AnyRidge® Implant System Scan Post (C-Type)

by Neal Patel DDS

Summary

The following information will guide you through the scan, design and production process utilizing the MegaGen AnyRidge Scan Post (C-type) with the CEREC system. This step-by-step instructional piece details the procedures and processes involved in creating a screw-retained, implant-supported restoration with the AnyRidge ZrGen Abutment (C-type).

AnyRidge Scan Posts (C-type) are designed for intra oral scanning utilizing the CEREC system from Sirona, to precisely transmit prosthetic information relating to the exact clinical position of the implant. Featured here is a step-by-step demonstration utilizing the AnyRidge Scan Post (C-type) to restore Tooth #30 after implant placement and osseointegration.

The patient presented with the healing abutment in place, and is ready to begin the restorative process eight weeks post implant placement (fig 1). Removal of the healing abutment reveals healthy keratinized tissue and exposes the implant in preparation for AnyRidge Scan Post C-type to be placed to scan (fig 2).

Scanning Protocol

Place the Scan Post on the driver; note the prosthetic notch on the side wall of Scan Post (fig 3). This notch should be oriented on a proximal surface, as the milling sprue is usually 90° from the notch on the Scan Post. This will avoid having a sprue on a proximal contact area and avoids manual adjustment of proximal contact in the crown restoration. When the Scan Post is properly seated on the AnyRidge implant, there is clear visual confirmation of the notch on mesial of the implant (fig 4). Taking a patient X-Ray is recommended to adequately confirm seat of the Scan Post.

The Scan Post is the metal part that receives the Scan Body (fig 6) which is available through your Dentsply Sirona dealer. The gray Scan Body is for use with Omnicam and white Scan Body is for Bluecam. Please refer to page 9 for more information.

Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

Figure 6

Administrative Screen Options

Select the following options on the Administrative Screen Figure #7:

1. **Restoration Type**
   a. Screw Retained Crown
   b. Multilayered Abutment

2. **Design Mode**
   a. Biogeneric Individual

3. **Material**
   a. IPS e.max CAD

4. **Mill Device**
   a. Specify your mill

5. **Scanbody Type**
   a. Scanpost

6. **Ti Base Manufacturer**
   a. SIRONA

7. **Ti Base**
   Please refer to chart on Page 9 for sizes

8. **Define Restoration**
   a. Acquisition

Fig 7: Administrative Screen and proper selection of materials and implant Scan Post ***(use Sirona's XiVE® listed as "FX" in Sirona Library.)***

Follow traditional CEREC protocol for manufacture and restoration.

Fig 8: Intraoral Scan with CEREC Omnicam with 4.4.2 Software release. Axial View

Fig 9: Intraoral Scan with CEREC Omnicam with 4.4.2 Software release. Buccal View

Fig 10: Intraoral Scan with CEREC Omnicam with 4.4.2 Software release. Buccal View with Xive Implant Body Identified

Fig 11: Transparent view: Implant location identified through software algorithm based from Scan Post

Fig 12: Visual confirmation of AnyRidge Ti Base on XiVE implant

Fig 13: Prosthetic Design for Screw-Retained e.max Crown. Use Sirona's XiVE CAD program to design your abutment and crown per normal processes.

