



SmartClip[™] SL3 and Clarity[™] SL Self-Ligating Appliance Systems

Dr. Anoop Sondhi's Tips and Tricks

Here are some tips and tricks to keep in mind when working with 3M self-ligating braces:

- 1. It is necessary to work out all rotations prior to placing rectangular archwires.
- 2. All bracket repositioning and IPR should be accomplished early in treatment.







3. Tandem .014 and .016 archwires are excellent as SECOND archwires.

- Think of the tandem wire as a TRUTH wire. It will tell you a lot about your bracket positioning, and it is absolutely the best time to do your bracket repositioning.
- Slightly off-centered bracket positioning is helpful for rotational control. It is my opinion that this is one of the reasons behind the claim that rotation control with self-ligation is poor.













6. Forcing an archwire in will increase the risk of distorting it.



Risk of Deformation

For severe rotations, begin by engaging only one wing until preliminary rotation correction is achieved.





- 7. When closing *small spaces* with the SmartClip[™] SL3 Self-Ligating Appliance System, powerchains may be inefficient, redundant, and unhygienic. Simple crimpable hooks and AlastiK[™] Modules are quite effective for closure of small spaces, and much more hygienic. For *generalized* space closure, however, powerchains are still useful.
- Crimpable hooks and AlastiK modules can also be used for tiebacks, and if you want to pull the archwire into the back of the bracket slot.
- 9. For direct bonding, a Tarno instrument works well for bracket positioning.







- 10. As a general rule, if the archwire is difficult to insert, it is too big/heavy an archwire. Try a lighter archwire.
- Complete all alignment activations in light archwires. Avoid getting to larger steel archwires until preliminary alignment has been achieved.
- 12. The majority of your finishing details should be achieved in Beta III Titanium archwires.



13. Do not go to steel archwires of $.016 \times .025$ or higher until all adjustments have been completed.





14. It may be helpful to express full rotation correction with a small step or offset while still in light round archwires.



15. In ligated systems, there is a tendency to move quickly into larger archwires. There is also a greater tendency to skip intermediate archwires.

With the SmartClipTM SL3 Self-Ligating Appliance System, it is advisable to keep the lower force archwires in place for longer periods – let them do their work.

Also as a general rule, is it advisable to follow the suggested archwire sequence, and to avoid skipping the intermediate archwires.

• Offset brackets by 0.5 mm towards the rotation.



• Avoid uneven resin thickness under the bracket bases.



• Use the .014 tandem archwires in the .018 slot.





• Use the .014 and .016 tandem archwires in the .022 slot.

Dr. Sondhi FAQ's

- 1. How do I deal with difficult rotations in the lower anteriors?
 - Open the contacts in the mandibular anterior segment with a Sondhi "super duper" .012 archwire.









3M Unitek

2. Don't I lose torque control in the anteriors with self-ligation?

• Our Torque Loss Charts clearly demonstrate that the use of $.016 \times .025$ archwires in the .018 slot, and $.019 \times .025$ wires in the .022 slot, give us adequate torque control.

| Wire Size (inches) | Torque Loss .018 Slot | Torque Loss .022 Slot |
|-----------------------|--------------------------|--------------------------|
| .014 × .025 | 16° | 31° |
| .016 × .016 | 17° | N/A |
| .016 × .022 | 11° | 30° |
| .016 × .025 | 9° | 23° |
| .017 × .022 | 7° | 24° |
| .017 × .025 | 6° | 19° |
| .017 × .025 Hybrid | 10° | 34° |
| .0175 × .0175 | 7° | N/A |
| .018 × .018 | 6° | 39° |
| .018 × .022 | 4° | 20° |
| .018 × .025 | 3° | 15° |
| .018 × .025 Hybrid | 6° | 27° |
| .019 × .025 | N/A | 12° |
| .019 × .025 Hybrid | N/A | 21° |
| .021 × .021 | N/A | 6° |
| .021 × .025 | N/A | 5° |
| .021 × .025 Hybrid | N/A | 10° |

N/A means that the archwire is either too large to work in the slot or is too small and will spin.

3. I'm still having difficulty inserting larger rectangular wires. What do I do?

- Establish the vertical alignment of the teeth and the brackets before you transition to large rectangular wires.
- Complete all rotation corrections before you transition to large rectangular wires.
- The principle is simple you do not ever want to first make an adjustment in a large steel rectangular wire and then have to reinsert it.
- Watch your torque activation if the torque factor is very active, step down to a smaller/lighter wire.



- 4. What if it is difficult to insert large rectangular wires after adding torque or detailing adjustments?
 - Try completing the finishing details with Beta III Titanium archwires.



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