

## Oral Arts Leverages Technology to Offer State-of-the-Art Products and Services

**T**echnology and new materials are revolutionizing the way Oral Arts Dental Laboratories is communicating and running its business—as well as fabricating restorations, says Matt Winstead, Vice President of the family-owned laboratory in Huntsville, Alabama.

Fixed restorations at Oral Arts, he says, are now produced 100% in a digital environment. “Digital manufacturing provides our customers with exacting tolerances in fit, margin adaptation, occlusion, contacts, and anatomy,” he explains. Furthermore, he notes, procedures previously done by hand using a wax knife or handpiece are now completed using CAD software to measure critical points in restoration fabrication such as cement gap, margin location, contact, and occlusal pressure, all by the hundredth of a micron.

An essential element in the digital environment—intraoral scanning—enables Oral Arts to offer completely digital crown-and-bridge restorations without using an impression or

model, Winstead says. Doctors who use intraoral scanning in their offices, he adds, not only save time transmitting a digital impression file directly to the lab for the fabrication of fixed restorations, they also save money as a result of experiencing far fewer clinical adjustments and remakes. However, Winstead stresses that when the complexity of a case requires the use of a model, one can be fabricated using CAD/CAM technology, which, he says, eliminates inaccuracies associated with stone models and dies.

Winstead says he also expects to see “model-less dentistry” incorporated into implant cases using intraoral scan bodies, which orient the CAD software to the clinical implant location and angulation. “This allows for custom implant abutments and temporary and/or final crowns to be fabricated simultaneously in a digital environment, without a conventional impression.”

Describing other ways technology has made fabrications more accurate and efficient, Winstead remarks that screw-retained solid zirconia bridges, which would typically require an implant verification jig and wax setup to verify occlusion, can now be accomplished in one step using a milled screw-retained polymethyl methacrylate (PMMA) verification bridge. “We are also milling all of our temporary restorations and diagnostic wax-ups, which, because they are designed digitally in CAD software, are easily retrievable and can be used as a mock-up for final restorations,” he adds.

Winstead notes that advancements in material science have caused “a massive market shift away from bi-layered crown materials to monolithic crowns such

as solid zirconia and lithium-disilicate restorations.” In fact, in the past 4 years clients have moved away from porcelain-fused-to-metal (PFM) and porcelain-fused-to-zirconia in favor of solid zirconia restorations, he says, adding that 70% of fixed restorations are now monolithic metal-free materials. This shift to monolithic materials, which he says are “inherently more reliable clinically than their bi-layered counterparts,” has resulted in a 48% reduction in the number of cases returned for repair due to porcelain chipping or fracturing and a 30% reduction in returns for remake, he notes.

Oral Arts’ own business operations have benefited from technology as well, Winstead says. “Laboratory supervisors and customer service representatives are communicating with our clients daily via email, in addition to sending design images from our CAD software. Doctors can request to see their cases during digital design before any milling or 3-D printing takes place. This allows for quick and easy changes to a case without wasting materials or extra fabrication steps.”

Winstead stresses the pride Oral Arts takes in meeting doctors’ need to receive their products promptly. “Acquiring technology and transitioning workflow to CAD/CAM is only half of the production process. Because all restorations are made by computers, and transmitting, storing, and securing data is so important, we have created a robust internal IT and electrical supply network that ensures our customers get their restorations on time no matter what,” he asserts, adding that the company has invested in a complete power generation system.

Indeed, Oral Arts is committed to employing the latest technological tools in dentistry and providing high-quality restorations delivered in a timely fashion serviced by knowledgeable technical support.



### ORAL ARTS DENTAL LABORATORIES

2700 South Memorial Pkwy  
Huntsville, AL 35801  
800-354-2075  
[dentalaegis.com/go/ccedxxx](http://dentalaegis.com/go/ccedxxx)