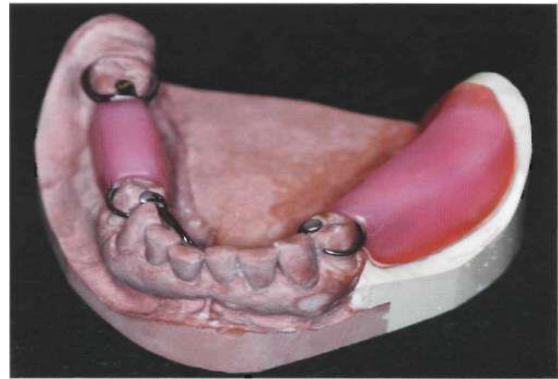


## *Articulating and Mounting procedure*

**Occlusion rims:** Occlusion rims are added to allow the recording of jaw relation records.

- ✚ The opposing tooth position and the supporting ridge character instruct the placement of the wax record.
- ✚ The occlusion rim should allow recording of the jaw position within the primary bearing area of the ridge.



### *Occlusion rims for static jaw relation records:*

The materials of occlusion rims that are used to establish static occlusal relationships include:

- 1. Hard baseplate wax:** most commonly used to establish a static occlusal relationship.
- 2. Wax occlusion rim:** registration made on wax occlusion rims using a wax registration material must be handled carefully and mounted immediately on the articulator.
- 3. Modeling plastic (compound):** has several advantages and may be used rather than wax for occlusion rims.

- Occlusion rims for static jaw relation records should be so shaped that they represent the lost teeth and their supporting structures.

### **Occlusion rims for recording functional or dynamic jaw relationships:**

Occlusion rims must be made of hard wax-like inlay waxes. It is used for this purpose:

1. Because the opposing dentition can carve them.
2. Because most of them are hard enough to support occlusion over hours or days.

This type of occlusion rim construction is considered a chair-side procedure rather than a laboratory procedure because it is corrected at the clinic.

### ***Mounting casts on the articulator:***

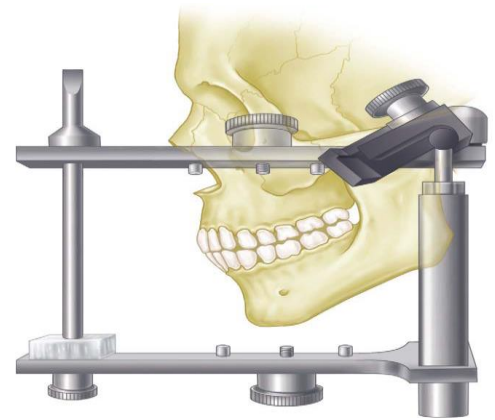
Mounting the maxillary and mandibular casts on an adjustable articulator in the same relationship as they are on the patient by using a face-bow transfer and an accurate centric occlusal relationship record on accurate record bases to establish the correct vertical dimension of occlusion.

### **Causes of articulating diagnostic cast:**

1. The casts can demonstrate occlusal relationships that are impossible to determine from a visual examination. You can see the relationships from the facial and lingual. The interocclusal and interridge relationships can be visualized.
2. Modifying one set of casts will verify the possibility of a treatment plan.
3. The articulated casts can also be used to fabricate interim and immediate interim partial dentures.
4. The articulated casts are of great value in presenting the treatment plan to the patient.
  - ✚ Occasionally it is not necessary to mount diagnostic casts when a maxillary complete denture is opposed by a distal extension RPD. If there is a question as to the placement of the occlusal plane, esthetics, interarch space at the proper vertical dimension of occlusion, etc., then the casts should be mounted.

### **Mounting Diagnostic Casts**

1. If the patient presents with a harmonious occlusion and the edentulous span is a tooth-bound space, simple hand articulation is generally all that is required.
2. when the natural dentition is not harmonious and/or when the replacement teeth must be positioned within the normal movement patterns of the jaws, the diagnostic casts must be related in an anatomically appropriate manner for diagnosis.
3. This means the placement of the maxillary cast in a position relative to the opening axis on the articulator, which is similar to the position of the maxilla in relation to the temporomandibular joint of the patient.



### **Sequence for Mounting Maxillary Cast to Axis-Orbital Plane**

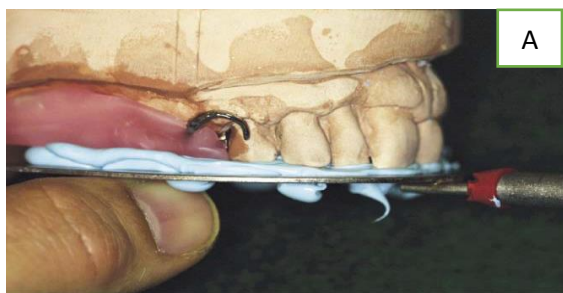
The initial steps allow recording of the maxilla–temporomandibular joint (TMJ) relationship:

1. Identify the anterior and posterior reference points for the facebow (e.g., external auditory meatus, orbitale).
2. Prepare the bite fork and occlusion rim.
3. Place the bite fork centered to the arch, indexing it to the teeth with wax or elastomer.
4. Place the facebow over the bite fork rod anteriorly.
5. Place the bow evenly into the ears posteriorly.
6. Secure the bow anteriorly.

7. Position the bow anteriorly to the third point of reference (establishes the horizontal plane).
8. Secure the bite fork vertical rod, then the horizontal rod (holding the bow securely to prevent torque).
9. Release the bow anteriorly to allow spread and disengage from the ears.
10. Remove the fork downward and out of the mouth with the attached bow.
11. Carefully check the security of the attachments.

The next steps allow the transfer of the recorded relationship to the articulator:

1. Position the posterior reference points on the articulator (usually a posterior attachment point).
2. Secure the posterior points by securing the bow anteriorly.
3. Vertically relate the secured bow to the articulator's anterior reference point.
4. Seat the maxillary cast into the bite fork registration (wax or elastomer).
5. Close the articulator and check clearance for mounting plaster (modify the cast as needed).
6. Mount with low-expansion plaster.



(a) Orienting the facebow fork to the maxillary cast and occlusion rims will avoid displacing the occlusion rim in the mouth through patient closure or another uneven force.

(b) The horizontal toggle clamp of the Whip-Mix earpiece facebow.

(c) Facebow mounting is complete. The relationship of the maxillary cast to the articulator condylar components is anatomically similar to that between the patient's maxilla and the bilateral temporomandibular joint (TMJ) complex



**Thank you**