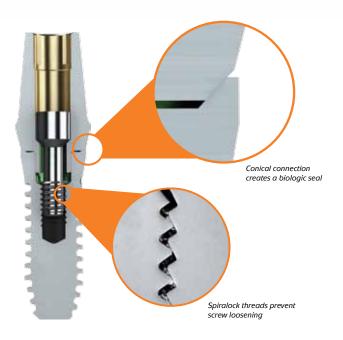
prosthetics catalog



for Tapered Internal, Internal and Single-stage implants



BIOHORIZONS®



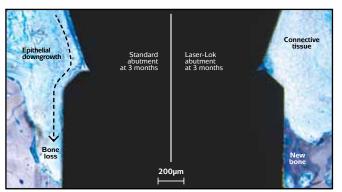
prosthetics

BioHorizons offers a broad array of abutments for a wide range of indications and patient conditions including the versatile 3inOne abutment and the complete Simple Solutions restorative kit. Our unique conical connection combined with the tightest machine tolerances in the industry create a biologic seal that eliminates the microgap issues seen with other systems. Abutment screw loosening is avoided by the Spiralock® thread design, the same design used in orthopedics and the aerospace industry.

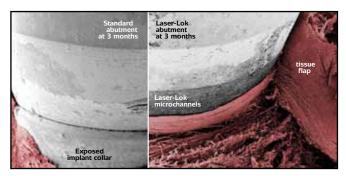


Latest discoveries

The establishment of a physical, connective tissue attachment (unlike Sharpey fibers) to the Laser-Lok surface has generated an entirely new area of research and development: Laser-Lok applied to abutments. This could provide an opportunity to use Laser-Lok abutments to create a biologic seal and Laser-Lok implants to establish superior osseointegration¹ – a solution that offers the best of both worlds. Alternatively, Laser-Lok abutments could support peri-implant health around implants without Laser-Lok. In a recent study, Laser-Lok abutments and standard abutments were randomly placed on implants with a grit-blasted surface to evaluate the differences. In this proof-of-principle study, a small band of Laser-Lok microchannels was shown to inhibit epithelial downgrowth and establish a connective tissue attachment (unlike Sharpey fibers) similar to Laser-Lok implants.² This time, however, the attachment was established above the dental implantabutment connection and even on implants with a machined collar.² The resulting crestal bone levels were higher than what was seen with standard abutments and provides some insight into the role soft tissue stability may play in maintaining crestal bone health.



Comparative histologies show the biologic differences between standard abutments and Laser-Lok abutments including changes in epithelial downgrowth, connective tissue and crestal bone health.²



Comparative SEM images show the variation in tissue attachment strength on standard and Laser-Lok abutments when a tissue flap is incised vertically and manually lifted using forceps.¹²



Laser-Lok has been shown to:

- Inhibit epithelial downgrowth^{2,3}
- Attract a physical connective tissue attachment^{2,3} (unlike Sharpey fiber attachment)
- Preserve the coronal level of bone^{2,3}

The Simple Solutions abutment system is FDA-cleared for use with BioHorizons Internal and Tapered Internal implants as well as Zimmer® ScrewVent and Tapered ScrewVent implants.

IMPLANT-LEVEL FIXED ABUTMENT OVERVIEW

Simple Solutions Cement-retained





Simple Solutions Abutments
Internal - page 6
Single-stage - page 6

Custom Abutments







Abutments
Internal - pages 9-10
Single-stage - page 21

Provisional Restorations

Cement-retained





Custom Abutments
Internal - page 7
Single-stage - page 21

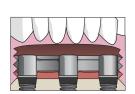




Temporary Abutments
Internal & Single-stage
page 8

REMOVABLE AND HYBRID PROSTHETICS OVERVIEW

Implant-level Cast Bar or Hybrid (Fixed-detachable)

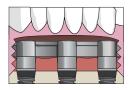


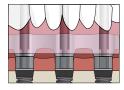


Custom Castable Abutments, Non-hexed

Internal - page 7 Single-stage - page 21

Abutment for Screw level Cast Bar or Hybrid (Fixed-detachable)

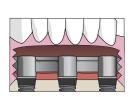






Abutments for Screw
Internal & Single-stage
pages 19-20

Implant-level Laser Welded Bar

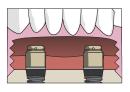


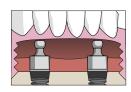


Direct Pick-up Coping, Non-hexed Titanium Abutment for Laser Weld

Internal - page 12 Single-stage - page 21

Abutment-retained Overdenture, Tissue-supported







Locator Abutments Internal & Single-stage pages 15-16



Ball Abutments
Internal &
Single-stage
pages 17-18

IMPRESSION COMPONENTS FOR IMPLANT-LEVEL RESTORATIONS

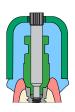
Implant-level Closed-tray Pick-up





Simple Solutions Components Internal - pages 6, 13-14 Single-stage - pages 6, 13-14

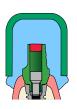
Implant-level Open-tray Pick-up





Direct Pick-up Copings
Internal - page 12
Single-stage - page 22

Implant-level Closed-tray Transfer





Indirect Transfer Copings pages 9 & 11

Direct Abutment Impression (Crown & Bridge)

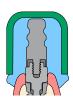




Abutments for cement-retention
Internal - pages 9-10
Single-stage - page 21

IMPRESSION COMPONENTS FOR ABUTMENT-LEVEL RESTORATIONS

Abutment for Screw-level Closed-tray Transfer





Abutment for Screw-level Indirect Transfer Copings Internal & Single-stage pages 19-20

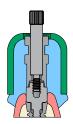
Locator Abutment Closed-tray Pick-up





Locator Components
Internal & Single-stage
pages 15-16

Abutment for Screw-level Open-tray Pick-up





Abutment for Screw-level Direct
Pick-up Copings

Internal & Single-stage pages 19-20

Ball Abutment Closed-tray Transfer





Ball Abutment Components
Internal & Single-stage
pages 17-18

3mm high

PYRHA3

PGRHA3

PBRHA3

5mm high

PYRHA5

PGRHA5

PBRHA5

Healing Abutments

Abutment height (1, 3 or 5mm)



