



Instructions for use No. 2

# VENTRALOCK

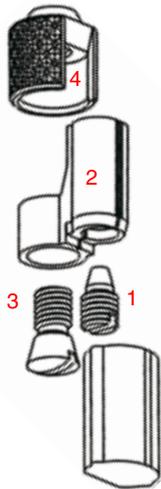
*Precision since 1968*



# THE VENTRALOCK ANTERIOR ATTACHMENT WITH PRECISELY ADJUSTABLE WITHDRAWAL FORCE

The **VentraLock** anterior attachment is a rigid, intracoronal retentive unit developed specifically for use in the anterior region.

The extracoronal screw-retention (3) of the patrix (2) with the threaded cap (4) allows the patrix to be easily exchanged without damaging the acrylic saddle.



When working with ZL attachments, it is essential to note and adhere to the sections marked in red in the instructions for use.

Before each try-in or final cementation the whole restoration should be cleaned in accordance with current hygiene regulations.

## **VentraLock attachment No. 3830**

### **Matrices (Pt/Ir)**

cast-on or solderable with precious, Pd-based and non-precious metal alloys.

### **Threaded caps (Ti)**

retained using the adhesive technique or laser welded.

### **Patrices (Pd/Ag)**

of these attachments are always screw-retained and are therefore easily exchanged.

## **VentraLock attachment No. 3831**

### **Matrices (Pt/Ir)**

cast-on or solderable with precious, Pd-based and non-precious metal alloys.

### **Threaded caps (Pd/Ag)**

solderable with precious and non-precious metal alloys.

### **Patrices (Pd/Ag)**

of these attachments are always screw-retained and are therefore easily exchanged.

### **Technical data:**

### **Matrices (Pt/Ir)**

Melting range:  
1830 – 1855°C

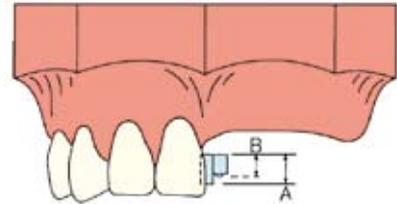
### **Patrix (Pd/Ag)**

### **Threaded cap (Pd/Ag)**

Melting range: 1170 – 1240°C

### **NOTES ON INDICATION**

A stress-breaker with interlock must be incorporated when using the **VentraLock** attachment with free-end restorations. As a precaution, a stress-breaker should also be included with bounded saddles. This allows the primary situation of the denture to be integrated in the new design without any alteration after loss of the distal abutment tooth.



### **DIMENSIONS of the VentraLock**

A Overall height as supplied: 3.9 mm

B Overall height after max. reduction: 2.6 mm

### **INSTRUMENTS AND ACCESSORIES**

Always use original ZL instruments and accessories to ensure a successful technique with ZL attachments.

The following are required for fitting the **VentraLock** anterior attachment:

### **Paralleling mandrel No. 530:**

for paralleling the attachment matrices.

### **Exchange and activation instrument No. 573:**

for exchanging and activating the attachment patrix.

### **Positioning screw No. 145:**

for securely positioning the threaded caps in the solder model.

### **Thread adhesive No. 391:**

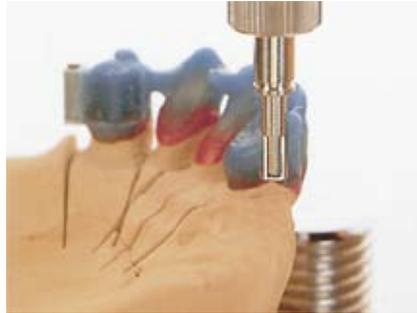
for securing the patrix retention screw.

These instruments and accessories are contained in the **Starter Kit No. 3881**.

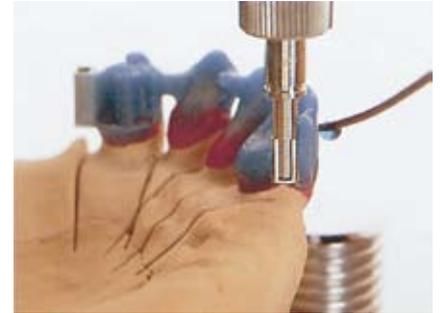
# A RELIABLE TECHNIQUE FOR PRECISE CASTING OF THE PLATINUM-IRIDIUM MATRIX WITH PRECIOUS, PD-BASED AND NON-PRECIOUS METAL ALLOYS

## Notes on technique:

Ensure that no part of the attachment projects into areas to be faced with porcelain, as platinum-iridium does not produce a durable bond with porcelain materials and this may cause cracks during porcelain firing.



**1** After determining the path of insertion, place the matrix on the crown wall using the parallelometer and paralleling mandrel. Mark the outline of the matrix on the crown wall.

