BellaTek® Express and Flex Abutments Laboratory Manual

3Shape® Design and Screw-Retained Guidelines

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Introduction

Purpose of this Manual

This Laboratory Manual is created for dental technicians and dentists working with BellaTek Express and Flex Abutments to design cement and screw-retained restorations in 3Shape. For further instructions on how to place the final restoration with BellaTek Express and Flex Abutments please refer to the BellaTek Express and Flex Abutments Clinician Procedure Guidelines.

The content of this manual is divided in two (2) sections:

1. 3Shape Software Design Guidelines
2. Laboratory Screw-Retained Guidelines

3Shape Step by Step BellaTek Express and Flex Library Workflow
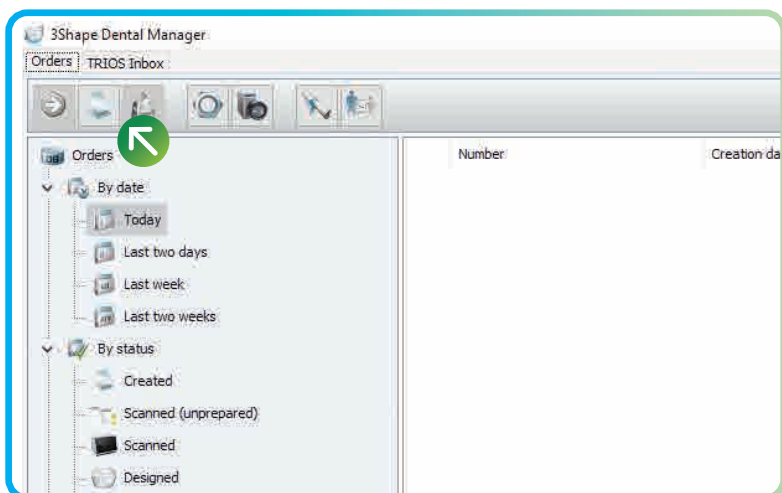
**1.** After opening 3Shape Dental Manager click on the order icon to create a new order.

2. Enter Order Information:
   a. Enter Order number
   b. Select tooth number(s)
   c. Click on the "Abutment" icon, and then click on "Screw retained crown" button
   d. Select the implant system (Certain® or TSV®). Select "Express / Flex" library in the "System" field, then select the applicable kit(s)
   e. Select "Model" if 3D model is desired
   f. From "Scan Settings", under "Object type" select "digital impression" to import STL file(s) or "Model" to scan stone mode
   g. Click "Ok" to create order

NOTE: There are eight "Kits" with four different heights for each implant platform diameter in "hexed" for single-unit and non-hexed for multi-units (4.75 for Express and Flex, 7, 9 and 12 mm for Flex when cut at different heights).

The non-hexed abutments for multi-unit restorations contain "non-hexed" description on their kits.

Kit Nomenclature Examples		
Example Kit	**IE5.0 x 4.75 mm (H)**	**TF5.0 x 7.0 mm (H)**
Implant Connection	I: Certain	T: TSV
Abutment Type	E: BellaTek Express (or Flex Abutment cut at 4.75 mm)	F: BellaTek Flex
Abutment Height	4.75 mm	7.0 mm
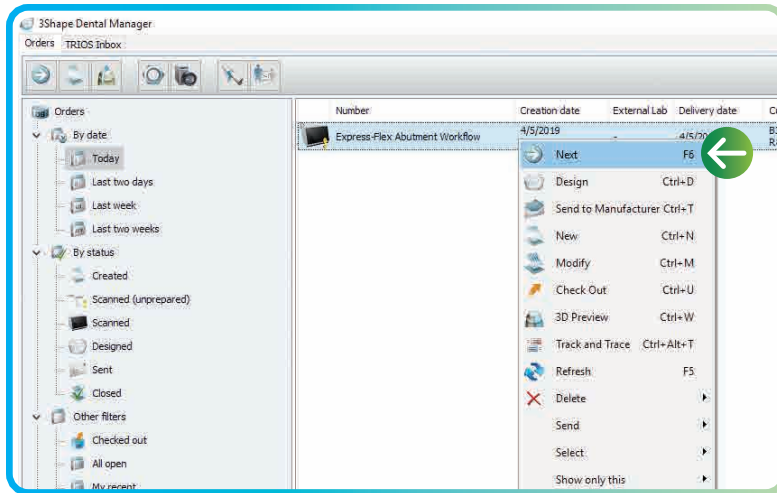
3. The screen to select, import or scan the model will appear after creating the order.

