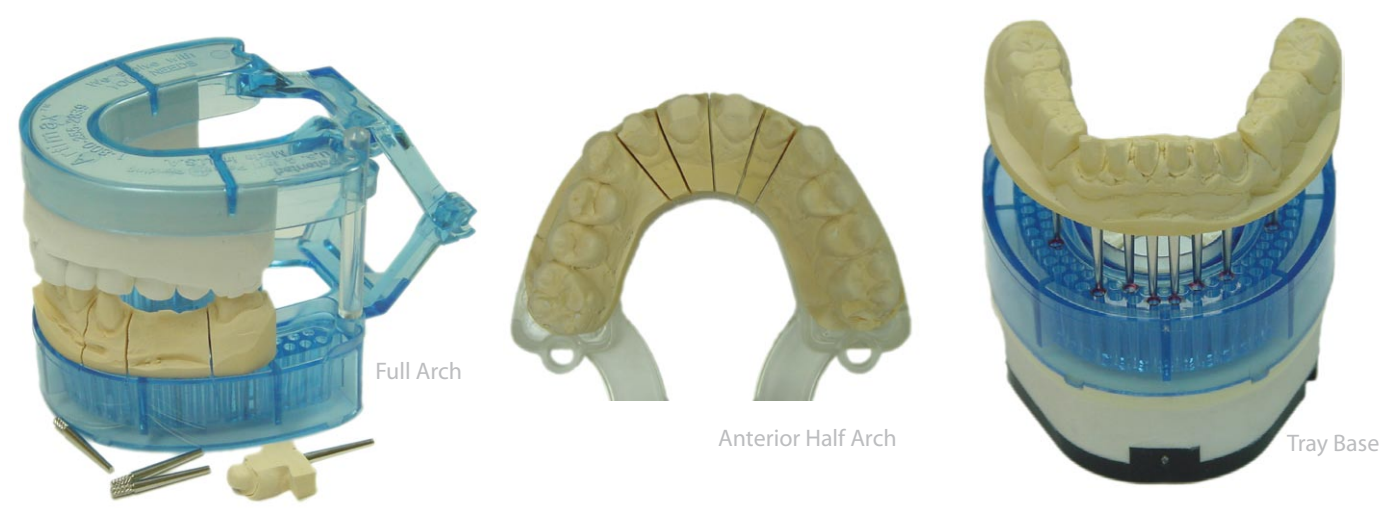


Watch DVD
for hands-on demo

Artimax™ Full Arch System Manual



A. Triple Tray (Double Side) Impression Technique (Page 1 - 4)



B. Single Side Impression Technique (Page 5 - 7)



C. Using the Lingual Insert to pour Multiple cases (Page 8 - 9)

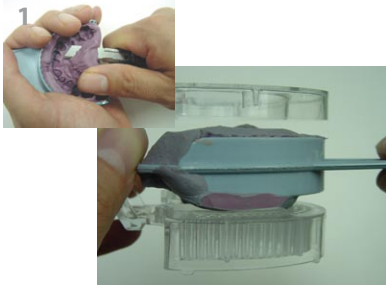


D. Mounting Artimax Base on Semi-adjustable / Metal Articulator (Page 10 - 11)



E. Frequently asked questions (Page 12 - 14)

1. Pouring the Opposing Side



(Trimming) If needed, trim the impression so that it fits between the trays when they are closed.



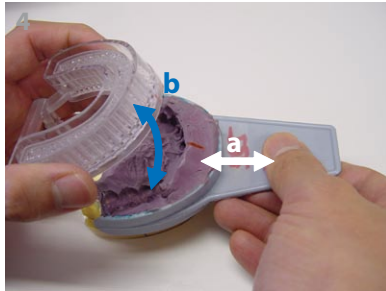
(Mark the center) Mark the center on the prepped side of the impression. There is also a notch provided on the center of the working tray. This will help center the prepped side of the impression on the tray when placing the impression.



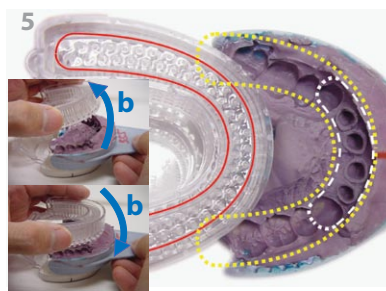
Option 1

Option 2

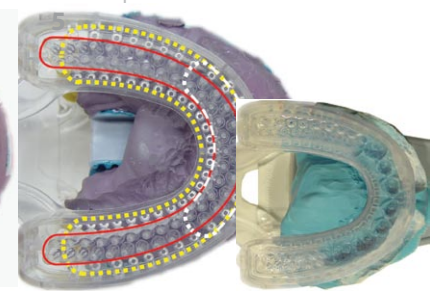
(Initial placement) Put the impression filled with stone on the opposing tray. Don't worry about the alignment of the opposing. Your main concern is to align the prep side to the center of the working tray as in pictures 4 & 5. Option 1 shows a lingual insert and option 2 does not. The benefit of each option will be introduced later.



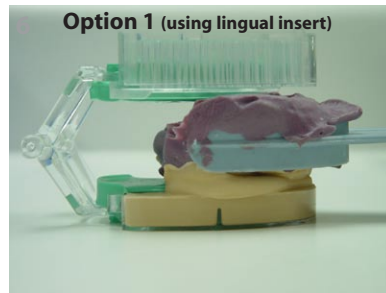
(Close the articulator) Holding the impression handle softly with one hand, close the articulator gently with the other hand by rotating the working tray over the impression. Try to avoid any excessive disturbance of the impression's sitting position.



(Fine tuning the position) This is the procedure that takes the most practice. Looking from the top, fine tune the position of the impression with the combined movement of (a) moving it backward or forward a little bit (as the white arrow indicates in pic 4) (...contued on the right side...)

