

verbinder

The staff and customer magazine of the binder group

'My goal for the binder group is for us to better anticipate the potential of the market and to assign a key role to digitalisation.'

MARKUS BINDER

General Manager of the binder group

SUSTAIN- ABLE

Trade fairs
Impressions

Idea management
Restructuring

binder USA
New webshop

The virus has taken the fun out of life

Planning was completed and staff were eagerly waiting for the events to kick off. However, there have been no trade fairs for two years now.

Compamed in Düsseldorf, Productronica in Munich and SPS in Nuremberg: three trade fairs that binder had been planning to attend so that it could meet and speak face to face with our customers, suppliers and other business partners. But then came the next wave of Covid-19 cases.

There were new rules requiring people to be tested, recovered or vaccinated, along with different combinations thereof. Along with that, there were mask mandates. This is not how we imagine a trade fair to be like, one where we want to showcase our products, celebrate the brand and have conversations in a pleasant, relaxed atmosphere.

And to top it off, SPS, the most important trade fair for our company, was cancelled. Having to wear a mask, disinfect your hands and maintain a safe distance to others are not what we had imagined. Because it's no fun.

On that note!

Marketing

The verbinder is also online

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www.binder-connector.com/de/news-presse/kundenmagazin-verbinder

Your opinion counts

We are open to suggestions, ideas and every form of criticism – both positive and negative – because it is only by keeping a dialogue going that the verbinder will keep its dynamic quality.

So be brave and tell us what you think of the verbinder:

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Time for things to move forward

Dear reader,

Sadly, the Covid-19 situation has become much worse in recent weeks. I hope that the situation will improve as more people get vaccinated and the current regulations in place, requiring proof of vaccination, a negative test or recovery at the workplace and proof of vaccination or recovery in certain public areas, begin to push down the number of cases. I would ask each of you to get vaccinated.

The limited supply of raw materials and input materials continues to affect production at our company. In spite of this, our order books remain strong thanks to robust sales and a large volume of incoming orders. I really hope this trend continues into next year. Starting in December, I will regularly discuss current topics and developments at binder in an internal video message. By doing this, I want to foster dialogue and ensure that our workforce is always up to date on the key issues facing our company.

In addition to the strategic reorganisation in sales, we will be addressing the importance of sustainability in the corporate context in this edition. There will also be exciting updates from our affiliates, binder USA, binder Swiss, binder precision parts and binder solutions.

I wish you and your families a happy Christmas and a successful start to 2022.

Happy reading!

Kindest regards,



Markus Binder

General Manager of the binder group



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SUSTAINABILITY

Taking on social responsibility

Sustainability is on everyone's mind; climate change is a constant topic of conversation and environmental protection is becoming increasingly important across all aspects of life. It is not only private individuals who are actively working to save the environment by attending Fridays for Future protests or voting in German parliamentary elections. Companies are also taking their impact on the environment more seriously and reducing their CO2 emissions and resource consumption. But the issue of sustainability is bigger than that. The following article describes what else it entails and how companies can become more sustainable.

Text The Editorial team

Every company bears a responsibility for the impact it has on society and its employees. That is why sustainability is an important topic for every company in order for them to remain viable and in business over the long term. It is an integral part of their corporate social responsibility. If companies take this responsibility seriously and act accordingly, they not only protect the environment, but also become more attractive as employers and for customers. It therefore makes sense on multiple levels to develop a sustainability concept and to integrate it into the corporate culture with a lasting effect.

Measures to achieve a sustainable corporate culture

Environmental protection starts on a small scale and does not necessarily require major changes in our day-to-day work. To increase sustainability at a company, waste separation can be firmly anchored in the corporate culture. Appropriate bins at strategic locations in company buildings make it easier for employees to separate waste and make it part of their everyday lives. Separating waste not only simplifies recycling, but also reduces the cost of disposal.

Few things create as much waste as the morning coffee we drink in disposable cups. These can be found at just about every workplace. Over the course of the day, another cup here, another cup there. At the end of the shift each day, they end up in the bin. Providing reusable cups and mugs is one way to solve this problem, and it's one that immediately reduces the amount of waste.

'Do you really need to print this e-mail?' is often found in e-mail signatures. And that's good. Digital documents have already replaced paper in many areas, and there are many successful examples of paperless workplaces. Nevertheless, a surprising number of companies still have processes where it would be possible to eliminate or significantly reduce the amount of paper used. These need to be identified and optimized in order to save paper.

A significant portion of a company's CO2 footprint is accounted for by employees commuting back and forth to work. This is also an area where the company can have a long-term impact. Providing tickets for public transport, making bicycles available to employees, reserving parking spaces for people who

carpool and offering charging stations for electric vehicles are all ways to change how employees commute.

Measures to create a sustainable business

Replacing inefficient lights, such as incandescent, halogen or fluorescent lamps, with an environmentally friendly alternative such as LEDs has an immediate effect. From the time they are replaced, the power consumed for lighting



LEDs – an environmentally friendly alternative

and the CO₂ emissions that come with it decrease markedly. LEDs are also long-lasting and need to be replaced less often because they break less.

There is always an opportunity to improve the sustainability of the company whenever it purchases new equipment. When equipment, machinery or IT systems are replaced, energy efficiency and environmental protection should be among the most important criteria in the selection process. Devices that meet stringent energy efficiency standards often offer a rapid return on investment in spite of them sometimes costing more up front because they consume less power.

A simple but effective way for a company to be sustainable is by choosing the right energy supplier. Especially companies that consume a lot of energy should carefully consider where they purchase electricity. Switching to a green power provider has no real downside. There are a number of advantages in doing so, however. Here are some examples: it significantly reduces the company's CO₂ footprint, guarantees clean power, is often less expensive, makes the company a positive role model and helps promote the energy transition.

Indirect ways to protect the climate

In addition to measures that directly affect the company and its employees, sponsorship provides a variety of ways to improve sustainability while supporting projects that mesh well with the corporate philosophy and thus strengthen the corporate identity. Whether you're talking about local projects in the fields of education, culture, sports or social affairs or international projects to promote wildlife, forest or marine conservation, every donation helps.

Establish effective measures for sustainability

Sustainability at companies is the responsibility of management. To effectively establish measures, they must be adopted strategically throughout the company. Especially at large companies, it makes sense to take this task off management's plate and form a team responsible for drawing up and implementing measures.

Here, too, it is possible to reduce costs and work if experts are consulted when planning them in order to optimise implementation strategies and goals. Taking a slow, methodological approach to implementing the measures firmly anchors them in the company culture.

binder is also aware of its social responsibility to protect the environment and is constantly optimising its processes, changing old habits and looking for alternatives to run the business more sustainably and be more mindful of the environment. Every company can become a role model in the field of sustainability. What's important is to take the first step! ■

Strengthening the corporate identity with suitable projects.