Select one of the two following options:
1. Scanning: Right-click on the created order file, then choose "Scan" to scan the model.

2. Importing STL scan file: Right click on the created order file, then choose "Import Scan" to load a scanned file (in this case a scan file has been previously loaded).
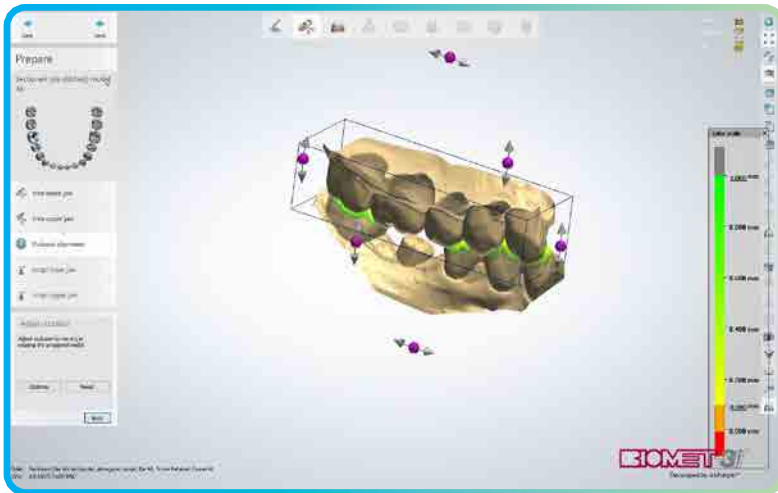
Select scan file then click "Open".

Right-click on the case file, then click "Next" to start designing.

4. The "Design" screen will open, trim model if needed, then click "Next" to continue.
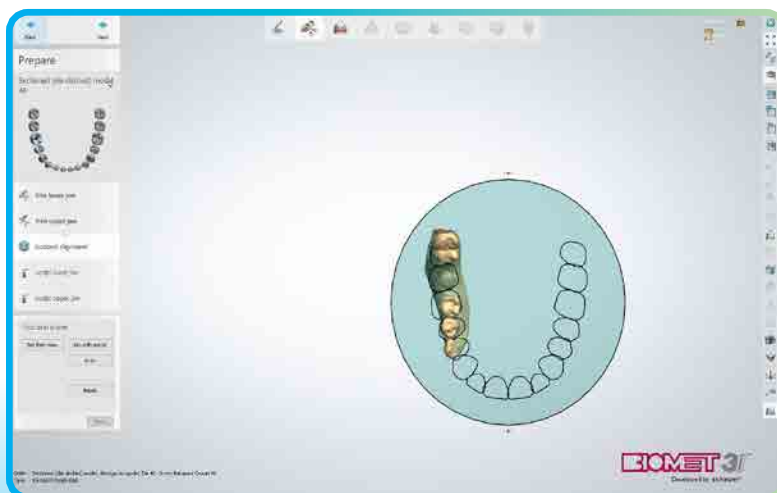
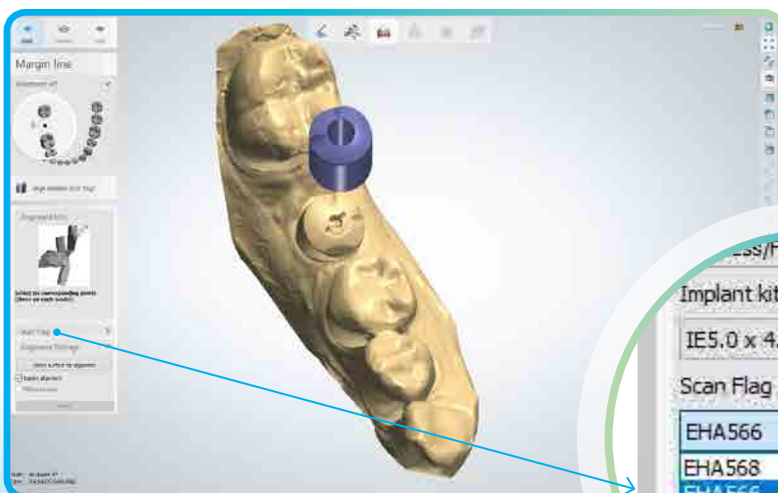**5.** Adjust the occlusal plane as needed and click "Next"

