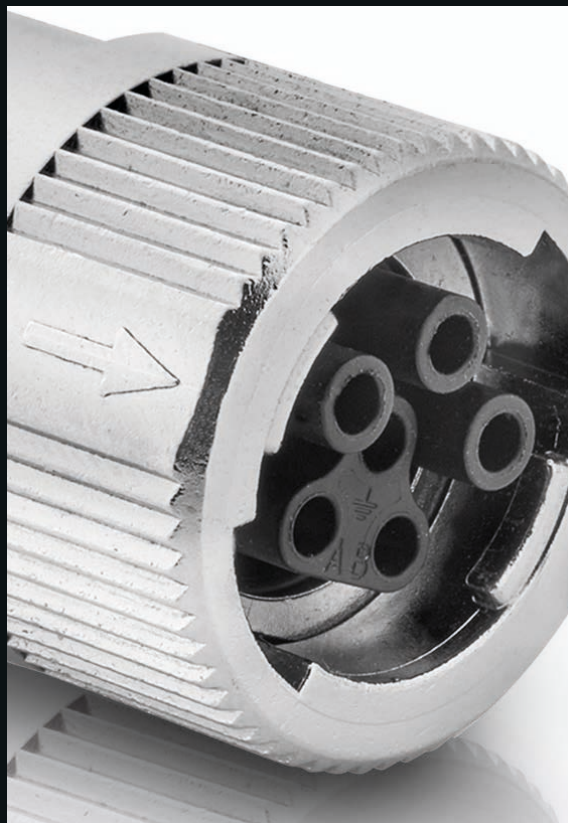


verbinder

The magazine of the binder group



International Salesmeeting
Strategy

Power Bayonet Connector
New product

binder Austria
Organisation

Fast or far?

The world is spinning faster and faster. Our daily activities are influenced by digitalisation, artificial intelligence, rapid strategic action and success.

We cannot prevent this, we have to adapt and be prepared to want to change. But we should remember that:

If you want to go fast, go alone. If you want to go far, go together.

On that note!

binder Marketing

The verbinder is also online

Missed the last issue of the verbinder? No problem – the digital edition brings the magazine's topics to your smartphone, tablet or PC.

www.binder-connector.com/en/news-press/our-magazine

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:

marketing@binder-connector.de
Tel. +49 (0) 71 32 325-302

Current situation

Dear reader,

The global situation is currently characterized by fluctuations and volatility. Wars, inflation and the threat of recession are contributing to a challenging global situation.

After a good year in 2022, both our inventories and those of our customers are well stocked, which means that our customers are postponing existing orders into the future. In order to be prepared for possible further challenges, the use of bridging days, vacation days and time credits are the first helpful tools to bridge the period of lower demand.

Unfortunately, it is impossible to predict how long it will take for the markets to recover, but with your support, we will be able to overcome the challenges ahead.

In this issue of verbinder, we show you our new product, the PBC15, report on the international sales strategy, the focus of binder Austria and interesting developments from the Peak-board logistics sector.

Happy reading!

Kind regards,



Markus Binder
CEO of the binder Group



Content

Issue 58

**Internationales
Salesmeeting**
Strategy

06

Strategic Experience
More important than ever

10

PBC15
New product

12

HEC
Series 696

16

**3-axis robot in the
production**
Injection moulding
process

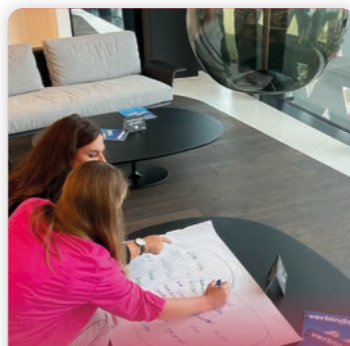
18

Incoming Inspection
Varied and
demanding

20

Peakboard Logistics
Visualisation

24



Onboarding
Same ideas,
new concept

26



**Automation and
digitalisation in
Purchasing at binder**
Process workflows

28

binder Austria
Focus on the future

32

binder USA
Lean Sales Team
for the Americas

34




binder ITZ
Customized
precision

38

Health Day 2023
Plenty of exercise and
a healthy diet

42



**STIMME-
company run 2023**
Team spirit

44

- 02 Comment
- 03 Editorial
- 53 Boilerplate
- 53 Credits



Group photo of the sales meeting participants

better together

In late June, Markus Binder opened the third International Sales Meeting (ISM) following the appointment of a Director for International Sales by highlighting the progress of the international sales strategy and its importance to the future success of binder.

Markus Binder said, 'The first ISM last June, provided a basic analysis and was a key factor in the future direction of our company. Since that time, we started to leave our comfort zone, to move forward and to get better. At the second meeting in November, we raised awareness of a clear strategy, we achieved a lot, and we became better. Now at the third meeting we focus on the importance of working together, being successful as a team. Working together to improve the business and constantly becoming better and better to face the future together.'

Text David Philipps

Evolution: binder as a global player

It has long been a corporate objective to establish binder internationally – and this has been a success, as binder is truly a global company in the context of having worldwide operations. Germany is a mature market for binder, as the business is strong and well managed. It is therefore outside Germany where the opportunity exists for increasing market share and achieving significant sales growth to take binder to the next level. To achieve this will require bold and brave decisions and a clear action plan for creating a market-led international sales strategy and taking binder up a notch.

International Sales Meetings

The first ISM dealt with discovering and developing what is important for the future and how binder should evolve; the second dealt with deploying the international strategy and becoming a global player.

The ground-breaking third meeting was the first to fully involve the binder family: the CEO, head of marketing, national sales, bSOs, product management, binder solutions and MPE. Led by David



Workshops and discussions in teamwork

Phillips, the meeting moved away from the normal sales meeting agenda of one-dimensional presentations followed by more presentations. Teamwork was the focus and we used an original mix of just a few short informative presentations, discussions, workshops and videos.

The innovative use of video replaced many presentations and eliminated language difficulties by being pre-prepared, with each introducing the relevant team and covering the topics of what makes binder different, what does "better together" mean, what could we do better and the number

one goal for 2023. There were great contributions from each team – some were serious, some funny, but all had a clear message.

The ambitious agenda required a lot of preparation and thought and covered sales strategy, industries, national and international markets, the product roadmap and marketing. Presentations from product management were followed by workshops in English and German giving each participant the opportunity to share their ideas. These were then presented to the whole group and discussed.

SALES

On a conceptual level, there were two presentations looking at the future of business-to-business sales and the future of marketing. The first covered how the sales landscape has evolved over the last few years – a process that has been accelerated since the coronavirus pandemic with a move to hybrid working. The second covered the trends in marketing such as ‘big data’, artificial intelligence (AI) and the revolution in website architecture and functionality. Again, these presentations were followed by interactive workshops and discussions.

After a challenging meeting, we closed with a little bit of fun, with binder Swiss winning the best picture award in the binder Oscars!

Markus Binder closed the meeting by saying, ‘At the first ISM last year we said to be successful we need to bring sales, product management and marketing closer together. At this meeting we delivered, at this meeting we were serious, we questioned, we had fun, we were motivated, we became one team, we were better together.’ ■

About the author



David Phillips has served as binder UK’s managing director since the formation of the company in 2009. As international sales director he has been responsible for the binder group’s nine global sales offices since early 2022.

better together





Strategic Experience

more important today than ever

Think big, start small, act agilely: When Markus Binder commissioned the first connector assembly automation projects at the start of the 90s, he demonstrated a huge amount of strategic vision at a very young age.

Text Johannes Gaus

Anyone who takes a look at production in binder's new building in Neckarsulm today is sure to be impressed. Connectors with a wide range

of production types are assembled here using processes ranging from manual and partially automated assembly to a wide variety of fully

automatic machines. These are also logistically connected via an automated high-bay warehouse as a vertical backbone.

