



Merging Cell Biology & Technology

MICRO-LOK HEX SYSTEM
SILHOUETTE HEX SYSTEM



Table of Contents



Hex-Top Product Line

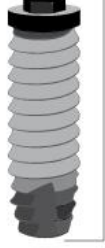
Micro-Lok Implants.....	2
Micro-Lok Surgical Protocol.....	3
Micro-Lok Drilling Protocol.....	4
Silhouette Hex Implants.....	5
Silhouette Hex Laser-Lok® Implants.....	6
Silhouette Hex Surgical Protocol.....	7
Silhouette Hex Drilling Protocol.....	8
Cover Screws/Healing Heads.....	9-10
Hex Abutment Selection Guide.....	11-13
Bio-Cera® Abutment (ceramic).....	14
Temporary Abutments.....	15-16
Cylinder/Tubular Abutments (UCLA TYPE).....	17-18
Custom Prepable Abutments.....	19-20
Angled Abutments.....	21-22
Tapered Abutments.....	23-26
O-Ring Abutments.....	27-28



Instruments

Drills.....	29
Drill Stop Kits.....	30
Countersinks & Bone Profiler.....	31
Screws.....	32
Instrumentation.....	33-35
Ridge/Bone Expanders & Osteotomes.....	36
ERE® Edentulous Ridge Expansion Chisels.....	37-38
Silhouette Deluxe Surgical Kit.....	39
Micro-Lok Surgical Kit.....	40
Prosthetic Kit.....	41



Item	Size			Part Number
 Length Hex height 0.7mm  	PLATFORM	BODY	LENGTH	OSSEO-LOK®
	3.45mm	3.45mm	10mm	IHPSS310D
			11.5mm	IHPSS312D
			13mm	IHPSS313D
			15mm	IHPSS315D
 Length Hex height 0.7mm  	4.0mm	3.75mm	8mm	IHSS408D
			10mm	IHSS410D
			11.5mm	IHSS412D
			13mm	IHSS413D
			15mm	IHSS415D
 Length Hex height 0.7mm  	4.0mm	4.00mm	8mm	IHPSS408D
			10mm	IHPSS410D
			11.5mm	IHPSS412D
			13mm	IHPSS413D
			15mm	IHPSS415D
 Length Hex height 0.7mm  	5.0mm	4.75mm	8mm	IHPSS508D
			10mm	IHPSS510D
			11.5mm	IHPSS512D
			13mm	IHPSS513D
			15mm	IHPSS515D

All implants are supplied with a Mount and Cover screw. Implant length is measured from top of hex to apical end.



Micro-Lok Surgical Protocol

Cautions and Recommendations

PROCEDURE

- Anesthetize and drape the patient before surgery
- Elevate the mucoperiosteal flaps
- Determine the center of the implant site and pierce the crestal cortical plate with a fissure bur, using a surgical guide stent
- Using the pilot drill in a low speed, high torque hand piece, drill to the proper implant depth (Depth markings are on all drills)
- Use paralleling pins to ascertain parallel placement of multiple implants
- Use the recommended drill sequence
- Use internal & external irrigation
- Irrigation with sterile saline solution recommended
- Drill speed of 800 - 1200 RPM recommended
- Drill using a straight up and down motion
- Replace old drills with new drills after 25 - 50 uses
- Take a radiograph to confirm satisfactory placement position with the pilot drill in-site (parallel pin and/or depth gauge)
- Enlarge the osteotomy with the internally irrigated intermediate drills
- Using the spade drills sequentially, drill until final implant size is achieved. Follow the printed drilling sequence
- Clean socket, open package and gently place implant into the osteotomy site and thread into place with hand piece at 25RPM or with hand ratchet
- Place cover screw on Screw Implant
- Close mucoperiosteal flaps

SURGICAL TIPS

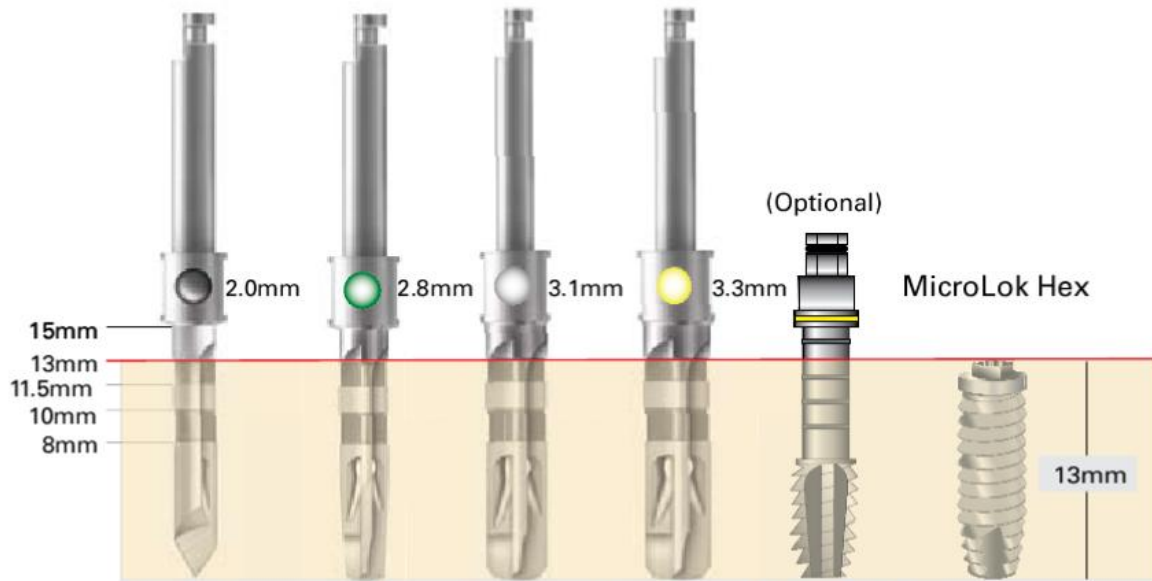
Be very aware of bone density. It is hard to tell the density by the pressure needed to drill. If the implant binds when installing, back it out and tap the site. Remember, the system is designed to protect the implants and the patient and therefore the mount and driver will fail before the implant strips.

SOFT BONE TIPS

If bone is soft, we recommend using osteotomes or bone expanders to compress the soft bone before implant placement. This is accomplished by drilling through the hard cortical bone with straight drills, progressing up to the platform diameter, but stopping when you have reached beyond the hard cortical bone into the soft bone. Use the osteotome or bone expander procedure to form the osteotomy site by sequentially expanding the site to reach the correct size for the implant to be placed.

NO MATTER WHAT HAS BEEN SAID ABOVE, PATIENT SELECTION IS STILL OF PRIMARY IMPORTANCE. THE BEST DOCTOR CANNOT BE SUCCESSFUL WITH A BAD CANDIDATE AND THE BEST PLACED IMPLANTS WILL EVENTUALLY FAIL, UNLESS PROPER OCCLUSION IS ESTABLISHED AND MAINTAINED DURING AND AFTER RESTORATION.

Micro-Lok has been in use since 1991 with a 98% success rate (*Osseointegration of Rough Acid-Etched Titanium Implants: 5-Year Follow-up of 100 Minimatic Implants*. Int J Oral Maxillofac Implants. 1999 May-Jun; 14(3):384-91) and a reported success rate of 97.4% in 2004 (*Radiographic and clinical evaluation of single-tooth Biolok implants: a 5-year study*. Int J Oral Maxillofac Implants. 2004 Nov-Dec; 19(6):849-54).



Drilling Sequence for 4.0mm Platform x 4.0mm Body x 13mm Length Micro-Lok Implants

MICRO-LOK DRILLING PROTOCOL

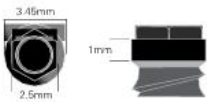
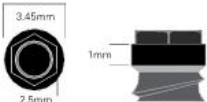
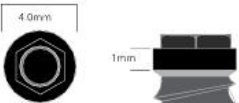
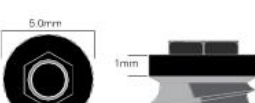
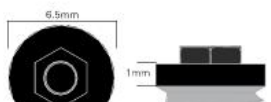
Body	Platform	Pilot Drill 2.0mm	2.8mm	3.1mm	3.3mm	4.0mm	Taps*	Countersink for Hex Top use Only
3.45mm	3.45mm	✓	✓				3.45mm	3.55mm
3.75mm	4.00mm	✓	✓	✓			3.75mm	4.10mm
4.00mm	4.00mm	✓	✓	✓	✓		4.00mm	4.10mm
4.75mm	5.00mm	✓	✓	✓	✓	✓	4.75mm	5.10mm
Drill Speed (rpm)		800	800	800	800	800		600

NOTES:

*Taps are required for HA coated implants and recommended for dense bone.



