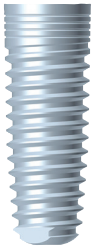
HI-TEC IMPLANTS

SINCE 1990

VISION™ TRI-LOBE CONNECTION

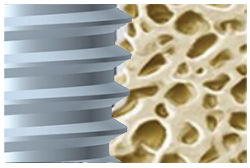


Vision™ VRI Features

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.

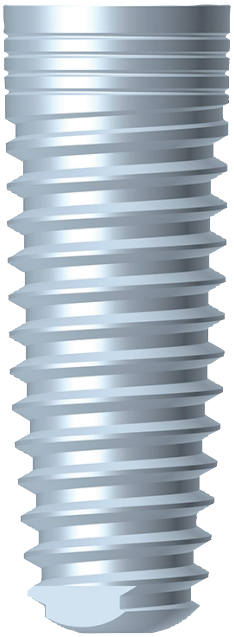
Micro-Thread Collar

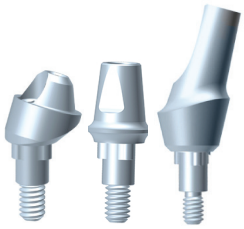
The collar of the Vision™ implant is designed with micro-threads that are used to enhance stabilization in crestal bone. This collar reduces pressure at the cortical plate, which allows for an increase in vascularity and a decrease in crestal bone loss. It is also textured with Hi-Tec Integrated SLA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



Integrated SLA Surface™

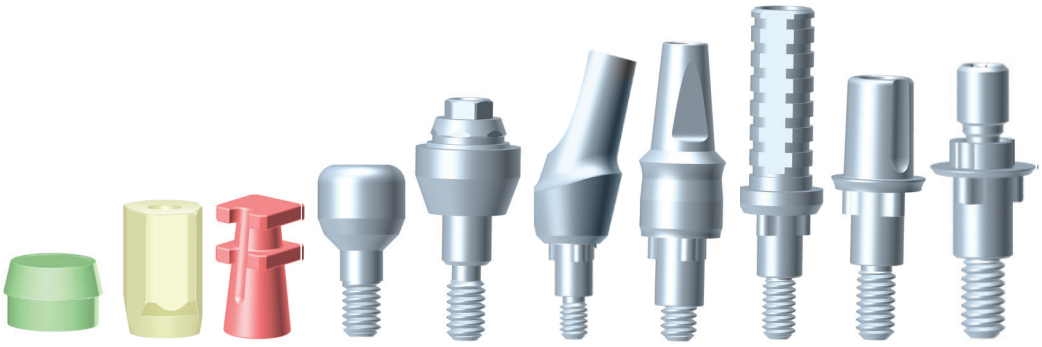
Through a process of grit blasting and acid etching, Hi-Tec's SLA Integrated™ surface produces highly osseo-conductive implants. This increases bone to implant surface area, which accelerates and improves osseo-integration.





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.

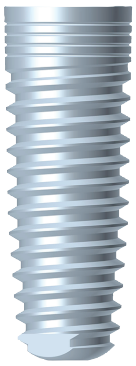


HI-TEC IMPLANTS

SINCE 1990

TECHNICAL SPECIFICATIONS

VISION™ TRI-LOBE CONNECTION



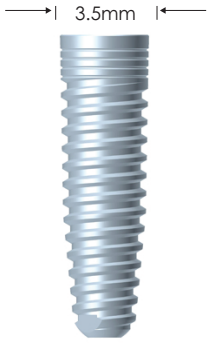
- **Implant Material:** Ti-6Al-4V Titanium Alloy
- **Surface Finish:** SLA Integrated Surface™
- **Implant Collar:** Textured Micro-Thread
- **Delivery System:** Available with a Placement Mount
- **Implant Placement Torque:** 30-60Ncm
- **Abutment Torque:** (Standard 35Ncm) (Multi-Unit 15Ncm)
- **Prosthetic 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

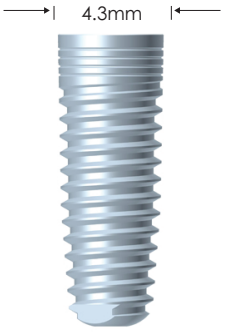
Narrow Platform
3.5
8.0mm
10.0mm
11.5mm
13.0mm
16.0mm

