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Issued date : $26^{\text {th }}$ of September, 2011
Version : Rev.2011-B
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Ĉleanlant

## s-Clean Prosthetics Manual

## 年 <br>  <br> 

DENTIS
s-Clean
System

## Ĉleanlant



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## s-Clean Implant System


Implant
Diameter
Cixture
Implant
Diameter
Cylinder

## Features of s-Clean Fixture

## . Tapered Fixture

## $S$-Clean tapered



No-Mount System
The Dentis No-Mount System helps confirm the path on which the procedure is to be performed and enables the surgeon to shorten the surgery time and perform accurately by minimizing interference with the surrounding teeth.


Super High-Speed Resorbable Blast Media (RBM) Coating
The coating technique developed by RIST (POSCO Research Institute) solved the inconsistent coating and peeling problems that had been associated with the conventional under-2 2 m plasmasprayed hydroxyapatite (HA) coating. Super high-speed RBM coating, the first of such method in the world, was developed via $100 \%$ local technology, offering a high level of reliability.

Increased Initial Bond Strength via HA Coating on the RBM Surface Having a modulus of elasticity similar to that of the bone, HA coating offers post-placement effects that are close to natural teeth. The coating also boasts of outstanding biocompatible and bioactive qualities that facilitate initial osseointegration compared to conventional implant models.

## Realizing Gingival Sealing Effects via Hybrid HA Coating

To help realize the gingival seaing effects resulting from securing biological width, a 1 mm section of the anterior micro threads was treated as the safe zone for the RBM surface. This has helped prevent exposure of the HA coating layer resulting from soft tissue complication.

Excellent Coating Bond Strength
The excellent bond strength of HAPTITE coating is 60 Mpa or higher.

## Osteo-Blast Bonding Test

The osteo-blast attached to the surface of the HAPTITE coating has quite a few cells and a highly developed extra-cellular matrix; thus allowing the easy bonding of bone tissues during HAPTITE placement as well as fast osseointegration.

## High Crystalline HA

The X-ray diffraction test has confirmed the extremely high crystalline content of the HAPTITE HA coating (crystalline content $\geq 95 \%$ ).

## Tapered Design

The design guarantees excellent initial bond strength in sites with less desirable bone quality. It also enables easy, stabler performance of the procedure and shortens the surgery time.

# 3. Tapered II Fixture 

$s$-Clean tapered II


## Convenient No-Mount System

The Dentis No-Mount System helps confirm the path on which the procedure is to be performed and enables the surgeon to shorten the surgery time and perform accurately by minimizing interference with the surrounding teeth.

## Tapered Design

The design guarantees excellent initial bond strength in sites with less desirable bone quality. It also enables easy, stabler performance of the procedure and shortens the surgery time.

## Wide-Valley Threads that Increase Initial Bond Strength

We have adopted a single thread design with wide-valley threads that help secure increased initial bond strength in the cortical bone as well as placement torque value of $35 \mathrm{Ncm} \sim 40 \mathrm{Ncm}$ to help reduce bone stress.

## RBM Surface Treatment ( $1.5 \mathrm{~mm} \sim 1.8 \mu \mathrm{~m}$ )

For the surface treatment for the fixture to be inserted into the alveolar bone, we have adopted the RBM (resorbable blast media) method and have secured surface roughness value (Ra) of $1.5 \mu \mathrm{~m} \sim 1.8 \mu \mathrm{~m}$, which is considered most desirable for osseointegration.


The groove helps with the self-tapping during implantation and serves as the void where surplus bone is to accumulate. It also increases the post-placement bond strength.

## 4. Straight Fixture $s$-Clean striaght



Implant Design to Ensure Outstanding Initial Stability Using a double-thread screw helps reduce the placement time and increase initial stability. The design also helps with self-tapping during placement -- acting as the void where surplus bone is to accumulate -- and increases postplacement bond strength. The apex taper with a 5-degree angle serves as the guide for the implant to settle securely inside the drilled hole and induces stable
 implantation of the fixture.

## 5. SAVE Fixture

## SAY H <br> Submerged System



## Convenient No-Mount System

The Dentis no-mount system helps confirm the path on which the procedure is to be performed and enables the surgeon to shorten the surgery time and perform accurately by minimizing interference with the surrounding teeth.

