



No. 727 | SEPTEMBER Bossard News

3D printing | Valuable expansion to the Expert Design Services ... Autonomous Mobile Robot | For more efficiency on the last mile... Proven Productivity | A carefully selected bill of materials ...

EDITORIAL



Dear readers,

Permit me to write about something besides the coronavirus, because I am assuming that you are receiving news about this daily, whether you want it or not. However, the economic consequences from it are substantial. Many companies, and even entire industries, will suffer for a long time, especially if the temporary, extraordinary measures threaten to become permanent measures.

However, there are also opportunities to correct market economy excesses, to recover. For example, I find it hard to understand when it costs more for me to park my car at the airport than the actual flight ticket. Something's not right there. There is simply an oversupply, since there are too many flights.

I would like to draw your attention, dear customers, to some highlights in this issue.

In the Assembly Technology Expert section, we will whisk you away to the world of 3D printing. Bossard is part of this world and can offer you interesting services, which offer major benefits in the design phase.

In the Smart Factory Logistics section, we will present to you the latest tools in last-mile management. Robotization is not only occurring in production, but also in supply processes. By using transport robots, we are able to approach your production islands with maximum efficiency and ensure permanent secure supplies. Our experience shows that when you optimize your "last mile" with Bossard, you can expect a significant improvement in productivity. Multi-material welding is truly innovative and is used where different weight-saving materials need to be combined with each other and high tear-out resistance and maximum aesthetics play a key role. Read the article. It's worth it.

Bossard has expanded the product range of wood screws to include 2 BN's, a cylinder head screw with WIROX coating and a countersunk screw Inox A4; Spax products with big potential.

Offers are online! No more illusion, but rather Bossard reality. Read and don't be taken aback by everything our Real Time Manufacturing Service (RMS) can do and how RMS works. Our experts will be happy to provide you with more information.

Dear ladies and gentlemen, summer has been pleasant so far. Not too hot and not too dry, and yet many wonderful days. It's been fantastic to have a vacation at home again. I hope you have a fall that is more normal and remain with best regards,

PETER KAMMÜLLER

General Manager, Bossard Switzerland

bomi@bossard.com

CONTENTS

04 Company News

In the service of our customers' competitiveness

06 Assembly Technology Expert

Design freedom through 3D printing

10 Smart Factory Logistics

Autonomous mobile robot: For more efficiency on the last mile

14 **Product Solutions**

Allow us to present: MultiMaterial-Welding Spax: Bossard also connects wood

18 Proven Productivity

A carefully selected bill of materials for Frost-Trol

22 Global – Local

We are wherever you are.



Online

You can find the PDF edition of the Bossard News online at: www.bossard.com

PROVEN PRODUCTIVITY WORLDWIDE In the service of our customers' competitiveness

Together with our customers, moving forward for us means developing solutions that are better, faster, more efficient and cheaper – and therefore solutions that help our customers to outperform their competition. Customer stories from around the world prove that our customer promise of "proven productivity" can be extremely versatile.

Poland: Stock levels reduced by 33%

140 employees, 3 production halls, 7,000 m² working area, 938 order items and 22,700 processed fasteners per day. At Garo Poland, lean management and continuous innovation are focused on daily and modernity is deeply entrenched in the company's culture. Efficient systems are used in production, which can be adapted to current requirements at any time. The benchmark for technology partners is just as high. Garo chose Smart Factory Logistics from Bossard. Our fully automated systems have ensured material availability and therefore the continuity of production and relieved procurement personnel from Garo for several years. This made it possible to reduce Garo's stock levels by 33%. A pleasant consequence: Less tied-up capital and a greater focus on the core competencies - indispensable for Garo as a company with great innovative potential.

Garo Poland is the biggest manufacturer of charging systems for electric vehicles in Northern Europe. The company specializes in electrical installations and systems. The offer ranges from simple outlets to charging stations for electric vehicles, campers and boats.

