

Comprehensive Scanning Requirements for Digital Wax-Up Design



1. **Labial Foundation Guide,**

The labial Foundation guide sits on the labial cortical bone, with the assistance of a vertical verifier for accurate vertical positioning. The function of this piece is,

- a. Provide a reduction plane for bone reduction.
- b. A seating mechanism, if the ridge crest has multiple extraction sockets, utilizing the labial plate of bone to seat the surgical guide will provide better guide adaptation.
- c. Stacking the remainder of pieces upon the labial foundation guide.

2. **Vertical Verifier,** the following anatomies could be used to accurately index the labial foundation guide,

- a. Teeth Vertical Verifier.
- b. Nasal Rim Vertical Verifier.
- c. Crest of the ridge Vertical Verifier.

This piece aims to position the labial foundation guide in a vertical position accurately.

3. **ITXPROS Fixation Kit** is utilized to stabilize the labial foundation guide to the labial plate of bone through the procedure. It consists of the following items,

- a. ITXPROS Screw Driver.
- b. Shaft that locks into the screwdriver.
- c. 1.6 mm Drill Bit.
- d. Fixation Screws.
- e. Metal Pins

4. Before the seating of the labial foundation guide, checking the bone reduction pdf is mandatory to check if any teeth extractions are required. This is because the screws utilized to fixate the labial foundation guide might be violating the roots of the existing dentition, complicating the extraction process.

5. Once the labial foundation guide has been secured to the bone anatomy, scoring the labial cortical bone above the reduction plane dictated by the guide is required before extraction. This is to create a weak area above the ROI for any fractures on the labial aspect of the ridge.

6. Teeth clearance of the arch of interest, followed by bone reduction utilizing a Bone rongeur and round football bur to the designated level indicated by the labial foundation guide. Copious irrigation is recommended utilizing a monojet syringe filled with cold saline solution.

7. Optimum reduction is to be verified utilizing the following pieces,

- a. Osteotomy Guide. Or
- b. Abutment Orientation Piece.

If the metal pins do not lock, the doctor must remove the osteotomy guide/abutment orientation and reduce the bone to the proper level until the metal pins lock into place.

8. Secure the **osteotomy guide** into the labial foundation guide receptors, utilizing the metal pins provided by ITXPROS, and start preparing the recipient osteotomy sites according to your guided kit protocol.
9. Once the recipient sites are ready for implant placement, utilize your guided implant driver to deliver the implants to the accurate vertical position per your surgical protocol.
 N. B, a marked groove on the surgical guide is there to time your implant driver flat surface for accurate timing of your implant's internal hex flat surface.
10. **Abutment orientation piece** carries an exact position of the groove previously discussed in the osteotomy guide for accurate positioning of your multiunit abutments. The screw hole of the MUAS needs to follow the index on the abutment orientation piece.
11. **Isolation Gasket** is seated on the reduced ridge to isolate the surgical field from the restorative. Avoid any restorative pickup material from contacting the fresh reduced ridge. The isolation gasket could be fabricated in multiple ways,
 - a. 3D printed Isolation Gasket.
 - b. Putty Material, adapted to the reduced ridge on the analog model and indexed using the PMMA.
 - c. Rubber Dam, locking around the MUA necks.
12. **Clear PMMA Duplicate** is a 3D-printed replica of your temporary restoration. The purpose of this piece is to accurately record the positions of the final implants and act as a verification jig once the implants have fully healed and you are ready to order your final restoration.
 Before sending us this piece, we will need an impression wash recording of the soft tissue anatomy once the healing has been completed.
13. **Provisional Restoration (PMMA)**, ITXPROS provided this piece with two different mounting systems,
 - a. PMMA with latches, locking into the labial foundation guide receptors. After the pickup process is completed cutting the latches off and adding pink gingiva is required.
 - b. PMMA seated on the APS piece. Minimum finishing is needed for this category.
 It involves two pieces,
 - i. APS Piece. It has latches that sit into the labial foundation guide receptors and has male parts to its occlusal aspect where the PMMA Seats.
 - ii. PMMA Piece has a tripod female portion that seats at the correct vertical height guided by the male projection on the APS piece.
14. **Silicone bite**, A putty index is created in centric relation to the antagonist dentition for evaluation of the PMMA occlusion to the antagonist's teeth.
15. **Plastic Straws** are utilized to block the screw access channel of the titanium cylinders during the pick-up process.
16. **Titanium cylinders** are trimmed to the correct vertical height.