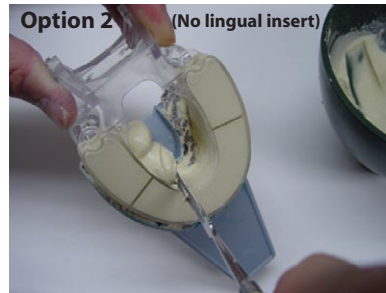


and (b) opening and closing the articulator halfway to make sure the perimeter of the overall teeth (yellow line), and more importantly, the prep teeth (white line) correspond to the staggered row of pinholes (red line) of the working tray (as in pic 5).



Option 1 (using lingual insert)

(With lingual insert) The lingual insert prevents any significant amount of stone from entering the lingual area of the model. As a result, there is no need to wipe the lingual side of the model clean.



Option 2 (No lingual insert)

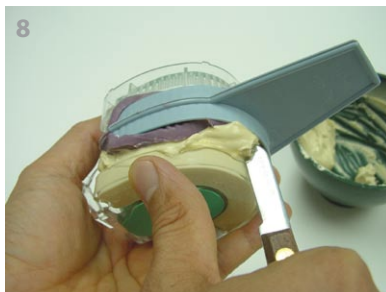
(Without lingual insert) Excess stone may collect in the lingual area and should be wiped away with a knife or spatula before the stone becomes to set.

Benefits

- Option 1 (using lingual insert)
 - Faster Model Making
 - Very Minimal Grinding
- Option 2 (not using insert)
 - Virtually no lingual grinding since excess stone can be easily cleaned away

2. Cleaning the Excess Stone

Method 1: Cleaning with knife



Technique

Cleaning with the knife involves cutting or scraping of the stone while it is slightly set but is still somewhat soft. Depending on the setting time, you usually have up to 15 minutes to clean the model after pouring. Simply scrape the buccal and lingual (if not using the insert) sides of the model as shown in the pictures above.



Cleaning with knife

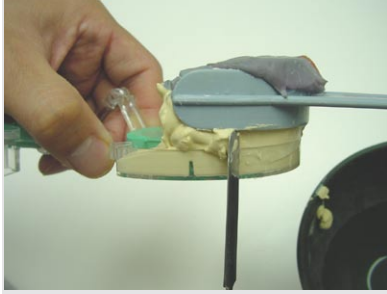


Benefits

Ideal when pouring multiple cases (over 5 cases at a time). The knife can be used to scrape away the stone up to approximately 15 minutes after pouring. This gives the technician more time to pour models before the stone is too set to go back and clean. Also, since the stone is somewhat set, the impression cannot be unintentionally moved while cleaning.

A. Full arch Triple tray (Double side) impression technique

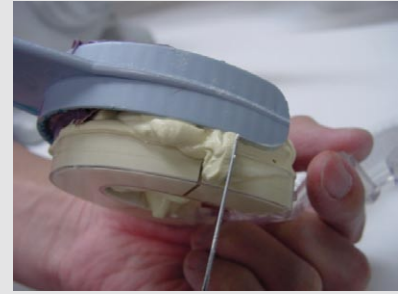
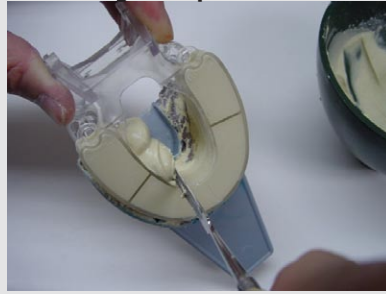
Method 2: Cleaning with spatula



Technique

Depending on the setting time of your stone, wait 2-4 minutes before cleaning so that the stone is soft enough to manipulate yet [set enough not to affect the integrity of the impression's sitting position](#). If the stone has not set long enough and is too runny, cleaning the excess stone may cause the impression to sink slightly on the stone or be tilted to one side.

Cleaning with spatula



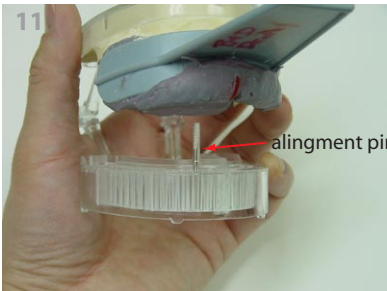
Benefits

Usually works best when pouring only a few cases (1-5 cases at a time). The spatula is used to clean the stone while it is soft and easy to manipulate. The stone is simply wiped from the tray.

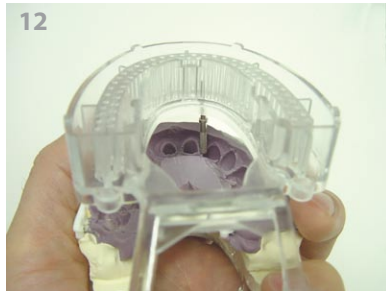
3. Pin alignment

Method 1

(Use the alignment pin to easily locate the correct pinholes, and to puncture the pinhole membranes)



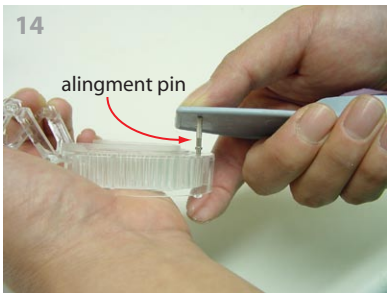
(Approximate alignment) Insert the alignment pin into a pinhole that appears to be in approximate alignment with one of the prepped teeth. Do not push the alignment pin through the membrane yet. (The alignment pin has the same body shape as the dowel pin but has a longer head that extends up to the impression)



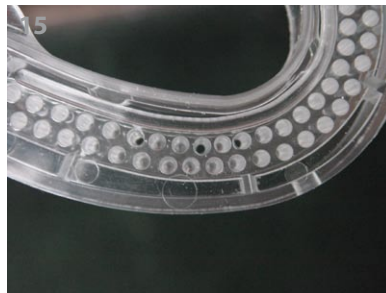
(Turn over & check) Close the articulator and turn it over so that the working tray is on top. Check the position of the pin by verifying that the long head of the alignment pin extends up to the center of the prepped tooth. If the alignment pin



does not line up well, open the articulator and move the alignment pin to a nearby pinhole that will work better. Check the position again until you have found the correct pinhole. After pouring a couple cases it becomes very easy to guess the correct pin position on the first or second try.



