

BellaTek® Bars & Frameworks Laboratory Manual

Optimization By Design®



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This Manual describes the process to submit a Work Order Form for a BellaTek Bar (formerly known as a CAM StructSURE™ Precision Milled Bar) or Framework.

This Manual is not intended to replace or supersede sound medical judgment, the clinician’s experience or training. Zimmer Biomet Dental does not provide medical advice. The clinician should use medically sound treatment planning and procedures for predictable results. For more information and recommendations, please refer to the Zimmer Biomet Dental Restorative Manual treatment planning section.

Introduction

CAD/CAM Patient Specific Restorations are the future of restorative implant dentistry and Zimmer Biomet Dental is leading the way with BellaTek Bars and Frameworks. These superstructures provide simplified laboratory procedures for implant overdentures, fixed-hybrid prostheses and fixed prostheses.

With precision difficult to match using conventional laboratory techniques, BellaTek Bars and Frameworks are one-piece milled titanium alloy or commercially pure titanium structures with a passive fit. One-piece milled frameworks are significantly stronger than cast bars and do not require soldering or welding. The result is a durable restoration with a precise fit.

Zimmer Biomet Dental designs BellaTek Bars and Frameworks in CAD from a laboratory or clinician submitted work order form and then sends the design electronically to the dental laboratory for design verification. Following a 24-hour laboratory preview period, the CAD design is transferred to a dedicated milling machine for bar or framework fabrication. Then it's polished and ready for overdenture processing or the addition of porcelain or acrylic resin with minimal finishing required by the laboratory.

Indications:

- Implant or abutment level interfaces (see compatibility chart)
- For use on implant overdentures, removable and fixed prosthesis with 2-10 implants
- Parallel and divergent implants up to 30°
- 4.0 mm or less of peri-implant tissue depth
- 7.0 mm or more of interarch distance

Virtual Design

Zimmer Biomet Dental offers virtual design and milling of bars or frameworks for laboratory technicians who wish to minimize their labor when fabricating overdenture and fixed-hybrid restorations. The design from the technician is initially made from the BellaTek Work Order Form. Design Technicians create the specified design in CAD within the confines of the scanned wax denture to fit the master cast. The design is verified by the laboratory technician prior to milling.

Copymilled Design

Laboratory technicians can create their own unique bar or framework design with a resin pattern and send it to Zimmer Biomet Dental with the master cast to be scanned and milled. Using a copymilling technique, Zimmer Biomet Dental creates a one-piece, titanium alloy or CP titanium replica of the design provided, to fit the master cast.



Distributed by Zimmer Biomet Dental

Description	Analog	Screw
Certain® 3.4 mm Implant	IMMILA	ILRGHG, ILRGHT
Certain 4.1 mm Implant	IILA20	ILRGHG, ILRGHT
Certain 5.0 mm Implant	IILAW5	ILRGHG, ILRGHT
Certain 6.0 mm Implant	IILAW6	ILRGHG, ILRGHT
External Hex 3.4 mm Implant	MMILA	UNISG, UNIHG, UNIHT
External Hex 4.1 mm Implant	ILA20	UNISG, UNIHG, UNIHT
External Hex 5.0 mm Implant	ILAW5	UNISG, UNIHG, UNIHT
External Hex 6.0 mm Implant	ILAW6	UNISG, UNIHG, UNIHT
Low Profile Abutment 3.4 mm	LPCLA	LPCGSH, LPCTSH
Low Profile Abutment 4.1 mm	LPCLA	LPCGSH, LPCTSH
Low Profile Abutment 5.0 mm	LPCLA	LPCGSH, LPCTSH
Tapered Abutment (TSV™)	ACTR	SCTS

Zimmer Biomet Dental reserves the right to reject any case requests with connections not represented in these charts or that do not meet regulatory standards.

BellaTek Bars & Frameworks Provide Clinicians And Laboratories One Solution At A Time

Clinicians...

- Truly Passive Fit
- No Soldered Or Welded Joints
- Lightweight

Laboratories...

- CAD/CAM Precision
- No Soldering Or Welding
- No Capital Investment
- Laboratory Design Control
- No Waxing And Casting
- Biocompatible Alloy



Please refer to the interface compatibility chart when placing your orders for bars and framework. You can also find the BellaTek Bars and Frameworks Design Options and Interface Compatibility Chart by visiting www.zimmerbiometdental.com.

Hybrid Bar Design #1



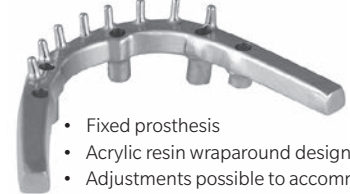
- Fixed prosthesis
- Metal lingual
- Low buccal finish line
- Titanium tissue surface

Hybrid Bar Design #2



- Fixed prosthesis
- Metal lingual
- Low buccal finish line
- Titanium tissue surface

Wraparound Bar



- Fixed prosthesis
- Acrylic resin wraparound design
- Adjustments possible to accommodate for changing tissue contours
- Easy to repair and modify the acrylic resin portion of the prosthesis

Freeform Bar



- Fixed prosthesis
- Acrylic resin wraparound design

Canada Bar



- Fixed hybrid bar
- Low lingual finish line
- Titanium tissue surface
- Acrylic resin is processed to the bar

DOLDER® Egg Shape Bar



- Removable overdenture design
- Anterior clips allow for anterior/posterior rotation of the overdenture
- Provides lateral stability to the overdenture

DOLDER U Shape Bar



- Removable overdenture design
- Anterior clips allow for anterior/posterior rotation of the overdenture
- Provides lateral stability to the overdenture

Hader Bar



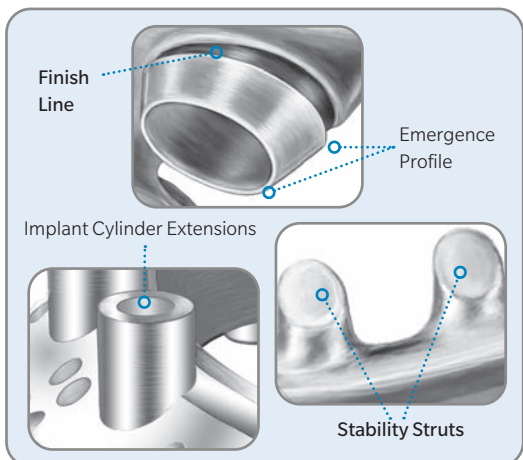
- Removable overdenture design with clips that engage undercuts
- Provides lateral stability to the overdenture
- 4.0 mm between implants is needed for clips

Primary Bar



- Most secure removable overdenture design
- May be used with attachments or secondary casting
- Bar can be designed with a 2° – 6° taper

Design Features



Combination Primary Bar With Hader Or DOLDER Designs



- Combines a milled bar with Hader or DOLDER Designs
- Provides excellent lateral stability to the overdenture
- Bar can be designed with a 2° – 6° taper

Copymilled Bar/Framework



- Ideal for both fixed and removable prosthetic designs
- Technician-fabricated resin pattern for porcelain or acrylic resin bonded to titanium

Ask for these design features on the BellaTek Bars & Frameworks Work Order Form (ART880).

The following information describes the Design Matrix requirements for Type I and Type II BellaTek Bars and Frameworks.

Material: Surgical Grade Titanium Alloy (Ti-6Al-4V ELI).

