Press Release

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Solukon Enhances the SFM-AT350 Depowdering System

Thanks to its adapted arm design, the SFM-AT350/-E can now accommodate parts weighing up to 100 kg as well as plates of the flagship printers EOS M 400 and Nikon SLM® 500. For the first time, at Rapid + TCT in Los Angeles, the upgraded depowdering system can be viewed live.

With the exception of parts for the medical sector, which tend to be small and stout and often have lattice structures, there is a clear trend in the medium-sized part segment: the total weight of LPBF parts has increased. One reason for this is that the parts are usually produced on solid build plates, sometimes with numerous complex support structures. As an immediate downstream process, depowdering must grow hand in hand with printing. This is why Solukon has upgraded its SFM-AT350 depowdering system, which is leading the market.

In the future, the SFM-AT350 will be able to accommodate parts with a total weight of up to 100 kg and dimensions of *400 x 400 x 400* or *500 x 280 x 400 mm*. The SFM-AT350 was originally designed only for parts weighing up to 60 kilograms and was only compatible with parts measuring a maximum of 350 mm on the X-axis. The increase in total permitted weight is achieved exclusively through an adapted arm design, which means that the chamber volume and the associated inert gas consumption remain the same. With this upgrade, Solukon has also increased the compatibility of its system. “Many of our current and potential customers print their medium-sized parts on an M 400 from EOS or a Nikon SLM® 500. The upgraded SFM-AT350 is now compatible with both of these printers and therefore covers two more key additive manufacturing systems in this size range,” said CEO/CTO Andreas Hartmann from Solukon. The new version of the SFM-AT350 offers customers with larger, highly complex components, such as in the aerospace or medical sectors, an ideal depowdering system at an optimum price-performance ratio. For parts with the dimensions mentioned above and weights higher than 100 kilograms, the next larger depowdering system, the SFM-AT800-S, is the ideal peripheral device.

SFM-AT350: The best-selling depowdering system for the middle size class

Since its launch in October 2021, the SFM-AT350 from Solukon has established itself in the global market as the ideal system for medium-sized parts and is currently used in 17 countries.

The system features a compact design in conjunction with generous freedom of movement and unique digital functions. With the SPR-Pathfinder® software, the ideal

motion sequence can be automatically calculated in advance based on the part's CAD file: no programming is required with the SFM-AT350. The optional Digital-Factory-Tool is a sensor and interface kit that tracks all the key data on the depowdering operation and summarizes it in a protocol file to ensure maximum transparency.

“These smart features have also become a must in the medium-sized part segment since the parts and support structures are becoming more and more complex here too. We are pleased that we were able to launch two sophisticated digital tools on the market so early with the DFT and SPR-Pathfinder software and have once again demonstrated our innovative strength. The aim of the latest upgrade is to offer users with larger components weighing up to 100 kg a cost-optimized solution without compromising on functionality. No other system in this segment offers so many equipment options and functionality and closes an important gap in the growing price pressure in the service sector,” explains Andreas Hartmann.

Two excitation options available

As of October 2023, the SFM-AT350 is also available in two excitation variants.
The SFM-AT350 has adjustable pneumatic vibration with the option of adding a knocker. As an alternative, the SFM-AT350-E can come with piezoelectric excitation, which cleans parts very gently by using very high, self-regulating ultrasonic vibration.

Upgrade available now – see live at Rapid + TCT 2024

The upgrade and the increased total permitted weight of parts now apply to both variants of the SFM-AT350. The upgraded SFM-AT350-E can be seen live at Rapid 2024 in Los Angeles at the Solukon Booth 2161. For the first time, Solukon will present the variant with ultrasonic excitation to the US market. The Solukon team looks forward to welcoming you!

Further highlights at the Solukon Booth 2161

Since this year’s Rapid + TCT is taking place in Los Angeles, the home of the top aerospace companies, Solukon is also exhibiting the depowdering system for industrial-scale rocket parts: the SFM-AT1000-S with flexible front-top loading. For the one-of-a-kind SPR-Pathfinder® software, there will also be a discount campaign for existing and new customers. More information will follow shortly.

Figures

Figure 1: The enhanced depowdering system SFM-AT350/-E

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 by Andreas Hartmann and Dominik Schmid, 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. Since 2022 Solukon offers an intelligent software for automated depowdering of laser-melted metal parts as exclusive licensee, the SPR-Pathfinder®. 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

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