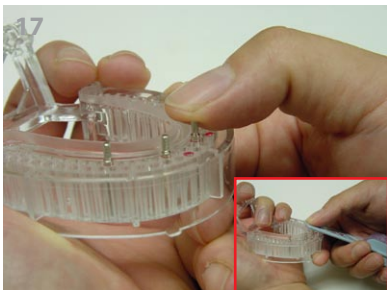
(Puncture the membrane) Use the plastic handle of the impression tray to easily puncture the membrane at the end of the pinhole. Follow this process (pic 11 - 14) of finding the pinholes and puncturing the membranes for all the remaining prepped teeth.



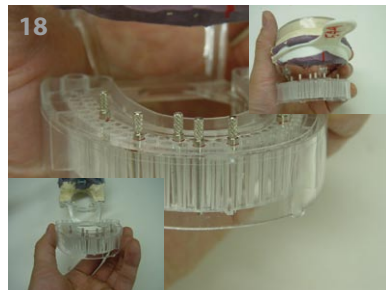
(Find the punctured pinhole) Hold the articulator against a dark background in order to easily find the punctured pinholes so that they can be marked.



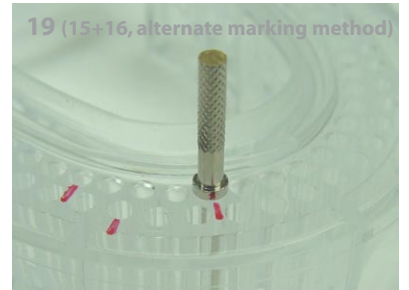
(Mark the punctured pinholes) Insert the tip of a dark colored sharpie into each pinhole that is to receive a dowel pin. Now that the pinholes are marked, they can be easily recognized for initial dowel pin insertion and for subsequent removal and insertion of the sectioned dies.



(Place dowel pins) Place a dowel pin in each of the marked pinholes. When inserting the dowel pin, [push the pin gently down into the pinholes so that it is snug](#). You can also use the plastic portion of the impression tray to gently press the pin into the hole.



(Double check the pin positions) Close the articulator and perform one last check to ensure you have pinned all the appropriate teeth. The model is now ready to be poured.



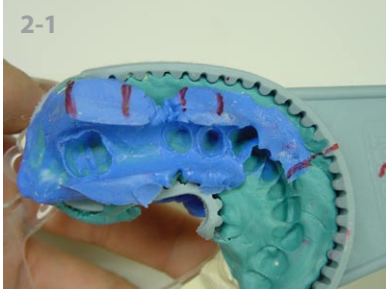
(Pinhole marking - alternate method) Instead of steps 15 & 16, you can mark each pin hole with a line while the alignment pin is inserted. Locate the correct pinhole, puncture the membrane and mark a line in front of the alignment pin.

A. Triple Tray (Double Side) Impression Technique

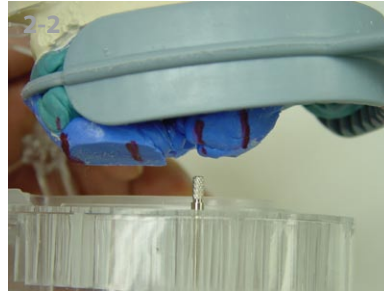
Watch DVD
For hands-on demo

Method 2

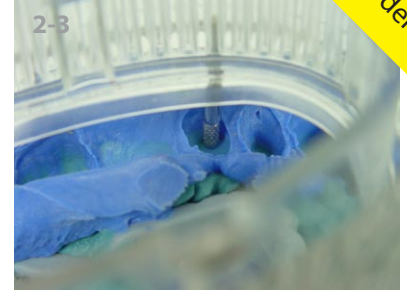
(Use this method When you do not Have an alignment Pin readily available)



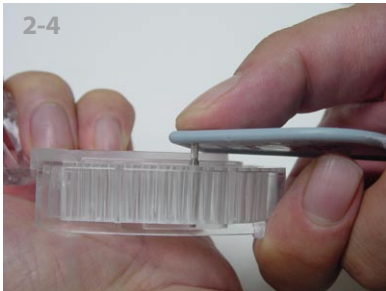
(Mark the impression)
Use a red sharpie to mark the center of each Prepped tooth. Extend the lines down to the Side of the impression so that they can be Seen from a side view when the articulator Is closed



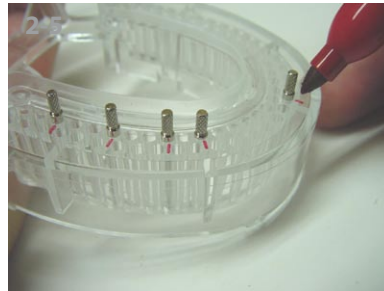
(Insert the pin)
Insert the pin into the pinhole that matches The marking on the impression (or on the Working tray if applicable).



(Drop the pin for verification)
Turn the articulator over (as in pic 2-3 above) And let the pin drop into the impression. Check the position of the pin in relation to The prepped tooth. Choose a better pinhole If necessary.



(Puncture the membrane with the pin)
Push the silver dowel pin through the membrane. Be sure not to push the pins deep into the pinholes. If you use excessive force to push the pin deep into the hole it may be difficult to remove and reseal the die later. Simply use enough pressure just to puncture the membrane.



(Mark the pinholes) Once all the pins are placed, use a sharpie to mark a line that extends from the dowel pin out toward the facial side of the tray. This line will be very useful for the technicians to easily identify where the sectioned dies are to be placed back on the tray.

