

# Telescopic Crowns

on natural teeth

## Function and Esthetics



### The problem

The female patient had her maxillary bridges covering 17–13, 12, and 24–27 for 16 years. As the end of these bridges approached, the situation in the anterior area was quite delicate due to loosened or drifted teeth.

As the patient was assessed as case of hardship and since only the teeth 21, 22, and 23 had a good prognosis, the suggestion was to furnish these teeth with telescopic crowns and to replace the missing teeth with a subtotal prosthesis.

### The realization

The plan was to make a cover denture basing on primary telescopic crowns out of a CrCoMo alloy that were to be scanned and designed. The raw parts were subjected to 5-axis simultaneous milling. After a suitable surface treatment of the primary parts, the secondary telescopic crowns were directly electroformed onto them using the GAMMAT® optimo2 unit. The direct method ensures a defined precision and utmost surface quality of both parts. This can be achieved thanks to the use of industrial technologies of highest quality and short process times.

### The advantages

- Reduction of the manual work of the dental technician while maintaining his/her professional competence
- A faster work flow than in case of casting
- Precision thanks to homogeneous surfaces of industrial quality
- Direct electroforming onto the primary parts without requiring conductive silver lacquer ensures perfect fitting precision and accurate inner surfaces.
- A comprehensible cost-benefit ratio

### The conclusion

After her initial scepticism, the patient was then convinced by her comfortable restoration: The smooth inner surfaces of the telescopic crowns make it easy to insert and remove the denture. With a thickness of the electroforming telescopic crowns of only 200µm, harmonic esthetics are guaranteed. Thus, the restoration got an anatomical, esthetical and functional design.





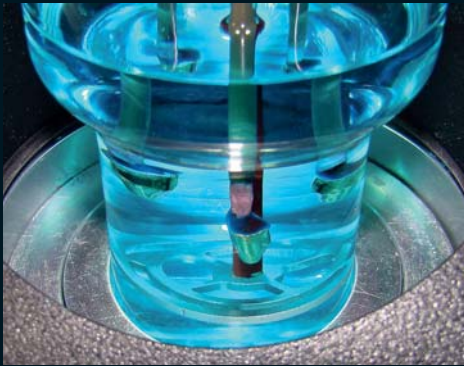
**1**  
The initial situation.



**2**  
The primary parts were milled out of a non-precious alloy, then polished, and fit to the master model.



**3**  
The primary part was connected with the magnetic optiCLIC contact stick. Galvanowax was applied up to the preparation margin.



**4**  
The electroforming process in the electroforming unit GAMMAT® optimo2 using ECOLYT SG 200 runs fully automatically.



**5**  
After the electroforming process: Nice, golden electroforming telescopic crowns ...



**6**  
... here on the master model after being removed from the magnetic optiCLIC contact sticks.



**7**  
The ready, faced restoration.



**8**  
Electroforming secondary parts with smooth inner surfaces for perfect adhesion make it easy to handle the denture.



**9**  
The finished restoration in the patient's mouth.

Electroforming telescopic crowns may be provided by:

Patient case:  
Christian Bredy,  
master dental technician,  
Berlin/Germany



**Gramm Technik GmbH**  
Dental Division  
Einsteinstrasse 4  
D-71254 Ditzingen-Heimerdingen  
Phone +49 7152 5009 60  
Fax +49 7152 5009 80  
www.electroforming.de