verbinder 35 | 05/2015

**READY
FOR THE
FUTURE**

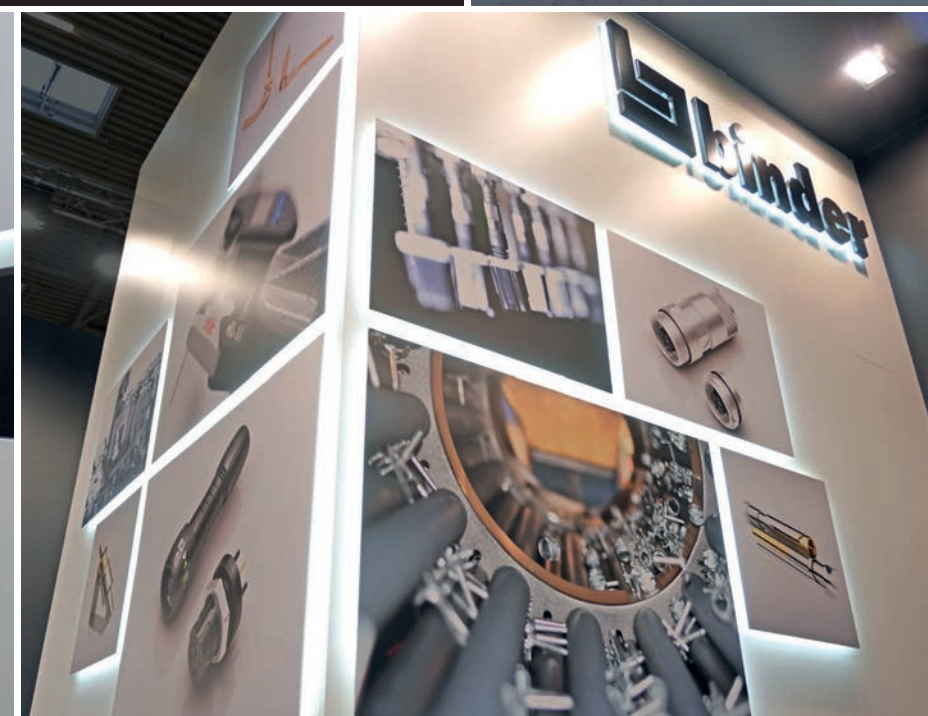


BACK AGAIN

Finally, trade fairs again!

COMPAMED | Düsseldorf | 15 – 18 November 2021

PRODUCTRONICA | Munich | 16 – 19 November 2021





www.binder-connector.de

David Phillips appointed new international sales director

binder strengthens its international presence

binder is restructuring its sales management as of 1 January 2022. As international sales director, David Phillips will manage the global activities of the binder group in future.

He will then take on responsibility for the nine international sales offices of the Neckarsulm-based family-run company.

Text The Editorial team



David Phillips,
new international
sales director of the
binder group

binder is further accelerating its internationalisation. The company will adapt its sales strategy to address customer needs and market challenges even more closely.

David Phillips, managing director of binder UK since 2009, will take up the position of international sales director as of 1 January 2022. The Briton is an experienced sales expert and managed binder UK in one of the group's biggest markets with great success. His main priority will be to coordinate binder's worldwide sales and pursue their strategic development.

'My goal for the binder group is for us to better anticipate the potential of the market and to assign a key role to digitalisation. This will benefit our customers above all', says Markus Binder, managing partner of the binder group.

As part of the restructuring of the sales management, Graham Ellis, with binder UK since 2009, will take on the position of sales director of the UK sales office. In addition, Jochen Luksch, with binder since 1987, will be responsible for sales activities in Germany as national sales director. The newly created 'new business development' department,

headed by Michael Schroers, who has been with the company since 2013, will increase the focus on the customer-specific solutions of the binder group.

'We are a successful family-run business. In order to remain so in future, we have decided to reorganise the company structure to become more contemporary, dynamic and international. It is my firm belief that we are taking a big step in the further development of our company with this strategic reorganisation', says Markus Binder, looking with conviction toward the future. ■

**The customers
benefit the most
from the new sales
structure.**



SALES

M8 Snap-in cable connectors

Simplify safe signal transmission in sensor-actuator applications

Field-wireable M8 signal cable connectors from binder support efficient and reliable installations in sensor and actuator applications. Featuring snap-in quick locking and now offered with 3 to 6 pins, they prove themselves in industrial applications that require reliable signal transmission and are subject to installation space constraints.

Text The Editorial team

SALES

binder is adding further straight overmoulded M8 snap-in connectors to the successful 718 product series. In addition to 3 and 4 pins, these are now also available in 5- and 6-pin versions. They are available with either PUR or PVC cables up to 2 m or 5 m standard length. Customised lengths can also be realised on request. Since the locking mechanism does not require any rotating elements, these connectors are particularly easy to handle and stand for high efficiency in use.

M8 Snap-in in the context of state-of-the-art automation solutions

Sensors and actuators are among the core elements of today's automation technology. Here, reliable function, resistance against the influences of harsh industrial environments, small size, flexibility and scalability in use, and the greatest possible time savings during installation are the most important requirements for connection technology. When it comes to signal transmission in industrial sensor-actuator applications, circular connectors – with screw-lock or quick-lock technology – have been well established. Secure locking and industry relevant degrees of protection are decisive requirements for

the use in plant engineering, but also in conveyor technology or within drones. M8 stands for a particularly space-saving factor of the connection solution, and the variety of pin counts ensures the flexible applicability of the products. In particular, signal connectors with snap-in locking ensure simple, fast and thus efficient installation.

The locking principle in detail

While the electrical connection is established by mating and unmating, the mechanical locking is provided by means of snap-in elements. These are pushed axially into one another during the mating process and then held in position by spring force. In order to release the connection, this force must be overcome and the plug pulled off backwards in an axial movement. As the connector latches and unlatches, a clicking sound will be heard. As a major advantage over screw or bayonet locking, the snap-in technique does not require any rotating elements. This makes the corresponding connectors very easy to handle – an essential requirement for efficient, time-saving installation.

Specifications of the new products

The M8 snap-in circular connectors of the 718 series, now with pin counts ranging from 3 to 6, meet the IP65 protection degree requirements when mated. Contacts are gold-plated brass for male and bronze for female contacts and these allow in excess of 50 mating cycles.

With rated voltages between 30 V and 60 V, the products are suitable for rated currents of 1.5 A to 3 A, depending on the wire gauge and number of pins: 3- and 4-pin versions are specified for 2 A (0.14 mm² wire gauge) and for 4 A (0.25 mm², 0.34 mm², and AWG 22), respectively; 5- and 6-pin versions for 3 A and 1.5 A, respectively. They withstand rated impulse voltages of 1500 V (3- and 4-pin) and 800 V (5- and 6-pin).

All connectors in this series operate reliably at temperatures from -40 °C to +70 °C in static condition.



Further options and customized solutions

Guido Werner, Product Manager in Sales at binder since 2013, comments on the addition to the 718 series as follows:

‘With the M8 circular connectors and the quick locking mechanism, we are strengthening our position as a solution provider in automation technology. We will be happy to offer further variants or even customer-specific solutions with the snap-in latch on request.’ ■



M8 cable connectors are used in conveyor technology, among other uses

Sensors and actuators are some of the main elements of modern automation technology.

verbinder 44 | 08/2018
**ALWAYS
ON THE
BALL**

Square-flange M12 signal connectors

Multi-position A-coding facilitates flexible, fault-free use

Two-piece M12 panel mount connectors from binder, equipped with square-flange housings and multi-position, lockable A-coding, simplify secure sensor/actuator connections in factory automation and robotics..

Text The Editorial team



binder offers various A-coded M12 connectors as part of its 763 product series, which are equipped with a square-flange housing for assembly. As a special feature, the multi-position A-coding supports variable cable installation. Also advantageous for flexible use: flange housing and contact carrier can be processed separately.

Background: the A-coding

Industrial-grade, standardized M12 circular connectors with A-coding according to DIN EN 61076-2-101 are a well-established component of sensor and actuator systems in typical factory automation and robotics applications. Their coding, which serves to avoid mismatching, ensures precise assignment of the pin and socket contacts in the process: A-coding generally stands for applications in signal transmission with DC voltage over 3 to 12 pins. The principle of partial assignment of the contacts ensures the plug-in compatibility of product variants with different but lower pin counts. Multi-position coding is advantageous, for example, if the installation has to be carried out at different angles due to the mounting conditions. At the field level of automation, both inside and outside the control cabinet, A-coded M12 signal

connectors support efficient, cost-effective sensor/actuator communication in particular.