Hand-tighten with the .050" (1.25mm) Hex Driver. Titanium Alloy. GR3

Prosthetic platform

3.5mm Regular Healing Abutment

4.5mm Regular Healing Abutment

5.7mm Regular Healing Abutment

Regula	ar Em	ergence
--------	-------	---------

Platform diameter	Abutment diameter
3.5mm	4.5mm
4.5mm	5.5mm
5.7mm	6.6mm

er marked for easy intraoral identification; for example:	
3 = Green (4.5mm) platform / Regular Emergence / 3mm Hig	ζh

Narrow Emergence

3.5mm	3.8mm
4.5mm	4.7mm
5.7mm	5.9mm

3.5mm Narrow Healing Abutment	PYNHA1	PYNHA3	PYNHA5
4.5mm Narrow Healing Abutment	PGNHA1	PGNHA3	PGNHA5
5 7mm Narrow Healing Abutment	PRNHA1	PRNH43	PRNH45

1mm high

Wide Emergence

3.5mm	5.8mm
4.5mm	6.8mm

3.5mm Wide Healing Abutment	PYWHA3	PYWHA5
4.5mm Wide Healing Abutment	PGWHA3	PGWHA5

Single-stage Healing Abutments

Abutment height (2 or 4mm)



Hand-tighten with the .050" (1.25mm) Hex Driver. Titanium Alloy. Can be used to contour tissue for Simple Solutions abutments. A 2mm Healing Abutment is packaged with each Single-stage implant. Laser marked for easy intraoral $\,$ identification; for example: SG2: Green (4.5mm) platform /2mm High.

Platform diameter	Abutment diameter
3.5mm	5.1mm
4.5mm	6.1mm
5.7mm	7.3mm

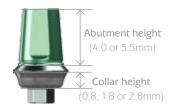
Prosthetic platform	2mm high	4mm high
Single-stage 3.5mm Healing Abutment	SYHA20	SYHA40
Single-stage 4.5mm Healing Abutment	SGHA20	SGHA40
Single-stage 5.7mm Healing Abutment	SBHA20	SBHA40

SIMPLE SOLUTIONS ABUTMENTS WITH LASER-LOK TECHNOLOGY

Internal Laser-Lok Abutment Packs



Prosthetic platform / Abutment height	0.8mm collar	1.8mm collar	2.8mm collar
3.5mm Abutment, 4.0mm	PY4008L	PY4018L	PY4028L
3.5mm Abutment, 5.5mm	PY5508L	PY5518L	PY5528L
4.5mm Abutment, 4.0mm	PG4008L	PG4018L	PG4028L
4.5mm Abutment, 5.5mm	PG5508L	PG5518L	PG5528L
5.7mm Abutment, 4.0mm	PB4008L	PB4018L	PB4028L
5.7mm Abutment, 5.5mm	PB5508L	PB5518L	PB5528L



Designed to be placed at implant surgery or uncovery and remain in place through final restoration. The Laser-Lok surface has been shown to inhibit epithelial downgrowth, attract a physical connective tissue attachment (unlike Sharpey fiber attachment) and preserve the coronal level of bone. Packaged with Abutment Screw (PXAS) and Healing Cap. Titanium Alloy. Final torque: 30Ncm.

Single-stage Abutment Packs —





SYAP40	Single-stage 3.5mm Abutment Pack, 4.0mm
SYAP55	Single-stage 3.5mm Abutment Pack, 5.5mm
SGAP40	Single-stage 4.5mm Abutment Pack, 4.0mm
SGAP55	Single-stage 4.5mm Abutment Pack, 5.5mm
SBAP40	Single-stage 5.7mm Abutment Pack, 4.0mm
SBAP55	Single-stage 5.7mm Abutment Pack, 5.5mm

Packaged with Abutment Screw (PXAS) and Healing Cap. Titanium Alloy. Final torque: 30Ncm.

Restorative Packs



SYRP40 SYRP55	3.5mm Restorative Pack, 4.0mm Height 3.5mm Restorative Pack, 5.5mm Height
SGRP40	4.5mm Restorative Pack, 4.0mm Height
SGRP55	4.5mm Restorative Pack, 5.5mm Height
SBRP40	5.7mm Restorative Pack, 4.0mm Height
SBRP55	5.7mm Restorative Pack, 5.5mm Height

Each restorative pack contains an impression cap, waxing sleeve and replica. Use for Internal & Single-stage Simple Solutions Abutments.

Titanium Base for Custom Milled Abutments



PYTB 3.5mm Titanium Base for Custom Milled Abutment
PGTB 4.5mm Titanium Base for Custom Milled Abutment
PBTB 5.7mm Titanium Base for Custom Milled Abutment

Use as a titanium base when fabricating custom-milled CAD/CAM zirconia abutments for cement-retained single and multi-unit prostheses. Packaged with the Abutment Screw (PXAS). Titanium Alloy. TiN coated. Final torque: 30Ncm. Call for availability.

Waxing/Scanning Sleeves for Titanium Base Abutments



PYTBWS 3.5mm Waxing/Scanning Sleeve (pack of 3)
PGTBWS 4.5mm Waxing/Scanning Sleeve (pack of 3)
PBTBWS 5.7mm Waxing/Scanning Sleeve (pack of 3)

Used to design custom zirconia coping to bond to the titanium base abutment. Packaged in packs of three. Polytetrafluoroethylene (PTFE). Call for availability.

Custom Castable (UCLA) Abutments



PYCAH
3.5mm Custom Cast Abutment, Hexed
PGCAH
4.5mm Custom Cast Abutment, Hexed
PBCAH
5.7mm Custom Cast Abutment, Hexed

PYCAN
3.5mm Custom Cast Abutment, Non-hexed
PGCAN
4.5mm Custom Cast Abutment, Non-hexed
PBCAN
5.7mm Custom Cast Abutment, Non-hexed

Use hexed abutments for single-unit screw-retained or custom abutment cement-retained restorations. Use non-hexed abutments for multiple-unit, screw-retained restorations. Packaged with the Abutment Screw (PXAS). Gold Alloy base with natural acetyl (Delrin® or Pomalux®) sleeve. Final torque: 30Ncm.

