

*Some Model Systems*

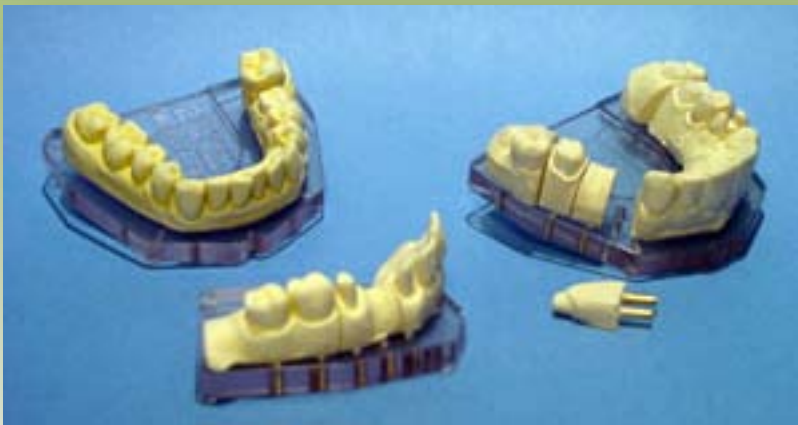
*Crown & Bridge Model  
Preparation*



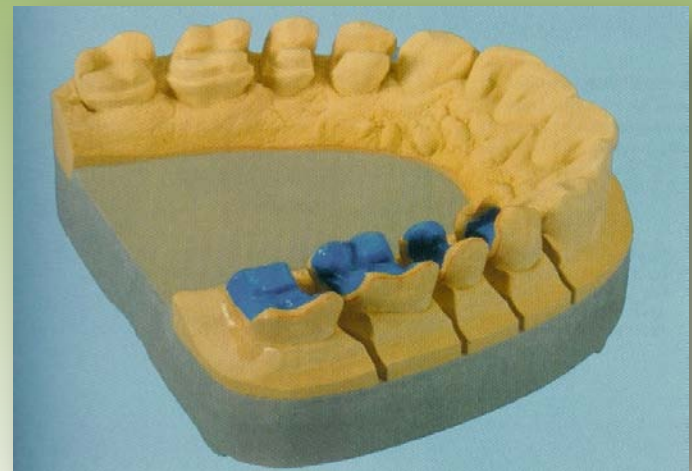
**System 2000**



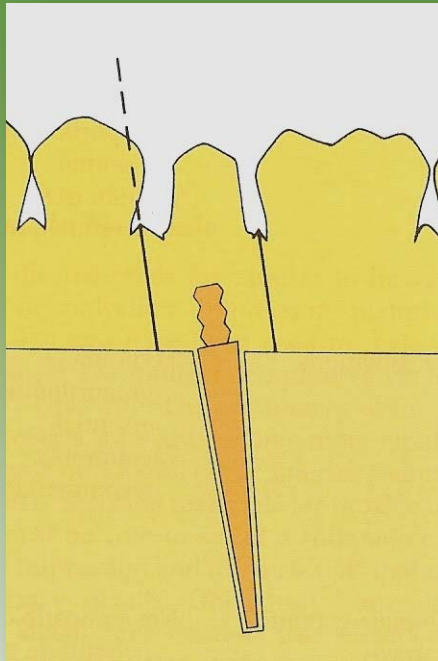
**Zeiser Model System**



**DVA Model System**



**Pindex Model System**

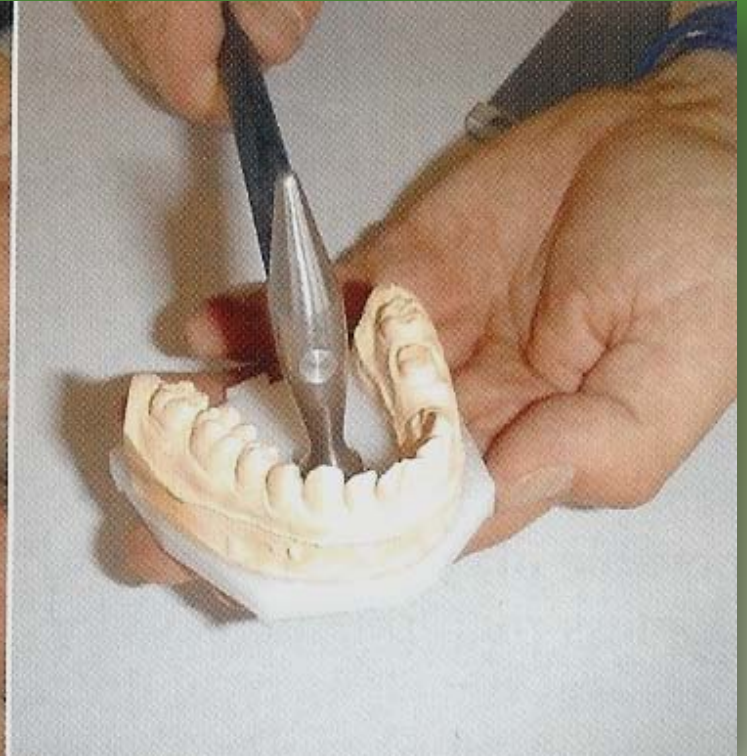


# A commonly used C&B Model System



Zeizer Model System





# Model Preparation

The C&B model is the foundation for the finished prosthesis and needs to be constructed with the utmost care and attention to detail. Loss of Margin integrity or compromised adjacent teeth are not accepted in the dental laboratory.

# Segmentation of the Model



# Preparation of the Die

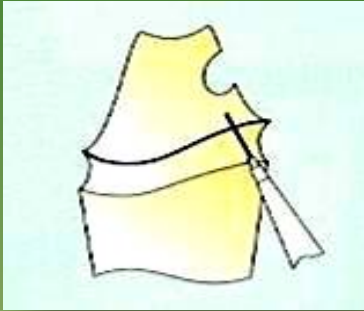


## *Ditching the Die*

Ditching or trimming the die defines the position of the margin and acts as a guide to gingival contour when the restoration is being waxed.

Excessive trimming does not give the correct emergence profile and may lead to an over-contoured or bulky crown.

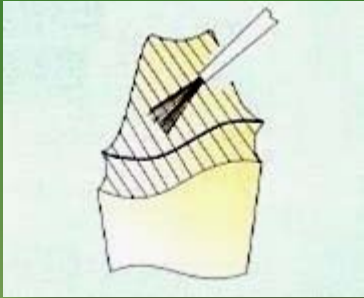
# Preparation of the Die



## *Margin Liner*

Acts as an aid to positively identify the margin when waxing.

# Preparation of the Die



## *Hardening*

This is necessary with die-stone materials. The hardener seals the die and adds strength to the margin area. This helps prevent 'chipping' of the working model.

Some hardeners act as a **3 $\mu$ m** die spacer as well.