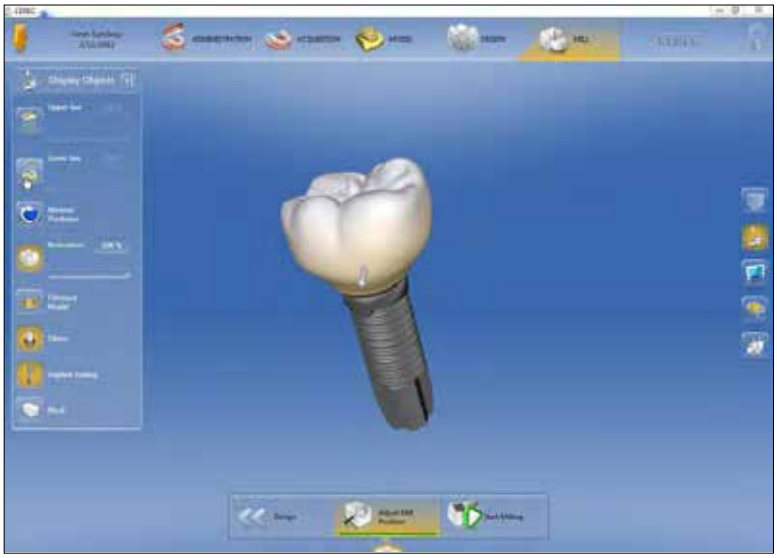


Fig 14: Prosthetic Design for Screw-Retained e.max Crown

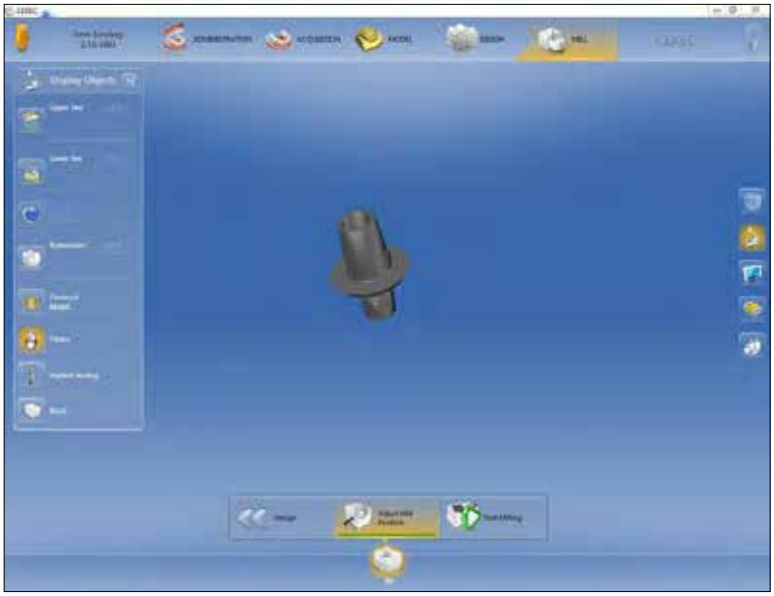


Fig 15: Software showing simulated Ti base

Fig 16: Ti Base with Custom Crown

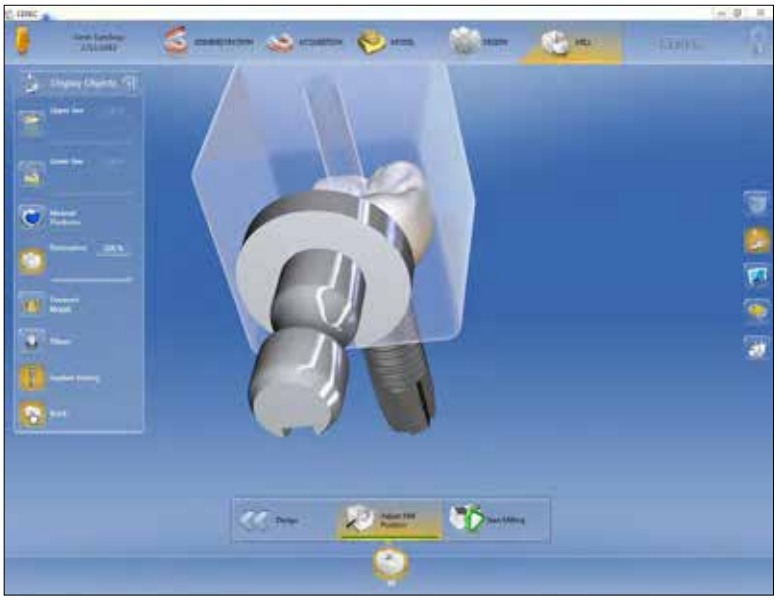


Fig 17: Ti base with Custom Crown within e.max Abutment Block

Fig 18: Ti base with Custom Crown within e.max Abutment Block

Fig 19: Notch interface relationship to crown (note: e.max block selected is large size to match the AnyRidge large Ti base.The notch and hole are pre-machined into e.max block). For AnyRidge small Ti base/Scan Post, the small e.max block must be selected.

