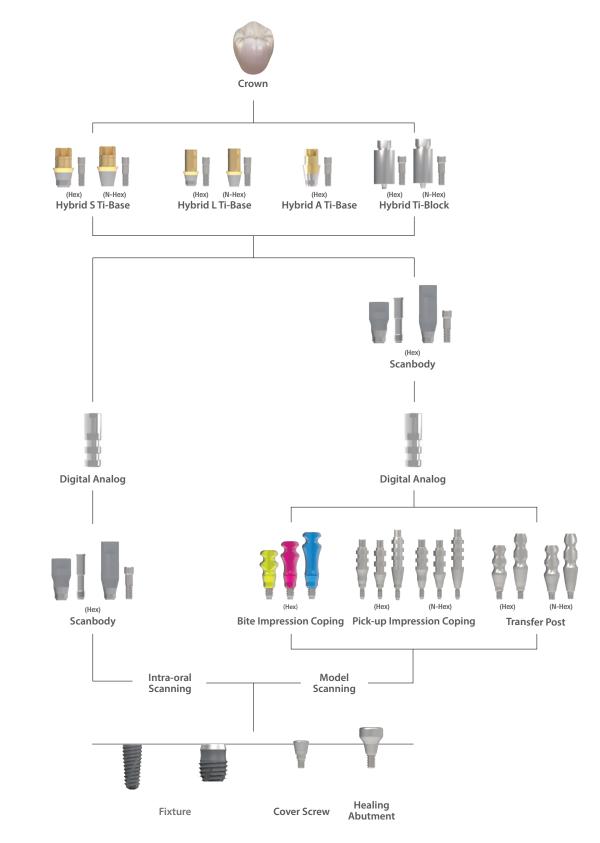


	Tissue Punch	Bone Flattening	Initial Drill (Ø2.2 X 7)	Spreader	MF Controller	Spreader	MF Controller	Spreader	Aqua Lifter	MF Controller	Implant
	>	>	>	Ø3.3 X 11	Depth	Ø3.3 X 11	Depth	Ø3.7 X 11	•	Condenser	•
Stopper				3	3	2	2	2		2	

Component selection guide for the Sub. Hybrid Ti-Base System

- Intra-oral scanning
- Model-scanning

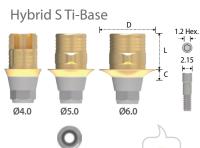




N-Hex

Ø4.0 5.52**SLN**415

2**SLN**425 2**SLN**435



Hex

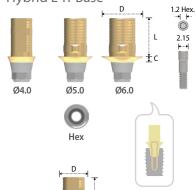
Ø4.0

N-Hex

Туре		N-Hex		
Diameter	Ø4.0	Ø5.0	Ø6.0	Ø4.0
Length Cuff	3.75	3.75	3.75	3.75
0.8	2 SLH 404	2 SLH 504	2 SLH 604	2 SLN 404
2	2 SLH 424	2 SLH 524	2 SLH 624	2 SLN 424
3	2 SLH 434	2 SLH 534	2 SLH 634	2 SLN 434

- > Packing unit: 1 Hybrid S Ti-Base + 1 Abutment Screw.
 - > For Screw-Cement or Cement Retained Abutment.
 - > Titanium base for the strength of CAD/CAM customized abutment or crown.
 - > Gold color for more translucent restoration.
 - > Lingual surface hole for more esthetic restoration (Ø4.0).
 - > Right angled (Ø4.0) and humped design (Ø5.0, Ø6.0) for anti-rotation of the prosthesis.
 - > Library available for EXOCAD®, 3Shape® & Others.
 - > Connected with the Abutment Screw (2SSHR200).
 - > Tightened with the Hex Driver and Torque Wrench.
 - > Tightening torque force: 30N.cm.
 - > Use the Scanbody for 3D Work.
 - > Fixture level impression.





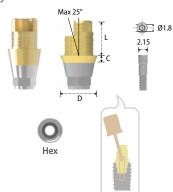
Ø4.0

N-Hex

	туре		нех				
	Diameter	Ø4.0	Ø5.0	Ø6.0			
	Length Cuff	5.5	5.5	5.5			
	1	2 SLH 415	2 SLH 515	2 SLH 615			
	2	2 SLH 425	2 SLH 525	2 SLH 625			
	3	2 SLH 435	2 SLH 535	2 SLH 635			
> Packing unit: 1 Hybrid L Ti-Base + 1 Abutment Screw. > For Screw-Cement or Cement Retained Abutment. > Titanium base for the strength of CAD/CAM customized abutment or crown.							
		and the second second					

- > Gold color for more translucent restoration.
- > Cutting surface (Ø4.0) and humped design (Ø5.0, Ø6.0) for anti-rotation of the prosthesis.
- > Library available for EXOCAD®, 3Shape® & Others.
- > Connected with the Abutment Screw (2SSHR200).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Use the Scanbody for 3D Work.
- > Fixture level impression.

Hybrid A Ti-Base



Туре	Hex	N-Hex
Diameter	Ø4.0	Ø4.0
Length Cuff	3.75	3.75
0.8	2 SLH 404 A	2 SLN 404 A
2	2 SLH 424 A	2 SLN 424 A
3	2 SLH 434 A	2 SLN 434 A

- > Packing unit: 1 Hybrid A Ti-Base + 1 Abutment Screw.
- > For Screw-Cement or Cement Retained Abutment.
- > Titanium base for the strength of CAD/CAM customized abutment or crown.
- > For Fabrication of Angulated Screw Channel up to 25°.
- > Library available for EXOCAD®, 3Shape® & Others.
- > Connected with the Stargrip Abutment Screw (2SLAH100, 2SLAH200 & 2SLAH300).
- > Tightened with the Torx A Ratchet Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Use the Scanbody for 3D Work.
- > Fixture level impression.
- * Torx A Ratchet Driver



Height Type	Ratchet
24(Short)	KRBUD15
29(Long)	KRBUD20

- > Stable to internal slip or fracture due to wide contact area of the Torx A Driver and the dedicated Stargrip Abutment Screw.
- > Tightening torque force: 30N.cm (50N.cm Max.).

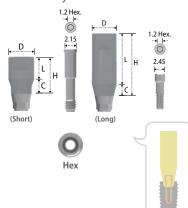
Hybrid Ti-Block



Туре	Hex				N-Hex	
Diameter Length	10	12	14	10	12	14
20	CSHH10S	CSHH12S	CSHH14S	CSHN10S	CSHN12S	CSHN14S

- > Packing unit: 1 Hybrid Ti-Block + 2 Abutment Screws.
- > For Screw-Cement or Cement Retained Abutment.
- > Block abutment for CAD/CAM customized abutment.
- > Library available for EXOCAD®, 3Shape® & Others.
- > Connected with the Abutment Screw (2SSHR100).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Use the Scanbody for 3D Work.
- > Fixture level impression.

Scanbody



Туре	Hex(Short)	Hex(Long)
Diameter	Ø4.3	Ø4.3
Height	6	11
Length Cuff	4	9
2	2 SSB 4325	2 SSB 4329

- > Packing unit: 1 Scanbody + 1 Abutment Screw.
- > For both, model-scanner and intra-oral scanner.
- > Made of 100% titanium alloy with a special coating applied.
- > No need to spray.
- > Connected with the Abutment Screw.
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.

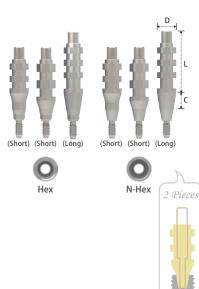
Bite Impression Coping



Туре	Hex(Short)	Hex(Long)	Hex(X-Long)
Diameter	Ø4.5	Ø4.5	Ø4.5
Cuff Length	2	4	6
4.0	2 SBIC 45 S	2 SBIC 45L	2 SBIC 45 X

- > Packing unit: 1 Bite Impression Coping (Inbuilt Guide Pin).
- > Designed to simultaneously take bite and impression.
- > For closed tray impression (Bite Impression).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.
- > Fixture level impression.

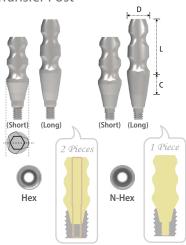
Pick-up Impression Coping



Туре	Hex				N-Hex	
	Ø4.5	Ø5.5	Ø6.5	Ø4.5	Ø5.5	Ø6.5
12 (Short) / 4	2 SIH 454 S	2 SIH 554 S	2 SIH 654 S	2 SIN 454 S	2 SIN 554 S	2 SIN 654 S
14 (Short) / 2	2 SIH 45 S	2 SIH 55 S	2 SIH 65 S	2 SIN 45 S	2 SIN 55 S	2 SIN 65 S
16 (Long) / 4	2 SIH 45 L	2 SIH 55 L	2 SIH 65 L	2 SIN 45 L	2 SIN 55 L	2 SIN 65 L

- > Packing unit: 1 Pick-up Impression Coping + 1 Guide Pin.
- > For open tray impression.
- > Connected with the Guide Pin (2SISR001SS / 2SISR001SL).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.
- > Fixture level impression.

Transfer Post



Туре	Hex			Hex N-Hex		
Diameter Length/Cuff	Ø4.5	Ø5.5	Ø6.5	Ø4.5	Ø5.5	Ø6.5
9 (Short) / 2	2 STH 45 S	2 STH 55 S	2 STH 65 S	2 STN 45 S	2 STN 55 S	2 STN 65 S
11 (Long) / 4	2 STH 45 L	2 STH 55 L	2 STH 65 L	2 STN 45 L	2 STN 55 L	2 STN 65 L

- > Packing unit: Hex 1 Transfer Post + 1 Guide Pin / N-Hex 1 Transfer Post (Solid Type).
- > For closed tray impression.
- > Connected with the Guide Pin (2STH001SS / 2STH001SL).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.
- > Fixture level impression.

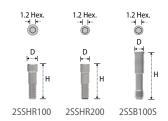
Digital Analog



Diameter Height	Ø3.9
12	2 SDR 001

- > Packing unit: 1 Digital Analog.
- > Analog of fixture for the working cast.
- > Used for both 3D printed model (RP) and stone model.

Abutment Screw



Diameter Height	Ø2.45	Ø2.15	Ø2.15
8.5	2 SSHR 100	2 SSHR 200	
10.7			2 SSB 100 S

- > Packing unit: 1 Abutment Screw.
- > 2SSHR100: Hybrid Block and Scanbody (2SSB4329).
- > 2SSHR200: Hybrid S Ti-Base and Hybrid L Ti-Base.
- > 2SSB100S: Scanbody (2SSB4325).
- > Tightened with the Hex Driver and Torque Wrench.



Height Diameter	2	3.2	4.2
Ø2.15	2 SLAH 100	2 SLAH 200	2 SLAH 300

- > Packing unit: 1 Abutment Screw.
- > Exclusive for the Hybrid A Ti-Base (2SLAH100 for 2SLH404A, 2SLAH200 for 2SLH424A & 2SLAH300 for 2SLH434A).
- > Tightened with the Torx A Driver and Torque Wrench.

Component selection guide for the Sub. & Sub-N. Multi Hybrid Ti-Base System

- Intra-oral scanning
- Model-scanning



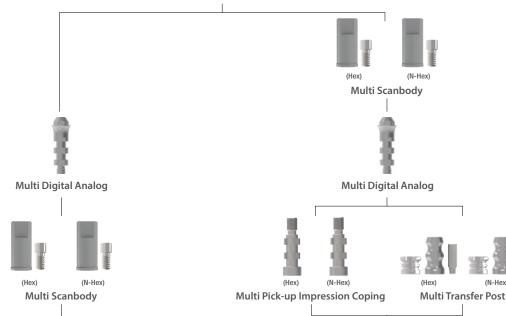












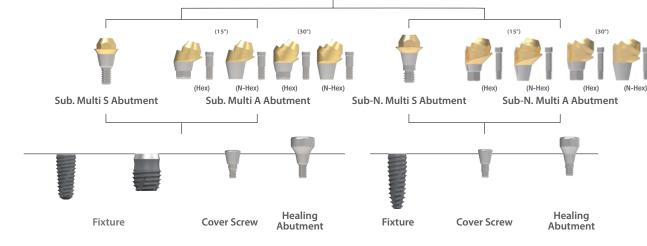
Model

Scanning

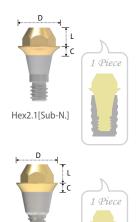


Intra-oral

Scanning



Multi S Abutment

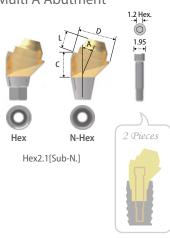


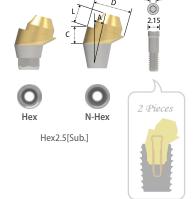
Fixture Connection	Hex2.1[Sub-N.]	Hex2.5[Sub.]		
Platform[Fixture Dia.]	Ø4.5 [Ø3.1 / Ø3.3]	Ø4.5 [Ø3.5 / Ø4.0 /	Ø4.5 / Ø5.0 / Ø6.0]	
Diameter	Ø4.5	Ø4.5	Ø5.5	
Cuff Length	2	2	2	
1	SMS 451 N	2 SMS 451	2 SMS 551	
2	SMS 452 N	2 SMS 452	2 SMS 552	
3	SMS 453 N	2 SMS 453	2 SMS 553	
4	SMS454N	2 SMS 454	2 SMS 554	
5		2 SMS 455	2 SMS 555	

- > Packing unit: 1 Multi S Abutment.
- > For Screw-Retained Prosthesis.
- > Titanium base for the Multi Hybrid Ti-Base.
- > Gold color for more translucent restoration.
- > Library available for EXOCAD®, 3Shape® & others.
- > Integrated with the screw and abutment (solid screw).
- > Use the S Holder for a more stable position.
- > Tightened with the S Machine or S Ratchet Driver and Torque Wrench.
- > Tightening torque force: 30N.cm (Sub.) / 20~25N.cm (Sub-N.).
- > Use the Multi Scanbody for digital flow.
- > Abutment level impression.

Multi A Abutment

Hex2.5[Sub.]





Туре	Hex						
Fixture Connection	Hex2.1[Sub-N.] Hex2.5[Sub.]						
Platform[Fixture Dia.]	Ø4.5 [Ø3.1 / Ø3.3]		Ø4.5 [Ø3.5 / Ø4.0 / Ø4.5 / Ø5.0 / Ø6.0]		Ø5.5 [Ø3.5 / Ø4.0 / Ø4.5 / Ø5.0 / Ø6.0]		
Diameter(Angle)	Ø4.5(15°)	Ø4.5(30°)	Ø4.5(15°)	Ø4.5(30°)	Ø5.5(15°)	Ø5.5(30°)	
Cuff Length	2	2	2	2	2	2	
2	★ SMAH 45152 N		• 2 SMAH 45152				
3	• SMAH45153N	→ SMAH 45303 N	★ 2 SMAH 45153	• 2 SMAH 45303	★ 2 SMAH 55153	★ 2 SMAH 55303	
4	• SMAH45154N	● SMAH45304N	★ 2 SMAH 45154	★ 2 SMAH 45304	★ 2 SMAH 55154	★ 2 SMAH 55304	
5					★ 2 SMAH 55155	★ 2 SMAH 55305	

Туре	N-Hex					
Fixture Connection	Hex2.1[Sub-N.]		Hex2.5[Sub.]			
Platform[Fixture Dia.]	Ø4.5 [Ø3	3.1 / Ø3.3]	Ø4.5 [Ø3.5 / Ø4.0 / Ø4.5 / Ø5.0 / Ø6.0]		Ø5.5 [Ø3.5 / Ø4.0 / Ø4.5 / Ø5.0 / Ø6.0]	
Diameter(Angle)	Ø4.5(15°)	Ø4.5(30°)	Ø4.5(15°)	Ø4.5(30°)	Ø5.5(15°)	Ø5.5(30°)
Cuff Length	2	2	2	2	2	2
2	★ SMAN 45152 N		• 2 SMAN 45152			
3	• SMAN45153N	→ SMAN45303N	★ 2 SMAN 45153	• 2 SMAN 45303	★ 2 SMAN 55153	★ 2 SMAN 55303
4	• SMAN45154N	• SMAN45304N	★ 2 SMAN 45154	★ 2 SMAN 45304	★ 2 SMAN 55154	★ 2 SMAN 55304
5					★ 2 SMAN 55155	★ 2 SMAN 55305

- > Packing unit: 1 Multi A Abutment + 1 Abutment Screw.
- > For Screw-Retained Prosthesis.
- > Titanium base for the Multi Hybrid Ti-Base.
- > Gold color for more translucent restoration.
- > Library available for EXOCAD®, 3Shape® & others.
- > Use the A Holder for a more stable position.
- > Connected with the Abutment Screw (SSHR200N: \star SSHR300N: \bullet / 2SSHR300: \star 2SSHR400: \bullet).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 30N.cm (Sub.) / 20~25N.cm (Sub-N.).
- > Use the Multi Scanbody for digital flow.
- > Abutment level impression.

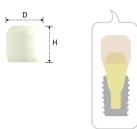
Abutment Screw



Height Diameter	8.7	9.3	7.5	6.5
1.95	★ SSHR200N	• SSHR300N		
2.15			★ 2 SSHR 300	• 2 SSHR 400

- > Packing unit: 1 Abutment Screw.
- > To connect the Multi A Abutment.
- > Tightened with the Hex Driver and Torque Wrench.

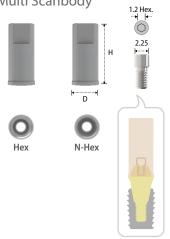
Multi Protection Cap



Multi S & A Abutment Diameter	Ø4.5	Ø5.5
Diameter Height	Ø5.2	Ø6.2
5	2 SMPC 45	2 SMPC 55

- > Packing unit: 1 Multi Protection Cap.
- > Protection from cheek and tongue for gingival healing period.
- > Prevention of gingival retraction for prosthodontic margin for the abutment.
- > Alternative usage for sub-structure of the temporary prosthesis.
- > Tightened with the Hex Driver.
- > Tightening torque force: 5~10N.cm.

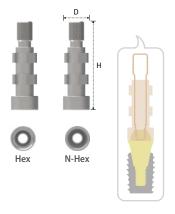
Multi Scanbody



Туре	Hex	N-Hex
Multi S & A Abutment Diameter	Ø4.5 & Ø5.5	Ø4.5 & Ø5.5
Diameter Height	Ø4.5	Ø4.5
9	2 SMB 001 H	2 SMB 001 N

- > Packing unit: 1 Multi Scanbody + 1 Multi Cylinder Screw.
- > For both, model-scanner and intra-oral scanner.
- > For the Multi Hybrid Ti-Base.
- > Made of 100% titanium alloy with a special coating applied.
- > No need to spray.
- > Connected with the Multi Cylinder Screw (2SMCS100).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.

Multi Pick-up Impression Coping

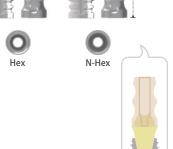


Туре	Hex		N-Hex	
Multi S & A Abutment Diameter	Ø4.5	Ø5.5	Ø4.5	Ø5.5
Diameter Height	Ø4.65	Ø5.65	Ø4.65	Ø5.65
16	2 SMIH 45	2 SMIH 55	2 SMIN 45	2 SMIN 55

- > Packing unit: 1 Multi Pick-up Impression Coping + 1 Guide Pin.
- > For open tray impression.
- > Connected with the Guide Pin (2SMGP012).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.

Multi Transfer Post





Туре	Hex		N-Hex	
Multi S & A Abutment Diameter	Ø4.5	Ø5.5	Ø4.5	Ø5.5
— Diameter Height —	Ø4.5	Ø5.5	Ø4.5	Ø5.5
5	2 SMTH 455	2 SMTH 555	2 SMTN 455	2 SMTN 555
8.5	2 SMTH 45	2 SMTH 55	2 SMTN 45	2 SMTN 55

- > Packing unit: 1 Multi Transfer Post + 1 Guide Pin.
- > For closed tray impression.
- > Connected with the Guide Pin (2SMTHS100).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.

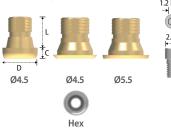
Multi Digital Analog



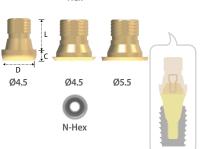
Multi S & A Abutment Diameter	Ø4.5	Ø5.5
	Ø4.5	Ø5.5
2	2 SMLA 45	2 SMLA 55

- > Packing unit: 1 Multi Digital Analog.
- > Replacement of the Multi S or A Abutment shape in working cast.
- > Used for both 3D printed model (RP) and stone model.
- > Select according to the dimension of the Multi S or A Abutment.

Multi Hybrid Ti-Base







Туре	Hex		N-Hex			
Multi S & A Abutment Diameter	Ø4.5	Ø4.5	Ø5.5	Ø4.5	Ø4.5	Ø5.5
Diameter	Ø4.5	Ø4.5	Ø5.5	Ø4.5	Ø4.5	Ø5.5
Length Cuff	4.5	4.5	4.5	4.5	4.5	4.5
0.5		2 SMHT 45 H	2 SMHT 55 H		2 SMHT 45 N	2 SMHT 55 N
1.5	2 SMHT 40 H			2SMHT40N		

- > Packing unit: 1 Multi Hybrid Ti-Base + 1 Multi Cylinder Screw.
- > For Screw-Cement or Cement Retained Abutment.
- > Titanium base for the strength of CAD/CAM customized abutment or crown.
- > Gold color for more translucent restoration.
- > Cutting surface for anti-rotation of the prosthesis.
- > Library available for EXOCAD®, 3Shape® & Others.
- > Connected with the Multi Cylinder Screw (2SMCS100).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20N.cm.
- > Use the Scanbody for 3D Work.
- > Abutment level impression.