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

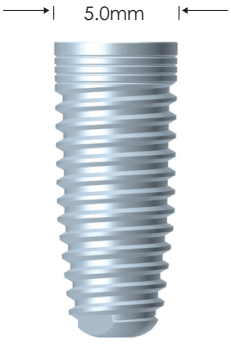
Wide Platform
5.0
8.0mm
10.0mm
11.5mm
13.0mm
16.0mm



Ø3.5mm



Ø4.3mm



Ø5.0mm

Vision™ Implants Drill Sequence

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

½ = DRILL TO HALF DEPTH
X = COUNTERSINK OPTIONAL

HI-TEC IMPLANTS™

Vision™ Implants
Tri-Lobe Connection - Wide Platform 5.0mm

Prosthetic Elements

Analogs

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

Impression Copings

Item	SKU	Length	Cuff Height
Closed Tray Impression Coping	WV-AAT	11.5mm	
Open Tray Impression Coping	WV-AAT-L	16.1mm	
Snap Cap Impression Coping	WV-AST	14.45mm	
Snap Cap	T-PT	10mm	

Titanium Preparable Abutments

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

Healing Abutments

Item	SKU	Length	Cuff Height
Healing Abutment	WV-HC-3	3mm	
	WV-HC-5	5mm	
	WV-HC-7	7mm	

Temporary Abutments

Item	SKU	Length	Cuff Height
Straight Peek Nylon Temporary Abutment	WV-RPA	7.5mm	2mm
15 Degree Peek Nylon Abutment	WV-RPA-15	8.7mm	0.7/1.9mm
Engaging Straight Titanium Temporary Abutment	WV-TA	12mm	1mm
Non-Engaging Straight Titanium Temporary Abutment	WV-TA-R	12mm	1mm

Castable UCLA Abutments

Item	SKU	Length	Cuff Height
Engaging Plastic Castable Abutment	WV-PCA	6.75mm	
Non-Engaging Plastic Castable Abutment	WV-PCA-R	6.75mm	
Engaging Gold Castable Abutment	WV-PGA	8.10mm	
Non-Engaging Gold Castable Abutment	WV-PGA-R	8.10mm	
Engaging Titanium Castable Abutment	WV-PTA	10.75mm	

Multi-Unit Components

Item	SKU	Length	Cuff Height
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	WV-MU-1	3mm	1mm
	WV-MU-2	4mm	2mm
	WV-MU-3	5mm	3mm
	WV-MU-4	6mm	4mm
MU -17 Degree Angled Abutment	WV-MU-17	4.7mm	1.61/ 3mm
MU -30 Degree Angled Abutment	WV-MU-30	4.2mm	0.63/ 3mm
MU - Zest® Locator Abutment Collar (2-Pack)	8909-2	1.0mm	

O-Ball Abutments

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

Zest® Locator Abutments

Item			
Locator Tri-Lobe Wide Platform	8766		1mm
	8767		2mm
	8768		3mm
	8769		4mm
	8770		5mm
Locator RT-X Tri-Lobe Connection Wide Platform (Includes Processing Package)	30502-01		1mm
	30502-02		2mm
	30502-03		3mm
	30502-04		4mm
	30502-05		5mm
	30502-06		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

HI-TEC IMPLANTS™

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

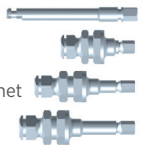
V-BT-3.5 - Bone Tap for VRI - 3.5mm, Handpieces
V-BT-4.3 - Bone Tap for VRI - 4.3mm, Handpieces
V-BT-5.0 - Bone Tap for VRI - 5.0mm, Handpieces

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

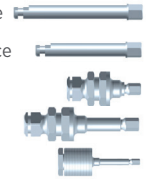
PD200L16C - 2.0mm Carbide Implant Drill
TD250L16C - 2.5mm Carbide Implant Drill
TD280L16C - 2.8mm Carbide Implant Drill
TD320L16C - 3.2mm Carbide Implant Drill
TD365L16C - 3.65mm Carbide Implant Drill
TD400L16C - 4.0mm Carbide Implant Drill
TD430L16C - 4.3mm Carbide Implant Drill
TD450L16C - 4.5mm Carbide Implant Drill
TD520L16C - 5.2mm Carbide Implant Drill
TD550L16C - 5.5mm Carbide Implant Drill