6. If an antagonist has been selected in the order form screen, adjust model and antagonist bite occlusal alignment and then click "Next" to continue.

If no antagonist is available, proceed to the next step.

7. Sculpt upper and lower jaws as needed and click "Next" to continue.

8. For "BellaTek Encode®" only: under "scan flag", select the appropriate scan flag on the drop-down menu on the bottom left corner.

Skip this step for Lab Scan-body workflow, as there is no need to select from the drop-down menu.

Proceed to the next step.

Implant kit

IE5.0 x 4.75mm(H)

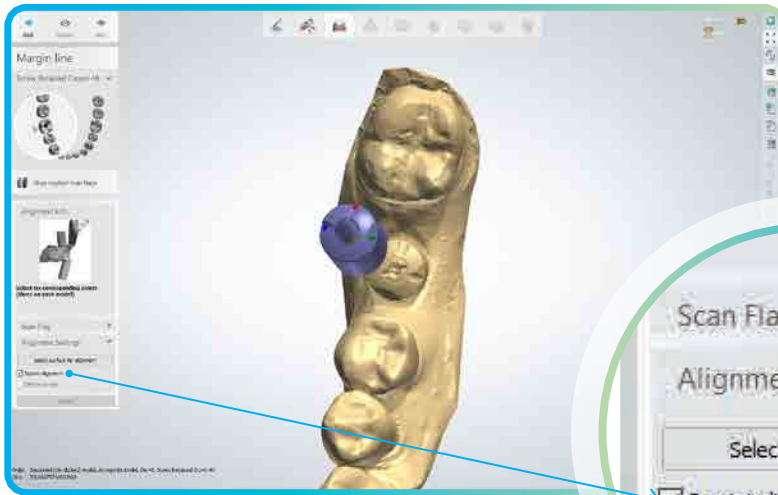Scan Flag

EHA566
EHA568
EHA566
EHA564
EHA563
EHA558
EHA556

9. "Under "Alignment settings", "select 3-point alignment" and then align insertion by clicking on the occlusal marks of the BellaTek Encode Healing Abutment/scan-body. Then click on the occlusal markings printed on the model. After verifying alignment, click "Next".

