

OCTOBER 2022

AddUp and WBA create a 3D printing platform dedicated to the tooling industry

AddUp, the French leader in metal additive manufacturing, joins the WBA Tooling Academy in Germany. A new platform equipped with a laser powder bed fusion (L-PBF) machine will allow manufacturers to use this technology for their innovative tooling projects.

Based in Aachen, Germany, the WBA Aachener Werkzeugbau Akademie GmbH is a technical reference center for the tooling industry. It offers consulting, training, and research activities to promote all innovative technologies applicable to mold and tool production. In addition, the WBA provides companies with strategic and organizational support on all topics regarding toolmaking. In signing a partnership agreement with AddUp, a manufacturer of metal additive manufacturing machines created by the French groups Michelin and Fives, the WBA has strengthened its offer and is now able to provide its customers with complete support for metal 3D printing projects.

After an upcoming launch ceremony on October 25 and 26, 2022, the WBA's new additive manufacturing platform will officially open its doors in early 2023. It will house a New Generation FormUp® 350 machine supplied by AddUp. This Laser-Powder Bed Fusion (L-PBF) machine concentrates all AddUp's know-how in terms of productivity, part quality, and operator safety. With the combined expertise of AddUp and the WBA, tool makers who submit application cases will be able to go beyond the simple proof of concept; they will be able to study all aspects of their projects, from the design applied to the L-PBF, to the profitability analysis and the study of series production.

Additive manufacturing is a key technology in the industry 4.0 concept and offers many interesting opportunities for the tooling industry. L-PBF technology enables tools with a large amount of mechanical properties to be produced more quickly than with conventional technologies. In addition, it is possible to design parts with more complicated geometries and to consider new business models based on customization. This is achieved by printing certain parts of the mold that are intended to be replaced frequently.

About WBA:

Toolmaking is our passion. That is why we support the industry with a strong community and a comprehensive range of services.

As a competence center in the production technology cluster on the RWTH Aachen campus, we are part of one of Europe's largest research laboratories in the field of production technology.

Through our close cooperation with leading university institutions and our more than 80 member companies, we provide the link between science and industry. Our claim here: to set up tool making companies for the future.



The FormUp 350, a New Generation AddUp PBF machine

One of the most significant use cases for L-PBF technology in the tooling field is plastic injection molds. Traditionally, injection molding manufacturers must deal with certain constraints inherent to the manufacture of their molds. The mold's performance is directly related to its ability to cool the injected parts. The L-PBF technology is adapted to create complex cooling channels, positioned as close as possible to the mold walls. Finally, by adapting the shape of the channels to cool the surface of the part more homogeneously, manufacturers can see improved quality and experience higher productivity with a reduction of cooling and cycle times.

In short, this new metal additive manufacturing platform adds new technology and new skills to the already rich catalog of services offered by the WBA. It also meets the real expectations of tooling manufacturers, who are already convinced of the value of 3D printing for their applications but want to validate their projects' technical and economic feasibility.

In the near future, AddUp will also exhibit a FormUp 350 machine at Formnext - Where ideas take shape, taking place in Frankfurt from November 15 to 18, 2022 (Hall 12.0, stand E01).



Julien Marcilly, Deputy CEO AddUp (right) and Prof. Wolfgang Boos of the WBA create a center of excellence for additive manufacturing in tool and die making with the founding of the AM Tooling Competence Centre at the WBA.

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About AddUp:

AddUp, a joint venture created by Michelin and Fives, is a global metal additive manufacturing OEM offering multi-technology production systems, including the FormUp® range of robust and open-architecture Powder Bed Fusion (PBF) machines, as well as the BeAM Modulo and Magic lines of industrial Directed Energy Deposition (DED) machines.

The combination of these processes allows AddUp customers the flexibility to choose the technology best suited for their specific application while also offering a unique ability to meet technical challenges, such as manufacturing parts combining these complementary technologies. AddUp's FormUp 350 PBF machine is modular and scalable to provide the highest productivity while ensuring user safety. The DED machines are designed for industrial production and equipped with in-house designed and developed nozzles to provide maximum precision and very high productivity. To provide customers with a true Industry 4.0 solution, AddUp also provides a complete monitoring solution providing quality assurances after each and every build.

AddUp is headquartered in Cébazat, France, with its North American subsidiary based out of Cincinnati, Ohio. In addition to the machine design and manufacturing, the AddUp group also offers part production, POC production, metal AM consulting services, AM training, and design for AM, making AddUp your one-stop for metal AM.

To learn more visit: www.addupsolutions.com