MULTINEO™ powered by

NiNA™

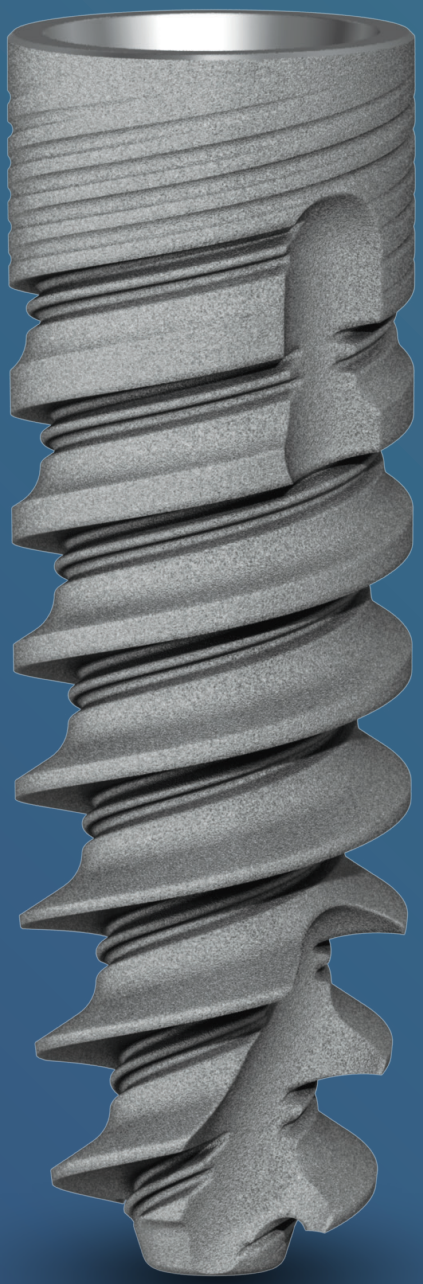
Nano Hydrophilic Surface

AlphaBio TEC Simplantology

Empowering Predictability and Performance in Immediacy

MULTINEO™ | powered by NiNA™

Bioactive Implant Designed for Immediate Procedures In a Variety of Bone Types

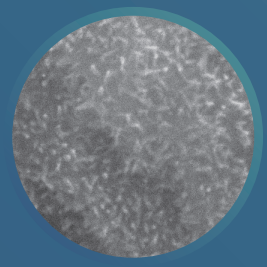


SPECIAL CUTTING FLUTES, MICRO THREADS AND CONICAL CONNECTION

- Reduced pressure on the cortical bone
- Improved bone preservation
- High initial stability

INNOVATIVE THREAD DESIGN WITH TWO MICRO THREADS AND SHARP ATTACK ANGLE

- High cutting efficiency
- High primary stability in all bone types
- Greater surface area (BIC)



HYDROPHILIC IMPLANT SURFACE

- Nanostructures
- Ultra-hydrophilic

UNIQUE CENTERING* FEATURE AND GRIPPING TIPS, SHARP AND DEEP THREADS

- High & firm primary engagement
- Easy navigation and penetration
- High cutting efficiency

** Patented*

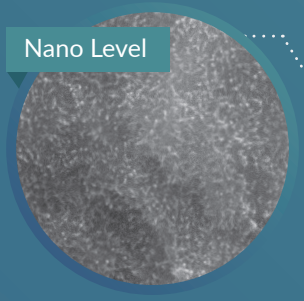
Empowering Predictability and Performance in Immediacy

MultiNeO powered by NiNA™ is the synergy between an innovative active implant and an advanced Nano Hydrophilic Surface enabling you to enhance your clinical performance and confidence in immediate implant and loading procedures, due to faster treatment and healing time, for optimal patient care.

Enhanced bone attraction

Increased BIC

Faster healing time



NANOSTRUCTURES

Visible nanoscale TiO_2 structures increase surface area and actively promote osteoblasts bone formation.

HYDROPHILICITY

NiNA hydrophilic surface contributes to accelerated blood and bone attraction, and increased BIC.

DRY IMPLANT PACKAGE

Patented technology allows for a dry implant package with ultra-hydrophilicity maintained.