Two-piece design simplifies the application

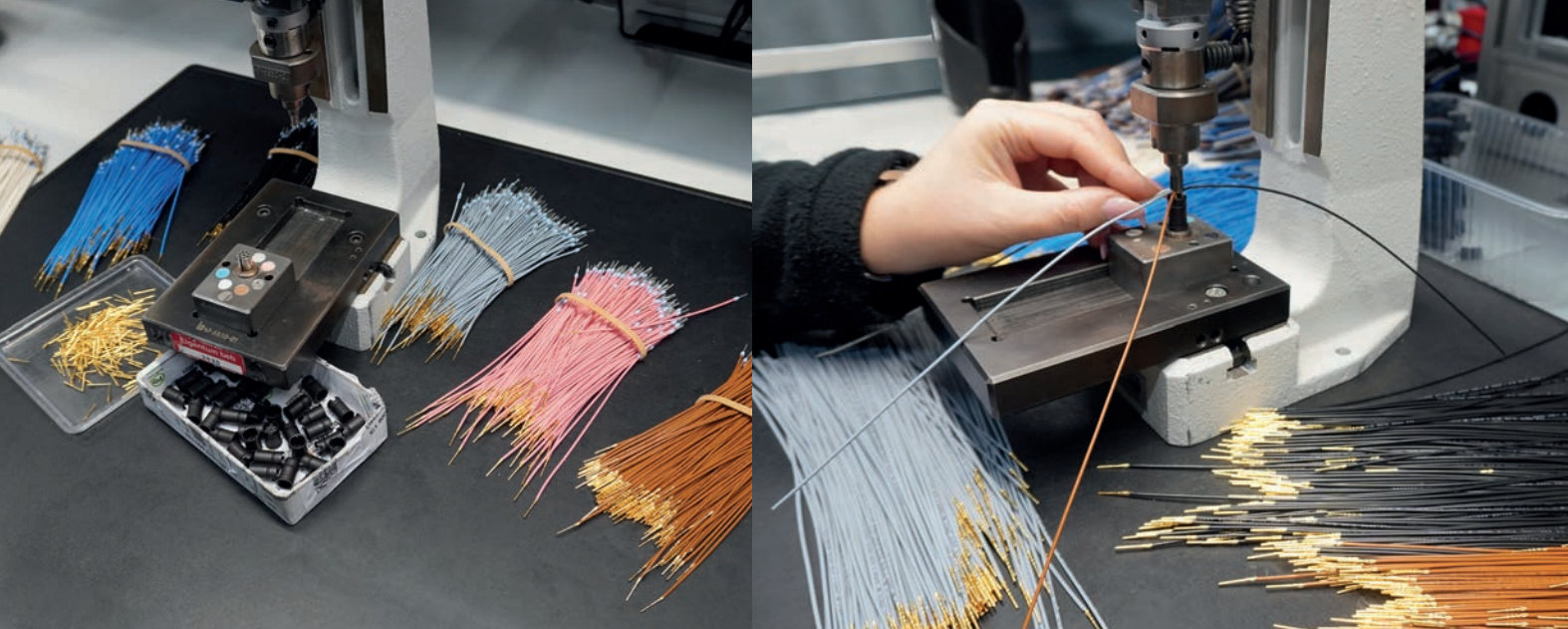
The square-flange variants of the 763 series generally consist of two parts: the metal flange housing and a contact carrier. The latter is equipped with a lockable coding nose that can be rotated in 45° increments. The two-part design supports user-friendly, safe assembly in practice.

Change of size made easy

The 763 series includes M12 A signal connectors equipped with 4, 5 and 8 pins as well as single wires or solder contacts. The single-wire version has a square housing 20 mm or 26 mm wide. In the variant with solder contacts, it measures 20 mm. The 26-mm square housing of the M12 single-wire version has the same drilling scheme as that of the M16 form factor. This allows users to switch between the design sizes without having to adapt existing housings, for example of field devices such as sensor/actuator boxes.

Technical product details

The rectangular-flange M12 connectors with multi-position, lockable A-coding are specified for a maximum wire gauge of 0.25 mm² (AWG 24). In all 4-pin and 5-pin versions, the rated currents reach 4 A (3 A UL), 2 A (1,5 A UL) with 8. The rated voltages are 250 V (4-pin), 60 V (5-pin) and 30 V (8-pin). The corresponding rated impulse voltages are specified as 2500 V, 1500 V and 800 V, respectively. The connectors meet the density requirements – combined with suitable sealing but without a defined tightening torque – in accordance with protection degree IP69. They are designed for operating temperatures from -40 °C to +85 °C. ■



PRODUCTION AND LOGISTICS

An introduction to the Strand Production segment

The second floor of the new production and logistics centre at the Neckarsulm site is home to production, which had previously been housed in plant 2 before the move. Occupying approximately 2,000 square metres, roughly 250 employees currently work here in three shifts. Production is divided into four areas, of which strand production represents the X segment.

Text Simon Prang and Felix Stegmüller

As the name suggests, the employees in stranded wire production primarily make and produce connectors with stranded wires. A stranded wire is an electronic conductor that consists of thin, individual wires, which is why it's easy to bend. With over 90 employees, strand production is the production segment with the highest number of employees. Many production techniques and processes are necessary to produce the large variety of different products in the 707 to 820 series. This includes: cutting stranded wires to length, crimping rotary and stamped contacts, soldering printed circuit boards, trimming on toggle presses as well as sealing and packaging components. The different process techniques require a high level of expertise and concentration.

Solid processes from the ground up

The entire process is highly coordinated. The individual order components that are not stored in production are checked to determine if they are available and ordered in logistics via a material alignment station. Material planners assemble the individual components for the orders and place them on carts for the production team. Produc-

tion setters check the carts and decide which order will be produced next based on the dates on the order documents. After an order has been selected, the employee looks for the tools and other equipment he or she will need and gets everything ready. This step is called set up. Afterwards, during initial approval, the responsible employees check whether the tools are fully functional and whether it is possible to meet the criteria in terms of precision specified in the drawings. The order then goes into production.