Surgical Grade 4 Titanium (for porcelain baked direct to bar)



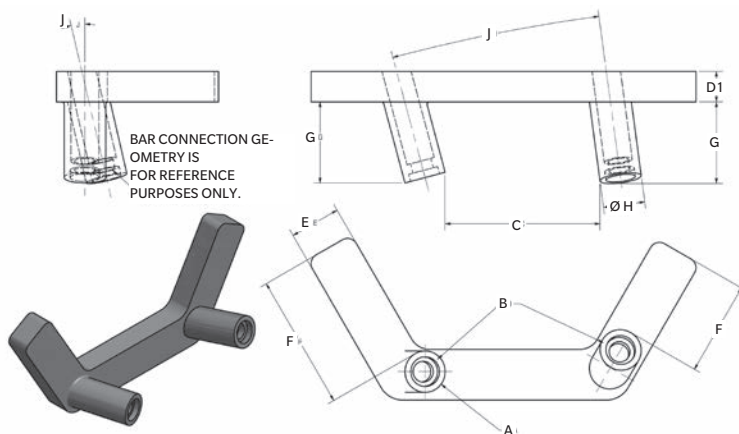
Description	Bar Type
BellaTek DOLDER Bars - Egg Shape and U Shape	Type I
BellaTek Hader Bar	Type I
BellaTek Primary Bar	Type I
BellaTek Combination Primary Bar – with Hader or DOLDER Designs	Type I
BellaTek Hybrid Bar – Designs #1 and #2	Type II
BellaTek Wraparound Bar	Type II
BellaTek Freeform Bar	Type II
BellaTek Canada Bar	Type II
BellaTek Copymilled Bar	Type II

The BellaTek Bars and Frameworks Design Matrix details the design parameters for the devices manufactured in the Zimmer Biomet Milling Center. Customers should adhere to the design specifications shown in this document when completing the BellaTek Bars Work Order Form.

Type I Bars:

Removable Prosthetic-Type Bars*

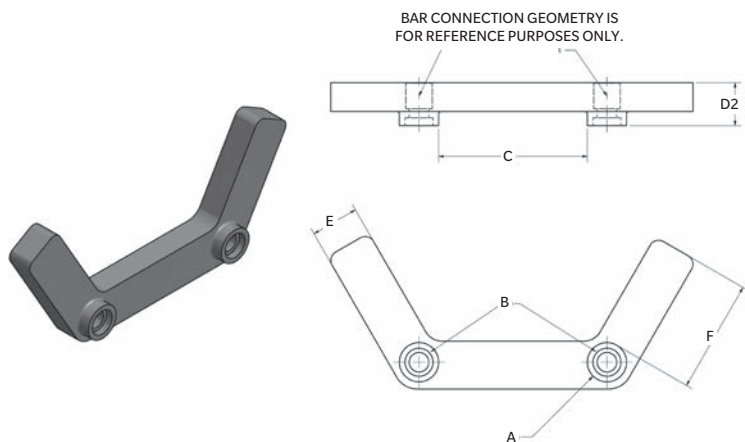
	Description	Minimum	Maximum
A	Platform Seating Diameter	3.4 mm	6.1 mm
B	Total Cylinders	2	10
C	Bar Span Between Cylinders	0 mm	27 mm
D1	Bar Height	2.5 mm	10 mm
E	Bar Width	1.8 mm	10 mm
F	Distal Extension	0 mm	10.7 mm
G	Cylinder Height	0 mm	10 mm
H	Cylinder Diameter	3.4 mm	10 mm
J	Maximum Angulation Between Cylinders	0°	30°



Type II Bars:

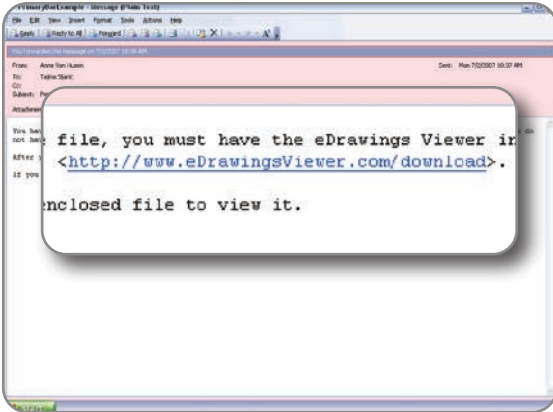
Fixed Hybrid & Copymilled Bars*

	Description	Minimum	Maximum
A	Platform Seating Diameter	3.4 mm	6.1 mm
B	Total Cylinders	2	10
C	Bar Span Between Cylinders	0 mm	23.5 mm
D2	Bar Height	2.5 mm	22 mm
E	Bar Width	4.0 mm	10 mm
F	Distal Extension	0 mm	18 mm



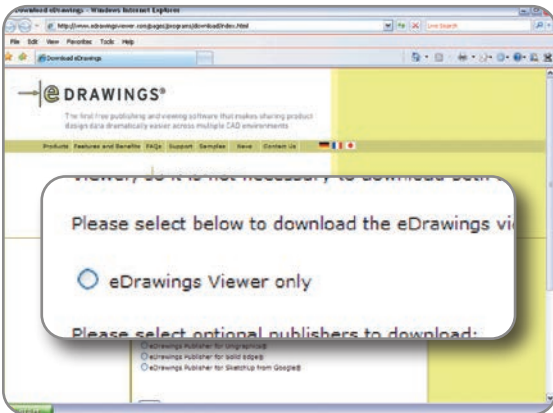
- Zimmer Biomet Dental reserves the right to reject any case request that does not meet regulatory standards.
- This document can also be found by visiting www.zimmerbiometdental.com.

* Sketches are representations of the bars and/or frameworks and are not intended as a design print/specification.



1. You will receive an email from the BellaTek Production Center (formerly known as the ARCHITECH PSR™ Department). Click on the eDrawing Viewer link to download the software.

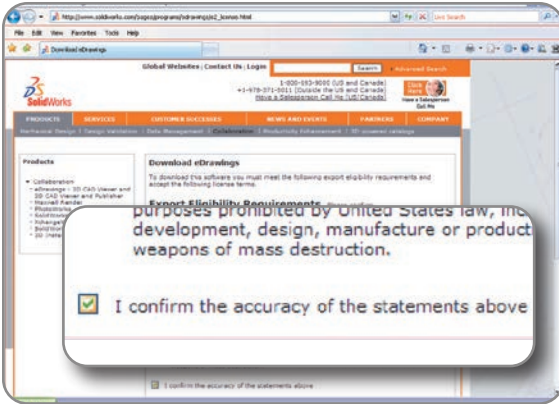
This process should take no longer than five minutes to download.



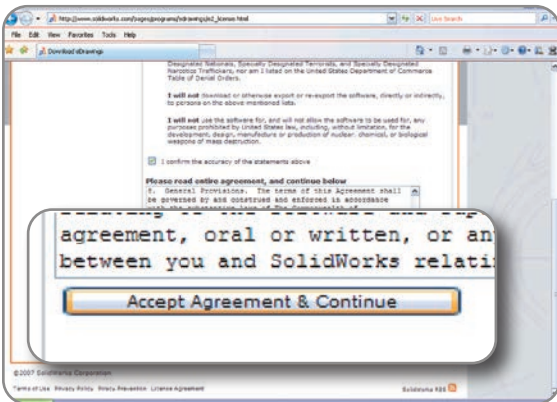
2. On the download eDrawing Viewer screen, select “eDrawing Viewer Only” and click next.



3. On the next screen, click download.

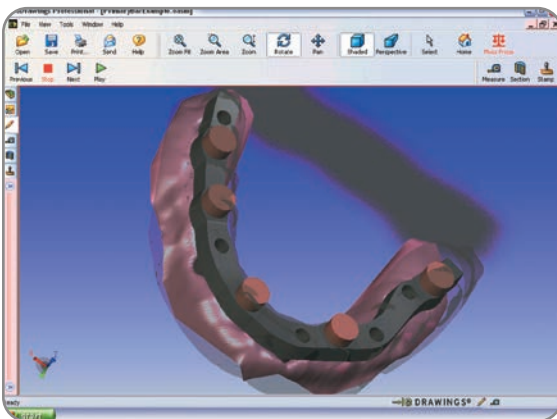


- 4a. On the “Export Eligibility Requirements” screen, read and check the box acknowledging that you have read the requirement.



