



A chairside story 2. / 3D printed permanent inlays





VOXELTEK.LIVE provides a chairside solution in which the dentist uses digital technology to prepare permanent restorations for the patient in a single session. The procedure uses digital impression from an intra-oral scanner to create a computer-aided design and 3D printing to fabricate inlays or crowns, instantly in the office, eliminating the need for the patient to return to the dentist's office multiple times.





1. Initial State - Old Composite Fillings:

The original condition of the teeth with previous composite fillings.





2. Post-Composite Removal State:

After the removal of composite fillings, some underlying material is still observable on the teeth.





3. Reduction of Molar Tooth:

Due to a crack the affected region of the mesio-buccal cusp had to be taken away.





4. Cleaned State After Sandblasting:

After sandblasting, the teeth are prepared for adhesive treatment.





5. Pre-Adhesive Treatment State:

The condition of the teeth before adhesive treatment, with plastic wedges replacing wooden ones between premolars.





6. IDS (Immediate Dentin Sealing) State:

The state after IDS, where the teeth were treated with adhesive before scanning for increased bond strength.

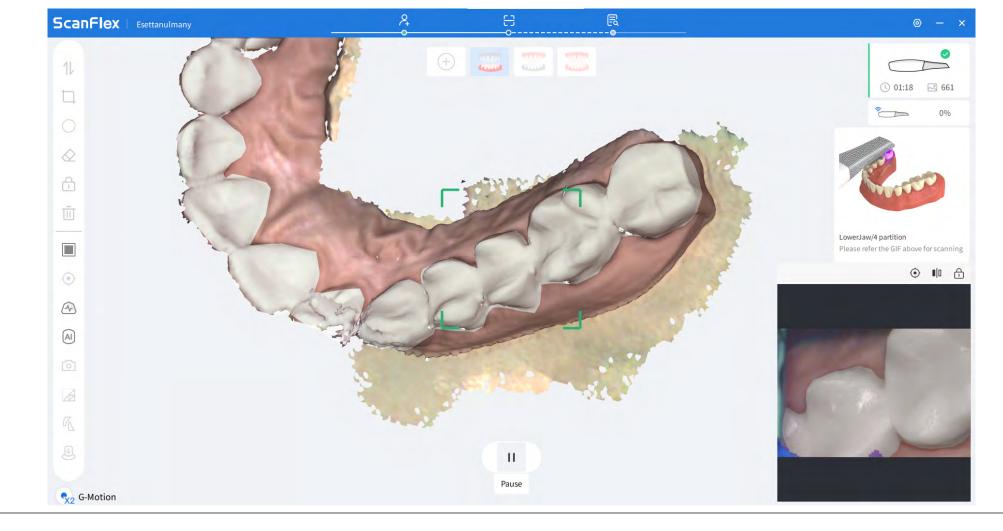




7. Pre-Scanning image:

A photo taken before scanning.





8. Intraoral scanning:

An intraoral scan is taken of the molar with the prepared cavity. As an intraoral scan may easily be ruined by bleeding, the use of a rubber dam is strongly recommended.



VOXELTEK	LIVE	1					💿 Basic design order		Information & Pricing	1		
							Tasks		Our system works flawlessly and can be used with any intraoral scanner or 3D printer, however, to achieve the most optimal results and user experience,			
	Sign-up today & Get your first Crown and Model designs for FREE!		Lo	Log in to VOXELTEK.live		New Print Job Print History Print History Print Jobs Library	+ Add new task		If you don't have VOXELTEK products, visit our website and familiarize yourself with the possibilities, as you can raise your professional competencies to the next level through our bundle offers.			
							Deadline Delivery times and final calculated price may vary depending on the complexity of the orders placed and other factors. We reserve the right to make changes, but in all cases users will be		Use this submit form to order CAD design for your case.			
	Your dental lab in			ssword		A My Printers	informed and credits will only be deducted from their account once they have accepted and confirmed the delivered design in all its terms and conditions.		 Fill in the form, include description of your case and your requested delivery time. Our design team will review the case and will contact you if any clarification is 			
				Remember Me		 My IOS devices 	2 days - 0% discount		needed. 3. Receive your CAD design before the requested deadline.			
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-	V Fair and calculable design costs, starting from 6 EUR / unit			Forgot Your Password?		💄 My Profile			This way, all your orders will be handled correctly.			
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	-				A				Veneer design (per unit)	7.5 🛞	6.75 🛞	6 🐠
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About VC Sign Up	OXELTEK.live	Facebook Linkedin	VOXELIOS Intraoral Scanner Mark IV Dental 3D Printer	About Us Contact Us		What's new?	File links + Add		Gum design on model	2.5	2.25	2 🐠

