The Leap to Automation: How Nexus Dental Achieved Consistent Resin Removal While Eliminating IPA from their Workflow

Nexus Dental Laboratory is a dental lab dedicated to revolutionizing the dental industry with cutting-edge restorative solutions and streamlined workflows. Specializing in digital smile diagnostic services, dental implant restorations, crown & bridge solutions, implant guide design & production, direct print services, and Lucitone digital copy dentures, Nexus Dental’s ultimate goal is to eliminate unnecessary surgery time while delivering unparalleled efficiency and innovation. By leveraging the latest technologies and materials, they strive to exceed patient expectations and provide the highest levels of satisfaction.

3D printing technology plays a crucial role in Nexus Dental Lab’s workflow, enabling them to produce higher quality dental restorations and models more efficiently than ever before. However, they were facing several challenges with their resin removal process using isopropyl alcohol (IPA), which was not only time-consuming and inconsistent but also environmentally unsustainable and hazardous for its staff.

Printing 60-80 models per day, lab technicians were spending an average of 5-10 minutes per part processing with IPA, which was significantly impeding their production process. This labor-intensive process resulted in a bottleneck that prevented the team from focusing on higher-value tasks. The company was looking for an alternative solution that would eliminate these issues.

Making the Leap to Automation

After looking for a more sustainable and automated option, Nexus Dental decided to implement the PostProcess DEMI 430 resin removal solution. The implementation process was straightforward, and the very next day, the team stopped using IPA and started using the comprehensive PostProcess hardware, software, and chemistry, which is not only more sustainable but also faster and more consistent. The team’s feedback was instant and overwhelmingly positive, with team members wishing they had it sooner.

With the PostProcess solution, Nexus Dental has been able to eliminate the bottleneck in its production process and redirect its highly skilled team to higher-value tasks, such as working on ceramics and CAD. They were able to eliminate one-third of their manual labor and remove the monotonous, consistent and faster processing times, nearly eliminating the hands-on time per part, allowing the team to focus on more inspiring work.
Furthermore, the PostProcess detergent has eliminated the guilt associated with the resin removal process, as it is better for the environment and safer for the staff. Nexus Dental is now confident to promote more direct-to-surgeon services since the bottleneck has been eliminated.

The PostProcess workflow is a game changer for the dental sector, providing consistent outcomes while eliminating the need for IPA.
- Steve Campbell, Nexus Dental CEO

Overall, the PostProcess DEMI 430 resin removal solution has been a game-changer for Nexus Dental, providing a more sustainable, faster, and consistent solution that has eliminated the bottleneck in their production process.

The company is now looking to automate other processes and leverage their skilled team's time for higher-value tasks. The company feels that this is the way forward, especially with tighter regulations with medical devices in the future, and is glad to have made the leap to automation.

About Nexus Dental
Nexus Dental Laboratory is a pioneering dental laboratory that has been leading the way in digital dentistry since its inception in 2015. Their team of highly skilled technicians is dedicated to providing our surgery partners with cutting-edge digital workflows and restorative solutions to meet each patient’s unique needs. As a global KOL group and development team for many international partners, Nexus Dental always has access to the latest materials and production technology. Their goal is to eliminate wasted surgery time and provide efficient workflows and innovative solutions for their clients. Learn more at nexus.dental/

About PostProcess
PostProcess is the leader in automated and intelligent post-printing solutions for 3D printed and additive manufactured parts. Founded in 2014 and headquartered in Buffalo, NY, USA, with international operations in Mougins, France, PostProcess removes the bottleneck in the final stage of the 3D printing workflow, post-processing, through a combination of patent-pending software, hardware, and chemistry technologies. The company's solutions automate industrial 3D printing's most common post-printing processes including support, resin, and powder removal, as well as surface finishing, enabling customer-ready 3D printed parts at scale and complete digitization of additive manufacturing through the workflow for the Industry 4.0 factory floor. The PostProcess portfolio has been proven across all major industrial 3D printing technologies and is in use daily in every imaginable manufacturing sector. Learn more at postprocess.com.