- 4b. Read and accept the software agreement.

NOTE: Steps 1-4 are necessary for initial software download only.



5. Click to open the image file. Image viewing tools are located on the tool bar.



Zoom Area

Zoom Area tool allows you to zoom in. Choose this tool and select the area you want to zoom in to.



Zoom Fit

Zoom Fit tool reverts back to the original image size.



Zoom

Zoom tool allows you to zoom in and out of the image with your mouse.



Rotate

Rotate tool allows you to move the image and view it in 360°.



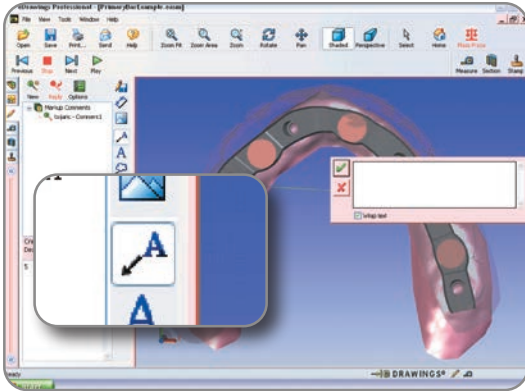
Pan

Select the **Pan** tool to move the image two dimensionally on the screen.



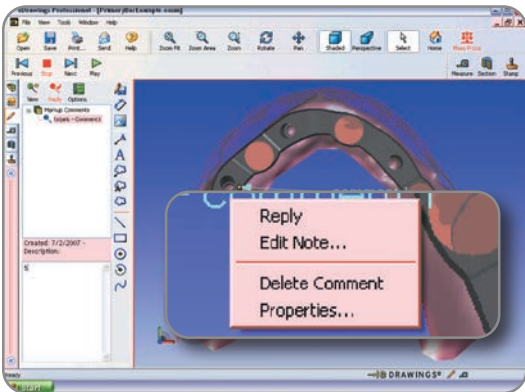
Home

Selecting **Home** will take you back to the original image location, if changes have not been saved.

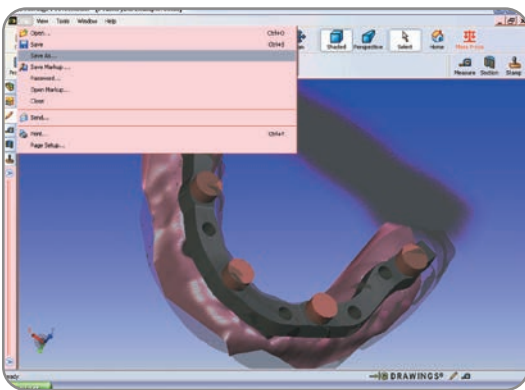


6. Select the "text with leader" tool in the markup section to type comments. Click on the portion of the drawing where you desire the comment(s) to be placed and move the mouse slightly away from the desired comment location. Click again to allow for comments to be typed.

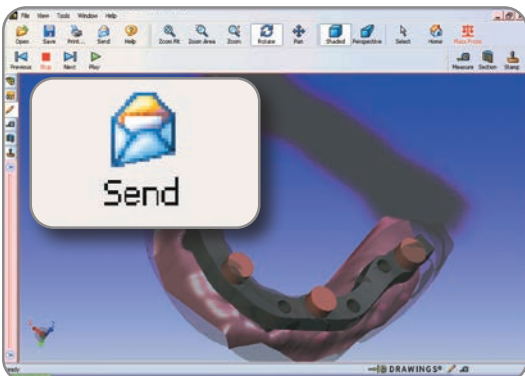
Click on the green checkmark to leave a comment. A comment(s) will appear on the screen.



7. If you wish to edit or remove the comment(s) you made, place your mouse cursor over your comment(s) and right click.



8. Once completed, select the "Save As" option under the File tab to save the drawing with your comments.



9. Select "Send", to return the drawing and comments to the BellaTek Production Center.

1. Account Information

Please complete this section clearly. All requested information is important to ensure the necessary communication of the desired case design. Please make sure your communication is clear and timely as this is important from receipt to design verification and the delivery of the finished product.

Incomplete information on the work order form or missing case requirements may delay the delivery of the product.

2. Preparing Your Case For Shipment

This section serves as a checklist for the mandatory case contents.

3. Structure Type

The information in this section provides Zimmer Biomet Dental with the desired design of the BellaTek Bar or Framework for a particular type of prosthesis.

4. Case Information

This section is important for the scanning and design process. Providing accurate information regarding the tooth position of the implants, implant brand and size or abutment type will expedite the process of order entry, design and completion.

5. Design Instructions

Illustrations of the occlusal view for both a mandible and maxilla are provided in this section. Please sketch the BellaTek Bar or Framework with implant positions and attachment or clip positions. Please use the legend provided.

The following cases will be returned to the laboratory:

1. Cases with more than 10 implants
2. Greater than 30° divergence between implants
3. Less than 7.0 mm of interarch distance
4. More than 4.0 mm of tissue depth

6. Special Instructions

Please provide any special information necessary to ensure the proper design of the BellaTek Bar or Framework. This may include path of insertion information or malocclusion. Additional instructions are also welcome. (Please note that additional instructions do not replace the mandatory sections on the prescription form.)

7-8. Screw And Attachment Ordering

This section identifies the screw preference and quantity. Please order screws for this case only. Polishing protectors and attachments are also available in this section.

9. Certification

This signature denotes that the technician and clinician have verified the master cast for accuracy by trying in a verification index intraorally. This signature is mandatory. Zimmer Biomet Dental will not fabricate a BellaTek Bar or Framework without this certification from the laboratory.

Work order forms are also available at www.zimmerbiometdental.com.

DO NOT PHOTOCOPY - Available online at www.zimmerbiometdental.com

BellaTek® Bars & Frameworks



Work Order Form

1. Account Information (Please Print Or Type) *Indicates Required Fields

* Customer Name: _____
 Account #: _____
 * Bill To: _____

 Ship To: _____

 * Contact: _____
 * Phone: _____
 Fax: _____
 * Email: _____
 * Patient ID: _____

Tap Areas For Attachments

Occlusal Taps
 LOCATOR®
 TSB Ball
 Ceka™ M3
 1.4 mm 0.3 Tap for GSH30
 2 mm 0.4 Tap for UNIHT

Vestibular Taps
 Swiss-loc drill only
 Low Passive
 1.5 mm no tap drill only
 2.2 mm Bredent VKS

□ Design bar according to the drawings below.
 ■ = Implant Position ■ = Clip Placement ▲ = Attachment

2. Preparing Your Case For Shipment

IMPORTANT:

- Only use new implant analogs.
- Please do not send the articulator.
- Missing information or components can delay your case.
- Only use current Work Order Form online at zimmerbiometdental.com.

Please include **only** the following items:

- Copy of the completed Work Order
- Verified/accurate soft-tissue cast
- Resin pattern if Copymilled Bar is desired
- Verified denture wax set-up (decontaminated)
- Intraorally verified index (decontaminated)

6. Special Instructions

Please see back or attached page.

3. Structure Type (See Design Options in the BellaTek Bars & Frameworks Laboratory Manual-ZBINST868)

Overdentures	Combination	Fixed Solutions
<input type="checkbox"/> Hader	<input type="checkbox"/> Hader anterior, Primary distal	<input type="checkbox"/> Hybrid #1
<input type="checkbox"/> DOLDER® U Shape Macro → 2.2 mm	<input type="checkbox"/> Hader anterior, DOLDER distal	<input type="checkbox"/> Hybrid #2
<input type="checkbox"/> DOLDER Egg Shape Macro → 2.2 mm	<input type="checkbox"/> DOLDER anterior, Primary distal	<input type="checkbox"/> Wraparound
<input type="checkbox"/> Primary_ _ Taper	<input type="checkbox"/> DOLDER anterior, Hader distal	<input type="checkbox"/> Free Form
	<input type="checkbox"/> Primary anterior, Hader distal	<input type="checkbox"/> Copymilled for acrylic (default)
	<input type="checkbox"/> Primary anterior, DOLDER distal	<input type="checkbox"/> Copymilled for porcelain
		<input type="checkbox"/> Canada Bar

By submitting this Work Order, you acknowledge and agree that Copymilled Bars are designed by the lab/ordering physician.