## Top-Part Compatibility to Maximize Convenience

The system requires no additional SAVE abutment and allows the use of existing products; thus offering cost-effective benefits.

## Switching Platform Method

The application of the switching platform method for the fixture shoulder helps minimize alveolar bone loss. The bone loss is an issue that requires aggressive intervention.

## Micro-Thread to Prevent Bone Loss

The micro-thread offers stable initial bond strength and appropriate amounts of stimulus to the cortical bone. It also disperses the stress applied on the bone to help minimize bone loss.

## Optimal RBM Surface Treatment

We have adopted the RBM (resorbable blast media) method for the surface treatment of the fixture to be inserted into the alveolar bone. Surface roughness (Ra) of $1.5 \mu \mathrm{~m} \sim 1.8 \mu \mathrm{~m}$ is the ideal value for osseointegration.

## Safe Cutting Edge/Tapered Design



For this tapered design, we have adopted a double-thread screw and have implemented -- in
 addition to the cutting edge at the bottom of the screw -- a fine cutting edge for the entire thread along the screw's rotation arc. This has enabled smooth, stable implantation using the transmission of consistent force during fixture placement.

## Restorative KIT



## Restorative Kit

Offers tools needed for the secondary surgery
Includes tools used exclusively for the
abutment and screw fixture
The 0.9 hex driver is used for external $C / S$ and
I-Fix mount screws.
Allows active steam emissions during
autoclave sterilization
Features a semi-transparent top case (cover)
that facilitates the observation of internal
components
Made from engineering plastics with excellent
durability and heat resistance

## s-Clean Abutment System

## . Sole Abutment

## A cemented-type abutment, the sole abutment can accommodate both

 single- and multi-unit cases. It has the following characteristics:(1) Allows abutment impression
(2) Accommodates both single- and multi-unit cases
(3) Features cemented-type prosthetic tooth
(4) Offers outstanding stress dispersion via friction fixture enabled by $11^{\circ}$ taper connection
(5) Applied ZrN coating to ensure aesthetically pleasing prosthesis

| Sole Abutment (ZrN Coating) | Cuff | Height | Code No. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\emptyset 4.5$ | ø5.5 | $\varnothing 6.5$ |
|  | 1.0 mm |  | DSSA4510PC | DSSA5510PC | . |
| ${ }_{5.5 \mathrm{~mm}}$ | 1.5 mm |  | DSSA4515PC | DSSA5515PC | DSSA6515PC |
| Cuff 1.01.5.20, 25 | 2.0 mm | 5.5 mm | DSSA4520PC | DSSA5520PC | DSSA6520PC |
|  | 2.5 mm |  | DSSA4525PC | DSSA5525PC | DSSA6525PC |
|  | 3.5 mm |  | DSSA4535PC | DSSA5535PC | DSSA6535PC |
|  | 4.5 mm |  | DSSA4545PC | DSSA5545PC | DSSA6545PC |
|  | 5.5 mm |  | DSSA4555PC | DSSA5555PC | DSSA6555PC |

## O Step 1. Healing Abutment Removal

- Using the 1.25 hex driver, remove the healing abutment.


1) Tissue healing completed after the secondary surgery

2) Healing abutment removal via the 1.25 hex driver

3) Healing abutment removed

## O Step 2. Impression Cap Fixture

- Connect the torque ratchet to the 1.25 hex driver and attach the fixture to the sole abutment to secure 30 Ncm .

For impression, have the impression cap aligned with the matching diameter and push the cap inward until you hear a clicking sound.


1) Using the torque ratchet, fix the sole abutment (1.25 driver; 30 Ncm torque).

2) Complete the inter-oral sole abutment fixture.

3) Push in the impression cap until you hear a clicking sound.

| Impression Cap | Abutment Diameter | Code No. |
| :---: | :---: | :---: |
| 品 | $\emptyset 4.5$ | DSIPC45 |
|  | $\emptyset 5.5$ | DSIPC55 |

## O Step 3. Pick-up Type

- Inject impression materials and take the impression on the prepared tray.

After the impression-taking, fix the sole healing cap inside the oral cavity to protect the abutment during the prosthesis manufacturing period and to help minimize the feel of foreign substance inside the oral cavity of the patient.