Multi Cylinder Screw

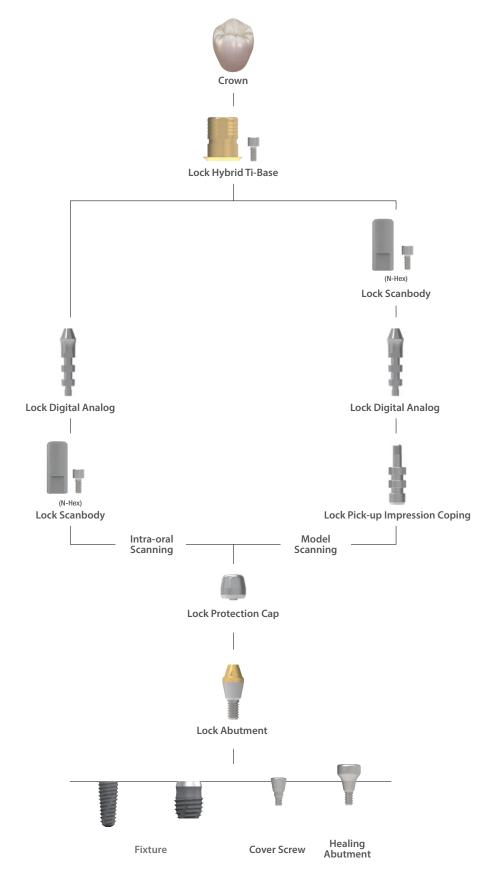


Diameter Height	Ø2.25
5	2 SMCS 100

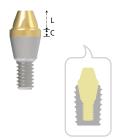
- > Packing unit: 1 Multi Cylinder Screw.
- > Connected with the Multi Scanbody and Multi Hybrid Ti-Base.
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20N.cm.

Component selection guide for the Sub. Lock Hybrid Ti-Base System

• Intra-oral scanning Model-scanning



Lock Abutment



	2.15
0.5	2 SLA 400
1	2 SLA 410
2	2 SLA 420
3	2 SLA 430
4	2 SLA 440

- > Packing unit: 1 Lock Abutment.
- > For Screw-Retained Prosthesis.
- > Titanium base for the Lock Hybrid Ti-Base.
- > Gold color for more translucent restoration.
- > Integrated with screw and abutment.
- > Tightened with the Lock Ratchet Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Abutment level impression.

Lock Protection Cap

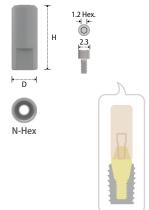


Lock Abutment Diameter	Ø3.5

Diameter	Ø4.3
Height	~5
	2 SI P 45
4	2 3L F 43

- > Packing unit: 1 Lock Protection Cap.
- > Protection from cheek and tongue for gingival healing period.
- > Prevention of gingival retraction for prosthodontic margin for the abutment.
- > Tightened with the Hex Driver.
- > Tightening torque force: 5~10N.cm.

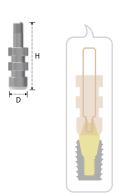
Lock Scanbody



Lock Abutment Diameter	Ø3.5
Diameter Height	Ø4.3
9	2 SLB 001 H

- > Packing unit: 1 Lock Scanbody + 1 Lock Cylinder Screw.
- > For both, model scanner and intra oral scanner.
- > For the Lock Hybrid Ti-Base.
- > Made of 100% titanium alloy with a special coating applied.
- > No need to spray.
- > Connected with the Lock Cylinder Screw (2SLCS200).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.

Lock Pick-up Impression Coping



Lock Abutment Diameter	Ø3.5
Diameter Height	Ø4.3
16	2 SLIH 45

- > Packing unit: 1 Lock Pick-up Impression Coping + 1 Guide Pin.
- > Connected with the Guide Pin (2SLIH45S).
- > For open tray impression.

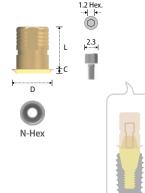
Lock Digital Analog



Lock Abutment Diameter	Ø3.5
Diameter Length	Ø3.5
2.2	2 SLLA 35

- > Packing unit: 1 Lock Digital Analog.
- > Used for both 3D printed model (RP) and stone model.

Lock Hybrid Ti-Base



Lock Abutment Diameter	Ø3.5
Diameter	Ø4.5
Length	5
0.5	2SLHT40N

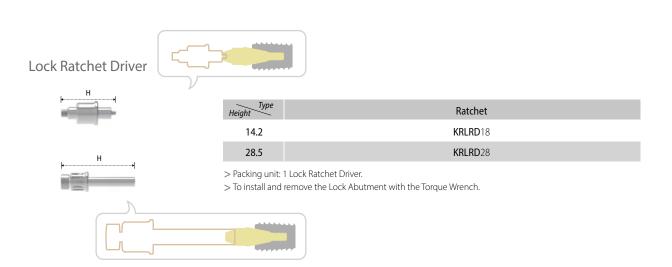
- > Packing unit: 1 Lock Hybrid Ti-Base + 1 Lock Cylinder Screw.
- > For Screw-Cement or Cement Retained Abutment.
- > Titanium base for the strength of CAD/CAM customized abutment or crown.
- > Gold color for more translucent restoration.
- > Cutting surface for anti-rotation of the prosthesis.
- > Library available for EXOCAD®, 3Shape® & Others.
- > Connected with the Lock Cylinder Screw (2SLCS200).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Use the Scanbody for 3D Work.
- > Abutment level impression.

Lock Cylinder Screw



Diameter Height	Ø2.3
4.8	2 SLCS 200

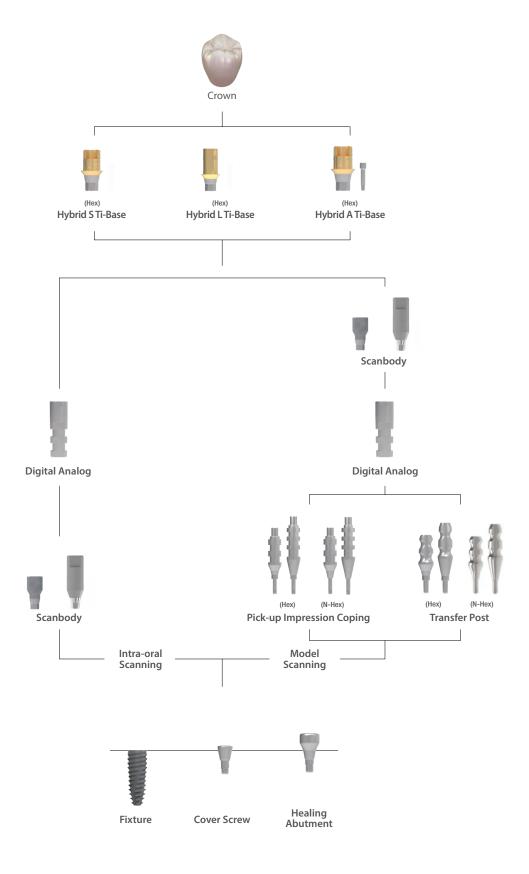
- > Packing unit: 1 Lock Cylinder Screw.
- > Connected with the Lock Scanbody and Lock Hybrid Ti-Base.
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.



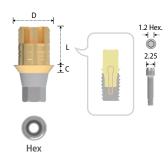
Component selection guide for the Sub-N. Hybrid Ti-Base System

- Intra-oral scanning
- Model-scanning





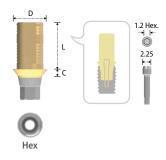
Hybrid S Ti-Base



Туре	Hex
Diameter	Ø4.0
Length Cuff	3.75
0.8	SLH404N
2	SLH424N
3	SLH434N

- > Packing unit: 1 Hybrid S Ti-Base + 1 Abutment Screw.
- > For Screw-Cement or Cement Retained Abutment.
- > Titanium base for the strength of CAD/CAM customized abutment or crown.
- > Gold color for more translucent restoration.
- > Lingual surface hole for more esthetic restoration.
- > Right angled for anti-rotation of the prosthesis.
- > Library available for EXOCAD®, 3Shape® & Others.
- > Connected with the Abutment Screw (SSHR100N).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20~25N.cm.
- > Use the Scanbody for 3D Work.
- > Fixture level impression.

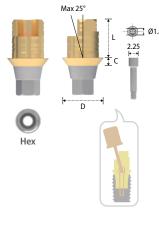
Hybrid L Ti-Base



Туре	Hex
Diameter	Ø4.0
Length Cuff	5.5
1	SLH415N
2	SLH425N
3	SLH435N

- > Packing unit: 1 Hybrid L Ti-Base + 1 Abutment Screw.
- > For Screw-Cement or Cement Retained Abutment.
- > Titanium base for the strength of CAD/CAM customized abutment or crown.
- > Gold color for more translucent restoration.
- > Cutting surface for anti-rotation of the prosthesis.
- > Library available for EXOCAD®, 3Shape® & Others.
- > Connected with the Abutment Screw (SSHR100N).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20~25N.cm.
- > Use the Scanbody for 3D Work.
- > Fixture level impression.

Hybrid A Ti-Base



Туре	Hex	N-Hex
Diameter	Ø4.0	Ø4.0
Length Cuff	3.75	3.75
0.8	SLH404AN	SLN404AN
2	SLH424AN	SLN424AN
3	SLH434AN	SLN434AN

- > Packing unit: 1 Hybrid A Ti-Base + 1 Abutment Screw.
- > For Screw-Cement or Cement Retained Abutment.
- > Titanium base for the strength of CAD/CAM customized abutment or crown.
- > For Fabrication of Angulated Screw Channel up to 25°.
- > Right angled for anti-rotation of the prosthesis.
- > Library available for EXOCAD®, 3Shape® & Others.
- > Connected with the Stargrip Abutment Screw (SLAH100N, SLAH200N & SLAH300N).
- > Tightened with the Torx A Ratchet Driver and Torque Wrench.
- > Tightening torque force: 20~25N.cm.
- > Use the Scanbody for 3D Work.
- > Fixture level impression.

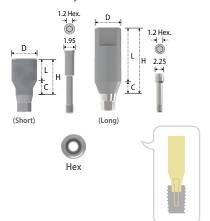
*Torx A Ratchet Driver



Height Type	Ratchet
24(Short)	KRBUD15
29(Long)	KRBUD20

- > Stable to internal slip or fracture due to wide contact area of the Torx A Ratchet Driver and the dedicated Stargrip Abutment Screw
- > Tightening torque force: 30N.cm (50N.cm Max.).

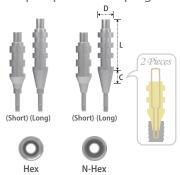
Scanbody



Туре	Hex(Short)	Hex(Long)
Diameter	Ø4.3	Ø4.3
Height	6	11
Length Cuff	4	9
2	SSB 4325 N	SSB 4329 N

- > Packing unit: 1 Scanbody + 1 Abutment Screw.
- > For both, model-scanner and intra-oral scanner.
- > Made of 100% titanium alloy with a special coating applied.
- > No need to spray.
- > Connected with the Abutment Screw.
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.

Pick-up Impression Coping



Туре	Hex	N-Hex
Diameter Length/Cuff	Ø4.5	Ø4.5
14 (Short) / 2	SIH45SN	SIN45SN
16 (Long) / 4	SIH45LN	SIN45LN

- > Packing unit: 1 Pick-up Impression Coping + 1 Guide Pin.
- > For open tray impression.
- > Connected with the Guide Pin (SIS001SN / SIS001LN).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.

1	(Short) (Long)	(Short) (Long)	7
2 Pieces			1 Piece
		0	
	Hex	N-Hex	

Transfer Post

Туре	Hex	N-Hex
Diameter Length/Cuff	Ø4.5	Ø4.5
9 (Short) / 2	STH45SN	STN45SN
11 (Long) / 4	STH45LN	STN45LN

- > Packing unit: Hex 1 Transfer Post + 1 Guide Pin / N-Hex 1 Transfer Post (Solid Type).
- > For closed tray impression.
- > Connected with the Guide Pin (STH001SN / STH001LN).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.

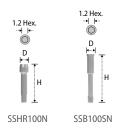
Digital Analog

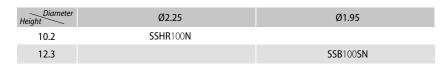


	Ø3.9	
12	SDR001N	

- > Packing unit: 1 Digital Analog.
- > Analog of fixture for the working cast.
- > Used for both 3D printed model (RP) and stone model.

Abutment Screw





- > Packing unit: 1 Abutment Screw.
- > SSHR100N: Hybrid S Ti-Base, Hybrid L Ti-Base, and Scanbody (SSB4329N).
- > SSB100SN: Scanbody (SSB4325N).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 20~25N.cm.



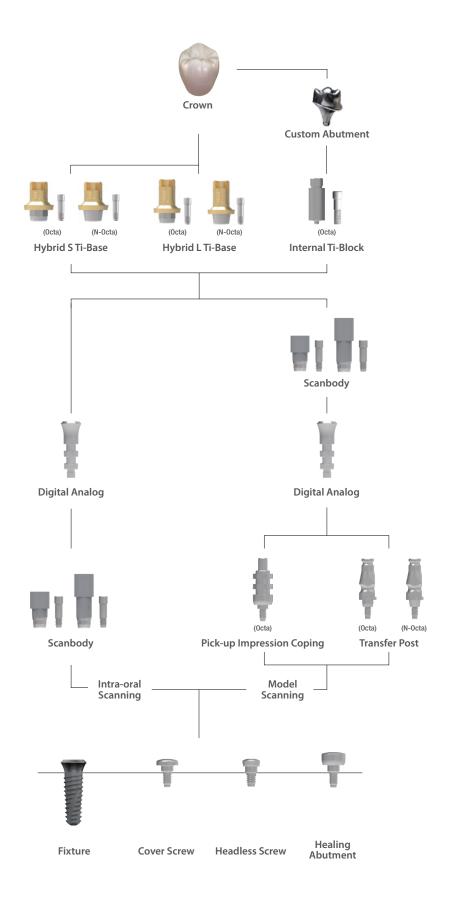
Height Diameter	10.2	11.4	12.4
Ø2.25	SLAH100N	SLAH200N	SLAH300N

- > Packing unit: 1 Abutment Screw.
- > Exclusive for the Hybrid A Ti-Base (SLAH100N for SLH404AN, SLAH200N for SLH424AN & SLAH300N for SLH434AN).
- > Tightened with the Torx A Ratchet Driver and Torque Wrench.

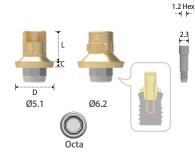
Component selection guide for the Int. Hybrid Ti-Base System

• Intra-oral scanning Model-scanning





Hybrid S Ti-Base



Ø6.2

Туре	Octa		N-Octa	
Platform [Fixture Dia.]	Ø4.8 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.9 [Ø5.0 / Ø6.0]	Ø4.8 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.9 [Ø5.0 / Ø6.0]
Diameter	Ø5.1	Ø6.2	Ø5.1	Ø6.2
Length Cuff	4	4	4	4
0.8	ILO 4814	ILO 5914	ILN 4814	ILN 5914
2	ILO4824	ILO 5924	ILN4824	ILN 5924
3	ILO4834	ILO 5934	ILN4834	ILN 5934

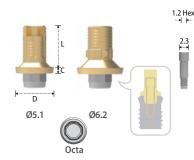
- > Packing unit: 1 Hybrid S Ti-Base + 1 Abutment Screw.
- > For Screw-Cement or Cement Retained Abutment.
- > Titanium base for the strength of CAD/CAM customized abutment or crown.
- > Gold color for more translucent restoration.
- > Library available for EXOCAD®, 3Shape® & others.
- > Right angled (Ø5.1) and humped design (Ø6.2) for anti-rotation of prosthesis.
- > Connected with the Abutment Screw (ILHS100).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Use the Scanbody for digital workflow.
- > Fixture level impression.

Hybrid L Ti-Base

N-Octa

D

Ø5.1



Ø6.2

N-Octa

х Туре		00	ta	N-O	cta
	Platform [Fixture Dia.]	Ø4.8 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.9 [Ø5.0 / Ø6.0]	Ø4.8 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.9 [Ø5.0 / Ø6.0]
	Diameter	Ø5.1	Ø6.2	Ø5.1	Ø6.2
	Length Cuff	5.5	5.5	5.5	5.5
	8.0	ILO 4815	ILO 5915	ILN 4815	ILN 5915
	2	ILO 4825	ILO 5925	ILN4825	ILN5925
	3	ILO 4835	ILO 5935	ILN4835	ILN 5935

- > Packing unit: 1 Hybrid L Ti-Base + 1 Abutment Screw.
- > For Screw-Cement or Cement Retained Abutment.
- > Titanium base for the strength of CAD/CAM customized abutment or crown.
- > Gold color for more translucent restoration.
- > Library available for EXOCAD®, 3Shape® & others.
- > Cutting surface (Ø5.1) and humped design (Ø6.2) for anti-rotation of the prosthesis.
- > Connected with the Abutment Screw (ILHS100).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.
- > Use the Scanbody for digital workflow.
- > Fixture level impression.

Internal Ti-Block

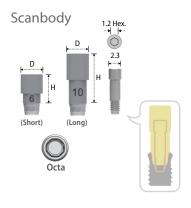
D

Ø5.1



Туре	Octa		
Platform	Ø4.8[Ø3.5 / Ø4.0 / Ø4.5]	Ø5.9 [Ø5.0 / Ø6.0]	
Diameter Length	10	10	
20	CIOR10S	CIOW10S	

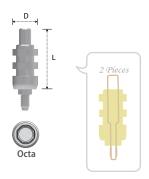
- > Packing unit: 1 Hybrid Ti-Block + 2 Abutment Screws.
- > For Screw-Cement or Cement Retained Abutment.
- > Block abutment for CAD/CAM customized abutment.
- > Library available for EXOCAD®, 3Shape®
- > Connected with the Abutment Screw (2SSHR100).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 30Ncm.
- > Use the Scanbody for 3D Work.
- > Fixture level impression.



Туре	Octa(Short)	Octa(Long)	
Platform [Fixture Dia.]	Ø4.8 & Ø5.9 [Ø3.5 / Ø4.0 / Ø4.5/ Ø5.0 / Ø6.0]	Ø4.8 & Ø5.9 [Ø3.5 / Ø4.0 / Ø4.5/ Ø5.0 / Ø6.0]	
Diameter	Ø4.5	Ø4.5	
Height	6	10	
	ISB406	ISB 410	

- > Packing unit: 1 Scanbody + 1 Abutment Screw.
- > For both, model-scanner and intra-oral scanner.
- > Made of 100% titanium alloy with a special coating applied.
- > No need to spray.
- > Connected with the Abutment Screw (ISHR110).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.

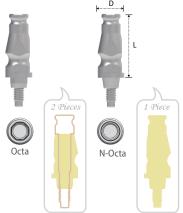
Pick-up Impression Coping



Туре	Octa			
Platform [Fixture Dia.]	Ø4.8 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.9 [Ø5.0 / Ø6.0]		
Diameter Length	Ø5.5	Ø6.6		
13.7	IIOR001	IIOW 001		

- > Packing unit: 1 Pick-up Impression Coping + 1 Guide Pin.
- > For open tray impression.
- > Connected with the Guide Pin (IIOR001S).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.

Transfer Post



Туре	Octa		Octa N-Octa	
Platform [Fixture Dia.]	Ø4.8 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.9 [Ø5.0 / Ø6.0]	Ø4.8 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.9 [Ø5.0 / Ø6.0]
Diameter Length	Ø4.8	Ø5.9	Ø4.8	Ø5.9
11.6	ITOR400	ITOW500	ITNR400	ITNW500

- > Packing unit: Octa 1 Transfer Post + 1 Guide Pin / N-Octa 1 Transfer Post (Solid Type).
- > For closed tray impression.
- > Connected with the Guide Pin (Regular: ITOR400S / Wide: ITOW500S).
- > Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 12~15N.cm.

Digital Analog



Platform [Fixture Dia.]	Ø4.8 [Ø3.5 / Ø4.0 / Ø4.5]	Ø5.9 [Ø5.0 / Ø6.0]
Diameter Height	Ø4.8	Ø5.9
13.5	IDR001R	IDR001W

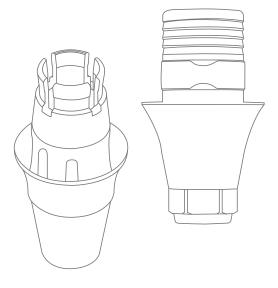
- Packing unit: 1 Digital Analog.Analog of fixture for the working cast.
- > Used for both 3D printed model (RP) and stone model.
- > Select according to fixture platform.

Abutment Screw



Diameter Height	Ø2.3
8.6	ILHS100

- > Packing unit: 1 Abutment Screw.> Tightened with the Hex Driver and Torque Wrench.
- > Tightening torque force: 30N.cm.