Sure, the automation strategy might seem mundane, but automation has been a megatrend in the manufacturing industry for decades. However, there are also companies that employed highly automated production in the 1980s but no longer exist. Taking too much of a one-sided view when it comes to strategic directions is risky.

The importance of automation and strategy at binder

Automation at binder therefore goes hand in hand with the strategy of a high level of vertical integration in the group of companies and several other strategic directions. When the highly automated, top-volume connector series first reached over ten percent of sales a few years ago, the management decided to duplicate production at a different site as part of strategic development. The reason for this was the clear aim of minimising risk. Something that looked like a cost reduction measure from the outside was actually strategic risk management.

Strategic development has a long tradition at binder, as it has been firmly integrated into the organisation's culture for many years. The strategy is

scrutinised every five to seven years. The current situation is examined, trends are assessed and options discussed based on the strategic framework outlined by senior management. A number of employees are involved in the process – young and old, specialists and managers. There are tasks for the sites and the departments. New or additional strategic projects are being started, which the steering group or management continuously monitors. A strategy update will once again be initiated at the end of 2023 – the third time this has taken place at binder.

Passionate, dedicated and down-to-earth

Strategic development which takes a holistic view and employs long-term thinking, as it is put into practice at binder, is a logical consequence of binder's DNA. "At binder, it's not only about numbers, data and facts. Passion, commitment and down-to-earthness are at the heart of everything we do" – this is the phrase that introduces binder's DNA, and is something that both employees and our customers notice.

binder has strategic experience. In the current political and economic situation, which is characterised by a high de-

gree of volatility, uncertainty and upheavals, this is more important than ever.

The Strategic Projects staff function was established in the organisation five years ago. Its tasks include organising the strategic process, management and coaching of strategic projects and interdisciplinary topics, analyses and research for management as well as supporting affiliated companies during integration into the binder Group. The team is now being expanded with human resources. ■

About the author



Johannes Gaus worked at binder from 2004 to 2015 and has been Head of Strategic Projects (GL-SP) since his return in 2018.



PBC15 - Compact connector for the robust power supply of 3-phase drives.

Rugged power and signal interface featuring quick locking

The new Power Bayonet Connector PBC15 from binder is suitable for power supply and signal linking of devices via just one cable. Important features of the compact connector with quick locking include its high power density and easy-to-use design, which is tailored for fast wiring and installation.

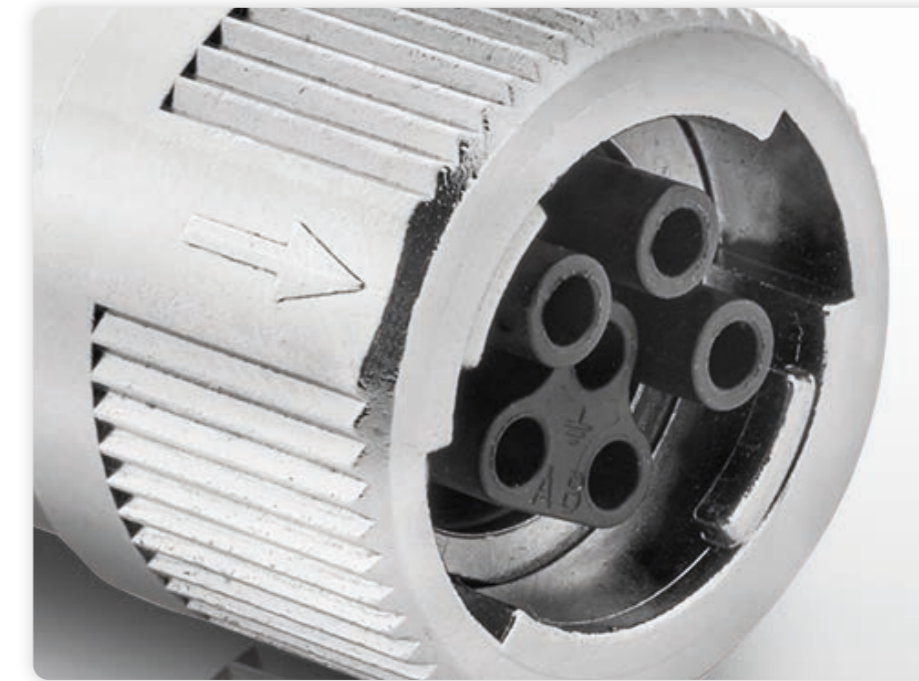
Text Redaktion

binder, a leading supplier of industrial circular connectors, presents the Power Bayonet Connector PBC15. Its size corresponds to an M15 thread. Thus, in the field of power supply connectors, the PBC15 bridges the gap between the widely used M12 and M23 designs. The compact, yet robust connector is suitable for power supply particularly to three-phase motors or frequency converters. It features 3 power pins, for example to supply the 3 live phases of a 3-phase motor, 2 additional pins for signal transmission, as well as a Protective Earth (PE) contact.

The PBC15 design is specified within the DIN IEC 61076-2-116 standard. The quick-lock ensures simple, fast, and reliable locking by means of a quarter turn. Termination is provided by screw clamps. The PBC15 is initially available from binder as wireable female or male cable connectors, in each case as an unshielded or shieldable variant.

Fields of application

Thanks to the rated values of 630 V and 16 A for the power interface, the circular connector is suitable for the power supply of small to medium-sized drives. With rated values of 63 V and 10 A, the



The quick-lock ensures simple, fast, and reliable locking

signal pins can be used, for example, to control brakes or to query operating parameters such as temperatures. The shieldable variants of the Power Bayonet Connector are prepared for use in environments exposed to electromagnetic interference. Typical applications are in the fields of intralogistics, factory and process automation, as well as machine engineering.

Design features

The compact design of the PBC15 is a unique feature: on the one hand, it offers very little space for an isolation appropriate to the voltage levels. On the other hand, the

high currents require wire gauges of up to 2.5 mm² and sufficiently large contacts in order to be able to ideally connect the wires. Nevertheless, the engineers at binder succeeded in designing the PBC15 in such a way that convenient assembly by means of the screw clamp terminals is possible. Another challenge arose with the coupling of the PE pin, which is designed here as the center contact, to

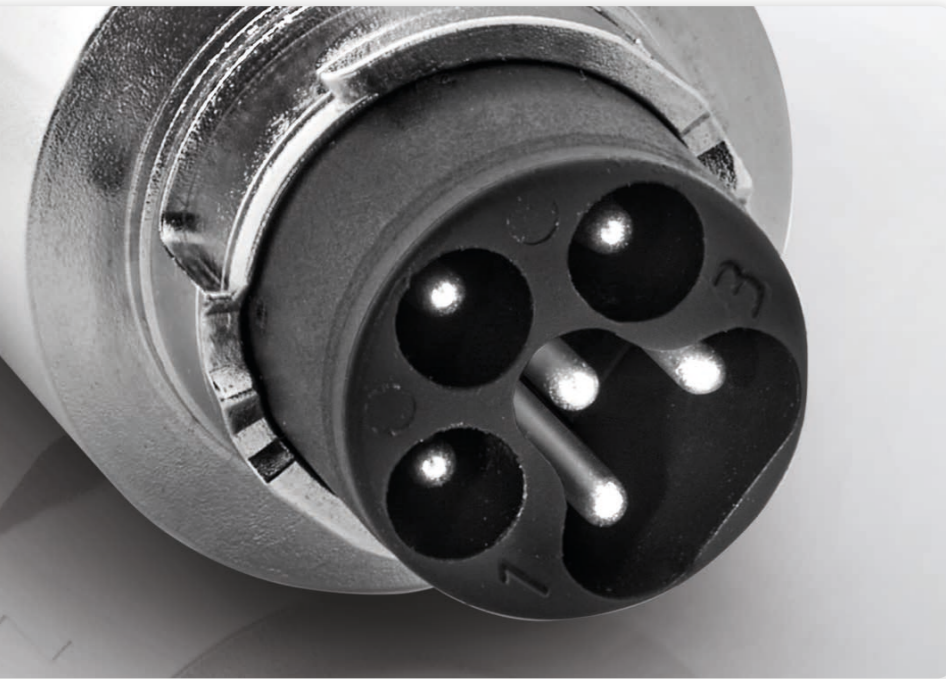
the connector housing. The connection was established by means of a spring plate which was pressed together with the PE contact inside the contact body, thus forming a secure connection to the housing.