Benefits of pin alignment method 1

1. Finding the correct pinhole is very easy.
2. You have full control of how snug the pins will seat in the pinholes. Since the membrane is already broken you can use your fingers or plastic portion of the impression tray to push the pin into the pinhole as deep as you want using varying degrees of force.

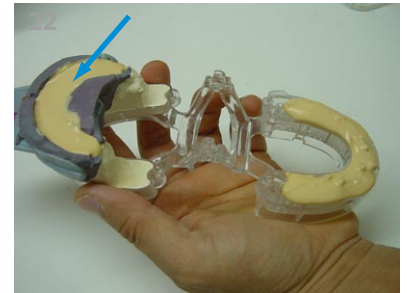
4. Pouring the Working Side & Cleaning



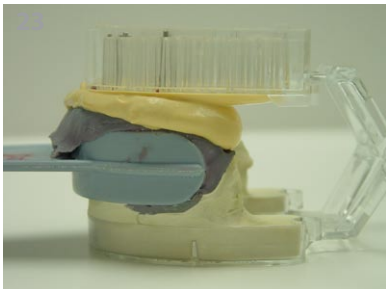
(Pour the impression first)
Using the vibrator, pour stone into the impression so that the teeth are covered and the impression is about 50% filled.



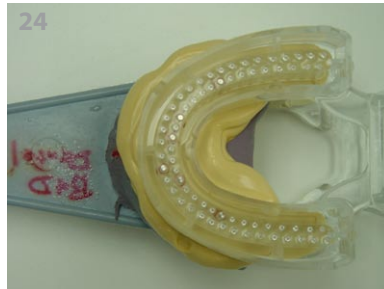
(Pour the tray and lightly vibrate)
Dab stone over the pinholes of the tray. Once the holes are covered, vibrate lightly and gently rock the tray to evenly spread the stone.



(Stack more stone) Stack the impression with stone. The stone should be thick enough so that it sits on the impression and does not run down the sides. Make sure you use an adequate amount of stone so that when the articulator is closed the opposing tray and working tray can sit parallel to another



(Put the working side on top)
Close the working tray over the impression and let the model sit with the working side on top. Check to make sure you used enough stone so that the trays are parallel to one another.



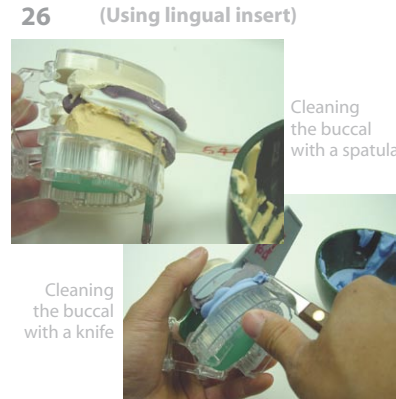
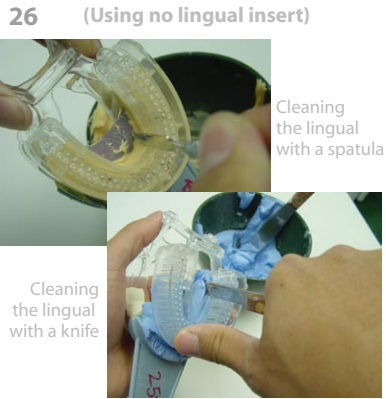
(Allow setting time) Depending on the setting time of your stone, allow it to set for a few minutes so that it can be easily cleaned away as described previously in section 1. If the stone is too thin in consistency, the effort to clean away the excess may result in the articulator closing too tightly. This may cause the hinge to spring open later.



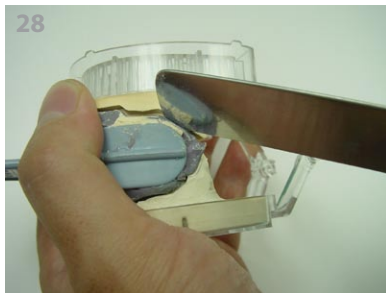
(Remove the excess stone)
Use a small spatula or a knife to clean away the excess stone as described in section 1.

A. Triple Tray (Double Side) Impression Technique

5. Stone Removal, Grinding & Finish



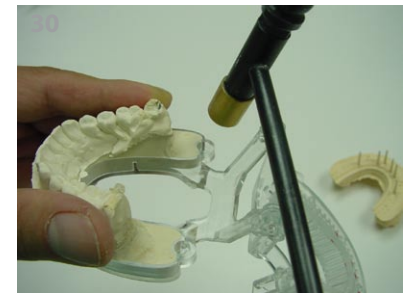
(Put the working side on top after cleaning)
Benefits: **1.** This will prevent the articulator from being closed too tight. **2.** Gravity pulls the stone down into the tooth area making the stone denser and the margin line clearer.



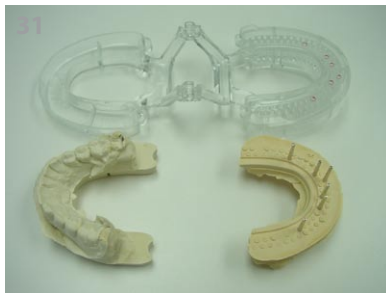
(Open the articulator)
Ease the model open by gently rocking the trays as you slowly pull the articulator open. Gently rock the impression to remove it from the model.



(Remove the working model) Grip the cast with one hand and use a small mallet to tap on the 2 stop rod receivers. Give each receiver a couple of firm taps to break the seal between the cast and the tray. Since the initial seal has been broken, the model can be easily wiggled out.



(Remove the opposing model)
As with the working side, grip the cast, not the tray. Gripping the cast while tapping down on the tray will cause the seal to break easily. The model can then be gently wiggled out for grinding.



(Easy model removal) Because of the patented pinhole covering technique, die stone from the cast does not get lodged in the pinholes, thereby allowing the model to be easily removed from the tray.



