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UNICON Implant

Pursuing the Completion of the 11° Implant System

D:O IMPLANT

UNICON **Fixture**

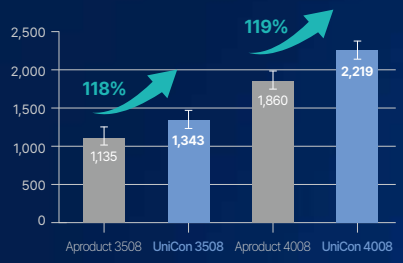
At the culmination of our R&D journey for better clinical outcomes and solutions, we proudly present the UniCon Implant, the pinnacle of the 11° connection. UniCon Implant integrates a unified prosthetic lineup regardless of diameter or lengthwith a single connection, delivers enhanced mechanical stability, and offers true clinical efficiency through an optimized surgical protocol.

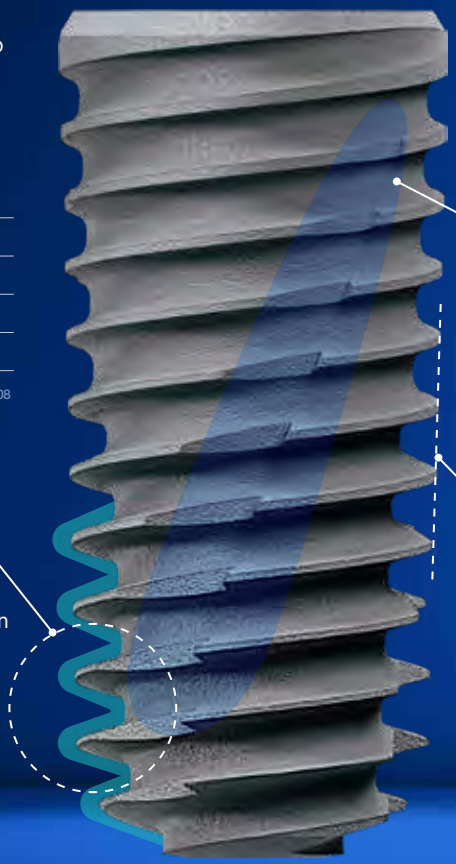
One Connection

-Streamlined prosthetic lineup
-Simplified inventory management
-Single driver for all procedures

Superior Strength

-Higher fracture resistance compared to similar products
-Long-term stability expected





Full Helix Cutting Edge

-Improved self-tapping performance
-Reliable and stable insertion

Apical Deep Thread

-Additional lower threads
-Enhanced initial stability
-Designed for immediate post-extraction placement

1.5° Taper / Dual Thread

-Facilitates strong initial fixation
-Fast and stable placement
-Minimizes bone damage

***Uni**versal + **Con**venient = “UNICON”*

A name that reflects universality, adaptable to all bone qualities and cases, while ensuring that the procedure is convenient and easy for anyone to master

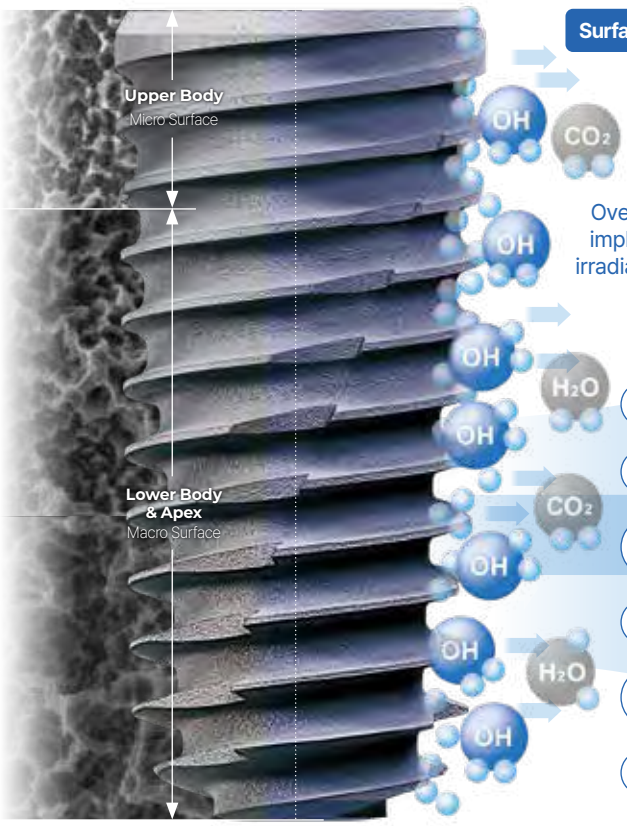
UNICON **Implant Surface**

Hybrid type SLA Surface (HSA)