Philipp Zuber, product manager with binder, says: „With the PBC15, we have succeeded in creating a power-dense and easy-to-use connector

that is ideally suited for small and medium-sized 3-phase motors. With the high ampacity of its 3 power contacts and with its 2 signal pins, the connector is extremely versatile in supplying power to automation components and drives. The quick locking and the screw clamp termination allow users to easily and quickly wire and install the connector.“

Standardization

Until now, electrical connectivity for small and medium-sized 3-phase drives has often been characterized by products from different manufacturers that have featured different designs for connecting the same motor. Those products are not interchangeable. A committee of various companies, also including binder, developed a standardization proposal to create a uniform interface for this application field. This proposal was published in April 2022 as the official draft standard DIN EN IEC 61076-2-116. The Power Bayonet Connector from binder complies with this design standard, which allows customers to achieve a substantial level of independence from individual suppliers when developing their applications. ■

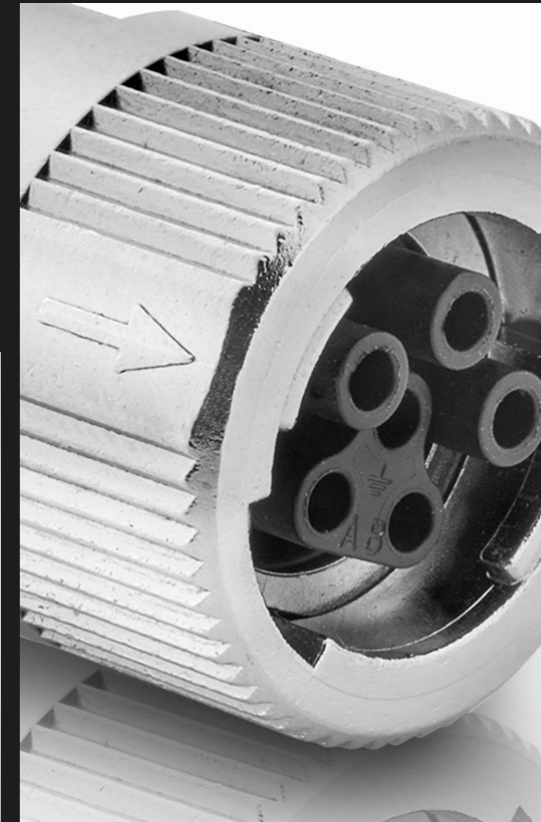


The PBC15 from binder complies with the DIN EN IEC 61076-2-116 design standard, which guarantees manufacturer independence

新品

PBC15

- 卡扣快速锁紧系统
- 螺钉接线技术
- 3 芯电源 + PE 接地 + 2 接地, IP67
- 可屏蔽





HEC - robust and compact interface for power supply to plants and assemblies in harsh outdoor environments.

Power for outdoors

Outdoor applications such as agricultural machinery or process plants require highly robust connection technology that can withstand extreme conditions such as submersion and high-pressure cleaning. HECs from binder are also resistant to chemicals, corrosion and UV light. In addition to power supply, in hybrid design, they can also ensure the signal connectivity of machine and plant components.

Text Redaktion

binder, a leading supplier of industrial circular connectors, presents the 696-series Harsh-Environment Connector (HEC) for outdoor use in extreme weather, dust, humidity, contact with liquids, extreme temperatures, or vibrations. The power connector was en-

gineered for versatile power supply in both the low- and high-voltage segments under particularly harsh conditions. Its compact design supports the supply of equipment or assemblies, such as drive units, in confined spaces. In addition, the bayonet quick-locking

mechanism, which can be closed or opened simply by pushing and turning, saves installation time. In hybrid design, power and simultaneous signal coupling is possible in a particularly efficient manner with one single mating.

The HEC's target applications are plants in process industries, including chemical and non-contact food technology, conveyor systems, and machines in agriculture, construction, or mining and surface mining.

To withstand the mechanical, chemical, and climatic impacts typical there, components of the 696 series – cable connectors and square panel mount parts – are also available with protective fittings. Thus, at the connector, the power interface meets the requirements of protection degree IP68 – and IP69K when mated. Thanks to the integrated sealing function, all wires placed in the protective fitting are protected according to IP67.

Background: protection degree as a measure of strength

According to the DIN EN 60529 and ISO 20653 standards, so-called IP codes (International Protection) indicate the resistance of connectors to environmental influences, which include in particular contact and the ingress of foreign particles and water. The protection degree of a connector is specified in terms of these IP codes, with the first digit referring to the ingress of solid particles such as dust

and the second defining the protection degree against humidity and water.

The IP67 protection degree, as for the wires in the HEC's protective fitting, represents protection against temporary submersion. IP69K indicates that the power connector itself is protected against exposure to water under high pressure. It is important to know that the protection degrees specified in connector data sheets generally apply only when the connector is mated.

Extraordinarily resilient

The 5- to 12-pin connectors are designed for rated voltages from 60 to 600 V and rated currents from 3 to 32 A. They work reliably at operating temperatures from -40 to +100 °C, are UV-, oil- and fuel-resistant as well as vibration-proof thanks to crimp

connection. This non-detachable, solderless mechanical connection technology ensures a particularly tight fit of the wire to the terminating part of the contact.

Cable parts measure 36 mm in diameter, panel mount parts 40 mm x 40 mm. The 696-series components are both VDE-approved and UL-approved. Their mechanical strength is clearly reflected in the lifespan of the connectors, which reaches more than 1000 mating cycles in cases of the 5- and 8-pin connectors, and more than 500 mating cycles with the 12-pin parts. ■



The 5- to 12-pin connectors are designed for rated voltages from 60 to 600 V and rated currents from 3 to 32 A



The fully electric Arburg 270 A with a freely programmable 3-axis robot

3-axis robot involved in the production of plastic parts in factory 1

Plastic parts are produced using injection moulding on 47 machines in factory 1. For the most part, these are connector and socket bodies for further processing in assembly in factory 2. The finished connectors are then supplied to the customer or assembled with cables and overmoulded in factory 3.

Text Reinhard Müller

In the injection moulding process, melted plastic granulate is pressed into a steel mould under high pressure and then ejected after cooling. Although faultless production is the top priority during tool construction, in mould making and during series sampling, there are always parts which are difficult to demould and suddenly get caught in the mould – something which results in damage to the tool and therefore excessive follow-up costs in the process.

Avoiding interruptions

Up to now it has largely been possible to avoid consequential damage by using a digital camera to monitor the ejection process, capturing the image and then evaluating it. However, this has led to some interruptions in production. The purchase of a new, fully electric Arburg 270 A with a freely programmable 3-axis robot now allows us to remove parts directly from the cavities in the tool, place them on an adjacent conveyor belt

and thereby enable reliable production even for critical components. Damage due to falling parts is also avoided thanks to gentle placement. A downstream scale enables the finished components to be counted until the order is fulfilled. ■

About the author



Reinhard Müller has been working at binder since 2018 and is head of production technology plastic parts (P-FK). This area includes tool design, toolmaking and plastics production with a technical centre.