1) Inject impression materials.

2) Take the impression.

3) Fix the sole healing cap until prosthesis is complete (protect the abutment and reduce patient discomfort).

## O Step 4. Master Model Fabrication

- Detach the impression. Fix the lab analog to the impression cap until you hear a "clicking" sound. Apply artificial gum around the fixture to recreate tissues. Box the impression and inject plaster to complete the model.

| Lab Analog | Abutment Diameter | Code No. |
| :---: | :---: | :---: |
| $\square$ | $\emptyset 4.5$ | DSSLA45 |
|  | $\emptyset 5.5$ | DSSLA55 |
|  | $\emptyset 6.5$ | DSSLA65 |



1) Detach the impression.

2) Fix the lab analog to the impression cap (make sure you hear a "clicking" sound; avoid applying too much force to prevent deformation).

3) Recreate tissues for fixture implantation using artificial gum.

4) Box impression using boxing wax and utility wax.

5) Inject plaster (make sure no deformation occurs when using the vibrator).

6) Complete model fabrication.

## O Step 5. Wax-up

- Push the plastic coping into the completed model until you hear a "clicking" sound. Using a bur, adjust the height to that of the surrounding teeth. Perform full wax-up to recreate the tooth pattern

| Plastic Coping | Abutment Diameter | Type | Code No. |
| :---: | :---: | :---: | :---: |
|  | ø4.5 | Single <br> Bridge | $\begin{aligned} & \hline \text { DSSP45S } \\ & \text { DSSP45B } \end{aligned}$ |
|  | $ø 5.5$ | Single <br> Bridge | DSSP55S DSSP55B |
|  | $\not \subset 6.5$ | Single <br> Bridge | $\begin{aligned} & \text { DSSP65S } \\ & \text { DSSP65B } \end{aligned}$ |



1) Fix the single plastic coping to the lab analog top (push in until you hear a "clicking" sound).

2) Perform full wax-up to recreate the tooth pattern.
 abur.

3) Cut on the full wax crown according to the buccolingual width and core width.

4) Complete height adjustment

## O Step 6. Casting \& Porcelain

- Fabricate the prosthetic tooth from the cast pattern.


1) Mount the sprue to the wax pattern's nonfunctional cusp.

2) Remove the inner lips using a reamer to ensure precision cast match.

3) Carry out porcelain buildup.

4) Centrifugal casting machine used commonly for casting

5) Carry out metal work.

6) Perform contouring and grazing to complete prosthetic fabrication.

7) Body completed via centrifugal casting machine

8) Perform the $1^{\text {st }}$ and $2^{\text {nd }}$ opaque processes.

9) Prosthetic tooth completed

## O Step 7. Cementation \& Delivering

- Fix the completed prosthetic tooth inside the oral cavity.


1) Remove the previously installed healing cap in the oral cavity.

2) Perform cementation on the completed prosthetic tooth, and then fix to the sole abutment to mount the tooth inside the oral cavity.

## 2. Couple Abutment

## An SCRP-type abutment, the couple abutment can accommodate both single- and multi-unit cases. It has the following characteristics:

(1) Allows impression on both fixture and abutment levels
(2) Accommodates both single- and multi-unit cases
(3) Features an SCRP-type prosthetic tooth
(4) Offers outstanding stress dispersion via friction fixture enabled by $11^{\circ}$ taper connection
(5) Applied ZrN coating to ensure aesthetically pleasing prosthesis