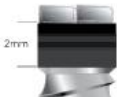
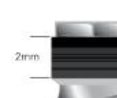
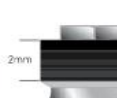
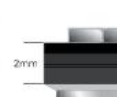
Silhouette Hex Implants

Item	Size			Part Number	
	PLATFORM	BODY/TIP	LENGTH**	OSSEO-LOK®	HA
 Length Hex height 0.7mm 	3.45mm*	3.45/2.0mm	10mm	SIHTSS310D	SIHTSSHA310D
			11.5mm	SIHTSS312D	SIHTSSHA312D
			13mm	SIHTSS313D	SIHTSSHA313D
			15mm	SIHTSS315D	SIHTSSHA315D
 Length Hex height 0.7mm 	3.45mm	4.0/2.5mm	10mm	IHTSS310D	IHTSSHA310D
			11.5mm	IHTSS312D	IHTSSHA312D
			13mm	IHTSS313D	IHTSSHA313D
			15mm	IHTSS315D	IHTSSHA315D
 Length Hex height 0.7mm 	4.0mm	4.5/2.5mm	8mm	IHTSS408D	IHTSSHA408D
			10mm	IHTSS410D	IHTSSHA410D
			11.5mm	IHTSS412D	IHTSSHA412D
			13mm	IHTSS413D	IHTSSHA413D
			15mm	IHTSS415D	IHTSSHA415D
 Length Hex height 0.7mm 	5.0mm	5.5/3.3mm	8mm	IHTSS508D	IHTSSHA508D
			10mm	IHTSS510D	IHTSSHA510D
			11.5mm	IHTSS512D	IHTSSHA512D
			13mm	IHTSS513D	IHTSSHA513D
			15mm	IHTSS515D	IHTSSHA515D
 Length Hex height 1.0mm 	6.5mm	7.0/4.0mm	8mm	IHTSS708D	IHTSSHA708D
			10mm	IHTSS710D	IHTSSHA710D
			11.5mm	IHTSS712D	IHTSSHA712D
			13mm	IHTSS713D	IHTSSHA713D

*SlimLine Implant. All implants are supplied with Mount and Cover Screw. **Stated implant length is measured from top of hex to apical end. Actual length is 0.4mm less than stated length. Implants are Osseo-Lok® treated.

Silhouette Hex Laser-Lok[®] Implants



Item	Size			Part Number
	PLATFORM	BODY/TIP	LENGTH**	OSSEO-LOK [®]
 Length Hex height 0.7mm  	3.45mm*	3.45/2.0mm	10mm	SLLHTSS310D
			11.5mm	SLLHTSS312D
			13mm	SLLHTSS313D
			15mm	SLLHTSS315D
 Length Hex height 0.7mm  	3.45mm	4.0/2.5mm	10mm	LLHTSS310D
			11.5mm	LLHTSS312D
			13mm	LLHTSS313D
			15mm	LLHTSS315D
 Length Hex height 0.7mm  	4.0mm	4.5/2.5mm	8mm	LLHTSS408D
			10mm	LLHTSS410D
			11.5mm	LLHTSS412D
			13mm	LLHTSS413D
			15mm	LLHTSS415D
 Length Hex height 0.7mm  	5.0mm	5.5/3.3mm	8mm	LLHTSS508D
			10mm	LLHTSS510D
			11.5mm	LLHTSS512D
			13mm	LLHTSS513D
			15mm	LLHTSS515D
 Length Hex height 0.7mm  	6.5mm	7.0/4.0mm	8mm	LLHTSS708D
			10mm	LLHTSS710D
			11.5mm	LLHTSS712D
			13mm	LLHTSS713D

*SlimLine Implant. All implants are supplied with Mount and Cover Screw. **Implant length is measured from mid-point of the collar to the apical end. For total measurement of the implant add 1.3mm.



Silhouette Hex Surgical Protocol

Cautions and Recommendations

PROCEDURE

- Anesthetize and drape the patient before surgery
- Elevate the mucoperiosteal flaps
- Determine the center of the implant site and pierce the crestal cortical plate with a fissure bur, using a surgical guide stent
- Using the pilot drill in a low speed, high torque hand piece, drill to the proper implant depth (Depth markings are on all drills)
- Use paralleling pins to ascertain parallel placement of multiple implants
- Use the recommended drill sequence
- Use internal & external irrigation
- Irrigation with sterile saline solution recommended
- Drill speed of 800 - 1200 RPM recommended
- Drill using a straight up and down motion
- Replace old drills with new drills after 25 - 50 uses
- Take a radiograph to confirm satisfactory placement position with the pilot drill in-site (parallel pin and/or depth gauge)
- Enlarge the osteotomy with the internally irrigated intermediate drills
- Using the spade drills sequentially, drill until final implant size is achieved. Follow the printed drilling sequence
- Clean socket, open package and gently place implant into the osteotomy site and thread into place with hand piece at 25RPM or with hand ratchet
- Place cover screw on Screw Implant
- Close mucoperiosteal flaps

SURGICAL TIPS

Be very aware of bone density. It is hard to tell the density by the pressure needed to drill. If the implant binds when installing, back it out and tap the site. Remember, the system is designed to protect the implants and the patient and therefore the mount and driver will fail before the implant strips.

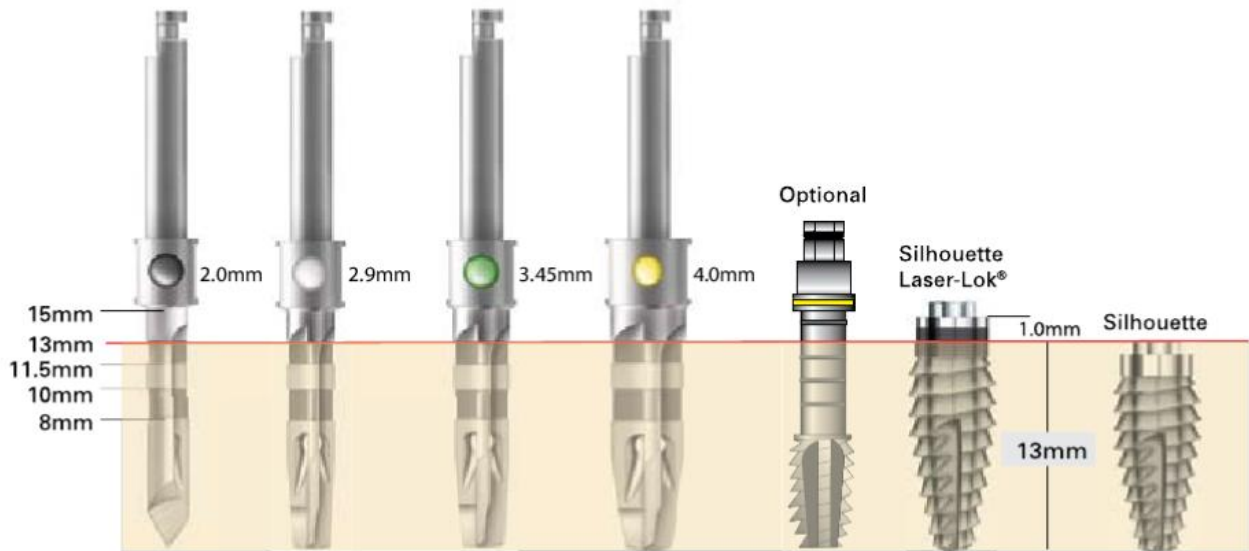
SOFT BONE TIPS

If bone is soft, we recommend using osteotomes or bone expanders to compress the soft bone before implant placement. This is accomplished by drilling through the hard cortical bone with straight drills, progressing up to the platform diameter, but stopping when you have reached beyond the hard cortical bone into the soft bone. Use the osteotome or bone expander procedure to form the osteotomy site by sequentially expanding the site to reach the correct size for the implant to be placed.

The Silhouette Implant design is unique. The implant body diameter is larger than the platform size; the final drill corresponds to the platform diameter of the implant and minor diameter of the implant thread. The design eliminates the use of countersinks. The final drill used to prepare the osteotomy must be the same diameter as the platform of the implant with exception of SlimLine Silhouette that needs countersink part number 8551 (color coded green) and SlimLine Silhouette Laser-Lok[®] that needs countersink part number 8551SL (color coded white)

NO MATTER WHAT HAS BEEN SAID ABOVE, PATIENT SELECTION IS STILL OF PRIMARY IMPORTANCE. THE BEST DOCTOR CANNOT BE SUCCESSFUL WITH A BAD CANDIDATE AND THE BEST PLACED IMPLANTS WILL EVENTUALLY FAIL, UNLESS PROPER OCCLUSION IS ESTABLISHED AND MAINTAINED DURING AND AFTER RESTORATION.

Silhouette has been in use since 1998 with a 98.5% success rate. Micro-Lok has been in use since 1991.



Drilling Sequence for 4.0mm Platform x 4.5 to 2.5mm Body x 13mm Length Silhouette Laser-Lok® & Silhouette Implants

SILHOUETTE DRILLING PROTOCOL

Body	Platform	2.0mm	2.9mmT	3.4mmT	4.0mmT	5.0mmT	6.5mmT	Countersink	Taps
Drill Speed (rpm)		1,000	1,000	850	725	550	450		
SlimLine 3.45/2.0mm	3.45mm	✓	✓					✓*	Optional
4.0/2.5mm	3.45mm	✓	✓	✓					Optional
4.5/2.5mm	4.00mm	✓	✓	✓	✓				Optional
5.5/3.3mm	5.00mm	✓	✓	✓	✓	✓			Optional
7.0/4.0mm	6.50mm	✓	✓	✓	✓	✓	✓		Optional

CAUTION:

1. Use sterile saline solution ONLY for irrigation and cooling.
2. Use accepted patient selection criteria.
3. If implant binds during insertion, back out implant, tap osteotomy and reinsert implant.
4. Do not torque in excess of 45-50 Ncm when inserting.