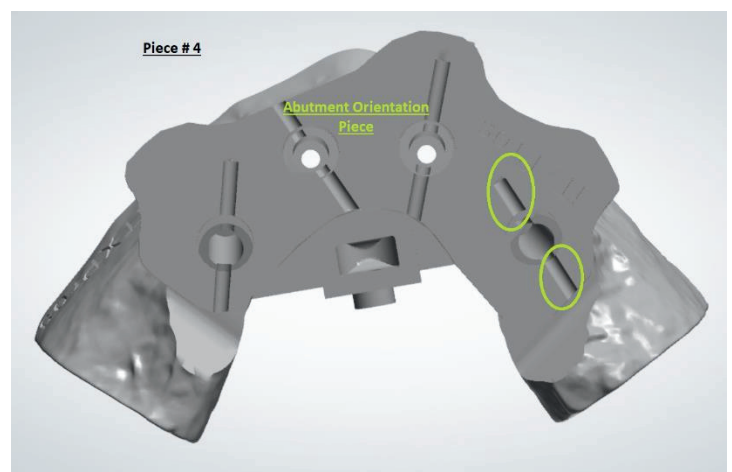
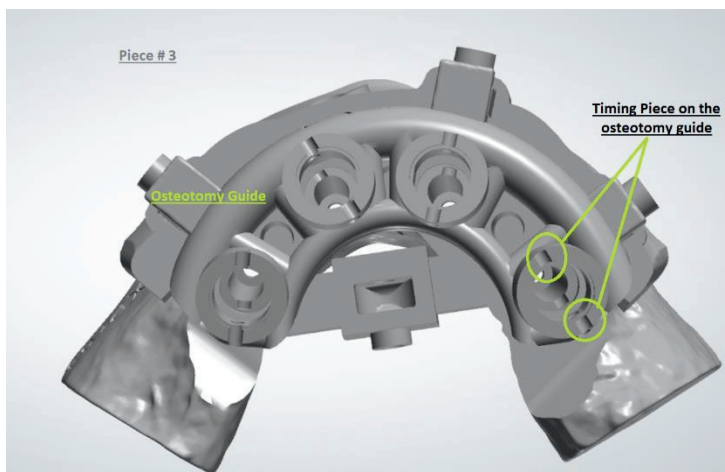
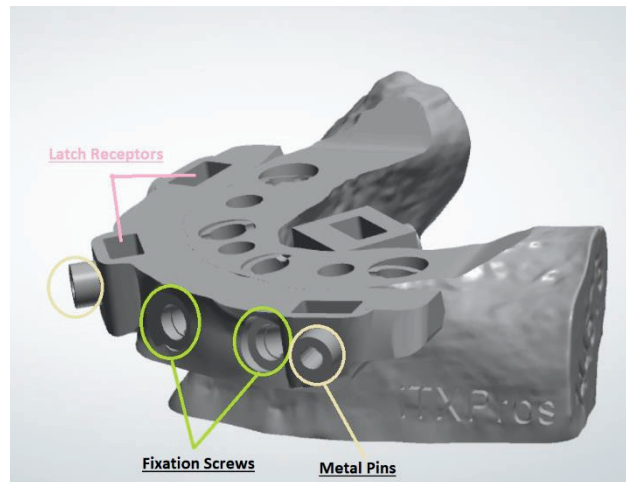
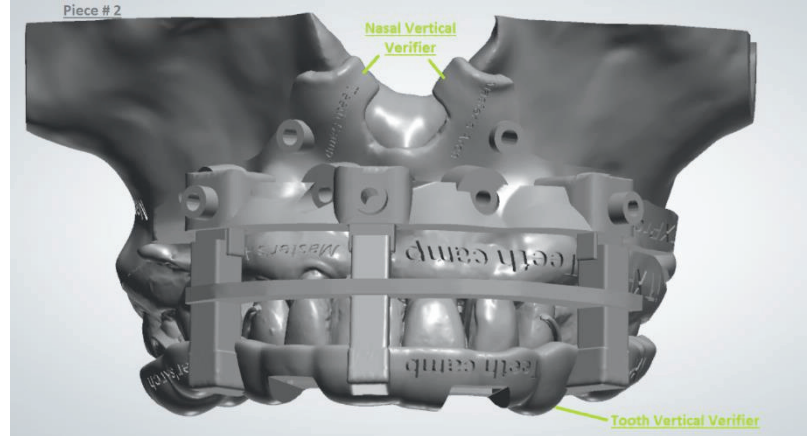
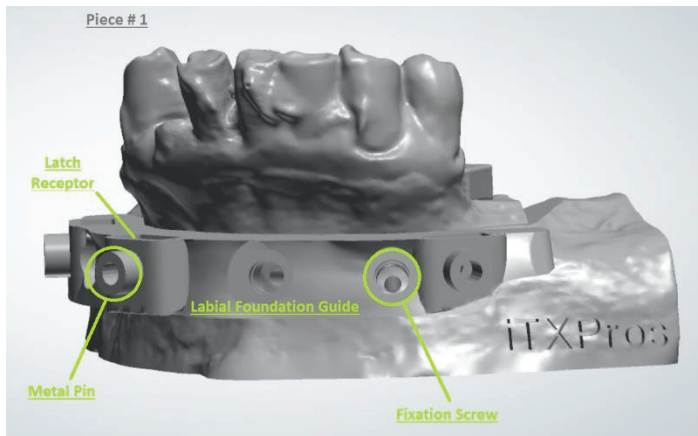
PMMA Pick-up process,