Alexander Tichonov is responsible for the fully electric Arburg 270 A



The incoming goods area at the new building / factory 2

Incoming Inspection **Varied and demanding** (T-QWE)

Whether it's packaging, cast parts, circuit boards or finished parts, all goods first go through Incoming Inspection (T-QWE). In our SAP system we have stored a separate inspection plan for every single part, every supplier and every surface which we can use to check the parts. The relevant dynamic modification rules determine when which part is inspected and with which random check. The inspection plans are created either by us or in Quality Technology (T-QT). These inspection plans list all relevant measures for processing or application.

Text Torsten Hertwig and Stephanie Keck

In the case of new parts or new suppliers, first sample parts are sampled in Quality Technology (T-QT). The inspection plan for the relevant part is also created there. Once the first sample has been approved, we in Incoming Inspection examine the initial deliveries according to the inspection plan.

In most cases, we inspect using a digital micrometer, digital vernier calliper, testing pins (e.g. diameter) and testing gauges (e.g. thread)

Then come the first deliveries that we sample ourselves.

These include:

1. Finished parts from our own production facility
2. Cables and finished parts from Hungary
3. Individual parts that we order as catalogue goods
4. Part from the laboratory (T-QL) with a PAF (inspection request)
5. Parts from an extended workbench (e.g. therapeutic).

In these cases we draw up the inspection plans ourselves.

The handling of complaints is also part of the inspection process.

If necessary, we also provide support when it comes to handling customer complaints. If it concerns an individual part or a supplier part, we receive the information from our colleagues in Customer Complaints (T-QKR). We inspect our stock and, if the criticism regarding the part is legitimate, we send a complaint to the suppliers. The supplier must provide us with information by a certain deadline and finally send us an 8D report. In this report the supplier must describe the cause of the fault and the remedial actions. We then forward this information to our colleagues in Customer Complaints so that they can then notify our customers.

To ensure that the remedial actions described in the 8D report are correct, the fault that occurred is included in the inspection plan and at least the three following deliveries are inspected more closely to check for the fault pattern.

In the event of problems relating to the individual part during production, we will involve the Production department. Along with the Quality

Assurance team, we then verify whether the problem during processing was really due to the individual parts or whether the fault could have another cause (e.g. machines/aids). If the fault is in the supplier part, the problem is documented and the supplier contacted about it.

Part fault: special approval or return

Now and then the individual parts do not match our drawing 100 per cent. In this case, we receive samples of these parts to check whether we can potentially accept them with special approval. We can also do this if they are technically harmless deviations. However, sometimes it is necessary for us to perform a processing test in production. In this case, we consult the responsible designer (T-KE), the product manager (V-PM) and our measurement engineer (T-QT) in advance. ▶

If all involved agree, we can grant special approval for the parts concerned. This is then only valid for the specified delivery or a certain quantity. All other deliveries from this supplier will then have to meet our specifications again.

If special approval cannot be granted for the parts, we have various options for making a complaint to our supplier. In most cases, they are informed in advance via email so that they can take initial measures, such as reviewing their stock and production. Once we have gathered all the data or even the poor-quality parts, an official complaint is made. Here we make a distinction regarding the relevant type of complaint depending on the type of fault and the availability of the parts.

1. Problem report:

This is an official complaint in which the supplier is informed about the fact that their part deviates from the drawing. If this deviation does not have any effect on the use of the part and we need it urgently, we will accept the delivery under reservation.

2. Return:

In this case the deviation from the specifications is so great that the parts concerned cannot be used. The shipment is returned to the supplier.

Regardless of the type, a complaint is only considered resolved when we receive an 8D report that we accept. All information will be stored in SAP under the part number.

Most of the work arises as a result of checking the parts delivered to us by the forwarding agent or by our driver via Goods Receipt. They are first booked into our SAP system by Logistics and then stored in our high-rack storage area. We only request the parts we need. These come to us from the warehouse and are placed in the goods receipt bay for us by Logistics. To start the inspection process, we open SAP and obtain all the data we need in order to carry out the inspection, e.g. the drawing, the inspection plan or information on the correct measuring equipment. If the parts are fine, we label the small load carrier and the parts are returned to

the high-rack storage area. It is only now that Production can access the parts and then process them.

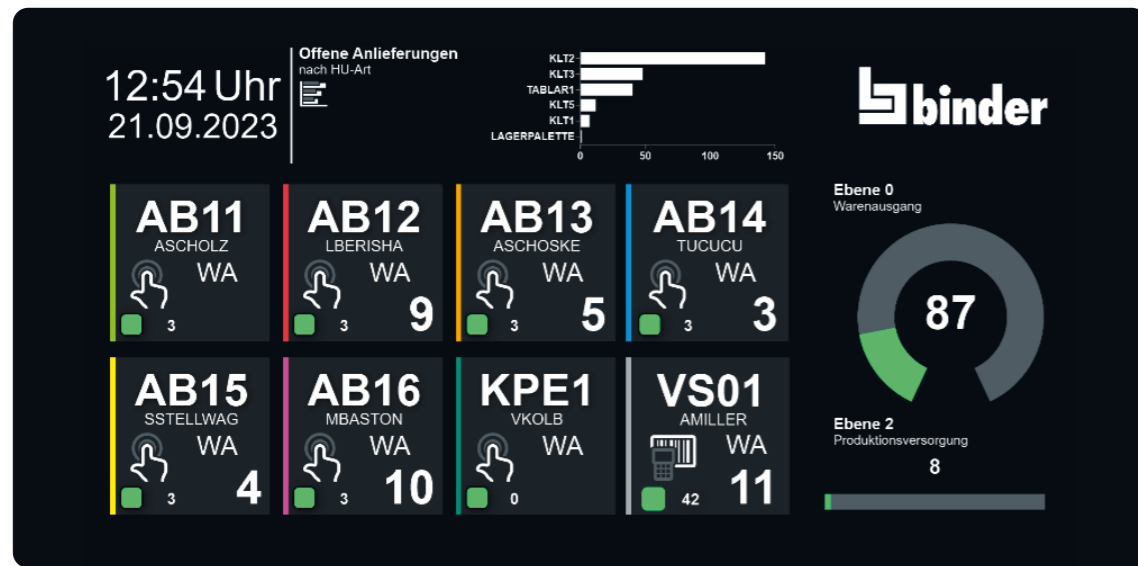
The tasks of T-QWE are extremely diverse, which makes working here extremely varied as well as demanding. High communication skills and good perceptive faculties are the qualities that we need day in and day out to perform our duties effectively and to a high level of quality. ■

About the author



Torsten Hertwig has been with binder since March 2020 and is in charge of the Quality Management department (T-QM). **Stephanie Keck** has been working at binder since 2011 and is involved in quality assurance (TQWE).





Presentation of the peakboard in logistics

Visualisation of data and indices at binder

The visualisation software from Peakboard can now be used to access data from various source systems. Data is obtained in real time and on request, linked as desired and then graphically displayed on the large screens.

Text Daniel Pfeil, Moritz Trippel, Götz Nußbaum, Rene Spranger

Many new processes and functions which require constant monitoring of technology and data came into operation in December 2020 with the use of the new high-rack storage

area and SAP EWM (Extended Warehouse Management). The possible errors that could occur in the area of the shuttle warehouse and the automatic pallet warehouse initially see-

med unmanageable. For this reason, the focus of the first year after the new warehouse was rolled out was on getting to know the system and rectifying errors.

