

TAPERED SELF THREAD™ INTERNAL HEX CONNECTION



Tapered Self Thread™ Features

The Tapered Self-Thread™ implant was designed with all bone conditions in mind. This makes the Tapered Self-Thread™ an excellent choice for the maxilla or mandible. A self-tapping design allows clinicians to place the Tapered Self-Thread™ with ease, resulting in a more predictable surgery. This implant uses a standard and wide platform internal hex connection, making the restoration process more simple and affordable.



Polished Collar

The collar of the Tapered Self-Thread™ implant was designed with micro-threads, which enhances stabilization in crestal bone. This collar is finished with a machine polished surface to increase soft tissue attachment and limit the risk of infection.



Self-Tapping

The thread design of the Tapered Self-ThreadTM allows for placement in hard or soft bone without the need of a tap. Eliminating this step saves clinicians time and reduces the complexity of surgery. Although no tap is used, there is no reduction in stabity or function.



Integrated SLA Surface™

Through a process of grit blasting and acid etching, Hi-Tec's Integrated SLA Surface™ produces highly osseo-conductive implants. This increases bone to implant surface area, which accelerates and improves osseo-integration.



Prosthetic Compatibility

The standard and wide platform internal hex connections are the most commonly used implant connections world-wide. Having a compatible connection simplifies the restoration process and makes the transition to Hi-Tec™ implants easier and more affordable.









TAPERED SELF THREAD™ TECHNICAL SPECIFICATIONS INTERNAL HEX CONNECTION





- Implant Material: Ti-6Al-4V Titanium Alloy
- Surface Finish: SLA Integrated Surface™
- Implant Collar: Polished Micro-Thread
- Delivery System: Available with Placement Mount
- Implant Placement Torque: 30-60Ncm
- Abutment Torque: (Standard 35Ncm) (Multi-Unit 15Ncm)
- Prosthetic Screw Type: .050" (1.25mm) Hexagon
- Compatibility: Zimmer® Tapered Screw-Vent® (3.1mm, 3.7mm, 4.1mm)
- *Zimmer Tapered Screw-Vent is a registered trademark of Zimmer Dental Inc.

Standard Platform
NTI 3.3
8.0 mm
10.0 mm
11.5 mm
13.0 mm
16.0 mm

Standard Platform
SLT 3.75
8.0 mm
10.0 mm
11.5 mm
13.0 mm
16.0mm

Wide Platform
GTI 4.2
8.0 mm
10.0 mm
11.5 mm
13.0 mm
16.0 mm

Wide Platform	
WTI 5.0	
8.0 mm	
10.0 mm	
11.5 mm	
13.0 mm	
16.0mm	







	4.5mm	←──
3		
3		
3		
- 3		
		}
3		
•	13	•
	2.7mm	←──
(∅5.00mm	

Tapered Self Thread™ Implants Drill Sequence												
		RB	2.0	2.5	2.8	CSD						
NTI 3.3	SOFT BONE	•	•	•	•							
1411 0.0	HARD BONE	•	•	•	•	Х						
		RB	2.0	2.5	2.8	3.2	3.4	CSD				
SLT 3.75	SOFT BONE	•	•	•	•	•		Х				
	HARD BONE	•	•	•	•		1/2					
		RB	2.0	2.5	2.8	3.2	3.4	3.65	4	4.3	CSD	
GTI 4.2	SOFT BONE	•	•	•	•	•		•			Х	
· · · · · · · · · · · · · · · · · · ·	HARD BONE	•	•	•	•	•		•	1/2			
		RB	2.0	2.5	2.8	3.2		3.65	4	4.3	4.5	CSD
WTI 5.0	SOFT BONE	•	•	•	•	•		•		•		Х
7711 0.0	HARD BONE	•	•	•	•	•		•			1/2	
1/2 = DRILL TO H	ALE DEPTH											

1/2 = DRILL TO HALF DEPTH

X = COUNTERSINK OPTIONAL



Self Thread™ 3.3 & 3.75, Logic Plus™, Spark™ Implants Internal Hex Connection - Standard Platform