7. Screw Ordering / Contact manufacturer for screws not made by Zimmer Biomet.

I would not like to order screws at this time.

Certain® Abutment Screws	Qty.
TSV Tapered Abutment Screws (SCTS)	_____
Gold-Tite® Hexed Large Diameter (ILRGHG)	_____
Titanium Hexed Large Diameter (ILRGHT)	_____
External Hex Abutment Screws	
Gold-Tite Square (UNISG)	_____
Gold-Tite Hexed (UNIHG)	_____
Titanium Hexed (UNIHT)	_____
Laboratory Square Try-in Screw - 5 pack (UNITS)	_____
Retaining Screws	
Low Profile Gold-Tite (LPCGSH)	_____
Low Profile Titanium (LPCTSH)	_____
Waxing Screws	
Certain - Implant Level, 16 mm (WSU30)	_____
External Hex - Implant Level, 15 mm (WSU30)	_____
Low Profile Abutment (LPCWS)	_____

4. Case Information
 ** (See Compatibility Chart in the BellaTek Bars & Frameworks Laboratory Manual-ZBINST868)

Tooth Position	Implant Brand**	Implant System	Implant Platform Diameter		Abutment Type
				or	
				or	
				or	
				or	
				or	
				or	
				or	

8. Attachment Ordering

LOCATOR® Bar Attachment Kit (LOAB)	Qty.
Hader Clip Gold (ORCG1)	_____
Hader Clip Plastic (ORCY1)	_____

5. Design Instructions
 (See the Design Matrix in the BellaTek Bars & Frameworks Laboratory Manual-ZBINST868)

- Maximum implant divergence is 30°

Distal Extensions

Patient's Left

- To 2nd bicuspid
- To 1st molar
- To 2nd molar
- Specify in mm = _____ mm

Patient's Right

- To 2nd bicuspid
- To 1st molar
- To 2nd molar
- Specify in mm = _____ mm

Space Between Tissue And Bar Distance

- As close as possible
- Specify in mm = _____ mm

Bar Height

- Follow tissue contour
- Straight
- Specify in mm = _____ mm (min. height 2.5 mm)

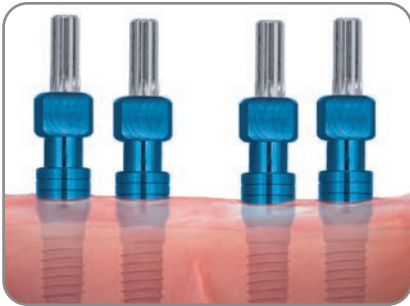
9. Certification

I certify that the analog positions on the cast and the wax try-in have been verified for accuracy and the stated information is correct. All items that have contacted the oral environment have been decontaminated. This form authorizes Zimmer Biomet Dental to fabricate the BellaTek Bar using and consistent with the information provided on this Work Order. I have reviewed the applicable Procedure and Laboratory Manual (ZBINST868) for this product.

Job # _____ Issued By# _____

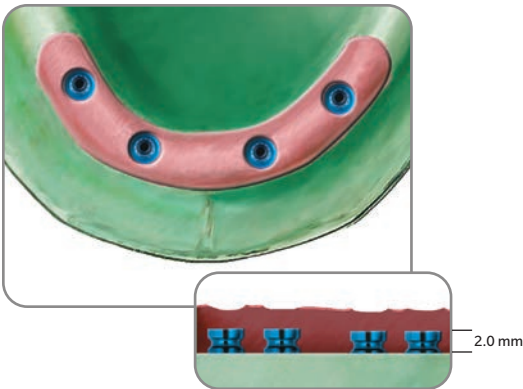
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First Restorative Appointment



1. See the Zimmer Biomet Dental Restorative Manual or consult the specific implant system manual for abutment placement and abutment level or implant level impression instructions.

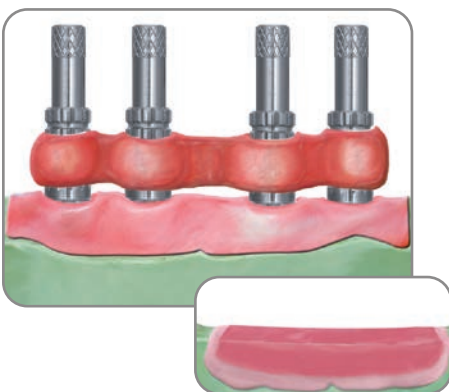
Laboratory



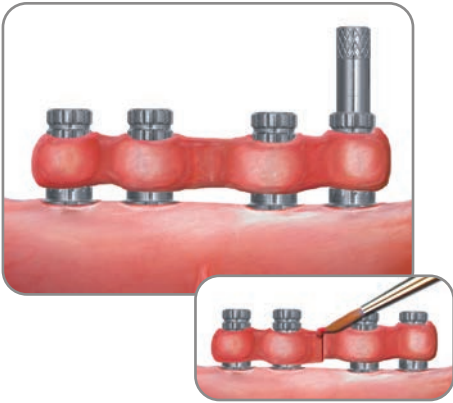
2. Fabricate a soft-tissue master cast as illustrated using new, undamaged analogs. Using old, damaged or loose fitting analogs can interfere with the scanning and design process and may prevent the bar or framework from properly seating.

Cases received with either damaged or insufficiently anchored analogs will be returned to the laboratory.

NOTE: The soft-tissue material on the master cast must be applied approximately 2.0 mm down from the analog restorative interface. It must also be easily removable for the scanning and design process to ensure an accurate fit.

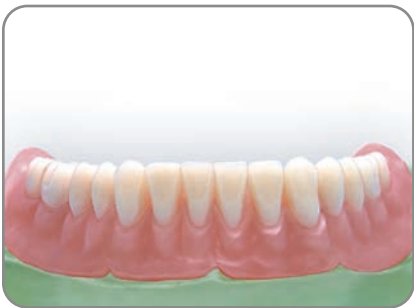


3. Place non-hexed titanium implant or abutment temporary cylinders onto the analogs and screw them into place with waxing or try-in screws. Fabricate a rigid verification index by luting the cylinders together using a light cure composite resin or autopolymerizing acrylic resin. Also, fabricate a record base with a wax occlusion rim. Return the verification index for intraoral fit verification and the wax occlusion rim for interocclusal records.



Second Restorative Appointment

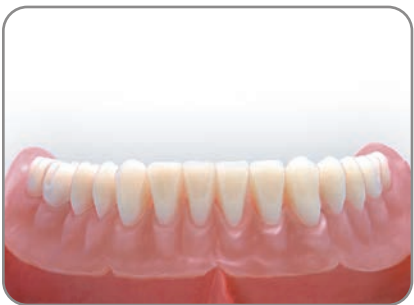
4. Remove the healing abutments or caps using the proper driver. Place the wax occlusion rim into the mouth and make the interocclusal records. Place the verification index onto the implants or abutments. Place a try-in screw into the posterior-most cylinder of the verification index and finger-tighten. Visually, verify a passive fit on all interfaces. If the interfaces are subgingival, take a radiograph to verify a passive fit. Remove the screw and place it into the opposite posterior-most cylinder of the verification index and repeat. If a fit discrepancy is found, section the index and reassemble it intraorally by luting it with a resin material. Remove the index. Immediately replace the healing abutments or caps.