| Couple Abutment ZrN Coating Hex | Cuff | Height(H) | Code No. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1.0 mm <br> 1.5 mm <br> 2.0 mm <br> 2.5 mm <br> 3.5 mm <br> 4.5 mm <br> 5.5 mm | 5.5 mm | $\varnothing 4.5$ <br> DSCA4510HPC DSCA4515HPC DSCA4520HPC DSCA4525HPC DSCA4535HPC DSCA4545HPC DSCA4555HPC | $\varnothing 5.5$ <br> DSCA5510HPC DSCA5515HPC DSCA5520HPC DSCA5525HPC DSCA5535HPC DSCA5545HPC DSCA5555HPC | $\emptyset 6.5$ <br> DSCA6515HPC DSCA6520HPC DSCA6525HPC DSCA6535HPC DSCA6545HPC DSCA6555HPC |
|  | 1.0 mm <br> 1.5 mm <br> 2.0 mm <br> 2.5 mm <br> 3.5 mm <br> 4.5 mm <br> 5.5 mm | 7 mm | DSCA4510H7PC DSCA4515H7PC DSCA4520H7PC DSCA4525H7PC DSCA4535H7PC DSCA4545H7PC DSCA4555H7PC | DSCA5510H7PC <br> DSCA5515H7PC <br> DSCA5520H7PC <br> DSCA5525H7PC <br> DSCA5535H7PC <br> DSCA5545H7PC <br> DSCA5555H7PC | DSCA6515H7PC DSCA6520H7PC DSCA6525H7PC DSCA6535H7PC DSCA6545H7PC DSCA6555H7PC |

* Abutment+Abutment Screw Set Code : Abutment Code + S(ex: DSCA4510NS)


## O Step 1. Healing Abutment Removal

- Using the 1.25 hex driver, remove the healing abutment.


1) Tissue healing completed after the secondary surgery

2) Healing abutment removal with the 1.25 hex driver

3) Healing abutment removed

## O Step 2. Pick-up Type

- After connecting the fixture to the impression coping, use the 1.25 hex driver and hold the guide pin with your fingers, and then take the impression.

| Impression Coping (Pick-Up) | Type | Height | Code No. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Hex | Long Short | $\begin{gathered} \varnothing 4.5 \\ \text { DSIH45L } \\ \text { DSIH45S } \end{gathered}$ | $\begin{gathered} \not \emptyset 5.5 \\ \text { DSIH55L } \\ \text { DSIH55S } \end{gathered}$ | $\begin{gathered} \varnothing 6.5 \\ \text { DSIH65L } \\ \text { DSIH65S } \end{gathered}$ |
|  | N-Hex | Long <br> Short | DSIN45L DSIN45S | DSIN55L DSIN55S | DSIN65L DSIN65S |

[^0]

1) Connect the pick-up impression coping to take an impression. Using the guide pin and 1.25 hex driver, fix the impression coping to the fixture.

2) Fix the impression coping to minimize errors that may occur during the impression-taking process.

3) Fix using pattern resin.

## - Step 3. Master Model Fabrication

- Remove the impression body and connect the lab analog to the impression cap.

Apply artificial gum around the fixture to recreate tissues. Box the impression and inject plaster to complete the master model.

| Lab Analog | Code No. |  |
| :---: | :---: | :---: |
| n) |  | DSCLA |



1) Fabricate the individual tray customized to the patient's oral configuration to ensure precision impressiontaking.

2) Complete the injection of impression materials.

3) Recreate tissues for the fixture implantation area using artificial gum.

4) Perform boxing on the impression using boxing and utility waxes. Mix plaster and inject, taking care not to cause deformation.

5) Complete the master model fabrication.

## O Step 4. Wax-up

- Using the 1.25 hex driver, fix the couple abutment to the oral cavity model. Using a bur, adjust the height to that of the surrounding teeth. Perform full wax-up to recreate the tooth pattern.


1) Connect the couple abutment to the lab analog.

Fix using the 1.25 hex driver.

4) Prevent wax pattern deformation by using pattern resin. Fabricate the resin cap.

2) Remove the artificial gum.

5) With full waxing, recreate unique tooth patterns.

## O Step 5. Casting \& Porcelain

- Fabricate the prosthetic tooth from the cast pattern.


1) Perform wax cut-back to secure a void where porcelain is to be injected.

2) PFM model with completed casting

3) Carry out porcelain buildup and put it in the porcelain furnace to cure.

4) Mount the sprue.

5) Connect the couple abutment to the PFM model to check the match.

6) Final prosthetic tooth completed

7) Centrifugal casting machine used commonly for casting

8) Perform the $1^{\text {st }}$ and $2^{\text {nd }}$ opaque processes to remove $P F M$ 's signature metallic shine.

9) Using a transfer jig, fix the couple abutment inside the oral cavity.

## O Step 6. Cementation \& Delivering

- Fix the completed prosthetic tooth inside the oral cavity.


1) Fix the abutment screw and tighten with the 1.25 hex driver ( 30 Ncm ).

