

It is the procedure of attaching the maxillary and mandibular casts to the articulator in their recorded jaw relation. It is also called **articulation**. The maxillary cast is first articulated, and then the mandibular cast is articulated after recording the vertical and centric jaw relations.

Preparation of articulator:

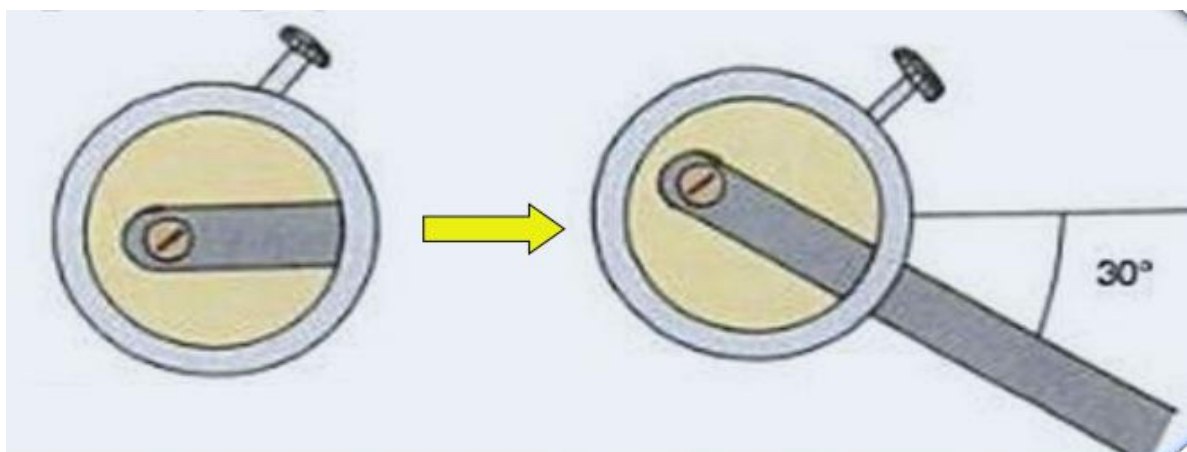
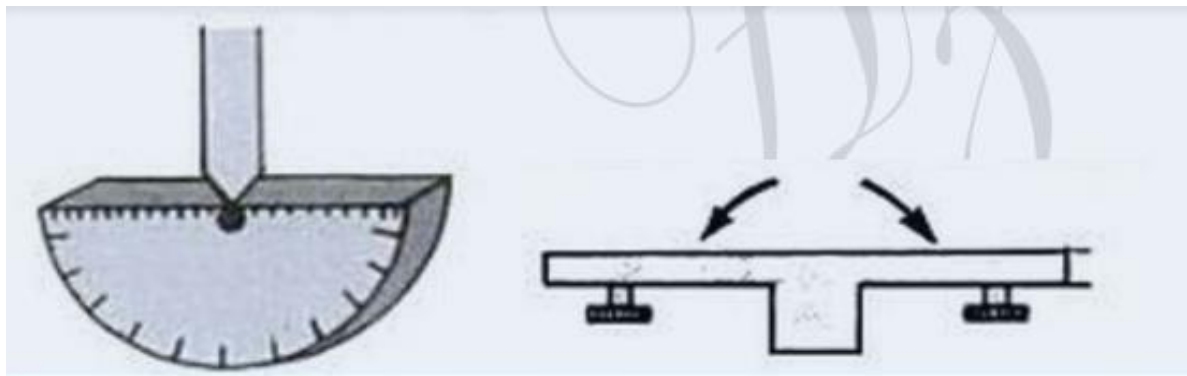
- **In mean value articulator (Class II articulator)**

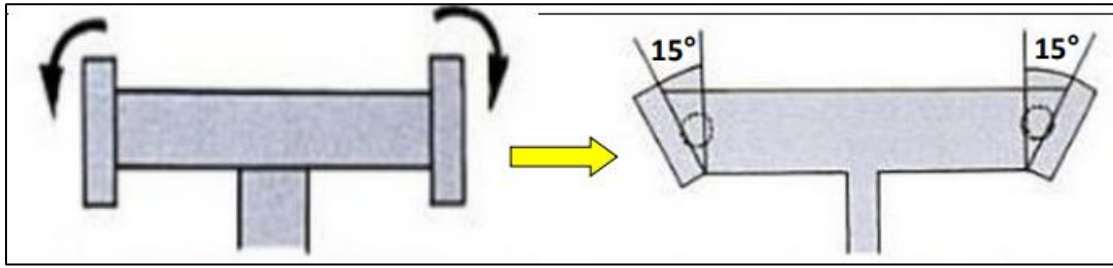
1. The articulator should be clean from any remnant of previous plaster.
2. The movable surfaces of the articulator should move freely without any hindrance.
3. The incisal pin should be flushed with the top of upper member of articulator to give zero reading.
4. The mounting table should be properly fixed to the articulator.