Fig 20: Screw hole location of restoration based on pre-machined hole in e. max block

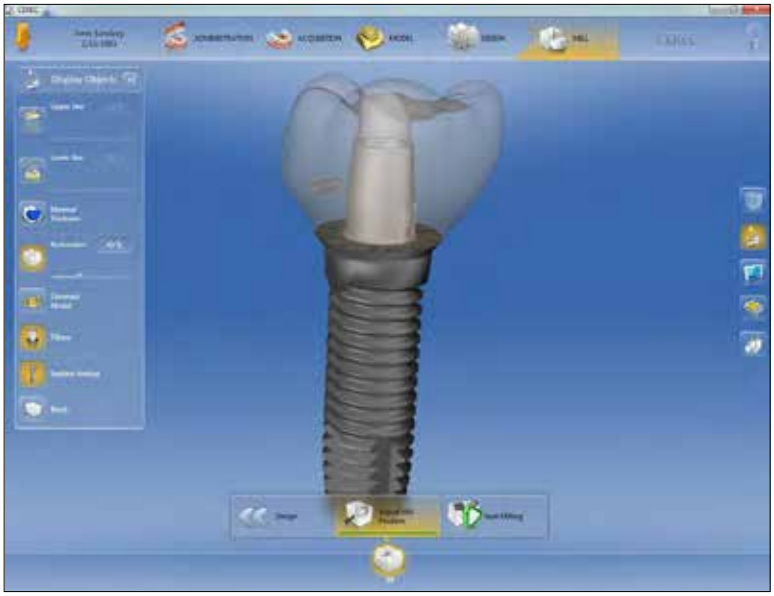


Fig 21: Transparent view showing relationship of Crown-Ti base – Implant.

Fig 22: Visual of custom designed crown and Ti base. Once milled from correct shade block, e.max must be fired based on Ivoclar firing instructions. The crown and Ti base must be treated using Ivoclar protocol and cemented using Multilink Hybrid Abutment Cement within Laboratory.

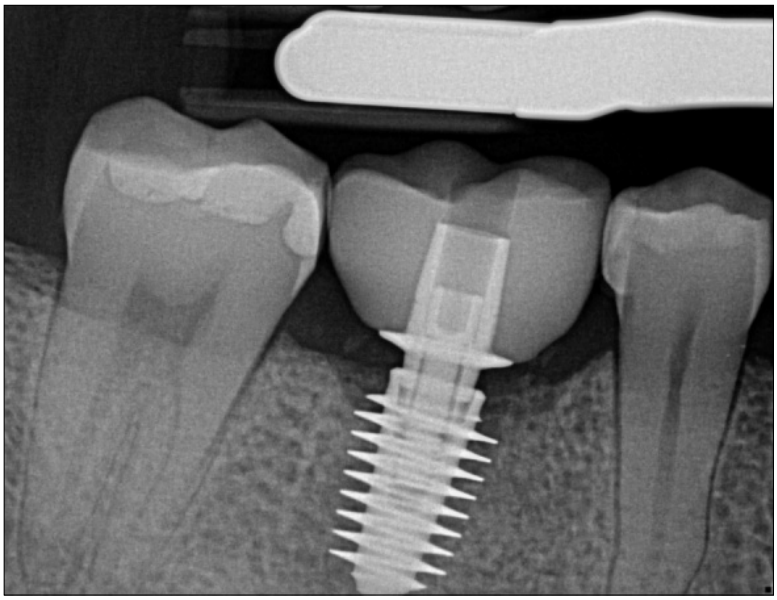


Fig 23: P.A. X-ray showing Hybrid Abutment-Crown Restoration from CEREC. ***Note: NOT Properly Seated!***