Cowellmedi Expert Instruments

An Expert knows what makes the results

MFS Kit (Multi-Functional Sinus Kit)

Designed to perform maxillary sinus lifting. The Aqua Membrane Lifter, Drill designs, and Stopper Systems prevent perforation of the sinus membrane. The kit includes all the instruments required for both crestal and lateral approaches.

Easy Sinus Lift Kit

This revolutionary kit contains US Patented Tap Drills and Spreaders, allowing any user to easily lift, split or condense surrounding bone with simple drilling. Users can expect more predictable results, and patients can enjoy less traumatic surgeries with shorter chair time.

MFR Kit (Multi-Functional Removal Kit)

An ideal solution for removing fixtures, abutments, and screws without trauma and bone loss. The kit includes all the instruments required to remove fixtures, abutments, and screws.

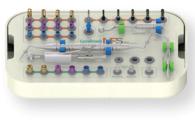
InnoGenic GBR Kit

An all-in-one solution for various types of GBR procedures.

The InnoGenic GBR (Guided bone regeneration) kit offers all the tools that can fix barrier membranes, block bones, and collect autogenous bone.

Bone Profiler Kit

This is designed for precise bone removal around the fixture during the first and second stages of implant surgery.













InnoGenic Autobone Harvester

Devised to harvest autogenous bone not only from the general site but also from the site where the implant will be placed. More than 1cc of bone chips can be harvested within 10 seconds.

COWELL BMP Trephine Kit

An easy-to-use kit with drills and instruments for block-type bone collection, failed fixture removal, crestal and lateral (window) approach for the sinus lift, and bone chip extraction.

Atraumatic Extraction Kit

Used for the immediate and effortless extraction of the root of the tooth with simple procedures.

AO4 Surgical Stent

An excellent guide template to place implant precisely, especially for AO4 or AO6 technique.

Volume-up Guide System

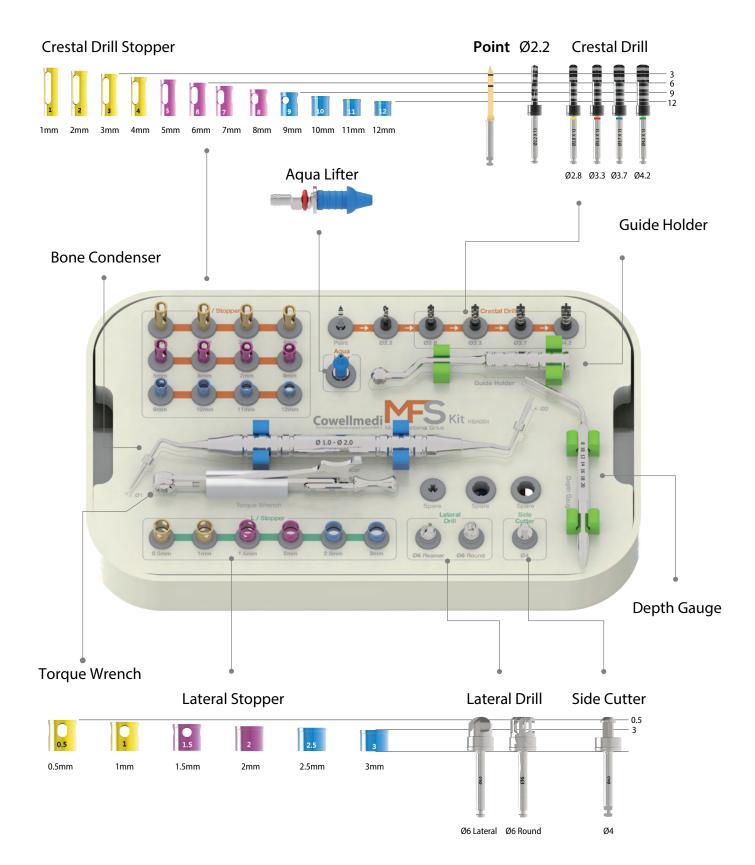
Devised for preventing food penetration and forming natural cervical area by restoring contracted buccal alveolar bone & gingiva to the original shape and width.





MFS KIT [KSA004]

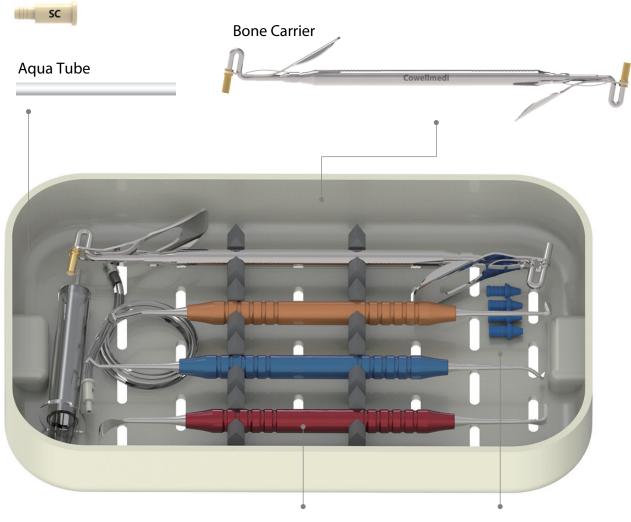
> Designed to perform maxillary sinus lifting. The Aqua Membrane Lifter, Drill designs, and Stopper Systems prevent perforation of the sinus membrane. The Kit includes all the instruments required for both crestal and lateral approaches.



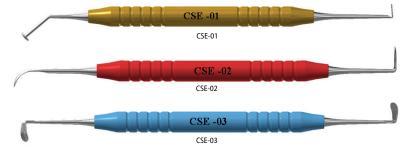
Aqua Ratchet Connector

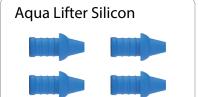


Aqua Syringe Connector



Sinus Elevator



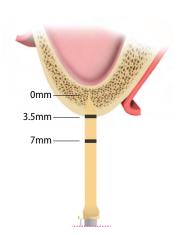


Crestal Approach - Components

1. Point Drill 800~1,000rpm

- > Use to mark the point of perforation on cortical bone.
- > In case the remaining bone height is as low as 3.5mm, pay more attention when drilling.





2. 2.2 Twist Drill 800~1,000rpm

- > Use for making guide hole before using the Crestal Drill.
- > Connect the Crestal Drill Stopper according to the height of the remaining bone.



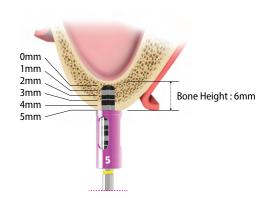




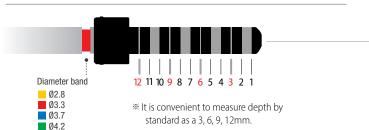
3. Crestal Drill 400~800rpm

- > Use the Crestal Drill sequentially according to the diameter of the fixture to be placed.
- > Can also be used if sinus floor is flat, incline, and septum.
- > The Crestal Drill can be used about 50 times (depending on bone quality).





Fixture Dia.	Ø3.3	Ø3.5	Ø4.0	Ø4.5 / Ø5.0
Diameter	Ø2.8	Ø3.3	Ø3.7	Ø4.2
	KSCD28	KSCD33	KSCD37	KSCD42

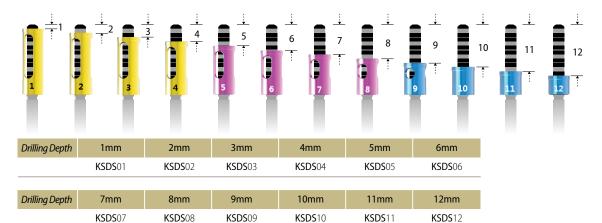




** Flat floor edges minimize damage to membrane.

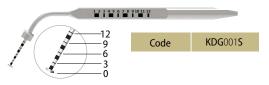
4. Crestal Drill Stopper

- > Connected with a stopper to be drilled to the same length of the cartilage height of maxillary sinus which is measured by CT.
- > If not equipped with CT, fasten the stopper one step lower than expected and gradually increase the length.



5. Depth Gauge

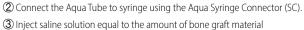
- > Measure thickness of the residual bone after checking the perforation of the cartilage of the maxillary sinus (do not open completely, only the entrance side should be opened).
- > The stopper is attached to the base of the residual bone to separate the cartilage and membrane from the maxillary sinus.

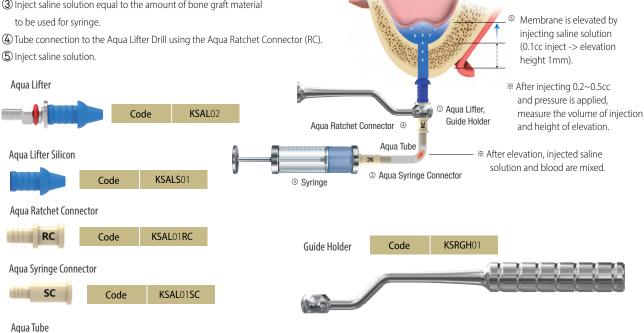




6. Aqua Membrane Lifter System

- > After confirming elevation of the cartilage of maxillary sinus, elevate membrane with the Aqua Membrane Lifter System.
- ① Connect the Aqua Lifer to the Guide Holder.

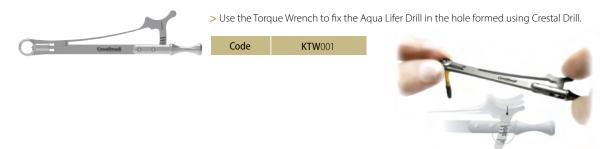




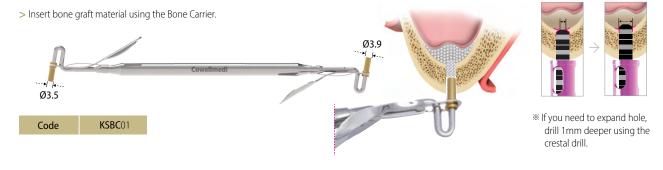
KSALT030

Code

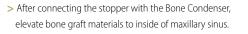
7. Torque Wrench



8. Bone Carrier













 If you need to expand hole, drill 1mm deeper using the crestal drill.

10. Implant Drill (Final)

> Drill 1~2mm more deeply than steps of the Crestal Drill.



11. Implant Placement

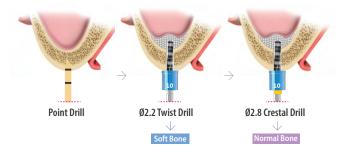
> If the residual bone is less than 3mm, do not implant the fixture, but bone graft only.



Crestal Approach - Drilling Sequence

> Placing implant over Ø4.0 is highly recommended.

1. Ø3.3 Narrow Fixture



2. Ø3.5 Fixture



3. Ø4.0 Fixture



4. Ø4.5 Fixture



- \times Ø5.0 Fixture Normal Bone : Drilling with the Final Drill before placing implants are required.
- ** Use a Drill that is one step shorter than the implant (E.g. 10mm implant, 8~9mm Drill).

Lateral Approach - Components

1. Ø6 Lateral Reamer 800~1,000rpm

- > Drill after fastening the stopper according to the height of the bone.
- > Round shape to prevent membrane perforation.







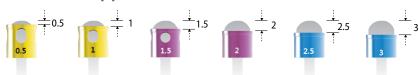
2. Ø6 Lateral Round Drill 800~1,000rpm

- > Drill after fastening the stopper according to the height of the bone.
- > Round shaped edge.
- > The residual bone should be replaced in the original position after drilling, sinus lifting & augmentation.





3. Lateral Stopper

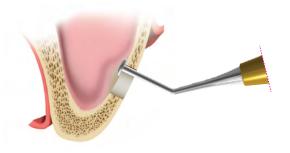


Drilling Depth	0.5mm	1mm	1.5mm	2mm	2.5mm	3mm
	KSDSL05	KSDSL10	KSDSL15	KSDSL20	KSDSL25	KSDSL30

4. Sinus Elevator

> CSE-01: Initial elevation of sinus membrane.





> CSE-02: as stepwise, after using CSE-01, used for elevation of sinus membrane.



> CSE-03: as stepwise, after using CSE-02, used for elevation of sinus membrane.





KSSE03 Code

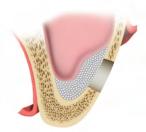
5. Ø4 Side Cutter 800~1,000rpm

> When expanding window, Ø4 Side Cutter must be connected with the stopper.





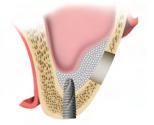
6. Sinus Bone Graft





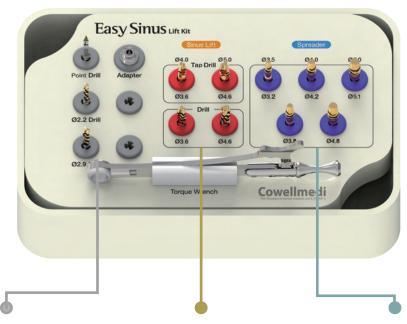


8. Implant Placement



Easy Sinus Lift Kit [KSA001]

> Easy Sinus Lift Kit is the world's most innovative kit for performing maxillary sinus lift, ridge splits, and bone condensing cases. This revolutionary kit contains US Patented modified Tap Drills and Spreaders in order to allow any dentists to easily lift, split, or condense surrounding bone with simple drilling. Dentists can expect more predictable results, and patients can enjoy less traumatic surgeries with shorter chair time.



For All Surgery

- > Universally used Drills / used for both sinus lift or ridge split.
- > Drilling must be accompanied with copious amounts of refrigerated sterile irrigation.

Drill Speed: 800-2,000 rpm



Sinus Lift

> Used in any maxillary sinus implantation.

Drill Speed : 20-30 rpm Torque : 45 N.cm



Ø4 6 Drill

KTWD46S

Ø3.6 Drill

KTWD36S

Spreader

- > Used in bone condensing or ridge split implantation.
- > Also used in maxillary sinus lift & immediate placement cases.

Drill Speed : 20-30 rpm Torque : 45 N.cm





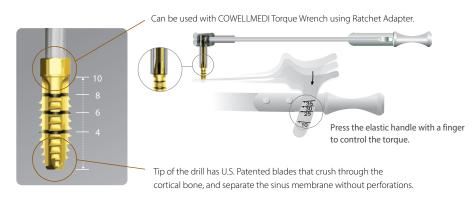
Sinus Lift

· Tap Drill (Ø3.6, Ø4.6)

- > The usage of the Tap Drill is at low speed and high torque to grind through the maxillary bone, and safely elevates sinus without membrane perforation.
- > Must be used at 20~30 rpm / 45 N.cm.
- > No irrigation is required.



Diameter	Ø3.6	Ø4.6	
	KMTD36S	KMTD46S	



· Twist Drill (Ø3.6, Ø4.6)

- > The Twist Drill is used after tapping as final drill for dense bone (bone quality 2 or greater) or to eliminate tapping thread in order to facilitate bone grafting.
- > Must be used at 100~500 rpm / 45 N.cm.
- > No irrigation is required.



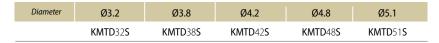
Diameter	Ø3.6	Ø4.6
	KTWD36S	KTWD46S



· Spreader (Ø3.2, Ø3.8, Ø4.2, Ø4.8, Ø5.1)

- > The Spreader Drill is used to condense and/or spread the bone in either sinus lift or ridge split cases.
- > Must be used at 20~30 rpm / 45 N.cm.
- > No irrigation is required.





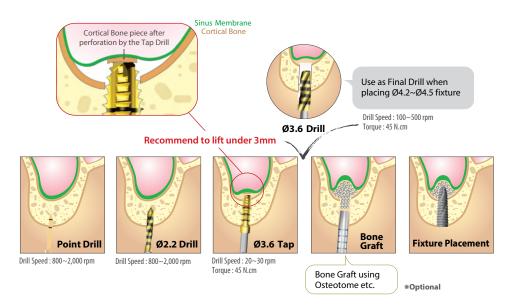


Can be used with COWELLMEDI Torque Wrench using Ratchet Adapter.

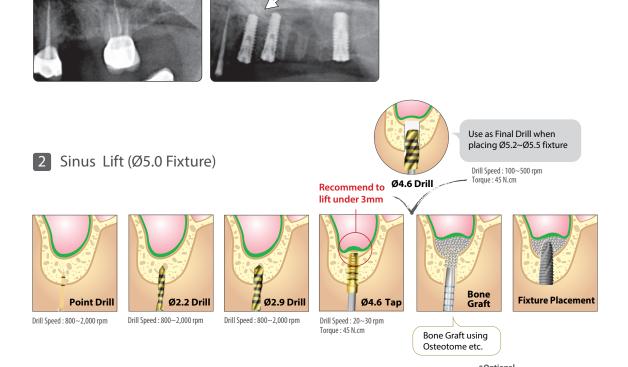
Tip of the drill has U.S. Patented blades that crush through the cortical bone, and separate the sinus membrane without perforations.

Sequence - Sinus Lift

- · Only use of Sinus Lift Drill
- 1 Sinus Lift (Ø4.0 Fixture)



→ Immediate Implantation and Sinus Lift Technique with Tap Drill (Ø4.0 Fixture)



→ Immediate Implantation and Sinus Lift Technique with Tap Drill (Ø5.0 Fixture)

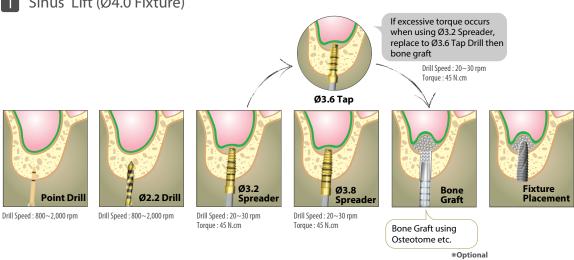


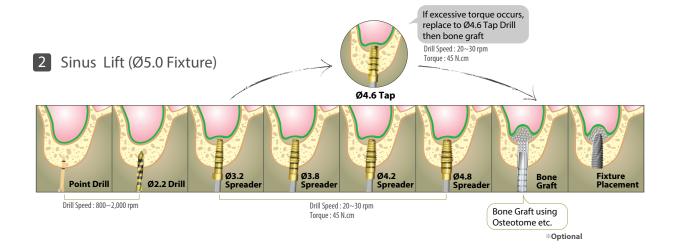




· Recommend to use Sinus Lift Drill and Spreader Drill together

1 Sinus Lift (Ø4.0 Fixture)



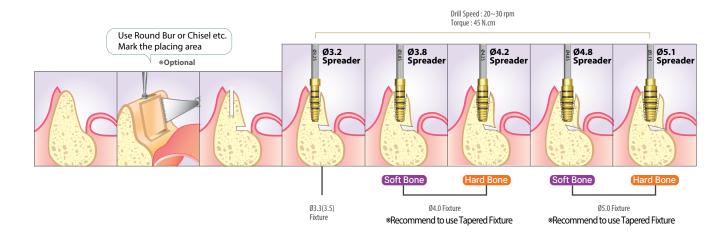


Note

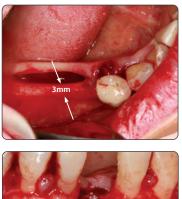
- > Recommend to use Sinus Lift Drill and Spreader Drill together during the Sinus Lift operation.
- > Easy operation by using Ø3.2 Spreader rather than Point Drill.
- > Avoid to over press surrounding alveolar bone using Final Drill before fixture placement in D2.



Sequence - Spreader



▶ Ridge Split and Block Bone Augmentation Technique with Spreader Drill (Ø4.0 Fixture)









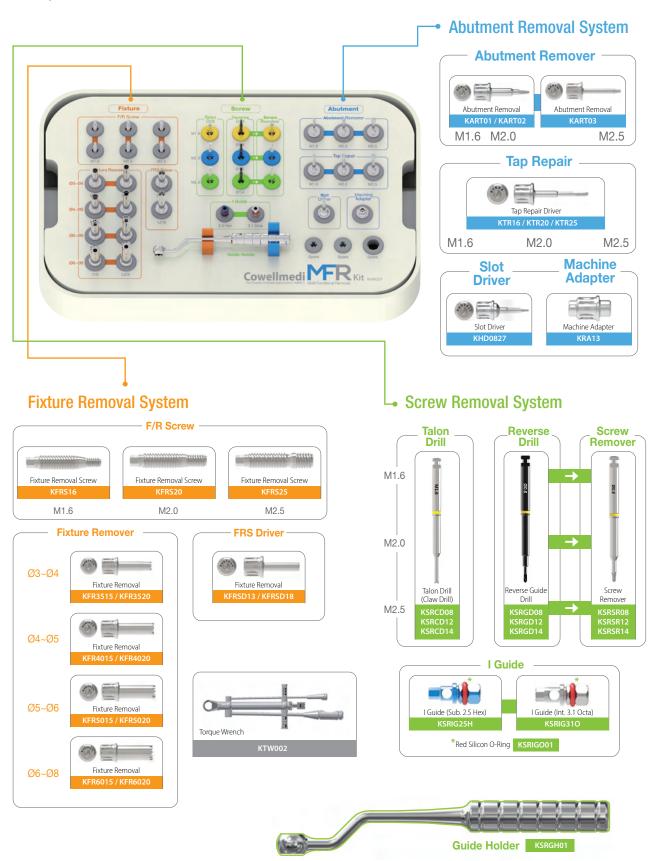




Multi-Functional Removal Kit

MFR KIT [KHA001]

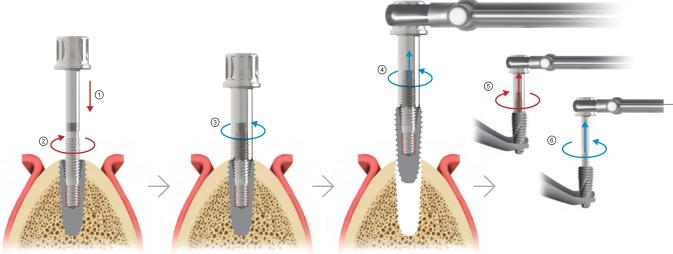
> An Ideal solution for removing fixtures, abutments, and screws without trauma and bone loss. The kit includes all the instruments required to remove fixtures, abutments, screws.