Optimal Surface Morphology

Implementation of **Micro Surface morphology on the upper part** to reduce peri-implantitis and **Macro Surface morphology on the lower part** to enhance the initial bone response

- Alumina Blasting
- Double Acid Etching
- High-Temperature and High-Pressure Water-jet
- 7-Step Vacuum Ultrasonic Cleaning
- UV Drying
- **High Purity Clean Surface**



Surface Modification by VUV Irradiation

Anti-aging Effect

Over 90% of organic matter on the implant surface with is removed by irradiating a vacuum UV(VUV) source, enabling rapid and strong bone formation.

- VUV Irradiation
- Hydrocarbon Removal
- Modification to Superhydrophilic Surface
- Electro-Positive
- Enhancement of Cell and Protein Adhesion
- **Rapid Osseointegration**

Patented Surface, HSA

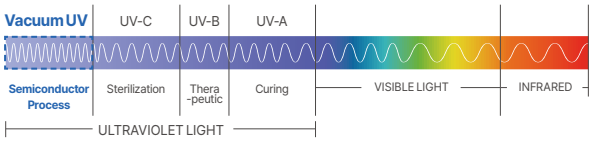
A distinctive level of surface roughness unique to DIO IMPLANT has been achieved through extensive research and experimentation based on sandblast large grit & acid etching (SLA).


특허증

*KOREA Patent No. 10-1652968

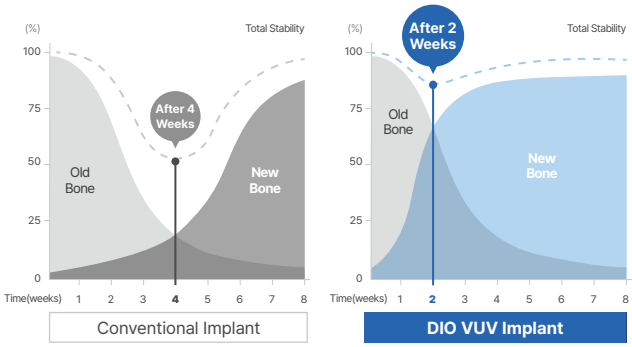
What Is VUV?

VUV is the highest-energy ultraviolet light used in semiconductor processes. DIO was the first to apply VUV to remove organic matter from the implant surface, and its effectiveness has been validated through joint research with UCLA, USA.



VUV, Healing Time in Half!

Fewer surface organics and higher blood absorbability ensure more stable bone-to–implant integration, shortening the treatment period.

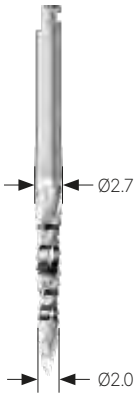


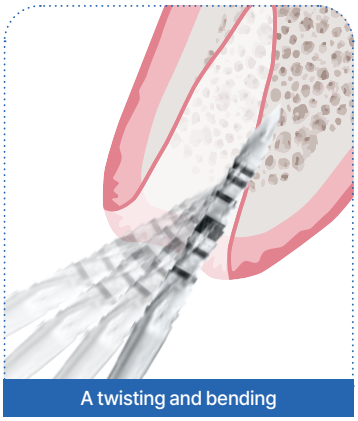
*Source: Implant Dentistry, Volume 22, Nov 5, 2013, PhD Takahiro Ogawa et al.

Multi Initial Drill

It provides highly accurate initial drilling in extraction sockets. With both point and side-cutting capabilities, it allows stable drilling even when the clinician drills as desired.