Prosthetic Elements

	Analogs				Castable UCLA Abutments						CAD/CAM Custom Prosthetics						
	Item	SKU	Length	Cuff Height		Item	SKU	Length	Cuff Height		Item	SKU	Length	Cuff Height			
Ĭ	Ball Attachment Analog	BNL	14mm			Engaging Plastic Castable	PCA	11.7mm	1mm		Short Scan Body	S-SCAN-S	7.8mm				
98	Implant Analog	IL	10.7mm			Abutment Non-Engaging Plastic Castable	PCA-R	11.7mm	1mm	Ų	Long Scan Body	S-SCAN-L	9.95mm				
	Digital Analog Impression C	Copinas	10mm		1	Abutment Engaging	PGA	10.7mm		Î	Multi-Unit - Scan Body	MU-SCAN	8.59mm				
	Closed Tray Impression Coping	AAT	10.5mm			Gold Castable Abutment Non-Engaging				А	Multi-Unit -	MU-TB	4.5mm				
	Open Tray	AAT-L	14.5mm			Gold Castable Abutment	PGA-R	10.7mm		A	Titanium Base Digital Analog	ILD	10mm				
	Impression Coping Snap Cap	AST	13mm			Engaging Titanium Castable Abutment	PTA	11.2mm									
7	Impression Coping Snap Cap	T-PT	10mm		13	Multi-Unit Co	mponents				Engaging T-Base Abutment	S-PRN	5mm				
Ĭ	Titanium Pre			nts	1	MU - Closed Tray	MU-AAT	9mm		\prod	Non-Engaging T-Base Abutment	S-PRN-R	4.5mm				
A	Straight Titanium Abutment	ACA ACA-E-1	9.8mm 7.9mm	Omm 1mm	38 - U	MU - Open Tray	MU-AAT-L	13.87mm			Engaging Screw	ZTA-T					
		ACA-E-2 ACA-E-3 ACA-E-4	8.9mm 9.9mm 10.9mm	2mm 3mm 4mm	17	Impression Coping MU - Analog	MU-CL	13.14mm			Retained T-Base Abutment						
4	Wide Profile	ACA-P	9.8mm			MU - Fixation	MU-FS			m	Non-Engaging	ZTA-T-R					
	Round Profile	ACA D	17.6	0		Screw MU - Healing Cap	MU-HC	4.71mm			Screw Retained T-Base Abutment						
ų.	Round Profile	ACA-R	13.6mm	Omm		MU - Plastic Castable Sleeve	MU-PC	11.9mm									
	Narrow Profile	ACA-S	8.86mm	0mm		MU - Titanium Sleeve	MU-TPC	12.25mm		•	Zest® Locator	Abutmer	its				
	Non-Engaging	SCA	11.10mm	0mm		MU - Scan Body	MU-SCAN	8.59mm			Locator Internal Hex Standard	8661 8662		Omm 1mm			
41	Modular Abutment Set	ACA-G-1-SET ACA-G-2-SET		1mm 2mm	Λ	MU - Titanium Base	MU-TB	4.5mm			Platform	8663 8664		2.5mm 3.5mm			
1 8 A 4	15 Degree Angled Titanium Abutmen	ACA-G-3-SET ACA-G-4-SET ANA-15 t ANA-15-E-1		3mm 4mm 1.2mm 5/2.05mm		MU - Straight Abutment	S-MU-1 S-MU-2 S-MU-3	3mm 4mm 5mm	1mm 2mm 3mm			8665 8625 8626		4.5mm 5.5mm 6.5mm			
T	25 Degree Angled	ANA-15-E-2 ANA-25	9.2mm 2.7 9.4mm	15/3.05mm 1.3mm	-	MU - 17 Degree	S-MU-4 S-MU-17	4.76mm	4mm 1.7/		Locator RT-X Internal Hex	30200-00 30200-01		0.5mm 1mm			
4	Titanium Abutmen	t				Angled Abutment	S-MU-17-2	6.2mm	3.08mm 3.1/		Connical Connection Platform			2mm 3mm			
•	Zirconia Prep Straight Zirconia	oarable Ab	utment		1	MU - 30 Degree	S-MU-30	5.3mm	4.5mm 1.7/		(Includes Male Processing Package)			4mm 5mm			
	Abutment	ZIA	10.0111111	2.5mm					Angled Abutment	3 110 30	3.311111	4.07mm	an a		30200-06		6mm
-	15 Degree Angled Zirconia Abutment	ZTA-15	9.1mm	1.2/ 1.2mm		MU - Zest® Locator Abutment Collar (2-Pack)	8909-2	1.0mm			Locator Male Processing Package	8519-2 8519-10		2-Pack 10-Pack			
•	Healing Abutments										Locator Extended Male Processing	8540-2 8540-10		2-Pack 10-Pack			
	Healing Abutment	HC-3 HC-5	3mm 5mm			O-Ball Abutm	nents				Package						
	Anatomical Healing Abutment	HC-3-P HC-5-P	3mm 5mm			O-Ball Abutment	BBA-0.5 BBA-2 BBA-4	3.8mm 5.3mm 7.3mm	0.5mm 2mm 4mm	STR	Locator Replacement Denture Cap Male Assembly	8510-4 8510-10		4-Pack 10-Pack			
-	Temporary A	butments				Metal Housing	BBA-6	9.3mm 3.22mm	6mm			0570 4		4 Dl-			
-	Straight Peek Nylor Temporary Abutmer	RPA nt	9.7mm	1.5mm		Nylon Cap - Extra Light Retention	NC-CLEAR	J.2211111		1	Locator Female Analog (4mm Diameter)	8530-4 8530-20		4-Pack 20-Pack			
A	15 Degree Peek Nylo Temporary Abutme	nt	9.1mm	1.2mm		Nylon Cap - Light Retention	NC-PINK			Φ.	Locator Female Analog (5mm	8516-4 8516-20		4-Pack 20-Pack			
A	25 Degree Peek Nylo Temporary Abutme		9.4mm	1.3mm		Nylon Cap - Medium Retention	NC-ORANGE			-46	Diameter)						
	Non-Engaging Straight Titanium Temporary Abutmer	PCA-R-TI	11.6mm			Nylon Cap - High Retention	NC-GREEN			Ā	Locator Impression Coping	8505-4 8505-20		4-Pack 20-Pack			