Scan Flag

Alignment Settings

Select surface for alignment

☑ 3-point alignment

☐ Difference map

Reset
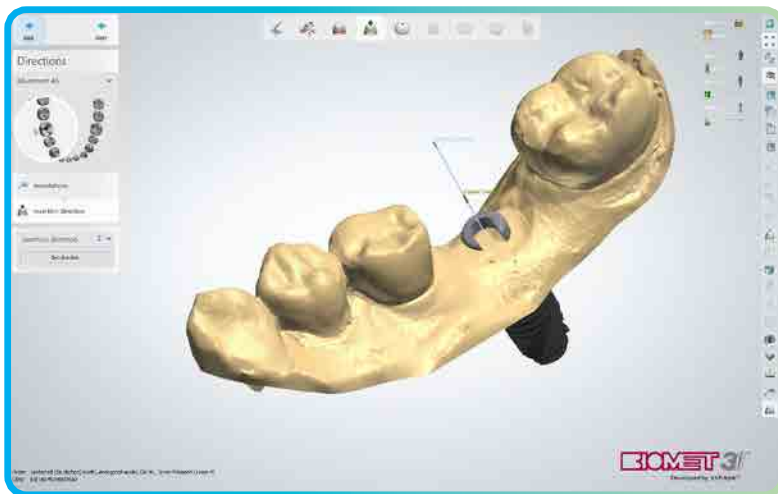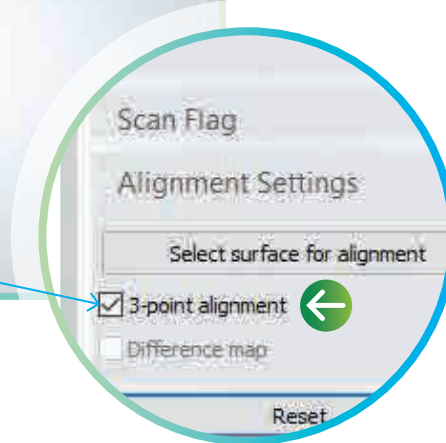
10. On the following screen, confirm "Insertion direction" and then click "Next".
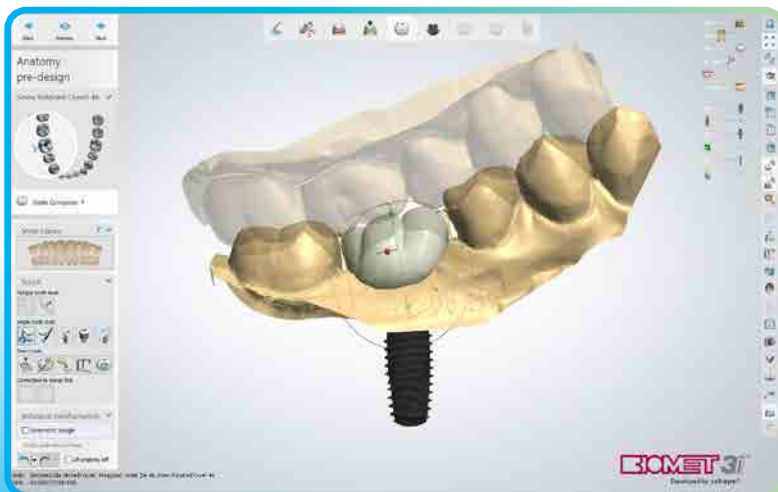
11. From "Smile Library" select desired tooth shape if needed, then adjust crown using tools from "Sculpt".
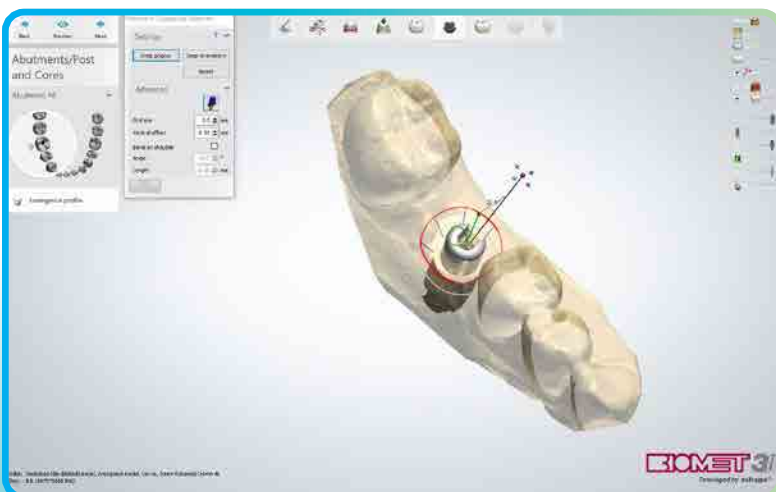
Click "Next" to continue.

