



VISION™ TRI-LOBE CONNECTION



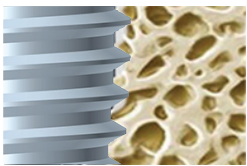
Vision™ VRI Features

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.



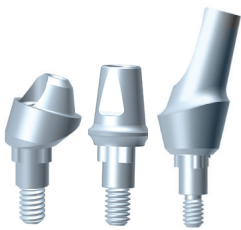
Micro-Thread Collar

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.



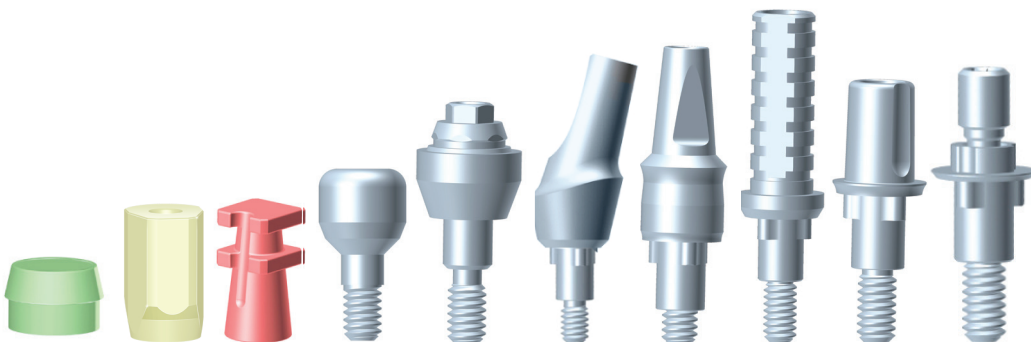
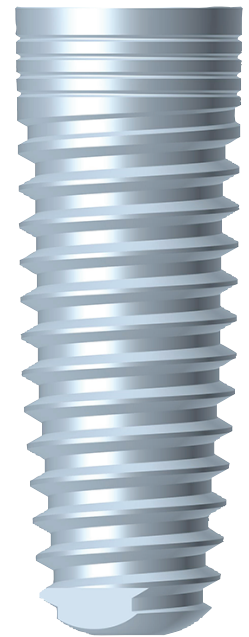
Integrated SLA Surface™

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

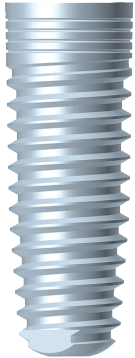
Over the last decade, the Tri-Lobe connection has become one of the more popular restoration options available. The tri-channel design of the Vision™ connection provides a stable seal between the implant fixture and prosthetic. This can help eliminate loosening of prosthetic elements and provide a better 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	•	•	•	•	•	•	•	•	•	X	
	HARD BONE	•	•	•	•	•	•	•	•	•		
VRI 5.0	SOFT BONE	•	•	•	•	•	•	•	•	•	•	X
	HARD BONE	•	•	•	•	•	•	•	•	•	•	

½ = DRILL TO HALF DEPTH
X = COUNTERSINK OPTIONAL






Vision™ Implants
Tri-Lobe Connection - Narrow Platform 3.5mm
Prosthetic Elements
Analogs

Item	SKU	Length	Cuff Height
 Ball Attachment Analog	BNL	14mm	
 Implant Analog	NV-IL	11mm	
 Digital Analog	NV-ILD	11.05mm	


Impression Copings

 Closed Tray Impression Coping	NV-AAT	11.5mm	
 Open Tray Impression Coping	NV-AAT-L	15.5mm	
 Snap Cap Impression Coping	NV-AST	13.5mm	
 Snap Cap	T-PT	10mm	

Titanium Preparable Abutments

	Straight Titanium Abutment	NV-ACA-1	7.2mm	1mm
		NV-ACA-2	8.2mm	2mm
		NV-ACA-3	9.2mm	3mm
		NV-ACA-4	10.2mm	4mm
	Modular Abutment Set	NV-ACA-G-1-SET		1mm
		NV-ACA-G-2-SET		2mm
		NV-ACA-G-3-SET		3mm
		NV-ACA-G-4-SET		4mm
	15 Degree Angled Titanium Abutment	NV-ANA-15-1.5	8.7mm	1/2mm
		NV-ANA-15-2.5	9.9mm	2/3.2mm

Zirconia Preparable Abutments

	Straight Zirconia Abutment	NV-ZTA	10.7mm	3.5mm
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Healing Abutments

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

Temporary Abutments

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


Castable UCLA Abutments

Item	SKU	Length	Cuff Height
 Engaging Plastic Castable Abutment	NV-PCA	6.7mm	
 Non-Engaging Plastic Castable Abutment	NV-PCA-R	6.7mm	
 Engaging Gold Castable Abutment	NV-PGA	12.7mm	
 Non-Engaging Gold Castable Abutment	NV-PGA-R	12.7mm	
 Engaging Titanium Castable Abutment	NV-PTA	10.8mm	










