



08/18/2021

## **Solukon equips depowdering system SFM-AT200 with new frequency excitation**

*Augsburg, Germany – With the introduction of the Smart Powder Recuperation (SPR®) technology in 2015, Solukon succeeded in automating depowdering of complex metal parts in a safe and economical way. Since then, the pioneer of automated powder removal has continuously developed its systems and has now equipped the SFM-AT200 with ultrasonic frequency excitation. MedTech industry in particular will benefit from this new feature.*

The SFM-AT200 is Solukon's entry-level depowdering system. Its small footprint and easy operation make it the ideal unit for small and medium-sized metal parts. In addition, since the process chamber can be inerted within minutes, the SFM-AT200 is the perfect solution to depowder medical components with lattice structures. So far, the SFM-AT200 is based on the unique Solukon Smart Powder Recuperation Technology (SPR®) – removing residual powder from complex metal parts by part rotation and controlled vibration in a safety-controlled atmosphere. Occasionally, however, powder residues can get stuck in particularly narrow internal channels or porous structures, as is often the case with medical components, despite rotation and vibration.

### **Pushing boundaries of depowdering with ultrasonic excitation**

In order to completely depowder these particularly challenging geometries as well, Solukon has developed a new, highly efficient ultrasonic excitation. Electric frequency excitation in the ultrasonic range makes the powder "flowable". Thus, the powder can flow out of even the smallest channels within seconds. In combination with the fast inertisation of the system, components can thus be cleaned comfortably and reproducibly within a few minutes with the SFM-AT200.

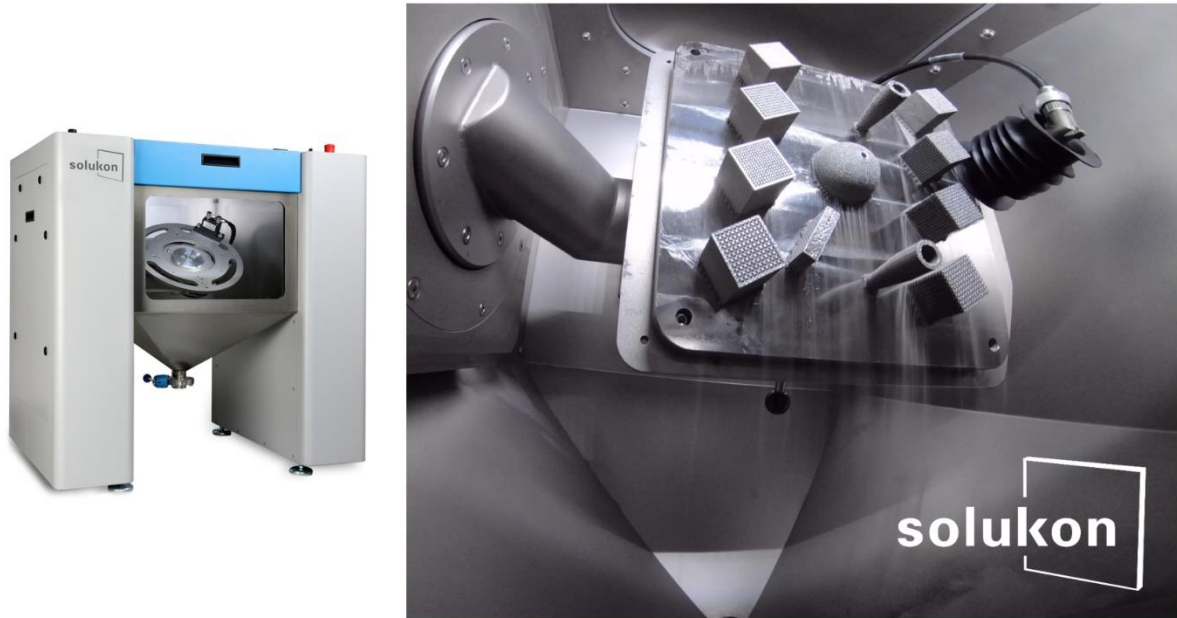


Figure 1: Depowdering of medical components with the SFM-AT200 with ultrasonic excitation

### Cooperation with MedTech-expert Swiss m4m Center

For testing the new excitation system Solukon collaborates with the MedTech experts from Swiss m4m Center. The Swiss m4m Center, located in Bettlach, Switzerland, is a technology transfer center for medical applications in 3D printing. Recently certified with the ISO 13485:2016 standard for medical devices, the center is an authorized consulting partner for additive manufacturing of medical devices, such as implants or joint prostheses. 45 partners are currently part of the Swiss m4m Center production line. Solukon is represented with the SFM-AT300 depowdering system.

Swiss m4m Center provided medical components for testing the new ultrasonic excitation within the Solukon SFM-AT200. In equivalence to the American standard ASTM\_F33F these parts have extremely fine internal channels and cavities, making them ideal for testing frequency excitation under real conditions.

The results reveal that the ultrasonically excited SFM-AT200 completely depowders the test components within a few minutes. Nicolas Bouduban, CEO of Swiss m4m Center shows his content about the new feature, "Frequency excitation further shortens the already short process time of the SFM-AT200 when cleaning medical components. Now, powder flows out of lattice structures, too. Automatic depowdering with the SFM-AT200 is a real door-opener for validated postprocessing."

### **Certifiable cleaning results for the depowdering of medical components**

Andreas Hartmann, CEO and CTO of Solukon, points out, "Solukon is keen to support MedTech with depowdering solutions. Solukon systems depowder in a standardizable and reproducible way and pave the way for wholistic process chains in MedTech." "With the new frequency excitation, we are taking another important step and can now also completely depowder particularly small openings and porous structures of medical components," he adds.



Figure 2: Andreas Hartmann, CEO and CTO of Solukon

From fall 2021, frequency excitation will be available as an option for the Solukon SFM-AT200.



## **About Solukon**

Solukon Maschinenbau GmbH is a German high-quality supplier of powder removal and processing systems for metal and polymer Additive Manufacturing. Founded in 2015, the company, located in Augsburg, Germany, has extensive experience in the development of AM systems and related peripheral equipment and offers a full range of industrial powder processing systems. Solukon products meet the highest functionality and safety standards and are approved for safe and reliable removal of tough-to-handle and reactive materials such as titanium and aluminum.

Solukon is present on four continents. The systems are trusted by leading manufactures of 3d-printing systems, like AMCM, by institutions like NASA and CERN as well as by companies like Siemens and ArianeGroup.

## **Solukon**

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