Data visualisation key from the very start

Since then, minor process optimisations in SAP EWM and technical improvements to the systems engineering have regularly been made in line with the motto 'if you can do better, good is not enough.' Data visualisation has always been an issue we have focused on from the start.

Real-time data from SAP, Siemens S7 and other sources

The first three displays for data visualisation have been in operation since June 2023. The software to provide the data and to prepare them graphically is from Peakboard. Data are currently acquired from the two SAP systems, ERP and EWM, as well as Microsoft Excel. However, the opportunities and added value that connecting the Siemens S7 control system for the systems engineering could offer had already been discussed in the team.

Identifying and remedying faults

Graphical display of the data offers several benefits for plant employees and in the control station. The immediate visualisation of fault events, for

instance, can allow measures to be taken to rectify them right away. There are also benefits to employees in conveyor technology and order picking, as the current work queue of stocks for collection and shipping processes that are still open is displayed. The employees can see at a glance where they are needed at any time.

In addition, special system events such as downtimes at the work stations or faults in the systems can be shown or hidden as required, allowing reaction times to be significantly reduced in the event of malfunctions. Complex logics can easily be created by individuals and included in the visualisation.

What other opportunities does the solution offer, though?

For one thing, Peakboard can not only output but also record data, enabling communication with systems and machines. This can be carried out using buttons or other interactive controls, which requires touch-capable displays.

The user department itself can specify and change how the information is shown on the displays. Other options are also available, inviting continuous optimisation. ■

About the authors



Daniel Pfeil has been at binder since April 2016 and is the department head of Processes and Organisation (K-PO). **Moritz Trippel** has been at binder since April 2023 and is a Business Process Expert for SAP (K-PO). **Götz Nußbaum**, has been at binder since 2015 and is a Team Leader in Logistics (P-LOG). **Rene Spranger**, has been at binder since 2018 and is responsible for processes in the logistics-control centre (P-LOG).



Group photo of our new apprentices, students and retrainees

Onboarding event 2023

Onboarding of our new apprentices, students and retrainees was scheduled for 1 September 2023 this year. Since this date fell on a Friday, and in light of experiences over the last few years, we have developed a new, more open concept. The content of the two originally fully packed days was divided across the first day and into small units the following week.

Text Ann-Katrin Braun

This year we welcomed nine apprentices, three students and three retrainees. The initial shyness was quickly set aside after the first icebreaker and Siegbert Vollert spoke on behalf of the entire management of

the binder group to welcome everyone. He then took over presentation of the company and provided up-to-date information about the corporate group. There was then a joint breakfast with the new col-

leagues' sponsors, who are meant to ensure that they get off to a good start at the company, especially in the early days, help them with settling in and be available at short notice to answer questions

and for advice. After this break for refreshment, there was a somewhat dry but incredibly important item on the agenda: the safety briefing. This is where our new apprentices and students learn all about correct conduct in the workplace and what they need to bear in mind when working in production and at office workplaces. Mental wellbeing, how to look after your own health and safe commuting are also discussed here. Finally, the new colleagues also received a tour of the company and enjoyed lunch together in the canteen before everyone left for the weekend.

Same ideas, new concept

The following week there were shorter instruction and training sessions on the agenda each day. Monday started with training in IT systems, information on HR was presented on Tuesday, instruction on the bMS (binder Management System) followed on Wednesday and there were plant tours in ITZ and plant 3 on Thursday. There was also another larger item on the agenda on Thursday: the orientation game, when participants had to answer questions about the company and explore some things again in more detail. There were a

number of exciting goodies waiting at various stations, and the group with the most correct answers won the main prize at the end.

The end of the onboarding on Friday was followed by the first major training session, marking the start of proper training. In this full-day seminar, our apprentices, students and retrainees learnt about professional behaviour, business communication tools and their general rights and obligations during training.

The training then really got going in the second week of September. Everyone got their first real assignment in their training departments and prepared for enrolment in the vocational college. The courses for our students officially start in October.

We would like to take this opportunity to wish all of our apprentices, students and retrainees every success in their training, and we look forward to being able to support them.

Trainer Luisa Weik: "Onboarding was a real success, just as it is every year. I still remember well what my first day of training at binder was like, and am delighted to now be able to take on this task myself.



Icebreaker game in the cafeteria

Training young people is very important to binder, and I am extremely pleased to be part of this." ■

About the author



Ann-Katrin Braun is team leader in personnel development (K-PE) and has been with the company since 2016.



Processes function through the coordinated interaction of humans, machines and materials

Automation and digitalisation in Purchasing at binder

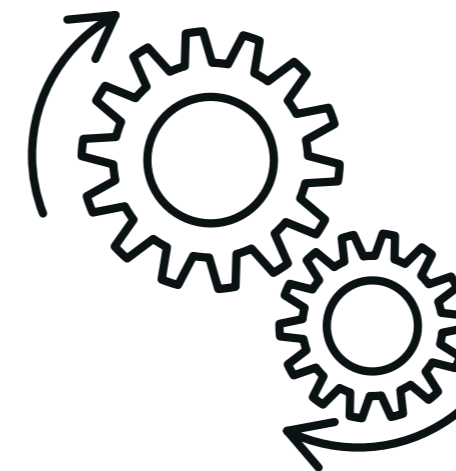
'Who does what, when, how and by what means?' – a Process Manager's work is focused on optimising workflows while taking time, quality and costs into consideration.

Text Tuğba Acar-Sarioğlu

A process can be understood as a coordinated interaction of humans, machines and materials in a certain, constantly repeating order. This makes it possible to decide whether the business processes are successful, and also whether a company can be successful in the long term.

Tuğba Acar examines workflows in collaboration with colleagues from the K-PO process department and assesses them in terms of their capability and optimisation potential. She works both in purchasing and in the office in K-PO.

Process management in purchasing is not an end in and of itself, but in the age of digitalisation it is essential if future opportunities are to be secured over the long term. ▶



Six reasons for improving processes in purchasing

1. **Becoming faster:**

The fast-moving nature of the market requires employees to be productive from the very first day. The burden on them can be relieved with lean management, even when the company is experiencing growth.

2. **Cutting costs:**

Cutting costs: Errors and delays in process chains cost money. Even just carrying out the correct process steps in the wrong order is enough for this to happen..

3. **Producing better quality:**

binder's motivation is to constantly refine and develop products, data and employees.

4. **Becoming more efficient:**

Every process can be optimised, and even tiny adjustments can have a huge effect – for example if superfluous process steps are eliminated.

5. **Making employees more satisfied:**

Effective digital process management not only shows employees that they are at the forefront in terms of technology, but also makes them demonstrably more satisfied and significantly more productive

6. **Becoming more flexible:**

Becoming more flexible: Processes are subject to constant change and are always being exposed to new conditions and challenges. This is where agile process management can help.

The process management cycle

First, the existing processes are examined with the aim of optimising workflows. This requires weak points in the process to be critically analysed in collaboration with the user department and purchasing. An analysis of the current process assesses implementation of the projects. A concept for the target process is then drawn up together with K-PO. After a successful test phase in purchasing, the new process is introduced. It must be documented in compliance with standards and the relevant user department must be given the requisite training. ■

About the author



Tuğba Acar-Sarioğlu, has been with binder since 2022 and works as a process manager in purchasing (T-SE).

