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# STAMPER

The magazine for high-performance punching technology



## Gosperrin let their customers decide

Some want innovations, others comprehensive project management. Either way, French company Gosperrin gives its customers what they want, with the help of Bruderer automated punching presses. **Page 3**



## Spring is in the air for vacuum cleaners thanks to Vitz

Partners in Germany and abroad have come to rely on Johann Vitz GmbH & Co. KG for flexibility, innovation and quality, including the legendary Vorwerk vacuum cleaner, which has more room to do its work thanks to a plastic insert-moulded Vitz spring. **Page 4-5**



## B2-control system: new look for old favourite

The further development of the multi-functional B-control system has provided more advantages for the customer, with Bruderer's new hardware making it more reliable and user-friendly. **Page 8**

## Editorial



## Always in the thick of the action

**Constant development is an omnipresent keyword in almost all areas of life, and the stamping industry is certainly no different. On the one hand, it is constantly being driven by man's spirit of invention, on the other by the cost pressures that are all too prevalent nowadays.**

This tendency can be seen even where the humble plug is concerned. Stamping rooms, particularly in the so-called high-wage countries, are being pushed to generate a greater proportion of value creation in the end product. Hybrid technology, i.e. the insert moulding of punched parts, offers an interesting variation in this respect and provides an additional field of activity which can open up access to new growth markets for many businesses.

As a consequence, this development demands bigger and more complex tools. The expertise of tool manufacturers (primarily from the western world) is an important success factor and plays a part in the fact that totally new machining processes can to a certain extent be developed in close collaboration with customers. Bigger tools also need bigger die windows on the automated punching presses – and here we come back to Bruderer. The reports you can read here from our clients Vitz Federn and Groperrin illustrate the wide variety of possible implementations which our machines have.

Having a close relationship with our customers around the world is just as important for us as providing tailor-made high-performance automated punching presses. This is why, a few months ago, we opened our second Chinese branch office in Dongguan, enabling us to provide a quicker and more efficient service for the many Bruderer automated punching presses in the region. We are also taking our tried and trusted B-control system a step further, implementing a number of different adaptations to make it more customer and above all user-friendly.

There are virtually no limits on development. We must always be in the thick of the action – or even better, one step ahead. This is what makes both our business and our everyday lives so exciting and informative!

Happy reading!

**Andreas Fischer**  
CEO

### Imprint:

Publisher: Bruderer AG Stanzautomaten  
CH-9320 Frasnacht, Phone (+41) 71 447 75 00  
Fax (+41) 71 447 77 80  
stamper@ch.bruderer-presses.com  
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# Bruderer in Dongguan

**In June 2007, Bruderer established its first China-based competence centre in Suzhou for the more than 700 automated punching presses which are installed in China, and the company further increased its presence in this important market with the grand opening of a second sales and service location in Dongguan on 21 November 2009.**

Dongguan and the surrounding province of Guangdong are home to a number of companies, both local and international, and the city is often described as the most productive in China. Bruderer has a correspondingly large presence there, with some 380 of their automated punching presses in operation. Their customers come primarily from suppliers of the electronics and computer industries, including the Taiwanese company Foxconn which produces iPhones for Apple.

Opening their own service and distribution office is part of Bruderer's established long-term strategy to always be as close as possible to the customer. The area around Dongguan will now be served more quickly and directly with technical expertise, advice and services. The new branch office began operations in March 2009 and has already worked on around a hundred cases, providing critical replacement parts, as well as offering customers training for their service and maintenance personnel. Bruderer automated punching presses can be expertly serviced and checked using original replacement parts which no longer have to be transported over long distances, and it also means that service technicians can be on hand in a shorter space of time, reducing costs and speeding up response times for customers. Bruderer AG CEO Andreas Fischer was on hand to cut the ribbon at the official opening on 21 November, in the presence of a number of customers and other guests. A traditional Chinese ceremony then followed, in which Bruderer (Dongguan) Machinery Co., Ltd. was officially welcomed in with dancing dragons designed to bring the company luck and prosperity.

Before the opening of the Bruderer branch office, Dongguan was also the centre of attention with the

DMP trade fair from 18 to 21 November. The DMP is one of the most important dates on the calendar for the region, attracting 720 primarily Chinese exhibitors whose wide variety of products illustrated the range and the ever increasing quality of the country's stamping industry. As well as smaller punching machines, there were also some technically very highly developed presses with feeds on display.

The exhibition was a very well attended one with some 63,000 visitors, proving once again that China has been far less affected by the global economic crisis than most other Asian and indeed Western industrial nations.

