

# Artimax™ Disposable Articulator Technical Advice & Helpful Hints

Quadrant

**1. Q. (Stone Removal) How do I get the stone out of the Artimax™ tray ?**

After the stone sets, what are the general steps taken before removing the sectioned dies ?

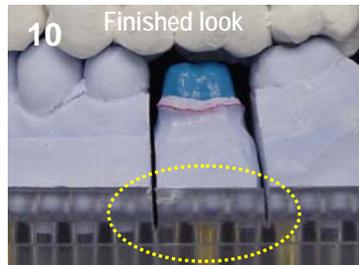
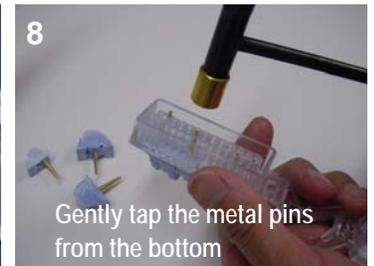
A. Artimax is designed for easy stone removal, and **does not need any separator spray.**

Removal of the stone can be facilitated by gently tapping the metal pins from the bottom. If you are having trouble removing the sectioned dies, here are a few hints:

	Wall type	Wall-less type
Removing the die(s) after sectioning (Grind → Saw/Cut → Remove)	Method 1	Method 1
Removing the entire model before sectioning (Remove → Grind → Cut/Saw)	Method 2	Method 2

**Method 1 (wall type): Grind → Saw/Cut → Remove ..... (Removing the dies after sectioning)**

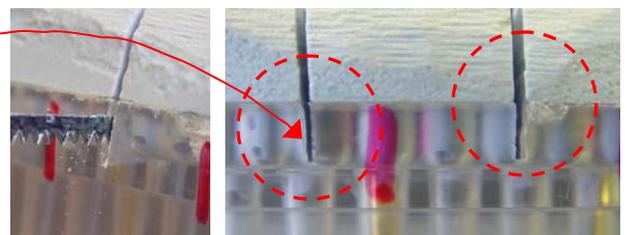
a. General steps before removing the sectioned dies.

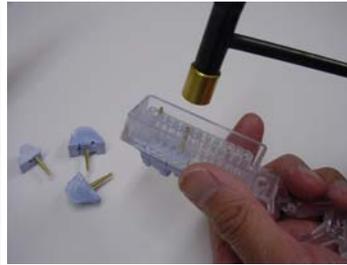


b. Do not try to remove the whole cast before sectioning. Saw out your dies while the stone is in the Artimax tray.

c. Initial stone removal is easiest if you allow the minimal drying time (approximately 2-3 hours) before sectioning and removal of the stone cast.

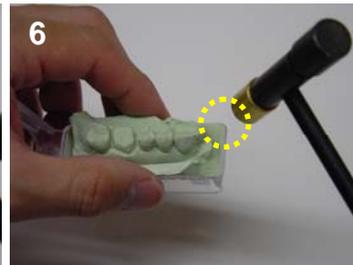
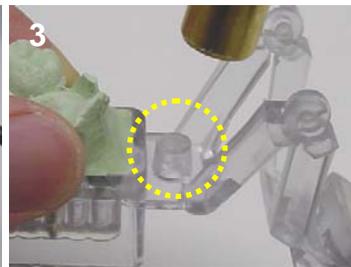
d. To section your dies, cut the stone **down through the 3mm corrugated wall** of the Artimax tray. Stop sawing when your saw meets the resistance of the Artimax tray bed. Once your dies are sectioned, gently tap from the bottom of the tray. Each sectioned die will be easy to remove and replace in the articulator.



**Method 1 (wall-less type): Grind → Saw/Cut → Remove..... (Removing the dies after sectioning)**


This method of removing stone from the wall-less articulator is identical to the method used for the wall type. The only exception to this is that since there is no wall, there is no dust from the plastic (as seen in picture 5 on page one).