# Preparation of the Die

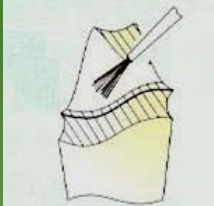


## *Blockout Undercuts*

This can be done before or after hardening depending on the products the laboratory use. Undercuts need to be removed otherwise the wax pattern and crown cannot be easily removed from the model.

# Die Spacer

7  $\mu\text{m}$  thickness different colours



Die spacer is needed to provide space for the luting agent (cement) during cementation of the finished crown.

When applying the die spacer over the preparation **leave the area 1mm above the margin line free of spacer.**

This is to ensure close adaptation of the crown and cement (or luting agent). It is important there is no disintegration and dissolution of the luting agent at the margin.

# Die Spacer



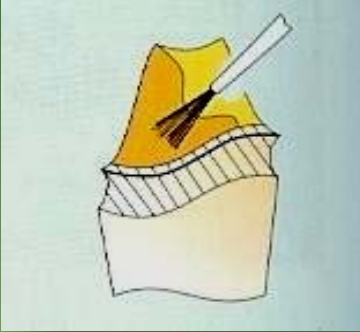
*10  $\mu\text{m}$  thickness different colours*

The ideal space for the cement is suggested at **20 $\mu\text{m}$  to 40 $\mu\text{m}$  for each wall**. So the internal diameter of the crown may be 40  $\mu\text{m}$  to 80  $\mu\text{m}$  larger than the prepared tooth.

There needs to be space otherwise the restoration will not seat properly. Each dentist and laboratory have their own standard thickness within this specified range.



# Die Spacer



*17  $\mu\text{m}$  using two layers*

In this case the laboratory may be allowing **3  $\mu\text{m}$**  extra thickness from their die hardener.

# The Finished C&B Model