Laboratory

5. Verify that the analog positions on the cast are accurate using the verification index. If a fit discrepancy is found, remove the analog(s) and replace it in the cast using the corrected verification index. Articulate the casts using the interocclusal record. Set the denture teeth on the record base and return the wax denture for try-in.

If the analogs are not accurate in the master cast, remove the analogs from the cast, re-attach them to the verification index and re-seat the index onto the accurate analogs. Inject dental stone around the analog(s) and allow it to set. The cast is now considered to be accurate. Set the denture teeth on the record base and return the denture set-up on the record base for the wax try-in.



Third Restorative Appointment

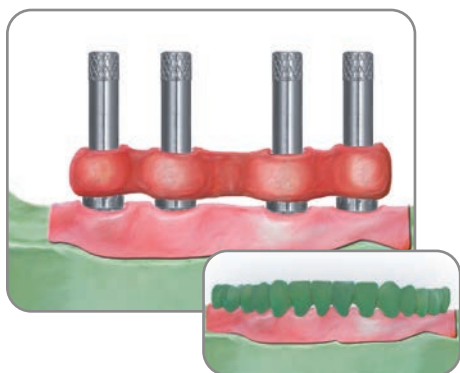
6. Remove the healing abutments or caps and place the wax try-in into the mouth. Verify occlusion, aesthetics and phonetics. Make any necessary adjustments. If major adjustments are necessary, make a new interocclusal record and return the wax denture to the laboratory for remounting of the casts, a new set-up and a second wax try-in.



Laboratory

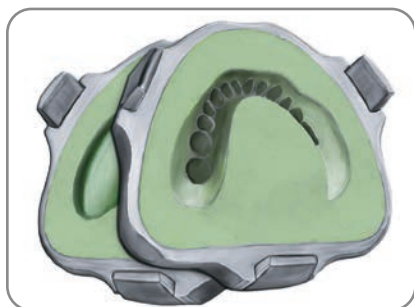
- Place the verified wax denture on the cast and make a silicone or plaster matrix of the tooth positions. Do not remove the teeth from the wax denture. Do not ship the matrix to Zimmer Biomet Dental. If requesting fabrication of a virtual designed BellaTek Bar or Framework, go to step 11.

If requesting fabrication of a BellaTek Copymilled Bar or Framework, go to the next step.

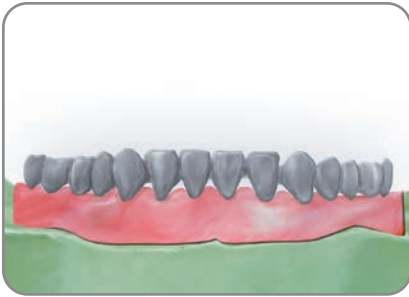


8. BellaTek Copymilled Bars & Frameworks

Place the verification index on the implant or abutment analogs and screw it into place with waxing screws. Reduce the height of the temporary cylinders using a carbide bur so that these fit within the confines of the silicone matrix. Apply a separator to the inside of the matrix of the wax denture and place it on the cast. Pour wax into the impressions of the teeth in the matrix and around the verification index. Remove the matrix and complete the wax pattern of the bar or framework on the lingual or palatal surface.



- Flask the wax denture for processing. Boil the flask and remove the wax from the flask. Remove the verification index and remove the Temporary Cylinders from the index. Place each temporary cylinder back on the analogs with waxing screws. Process the wax denture in acrylic resin. Please use light tooth colored acrylic resin for scanning purposes.



10. Finish the resin pattern of the framework to the desired contours. Make a laboratory silicone matrix of the facial surfaces of the teeth and buccal/facial contours of the wax denture. For porcelain applications, cut the teeth back approximately 2.0 mm. The amount of the cut-back will be dependent on the specifics of the framework design for individual patients. Place the matrix on the cast periodically as a guide for proper contouring and cut-back contours/thickness. On the BellaTek Bars and Frameworks Work Order Form, please indicate whether it will be processed for acrylic resin or a porcelain application. The default is acrylic resin.

11. Complete the BellaTek Bars & Frameworks Work Order Form. See page 10 for an example. Package the following items securely in a box:
 - Copy of the work order form
 - Verified soft-tissue master cast unmounted*
 - Verified wax denture
 - Verification index
 - Resin pattern, if copymilled bar
- * Casts should be unmounted because Zimmer Biomet Dental will mount these for scanning purposes. If casts are sent mounted, some may need to have mountings removed from the cast, requiring remounting and articulating at a later point. This process may break the cast.

PLEASE DO NOT SEND:

- The articulator
- The opposing cast

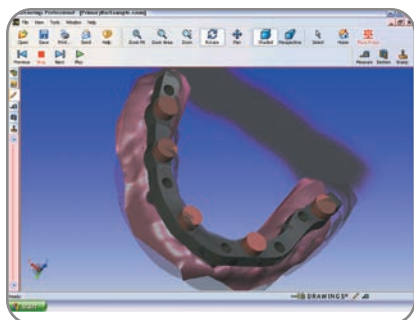
NOTE: All items and/or materials that have been used intraorally must be decontaminated following manufacturer's instructions before these are sent to Zimmer Biomet Dental.

Send to:

In USA:
 Zimmer Biomet Milling Center
 4555 Riverside Drive
 Building B
 Palm Beach Gardens
 Florida, USA 33410
 1-800-342-5454

In Canada:
 Zimmer Biomet Dental Canada Inc.
 2323 Argenta Road
 Mississauga, Ontario L5N 5N3
 Canada

In Europe:
 Biomet 3i Dental Iberica
 Zimmer Biomet Milling Center
 Calle Islas Baleares, 50
 46988 Paterna
 Valencia, Spain
 34-96-137-95-00



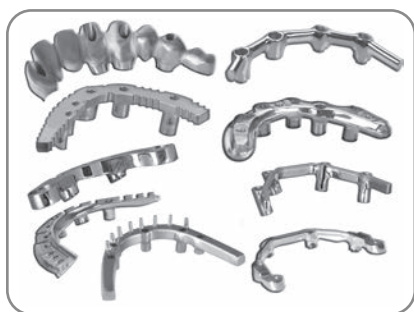
12a. BellaTek Bar Virtual Design

The soft-tissue master cast and the verified wax denture are scanned and transferred into the CAD software. The BellaTek Bar is designed in CAD according to the work order form provided.

12b. BellaTek Copymilled Bar Or Framework Design

The acrylic resin or framework is scanned, transferred into the CAD software and designed to match the acrylic resin or framework.

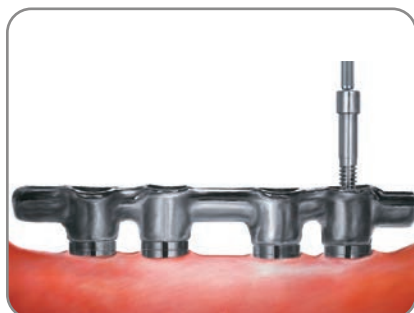
A link for virtual viewing of the BellaTek Bar or Framework Design will be sent via email for a 24-hour preview and design verification (See pages 6-8 for viewing instructions).



13. Following the preview period, the design file is transferred to a milling machine for fabrication. After milling is complete, the BellaTek Bar or Framework is finished and polished. The BellaTek Bar or Framework, any requested components and case materials that are sent to Zimmer Biomet Milling Center are returned to the laboratory.

The laboratory may send the BellaTek Bar or Framework to the restorative dentist for intraoral try-in or set the teeth directly onto the bar. The clinician may do the framework try-in alone or combine the framework try-in with the denture tooth try-in to save one appointment. Once the try-in is completed and the framework fit and aesthetics are verified, the prosthesis may be processed in a conventional manner.