2) Mount the final prosthetic tooth inside the oral cavity.

## 3. Angled Abutment

Angled abutment is used for cases with poor implantation path, offering $15^{\circ}$ and $25^{\circ}$ models.

| Angled Abutment ZrN Coating Hex | Angle | Cuff | Code No. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $15^{\circ}$ | 2 mm 4 mm | $\begin{gathered} \not \varnothing 4.5 \\ \text { DSAA } 45152 \mathrm{HC} \\ \text { DSAA45154HC } \end{gathered}$ | $\begin{gathered} \varnothing 5.5 \\ \text { DSAA55152HC } \\ \text { DSAA55154HC } \end{gathered}$ | $\emptyset 6.5$ <br> DSAA65152HC DSAA65154HC |
|  | $25^{\circ}$ | 2 mm 4 mm | DSAA45252HC DSAA45254HC | DSAA55252HC DSAA55254HC | $\begin{aligned} & \text { DSAA65252HC } \\ & \text { DSAA65254HC } \end{aligned}$ |
| Angled Abutment ZrN Coating N-Hex | Angle | Cuff | Code No. |  |  |
|  | $15^{\circ}$ | 2 mm 4 mm | $\emptyset 4.5$ <br> DSAA45152NHC DSAA45154NHC | $\begin{gathered} \emptyset 5.5 \\ \text { DSAA55152NHC } \\ \text { DSAA55154NHC } \end{gathered}$ | $\emptyset 6.5$ <br> DSAA65152NHC DSAA65154NHC |
|  | $25^{\circ}$ | 2 mm 4 mm | $\begin{aligned} & \text { DSAA45252NHC } \\ & \text { DSAA45254NHC } \end{aligned}$ | DSAA55252NHC DSAA55254NHC | DSAA65252NHC DSAA65254NHC |

*Abutment + Abutment Screw Set Code : Abutment Code + S(ex: DSAA45152S)

## O Step 1. Healing Abutment Removal

- Remove the healing abutment using the 1.25 hex driver.


1) Tissue healing completed after the secondary surgery

2) Remove the healing abutment with the 1.25 hex driver.

3) Remove the healing abutment.

## O Step 2. Pick-up Type

- After connecting the fixture to the impression coping, use the 1.25 hex driver and hold the guide pin with your fingers, and then take the impression.

| Impression Coping (Pick-Up) | Type | Height | Code No. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Hex | Long Short | $\begin{gathered} \varnothing 4.5 \\ \text { DSIH45L } \\ \text { DSIH45S } \end{gathered}$ | $\begin{gathered} \varnothing 5.5 \\ \text { DSIH55L } \\ \text { DSIH55S } \end{gathered}$ | $\begin{gathered} \not \emptyset 6.5 \\ \text { DSIH65L } \\ \text { DSIH65S } \end{gathered}$ |
|  | N-Hex | Long Short | DSIN45L DSIN45S | DSIN55L DSIN55S | DSIN65L DSIN65S |

[^1]

1) Connect the pick-up impression coping. Using the 1.25 hex driver, connect the guide pin.

2) Inject impression materials around the impression coping.

3) Complete the injection of impression materials.

## O Step 3. Master Model Fabrication

- Remove the impression body and connect the lab analog to the impression cap.

Apply artificial gum around the fixture to recreate tissues. Box the impression and inject plaster to complete the master model.

| Lab Analog | Code No. |
| :---: | :---: | :---: |
| (1) | DSCLA |



1) Connect the lab analog to the impression coping and fix using the 1.25 hex driver.

2) Complete the master model fabrication.

impression deformation.

3) Mix plaster and inject, taking care not to cause

## - Step 4. Wax-up

- Using the 1.25 hex driver, fix the angled abutment to the master model. Using a bur, adjust the height to that of the surrounding teeth. Perform full wax-up to recreate the tooth pattern.


1) Connect the angled abutment to the lab analog.

2) Perform full waxing to recreate the tooth pattern.

3) Using the milling machine and bur, confirm the abutment height and labiolingual width and diameter and perform milling.

4) Carry out wax cut-back to secure a void where porcelain is to be injected.

5) Prevent wax pattern deformation by using pattern resin. Fabricate the resin cap.