Bulk Preparation Abutment for Cement-retained Restorations



PYBPA 3.5mm Bulk Preparation Abutment
PGBPA 4.5mm Bulk Preparation Abutment
PBBPA 5.7mm Bulk Preparation Abutment

Use to fabricate custom abutments for cement-retained, single- or multiple-unit prostheses. Packaged with Abutment Screw (PXAS). Titanium Alloy. Final torque: 30Ncm. Call for availability.

TEMPORARY ABUTMENTS

PEEK® Temporary Abutments

PYRTA 3.5mm Plastic Temporary Abutment (Regular Emergence)
PGRTA 4.5mm Plastic Temporary Abutment (Regular Emergence)
PBRTA 5.7mm Plastic Temporary Abutment (Regular Emergence)

Use for fabrication of cement- or screw-retained provisional restorations (up to 30 days). A Direct Coping Screw (PXDCS, purchased separately) may be used to maintain screw access hole during fabrication of screw-retained provisional prostheses. Packaged with Abutment Screw (PXAS). PEEK (PolyEtherEtherKetone). Final torque: 30Ncm.



Titanium Temporary Abutments - Hexed

PYTTH 3.5mm Titanium Temporary Abutment, Hexed
PGTTH 4.5mm Titanium Temporary Abutment, Hexed
PBTTH 5.7mm Titanium Temporary Abutment, Hexed

Use for single-unit screw-retained, long term temporary restorations (>30 days). Packaged with the Abutment Screw (PXAS). Titanium Alloy. Final torque: 30Ncm.



Titanium Temporary Abutments - Non-hexed

PYTTN 3.5mm Titanium Temporary Abutment, Non-hexed
PGTTN 4.5mm Titanium Temporary Abutment, Non-hexed
PBTTN 5.7mm Titanium Temporary Abutment, Non-hexed

Use for multiple-unit, screw-retained, long term temporary restorations (>30 days). Packaged with the Abutment Screw (PXAS). Titanium Alloy. Final torque: 30Ncm.





NOTE:

The top of the screw is 3.0mm from the top of the prosthetic platform of the implant. When prepping, maintain at least 4mm of abutment height for optimal cement retention.

Ceramic Abutments for Cement-retained Restorations



PYRCA 3.5mm Ceramic Abutment (Regular Emergence)
PGRCA 4.5mm Ceramic Abutment (Regular Emergence)
PBRCA 5.7mm Ceramic Abutment (Regular Emergence)

Use to fabricate cement-retained, single- or multiple-unit prostheses. Packaged with Abutment Screw (PXAS). Yttria-stabilized Zirconia. Final torque: 30Ncm.

3inOne Abutments for Cement-retained Restorations



PYREA 3.5mm 3inOne Abutment (Regular Emergence)
PGREA 4.5mm 3inOne Abutment (Regular Emergence)
PBREA 5.7mm 3inOne Abutment (Regular Emergence)

Use to fabricate cement-retained, single- or multiple-unit prostheses. Also used with Ball-top Screw as a closed-tray, hexed-timed impression coping. Packaged with Abutment Screw (PXAS). Titanium Alloy. TiN coated. Final torque: 30Ncm.

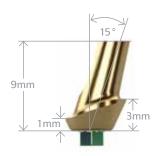
Angled Abutments for Cement-retained Restorations



PYRAA 3.5mm Angled Abutment (Regular Emergence)
PGRAA 4.5mm Angled Abutment (Regular Emergence)
PBRAA 5.7mm Angled Abutment (Regular Emergence)

Use to fabricate cement-retained, single- or multiple-unit prostheses. Packaged with Abutment Screw (PXAS). Titanium Alloy. TiN coated. Final torque: 30Ncm.

Angled Aesthetic Abutments for Cement-retained Restorations



PYAEA 3.5mm Angled Aesthetic Abutment (Wide Emergence)
PGAEA 4.5mm Angled Aesthetic Abutment (Wide Emergence)
PBAEA 5.7mm Angled Aesthetic Abutment (Regular Emergence)

Use to fabricate cement-retained, single- or multiple-unit prostheses. Packaged with Abutment Screw (PXAS). Titanium Alloy. TiN coated. Final torque: 30Ncm.

Narrow Abutments for Cement-retained Restorations

PYNEA 3.5mm Narrow Emergence Abutment
PGNEA 4.5mm Narrow Emergence Abutment
PBNEA 5.7mm Narrow Emergence Abutment

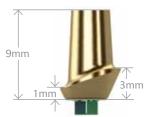
Use to fabricate cement-retained, single- or multiple-unit prostheses. Packaged with Abutment Screw (PXAS). Titanium Alloy. Final torque: 30Ncm. Can be used with Single-stage implants.



Aesthetic Abutments for Cement-retained Restorations

PYSEA 3.5mm Straight Aesthetic Abutment (Wide Emergence)
PGSEA 4.5mm Straight Aesthetic Abutment (Wide Emergence)
PBSEA 5.7mm Straight Aesthetic Abutment (Regular Emergence)

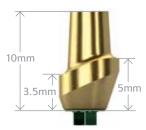
Use to fabricate cement-retained, single- or multiple-unit prostheses. Packaged with Abutment Screw (PXAS). Titanium Alloy. TiN coated. Final torque: 30Ncm.

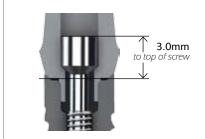


Aesthetic Abutments for Cement-retained Restorations (3mm buccal height)

PYSEA3 3.5mm Straight Aesthetic Abutment, 3mm buccal (Wide Emergence)
PGSEA3 4.5mm Straight Aesthetic Abutment, 3mm buccal (Wide Emergence)
PBSEA3 5.7mm Straight Aesthetic Abutment, 3mm buccal (Regular Emergence)

Use to fabricate cement-retained, single- or multiple-unit prostheses when a deep gingival sulcus is present. Packaged with Abutment Screw (PXAS). Titanium Alloy. TiN coated. Final torque: 30Ncm. Call for availability.





