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Depowdering of medium-sized parts: Solukon launches new depowdering system SFM-AT350

At Formnext 2021, Solukon will present the new powder removal system for laser-melted parts for the first time. By introducing the new system, the pioneer and market leader of automated depowdering is once again responding to the increased postprocessing requirements on the market.

Not only extraordinary large metal parts, such as rocket engines, are becoming more and more complex inside. Medium-sized components, like heat exchangers, also increasingly have quite challenging internal structures and cavities. This means greater challenges in the downstream processes, especially in industrial depowdering. Solukon, pioneer and market leader of automated powder removal with the Smart Powder Recuperation technology SPR[®], takes up this challenge and presents a new powder removal system for medium-sized metal parts at Formnext 2021: the SFM-AT350.

More freedom of motion, advanced programming and super compact design

The Solukon SFM-AT350 sets new standards in powder removal through increased freedom of motion: The system's turntable is designed with endless rotation, while the horizontal axis swivels 250 degrees. This means that even complex rotation patterns can be programmed easily. This way, components are completely freed from powder by automated swiveling around two axes as well as targeted vibration. The unique Solukon Smart Powder Recuperation Technology SPR[®] makes it possible. The SFM-AT350 is designed for components with a maximum total weight of 60 kg (incl. build platform) and a maximum height of 420 mm.

In addition, Solukon's new Digital Factory Tool, a sensor and interface kit, is also available as an option for the SFM-AT350. This allows the SFM-AT350 to be effortlessly integrated into the overall digital AM process. For the Solukon systems for large components, the SFM-AT800/-S and SFM-AT1000-S, the Digital Factory Tool has been available for months. Now, end-to-end automation integration and quality validation in the depowdering process is also possible for mid-range components.



Figure 1: The Solukon SFM-AT350, the new standard for medium-sized metal parts.

SFM-AT350 replaces previous powder removal system for medium-sized parts

From now on, the SFM-AT350 will be the standard solution for medium-sized components and replaces the previous model SFM-AT300. Compared to its predecessor, the SFM-AT350 offers far greater freedom of motion and programmability. The new integrated software allows to teach paths according to part geometry, waiting times, knocking procedures, variable moving speed and much more. On top of that, the SFM-AT350 is also significantly more compact in design. "Especially for reactive materials such as aluminum or titanium, this is a great benefit. The SFM-AT350 can now be inerted much faster and more cost-effectively," says Andreas Hartmann, CEO and CTO of Solukon, who is leading the development of the Solukon systems.

Adding the SFM-AT350 to the portfolio Solukon thus still has four systems on the market for automated powder removal for metal components, each of them optimized for different part sizes and applications.

Enhanced usability

Controlling the new depowdering system is also even more intuitive than that of the predecessor model: The SFM-AT350 features a unique, new user interface. In addition, users will be able to monitor the depowdering process remotely: All important process parameters can be monitored in real time via smartphone.



Figure 2: You can monitor the depowdering process via smartphone.

New hardware for SFM-AT350 to make handling even easier

Solukon also focuses on even more comfort when it comes to hardware. Components can now be mounted even faster and more conveniently on the building plate using a clamping system. In addition, the interface for the powder outlet is now compatible with standard containers.



Figure 3: The powder outlet is compatible with standard containers.

With the SFM-AT350, Solukon takes automated depowdering of components up to 60 kg to a new level. "The SFM-AT350 is the new standard for the depowdering of medium-sized components. All features of the system are state of the art. Medium-sized components can now be automatically freed from powder even faster and easier. The fact that complex rotation patterns can be programmed effortlessly is a great advantage for depowdering even the most challenging geometries," says Andreas Hartmann. "We are proud having responded so quickly to the increased depowdering demands for mid-range components."

Presentation of the SFM-AT350 at Formnext 2021

Be one of the first to explore the new Solukon depowdering system live, at Formnext 2021. Make sure to stop by our booth 12.0, A139. The Solukon team is looking forward to welcoming you on our stand. Beside the SFM-AT350, you will have the chance to see the pro-version of automated depowdering, the SFM-AT1000-S for components with a maximum height of 1,000 mm.

[Get a first impression of the new SFM-AT350 in the product video.](#)

The SFM-AT350 will be available from the second quarter of 2022.



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, 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 EOS, SLM Solutions and AMCM, by institutions like NASA and Cern as well as by companies like Siemens and Ariane Group.

Solukon Maschinenbau GmbH

Contact Marketing/PR: Marina Haugg, Marketing & PR Manager
Email: m.haugg@solukon.de
Web: www.solukon.de