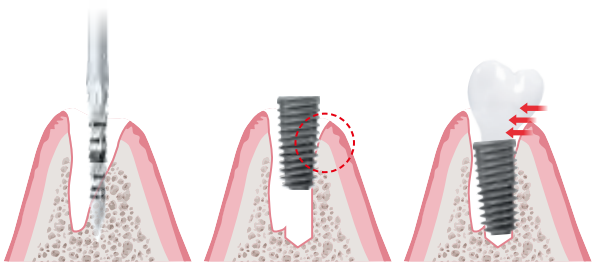
* Diameter: Designed to widen from Ø2.0 to Ø2.7



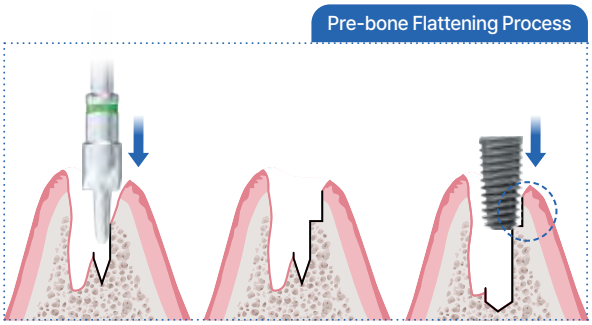


Pre-bone Flattening Drill

Even with accurate initial drilling in the extraction socket, the implant may shift toward the gap during placement. The pre-bone flattening drill allows implants to be placed in the correct position.



1. Initial drill hole only
2. Unstable fixture placement
3. Shifts toward gap when entering on an inclined surface

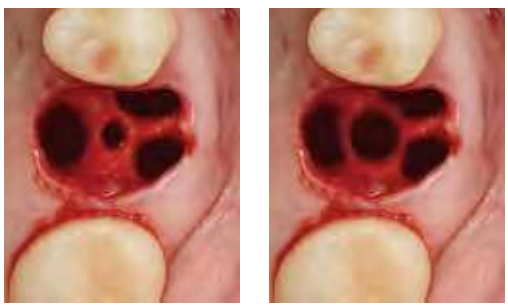


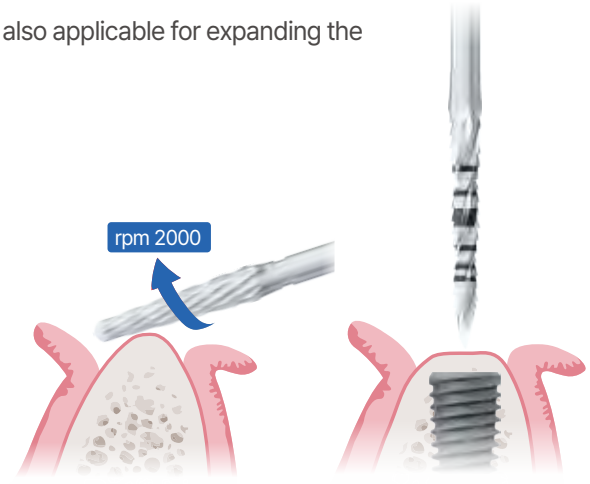
1. Drilling along initial drill hole
2. Flattening (prep)
3. Stable implant placement without shifting

Modify Bur for Ridge Adjustment or Post-initial Drilling Expansion

This is applied to reshape narrow ridges or irregular bone. It is also applicable for expanding the central septum after initial drilling in molar extraction sockets.

* Prevents displacement of cortical bone in the septum

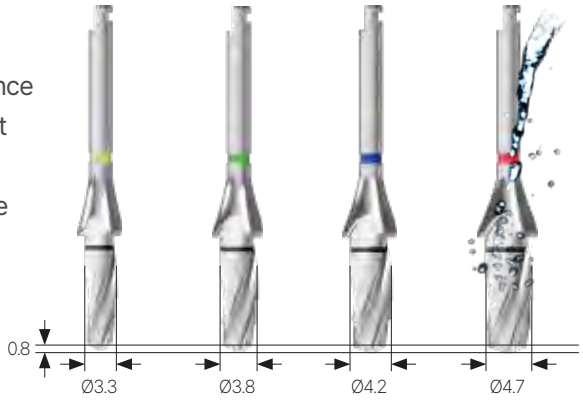




1. High-speed ridge preparation
2. Stable and smooth drilling without shifting

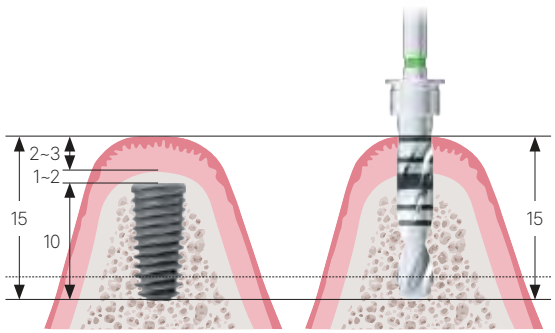
Taper Drill for Implant Placement

The UniCon taper drill delivers excellent cutting performance in all types of bone quality, and depth control is convenient with the integrated drill stop. The streamlined body shape ensures direct irrigation to the drill hole, reduces the risk of bone heating.

