



SCHOLLMEIER
D E N T A L

Case Study

Schollmeier Dental Optimizes Resin Removal and Boosts Efficiency with PostProcess Technologies

POSTPROCESS

INTRODUCTION

Schollmeier Dental is a prominent dental laboratory located in Hanover, Germany, employing a team of around 80 skilled professionals. With several years of experience in 3D printing, the company is continuously expanding their capabilities and embracing digital dental technology. Focused on creating innovative process chains, Schollmeier Dental aims to provide patients with the best possible dentures, leveraging the benefits of digital advancements.

Schollmeier Dental currently employs a diverse range of 3D printers, each utilizing SLA and DLP print technologies to cater to specific applications. Their printer lineup includes a range of Formlabs, Nextdent, Rapidshape, and EnvisionTec printers.

In their 3D printing endeavors, Schollmeier Dental capitalizes on burnout resins for CADCAST processes, fashioning components such as crowns, model casts, and bridge covers. Medical resins find purpose in fabricating custom trays and support pin registrations, models and gingival masks.

THE POST-PROCESSING CHALLENGE

As Schollmeier Dental delved further into 3D printing technology, the challenge of efficient post-processing became apparent. Schollmeier previously relied on a semi-automated process, operated with IPA, in which a small conventional washing station was combined with a manual washing process. This post-processing method presented the dental laboratory with a variety of challenges:

- **High IPA Consumption and Health Risks:** Semi-automated solutions utilizing IPA raised concerns about employee safety and increased health risks associated with handling flammable chemicals.
- **Maintenance Overhead:** Frequent maintenance of the post-processing equipment was time-consuming and took away valuable resources from core tasks.
- **Inconsistent Cleaning Results:** The manual post-processing with IPA required constant adjustments, leading to inconsistent cleaning results and potential rework.
- **Odor and Environmental Impact:** The use of IPA contributed to a significant odor load and raised environmental concerns.



CHOOSING AN AUTOMATED SOLUTION

To address the post-processing challenges effectively, Schollmeier Dental embarked on a search for alternative solutions. They considered several criteria during their evaluation process, and the following factors led to the selection of PostProcess as their preferred partner:

- **Lower Health and Environmental Risks:** PostProcess offers a safer alternative to IPA, reducing health risks and the flammability associated with post-processing operations.
- **Enhanced Resin Removal:** The DEMI 430 system provided a configurable and automated cleaning process, ensuring more effective and consistent resin removal from 3D-printed parts without manual intervention.
- **Increased Capacity:** The ability to wash a larger number of parts simultaneously with the PostProcess solution translated to improved efficiency and productivity gains.
- **Longevity of Chemistry:** The high saturation point of the PostProcess chemistry eliminates the need for constant IPA changes, drastically reducing the amount of detergent needed.
- **Superior Support and Expertise:** Schollmeier Dental appreciated the dedication and expertise of the PostProcess team. The support provided throughout the evaluation and implementation phase was exceptional, ensuring a seamless integration of the solution into their workflow.



TRANSFORMED WORKFLOW: THE RESOUNDING SUCCESS OF POSTPROCESS IMPLEMENTATION

The PostProcess DEMI 430 system has proven to be a game-changer for Schollmeier Dental, addressing their post-processing challenges and yielding remarkable results. Since the implementation of the PostProcess solution, Schollmeier Dental has experienced significant improvements.

Schollmeier is realizing a drastic reduction in IPA consumption, leading to cost savings and a safer working environment for their employees. The reduction in washing solution consumption produced a significant drop from 180 liters of IPA per year to a mere 60 liters of the PostProcess PLM-403-SUB detergent. This transition has not only ushered in efficiency but also addressed the need for consistent processes.

Unlike the fluctuating cycle times associated with IPA, PostProcess ensures consistent cleaning performance, translating into more reliable outcomes. This optimization empowered the Schollmeier dental laboratory to revamp its daily workflows. Instead of dispersing printing and cleaning tasks throughout the day, the printing operations are now consolidated overnight, followed by a streamlined resin removal process with one or two wash cycles in the morning. The resulting time efficiencies are substantial, allowing the laboratory to gain a full hour each day.

The success of the PostProcess solution has inspired Schollmeier Dental to further automate their

post-treatment processes, eliminating employee contact with liquid resin and minimizing manual interventions. With the support and expertise of PostProcess, Schollmeier Dental is well-positioned to embrace more advancements in digital dental technology and continue providing patients with top-notch dentures.



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At Schollmeier Dental our goal is to advance and perfect the full digital dental process. PostProcess has been pivotal in our pursuit of efficiency and excellence, allowing us to focus on delivering the best possible dental components to our patients.

- **Leonard Rehra**, *Master Dental Technician*, Labor für Zahntechnik Frank Schollmeier GmbH

SCHOLLMEIER DENTAL LABORATORY

The Laboratory for Dental Technology Frank Schollmeier GmbH was founded in 1988 and is an owner-managed and quality-tested master laboratory. The laboratory is centrally located in Hanover. They offer traditional products combined with the latest technology. Digitalization is constantly being pushed forward, with new technologies constantly being used and integrated into the existing workflow. Together they continuously work to maintain a consistently high level of our quality management. There are now 100 employees.

POSTPROCESS TECHNOLOGIES

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](https://www.postprocess.com).