Manual work in strand production

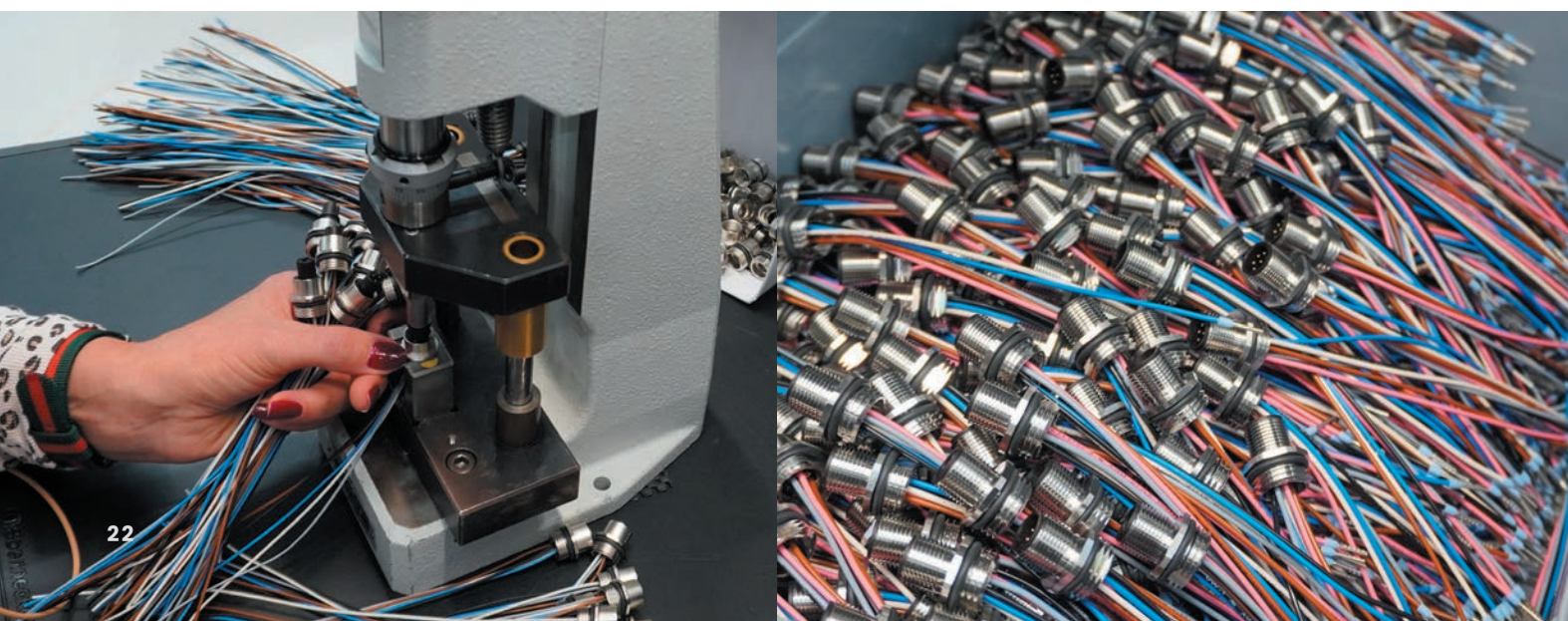
At the newly designed manual workstations in the strand production area, production workers can easily raise or lower the workbenches to the preferred height. This allows them to work ergonomically even when they are standing up. Here, for example, seals are fitted, bodies are pressed in, and contacts and strands are connected. The staff works with up to 12 strands in different colours, which can be up to four metres long. Ensuring they fit snugly into the bodies requires the utmost concentration, a steady hand and excellent eyesight. Depending on the requirements, the items

are then further processed or professionally packed and transported by logistics. ■

About the authors



Simon Prang has been at binder since 2018 and is a production assistant at Plant 2 (PW-2). **Felix Stegmüller** works as a team spokesperson in Strand Production (segment X) and has been with the company since 2008.



The binder training workshop

Providing the optimal conditions for future employees to learn



Leonard Eli, Robin Edwell, Antonio Provvido, Julian Roth, Annemarie Hammel, Hannes Schwab, Jonas Markel (from left to right)

It's immensely important to binder that young people receive a sound and thorough education. To this end, the company provides the best conditions possible for them to learn and is reviewing its existing concepts. The new generation of binder tool mechanics learn their trade in a newly designed training workshop, which provides the foundations that ensures they are optimally prepared for their future career.

Text The Editorial team



Robin Edwell, Leonard Eli and Annemarie Hammel during filing (from left to right)

In the workshop, senior instructor Antonio Provvido is currently training six apprentices as tool mechanics. He is their instructor from the first to the fourth year of their training. Antonio also supports apprentices from other departments, along with pupils and apprentices who all learn basic mechanics and metalworking skills here.

A place for comprehensive training

The training workshop offers apprentices the space they need to experiment and put their skills and ideas to the test. Here they can learn and hone different techniques away from production, allowing them to develop all the skills they'll need in their future career. They do small jobs and repair tools at the company, helping ensure that everything runs like smoothly. If they ever need to, they can always ask other

apprentices or the instructor for advice. The apprentices really like the training workshop because they're always doing different things.

A place of encounter

The lively exchange between the apprentices and the instructor was one of the goals that the company wanted to achieve when it came to redesigning the training workshop. The aim was to create a place of encounter where apprentices learn together and interact with skilled staff on equal footing, with the instructor directly on site. To this end, workbenches and machines were moved closer together and an office for the instructor was added. Apprentices from all years of the course now learn together and support each other. In this way, they learn not only from their instructor, but also from other apprentices who have or

have had similar experiences. After completing their training, they already have a vast wealth of experience to draw on.



Hannes Schwab working on the milling machine

A place that offers optimal conditions to learn

During the training workshop, the apprentices have access to a qualified member of staff they contact with their questions, high-quality working materials and optimal working conditions – from the time they start basic training to when they begin preparing for their exams. Having quality, functional work materials and an

optimal working environment helps provide a solid foundation for a sound education as they learn their trade. As part of updates made to the training workshop, the lighting conditions were improved and the six new workbenches were moved closer to the machines. Each workstation where the apprentices work is also equipped with bench vices and individual lighting. Along with that, they also have access to

a modern lathe with taper and thread cutting functions, two universal mills, a radial drill, a drill press, a band saw and a cutter grinder. With these tools of the trade, the binder apprentices are well equipped to prepare for their future career as a high-skilled tool mechanic. ■



Maximum concentration: Jonas Markel

‘The training area in toolmaking was only just recently joined together with the machining area with the addition of the foreman’s office and new workbenches. By providing better lighting and having more direct communication between senior instructor Antonio Provvido and the apprentices, we expect the quality of training to improve overall.’

Reinhard Müller, Head of Production
Technology Plastic Parts (P-FK)



verbinder 45 | 12/2018
**NEW
ERA**



FMEA: Enhanced quality coupled with less risk

Yes, it's true. Creating a new product is a complex undertaking involving a number of steps and processes. There are many reasons why products or projects are delayed or fail altogether. But with the help of the failure mode and effects analysis (FMEA), it is possible to significantly reduce the risk potential.

Text Michael Finke



The FMEA working group: Simon Kühner, Peter Patzke, Rene Habicht, Michael Finke (from left to right)

Today, almost 70 years after it was first used, the method is firmly established in the industry, delivering real benefits and advantages. This also applies to the cross-department collaboration between the interdisciplinary binder FMEA teams.

Definition

The FMEA methodology is used to carry out a detailed quality and risk analysis of products and processes. Technical functions are examined based on the nature and cause of the fault and the resulting consequences possible within the context of product and customer requirements. Appropriate measures to identify and resolve issues have to be defined and assessed for this purpose. At binder, product FMEA is not limited to purely technical product functions. It also covers other influencing

factors, such as legal and technical standards, approvals and the like. Unfortunately, the actual implementation of the FMEA methodology is often time consuming and labour intensive, which is a frequent point of criticism to be heard from FMEA teams, despite the advantages already outlined above. At binder, we listen to what people have to say and translate this into optimisation measures.

FMEA at binder

The FMEA software is used to carry out the actual FMEA in a systematic way. Using the analytics functions of the software, it is possible to produce further useful and reliable risk assessments. Trained professional moderators head up the FMEA meetings. In addition to methodological knowledge, they also provide expertise in various subject

areas, which contributes to the quality and effectiveness of the FMEA process. By introducing a basic FMEA, all product or process-relevant requirements and functions were standardised, incorporated into checklists, discussed in interdisciplinary FMEA teams at binder and assessed based on their relevance with respect to the specific product in question. The same is also true with regards to the process FMEA.

Practical advantages

It has been shown in practice that the analyses are getting better and better thanks to new experience and knowledge that is being incorporated all the time, and that critical issues are now being identified earlier and more consistently. This allows those involved to initiate preventive measures

to reduce or eliminate errors in a timely fashion. This is the key advantage of an FMEA in a nutshell: the more time and attention you spend completing the FMEA, the fewer errors will occur in the future. Many problems are avoided while also reducing the need for additional resources, time and investments. In addition, it is also possible to improve the quality of the products and processes. This is not just theory any longer at binder. FMEA is now an integral part of our product development process. In addition, the FMEA processes are integrated into the project software and are therefore timed based on the current progress of the project. By providing clear work instructions and a process flow chart, both available in ViFlow, the binder FMEA system, as well as the processes and responsibilities, are optimally managed to ensure fast, nearly seamless progress.

