



The  
**No. 1**  
in MIMI®-Flapless  
Gentle & Reliable Implantation Method

# CHAMPIONS® Multi-Unit

Step-by-Step Instruction Manual for the Multi-Unit Abutment



# 1. OVERVIEW OF MODULES

## Abutment Multi-Unit 0°



Gingival height 1 mm  
ø 5.2 mm | Height 3.9 mm  
Item # 3108



Gingival height 3 mm  
ø 5.2 mm | Height 5.9 mm  
Item # 31083



Gingival height 5 mm  
ø 5.2 mm | Height 7.9 mm  
Item # 31085

## Abutment Multi-Unit 17°



Gingival height 1 mm  
ø 5.2 mm | Height 4.0 mm  
Item # 3109



Gingival height 3 mm  
ø 5.2 mm | Height 6.0 mm  
Item # 31093



Gingival height 5 mm  
ø 5.2 mm | Height 8.0 mm  
Item # 31095

## Abutment Multi-Unit 30°



Gingival height 1 mm  
ø 5.2 mm | Height 3.4 mm  
Item # 3110



Gingival height 3 mm  
ø 5.2 mm | Height 5.4 mm  
Item # 31103



Gingival height 5 mm  
ø 5.2 mm | Height 7.4 mm  
Item # 31105



Multi-Unit Cap titanium  
ø 5.2 mm | Height 12.9 mm  
Item # 3111



Multi-Unit Cap calcinable  
ø 5.2 mm | Height 12.9 mm  
Item # 3112



Multi-Unit LOC®  
ø 5.2 mm | Height 5.0 mm  
Item # 3113



Protection Cap Multi-Unit  
ø 5.2 mm | Height 5.0 mm  
Item # 31106



Screw Multi-Unit for Cap/  
LOC®/Protection Cap  
Item # 3085M



Multi-Unit Positioning Aid  
Item # 31140



Insertion Aid Multi-Unit  
Item # 3062



Multi-Unit Laboratory Analog  
Item # 3114



Bonding Aid  
ø 2.1 mm | Height 20 mm  
Item # 7000



Impression Post Multi-Unit  
ø 5.2 mm | Height 8.0 mm  
Item # 31222



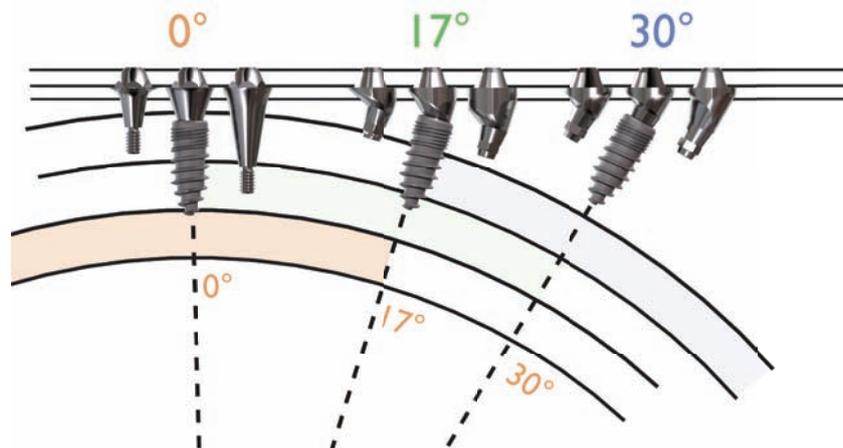
Screw Impression Post Multi-Unit  
ø 5.2 mm | Height 8.0 mm  
Item # 30852



## 2. APPLICATION FIELD

Multi-Units are indicated for screwable implant-supported prosthodontic restorations (no cemented superstructures "All-on-4" or "All-on-6").

Because of missing rotation protection, Multi-Units are not indicated for the restoration of single dental gaps.



In order to fit implant-supported restorations even in case of big insertion divergences, Multi-Unit-Abutments are available in 3 angles: straight (0°) and angled: 17° and 30°.

### Advantages of screwed prosthodontic restorations:

1. At the beginning of Implantology, the superstructures had been screwed because the implant-Abutment connection was not tight, which caused bacterial penetration into the implant body. You had to unscrew and clean the prosthodontic restoration regularly to avoid a peri-implantitis.

After the conical Abutment connections had been introduced, the connection was resistant to bacteria, and the prosthodontic restoration could be cemented. If you don't remove all cement residues when gluing, there will be a risk of iatrogenic cementitis. By screwing the superstructure, you can avoid cementitis.

2. If a removable prosthesis is fixed with Locators, the insertion divergence of implants may not exceed 15° because the Locators cannot compensate a bigger angle.

In comparison: for a ball-head supported removable prosthesis, an insertion divergence can be adjusted up to 40°.

If Locators are placed on Multi-Units with a 30° angle in the maxilla, angles up to 45° can be compensated.