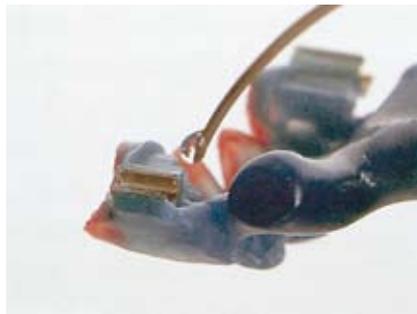


**2** Then create sufficient space for the matrix. Place the matrix on the crown wall or in the recess and wax it in position. **Ensure that the matrix is completely surrounded with wax (min. 0.5 mm).**

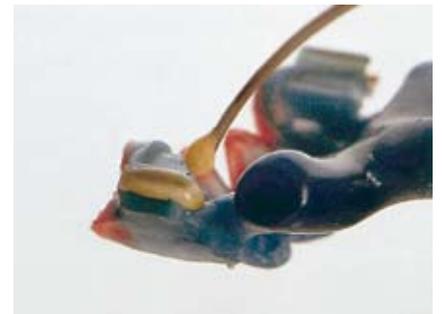
To ensure that the papilla is kept free, place the deactivated matrix into the matrix that has already been waxed in position. Check the gap between the appendix of the matrix and the alveolar ridge.

### CAUTION!

Do **not** allow any wax degreasing agent to get into the attachment matrix. Keep the matrix and paralleling mandrel free of grease.



**3** Attach the sprues. To ensure the investment flows fully into the matrix, put a small drop of water in the matrix.



**4** After mixing the required amount of investment (according to the size of casting ring), hold the rubber base vertically on the vibrator and use a probe to ensure the investment flows into the attachment channel. (Do not press in!)  
Devest the mould after casting and sandblast the crowns and framework with microbeads before preparation.

**Successful casting results and an accurate fit depend on precise preparation.** Before investing, decide which dental alloy is to be cast onto the matrices.

When using investment with expansion control (phosphate-bonded), adhere strictly to the recommended mixing ratio of powder, liquid and concentrate.

### CAUTION!

To ensure the molten metal casts perfectly onto the Pt/Ir matrix, allow the mould to heat soak at the final temperature for a minimum of 45 minutes during preheating. The mould temperature with Pd-based and non-precious metal alloys should be approx. 920-940°C to prevent any temperature loss during casting.

Adhere to the manufacturer's subsequent heating times following the preliminary pre-heat of the metal ingots, particularly with Pd-based alloys.

## TECHNIQUE FOR A RELIABLE, PRECISE SOLDER CONNECTION BETWEEN THE PLATINUM-IRIDIUM MATRIX AND CROWN



**5** Proceed as described in Figures 1 + 2 on Page 3. Separating agent should be applied to the metal matrix prior to waxing it in position. After removing the metal matrix, contour a flow channel for the solder.



**6** After determining the path of insertion, place the metal matrix in the recess of the cast crown using the parallelometer and paralleling mandrel. Secure the metal matrix on the cast crown with resin or wax. Fabricate a solder model and solder in the usual way.



**7** Prepare the solder joint. Temper the attachment matrix in a furnace (0-700°C, hold for 30 minutes, cool slowly).

## TECHNIQUE FOR A RELIABLE, PRECISE SOLDER CONNECTION BETWEEN THE Pd/Ag THREADED CAP AND DENTURE FRAMEWORK

### **Fabricating a duplicate model with reusable duplicating material.**

Soak the model in water at 40-50°C for 10 minutes. Then dab the model with a soft cloth and duplicate it immediately. Ensure that the temperature of the reusable duplicating material and water are the same.



**8** Insert the matrix with the solderable threaded cap in position into the matrix. Block out the gap between the matrix and matrix with wax.



**9** Block out under the attachment matrix with wax and surround the solderable threaded cap with a thin layer of wax approx. 0.1 mm (for the solder gap).



**10** Duplicate according to the instructions. The threaded cap is clearly defined on the investment model after removal of the duplicating material.



**11** Surround the threaded cap duplication with a layer of wax approx. 0.5 mm thick. The top of the threaded cap should not be covered with wax. Invest and cast in the usual way. Prepare the framework after deinvesting and sandblasting.



**12** Secure the threaded cap in position with resin. Remove the patrix from the threaded cap and insert the positioning screw. Fabricate a solder model and solder in the usual way.



**13** If a spot welder is available, cut a T-shape in the framework at the metal surrounding the threaded cap. Spot weld the metal segments to the threaded cap from the inside to the outside. Unscrew the attachment patrix before soldering freehand.



