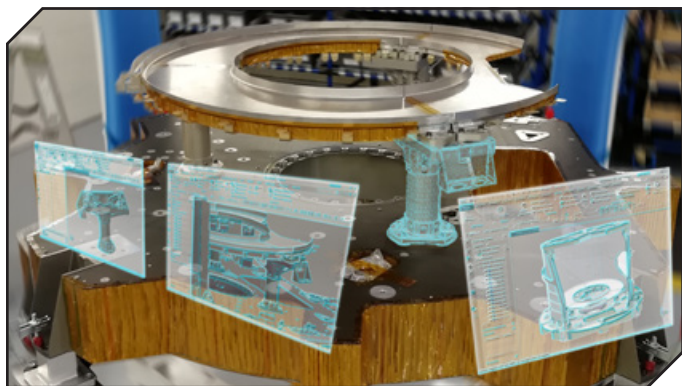


Siemens Digital Industries Software and Sonaca

TAPPED TO DESIGN ADDITIVE MANUFACTURING APPLICATIONS FOR THE EUROPEAN SPACE AGENCY

The European Space Agency (ESA) has selected Siemens Digital Industries Software to develop aerospace design applications for metal additive manufacturing. The applications will leverage Siemens' end-to-end software solution for industrial additive manufacturing that combines generative engineering, topology optimization, predictive analytics, process simulation, build preparation and production execution. The two-year long project, named Design4AM, is built on a strong collaboration between Siemens and Sonaca, a specialist in aerospace structures, with financial support from ESA and the Belgian Federal Science Policy Office (Belspo). The Design4AM project will result in a validated process for using Siemens' comprehensive additive manufacturing software to design and produce highly optimized, light-weighted structural parts for space applications, such as, among others, fittings (structurally bonded to CFRP panel), supports, and bipods for improved performance and cost.

"The Siemens and Sonaca partnership combines the power of a leading additive manufacturing software solution with the expertise from a leading aerospace manufacturer," said Pedro Romero Fernandez, Sonaca General Manager Space BU. "With our deep aerospace knowledge and Siemens' software technologies such as generative design, automated topology optimization and additive manufacturing process simulation, engineers will be able to explore hundreds of design options in a fraction of the normal time, then virtually test them against a variety of physical conditions to arrive at the best design solution for their performance requirements that 3D print correctly the first time."



Additive manufacturing (AM) is an important tool for the space industry because it can meet structural and multi-disciplinary requirements for space applications at a much lower weight than conventional space structures made through traditional manufacturing methods. Weight is a particularly critical concern for space applications; according to industry reports, one pound of payload equates to \$10,000 in launch costs.

Additive manufacturing techniques can be used to lightweight nearly any kind of complex structure in launchers, propulsion, satellites and various spacecraft components.

Design4AM will leverage the Siemens Digital Innovation Platform with the support of Sonaca's experience in space applications, manufacturing features, material and process, testing and numerical methods for the validation of the chain. Siemens' NX™ software and Simcenter™ software enable engineers to explore a wide range of design concepts in an automated closed-loop process that takes into consideration engineering performance, manufacturing process and operation cost requirements. These tools can account for manufacturing constraints such as thermo-mechanical part distortion, the structural part orientation in the building chamber or the design of supporting structures. The integrated software environment can shorten the part conceptual design and optimization process, helping enable higher performance structures to be manufactured.

"Additive manufacturing can help ESA reshape everything for optimal performance at reduced cost, in comparison to traditional manufacturing methods that require multiple steps, tools, and treatments to achieve the desired outcome," said Didier Granville, RTD projects Manager for Siemens in Liège. "Working with Sonaca, we will be able to help ESA take advantage of additive manufacturing to deliver high-performance structures capable of withstanding the extreme forces that occur during space satellite launches." (www.siemens.com/plm)

Bourn & Koch

INCLUDED IN NEW HOLDING COMPANY CALLED PRECISION CUTTING TECHNOLOGIES

Bourn & Koch, an American manufacturer of new precision machine tools, has announced that its parent company, Alleghany Capital Corporation, has acquired Coastal Industrial Distributors LLC, (doing business as CID Performance Tooling); and has formed a new holding company for its subsidiaries in the machine tool and consumable cutting tool sectors. Headquartered in Saco, Maine, CID Performance Tooling ("CID") is a leading manufacturer of high-performance solid carbide end mills. The new holding company formed by Alleghany Capital, called "Precision Cutting Technologies" will include Bourn & Koch, Inc. ("Bourn & Koch"), Diamond Technology Innovations, Inc. ("DTI"), and CID.

David Van Geysel, president and chief executive officer of Alleghany Capital, commented, "This transaction furthers Alleghany Capital's growth strategy in the machine tool and consumable tooling industries. While the formation of Precision Cutting Technologies will not change the management of Bourn & Koch, DTI, and CID, it places these companies under a single platform so that they can share resources and leverage their combined capabilities to provide an enhanced product and service offering to their customers. Alleghany Capital is pleased to welcome CID to the Precision Cutting Technologies group of companies and looks forward to supporting Bourn & Koch, DTI, and CID as they continue to serve their markets."



Terry Derrico, president of Precision Cutting Technologies and Bourn & Koch, added, “We are excited to partner with Jay Lowery, founder and president of CID, as well as his experienced team, and believe that the employees, customers, and suppliers of all the companies within the Precision Cutting Technologies platform will benefit from this acquisition. CID enhances Precision Cutting Technologies’ portfolio of consumable cutting tools, while expanding our business in the aerospace, defense, and medical end-markets. With Jay continuing to lead the company post-transaction, CID’s day-to-day operations will not be impacted. However, we believe CID will be well positioned to accelerate growth and augment its geographic reach by leveraging the experience, capabilities, and support of Bourn & Koch, DTI, and Alleghany Capital.”