There was of course plenty to be seen on the Bruderer stand, with one of the highlights being the BSTA 200-60BE, which produces genuine punched parts with a top speed of 2,000 strokes, with Chinese manufacturer and Bruderer client Famfull providing the high-performance tool especially for the occasion. Many Chinese companies and also state-owned businesses showed a great deal of interest in the punching press and also what the Bruderer sales team had to say about it.



**Official opening of Bruderer (Dongguan) Machinery Co., Ltd.**

## Metal package industry meets at Asia CanTech 2009

**The Asian metal package industry met from 15 to 17 November 2009 in Bangkok for its annual congress, organised by the UK trade journal CanTech and featuring all the big players in the can and metal package sector.**

A number of speeches and presentations were made by those present, including the regional representatives of the major US can manufacturers Rexam Beverage Can and Ball (Asia Pacific), and Indian tin suppliers Tata Tinsplate and Saket Bhatia Hindustan Tin Works. Industry trends and perspectives were discussed, while suppliers for production facilities were also on hand to demonstrate their



**The Asia CanTech played host to experts from the metal packaging industry.**

products and services. Josef Hafner, Vice President Research & Development at E. Bruderer Maschinenfabrik AG in Frasnacht, attended the congress and outlined the cost-effective production of the EOE, or easy-open ends, for cans using high-performance Bruderer punching presses.

### Consistent growth, constant innovation

Metal package producers have demonstrated constant growth rates of 2 to 2.5% annually over the past decade, and despite the current economic crisis they can afford to be confident about the future, with real potential seen in growth markets such as China and India. What the industry needs at the moment are high-quality, durable and reliable automated punching presses, and Bruderer is a well known, widely appreciated and indeed well established name in all of the important markets within the metal packing industry.

Asia CanTech is one of the platforms on which the various providers can showcase their innovations, with the accent primarily on the packaging itself rather than manufacturing technology and equipment. One of the main themes for example was the latest developments in re-sealable cans. Metal packages are a highly competitive market and only those who can constantly reinvent themselves and stay ahead of current trends can hope to succeed – making this an exciting long-term challenge for Bruderer.



# Grosperin: Two generations of trust in Bruderer

In the Franche-Comté region of France near Besançon, in the heart of a region with a long-standing tradition of stamping and metal forming, Grosperin S.A. has carved out a niche as the company to trust for plastic insert moulding, with customers in the automotive, electronics, leisure and construction industries. We went to visit this family-run business which right from the outset has relied on Bruderer automated punching presses to give their customers the best possible service.

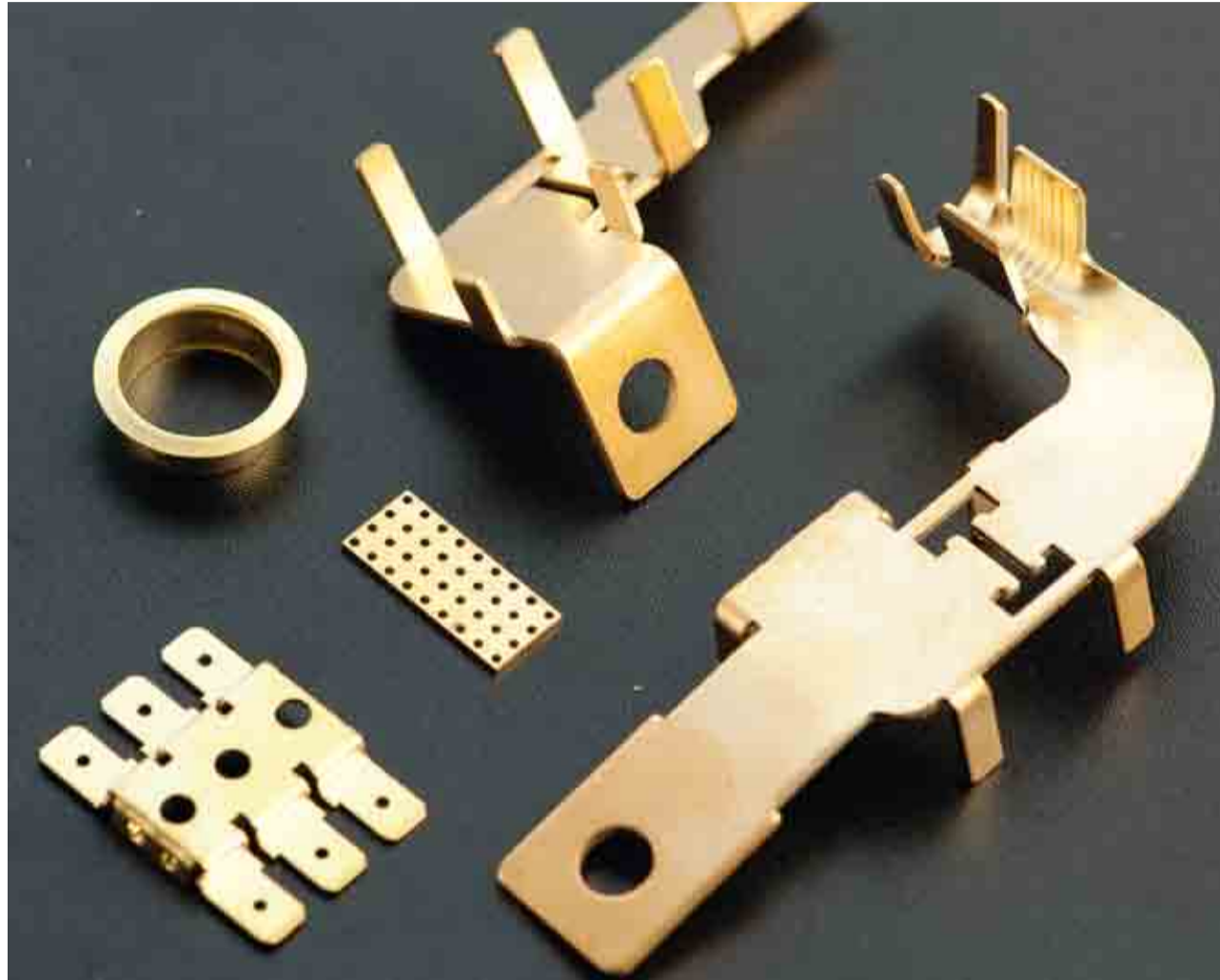
The company has humble beginnings, seeing the light of day in a small garage in 1963 when Daniel Grosperin designed his first tools. In 1970 the company moved to Pirey and grew steadily until 1993, by which time it occupied some 7,000 square metres. Its product range expanded and diversified at the same time and as well as tooling, Grosperin now offers a complete package of services from stamping and metal forming right through to assembly, meeting all the requirements of their demanding customers.