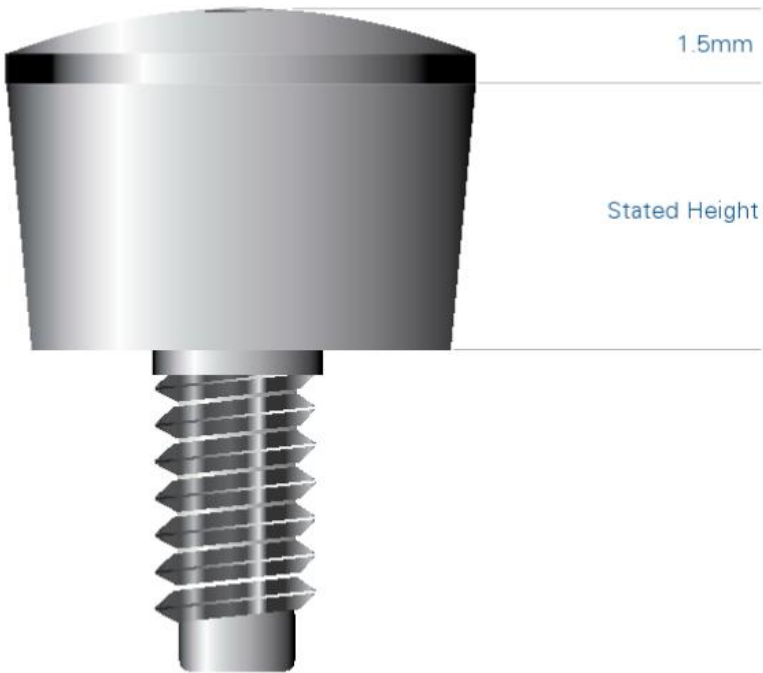
*SlimLine Silhouette Implants must use countersink part number 8551 (color coded green), SlimLine Silhouette Laser-Lok® Implants must use countersink part number 8551SL (color coded white).



Healing Heads



Healing Heads (Abutments) allow healing of soft tissue around the transmucosal portion of the abutment after second stage surgery. These abutments are used for both Internal Connection "IC" and Hex Top Implants.



1.5mm

For total height of healing head add 1.5mm

Stated Height

REQUIRED TOOLS

- 8075N .050" Hex Driver





Cuff		3.45mm	4.0mm	5.0mm	6.5mm	
COVER SCREW						
Flat (All implants are packed with a flat cover screw)						 Flat Round
Round		1001R	2001R	5001R	7001R	
HEALING HEADS						
Straight Profile						
Same as Platform	2mm	10032	20042	50052		 Cuff 2-6mm Straight
	3mm	10033	20043	50053		
	4mm	10034	20044	50054		
	5mm	10035	20045	50055		
	6mm		20046	50056		
	8mm		20048			
Emergence Profile						
Flares to 4.0mm	1mm	10041				 Cuff 2-5mm Emergence Profile
	2mm	10042				
	3mm	10043				
	4mm	10044				
	5mm	10045				
	6mm	10046				
Flares to 5.0mm	2mm		20062			 Cuff 2-6mm Emergence Profile
	3mm		20063			
	4mm		20064			
	5mm		20065			
	6mm		20066			
	7mm		20067			
Flares to 6.0mm	1mm			50061		 Cuff 2-4mm Emergence Profile
	2mm		20072	50062		
	3mm		20073	50063		
	4mm		20074	50064		
	5mm			50065		
	6mm			50066		
Flares to 7.0mm	2mm				70082	 Cuff 2-4mm Emergence Profile
	3mm				70083	



Hex Abutment Selection Guide

SINGLE CROWN

CEMENT RETAINED

CYLINDER ABUTMENTS

Cylinder Titanium

- Titanium Hexed - Prepable abutment.
- Compatible with Lok-Screw® for added safety against abutment screw loosening.



UCLA

- Plastic Hexed - Castable abutment.
- Gold / Plastic Hexed - Castable abutment.



Tapered Chimney

- Longer crown length
- Thin walled abutment for less prep-time
- Titanium



PREPABLE ABUTMENTS

Custom Prepable

- Titanium Hexed - Prepable abutment. Multiple cuff heights.
- Compatible with Lok-Screw® for added safety against abutment screw loosening.



Angled 15° & 25°

- Indexing recommended at implant placement for exact angle correction.



Bio-Cera® Ceramic Abutments

- Zirconia / Alumina - Hex Top.



SCREW RETAINED

CYLINDER ABUTMENTS

UCLA

- Plastic Hexed - Castable abutment.
- Gold / Plastic Hexed - Castable abutment.



HYBRID

FIXED

CYLINDER ABUTMENT

UCLA

- Plastic Non-Hexed, Castable abutment.
- Gold / Plastic Non-Hexed Castable abutment.



Tapered Abutment

- Trans-mucosal abutment recommended for cases presenting high tissue.
- Coping and screw used for wax-up of Hybrid prostheses.
- Coping sold separately in Plastic, Titanium and Gold alloy.





BRIDGE

CEMENT RETAINED

CYLINDER ABUTMENTS

Cylinder Titanium

- Titanium Hexed - Prepable abutment.
- Compatible with Lok-Screw® for added safety against abutment screw loosening.



PREPABLE ABUTMENTS

Angled 15° & 25°

- Indexing recommended at implant placement for exact angle correction.



UCLA

- Plastic Hexed - Castable abutment.
- Gold / Plastic Hexed - Cast to abutment.



PREPABLE ABUTMENTS

Custom Prepable

- Titanium Hexed - Prepable abutment. Multiple cuff heights.
- Compatible with Lok-Screw® for added safety against abutment screw loosening.



Bio-Cera® Ceramic Abutment

- Zirconia / Alumina Hexed.



SCREW RETAINED

CYLINDER ABUTMENTS

UCLA

- Plastic Non-Hexed, Castable abutment.
- Gold / Plastic Non-Hexed, Castable abutment.



Tapered Abutment

- Trans-mucosal abutment recommended for cases presenting high tissue.
- Coping and screw used for wax-up of bridge frame.
- Coping sold separately in Plastic, Titanium and Gold alloy.



DENTURES

REMOVABLE

ATTACHMENT

O-Ring Abutment

- Titanium abutment.
- O-Ring Kit sold separately, includes cap, 2 rings and plastic analog of the abutment.



BAR

Tapered Abutment

- Trans-mucosal abutment recommended for cases presenting high tissue.
- Bar connection to abutment at or above tissue level.



CYLINDER ABUTMENTS

UCLA

- Plastic Non-Hexed, Castable abutment.
- Gold / Plastic Non-Hexed, Castable abutment.



PLEASE NOTE: Lok-Screw® (secondary safety screw) and fixation screws / waxing rings are sold separately and are common to both Silhouette (all Hex Top) and Micro-Lok implants.



ABUTMENT SELECTION



HIGH STRENGTH, IMPROVED ESTHETICS & EASE OF USE

Unique zirconia alloy of Bio-Cera[®] provides:

- Increased strength allowing for 15° & 25° angled abutments
- Improved esthetics - natural projection of light
- Stability at high temperatures - autoclavable
- Solid ceramic construction - metal base required only for converting to an IC unit
- Easy contouring with diamond bur



Straight



15° Angle



25° Angle

ORDERING INFORMATION

Description	Part Number
4mm external hex platform. Includes 2mm dual journal screw	2090/2907
4mm external hex platform, 15° pre-angled. Includes 2mm dual journal screw	2093/2907
4mm external hex platform, 25° pre-angled. Includes 2mm dual journal screw	2095/2907
5mm external hex platform. Includes 2mm dual journal screw	5090/2907
5mm external hex platform, 15° pre-angled. Includes 2mm dual journal screw	5093/2907
5mm external hex platform, 25° pre-angled. Includes 2mm dual journal screw	5095/2907



Temporary Abutments



Hex temporary abutments are provided in titanium and plastic. The plastic abutments provide ease of chair-side preparation but should NOT be used for long term or permanent use.

Material/Use/Type		3.45mm	4.0mm	5.0mm	
TEMPORARY ABUTMENT					
(No flat surface to orient hex & no internal thread)	(Provisional) Hex Titanium	1350/2905	2350/2905	5350/2905	 2350
TEMPORARY ABUTMENT					
Cylinder Abutment	Plastic / Hexed	1351/2905	2351/2905	5351/2905	 2351
TRANSFER COPING					
	Open Tray with 12mm lab screw	1430/2021	2430/2021	5430/2021	 2430/2021 2450/2321
	Closed Tray with 7mm lab screw	1450/2321	2450/2321	5450/2321	
ANALOG					
	Titanium	1605	2605	5605	 2605
5 pack	Titanium	1605/5P	2605/5P	5605/5P	

Note: Transfer copings are marked to identify their platform diameter.



