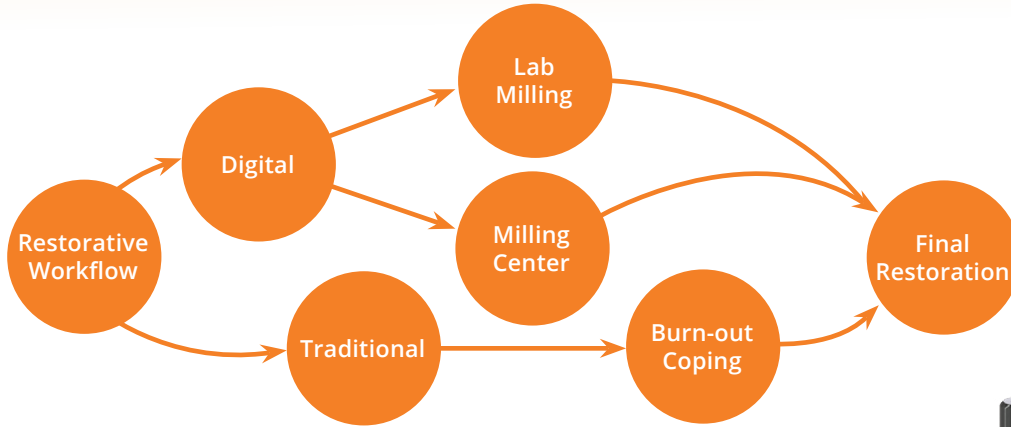




digital or traditional restorations with Laser-Lok titanium base abutments

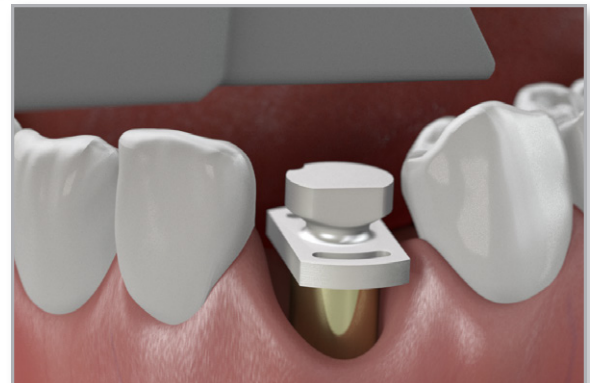
BioHorizons titanium base abutments are designed to support both digital and traditional workflows for cement and screw-retained restorations. The titanium base abutment features BioHorizons unique Laser-Lok technology to create a connective tissue attachment and titanium nitride coating to maintain a natural hue through soft tissue.



Digital Workflow

component options

- CAD/CAM system with a BioHorizons library
- Snap scan body
- Laser-Lok titanium base abutment
- Laser-Lok protective sleeve
- Direct coping screw, shallow hex
- Analog handle



1 | Digitize the impression

There are two primary ways to create a digital impression.

Option A - The first method is to take an intra-oral digital impression by placing a scan body into the implant and scanning the scan body and surrounding dentition using handheld 3D scanner.

Option B - The second method is to take an implant level impression, pour a stone model, place a software-dependent scan body into the implant analog and scan the model using 3D tabletop digital scanner.



Important:

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

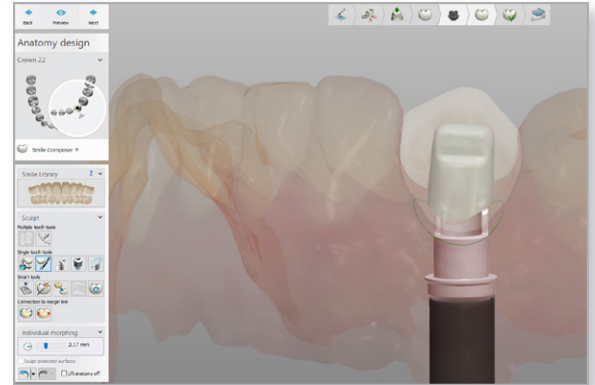


2 Lab Step: Design the crown

The file that is created during the digital impression is imported into the design software that will be used by the technician to design the crown. The restorative clinician should approve the design before milling the crown.