Internal Hex Surgical Kit



Bone Taps

L-BT-3.5 - Bone Tap for LGI+ & Spark - 3.5mm, wrench
L-BT-4.3 - Bone Tap for LGI+ & Spark - 4.3mm, wrench
L-BT-5.0 - Bone Tap for LGI+ & Spark - 5.0mm, wrench
L-BT-6.0 - Bone Tap for LGI+ & Spark - 6.0mm, wrench
N-BT-II - Bone Tap for Self Thread - Handpiece 3.3mm
S-BT-II - Bone Tap for Self Thread - Handpiece 3.75mm
G-BT-II - Bone Tap for Self Thread - Handpiece 4.2mm
W-BT-II - Bone Tap for Self Thread - Handpiece 5.0mm



Burs & Drills

RB - 2.0mm Round Bur

NX-LD-20T - 2.0mm Lindeman Bur

NX-TLD-20T - 2.0mm Lance Drill

CSD - Implant Countersink

PD200L16C - 2.0mm Carbide Implant Drill

TD250L16C - 2.5mm Carbide Implant Drill

TD280L16C - 2.8mm Carbide Implant Drill

TD320L16C - 3.2mm Carbide Implant Drill

TD365L16C - 3.65mm Carbide Implant Drill

TD400L16C - 4.0mm Carbide Implant Drill

TD430L16C - 4.3mm Carbide Implant Drill

TD450L16C - 4.5mm Carbide Implant Drill

TD520L16C - 5.2mm Carbide Implant Drill

TD550L16C - 5.5mm Carbide Implant Drill

Implant/Mount Tools

LIT-C - Implant/Mount Tool for Handpiece



LIT-S - Short Implant/Mount Tool for Ratchet



LIT-L - Long Implant/Mount Tool for Ratchet



The internal hex connection surgical kit is entirely customizable to your preferences. This kit is compatible with Hi-Tec™ Logic Plus™, Spark™, and Self Thread™ implants. It houses all of the insertion tools, drivers, and drills necessary for implant surgery. This kit is convenient and easily organized with detailed labels and categories for each instrument. It is a fully autoclavable kit made of surgical stainless steel that withstands long-term sterilization.

Prosthetic Drivers

L-1.25 - Long Prosthetic Driver for Handpiece



S-1.25 - Short Prosthetic Driver for Handpiece SHT-S - Short Prosthetic Driver for Ratchet



SHT-L - Long Prosthetic Driver for Ratchet

DENT-1.25 - Handheld Prosthetic Driver



Ratchets & Attachments

DL - Drill Extension



MU-IT-Q - Square Tool for Multi-Unit Abutments

MU-IT - Hex Tool for Multi-Unit Abutments



RAD - Hex to Square Adapter



ART - Hex/Square to FT Adapter



LS - Square to Latch Adapter



HR - Hex Ratchet



HR-S - Square Ratchet



HR-TW - Hex Torque Wrench



HSD - Hex Straight Driver Handle



VS - Titanium Vessel for Mount Removal



PT - Paralleling Tool



MU-AH - Multi-Unit Angulation Holder





Integrated Surface™ Characteristics

Hi-Tec Implant's™ Integrated Surface™ is an SLA macro/micro implant surface, which is applied to the implant by large grit blasting, followed by a process of acid treatments. This results in a porous osseo-conductive surface that is an ideal platform for cell attachment. This process increases implant to bone contact and facilitates bone formation and superior osseo-integration.