TECHNICAL NOTES

Second Stage to Completed Prostheses (Example: 4mm platform)

- Remove Healing Abutment from implant (Fig. 1)
- Place open Tray Transfer Coping onto implant, part # 2430/2021 (Fig. 2)
- Take x-ray to verify complete seating of Transfer Coping
- Transfer hex orientation and implant angulation to model (open tray impression technique shown)
- Remove 12mm screw before removing impression tray
- Place Implant Analog part # 2605 onto Transfer Coping and reposition 12mm screw
- Pour stone model

Temporary Abutment Preparation – Cemented

- Place temporary Abutment onto implant in the patient's mouth, mark necessary changes and remove Temporary abutment from the mouth (Fig. 3)
- Place Temporary Abutment onto Abutment Prepping Handle (part # 8180K) and make adjustments as marked (Fig. 4)
- Place Temporary Abutment onto implant and assess fit
- Use standard procedure for fabrication of temporary acrylic material to build the crown over Temporary Abutment (Fig. 5)

Temporary Abutment Preparation – Screw Retained

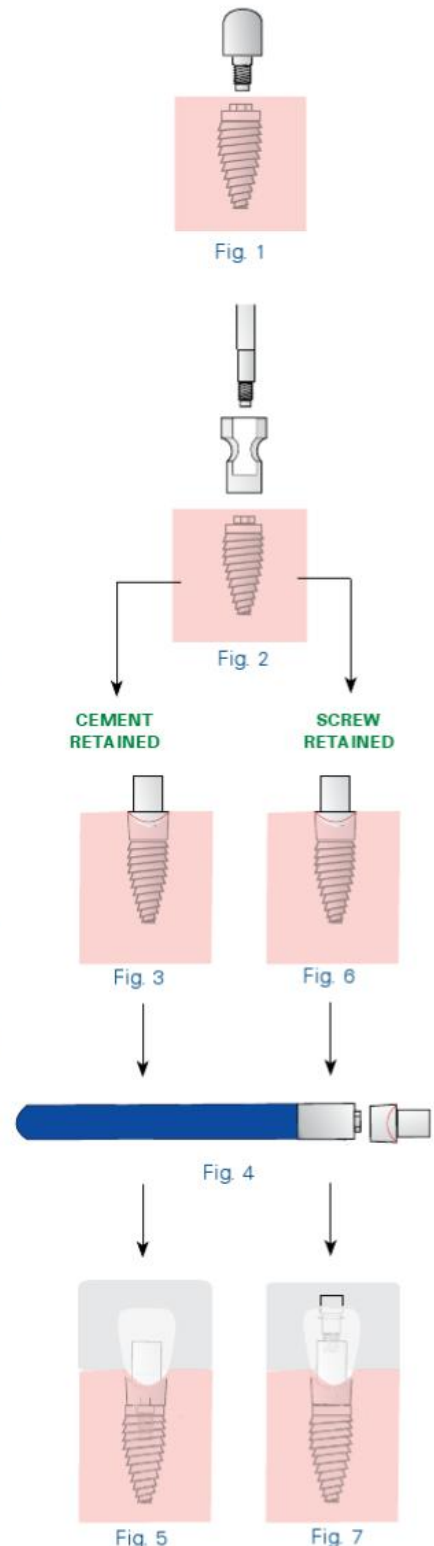
- Place temporary Abutment onto implant in the patient's mouth, mark necessary changes and remove abutment from the mouth (Fig. 6)
- Place Temporary Abutment onto Abutment Prepping Handle (part # 8180K) and make adjustments as marked (Fig. 4)
- Place Temporary Abutment onto implant and assess fit
- Use standard procedure for fabrication of temporary acrylic material to build the crown over Temporary Abutment. Leave abutment screw access open
- Deliver temporary crown to patient by screw retaining to proper torque 32-35 Ncm (Fig. 7)

REQUIRED TOOLS

- 8075N or 8075L .050" Hex Driver
- 8051 Torque Wrench
- 8055 or 8056 Hex Driver Insert for torque wrench

RECOMMENDED TORQUE

- 32-35 Ncm for main abutment screw part # 2907





Cylinder / Tubular Abutments



The Cylinder / Tubular style abutments have multiple prosthetic applications. The hexed abutments are for use as single tooth prostheses or multi-unit cement retained fixed bridges with individual abutments. The non-hexed abutments are for multi-unit screw and cement retained prostheses.

Material/Use/Type		3.45mm	4.0mm	5.0mm	6.5mm	
TAPERED CHIMNEY ABUTMENT						
	Hex	1075/2905	2075/2905	5075/2905	7075/2905	 2075
CYLINDER / TUBULAR ABUTMENT						
Titanium	Hex w/Plastic Extension Non-Hex		2020A/2905 2018/2905	5020A/2905 5018/2905		
Plastic (Castable)	Hex Non-Hex	1022/2905	2022/2905 2023/2905	5022/2905 5023/2905	7022/2905 7023/2905	
Gold / Alloy	Hex w/plastic extension (customized casting)	1710A/2905	2710A/2905	5710A/2905		 2710A
	Non-Hex w/plastic extension (customized casting)	1711A/2905	2711A/2905	5711A/2905		
TRANSFER COPING						
	Open Tray w/12mm lab screw	1430/2021	2430/2021	5430/2021		 2430/2021  2450/2321
	Closed Tray w/7mm lab screw	1450/2321	2450/2321	5450/2321	7450/2321	
ANALOG						
Single unit		1605	2605	5605	7605	 2605
5 Pack		1605/5P	2605/5P	5605/5P	7605/5P	
LOK-SCREW®						
		2933	2933	2933	2933	 2933

Note: Transfer copings are marked to identify their platform diameter.



TECHNICAL NOTES

For restorative procedure (Example: 4mm platform)

- Remove Healing Abutment from implant (fig.8)
- Place open Tray Transfer Coping onto implant, part # 2430/2021 (fig. 9) Hand tighten
- Take x-ray to verify complete seating of Transfer Coping
- Transfer hex orientation and implant angulation to model (use open tray impression technique)
- Remove 12mm screw before removing impression tray (large screws available)
- Place Implant Analog part # 2605 onto Transfer Coping and reposition 12mm screw
- Pour stone model

Cement Retained

- Place Cylinder/Tubular Abutment (hexed, titanium) part #2075/2905, onto Implant Analog in model and prep. (Fig.10)
- Wax-up coping to the prepped abutment (Fig.12)
- Cast and try-in coping
- Finish crown
- Place abutment on implant and screw retain with part #2905 or 2907 abutment screw at recommended torque
- Cement crown to abutment with temporary cement (Fig.14)

Screw Retained

- Place Cylinder/Tubular Abutment, hexed, gold/plastic part 2710A/2905 onto Implant Analog in model, cut plastic as needed (Fig.11)
- Wax-up a customized abutment to the plastic (Fig.13)
- Cast and try-in customized abutment
- Finish crown
- Deliver to patient by screw retaining at recommended torque (Fig.15)
- Cover Abutment Screw access hole with cotton pellet or gutta percha and then composite

REQUIRED TOOLS

- 8075N or 8075L .050" Hex Driver
- 8051 Torque Ratchet Wrench
- 8055 or 8056 Hex Driver Insert for torque wrench
- 8040 Lapping Tool

RECOMMENDED TORQUE

- 32-35 Ncm for main abutment screw



Fig. 8



Fig. 9

**CEMENT
RETAINED**



Fig. 10



Fig. 12



Fig. 14

**SCREW
RETAINED**



Fig. 11

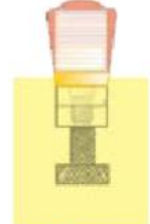


Fig. 13



Fig. 15



Custom Prepable Abutments



Ideal abutment for cement retained restoration. the abutment is internally threaded to allow use of Lok-Screw® or Crown Fixation screw with castable ring, both sold separately.

Cuff Type		3.45mm	4.0mm	5.0mm	6.5mm	
CUSTOM PREPABLE ABUTMENT						
Titanium - Hex Flares to 4.0mm	1mm	10821/2907				 20821
	2mm	10822/2907				
	3mm	10823/2907				
	4mm	10824/2907				
	Flares to 5.0mm	1mm		20821/2907		
	2mm		20822/2907			
	3mm		20823/2907			
	4mm		20824/2907			
Titanium - Hex Flares to 6.0mm	1mm		20801/2907			 20801
	2mm		20802/2907			
	3mm		20803/2907			
	4mm		20804/2907			
Titanium - Hex Flares to 6.0mm	1mm			50821/2907		 50821
	2mm			50822/2907		
	3mm			50823/2907		
	4mm			50824/2907		
Titanium - Hex Flares to 7.0mm	2mm				70802/2907	
	4mm				70804/2907	
TRANSFER COPING						
Open Tray		1430/2021	2430/2021	5430/2021		 2430/2021 2450/2321
Closed Tray		1450/2321	2450/2321	5450/2321	7450/2321	
Match to emergence profile of Healing Head/Abutment						
IC ABUTMENT PREPPING KIT						
Handle & 3 color coded platform adaptors		8180K	8180K	8180K	8180K	 8180K
ANALOG						
Single Unit		1605	2605	5605	7605	 2605
5 Pack		1605/5P	2605/5P	5605/5P	7605/5P	
LOK-SCREW®						
Safety Screw		2933	2933	2933	2933	 2933

Note: Utilize appropriate healing head with matching emergence profile of the planned abutment. All transfer copings are marked to identify their platform diameter.