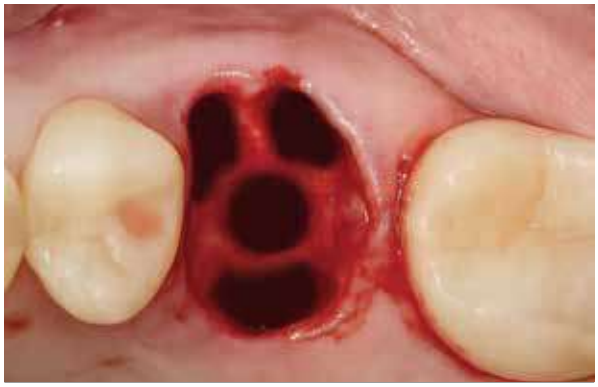


Straight Drill for Implant Placement

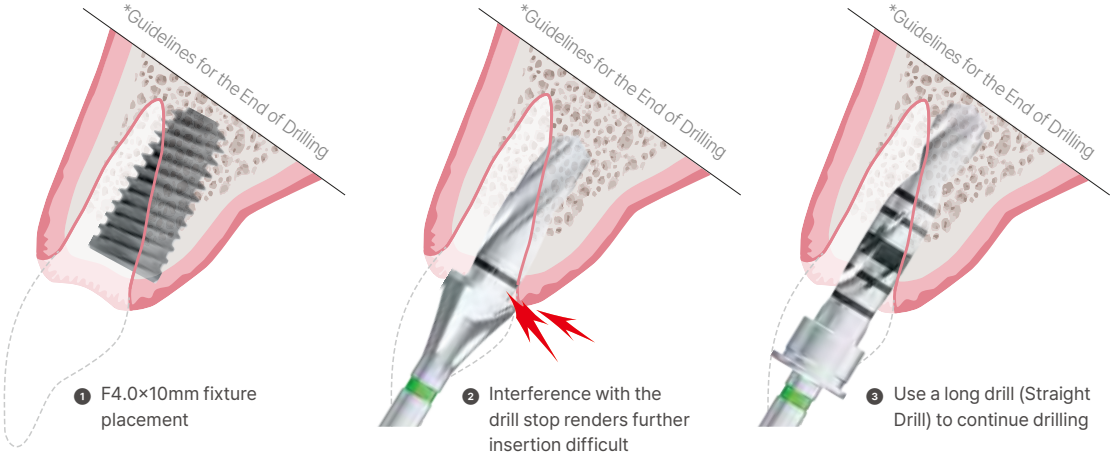
The Straight drill is used for following cases



When a long drill is required in flapless procedures



When partial widening is needed in hard bone or to prevent excessive torque at the apical end in the extraction socket septum



❶ F4.0×10mm fixture placement

❷ Interference with the drill stop renders further insertion difficult

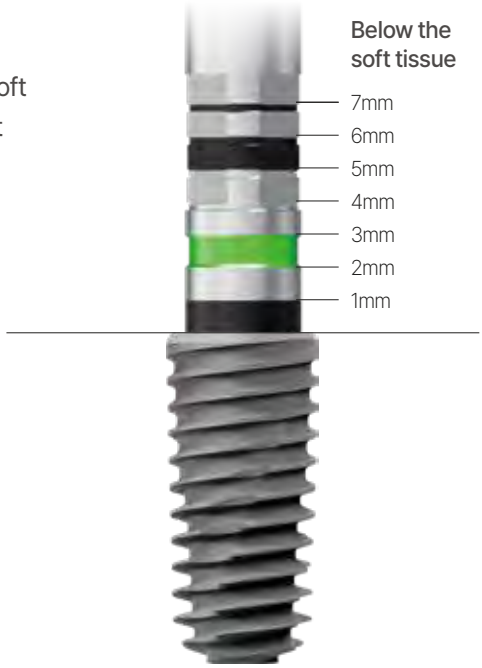
❸ Use a long drill (Straight Drill) to continue drilling