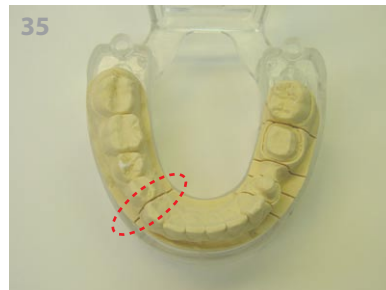
(Lingual grinding)
The Artimax Gold Plated Titanium Bur, provides fast and efficient grinding while leaving a smooth finish on the model.



(Buccal grinding)
The facial side of the model can also be trimmed with a bur or you can simply use a wet or dry grinder.



(Clean the model thoroughly)
For positive seating of the model, thoroughly clean the bottom of the working model. Use compressed air for dry cleaning or wet clean the model with water & a toothbrush or a steam gun.

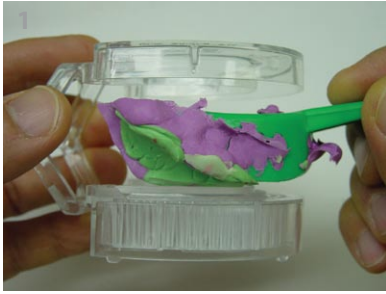


(Section the model)
Section the model on the tray. If a certain sectioned die is too big, cut it into two pieces for easier seating. If a large piece is left unsectioned, seating it may be difficult due to stone expansion.

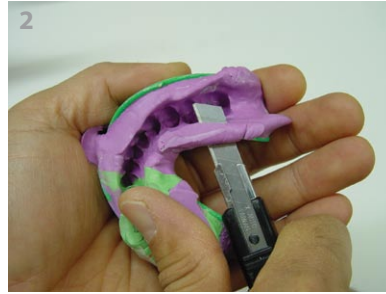


(Finished case)
As you practice, you will be able to pour many cases in one batch.

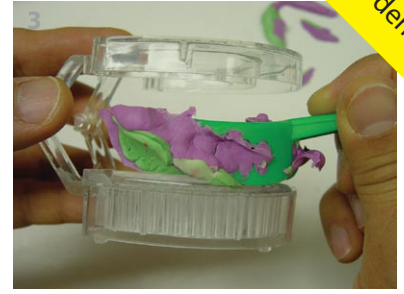
1. Trimming the Impression



(Before trimming)
Single side impressions are usually tall inside the tray. You will likely notice that the palatal area of the impression usually hits the lingual wall of the working tray. If the impression is not trimmed, the working model may be very tall.



(Trimming) Trim the impression so that it fits well between the trays when they are close.



(After trimming)
Now the occlusion of the bite occurs approximately in the middle of the two articulator trays.



(Mark the center)
Mark the center on the impression. There is also a notch provided on the center of the working tray. This will help center the impression on the tray when placing the impression.



(Attaching the dental putty)
Firmly attach the dental putty to the opposing tray. Shape the putty so that it can securely support the impression.

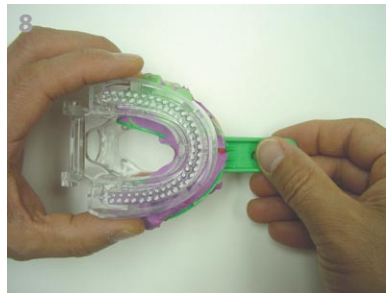


(Use enough putty)
Not using enough dental putty will produce a tall working model. Use enough putty so that occlusion will occur in the middle of the articulator.

2. Securing the Impression onto the Opposing Tray



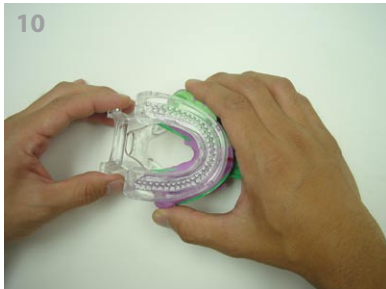
(Initial placement) Lightly place the impression onto the putty, putting the row of teeth in approximate alignment with the row of pinholes. Look down through the tray in order to fine tune the sitting position.



(Fine tuning the position) It is helpful to open and close the articulator while slightly adjusting the sitting position of the impression. Repeat this action until you are satisfied that the row of teeth are in line with the row of pinholes. Since there are 67 pinholes to choose from, there is no need to match each prep tooth with a pinhole at this time.



(Secure the impression)
Once the correct position has been found, firmly press the impression into the putty so that it is securely seated.



(Double check for minor adjustment)
Close the articulator and check again to make sure the row of teeth and row of pinholes are aligned. If needed, you can still make minor adjustments by slightly moving the impression over the putty.



(Check the balance of the impression)
Look at the articulator from both the front and side views. Make sure that the occlusal plane of the teeth is parallel to the trays of the articulator.

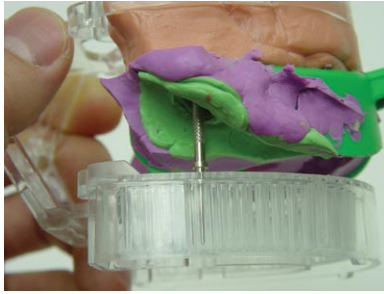


(Use enough putty) Also, make sure you used an adequate amount of putty so that the occlusion of the bite will occur approximately in the middle of the two trays.