12. Use sliders in the upper-right corner of the modeling window for better visualization:

Move the "Active item" and "Anatomy pre-designed" icons sideways, as show on the following image, to fade crown and abutment.
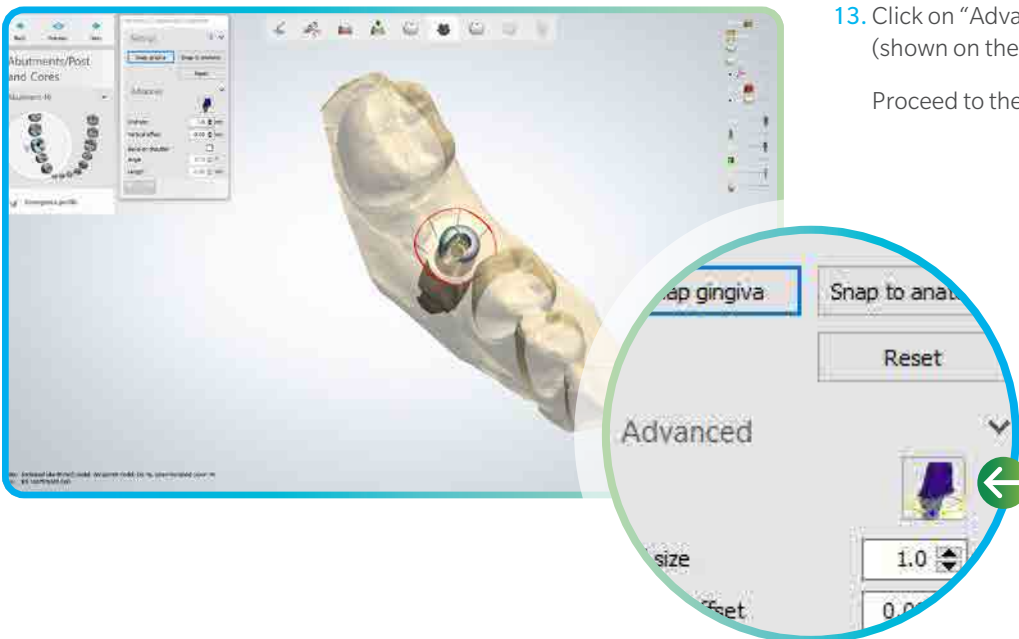
13. Click on "Advanced" and then on the abutment icon. (shown on the image below)

Proceed to the next step.

14. Click and drag the blue ball to align the screw channel opening to the lingual aspect of the model. The anti-rotation notch should be aligned to the buccal aspect of the model.

Uncheck the abutment icon, if desired, snap gingiva to the crown design.

Click next to continue.

NOTE: The Certain connection 3.4 mm platform diameter hexed abutment(s) can be rotated in 12 possible positions. All other Certain and TSV hexed abutments can be rotated in six positions.

The non-hex abutment(s) can be freely rotated.
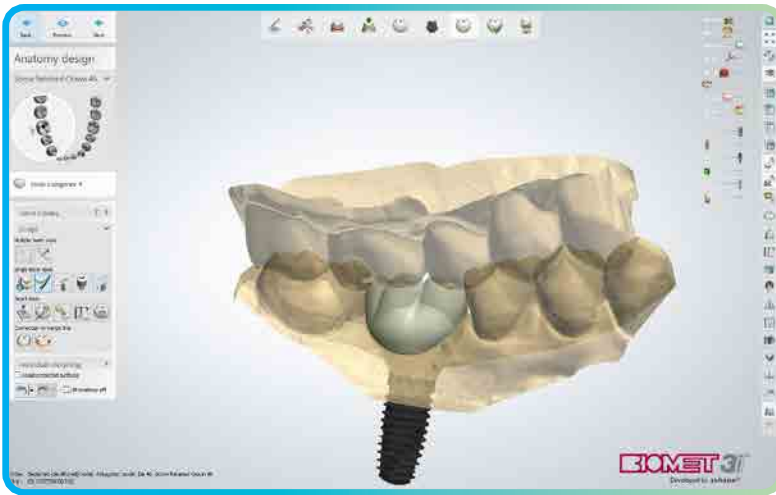
15. Use sliders in the upper-right corner of the modeling window for better visualization: Move the "Active item" and "Anatomy pre-designed" icons sideways, as show on the following image, to show crown and abutment.