The company employs 40 people and has a stamping department with 20 machines, and as far as Laurent Grosperin is concerned, stamping is one of the company's core activities. The machinery includes ten Bruderer precision automated punching presses, the latest – a BSTA 1250-151B – having been acquired in 2007. Eight other high tonnage machines and two automated punching and forming presses are also operational.

## Working towards the future hand-in-hand with Bruderer

"We purchased our first Bruderer automated punching press second hand in 1985," recalls Laurent Grosperin, son of the company's founder and current CEO. That first machine proved its worth and was soon followed by a brand new BSTA 80UL which took on the main role in the stamping room. "Since we moved to our new premises, we've been lining up the Bruderer machines," he adds with a smile. The market has developed in such a way that ever more complex parts with closer tolerances are now the order of the day, and precision has become a decisive factor. The Grosperin strategy is to manufacture complex precision parts as cost-effectively as possible using high-performance tools developed in-house. The advantages of the Bruderer automated punching press provide important support in this respect, with the dynamic ram adjustment for example and the fully programmable servo-feeds. As well as high-performance equipment in the assembly room, Grosperin also have another ace up their sleeve – their construction and tooling department with ten employees, most of whom were trained internally and who now have comprehensive, tried and tested experience to call on. The head of this team is Thierry Grosperin, the younger son of the company's founder and an engineer who followed in his father's footsteps and carries out his profession with passion. He is the person who ensures that the development and production of the tools meets the highest standards of precision. His enthusiasm for technical research and implementation of in-house expertise means that he and his brother, an adept salesman, complement each other perfectly and form an ideal team.

The company mass-produces lead-frames for the automotive industry, which despite suffering from the recession in the past year is still Grosperin's biggest customer. They also carry out the surface treatment of the parts. To prepare for this process, the lead-frames are unwound onto large spools



Flexible Bruderer automated punching presses can be relied on for simple and complex parts alike.

with dividers. Grosperin also supplies the necessary tools for metal-shaping, stamping and separating. The company's knowledge of peripherals comes to the fore in the choice of the right spools and intermediate pads, and they have the experience with the up and downstream manufacturing processes to offer ready-for-use solutions.

For the leisure industry, including skiing, climbing and cycling, Grosperin manufactures security items including crampons, flanges and running spikes. These are produced using a wide variety of materials, with and without coatings with material strengths of 0.1 to 4 millimetres and strip widths of 5 to 400 millimetres.

Bruderer automated punching presses, which operate at a variety of stroke speeds, are particularly popular for their precision, as Thierry Grosperin explains: "The dynamic ram correction ensures excellent repeat accuracy at every stroke speed at the bottom dead centre." "Every time we have new customers visiting, we take them to see the machine," adds Loïc Dimpre, head of sales, pointing out that customers can thus see for themselves the

performance of the process as well as the precision, speed and reliability. Sylvain Ahmed, who is responsible for quality, agrees wholeheartedly, commenting that "the Bruderer automated punching presses fulfil the ever increasing quality demands of customers in terms consistency and precision".