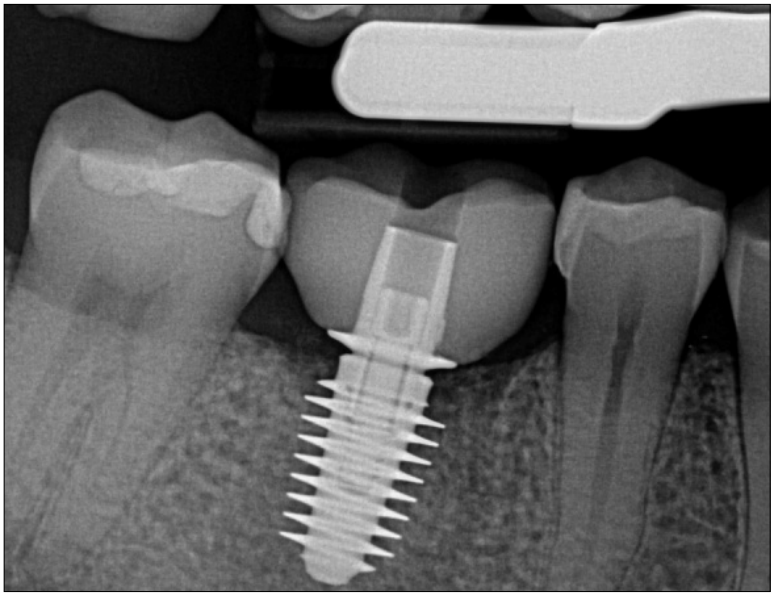
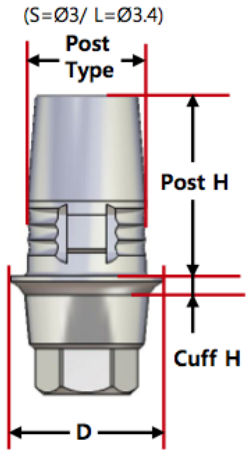


Fig 24: P.A. X-ray showing Hybrid Abutment-Crown Restoration from CEREC. ***Note: Properly Seated!***

Fig 25: Same Day restoration #30 screw-retained Hybrid Abutment Crown on AnyRidge Implant.

Fig 26: AnyRidge® ZrGen Abutment (C-Type) selection chart:



System	Diameter	Cuff Height	Post Height	Post Type	Reference Code	Software	Scan Body and Block
AnyRidge	3.9	0.5	4.7	Small	ARCS3405L	FX 3.4	Small
		1			ARCS3410L		
		2			ARCS3420L		
	4.3	0.5			ARCS3805L	FX 3.8	
		1			ARCS3810L		
		2			ARCS3820L		
	5.5	0.5		Large	ARCL4505L	FX 4.5	Large
		1			ARCL4510L		
		2			ARCL4520L		
AnyOne	3.9	0.5		Small	AOCS3405L	FX 3.4	Small
		1			AOCS3410L		
		2			AOCS3420L		
	4.3	0.5			AOCS3805L	FX 3.8	
		1			AOCS3810L		
		2			AOCS3820L		
	5.5	0.5		Large	AOCL4505L	FX 4.5	Large
		1			AOCL4510L		
		2			AOCL4520L		

Library is compatible with Dentsply - Friadent XiVE

Fig 27: AnyRidge® Scan Post (C-Type) selection chart:

System	Diameter	Post Type	Reference Code	Software	Scan Body and Block
AnyRidge	3.9	Small	ARCSPS34L	FX 3.4	Small
	4.3		ARCSPS38L	FX 3.8	
	5.5	Large	ARCSPL45L	FX 4.5	Large
AnyOne	3.9	Small	AOCSPS34L	FX 3.4	Small
	4.3		AOCSPS38L	FX 3.8	
	5.5	Large	AOCSPL45L	FX 4.5	Large

