RC-Base Abutment™

with **MEGA'GEN**

AnyRidge made one more Big innovation!

MEGA'GEN
For Lifetime Smiles

Powerd by
MEDTEQR

Another innovation in
AnyRidge prosthetics for anterior aesthetics

Stable crown fixation structure

· Cement contact area ↑
· Wall thickness ↑

Optimal angle option for aesthetic zone

→ 0°/ **11°**/ 22°
· No screw hole in aesthetic area

Ideal cementation surface

Improved cementation with ideal surface geometry

0.6mm Butt joint design

Prevents chipping of margins

Anti-rotation structure

Prevents any rotation movement with crown

Innovative DP Screw™ (Double-Pitch Screw)

Unique design with two pitches

· Minimizes sinking
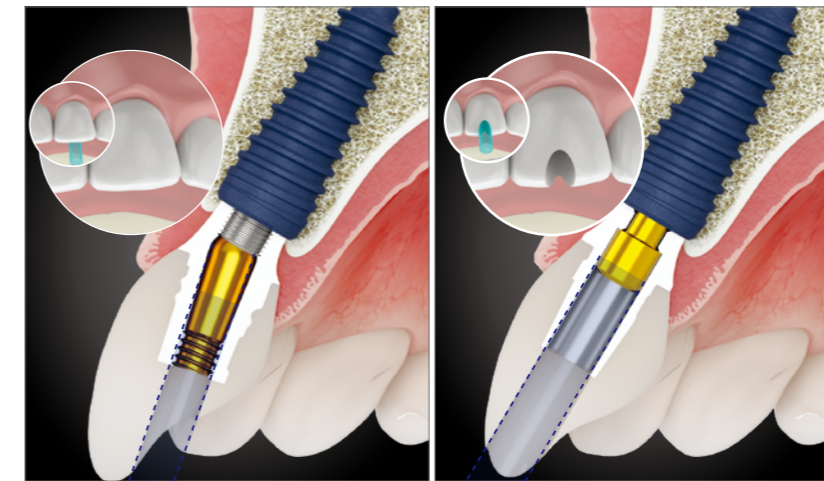· Maintains occlusion relationship of prosthesis

Biologic S-line

Ensures a better peri –implant biotype & better emergence profile

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Ideal angled screw channel

No screw hole in aesthetic area ensures best aesthetic result.
Perfect surgery and ideal implant position but…

RC-Base abutment™   Conventional abutment

· The angled tool channel allows the screw hole to be removed from the aesthetic area.
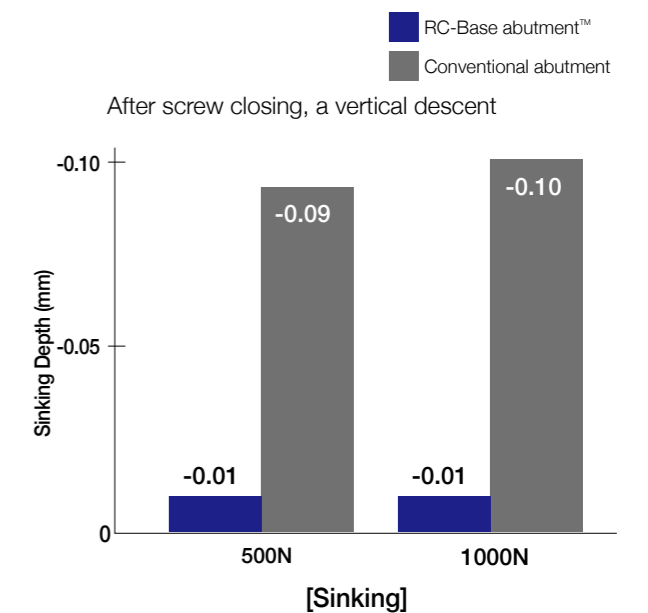
· The access channel for a screw-retained prosthesis can interfere with the aesthetics if the implant is angled too far labially. In such cases, a cemented type of retention is the usual choice.

RC-Base abutment™   Conventional abutment
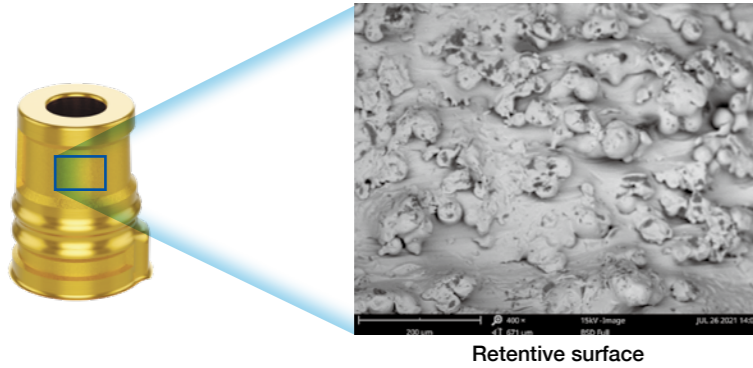
Innovative DP Screw™ (Double-Pitch Screw)

Structured to minimize sinking, which is a key disadvantage of all internal fixtures

Chewing pressure

■ RC-Base abutment™
■ Conventional abutment

After screw closing, a vertical descent

Sinking Depth (mm)

-0.10
-0.09
-0.10
-0.05
-0.01
-0.01
0

500N   1000N

[Sinking]

Stronger cementation force with zirconia custom

Maximized contact surface area

· The surface roughness of the RC-Base abutment™ is created by sandblasting.