When a long drill is needed in extraction sockets

Fixture Driver
for Implant Placement

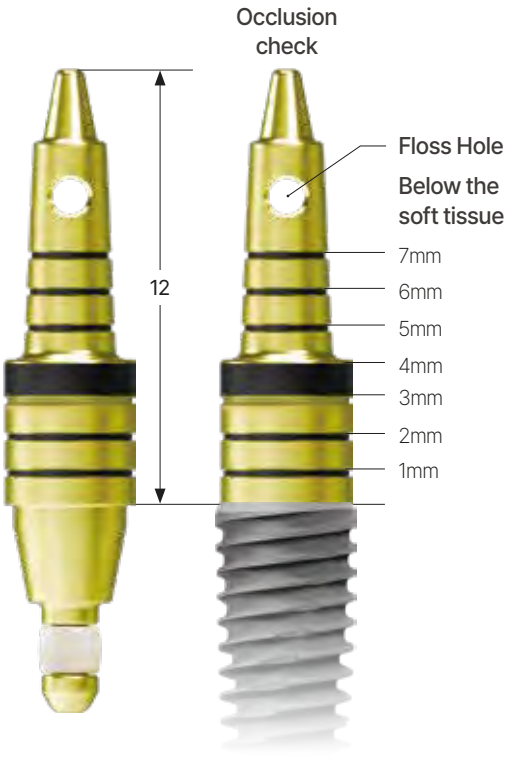
The fixture driver allows implant placement up to 7 mm below the soft tissue, depending on tissue thickness. It enables precise placement to the planned depth even under excessive torque.

For machine use For wrench use



Final Check Pin
for Verifying Placement Depth and Position

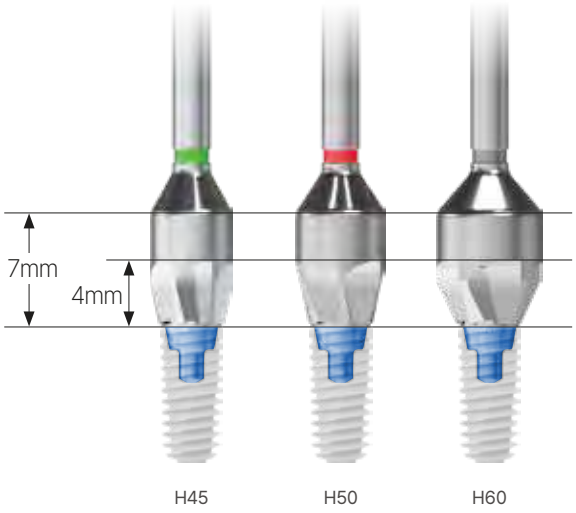
We recommend performing a final check after implant placement. Check the depth and the direction of occlusion and make any adjustment if necessary.

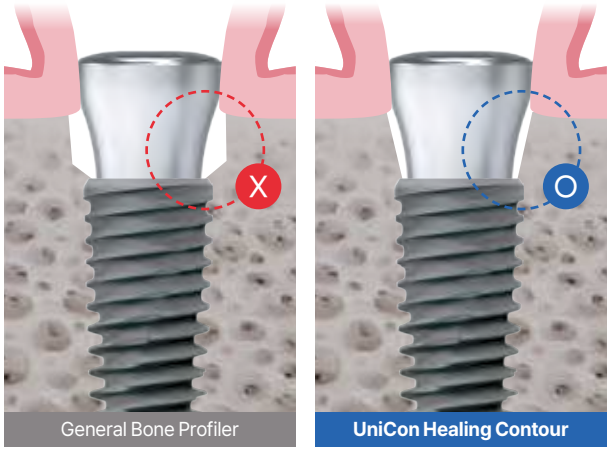


Healing Contour

Removal of Interfering Bone During Prosthesis Connection

This instrument is used to remove interfering bone after fixture placement, and it is particularly useful for deep insertion. It is designed to match the healing abutment shape to prevent excessive bone removal. Select the drill corresponding to the selected healing abutment shape for accurate drilling.