TECHNICAL NOTES

Second Stage to completed prostheses (Example: 4mm platform)

- Remove Healing Abutment from implant (fig. 16)
- Place open Tray Transfer Coping onto implant, part # 2430/2021 (fig. 17). Hand tighten
- Take x-ray to verify complete seating of Transfer Coping
- Transfer hex orientation and implant angulation to model (open tray impression technique)
- Remove 12mm screw before removing impression tray
- Place Implant Analog part # 2605 onto Transfer Coping and reposition 12mm screw
- Pour stone model

Cement Retained

- Place Custom Preparable Abutment part #20801/2907, onto Implant Analog in model and prep (fig. 18)
- Wax-up a coping to the prepped abutment (fig. 20)
- Cast and try-in coping
- Finish crown and then place Custom Preparable Abutment onto the implant and screw
- Retain abutment with #2907 screw. For added safety, a Lok-Screw® (#2933) may be placed on top of abutment screw to stop main abutment screw from backing out.
- Cement crown to abutment with temporary cement (fig. 22)

Screw Retained

- Place Custom Preparable Abutment part #20801/2907 onto implant analog in model, prep abutment as needed (fig. 19)
- Wax-up a coping to prepped abutment and waxing ring part #2050, leave chimney open to allow access of the crown fixation screw, part #2935 (fig. 21)
- Cast and try-in coping
- Finish crown
- Deliver to patient by screw retaining abutment to implant with part # 2907 abutment screw, deliver proper torque to abutment screw, place crown on abutment and screw retained with fixation screw (fig. 23)
- Cover fixation screw access hole with cotton pellet or gutta percha and then composite

REQUIRED TOOLS

- 8075N or 8075L .050" Hex Driver
- 8051 Torque Ratchet Wrench
- 8055 or 8056 Hex Driver Insert for torque wrench

RECOMMENDED TORQUE

- 32-35 Ncm for main abutment screw part #2907
- 32-35 Ncm for fixation screw part #2935
- 32-35 Ncm for Lok-Screw® part #2933



Fig. 16



Fig. 17

CEMENT RETAINED **SCREW RETAINED**



Fig. 18



Fig. 19

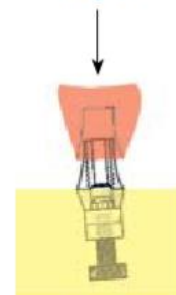


Fig. 20

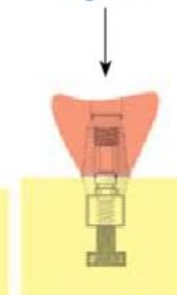


Fig. 21



Fig. 22



Fig. 23



Angled Abutments



The Angled Abutments (Hexed) are for prosthetic correction of angulated implant placement. The abutments are for use as single tooth prostheses and/or fixed/detachable crown and bridge applications. The hex also ensures accuracy between lab and chair.

Cuff	3.45mm	4.0mm	5.0mm	6.5mm	
15° ANGLED ABUTMENT					
w/2mm screw, Cement retained					
Low (Anterior, esthetics)	1031/2907	2031/2907	5031/2907		 2031
25° ANGLED ABUTMENT					
w/2mm screw, Cement retained					
Low (Anterior, esthetics)		2038/2907	5038/2907	7038/2907	 2038
<i>Note: Low profile - 2mm on high and 1.5mm on low side, height of chimney 7mm</i>					
TRANSFER COPINGS					
Open Tray w/12mm lab screw	1430/2021	2430/2021	5430/2021		 2430/2021
Closed Tray w/7mm lab screw	1450/2321	2450/2321	5450/2321	7450/2321	 2450/2321
ANALOG					
Single Unit	1605	2605	5605	7605	 2605
5 Pack	1605/5P	2605/5P	5605/5P	7605/5P	



TECHNICAL NOTES

For restorative procedure (Example: 4mm platform)

- Remove Healing Abutment from implant (fig. 24)
- Place open or closed Tray Transfer Coping onto implant, part # 2450/2321 (Fig. 25). Hand tighten
- Take x-ray to verify complete seating of Transfer Coping
- Transfer hex orientation and implant angulation to model (closed tray impression technique)
- Remove impression tray
- Place Implant Analog part # 2605 onto Transfer Coping and reposition transfer coping and analog into impression tray
- Pour stone model

Cement Retained

- Place Angled Abutment part #2031/2907 (15°) into implant analog in model and prep if needed (Fig. 26)
- Wax-up a coping to the abutment (fig. 28)
- Cast and try-in coping
- Finish crown
- Place angled abutment onto implant; screw retained abutment with #2907 screw and torque to recommended torque
- Cement crown to abutment with temporary cement (fig. 30)

REQUIRED TOOLS

- 8075N or 8075L .050" Hex Driver
- 8051 Torque Ratchet Wrench
- 8055 or 8056 Hex Driver Insert for torque wrench

RECOMMENDED TORQUE

- 32-35 Ncm for main abutment screw part #2905 or #2907



Fig. 24



Fig. 25

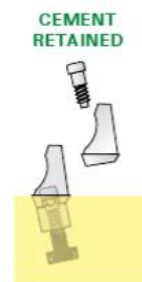


Fig. 26



Fig. 28

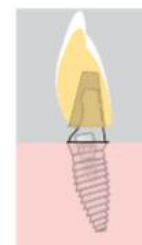


Fig. 30



Tapered Abutments



The Tapered Abutments provide a screw retained abutment for multi-unit bridge, screw retained cast bar for overdenture prostheses and hybrid prostheses. These abutments are not to be used for a single tooth restoration. Proper impression technique requires use of the Tapered Abutment impression coping at the abutment level.

Cuff		Material/Type	3.45mm	4.0mm	5.0mm	
TAPERED ABUTMENT						
Flares to 4.0mm	1mm		10261			 20251
	2mm		10262			
	3mm		10263			
	4mm		10264			
	5mm		10265			
No flare	1mm			20251	50261	
	2mm			20252	50262	
	3mm			20253	50263	
	4mm			20254	50264	
	5mm			20255	50265	
INSTALLATION WRENCH						
For placement of the Tapered Abutment onto the implant			8096	8096	8096	 8096
COPING SLEEVE						
w/2mm screw	Titanium/Long 13mm		2360L/2915	2360L/2915	2361L/2915	 2360L/2915
	Gold Alloy 5mm		2705A/2915	2705A/2915	2706/2915	
Castable	Plastic/Long 13mm		2340L/2915	2340L/2915	2341L/2915	 2340L/2915
Coping Sleeves are compatible with internal connection implants						

Note: Tapered Abutment installation wrench #8096 is required.



These items are compatible with both Hex and IC product lines.

Cuff	Material/Type	3.45mm	4.0mm	5.0mm	
IMPRESSION COPING					
Open Tray	Titanium	2420/2311	2420/2311	2421/2311	 2420
ANALOG					
Single Unit		2610	2610	2611B	 2610
HYGIENE CAP					
	Titanium	2362	2362	2363	 2362
FIXATION SCREW					
2mm	Titanium	2915	2915	2915	 2915
LAB FIXATION SCREW					
7mm	Titanium	2311	2311	2311	 2311

Note: Tapered Abutment installation wrench #8096 is required.



Tapered Abutments

TECHNICAL NOTES

For restorative procedure (Example: 4mm platform)

- Remove Healing Abutments from implant (Fig. 32)
- Place Tapered Abutments onto implants part #20251 (Fig. 33A)
- Take x-ray to verify complete seating of abutments
- Place Impression Copings & Lab Fixation Screws (part #2420/2311) onto Tapered Abutments (Fig. 33B)
- Transfer position to model (open tray impression technique at abutment level)
- Remove transfer coping screw and pick-up tray with coping
- Place Hygiene caps (part #2362) on abutments (Fig. 34)
- Pour stone model
- Position Coping Sleeves (part #2360L/2915 or #2705A/2915) onto analogs (Fig. 35)
- Wax-up bridge substructure to coping sleeves
- Cast substructure
- Try-in metal substructure for passive fit
- Finish crowns
- Deliver to patient (Fig. 36)
- Cover screw holes with cotton pellet and then composite or gutta percha

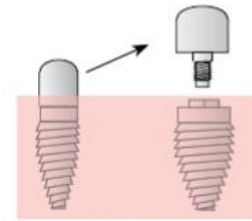


Fig. 32

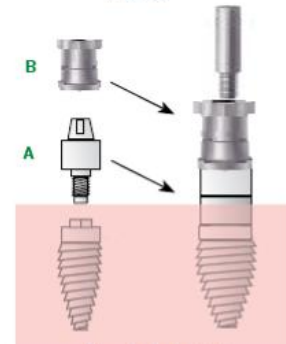


Fig. 33A & 33B

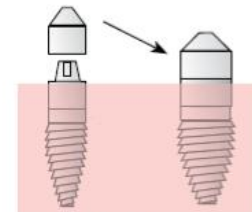


Fig. 34

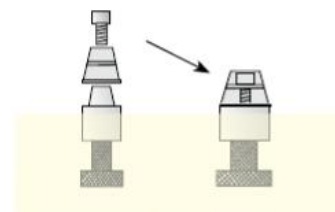


Fig. 35

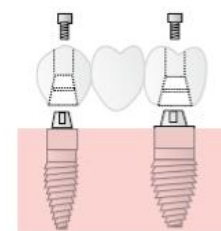


Fig. 36

REQUIRED TOOLS

- 8075N or 8075L .050" Hex Driver
- 8096 Tapered Abutment Wrench
- 8051 Torque Ratchet Wrench
- 8055 Hex Driver Insert for torque wrench