FMEA 2.0

Despite the many improvements made, it became clear that more were needed. On the one hand, the Patent and Innovation Management (T-PI) and Quality Projects & Supplier Management (T-QPL) departments needed a way to efficiently manage the large number of FMEAs that are carried out, while, on the other hand, employees from different departments wanted to use the information. In partnership with Claus Burger, Team Leader Standardisation & Organisation (T-NO), a special FMEA database was developed and introduced. Fast online access is supported by easy-to-use search and editing functions. One key advantage is that the binder FMEA database is not a stand-alone solution. Instead, it is linked to other binder databases to ensure direct online access to other relevant information. A corresponding authorisation concept governs what individual employees are and are not authorised to do.

A highly valuable tool

Thanks to the combination of these measures and because of employee acceptance, there is increased awareness for FMEA, which has led to an improvement in the quality of FMEAs. The FMEA system has now become a key part of knowledge management at binder, not least because of online access to the wealth of up-to-date technical information. Today, an FMEA is not something you do once because you have to. Rather, it is an everyday tool that is useful and effective in helping the company achieve its goals. ■

About the author



Michael Finke has been at binder since 1999 and is Team Lead in Patent and Innovation Management (T-PI).

verbinder 46 | 05/2019

FOUNDATION LAID

Idea management at binder

We put ideas into practice



M.I.B. is short for MitarbeiterIdeen für binder, or Employee Ideas for binder. The platform that drives it is binder's cloud-based ideas portal, which we use to put your ideas into practice. M.I.B. can be used by any employee at binder headquarters and at the binder Innovation & Technology Centre to submit his or her ideas. Apprentices and students who are working on a contract of three months or longer can also submit ideas. All you need to access the ideas portal is an Internet connection and a good idea.

Text Lina Richter

M.I.B. is always on the lookout for ideas that can help bring about improvement. The ideas can come from employees in any position or role and can relate to any subject and field. Ideas can also be submitted by a group of people. What's important is that you describe the current situation and the solution you propose in as much detail as possible when you submit your idea.

Not every idea will be accepted

There are some suggestions that cannot be considered by the idea management team even if they meet the specified criteria. This includes ideas that contradict moral standards as well as ones that relate to HR-specific matters or the new building. While punctuality and general manners are good things, they should not be submitted as suggestions or ideas. Further-

more, known facts – such as ideas that have not yet been implemented – as well as recommendations that have already been implemented or cannot be implemented will not be considered in M.I.B.

What happens after an idea is submitted

To begin, the idea is reviewed by the idea management team. If the idea is not rejected, it is forwarded to the relevant person for evaluation. He or

she then determines whether it can be implemented, what benefits it brings and recommends a financial bonus for the person who submitted the idea. The accompanying report is then reviewed again by the idea management team. It decides whether to revise, reject or adopt the idea or add it the list of ideas that have potential.

News and a glimpse into the future

In the near future, courses will likely be offered again for anyone interested in taking part. More information will be provided in the future. The ideas portal will launch with a new and more user-friendly design on 20 January 2022. The team of ideas managers are in the process of thoroughly testing the new system.

The idea management boxes in plants 1, 2 and 3 have been removed. New ideas can be submitted online or using your smartphone. Alternatively, a sponsor can work with employees, apprentices or students to support them during the submission process. An up-to-date list is posted on the notice boards. It can also be accessed via the binder Management System (bMS). ■

About the author



Lina Richter has been at binder since 2014 and has been working in the Value Stream Design Projects department (P-IE-WSP) since October 2020. Together with Jörg Wohlbach, she is also responsible for the further development of idea management (M.I.B.).

Additional information

Ideas can be submitted online at <https://binder.ideas.cloud> or using your smartphone for added convenience.

SCAN QR-CODE



Do you have any other questions about M.I.B.?

Please feel free to contact:

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Off to the next chapter!

On 1 September 2021, binder once again welcomed the new apprentices and students who are starting a new chapter of their lives. To make the transition from school to work easier, binder offers the new students onboarding days.

Text JAV



Our new apprentices and students: Nick Mamberger, Andrea Messer, Maximilian Seebold, Jonas Schraudolf, Nils Limp, Maxime Müller, Vincent Maurer, Leonard Eli, Sammy Mayer, Robin Edwell (from left to right)

Protecting our newcomers and our staff is, without question, paramount to us, which is why Covid-19 was once again top of the agenda this year. We held two educational days during which the new apprentices and students had the opportunity to get to know each other and their new training company in a relaxed atmosphere – all in complian-

ce with the necessary safety measure, of course.

Expectations for onboarding days

In order to give our new colleagues at binder the best possible start, it is important that we get their feedback after the two onboarding days. Among other things,

we wanted to find out what they thought that 'onboarding days' meant. What the apprentices and students expected did indeed match what we had set out to in a number of ways. Maxime Müller (industrial clerk), for example, said: 'I was hoping to meet all of the apprentices and that it would alleviate my trepidation of starting trai-

ning.' Future tool mechanic Leonard Eli understood the onboarding days to mostly be an 'opportunity for new apprentices and students to meet, and a place where you get information and instructions concerning the company.'

Feedback for onboarding days

Of course, we were also extremely interested in whether we were able to fulfil the expectations and hopes for the first few days and make it easier for the newcomers to get started at binder. We were also delighted to receive positive feedback on this as well. Robin Edwell, a future process mechanic, found the days very 'informative and not boring' and stated that everything that was relevant for the actual training was 'conveyed in an understandable and concise way.'

Jonas Schraudolf (mechatronics technician) was impressed by the friendly atmosphere at binder: 'My perception that large companies tend to be impersonal quickly went out of the window. It didn't take me long to find out how nice everyone is, which definitely made it easier to get started.'

Development of the onboarding days

We were particularly pleased to learn that we have seemingly steered the onboarding days in the right direction over the last few years. Andrea Messer, a student in service management logistics, has a direct comparison that illustrates this. She said, 'my expectations were actually exceeded. I started training at binder in 2018, so I was already familiar with the onboarding days. But the way they have changed in recent years is really positive. The Personnel Development staff made every effort to ensure that the new apprentices and students felt comfortable, we all felt welcome straight away!'

We are delighted that our onboarding days gave the newcomers such a positive impression of their future training facility and that we were able to further emphasise binder's status as an attractive employer and regional family business.

Our personal impression

Of course, we as the youth and apprentice representatives also had the opportunity to give the new generation of apprentices at binder a warm

welcome. This year, we met a very outgoing group of young people and were thrilled that they got along great and got off to a good start in such a short time.

