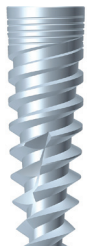


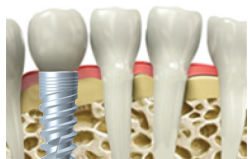


SPARK™ INTERNAL HEX CONNECTION



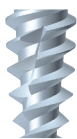
Spark™ TPI Features

The Spark™ implant is a root-form bone-condensing implant, which utilizes platform-shift technology. These features make the Spark™ a great choice for immediate load applications. This technology coupled with a standard platform internal hex connection makes the Spark™ one of the easiest implants to place and restore.



Increased Stability

The Spark™ implant features aggressive bone-condensing threads, which are optimal for immediate load applications. The primary stability of this implant makes it a great choice for extraction sockets. The tapered coronal collar of the Spark™ allows bone to grow over a small shelf of the top of the implant, increasing stability.



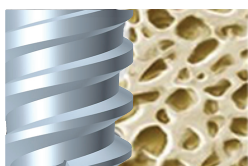
Dynamic Positioning

The apex of the Spark™ implant consists of reverse-cutting flutes, which allow clinicians to adjust the orientation of the implant during placement. This is particularly useful in extraction sites.



Optimal Esthetics

A tapered coronal collar and platform-switching prosthetics are used to optimize bone and soft tissue growth. These design features maximize tissue growth around the collar of the implant. This makes the Spark™ a great choice for the esthetic zone.



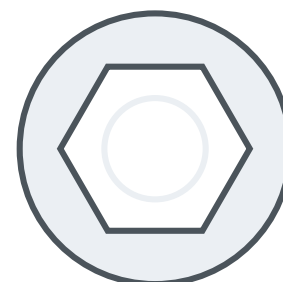
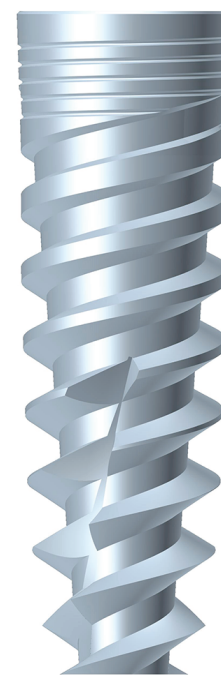
Integrated SLA Surface™

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



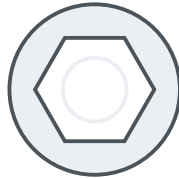
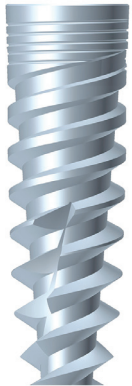
Four Diameters-One Platform

The Spark™ is available in four diameters, which all share the same restorative platform. This design not only simplifies the selection of prosthetics, but also provides a shelf for tissue to grow on top of the implant. The platform used is a standard internal hexagon connection, which is the most common connection available today. This greatly simplifies the placement and restoration of these implants.





TECHNICAL SPECIFICATIONS SPARK™ INTERNAL HEX CONNECTION



- **Implant Material:** Ti-6Al-4V Titanium Alloy
- **Surface Finish:** SLA Integrated Surface™
- **Implant Collar:** Tapered, Textured Micro-Thread
- **Delivery System:** Available with a Placement Mount
- **Implant Placement Torque:** 30-60Ncm
- **Abutment Torque:** (Standard 35Ncm) (Multi-Unit 15Ncm)
- **Prosthetic Screw Type:** .050" (1.25mm) Hexagon
- **Compatibility:** Zimmer® Screw-Vent® (3.3mm, 3.7mm, 4.1mm)