See the Hands-on  
video tape for  
demonstration

**Method 2 (wall type): Remove → Grind → Saw/Cut..... (Removing the entire model before sectioning)  
or Grind → Remove → Saw/Cut..... (Removing the entire model before sectioning)**


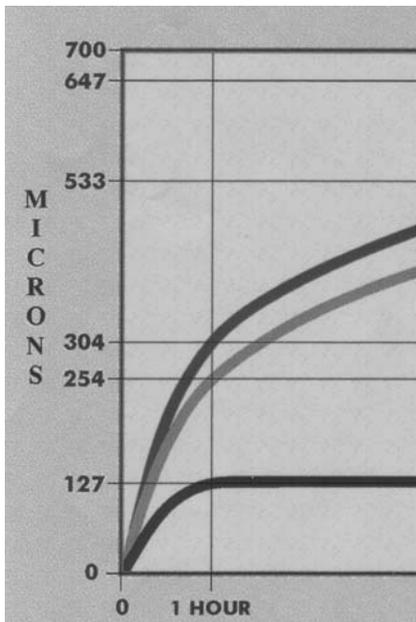
Wiggle out the whole cast  
gently from the tray

After the model sets for at least 2 hours, grip the working model (not the tray) with one hand (picture 1). With the other hand, give a few solid taps on the distal end of the articulator with a small mallet (pictures 2 & 3). This will help break the seal between the stone and the tray. Rotate your grip on the cast and give a few taps on each mesial corner of the plastic tray (pictures 4-6). This will completely break the seal. The whole cast can then be easily removed by pushing up on the dowel pins or by using your hand to wiggle it out from the tray (picture 7). Upon removal, one blow with an air gun (picture 8) will clean away the stone debris produced from the separation of the model from the tray. You can either remove the whole cast after grinding the model on the tray or remove the cast and grind it separately.

Mallet for removing the model  
(with 4 different tips)

**\$8.00**

## 2. Q. (Stone Expansion) How does stone expansion affect the removal of the stone from Artimax?



**Stone Expansion Vs. Time**

- A. All die stones expand, and some more than others. Artimax™ is designed with a 3mm corrugated wall to help prevent die sway and die rotation. This short wall also allows for easier pouring and stacking of die stone. In addition, the wall is a good indicator of how much your stone expands. If you have difficulty removing and reseating the sectioned dies, you are probably using a Type V (high expansion die stone with an expansion rate over 0.2%). **For best results, we recommend using a Type IV (low expansion) stone with Artimax,** although any stone can be used. (Further technical information is available upon request)

**If you happen to use a high expansion die stone, each sectioned die (master die and/or adjacent die) may not sit completely and this can be a cause for an occlusion problem.** Please see the comparison chart of all major brands for their expansion rate.

For those who prefer to use high expansion rate die stone, we also have a new version of Artimax without a corrugated wall. This wall-less Artimax is designed for the convenience of those who desire to use Type V (high expansion) die stone for a variety of reasons, like compensating for the shrinkage from new types of metal or impression material.

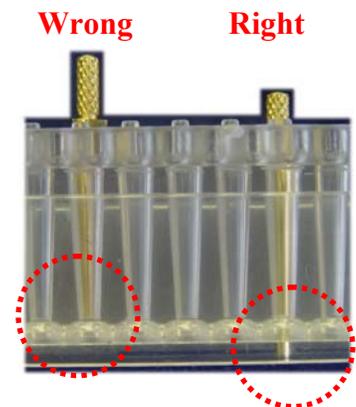
## 3. Q. (Pins) Do I have to use pins with Artimax™?

A. Since the articulator was primarily designed to be used as a pin system, it is less effective without pins. Medium-sized dowel pins are included in Artimax's purchase price; however, we will subtract our dealer cost on pins if you prefer to purchase Artimax without the pins.

## 4. Q. (Pins) Will only one dowel pin under one working die give me enough stability?

A. Absolutely. You don't need to place 2 dowel pins or use a twin pin with metal sleeves. Even better stability is achieved by the combination of our proprietary designs; corrugated walls, hexagonal retention struts and medium-sized brass dowel pins which are most widely used in the lab.