We wish them all the best for their future time at binder and hope they all remain as outgoing, polite and enthusiastic as we have had the pleasure of getting to know them. It goes without saying that we will be there for them with advice and support and will be happy to help them in this new chapter of their careers. ■

About the authors

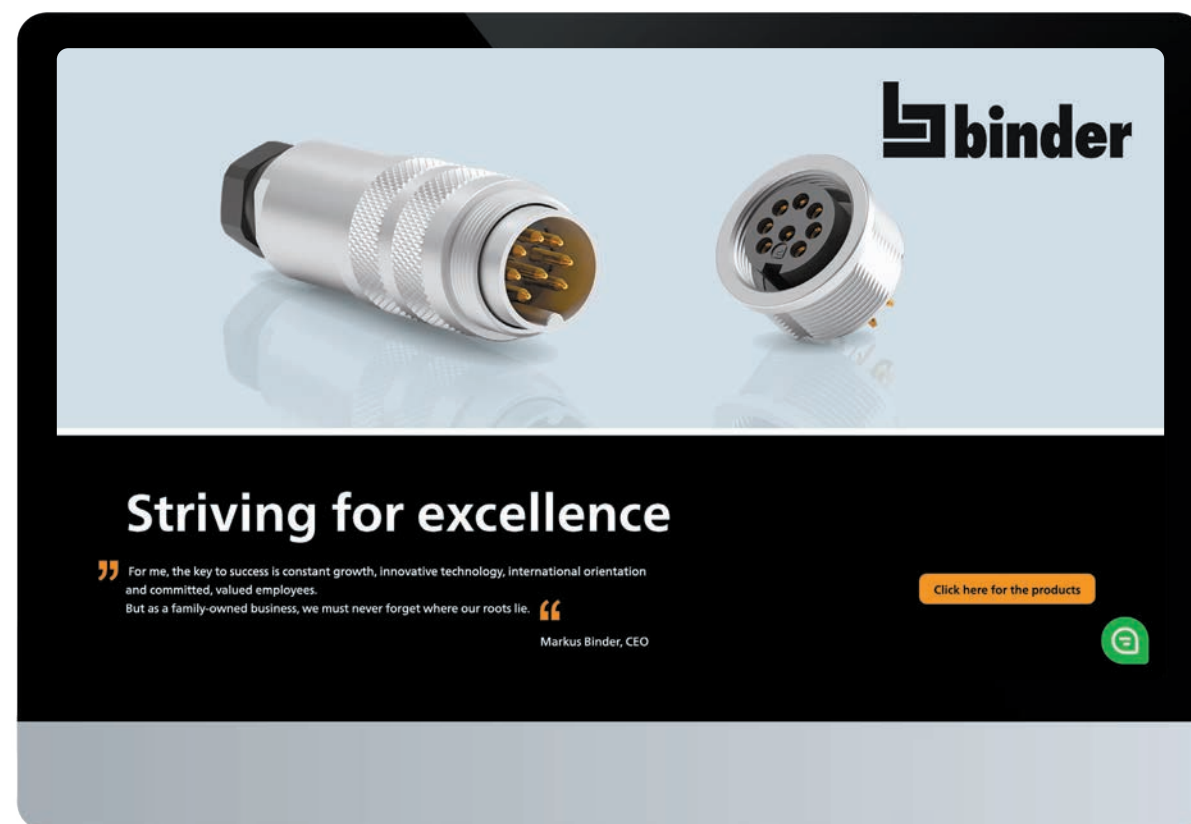
The **JAV** (Youth and Apprentice Council) at binder consists of **Lucca Stoppani** (Chairperson), **Andrea Messer** (Deputy Chairperson), **Vincent Kühnle** (Secretary) and **Janina Fischer** (Backup Member). These four dedicated young professionals were elected to the board for two years on 22 October 2020.

binder USA **NEW!**

New website with excellent products

At the end of August, binder USA launched its new website to match the corporate design and the layout of the binder group website. In addition to the unified look, the new website is also easier and faster to use.

Text Paul Pulkowski



The highlight of the website is the new webshop, which was completely redesigned to enable a more convenient and modern shopping experience. A new and easy-to-use search function makes it possible to find products within a very short time. The check-out function has also been optimised with an integrated payment system that meets the highest security standards.

Immediate impact on webshop sales

Since the launch, all of these improvements have been reflected on online sales figures. 'We are glad to have the new webshop, which simplifies the shopping process for our online customers. In Q3 of 2021, we already recorded our best quarter of webshop sales since its introduction in 2007. We expect the positive effect on our online sales figures to continue,' said Maciek Czerwinski, Managing Director of Sales for binder USA.

In addition to the shop, the website offers a lot of new content and functions, such as a career page and the French and Spanish language versions, which further improve access to the American market. Overall, the website

has given binder USA new opportunities to develop as a brand and have a more professional image.



'NCC Series 670' earns LEAP award

The 'NCC Series 670' product was designed for applications that require maximum protection in tight spaces, and was developed as a customer-specific solution for Hewlett-Packard over 30 years ago. Other companies such as Braun Melsungen and AEG Ulm required a similar 'Not Connected Closed' solution. Due to the high demand for this technology, Markus Binder, Managing Director of the binder group, made the wise and forward-looking decision to launch the customised NCC solution as a series product.

On October 14th 2021 it was announced that binder USA had won the silver LEAP Award (Leadership in Engineering Achievement Program) in the 'Connectivity' category for the 'NCC Series 670' subminiature bayonet connector. The LEAP Award is an annual competition that recognises

the most innovative and forward-thinking products serving the design engineering space. A twelve-member, independent jury of engineering experts, leading businesspeople and international academics evaluated more than 100 products.

There was a total of 14 categories in which the products were awarded in gold, silver, bronze and as honourable mentions. The award is sponsored by WTW Media and its industry-leading publication channels Design World, Fluid Power World, EE World and Fastener Engineering. ■

About the author



Paul Pulkowski joined binder USA as Marketing Manager in February 2021.

GLOBAL

binder Swiss A customer-oriented team

The Swiss market is a highly innovative one and the demands on quality are high. Customers rely on individual solutions, as competition in the industry is fierce, making it a must to stand out from competitors. It quickly became clear that end-to-end solutions for customers in Switzerland had enormous potential due to the complex and diverse needs of direct customers and the expertise of the binder Swiss staff.

Text Nicola Morrone

binder Swiss has been active on the market for almost two years. During this time, the four-person team has grown to six employees: Nunzio Tosto is the Site Manager, and there is one employee who is responsible for sales and marketing, two part-time positions in a job-sharing model that deal with order processing and administration, a logistics technician and the EBA office assistant who is doing in an apprenticeship. The binder Swiss portfolio already includes major customers as direct customers and the national distributor, Compona AG.

A well-established team

The binder Swiss team was able to successfully settle into the company. The members got to know the diversity of the group and how the different areas interact. The employees of binder Swiss have many years of experience in the field of 'all sorts of cable assemblies', ensuring customer satisfaction thanks to meaningful synergies within the binder group. This is also how the 'All from a single source' marketing campaign came about. 'We actively seek proximity to our customers and clearly distinguish ourselves from the competition through our experience and expertise. We can offer our customers high-quality end-to-end solu-



The company building of binder Swiss (Tagelswangen, Switzerland)

tions thanks to the numerous competences within the binder group,' emphasises Tosto.

Win-win solutions

binder Swiss gained new prospective customers and achieved higher sales thanks to a very promising cooperation with MPE-Garry. This is not just about individual customers wanting to source standard parts from MPE-Garry, but new opportunities based on specific customer requests. An example of this is an M16 flange plug from binder, which is currently still assembled using products from competitors. These products will be replaced by MPE-Garry components in future.

This approach makes it possible to both expand value creation within the binder group and ensure stronger customer loyalty. It also reduces the risk of competitors using their own solutions to replace the binder plug with the cable assembly. A current project shows that it is more than possible to swap existing orders for individual connectors with entire cable assemblies by visiting customers onsite, resulting in a win-win situation for customers and suppliers. ■

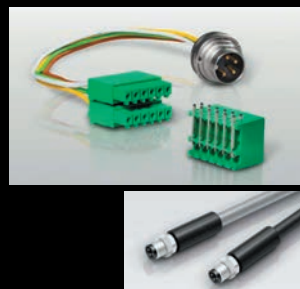
About the author



Nicola Morrone joined binder Swiss as Key Account & Marketing Manager in Sales in November 2019.