## Vision of the future

Two years ago, the idea came about of developing a manufacturing process for wire parts, and now there are test runs with two prototypes. Grosperin are also setting themselves a new challenge, defining a stamping process for precision titanium parts – new fields of activity which will enable them to establish themselves in new niches where there is as yet little or no competition.

Laurent Grosperin has another aim: "We want to get symbolically closer to our customers and be there to help them develop right from the project stage." Grosperin's expertise combined with their high-performance production facilities are paving the way towards successful future development.

[www.grosperin.com](http://www.grosperin.com)



Using Bruderer to establish a connection with the customer: Loïc Dimpre.



Laurent Grosperin takes customers in hand right from the outset of the project.

# Vitz springs into action

Johann Vitz GmbH & Co. KG, in the German town of Velbert, have been manufacturing springs since the company was founded in 1908 – originally almost exclusively for household fittings but now in a variety of other applications. Their customers include the highly reputed Vorwerk Group in nearby Wuppertal, who are currently using a plastic insert moulded Vitz spring in their latest model of the famous "Kobold" vacuum cleaner.



The prototype of the spring manufactured for Vorwerk, developed in close collaboration with the customer and produced on a Bruderer automated punching press.

The main buyers for Vitz's products come from the automotive industry, though they have customers in the telecommunications, electronics, engineering and household goods sectors, all of whom have come to appreciate the flexibility, innovation and high standards of quality which the company offers. Vitz primarily serve the German and Eastern European markets but do have some customers who operate on an international scale.

Vitz have proved their worth to Vorwerk over a good number of years, supplying a wide variety of parts. The most recent project involving the two firms is an interlocking spring with mounting for the extension mechanism of the "Kobold" vacuum cleaner tube.

The part was originally made of soft material and then hardened afterwards, but this procedure brought with it the risk that the piece would distort and pose problems in the final stage of manufacturing, namely the plastic insert moulding.

A new process was therefore developed in conjunction with Vorwerk for the production of these components, and the springs are now punched out of hardened spring steel

and then combined with a second, softer material before being moulded. No heat treatment is therefore necessary after the punching, which eliminates a potential source of error on the way towards the finished article.

A Bruderer high-performance 50-tonne automated punching press is used for the production of the components, operating at 200 strokes per minute, this due to the hardness of the material and the assembly process. The soft metal goes through a 90° cross feeder and the component is produced in a bending and forming process. The precision-manufactured spring then goes into the final part of the process, namely the plastic insert-moulding,

for which Vorwerk and Vitz rely on a trusted partner – Lüttgens Plastic Technology in Heiligenhaus.

With Johann Vitz GmbH & Co. KG manufacturing springs for over a hundred years now, their expertise is beyond compare. Over time, they have expanded their range with punched and formed parts from round and flat materials and sheeting technology for the electrical industry. Nowadays, there is virtually no limit to the range

of products they can produce, and the possibilities multiply with each new requirement from the customer or the sector. The company's 230 employees work on more than 350 modern production machines spread over almost 10,000 square metres of factory space, using the most varied of materials, in particular hard materials and stainless steel. 1978 saw them acquire their first Bruderer punching press, enabling them to branch out in another direction.

## Quality from the first manufacturing step to the last

An important key to the company's success is their own tool room with its construction and prototype department where the necessary tools for production are developed and built using ultra-modern CAD technology. Thanks to the experience which Vitz has built up over the past decades in this field and the proximity to the assembly department, the company can react quickly to new demands.

Flexibility like this is par for the course at Vitz: as well as having modern production facilities at their disposal, they also have their own in-house heat and surface treatment shops which enable them to provide quick, tailor-made and cost-effective product solutions.

« A loyal partnership between customers and suppliers is a critical factor in today's competitive environment. »

Michael Vitz, CEO and shareholder





Quality is controlled at every stage of the process.

The latest in test engineering in the assembly and quality departments ensures consistent part quality based on all national and international standards, including SPC, FMEA and Six Sigma. The unique levels of this quality are demonstrated by the fact that orders from customers which had been dealt with in an unsatisfactory way by the competition ended up being handled by Vitz, since new companies on the market could not fulfil the necessary requirements. Vitz on the other hand is DIN EN ISO 9001:2008, ISO/TS 16949:2009 and DIN EN ISO 14001:2005 certified.

New and increasing customer demands are seen by Vitz as a catalyst for innovations, and the company also keeps a close eye on the market to develop new solutions for existing and future customers. Another important motor for progressive products is the automotive industry, with whom many companies in the region have links.