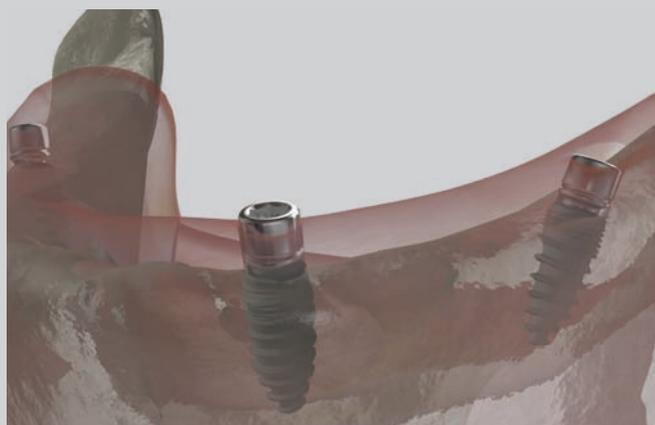
### Multi-Units are not resistant to rotation

The Multi-Unit Abutment system has been developed to fix an implant-supported prosthodontic restoration on at least 2 missing teeth (implants). The Abutments Multi-Unit 0° are not rotation-proof, but the Abutments Multi-Unit 17° and 30° are resistant to rotation. These details concern the implant-Abutment connection. The Multi-Unit secondary parts (Items # 3111 and 3112) are not rotation-proof. If the secondary part were resistant to rotation, a prosthodontic restoration could not be passively fitted because there could be deviations during transfer from the patient's mouth to the model. A little bit of space is necessary so that the laboratory can compensate eventual divergences.

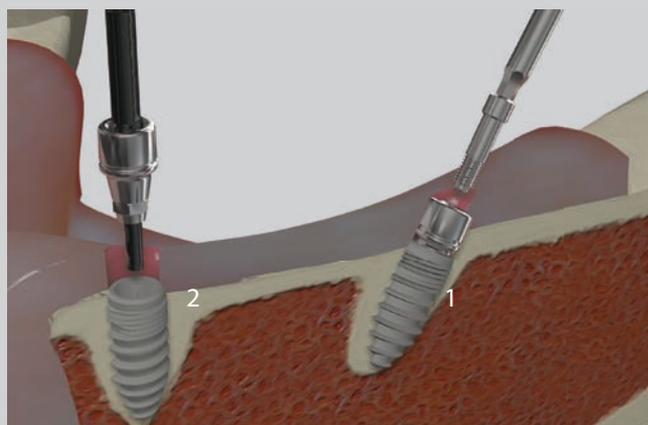
For a single-tooth-supported prosthodontic restoration, it is recommended that you should use another rotation-proof Abutment system (e.g. ICA) instead of the Multi-Unit system.



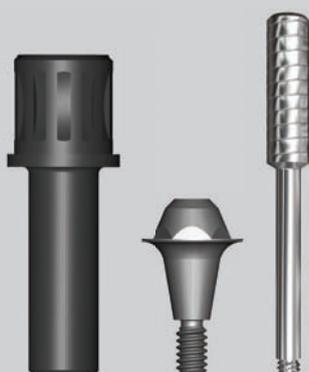
### 3. PREPARATION & IMPRESSION



**1** Initial situation: 4 Champions® (R)Evolutions with the assembled Shuttles



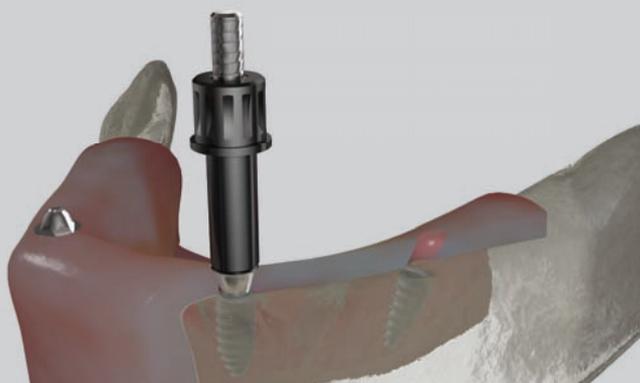
**2** In order to remove the Shuttle, first unscrew the Screw (1). Then, remove the Shuttle with the Shuttle-Extractor (2).



**3** In order to fit the Abutments Multi-Unit 0°, use a Positioning Aid, which consists of the following pieces:  
Insertion Aid Multi-Unit (Item # 3062),  
Abutment Multi-Unit 0° GH1 (Item # 3108), GH3 (Item # 31083), or GH5 (Item # 31085), and the Multi-Unit Positioning Aid (Item # 31140).



**4** Assemble in the following way:  
Insert the Multi-Unit Positioning Aid (Item # 31140) through the Insertion Aid Multi-Unit (Item # 3062) and screw it with an Abutment Multi-Unit 0° (Items # 3108, 31083, or 31085), which facilitates the positioning. Screw it at 30 Ncm.