· This maximizes the contact surface area with cement.

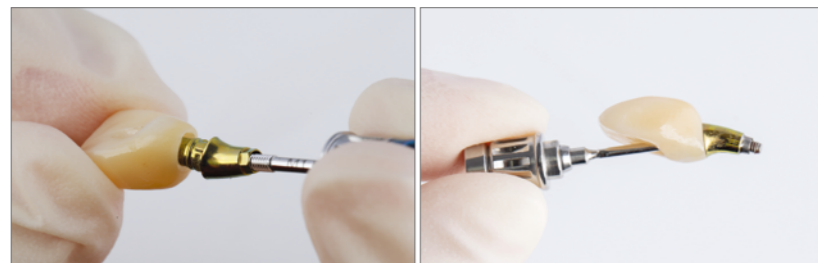· Prevents cement overflow close to the screw channel and near the platform to the basal face.

Retentive surface

Wider zirconia wall thickness due to better & easier screw driver access

RC-Base abutment™

Angled screw channel of crown
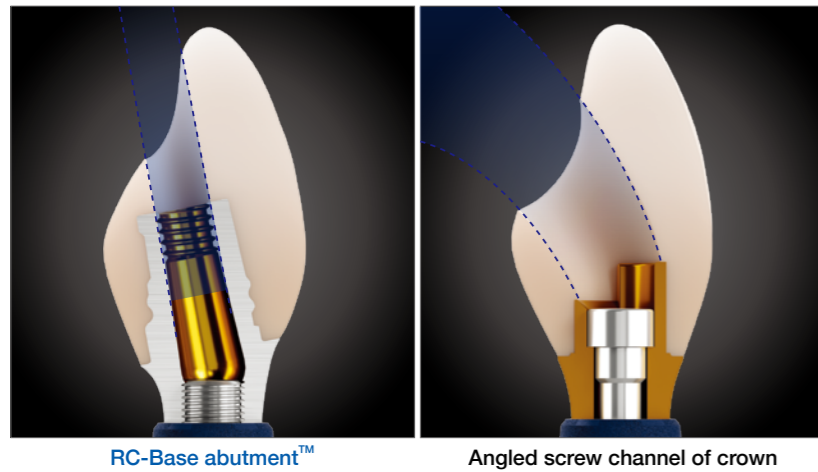
· Better wall thickness is secured via angled tool channel.

· Abutment is provided with screw already attached, so no space needed for screw head.

No side effects from residual cement

① Final crown is cemented outside oral cavity
② All excess cement is removed from final prosthesis

Complications from residual cement include:

· Peri-implantitis, periodontitis

· Bone loss → implant failure

RC-Base can solve your worries about ...

- If you want to make a zirconia custom abutment with CAM equipment
- If you are concerned about a screw hole in the aesthetic area
- If you are worried that the contour formation will not work properly
- If you are concerned about the strength of your zirconia custom abutment
- If you are concerned about screw loosening due to excessive mastication
- If there is a risk of inflammation due to residual cement in the case of deep placement

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➲ Abutment options

RC-Base Abutment
(Straight)

- DP Screw(1-MTO-D2T5) included
- Use with Screw Driver(MTO-DIT5-FW)
- Various cuff heights (2/ 3/ 4mm)
- Recommended tightening torque: 15Ncm

Diameter	Angle	Post Height (mm)	Cuff Height (Labial/Lingual) (mm)	Ref.C
Ø4.5	0º	4.7	2 (1.1)	D-MA35-C0G2-AS
			3 (1.9)	D-MA35-C0G3-AS
			4 (2.8)	D-MA35-C0G4-AS
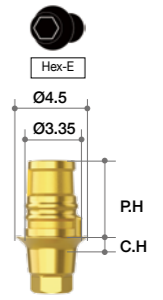
RC-Base Abutment
(11˚)

- DP Screw(1-MTO-D2T5) included
- Use with Screw Driver(MTO-DIT5-FW).
- Various cuff heights (2/ 3/ 4mm)
- Recommended tightening torque: 15Ncm

Diameter	Angle	Post Height (mm)	Cuff Height (Labial/Lingual) (mm)	Ref.C
Ø4.5	11º	4.7	2 (1.9/1.1)	D-MA35-C1G2-AS
			3 (2.7/1.9)	D-MA35-C1G3-AS
			4 (3.6/2.7)	D-MA35-C1G4-AS

RC-Base Abutment
(22˚)

