

Zurick Bridge Zirconia Full-Arch Implant Prosthesis (Protocol A – Includes PMMA Setup)



THE ZURICK Bridge Full-Arch Implant Prosthesis offers a fixed, all-zirconia implant solution for edentulous patients desiring a stable and esthetic replacement for removable prostheses. Constructed from multi layered Zirconia, this fully edentulous restoration offers exceptional resistance to chips, fractures and stains while improving chewing and speech function. A provisional CAD/CAM implant prosthesis is included, which functions as a temporary appliance and allows for patient evaluation of the definitive prosthesis.

■ FIRST Appointment

Preliminary Impression

Before moving forward with the Zurick Full-Arch Implant Prosthesis option, consider anterior-posterior spread and keep in mind that 12 mm or more of vertical clearance is required. Although a closed-tray impression technique is described here, open-tray impressions are acceptable and preferred.

Take an implant-level impression, including the vestibules
. Ensure the palate is included for maxillary impressions.

- a. Remove the healing abutments or appliance from the implants. If the patient has multi-unit abutments in place, take an abutment-level impression.
- b.** Seat the impression copings and tighten the screws (**Fig. 1**). Take a periapical radiograph to verify complete seating. Check the impression tray for proper fit.
- c.** Take a VPS impression of the edentulous arch (**Fig. 2**). Allow the material to completely set, carefully remove the impression tray, loosen the screws and remove the impression copings.
- d.** Replace the healing abutments or appliance.
- e.** Carefully place the impression copings back into the impression (**Fig. 3**).
- f.** Fill out lab Rx including implant system and diameter of implants. If a bite splint is desired (additional fee), check the appropriate box on the Rx. Send the lab Rx in with the case. For Digital Impressions please upload all your information, scans and digital rx at:
www.3dprecisiondigital.com



Figure 1: Seat the impression copings



Figure 2: Take preliminary VPS impression.



Figure 3: Carefully reinsert impression copings into impression.

■ SECOND Appointment

Jaw Relation Records, Verification-Jig and Shade

You will receive from Precision Dental Arts, a bite block with screw-retained temporary cylinders (**Fig. 4**)

- Remove the healing abutments or appliance from the implants.
- Seat the bite block and gently tighten the screws by hand (**Fig. 5**).
- With the patient sitting up, use conventional denture technique to achieve accurate jaw relation records (**Fig. 6**).
- Unscrew the cylinder screws and remove the bite block.
- Replace the healing abutments or appliance.
- Take an impression of the opposing dentition and an impression of current denture for study model. The study model of the patient's existing denture can be used as a reference regarding the size and shape of the new teeth.
- Select the shade and communicate the preferred shape of the teeth; select the gingival shade.
- Return the entire case to Precision, including the working model, bite block, bite registration, opposing impression and shade selection.

Note: The final restorative option is determined following the Second Appointment, after your bite block has been received. At this point, Precision Dental Arts may determine that multi-unit abutments are required to correct implant angulation, accommodate screw access holes that are too far to the facial, or connect the prosthesis to implants that are more than 2 mm subgingival. In these cases, the lab will contact the doctor to provide information concerning treatment options and pricing.

Ensure that you take photographs with the patient wearing the occlusal rim. This will greatly improve the success of the next appointment as the PMMA Prototype Try-In. See **Figure 7**



Figure 4: Bite block with temporary cylinders.



Figure 5: Seat the bite block.



Figure 6: Record the jaw relationship.



Figure 7: Occlusal Rim Photo Series



Verification Jig

To ensure a passive fit of your restoration, it is vital to obtain an accurate final impression. A custom tray is provided along with an implant verification jig that has been sectioned and numbered on a working model. Each acrylic section contains a titanium cylinder. This procedure should be followed to ensure an accurate final impression.

Seat each section of the jig onto the appropriate implant or multi-unit abutment and tighten the guide pin (**Fig. 10**).

- a. The sections should not be in contact. If necessary, remove one section, minimally trim it with a disc, and reseat it. Each section should have a gap about the thickness of a credit card. Visually verify gaps before luting.

Lute the sections together with a suitable material (e.g., Triad® DuaLine® – DENTSPLY; Pattern Resin™ – GC America Zapit® – Dental Ventures of America or ADDS-IT Diversified Dental Systems) (**Fig. 11**).

- a. Allow the material to flow through and completely around the gaps (**Fig. 12**).
- b. Ensure the material is completely cured.

Optional – If desired, the clinician can test the passivity of the jig with a one-screw test. Tighten a single guide pin into one of the distal cylinders. No lifting of the jig should occur. Check for a passive fit by visibly inspecting completely around each cylinder for complete seating. This process can be repeated for each implant.

- a. If any section has a cylinder-implant interface that is subgingival, a periapical radiograph should be taken to verify complete seating.
- b. If any cylinder is not completely seated, the jig must be sectioned in that area, reluted and rechecked until a passive fit is obtained.

Final Impression

Check the custom impression tray for proper fit, ensuring no contact with the jig or cylinders (**Fig. 13**).

Using a medium body VPS material, take the final impression with an open-tray technique.



Figure 10: Implant verification jig seated.



Figure 11: Luting sections of the implant verification jig



Figure 12: Implant verification jig luted together



Figure 13: Check fit of the custom tray over the Verification Jig

- a. Inject VPS impression material under and around the jig to capture the ridge and all anatomical landmarks as for a full denture including full vestibular extensions (**Fig. 14**). Capture the complete palate for maxillary cases.
- b. Completely fill the impression tray. Seat the filled impression tray, ensuring the heads of the guide pins are exposed through the tray (**Fig. 15**).
- c. Once the material has set, remove guide pins and then remove the impression.