Use the Sculpt tool kit to adjust crown design, occlusal clearance, and then click next to continue.
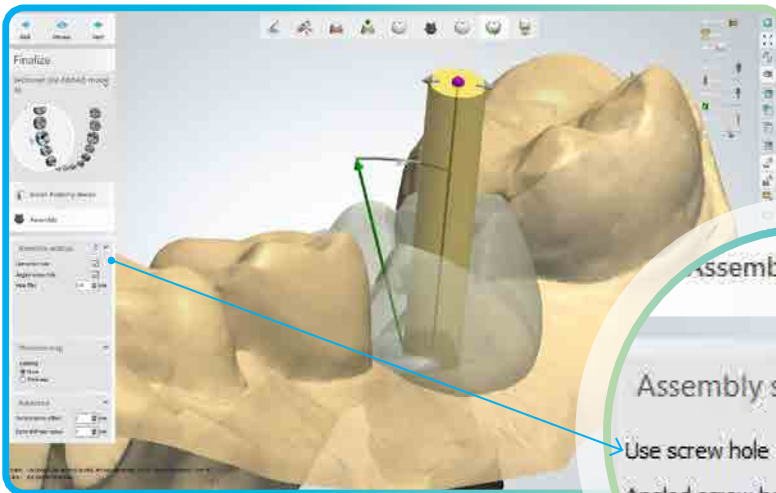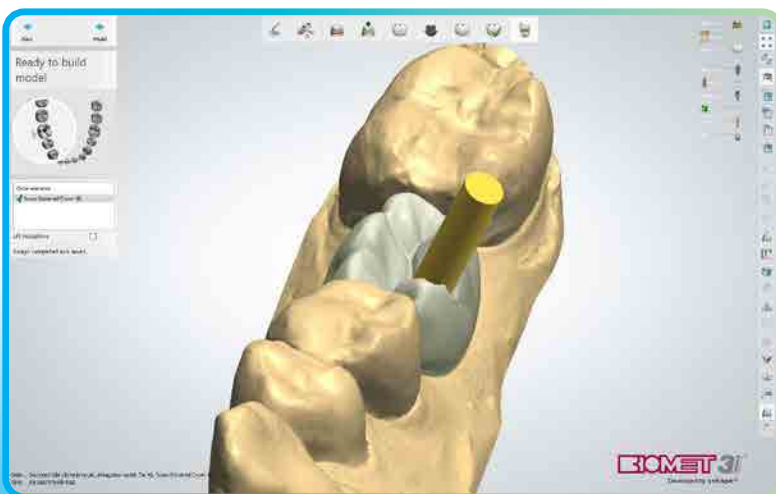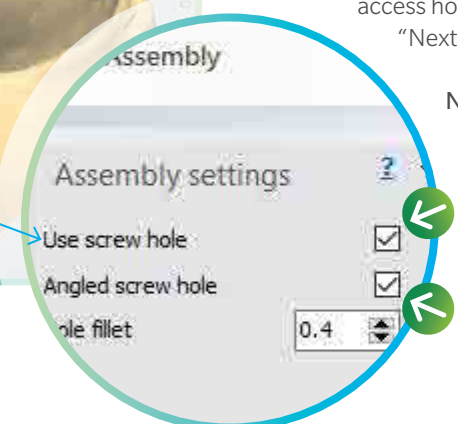

16. For a screw-retained restoration, select "Use screw hole".

For an angled screw access channel, select "Angled screw hole".