- DP Screw(1-MTO-D2T5) included
- Use with Screw Driver(MTO-DIT5-FW)
- Various cuff heights (2/ 3/ 4mm)
- Recommended tightening torque: 15Ncm

Diameter	Angle	Post Height (mm)	Cuff Height (Labial/Lingual) (mm)	Ref.C
Ø4.5	22º	4.7	2 (2.8/1.1)	D-MA35-C2G2-AS
			3 (3.5/1.9)	D-MA35-C2G3-AS
			4 (4.4/2.7)	D-MA35-C2G4-AS

DP Screw

- Double-Pitch Screw

Torx	Ref.C
T5	1-MTO-D2T5

Screw Driver

- Fracture torque : 35Ncm

Torx	Length (mm)	Ref.C
T5	30	MTO-DIT5-FW-BOX

Hex-E

Ø4.5

Ø3.35

P.H

C.H

Try-In Tool

• Used to move RC-Base abutment to fixture

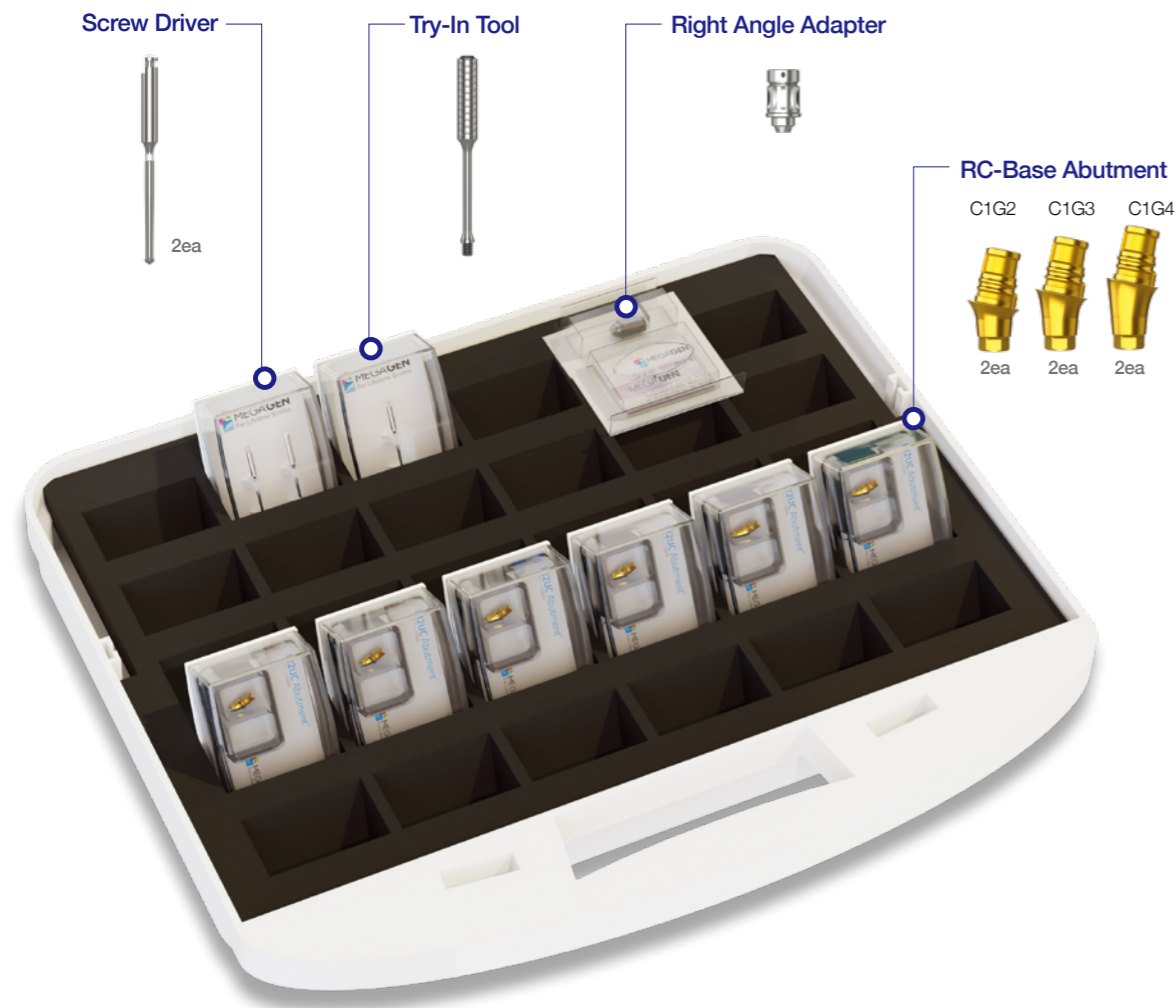| Type	Length (mm)	Ref.C
M1.8	30	MTO-DT-BOX