MFR Kit - Components

1. Fixture Removal System

- ① Connect the F/R Screw to the FRS Driver.
- ② Connect the F/R Screw mounted FRS Driver to the fixture (clockwise 40~60N.cm) and remove the FRS Driver.
- 3 Connect the Fixture Remover to the F/R Screw (counterclockwise).
- 4 Remove the fixture after connecting the Torque Wrench (counterclockwise, 100~400N.cm).
- ⑤ To remove the fixture from the Fixture remover, use such device as vise to fix the Fixture Remover and connect to the Torque Wrench.
- (Counterclockwise).



- ※ One-time use of the F/R Screw is recommended (bending or fracture may happen if more than 100N.cm

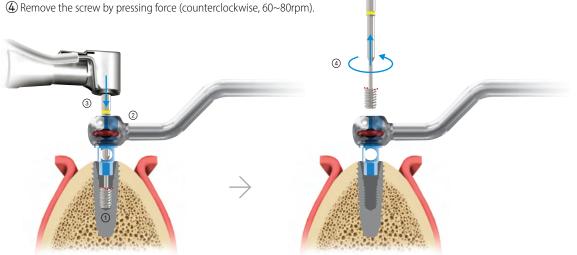
 → Common than 100N.cm

 → Commo and using twice may be possible if less than 100N.cm).
- * Sufficient irrigation is required when removing the fixture.
- *When the maximum torque is exceeded, the fixture may be bent or fractured.
- * If the fixture can not be removed even with maximum torque, remove the Fixture Remover & F/R Screw, remove bones around the fixture using round bur and retry to remove.

2. Screw Removal System

Talon Drill

- (1) Check the broken screw size inside the fixture.
- (2) Connect the I Guide corresponding to the fixture to the Guide Holder and fasten to the fixture.
- 3 Insert the Talon Drill into the I Guide Hole.

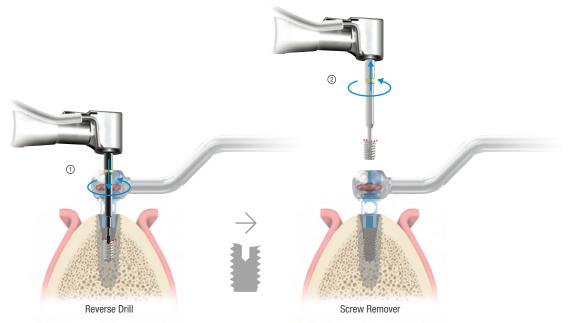


* If the I Guide and fixture could not be correctly connected, the path is not correct.

Reverse Drill & Screw Remover

If the screw could not be removed by the Talon Drill

- \bigcirc Form the hole on the fractured screw (depth 1~2mm / counterclockwise / 1,200~1,400rpm).
- ② Use the Screw Remover according to the created drill hole, remove the screw by pressing force (counterclockwise, 80N.cm).



- ** If the path of the I Guide and fixture did not match, It would be difficult to remove the screw because the drill hole is away from the center of the screw.
- * Reverse drilling requires removal of chips by irrigation & suction.
- ** The fractured screw may be removed during reverse drill hole creation.
- * If necessary, fasten to the Machine Adapter and use the hand or Torque Wrench.

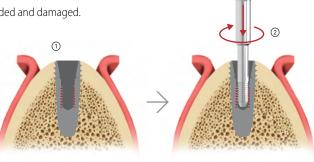


3. Abutment Removal System

Abutment Remover ① Used when 2 piece type abutment is fractured. ② Connect to the Abutment Remover (clockwise). ③ Connect correctly and wiggle to left and right side. ③ One of the Abutment Remover (clockwise). ④ One of the Abutment Remover (clockwise).

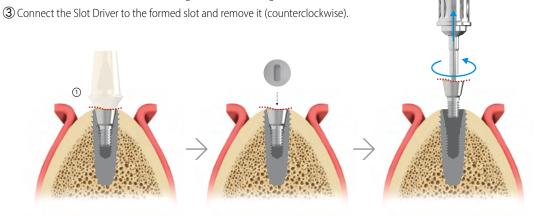
Tap Repair

- ① Used when the thread inside the fixture is occluded and damaged.
- 2 Reproduce the thread using the Tap Repair.

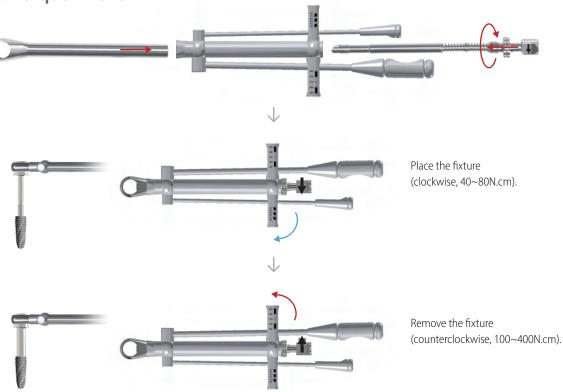


Slot Driver

- ① Used for damaged solid type abutments, healing abutments, and cover screws.
- 2 Form a slot on the surface of the damaged abutment using a round bur.

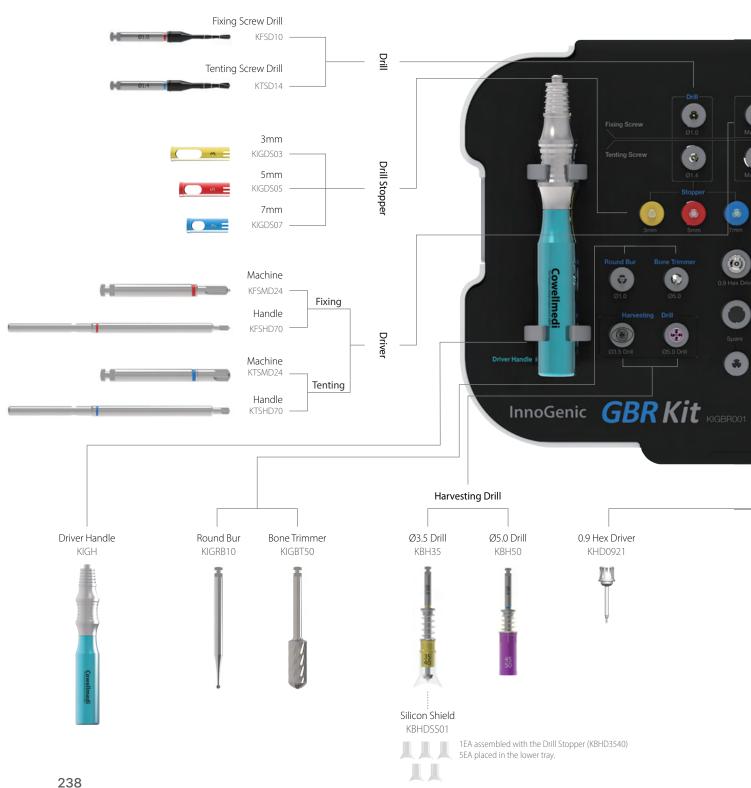


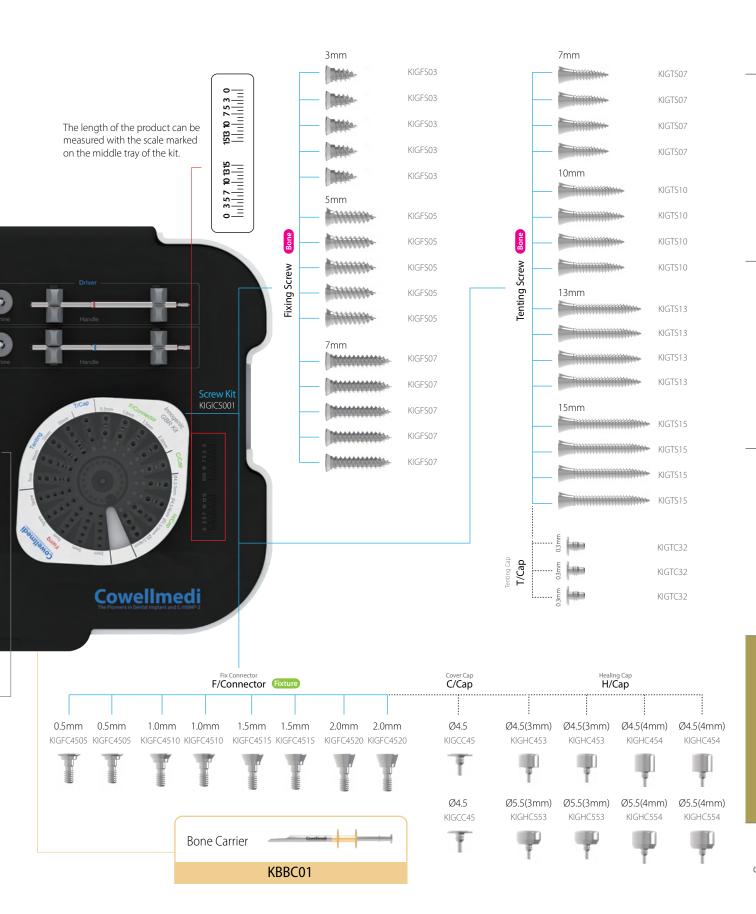
4. Torque Wrench



InnoGenic GBR Kit [KIGBRO01]

> An all-in-one solution for various types of GBR procedures.

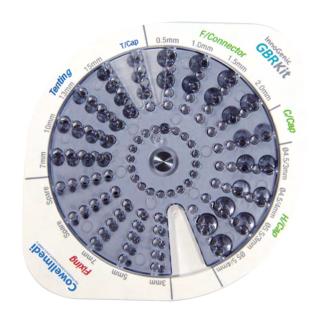




Screw Kit KIGICS001

- Used without removing the Screw Kit from the inside of the kit tray (Remove to use if necessary only).
- Made of special material for autoclaving.
- * Rotate the upper lid to take out the selected product.





Composition

Classification	Product	Code		Quantity
		Distra-	KIGFS03	5
	Fixing Screw (Fixing)	THINK.	KIGFS05	5
	(Fixing)	MANAGEM	KIGFS07	5
Bone			KIGTS07	4
bone	Tenting Screw		KIGTS10	4
	(Tenting)		KIGTS13	4
			KIGTS15	4
	Tenting Cap (T/Cap)		KIGTC32	3
	Fix Connector (F/Connector)		KIGFC4505	2
			KIGFC4510	2
			KIGFC4515	2
			KIGFC4520	2
Fixture	Cover Cap (C/Cap)		KIGCC45	2
			KIGHC453	2
	Healing Cap (H/Cap)		KIGHC454	2
		-	KIGHC553	2
			KIGHC554	2

Empty Screw Kit KIGICS



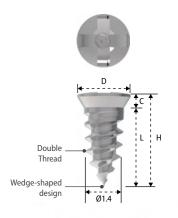
Bone

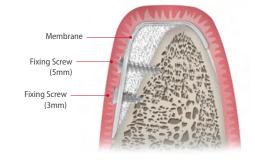
Fixing Screw (Fixing)

- Used to fix the membrane to the bone.
- Place slowly using the Fixing Driver (Machine/Handle).
- 3, 5 and 7mm length can be selected according to the bone quality.

 In hard bone, use after forming a basic drill hole using the Fixing Screw Drill.
- The wedge-shaped design is advantageous for self-tapping, allowing it to be fixed without drilling in normal bone.
- The double thread shortens the placement time.

D(Ø,mm)	C(mm)	L(mm)	H(mm)	Code
2.0	0.6	3.0	3.6	KIGFS03
		5.0	5.6	KIGFS05
		7.0	7.6	KIGFS07



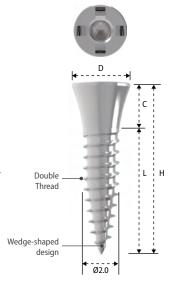


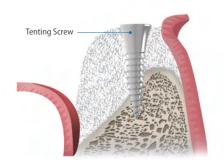
Bone

Tenting Screw (Tenting)

- Used when a large area of vertical / horizontal GBR is required. Leave space for bone grafts.
- Place slowly using the Tenting Screw Driver (Machine/Handle).
- Recommended placement depth : Hard bone-3mm, Normal bone-5mm, Soft bone-more than 5mm.
- Initial fixation of at least 15~25N.cm is required. Tightening more than 35N.cm may cause fracture of the Tenting Screw so it must be fixed below 35N.cm.
- In normal bone, it is recommended to form a hole at least 3mm deep using the Tenting Screw Drill before placing the Tenting Screw.
- The wedge-shaped design is advantageous for self tapping, allowing it to be used without drilling in normal bone.
- The double thread shortens the placement time.
- Use the Tenting Cap if necessary.

D(Ø,mm)	C(mm)	L(mm)	H(mm)	Code
3.2	2.5	7.0	9.5	KIGTS07
		10.0	12.5	KIGTS10
		13.0	15.5	KIGTS13
		15.0	17.5	KIGTS15



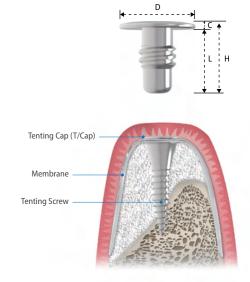


Bone

Tenting Cap (T/Cap)

- \bullet Used to fix membrane on the Tenting Screw.
- Tightened with the 0.9 Hex Driver.
- Recommended tightening torque force : 5~8N.cm.

D(Ø,mm)	C(mm)	L(mm)	H(mm)	Code
3.2	0.3	2.8	3.1	KIGTC32



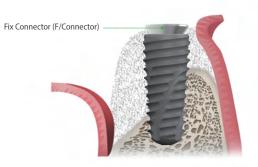
Fixture

Fix Connector (F/Connector)

- Used to fix the membrane along with the Cover Cap or Healing Cap after connecting to the fixture.
- Tightened with the 0.9 Hex Driver.
- Recommended tightening torque force: 12~15N.cm.
- Available for the INNO Submerged, Submerged Short Fixtures and other fixtures compatible with them only.

D(Ø,mm)	C(mm)	L(mm)	H(mm)	Code
	0.5		6.2	KIGFC4505
4.5	1.0	5.7	6.7	KIGFC4510
4.5	1.5	5.7	7.2	KIGFC4515
	2.0		7.7	KIGFC4520





Fixture

Cover Cap (C/Cap)

- Used to fix membrane over the Fix Connector.
- For submerged surgery in case of sufficient soft tissue.
- •Tightened with the 0.9 Hex Driver.
- Recommended tightening torque force: 5~8N.cm.

D(Ø,mm)	C(mm)	L(mm)	H(mm)	Code
4.5	0.3	3.4	3.7	KIGCC45



Fixture

Healing Cap (H/Cap)

- Used to fix membrane over the Fix Connector.
- For non-submerged surgery in case of insufficient soft tissue.
- Connect by using the 0.9 Hex Driver.
- Recommended tightening torque force: 5~8N.cm.

D(Ø,mm)	C(mm)	L(mm)	H(mm)	Code
4.5	3.0	3.4	6.4	KIGHC453
4.5	4.0		7.4	KIGHC454
5.5	3.0	3.4	6.4	KIGHC553
5.5	4.0		7.4	KIGHC554





Fixing Screw Drill & Tenting Screw Drill

- Used to place the Fixing Screw / Tenting Screw mainly in hard bone.
- Also used to perforate cortical bone when blood supply is required.
- For normal bone, drill only 3mm deep if necessary.
- Drill before placing the Fixing Screw / Tenting Screw.
- Laser-marked at 3, 5, and 7mm long from the tip of the drill and the length can be controllable using the Drill Stoppers.
- Color-banded for distinction (Red : Fixing Screw Drill, Blue : Tenting Screw Drill).
- Recommended drilling speed: 1,000~1,200rpm.

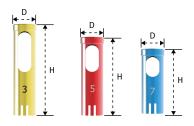
Classification	D(Ø,mm)	L(mm)	H(mm)	Code
Fixing Screw Drill	1.0	10	31.5	KFSD10
Tenting Screw Drill	1.4	10	5.15	KTSD14



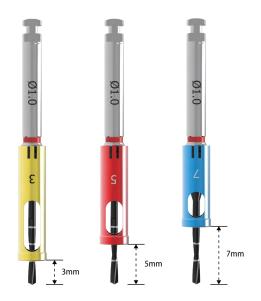


Drill Stopper

- Used by connecting to the Fixing Screw Drill / Tenting Screw Drill.
- 3mm : Yellow, 5mm : Red, 7mm : Blue



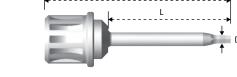
Classification	D(Ø,mm)	H(mm)	Code
3mm		13.5	KIGDS03
5mm	3.5	11.5	KIGDS05
7mm		9.5	KIGDS07



0.9 Hex Driver (Ratchet)

• Used to install the Tenting Cap, Fix Connector, Cover Cap and Healing Cap.

L(mm)	H(mm)	Code
8	15	*KHD0915
14	21	KHD0921
20	27	*KHD0927
	8	8 15 14 21

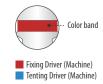


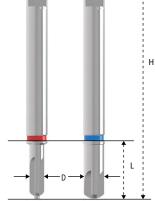
^{*} Optional

Fixing Screw Driver & Tenting Screw Driver (Machine)

- Used to place the Fixing Screw / Tenting Screw using Contra-angle.
- Color-banded for distinction (Red : Fixing Screw Driver, Blue : Tenting Screw Driver).

Classification	D(Ø,mm)	L(mm)	H(mm)	Code
Fixing Screw Driver	1.6	6.0	24.0	KFSMD24
Tenting Screw Driver	2.2		24.0	KTSMD24





Fixing Screw Driver & Tenting Screw Driver (Handle)

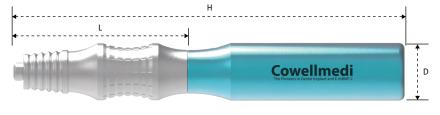
- Used to place the Fixing Screw / Tenting Screw using the Driver Handle.
- Color-banded for distinction (Red : Fixing Screw Driver, Blue : Tenting Screw Driver).



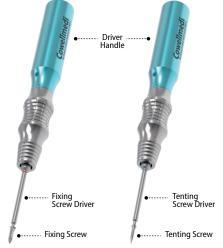
Classification	D(Ø,mm)	L(mm)	H(mm)	Code
Fixing Screw Driver	1.6	6.0	70.0	KFSHD70
Tenting Screw Driver	2.2		70.0	KTSHD70

Driver Handle

• Used to place and remove the Fixing Screw / Tenting Screw by connecting the Driver Handle.

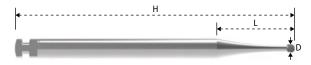


D(Ø,mm)	L(mm)	H(mm)	Code
19.8	75	135.0	KIGH

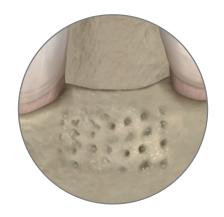


Round Bur

- Used to perforate cortical bone when blood supply is required.
- Recommended drilling speed : 1,200~1,500rpm.

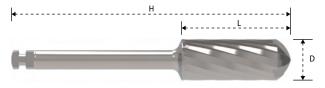


D(Ø,mm)	L(mm)	H(mm)	Code
1.0	9.5	34.0	KIGRB10

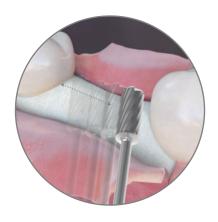


Bone Trimmer

- Used to perform osteoplasty on the outer wall of remaining bone all during GBR and to flat the bone surface for improving the fit of membrane.
- Used to remove remaining granulation tissue of bone defect part (use instead of surgical curette).
- Recommended drilling speed : 1,200 \sim 1,500rpm.



D(Ø,mm)	L(mm)	H(mm)	Code
5.0	13	34.0	KIGBT50

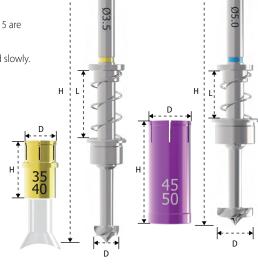


Harvesting Drill & Drill Stopper

- Drill for convenient harvesting of autogenous bone in the form of bone chip in a short period of time.
- The Silicon Shield of the Ø3.5 Harvesting Drill makes sure with no bone chip loss while drilling (Bone chip can be collected at implant site).
- 6 Silicon Shields are included in the Kit (1 is assembled with the Ø3.5 Harvesting Drill and 5 are packed in the lower tray).
- •The maximum drilling depth of the Ø3.5 Harvesting Drill is 12mm, so it needs to be drilled slowly.
- Remove while rotating the drill.
- Recommended drilling speed: 300~500rpm.