Fourth Restorative Appointment

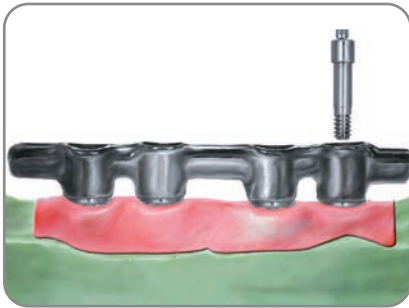


14. Remove the healing abutments or healing caps. Place the BellaTek Bar or Framework onto the implants or abutments. Thread a try-in screw into the posterior-most access opening until finger-tight. Visually verify a passive fit on all interfaces. If interfaces are subgingival, take a radiograph to verify a passive fit. Remove the screw and place it into the opposite posterior-most access opening of the bar or framework and repeat.

NOTE: If a fit discrepancy is detected during bar try-in, one of the following corrective measures may be used.

- a. The BellaTek Bar or Framework may be sectioned and reassembled intraorally. Then the analog(s) in the master cast is (are) repositioned by the laboratory and a new bar or framework is fabricated.
- b. A new impression is made and a new master cast is poured. Then, the verification steps must be repeated and a new bar or framework is fabricated.

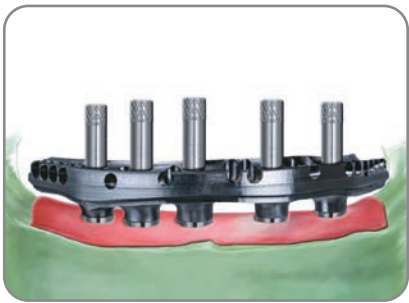
Laboratory



Hader or DOLDER Bar

15a. Hader Or DOLDER Bar Restoration

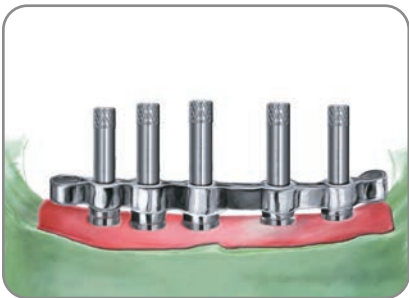
Place the wax denture onto the cast. Place the matrix onto the wax denture. Attach the teeth to the matrix. Attach the bar onto the analogs using try-in or laboratory screws. Transfer the denture teeth from the matrix directly to the bar. Attach the teeth with wax. Finish waxing the overdenture. Place the flask into the boil out tank, separate the flask and remove the wax. Block out all undercuts and access openings with wax. Place the Hader/DOLDER clips or other attachments onto the bar. Process and finish the overdenture prosthesis in a conventional manner. Polishing protectors should be in place to protect the bar interfaces during all polishing procedures. Return the definitive prosthesis to the restorative dentist for delivery.



Fixed-Hybrid Bar

15b. Fixed-Hybrid Restoration

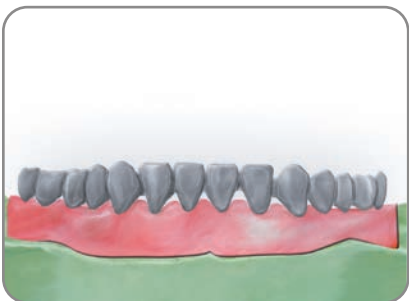
Place the wax denture onto the cast. Make a lab matrix of the denture teeth positions. Remove the denture teeth from the wax denture and place them into the matrix. Attach the framework onto the analogs using try-in or laboratory screws. Place the matrix with denture teeth back onto the cast and attach the denture teeth to the framework. Finish waxing, then flask, boil out and process the fixed hybrid prosthesis with denture acrylic resin. Place the polishing protectors; finish and polish conventionally.



Milled Primary Bar

15c. Milled Primary And Secondary Bar Restoration

Make a lab matrix of the denture teeth positions. Remove the denture teeth from the wax denture and place into the matrix. Attach the primary bar onto the analogs using try-in or laboratory screws. Seal the access openings with wax; block-out undercuts related to the framework. Place the matrix with the denture teeth back onto the cast and wax the denture teeth to the framework. Finish waxing, then flask, boil-out and process the removable overdenture with denture acrylic resin. Place polishing protectors; finish and polish conventionally. Return the framework and prosthesis to the restorative dentist for insertion.



BellaTek Copymilled Framework

15d. BellaTek Copymilled Framework

Place the BellaTek Copymilled Framework onto the cast and screw it into place using try-in screws. Place the cast on the articulator. Opaque and build porcelain on the framework or apply acrylic resin. Place the matrix on the cast periodically as a guide for proper contouring. Stain and glaze the porcelain or polish the acrylic resin.

Restorative Dentist



16a. Hader Or DOLDER Bar Restoration

Remove the healing abutments or caps from the implants or abutments. Place the bar onto the implants or abutments. Thread the abutment or retaining screws into the implants or abutments until finger-tight using the manufacturer's recommended driver. Visually verify a passive fit on all interfaces. If the interfaces are subgingival, take a radiograph to verify a passive fit. Torque the screws to the recommended level with a torque device following the manufacturer's instructions. Place the overdenture onto the bar engaging the attachments. Make any occlusal adjustments as needed. Instruct the patient on insertion and removal of the prosthesis and on proper oral hygiene.



16b. Fixed-Hybrid Restoration

Remove the healing abutments or caps from the implants or abutments. Place the fixed-hybrid prosthesis onto the implants or abutments. Thread the abutment or retaining screws into the implants or abutments until finger-tight using the manufacturer's recommended driver. Visually verify a passive fit on all interfaces. If the interfaces are subgingival, take a radiograph to verify a passive fit. Torque the screws to the recommended level with a torque device following the manufacturer's instructions. Make any occlusal adjustments as needed. Place a protective material over the screw access openings. Seal the access openings with composite resin and polish. Instruct the patient on proper oral hygiene.



16c. Milled Primary And Secondary Bar Restoration

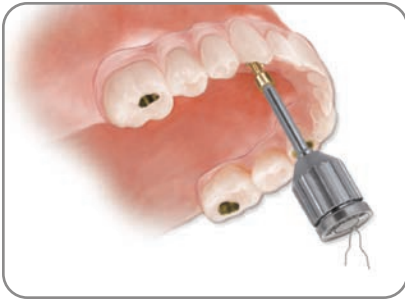
Remove the healing abutments or caps from the implants or abutments. Place the primary bar onto the implants or abutments. Thread the abutment or retaining screws into the implants or abutments until finger-tight using the manufacturer's recommended driver. Visually verify a passive fit on all interfaces. If the interfaces are subgingival, take a radiograph to verify a passive fit. Torque the screws to the recommended level with a torque device following the manufacturer's instructions. Place the secondary prosthesis onto the bar, engaging the attachments. Make any occlusal adjustments as needed. Instruct the patient on insertion and removal of the prosthesis and on proper oral hygiene.



16d. BellaTek Copymilled Framework

Remove the healing abutments or caps from the implants or abutments. Place the Copymilled Bridge onto the implants or abutments. Thread the abutment or retaining screws into the implants or abutments until finger-tight using the manufacturer's recommended driver. Visually verify a passive fit on all interfaces. If the interfaces are subgingival, take a radiograph to verify a passive fit. Torque the screws to the recommended level with a torque device following the manufacturer's instructions. Make any occlusal adjustments as needed. Place a protective material over the screw access openings. Seal the access openings with composite resin and polish. Instruct the patient on proper oral hygiene.

First Restorative Appointment – Abutment-Level Impression



1. Remove the screw access opening restorations, unscrew and remove the provisional prosthesis from the mouth using the Large Hex Driver (PHD02N or PHD03N). Do not remove the Low Profile Abutments. To prevent accidental swallowing, thread floss through the spinner hole on the driver.

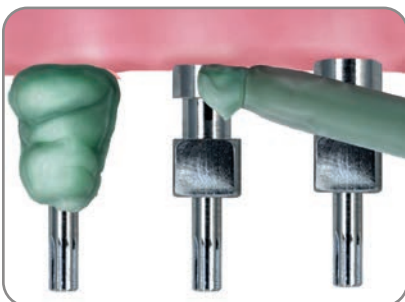


2. Select the proper Low Profile Impression Copings (LPCPIC2) and place them onto the Low Profile Abutments. Tighten the screw using the Large Hex Driver (PHD02N or PHD03N) until finger-tight.

