

NOT YOUR TYPICAL DIGITAL DENTAL SOLUTIONS PROVIDER

Extensive experience helps Axsys Dental Solutions provide the best quality

Axsys Dental Solutions personnel have been involved in nearly all aspects of computerized manufacturing since before most people had heard of CAD/CAM. Their experience includes everything from software development to sales to technical support, and it applies to machines ranging from simple to the most complex machining a wide variety of hard and soft material across all industry segments.

From zirconia, PMMA, or glass-ceramic crown-and-bridge applications to implant-supported bridges, titanium custom abutments, and cobalt chrome bar-overdentures, Axsys' team of CAD/CAM and manufacturing experts develops machining templates that, together with the quality and precision of Versamill machine technology, provide sharp margins and perfect fits while minimizing machining time, maximizing cutting-tool life, and minimizing profit-robbing post-machining handwork.

Flagship Products

The powerful and full-featured line of Versamill Precision Dental Machining Centers includes 4-axis and 5-axis configurations. These industrial-quality production dental mills feature extreme rigidity, high reliability, superior accuracy, and high throughput.

Versamills provide owners with maximum flexibility and versatility, machining a wide variety of restoration types in virtually any material—without the need to recalibrate between raw stock forms.

Because the future of dentistry is digital, Axsys Dental Solutions represents Stratasys Dental Series 3D printers. Stratasys has designed a 3D printing solution for almost every dental need. Laboratories of any size can reap the benefits of greater capacity, faster turnaround, smoother workflow, and happier customers and patients.



Move ahead of your competition with The Axsys Advantage, which provides dental professionals the benefits of quickly and easily producing restorations of superior quality with a final machined product that requires minimum handwork.

Adopting the Stratasys printing system can enable you to achieve a complete digital workflow for in-house fabrication of models, abutments, copings, crowns, and bridges of any size or combination.

Axsys also is a distributor of high-quality pre-milled abutment blanks and implant components. Titanium or hybrid solutions are available with

significantly enhanced custom implant libraries compatible with popular dental CAD software.

Technical Educational Services

Axsys ensures that your organization maximizes its investment in software technology with world-class training. Emphasizing real-world functionality, Axsys Training Specialists are experienced, hands-on professionals ensuring that the training curriculum is accurate and applicable to the real world in which the students operate. Following training, on-site and off-site support is available to reinforce concepts learned in class.

Solution Partners

Whether you are looking to augment current systems or implement a new one, the Axsys team of CAD/CAM and manufacturing experts can craft a solution to meet your needs and assure your success. Each solution partner is carefully selected to assure representation of market leaders with products of the highest quality and provide the best total value for customers across all markets and applications.

Choose any combination of Axsys Dental Solutions products and services to help optimize the dental restoration design and manufacturing process, speed time-to-market, increase efficiency, and achieve high, predictable profits.



AXSYS

Versamill high-precision dental machining centers and Stratasys 3D Dental Printers head up the Axsys Dental Solutions Product Portfolio.

AN INTERVIEW WITH *Steve Braykovich*

Axsys Dental Solutions Owner Steve Braykovich, who has been involved with CAD/CAM and CNC machine solutions since 1978, discusses the state of digital dentistry and specifically milling technology.



Inside Dental Technology: What are the main challenges facing dental professionals who want to move into the digital dentistry era?

Steve Braykovich: In recent years, the industry has grappled with a lack of skilled employees, especially those with any amount of significant exposure to advanced restoration design software—particularly CAM software or CNC milling machines. This has hindered the industry’s efforts to fully capitalize on the latest technologies available and fend off some of the external forces threatening its viability.

Realize we are just moving out of the “bowling alley” of the “early majority” stages of dental CAD/CAM technology adoption where the pragmatists decide that the technology is ready for them to purchase. Everett Rogers’ technology adoption life cycle identified a bell curve with innovators, early adopters, an early majority, a late majority, and laggards. There is a chasm to jump from the early adopters to the early majority, which is when the technology becomes much more widespread. We have not fully reached that point yet. The problem is that in these early stages, “adopters” don’t know that what they have is not necessarily the height of the technology.

IDT: Why are the efforts of those early adopters insufficient to drive technology?

SB: The popular approach is to make systems easy enough for anyone to use. However, the easier you make something, the less robust it becomes. Early adopters mistakenly believe the only potential for improvement is to make things easier.

Having spent 40 years working in the industrial sector, I know the CAM and CNC technology is not maximized in the dental sector. It works, but

it can be so much better. There is already better technology available, but it is not yet being taken advantage of on a large scale.

IDT: What should laboratory owners look for when they pursue better milling technology?

SB: The best dental machining centers quickly and accurately produce a finished product while maintaining the geometric integrity of the cutting tool as it is engaged in the material being machined. The internal makeup of the machine has a significant impact on the quality of the final products and overall reliability of the machine.

Heat and vibration are our enemies and must be eliminated in every way possible. Those effects are dependent on the quality and geometry of the available tooling, spindle construction, machine axes drive system, and fixturing and capability of the internal machine structure to dissipate heat, dampen vibration, and absorb forces from the machining process.

A high-quality dental machining center will save its owner significant amounts of money during the course of its useful life by reducing tooling costs, remakes, handwork, parts replacement, and downtime. It is easy to give too much weight to the up-front cost savings and not enough to the significant long-term savings of higher-quality machinery.

Another important element is the CAM software and its ability to precisely control entry and exit into the stock to be machined, to control the tool-axis and produce smooth motion. These factors as well as proper machining strategies, feeds, speeds, and cutting parameters controlling stock engagement (on an individual cutting tool and material basis) are all significant but often overlooked.

IDT: What is the potential impact of laboratories not capitalizing on the best technology?

SB: Dentists are motivated to purchase chairside systems because they are always seeking ways to differentiate themselves, become more efficient, and improve the quality of care for their patients. While price is one way they can differentiate themselves, quality is another important way to accomplish that. If they want higher quality and faster delivery with fewer “do-overs” and are not getting it from their laboratories, they are going to get it somewhere else. If laboratories are not constantly in search of higher-quality solutions, they will not be able to fulfill the dentists’ needs, and thus they will be crippling their own viability in the future.

Few digital dental manufacturing systems can effectively, reliably, and profitably provide the ability to utilize the entire range of materials available today and in the near future. Suppliers of the technology often “dumb down” software interfaces, cut corners on machine construction, implement less robust CAM software, and provide less than optimal or one-size-fits-all machining templates. This results in longer machine times, higher tooling costs, poor restorative margins with excess margin relief, bad fits, scrapped restorations, and excessive post-machining hand-work.

It is extremely important for laboratories and milling centers to educate themselves on the technology available, find the solution that can do the most for them—short and long term—and not base a decision on initial cost alone. The pains of a system that may have cost a few dollars less or seemed easier to use in the beginning far outlast those associated with the initial incremental cost or slightly extended learning curve of a truly superior solution.