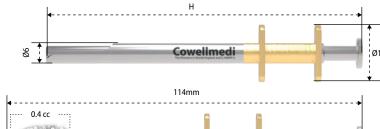
D(Ø,mm)	L(mm)	H(mm)	Code
3.5	9.5	39.2	KBH35
5.0	6.5	36.5	KBH50

	D(Ø,mm)	H(mm)	Code
Drill Stopper	5.6	9	KBHD3540
	6	14.3	KBHD4550



Bone Carrier

- Narrow tip is beneficially handled in most of the bone graft techniques.
- Bone graft particles can be accurately and safely injected without contamination.
- rhBMP-2 can be easily coated to the implant due to circular groove of tip.
- Bone graft particles and rhBMP-2 solution can be well mixed on the circular groove.





Bone Carrier	D(Ø,mm)	H(mm)	Code
	6	94	KBBC01

Bone Carrier length is 94mm and the total length after stretching is 114mm.

CLINICAL CASE

Fixing Screw Bone



Buccal view of the bone defect.



14mm high defective part from the gingiva.



7mm high defective part from the gingiva.



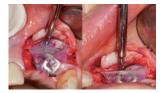
Drilling using the Fixing Screw Drill with 1.0mm in diameter.



Bone graft with the INNO-CaP.



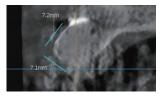
A Fixing Screw with 5mm in length was connected to the Fixing Screw Driver coupled to the Driver Handle.



The Fixing Screw was fixed to the bone through the Wifi-Mesh after placing the Wifi-Mesh.



Primary closure.



CT scan image showed that the vertical augmentation with the Fixing Screw was successfully done.

Tenting Screw / Tenting Cap Bone





Buccal view after extraction of #36 showed severe vertical defect.



A Tenting Screw with 10mm in length was fixed instead of an implant for socket preservation at the site of #36.



The INNO-CaP was grafted up to the top of the Tenting Screw.



After forming a hole on the Wifi-Mesh and applying the Wifi-Mesh, the Tenting Screw Cap was fixed to the Tenting Screw through the hole the Wifi-Mesh.



Mattress key suture was carried out in order to decrease the possibility of exposures.



Panoramic view showed that the vertical augmentation with the Tenting Screw was successfully done.

CLINICAL CASE

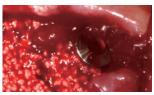
Fix Connector / Cover Cap Fixture



INNO Sub. Ø4.5x12mm Fixture which Super-hydrophilised (SLA-SH) surface on surface treated was placed at the site of #37 with 3mm high buccal bone defect around.



A Fix Connector with 2mm in cuff was installed on the INNO Sub. Fixture.



Bone graft with the INNO-CaP.



A hole for the Cover Cap fixation was formed in the centre of the Wifi-Mesh.



The Cover Cap and the Wifi-Mesh were installed on the Fix Connector using the 0.9 Hex Driver.



Postoperative radiographic view of #37.

Fix Connector / Healing Cap Fixture



Buccal defect.



Defect height from gingival crest to INNO Sub. Ø5.0x12mm Fixture which A Fix Connector with 1mm in cuff buccal wall was checked.



Super-hydrophilised (SLA-SH) surface on surface treated.



was installed on the INNO Sub. Fixture.



The Fix Connector was placed in the INNO Sub. Fixture.



top of the Fix Connector.



The INNO-CaP was grafted up to the A hole for the Healing Cap fixation was formed in the centre of the Wifi-Mesh.



The Healing CaP with 5.5mm in diameter and 3mm in cuff.

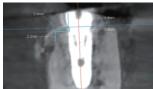






Suture.

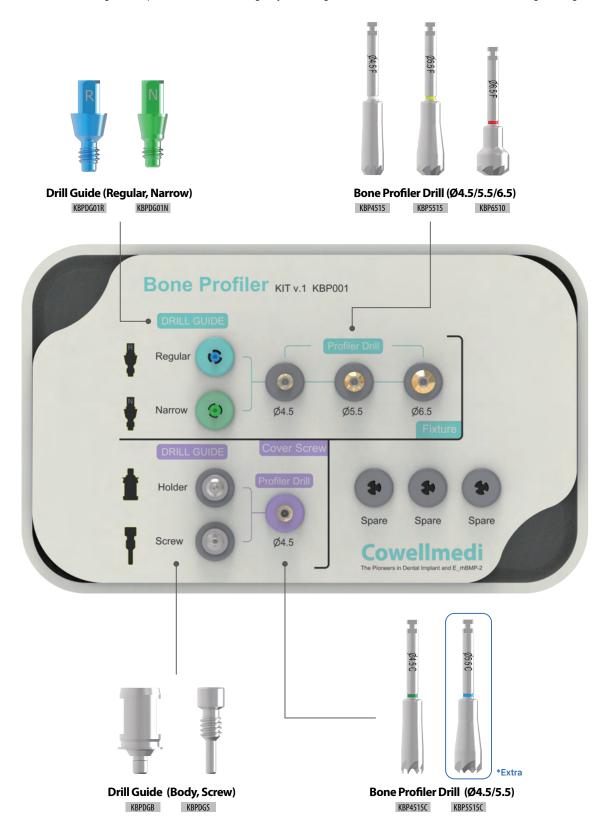
Installation of the Healing Cap and the Wifi-Mesh using the 0.9 Hex Driver on the Fix Connector placed in the INNO Sub. Fixture.



Dimension of the graft with 2.2mm in height and 2.6mm in width.

Bone Profiler Kit [KBP001]

- > This is designed for precise bone removal around the fixture during the first and second stages of implant surgery.
- > After connecting the Drill Guide to the fixture based on the connection type, use it to remove interfering bone around the fixture. Once completed, the Healing Abutment can be securely attached.
- > The Drill Guide is designed to prevent fixture damage by ensuring no direct contact with the fixture during drilling.



Bone Profiler Drill *Fixture*



- > This is designed for precise bone removal around the fixture
- > The Drill Guide should be securely attached to the fixture before use
- > Rotation Direction: Clockwise (CW) / 800~1200 RPM

Code	D(Ø)	L(mm)	H(mm)	Color Band
KBP4515	4.5	15	31	White
KBP5515	5.5	15	31	Yellow
KBP6510	6.5	10	26	Red



As the central hole of the drill connects with the guide, it serves to accurately position the drill for precise drilling

Drill Guide Fixture



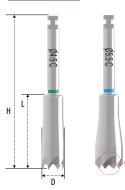


- > Guide for Bone Profiler Drill(Fixture)
- > Tightened with the Hex Driver(Torque force: 10~15N)
- > Sub Regular : Blue, Sub Narrow : Green

Code	D(Ø)	L(mm)	H(mm)	Color Band
KBPDG01R	3.3	3	8.3	Blue
KBPDG01N	2.63	3	7.82	Green

Bone Profiler Drill

Cover Screw



> This is designed for precise bone removal around a Cover Screw > Drill Guide should be securely attached to the Cover screw before use > Rotation Direction: Clockwise (CW) / 800~1200 RPM

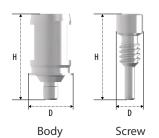
Code	D(Ø)	L(mm)	H(mm)	Color Band
KBP4515C	4.5	15	31	Green
* 1/00==4=6		15	24	DI .

*Extra



As the central hole of the drill connects with the guide, it serves to accurately position the drill for precise drilling

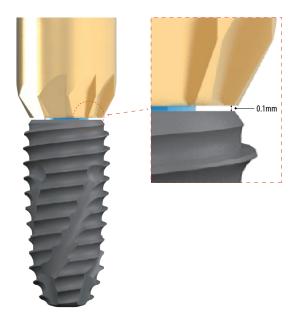
Drill Guide Cover Screw

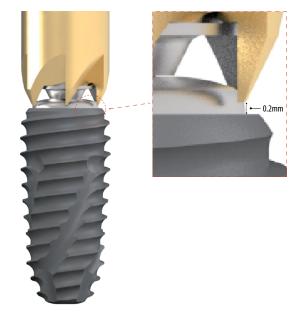


- > Guide for Bone Profiler Drill(Cover Screw)
- > This should be secured into the 1.2 Hex hole of the Cover Screw before use
- > Tightened with the Hex Driver(Torque force: 10~15N)

Code	D(Ø)	H(mm)
KBPDGB	3.3	6.3
KBPDGS	1.95	6.3

Safety clearance





Instructions for Use

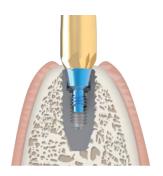
Fixture



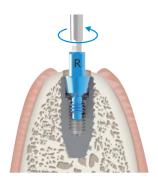
1. Incise the gum and remove the Cover Screw



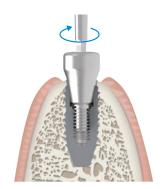
2. Attach the Drill Guide to the fixture (Torque: 5~10N by hand)



3. Perform drilling according to the Drill Guide alignment.



4. Remove the Drill Guide



5. Attach the Healing Abutment

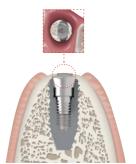


6. Procedure complete

Cover Screw

· When the bone slightly covers the area around the Cover Screw (Hole exposed)

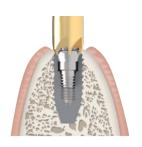




1. Incise the gum and check the bone condition (When the bone is covering the Cover Screw)



2. Attach the Drill Guide to the Cover Screw (use tweezers to hold the body before tightening the screw, Torque: 5-10N by hand)



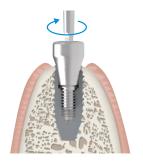
3. Perform drilling according to the Drill Guide alignment



4. Remove the Drill Guide



5. Remove the Cover Screw

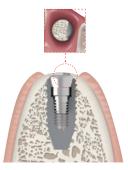


6. Attach the Healing Abutment

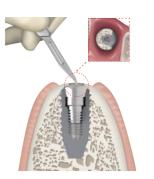


7. Procedure complete

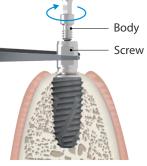
· When the bone covers the area around the Cover Screw



1. Incise the gum and check the bone condition (When the bone is covering the Cover Screw)



2. Use a blade, etc to partially remove the bone covering the area (exposing the hole)



3. Attach the Drill Guide to the Cover Screw (use tweezers to hold the body before tightening the screw, Torque: 5-10N by hand)



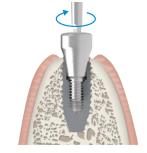
4. Perform drilling according to the Drill Guide alignment



5. Remove the Drill Guide



6. Remove the Cover Screw



7. Attach the Healing Abutment



8. Procedure complete

Clinical Case 1

Cover Screw



 After gum incision, check the condition of the bone



Attach the Drill Guide
 to the Cover Screw
(use tweezers to hold the body
before tightening the screw)



3. Perform drilling according to the Drill Guide alignment



4. Remove the Drill Guide



5. Remove the Cover Screw



6. Attach the Healing Abutment



7. Procedure complete

Clinical Case 2

Cover Screw



 After gum incision, check the condition of the bone



Attach the Drill Guide
 to the Cover Screw

(use tweezers to hold the body
before tightening the screw)



3. Perform drilling according to the Drill Guide alignment



4. Remove the Drill Guide



5. Remove the Cover Screw



6. Attach the Healing Abutment

Clinical Case 3

Cover Screw



1. After gum incision, check the condition of the bone



2. Attach the Drill Guide to the Cover Screw (use tweezers to hold the body before tightening the screw)



3. Perform drilling according to the Drill Guide alignment



4. Remove the Drill Guide



5. Remove the Cover Screw



6. Attach the Healing Abutment

Autobone Harvester [KIAH001]

> Devised to harvest autogenous bone not only from the general site but also from from the site where the implant will be placed. More than 1cc of bone chips can be harvested within 10 seconds.



Harvesting Drill











Drill Stopper







Silicon Shield



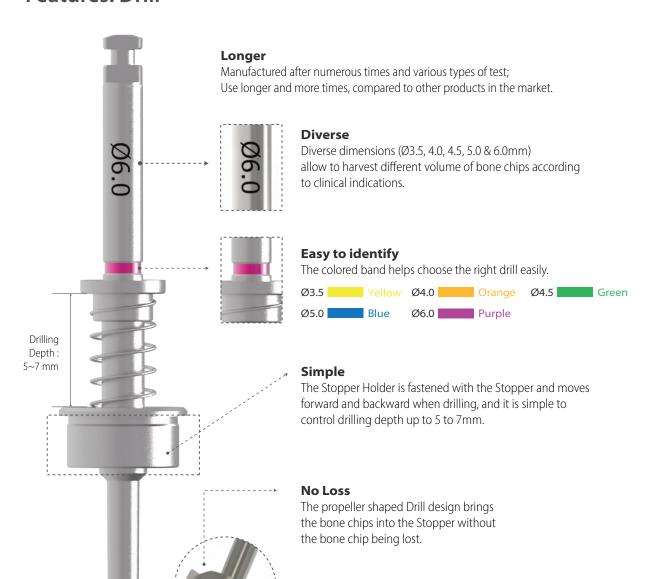
* 1EA assembled with the Drill Stopper (KBHD3540). 5EA placed in the lower tray.

Key Concepts

Maximize your return on minimal investment

The key concept of the Autobone Harvester is to harvest a large amount of the autogenous bone chips from the implant site that can be wasted into the suction during implant drilling procedure.

Features: Drill



The non-slip point design plays a guide role in anti-slip while drilling.

Features: Stopper & Silicon Shield

For Ø3.5 & 4.0 Drill



Stopper

Used by fastening to the Stopper Holder of Ø3.5 & 4.0 Drill.



Silicon Shield (*Exclusive for Ø3.5 & 4.0)

- Used by fastening to Ø3.5 & 4.0 stopper.
- Prevents deviation of bone chips.
- Allows bone chip harvesting from the implant site.
- Reusable transparent silicon material allows checking drilling position and bone chips being harvested.



Shield

The lip-shaped shield is brought into close contact with the bone and makes sure with no bone chip loss while drilling.

For Ø4.5 & 5.0 Drill



Stopper

Used by fastening to the Stopper Holder of Ø4.5 & 5.0 Drill.





For 6.0 Drill



Stopper

Used by fastening to the Stopper Holder of Ø6.0 Drill.





Harvesting sequence:

Implant Site using Ø3.5/4.0 Harvesting Drill with the Silicon Shield



• Point drill to mark harvesting and implant site.



• Select Ø3.5/4.0 Drill and insert the Stopper into the selected Drill. And put the Shield on the Ø3.5&4.0 Stopper.



• Drill at 300 to 500rpm with irrigation and harvest bone chips.



• Disassemble the Silicon Shield, the Stopper and collect the bone chips for bone grafting.



• Use Final Drill (equal to or over Ø3.5/4.0) according to the drilling protocol of the manufacturer and treatment planning.



• Place the implant.



• Apply the harvested bone chips on the site.

Harvesting sequence:

Buccal Bone Harvesting using Ø3.5/4.0/4.5/5.0/6.0 Harvesting Drill

Select the drill according to its diameter and clinical indications.









 \bullet Drill at 300 to 500rpm with irrigation and harvest autogenous bone chips.

• Apply the harvested bone chips on the site.

A Clinical Case using Ø3.5/4.0 Harvesting Drill

by Dr. Soohong Kim, DDS, Ph.D



Drilling at 300rpm with irrigation was carried out after marking implant and harvesting position.



The Silicone Shield was brought into close contact with various types of bone levels and prevented bone chip loss.



The amount of bone taken was easily ascertained through the transparent Silicone Shield.



The bone was transferred to a bone dish after disassembling the Silicon Shield and Stopper. The amount of the bone was much more than expected.



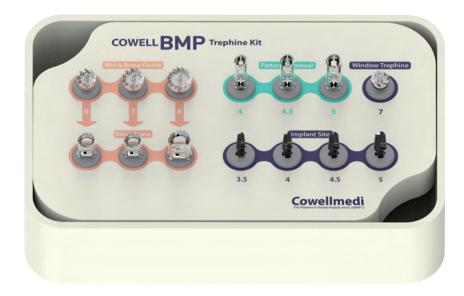


After the implant placement, healing abutments were connected and carried out GBR in the defective area.

^{* 2} Step Harvesting: Drilling to 7mm is recommended after transferring bone chips to bowl since the Stopper & Silicon Shield are fully filled with bone chips while 4mm drilling.

COWELL BMP Trephine Kit [KBT001]

> An easy-to-use kit with drills and instruments for block-type bone collection, failed fixture removal, crestal & window approach for sinus lift and bone chip extraction.



Trephine Drill I: Block Bone Extraction



Trephine Drill II:

Failed Fixture Removal



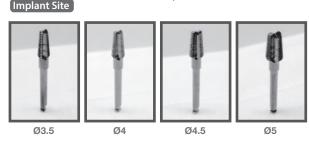
Trephine Drill III:

Window Opening for Lateral Window Approach

Window Trephine



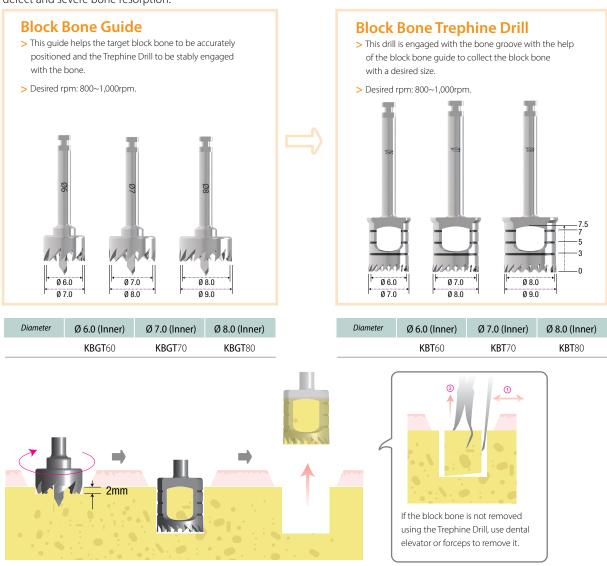
Implant Site Drill:	Sinus Lift & Bone Chip Extraction
Implant Cita	Prior to Implant Placement



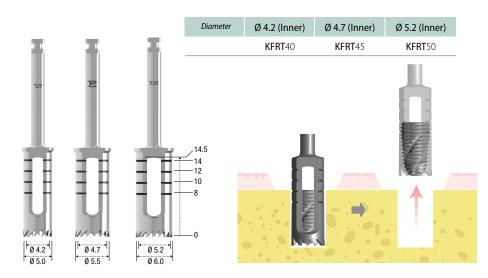
Product	Diameter	Code
	Ø 6.0 (Inner)	KBGT60
Block Bone Guide Drill	Ø 7.0 (Inner)	KBGT70
	Ø 8.0 (Inner)	KBGT80
	Ø 6.0 (Inner)	KBT60
Block Bone Trephine Drill	Ø 7.0 (Inner)	KBT70
	Ø 8.0 (Inner)	KBT80
	Ø 4.2 (Inner)	KFRT40
Fixture Removal Trephine Drill	Ø 4.7 (Inner)	KFRT45
	Ø 5.2 (Inner)	KFRT50
Window Trephine Drill	Ø 7.0 (Outer)	KWTT60
	Ø 3.5 (Fixture)	KTIS35
Inculant Cita Duill	Ø 4.0 (Fixture)	KTIS40
Implant Site Drill	Ø 4.5 (Fixture)	KTIS45
	Ø 5.0 (Fixture)	KTIS50

Trephine Drill | Block Bone Extraction

This Drill allows the collection of block-type autogenous bone with a required size in the case of regenerating a wide bone defect and severe bone resorption.

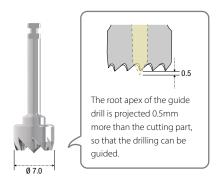


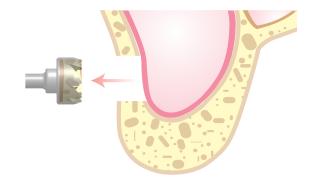
Trephine Drill II Failed Fixture Removal



Trephine Drill III Window Opening for Lateral Window Approach

Diameter	Ø 7.0 (Outer)
	KWTT60



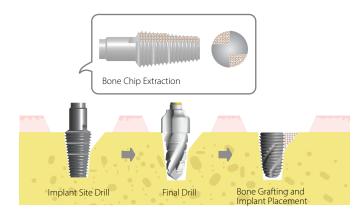


Implant Site Drill Sinus Lift & Bone Chip Extraction Prior to Implant Placement

Diameter	Ø 3.5	Ø 4.0	Ø 4.5	Ø 5.0	
	KTIS 35	KTIS40	KTIS45	KTIS50	



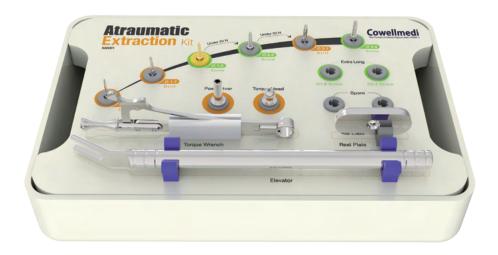
- > Used before the Final Drill is used (simplified drilling sequence).
- > Advantageous for securing autogenous bone.
- > Less rpm drilling leads to low bone heating.
- > Also used as a sinus lift tool (Sinus Lift).
- > Desired rpm: 20~30rpm.