NOTE:

The top of the screw is 3.0mm from the top of the prosthetic platform of the implant. When prepping, maintain at least 4mm of abutment height for optimal cement retention.

Ball-top Screw for Indirect (Closed Tray) Transfer



PXBT

Ball-top Screw for Indirect Transfer

Use with the 3inOne Abutment to form an impression coping for closed-tray, hexed-timed transfers. May be used to increase height of Indirect Transfer Copings by 3mm. Hand-tighten. Titanium Alloy.

Indirect Transfer Copings (Closed Tray)



PYNISC	3.5mm Narrow Indirect Scoop Coping
PYRISC	3.5mm Regular Indirect Scoop Coping
PYWISC	3.5mm Wide Indirect Scoop Coping
PGNISC	4.5mm Narrow Indirect Scoop Coping
PGRISC	4.5mm Regular Indirect Scoop Coping
PGWISC	4.5mm Wide Indirect Scoop Coping
PBNISC	5.7mm Narrow Indirect Scoop Coping
PBRISC	5.7mm Regular Indirect Scoop Coping

Use to make a closed-tray, implant-level, hexed-timed impression. Pre-assembled with a Coping Screw (PXSS). Titanium Alloy. Call for availability.



Ball-top Screw (PXBT) pictured above sold separately

PYNIC	3.5mm Narrow Indirect Transfer Coping
PYRIC	3.5mm Regular Indirect Transfer Coping
PYWIC	3.5mm Wide Indirect Transfer Coping
PGNIC	4.5mm Narrow Indirect Transfer Coping
PGRIC	4.5mm Regular Indirect Transfer Coping
PGWIC	4.5mm Wide Indirect Transfer Coping
PBNIC	5.7mm Narrow Indirect Transfer Coping

Use to make a closed-tray, implant-level, hexed-timed impression. Packaged with the Abutment Screw (PXAS). Ball-top screw sold separately. Titanium Alloy.

5.7mm Regular Indirect Transfer Coping

Implant Analogs



PYIA 3.5mm Implant Analog
PGIA 4.5mm Implant Analog
PBIA 5.7mm Implant Analog

PBRIC

Represents the implant in a laboratory-fabricated, implant-level stone model. Not intended for use with Simple Solutions components. Titanium Alloy.

IMPRESSION COMPONENTS

Direct Pick-up Copings (Open Tray)

PYNDC	3.5mm Narrow Direct Pick-up Coping, Hexed
PYRDC	3.5mm Regular Direct Pick-up Coping, Hexed
PYWDC	3.5mm Wide Direct Pick-up Coping, Hexed
PGNDC	4.5mm Narrow Direct Pick-up Coping, Hexed
PGRDC	4.5mm Regular Direct Pick-up Coping, Hexed
PGWDC	4.5mm Wide Direct Pick-up Coping, Hexed
PBNDC	5.7mm Narrow Direct Pick-up Coping, Hexed
PBRDC	5.7mm Regular Direct Pick-up Coping, Hexed
PYNDCN	3.5mm Narrow Direct Pick-up Coping, Non-hexed
PGNDCN	4.5mm Narrow Direct Pick-up Coping, Non-hexed
PBNDCN	5.7mm Narrow Direct Pick-up Coping, Non-hexed



Use to make an open-tray, implant-level, non-hexed impression. Packaged with the Direct Coping Screw, Shallow Hex (PXDCSS). Non-hexed versions may also be used to fabricate multiple-unit laser welded bars; see the Internal Prosthetic Technique Manual (ref. ML0118) for additional information. Titanium Alloy. Hand-tighten.

PXDCSS Direct Coping Screw, Shallow Hex*

The PXDCSS is now packaged with all Direct Pick-up Copings. Hex depth has been shortened for easier removal of impression material. Utilizes the .050" (1.25mm) Hex Driver. Hand-tighten or torque to 30 Ncm depending on application. Titanium Alloy.

PXDCS Direct Coping Screw

May also be used in place of the Abutment Screw (PXAS) when extra length is needed, or to maintain the screw access hole during fabrication of screw-retained provisional prostheses. Up to 7mm can be removed from the screw without losing the hex engagement. Utilizes the .050" (1.25mm) Hex Driver. Hand-tighten or torque to 30 Ncm depending on application. Titanium Alloy.

PXDCSL Direct Coping Screw, Long

PXDCSL adds 5mm of additional length compared to the PXDCS.

PXAS Abutment Screw

Fits all implant prosthetic platforms. Low profile screw head. Packaged with all two-piece abutments. Utilizes the .050" (1.25mm) Hex Driver. Titanium Alloy. Final torque: 30 Ncm.

Direct Coping Screws



Abutment Screw



SIMPLE SOLUTIONS COMPONENTS

Simple Solutions Healing Caps



SYPHC40	Simple Solutions 3.5mm Healing Cap, $4.0 mm$
SYPHC55	Simple Solutions 3.5mm Healing Cap, 5.5mm
SGPHC40	Simple Solutions 4.5mm Healing Cap, 4.0mm
SGPHC55	Simple Solutions 4.5mm Healing Cap, 5.5mm
SBPHC40	Simple Solutions 5.7mm Healing Cap, 4.0mm
SBPHC55	Simple Solutions 5.7mm Healing Cap, 5.5mm

Use as-is or as a coping for fabrication of provisional restorations (up to 30 days). Secure with temporary cement. Order by platform diameter and abutment height. PEEK® (PolyEtherEtherKetone).

Simple Solutions Impression Caps



SYPIC40	Simple Solutions 3.5mm Impression Cap, 4.0mm
SYPIC55	Simple Solutions 3.5mm Impression Cap, 5.5mm
SGPIC40	Simple Solutions 4.5mm Impression Cap, 4.0mm
SGPIC55	Simple Solutions 4.5mm Impression Cap, 5.5mm
SBPIC40	Simple Solutions 5.7mm Impression Cap, 4.0mm
SBPIC55	Simple Solutions 5.7mm Impression Cap, 5.5mm

 $\label{thm:constraint} Use for closed-tray pickup impressions of Simple Solutions abutments. \\ Order by platform diameter and abutment height.$

Simple Solutions Replicas



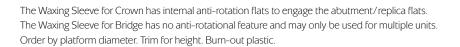
SYR40	Simple Solutions 3.5mm Replica, 4.0mm
SYR55	Simple Solutions 3.5mm Replica, 5.5mm
SGR40	Simple Solutions 4.5mm Replica, 4.0mm
SGR55	Simple Solutions 4.5mm Replica, 5.5mm
SBR40	Simple Solutions 5.7mm Replica, 4.0mm
SBR55	Simple Solutions 5.7mm Replica, 5.5mm

Order by platform diameter and abutment height. Titanium Alloy.