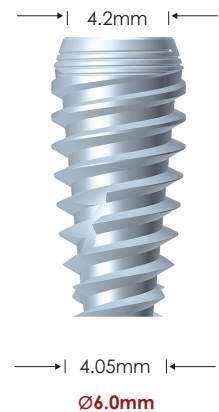
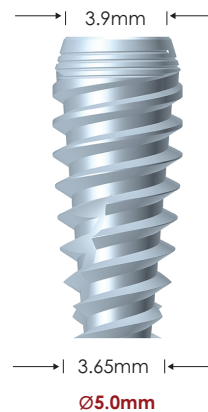
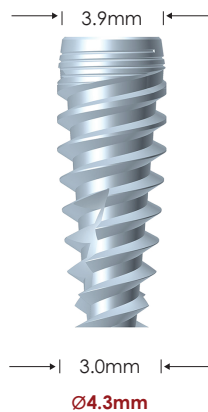
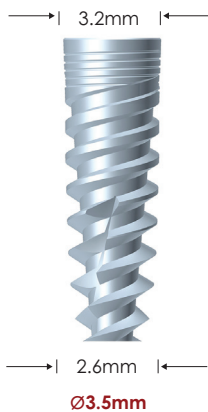
*Zimmer Screw-Vent is a registered trademark of Zimmer Dental Inc.

Standard Platform
3.5
8.0mm
10.0mm
11.5mm
13.0mm

Standard Platform
4.3
6.0mm
8.0mm
10.0mm
11.5mm
13.0mm
16.0mm

Standard Platform
5.0
6.0mm
8.0mm
10.0mm
11.5mm
13.0mm
16.0mm

Standard Platform
6.0
6.0mm
8.0mm
10.0mm
11.5mm
13.0mm



Spark™ Implants Drill Sequence

		RB	2.0	2.5	2.8	3.2	CSD						
TPI 3.5	SOFT BONE	•	•	•	•	•	X						
	HARD BONE	•	•	•	•	1/2							
TPI 4.3	SOFT BONE	•	•	•	•	•	•	4	CSD				
	HARD BONE	•	•	•	•	•	1/2	1/2	X				
TPI 5.0	SOFT BONE	•	•	•	•	•	•	•	4.3	4.5	CSD		
	HARD BONE	•	•	•	•	•	•	•	1/2	1/2	X		
TPI 6.0	SOFT BONE	•	•	•	•	•	•	•	4.3	4.5	5.2	5.5	CSD
	HARD BONE	•	•	•	•	•	•	•	•	•	•	1/2	X




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

Item	SKU	Length	Cuff Height
 Ball Attachment Analog	BNL	14mm	
 Implant Analog	IL	10.7mm	
 Digital Analog	ILD	10mm	

Impression Copings

 Closed Tray Impression Coping	AAT	10.5mm	
 Open Tray Impression Coping	AAT-L	14.5mm	
 Snap Cap Impression Coping	AST	13mm	
 Snap Cap	T-PT	10mm	



Titanium Preparable Abutments

 Straight Titanium Abutment	ACA	9.8mm	0mm
	ACA-E-1	7.9mm	1mm
	ACA-E-2	8.9mm	2mm
	ACA-E-3	9.9mm	3mm
	ACA-E-4	10.9mm	4mm
 Wide Profile	ACA-P	9.8mm	0mm
 Round Profile	ACA-R	13.6mm	0mm
 Narrow Profile	ACA-S	8.86mm	0mm
 Non-Engaging	SCA	11.10mm	0mm
 Modular Abutment Set	ACA-G-1-SET ACA-G-2-SET ACA-G-3-SET ACA-G-4-SET		1mm 2mm 3mm 4mm
 15 Degree Angled Titanium Abutment	ANA-15 ANA-15-E-1 ANA-15-E-2	9.1mm 8.2mm 9.2mm	1.2mm 115/2.05mm 2.15/3.05mm
 25 Degree Angled Titanium Abutment	ANA-25	9.4mm	1.3mm





Zirconia Preparable Abutments

 Straight Zirconia Abutment	ZTA	10.6mm	1.5/ 2.5mm
 15 Degree Angled Zirconia Abutment	ZTA-15	9.1mm	1.2/ 1.2mm

Healing Abutments

 Healing Abutment	HC-3 HC-5	3mm 5mm	
 Anatomical Healing Abutment	HC-3-P HC-5-P	3mm 5mm	