Germany: Breaking new technological ground

The name Borgers has stood for high quality textile components since 1866. The automotive supplier produces trim and damping parts for side walls, trunk floors or rear shelves. The materials used range form thermoplastic and duroplastic supports to needle non-woven material, polyurethane films and genuine leather applications. There are a variety of different attachment points for these materials in and on the vehicle. Borgers was looking for an attachment solution for the trunk floor of a luxury SUV, which could be attached as close as possible to the edge of the load floor. Based on this specific requirement, Bossard developed an innovative fastening solution together with the Swiss company MultiMaterial-Welding AG

(MM-W): MM-W Pins. The MultiMaterial Welding technology makes it possible to set these on the outermost edge so that are invisible directly from above. The connection impresses, even under heavy loads, and is also cost-effective.

Comfort for every vehicle: The main field of work of Johann Borgers GmbH includes custom solutions for passenger vehicles and commercial vehicles, such as equipment for the engine compartment, the passenger area, the trunk or also for the exterior.



Malaysia: Maximum precision and quality thanks to intelligent production

As the market leader of contract-produced metal products in Malaysia, C.S. Yap invests heavily in automating its processes. In doing so, C. S. Yap works closely with Bossard towards a common goal: Smart Manufacturing – intelligent production. Thanks to Bossard's Smart Factory Logistics, this vision has already become a reality for C.S. Yap. While in the past there were often coordination problems with suppliers, our intelligent systems and solutions now help C. S. Yap to achieve 100 percent transparency in logistics and noticeable savings in order processing. In total, it was possible to save 35% of operating resources. This means that more workers can be deployed where the true value of the products is created.

C. S. Yap is a leading contract manufacturer in metal processing. C. S. Yap produces for a variety of industries, including the automotive, electrical and mechanical engineering industries. Over 15 million metal parts are produced annually. See for yourself: Employees who were personally involved have their say in short videos about each story.



For even more success stories of our customers: https://www.bossard.com/en/how-we-add-value/ proven-productivity-stories/

Assembly Technology Expert

GROWTH FOR ASSEMBLY TECHNOLOGY EXPERT SERVICES

Design freedom through 3D printing: Valuable expansion to the Expert Design Services



Bossard Assembly Technology Expert Services are receiving innovative support thanks to new services in the area of 3D printing and 3D scanning.

Assembly Technology Expert

With the engineering services of our Assembly Technology Expert Services, we help you to find the most ideal connection solutions already during the planning and development phase of a new product. In this BOMI, we would like to present to you the areas of 3D scanning and 3D printing, which recently supplemented the Expert Design Service – one of a total of six engineering services.

Expert Design

In our ultra-modern design centers, we help you to develop a safe and high-quality product. Bossard's specialized knowledge in the fields of assembly processes and joining technology can be decisive for your product's success. Take advantage of our engineers' and product designers' expert knowledge and utilize our broad range of technical resources, such as 3D models and CAD data.

3D printing

The Bossard Group has entered into 3D printing in the plastic and metal sector with investments in the Swiss companies 3d-prototyp GmbH in Dietikon and Ecoparts in Hinwil. For our customers, this means that they will be able to take advantage of the benefits of these innovative technology in the future.

By integrating 3D printing into the Expert Design Service, you benefit from our many years of 3D printing experience when developing and designing your new product. Possible advantages are:

- Design freedom
- Cost savings
- Shorter development and prototype phase

For the implementation of your ideas and concepts, we produce illustrative samples, functional prototypes and moving assemblies in one piece, which you can use to check and test functionality and additional requirements for your component. 3D printing technology can be used in almost any industry. We were able to revise and redesign an existing solution for a customer from road construction, for example. Using the parts produced with 3D printing technology, we were ultimately able to show that the new solution leads to a cost reduction during assembly with a reduced number of components.