Atraumatic Extraction Kit [KAE001]

> Used for the immediate and effortless extraction of the root of the tooth with simple procedures.



(1) Diversity

A root extraction can be done regardless of whether residual amount of root is large or small.

(2) Safety

A root extraction without the risk of damaging adjacent teeth is possible using the Rest Plate, Elevator, etc.

(3) Convenience

A very simple and convenient root extraction is possible, compared to the existing extraction method.

(4) Reduced Procedure Time

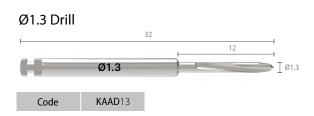
The procedure time is reduced due to the simple procedure.

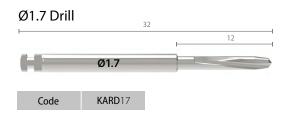
Composition



1. Extraction Drill

> The Extraction Drill is composed of three types of Drills (\emptyset 1.3 / \emptyset 1.7 / \emptyset 2.1) that can be selected according to the case.



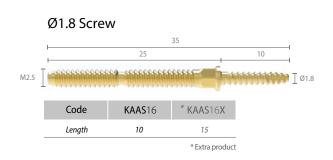




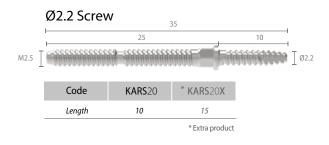
2. Extraction Screw

> The Extraction Screw is fastened into the hole that was created by the Extraction Drill via the Screw method, and it is stably fixed to the remaining root. It is composed of the Ø1.8 / Ø2.2 / Ø2.6 Screws that can be selected according to the Extraction Drill.

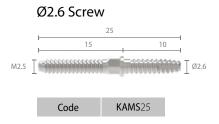
> The Ø1.8 Screw is used for vital root of which canal is not treated, after using the Ø1.7 Drill.







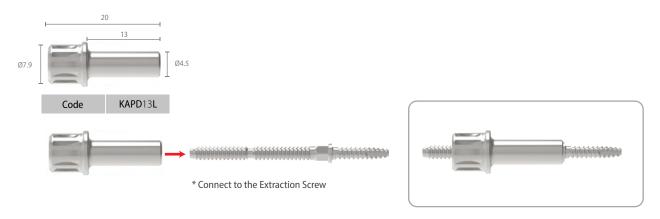






3. Post Driver

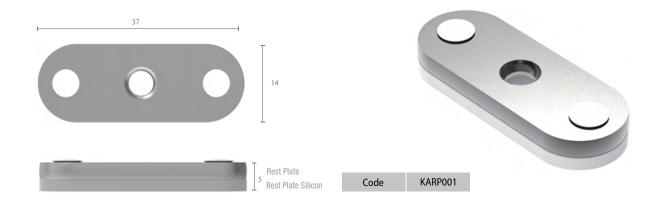
> After connecting the Post Driver to the Extraction Screw, turn the Torque Wrench in a clockwise direction in order to fix it to the hole that was created by the Extraction Drill (recommended torque : Min. 20N.cm ~ Max. 35N.cm).



4. Rest Plate

> The Rest Plate is connected between the Extraction Screw and the Torque Head. It protects the part with silicon that comes into direct contact with the adjacent teeth in order to prevent teeth damage.

It also serves as a support for the Elevator and Torque Wrench.



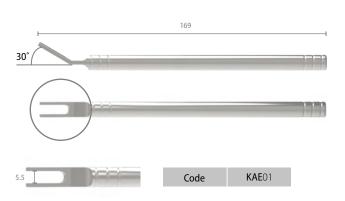
5. Torque Head

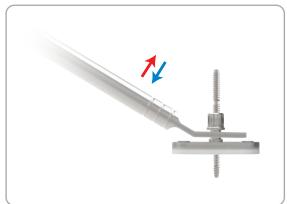
- > The Torque Head is connected to the Extraction Screw that is fixed in the tooth to be extracted. It fixes the gap of the Rest Plate and it can be used with the Elevator.
- > If the root to be extracted has both distal and mesial adjacent teeth, it will be extracted with the Torque Wrench (recommended torque: 100N.cm or less).



6. Elevator

> The Elevator is used by connecting it with the Torque Head and extracting the root by applying force toward a distal or mesial





How to Use

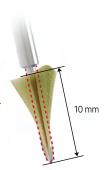
1. Extraction Drill

Create a hole on the tooth to be extracted using the Extraction Drill.



Caution A

- The Extraction Drill must follow the neural root canal during drilling.
- Drill down to at least 10mm because extraction is possible even if the Drill and Screw penetrate the root.



2. Extraction Screw

Connect the Extraction Screw to the Post Driver and fix it to the hole created by rotating it clockwise (recommended torque: Min. 20N.cm ~ Max. 35N.cm).



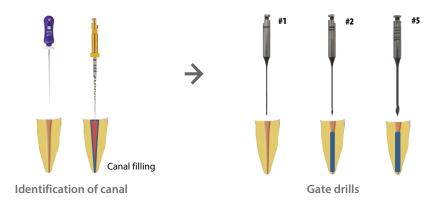
Caution B

- Drill to a depth of 10~12mm and insert the Extraction Screw at a depth of 10mm.
- Fix the Screw with 20~25N.cm.

Connect Post Driver to the Extraction Screw.

* Drilling Sequence

Root Canal Preparation



Atraumatic Extraction kit



Caution C

- Fix the screw with a torque of 20 \sim 25N.cm. If it is not applied, use a thicker Screw.
- The low torque force causes the Screw to fall out during the extraction, and the over torque force fractures tooth root.

3. Rest Plate

After removing the Post Driver, connect a Rest Plate to the Extraction Screw by taking into account the adjacent teeth.



Rest Plate

4. Torque Head

Connect the Torque Head to the Extraction Screw projected above the Rest Plate by rotating it clockwise.



Connect Torque Head to Screw

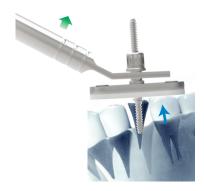
5. Torque Wrench

Extract the tooth by rotating the Torque Head clockwise using the Torque Wrench.



Caution E

- If there are adjacent teeth with 2 or higher swaying degrees, upward pulling or downward pressing should be applied using the Elevator so that the teeth will not receive force during extraction.



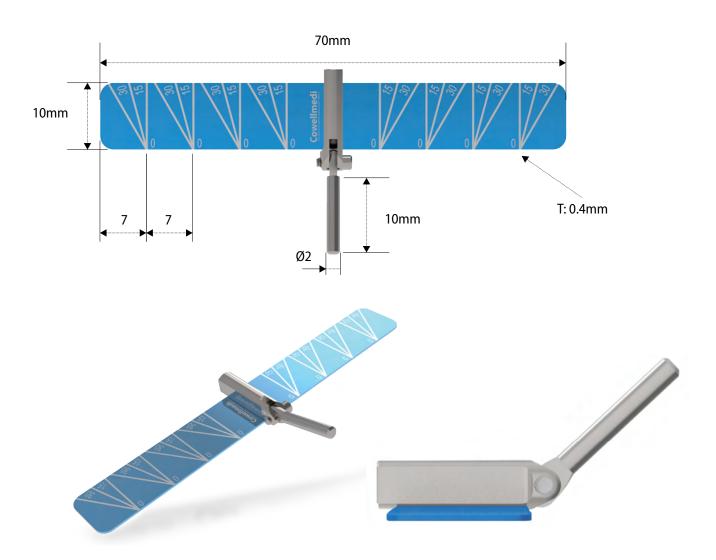


Caution F

- If there is an adjacent tooth projected to the mesiodistal root, it must be extracted using the Elevator.

AO4 Surgical Stent [KDSS001]

> An excellent guide template to place implant precisely, especially for AO4 or AO6 technique.



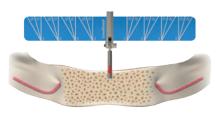
Characteristic

- > Guide the position of the implant and drill during implant placement.
- > It improves the stability and accuracy in surgery, and it can shorten the time.
- > By preventing the loss of healthy gums as much as possible, pre-fabricated prostheses can be placed immediately after surgery without the need for gum restoration.
- > Angled line allows more precise and predictable surgery.

Eligible for

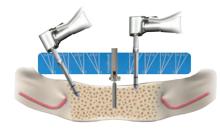
- > A toothless patient.
- > Patient who do not want long-period of surgery.
- > Patients suffering from adult diseases such as hypertension and diabetes.
- > Patients who need precise implant treatment.

Instruction



Place the **AO4** Surgical Stent

- Make an incision for flap lift.
- Place the AO4 Surgical Stent using Ø2mm Twist Drill.
 - * It is needed to check the position of mental foramen.



Place the INNO **Fixture**

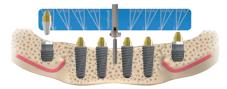
• Drill with reference to the angled line and place the fixture.



Place the Multi S&A **Abutment**

- After placing the INNO fixture, connect the Multi S&A Abutment according to the site.
- * Posterior site: Place the Multi A abutment (30°) with 30N.cm torque force.
- * Anterior site: Place the Multi A abutment (15°) or the Multi S abutment with 15N.cm torque force (it is possible to allow emergence of the prosthetic screw).

or



Placement Lock **Abutment**

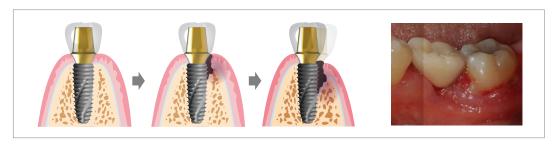
- After placing the INNO Fixture, connect Lock Abutment according to the site.
 - * If implant placement at an angle is not appropriate or not desired, using the INNO Sub. Short Implant is highly recommended.

Volume-up Guide System

> Devised for preventing food penetration and forming natural cervical area by restoring contracted buccal alveolar bone & gingiva to the original shape and width.

1. CONCEPT

• Peri-implant inflammations represent serious diseases after dental implant treatment, which affect both the surrounding hard and soft tissue.

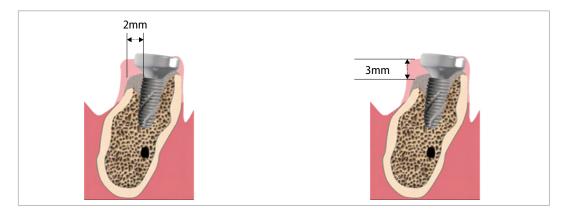


To achieve long term success of implant without complications like peri-implantitis, right position of fixture with min. 2mm of buccal bone width for buccal gingival regeneration and alveolar bone regeneration at min. 3mm lower position to maintain gingival height is extremely essential.

Min. 2mm of buccal bone regeneration to maintain having buccal gingiva.

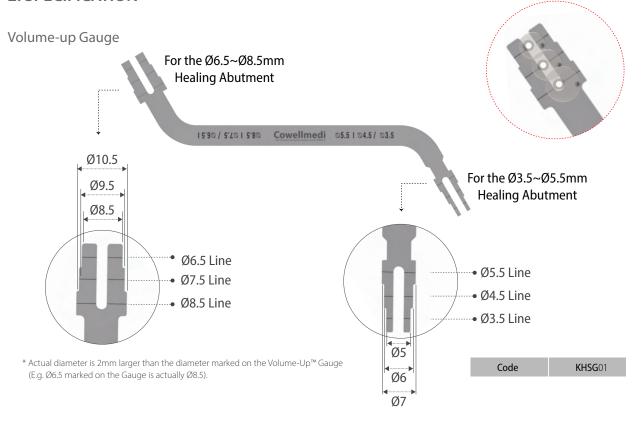
(Int J Periodontics Restorative Dent 2005)

Alveolar bone regeneration at minimum 3mm lower position to maintain gingival height. (Clin Oral Implants Res 2000;11: 1–11.)



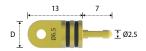
The Volume-up Guide System helps place implant in the right position according to 2 abovementioned clinical factors and helps select right dimension of the Healing Abutment to be used as a scaffold while gingival forming.

2. SPECIFICATION



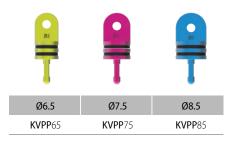
- > Used to guide the position of implant placement and to guide the election of the Healing Abutment dimensions in order to keep the cervical portion of the implant prosthesis at the natural tooth width.
- > Used with the Volume-up Parallel Pin for multiple units or bridge.
- > Used with Point Drill (Ø2.1mm or less).
- > Laser marking identifiable from any position.
- * For the selection of the Healing Abutment, refer the pages 34, 63, 81 & 100.

Volume-up Parallel Pin



- > Used for bridge or multiple units with the Volume-up Gauge.
- > For bridge or multiple units.
- > For Ø3.5, Ø4.5 and Ø5.5, place the fixture and use the Healing Abutment instead of the Volume-up Parallel Pin.





3. PROCEDURE

I. Single Implant



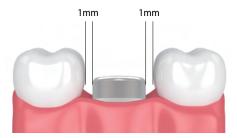
Set the Volume-up Gauge on the implant site according to the diameter line marked on the Volume Up Gauge.



Position the Point Drill in the drill insertion groove of the Volume-up Gauge.



Drill and place the implant in accordance with the manufacturer's implantation sequence.



If implant placement torque is equal to or over 20~30N.cm, connect the Healing Abutment. If not, connect the Cover Screw and do primary closure.

II. Multiple Implants & Bridge



Set the Volume-up Gauge and position the Point Drill.



Insert the Volume-up Parallel Pin into the hole formed after point drilling.



Carry out the same as the previous step.

^{*} For the selection of the Healing Abutment, refer the pages 34, 63, 81 & 100.

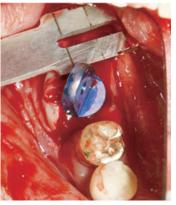
4. CLINICAL CASE



Preoperative view of the healed ridge.



The Volume-up Gauge was set to the 8.5 line and point drilling was carried out.



The Ø8.5 Volume-up Parallel Pin was inserted into the hole formed by point drilling and point drilling was done at the next site guided by the Volume-up



The Ø8.5 Healing Abutments were placed after initial & finial drilling and fixture placement and bone grafting, and the site was sutured.



After 4 weeks, the contracted buccal alveolar bone & gingiva to the natural shape and width were restored, which will allow esthetically and functionally great prosthesis fabrication preventing food permeation.

Cowellmedi Regenerative Solution

Inspire confidence through a comprehensive approach



Cowellmedi Regenerative Solution

INNO CaP

An osteoconductive resorbable synthetic bone graft material composed of 100% calcium phosphate to be progressively replaced by normal-structured bone in the healing period.



· PTFE-Mesh

A cost-effective, non-resorbable PTFE barrier membrane to be applied over intraoral defects, especially tooth extraction and bone-augmented sites.

As it is pre-sterilized, no more sterilization is required.

→ Wifi-Mesh

A non-resorbable barrier membrane reinforced with Wifi symbol-shaped titanium frame between PTFE layers of which efficacy and safety have been proven through numerous clinical trials and registered in CE, TGA, MFDS, etc.

COWELL BMP

Osteoinductive Bone Graft rhBMP-2 + BCP/DCP



The world's first E.rhBMP-2 (E.Coli derived Recombinant Human Bone Morphogenetic Protein type 2), as a growth factor that induces bone and cartilage formation. It is a retinoid mediator that plays a key role in osteoblast differentiation.

Composition

- COWELL BMP is bone graft material based on the E.rhBMP-2, developed for the first time in the world. It is supported by 10 years of clinical data and over 40 studies.
- BCP/DCP as a carrier allows maintenance of space.

Features

- Primary closure for soft tissue regeneration is not required.
- Regenerates adherent gingiva.
- Simplifies challenging bone grafting and soft tissue regeneration.
- Acts directly on stem cells.
- Induces bone regeneration without infection in extraction socket.
- Contains 1mg of bone morphogenic protein per 1g of the particle (1g of autologous bone contains 2ng of bone morphogenic protein).

Experience innovation

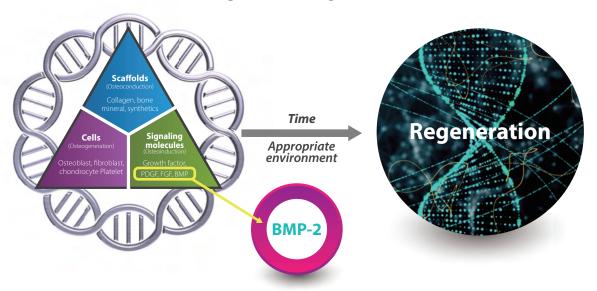
COWELL BMP



THE WORLD FIRST E.rhBMP-2-based bone graft, supported by **10 YEARS OF CLINICAL DATA AND 40+ STUDIES.**

Development Background

Triad of Tissue Engineering



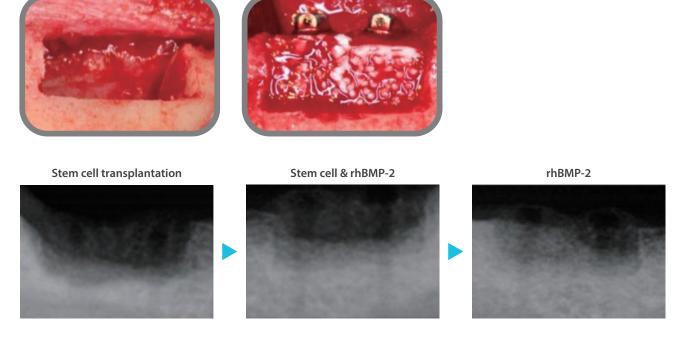
Autologous stem cell transplantation

- Less effective due to difficulty of the engraftment in early stage of tissue regeneration
- Cell cultivation causes enormous expense

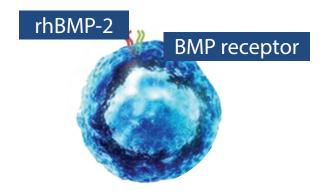
However, Stem cell growth factors

- Effective in tissue regeneration for all vertebrates
- Even human growth factor is effective in both human and animals

Stem cell transplantation VS rhBMP-2

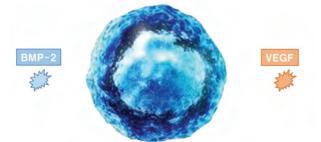


Mechanism of Action of COWELL BMP



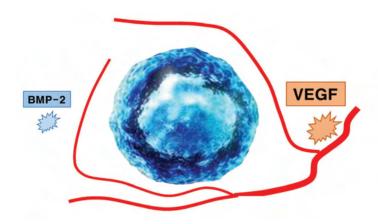
Mesenchymal Stem cell

1. rhBMP-2 bonds with BMP-2 receptor of Stem cell to activate intracellular phosphorylating enzyme.

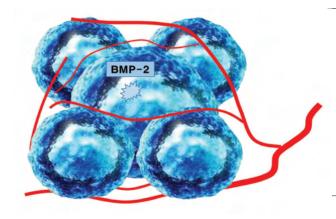


2. BMP-2 of Stem cell and VEFG activates for protein synthesis and secretion.

* VEGF : Vascular Endothelial Growth Factor



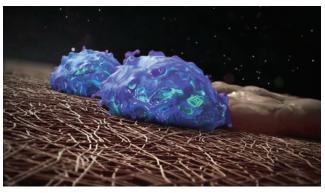
3. VEGF promotes cell growth by inducing angiogenesis to nourish Stem cell.



4. BMP-2, activates cell division of surrounding Stem cell and promotes rapid proliferation.



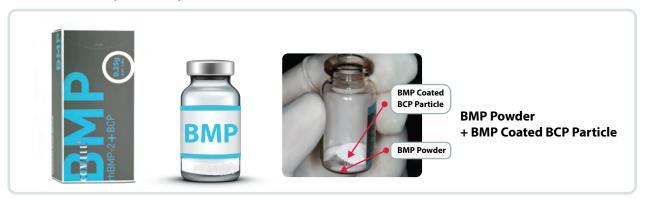
5. Proliferated Stem cells, differentiate into various cells according to surrounding tissues.



6. Differentiated cells form neoplastic tissues and remodel them according to the surrounding environment.

Product Type

COWELL BMP (One vial)

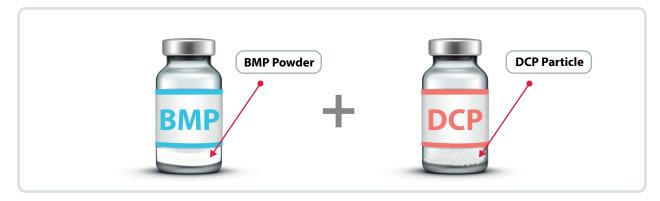


• Dose and particle size of the COWELL BMP



* A vial of 0.1g can be used for less than one extraction socket, while 0.25g/0.5g can be used for maxillary sinus or for the wide bone defect area.

COWELL BMP Plus (Two vials)



• Dose and particle size of the COWELL BMP Plus.