Kunden|spezifisch

- Kundenspezifische Kabelkonfektionen
- Flexible Hybrid-Lösungen
- Wire-to-Board von MPE-Garry
- EMV durch 360° Schirmung



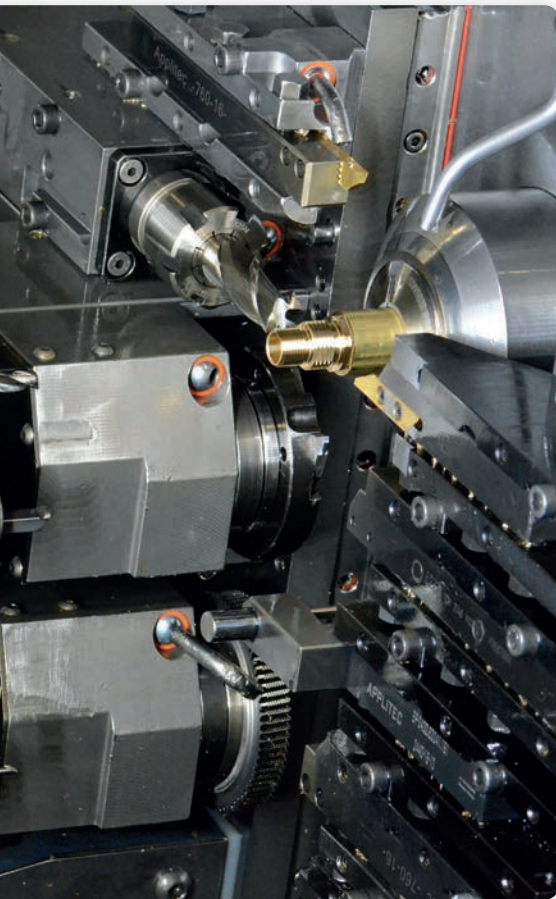
binder SWISS AG
Rietstrasse 6 - CH-8317 Tagelswangen
www.binder-connector.ch

Tailored advertisement:
part of the 2021 marketing campaign

A glimpse of a lead-free future

The RoHS Directive specifies a future maximum level for lead (0.1 per cent) in the electronics sector. The brass used by binder precision parts has a lead content of up to four per cent. So far, there have been regulations allowing for exemptions, but they will be banned in the foreseeable future. For this reason, goods manufacturers want to change their production processes quickly.

Text Michel von Burg



Machining room of a CNC machine

The first discussions on lead-free alloys in production started about four years ago – a time when options were still very limited. It was only in 2020 that the issue really started gaining traction. This was also due to the fact that binder's various end customers increasingly wanted to use lead-free products.

binder precision parts has worked out different versions to find a way forward, together with the R&D department in Neckarsulm. Suppliers of raw materials were asked what options they had available to them, or in other words, which raw materials can already be produced and are available.

In recent months, binder precision parts has tested various

alloys that could be considered for conversion. A clear favourite quickly emerged. It is particularly important that the requirements for the quality of all technical properties expected from the end products are still guaranteed.

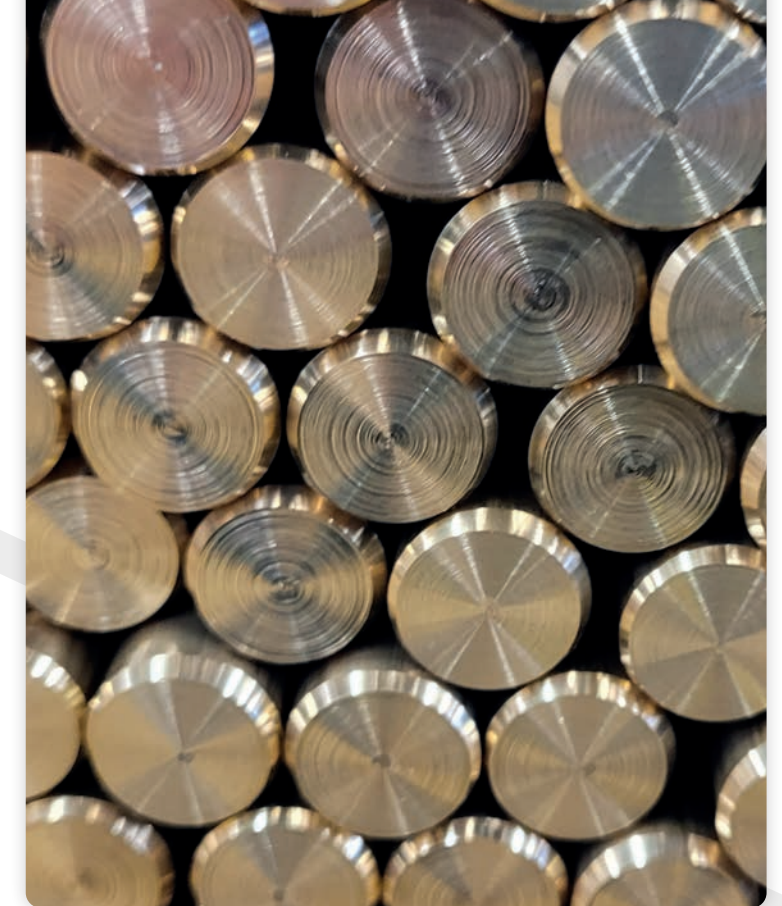
The machinability of the materials

The main focus for binder precision parts was placed on the machinability of the materials. Initial suspicions were quickly confirmed. The machinability decreases rapidly due to the lack of lead content, which has a massive impact on the service life of the tool and the running time of the parts on the machine. In addition, there are considerable problems with chip production.

A lot of effort was put into optimising the tools and machines in cooperation with the tool and machine suppliers. This has enabled decision-makers to make excellent progress in this area.

All of the parties involved are on track to remedy the last of the problems. The results of extensive testing allowed them to reduce the running times on the machines, in some cases considerably, which ultimately has a positive impact on productivity.

There is also progress on the raw material front in terms of further development. Here, the manufacturers want to improve the machinability of raw materials even further in order to be able to maintain productivity.



Bar material used by binder precision parts

Availability of raw materials

An additional challenge has arisen since 2021: the severe limitations in the availability of raw materials. Delivery times have increased by up to 50 weeks in some cases due to the current economic situation.

The supply of raw materials has so far been guaranteed without any major delays since binder precision parts works with framework agreements that are reviewed and concluded at an early stage. However, at the moment, it is not possible to judge with certainty how long the tense situation will last. ■

About the author

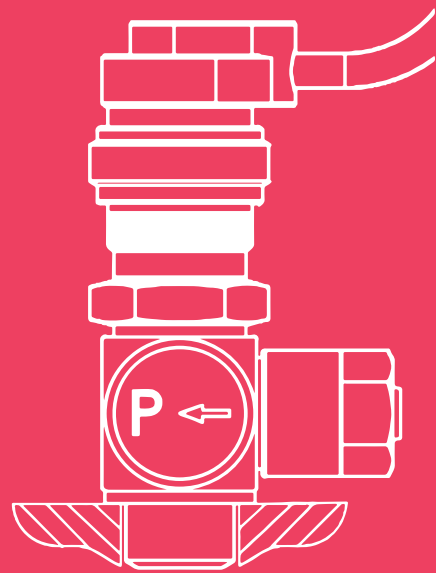


Michel von Burg has been with the company since August 2011 and is responsible for the Production Planning and Control department at binder precision parts.

How idea and utility systematically come together

Modern technology offers a variety of methods that accelerate innovations and are helpful in the realisation of products. But they all have a small problem – from 3D samples and batch size 1 to rapid prototyping: what exactly needs to be printed or realised as a concept in 3D? And does that fit with what the customer wants? An initial idea always has to be turned into a model, even today, before something can be realised.

Text Michael Schroers and Matthias Simbürger



Final products start with a drawing

The good old sketch is still the tool of choice at the beginning. Collecting ideas and visualising possibilities is the very first step towards a solution, regardless of whether it is on paper, a tablet or a workstation. However, there are still more steps to go before the first 3D print. After all, every idea, no matter how good it is, must first go through a process that ensures that it also brings the benefit or added value that this must fulfil in the environment of the task.