For our customer Frank Türen AG, we redesigned the housing of the new vein scanner and produced it in 3D printing. The advantage is that fewer individual parts are now needed and many variants can nevertheless be quickly implemented.

Design freedom

The design freedom with 3D printing overcomes almost all of the restrictions of conventional technologies and allows for complex geometries, large overhangs, undercuts, cavities, interior channels and much more.

Shorter development and prototype phase

You can continue to perfect your product, because prototypes can be made in a cost-effective manner. While even a minimal change to a component can drive up costs and time with other production methods, 3D printing makes quick design changes and corrections to prototypes a breeze. Depending on the size, material requirements and finishing, we deliver components in 1 to 10 business days.

A large selection of technologies and materials

Different requirements require different 3D printing technologies and materials. We utilize a variety of 3D systems with different technologies to achieve an ideal result. 20 different materials are available here, which meet numerous railway, aviation and aerospace standards with specific properties, such as robustness, electrostatic dissipation, transparency, biocompatibility, UV resistance, the fire protection class UL94V-O or the FST safety standard.

Yes, we scan!

We electronically record freeform surfaces or parts with complex geometries and easily return them into CAD files. The size and degree of detail of the component on the one hand and the desired result on the other determine which scanner is used. We are independent of the location of the part to be recorded thanks to the flexible use of 3D hand-held scanners. We can scan permanently installed structures or machine parts that are difficult to transport right at your location.



For our Swiss customers

At our Additive Manufacturing Center at KVT-Fastening in Dietikon, we offer our Swiss customers a broad range of services, including consultation, sales and customer service in order to utilize the full potential of 3D printing. Our portfolio includes different 3D printing technologies, materials and accessories. In our showroom, you can convince yourself of the performance capability of our 3D offer in a practical manner.

Why 3D printing?

Additive manufacturing and the use of new materials opened up possibilities, which could not be implemented with conventional manufacturing methods. Bossard realized the potential of the new technology at an early stage and expanded its offering accordingly.

We utilize a variety of 3D systems with different technologies to achieve an ideal result. Additive manufacturing and new materials opened up possibilities, which could not be implemented with conventional manufacturing methods. Bossard realized the potential of the new technology at an early stage and integrated it into its offering.





Have we piqued your curiosity? Are you asking yourself where this innovative technology can be integrated into your products and manufacturing processes? Take advantage of our service and visit our websites to learn more.

More about Assembly Technology Expert: www.bossard.com

More about Additive Manufacturing Center: www.kvt-fastening.com

More about 3D-printing in the metal sector: www.ecoparts.ch

More about 3D-printing in the plastics sector: www.3d-prototyp.com

Smart Factory Logistics

AUTONOMOUS MOBILE ROBOTS (AMR)

MiR transport robots for more efficiency on the last mile



MiR increases productivity with innovative solutions from Bossard.

Transportrobot MiR 100

With the dawning of the era of Industry 4.0, many industrial manufacturers are actively involved in the upheavals in automated production. There are meanwhile different scenarios for the sensible design of human-machine interfaces for the desired increase in efficiency and a noticeable increase in productivity. Collaborating robots play an important role here.

Successful companies are always striving to optimize their delivery chain processes and to automate them further. Concepts such as lean management have already been implemented at many production sites. Bossard offers a method for supplying assembly stations according to the Industry 4.0 standard – optimized, automated and paperless. It's a simple solution that fits all industrial manufacturing systems, even those that currently are not using any 4.0 applications. This solution for last-mile management takes the internal logistics into consideration under practical viewpoints and improves recurring processes using mobile robot technologies from MiR.

Internal logistics

Bossard's Last-Mile Management is an integrated solution for internal logistics. It can be used to optimize material transports "on the last mile" from the central storage locations to the work cells. Normally the material controller, also called the "milk runner" or "water spider," supplies the different work cells with the B- and C-parts required at the work station.