SIMPLE SOLUTIONS COMPONENTS

Simple Solutions Waxing Sleeves

SYPWSC	Simple Solutions 3.5mm Waxing Sleeve, Crown (single unit)
SGPWSC	Simple Solutions 4.5mm Waxing Sleeve, Crown (single unit)
SBPWSC	Simple Solutions 5.7mm Waxing Sleeve, Crown (single unit)
SYPWSB	Simple Solutions 3.5mm Waxing Sleeve, Bridge (multiple units)
SGPWSB	Simple Solutions 4.5mm Waxing Sleeve, Bridge (multiple units)







Simple Solutions Replica Lab Tools

SYRLT	Simple Solutions 3.5mm Replica Lab Tool
SGRLT	Simple Solutions 4.5mm Replica Lab Tool
SBRLT	Simple Solutions 5.7mm Replica Lab Tool

Use to create burn-out copings without use of the Waxing Sleeves. The double-ended tools (4.0mm / 5.5mm abutment height) mimic the geometry of Simple Solutions Replicas including the anti-rotation flats, but WITHOUT the retentive snap feature. Castings made from copings fabricated on the Replica Lab Tools do not require use of the Casting Reamers (below).



Simple Solutions Casting Reamers

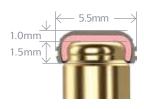
SYCR	Simple Solutions 3.5mm Casting Reamer
SGCR	Simple Solutions 4.5mm Casting Reamer
SBCR	Simple Solutions 5.7mm Casting Reamer

Use to remove the snap feature from metal castings fabricated with Simple Solutions Waxing Sleeves. Do not use on non-precious alloys. Order by platform diameter.



Locator Abutments





	3.5mm Platform	4.5mm Platform	5.7mm Platform
0mm cuff height	PYLA0	PGLA0	not available
1mm cuff height	PYLA1	PGLA1	PBLA1
2mm cuff height	PYLA2	PGLA2	PBLA2
3mm cuff height	PYLA3	PGLA3	PBLA3
4mm cuff height	PYLA4	PGLA4	PBLA4
5mm cuff height	PYLA5	PGLA5	PBLA5
6mm cuff height	PYLA6	PGLA6	PBLA6

The Locator Implant Attachment System is designed for use with overdentures or partial dentures retained in whole or in part by dental implants in the mandible or maxilla. Order by Cuff Height to match the height of the gingival tissue. The abutment will extend above the tissue by 1.5mm to allow the Locator Male to seat completely. Order one Locator Male Processing Set for each Locator Abutment (sold in packs of 2 or 10). Can be used with Single-stage implants. Titanium Alloy.

The Male Processing Package provides 3 choices of retention. The Replacement Males (clear, pink and blue) are used to restore implants with up to 10° of divergence (20° between implants). The Extended Range Replacement Males (green and red) accommodate divergences from 10° and 20° (40° between implants), and may be purchased separately.

Locator Components









LMPP-10

Core Tool

Multi-purpose tool serves as hand driver for seating Locator Abutments onto the implants, seating tool for nylon male inserts and insert removal tool.

Male Processing Package (2 pack)

Includes: (2) Denture Caps with (2) Black Processing Males; (2) White Blockout Spacers; (2) Clear, (2) Pink and (2) Blue Nylon Males.

Male Processing Package (10 pack)

Includes: (10) Denture Caps with (10) Black Processing Males; (10) White Block-out Spacers; (10) Clear, (10) Pink and (10) Blue Nylon Males.

LOCATOR ABUTMENTS

Impression Coping

LIC Impression Coping (4 pack)



Female Analog

LFA-4MM Female Analog 4mm (4 pack)

Use for 3.5/4.5 platform

LFA-5MM Female Analog 5mm (4 pack)

Use for 5.7 platform



Male Replacements

LRM-C Replacement Male (clear) LRM-G **Extended Range Replacement** (4 pack)

Male (green) (4 pack) Retention: 5lb / 2268g Retention: 3-4lbs / 1361-1814g

> LRM-R **Extended Range Extra Light Retention**

Male (pink) (4 pack) Replacement Male (red) (4 pack)

Retention: 3lb / 1361g Retention: 1.5lbs / 680g

Black Processing LRM-B **Extra Light Retention** LBPRM

Retention: 1.5lb / 680g

Light Retention Replacement

LRM-P

Replacement Male (blue) (4 pack) Replacement Male (4 pack)

Measurement Tools

LAMG Angle Measurement Guide Parallel Post (4 pack)



Square Drive Tool

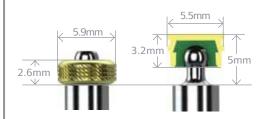
LSDT-15MM Square Drive Tool (15mm)

LSDT-21MM

Ball Abutments



PYBA1	3.5mm Ball Abutment, 1mm Collar
PYBA3	3.5mm Ball Abutment, 3mm Collar
PYBA5	3.5mm Ball Abutment, 5mm Collar
PGBA1	4.5mm Ball Abutment, 1mm Collar
PGBA3	4.5mm Ball Abutment, 3mm Collar
PGBA5	4.5mm Ball Abutment, 5mm Collar
PBBA1	5.7mm Ball Abutment, 1mm Collar
PBBA3	5.7mm Ball Abutment, 3mm Collar



Use for retention of tissue-supported overdentures. They are recommended for relatively parallel implants. See below and on the facing page for attachment options. Ball Abutments may be used for indirect transfer impressions. Ball Abutment Analogs on facing page are used for producing a working cast. Can be used with Single-stage implants. Titanium Alloy.

