



ISMR SAYS: Markus Bruderer, Chairman and CEO of Bruderer AG, gives ISMR a frank and practical view of the challenges facing today's press manufacturers

Face to face

Markus Bruderer, Chairman and CEO of Swiss press manufacturer Bruderer AG, is philosophical about increasing competition in today's marketplaces.

"We have significant competitors, especially in Asia, so price competition is enormous. We must maintain our price profile, which isn't always easy. So, we concentrate very hard on customers who need, most of all, greater press accuracy and higher press speeds, which is one of our strengths as a company."

Established in 1943 by Egon Bruderer, the company built its first eccentric presses in 1945 before introducing its first series of high performance punching and metal-forming presses in 1958. It can celebrate a series of 'firsts' since it introduced the concept of perfected mass counterbalance presses and built the first fully automatic punching system in the world. How does this pioneering spirit manifest itself in the company today?

"We still have the pioneering spirit – we try all sorts of different business models in different countries," says Markus Bruderer. "We have looked extensively at processes such as laser welding etc. We have certainly helped in providing industry with machines which can ensure safe single-stage operations. When we see an opportunity to innovate, we take it. This doesn't always mean developing completely new equipment – it can also mean finding new applications. For example, we have taken various existing mechanisms/processes and modified them for safe use on a punch press.

"We must always ask ourselves: what does the market want? Which direction is the market moving? There are very few 'innovations' – just old ideas that are re-worked," he says, with a smile. "To me, innovation represents new ideas. Customer information and feedback provides our direction for future R&D. For that, we need to be close to our customers."

Pursuing new market focus

"We are primarily focusing on the connector industry (both for elec-



Above: Markus Bruderer, Chairman and CEO of Bruderer AG

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Press manufacturer Bruderer AG is concentrating its expertise on niche customers who require higher press speeds and greater press accuracy. ISMR flew to Switzerland, on the company's 60th anniversary, to interview its Chairman and CEO, Markus Bruderer

tronics and automotive)," says Bruderer, acknowledging that its share of the Asian automotive market is not as strong as its European share of that market.

"However, we are increasingly penetrating the automotive market in Asia, particularly in China, where some of our customers are now heavily investing in the future growth of the Chinese automobile industry."

Bruderer feels that there is also high potential for growth in connectors allied to the industrial sector (any high volume high precision parts that are not used in the electronics field) where the company has not fully exploited its potential.

"There's a lot more work to be done here, but it will take time. Customers are very price conscious in this area."

Bruderer AG already has a presence in several markets. This includes automotive, industrial, electronics and 'jobbing' subcontract markets.

"In terms of market importance, the electronics and connector sectors both make up around 60% at least of our business," he told ISMR. "Most electronic products are hand-made in Asia and China, which is a strong region for us. The industrial sector in Europe is also important for us (around 25% of our business) and we have made some important in-roads into the US market on that front. Our subcontract market turnover last year was about SF3 million – approximately 3% of our revenues.

"Our maximum manufacturing capacity at Frasnacht (Switzerland) will stabilise at about 250 presses per year," says Markus Bruderer. "This can be increased with overtime, if needed. Last year, I would say that we produced about two thirds of what we could have produced."

Exploiting Asian potential

Markus Bruderer aims to open a new technical competence/service centre at Suzhou in China by the end of 2003.

"We now have technical competence centres in Japan and Singapore (with fully trained staff) and China is next on our list," he explained to ISMR. "Over the last five years, the machine tool population in China has increased from about 60-70 machines in 1996 to about 400-450 now. We did not sell all those machines to Chinese customers – we sold them to customers all over the world – and our customers have sent them to China.

Below: Bruderer's plant at Frasnacht, Switzerland



approval

BSTA 2500 is the company's newest and largest press



This means that we now have to establish a service centre in China to re-engineer these machines and support our new customers there.”

Markus Bruderer is keen to stress that this will not be a production, but a support facility for customers. Bruderer's press manufacturing hub will remain at Frasnacht in Switzerland.

Bruderer is closing its factory in Hunstville, Alabama, because of sinking machine numbers and customer defections to Asia.

“For the last four years, we noticed that we were producing more cheaply here in Switzerland than in the US. In the US, a lot of our customers have gone – they've gone to China, South East Asia or Mexico - some are no longer in business.”

A large part of Bruderer's business is in refurbishment and upgrade/re-engineering of machines. In the last two years, the company has re-engineered 30-40 machines in the Far East. In Europe, the market is mostly overhauls for existing customers.

“The refurbishment/re-engineering market is a growing business for us and really started in Asia,” he

explains. “It has taken root very well hence our business in Singapore, Japan and, shortly, China. We need to be regarded as ‘locals’ in these regions – we use Singapore as a training facility for the Chinese market but we need our own local training facility in China. China is in approximately the same situation now that Singapore was fifteen years ago – with relatively few trained people.

“Within Asia, Greater China (China, Hong Kong and Taiwan) is the region where I anticipate the most growth for us.”

Hong Kong and Taiwan do not strictly buy machine tools, but it is a central buying region (in terms of

company HQs). Bruderer has opened new offices in India and this market will develop slowly, says Markus Bruderer. For the company, it is an investment for the future.