Vitz is very much part of Germany's traditional lock-manufacturing region which was already an ideal production location for locks and household fittings as early as the 18th century thanks to its raw material reserves. Velbert is at the heart of this industrial region, situated between Wuppertal and Essen and home to mainly medium-sized businesses.

### From mechanical engineers to suppliers of high grade springs

The origins of Johann Vitz GmbH & Co. KG are a textbook example of the current economic situation. "Rationalisation" was the keyword – and an unusual word it was at the time – when founder Johann Vitz and his four sons received an order from a reputable lock manufacturer to construct a machine for manufacturing lock springs. Once the machine was ready though, the customer did not come to pick it up – and so it came to pass that Vitz was able to manufacture their own springs and supply various customers. The company eventually set themselves up to build machines for spring manufacturing and decided to concentrate on that particular field. Some of their more conventional equipment is still used today to produce more simple parts, while complex orders tend to be carried out on other machines, including the Bruderer high-performance automated punching presses.

The first machine made by an outside company was purchased at the end of the 1920s to meet the demand for compression, extension and yoke springs, and the big breakthrough came in the 1950s when the company moved to a new building at its current location. Since then Vitz has developed apace and continually extended its factory floor, insisting on ultra-modern production methods, introducing new technology and broadening its range with increasingly complex components. This expansion phase will be complete in spring 2010 when the company opens a new building.

Comprehensive training – both for new employees and further career development for existing ones – is a priority for all companies in the area, and Vitz is certainly no exception. The people behind the name have a duty to maintain the high standards of quality and innovation on which the company's reputation has been built. Only specialist employees are used in the stamping department for example, and some 10% of the staff are apprentices who are trained at the "Velbert Industry Collective Training Workshop", an initiative developed by the regional production firms, along with other future spring manufacturers from around the EU. The company is also part of the "Key Region" association which was founded in 2006 by a number of significant local companies along with the towns of Velbert and Heiligenhaus and the Düsseldorf chamber of commerce. The association constitutes an industrial network for the Velbert/Heiligenhaus region which is the



The necessary tools are developed and manufactured in-house.

leading area for fittings and security technology. Some 75 companies and institutions are involved in this association whose aim is to provide networking for regional skills and contacts and cooperation in terms of research and training.

### Giving customers the innovation and precision they need

Nowadays, Vitz primarily concentrates on metal forming of strips or round steel. Customers from a wide variety of sectors have been added over the years to the original core business of producing household fittings. The company added another string to its bow a few years ago with sheeting technology, initially for customers in the mobile telephony sector but now primarily for the automotive industry. As always, they focussed on customer requirements, built up the necessary expertise in-house and successively added to the offer with the corresponding packaging solutions.

The Bruderer high-performance automated punching presses are used to work on materials up to 300 millimetres wide with a thickness between 0.02 to 4 millimetres. The stroke rates vary according to the composition and thickness of the material but tend to be towards the lower end of the machine's capacity, demonstrating the same precision that Vitz has come to expect from Bruderer at higher stroke rates.

Vitz bought its first Bruderer punching press long before the current CEO even joined the firm, while the most recent acquisition, a BSTA 700, arrived in April 2009. It is used with longer tools for companies from the automotive, household fittings and electronics industries, meeting the regularly changing demands of these different customers thanks to its flexibility.

### Combining strengths to achieve goals

"Bruderer high-performance automated punching presses help us guarantee continuity," says Michael Vitz, CEO and proprietor of this fourth generation family business, regarding the advantages Bruderer machines provide. "They are durable, replacement parts are always available and the older machines can be brought up to the latest standards with a professional overhaul." The expert advice and service provided by the sales department of



Metal-forming of strips – another speciality which Vitz provides.

Bruderer GmbH in Dortmund are equally important factors as far as the CEO is concerned.

A loyal partnership between customers and suppliers is a critical factor in today's competitive environment according to the CEO. In the past, Bruderer contributed to the development of the tool room at Vitz via organised visits to toolmakers, and this department is now one of the pillars of the company's facilities.

Bruderer have also proved their worth with Vitz's customers, who know that when they see Bruderer machines installed at their suppliers, then a productive partnership is bound to ensue. Vitz themselves also get a great deal of benefit from using the reliable, high-precision Swiss punching presses, which can process spring and stainless steel, provide flexible methods of production and can also be used for the manufacturing of tools and prototypes.

It is also a matter of course for Michael Vitz that the Bruderer high-performance automated punching presses



Michael Vitz is CEO and chief technical officer of this fourth-generation family business.

are equipped with Bruderer feeds. "You cannot achieve seamless integration like this using products made by a third party," he explains. "Any other solution would be counter-productive in technical terms."

[www.vitz.de](http://www.vitz.de)



A wide variety of tools are produced on the BSTA 700 using long tools.