Note:
Cement retained restorations are also a restorative option.



3 Lab Step: Milling

Once the crown is designed, send the file to a milling center or to an in-house milling machine.



4 Lab Step: Cement the crown

Clean the surface of and bond the restoration to the titanium base abutment following the cement manufacturer's indications. The cement or bonding material should be indicated for Zirconium dioxide ceramics or PMMA.

The direct coping screw, shallow hex (PXDCSS) should be used to prevent cement entering the screw access channel.

See steps 5-8 for delivering the final restoration.

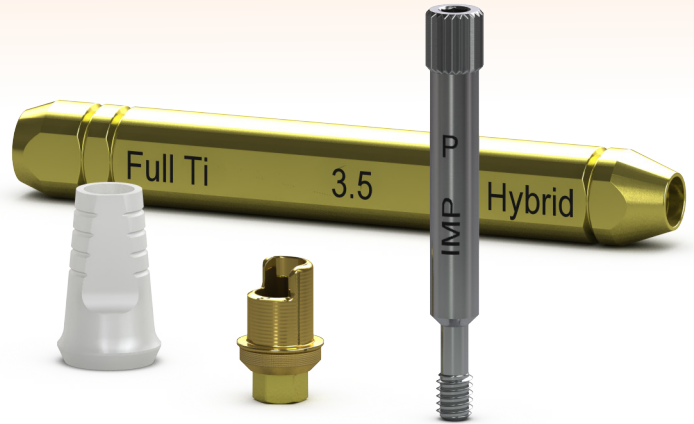




Traditional Workflow

component options

- Laser-Lok titanium base abutment
- Titanium base waxing sleeve
- Laser-Lok protective sleeve
- Direct coping screw, shallow hex
- Analog handle

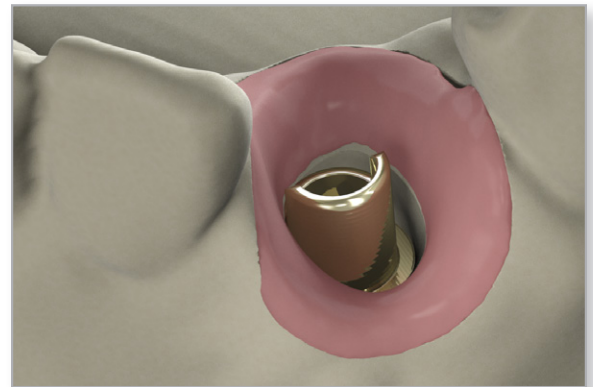


1 Screw titanium base abutment on model

Positioning the selected titanium base abutment engaging the hex of the implant analog with the "L" shaped cut out towards lingual/palatal. Hand tighten the abutment screw with an .050" hex driver.



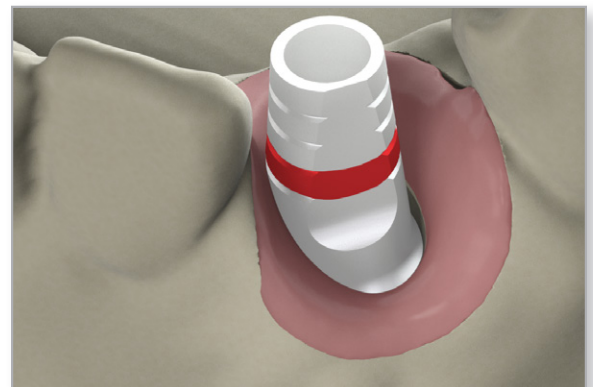
Note:
Cement retained restorations are also a restorative option.



2 Lab Step: Waxing sleeve preparation

Place the waxing sleeve on the titanium base abutment, determine modifications needed to provide adequate room for the fabrication of the crown.

Mark the waxing sleeve of the abutment for the required vertical reduction and modify with a cutting disk or an acrylic bur for occlusal clearance.