Right Angle Adapter

• Connect to Screw Driver(MTO-DIT5-FW) for use with Torque Wrench

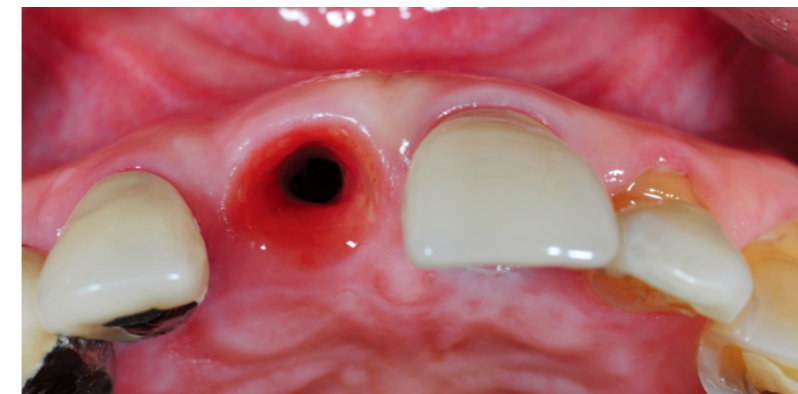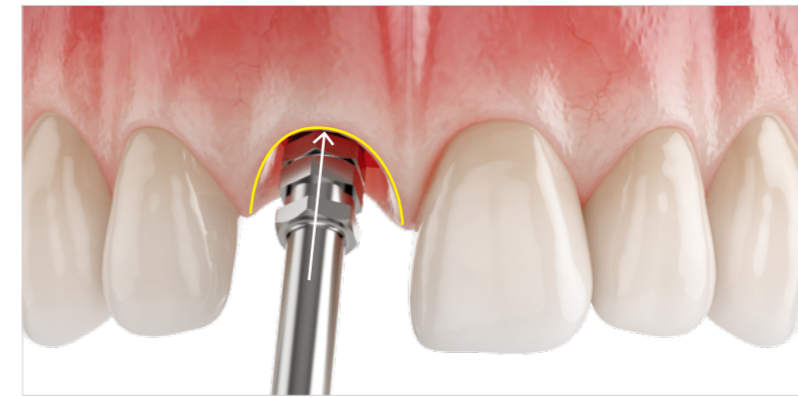| Type	Ref.C
Handpiece type	TTAI100

➥ Components of Trial Intro Set

Ref.C
MA35-Set-16

Screw Driver

2ea

Try-In Tool

Right Angle Adapter

RC-Base Abutment

C1G2	C1G3	C1G4
2ea	2ea	2ea

▸▸ RC-Base Clinical Workflow
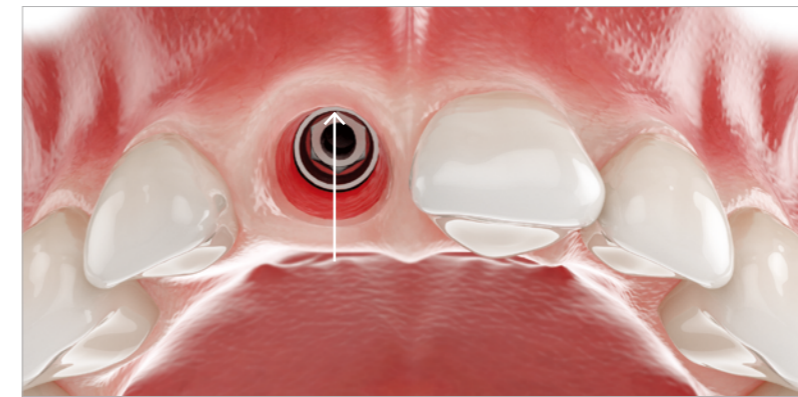
Fixture Positioning Guide

For the angled-type RC-Base abutment™, the post is inclined toward the edge of the connection, so the edge direction should be in the labial (Lingual) direction when installing the fixture.

※The hex structure of the handpiece connector allows the hex direction of the fixture connector to be adjusted according to the implant placement.
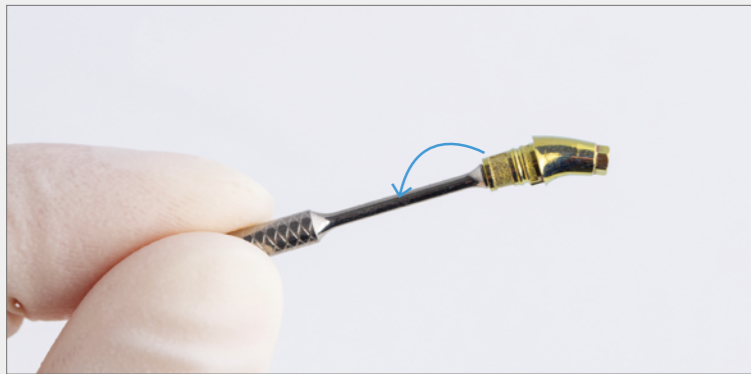
Fixture Connection

Hex-E

Handpiece Connector
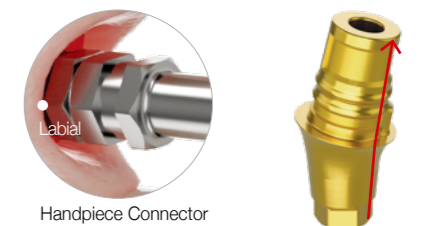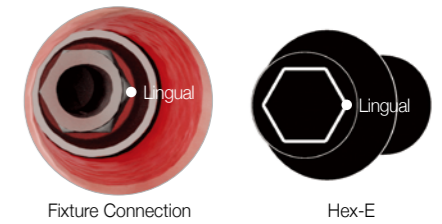
Oral scan using scan abutment

Insert the scan abutment in accordance with the hex direction of the inner surface of the fixture, and connect the abutment screw.