- In semiadjustable articulator (Class III articulator)

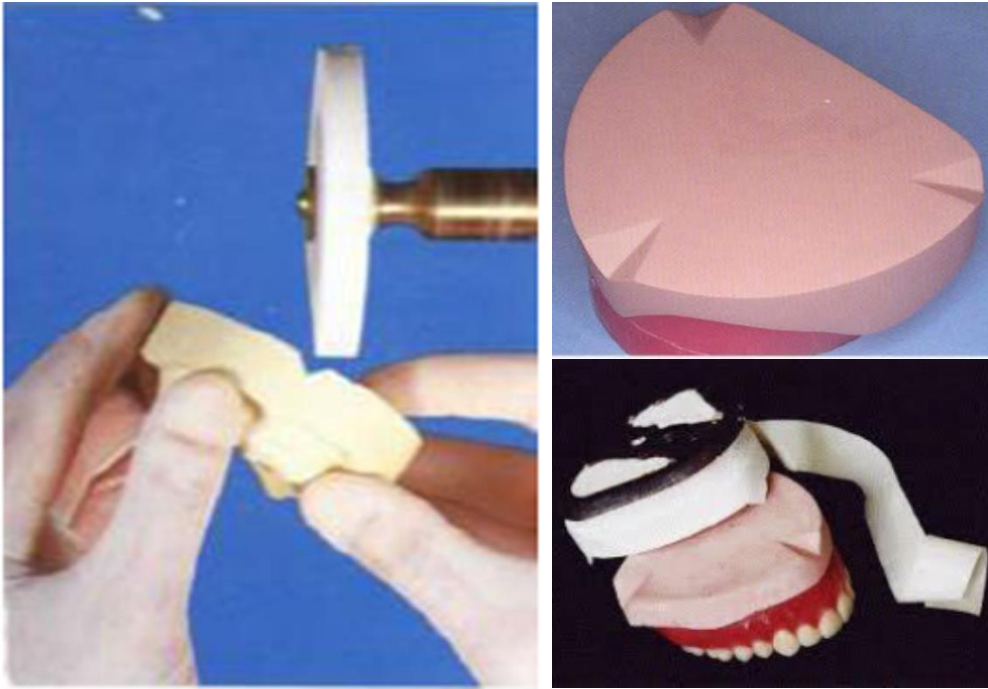
1. The articulator should be clean from any remnant of previous plaster.
2. The movable surfaces of the articulator should move freely without any hindrance.
3. The incisal pin should be flushed with the top of upper member of articulator to give zero reading.
4. Set the incisal guide table at 0° anteroposteriorly and laterally.
5. Set the condylar track in the horizontal condylar guidance at 30° bilaterally.
6. Set the lateral condylar guidance at 15° .
7. Lock the opening axis (hinge axis) of the articulator into centric position by placing the condylar ball element all the way forward and turning up the locking pin.





Preparation of the casts for mounting

1. Determine the midline of the cast according to midline of incisive papilla and continue this line posteriorly all around cast.
2. The casts should be placed in slurry water for better adhesion of the casts to the mounting plaster.
3. With wax knife, 3-4 V-shape cuts on the base of upper and lower casts, so as to facilitate the laboratory remounting. The cut should be approximately 1/4 inch depth and 1/2 inch width.
4. Lightly coated the base of the casts with Vaseline or any separating medium. The base plate with occlusion rim should be sealed to the cast by wax.



Mounting the upper cast

The maxillary cast is first attached to the upper member of the articulator after orientation jaw relation by using the face-bow with adjustable type of articulators, while for the mean value articulator use the mounting table to support the maxillary occlusion rim in its position during mounting. The mandibular cast is articulated after recording the vertical and centric jaw relations.

After recording the orientation jaw relation, the following steps are carried out:

1. Enough space should be present between the base of the cast and the upper member of the articulator to accommodate for the plaster material over the cast. If there is not enough space trimming should be done to the base of the cast.
2. Alignment of the midline of the maxillary occlusion rim to the center of the cross midline which found on the mounting table anteriorly and posteriorly, so that the cast will be centralized to the mounting table and the occlusal rim fixed to the mounting table by wax.