NiNa™ Nano Hydrophilic Surface

Nina™ is an innovative surface aimed to increase bone to implant contact, enhance clinical performance and confidence in immediacy procedures.

MULTIPLE LEVELS FOR ENHANCED BIC

LEVEL 1

SANDBLASTED AND ACID-ETCHED TREATMENT

LEVEL 2

INNOVATIVE TiO_2 STRUCTURES

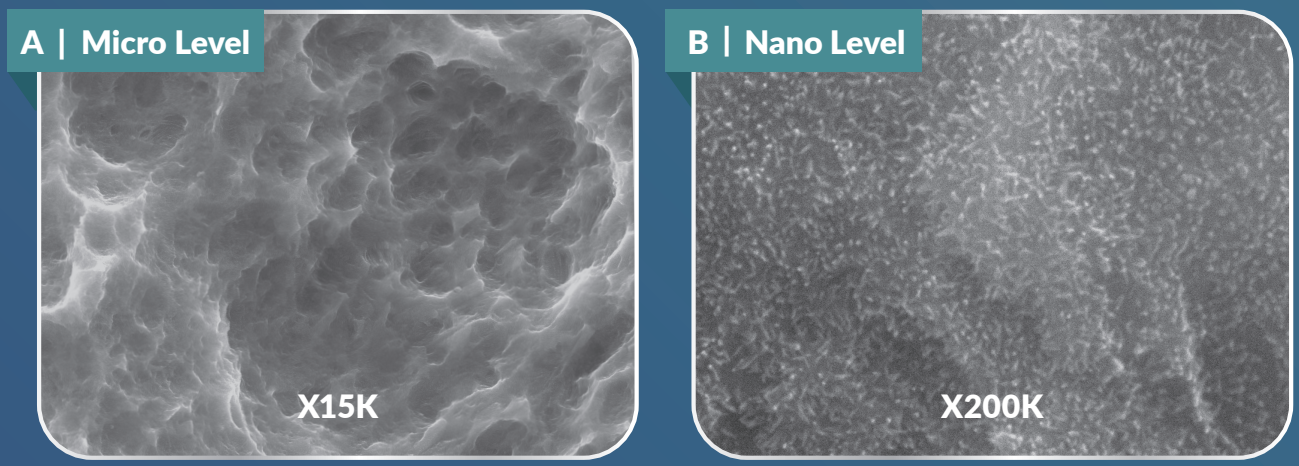
LEVEL 3

HYDROPHILIC SURFACE

NiNa™ is an advanced hydrophilic surface consisting of multiple levels: the basic micron level produced from the known and trusted sandblasted and acid-etched treatment; new innovative TiO_2 structures on the nanometric level; a protective layer deployed on the implant to maintain the natural hydrophilic properties of the titanium.[6]

NANOSTRUCTURES

Visible nanoscale TiO_2 structures increase surface area and actively promote osteoblast bone formation [1,2]. This promotes an active attraction for osteoblasts, which when combined with surface hydrophilicity, enhances a biological response accelerating wound healing processes [6,7].