**5** Place Positioning Aid in the implants inserted at 0°.



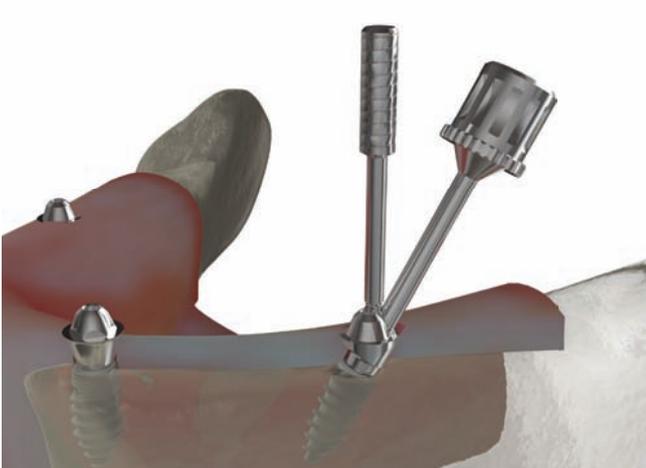
6

The Positioning Aid for angled Abutments consists of the following pieces: Multi-Unit Positioning Aid (Item # 31140), Abutment Multi-Unit 17° or 30° with the corresponding gingival height, the Screw (Item # 3085) as well as the Screwdriver (Item # 3086 or 30861).



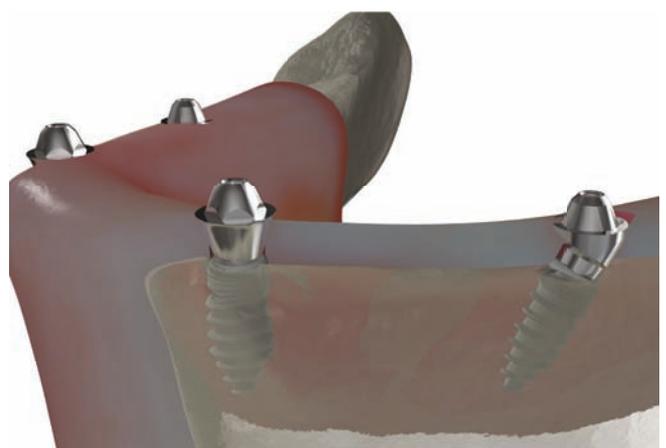
7

Assembled Positioning Aid for implants that are placed at an angle



8

With the Multi-Unit Positioning Aid (Item # 31140), the angled Multi-Units are positioned in the implant. They are fixed with the Screw at 30 Ncm.

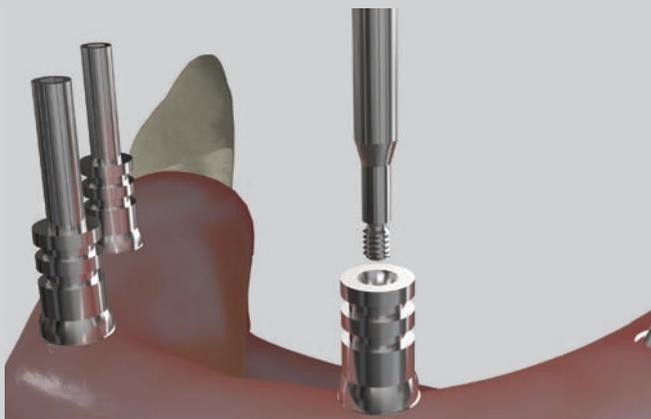


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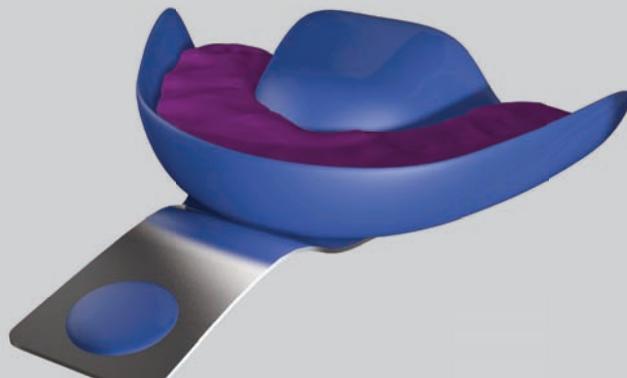
Assembled Abutments Multi-Unit