O-ring Attachment Set



260-100 O-ring Attachment Set

Standard O-ring attachment for processing into denture. Includes: (1) O-ring encapsulator, (2) Processing O-rings and (2) Clinical O-rings.

O-ring Individual Components



260-300

O-ring Encapsulator

Female receptacle processed into denture. Titanium. 2 per package.



260-220

Processing O-ring

Use for lab processing applications. Buna. 12 per package.



260-210

Clinical O-ring

Use for clinical applications. Silicone. 12 per package.

BALL ABUTMENTS

Ball Attachment Set

BCAS Ball Attachment Set

Includes: (1) Titanium Housing, (3) Female Nylon Inserts - white (more retention), pink (less retention), black (lab processing) and (1) Protective Disk (ref. BCPD, protects tissue during impression making or denture pick-up)

The Ball Attachment system offers several advantages over traditional O-ring attachments. It requires less mesial/distal/buccal/lingual space and offers four different levels of retention. The nylon retention inserts can be changed chairside.



Ball Abutment Components

BCAHT Attachment Housings - Titanium

For Resin pickup or Soldering. 2 per package.



BCIY

Yellow Nylon Insert Clinical use. 2 per package.

Extra Soft Retention: 500-550g



Lab Processing and Chair-side



BCIP Pink Nylon Insert

Clinical use. 2 per package. Soft Retention: 800-950g



BCIB **Black Nylon Insert**

Denture Pick-up. 2 per package.



BCIW White Nylon Insert

Clinical use. 2 per package. Standard Retention: 1200-1300g



BCIG Green Nylon Insert

Clinical use. 2 per package. Elastic Retention.



BCDR

Directional Rings

Use for obtaining parallelism. 0°, 7° and 14° rings. Set of 3.



BCIST Insert Seating Tool

Use to seat nylon inserts in attachment housings.



BCR

Reamer

Use to adjust retention of nylon inserts.



Ball Abutment Analogs

PYGBAA 3.5/4.5mm Ball Abutment Analog

PBBAA 5.7mm Ball Abutment Analog

Use to represent the Ball Abutment/Implant assembly in the working cast. Only use in conjunction with Ball Abutments. Titanium Alloy.



ABUTMENT FOR SCREW COMPONENTS

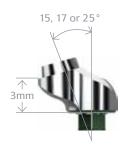
Abutment for Screw - Non-hexed



PYAFS1 3.5mm Abutment for Screw, 1mm collar PYAFS3 3.5mm Abutment for Screw, 3mm collar **PYAFS5** 3.5mm Abutment for Screw, 5mm collar PGAFS1 4.5mm Abutment for Screw, 1mm collar PGAFS3 4.5mm Abutment for Screw, 3mm collar PGAFS5 4.5mm Abutment for Screw, 5mm collar PBAFS1 5.7mm Abutment for Screw, 1mm collar PBAFS3 5.7mm Abutment for Screw, 3mm collar

Use for multiple-unit restorations including: screw-retained restorations at the abutment level, cast alloy bars for overdentures and fixed/detachable (hybrid) restorations. Comes packaged with the Cover Cap (PXABCC). Can be used with Single-stage implants. Titanium Alloy.

Angled Abutment, Abutment for Screw - Hexed



PYAFS17 3.5mm Angled Abutment for Screw, 17 Degree

PGAFS15 4.5mm Angled Abutment for Screw, 15 Degree
PGAFS25 4.5mm Angled Abutment for Screw, 25 Degree

PBAFS15 5.7mm Angled Abutment for Screw, 15 Degree

Comes packaged with the Cover Cap (PXABCC) and Abutment Screw (PXAS). Final torque: 30Ncm. Can be used with Single-stage implants. Titanium Alloy. *In mid-2011, a running change was made to reduce the profile of these abutments for ease of use.*

Gold & Plastic Copings, Abutment for Screw - Non-hexed



PXABGC Gold Coping, Abutment for Screw

May be trimmed for height. Packaged with one Screw (regular), Abutment for Screw (see PXABS). Gold Alloy base with Delrin® sleeve. 4mm



PXABPC

Plastic Coping, Abutment for Screw

May be trimmed for height. Packaged with one Screw (regular), Abutment for Screw (see PXABS). Delrin® sleeve.

4mm

Instant Fixed Overdenture Abutment - Non-hexed



PXIFO Instant Fixed Overdenture Abutment

Use with Abutments for Screw for fabrication of immediate provisional overdentures. See Fixed Provisional Overdentures (L0155) for more details. Packaged with one Screw (regular), Abutment for Screw (see PXABS). Abutment height is 9mm. Titanium Alloy, Final torque: 30Ncm.

Cover Cap, Abutment for Screw



PXABCC Cover Cap, Abutment for Screw

Packaged with all Abutments for Screw. Hand-tighten with .050" (1.25mm) Hex Driver. Titanium Alloy.

ABUTMENT FOR SCREW COMPONENTS

Direct Pick-up Coping, Abutment for Screw

PXABDC Direct Pick-up Coping, Abutment for Screw

Use to make a direct pick-up impression (open-tray) at the abutment level. Packaged with the Screw (long), Abutment for Screw (PXABSL). Use only with Abutment for Screw. Titanium Alloy.



Indirect Transfer Coping, Abutment for Screw

PXABIC Indirect Transfer Coping, Abutment for Screw

Use to make an indirect transfer (closed-tray) impression at the abutment level. Use only with Abutment for Screw. Titanium Alloy.



Analog, Abutment for Screw

PXABA Analog, Abutment for Screw

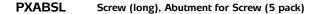
Use to represent the Abutment for Screw/Implant assembly in the working cast. Not for use with implant-level impressions.



Screw (regular or long), Abutment for Screw

PXABS Screw (regular), Abutment for Screw (5 pack)

Use to retain bars or prostheses fabricated with the Abutment for Screw Copings. Utilizes the .050" (1.25mm) Hex Driver. Final torque: 30 Ncm. Titanium Alloy.



Use in the lab when a longer screw is desired. Use only with the Abutment for Screw. Up to 7mm can be removed from the screw without losing the hex engagement. Hand-tighten or torque to 30Ncm depending on application. Titanium Alloy.