RECOMMENDED TORQUE

- 32-35 Ncm for abutment screw
- 32-35 Ncm for fixation screw



TECHNICAL NOTES

Second Stage to completed prostheses (Example: 4mm platform)

- Remove Healing Abutments from implant (Fig. 28)
- Place Tapered Abutments (part #20251) onto implants (Fig. 29A)
- Take x-ray to verify complete seating of abutments
- Place Impression Copings & Lab Fixation Screws (part #2420/2311) onto Tapered Abutments (Fig. 29B)
- Transfer position to model (open tray impression technique at abutment level)
- Remove transfer coping screw and pick-up tray
- Place Hygiene caps (part #2362) on abutments (Fig. 30)
- Pour stone model
- Position Coping Sleeves (part #2360L/2915 or #2705A/2915) onto analogs (Fig. 31A)
- Wax-up bar to coping sleeves (Fig. 31B)
- Remove bar and cast
- Try-in metal bar for passive fit
- Process denture and position retention clips
- Deliver to patient (Fig. 32)

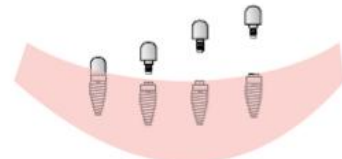


Fig. 28



Fig. 29A & 29B



Fig. 30

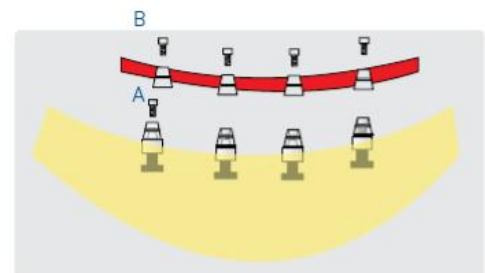


Fig. 31A & 31B



Fig. 32

REQUIRED TOOLS

- 8075N or 8075L .050" Hex Driver
- 8096 Tapered Abutment Wrench
- 8051 Torque Ratchet Wrench
- 8055 Hex Driver Insert for torque wrench
- 8042 Lapping Tool

RECOMMENDED TORQUE

- 32-35 Ncm for abutment screw
- 32-35 Ncm for fixation screw



O-Ring Abutments



The O-Ring Abutments are for removable overdenture retention applications only.

Cuff		3.45mm	4.0mm	5.0mm	6.5mm	
O-RING ABUTMENT						
	1mm	10451	20451	50451	70453	 20451
	2mm	10452	20452	50452		
	3mm	10453	20453	50453		
	5mm	10455	20455	50455		
O-RING KIT						
Cap, 1 Black O-Ring (standard retention) 1 Red O-Ring (low retention) and plastic analog		2620N	2620N	2620N	2620N	 2620N
O-RINGS						
Pack of 5						
O-Rings Black (standard retention)		2621	2621	2621	2621	
O-Rings Red (low retention)		2622	2622	2622	2622	
O-RING ABUTMENT WRENCH						
Use manually or use with Torque ratchet wrench		8121	8121	8121	8121	 8121

Note: Tapered Abutment installation wrench # 8096 is required.



TECHNICAL NOTES

Second Stage to completed prostheses (Example: 4mm platform)

- Remove Healing Abutments from implant (fig. 38)
- Place O-Ring Abutments onto implants part #20451 (Fig. 39)
- Take x-ray to verify complete seating of abutments
- Take impression directly over O-Ring Abutments
- Remove impression tray and position plastic abutment analogs included in O-Ring Kit (part #2620N) onto impression (Fig. 40)
- Pour model
- Assemble O-Ring Kit (metal casing and rubber ring) and place on abutment analogs
- Process denture
- Deliver to patient (Fig. 41)



Fig. 38



Fig. 39



Fig. 40



Fig. 41

REQUIRED TOOLS

- 8121 O-Ring Abutment Wrench
- 8051 Torque Ratchet Wrench

RECOMMENDED TORQUE

- 32-35 Ncm for abutment



Drills

Item	Description	Part #	Color Code
	Fissure Drill		
	To start center hole	8515	
	Pilot Drill		
	Internally irrigated Initial hole drilled for all implants 2.0mm - 2 Fluted Drill	Anterior 8500A	Black
	Spade Drills - Micro-Lok		
	These 4 Fluted drills offer increased cutting surfaces, reduced heat and chatter, and provide a very clean and accurate osteotomy site. Patent #5,261,818; #6,106,292		
	3.1mm 4 Fluted Drill	Anterior 8525A	White*
	3.3mm 4 Fluted Drill	Anterior 8523A	Yellow
	4.0mm 4 Fluted Drill	Anterior 8524A	Red
	Tapered Spade Drills - Silhouette		
	2.9mm (2.9 to 2.5mm)	Anterior 8561A	White*
	3.45mm (3.45 to 2.5mm)	Anterior 8548A	Green
	4.0mm (4.0 to 2.5mm)	Anterior 8542A	Yellow
	5.0mm (5.0 to 3.3mm)	Anterior 8540A	Red
	6.5mm (6.5 to 4.0mm)	Anterior 8538A	Blue

*Final Drill for all SlimLine Implants.

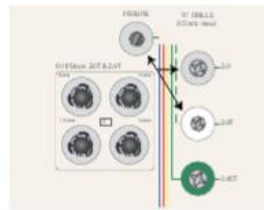


DRILL STOP KITS

BioLok's Drill Stops are designed to be held securely on the hub of the drills by spring action. The Drill Stops are marked with two numbers around the circumference. These numbers indicate the corresponding set and the length of each stop.

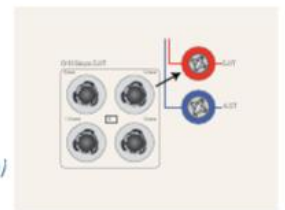
Drill Stop Set #1 Fissure, 2.0mm through 2.9mm drills

MARKINGS	LENGTH
1 - 8	(for 8mm)
1 - 10	(for 10mm)
1 - 11.5	(for 11.5mm)
1 - 13	(for 13mm)



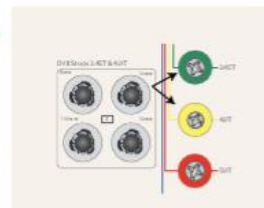
Drill Stop Set #3 5.0mm drills

MARKINGS	LENGTH
3 - 8	(for 8mm)
3 - 10	(for 10mm)
3 - 11.5	(for 11.5mm)
3 - 13	(for 13mm)



Drill Stop Set #2 3.1mm through 4.0mm drills

MARKINGS	LENGTH
2 - 8	(for 8mm)
2 - 10	(for 10mm)
2 - 11.5	(for 11.5mm)
2 - 13	(for 13mm)



Stops

Drill stop must be fully seated on the drill. For verification purposes, the use of a ruler is strongly recommended.



Ordering Information

Description

Silhouette Drill Stop Set (Includes Drill Stop Sets 1, 2, 3 and Tray)
 Silhouette Drill Stop Kit (Includes Drill Stop Sets 1, 2 and 3 only)
 Micro-Lok Drill Stop Set (Includes Drill Stop Sets 1, 2, and Tray)
 Micro-Lok Drill Stop Sets 1 and 2 only
 Drill Stop Tray (Includes Drill Stop Tray only)

Part Number

9065
 8505K
 9066K
 8506K
 8880

Individual Drill Stops may be purchased separately

Description

Drill Stop #1 (8mm)
 Drill Stop #1 (10mm)
 Drill Stop #1 (11.5mm)
 Drill Stop #1 (13mm)
 Drill Stop #2 (8mm)
 Drill Stop #2 (10mm)
 Drill Stop #2 (11.5mm)
 Drill Stop #2 (13mm)
 Drill Stop #3 (8mm)
 Drill Stop #3 (10mm)
 Drill Stop #3 (11.5mm)
 Drill Stop #3 (13mm)

Part Number

8505-1/8
 8505-1/10
 8505-1/12
 8505-1/13
 8505-2/8
 8505-2/10
 8505-2/12
 8505-2/13
 8505-3/8
 8505-3/10
 8505-3/12
 8505-3/13



Countersinks & Bone Profiler

COUNTERSINKS

Item	Description	Dimension	Color Code	Part Number
Countersinks for:				
	SlimLine (SL) Silhouette IC,	3.45mm	White	8551SL
	SlimLine (SL)			
	Silhouette IC Laser-Lok®			
	SlimLine (SL)			
	Silhouette Laser-Lok®			
Countersink for:				
	Micro-Lok Implants/SlimLine (SL) Silhouette	3.55mm	Green	8551
	Used to widen implant site to accommodate implant seating			
Countersink for:				
	Micro-Lok Implants	4.1mm	Yellow	8550
	Used to widen implant site to accommodate implant seating			
Countersink for:				
	Micro-Lok Implants	5.1mm	Red	8576
	Used to widen implant site to accommodate implant seating			

BONE PROFILER

Bone Profiler				
	(includes respective Guide Pin)	For removal of excess bone over implant platform	Green	8235
			Yellow	8236
			Red	8237
			Blue	8238



Item	Description	Part #
Hex Cover Screw		
Flat	3.45mm	1001
	4.0mm	2001
	5.0mm	5001
	6.5mm	7001



Abutment and Lab Screws

1.25mm Final <i>compatible with all platforms and both interfaces</i>	2907
2mm Final <i>compatible with all platforms and both interfaces</i>	2905
7mm Lab & Transfer <i>compatible with all platforms and both interfaces</i>	2321
12mm Lab & Transfer <i>compatible with all platforms and both interfaces</i>	2021
20mm <i>compatible with all platforms and both interfaces</i>	2037



BioLok abutment screws alone have the same or better retentive strength as gold abutment screw of competitors.
(Study "An in Vitro Analysis of Implant Screw Torque Loss with External Hex & Internal Connection Implant System - Jack Piernatti, DDS, Hoda Yousef, DMD, Ms. TAllyn Luke, BSE from the University of Medicine and Dentistry of New Jersey)

Lok-Screw®

The Lok-Screw® is a secondary screw that prevents loosening of main abutment screw under load. It provides a double safety feature when cement retention of the crown is chosen. Passive fit and better esthetics can be achieved without concerns of abutment screws coming loose. A Lok-Screw® is not required but adds insurance to abutment screw retention.