The Last Mile Management and the intelligent systems from Bossard make the entire process of material replenishment more efficient and transparent. The advantages of this improved milk run concept range from shorter distances to intuitive and paperless ordering.

MiR chose Bossard as a strategic partner to develop joint solutions for Industry 4.0.

How can AMR help here?

Mobile robots are used to optimize and automate delivery routes in internal logistics. The typical procedure: The material controller picks the required material from the inventory or supermarket using a digital picking list. Once the crates of the transport trolley have been filled with the required material, the Last Mile Management informs the Autonomous Mobile Robot (AMR) that the trolley is ready for pick-up at the central storage location. The mobile robot picks up the trolley with the filled crates and brings it directly to the "points of use" at the different assembly stations, depending on the production setup. The transport robot has integrated sensors and camera to record the environment and safely avoid obstacles and people.

Bossard's Last Mile Management offers an interface for mobile robots. We accompany our customers on the way to achieving a smart factory and help them to reduce delivery bottlenecks and downtimes. A welcome side effect: Employees who were previously working in material logistics are free to perform other tasks.





MOBILE INDUSTRI-AL ROBOTS (MIR) – THE LEADING MANUFACTURER OF COLLABORA-TIVE MOBILE RO-BOTS

The company MiR has committed to developing user-friendly, flexible and safe robots to help companies increase the efficiency of their work. The autonomous robots are part of the latest generation of advanced, mobile and collaborative machines, as they are used today by manufacturers in a variety of industries and in health care to automate their internal transportation.

Autonomous Mobile Robot

Autonomous Mobile Robots (AMR) are quickly spreading in materials management. These robots, continuously supplied with data, navigate through the production halls with the utmost precision. They use the most efficient routes to bring your intelligent factory to the next level. AMR are maneuverable and safe and they transport loads of several hundred kilograms at once. Every unit is WiFi-connected and is equipped with a number of sensors and cameras. These functions save employees time and make it possible for managers to quickly recalibrate paths and monitor progress remotely.

Have we piqued your curiosity? Unleash your internal logistics as well with Last Mile Management from Bossard. Let's talk about how AMR will revolutionize your supply chain. Visit our website to learn more.

PRODUCTS Product Solutions

ARTIFICIAL INTELLIGENCE AND BIG DATA

MM-Welding[®] takes it to the next level with integrated quality and performance control



Our partner MultiMaterial-Welding has developed a fastening technology platform for lightweight und multi-material designs that combines the insights of AI with its proprietary joining technology based on ultrasonic energy. The benefits are at hand: Predictable pull-out force without destructive testing, precise quality assurance, higher product safety and more efficient manufacturing processes.

E-mobility and light-weight design transform the transport industry

With regard to e-mobility, the integration of batteries also places new demands on manufacturers. Due to their high weight the batteries change the demands on construction and design as well as on the materials used. The same applies to lightweight construction, which makes both electric and conventional cars safer and more sustainable. An increasing number of components is replaced by different kinds of light materials.

The digitalization of joining processes

An often underestimated but essential link between the different materials used in these new applications is the fastening technology. The safety of the construction literally depends on it. It must be designed in such a way that the weight of the vehicle is not increased more than necessary. Furthermore, the joining process must be efficient and cost-effective. An efficient approach to ensure that the joining technology meets the highest possible standards is the use of artificial intelligence (AI).

100% traceability with Artificial Intelligence

The digitalization of manufacturing processes and the implementation of efficiency programs are the current top issues driving companies in the transport industries, not least in order to be able to compensate for the losses of the corona crisis in the coming months. In the course of digitalization, artificial intelligence is also making its way into assembly halls.

Machine Learning: Know-how in material properties and software delivers best results

MM-Welding uses machine learning which represents a subgroup of artificial intelligence. Algorithms are the crucial basis for machine learning: In MM-Welding's case deep neural networks (DNNs) have proven to be the most precise predictors.



SmartSolutions deep neural network approach in comparison to conventional image recognition.