Radiograph the interface to verify complete seating of the coping on the abutment.



3. A custom or stock open impression tray is used for the Pick-Up Impression Technique. Make small holes in the impression tray to allow access to the impression coping screw head.



4. A medium or heavy body material is recommended for the impression material in the impression tray. Use light-body impression material and syringe around the entire Low Profile Pick-Up Impression Coping (LPCPIC2).



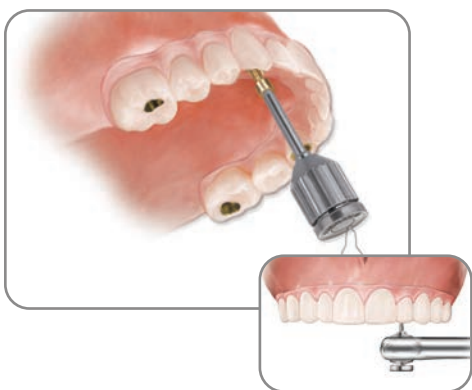
7. Load the impression tray and seat it in the mouth. Remove impression material from the top of the screw access hole before it sets. Allow the impression material to set per the manufacturer's instruction.



8. After the impression material has set, unscrew and remove the screws from the mouth using a the Large Hex Driver (PHD02N or PHD03N). Remove the impression from the mouth.



9. Verify that the impression material has completely adapted around each impression coping and that there is no impression material on the coping's restorative platform. If impression material is visible on the coping's restorative platform, this means the impression coping was not completely seated; a new impression will need to be made.



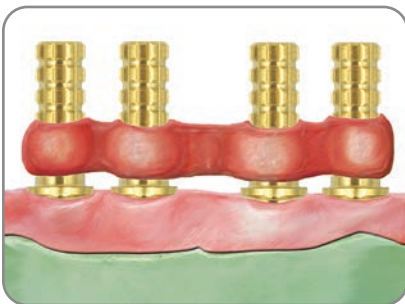
10. Place the provisional prosthesis back into the mouth and attach it by using the Gold-Tite® or Titanium Retaining Screws (LPCGSH or LPCTSH). Torque the screws to 10 Ncm using the Large Hex Driver Tip (RASH3N or RASH8N) and the Low Torque Indicating Ratchet Wrench (L-TIRW). Cover the screw heads with cotton or another suitable material. Restore the access openings with composite resin. Re-evaluate and adjust the occlusion as necessary. Send the impression to the laboratory for the fabrication of a master cast.

Laboratory

11. Fabricate a soft-tissue master cast using new, unused Laboratory Analogs (LPCLA). To fabricate the master cast, place the Laboratory Analogs for Low Profile Abutments (LPCLA) onto the impression copings (LPCPIC2). There will not be hex engagement as the impression copings are not hexed. Hold the analog in place while tightening the screws with the Large Hex Driver (PHD02N or PHD03N) until finger-tight. Verify that the impression copings are completely seated on the analogs.

The use of old, damaged or loose fitting analogs can interfere with the scanning and design process and may prevent proper seating of the bar or framework. Cases received with damaged or insufficiently anchored analogs will be returned to the laboratory. If the clinician is sending the impression to a commercial laboratory to pour the impression, do not attach the analog. The dental laboratory will place the analogs.

The soft-tissue material on the master cast must be applied approximately 2.0 mm down from the analog restorative interface. It must also be easily removable for the scanning and design process to ensure an accurate fit.

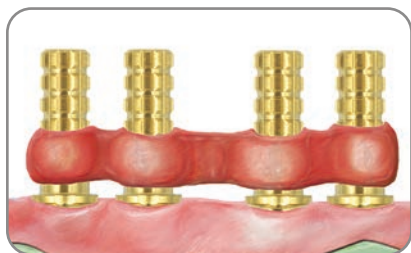


12. Place the Non-Hexed Low Profile Temporary Cylinders (LPCTC2) onto the abutment analogs and finger-tighten into place with waxing screws (LPCWS) using the Large Hex Driver (PHD02N or PHD03N). Fabricate a rigid verification index by luting the cylinders together using a light cure composite resin or autopolymerizing acrylic resin. Also, fabricate a record base with a wax occlusion rim. Ship the verification index intact to the clinician for try-in along with the wax occlusion rim for interocclusal records.

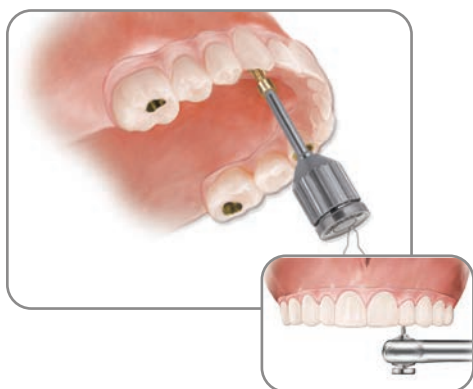
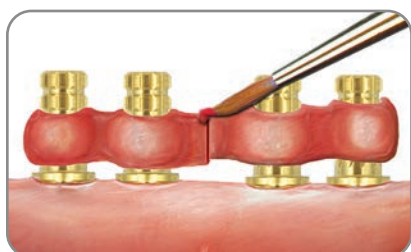
Second Restorative Appointment – Verification Index Try-In



13. Remove the screw access opening restorations, unscrew and remove the provisional prosthesis from the mouth using the Large Hex Driver (PHD02N or PHD03N). Do not remove the Low Profile Abutments. In order to prevent accidental swallowing, thread floss through the spinner hole on the driver.



14. Place the wax occlusion rim into the mouth and make the interocclusal records. Place the verification index onto the Low Profile Abutments intraorally. Finger-tighten a Low Profile Waxing Screw (LPCWS) using the Large Hex Driver (PHD02N or PHD03N) into the posterior-most cylinder of the verification index. Visually, verify a passive fit on all interfaces. Remove the waxing screw and place it into the opposite posterior-most cylinder and repeat. If a fit discrepancy is found, section the index and reassemble it intraorally by luting it with resin material. Remove the index.



15. Place the provisional prosthesis back into the mouth and attach it by using the Gold-Tite or Titanium Retaining Screws (LPCGSH or LPCTSH). Torque the screws to 10 Ncm using the Large Hex Driver Tip (RASH3N or RASH8N) and the Low Torque Indicating Ratchet Wrench (L-TIRW). Cover the screw heads with cotton or another suitable material. Restore the access openings with composite resin. Re-evaluate and adjust the occlusion as necessary.

Laboratory



16. Verify that the master cast is accurate using the verification index. If a fit discrepancy is found, remove the inaccurately positioned analogs and replace them in the cast using the corrected verification index. Articulate the casts using the interocclusal record. Set the overdenture teeth on the record base and return the denture wax-up for try-in. If the analogs are not accurate in the master cast, remove the analogs from the cast, re-attach them to the verification index and re-seat the index onto the accurate analogs. Inject dental stone around the analog(s) and allow it to set. The cast is now considered to be accurate. Set the overdenture teeth on the record base and return it for the wax try-in.