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	NV-MU-1	3mm	1mm
		NV-MU-2	4mm	2mm
		NV-MU-3	5mm	3mm
		NV-MU-4	6mm	4mm
	MU -17 Degree Angled Abutment	NV-MU-17	4.67mm	1.6/3mm
	MU -30 Degree Angled Abutment	NV-MU-30	4.2mm	0.63/3mm
	MU - Zest® Locator Abutment Collar (2-Pack)	8909-2	1.0mm	









O-Ball Abutments

	O-Ball Abutment	NV-BBA-1	3.1mm	1mm
		NV-BBA-2	4.8mm	2mm
		NV-BBA-3	5.8mm	3mm
		NV-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

Item	SKU	Length	Cuff Height
	NV-SCAN-S	7.5mm	
	NV-SCAN-L	9.4mm	
	MU-SCAN	8.59mm	
	MU-TB	4.5mm	
	NV-ILD	11.05mm	
	NV-PRN	4.8mm	
	NV-PRN-R	4.8mm	
	NV-ZTA-T		
	NV-ZTA-T-R		

Zest® Locator Abutments

	Locator Tri-Lobe Connection Narrow Platform	8756	0mm
		8757	1mm
		8758	2mm
		8759	3mm
		8760	4mm
		8734	5mm
		8735	6mm
	Locator RT-X Tri-Lobe Connection Narrow Platform (Includes Processing Package)	30500-00	0.25mm
		30500-01	1mm
		30500-02	2mm
		30500-03	3mm
		30500-04	4mm
		30500-05	5mm
		30500-06	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.

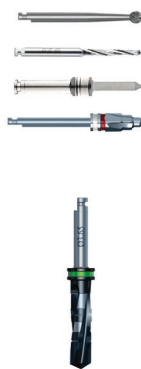
Bone Taps

- 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



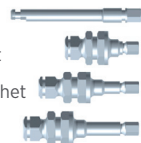
Burs & Drills

- 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



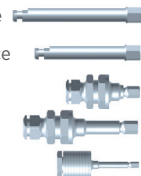
Mount Tools

- 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



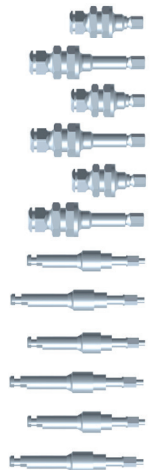
Prosthetic Drivers

- 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 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

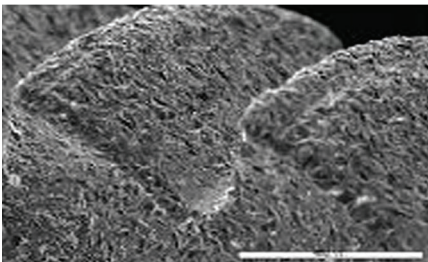
The micro-texture is created by chemical processes and is characterized by micro grooves of 0.503 microns. The micro voids are osseo-conductive and facilitate bone formation for faster osseo-integration and mechanical interlock between the bone and the implant.

Surface Composition

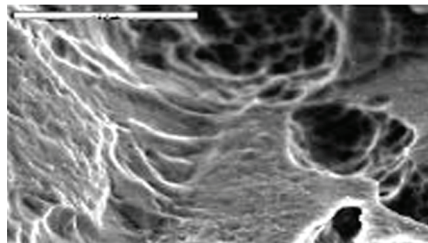
Surface composition analyzed by scanning electron microscopy presents a titanium oxide surface layer with a composition of 50% oxygen at the surface. Auger Spectron spectroscopy demonstrates that the depth of the titanium oxide layer is 200 angstroms.

Predictable Performance

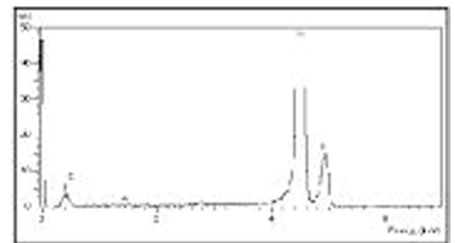
SLA technology has a long history of proven effectiveness as one of the most documented surfaces in dental technology. Hi-Tec Implant's™ Integrated Surface™ has extensive healing potential, which results in accelerated osseo-integration. This makes the healing process more predictable for both you and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



SEM SCANNING ELECTRON
MICROSCOPE x 100



SEM SCANNING ELECTRON
MICROSCOPE x 5000



SURFACE COMPOSITION BY SEM

Implant Packaging



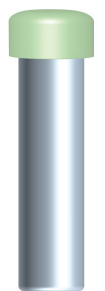
Mounted Implants

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.)



Mounted
(Figure 1.)



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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