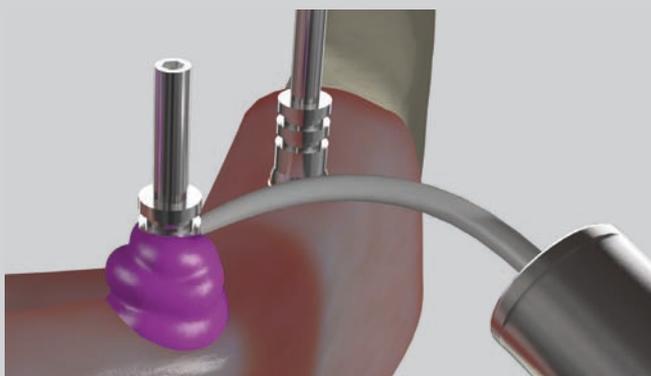
## 4. IMPRESSION



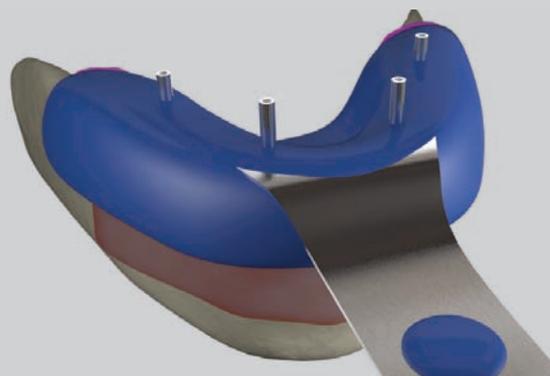
- 10** Take an impression by means of an open impression tray. Manually screw the Impressions Posts Multi-Unit (Item # 31222) with the Screw Impression Post Multi-Unit (Item # 30852).



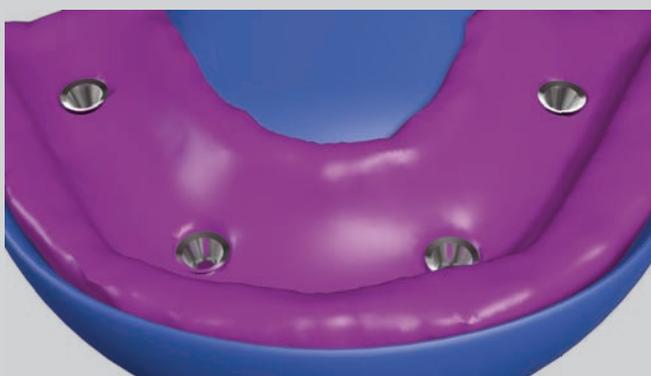
- 11** Prepare the impression tray for open bite registration or use an individual impression tray.



- 12** Mold the Multi-Units with a casting compound ...



- 13** ... and take an impression with the impression tray. The Impression Posts Multi-Unit (Item # 31222) remain in the impression. Unscrew the Screws (Item # 31223). As soon as the compound is hard, unscrew the Impression Post screws.



- 14** After removing the impression tray, leave the Impression Posts WIN!® PEEK (Item # 3122) in the impression.



- 15** Finally, fit the Protection Caps Multi-Unit (Item # 31106). Screw them with a Screw Multi-Unit for Cap/ LOC®/Protection Cap (Item # 3085M) at 20 Ncm.

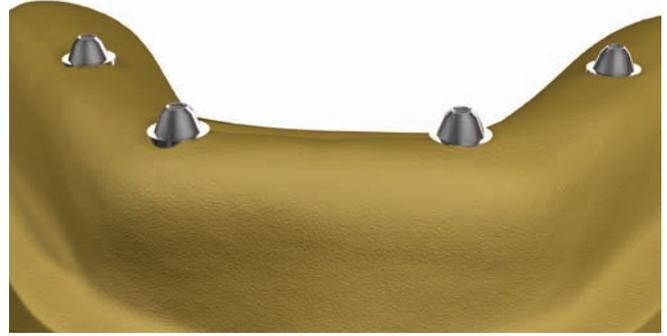


## 5. CASE 1: FABRICATING A FULL PROSTHESIS



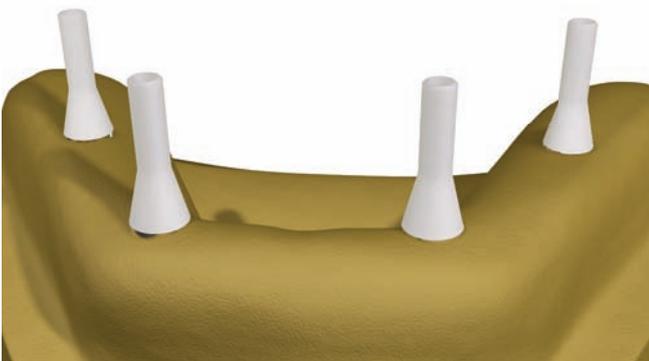
16

First, the laboratory prepares the impression for casting by means of the mounted Multi-Unit Laboratory Analogs.



17

The laboratory fabricates a cast model from the impression by casting the impression.



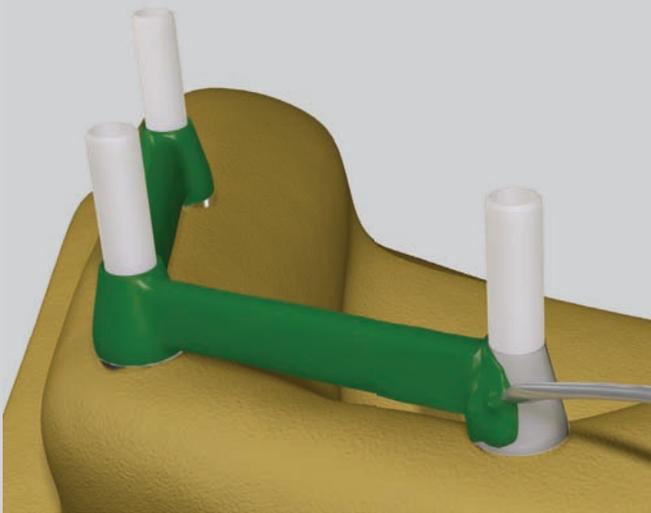
18

Screw the Multi-Unit Caps calcinable (Item # 3112) on the cast model ...