Check that the scan abutment is completely connected to the inner surface of the fixture, then perform oral scan.

R2iOS / i500 / i700

Optional flow

Try-In Tool
After separating the scan abutment, use the Try-In Tool to check the cuff height and angulation of the RC-Base abutment™. Use the Try-In Tool for easy pick-up and connection. Connect the screw tip of the Try-In Tool to the innerthread of the top part of the RC-Base abutment in a clockwise direction.

Screw tip
Try-In Tool

RC-Base Try-In
Check the cuff height and the position of the screw hole by connecting the RC-Base abutment™ attached to the Try-In Tool to the implanted fixture. The position of the screw hole can be adjusted in 6 directions based on the hex structure of the RC-Base abutment. Try to position the direction of the screw hole on the lingual side. For the accurate prosthetic work, take a photo of the screw hole direction at this time, or use the anti-rotation structure of the post to remember the direction.

Connect RC-Base with fixture & check the cuff height & post direction

Anti-Rotation
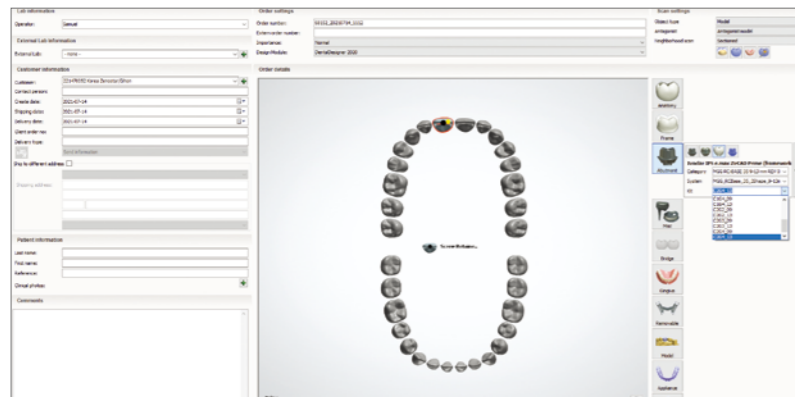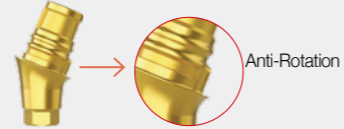
CAD Order Sheet and Library Selection
After running the CAD (exocad, 3Shape) program, create an order sheet for the design work. While the order sheet format will differ according to the program (exocad, 3Shape), a screw-retained crown is the normal selection.
Select the RC-Base library that matches the cuff height and angulation determined at the Try-In. Download and install the exocad or 3Shape library from the MedTEOR website or R2GATE website. CAD works well with the 2019 version or a later version.
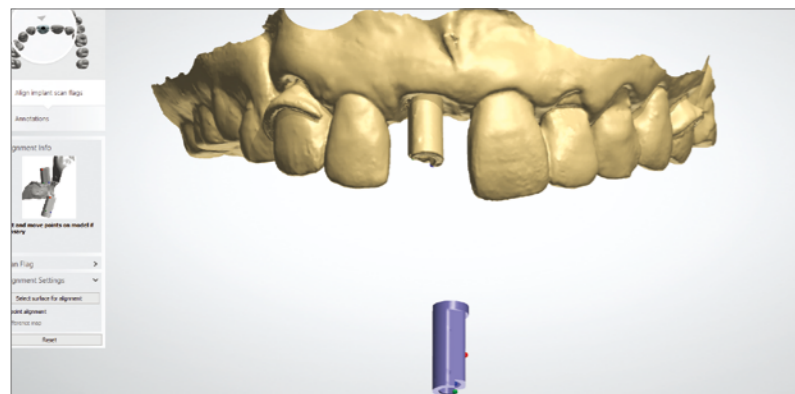
Matching
After importing the scan data, start the normal matching process. As matching references, use the flat surface of the Scan Abutment and flat surface of the Scan Abutment in the scan data.
After matching, check the degree of precision using the recommended function in respective CAD software.