**14** Apply antiflux to the threads and the inner surfaces of the threaded cap. Apply flux to the surfaces to be soldered. Ensure that the flux has flowed completely round the threaded cap. Solder in the usual way.



**15** Check that the solder has flowed completely around the threaded cap. If a solder model was used, remove investment residue from the threaded cap after soldering with an ultrasonic cleaner. Prepare the solder joint and then insert the patrix in the threaded cap.

## TECHNIQUE FOR RELIABLE, PRECISE ADHESIVE CONNECTION BETWEEN THE Pd/Ag or Ti THREADED CAP AND DENTURE FRAMEWORK

### Fabricating a duplicate model with reusable duplicating material.

Soak the model in water at 40-50°C for 10 minutes. Then dab the model with a soft cloth and duplicate it immediately. Ensure that the temperature of the reusable duplicating material and water are the same.



**16** Adhesive technique aid No. 334.



**17** Replace the threaded cap with the adhesive aid. Insert the patrix with the adhesive aid into the matrix.



**18** Block out the gap between the patrix and matrix with wax. Block out under the patrix and adhesive aid with wax.



**19** Duplicate according to the instructions. The adhesive aid is clearly defined on the investment model after removal of the duplicating material.



**20** Surround the adhesive aid duplication with a layer of wax approx. 0.5 mm thick. The tip of the adhesive aid should not be covered with wax (outlet for excess DuroBond). Invest and cast in the usual way.



**21** Replace the adhesive aid with the threaded cap.



**22** Prepare the CrCo framework in the usual way. The threaded cap recess in the CrCo framework should not be prepared.



**23** Unscrew the retention screw and remove the threaded cap from the patrix.



**24** Screw the positioning pin into the threaded cap. Block out the inside of the threaded cap and the stress-breaker arm with wax (protection when sandblasting).



**25** Sandblast the threaded cap and the threaded cap recess in the CrCo framework with 250 µm corundum at approx. 5 bar pressure. Remove the block out wax with a steam cleaner.



**26** Assemble the threaded cap and patrx. Insert the attachment into the matrix. Block out the activation slot, the activation screw and the underside of the patrx with wax. Degrease the threaded cap with acetone, if necessary.



**27** Mix DuroBond according to the instructions on the pack.



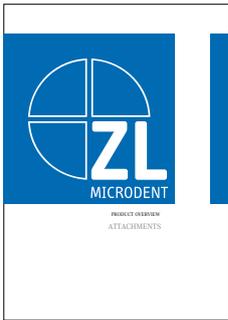
**28** Apply DuroBond to the threaded cap and in the CrCo framework. Place the CrCo framework on the crowns and check the accuracy of fit. To light cure the DuroBond, place the model in a light-curing unit for at least 3 minutes.



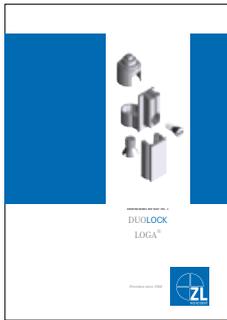
**29** After the DuroBond has cured, separate the CrCo framework from the crowns. Then unscrew the patrx from the threaded cap in the CrCo framework and remove any adhesive that has exuded from the side. The denture is set up and finished in the usual way.

Technical data of the alloys used for the VentrLock attachment is included in the Product Overview on Pages 40+41.

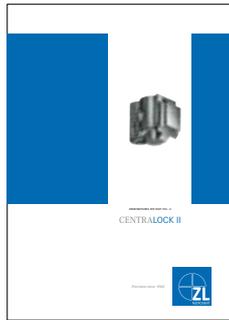
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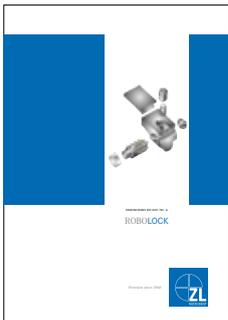
Product overview  
ATTACHMENTS



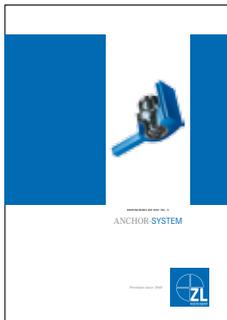
Instructions for use No.1  
DUOLOCK / LOGA®



Instructions for use No. 3  
CENTRALOCK



Instructions for use No. 4  
ROBOLOCK



Instructions for use No. 5  
ANCHOR-SYSTEM



Product Overview  
DURAPLANT

ZL MICRODENT  
Attachment GmbH & Co. KG  
Schützenstraße 6 - 8  
D 58339 Breckerfeld

Tel. +49 2338 801-0  
Fax. +49 2338 801-40  
info@zl-microdent.de  
www.zl-microdent.de