## O Step 5. Casting \& Porcelain

- Fabricate the prosthetic tooth from the cast pattern.


1) Mount the sprue.


2) PFM model with completed casting

3) Check the match by connecting the angled abutment top to the PFM model.

4) Perform porcelain buildup and put it in the porcelain furnace to cure.

5) After glazing, complete the prosthetic tooth.

6) Block out the screw hole. Fix the completed prosthetic tooth to the abutment via cementation.

## 4. Gold UCLA Abutment

The gold UCLA abutment in gold casing allows dental professionals to fabricate prosthetic teeth with greater flexibility and precision.

| Gold UCLA | Abutment Diameter | Type | Code No. |
| :---: | :---: | :---: | :---: |
|  |  | Hex | DSGCH |

* Abutment+Abutment Screw Set Code : Abutment Code + S(ex: DSGCHS)


## O Step 1. Healing Abutment Removal

- Remove the healing abutment using the 1.25 hex driver.


1) Tissue healing completed after the secondary surgery

2) Remove the healing abutment with the 1.25 hex driver.

3) Healing abutment removed

- Step 2. 인상채득 (Pick-up Type)
- After attaching the fixture to the impression coping, connect the 1.25 hex driver to the guide pin and fix with a 30 Ncm force. Afterward, take the impression.

| Impression Coping (Pick-Up) | Type | Height | Code No. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Hex | Long Short | $\begin{gathered} \not \emptyset 4.5 \\ \text { DSIH45L } \\ \text { DSIH45S } \end{gathered}$ | $\begin{gathered} \not \varnothing 5.5 \\ \text { DSIH55L } \\ \text { DSIH55S } \end{gathered}$ | $\begin{gathered} \not \emptyset 6.5 \\ \text { DSIH65L } \\ \text { DSIH65S } \end{gathered}$ |
|  | N-Hex | Long Short | DSIN45L DSIN45S | DSIN55L DSIN55S | DSIN65L DSIN65S |



1) Connect the impression coping to take an impression. Connect the guide pin to the 1.25 hex driver and fix the impression coping to the fixture.

2) Pick-up impression coping completed

3) Inject impression materials around the impression coping.

4) Impression material injection completed

5) Fix the 1.25 hex driver to the guide pin to pick up the impression. Rotate and remove.

6) Impression removal completed

## - Step 3. Master Model Fabrication

- Remove the impression body and connect the lab analog to the impression cap.

Apply artificial gum around the fixture to recreate tissues. Box the impression and inject plaster to complete the master model.

| Lab Analog | Code No. |
| :---: | :---: | :---: |
| Ni] | DSCLA |



1) Connect the lab analog to the impression coping and fix using the 1.25 hex driver and guide pin.

2) Master model fabrication completed
3) Form artificial gum to recreate patient-specific tissue patterns.

$\qquad$


## Step 4. Wax-up

- Using the 1.25 hex driver, fix the gold UCLA abutment to the master model. Using a bur, adjust the height to that of the surrounding teeth. Perform full wax-up to recreate the tooth pattern.


1) To ensure precision prosthetic fabrication, perform dying to distinguish the target tooth from the surrounding teeth.

2) Using the milling machine and hand piece, cut out the tooth segment to ensure that there is no interference with the surrounding teeth or tooth in the opposite arch.

3) Cut the master model (target tooth) to ensure the smooth detachment of the surrounding teeth.

4) Carry out full waxing to recreate unique tooth patterns

5) Connect the gold UCLA abutment to the lab analog. Tighten the screw using the 1.25 hex driver.

6) Secure space on the buccolingual side to inject light-curing resin.

## O Step 5. Casting \& Porcelain

- Fabricate the prosthetic tooth from the cast pattern.


1) Mount the sprue on the wax pattern's nonfunctional cusp and perform embedment grouting.

2) Centrifugal casting machine used commonly for casting

3) Gold model completed via centrifugal casting machine

## O Step 6. Cementation \& Delivering

- Fix the completed prosthetic tooth inside the oral cavity.


1) Connect the gold prosthetic tooth to the lab analog. Tighten the screw with the 1.25 hex driver and confirm the match.