Design of screw-retained crown
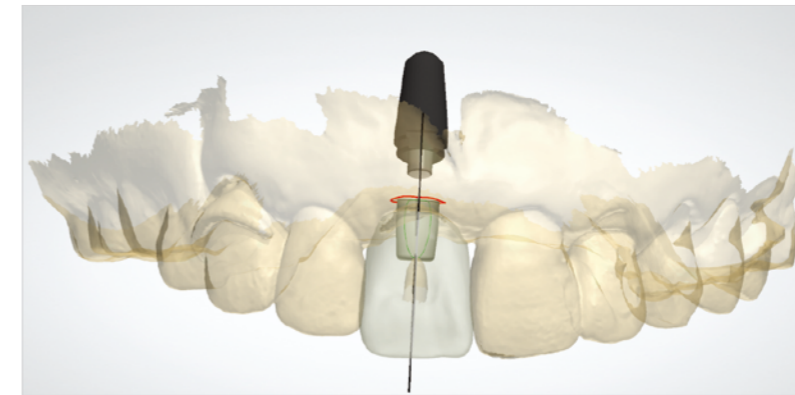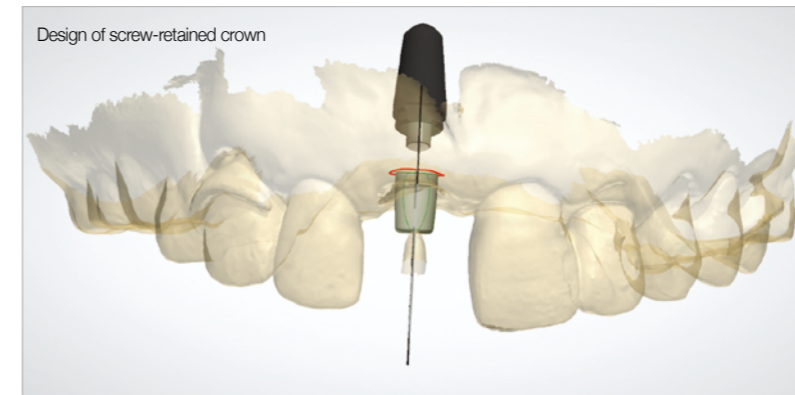
### Confirmation of Library, Direction, Cuff Height, and Diameter of RC-Base Abutment™
After matching the library, check whether the post direction of the replaced RC-Base matches the direction recorded during the Try-In. Also, check whether the cuff height and diameter of the selected library are appropriate. If not, return to the order sheet screen and select the correct library.

Prosthetic Design
After setting the margins according to the general rule, complete the design. Check that the screw hole is properly set in an aesthetic position and there are no weak areas in the crown design. In particular, make sure the thickness of the prosthesis is adequate near the lingual screw hole.
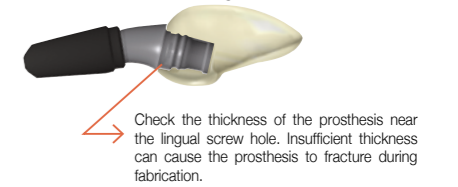
Check the thickness of the prosthesis near the lingual screw hole. Insufficient thickness can cause the prosthesis to fracture during fabrication.