Lok-Screws are used with Custom Preparable Abutment, Cylinder Tubular (UCLA Type) Titanium Hex Abutments.

2933





Instrumentation

Item	Description	Color Code	Part Number
Paralleling Pin			
	Used as aid for proper alignment of the implant	0	8005
		15	8006
		25	8007
Depth Gauge - Micro-Lok			
	Radiographic Marker for measuring the depth of the implant site; depth marking of 8, 10, 11.5, 13, 15 and 18mm	2.00mm	8009
		3.10mm	8010
		3.80mm	8011
		4.80mm	8012
Depth Gauge - Silhouette			
	Radiographic marker for measuring the depth of the implant site; depth marking of 8, 10, 11.5, 13, 15 and 18mm	3.45mm SL Platform Implant	8003SL
		3.45mm Platform Implant (short)	8003S
		3.45mm Platform Implant	8003
		4.00mm Platform Implant	8013
		5.00mm Platform Implant	8008
Tap Micro-Lok			
	For tapping the implant site by hand prior to insertion of Micro-Lok screw implants (Lengths marked)	3.45mm Thread Diameter	Green 8024
		3.75mm Thread Diameter	White 8015
		3.75mm Thread Diameter (18mm length)	White 8017
		4.00mm Thread Diameter	Yellow 8022
		4.75mm Thread Diameter	Red 8020
Tap Silhouette			
	For tapping the implant site by hand prior to insertion of Silhouette screw implants. (Lengths marked)	3.45mm Tapered Tap	White 8033
		3.45mm Tapered Tap	Green 8034
		4.00mm Tapered Tap	Yellow 8035
		5.00mm Tapered Tap	Red 8036
		6.50mm Tapered Tap	Blue 8037
IC Silhouette Drivers			
	Designed to engage internal connection and place implant	Green	8071
		Yellow	8072
		Red	8073
		Blue	8074
Ratchet Wrench - Hex Drive			
	Used with taps, drivers and extenders		8050H



Item	Description	Pat #
Torque Ratchet		
	Torque (10-70N cm Factory Adjusted) can be recalibrated, and set to desired Ncm. If order placed and Ncm are not specified, torque will be set at approximately 32-35Ncm (Patent # 09,432,376)	8051
	45Ncm	8052
Hex Driver		
	For use with Torque Ratchet Wrench	Short - 5mm 8055
	Hex .50" tapered	Long - 10mm 8056
Screw Driver		
	5mm	8058
Ratchet Extenders		
	6mm	8065
	6mm - Hex	8065H
	17mm	8066
	17mm - Hex	8066H
Hand Driver - Hex		
	Driver for tightening screws and prosthetic components (Hex .050")	Short - 3mm 8075S
		Standard - 13mm 8075N
		Long - 17mm 8075L
O-Ring Abutment Wrench		
	For hand or use with torque wrench in placing abutment onto the implant	8121
Thread Chaser		
	For use with Castable Fixed Abutment by lab to thread casted abutment	8150
Drill Extender		
	1" Length	8160N



Instrumentation

Item	Description	Part #
Contra Hex Driver		
	Contra-angled	8076
	1.25mm or .050"	
Lapping Tool-Cylinder		
	For use by lab in casting the cylinder/tubular abutment	8040
Lapping Tool-Tapered		
	For use by lab in casting the tapered abutment coping	8042
Tissue Cutting Tool		
	3.45mm diameter	8129
	4.0mm diameter	8130
	5.0mm diameter	8131
	6.5mm diameter	8132
Implant Thread Chaser		
	Tap for chasing the internal thread of an implant; it cleans inner threads of all implant sizes	8044
Abutment Prepping Kit		
	Hex	8180K
	IC	I8180K
Mount Driver		
	For driving implants	
	Short (6mm)	8165S
	Short (6mm) - Hex	8165SH
	Long (17mm)	8165L
	Long (17mm) - Hex	8165LH
Installation Wrench - Tapered Abutment		
	For placement of the abutment on to the implant	8096

Ridge / Bone Expanders & Osteotomes



Item	Description	Platform	Part #
------	-------------	----------	--------

Ridge / Bone Expanders

The Silhouette implant system incorporates a set of screw-in expanders that provide a gentle way of expanding a narrow ridge in combination with our without ridge splitting techniques.



Set of 3 pieces (kit)	3.45mm	8220
#4	4.0mm	8224
#5	5.0mm	8225

Item	Description	Platform	Part #
------	-------------	----------	--------

Silhouette Osteotomes

Complete set of 6 osteotomes



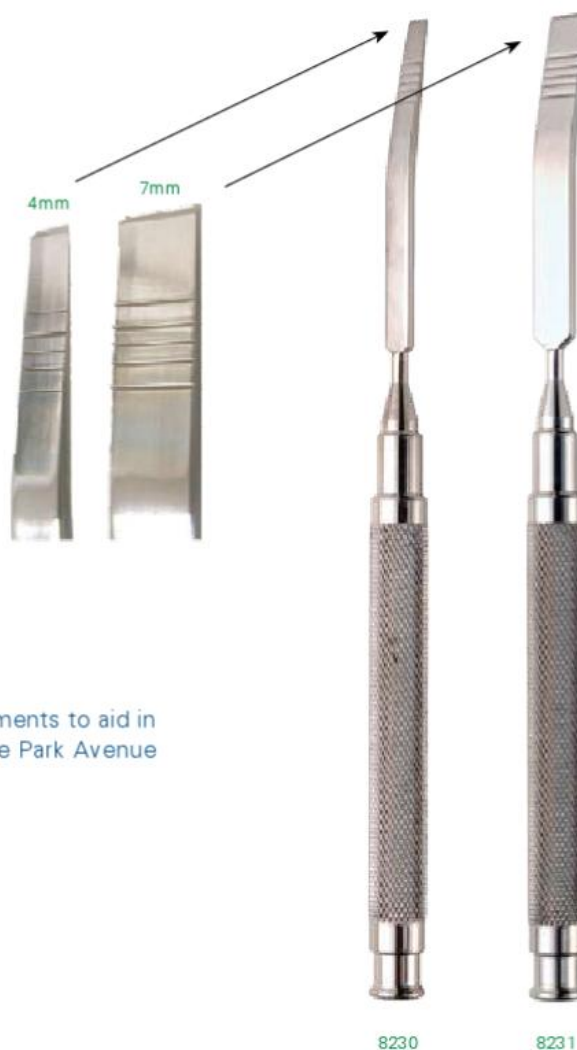
Straight Style Cutting	Set	8400	
	3.45mm	8415	Green
	4.0mm	8420	Yellow
	4.5mm <i>Intermediate</i>	8425	
	5.0mm	8430	Red
	5.7mm <i>Intermediate</i>	8435	
	6.5mm	8440	Blue
	Set	8410	
	3.45mm	8416	Green
	4.0mm	8421	Yellow
Offset Style Cutting	4.5mm <i>Intermediate</i>	8426	
	5.0mm	8431	Red
	5.7mm <i>Intermediate</i>	8436	
	6.5mm	8441	Blue
	Set	8445	
	3.45mm	8417	Green
	4.0mm	8422	Yellow
	4.5mm <i>Intermediate</i>	8427	
	5.0mm	8432	Red
	5.7mm <i>Intermediate</i>	8437	
Offset Style Expanding	6.5mm	8442	Blue
	Set	8450	
	3.45mm	8418	Green
	4.0mm	8423	Yellow
	4.5mm <i>Intermediate</i>	8428	
	5.0mm	8433	Red
	5.7mm <i>Intermediate</i>	8438	
	6.5mm	8443	Blue

When soft, type 4 bone is encountered, it is recommended that a shallow osteotomy, the diameter of the platform, be drilled through the cortical layer with a straight drill and Silhouette Osteotomes be used to compress the soft cancellous bone. The Silhouette Osteotomes are system specific and color coded according to the platform size of the system. The set includes six osteotomes and tray.