Hex Adapter, Abutment for Screw

PXHA Hex Adapter, Abutment for Screw*

Required for placement of Abutment for Screw. May be driven by either Hand Wrench, Torque Wrench or AS123 Hand Unit.



Angled Abutments for Cement-retained Restorations



SYAA Single-stage 3.5mm Angled Abutment (10°)
SGAA Single-stage 4.5mm Angled Abutment (15°)
SBAA Single-stage 5.7mm Angled Abutment (20°)

Used to fabricate cement-retained, single- or multiple-unit prostheses. Packaged with Abutment Screw (PXAS). Titanium Alloy. Final torque: 30Ncm.

Titanium Abutment for Laser Weld



SYTALW Single-stage 3.5mm Titanium Abutment for Laser Weld
SGTALW Single-stage 4.5mm Titanium Abutment for Laser Weld
SBTALW Single-stage 5.7mm Titanium Abutment for Laser Weld

Used to fabricate multiple-unit laser welded bars. Packaged with Abutment Screw (PXAS) for clinical use and Direct Coping Screw (PXDCS) for laboratory use. Titanium Alloy. Final torque: 30Ncm.

Custom Castable (UCLA) Abutments



SYCAH Single-stage 3.5mm Custom Cast Abutment, Hexed

SGCAH Single-stage 4.5mm Custom Cast Abutment, Hexed

SBCAH Single-stage 5.7mm Custom Cast Abutment, Hexed

Used for single-unit screw-retained or custom abutment cement-retained restorations. Packaged with the Abutment Screw (PXAS). Gold Alloy base with natural acetyl (Delrin® or Pomalux®). Final torque: 30Ncm.

Custom Castable (UCLA) Abutments - Non-hexed



SYCAN Single-stage 3.5mm Custom Cast Abutment, Non-hexed
SGCAN Single-stage 4.5mm Custom Cast Abutment, Non-hexed
SBCAN Single-stage 5.7mm Custom Cast Abutment, Non-hexed

Used for multiple-unit, screw-retained restorations. Packaged with the Abutment Screw (PXAS). Gold Alloy base with natural acetyl (Delrin® or Pomalux®). Final torque: 30Ncm.

SINGLE-STAGE COMPONENTS

Direct Pick-up Copings - Hexed -

SYDCH	Single-stage 3.5mm Direct Pick-up Coping, Hexed
SGDCH	Single-stage 4.5mm Direct Pick-up Coping, Hexed
SBDCH	Single-stage 5.7mm Direct Pick-up Coping, Hexed
SYDCN	Single-stage 3.5mm Direct Pick-up Coping, Non-hexed
SGDCN	Single-stage 4.5mm Direct Pick-up Coping, Non-hexed
SBDCN	

Used to make an open-tray, implant-level, non-hexed impression. Packaged with the extended Direct Coping Screw, Shallow Hex (PXDCSS). Titanium Alloy. Hand-tighten.



Implant Analog

SYIA	Single-stage Implant Analog, 3.5mm
SGIA	Single-stage Implant Analog, 4.5mm
SBIA	Single-stage Implant Analog, 5.7mm

Represents the Single-stage implant in a laboratory-fabricated, implant-level stone model. Not intended for use with Simple Solutions components. Titanium Alloy.



Direct Coping Screws

PXDCSS Direct Coping Screw, Shallow Hex*

The PXDCSS is now packaged with all Direct Pick-up Copings. Hex depth has been shortened for easier removal of impression material. Utilizes the .050" (1.25mm) Hex Driver. Hand-tighten or torque to 30 Ncm depending on application. Titanium Alloy.

PXDCS Direct Coping Screw

May also be used in place of the Abutment Screw (PXAS) when extra length is needed, or to maintain the screw access hole during fabrication of screw-retained provisional prostheses. Up to 7mm can be removed from the screw without losing the hex engagement. Utilizes the .050" (1.25mm) Hex Driver. Hand-tighten or torque to 30 Ncm depending on application. Titanium Alloy.

PXDCSL Direct Coping Screw, Long

PXDCSL adds 5mm of additional length compared to the PXDCS.



Abutment Screw



PXAS Abutment Screw

Fits all implant prosthetic platforms. Low profile screw head. Packaged with all two-piece abutments. Utilizes the .050" (1.25mm) Hex Driver. Titanium Alloy. Final torque: 30 Ncm.

PROSTHETIC INSTRUMENTATION

Prosthetic Instrumentation System



320-000

Complete Prosthetic Instrumentation System (shown)

Includes: AS123 Hand Unit / Hand Wrench / 30 Ncm Torque Wrench / .050" (1.25mm) Hex Driver, Regular/ .050" (1.25mm) Hex Driver, Long / Hex Adapter for Abutment for Screw / 4mm Square Drive Extender / Sterilization Tray.

320-101 Basic Prosthetic Instrumentation Kit (not shown)

Identical to the Complete Prosthetic Instrumentation System (see above), but excludes the AS123 Hand Unit and Hex Adapter for Abutment for Screw.

300-070 Prosthetic Sterilization Tray (not shown)

Autoclavable tray for prosthetic instrumentation (included with the 320-000 and 320-101).



300-400 Hand Wrench*

Use on drive end of AS123 Hand Unit. Also fits individual Hex Drivers/Adapters and Bone Taps.



300-206 4mm Square Drive Extender*

Replaced 300-205 starting in June 2010. Includes PEEK C-ring for durable retention in Ratchet. Cannot be used with bone taps.



300-100 AS123 Hand Unit*

Provides improved vision and easy access to prosthetic components in posterior regions of the mouth. Hand Wrench and Drivers must be purchased separately. May also be purchased as part of the 320-000 Complete Prosthetic Instrumentation System (see above).



300-430 30 Ncm Torque Wrench

Use to deliver torque to prosthetic components.



PXHA

Hex Adapter, Abutment for Screw*

Required for placement of Abutment for Screw. May be driven by either Hand Wrench, Torque Wrench or AS123 Hand Unit.



300-350 (regular) **300-351** (long)

.050" (1.25mm) Hex Driver Regular or Long*

Use to tighten all hex-driven prosthetic screws.