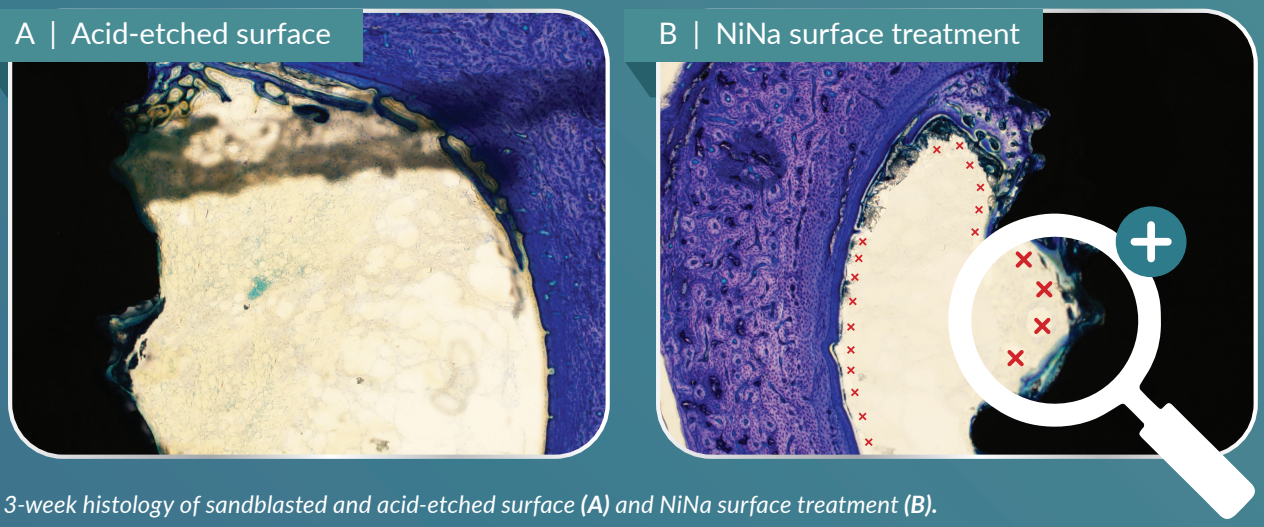
*SEM images of x15K magnification of a sandblasted and acid-etched implant **(A)** vs. a x200K magnification of NiNa surface treatment **(B)**, demonstrating TiO_2 structures on the implant surface.*

IMPLANT HYDROPHILICITY

Hydrophilic surface contributes to accelerated blood attraction, enhanced bone modeling and increased BIC [3,4,5]. The NiNa surface offers clear advantages over standard sandblasted, acid-etched surface treatments, reducing healing time and enhancing bone to implant contact (BIC). Samples from pre-clinical studies in New Zealand rabbits, analyzed 3 weeks after implantation, show that the NiNa surface delivers better BIC in the rabbit tibia bone marrow compared to the standard surface [8].

A | Acid-etched surface

B | NiNa surface treatment



*3-week histology of sandblasted and acid-etched surface **(A)** and NiNa surface treatment **(B)**.*

DRY IMPLANT PACKAGE

MultiNeO™ NiNa Implant is delivered in the familiar modern and easy to use dry package, designed for maximum comfort and enhanced ergonomics. On removal from the dry package, the implant remains hydrophilic.

REFERENCE

[1] A macrophage model of osseointegration.
Herbert P. Jennissen.Curr. Dir. Biomed. Eng. 2016, 2: 53–56.

[2] Characteristics of 2 Different Commercially Available Implants with or without Nanotopography.
Alenezi A, Naito Y, Andersson M, Chrcanovic BR, Wennerberg A, Jimbo R. Int J Dent. 2013; 2013:769768.

[3] Early osseointegration to hydrophilic and hydrophobic implant surfaces in humans.
Niklaus P. Lang, Giovanni E. Salvi, Guy Huynh-Ba, Saso Ivanovski, Nikolaos Donos, Dieter D. Bosshardt Clin Oral Implants Res. 2011 Apr; 22(4): 349–356.

[4] Biomechanical evaluation of the interfacial strength of a chemically modified sandblasted and acid-etched titanium surface.
S. J. Ferguson, N. Broggini, M. Wieland, M. de Wild, F. Rupp, J. Geis-Gerstorfer, D. L. Cochran, D. Buser J Biomed Mater Res A. 2006 Aug; 78(2): 291–297.

[5] Effects of surface hydrophilicity and microtopography on early stages of soft and hard tissue integration at non-submerged titanium implants: an immunohistochemical study in dogs.
Frank Schwarz, Daniel Ferrari, Monika Herten, Ilja Mihatovic, Marco Wieland, Martin Sager, Jürgen Becker J Periodontol. 2007 Nov; 78(11): 2171–2184.

[6] Nanostructures and hydrophilicity influence osseointegration: a biomechanical study in the rabbit tibia.
Frank Schwarz, Daniel Ferrari, Monika Herten, Ilja Mihatovic, Marco Wieland, Martin Sager, Jürgen Becker J Periodontol. 2007 Nov; 78(11): 2171–2184.