ERE[®] Edentulous Ridge Expansion Chisels

Item	Part #
ERE [®] Edentulous Ridge Expansion Chisels* Set	8229S
Wide Chisel (7mm)	8231
Narrow Chisel (4mm)	8230



The ERE[®] Chisels are specially designed instruments to aid in the expansion of narrow ridges developed by the Park Avenue Periodontal Associates of NY.

**ERE[®] is a registered trademark of Park Avenue Dental Seminars, Ltd.*



TECHNICAL NOTES



Right posterior mandible with a narrow ridge approximately 2mm wide. Ridge must be augmented to allow for the placement of implants.

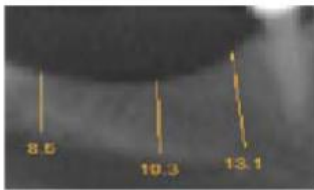


Fig.1

Periapical of the right lower side showing sufficient bone height available to place implant in the 8 to 13mm range



Fig. 2

Chisel is inserted after initial bone cuts



Fig. 3

As Osteotomy deepens chisel is gently luxated towards buccal



Fig. 4

Vertical releases in bone permits greater expansion

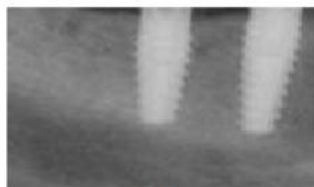


Fig. 5

Successfully placed Silhouette IC implants with the aid of the ERE[®] technique and chisels



Silhouette Surgical Kit

Silhouette Surgical Kit

Ordering Information:

PART #: 9050A



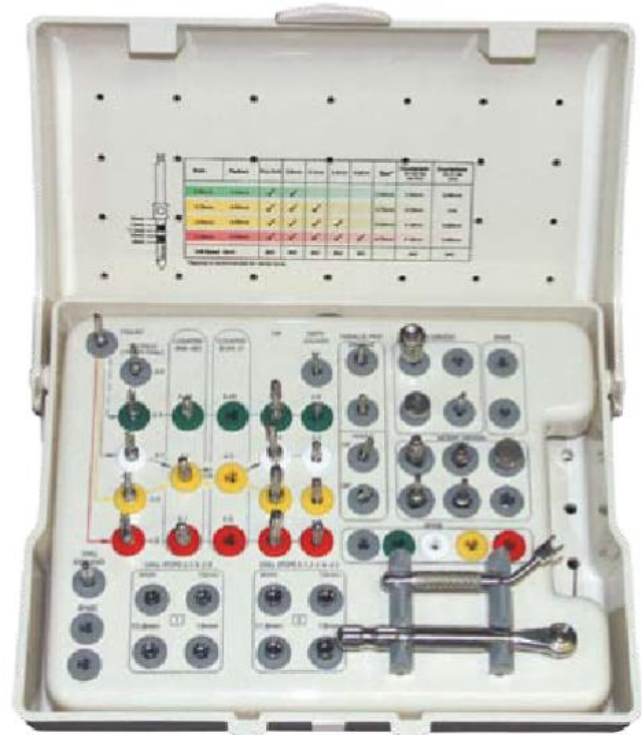
Description	QTY.	Part Number	Description	QTY.	Part Number
Fissure Bur (1.0)	1	8515	Ratchet Extender (Short)	1	8165SH
Pilot Drill (2.0)	1	8500A	Ratchet Extender (Long)	1	8165LH
Spade Drill (2.9)	1	8561A	Latch Mount Driver	1	8190
Spade Drill (3.45)	1	8548A	Latch Mount Driver (Long)	1	8190L
Spade Drill (4.0)	1	8542A	Hand Mount Driver	1	8195
Spade Drill (5.0)	1	8540A	Latch Hex Driver	1	8076
Spade Drill (6.5)	1	8538A	Hand Driver	1	8075L
Parallel Pin (0)	2	8005	Hex Driver	1	8075S
Parallel Pin (15°)	1	8006	Hex Driver	1	8075N
Parallel Pin (25°)	1	8007	Mount Wrench	1	8145S
Depth Gauge (3.45T)	1	8003	Drill Extender	1	8160N
Depth Gauge (3.45T)	1	8003SL	Drill Cleaner	1	8590
Depth Gauge (6.5T)	1	8008	Silhouette Surgical Tray	1	8825
Depth Gauge (2.0)	1	8009	Drill Stop (1/8)	1	8505-1/8
Depth Gauge (4.0T & 5.0T)	1	8013	Drill Stop (1/10)	1	8505-1/10
Tap (3.45T)	1	8034	Drill Stop (1/12)	1	8505-1/12
Tap (3.45T)	1	8033	Drill Stop (1/13)	1	8505-1/13
Tap (4.0T)	1	8035	Drill Stop (2/8)	1	8505-2/8
Tap (5.0T)	1	8036	Drill Stop (2/10)	1	8505-2/10
Tap (6.5T)	1	8037	Drill Stop (2/12)	1	8505-2/12
Countersink	1	8551	Drill Stop (2/13)	1	8505-2/13
Countersink	1	8551SL	Drill Stop (3/8)	1	8505-3/8
Ratchet	1	8050H	Drill Stop (3/10)	1	8505-3/10
Ratchet Extender (6.0)	1	8065H	Drill Stop (3/12)	1	8505-3/12
Ratchet Extender (17.0)	1	8066H	Drill Stop (3/13)	1	8505-3/13
			Care & Cleaning Insert	1	N/A



Micro-Lok Surgical Kit

Ordering Information:

FULL KIT: **PART #: 9070A**



Description	QTY.	Part Number	Description	QTY.	Part Number
Fissure Drill (1.0)	1	8515	Latch Hex Driver	1	8076
Pilot Drill (2.0)	1	8500A	Manual Mount Driver (Short)	1	8165SH
Spade Drill (2.8)	1	8560A	Manual Mount Driver (Long)	1	8165LH
Spade Drill (3.1)	1	8525A	Latch Mount Driver (Standard)	1	8190
Spade Drill (3.3)	1	8523A	Latch Mount Driver (Long)	1	8190L
Spade Drill (4.0)	1	8524A	Hand Mount Driver	1	8195
Parallel Pin (0)	1	8005	Hex Driver (3.0)	1	8075S
Parallel Pin (15°)	1	8006	Hex Driver	1	8075N
Parallel Pin (25°)	1	8007	Hex Driver	1	8075L
Depth Gauge (2.0)	1	8009	Mount Wrench	1	8145S
Depth Gauge (2.8)	1	8002	Drill Extender	1	8160N
Depth Gauge (3.1)	1	8010	Drill Stop (1/8)	1	8505-1/8
Depth Gauge (3.3)	1	8004	Drill Stop (1/10)	1	8505-1/10
Depth Gauge (4.0)	1	8011	Drill Stop (1/12)	1	8505-1/12
Tap (3.45)	1	8024	Drill Stop (1/13)	1	8505-1/13
Tap (3.75)	1	8015	Drill Stop (2/8)	1	8505-2/8
Tap (4.0)	1	8022	Drill Stop (2/10)	1	8505-2/10
Tap (4.75)	1	8020	Drill Stop (2/12)	1	8505-2/12
Countersink (3.6)	1	8551	Drill Stop (2/13)	1	8505-2/13
Countersink (4.1)	1	8550	Micro-Lok Surgical Tray	1	8870
Countersink (5.1)	1	8576	Drill Cleaner	1	8590
Ratchet	1	8050H	Care & Cleaning Insert	1	N/A



Prosthetic Kit

BioLok Implant System Prosthetic Kit

Ordering Information:

FULL KIT: **PART #: 9080A**



Description	QTY.	Part Number
Hand Driver - Hex (Standard)	1	8075N
Hand Driver - Hex (Long)	1	8075L
Hex Driver - Ratchet 5mm (Short)	1	8055
Hex Driver - Ratchet 10mm (Long)	1	8056
Mount Driver - Latch End	1	8090
Ratchet Extender - 6mm (Short)	1	8065
Ratchet Extender - 17mm (Long)	1	8066
Torque Ratchet	1	8051
Restorative Tray	1	8860

[illegible]

BioLok products distributed exclusively by



BioHorizons USA

2300 Riverchase Center
Birmingham, AL 35244

Customer Care / Servicio al Cliente:
888-246-8338 or 205-967-7880

BioHorizons Canada

21 Amber Street, Unit # 7
Markham, Ontario L3R 4Z3

Customer Care / Service à la Clientèle:
866-468-8338 or / ou 905-944-1700

BioHorizons Spain

Bocángel, 38
28028 Madrid, España

Atención al Cliente:
+34 91 713 10 84

BioHorizons UK

180 Dukes Ride
Crowthorne, Berkshire RG45 6DS

Customer Care:
+44 8700 620 550

BioHorizons Germany

Marktplatz 3
79199 Kirchzarten

Kunden Service:
+49 7661-909989-0

BioHorizons Australia

25-33 Allen Street
Waterloo NSW 2012

Customer Service:
+61 2 8399 1520

BioHorizons Mexico

Kelvin 8 Int. 303
Col. Anzures
C.P. 11590, Mexico, D.F.

Servicio al Cliente:
+52 55 5545 1297

BioHorizons Chile

Juan Esteban Montero 5944
Las Condes
Santiago, Chile

Atención al Cliente:
+56 2 475 7230