19

...and coat them with a wax release agent before modeling. The width of the Multi-Unit Cap calcinable exceeds by the bonding gap width of the Multi-Unit Cap titanium (Item # 3111). The calcinable caps serve as support for the wax modeling.



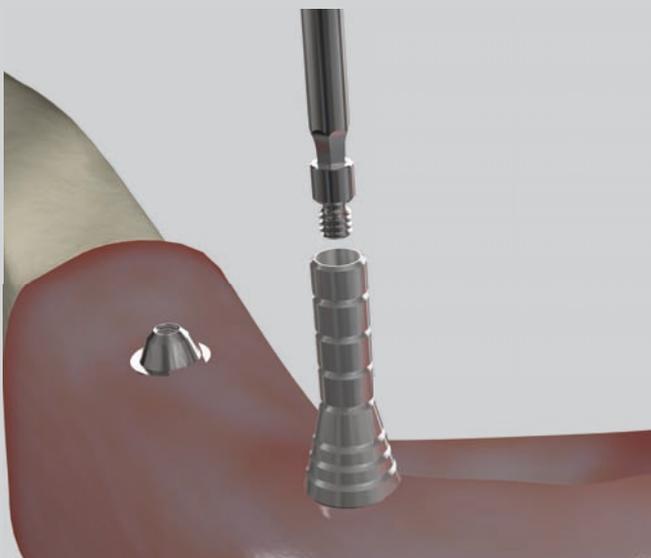
**20**

Then, model the wax bar.



**21**

Unscrew the Multi-Unit Caps calcinable and the wax framework. Press them out of the model.



**22**

After casting and treating the bar, glue it on the Multi-Unit Caps titanium (Item # 3111) in the mouth ...



**23**

... or on the model. Take care that the connection is passively fitted. In this step, use the Bonding Aids (Item # 7000).



**24** In the last step, shorten the Multi-Unit Caps titanium (Item # 3111) that stick out.



**25** Glue the ready-made bar on the model.

Of course, the bar can also be milled with zircon. The Champions-Innovations Juvora PEEK high-performance plastic secondary part is recommended.



## 6. FITTING THE FRAMEWORK



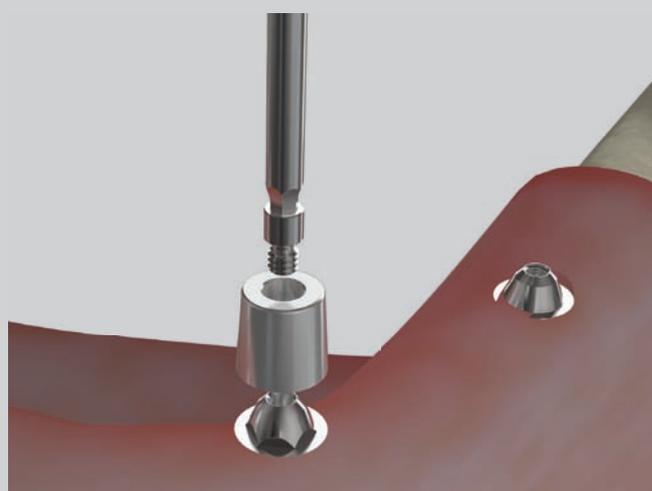
- 26** The ready-made bar work on the model, prepared for fitting the framework



- 27** Before fitting the framework, remove the Protection Caps.



- 28** The bar is screwed in the patient's mouth at 30 Ncm. When the bar is placed passively fitted in the patient's mouth and all criteria are fulfilled, the bar is sent again to the laboratory for further processing.



- 29** Finally, unscrew the bar. Screw the Protection Caps again at 20 Ncm.