Process analysis is a useful measure for the following

- Recording an idea/specification**
An idea for improvement or specifications is defined in purchasing.
- Checking the need for analysis**
Is there a need for improvement? Input from purchasing is double checked with the purchasing Manager.
- Checking the idea**
the idea is developed with K-PO. Can the idea help to achieve the goal?
- Identifying processes that need to be changed**
what processes are affected? The interfaces are defined with K-PO.
- Identifying suitable process steps**
which steps in the processes need to be changed?
- Assessing benefits/effort**
is the effort required from K-PO worth the improvement in the process? Will the implemented idea relieve the burden on employees in purchasing?
- Prioritising**
will any changes be made to the SAP retailing system to ensure optimisation? Roll-out takes place in purchasing with the confirmation of the purchasing Manager.
- Documenting changes**
create or update the process documentation. In addition, the documentation must be provided to the user departments in the bMs (binder Management System) from T-QD.





Walter Pakr and Thomas Brunner (f.l.t.r) from binder Austria

binder Austria

FOCUS ON THE FUTURE

The subsidiary was restructured at the start of this year. Since then, the focus has been on customer support for circular connectors and customised solutions in Austria and Eastern Europe.

Text Martin Grabler

The branch was founded as a production facility in Vienna in 1995. It manufactured moulds and plastic injection moulded parts as part of the binder group. In 2015, the Austrian

branch was expanded to include sales and the finished products warehouse. Like the company's history globally, binder's expansion in Austria continued at a rapid pace and

the sales team was expanded accordingly. Last year the managing partner, Markus Binder, responding to the question of the strategic development of the site by deciding to relocate

the vertical pillar of plastic injection moulding to the binder cable assemblies production facility in Hungary.

The relocation

Processes and production workflows were analysed by a selected project team from headquarters and experts from Hungary and Austria. Machines and associated tools were relocated step-by-step to the new premises without any loss of quality as part of coordinated relocation projects.

Customer Project Manager Walter Pakr was able to contribute his specialist expertise gained over around 20 years of service at the company. In his role as Quality Manager, Florian Halmetschleger was also a key link in overseeing the transportation of the parts and ensuring their continued high quality.

New premises

The company selected and moved into new office premises with enthusiastic employees and a forward-thinking outlook.

A new, optimised warehouse area was also established in order to further increase our competitiveness. New high-rack capacity and handling areas create additional space for growth.

The team

Christian Zeibich and Isabella Strobl lead Customer Service and handle general administrative processes such as quotations and sales order processing. Monika Friedl is responsible for accounting, controlling and payroll accounting.

Olaf Eickhoff supervises the warehouse with creativity and a love of detail. The entire process – from receipt of the goods to the individual goods issue – is in his hands. Florian Halmetschleger and Walter Pakr support headquarters and the binder solutions and binder cable assemblies sites with their specialist expertise in the fields of quality and project management. Thomas Brunner and Martin Grabler provide customer support on site in the various sales territories.

You have to be in it to win it

We look forward to the upcoming challenges with pride in the development of the site and with the common desire to succeed. The sky's the limit for us over the next few years as a specialist in circular connectors and thanks to our ability to provide the best possible support to our customers together as a team. ■

About the author



Martin Grabler, at binder since 2015, trained as an industrial engineer and established the sales of circular connectors in Austria. Today Mr. Grabler is site manager of binder Austria.



The five-person sales team from binder USA

Lean Sales Team for the Americas Large territory requires creative approach

GLOBAL

With a sales territory that equates to around 28.5 per cent of the earth's surface, the onsite binder USA sales team of five runs lean and mean. Our sales team is not only responsible for managing the United States but also for Canada, Mexico, Central and South America. Nestled away in a small suburb 50 miles North of Los Angeles, our team is challenged with navigating the logistics of in-person customer visits. If anyone reading this has ever attempted driving on Southern California highways, then you know first-hand how challenging a 50-mile drive can be. Now imagine visiting a customer in Detroit, Michigan, or Montreal, Canada. Just getting there requires sacrificing two full days of travel.

Text Maciek Czerwinski

When binder opened its operations in the USA in 2005, the sales strategy to capture new business and maintain existing business was solely reliant upon the webshop and online marketing. This strategy proved to be successful, but we were still missing that in-person, local knowledge of the territory needed to develop business relationships throughout the territory we are responsible for..

Onsite-Team

As an onsite team, we have always prided ourselves on being a solutions provider and detail-oriented, along with our quick turnaround times. Although with the ever-growing online sales approach, this never allowed our team to truly develop into the proactive sales office needed to tackle such a large territory; we were simply just keeping up with all

incoming requests.

After many successful years of operating as a lean sales team, binder USA has added a new strategy to increase its presence in the Americas. With the expansion of our sales branch, we will begin to rely heavily on incorporating a localised market sales approach. This strategy encompasses bringing in manufacturers' representatives, along with local distribution channels that offer direct sales in strategically positioned regions.

Both local distributors and manufacturers' representatives will work hand in hand with their assigned binder sales team members, providing them with the quick responses needed when prospecting new opportunities. This will also allow our onsite sales team to engage first-hand with new markets,

as well as participate in onsite customer visits accompanied by our channel partners.

Development - sales approach - implementation

Key attributes when developing a strong channel partnership are industry knowledge and market connections as well as offering a complementary line card without an over-saturated portfolio where the binder products become overshadowed. Our vision here is to ensure that each line creates a synergy for one another resulting in an organic sale. All three are very important attributes, but none outweighs the importance of trusting that our sales partners share the binder core values.

Utilising this sales approach will help expand binder USA's direct in-person sales by offering our



The sales team in front of the company building in Camarillo, California

customer base experienced partners that understand their local markets. Their complementary lines cards will now open new doors for the binder product portfolio which were never a possibility before. This step will also offer a sales ter-

ritory that stretches across Canada, the US, Mexico and Central and South America. Launching this strategy has proven successful with channel partners successfully operating across the North American continent, with progress being

made recently in expanding southwards. The overall goal is for binder USA sales to have local representation throughout the entire territory.

We are extremely optimistic, as we know gaining market share at our current stage cannot be accomplished alone. 'Just be better by doing it together.' ■

About the author



Maciek Czerwinski has been at binder since 2009 and is the sales manager of binder USA.





Printed Flexible FSR by binder ITZ.

Customized Precision

Unleashing FSR Sensors for Tailored Solutions

Printed electronics for sensors is proven to be a solution for the challenges faced by conventional sensor industry. The ability to integrate the sensor and even fabricate it over any type of geometry makes it unique. In this quest, binder provides individual and customized solutions for flexible and printed Force Sensing Resistors for applications ranging from Automotive to Medical sector. The sensors are ready-to-connect and can be offered as completed device.

Text Aakash Grewal

binder ITZ, the innovation and technology center located in Bad Rappenau, serves as the hub for new technologies and products developed by Franz Binder GmbH & Co. Elektrische Bauelemente KG (Neckarsulm). Drawing upon our expertise in chemistry, electronics, physics, and process development, we specialize in applying printable electronic components directly onto 3D surfaces with the highest precision, achieving a seamless fusion of functionality and design. Our strength lies in delivering customized solutions for a wide range of geometries and substrates. As pioneers in key printed electronics technologies such as printed sensors, electroluminescence, heating elements, and fine conductive lines, we have the unique ability to make any form of surface geometry conductive.

