

Seb'Automatisme embraces new application possibilities with the HP Jet Fusion 580 Color 3D Printer



Data courtesy of Seb'Automatisme



HP Multi Jet Fusion technology allows **Seb'Automatisme** the design freedom to print with better accuracy, at faster speeds, and in full color



Data courtesy of Seb'Automatisme

Introduction

Seb'Automatisme specializes in the manufacturing of special and modular machines, robotics integration, 3D printing, machinery tooling, and mechanical and electrical engineering. Based in Marnaz, France, Seb'Automatisme's main customers are in the industrial, machining, and plastics industries.

Seb'Automatisme strives to stay ahead of the competition by supporting customers with innovative solutions and new technologies, such as the latest 3D printing technology.

- **Industry**

Industrial

- **Sector**

Manufacturing

- **Objective**

To offer customers a new technology solution that would allow faster production times, design freedom, and the ability to print functional parts in color.

- **Approach**

With the HP Jet Fusion 580 Color 3D Printer, Seb'Automatisme was able to design and create parts that were not possible with their previous solutions, while simultaneously cutting production times.

- **Technology | Solution**

HP Multi Jet Fusion technology, HP Jet Fusion 580 Color 3D Printer

- **Material**

HP 3D High Reusability (HR)¹ CB PA 12

1. HP Jet Fusion 3D Printing Solutions using HP 3D High Reusability CB PA 12 provide up to 80% powder reusability ratio, producing functional parts batch after batch. For testing, material is aged in real printing conditions and powder is tracked by generations (worst case for reusability). Parts are then made from each generation and tested for mechanical properties and accuracy.

Challenge

Through the adoption of 3D printing technology, which they first implemented in 2011, Seb'Automatisme works with customers to accelerate their design cycles and create, test, and iterate in just a few hours. However, with traditional 3D printing technologies such as 3D filament printing, they experienced inaccuracies in printed parts, weak parts, and design limitations.

Seb'Automatisme wanted to improve upon their production processes and create more opportunities for their customers in terms of design and function.

They also sought a solution that would accelerate the speed of production and help their customers increase productivity. Producing a single part with previous technologies could take up to 100 hours.



Data courtesy of Seb'Automatisme

Solution

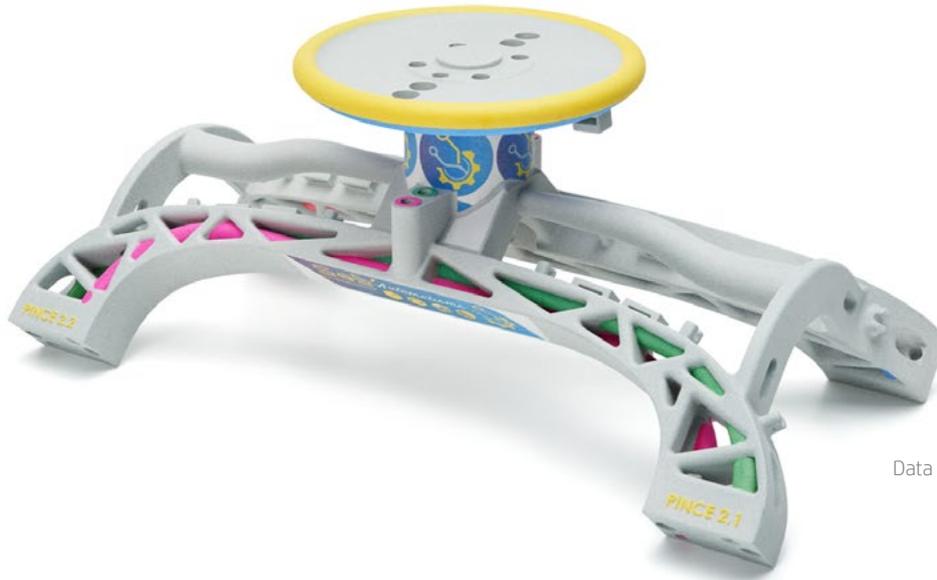
As a perpetual seeker of innovative solutions, Seb'Automatisme learned about HP Multi Jet Fusion technology, particularly the capabilities of the HP Jet Fusion 580 Color 3D Printer, which would enable them to add colored features to their 3D printed parts. This technology opened a new door for Seb'Automatisme engineers who are now able to design and print parts that were not possible with previous processes.

Seb'Automatisme uses the HP Jet Fusion 580 Color 3D Printer for multiple purposes, one of which is to print a **support part**. Printing this final part with a material like HP 3D HR CB PA 12—which resists oils and has strong mechanical properties—ensures enough flexibility to not only efficiently release machined parts but also to maintain its rigid position in the spindle.

Seb'Automatisme used the HP Jet Fusion 580 Color 3D Printer to **produce a new device that facilitates high-pressure air flow**. Printing this part in a different color makes it easier for the

assembler to locate the part among myriad others during the assembly process and also makes the serial number, which is imprinted on the lateral edge of the device in a different color, more visible. Before HP Multi Jet Fusion technology, producing this part with this precise functionality and color was “impossible. Only one technology can do this,” said Sebastien Bouilloux, CEO of Seb'Automatisme.

Seb'Automatisme was also able to manufacture a **robotic arm gripper for a loading and unloading machine**. Three colors (red, blue, and green) are used to facilitate repetition and to determine the passage of the pipes. Previously, this part could not be manufactured using 3D filament technology due to a low level of accuracy and a lack of gas tightness. 3D printing also resulted in a lower weight which allows the robot to move faster.



Data courtesy of Seb'Automatisme

Result

With HP Multi Jet Fusion technology, Seb'Automatisme is able to manufacture parts that are stronger and lighter, with simpler production processes. Powder-based production makes it possible to manufacture more complex parts more quickly, which can serve as fuses and can be replaced very easily so as not to damage the robots or the fitting.

“The rigidity of the parts is much better than what we had (before),” said Bouilloux.

According to Seb'Automatisme, their production times also decreased thanks to HP Multi Jet Fusion technology, and the design freedom means that designers can add logos, serial numbers, and other identifying marks to their products to bring awareness to a particular brand or make it easier to read

information about a part. With the capabilities of the HP Jet Fusion 580 Color 3D Printer, Seb'Automatisme also has the option to add color to their parts, which opens the door to new types of applications.

“Overall, our customers appreciate the fact that we are always ahead of the innovation against our competitors,” said Bouilloux.

With this new technology in place, Seb'Automatisme plans to grow and evolve their services, which will include development in the Swiss sector, bringing more talent to the team, and expanding their service areas.

Connect with an HP 3D Printing expert or sign up for the latest news about HP Jet Fusion 3D Printing hp.com/go/3Dcontactus

Learn more about HP Multi Jet Fusion technology at hp.com/go/3DPrint

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