Macro Surface

A macro surface is achieved by blasting the implant with 60 micron large grit particles that create pores 10-30 microns wide. The topography of the surface is 10 microns from peak to valley. This significantly increases the implant surface area and the retention on the implant. The macro pores contribute to initial stability, shortened healing time, and provide ultimate load bearing capacity.

Micro Surface

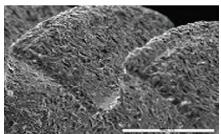
The micro-texture is created by chemical processes and is characterized by micro grooves of 0.503 microns. The micro voids are osseo-conductive and facilitate bone formation for faster osseo-integration and mechanical interlock between the bone and the implant.

Surface Composition

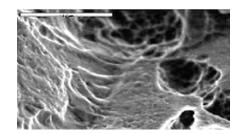
Surface composition analyzed by scanning electron microscopy presents a titanium oxide surface layer with a composition of 50% oxygen at the surface. Auger Spectron spectroscopy demonstrates that the depth of the titanium oxide layer is 200 angstroms.

Predictable Performance

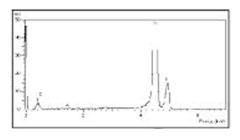
SLA technology has a long history of proven effectiveness as one of the most documented surfaces in dental technology. Hi-Tec Implant's™ Integrated Surface™ has extensive healing potential, which results in accelerated osseo-integration. This makes the healing process more predictable for both you and your patient.



SEM SCANNING ELECTRON MICROSCOPE x 100



SEM SCANNING ELECTRON MICROSCOPE x 5000



SURFACE COMPOSITION BY SEM



Implant Packaging





Mounted (Figure 1.)

Mounted Implants

Most Hi-Tec Implants™ are available with an initial placement mount (Figure 1.). This mount is used to carry the implant to the surgical site. It should not be used for full placement of the implant, as it is designed only for the delivery of the implant to the osteotomy. After lightly threading the implant into the osteotomy, remove the mount with a 1.25mm (0.50") hexagonal driver. Once the mount is removed, use an implant insertion tool (specific to the implant being used) to drive the implant into the osteotomy. Following the implant placement, the mount can then be reattached to the implant and used as a closed tray impression coping. Remove the mount with a 1.25mm (0.50") hexagonal driver after taking the impression. After completing the impression, the provided cover screw can then be secured. This first stage cover screw is used to seal the connection of the implant. The cover screw can be secured and removed using the same 1.25mm (0.50") hexagonal driver. All drivers and insertion tools are provided in the surgical kit or can be purchased separately.

Non-Mounted Implants

Alternatively, some Hi-Tec Implants™ are offered without an initial placement mount for ease of placement. Instead of being packaged in a sterile plastic carrier, mountless Hi-Tec Implants™ are supplied in a sealed titanium vial (Figure 2.). The vial's material is designed to protect the implant's surface, ensuring optimal osseointegration. The lid of the vial contains a first stage healing screw, which can be used to cover and seal the connection of the implant. Placement of a mountless implant is easy, simply secure the corresponding insertion tool into the connection of the implant and carry it to the osteotomy. Then use the insertion tool to securely place the fixture into the osteotomy. After placing the implant, the first stage cover screw can be secured using the 1.25mm (0.50") hexagonal driver. The drivers and insertion tools are provided in the surgical kit or can be purchased separately.



(Figure 2.)



Hi-Tec Implants™ meets and exceeds the highest standards in the field of medical devices: the main approvals, besides many others, are:

FDA APPROVAL: Center for Devices and Radiological Health in the US FDA (Food and Drug Administration) Since 1994.

CE MARK – After demonstrating compliance with Annex II of Medical Devices Directive 93/42/EEC, entitles us to use CE Marketing on our products.

ISO 13485: 2003 – An international standard for quality management of medical devices, Hi-Tec Implants LTD™ meets the requirements of ISO 13485 : 2003 for the design, manufacturing and inspection of dental implants and accessories.

ISO 9001: 2000 - Certifies that Hi-Tec Implants LTD[™] demonstrates compliance of our quality system to meet the requirements of ISO 9001: 2000 (an international standard for quality management system).

Health Canada Medical Device License and CMDCAS ISO 13485: 2003 Accredited Since 2005.

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