Drag the mouse on the purple ball to tilt the screw access hole to the desired angulation. Then click "Next".

NOTE: Maximum angled screw channel is 20° for Certain and 25° for TSV.

17. Click "Model" to continue with model design (only available if model was selected at order creation) or "Closed" if design is completed.

The superstructure or hybrid crown design is complete. The next steps are for designing the model. If model was not selected please see final instructions at the end of the final step in this manual.
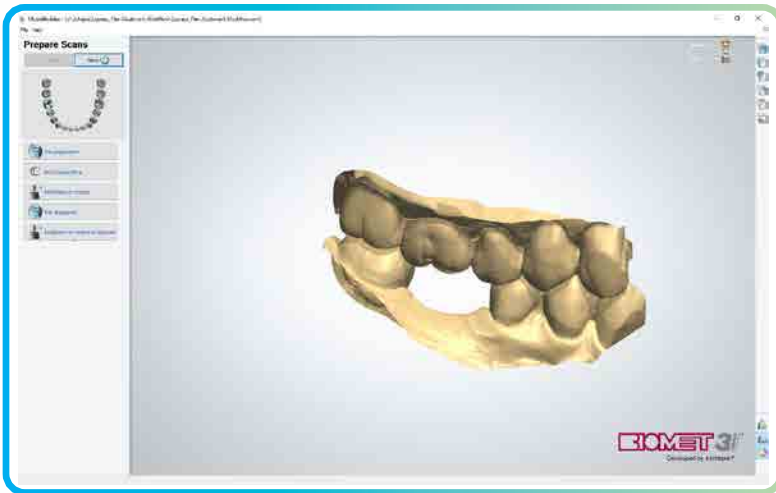
18. Once model builder opens the model will appear, adjust, trim or cut model if needed. Click "Next" to continue.

19. The model will appear along with the analog female model. Under "Info" remove neighboring tooth if needed, and then click "Ok" to continue.
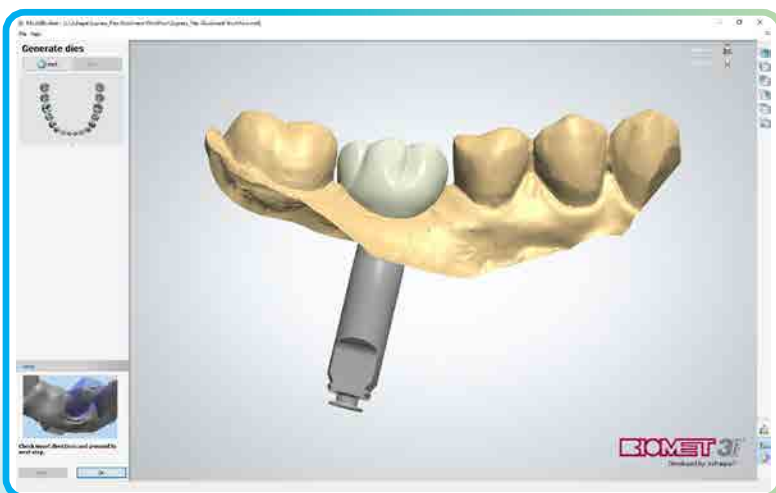
20. Click "Ok" to continue.

21. Under "Text Tag Settings" modify model tag if desired in the "ID Text" field. Select articulator under "Articulator Settings" and adjust it by dragging red dots. Click "Ok" to continue.


22. The model will appear, click "Next" to hollow the model.

23. Once models are completed click "Close" to finish model design.

Send the superstructure or hybrid crown design to a Zimmer Biomet Dental validated milling center for milling. Visit "http://www.zimmerbiometdental.com/vmc" www.zimmerbiometdental.com/vmc for a list of validated milling centers.