BMP 0.1mg

Product Code	BMP Dose	Particle Dose	Particle Size
EBB0125	0.1mg	0.25g	0.41~1.0mm
EBB0105	0.1mg	0.5g	0.41~1.0mm
EBB1110	0.1mg	1g	0.41~1.0mm
EBB1220	0.1mg	2g	0.41~1.0mm

BMP 0.5mg

Product Code	BMP Dose	Particle Dose	Particle Size
EBB0525	0.5mg	0.25g	0.41~1.0mm
EBB0505	0.5mg	0.5g	0.41~1.0mm
EBB1150	0.5mg	1g	0.41~1.0mm
EBB1250	0.5mg	2g	0.41~1.0mm

BMP 2mg

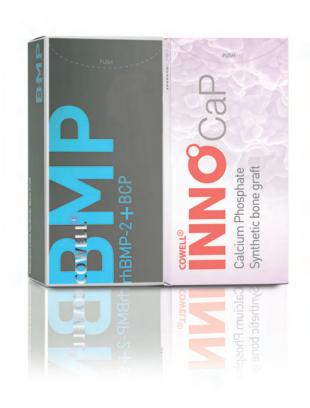
Product Code	BMP Dose	Particle Dose	Particle Size
EBB2025	2mg	0.25g	0.41~1.0mm
EBB2050	2mg	0.5g	0.41~1.0mm
EBB2011	2mg	1g	0.41~1.0mm
EBB2012	2mg	2g	0.41~1.0mm

BMP 0.25mg

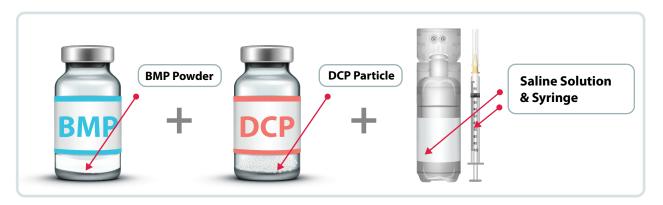
Product Code	BMP Dose	Particle Dose	Particle Size
EBB2525	0.25mg	0.25g	0.41~1.0mm
EBB2505	0.25mg	0.5g	0.41~1.0mm
EBB1125	0.25mg	1g	0.41~1.0mm
EBB1225	0.25mg	2g	0.41~1.0mm

BMP 1mg

Product Code	BMP Dose	Particle Dose	Particle Size
EBB1025	1mg	0.25g	0.41~1.0mm
EBB1050	1mg	0.5g	0.41~1.0mm
EBB1011	1mg	1g	0.41~1.0mm
EBB1012	1mg	2g	0.41~1.0mm



INNO GF Kit (Two vials + Saline Solution + Syringe)



• Dose and particle size of the INNO GF Kit.

BMP 0.1mg

Product Code	BMP Dose	Particle Dose	Particle Size
IBB0125	0.1mg	0.25g	0.41~1.0mm
IBB0105	0.1mg	0.5g	0.41~1.0mm
IBB1110	0.1mg	1g	0.41~1.0mm
IBB1220	0.1mg	2g	0.41~1.0mm

BMP 0.5mg

Product Code	BMP Dose	Particle Dose	Particle Size
IBB0525	0.5mg	0.25g	0.41~1.0mm
IBB0505	0.5mg	0.5g	0.41~1.0mm
IBB1150	0.5mg	1g	0.41~1.0mm
IBB1250	0.5mg	2g	0.41~1.0mm

BMP 2mg

Product Code	BMP Dose	Particle Dose	Particle Size
IBB2025	2mg	0.25g	0.41~1.0mm
IBB2050	2mg	0.5g	0.41~1.0mm
IBB2011	2mg	1g	0.41~1.0mm
IBB2012	2mg	2g	0.41~1.0mm

BMP 0.25mg

Product Code	BMP Dose	Particle Dose	Particle Size
IBB2525	0.25mg	0.25g	0.41~1.0mm
IBB2505	0.25mg	0.5g	0.41~1.0mm
IBB1125	0.25mg	1g	0.41~1.0mm
IBB1225	0.25mg	2g	0.41~1.0mm

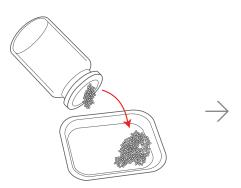
BMP 1mg

Product Code	BMP Dose	Particle Dose	Particle Size
IBB1025	1mg	0.25g	0.41~1.0mm
IBB1050	1mg	0.5g	0.41~1.0mm
IBB1011	1mg	1g	0.41~1.0mm
IBB1012	1mg	2g	0.41~1.0mm

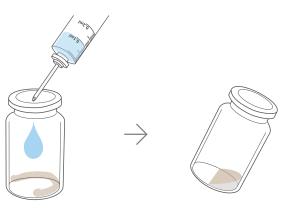


User Guide COWELL BMP

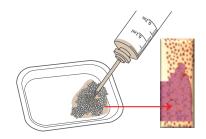
How to use COWELL BMP



a. Transfer DCP graft material (Vial I).



b. Inject distilled water into vial II with lyophilized rhBMP-2 power in it and mix with the powder.



c. Mix BMP solution with DCP or plus autogenic / allograft and, apply to the recipient site.



d. Cover the defect area using a barrier membrane or suture natural soft tissue without membrane.

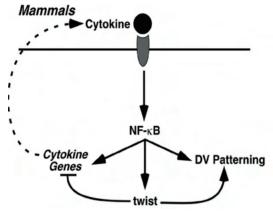
Dose of distilled water to make the mixture (BMP-2 Solution)

BMP Dose	Distilled Water Dose	BMP Dose	Distilled Water Dose
0.1mg	0.1ml	2mg	1.6ml
0.25mg	0.2ml	5mg	4ml
0.5mg	0.4ml	10mg	8ml
1mg	0.8ml	20mg	16ml

Safety of COWELL BMP

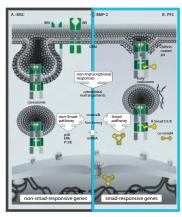
Q: Bone overgrowth by rhBMP-2?

A:rhBMP-2 is safe from bone overgrowth because Twist-2 is synthesized in Stem cells to stop cell division when bone formation period is completed.



Cell, Vol. 112, 169-180, January 24, 2003

European Journal of Endocrinology (2000) 142 9-21



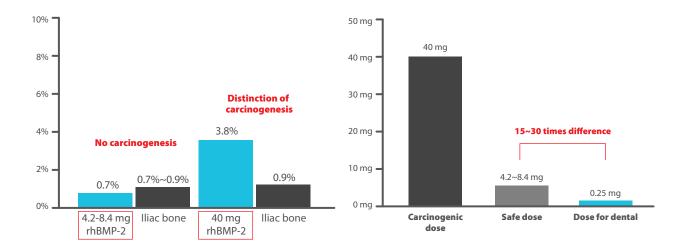
Cell proliferation Cell differentiation

- · Bonding to BMP-2 receptor
- · Signal pathway
- · Nuclear activation
- · VEGF, BMP Synthesis

Q: Correlation between cancer incidence and usual dose of rhBMP-2?

A: Generally, rhBMP-2 may be related to cancer incidence only when total dose is over 40mg. Countless research has proven that the safety standard dose is 4.2~8.4mg. COWELL BMP is supplied below the safety standard dose only.

(E.g. COWELLBMP 0.25g contains 0.25mg of rhBMP-2 which is 15 to 30 times lower than the safety standard.)



Q: Swelling occurrence after using rhBMP-2?

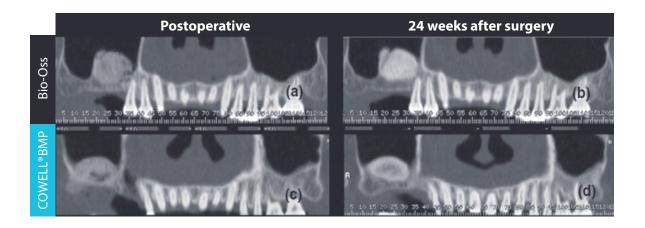
A: Relief incision may cause swelling due to angiogenesis proliferation in muscle but it is pain-free. Also, swelling is a transitional phenomenon and it is not a side effect.





Q: Seroma occurrence after using rhBMP-2?

A: After sinus lift surgery, excessive secretion of exudate during healing period may undertow in the grafted site of sealed maxillary sinus and develop into seroma but soon disappear. To limit the use to a maximum of 0.25 mg is safer rather than a high dose.



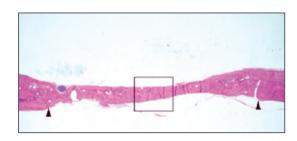
Effectiveness of COWELL BMP

■ Critically Defected Model

Bone Graft Type

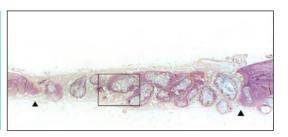
Without rhBMP-2

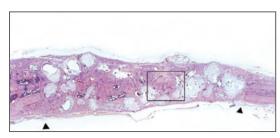
With rhBMP-2



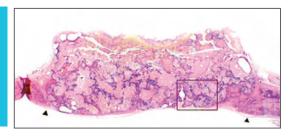
Particle Graft

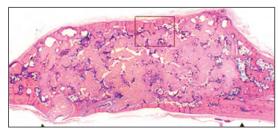
Collagen











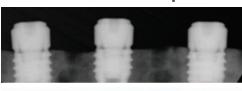
■ rhBMP-2 Coated Implant

Vertical Defect

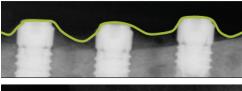
Control Group



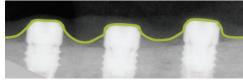
rhBMP-2 Group



At Surgery



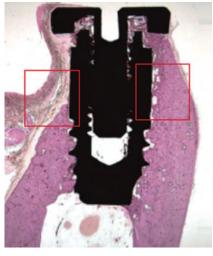
4 weeks after surgery



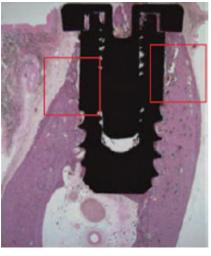
8 weeks after surgery

Dehiscence Defect

Bone Graft



rhBMP-2 Bone Graft

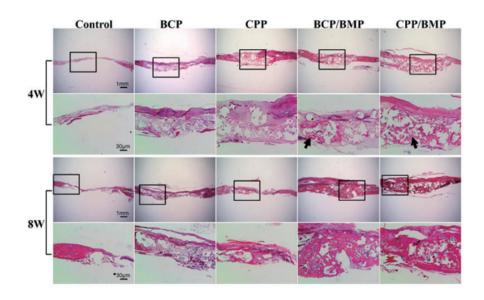


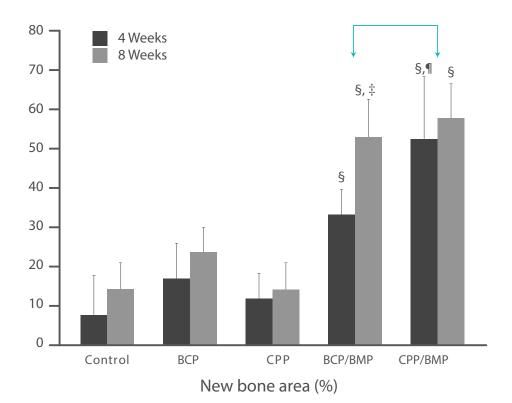
* Bone is safely formed without barrier membrane after rhBMP-2 bone graft, however, when use of general bone graft, barrier membrane is essential

Effectiveness of COWELL BMP

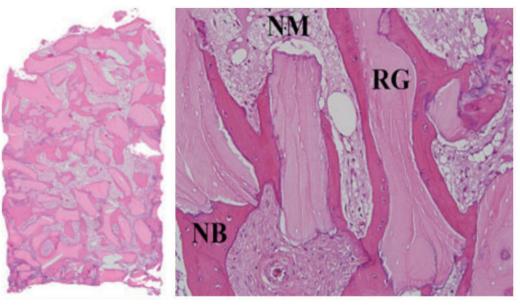
■ Comparison with other materials

Both Calcium Pyrophosphate, CPP(Ca/P=1) and Biphasic Calcium Phosphate, BCP(Ca/P=1.55) are very effective for early osteoanagenesis. CPP, however, has higher absorption rate than BCP and is slightly more effective for osteoanagenesis.

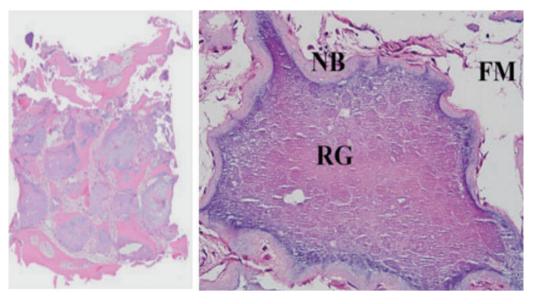




There is no difference in the ratio of new bone generation. $However, Graft\ B\ forms\ hard\ fibrous\ tissue\ between\ particles\ and\ the\ COWELL\ BMP\ fills\ bone\ marrow\ tissue.$ The Graft B received site has high resistance against drilling while the COWELL BMP has excellence in bone remodeling by bone.



Control ("Graft B")



COWELL BMP

Case 1.Bone Regeneration and Gingival Improvement Using Bone Augmentation using COWELL BMP



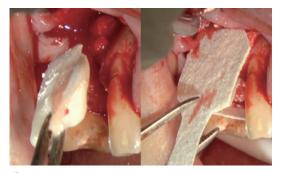
Dr. Claudio Sotomayor Julio, D.D.S. Chille



1 Pre-operative



2 INNO implant placement



③ 2 layers of membrane placement with COWELL BMP BCP powder



4 COWELL BMP injection



(5) Post-operative

6 1 month







 \bigcirc 4 months healing period and removal of adhesive provisional tooth

8 2 weeks after connection surgery





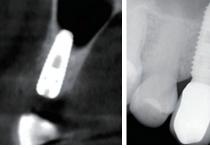
9 5 months

10 5 month after surgery: final rehabilitation









Post-operation (18. 08. 02)

4 months (18. 12. 03)

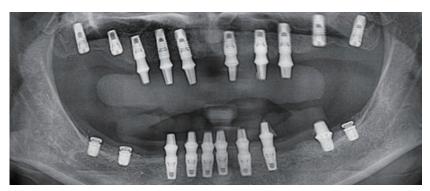
1 year (19. 08. 06)

Case 2.Bone regeneration in combination of rhBMP-2 and autogenous bone

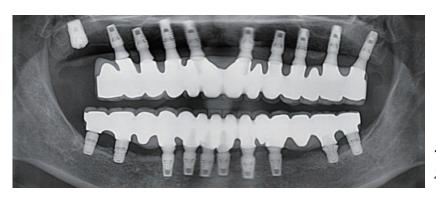
62 years old, Female



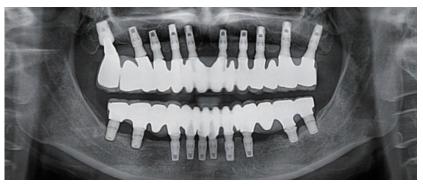
Preoperative 2010. 04. 05



Postoperative *2010. 04. 05*



10 months 2011. 02. 25



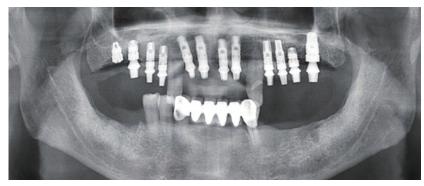
8 years 2019. 01. 18

Case 3. Staged implantation in healed ridge and extraction socket

63 years old, Male



Preoperative 2010.04.06



Postoperative 2010.04.30



9 months 2011.01.19



8 years 2019. 01. 08

Scientific Proofs of COWELL BMP's Effectiveness

- 1. Analysis of hydrolyzable polyethylene glycol hydrogels and deproteinized bone mineral as delivery systems for glycosylated and non-glycosylated bone morphogenetic protein-2. Acta Biomater. 2012 Jan;8(1):116-23.
- 2. Effects of rhBMP-2 Coating Tricalcium Phosphate on Socket Preservation in Dog Extraction Socket. Tissue Engineering and Regenerative Medicine, Vol. 5, No. 4~6, pp 637-642 (2008)
- 3. Effects of Polycaprolactone-Tricalcium Phosphate, Recombinant Human Bone Morphogenetic Protein-2 and Dog Mesenchymal Stem Cells on Bone Formation: Pilot Study in Dogs. Yonsei Med J 50(6): 825-831,(2009)
- 4. The induction of bone formation in rat calvarial defects and subcutaneous tissues by recombinant human BMP-2, produced in Escherichia coli.
 Biomaterials 31 (2010) 3512–3519
- 5. Alveolar ridge augmentation using anodized implants coated with Escherichia coli–derived recombinant human bone morphogenetic protein 2.

 Oral Surg Oral Med Oral Pathol Oral Radiol Endod. (2011) Jul;112(1):42-9
- 6. Bone formation of Escherichia coli expressed rhBMP-2 on absorbable collagen block in rat calvarial defects. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2011;111:298-305
- 7. Bone formation of block and particulated biphasic calcium phosphate lyophilized with Escherichia coli–derived recombinant human bone morphogenetic protein 2 in rat calvarial defects.

 Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2011;112:298-306.
- 8. Induction of bone formation by Escherichia coli- expressed recombinant human bone morphogenetic protein-2 using block-type macroporous biphasic calcium phosphate in orthotopic and ectopic rat models. J Periodontal Res. (2011) Dec; 46(6):682-90.
- 9. Enhanced adipogenic differentiation and reduced collagen synthesis induced by human periodontal ligament stem cells might underlie the negative effect of recombinant human bone morphogenetic protein-2 on periodontal regeneration.
 - J Periodontal Res (2011); 46: 193–203
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- 12. The effect of immobilization of heparin and bone morphogenic protein-2 to bovine bone substitute on osteoblast-like cell's function.
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- 13. Multicenter, randomized clinical trial on the efficacy and safety of Escherichia coli-derived rhBMP-2 with β -Tricalcium phosphate and hydroxyapatite in human extraction sockets. J Adv Prosthodont 2011; 4:178-182
- 14. Effects of Anodized Implants Coated With Escherichia coli-Derived Recombinant Human Bone Morphogenetic Protein-2 on Osseointegration in Rabbits.
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- 18. Bone formation and remodeling of three different dental implant surfaces with Escherichia coli-derived recombinant human bone morphogenetic protein 2 in a rabbit model.

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- 19. Recombinant Human Bone Morphogenetic Protein-2 Stimulates the Osteogenic Potential of the Schneiderian Membrane: A Histometric Analysis in Rabbits.

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 Materials 2016, 9, 954
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- 31. Soft and hard tissue changes when socket preservation using rhBMP-2, PRP and Non-Resorbable dPTFE membrane.
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INNO-CaP Calcium Phosphate , Synthetic Bone Graft

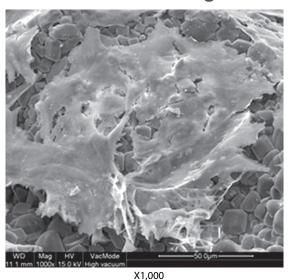
Osteoconductive resorbable synthetic bone graft material

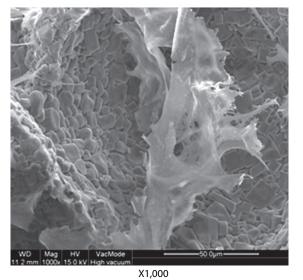
- INNO-CaP is an osteoconductive synthetic resorbable bone graft material consisting of Calcium Phosphate.
- INNO-CaP is completely resorbed and progressively replaced by normal-structured bone in the healing period.

Excellent Biocompatibility and Conductivity

• The characteristic biocompatibility and conductivity of the INNO-CaP represent the most safety.

Cell culture SEM images (14 days)



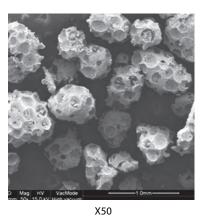


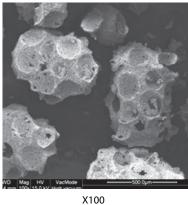


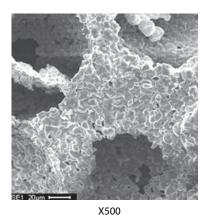
A porosity for new bone ingrowth

• The porosity promotes ingrowth of osteoblast, osteoclast, and growth factors.

Particle surface SEM image







Indications

Sinus graft surgery

- For sinus graft, INNO-CaP is used alone or in combination with the other graft materials.
- Healing periods residual bone height.

residual bone height	less than 1mm	2~4mm	more than 4 mm
implant placement	post operation 9~12 months	post operation 6 months	simultaneous placement

GBR (Guided Bone Regeneration)

- Minimize the amount of autogenous bone.
- Sub-graft materials.
- Vertical and lateral augmentation.
- It is highly recommended to use with COWELL BMP.

Dose and Particle Size

Product Code	Particle Size	Particle Size Particle Dose	
IG1025		0.25g	
IG1050	0.4.1.0	0.5g	
IG1001	0.4~1.0mm	1g	
IG1002		2g	
IG1425	1.0~1.4mm	0.25g	
IG1450		0.5g	
IG1401		1g	
IG1402		2g	



#45 Implant placement



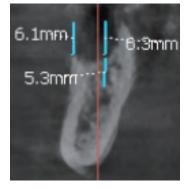
INNO CaP



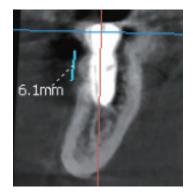
Post-OP



POD 10 weeks



Pre-OP



Post-OP



POD 10 weeks



POD 1 year 6 months









Severe defect

Vertical defect







Horizontal defect

INNO CaP

MegaDerm Plus





Healing period

POD 11 weeks









Pre-OP CT

Post-OP CT

POD 11 weeks

POD 1 year 9 months







POD 11 weeks

POD 12 weeks

POD 1 year 9 months

InnoGraft A

" InnoGraft A is a freeze-dried allogeneic bone graft.
The ratio of Cortical Bone and Cancellous Bone is 50:50, which is very ideal."