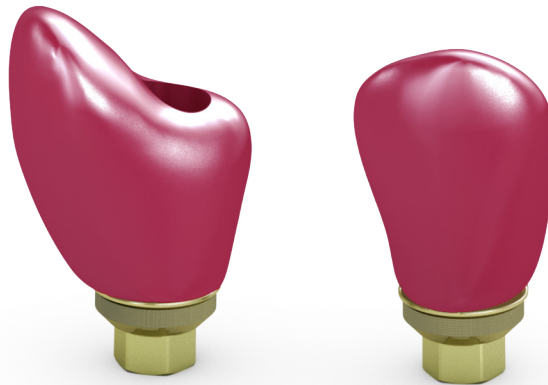
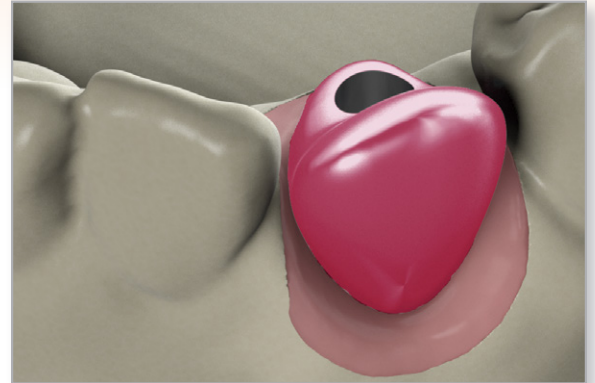


3 Lab Step: Wax restoration

Use wax and/or acrylic burnout resin to incorporate the modified waxing sleeve to create a full contour wax-up and follow the standard procedures to press or cast the restoration.



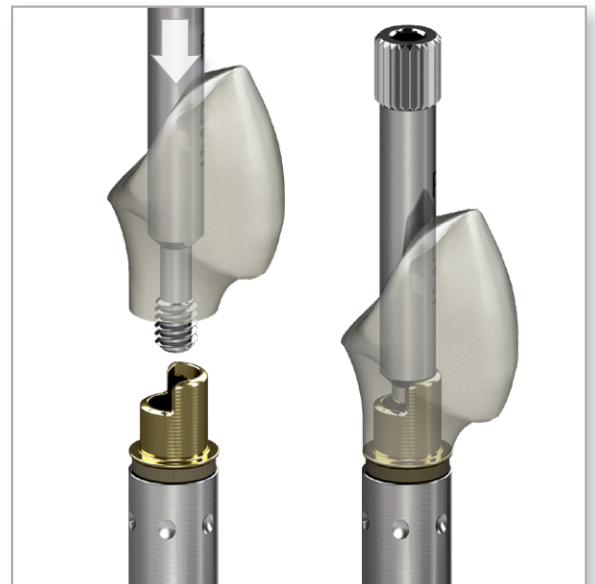
Note: Depending on the treatment the wax up may be a coping, bridge or full contour crown.



4 Lab Step: Finalization

The final contours of the pattern may be built up with crown & bridge wax. Clean the surface of and bond the restoration to the titanium base abutment following the cement manufacturer's indications. The cement or bonding material should be indicated for Zirconium dioxide ceramics or PMMA and lithium disilicate restorations.

The direct coping screw, shallow hex (PXDCSS) should be used to prevent cement entering the screw access channel.





5 Seat the final restoration

Clean and sterilize the finished crown using standard clinical procedure. Remove the healing abutment or temporary prosthesis from the implant with an .050" (1.25mm) hex driver.

Make sure the implant prosthetic platform is free of bone and soft tissue. Irrigate the internally-threaded connection of the implant and dry.

Secure the titanium base abutment restoration onto the implant using the abutment screw and an .050" (1.25mm) hex driver. Hand tighten.



6 Check and modify the restoration

Check the occlusion and contacts. There should only be light contact in centric occlusion. Modify as necessary and polish after making adjustments.

Take a radiograph along the long axis of the implant to ensure that the restoration is seated completely in the hex of the implant.



Note:

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



7 Tighten the abutment screw

Tighten the abutment screw to 30 Ncm using an .050" (1.25mm) hex driver and a calibrated torque wrench.



8 Fill the screw access channel

Place a resilient material of choice (gutta-percha, silicone or temporary filling material) into the screw access channel. This allows for easy access to the abutment screw in the future. Fill the remainder of the channel with a composite resin material of choice.

Take an x-ray for final prosthesis delivery records.