Make sure the pin(s) are completely seated into the tray by [piercing the Airstop™ thin membrane\(3/1,000"\)](#) at the bottom of the pin hole. The tip of the pin should protrude through the tray as shown in the picture on the right

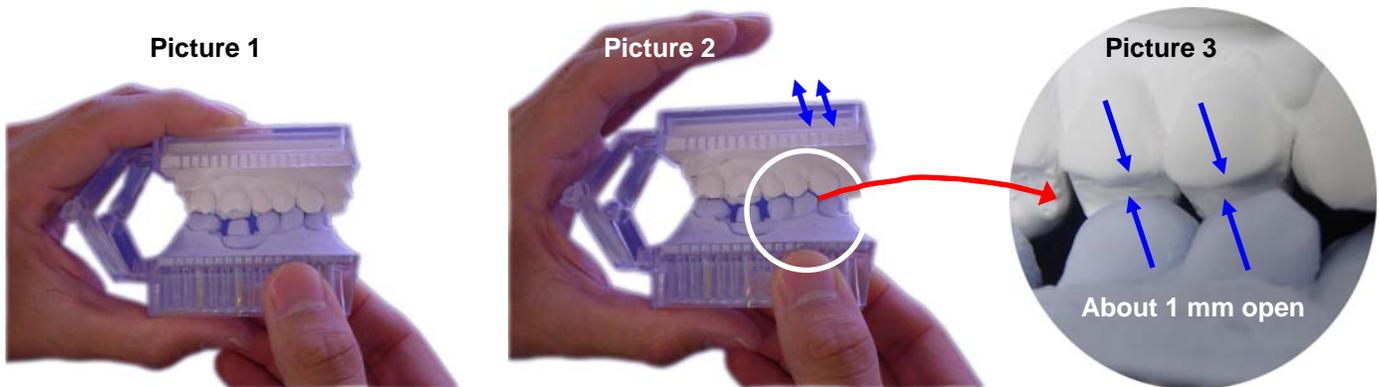


## 5. Q. (Separator) Do I have to spray the separator before pouring the stone on the tray?

A. Absolutely not. The floor of the Artimax tray is already well polished so you don't need any type of separator at all.

**6. Q. (Hinge Springs Open) How do I prevent the model from springing open after it is set and the impression is removed?**

★ What is this problem of ‘the Hinge Spring Open’?



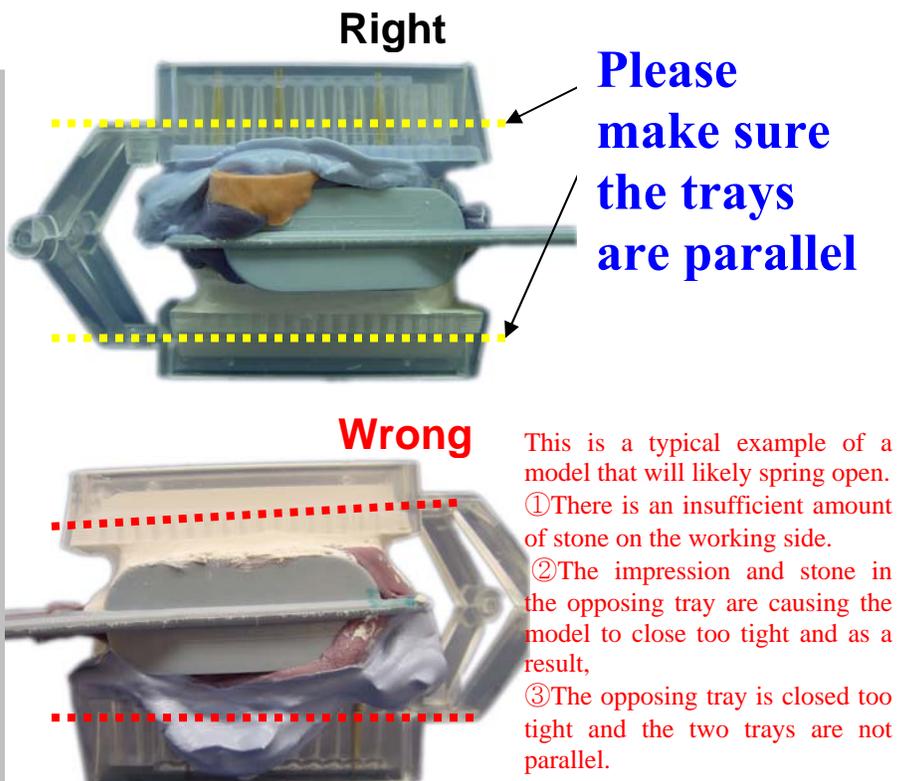
The problem of ‘The Hinge Spring Open’ occurs when the model gives you a complete closed bite if you hold the trays as in picture 1 but springs back open about 1mm (Pic 3) if you release the hold as in picture 2.

