

Scanning spray with no side-effects

Walter Stein Dental Laboratory uses the self-evaporating scanning spray SCANTIST 3D

In digital dentistry, transparent and shiny surfaces such as models, titanium structures, crowns and prostheses have to be matted for scanning purposes. Now there is a new scanning spray, **SCANTIST 3D**, which gives surfaces a fine, homogeneous matt coating. The spray coating does not have to be removed after scanning because the spray completely evaporates. In addition, SCANTIST 3D is free of pigments such as harmful titanium dioxide. Walter Stein Dental Laboratory has been using SCANTIST 3D for extraoral scans for several months.

The owner, Walter Stein, who has been running the almost 100-year-old family business for years, sees lots of benefits with SCANTIST 3D compared to conventional dental sprays - especially in terms of hygiene and health. His 45 employees are also impressed by the spray.

The dental laboratory produces the entire repertoire of fixed and removable dental restorations, and has made a name for itself with its high-quality dental products and by using the latest technologies. At the Stein laboratory, all dental prostheses are produced to the highest standards using state-of-the-art equipment. Digital fabrication is used in almost all areas.

Walter Stein Dental Laboratory uses digital processes

Equipped with numerous software applications, almost every process is digital at the Walter Stein laboratory, from work preparation to the fabrication of removable dental prostheses. Continuous training keeps the team up to date, and almost all the employees are involved in the digital processes. They scan models and design dental restorations, which are printed, machined, and processed.

Extraoral scans

If surfaces are shiny, transparent, or translucent, they are very difficult for the scanner to capture.

With transparent surfaces, such as an occlusal splint, the light passes through the surface, so the sensor cannot record the surface structure adequately, if at all. The same applies for translucent surfaces, such as many ceramics or waxes, as the light beam is not reflected by the surface itself, but by a point inside the model.



Reflective surfaces such as telescopic dentures and implant abutments are also problematic because they focus the scanner light and do not reflect it back diffusely. Pronounced recesses also pose a challenge. The light beam from the scanner causes reflections on the walls of the model, resulting in incorrect data.

To scan these surfaces, they must be prepared in advance, and scanning sprays are often used for this purpose.

Hazardous substances in many conventional dental sprays

At Walter Stein Dental Laboratory, the staff have many years of experience with scanning sprays. "Using scanning sprays always made us feel a bit uneasy in the past. But we didn't have a practical alternative until now", according to Walter Stein. The owner of the dental laboratory is particularly concerned about the health aspects. Many conventional sprays contain pigments and titanium dioxide, which are said to have carcinogenic effects.

As it cannot be completely avoided that the staff may also be exposed to the spray mist when the objects are being treated, Walter Stein has taken appropriate precautions. These include an extraction system, activated by a foot pedal, which removes the harmful pigments via a funnel. The hazardous contamination is considerably reduced, but not completely prevented because the spray mist spreads everywhere. In many small laboratories that do not have an extraction system, the model is usually kept in a deep container to limit the spread of the spray mist.

Spray coating adheres stubbornly

Conventional sprays adhere stubbornly to surfaces and are very difficult to remove. This is time-consuming and detrimental to hygiene. The coating can never be completely removed; a residue will always remain on the objects and the surroundings. In addition, conventional sprays are often very coarse, which easily leads to an uneven spray coating. The actual surface data cannot be recorded correctly, which affects the accuracy of fit of the dental prostheses.

SCANTIST 3D dental spray – no pigments, homogeneous spray coating, complete sublimation

SCANTIST 3D scanning spray has been around since 2021. At Walter Stein Dental Laboratory, it has been in use for a good eight months and the team is thrilled. SCANTIST 3D can be applied in a very thin and even layer, meaning that the scanners capture accurate surface data. The reliable data quality enables precise fabrication of the dental restorations. Moreover,



SCANTIST 3D adheres to all the surfaces and is dry to the touch, making it particularly easy to use. What is special about the spray is that it evaporates by itself, thus completely eliminating the need for costly and time-consuming cleaning.

An entire work step is saved. Since the spray coating completely evaporates after approximately 20 minutes, the whole process is very hygienic.

"But the most important thing for me", emphasizes Walter Stein, "is that SCANTIST 3D is free from harmful pigments and does not contain any titanium dioxide. The health aspects are becoming more and more important, especially among younger staff members," Walter Stein is proud of his team's commitment and accomplishments. "For me it goes without saying that creating good working conditions is a must. My employees have made clear their preference for SCANTIST 3D because of both its ease of handling and the health advantages. I'm totally with them on that," says Walter Stein explaining the decision to choose the new scan spray.

Dental and scanning expertise

SCANTIST 3D is a young product and Walter Stein, with his wealth of experience spanning over 30 years, has introduced important parameters to optimize the spray, for example in terms of the application time and coating thickness. Thanks to the know-how of scan experts and dental specialists, SCANTIST 3D has been optimally adapted to the needs of dental laboratories. "The Walter Stein team is very interested in continuous improvement. We gladly took on board constructive criticism of our scanning spray and incorporated it into the development", explains Prof. Dr. Sebastian Gell, co-founder of SCANTIST 3D. Thus SCANTIST 3D was optimally geared towards the needs of modern dental laboratories.

Scantist3D is currently establishing its international distribution network and is therefore looking for resellers and distributors worldwide. Inquiries about a possible cooperation can be sent to info@scantist3d.com

ABOUT SCANTIST 3D

● The young SCANTIST 3D team comprises engineers, inventors, and scientists who have set themselves the task of improving and simplifying scanning processes for dental restorations. With their extensive experience in the field of 3D scanning, the engineers are fully aware of the problem of permanently adhesive scan sprays and the laborious cleaning processes. Consequently, the team is working on ideal solutions to make life easier for users in the dental CAD/CAM field while, at the same time, considerably increasing the quality level of scan sprays.

www.scantist3d.com

ABOUT WALTER STEIN DENTAL LABORATORY

● Walter Stein Dental Laboratory, based in Bochum, Germany fabricates functional, long-lasting and aesthetic dental prostheses from high-quality dental materials. Its state-of-the-art facilities include CAD/CAM programs, intraoral and extraoral scanners, 3D printers and industrial milling devices. The digital workflow means that all the work steps are efficiently coordinated. The almost 100-year-old family company is run by the owner Walter Stein. The team comprises over 40 highly qualified dental technicians and service employees, who produce virtually the entire repertoire of dental restorations.

www.stein-zahntechnik.de