1. Multiunit abutments are torqued to the implants per the manufacturer's instructions. (25 N-cm)
2. Isolation Gasket is seated.
3. Titanium cylinders are torqued to the implants per the manufacturer's instructions. (10 N-cm)
4. PMMA is seated upon the labial foundation guide.
5. Titanium cylinders are pre-trimmed to the correct vertical height.
6. Testing the patient's occlusion using the silicone bite is recommended.
7. Add the plastic straws to the screw access channel for blockage during pickup.
8. Inject flowable composite material or a chairside reline material for PMMA pickup. (Dual-cured material is recommended)
9. LED curing device is recommended for setting the flowable chairside material.
10. Remove the plastic straws and reverse torque the titanium cylinder screw once the material has hardened.
11. The PMMA will have the titanium cylinder locked into it.
12. Provide the chairside assistant with the PMMA for finishing and polishing.
13. The labial foundation guide could be removed, and necessary grafting procedures could be conducted. Once completed, suturing the patient, soft tissue with primary closure.
14. Seat the PMMA on the MUAs, and tighten the titanium cylinder screws per the manufacturer's recommendations.

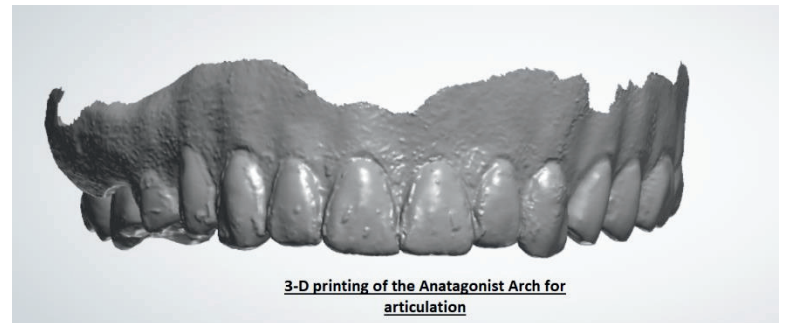
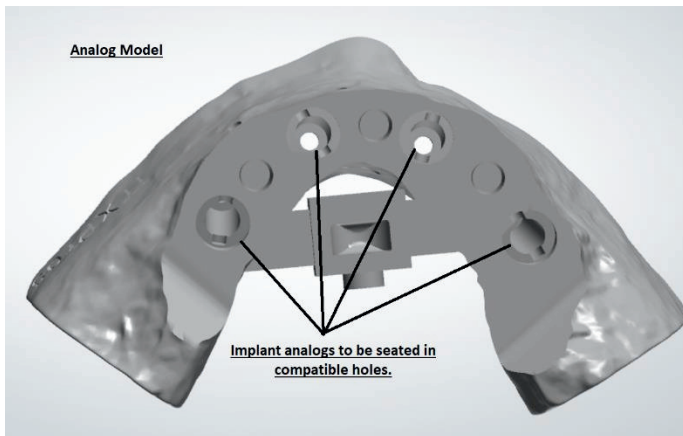
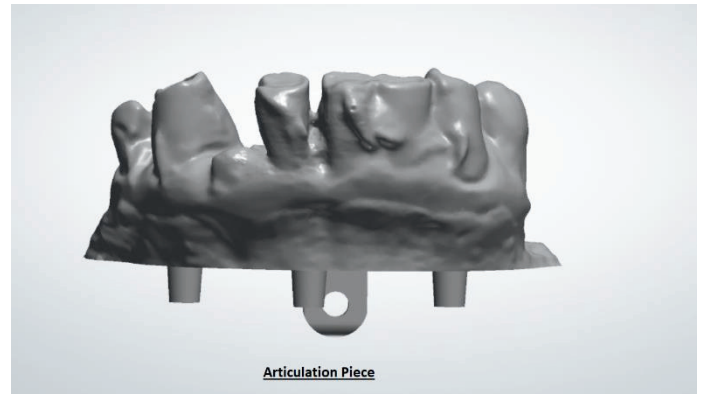
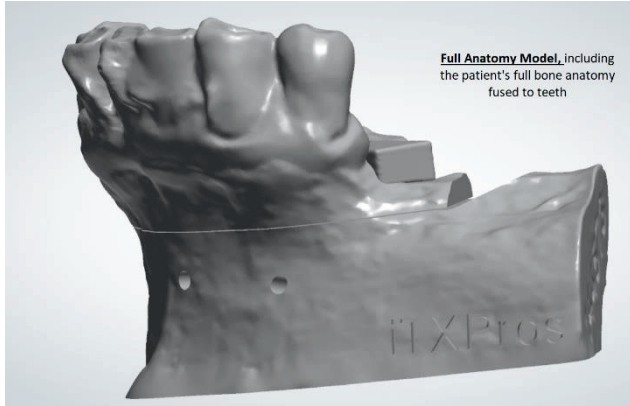
ITXPROS Fixation screw Kit