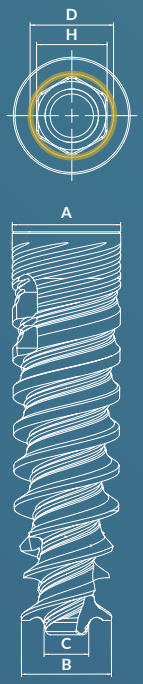
[7] Enhanced implant stability with a chemically modified SLA surface: a randomized pilot study.
Thomas W. Oates, Pilar Valderrama, Mark Bischof, Rabah Nedir, Archie Jones, James Simpson, Helge Toutenburg, David L. Cochran Int J Oral Maxillofac Implants. 2007 Sepâ-Oct; 22(5): 755–760.

[8] Alpha-Bio Tec internal report.

ORDERING INFORMATION

Conical Narrow Connection (CHC)

Diameter	Length	Ref. No.	Dimensions				
			A	B	C	D	H
Ø 3.2	8 mm	9308	Ø 3.2	Ø 2.9	Ø 1.5	Ø 2.5	2.1
	10 mm	9300	Ø 3.2	Ø 2.9	Ø 1.5	Ø 2.5	2.1
	11.5 mm	9301	Ø 3.2	Ø 2.9	Ø 1.5	Ø 2.5	2.1
	13 mm	9303	Ø 3.2	Ø 2.9	Ø 1.5	Ø 2.5	2.1
	16 mm	9306	Ø 3.2	Ø 2.9	Ø 1.5	Ø 2.5	2.1
Ø 3.5	8 mm	9328	Ø 3.5	Ø 2.9	Ø 1.5	Ø 2.5	2.1
	10 mm	9320	Ø 3.5	Ø 2.9	Ø 1.5	Ø 2.5	2.1
	11.5 mm	9321	Ø 3.5	Ø 2.9	Ø 1.5	Ø 2.5	2.1
	13 mm	9323	Ø 3.5	Ø 2.9	Ø 1.5	Ø 2.5	2.1
	16 mm	9326	Ø 3.5	Ø 2.9	Ø 1.5	Ø 2.5	2.1



INSERTION TOOLS

Manual

MITD 2.1 CHC 4147

Motor Mount

IT 2.1 L M CHC 7303

IT 2.1 S M CHC 7304

Wrench

ITD 2.1 L CHC 7301

ITD 2.1 CHC 7305

ITD 2.1 S CHC 7302

Conical Standard Connection (CS)

Diameter	Length	Ref. No.	Dimensions				
			A	B	C	D	H
Ø 3.75	8 mm	9338	Ø 3.75	Ø 3.1	Ø 1.8	Ø 3.1	2.5
	10 mm	9330	Ø 3.75	Ø 2.9	Ø 1.5	Ø 3.1	2.5
	11.5 mm	9331	Ø 3.75	Ø 2.9	Ø 1.5	Ø 3.1	2.5
	13 mm	9333	Ø 3.75	Ø 2.9	Ø 1.5	Ø 3.1	2.5
	16 mm	9336	Ø 3.75	Ø 2.9	Ø 1.5	Ø 3.1	2.5
Ø 4.2	8 mm	9348	Ø 4.2	Ø 3.55	Ø 1.8	Ø 3.1	2.5
	10 mm	9340	Ø 4.2	Ø 3.3	Ø 1.8	Ø 3.1	2.5
	11.5 mm	9341	Ø 4.2	Ø 3.3	Ø 1.8	Ø 3.1	2.5
	13 mm	9343	Ø 4.2	Ø 3.3	Ø 1.8	Ø 3.1	2.5
	16 mm	9346	Ø 4.2	Ø 3.3	Ø 1.8	Ø 3.1	2.5
Ø 5.0	8 mm	9358	Ø 5.0	Ø 4.4	Ø 2.6	Ø 3.1	2.5
	10 mm	9350	Ø 5.0	Ø 4.1	Ø 2.3	Ø 3.1	2.5
	11.5 mm	9351	Ø 5.0	Ø 4.1	Ø 2.3	Ø 3.1	2.5
	13 mm	9353	Ø 5.0	Ø 4.1	Ø 2.3	Ø 3.1	2.5