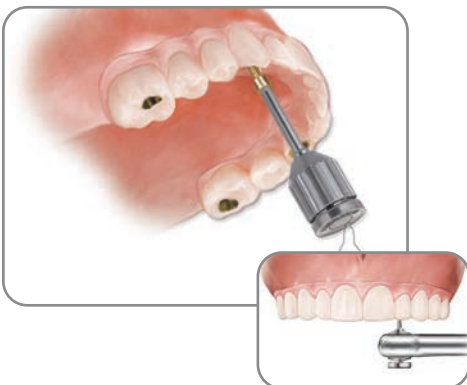
Third Restorative Appointment – Verification Index Try-In



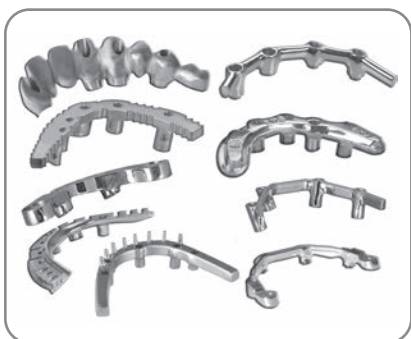
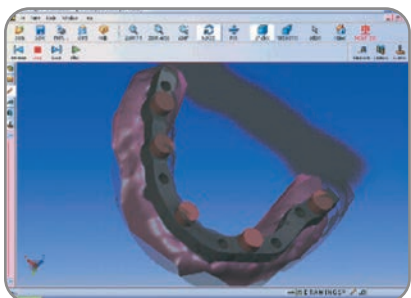
17. Remove the screw access opening restorations, unscrew and remove the provisional prosthesis from the mouth using the Large Hex Driver (PHD02N or PHD03N). Do not remove the Low Profile Abutments. In order to prevent accidental swallowing, thread floss through the spinner hole on the driver.



18. Place the wax denture/record base intraorally. Verify occlusion, aesthetics and phonetics. Make any necessary adjustments. If major adjustments are necessary, make a new interocclusal record and return the denture wax-up to the laboratory for remounting of the casts, a new set-up and a second wax try-in.



19. Place the provisional prosthesis back into the mouth and attach it by using the Gold-Tite or Titanium Retaining Screws (LPCGSH or LPCTSH). Torque the screws to 10 Ncm using the Large Hex Driver Tip (RASH3N or RASH8N) and the Low Torque Indicating Ratchet Wrench (L-TIRW). Cover the screw heads with cotton or another suitable material. Restore the access openings with composite resin. Re-evaluate and adjust the occlusion as necessary.



Laboratory

20. Place the verified denture wax-up on the cast and make a silicone or plaster matrix of the tooth positions. Do not remove the teeth from the denture wax-up. Do not ship the matrix to the Zimmer Biomet Milling Center.
21. Log on to your BellaTek Portal account, complete the BellaTek Bar Work Order Form and send it to Zimmer Biomet Dental.

22. BellaTek Virtual Design

The soft-tissue master cast and the verified denture wax-up are scanned and transferred into the CAD software. The BellaTek Bar is designed in CAD according to the BellaTek Work Order Form.

23. Once the design has been approved, the design file is transferred to a milling machine for fabrication and milling. After milling is complete, the BellaTek Bar is finished and polished per the work order form. The BellaTek Bar, any requested components and case materials will be returned to the laboratory.

The laboratory may send the BellaTek Bar or Framework to the restorative dentist for intraoral try-in or to set the teeth directly onto the bar. The clinician may do the framework try-in alone or combine the framework try-in with the denture teeth try-in to save one appointment. Once the try-in is completed and the framework fit and aesthetics are verified, the prosthesis may be processed in a conventional manner.

Fourth Restorative Appointment (Optional) Framework And Denture Teeth Try-In



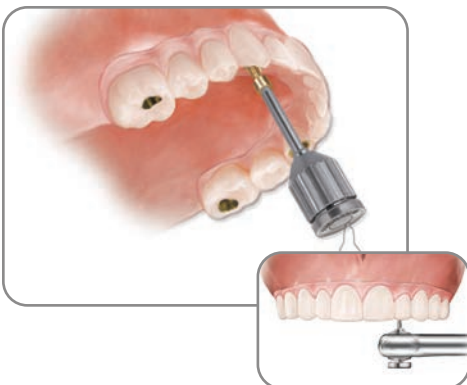
24. Remove the screw access opening restorations, unscrew and remove the provisional prosthesis from the mouth using the Large Hex Driver (PHD02N or PHD03N). Do not remove the Low Profile Abutments. In order to prevent accidental swallowing, thread floss through the spinner hole on the driver.



25. Fit the BellaTek Bar onto the Low Profile Abutments intraorally. Thread a Low Profile Waxing Screw (LPCWS) using the Large Hex Driver (PHD02N or PHD03N) into the posterior-most access opening until finger-tight. Visually verify a passive fit on all interfaces. There should be no space between the BellaTek Bar and the abutments. Remove the screw and place it into the opposite posterior-most access opening of the BellaTek Bar and repeat.

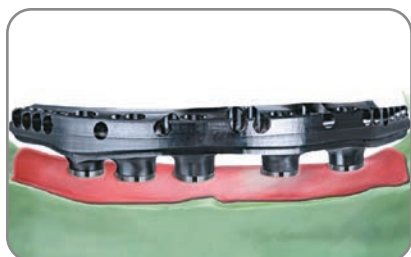
NOTE: If a fit discrepancy is detected during bar try-in, one of the following corrective measures may be used.

- a. The BellaTek Bar may be sectioned and reassembled in the patient replica. Then the analog(s) in the master cast will be repositioned by the laboratory and a new BellaTek Bar will be fabricated.
- b. A new impression can be made and a new master cast can be poured. Then, the verification steps should be repeated and a new BellaTek Bar will be fabricated.



26. Place the provisional prosthesis back into the mouth and attach it by using the Gold-Tite or Titanium Retaining Screws (LPCGSH or LPCTSH). Torque the screws to 10 Ncm using the Large Hex Driver Tip (RASH3N or RASH8N) and the Low Torque Indicating Ratchet Wrench (L-TIRW). Cover the screw heads with cotton or another suitable material. Restore the access openings with composite resin. Re-evaluate and adjust the occlusion as necessary.

Laboratory – Fixed Hybrid Restoration



27. Place the denture wax-up and matrix on the cast. Remove the overdenture teeth and reset the teeth into the matrix. Attach the BellaTek Bar onto the analogs with the use of the Low Profile Waxing Screws (LPCWS) and finger-tighten using the Large Hex Driver (PHD02N or PHD03N). Place the matrix with the overdenture teeth onto the cast and attach the overdenture teeth to the BellaTek Bar. Finish waxing the fixed hybrid restoration. Flask the denture wax-up. Boil out the denture flask. Separate the flask and remove all wax remnants. Pack, finish and polish.

Fifth Restorative Appointment – Delivery Of Definitive Prosthesis



28. Remove the screw access opening restorations, unscrew and remove the provisional prosthesis from the mouth using the Large Hex Driver (PHD02N or PHD03N). Do not remove the Low Profile Abutments. In order to prevent accidental swallowing, thread floss through the spinner hole on the driver.



29. Place the fixed-hybrid prosthesis onto the Low Profile Abutments intraorally and thread the Gold-Tite or Titanium Retaining Screws (LPCGSH or LPCTSH) into the abutments using the Large Hex Driver (PHD02N or PHD03N) until finger-tight. Verify a passive fit on all interfaces. Adjust the denture base as needed. Adjust the occlusion regarding centric, lateral and balancing contacts. Remove the prosthesis, finish and polish only if the prosthesis was adjusted.

* The use of new Gold-Tite Retaining Screws (LPCGSH) is recommended when placing the final prosthesis.

30. Torque the Gold-Tite Screws (LPCGSH) to 10 Ncm using the Driver Tip (RASH3N or RASH8N) and the Low Torque Indicating Ratchet Wrench (L-TIRW). Place protective material over the screw heads inside the access openings. Restore the access openings with composite resin and polish.

Want More Options For Fixed & Removable Restorations? Try BellaTek Bars & Frameworks!



Contact us at 1-800-342-5454 or visit
zimmerbiometdental.com

Zimmer Biomet Dental
Global Headquarters
4555 Riverside Drive
Palm Beach Gardens, FL 33410
Tel: +561-776-6700
Fax: +561-776-1272

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