Mount Tools



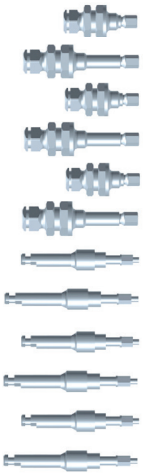
LIT-C - Implant Mount Tool for Handpiece
LIT-S - Short Implant Mount Tool for Ratchet
LIT-M - Medium Implant Mount Tool for Ratchet
LIT-L - Long Implant Mount Tool for Ratchet

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

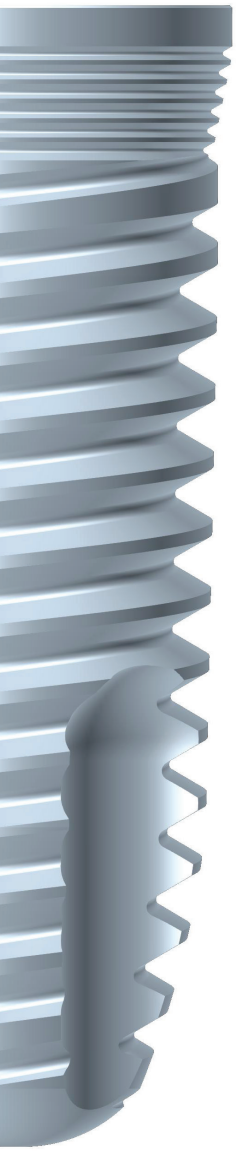


NV-LIT-S - Short Implant Driver for NV - Ratchet
NV-LIT-L - Long Implant Driver for NV - Ratchet
RV-LIT-S - Short Implant Driver for RV - Ratchet
RV-LIT-L - Long Implant Driver for RV - Ratchet
WV-LIT-S - Short Implant Driver for WV - Ratchet
WV-LIT-L - Long Implant Driver for WV - Ratchet
NV-FT-S -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

HI-TEC IMPLANTS™



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

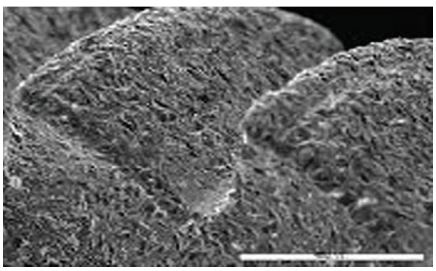
The micro-texture is created by chemical processes and is characterized by micro grooves of 0.503 microns. The micro voids are osseo-conductive and facilitate bone formation for faster osseo-integration and mechanical interlock between the bone and the implant.

Surface Composition

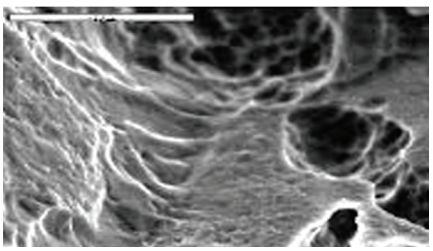
Surface composition analyzed by scanning electron microscopy presents a titanium oxide surface layer with a composition of 50% oxygen at the surface. Auger Spectron spectroscopy demonstrates that the depth of the titanium oxide layer is 200 angstroms.

Predictable Performance

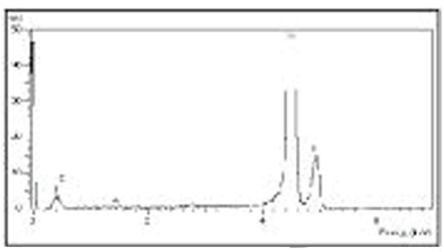
SLA technology has a long history of proven effectiveness as one of the most documented surfaces in dental technology. Hi-Tec Implant's™ Integrated Surface™ has extensive healing potential, which results in accelerated osseo-integration. This makes the healing process more predictable for both you and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



SEM SCANNING ELECTRON MICROSCOPE x 100



SEM SCANNING ELECTRON MICROSCOPE x 5000



SURFACE COMPOSITION BY SEM

HI-TEC IMPLANTS™

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™

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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