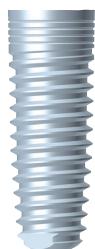




VISION™ TRI-LOBE CONNECTION



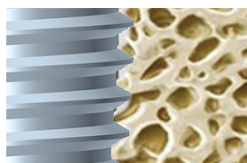
Vision™ VRI Features

The Vision™ is a non-aggressive implant that utilizes a Tri-Lobe connection. It is designed to be used primarily in hard bone conditions. The collar of this implant is designed with micro-threads that enhance stability in crestal bone. These design features make the Vision™ a great alternative when aggressive implants are not ideal.



Micro-Thread Collar

The collar of the Vision™ implant is designed with micro-threads that are used to enhance stabilization in crestal bone. This collar reduces pressure at the cortical plate, which allows for an increase in vascularity and a decrease in crestal bone loss. It is also textured with Hi-Tec Integrated SLA surface™. The SLA surface increases osseointegration, ensuring long-term stabilization.



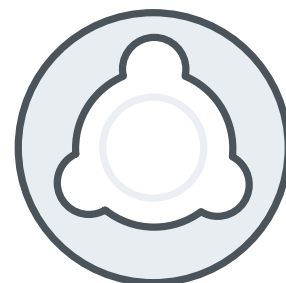
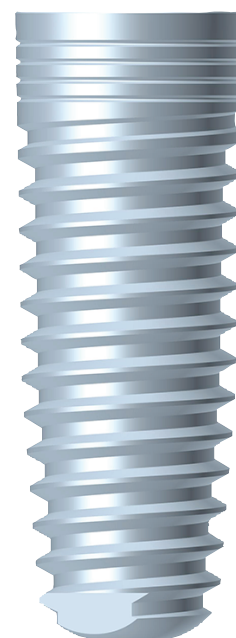
Integrated SLA Surface™

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



Prosthetic Compatibility

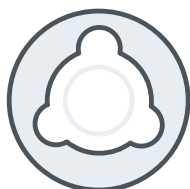
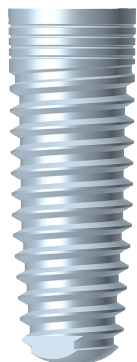
Over the last decade, the Tri-Lobe connection has become one of the more popular restoration options available. The tri-channel design of the Vision™ connection provides a stable seal between the implant fixture and prosthetic. This can help eliminate loosening of prosthetic elements and provide a better mucoseal seal. Product availability and simplicity make the restoration of Vision™ implants simple and predictable.





TECHNICAL SPECIFICATIONS

VISION™ TRI-LOBE CONNECTION



- **Implant Material:** Ti-6Al-4V Titanium Alloy
- **Surface Finish:** SLA Integrated Surface™
- **Implant Collar:** 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:** NobelReplace® NP (VRI 3.5mm)
NobelReplace® RP (VRI 4.3mm)
NobelReplace® WP (VRI 5.0mm)

*NobelReplace is a registered trademark of Nobel Biocare Group

Narrow Platform

3.5

8.0mm

10.0mm

11.5mm

13.0mm

16.0mm

→ | 3.5mm | ←



→ | 2.5mm | ←

Ø3.5mm

Standard Platform

4.3

8.0mm

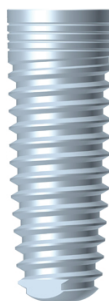
10.0mm

11.5mm

13.0mm

16.0mm

→ | 4.3mm | ←



→ | 3.4mm | ←

Ø4.3mm

Wide Platform

5.0

8.0mm

10.0mm

11.5mm

13.0mm

16.0mm

→ | 5.0mm | ←



→ | 3.8mm | ←

Ø5.0mm

Vision™ Implants Drill Sequence

		RB	2.0	2.5	2.8	3.2	3.65	4.3	V-BT-3.5	CSD		
VRI 3.5	SOFT BONE	•	•	•	•	½	•	•	•	X		
	HARD BONE	•	•	•	•	½	•	•	•			
VRI 4.3	SOFT BONE	•	•	•	•	•	•	•	•	•	CSD	
	HARD BONE	•	•	•	•	•	•	•	•	•	X	
VRI 5.0	SOFT BONE	•	•	•	•	•	•	•	•	•	•	CSD
	HARD BONE	•	•	•	•	•	•	•	•	•	•	X