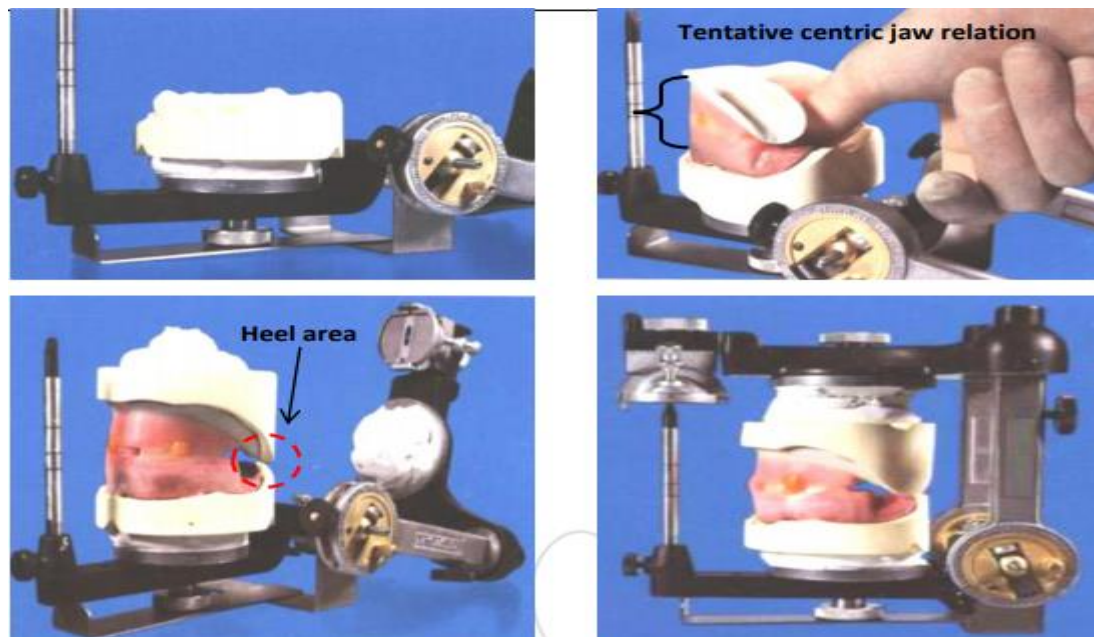
3. Plaster is mixed according to the manufacturer instruction then the plaster is poured over the base of the cast and the upper member is closed until the incisal pin touches the incisal table.
4. Smoothing and polishing of the plaster is done. The mounting should be cleaned and any debris removed from the articulator and mounting table.



Mounting the lower cast:

The mandibular cast is mounted after recording the tentative vertical and centric jaw relations.

1. The mandibular occlusion rim should be well secured to the mandibular cast with its record base by using wax, also sealing should be done between the maxillary and mandibular rims after making tentative centric jaw relation.
2. Care should be taken that there is no posterior interference between the maxillary and mandibular casts (Heel area).
3. The articulator with the mounted maxillary cast is inverted to aid in the mounting the mandibular cast.
4. The maxillary occlusal rim with mandibular occlusal rim (centric record) placed on the maxillary cast.
5. The mandibular cast is placed on the mandibular occlusal rim (It should be soaked in slurry water before mounting).
6. The plaster is mixed and poured over the base of the mandibular cast and the articulator is closed until the incisal table touch the incisal pin, then the plaster should be smoothed and polished.





Checking the mounting :-

1. The midline of maxillary cast should be coincided with the midline of mandibular cast and midline of articulator.
2. Centralization of maxillary cast with upper member of articulator then the centralization of lower cast which depend on accuracy of the maxillary cast.
3. Incisal pin checked if it does not touch the incisal table.
4. Healer's area checked if there is any contact between the maxillary and mandibular casts.



Errors might occurred during mounting:-

1. The record base is not properly secured to the cast.
2. Interference of the casts posteriorly.
3. The incisal pin does not touch the incisal table.
4. The incisal pin is not properly screwed.
5. Wrong transference of the midline of the articulator with that of the casts (shifting of the midline).
6. Movement of the casts during mounting.
7. Maxillary and mandibular rims are not properly fixed after making centric record.
8. Dimensional changes in the plaster material.
9. Face-bow record defected.

