

Sculpteo streamlines 3D printing processes with the integration of HP Jet Fusion 5200 Series 3D Automatic Unpacking Station

The integration of the HP Jet Fusion 5200 Series 3D Automatic Unpacking Station has enabled Sculpteo to reduce labor costs and reclaim excess powder, build efficiencies in their workflow, and provide customers with faster time-to-part production.



Industry

Manufacturing

Objective

To enhance efficiency and profitability in 3D printing operations by implementing automated unpacking systems.

Technology | Solution

HP Multi Jet Fusion technology 3D Automatic Unpacking Station

Approach

Sculpteo implemented HP Jet Fusion 5200 Series 3D Automatic Unpacking Station to automate their post-processing unpacking workflow.

Material

HP 3D High Reusability PA 12



Introduction

Sculpteo, a brand of BASF Forward AM, has been an industry leader in 3D printing since 2009, dedicated to growing the 3D printing industry and increasing its adoption across a variety of industries. Headquartered in Paris with offices in San Francisco, the company develops and manufactures custom 3D parts for customers worldwide with its advanced technology and expertise.

With its 30+ materials for any application, Sculpteo provides customers with high-quality parts in just a few clicks, as well as expert advice and engineering support throughout the entire process. Owning ten HP Jet Fusion 5210 Pro 3D Printing Solutions, and four HP Jet Fusion 4200 3D Printing Solutions, besides photopolymer and laser sintering systems, they have an impressive monthly production capacity of 60K+ parts. Sculpteo is the ideal partner for any company looking for small and large series part production and provides an end-to-end workflow to meet their customer's needs.



Challenge

Powder-based additive manufacturing (AM) has revolutionized the way we manufacture complex parts, but the post-processing steps still remain a bottleneck in the production flow.

Unpacking and depowdering parts can be time-consuming and labor-intensive, taking away valuable time from experienced technicians that could be better spent on other value-added tasks.

Sculpteo was interested in a solution to automate the unpacking that could handle on-demand orders as well as large series production, freeing up their technician's time

Solution

Sculpteo has efficiently streamlined its post-processing workflow by integrating HP Jet Fusion 5200 Series 3D Automatic Unpacking Station. This allows technicians and operators to work in parallel on other more value-adding production steps.

With this new capability, Sculpteo can manage both automated and manual unpacking of the different materials they print with, such as HP 3D High Reusability (HR) PA 12 and HP 3D HR PA 11, BASF Ultrasint® TPU011 and HP 3D High Reusability PP enabled by BASF. This has increased efficiency since all the jobs are unpacked at the same time and they are able to move to the sandblasting stage faster.



With the help of HP's AUS, Sculpteo had been able to optimize its workforce in unpacking, resulting in a better allocation of its resources. The manual unpacking time has been cut down from 20 minutes to 10 minutes for the job using the AUS.

HP Jet Fusion 5200 Series 3D Automatic Unpacking Station has proven to be a profitable investment for the build of more than 100 parts, and 70% of their HP 3D High Reusability PA 12 production now involves automated unpacking. The company has developed different programs to unpack parts depending on the size, from small to medium-sized and large series with the intent to spend less time unpacking depending on the jobs.

Apart from saving time and reducing labor costs, using HP Jet Fusion 5200 Series 3D Automatic Unpacking Station has also resulted in cleaner parts that require less sandblasting time and produce a more homogenous result. This has allowed Sculpteo to reclaim excess used powder that could not be reused in the past.

Overall, the HP Jet Fusion 5200 Series 3D Automatic Unpacking Station has become an integral part of Sculpteo's workflow, efficiently supporting them in their mission to provide their customers with an end-to-end additive workflow that meets their needs.