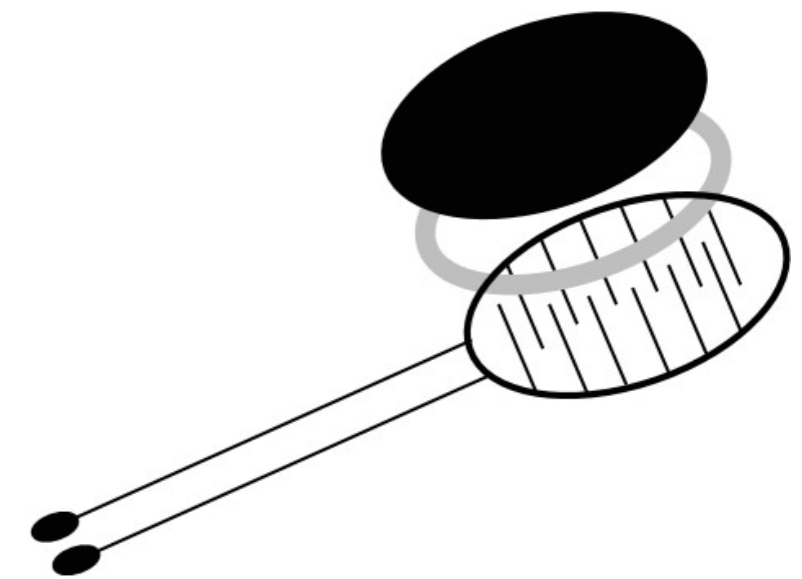
Moreover, the rising demand for printed force sensors, specifically Force Sensing Resistors (FSR), underscores their versatility in applications ranging from robotic fingertips to sensitive touch buttons in car infotainment systems. FSRs, characterized by a polymer thick film (PTF) design, exhibit a decrease in resistance as the applied force on the active surface increases. Optimized for touch control of electronic devices, FSRs possess pro-

perties akin to load cells and strain gauges, making them sought-after components in various industries..

The know-how of Force Sensing Resistors (FSRs)

FSR is a type of sensor that changes its resistance when a force is applied. With the increase in applied force, the resistance of the sensor decreases hence allowing the detection of physical pressure, squeezing and weight. Talking in context of printed electronics, it means a conductive polymer that exhibits variation in electrical conductivity when force is applied, for example a printed carbon/graphite layer pressed against an interdi-

gitated silver electrode layer. The resistance change in the FSR can be measured using appropriate circuitry, such as a voltage divider or a wheatstone bridge configuration. By monitoring the resistance, the magnitude of the applied force can be determined. By leveraging their unique principle, FSR sensors enable precise and responsive interaction with electronic systems, enhancing the user experience in a variety of contexts. Although not being extremely precise, for most touch-sensitive applications FSRs offer a good price/performance ratio. ▶



Layout of printed FSR sensor in ShuntMode Construction.

Flexible Sensor Realisation

The challenge of printing an FSR sensor that is also reproducible is realised at our facility using screen printing technology. Due to very homogeneous deposition of conductive pastes with screen printing, it is chosen to deposit very finely spaced interdigitated silver electrodes on a PET substrate. The other side of the sensor contains the active material carbon paste, which is also printed on PET substrate. A plastic spacer is used in between. The idea behind this was to print low-cost material to achieve the best possible performance. The spacer material plays a crucial role in the operation of the sensor as it separates the two layers and its thickness determines the amount of force. Different thicknesses of the tapes are tested. Another important task is to test the FSR sensor after fabrication as it is important to see in how much area we are applying force and what is the outcome. This is done by taking specific masses of the same diameter as the conductive film and measuring the resistance to the applied force. The flexible substrate used for the FSR sensor provides the needed flexibility to be integrated into any application and at any surface. The round shape can

easily be customized as per application.

Electronics of the Sensor

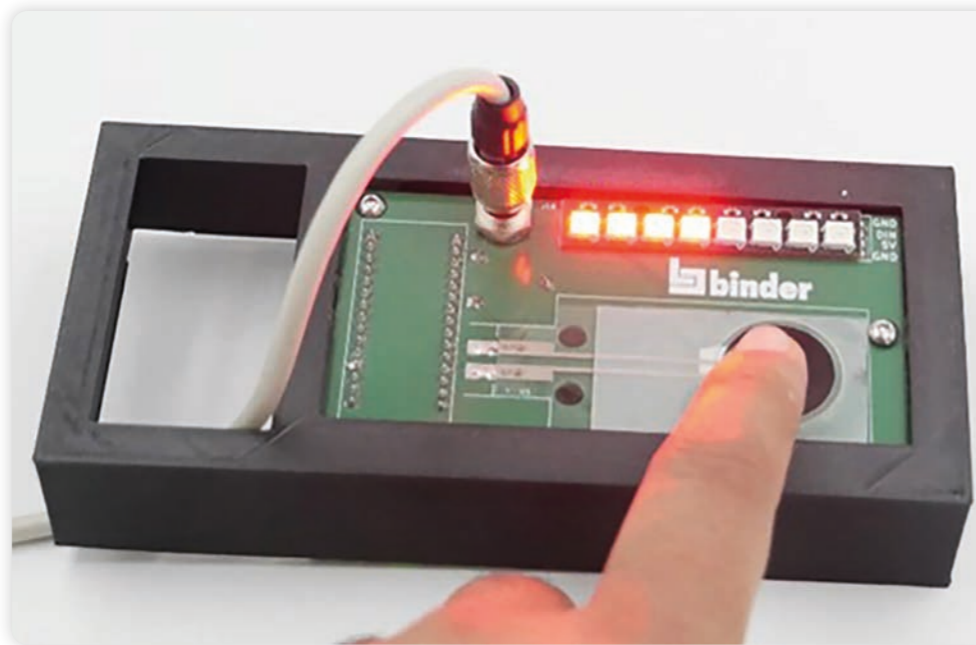
The mechatronics of the sensor is also done in-house at binder ITZ by a highly qualified team of electronics engineers. The demonstrator is also shown in the picture. The shunt mode FSR proved to be an efficient solution for detecting force or pressure and convert this stimuli into user specific data to read. At binder ITZ, we do high end research and provide solutions to our customers with much eco-friendly and yet fully functional sensor with much lower production cost

compared to the conventional sensor manufacturing methods. ■

About the author



Aakash Grewal joined binder ITZ in April 2023 as a Printing Technology Engineer in Printed Electronics (T-GE).



Electronics and signal of Printed sensors by Binder ITZ (Functional Prototype).





Health Day 2023

The first binder Health Day that took place outdoors in the fresh air on July 13, 2023. Employees were requested to take an active part, so there were initiatives that invited people to join in instead of going through medical screenings as before. Thankfully, the weather played ball even though it had been rainy just a couple of days before..

Text Thorsten Schwarz

Together with our company doctor Mrs.Keinert, Herrmann Haberkern, Audi BKK, AOK and the Employer's Liability Insurance Association for Energy Textiles Electrical Media Products (BG ETEM),the occupational health management team

(BGM-Team) we were able to provide services for a wide range of current health topics which encouraged participants to take an active part.

For the well-being of all employees and participants was

always taken care of, with our canteen offering a wide variety of fruit and drinks. What's more, there was an ice cream van from where all visitors could get an ice cream to enjoy while relaxing in the chill-out zone.

Sun protection, muscle training and yoga

The sunny weather gave Mrs. Keinert and Markus Grimm the perfect opportunity to provide advice on the subjects of UV radiation, skin type and sun protection in the form of a short quiz, and they also handed out sun cream samples to the visitors at the Health Day.

Herrmann Haberkern demonstrated how you can strengthen your muscles over the long term by using a TheraBand to perform simple exercises at home, without the need for any additional equipment.

The Audi BKK offered seated yoga training which encouraged the participants to relax.

Some people were really surprised at how many yoga exercises work when seated and what a great effect these exercises have. They were then able to move onto the next station feeling fully relaxed.

Cycling simulator demonstrates hazards

There were a few things on offer at the AOK station. These included a balancing course, a small slack line, a mini table tennis table and Nordic walking under the instruction of

an expert. Some of the visitors tried out Nordic walking for the first time and were pleasantly surprised.

Last but not least, the BG ETEM provided a cycling simulator that enabled visitors to experience critical traffic situations that often occur in day-to-day cycling. It was a good opportunity to increase awareness of the hazards which face cyclists in particular in road traffic.