Temporary Abutments

 Straight Peek Nylon Temporary Abutment	RPA	9.7mm	1.5mm
 15 Degree Peek Nylon Temporary Abutment	RPA-15	9.1mm	1.2mm
 25 Degree Peek Nylon Temporary Abutment	RPA-25	9.4mm	1.3mm
 Non-Engaging Straight Titanium Temporary Abutment	PCA-R-TI	11.6mm	





Castable UCLA Abutments

 Engaging Plastic Castable Abutment	PCA	11.7mm	1mm
 Non-Engaging Plastic Castable Abutment	PCA-R	11.7mm	1mm
 Engaging Gold Castable Abutment	PGA	10.7mm	
 Non-Engaging Gold Castable Abutment	PGA-R	10.7mm	
 Engaging Titanium Castable Abutment	PTA	11.2mm	




Multi-Unit Components

 MU - Closed Tray Impression Coping	MU-AAT	9mm	
 MU - Open Tray Impression Coping	MU-AAT-L	13.87mm	
 MU - Analog	MU-CL	13.14mm	
 MU - Fixation Screw	MU-FS		
 MU - Healing Cap	MU-HC	4.71mm	
 MU - Plastic Castable Sleeve	MU-PC	11.9mm	
 MU - Titanium Sleeve	MU-TPC	12.25mm	
 MU - Scan Body	MU-SCAN	8.59mm	
 MU - Titanium Base	MU-TB	4.5mm	
 MU - Straight Abutment	S-MU-1 S-MU-2 S-MU-3 S-MU-4	3mm 4mm 5mm 6mm	1mm 2mm 3mm 4mm
 MU - 17 Degree Angled Abutment	S-MU-17 S-MU-17-2	4.76mm 6.2mm	1.7/ 3.08mm 3.1/ 4.5mm
 MU - 30 Degree Angled Abutment	S-MU-30	5.3mm	1.7/ 4.07mm
 MU - Zest® Locator Abutment Collar (2-Pack)	8909-2	1.0mm	









O-Ball Abutments

 O-Ball Abutment	BBA-0.5 BBA-2 BBA-4 BBA-6	3.8mm 5.3mm 7.3mm 9.3mm	0.5mm 2mm 4mm 6mm
 Metal Housing	MH	3.22mm	
 Nylon Cap - Extra Light Retention	NC-CLEAR		
 Nylon Cap - Light Retention	NC-PINK		
 Nylon Cap - Medium Retention	NC-ORANGE		
 Nylon Cap - High Retention	NC-GREEN		

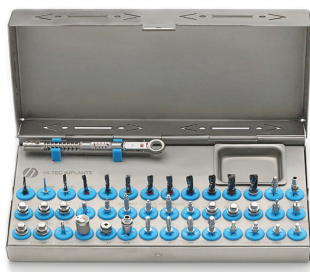
CAD/CAM Custom Prosthetics

 Short Scan Body	S-SCAN-S	7.8mm	
 Long Scan Body	S-SCAN-L	9.95mm	
 Multi-Unit - Scan Body	MU-SCAN	8.59mm	
 Multi-Unit - Titanium Base	MU-TB	4.5mm	
 Digital Analog	ILD	10mm	
 Engaging T-Base Abutment	S-PRN	5mm	
 Non-Engaging T-Base Abutment	S-PRN-R	4.5mm	
 Engaging Screw Retained T-Base Abutment	ZTA-T		
 Non-Engaging Screw Retained T-Base Abutment	ZTA-T-R		

Zest® Locator Abutments

 Locator Internal Hex Standard Platform	8661 8662 8663 8664 8665 8625 8626	0mm 1mm 2.5mm 3.5mm 4.5mm 5.5mm 6.5mm
 Locator RT-X Internal Hex Connical Connection Platform (Includes Male Processing Package)	30200-00 30200-01 30200-02 30200-03 30200-04 30200-05 30200-06	0.5mm 1mm 2mm 3mm 4mm 5mm 6mm
 Locator Male Processing Package	8519-2 8519-10	2-Pack 10-Pack
 Locator Extended Male Processing Package	8540-2 8540-10	2-Pack 10-Pack
 Locator Replacement Denture Cap Male Assembly	8510-4 8510-10	4-Pack 10-Pack
 Locator Female Analog (4mm Diameter)	8530-4 8530-20	4-Pack 20-Pack
 Locator Female Analog (5mm Diameter)	8516-4 8516-20	4-Pack 20-Pack
 Locator Impression Coping	8505-4 8505-20	4-Pack 20-Pack

Internal Hex Surgical Kit



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.