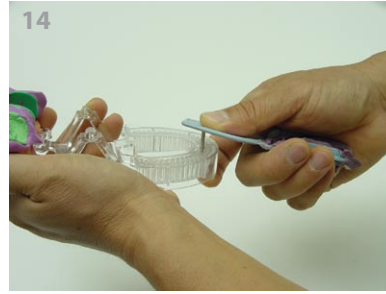
B. Full Arch Single Side Impression Technique

3. Creating the working model

(Pin Alignment, Stone Pouring, & Removal of Model)



(Selecting the correct pinhole)
See Pic 11 - 13 of technique A

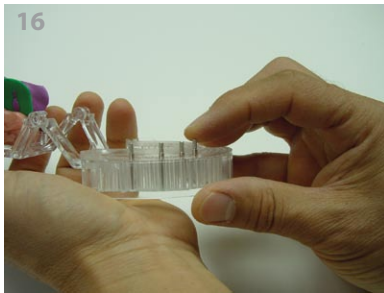


(Puncture the membrane)
See Pic 14 of technique A

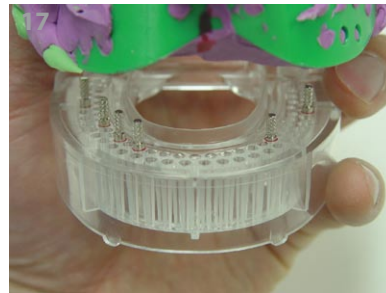


(Mark the punctured pinhole)
See Pic 15 - 16 of the technique A

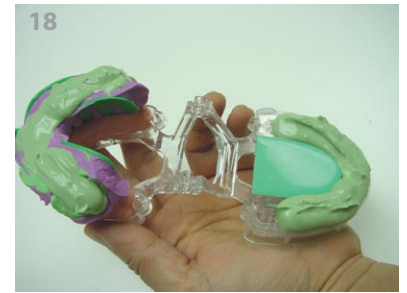
(These steps have already been introduced in previous pages.
Please refer to the indicated picture numbers for a detailed explanation)



(Place the dowel pin)
See Pic 17 of technique A



(Double check the pin positions)
See Pic 18 of technique A



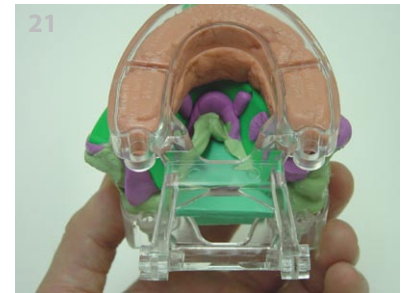
(Pour impression and then tray)
See Pic 20 - 22 of technique A



(Put working side on top)
See Pic 23 - 24 of technique A



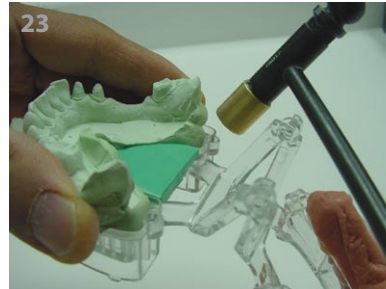
(Remove excess stone from the buccal)
See Pic 25 of technique A



(Using the lingual insert)
See Pic 3 & 6 of technique A



(Remove the impression)
See Pic 28 of technique A



(Remove the working model)
See Pic 29 of technique A



(Easy model removal)
See Pic 31 of technique A

4. Articulation

Method 1

(This method is quick and should only be used on cases with plenty of occlusal contact points)



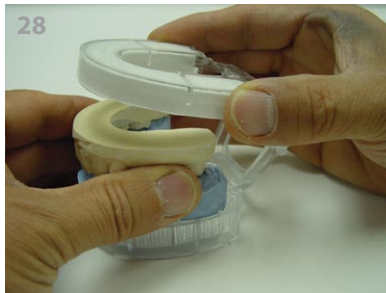
(Trim the opposing model)
Now that your working model has been poured, trim the opposing model so that it can fit in the opposing tray of the Artimax articulator.



(Pour the opposing tray)
Pour the opposing tray, making sure that you completely fill the tray with stone.



(Wet the top of the opposing Model)
Apply a small amount of water to the top of the opposing model. Slightly dampening the model will help it securely adhere to the lab stone that is poured in the opposing tray.



(Close the articulator) Hand articulate the bite. Hold the articulated working model with one hand while closing the opposing tray with the other hand.



(Clean away the lab stone)
Wipe the excess stone from the opposing tray and model.



(Finished case)
Check the bite to make sure it was articulated correctly and needs no further adjustment.

Method 2

(This method works very well for cases that have a limited number of occlusal contact points)



(Temporarily glue the bite) Hand articulate the model and use the Artimax hot glue gun to secure the bite. Two or three spots of glue should be sufficient. Make sure that the glue extends to both the working and opposing models.



(Apply lab stone) Wet the top of the opposing cast with water. This will help the model securely adhere to the lab stone that will be poured in the opposing tray. Pour the opposing tray, making sure that you completely fill the tray with stone.



(Close the tray and clean)
Close the opposing tray of the articulator over the model and wipe away the excess stone from the opposing tray and model. The hot glue securely holds the bite of the model.



(Wet the glued area)
Lightly wetting the glued area will facilitate in peeling the glue off.



(Peel the glue off)
The glue will leave no marks or residue.



(Finished case)
Now check the bite to make sure it was articulated correctly and needs no further adjustment. Glue the posterior stop rod for free-end cases.

Benefits of Using the Lingual Insert

1. The lingual insert increases productivity as it **eliminates time** that would normally be necessary to clean the lingual side of the model.
2. The technician is able to **pour many more cases in one batch** since there is no need to worry about the timing associated with cleaning the lingual side when the stone is not “too runny” and not “too set”.
3. Since excess stone is significantly restricted from entering the lingual area, there is only a **minimal amount of grinding** necessary.



1. Trimming the Impression



1 (Trim the palatal area of the impression)
Reduce the palatal area of the impression so that it does not interfere with the green lingual insert.