## 7. LABORATORY

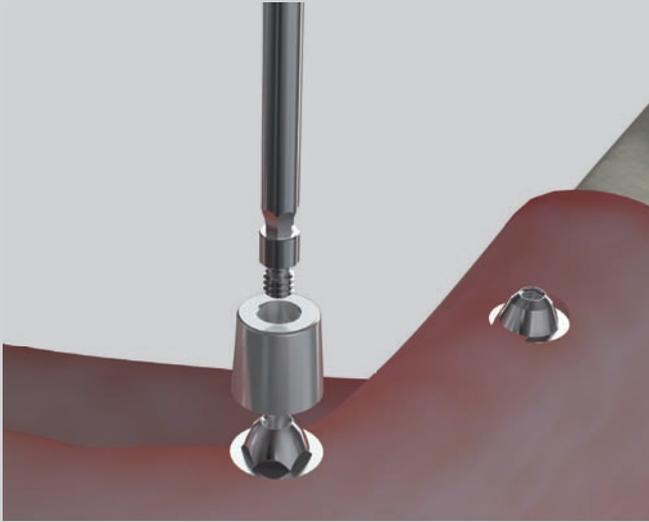


**30**

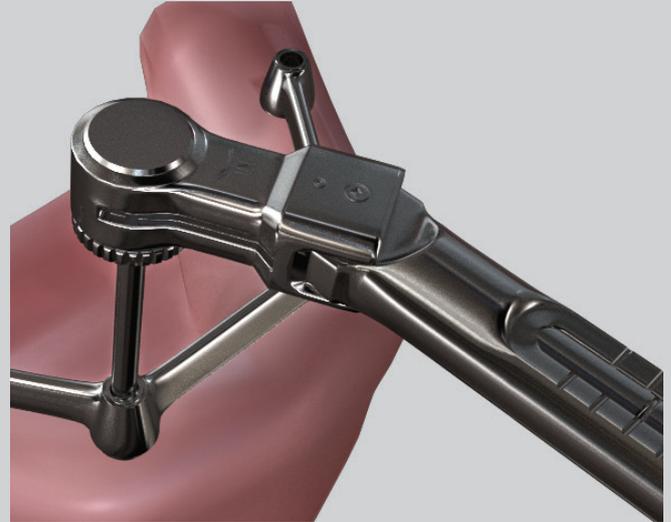
The dental technician fabricates the prosthesis conventionally on the bar and sends the ready-made prosthesis to the dentist.



## 8. FITTING THE PROSTHESIS



**31** First, remove the Protection Caps ...



**32** ... and mount the bar. Tighten the screws at 30 Ncm.



**33** Clip the ready-made prosthesis on to the bar.



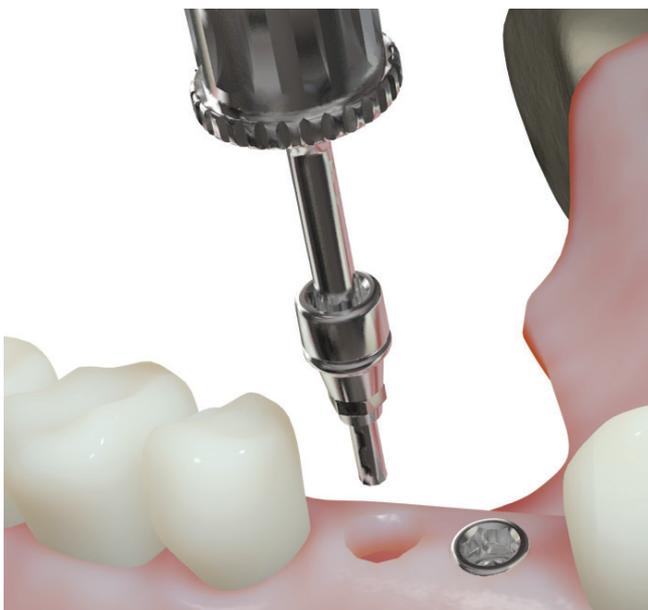
## 9. CASE 2: SCREWABLE CROWNS AND BRIDGES



**34** Initial situation: Interdental gaps in Teeth sites 44 and 45  
2 Champions® (R)Evolution implants were inserted.



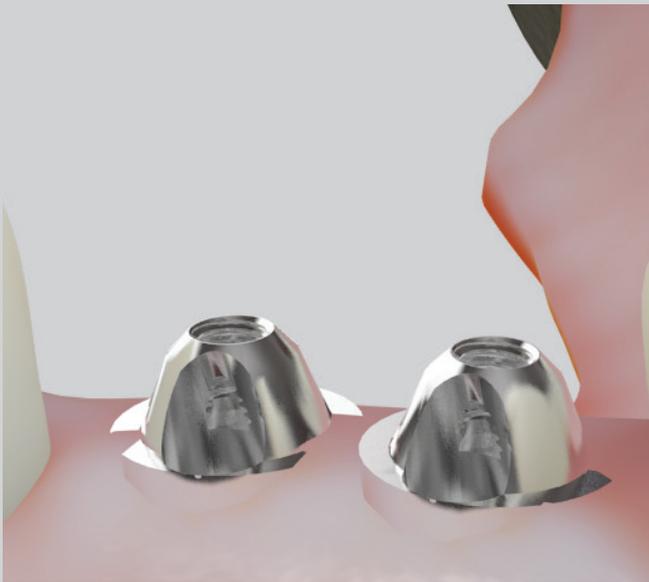
**35** First, loosen the screw ...