½ = DRILL TO HALF DEPTH
X = COUNTERSINK OPTIONAL





Vision™ Implants

Tri-Lobe Connection - Regular Platform 4.3mm

Prosthetic Elements




Analogs

Item	SKU	Length	Cuff Height
 Ball Attachment Analog	BNL	14mm	
 Implant Analog	RV-IL	11mm	
 Digital Analog	RV-ILD	10mm	

Impression Copings

 Closed Tray Impression Coping	RV-AAT	11.7mm	
 Open Tray Impression Coping	RV-AAT-L	16.1mm	
 Snap Cap Impression Coping	RV-AST	14.45mm	
 Snap Cap	T-PT	10mm	

Titanium Preparable Abutments

 Straight Titanium Abutment	RV-ACA-1	7.4mm	1mm
	RV-ACA-2	8.4mm	2mm
	RV-ACA-3	9.4mm	3mm
	RV-ACA-4	10.4mm	4mm
 Modular Abutment Set	RV-ACA-G-1-SET	1mm	
	RV-ACA-G-2-SET	2mm	
	RV-ACA-G-3-SET	3mm	
	RV-ACA-G-4-SET	4mm	
 15 Degree Angled Titanium Abutment	RV-ANA-15-1.5	8.7mm	0.7/1.9mm
	RV-ANA-15-2.5	10mm	2/3.2mm

Zirconia Preparable Abutments

 Straight Zirconia Abutment	RV-ZTA	12.3mm	4mm
 15 Degree Angled Zirconia Abutment	RV-ZTA-15	8.7mm	0.7/1.90mm

Healing Abutments

 Healing Abutment	RV-HC-3	3mm	
	RV-HC-5	5mm	
	RV-HC-7	7mm	

Temporary Abutments

 Straight Peek Nylon Temporary Abutment	RV-RPA	7.5mm	2mm
 15 Degree Peek Nylon Abutment	RV-RPA-15	8.7mm	0.7/1.9mm
 Engaging Straight Titanium Temporary Abutment	RV-TA	12mm	1mm
 Non-Engaging Straight Titanium Temporary Abutment	RV-TA-R	12mm	1mm

Castable UCLA Abutments

 Engaging Plastic Castable Abutment	RV-PCA	12.2mm	
 Non-Engaging Plastic Castable Abutment	RV-PCA-R	12.2mm	
 Engaging Gold Castable Abutment	RV-PGA	12.2mm	
 Non-Engaging Gold Castable Abutment	RV-PGA-R	12.2mm	
 Engaging Titanium Castable Abutment	RV-PTA	10mm	









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	RV-MU-1	3.2mm	1mm
	RV-MU-2	4.2mm	2mm
	RV-MU-3	5.2mm	3mm
	RV-MU-4	6.2mm	4mm
 MU -17 Degree Angled Abutment	RV-MU-17	4.67mm	1.61/3mm
 MU -30 Degree Angled Abutment	RV-MU-30	5.32mm	1.73/4.1mm
 MU - Zest® Locator Abutment Collar (2-Pack)	8909-2	1.0mm	

O-Ball Abutments

 O-Ball Abutment	RV-BBA-1	3.8mm	1mm
	RV-BBA-2	4.8mm	2mm
	RV-BBA-3	5.8mm	3mm
	RV-BBA-4	6.8mm	4mm
 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	RV-SCAN-S	7.5mm	
 Long Scan Body	RV-SCAN-L	9.4mm	
 Multi-Unit - Scan Body	MU-SCAN	8.59mm	
 Multi-Unit - Titanium Base	MU-TB	4.5mm	
 Digital Analog	RV-ILD	10mm	
 Engaging T-Base Abutment	RV-PRN	4.7mm	
 Non-Engaging T-Base Abutment	RV-PRN-R	4.7mm	
 Engaging Screw Retained T-Base Abutment	RV-ZTA-T		
 Non-Engaging Screw Retained T-Base Abutment	RV-ZTA-T-R		