Requirements for the product to be developed

A product's characteristics must fit the requirements for it to have utility. After all, it is the characteristics of a product that influence its usefulness and, in turn, also its value for the application. The required properties contain mandatory or optional requirements. Mandatory requirements are usually directly linked to the fulfilment of the task; without them, the product fails to deliver on its usefulness. Optional requirements are, as the name implies, optional. These are things such as visual design issues that do not affect the function.



Our ELC products have few individual parts, are light and waterproof

Quantifiability of the requirements

Mandatory and optional criteria can be extended to include several subgroups, and then leveraged for prioritising all of the recorded requirements for a product. Then, a prioritisation order emerges: must-have, should-have, could-have, would-like-to-have, for example. In practice, the requirements are assigned numerical values according to their importance, making them quantifiable. In the above example, the must-have category is assigned 10, should-have 5 and would-like-to-have 1. This creates a quantifiable prioritisation

order from 10 to 1. The same procedure can be applied to the degree of fulfilment of a conversion by assigning 10 for 'fully fulfilled' and 1 for 'not fulfilled'.

The utility analysis in practice

A customer needs an assembly that has focuses on certain criteria. The customer's exact requirements and priorities are worked out together with the customer to make the areas of focus visible. For example, how important is compliance with standards, how important is design, compatibility with competitors or the weight?

Various ideas for implementation are developed using this information. They are then checked for the respective degree of fulfilment of the individual criteria, together with the customer. The different proposals can be evaluated objectively by multiplying priority and the degree of fulfilment and adding all values together: the higher the overall result, the better the different requirements for the assembly are reflected in the design. Therefore, the proposals with the highest values make their way into sample production. Now it's time to print!

Summary

a strategy must be followed to ensure success, even in creative processes. The results can be very different. Factors such as one-off costs, unit prices and other commercial criteria also play an important role in most cases, of course. ■

Possible **desired criteria** for a product

- Consists of a couple of parts
- Is easy to produce
- Is compatible with the competitor's product
- Must be light
- Must be waterproof
- Should comply with a specific standard
- Should be able to be used more than 1,000 times
- Should match the rest of the design
- Should be available in different colours

About the authors



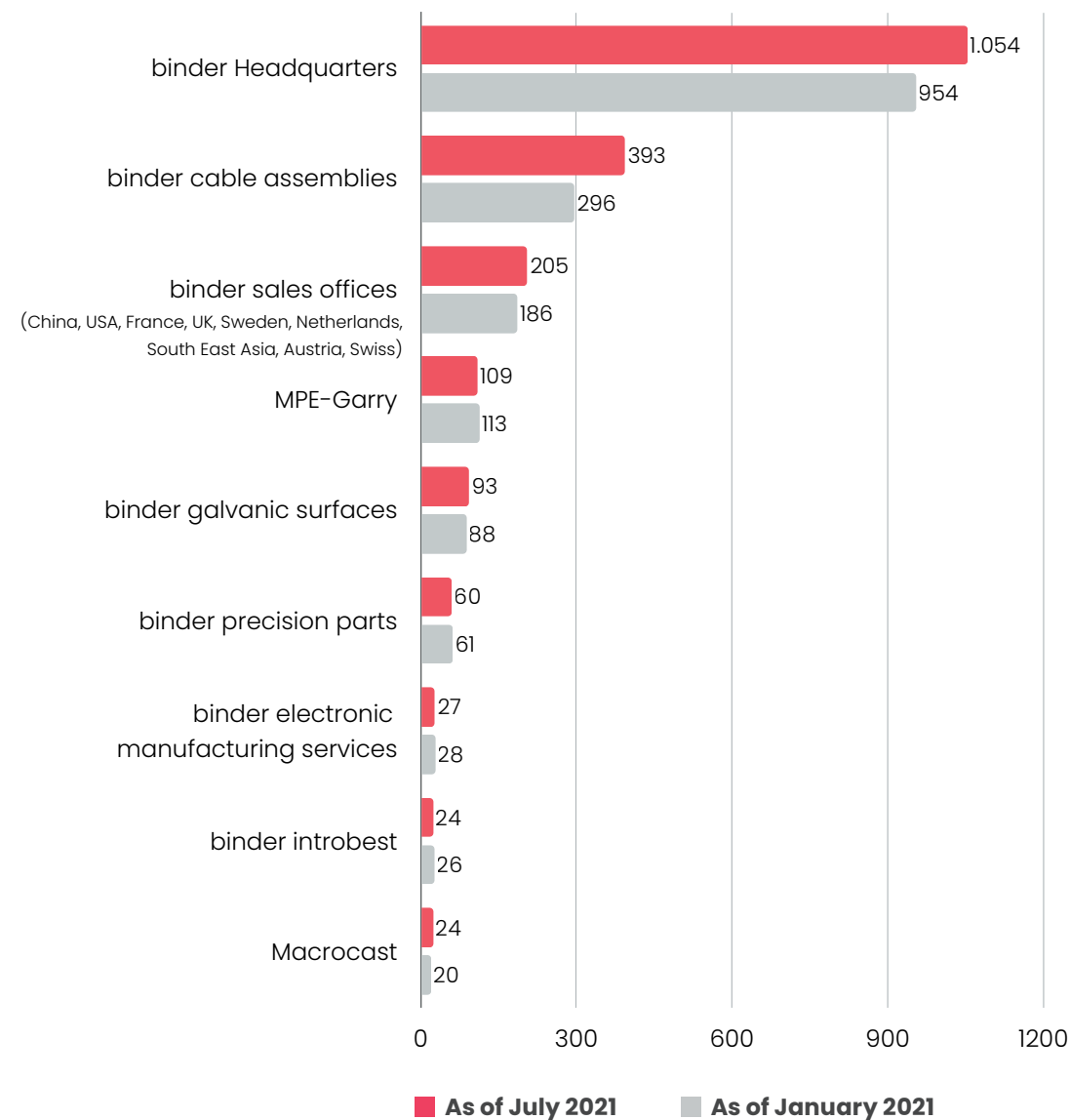
Michael Schroers and **Matthias Simbürger** have both worked for binder since 2013 and are jointly responsible for the innovative business model of binder solutions. Michael Schroers is responsible for sales and Matthias Simbürger for the technical area.

verbinder 52 | 09/2021

MAKING PROGRESS

binder in figures

Staff deployment within the binder group



As of **1 July 2021**, the binder group employed **1,989 members of staff**.
On **1 January 2021** – six months earlier – it employed **1,772 members of staff**.

binder on Instagram

SCAN THE
QR-CODE



A warm thank you

to everyone who has written articles for this issue!

It is only through you that a magazine can come into being, only through you that ideas are generated, only through you that the verbinder comes to life. Feel like writing something? Then please send in your idea for an article – the moment one issue of the verbinder is finished, it's time to start the next one!

The Editorial team

Evidence

Fotoatelier M Photos p. 3, p. 23, p. 30, p. 33, p. 44 | **Franz Binder GmbH & Co. Elektrische Bauelemente KG** Advertisements p. 38, p. 49; Photos p. 4, p. 5, p. 8, p. 9, p. 10, p. 11, p. 14, p. 16, p. 18, p. 20, p. 22, p. 24, p. 25, p. 26, p. 29, p. 34, p. 37, p. 39, p. 40, p. 41, p. 43; Graphic p. 42 | **venice branding UG (haftungsbeschränkt)** Photos p. 5, p. 36; Photos from www.unsplash.com S. 6, S. 7; Illustrations from www.flaticon.com p. 28, p. 30, p. 32 | www.designworldonline.com Graphic p. 37

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