# Ten questions and answers with Vorwerk

In 1999, Rainer Wolter became head of component manufacturing at Vorwerk Elektrowerke GmbH & Co. KG in Wuppertal, Germany, a company which provides assembly mounting and also works with punching presses and automatic lathes.

**Mr Wolter, Vorwerk has built up a global reputation for innovation and performance. How does the company manage to consistently provide the market with products of ever-increasing quality?**

Vorwerk stands for quality and innovation in products, services and distribution. We are a one-stop shop for research, development and production, and customers know what they are getting from us – namely innovative products that are practical, useful and exceptionally durable.

**How do new ideas and new products come about at Vorwerk?**

We stick by our motto of making products that involve "doing our best for the family". Our direct distribution specialists know just what a household needs better than anyone else. We use comprehensive market surveys to identify trends and developments at an early stage, enabling us to further develop and adapt our products to customer requirements. The results are top-quality goods and services and a high level of customer satisfaction.

**Vitz Federn delivers a punched part which is used to extend Kobold vacuum cleaner tubes. What are the critical specifications and key data that are required for this component?**

Our high demands also apply to all partners and suppliers, and are set out in the development phase, generally with suppliers who are chosen as early as possible, and are also permanently being optimised throughout the life-span of the product.

**Vitz Federn has been one of your suppliers for a number of decades now, and Bruderer has worked with you since the 1960s. Why have you chosen these two companies as Vorwerk suppliers?**

In order to manufacture premium products, we need reliable partners who can use the right processes to fulfil our high demands in terms of quality, be it for individual parts and component groups or for machinery and equipment. Both companies are specialists in their own fields, which is why they are first choice for Vorwerk.

**How do you monitor the quality of the punched parts that are produced?**

The level of quality produced is monitored at every working stage, and every product goes through a

test run on our final checking equipment before it is delivered. What is far better than "testing out" quality however, is producing it. We work in close collaboration with our partners to make sure that errors cannot be committed right from the beginning, with the construction of the components, the selection of the equipment and suppliers and the design of the manufacturing processes.

**Stamping is your field of expertise. What does the phrase "stamping by Vorwerk" represent?**

Our core competencies in particular include the stamping of rotor and stator sheets for our electric motors, where there are extreme demands placed on the required punched parts, with tolerances as close as three thousandths of a millimetre for high-strength materials. The ventilator motor of our current hand-held vacuum cleaner weighs exactly 500 grams and despite only using 900 Watts, it generates more power than the conventional 2,000 Watt appliances – now that is incredible performance! It also works at up to 60,000 revolutions per minute, meaning that the parts are put under real pressure. While Vorwerk is today's market leader for this type of parts and components, there are other companies which are better and more experienced – Vitz for example for technical springs – and we are delighted to be able to rely on partners like these.

**Vorwerk products are practical, useful and exceptionally durable – something which can also be said for Bruderer high-performance automated punching presses. What else makes Bruderer a reliable partner for your stamping department?**

All of the qualities that you attribute to Vorwerk products can also be found in Bruderer's automated punching presses, namely quality, reliability, durability and precision, so anyone who has Bruderer equipment has a solid basis to work on. Bruderer's service department usually tend to deal with any problems we have on the same day, and in one case they even managed to provide a replacement part for a machine which a competitor said would take a week to find. That kind of thing is important nowadays.

**Which trends have you identified or are you expecting in the medium term as far as stamping goes?**



Vorwerk are known for quality and innovation in terms of products, services and distribution.

The demands on stamped parts and the tools and machines required to make them will only continue to grow. Fewer and fewer components are carrying out more and more functions on products. The tolerances in the manufacturing process and delivered sheets as a raw material are becoming ever closer, while at the same time, companies are tending to move away from merely cutting out parts towards producing entire component groups on automated punching presses. The grouping of punched parts, welding, riveting and insert moulding are just the tip of the iceberg. Similarly as far as the development of machined assembly is concerned, people in the stamping business will soon be talking about production cells or production islands.

**The plastic insert moulding of punched parts is becoming ever more important in the industry. What is the most important development in these terms as far as Vorwerk is concerned?**

As we have already discussed, composite parts are taking on an increasing importance, even or perhaps should I say specifically in innovative companies like Vorwerk. Plastic and composite parts made of several different components – what are known as multi-component parts – are commonplace in as far as today's technology is concerned.

**If you could wish for the perfect automated punching press of the future, what main characteristics would it have?**

The buzzword in the future will most definitely be flexibility, and soon there will no longer be just the one automated punching press. In the future there will be "punching cells" which will be able to fulfil the needs of individual customers. More and more we will be seeing comprehensive pieces of equipment either linked to further processes or have integrated assembly options. Automated punching presses whose main function is to move the ram up and down will no longer be able to play in the big leagues.