^{*}instrument o-rings & c-rings wear out over time. If an instrument is no longer held securely by its associated driver, order a replacement ring through Customer Care.

PROSTHETIC INSTRUMENTATION

Abutment Clamp

IMPAH Abutment Clamp

Use to hold two-piece abutments during delivery and tightening of the Abutment Screw.







ATW ITL Precise Adjustable Torque Wrench

Place both implants and abutments with 9 distinct torque settings (15, 20, 25, 30, 35, 40, 45, 50 and 60 Ncm). A simple twist of the handle locks in precision-engineered torque values and guarantees accuracy and repeatability.

EL-C12374 Elos Adjustable Torque Wrench

Lightweight titanium design is easy to use as an adjustable torque wrench or a ratchet. Quickly disassembles for cleaning. No calibration required. Call for availability.

PYGAH 3.5/4.5mm Platform Analog Handle PBAH 5.7mm Platform Analog Handle

Use to easily hold abutments for chairside or laboratory preparation, these handles mimic the implant/analog hex geometry. Abutments are secured to the handle with the standard Abutment Screw (PXAS). Comes in two platform sizes: 3.5/4.5mm and 5.7mm.

Abutment Prepping Handles



135-351 .050" (1.25mm) One-piece Hex Driver* 135-451 .050" (1.25mm) One-piece Hex Driver, Long* 134-350 .050" (1.25mm) Handpiece Hex Driver 134-450 .050" (1.25mm) Handpiece Hex Driver, Long

For installation and removal of Cover Screws, Healing Abutments and Abutment Screws. The Hex Drivers, Long (134-450 and 135-451) are 5mm longer than the standard versions (134-350 and 135-351). *In early 2011, a running change was made to improve abutment screw retention and handling.

PXCT Implant Clean-out Tap Tool*

122-170 Abutment for Screw Clean-out Tap Tool*

Use PXCT to re-thread Internal connection implants (Tapered Internal, Internal, Laser-Lok 3.0 and Single-stage), and 122-170 to rethread Abutments for Screw where the internal threads have become damaged. Requires a standard surgical Ratchet (130-000) or Hand Wrench (300-400) as a drive mechanism.

Hex Drivers

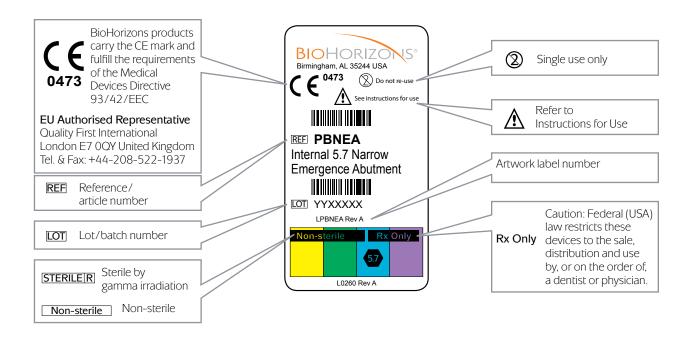


Clean-out Tap Tools



^{*}instrument o-rings & c-rings wear out over time. If an instrument is no longer held securely by its associated driver, order a replacement ring through Customer Care.

Symbol Descriptions for Product Labeling





3.5mm

Prosthetic

Platform

Prosthetic platform



5.7mm Prosthetic Platform



5.7mm Prosthetic Platform

References

- 1. Osseointegration on metallic implant surfaces: effects of microgeometry and growth factor treatment. Frenkel SR, Simon J, Alexander H, Dennis M, Ricci JL. *J Biomed Mater Res.* 2002;63(6):706-13.
- 2. Histologic Evidence of a Connective Tissue Attachment to Laser Microgrooved Abutments: A Canine Study. M Nevins, DM Kim, SH Jun, K Guze, P Schupbach, ML Nevins. *International Journal of Periodontics & Restorative Dentistry*. Vol. 30, No. 3, 2010.
- 3. Human Histologic Evidence of a Connective Tissue Attachment to a Dental Implant. M Nevins, ML Nevins, M Camelo, JL Boyesen, DM Kim. International Journal of Periodontics & Restorative Dentistry. Vol. 28, No. 2, 2008.

4.5mm

Prosthetic

Platform

4. Heat production by 3 implant drill systems after repeated drilling and sterilization. Chacon GE, Bower DL, Larsen PE, McGlumphy EA, Beck FM. J Oral Maxillofac Surg. 2006 Feb;64(2):265-9.

ORDERING & WARRANTY INFORMATION

Product Support Specialist:		
Cell phone:		
Fax:		

BioHorizons Lifetime Warranty on Implants and Prosthetics: All BioHorizons implants and prosthetic components include a Lifetime Warranty. BioHorizons implant or prosthetic components will be replaced if removal of that product is due to failure (excluding normal wear to overdenture attachments).

Additional Warranties: BioHorizons warranties instruments, surgical drills, taps, torque wrenches and Virtual Implant Placement (VIP) treatment planning software.

- (1) Surgical Drills and Taps: Surgical drills and taps include a warranty period of ninety (90) days from the date of initial invoice. Surgical instruments should be replaced when they become worn, dull, corroded or in any way compromised. Surgical drills should be replaced after 12 to 20 osteotomies.⁴
- (2) Instruments: The BioHorizons manufactured instrument warranty extends for a period of one (1) year from the date of initial invoice. Instruments include drivers, sinus lift components, implant site dilators and BioHorizons tools used in the placement or restoration of BioHorizons implants.
- (3) VIP treatment planning software: VIP treatment planning software warranty extends for a period of ninety (90) days from the date of initial invoice. The warranty requires that VIP be used according to the minimum system requirements.
- **(4) Compu-Guide surgical templates:** Compu-Guide surgical templates are distributed without making any modifications to the submitted Compu-Guide Prescription Form and VIP treatment plan ("as is"). BioHorizons does not make any warranties expressed or implied as it relates to surgical templates.

Return Policy: Product returns require a Return Authorization Form, which can be acquired by contacting Customer Care. The completed Return Authorization Form should be included with the returned product. For more information, please see the reverse side of the invoice that was shipped with the product.

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