**36** ... and remove the Shuttle from both implants with a Shuttle-Extractor.



**37** Then, set the mounted Positioning Aid (see Figure 6/Page 6) for implants placed at an angle ...



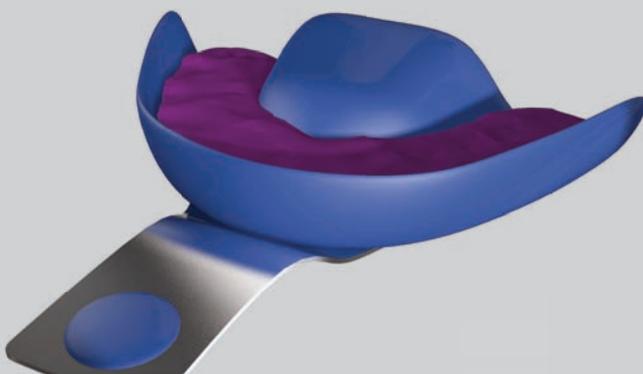
**38**

... and then set the Multi-Units.



**39**

For preparing the impression with an open impression tray, manually screw the Impression Post Multi-Unit (Item # 31222) and Screw Impression Post Multi-Unit (Item # 30852).



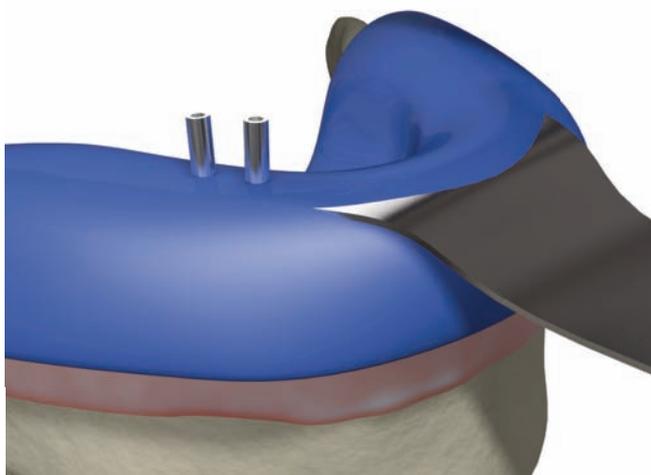
**40**

Prepare the impression tray for the open bite registration or use an individual impression tray.



**41**

Mold the Multi-Units with a casting compound ...



**42**

... and remove the impression with an impression tray. The Impression Posts Multi-Unit (Item # 31222) remain in the impression. Unscrew the Screws (Item # 31223). Once the casting compound is hard, unscrew the Impression Post screws.



**43**

After removing the impression tray, leave the Impression Posts WIN!® PEEK (Item # 3122) in the impression.

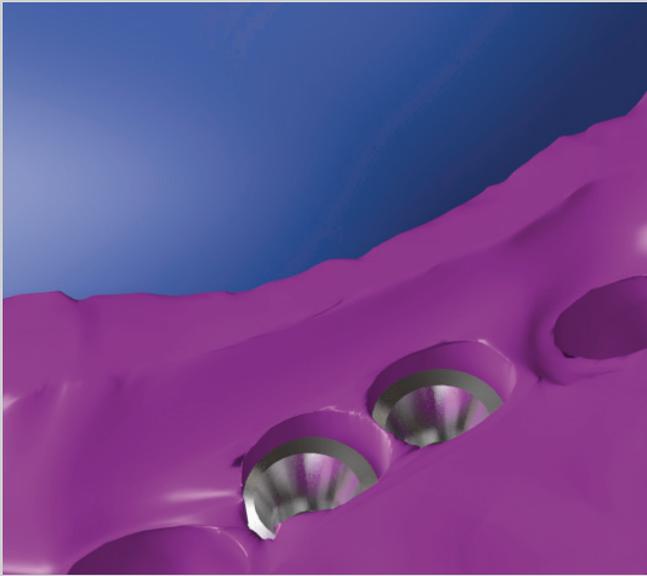


**44**

Finally, set the Protection Caps Multi-Unit (Item # 31106), which are screwed with the Screw Multi-Unit Cap / LOC®/Protection Cap (Item # 3085M) at 20 Ncm.



## 10. FABRICATING THE PROSTHODONTIC RESTORATION



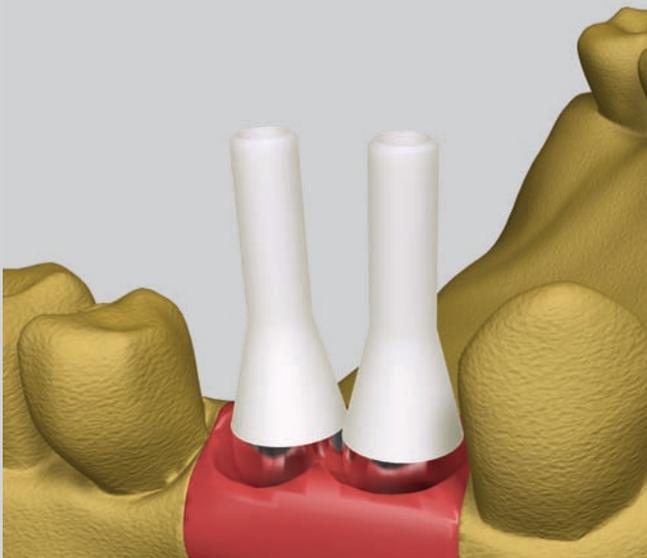
45

In the laboratory the impression ...