Completed prosthesis design
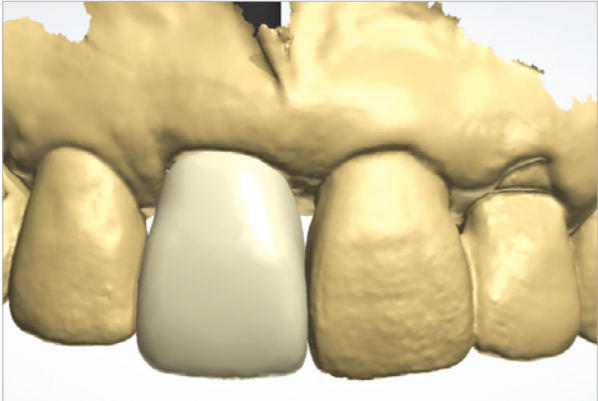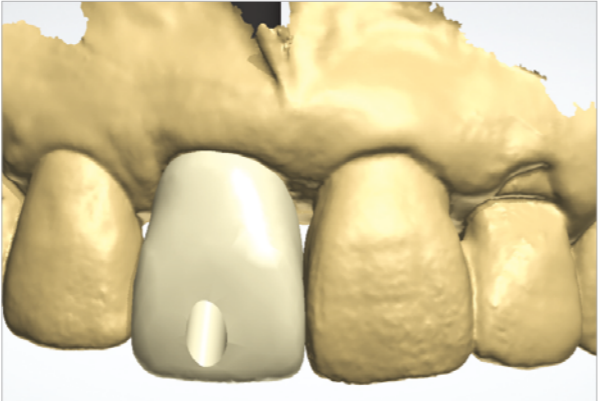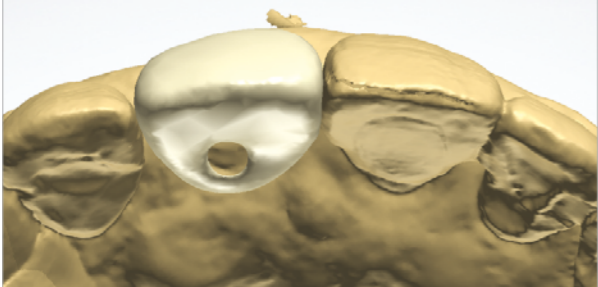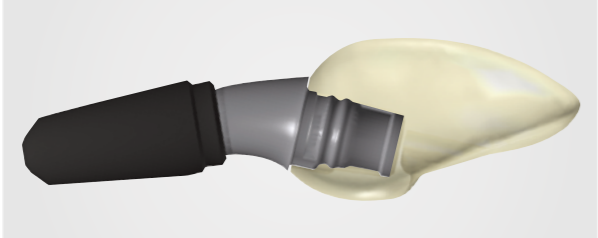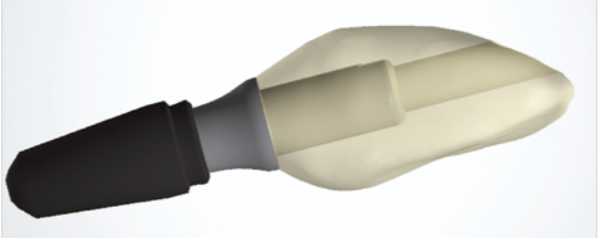
Lingual screw hole
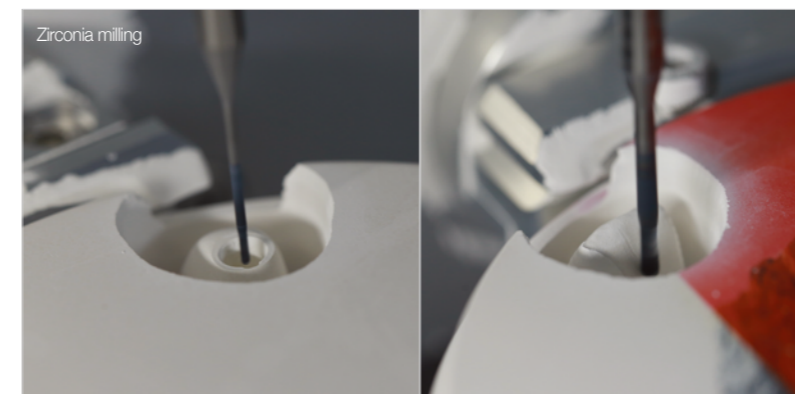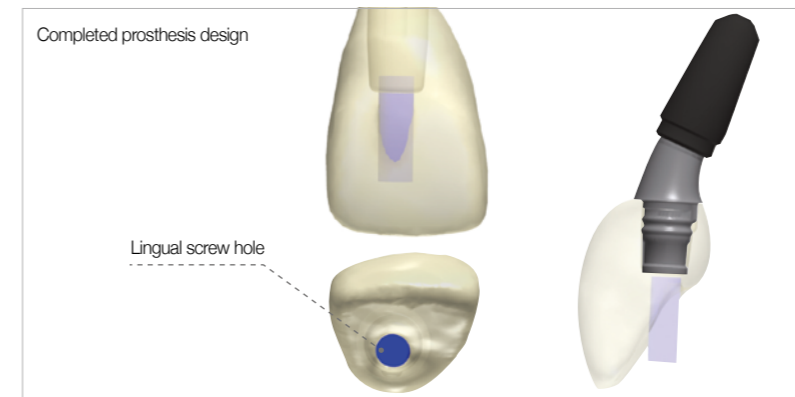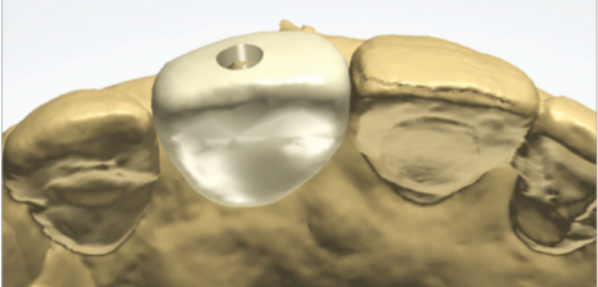
Extraction of STL
Extract or save the completed crown design in an STL format for importing into the CAM software.
Set the desired processing area and perform milling and tool simulation according to the operation of the CAM software

