

Digital or traditional impression taking using conical titanium scan bodies

The Conical Titanium Implant-Level scan bodies are used for optical three-dimensional localization of Tapered Pro Conical implants in the mouth and of the Conical lab analogs on a working model.

Note:

The use of the sterile scan body is limited to use in the mouth. The scan bodies may be used multiple times on the working model taking the integrity of the scan bodies into account.



1 Remove the healing abutment

Remove the healing abutment using an .050" hex driver. Confirm the implant prosthetic platform is free of any bone debris or soft tissue.



Helpful hint:

When placing scan bodies on multiple implants, remove one healing abutment at a time, replacing it immediately with the scan body. This reduces the likelihood of soft tissue collapsing onto the implant. Work from the posterior to the anterior.



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2 Place the implant-level scan body

Sterilize the scan body prior to use in-mouth. Place the conical scan body on the implant and ensure that the three (3) cams on the base of the scan body to lock into the conical connection supported by the implant's grooves.

Ensure that the scan body is sitting flush with the shoulder of the implant and secure retention using the conical abutment screw using a .050" hex driver.

Take a radiograph along the long axis of the implant to ensure that the scan body is seated completely into the implant.



Note:

The X-ray tube must be positioned perpendicular to the implant prosthetic platform.

3 Perform intraoral scan

Scan the scan body and surrounding dentition using handheld 3D scanner. Once the scanning is complete, you may import the digital file created to a design software or share with the lab of your choice.



Important:

Ensure the lab has the digital library that is compatible with the scan body. BioHorizons digital library can be downloaded from vulcandental.com.





4 Replace healing abutment

Replace the healing abutment immediately to prevent soft tissue collapse over the implant.



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Creation of printed 3D model

component options

- Conical Implant-Level Ti Scan Body (including conical abutment screw)
- .050" (1.25mm) hex driver
- Lab analog
- Lab analog insertion tool

1 Create 3D model for printing

Using a design software, import the digital file acquired during the intra-oral scanning of the patient.

Complete the software steps to develop a 3D model and print the 3D model following the appropriate steps of printing, drying, and curing of the model per the hardware manufacturer's recommendations.



2 Insert lab analog

Once the 3D printed model is ready for manipulation, insert the lab analog insertion tool in the conical lab analog and secure retention by tightening the lab analog insertion tool.

Hold the lab analog insertion tool and insert the lab analog into the 3D printed model by pressing it down.



3 Verify model accuracy

To ensure that the 3D printed model is an accurate depiction of the patient's oral anatomy, conical titanium scan bodies may be placed on the lab analogs using the conical abutment screws and hand-tightened with an .050 hex screwdriver.

A comparison digital scan may be acquired using a tabletop scanner or a handheld scanner.

Note:

Conical Titanium Scan Bodies may be used repeatedly on working models.



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Design & mill of restoration

component options

- Conical Implant-Level Ti Scan Body (including conical abutment screw)
- .050" (1.25mm) hex driver
- Conical block-out screw
- 3D-printed model

Create 3D design for restoration

Using a design software, import the digital file acquired during the intra-oral scanning of the patient.

Complete the software steps to develop a 3D model of the restoration and print the model following the appropriate steps of printing, drying, and curing of the restoration per the hardware manufacturer's recommendations.

2 Finalizing the restoration

Once the restoration is ready for manipulation, clean the surface of the restoration and bond the restoration to the abutment following the cement manufacturer's indications. The cement or bonding material should be indicated for Zirconium dioxide ceramics or PMMA. The conical block-out screw should be used to prevent cement from entering the screw access channel.



Note:

Depending on the chosen abutment, it may be necessary to modify the abutment prior to placing and bonding the restoration on the abutment.



Important:

For single crowns with angled screw channels, the final unused CAD/CAM Ti base abutment screw must be inserted before bonding the final restoration. The abutment screw is "trapped" by the bond and may not be removed without destroying the superstructure.

3 Verification of restoration

Verify the design and accuracy of the restoration by securing it to the lab analog on the 3D printed model using the conical abutment screw hand-tightened with the .050" hex driver. Check the contacts. Modify as necessary and polish after adjusting.









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