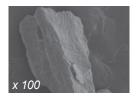
OsteoConduction by Cortical Bone

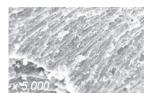
Cortical bone, which is slowly resorbed, maintains the space at the transplant site while new bone is formed

OsteoInduction by Cancellous Bone

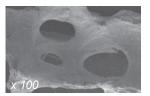
Cancellous bone containing minerals and collagen induces the attachment of osteoblasts and promotes blood vessel and bone remodeling

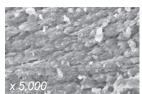
Cortical





Cancellous





Features

- Allograft tissue is collected and processed according to FDA, AATB, MFDS standards and strict medical standards
- Processed as a single donor unit to prevent cross-contamination
- Easy-to-use Curved Syringe type
- It has been producing products for over 10 years and has a stable prognosis.

Specification

Item No.	Particle Size	Volume	Insurance Code
IGA3	0.3~0.8 mm	0.3 cc	TBB51068
IGA6	0.3~0.8 mm	0.6 cc	TBB55068



Indication For Use

- Alveolar bone defect area
- Oral and maxillofacial reconstruction
- Maxillary sinus bone grafting
- Root cyst resection site
- Implant placement
- Tooth extraction



Clinical cases

"Can check the complete case in the clinical casebook."









Fig.2 Implant placement.



Fig.3 Bone graft (InnoOss).



Fig.4 Post-op 2 months photo.



Fig.5 Post-op 1 year radiography.





Fig.1 Pre-op radiography.



Fig.2 Sinus elevation with lateral Fig.3 Filled sinus inside with Inno Fig.4 Post-op radiography.







Fig.5 Post-op 6 months radiogra-





Fig.1 Pre-op radiography.



Fig.2 Extraction and immediate Fig.3 Bone graft (InnoOss). implants placement.



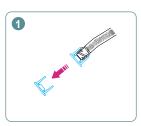


Fig.4 Post-op 6 months photo.

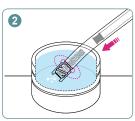


Fig.5 Post-op 6 months radiography.

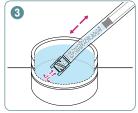
How To Use



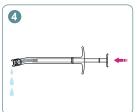
Pull and remove the blue suture cap.



To prevent air from entering the syringe during rehydration, completely submerge the hydration cap in sterile saline solution and slowly push the pusher to drain the air inside.



Push and pull the pusher two to five times to bring sufficient sterile saline solution into the syringe.



After sufficient rehydration for at least 5 to 10 minutes, the remaining sterile saline solution in the syringe is discharged as much as possible.



After pointing the syringe tip upward, remove the white hydration cap by turning it counterclockwise and implant InnoOss into the surgical site.

Notice!

The rubber packing in the syringe is coated with a very small amount of medical silicone oil for lubrication. Medical grade silicone oil stabilizes over time, so its lubricating properties do not take effect immediately. Use after restoring lubrication performance by pushing and pulling the pusher back and forth little by little with weak force. If you pull the pusher straight away, the rubber packing and the pusher may be removed or damaged.

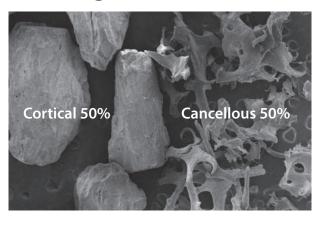
INNO OSS Allo

Allograft FDBA, Cortical 50% Cancellous 50%

Product Features

- This product is made up of human tissue from trusted donors whose gender, age, and medical history were checked to ensure that their tissue could be used safely.
- It is an ideal combination of 50% cortical powder and 50% cancellous powder for bone induction.
- The 50% cortical powder maintains the space of the transplanted area during the new bone formation due to the delayed absorption rate. [OsteoConduction]
- 50% cancellous powder is rich in minerals and collagen that promote cell adhesion, bone remodeling, and vascular re-formation. [OsteoInduction]
- To prevent cross-infection by a different donor, the process is done by a single donor.
- Under the higher-level pharmacological standards (medical criteria) of the American Association of Tissue Banks (AATB), we sampled, processed, and distributed the allograft tissue.
- We recommend use of this product with the COWELL BMP.
- INNO OSS Allo is classified as a MEDICAL DEVICE.

SEM Image



Specifications

Туре	Particle Size	Particle Dose
OSS3A	0.4 ~ 1.0mm	0.3g
OSS6A	0.4 ~ 1.0mm	0.6g

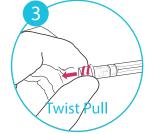
Method of Use



Remove the syringe's rubber cap.



Hydrate it in saline solution.



Turn and pull out the syringe cap to remove it.



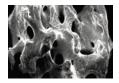
Graft it in the desired area.

InnoGraft B Predictable GBR Bovine Cancellous Substitute

A Bone 100% fused to Natural Human Bone

- · Fast blood penetration
- Super-hydrophilicity
- 3D structure
- Fast and easy to handle
- Maximizes bone fusion
- Mutually connected porosity
- Optimal cell attachment and blood absorption
- Stimulates the activity of osteoclasts and osteoblasts















50X Magnification

1000X Magnification

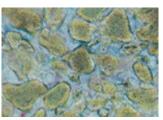
1500X Magnification

Fast and Perfect Blood Permeation by Super-Hydrophilicity

Safe & Trustable Material

- Made of 100% bovine cancellous bone.
- Cleansing more than 30 times to completely remove organic matter.
- Firmed bone formation as highly dense.
- 100% pure HA & 99.73% of bone crystallization.







Raw material

Graft test 1

Graft test 2

(New bone formation clearly observed around grafted bone site)

Specifications

Product Code	Particle Size	Volume
IGB2015	0.25~1.0mm	0.15g
IGB2025	0.25~1.0mm	0.25g
IGB2050	0.25~1.0mm	0.5g
IGB2100	0.25~1.0mm	1g



Fig 01. Preoperative radiograph.

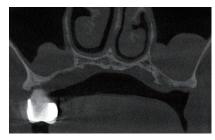


Fig 02. Preoperative CBCT image. Sinusitis in bone sinus cavities.



Fig 03. Incision and flap elevation. Removal of granulation tissue.



Fig 04. Suction of pus from the sinus.



Fig 05. Bone grafting with InnoOss B. Resorbable membrane application.



Fig 06. Postoperative radiograph.



Fig 07. Preoperative CBCT image.



Final restoration delivery.



Fig 08. Postoperative radiograph at week 6. Fig 09. CBCT image of postoperative 10 month.



Fig 01. Preoperative radiograph. 3months after extraction in lower left posterior.

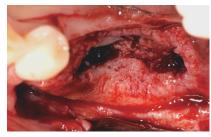


Fig 02. Incision and flap elevation.



Fig 03. Implant placement on #35, 37.



Fig 04. Bone grafting with InnoOss B and InnoOss Allo.



Fig 05. Non-resorbable membrance application.



Fig 06. Suture.



Fig 07. Postoperative radiograph.

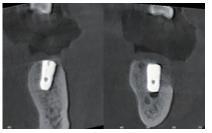


Fig 08. Postoperative CBCT image of #35(Lt), #37(Rt).



Fig 09. Clinical view of postoperative 2weeks.



Fig 10. Clinical view ofpostoperative 4months. Final restoration delivery.



Fig 11. Radiograph of postoperative 4 months.



Fig 12. 4 month postoperative CBCT image of #35(Lt), #37(Rt).

MEGA DERM PLUS Acellular Dermal Matrix

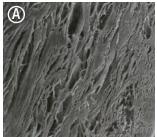
Product Features

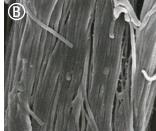
- This product can carry out the functional blocks of the membrane (soft tissue penetration protection) due to its long absorption period, and has excellent manipulability.
- This product is produced under the stringent standards of the MFDS.
- The world's first E-Beam sterilization can induce safe and prompt engraftment.
- E-Beam is safe and can be effectively sterilized without destroying the collagen tissue structure.
- This product is the first in the world with the basement membrane layer removed (patent pending) to maximize the transplant engraftment rate.
- This shows the high engraftment rate after the transplant by maximizing the influx of fibroblasts and/or the neovascularization. (Patent Application No. 10-2012-0026616)

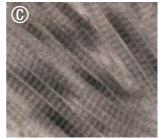


- Mucogingival defect.
- Soft tissue formation around the implant area.
- Wide perforation in the Schneiderian membrane.

SEM Images (They have kept the collagen structure after the E-Beam sterilization.)









A. SEM (x200)

B. SEM (x20,000)

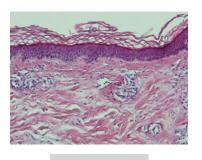
C. TEM (Transverse section)

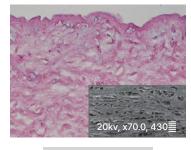
D. TEM (Cross section)

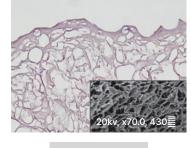
Specifications

Product Code Size		Thickness
D1520P	15x20mm	0.5~0.7mm
D1525P	15x25mm	0.5~0.7mm

MEGA DERM PLUS three-dimensional structure of the dermis





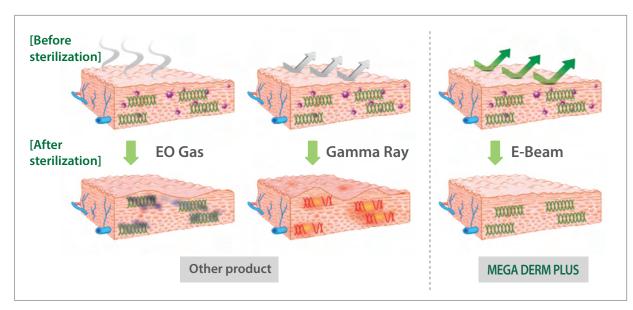


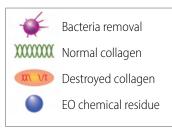
Normal skin

MEGA DERM PLUS

Other product

The world's first 'E-Beam' sterilization that does not destroy the collagen structure





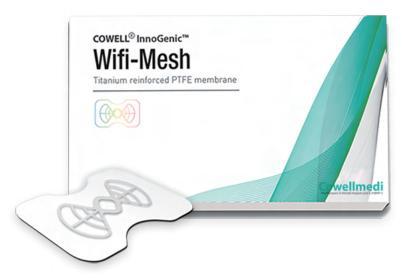
InnoGenic Non-resorbable Membranes

InnoGenic Wifi-Mesh and InnoGenic PTFE-Mesh

• The InnoGenic Wifi-Mesh, PTFE-Mesh and Ti-Mesh are non-resorbable barrier membranes to be applied over intraoral defects, especially, tooth extraction and bone augmented sites. The InnoGenic Wifi-Mesh and PTFE-Mesh are made of proprietary 100% PTFE, the polytetrafluoroethylene (teflon) sheet which is a biologically inactive and tissue compatible material and the InnoGenic Wifi-Mesh is reinforced with titanium frames (Titanium Gr II, ASTM F 67) embedded between two layers of PTFE sheets.

InnoGenic Wifi-Mesh

> Packing unit: 1ea





Product Code	Size	Thickness
BTP1424AA	14X24	0.25
BTP1424AB	14X24	0.25
BTP1525BB	15X25	0.25
BTP1725CA	17X25	0.25
BTP1725CA12	17X25	0.25
BTP2030AB	20X30	0.25
BTP2030AB12	20X30	0.25
BTP2530AB	25X30	0.25
BTP2530AB15	25X30	0.25
BTP3040AB	30X40	0.25
BTP3040AB15	30X40	0.25









BTP1424AA

BTP1424AB

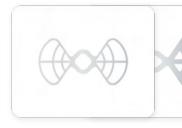
BTP1525BB

BTP1725CA / BTP1725CA12









BTP2030AB / BTP2030AB12

BTP2530AB / BTP2530AB15

BTP3040AB / BTP3040AB15

* Titanium material is the same

Clinical Case using the Wifi-Mesh



 Periodontitis with local osteomyelitis of #45 & 47



Bone graft using INNO-OSS Allo



Shielding soft tissue penetration using Wifi-Mesh





Removal of Wifi-Mesh



Dense periosteum layer has been formed

InnoGenic PTFE-Mesh

> Packing unit: 5ea



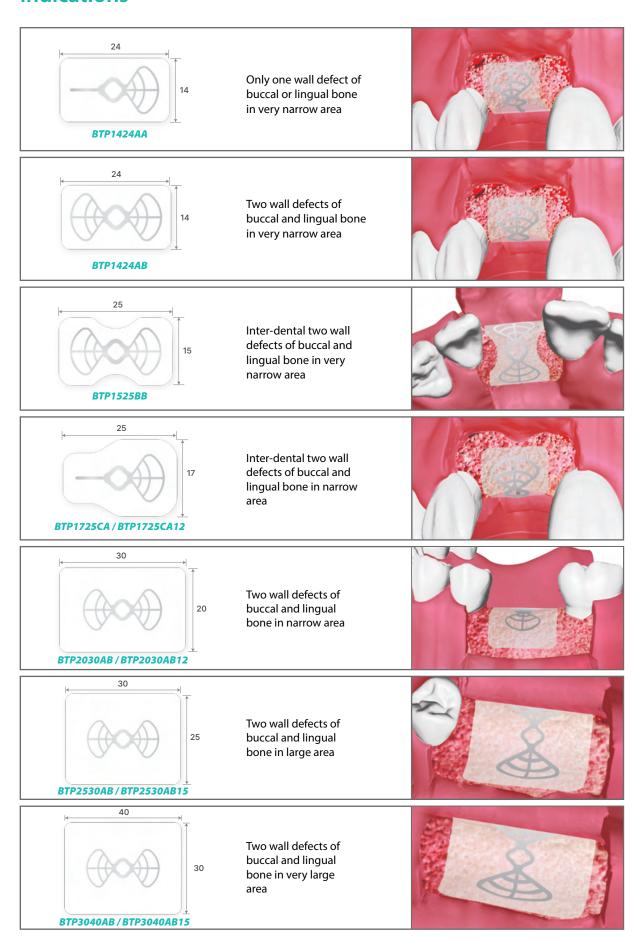


Product Code	Size	Thickness	
TS24301	24 x 30	0.1	

Features

- Non-resorbable: Made of 100% non-resorbable material for users to modulate healing period.
- Non-porous (0.0 µm) + Open Membrane Sheet Technique: Prevention of infection or other possible defects caused from passage or integration of bacteria through the porosity of plaster and it even allows to application of the Open Membrane Sheet Technique
- **Prevention of Displacement:** Not only being sutured along with gingiva but also being fixed with components from the **InnoGenic GBR Kit** to prevent displacement of the product.
- Close to Transparency: Observation of the healing of the underlying tissue through almost transparent PTFE surface allows more predictable result and helps determine removal time easier.
- Easy to be Customized: Easy to modify the shape according to shape and dimension of the defect.
- Easy to be Removed: Put a hook in the hole of the titanium frame of the InnoGenic Wifi-Mesh and in any center part of the InnoGenic PTFE-Mesh and remove.

Indications



CLINICAL APPLICATION Wifi-Mesh

Case 1



Pre-op



Implant placement



Implant placement



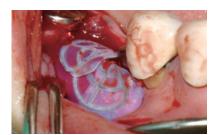
Clinical occlusal view of #45 and #46 showed severe bone defects.



Buccal bone graft technique with Wifi-mesh of #45



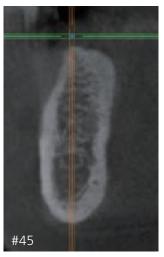
Wifi-Mesh trimming



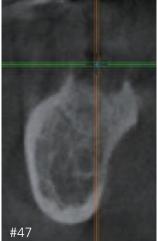
Wifi-Meshes were applied to the defect.



Open membrane technique in extraction socket of #46

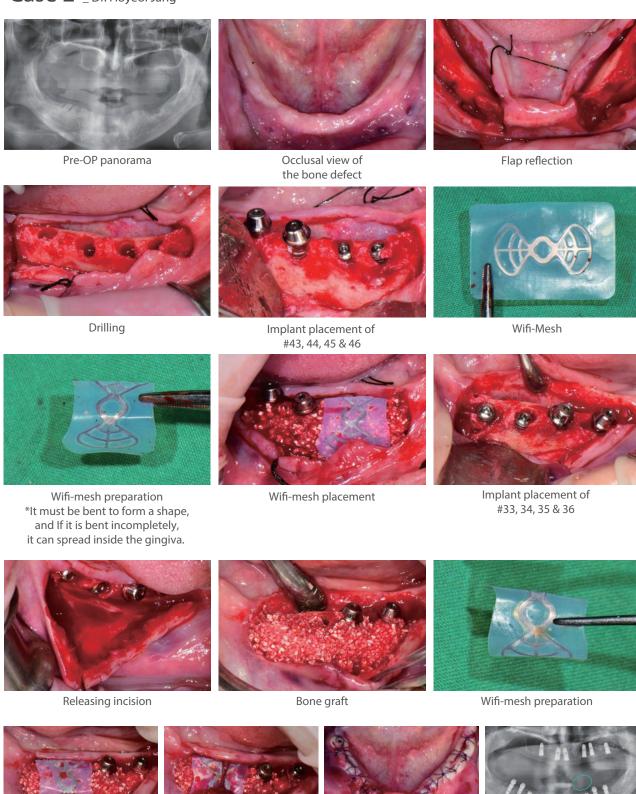






CLINICAL APPLICATION Wifi-Mesh

Case 2 _ Dr. Hoyeol Jang



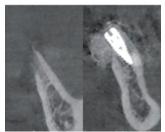
Membrane holding suture

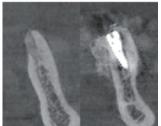
Primary suture

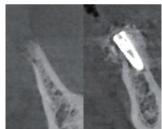
Post OP panorama

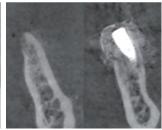
Wifi-Mesh placement

CLINICAL APPLICATION Wifi-Mesh









CT scan images after GBR shows significant amount of alveolar bone regeneration.



2 months after the 1st surgery



2nd surgery and Wifi-Mesh removal



The Wifi-mesh was easily removed.



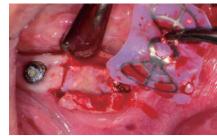
The defect area was fully filled with the new bone.



Installation of healing abutments



Incision of #43 and 44



Membrane removal



Both horizontal and vertical bone regeneration was noticed clinically.



Uncovering surgery of Lower jaw



2nd OP panorama



POD 3 months Temporary loading

CLINICAL APPLICATION PTFE-Mesh

Case 1

Open membrane technique and immediate implant placement in maxillary molars







The maxillary molars were extracted.

The PTFE-Mesh was covered over the bone graft of socket preservation and implants.



3 weeks.

3 weeks after the graft operation, the
PTFE-Mesh was removed. The new keratinized
gingiva was regenerated on the bone graft
particles.



4 months.
4 months after the graft operation, the keratinized gingiva was regenerated in the defect of socket.







Surgery.



6 months.



32 months.

After 6 months of implant placement, the splinted crown was placed. There was no loss of marginal bone at the 32 months follow-up visit.

As result, the immediate implant placement and the open membrane technique with socket bone graft could make the new keratinized gingiva.

CLINICAL APPLICATION PTFE-Mesh

Case 2

Lateral bone graft with immediate implant placement in mandibular molars







Lateral bone graft with implant placement was done in mandibular 1st molar.

The extraction sockets of 2nd molar and 2nd premolar were grafted with the open membrane technique.



3 weeks after the graft operation, the PTFE-Mesh was removed. The new keratinized gingiva was regenerated on the bone graft particles.



3 months after the graft operation, the keratinized gingiva was regenerated in the defect of socket.



At visit.



Lateral bone graft.



4 months.



31 months.

During healing period, the crestal bone level was decreased in the site of lateral bone graft. From 4 months to 31 months of follow-up visit, there was no the loss of marginal bone. As result, lateral bone graft with implant placement and open membrane technique in extraction socket could make the new keratinized gingiva.

CLINICAL APPLICATION PTFE-Mesh

Case 3

Socket preservation with immediate implant placement in mandibular premolars







Socket bone graft with implant placement was done in the buccal wall defect of mandibular premolars.

The extraction sockets of premolars were grafted with the open membrane technique.

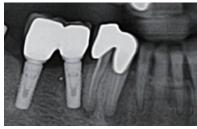


3 weeks after the graft operation, the PTFE-Mesh was removed. The new keratinized gingiva was regenerated on the bone graft particles.



3 months after the graft operation, the keratinized gingiva was regenerated in the defect of socket, and the splinted crown was placed.





At visit.



Surgery.



3 months.



15 months.



28 months.

28 months of follow-up visit, there was no the loss of marginal bone.

As result, the open membrane technique with implant placement in he buccal wall defect of premolars could make the new keratinized gingiva.

MEMO

MEMO



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