Zirconia milling

Zirconia Milling
Import the extracted prosthesis STL file into the CAM software and set the desired area needed for processing.
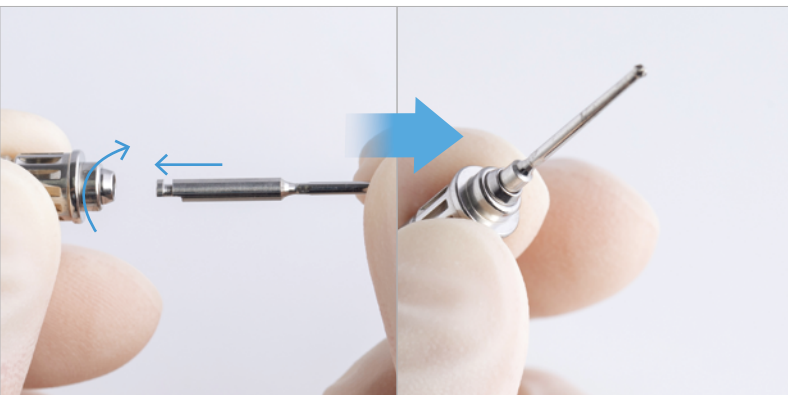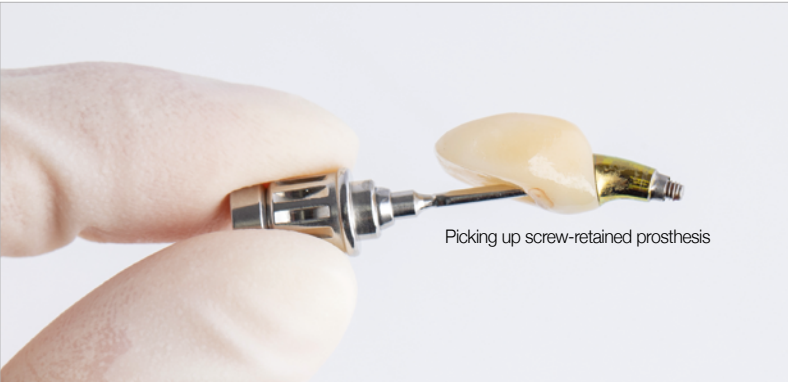Perform milling and tool simulation according to the operation of the CAM software.
Save the NC file in the CAM software and input the file into the milling equipment.
Set the designated zirconia block and start machining.

▸▸ RC-Base Clinical-work flow

RC-Base Abutment™	Conventional Ti-base Abutment

For the same anterior case, the screw hole designed for the RC-Base abutment™ is located on the lingual side, which results in an aesthetic and clean look on the labial surface.

For the same anterior case, the screw hole designed for a regular Ti-base abutment is located on the labial side, which makes it difficult to ensure a good aesthetic result.

After milling

Baking

Sintering Zirconia
Sinter the finished zirconia crown according to the recommendations for the zirconia block. Post-process as normal and dye, if required.


Cementing

Cement Bonding - Prosthesis & RC-Base
Before cementing, combine the prosthesis and RC-Base and check the gap. Rework if the prosthesis is not properly coupled or it rotates due to excessive clearance.
According to the cement manufacturer's instructions, apply the recommended amount of cement to the post of the RC-Base, then slowly attach it to the prosthesis. Remove any excess cement overflow using a sculpting tool. To complete, light-cure or self-cure according to the cement manufacturer's instructions.

Assembly using Screw Driver
To fasten the prosthesis, connect the Right Angle Adapter to the Screw Driver or just use a Right Angle Driver.

Picking up screw-retained prosthesis

Picking up the Prosthesis
Pick up the prosthesis by connecting the Screw Driver to the DP Screw™.

Rotate & pull up screw until it reaches top of internal screw channel of RC-Base
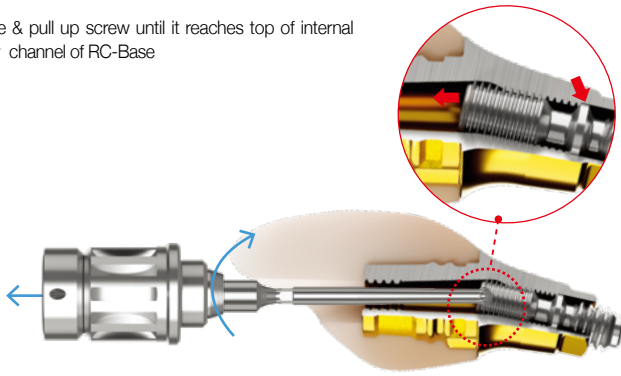
Initialize Position of DP Screw™

To fasten the RC-Base to the fixture, rotate and pull up the DP Screw™ in a counter clockwise direction until the stopper of the DP Screw™ touches the lower part of the inner thread of the RC-Base.

※ Although the position of the DP Screw™ of the RC-Base is set at the top, it can move during the delivery stage or for other reasons. So, be sure to check the position of the DP Screw™ to achieve a complete connection with the fixture.

Transport of Prosthesis

Move the prosthesis using the Screw Driver.

Delivery of prosthesis. Recommended tightening torque is 15Ncm.

Screw hole in lingual direction

Delivery of Prosthesis

According to the connection direction of the fixture and the adjacent teeth, turn the DP Screw™ in a clockwise direction to fasten the prosthesis to the the fixture.

※ If it feels too tight initially, this is probably because the DP Screw™ is in contact with the internal thread of the RC-Base when fastening the RC-Base to the fixture. No problem, just rotate in a clockwise direction to re-lease the stress.

※ Recommended torque: 15N(0°/11°)/ 15N(22°)

Final prosthesis is complete, and since the screw hole is on the lingual side, this creates a better aesthetic result.