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



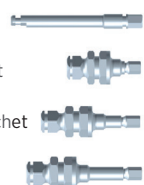
Burs & Drills

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



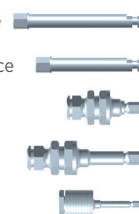
Implant/Mount Tools

LIT-C - Implant/Mount Tool for Handpiece
 LIT-S - Short Implant/Mount Tool for Ratchet
 LIT-M - Medium Implant/Mount Tool for Ratchet
 LIT-L - Long Implant/Mount Tool for Ratchet



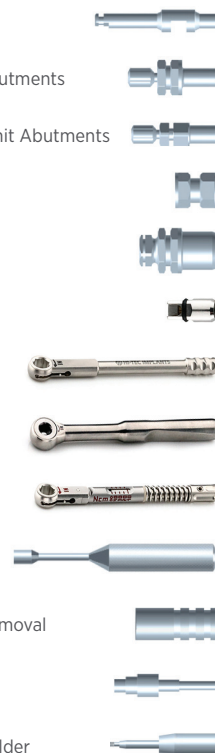
Prosthetic Drivers

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 - Hex Tool for Multi-Unit Abutments
 MU-IT-Q - Square 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 osseointegration.

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

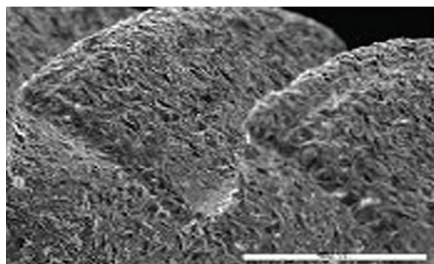
The micro-texture is created by chemical processes and is characterized by micro grooves of 0.503 microns. The micro voids are osseo-conductive and facilitate bone formation for faster osseointegration and mechanical interlock between the bone and the implant.

Surface Composition

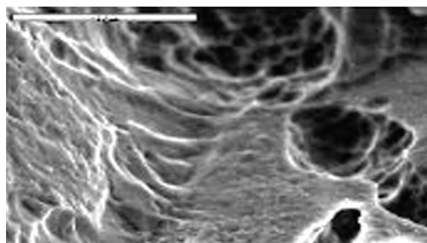
Surface composition analyzed by scanning electron microscopy presents a titanium oxide surface layer with a composition of 50% oxygen at the surface. Auger Spectron spectroscopy demonstrates that the depth of the titanium oxide layer is 200 angstroms.

Predictable Performance

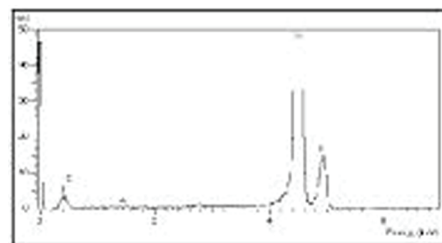
SLA technology has a long history of proven effectiveness as one of the most documented surfaces in dental technology. Hi-Tec Implant's™ Integrated Surface™ has extensive healing potential, which results in accelerated osseointegration. This makes the healing process more predictable for both you and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



SEM SCANNING ELECTRON
MICROSCOPE x 100

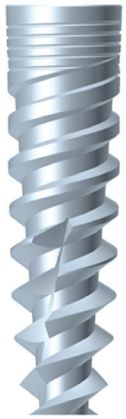


SEM SCANNING ELECTRON
MICROSCOPE x 5000



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.



Mountless
(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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