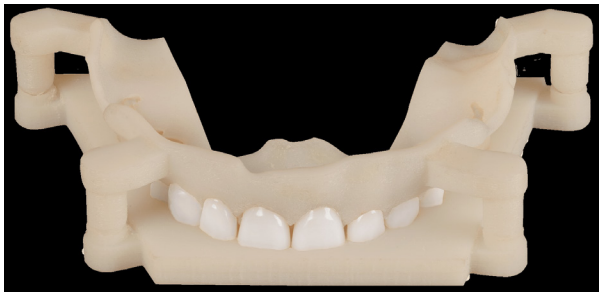
Web *Exclusive*

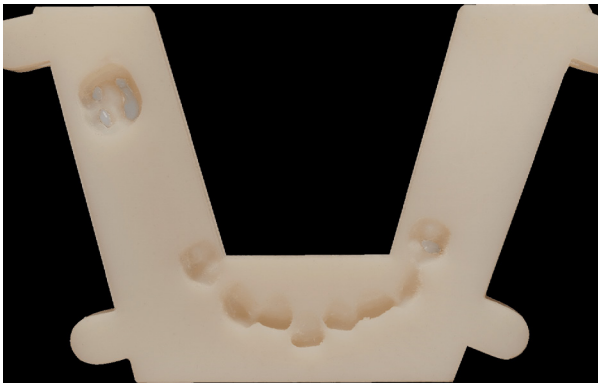
New Tool Makes Digital Dentures More Feasible

ANDY JOHNSTON, CDT, SENIOR TECHNICAL FIELD CONSULTANT FOR KULZER, DISCUSSES THE REMOVABLE PROSTHETICS MARKET AND A NEW JIG TOOL THAT COULD PROVE TO BE A GAME-CHANGER.

Inside Dental Technology: From your perspective, what are the most compelling drivers impacting the dental laboratory industry today?

Andy Johnston, CDT: Two trends that are evident in conjunction with each other are lean manufacturing and the lack of trained removables technicians. Laboratory owners and managers are being forced to find new methods because it is so difficult to find good removables technicians, so they are using lean manufacturing and automating portions of the processes.





IDT: As CAD/CAM technology evolves, how important is it to maintain an emphasis on traditional principles that remain relevant?

Johnston: Many of the programs on the market are great, but they have soft stops. With analog processes, certain things just are not possible, but when you are working on a screen, there is a soft stop or sometimes no stop at all, so you are able to do things that may seem OK and do save time, but eventually you hit a wall. Sometimes you are forced to start a case over and fabricate it with traditional methods, and often this results in rushed cases because of the lost time. So there are certainly advantages to CAD/CAM, but it is very important to have people who understand the traditional principles to achieve balance.

IDT: Does Kulzer's new jig tool help with maintaining some analog principles as laboratories incorporate digital technology?

Johnston: Absolutely. It is so exciting; we have been using the tooth jig for our in-house process, but I wanted to scream it from the mountaintops and show everyone because I saw the potential for the jig being the tool. Kulzer no longer necessarily needs to be the manufacturer of the dentures. We are giving the tool to the masses to bridge the gap between digital and analog. It allows the customer to process a denture using whatever method they are currently using-milling, press packing, injecting, or anything else pourable. They can use the jig and process their cases digitally.

IDT: How does the jig work, and what was the specific need for it?

Johnston: The most important issue is the ridge lap solution. The limitations of the current software options are rarely addressed in articles and lectures. Sometimes there is enough space between the two arches in relation that there are no tooth cuts needed on the basal surface of the tooth and nothing needs to be adjusted. As a technician, though, 75% to 95% of the denture cases I work on at my bench require me to adjust one or more teeth. In the digital realm, only a very small window of cases could be put through the digital process because there was no way to adjust the denture teeth. By introducing the jig, we have made it possible for essentially any full-arch case to be suitable for digital processing. If basal reduction is necessary once the case has been designed, then the tooth jig or reduction coping for the ridge is fabricated, the teeth are placed in there, and they are removed to be processed in whatever format is desired. The digital design can be utilized all the way to fruition, with the final denture processed using any method. All the standards that each laboratory prefers can still be followed, but they have a digital record and they gain the advantages in accuracy and fit of a digital design.

IDT: What has the initial feedback been?

Johnston: Everyone whom we have showed it to has been impressed. It is jaw-dropping. Many technicians, myself included, conceptually understood that this was a need, but nobody knew how to make it a reality. Kulzer invested the time and resources in developing this. People tell us now that they just wish we had made this available to the public sooner. It opens new possibilities for laboratories that did not think they could enter the digital realm. If they have a scanner, then they can get right into the digital game without having a mill. We have one-person laboratories using this, and we have large laboratories with 100-plus employees, and everyone in between; that speaks to the capabilities of this product.