But not only DNNs show promising results, also more traditional machine learning algorithms like support vector machines or random forest ensemble methods can be used and lead to very high prediction accuracy. The second factor is data. There is a saying that "data is the new oil". An algorithm is only as good as the dataset that is used during the training phase. MM-Welding has identified this early and developed its own database to collect data since the early stages of the company in 2017. This allows us to train our algorithms with sufficient data to allow a good performance of their software.

Innovative solutions ensure maximum freedom of design

MM-Welding-SmartSolutions Software is based on machine learning and transforms production data into meaningful and actionable insights for customers in real-time. It allows quality control of 100 % of produced parts and eliminates the need for destructive testing. It ideally addresses the need for full traceability and control in an Industry 4.0 set-up.

SmartSolutions-Platform: Simple and safe joining

MM-Welding-SmartSolutions applications are built on supervised and unsupervised learning. For performance prediction applications supervised learning methods are applied. As input data, parameters of the MM-Welding process are used.

The focus of SmartSolutions is on fastening solutions for multi-material mixes and the innovative use of ultrasonic technology. The advantages are in significantly stronger connections and faster processes. SmartSolutions Software is unlocking the potential of big data and artificial intelligence for the fastening solutions to provide real-time production quality control, strength predictions and more. MM-Welding-SmartSolutions reach very high prediction accuracy. This means that the weld performance can be predicted very accurately.

SmartSolutions quality control software represents the ideal addition to MM-Welding's proprietary fastening technology platform. But in general, every production process that creates time-series data can be used with SmartSolutions software. The applications seem endless and MM-Welding is committed to explore further potential in various areas.



If you are interested in our MultiMaterial-Welding solutions, please get in touch with your local Bossard contact.

Result of MM-Welding-SmartSolutions performance prediction software compared to measured performance.







16

BOSSARD ALSO CONNECTS WOOD Safety in wood construction with SPAX®

SPAX screws with full thread or countersunk or cylinder head for wood construction: They keep their promise – "Made in Germany" quality.

Highly durable solutions

The SPAX full thread product range offers easy to implement and highly durable solutions, such as for reinforcing wooden components in case of transverse tensile or transverse pressure stress. Connections with SPAX full thread can increase the shearing capacity by up to 100% due to the hook-in effect.

Small spacing between fasteners is guaranteed thanks to the CUT and 4CUT tips. All products meet the conditions of the European Technical Approval ETA-12/0114.

SPAX full thread with countersunk head

The SPAX for wood construction with countersunk head and full thread (BN 21601) ensure safe working and is the first choice for transverse pressure and transverse tensile reinforcements. Screw diameters from 8 mm, 10 mm and 12 mm as well as lengths up to 800 mm offer a wide range of applications.

The SPAX countersunk head with full thread is an economical alternative to bolt connections or sheet metal formed parts. In the case of transverse tensile reinforcements, this SPAX replaces glued-on reinforcement plates or glued-in threaded rods. The full thread absorbs particularly high tensile and pressure forces compared to the partial thread.

The SPAX countersunk head with full thread is also available in INOX A4 (BN 21600) for the diameters 10 mm and 12 mm with lengths up to 600 mm and is also approved according to ETA-12/0114. The INOX A4 material ensures long-lasting security and effective protection, for example, in salt storage halls, with tannin-rich woods such as oak or for use in outdoor areas exposed to the elements.

SPAX full thread with cylinder head

The SPAX full thread with cylinder head also allows high pressure and tensile forces to be transferred. In general, the SPAX with cylinder head can be used wherever a small head is desired for visual reasons, which can also be recessed deeper in the wood if needed. These products are also ideal for reinforcing rod dowel connections, because the reinforcement does not require a reduction of the effective number. The total number of rod dowels can therefore remain restricted to the calculated required amount, which leads to a significant increase in the economic efficiency. This means that more compact connection diagrams are possible. The thread diameter of 6 mm can also be used to screw narrow wood interfaces.