Zest® Locator Abutments

 Locator Tri-Lobe Regular Platform	8761	0mm
	8762	1mm
	8763	2mm
	8764	3mm
	8765	4mm
	8753	5mm
	8754	6mm
 Locator RT-X Tri-Lobe Connection Regular Platform (Includes Processing Package)	30501-00	0.5mm
	30501-01	1mm
	30501-02	2mm
	30501-03	3mm
	30501-04	4mm
	30501-05	5mm
	30501-06	6mm
 Locator Male Processing Package	8519-2	2-Pack
	8519-10	10-Pack
 Locator Extended Male Processing Package	8540-2	2-Pack
	8540-10	10-Pack
 Locator Replacement Denture Cap Male Assembly	8510-4	4-Pack
	8510-10	10-Pack
 Locator Female Analog (4mm Diameter)	8530-4	4-Pack
	8530-20	20-Pack
 Locator Female Analog (5mm Diameter)	8516-4	4-Pack
	8516-20	20-Pack
 Locator Impression Coping	8505-4	4-Pack
	8505-20	20-Pack

Tri-Lobe Surgical Kit



The tri-lobe connection surgical kit is entirely customizable to your preference. This kit is compatible with Hi-Tec™ Vision™ 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 a thermoplastic material that withstands long-term sterilization.

Bone Taps

- V-BT-3.5 - Bone Tap for VRI - 3.5mm, Handpieces
- V-BT-4.3 - Bone Tap for VRI - 4.3mm, Handpieces
- V-BT-5.0 - Bone Tap for VRI - 5.0mm, Handpieces



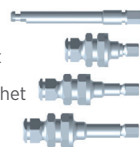
Burs & Drills

- RB - 2.0mm Round Bur
- NX-LD-20T - 2.0mm Lindeman Bur
- NX-TLD-20T - 2.0 mm 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



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



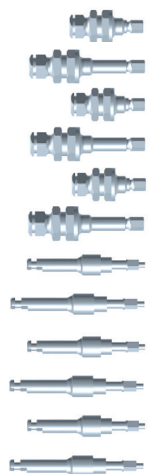
Prosthetic Drivers

- 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



Implant Drivers

- NV-LIT-S - Short Implant Driver for NV - Ratchet
- NV-LIT-L - Long Implant Driver for NV - Ratchet
- RV-LIT-S - Short Implant Driver for RV - Ratchet
- RV-LIT-L - Long Implant Driver for RV - Ratchet
- WV-LIT-S - Short Implant Driver for WV - Ratchet
- WV-LIT-L - Long Implant Driver for WV - Ratchet
- NV-FT-S - Short Implant Driver for NV - Handpiece
- NV-FT-L - Long Implant Driver for NV - Handpiece
- RV-FT-S - Short Implant Driver for RV - Handpiece
- RV-FT-L - Long Implant Driver for RV - Handpiece
- WV-FT-S - Short Implant Driver for WV - Handpiece
- WV-FT-L - Long Implant Driver for WV - Handpiece



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





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

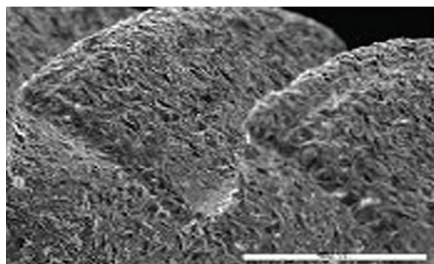
The micro-texture is created by chemical processes and is characterized by micro grooves of 0.503 microns. The micro voids are osseo-conductive and facilitate bone formation for faster osseointegration and mechanical interlock between the bone and the implant.

Surface Composition

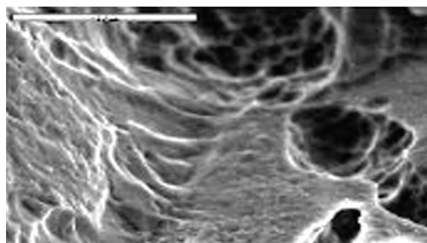
Surface composition analyzed by scanning electron microscopy presents a titanium oxide surface layer with a composition of 50% oxygen at the surface. Auger Spectron spectroscopy demonstrates that the depth of the titanium oxide layer is 200 angstroms.

Predictable Performance

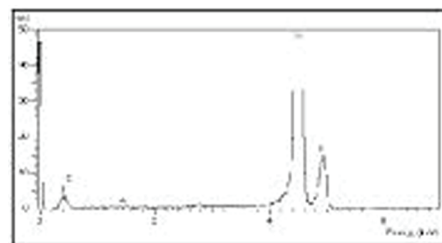
SLA technology has a long history of proven effectiveness as one of the most documented surfaces in dental technology. Hi-Tec Implant's™ Integrated Surface™ has extensive healing potential, which results in accelerated osseointegration. This makes the healing process more predictable for both you and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