Thanks to the cooperation between the BGM team, Marketing and the Works Council, the Health Day was a lot of fun, inspired and motivated lots of visitors and was very well received. ■

About the author



Thorsten Schwarz, who joined the company in 2001, works in the Human Resources (K-PE) department at binder. He is also involved as an OIM officer, spokesperson for the OHM regulatory group and fire safety aide.



binder employees during muscle training



Impressions from 13th STIMME company run 2023

Plenty of team spirit at the STIMME company run 2023

The starting pistol for the 13th STIMME company run was fired on 27 July 2023 – in Heilbronn as always. Despite the bad weather, delighted runners crossed the finish line with smiles on their faces. binder was once again represented with numerous participants.

Text Sarah Waldner



The spectators and runners were in high spirits despite, or perhaps because of, the rather changeable weather. Around 7,000 runners, so roughly 1,000 more than in the previous year, participated in the race to complete the approximately 5.7-kilometre course through the centre of Heilbronn in temperatures which were pleasant compared to last year.

binder was once again represented this year with 17 teams, so around 70 runners.

We provided our participants with cool drinks, fruit and muesli bars in the binder lounge before and during the run. As

every year, team spirit was the top priority and the mood at the after-run party in the event beer garden was jubilant.

Yellow accents highlighted the logo on the back of our running shirts this year, making them a real eye-catcher yet again.

Many thanks to all those who took part! We hope you had a successful run and an enjoyable evening afterwards. We are already looking forward to next year! ■

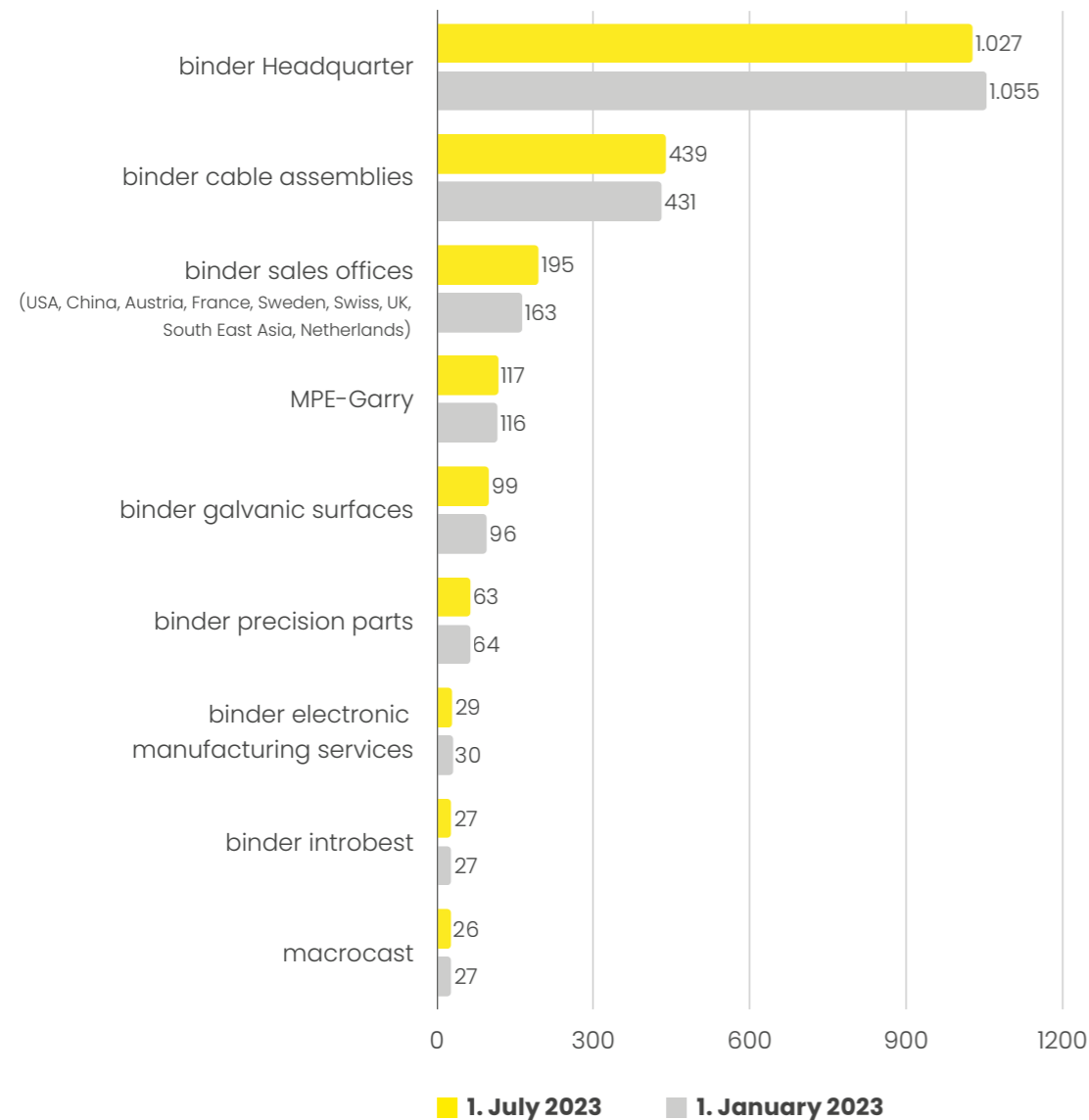
About the author



Sarah Waldner has been at binder since 2023 and is involved in the trade fairs and events department (GL-MA).

binder in figures

Staff deployment within the binder group



As of **1. July 2023**, the binder group employed **2,022 members of staff**.
At **1. January 2023** – six months earlier – it employed **2,009 members of staff**.

Credits

Responsible according to German press law
Markus Binder

Editorial office
Rötelstraße 27
74172 Neckarsulm (GER)
Tel. +49 (0) 71 32 325-302
Fax +49 (0) 71 32 325-150
marketing@binder-connector.de

Published by
Franz Binder GmbH & Co.
Elektrische Bauelemente KG
Rötelstraße 27
74172 Neckarsulm (GER)
Tel. +49 (0) 71 32 325-0
Fax +49 (0) 71 32 325-150
info@binder-connector.de
www.binder-connector.de

General Manager
Markus Binder

Editors
Pascal Kobia, Timo Pulkowski

Art Direction
venice branding GmbH
An der Bachmühle 6
74821 Mosbach (GER)
hello@venicebranding.de
www.venicebranding.de

Printing
AC medienhaus GmbH
Ostring 13
65205 Wiesbaden-Nordenstadt (GER)

All rights reserved. Reprinting, inclusion in online services and reproduction on data storage media only with the permission of the publisher.



November fairs 2023

13.- 16.11.2023

Compamed in Düsseldorf

14.- 16.11.2023

SPS in Nuremberg

14.- 17.11.2023

Productronica in Munich

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!!

Editorial team

Credits | Fotoatelier M images p.3 , p.8, p.11, p.19, p.22, p.25, p.27, p.30, p.33, p.36, p.40, p.43, p.45 | **Franz Binder GmbH & Co. Elektrische Bauelemente KG** images p.1, p.4, p.5, p.6, p.7, p.12, p.13, p.14, p.15, p.16, p.17, p.18, p.19, p.20, p.24, p.26, p.27, p.32, p.34, p.36, p.38, p.39, p.40, p.42, p.43, p.44, p.45 | **Vlad Chorniy** - stock.adobe.com images p.10 | **Wright Studio**/shutterstock.com images p.28 | **SkyLine** - stock.adobe.com images p.29 | **Maridav**/shutterstock.com images p.46