CEREC Restorative Guidelines for AnyRidge & AnyOne Implant Systems

When selecting the ZrGen C-Type Abutment to be used for the production of a CEREC restoration, the following considerations should be taken into account. The AnyRidge and AnyOne implants have a universal connection across all implant diameter platforms. For this reason, it is the desired emergence profile of the restoration that will help determine the specific ZrGen C-Type Abutment that is selected for each case.

The chart below presents recommendations only and the specific case design should be taken into account.

System	Implant Diameter	Scan Post Diameter	CREC Software	Scan Post Code	ZrGen (C-Type)	Cuff Height	ZrGen Code
AnyRidge	3.5 & 4.0	3.9	FX 3.4	ARCSPS34L	3.9	0.5	ARCS3405L
						1	ARCS3410L
						2	ARCS3420L
	4.5 & 5.0	4.3	FX 3.8	ARCSPS38L	4.3	0.5	ARCS3805L
						1	ARCS3810L
						2	ARCS3820L
	5.5 & wider	5.5	FX 4.5	ARCSPL45L	5.5	0.5	ARCS4505L
						1	ARCS4510L
						2	ARCS4520L
AnyOne	3.5 & 4.0	3.9	FX 3.4	AOCSPS34L	3.9	0.5	AOCS3405L
						1	AOCS3410L
						2	AOCS3420L
	4.5 & 5.0	4.3	FX 3.8	AOCSPS38L	4.3	0.5	AOCS3805L
						1	AOCS3810L
						2	AOCS3820L
	5.0 & wider	5.5	FX 4.5	AOCSPL45L	5.5	0.5	AOCL4505L
						1	AOCL4510L
						2	AOCL4520L

About the Author

Dr. Neal Patel, DDS, received both his Bachelor's in molecular genetics and his DDS from The Ohio State University, combined his lifelong passions for medical science, computer technology and the visual arts, and emerged as a revolutionary force in contemporary dentistry.

While implementing cutting edge technology in his own private practice—the Powell, Ohio-based, aptly named Infinite Smiles, launched in 2008—Dr. Patel also travels the world educating thousands of dentists around the globe on integrating two exciting, fast growing technologies. Dr. Patel is one of only a handful of dentists in the U.S. trained on 3D cone beam computed tomography (CBCT), as well as its application with CEREC (Chairside Economical Restoration of Esthetic Ceramics). These technologies together allow Dr. Patel to produce a 3D model of the patient so he can simulate and perfect the dentistry on a virtual model first, and then transfer it to the patient for treatment. The software and machine uses CAD/CAM (Computer Assisted Design/Computer Assisted Manufacturing) to design a tooth (crown) and mill it in a single visit, so teeth can be restored within one patient appointment, rather than multiple appointments required with earlier techniques. "Both systems work great independently but a magical thing happens when they communicate with each other. The end result is absolute precision. We can deliver results within a fraction of a hair, or 100 microns of accuracy (100 microns is one tenth of a millimeter). We still use our hands, of course, but we are guided now by the computer."

Dr. Patel travels extensively in the U.S., Canada and Europe and has even gone to Australia to train clinicians on how to use the equipment. Even before launching Infinite Smiles, Dr. Patel was active as a consultant, educating surgeons in the field of 3D imaging, computer generated implant surgery and the art of stereolithography in dental applications.

About ids

ids—integrated dental systems—provides a full suite of innovative tooth replacement products and systems that will help achieve better outcomes for dentists and patients alike. Our products feature designs and technologies that provide shorter and more precise procedures, less recovery time, and enhance the relationships between dentists and their patients—all at more cost-effective price points. Our commitment to developing solutions that help dentists realize more opportunities, increased profits and better results for their patients is the focus of everything we do.