“Over the past thirty years, CID has become a leader in producing the highest quality custom tooling solutions for customers serving the most demanding end-markets,” stated Lowery. “As we build on our proven track record of quality, innovation, and service, we are pleased to have found a long-term home for the company and are excited about the opportunities that will result from this transaction.” (www.precision-cutting.com)

Ipsen

EXPANDS SALES ENGINEERING PRESENCE

Ipsen USA recently embarked on an initiative to double the number of Regional Sales Engineers (RSEs) by year-end. Ipsen’s RSEs engage customers with the objective of improving furnace performance and increasing service life.

“The North American market has proven the need for a strong and technically diverse field support team,” said Ipsen President and CEO **Patrick McKenna**. “We believe that quality product designs are born from investment in supporting customers.”

Recent hires include Midwest RSE **Joyce Paliganoff**, Southeast RSE Patrick Heiser and West/Northwest RSE **Larry Gomez**.

“We know the importance of helping our customers with aftermarket products and services on Ipsen and non-Ipsen equipment,” said Ipsen Vice President of Sales Pete Kerbel.

The expanding group of RSEs will continue to include individuals with diverse skills and backgrounds, many with experience in engineering, machine repair and metallurgical processes. They perform furnace inspections, develop system health reports, and offer solutions through their expertise in parts, service, retrofits, and repairs. (www.ipsenusa.com)



SMT

ANNOUNCES GLOBAL USER FORUMS

This October, SMT is inviting all existing and potential new users to its 2019 Global User Forums. These events are a perfect opportunity to learn about new and emerging technologies of the company and industry trends as well as getting up-to-speed on the latest developments with our computer-aided engineering software, MASTA. Current MASTA users as well as SMT engineers and developers will be imparting their technical knowledge and experiences, providing users a great prospect to enhance their understanding of SMT’s products. In addition, our User Forums provide a fantastic platform to network with other delegates.

Extending our global reach, this year’s User Forums take place in:

- Sterling Heights, Michigan, USA (October 10)
- Hangzhou, China (October 17–18)
- Munich, Germany (October 23)

The User Forums are free to attend and they are a terrific opportunity to exchange knowledge and interaction for engineering directors, executives, analysts and engineers across various driveline development industries.

Rob Forrest, customer support manager, states, “Now an established feature on SMT’s events calendar, I’m excited that we are now able to announce further details of our three 2019 regional User Forums. With previous events having attracted large attendances and following great feedback from delegates, we are, once again, planning a number of informative and stimulating technical presentations along with the opportunity to meet with SMT colleagues and network with other delegates.” (www.smartmt.com)

Varvel

REWARDS TOP STUDENT IN RACING MOTORCYCLE ENGINEERING COURSE

Commitment, competence and excellent performance are some of the key characteristics of the Varvel Group, the Bologna-based company that has been designing, manufacturing and supplying industrial gearboxes since 1955. The socially responsible Varvel Group has always invested in young people. For a number of years now, the group has also supported projects promoting collaboration between centers of scientific learning and the manufacturing sector. As part of this commitment, this year again, Varvel is rewarding the best performing student in the masters degree course in Racing Motorcycle Engineering organized by the Bologna-based Professional Datagest higher education organization.



This partnership dates back to 2012, when Varvel helped finance two students from towns in Emilia affected by the earthquake of that year. This year, Varvel has made a tangible contribution to the seventh edition of the course, rewarding Marco Radaelli, the student who has demonstrated the greatest talent and passion, commitment and determination. Marco has excelled over intense months of theory and practice sessions, exams and tests to finish in pole position ahead of his colleagues in the masters course.

“Life is a challenge, and the real race is yet to begin,”

commented Mauro Cominoli, the Varvel Group’s general manager, “but Marco has certainly shown a determination to be first across the finishing line and we are delighted to help him continue his race. We see it as our duty to support tomorrow’s professionals and help them achieve their ambitions. Passion is the driving force behind the creation of a prosperous future. Education and training are essential if we are to produce new talents and develop qualified human resources with the potential to succeed. Young people are our most important asset in building a better future. They need our support and encouragement if we are to develop motivated human resources able to achieve growth for our company and for the whole system.”

The masters course is delivered by experts from “Motor Valley,” an area so called for its high concentration of excellent mechanical engineering companies. It is aimed at graduates and undergraduates in mechanical, electronic and aerospace engineering interested in acquiring the specialist technical competences needed to design and construct racing motorcycles. The course covers dynamics, electronics, track-side data analysis and racing team management and offers over 300 hours of lessons by experts from motor racing teams and constructors plus in-company and track-side practical training sessions. (www.varvel.com)

Sandvik Coromant

OFFERS ONLINE SERVICE FOR CUSTOMIZED TOOLING

Sandvik Coromant introduces thousands of new tools, holders, and inserts every year. Yet, sometimes that exact dimension you require might be missing. If so, the company offers services for customized tools. Customers can expect quick quotations, easy ordering, performance guarantee for product and cutting data as well as competitive delivery times. You need to be registered on the Sandvik Coromant website to use this online service.

All major product groups within metalworking, e.g. turning, milling, and hole making, are available for customization, giving users the freedom to specify their own dimensions without having to pay the price of a special tool. The result is tailor-made tooling, designed for specific component manufacturing needs. (www.sandvik.coromant.com)