Positioning Bell

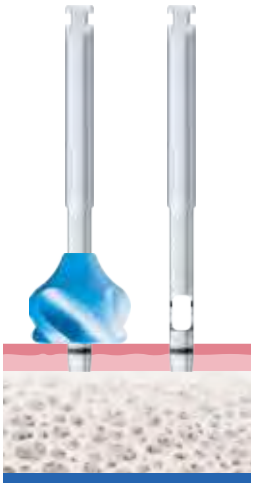
for Convenient Implant Placement and Spacing

For single, bridge and free-end multiple cases, the Positioning Bell can be used during initial drilling to simultaneously consider spacing from adjacent teeth and prosthesis dimensions. It can be applied to the Ø2.0 Tissue Punch, Position Drill, or Initial Check Pin depending on the intended use. Its irrigation-easy design minimizes the risk of bone heating during drill sequence.

	
Canine / Premolar	General use
Ø7.2	Ø8.0
	
Second molar	First molar
Ø9.0	Ø10.0
Made of biocompatible medical-grade silicone for safe insertion of drills or instruments	

Occlusion and prosthesis verification

Initial drilling



Flapless point use

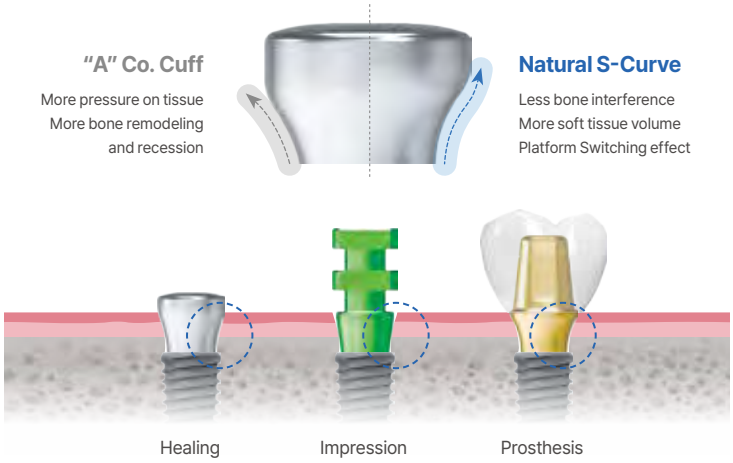
UNICON **Prosthetic**

Natural S-Curve for mucosa sealing and esthetics

Consistent Cuff Design

System-wide Natural S-Curve design & minimal bone interference and gingival pressure

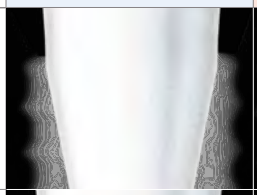
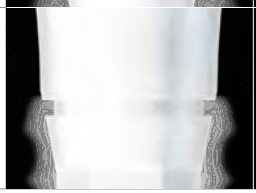
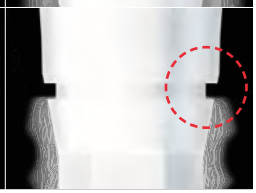
The Natural S-Curve design is applied throughout the entire system, from healing, impression taking, and prosthetic stages, to minimize bone interference and gingival pressure, contributing to the emergence profile of the prosthesis and the formation of healthy interdental papillae.



Intuitive Design

Intuitive Confirmation of Correct Connection

Thanks to its intuitive design with a distinct singularity point, complete or incomplete seating can be easily verified on X-rays.

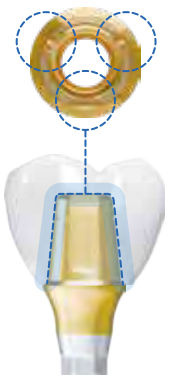
Seating Status	Correct seating	Incomplete seating
Connection Gap	Zero Gap	Gap
Healing Abutment		
Impression Coping		

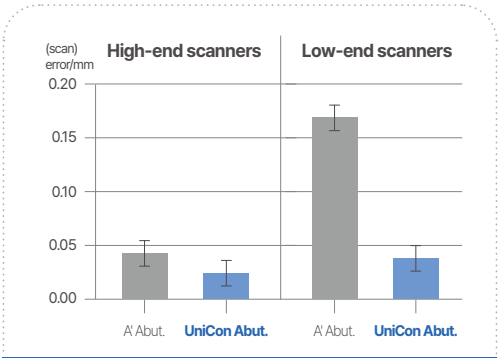
Detail Design

Optimized for Digital Prosthetics

Abutment geometry has been optimized to improve the accuracy of digital scanning and the fitness of zirconia prostheses.

Landmark Function During Scan Registration





Data Accuracy of Direct Abutment Scan by Scanner Type