[www.vorwerk.com](http://www.vorwerk.com)



Vorwerk do not just test out quality, they produce it.



The Vorwerk "Kobold" – a real success story.

Vorwerk & Co. KG	
<b>Headquarters:</b>	Wuppertal, Germany
<b>Established:</b>	1883
<b>Number of employees:</b>	c. 23,000 worldwide
<b>Self-employed sales advisers:</b>	c. 556,000 worldwide – of which c. 30,000 for household appliances – of which c. 526,000 for JAFRA Cosmetics
<b>Sales:</b>	EUR 2.437 billion (2008)
<b>Distribution:</b>	in over 60 countries





High-precision tools made by Patterer to produce top-quality punched parts.

The company was set up in 1991 as a sole proprietorship producing punched and formed parts. Even back then, Patterer knew that success was dependent on the quality of the parts that he was delivering, and this is still the watchword as far as any new investments are concerned. The company uses only the most modern processing and assembly equipment, including Bruderer high-performance automated punching presses.

An integral part of the Patterer range of products are the high-precision punched, bended and composite tools which are designed, developed and produced by the in-house team, guaranteeing that the manufactured parts are of the highest quality.

### Visionary innovation

Part of Patterer GmbH's strategy is to tap into new markets using innovative manufacturing and state-of-the-art technologies, with particular focus on the further processing of manufactured parts. An example of this is the winder with flexible transfer system which the company developed and constructed in order to increase its product range.

A similar motivation saw the company develop a second area of competence, namely the development of universal assembly lines, which for example are ideal for plastic composite contact parts with re-flow capability which are pre-packed ready for delivery in tape and reel for SMD equipment.

Over the years, Patterer has become a prime supplier that is much in demand thanks to its expertise particularly in combining plastic and metal. Customers know that they have an experienced development partner which can help them right from the initial phase of a project, provide test



The plastic composite contact parts are pre-packed ready for delivery.

# Plastic composite materials – everybody wants them!

Hans Patterer, Chairman of Patterer GmbH in Rieden, on Lake Forgggen in the Allgäu region of Germany, was one of the first to pick up on the trend of plastic composite materials, and his trail-blazing attitude has enabled his company to become one of the prime suppliers of precision components to Europe and Asia.

samples and pre-production tools tested in pilot series and then implement the results in mass production.

### Measured growth

The company's strategy is one of measured growth via selected partners and market-orientated expansion. When the opportunity presented itself in 2005 to take over the German representation of a service provider in Asia, Patterer took the leap into the Far East. The result of this is Patterer Technical Parts Co. Ltd. in Thailand, which was opened in 2006 alongside such well established names as ZF, BMW, Bosch and Continental. There are now 40 employees occupying some 1,500 square metres of ultra-modern facilities producing components primarily for the electronics and automotive industries. Their main customers are based in Hong Kong, Malaysia, Indonesia and Canada with increasing sales also coming from Europe. The fledgling company even has the production of completely hands-free Bluetooth equipment to its name.

The Bruderer high-performance automated punching presses with composite tools including laser and resistance welding equipment also come into their own for the production of plastic composite materials at the factory in Thailand. According to Markus Egger, CEO of Patterer GmbH, the latest equipment – installed in 2009 – was originally designed for the parent company in Rieden but ended up being transferred at the behest of a major client to the subsidiary in Thailand, where orders are now produced on a BSTA 80 with servo-feed. The customer can thus be sure that the parts he requires can be produced with accuracy and in large numbers thanks to the stable design of the tried and tested Bruderer equipment. Patterer meanwhile knows that in Bruderer, it has a global and totally reliable partner.

Expansion is also the order of the day in Rieden. The company already moved to larger premises in an industrial park in 2003, extending its production facilities to around 1,500 square meters, and there are now plans to double the factory space.

### Quality is the watchword

Patterer GmbH has 35 employees at its German location producing high-precision punched and formed parts and complete groups of components



Hans Patterer, chairman, and Markus Egger, CEO of the company.

for customers in the automotive and electronics industries, telecommunications and medical engineering. The German market is the biggest client providing about 70% of the orders, with the rest coming from elsewhere in Europe and increasingly from overseas. Patterer does everything, from limited to mass production, with high-precision equipment and ultra-modern measuring technology ensuring the quality from the development stage through to the assembly of parts and components. All the equipment and tools required for assembly are also produced internally wherever possible, and both locations conform to ISO 9001:2008 and ISO TS 16949:2002 standards.