9. Submitting CAD design order:

Through the Voxeltek.live online platform, the assistant uploads the intraoral scans and, if necessary adds comments and special requests to the designer's work. Within 30 minutes the completed designs are sent back to the assistant.





10. 3D printing the approved inlay design:

Once the assistant has received the plans and the dentist has approved them, the print file can be sent to the Voxeltek M4 dental 3D printer with the click of a button, and the restoration can be made from Class IIa biocompatible material in 30 minutes.





11. Photo of the Inserts 3D printed on the VOXELTEK M4 printer:

A custom-printed sectional model with VOXELTEK Pro5 model material and Saremco CrownTec A2 permanent composite inlays.





12. Post-Polymerization Process:

The process of post-polymerization for the inserts.





13. Inserts to be Cemented:

CNC-milled hybrid ceramic overlay for the second molar and two Saremco CrownTec A2 3D printed permanent composite inlays for the small molars.





14. Cementation Process:

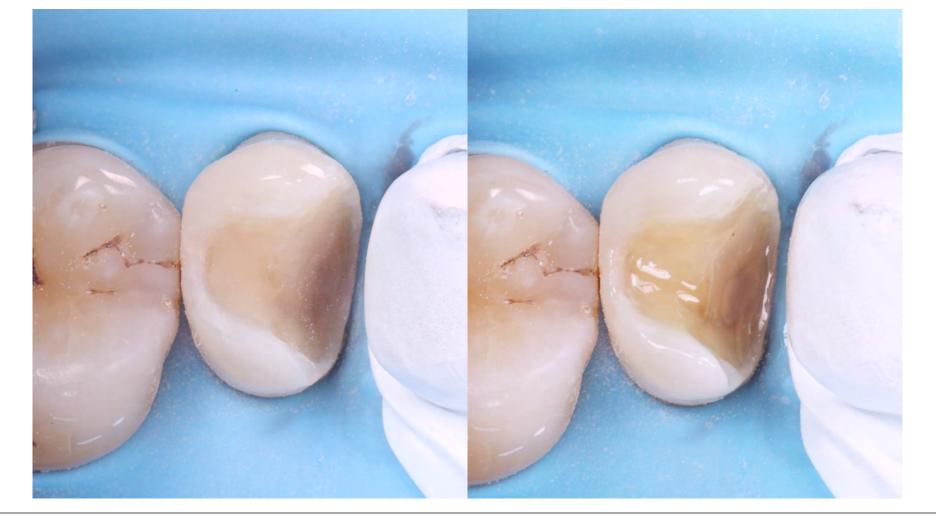
Activation of IDS surface by sandblasting, neighboring teeth protected with Teflon to prevent contamination. Heated composite material used for cementation.





15. 3D Printed Composite Inlay Cemented in the First Small Molar





16. Condition Before Cementing the Second Small Molar





18. Quadrant Photo of Cemented Replacements:

17 CNC-milled overlays, 14 OD 3D printed composite inlays, 15 MO 3D printed composite inlays.





19. Before and After Photo:

A comparative photo showing the condition before and after the inserts were cemented.





Putting smiles on faces.

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