**A. This is not a common occurrence. However, it does happen when there is an insufficient amount of die stone in the model when it is setting, thus causing the model to close too tight.**

There are two steps to keep in mind in order to avoid this hassle. First, pour enough die stone so that, when the articulator is closed, the opposing tray and working tray are parallel to each other. If there is not enough stone the trays will not be parallel and the model will be closed too tight. Second, after the model has been poured and the trays are parallel, set the model with the working side on top during the drying period. If the working side is on the bottom, the weight of the impression and stone from the opposing side will cause the model to close too tight. This is especially important when die stone consistency is thin.

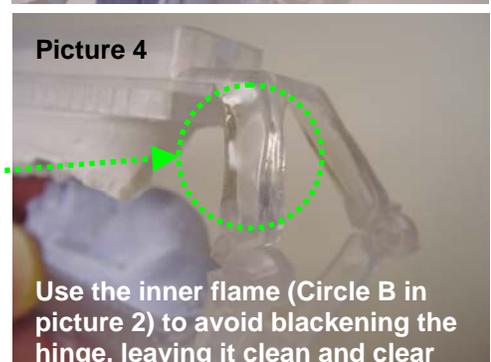
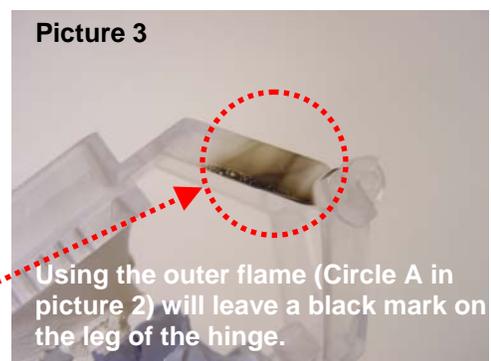
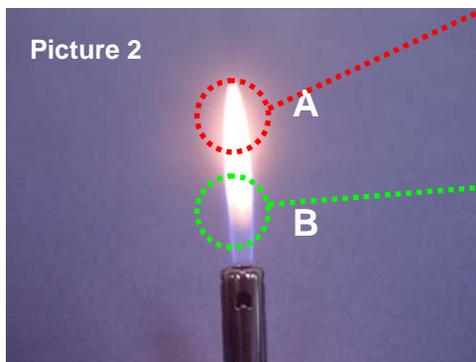
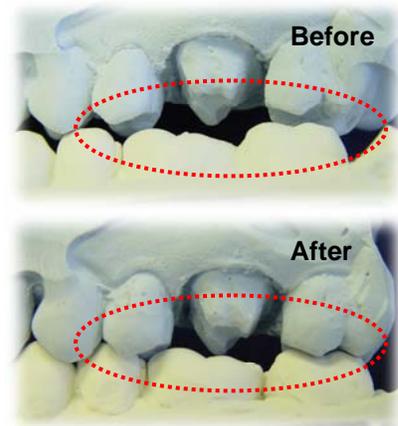
In order to make sure the **trays are parallel** and not closed too tight;

- ① Use a sufficient amount of stone on the working side
- ② Upon pouring the working side, let the model stand with the working side on top.