2) Connect the completed prosthetic tooth to the fixture in the oral cavity. Tighten the screw to 30 N cm using the 1.25 hex driver.

3) Check the match between teeth in opposite arches and interference with the surrounding teeth. Afterward, perform polishing.

4) Fixture of Gold UCLA abutment to prosthetic tooth completed

5) Healing abutment or cover screw removed

## 5. Sub-octa Abutment

Sub-octa abutment is used for screw-type prosthetics and multiple-unit cases with poor path.

| Sub-octa Abutment | Abutment Diameter | Cuff | Code No. |
| :---: | :---: | :---: | :---: |
|  |  |  | ZrN Coating |
|  | $\emptyset 4.8$ | 1.0 mm | DSOA480PC |
|  |  | 1.5 mm | DSOA481PC |
| ZrN Coating |  | 2.5 mm | DSOA482PC |
|  |  | 3.5 mm | DSOA483PC |
|  |  | 4.5 mm | DSOA484PC |

## O Step 1. Healing Abutment Removal

- Remove the healing abutment with the 1.25 hex driver.


1) Tissue healing completed after the secondary surgery

2) Remove the healing abutment with the 1.25 hex driver.

3) Healing abutment removed

## O Step 2. Pick-up Type

- After attaching the abutment in the oral cavity using the octa abutment driver, connect the pick-up type impression coping with the 1.25 hex driver $(30 \mathrm{Ncm})$. Take the impression. Afterward, install the healing cap to help minimize the feel of foreign matter inside the oral cavity of the patient.

| Impression Coping | Abutment Diameter | Type | Code No. |
| :---: | :---: | :---: | :---: |
| (18) | ø4.8 | Pick-Up | $\begin{aligned} & \text { DIOIO } \\ & \text { DIOIN } \end{aligned}$ |

* Impression Coping+Guide Pin Set Code : Impression Coping Code + S(ex: DIOIOS)


1) Connect the abutment in the oral cavity using the octa driver

2) Complete the fixture of the octa abutment in the oral cavity ( 30 Ncm ),

3) Connect the pick-up impression coping. Connect the 1.25 hex driver to the guide pin. Fix the impression coping to the abutment.

4) Impression coping fixed in the oral cavity

5) Impression material injection completed

6) Impression competed

7) Fix with pattern resin to reduce impression coping error that may occur during impression-
taking.
8) Remove the guide pin with the 1.25 hex driver.

9) Inject impression materials around the impression coping.
10) Fix the octa healing cap inside the oral cavity.


## Step 3. Master Model

| Lab Analog | Abutment Diameter | Code No. |
| :---: | :---: | :---: |
| 品 | $\varnothing 4.8$ | DIOLA |



1) Connect the lab analog to the impression coping. Fix with the guide pin and 1.25 hex driver.

2) Master model completed.

3) Form artificial gum.

4) Mix the plaster and inject. Take care not to cause impression deformation.

## O Step 4. Wax-up

- Using the 1.25 hex driver, fix the gold cylinder to the master model. Using a bur, adjust the height to that of the surrounding teeth.

Perform full wax-up to recreate the tooth pattern.


1) Lab analog as exposed in the master model (matches actual oral cavity patterns)

2) Carry out full waxing to recreate the tooth patterns. With bridge crowns, fix the cylinder with pattern resin, and then wax up to prevent deformation induced by shrinking wax.

3) Connect the gold cylinder to the sub-octa lab analog using the 1.2 hex driver.

4) After gold casting, secure space where lightcuring resin is to be injected to increase labiolingual aesthetics.

5) Check the abutment height and labiolingual width and diameter. Perform milling using the milling machine and bur.

## O Step 5. Casting

- Fabricate the prosthetic tooth from the cast pattern.


1) Mount the sprue.

2) Check the bite of teeth in opposite arches. Perform occlusion polishing.

3) Centrifugal casting machine used commonly for casting

4) Labiolingual side filled with light-curing resin to improve aesthetic quality

## O Step 6. Delivering

- Remove the cap, and then install the completed prosthetic teeth.


1) Healing cap previously fixed in the oral cavity now removed

2) Using the torque ratchet, fix the prosthetic teeth to the abutment ( 20 Ncm torque).

3) Connect the completed prosthetic teeth to the abutment in the oral cavity.