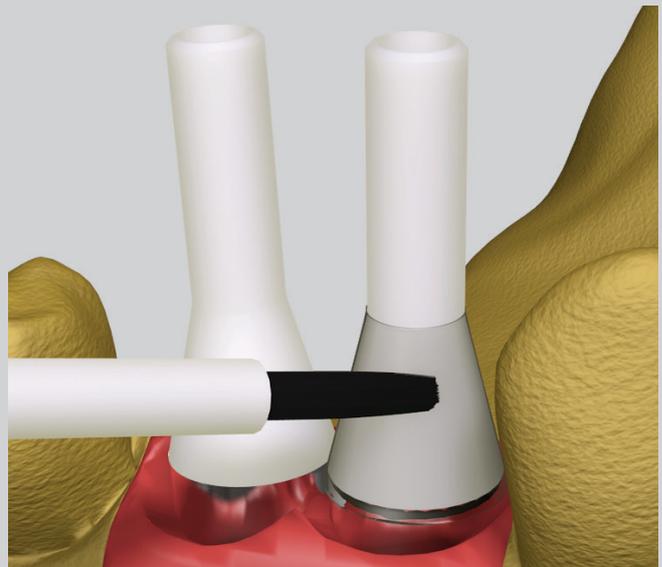
46

... is prepared with the mounted Multi-Unit Laboratory Analogs for casting.



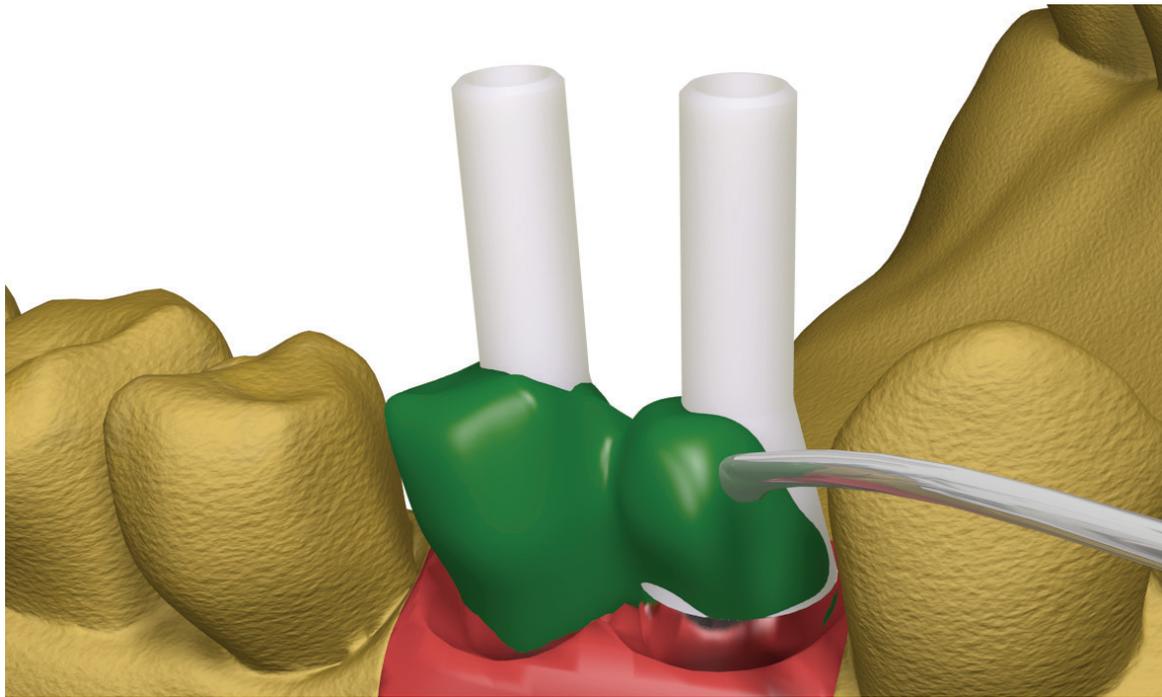
47

Screw the Multi-Unit Caps calcinable (Item # 3112) on the cast impression with a gingiva mask ...



48

... and before modeling, moisten them with a wax release agent.



**49** Finally, model the crown framework in wax.



**50** Then, unscrew the Multi-Unit Caps calcinable (Item #3112) and press them out of the model. After casting, glue the original Multi-Unit Cap titanium (Item # 3111). You can also cast with the Multi-Unit Cap calcinable (Item #3112). After casting, later processing can be necessary. By using the Multi-Unit Caps titanium (Item #3111), you make sure that the connection is passively fitted. For the further procedure, see Figures 22 to 25.



## 11. FITTING THE PROSTHODONTIC RESTORATION



- 51** View of the ready laminated prosthodontic restoration. Eventually, the framework is fitted before in an additional session.



- 52** The Screws Multi-Unit for Cap/ LOC®/Protection Cap (Item # 3085M) are tightened at 30 Ncm.



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