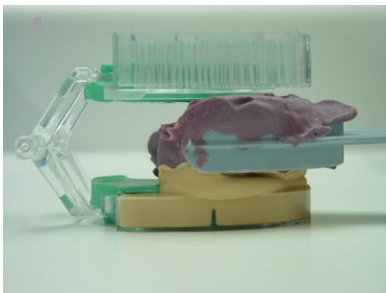


2 (Impression after trimming)
See Pic 1 of technique A

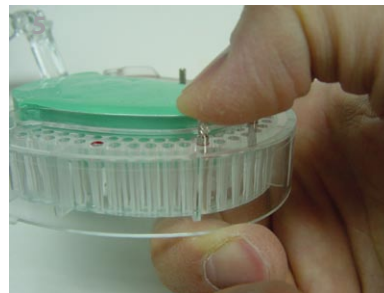


3 (Pour the opposing tray & impression)
See Pic 3 of technique A

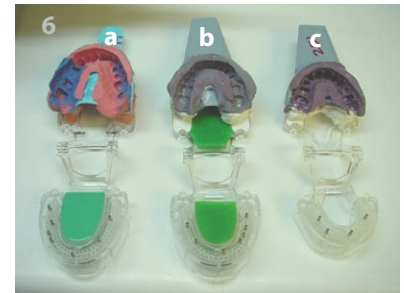
(These steps have already been introduced in previous pages. Please refer to the indicated picture numbers for a detailed explanation)



4 (Place the impression onto the tray)
See Pic 6 of technique A



5 (Place the dowel pins)
See pic 17 of technique A



6 (The working side is ready to pour)
a: Single side impression
b: Double side impression
c: Anterior size impression

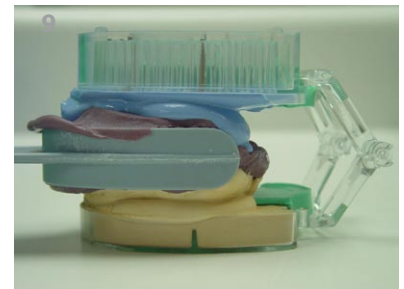
2. Pouring the Working Side



7 (Pour the impression and then the tray)
See Pic 20 - 21 of technique A



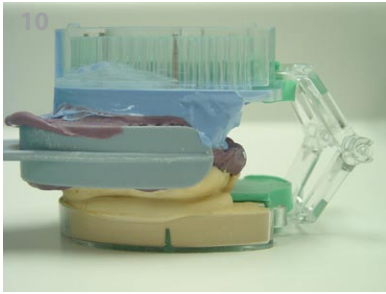
8 (Stack more stone on the impression)
See Pic 22 of technique A



9 (Put the working side on top)
See Pic 23 - 24 of technique A

C. Using The Lingual Insert for Multiple Pours

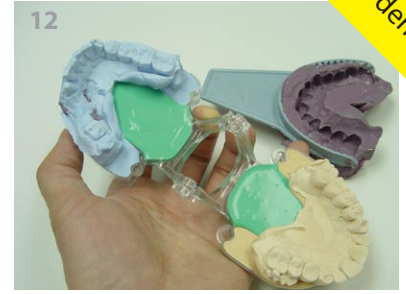
Watch DVD
for hands-on demo



10
(Clean the buccal side of the model)
See Pic 25 - 27 of technique A



11
(Top view)
See Pic 27 of technique A



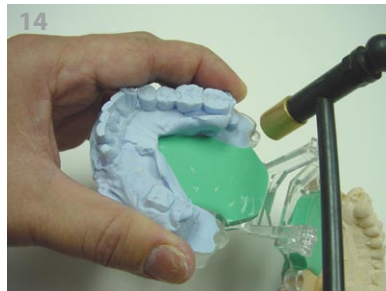
12
(Remove the impression)
See Pic 28 of technique A

(These steps have already been introduced in previous pages.
Please refer to the indicated picture numbers for a detailed explanation)

**3. Model Removal,
Grinding & Finish**



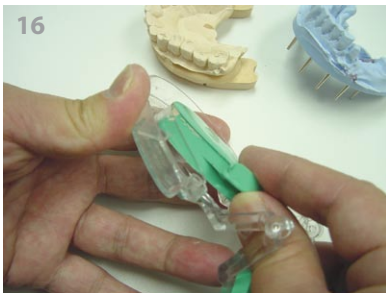
13
(Completely poured case)



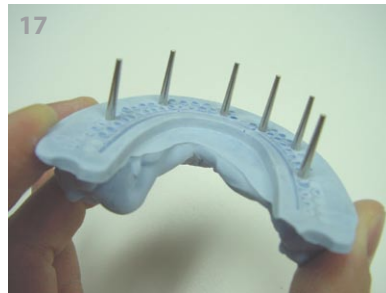
14
(Remove the working model)
See Pic 29 of technique A



15
(Remove the opposing model)
See Pic 30 of technique A



16
(Remove the lingual insert)
The lingual insert can be easily removed and reused.



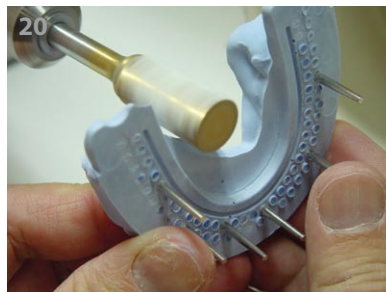
17
(Working model before grinding)
The lingual insert ensures that there is only a minimal amount of excess stone in the lingual area.



18
(Opposing model before grinding)
You can also remove the opposing model to grind the small amount of stone in the lingual area.



19
(Opposing model before grinding)

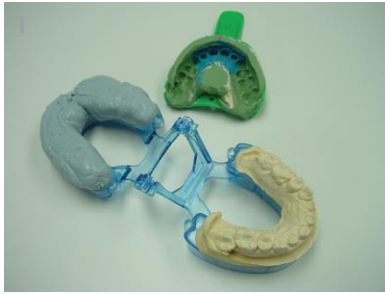


20
(Lingual grinding of the working model)
Grinding is minimal.