Bruderer high-performance automated punching presses with press capacities of 25 to 125 tonnes are used at band-widths of 0.05 to 5.00 millimetres. The punching can be done at anything up to 1,000 strokes per minute, depending on requirements. Bruderer's equipment is of the highest standard, and Hans Patterer himself has been won over by the precision, the quality and the durability of the machines as well as the excellent service. "Having the best and most reliable machines is the only way to guarantee quality, which is why we work on Bruderer equipment," says Patterer, and he should know: he installed the first Bruderer machine in the Allgäu region – a three-column BSTA 18 punching press – as long ago as in the 1970s. For smooth and cost-effective production, you need machines that are fully functioning, reliable and precise – and when it comes to those three qualities, you can't beat a Bruderer!

[www.patterer.de](http://www.patterer.de)



Quality begins with the acquisition of ultra-modern processing and production equipment.



## The B2-control system: the high powered package for efficient punching

Bruderer's tried and tested B-Control system is currently in use on over a thousand high-performance automated punching presses. Its successor – the B2-control system – is a further development with adaptations and innovations which make it even easier for the customer to handle. Available from May 2010, it will provide greater reliability.

Computer technology evolves on a permanent basis, and so too do Bruderer control systems. The current B-control system is now in its 12th year and is in use around the world, having grown to meet the varied requirements of its customers in the international punching business. The new B2-control system builds on the existing solutions and adds additional improvements.

### All-round improvements in user-friendliness

Significant alterations have been made to the control panel of the system. The standard version of the operating panel used to be fitted with a keyboard, but now the machine-relevant and part-relevant data can be entered via a touch screen, which means that the external keyboard and the bracket required to hold it are no longer necessary. The machine operator can operate the controlling system and the additional keys quickly and easily via the screen-integrated full keyboard, as well as having access to the individual functions of the control system in fewer steps.

The USB interface, which was previously located in the control box, it is now in the B2-control system – on the front, with two easily accessible ports for transferring and securing data. The control panel has also been made more flexible, and can be mounted either on the cabin wall, on a stand or on a support arm – a real advantage when space is at a premium. Overall, the B2-control system is housed in a slimmer cabinet with a new design, but one which still allows additional tools to be implemented with a maximum of flexibility.

### Reliable hardware

Various modifications were undertaken on the hardware side with the aim of further increasing reliability. An example of this is the replacement of the various moving parts in the control computer to solid state, thus allowing modifications to be made to the construction. The computer of the B2-control system is no longer located in the electrical cabinet but instead in the housing of the operating panel. The control system is cooled by cooling ribs on the back of the operating panel instead of the fans which were necessary before, which also enabled the cabling structure to be simplified, meaning that the B2-control system now has markedly fewer components which could be liable to break down.

Thanks to the changes which have been implemented, the electrical cabinet is reduced in size, meaning that less room is needed with regard to the footprint of Bruderer automated punching presses up to 60 tonnes.

### Easy maintenance and servicing

The screen and the computer in the B2-control system are two separate entities which can be replaced and serviced independently from one another. Should the need arise, Bruderer engineers can also be on hand to provide speedy service and enable customers to get their equipment up and running again using a replacement unit.

As part of the further development of the system, the security technology has also been adapted to the EN ISO 13849-1 norm. The safety control system is now connected via the programme, removing the need for the previous fixed cabling and further increasing the operational reliability. This improvement in technology also gives the new control system a greater diagnostic capability and quicker fault isolation, reducing maintenance and down times significantly.

The B2-control system has a number of improvements and adaptations compared with its predecessor whilst maintaining certain elements which had already proved their worth, such as the easy and



The controlling system is cooled via the back of the panel, fans are no longer required.

simple use and the ability to implement client-specific displays and entries. As is the case with other Bruderer products, the client also benefits from the fact that all parts of the equipment come from the same supplier and mesh together perfectly.

All Bruderer automated punching presses which currently run on either B or other control systems can be retrofitted with the new B2 hardware and be immediately brought up to the latest standards of technology, providing customers with the latest in efficient punching technology.

[www.bruderer-presses.com](http://www.bruderer-presses.com)



The B2-controlling system control panel with touch screen: compact and easy to use.

### Bruderer at trade shows 2010

Trade show	Country	Date
SIMTOS	Korea	13.04. – 18.04.2010
Cannex	USA	27.04. – 29.04.2010
METALFORM Mexico	Mexico	11.05. – 13.05.2010
Die & Mould China	China	11.05. – 15.05.2010
LAMIERA	Italy	12.05. – 15.05.2010
MACH	UK	07.06. – 11.06.2010
STANZtec	Germany	22.06. – 24.06.2010
MTA Vietnam 2010	Vietnam	06.07. – 09.07.2010
Micronora	France	28.09. – 01.10.2010
Vienna Tech	Austria	12.10. – 15.10.2010
TATEF	Turkey	12.10. – 17.10.2010
EuroBLECH	Germany	26.10. – 30.10.2010
FABTECH/METALFORM	USA	02.11. – 04.11.2010
DMP	China	17.11. – 20.11.2010