INSERTION TOOLS

Manual

MITD 2.5 CS 3806

Motor Mount

IT 2.5 LM CS 3805

IT 2.5 SM CS 3804

Wrench

ITD 2.5 L CS 3803

ITD 2.5 S CS 3801

DRILLING PROTOCOL

STEP DRILLING SEQUENCE

Ø 3.2

Bone Type IV		Bone Type II & III		Bone Type I		
Ø 2.0		Ø 2.0	Ø 2.4/ Ø 2.8	Ø 2.0	Ø 2.4/ Ø 2.8	Ø 2.8/ Ø 3.0

Ø 3.5

Bone Type IV		Bone Type II & III			Bone Type I		
Ø 2.0	Ø 2.0/ Ø 2.4	Ø 2.0	Ø 2.4/ Ø 2.8	Ø 2.8/ Ø 3.0	Ø 2.0	Ø 2.4/ Ø 2.8	Ø 2.8/ Ø 3.2

Ø 3.75

Bone Type IV		Bone Type II & III			Bone Type I			
Ø 2.0	Ø 2.4 / Ø 2.8	Ø 2.0	Ø 2.4 / Ø 2.8	Ø 2.8 / Ø 3.2	Ø 2.0	Ø 2.4 / Ø 2.8	Ø 2.8 / Ø 3.2	Ø 3.2/ Ø 3.65 Cortical*

Ø 4.2

Bone Type IV			Bone Type II & III			Bone Type I			
Ø 2.0	Ø 2.4 / Ø 2.8	Ø 2.8 / Ø 3.2	Ø 2.0	Ø 2.4 / Ø 2.8	Ø 3.2 / Ø 3.65	Ø 2.0	Ø 2.4 / Ø 2.8	Ø 3.2 / Ø 3.65	Ø 3.65 / Ø 4.1 Cortical*

Ø 5.0

Bone Type IV			Bone Type II & III				Bone Type I					
Ø 2.0	Ø 2.4 / Ø 2.8	Ø 3.2 / Ø 3.65	Ø 2.0	Ø 2.4 / Ø 2.8	Ø 3.2 / Ø 3.65	Ø 3.65 / Ø 4.1	Ø 2.0	Ø 2.4 / Ø 2.8	Ø 3.2 / Ø 3.65	Ø 3.65 / Ø 4.1	Ø 4.1 / Ø 4.5	Ø 4.5 / Ø 4.8 Cortical*

* Cortical – Drill through cortical plate with the larger diameter.

STRAIGHT DRILLING SEQUENCE

Ø 3.2

Bone Type IV		Bone Type II & III			Bone Type I		
Ø 2.0		Ø 2.0	Ø 2.4	Ø 2.8*	Ø 2.0	Ø 2.8	Ø 3.0*

Ø 3.5

Bone Type IV		Bone Type II & III			Bone Type I		
Ø 2.0	Ø 2.4*	Ø 2.0	Ø 2.8	Ø 3.0*	Ø 2.0	Ø 2.8	Ø 3.2*

Ø 3.75

Bone Type IV			Bone Type II & III			Bone Type I			
Ø 2.0	Ø 2.4	Ø 2.8**	Ø 2.0	Ø 2.8	Ø 3.2**	Ø 2.0	Ø 2.8	Ø 3.2**	Ø 3.65 Cortical*

Ø 4.2

Bone Type IV			Bone Type II & III				Bone Type I				
Ø 2.0	Ø 2.8	Ø 3.2**	Ø 2.0	Ø 2.8	Ø 3.2	Ø 3.65**	Ø 2.0	Ø 2.8	Ø 3.2	Ø 3.65**	Ø 4.1 Cortical*

Ø 5.0

Bone Type IV				Bone Type II & III					Bone Type I					
Ø 2.0	Ø 2.8	Ø 3.2	Ø 3.65**	Ø 2.0	Ø 2.8	Ø 3.2	Ø 3.65	Ø 4.1**	Ø 2.0	Ø 2.8	Ø 3.2	Ø 3.65	Ø 4.1	Ø 4.5**	Ø 4.8 Cortical*

* cortical – Drill through cortical plate

** 3mm shorter than implant's length. note that drill can be replaced by a corresponding step drill throughout entire implant's length.

important: professional considerations may be required for adaptations of the drill protocol in specific cases.

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SIMPLANTOLOGY,
IN EVERYTHING WE DO!

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