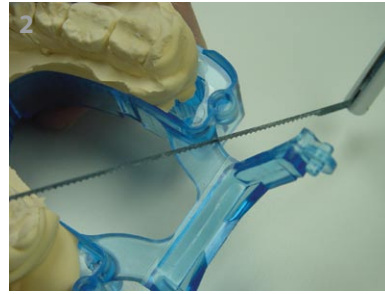


21
(Finished case)
Now check the bite to make sure it was articulated correctly and needs no further adjustment. Glue the posterior stop rod for free-end cases.

1. Prepare the working model



(Create the working model)
Create the working model by attaching the impression to the opposing tray with dental putty as was previously taught in section B (Single Side Impression Technique). You can use either a single side impression or a triple tray impression.



(Remove the hinge - method 1)
Separate the opposing & working trays for easy access and then remove the hinge by sawing as seen in the picture above.



(Remove the hinge - method 2)
You can also use pliers to cut off the hinge portion.

2. Articulation

**Method 1:
Using magnet**



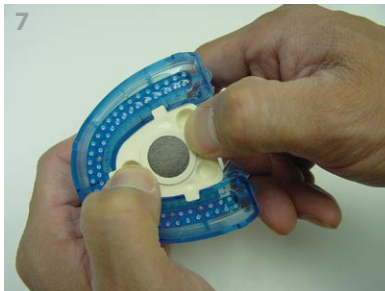
(Finish the working model)
Remove the working model from the tray. Trim and section the model as taught in previous pages.



(Insert the magnet)
Push the magnet all the way down into the hole on the [magnet housing plate](#).



(Glue for the magnet housing)
Place a drop of glue in each of the 3 slots located on the bottom of the working tray.



(Mount the magnet housing plate)
Insert the 3 notches of the magnet housing plate into the 3 slots of the working tray. Push the magnet housing plate firmly into place so that all the notches of the plate are all the way down into the slots of the articulator tray. This will ensure that the plate sits evenly.



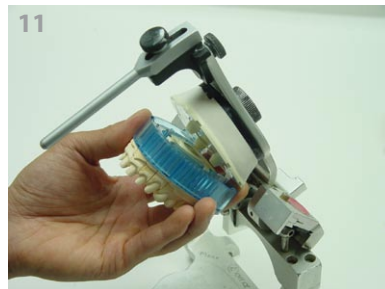
(Insert the metal piece)
Push the metal piece into the [metal housing plate](#) from the bottom of the plate.



(The magnetic connection is complete)
The tray is now magnetically attachable to the metal housing plate. The bottom of the metal housing plate receives the plaster so that the system can be mounted to the semi-adjustable articulator.



(The completed model)



(The system is convenient & secure)
The magnet tray base has plenty of retention while allowing for easy removal by simply pulling it away from the articulator.



(Metal articulators)
The magnetic tray base is also connectable to metal articulators by simply mounting the metal housing plate directly to the articulator with plaster.

D. Mounting the Artimax Base on Semi-adjustable / Metal Articulator

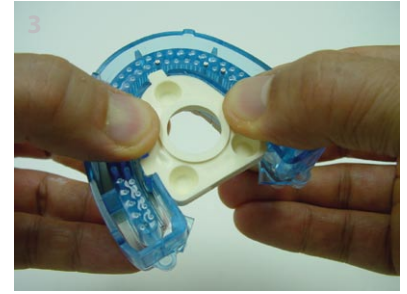
**Method 2:
Not using the
Artimax magnet**



(Magnetic based articulator)
Many articulators provide the option of coming equipped with a magnetic plate. The Artimax Tray Base is fully compatible with this setup. You may choose to use the Artimax magnet system (as taught in Method 1) or simply use the tray and magnet housing plate only (as taught on this page).



(Glue for the magnet housing)
Place a drop of glue in each of the 3 slots located on the bottom of the working tray.



(Mount the magnet housing plate)
Insert the 3 notches of the magnet housing plate into the 3 slots of the working tray. Push the magnet housing plate firmly into place so that all the notches of the plate are all the way down into the slots of the articulator tray.



(Apply tape to the magnet housing)
Cover the magnet hole by applying tape to the top of the magnet housing plate (as shown) so that it completely covers the hole into which the magnet would normally be inserted. Covering the top prevents debris from entering the hole



(Apply utility wax)
Use a few strips of utility wax to completely cover the pinhole area on the bottom of the tray. This wax will allow the dies to be easily removed and replaced onto the tray after mounting is complete.



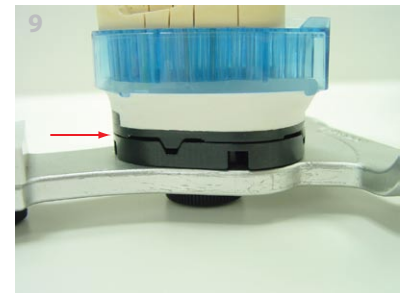
(Ready for plaster)
With the magnet housing, tape, and utility wax in place, the model is ready to be for the plaster.



(Plaster the model)
Apply plaster to the bottom of the model. The bottom of the magnet tray is open and will allow some excess stone to flow in for added retention. The tape on the top of the magnet housing plate prevents stone from flowing up into the lingual area of the model.



(The model is now secure)



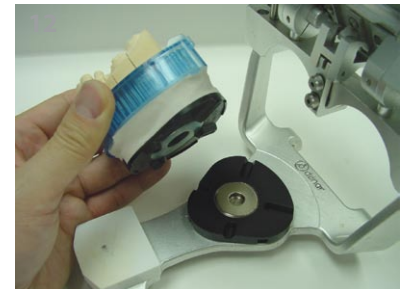
(Magnetic connection point)
The magnetic connection point of the model is between the magnet plate and the plastic plate.



(Lingual are view)
The lingual area of the model is free from plaster and debris because of the scotch tape. At this point the scotch tape can be removed.



(The system is convenient & secure)
The tray base can be conveniently removed from the articulator.



(Completed case)