WIROX[®] corrosion protection

Both SPAX screws with full thread are coated with WIROX for better corrosion protection. The WIROX coating offers a higher protection from corrosion than a conventional bright zinc coating in the neutral salt spray test according to the standard.

Summarized advantages

In addition to wood construction, SPAX full thread with cylinder head is also used in wood-glass facades. Concealed mullion-transom screwed connections are possible here with small component widths. With both types of screws, the manufacturer's typical shaft profile ensures quick and safe screwing. This saves the user time and money. The SPAX CUT tips effectively reduce wood splitting and the SPAX T-STAR plus drive makes it noticeably easier to screw in.





BN 21600 - Countersunk wood screw made of INOX A4

These and other SPAX products can be found in the e-shop



SCAN ME

A carefully selected bill of materials



Frost-Trol is a Spanish company that specializes in the production and distribution of commercial refrigerators for supermarkets and is well-known for producing highly efficient and environmentally sustainable models. When the company was established in the second half of the 1950s, Frost-Trol was a pioneer in Spain in the manufacture of refrigerated units made of metallic materials and in the use of hermetic compressors.

In 2005, it also set a new environmental benchmark by developing the new frostCO2 line with technology that can use CO2 as a refrigerant, which helps minimize the effects of global warming. After several decades of leading the Spanish market, Frost-Trol broke into the international market and is now present in over 40 countries throughout Europe, the USA and the Middle East.

The beginnings

I SUCCESS STORIES

The collaboration between Bossard and Frost-Trol started in January 2018 and since then both companies have worked together with the firm objective of optimizing all of the assemblies and parts of the commercial refrigerators sold by the company. Throughout this journey, we have not lost sight of our main priority for this project: to provide efficient, reliable and innovative solutions, three concepts that are fully in line with Frost-Trol's company philosophy.

A solution for every application

Alongside Frost-Trol, we conducted a detailed study of the commercial refrigerators and their production process with the aim of studying and analyzing each of the fastening elements and the tools or equipment used in the production line.

We started with a scenario of 7 different production lines for which our experts had to come up with efficient and methodology-based solutions that would improve productivity.



In order to carry out the technical visit and subsequent tasks as accurately as possible, the experts at Bossard started with the first production line, which comprised of a total of 123 items.

The next step consisted of identifying the elements that were most receptive to optimization and improvement. A total of 37 fastening elements was eventually reduced to 14 after intervention by Bossard. A reduction in parts, processes and tools of over 60% also results in cost savings based on the total cost of ownership principle, or TCO. An example of Bossard's valuable input.

A carefully selected bill of materials

There are a wide variety of different surfaces and assembly materials involved, therefore, it was necessary to turn to Bossard's team of production engineers through our Assembly Technology Expert service, in particular, Bossard Expert Assortment Analysis. In collaboration with the engineers at Frost-Trol, Bossard's experts analyzed the fastenings, rivets, electrical material and other connection systems. Everything necessary to establish definitive solutions.

Based on these findings, they determined that the screws needed for this project are Phillips oval head screws. In addition, of the two different materials available – steel and stainless steel – they selected the latter. The different grades of materials were also analyzed. At Bossard we use steel grades 4.8, 5.8 and 8.8 and based on the characteristics of Frost-Trol commercial refrigerators steel grade 8.8 was chosen. With regard to coatings, a galvanized coating with clear passivation was eventually selected in accordance with the current regulation "UNE-EN ISO 4042:2019".

Lastly, another detail to define during this phase of the project was the dimensions of the screws. One specific example that was evaluated involved a total of three different suggested screw sizes – DIN 912 M6 x length 16/20/30 – ultimately, an intermediate length of 25 was chosen. In another instance, DIN 912 M6 x length 40/50/60 were evaluated and the intermediate length of 50 was chosen in order to ensure a perfect fit with all of the parts.