**7. Q. (1 minute Bite Adjustment) How can I correct the patients bite if it is wrong?  
Why does the plastic arm of the hinge sometimes blacken or have bubbles when heated?**

A. Occasionally the doctor will send an impression of which the bite is wrong. This is not a problem. The bite can be adjusted in less than 1 minute by simply softening the hinges of the articulator and re-articulating the bite by hand. The hinges can easily be heated by using a micro torch or BBQ/candle light torch (Picture 1). Whichever you use, please use the **inner blue part of the flame** (green circle B in picture 2) to get a clean look as in picture 4. If you use the outer part of the flame (red circle A in picture 2), you will get a black mark on the leg of the hinge as in picture 3. Heat the **middle (pic 5) of both legs** (avoid the joint area of the hinge) of either the opposing tray or the working tray with the **blue part of the flame** for about 15 to 20 seconds. During this time be sure to switch legs every 5 to 6 seconds (pic 6 & 7) to avoid overheating the hinge. This will prevent the hinge from burning and causing bubbles. While the hinges are soft, the bite can be re-articulated. After finding the right bite, hold the articulator still for about 15 seconds so the new bite can set. For faster cooling you may also blow compressed air on the legs for 5 seconds. (Please see the video tape for demonstration)



**8. Q. (Stone pouring) Why is it recommended to pour Artimax's opposing side first?**

**A. Benefits of pouring the opposing side first :**

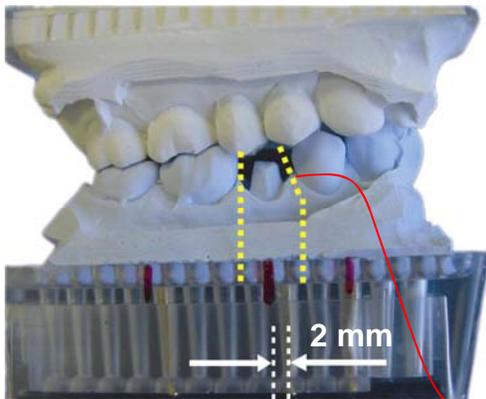
1. Stabilizes the impression and makes it easier to align the center of the prepped tooth with the row of pin holes.



2. It takes less time per case and the job is much easier.
  - 1) If you pour the prepped side first, it is hard to place the impression so that the center of the prepped tooth is aligned with the center of the lower tray (please look at the pictures on page 4 & 5 of 12-page "Technician's guide to Model making")
  - 2) Pouring the prepped side first **requires making two marks** on both the impression and tray and **consciously making them in line.** Whereas, pouring the opposing side first eliminates these conscious efforts of having to make two marks in line. Just mark the center of the prepped tooth on the impression and then on the lower tray and insert the pin.
    - Almost all the labs prefer to pour the opposing side first. Try it for yourself!

**9. Q. (The interval of pin holes) Will I have pin hole locations corresponding exactly to the center of the prepped tooth? What about the small teeth like bicuspid?**

- A.** You will find you have plenty of pin holes to select from for pinning. Artimax pin holes are closer together than other brands.



In rare cases with a small tooth (like in the picture on the left), the red marking that represents the center of a prepped tooth coincidentally may not correspond exactly to pin holes. But, pin holes are close enough to safely absorb any slight deviance from this red marking. **The maximum deviance is only 2mm or 1/16 of an inch.** That is exactly same thickness of a nickel. In other words, **even if you did not measure anything trying to locate the pin hole when you first pour the opposing side of the impression, there is always an appropriate pin hole allocated for even a small tooth like bicuspid without deviating far from the center of a prepped tooth.**

This deviance is almost negligible considering **you can see through to the metal pins and easily avoid the pin head when sawing.** This is a good example of where the lab technician's point of view has been given full consideration in development of Artimax.

**10. Q. (Full Arch) How can I use Artimax for the case in which both upper and lower teeth have been prepped at the same time?**

- A.** Connect two lower trays and do the same procedure as in regular cases.