4) Remove the hole created at the center of the occlusion plane by injecting light-curing resin. Recreate the occlusion plane.

5) Insert the screw into the fixed prosthetic teeth. Fix with the 1.2 hex driver.

## 6. O-Ring Abutment

An attachment-retained prosthetic product, the O-ring abutment is used with patients with a fully edentulous maxilla.

| O-Ring Abutment | Abutment Diameter | Cuff |
| :---: | :---: | :---: |
| Cuff: $0.5,2,4 \mathrm{~mm}$ | $\emptyset 3.4$ | 0.5 mm |
|  | $\emptyset 4.5$ | Code No. |

## O Step 1. Healing Abutment Removal

- Remove the healing abutment using the 1.25 hex driver.


1) Tissue healing completed after the secondary surgery

2) Remove the healing abutment using the 1.25 hex driver's torque ratchet.

3) Healing abutment removed

O Step 2. Pick-up Type

- After attaching the O-ring abutment in the oral cavity using the O-ring abutment driver, take the impression.


1) Connect the abutment in the oral cavity using an O-ring abutment driver.

2) Connect the torque ratchet to the driver and tighten the abutment with torque $(30 \mathrm{Ncm})$.

3) Abutment connection completed in the oral cavity

4) Inject impression materials around the abutment.

5) Complete the injection of impression materials.

6) Impression body completed

## - Step 3. Master Model Fabrication

- Remove the impression body and connect the lab analog to the impression cap. Apply artificial gum around the fixture to recreate tissues. Box the impression and inject plaster to complete the master model.

| O-Ring Lab Analog | Code No. |
| :---: | :---: |
| 8 | DOLA |



1) To fix, push the lab analog into the ball portion in the now-detached master model.

2) Perform boxing to ensure precision recreation of the border area.

3) Mix the plaster and inject. Take care not to cause impression deformation.

4) Master model completed

## O Step 4. Wax-up

- Considering the patient's interocclusal height, adjust the wax rim and arrange the resin teeth. By adjusting the denture, confirm the occlusion and tooth arrangement. Fix the denture with plaster, and then inject resin into the wax model using a flask. Perform curing and finish the resin denture.


1) Fabricate the wax rim considering the patient's interocclusal height. Send the rim to the dentist.

2) Adjust the denture in the oral cavity. Check the occlusion and the tooth arrangement.

3) Using hot wax, remove the previously fixed wax to secure space where resin is to be injected.

4) Resin denture complete with curing

5) Following the wax rim adjustment in the ora cavity, take an interocclusal impression and send it to the fabricator.

6) Place the wax denture inside the flask to fabricate the resin denture. Fix with plaster.

7) Inject resin into the flask, pressurize with the press machine, and fill with resin around the wax model.

8) Perform polishing to smooth out the resin tip (generated during pressurization) and rough surface.

9) Arrange the resin teeth according to the occlusion record.

10) With the wax denture fixed, connect the flask wall and inject plaster completely. Cover to remove the air inside.

11) Resin-filled flask

12) Resin denture fully adjusted inside the oral cavity

## O Step 5. Delivering

- Place the denture onto the oral cavity model. Confirm the locations where retainers are to be inserted. Create holes and fix the retainers using resin. With the dark O-rings, smooth out the resin-filled sites. Replace the dark rings with the red O-rings and fix them onto the oral cavity.

| O-Ring Retainer | Code No. |
| :---: | :---: |
| $\pm$ | DOR |
| 0-Ring | Code No. |
| $\bigcirc 0$ | ORING |



1) Connect the retainers to the O-ring abutments. Using wax, block out retainer tops so that the denture-fixing resin will not flow into the O-rings.
2) Using a bur, smooth out the surface of sites where resin-filled holes are located. Polish to complete.

3) Using a bur, create holes where retainers are to be inserted.
4) Replace the dark rings with the red O-rings (final rings).

5) Let resin flow into the holes and fix the retainers. At this time, use the dark O-rings.
6) Fix teeth onto the oral cavity.


[^0]:    *Impression Coping+Guide Pin Set Code : Impression Coping Code + S(ex: DSIH45LS

[^1]:    *Impression Coping+Guide Pin Set Code : Impression Coping Code + S(ex: DSIH45LS