Note: the verification jig is picked up in the impression. Inspect the impression for the required detail.

Replace the healing abutments or appliance. If multi-unit abutments were supplied by Precision, leave them in place if possible.

Send in entire case, including the wax setup, the working cast and opposing model, the final impression containing the implant verification jig and guide pins, and lab Rx with reset instructions (if necessary).



Figure 14: Inject impression material under the implant verification jig



Figure 15: Seat the filled impression tray

■ Third Appointment

Delivery of Provisional PMMA Implant Prosthesis

You will receive from Precision the provisional CAD/CAM implant prosthesis. The provisional prosthesis serves as a temporary appliance and allows the patient a trial period to evaluate the prosthesis definitive prior to final fabrication. A trial period of one to four weeks is recommended.

Remove the healing abutments or appliance.

Seat the provisional prosthesis on the implants or multi-unit abutments.

Hand tighten the prosthetic screws, alternating from one side to the other.

Tighten the screws to the appropriate torque per manufacturer instructions (**Fig. 16**). Wait approximately 5 minutes and retorque the screws.

Confirm the occlusion. Make adjustments as necessary.



Figure 16: Occlusal view of provisional prosthesis in place and tightening the prosthetic screws to the appropriate torque.



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- Place a small amount of cotton in the screw access holes and fill with light cure composite or acrylic to prevent bacteria build-up (**Fig. 17**). You may also use PVS to fill access holes.
- When the patient is ready for the final prosthesis, return the master cast and opposing model. If any adjustments were made to the provisional CAD/CAM implant prosthesis, return the provisional appliance and list the adjustments on the prescription. Check the appropriate box on the Rx if a bite splint is desired but has not yet been prescribed.

Please note that you may request our **Dual Prototype Technique**. With this technique Precision will provide a PMMA Prototype along with a Printed Prototype. You will need execute any occlusal adjustments and any other modifications to both Prototypes, however, you may return the Printed Prototype and Keep the patient in the milled PMMA while the final Prosthesis is being fabricated.

An Additional cost of \$109 will be added to your case for this technique.

Notes: (1) If adjustments are required, the final restoration cannot be fabricated until the provisional has been returned. (2) Due to the potential of a bite discrepancy caused by occlusal wear, provisionals worn by the patient longer than four weeks must be returned and may incur a redesign fee.

*****Please photograph the patient wearing the adjusted PMMA. Use our recommended Photo Views as a guide. See image as a guide.**

FOURTH Appointment

Delivery of Final Prosthesis

You will receive from Precision Dental Arts the final prosthesis. If prescribed, you will also receive a bite splint.

Remove the healing abutments or appliance.

Seat the final prosthesis on the implants or multi-unit abutments.

Hand tighten the prosthetic screws, alternating from one side to the other.

Tighten the screws to the appropriate torque per manufacturer instructions. Wait approximately 5 minutes and retorque the screws (**Fig. 18**).

Confirm the occlusion (**Fig. 19**). Make adjustments as necessary.

Place a small amount of cotton in the screw access holes and fill with light cure composite or acrylic to prevent bacteria build-up (**Fig. 20**).

Note: Tooth-colored composite or acrylic should be used for access holes in the teeth, while pink composite or acrylic should be used for access holes in the prosthesis base.



Figure 17: Occlusal view of provisional prosthesis in place



Printed Prototype for Dual Prototype Technique



***Any additional information you deem important information to share with us would be much appreciated.



Figure 18: Deliver final prosthesis

Visit us at www.precision-dental-arts.com or contact us at 800-574-0721

ONE Week

Follow-Up Check

- Check occlusion.
- Review oral hygiene instructions.
- Set recall schedule.

MAINTENANCE Appointments

How to Maintain Final Prosthesis

- Six-month hygiene appointment
 - a. Perform prophylaxis under the prosthesis.
- Twelve-month (annual) hygiene appointment
 - a. Remove prosthesis for thorough cleaning.
 - b. If prosthesis screws are damaged or show signs of stripping, screws should be replaced.



Figure 19: Confirm occlusion.



Figure 20: Occlusal view of the final prosthesis in place following sealing of the screw access holes.



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Predictable implant lab fees and no hidden costs- See Precision Pricing

Price (per arch) includes: provisional prosthesis; final prosthesis; all labor, model and die work; analogs, set-ups, bite blocks, try-ins and verification jigs. Temp Cylinders and Titanium bases are not included in final price.

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**Price does not include multi-unit abutments and may vary when original equipment manufacturer (OEM) components are requested or required for the chosen implant system. Bite splint is available for an additional fee and requires an additional three days for fabrication.*

Quick Reference

	Doctor	Precision
FIRST Appointment	Preliminary impression	Pour model, fabricate bite block, Custom Tray and Verification Jig (6 days)
SECOND Appointment	Jaw relation records, select tooth shade/mold, impressions of opposing dentition and current study casts. Try in V-Jig	Articulate casts, digitally design and fabricate PMMA (8 days)
THIRD Appointment	PMMA try-in, photos, occlusion, esthetics. Photograph of patient wearing PMMA. See Photo Series above	Fabricate 2nd PMMA provisional or go to Final implant prosthesis.
RESET Appointment <i>(if necessary)</i>	Try -in and approve reset PMMA setup, photos	
	Delivery of provisional PMMA implant prosthesis if necessary	Fabricate final Zurick Bridge Zirconia Full-Arch Implant Prosthesis (10 days)
FOURTH Appointment	Final prosthetic delivery	
ONE WEEK Post-Delivery Check	Check occlusion, review oral hygiene instructions, set recall schedule	



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