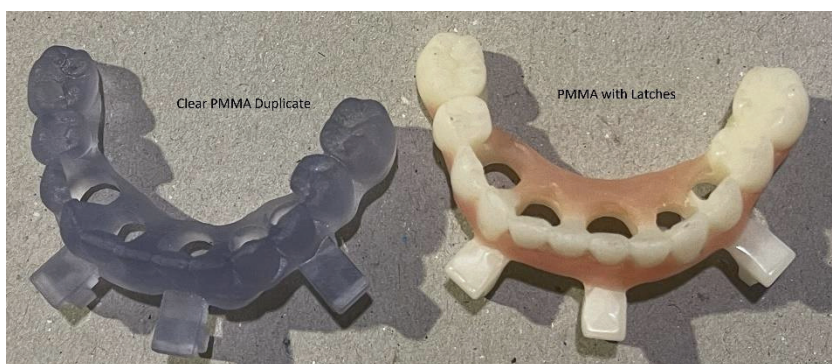
Surgical Guide Portion of the All on X Cases (SG Resin Material)

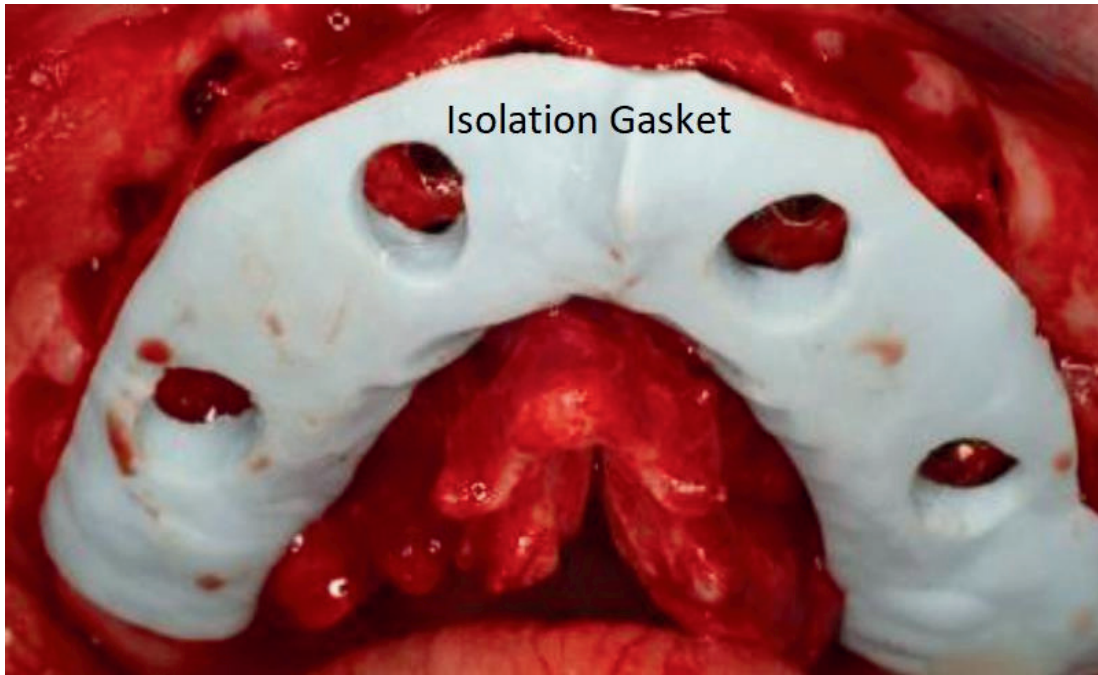


3D printed Models (White Resin Material)



Insta Portion Pieces





- Isolation Gasket, the 3D printed picture is missing.
- Plastic Straws, missing any pictures.
- Trimmed Titanium cylinders, missing pictures.