# Laboratory Screw-Retained Guidelines
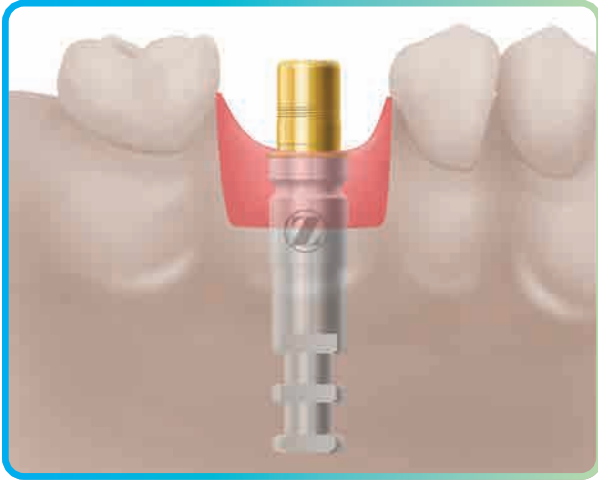
1. Select the proper diameter Hexed or Non-Hexed BellaTek Express or Flex Abutment by matching it to the implant platform diameter.
   - For BellaTek Flex, use a Laboratory Abutment Holder for Certain connection [ILTAH57] or Abutment Holder (requires Implant Analog to attach abutment) [ABTH] to cut the abutment on the machined groove, for one of the selected heights (4.75, 7, or 9 mm) if desired.
   - For hexed BellaTek Express or Flex Abutment, place it into the implant analog, line up the hex and press firmly.
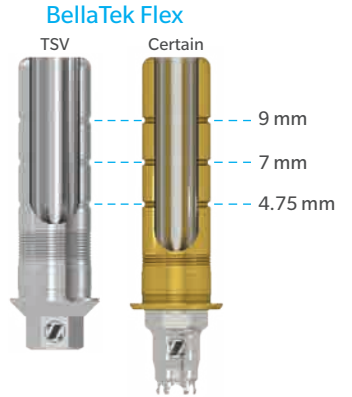
   Certain Connection: there will be an audible click when the abutment is seated onto the implant.

   NOTE: If needed, make adjustments to the top the abutment to ensure that the restoration is fully seated.

BellaTek Flex

TSV   Certain

- - - 9 mm
- - - 7 mm
- - - 4.75 mm
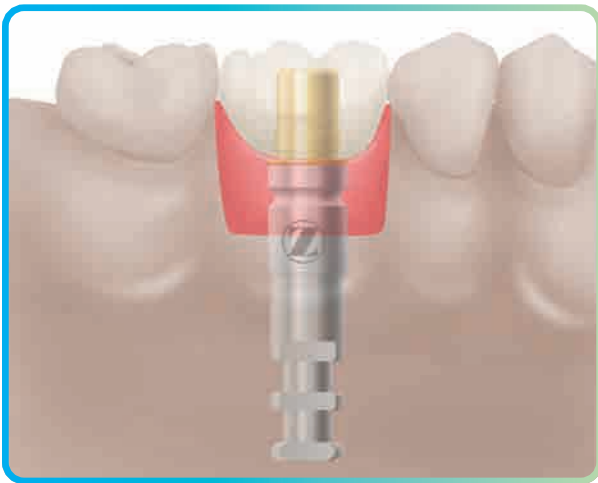
2. Place protective material into the screw access opening. Cement the superstructure or hybrid crown to the abutment. Remove any excess cement.

3. **Certain Internal Connection:** On the model, thread a Hexed Screw into the laboratory analog and finger-tighten using the .048" Large Hex Driver [PHD02N or PHD03N] or an Angled Screw Channel Driver Tip [ASCDT24 or ASCDT30] connected to the L-TIRW Standard ISO 1797 Adapter [C9980].

   Or

   Tapered Screw-Vent®: On the model, thread a TSV ASC Screw [MHLASC] into the laboratory analog and finger tighten using the Angled Screw Channel Drivers [TASCD24 or TASCD30] or Angled Screw Channel Driver Tips [TASCT24 or TASCT30] connected to the L-TIRW Standard ISO 1797 Adapter [C9980].

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