Customer benefits

There are a number of immediate benefits for the customer as a result of this process, for example:

- Optimization of the 7 production lines through innovative solutions
- Optimized selection of parts for use with future projects
- Achieving and maintaining a leaner bill of materials (BOM)
- Reduced running costs
- Reduced assembly costs
- Total cost savings of over 40%



WE DO EVERYTHING SO YOU CAN PRODUCE SEAMLESSLY Your supply is our core expertise – even in challenging times



The Covid-19 pandemic is rolling over the world and mercilessly showing how vulnerable today's globally networked supply chain is. Closed borders, stoppages in container ports, production stops in factories in Asia and Europe have triggered a disruption int he supply chain that not yet been seen in the post-war years and the decades that followed.

For a long time, it was difficult to assess the effects. With over 4,000 suppliers on one side and over 35,000 customers on the other, Bossard's main task is to ensure availability, even in these hectic times. Thanks to our nearly 190 years of experience in the distribution business, we know exactly how we can adapt purchasing strategies and purchasing principles with short notice.

"Despite the very rapid developments, Bossard managed to maintain its delivery capacity."

Andreas Bertaggia, Head of Global Supply Chain Management Availability – our highest core competence

Bossard has always designed its supply chain to minimize risk. We spread the procurement volume to various suppliers on different continents so that your security of supply is always guaranteed.

With 34 logistics centers worldwide, Bossard has a unique warehouse network to supply customers on any industrialized continent with goods on time.

Thanks to the decades of partnerships with suppliers in the world of screws, Bossard enjoys an excellent reputation in procurement markets. We have been able to rely on good partners who were ready to go the extra mile for Bossard under unusually difficult circumstances.

It was not always easy to keep an overview during these hectic times. But you have a reliable partner with Bossard, even in times of crisis. We assure you that we will always serve you as best we can.

THE ORIGINAL AVAILABLE FROM THE PREMIUM PARTNER BOSSARD



ONLINE-DIGITAL-FAST

RMS – REAL TIME MANUFACTURING SERVICES



We have been live since January 2020! With the new RMS platform, we calculate your prototypes and small series in real time and produce the parts in the desired time period.

Do you need a milled or turned prototype of your product or an initial small series? Ideally very quickly, reasonably priced and by a set agreed delivery date?

Then upload your 3D data to the online platform rms.bossard.com. You will receive our price offer and a delivery date in real time. Your project data will be processed immediately, analyzed and given directly to production after the order is placed. Supplemented technical drawings will be taken into consideration during production. Bossard will deliver the finished prototypes and small series to you on time. You can continue to work as planned and without delay.

"Get a price and delivery date in seconds."

Your benefits at a glance:

Speed

You will receive your price and a delivery offer in real time.



Accuracy

We offer and produce based on your drawing data and specifications.

Versatility

We deliver a wide range of turned and milled parts in many materials and variations.



۲⁰⁻⁰٦

Reliability

You can rely on our promise.

Ability to plan

You know when and at what price you are getting your product.



How RMS works

Once you have loaded your 3D data onto the platform and selected the appropriate material and the quality level, add the desired additional parameters, such as coatings or rework, and select the delivery period. The platform then calculates the corresponding price within seconds and you can download the binding offer. The order is also processed via the platform. Your products are produced and delivered in the confirmed time frame.

Offer from RMS

The RMS platform offers current calculations and production of prototypes and small series of turned and milled parts. Additional production methods will follow. The range of materials includes various materials of the material groups aluminum, stainless steel, non-ferrous metals, plastics, steel and other alloys. In the case of additional product requirements, RMS-Support will be happy to help you. They can be accessed via chat.

Interested?

Register online now for Real Time Manufacturing Services under register.bossard.com or contact your Bossard contact partner. We will be happy to show you a personal demo to demonstrate what the platform has to offer!





www.bossard.com