“It depends on how India views the progress that China makes. I would say that Indians would probably realise that they need to reform faster, open the market and be less protective of their own manufacturers and more flexible with labour laws etc.”

Japan has offered a promising market for refurbished/re-engineered machines although it has been slow for new machine tool sales, he confirms.

“The Japanese are still good investors in South East Asia,” says Bruderer. “I view Asia as a growth area. I now see companies moving from China to Vietnam, with costs in mind, so the area is in constant flux.”

New products and processes

The company intends to launch its newest, and largest, press for lamination and other flat stamping applications in April this year. The BSTA 2500 is a high precision automatic punch press, with a press

**Below:
Bruderer AG has
invested heavily in
new machinery for
its plant**



Face to face

force of 2500 kN and a new patented Bruderer drive system, with a double lever and quadruple pusher arrangement. Its development sprang from a customer requirement.

"The BSTA 2500 is ideally suited to the manufacture of electrical parts such as rotors and stators," says Danny Troxler, Product Manager at Bruderer. "It can reach a speed of 100 to 750 spm and has a tool loading area of 2500mm. Dynamically adjustable ram height, during the stamping process, guarantees a constant BDC position across its speed range. Its quadruple pusher arrangement and rigid frame design, ensure the highest tilting rigidity of the ram in all directions even when off-centre load is applied."

"We are convinced that we are taking a lead in technology with this new machine," says Markus Bruderer. "I would almost compare it to the time we started with the 60-tonne under-drive press when our customers were able to increase production output two to three-fold. We also firmly believed that the times between re-grind could be increased by 40-50%, as opposed to conventional machines. If you consider the total value of a tool like that, and the potential savings it offers, it quickly gives a good return on investment. It is a very fast and accurate machine for its size."



Above: B-control technology is now also incorporated into smaller Bruderer machines

The machine's B-control technology, now also incorporated into smaller Bruderer machines, features an option to communicate with all common bus systems, such as Ethernet with TCP/IP or Profibus, so that tool data can be managed centrally and peripheral equipment can be integrated onto the production line.

Making cost reductions

A tour around the shop floor at Frasnacht includes some of the latest machinery investments that the company has made to improve its own productivity levels, and eventually pass cost savings down to customers.

With new machinery, the company is striving to achieve savings of between 40-50% in production times to customers in an effort to drive down its own costs and improve its service. This also affects delivery times.

"Firstly, our aim is cost reduction. It is no longer possible to increase prices to customers - those times are gone," says Markus Bruderer. "We have to find cost reductions 'within and without'. We are also looking to reduce lead times, produce fewer parts at the same cost as higher volume parts together with other measures for lead-time reduction. This is part of our strategy when buying our own machine tools.

"Delivery times today are also very important. Customers do not tend to plan expansions - they just happen. When they happen, they want the machine. When the cus-

tomers places his order, he usually wants the machine as quickly as possible. Now that tooling is being produced at a much faster rate than ever before - from 16-20 weeks to 8-12 weeks - we need to deliver the machines to customers within the same time. We must also maintain and control quality, whilst delivering the machines at a quicker rate but we cannot take short cuts."

Other customer requirements he sees include long tool life, high press performance, high press accuracy, good levels of reliability, long machine lifetime and versatility for many applications.

"We are constantly trying to improve on existing methods and press designs. It's a step-by-step process as tolerances get smaller and smaller and more sophisticated or miniature parts need to be produced on presses. User friendliness is a key issue."

New challenges

So how has the company responded to these customer pressures?

"It has been quite a challenge," admits Bruderer. "We have responded by increasing capacity, storing parts (higher inventory levels) and making more parts. But, mostly we have looked and re-looked at our own procedures. What can we do to shorten times? How much can we prepare in advance? It's an ongoing process - but a challenge you can meet by having people that are well trained. We invest heavily in our staff here.

"We have 97% of parts in stock at Frasnacht ready for shipping, which is a huge advantage to the customer in terms of productivity. This includes our own manufactured parts as well as outsourced parts.

"We are trying very hard to focus on high speed and high performance, in any shape or form. We are also truly trying to establish a presence in the larger markets that are developing. In technology terms, we boast a unique drive system.

"To summarise, the benefits for our customer from all this is higher output (hence higher revenues), higher quality and lower production costs."

Below left: Bruderer's B-control system





Left: Bruderer has expanded its facility at Dortmund

Until its Chinese office is fully operational, Markus Bruderer feels that the 24-hour service concept challenge will probably take about five years to deliver to customers.

Looking to the future

"The future will probably be about 25-30% Europe for us, 25-30% Asia and the rest split between the Americas and other countries," says Bruderer. "That is our view for this year. Any re-adjustment or increase in those figures will probably be in Asia's favour."

However, there is a point at which, he maintains, the cost versus added value ratio must stop. Quality demands a price trade-off.

"Our biggest challenge, to be honest, is to convince our customers that there is an end-point. You can't keep making products cheaper and cheaper and still maintain quality People must understand that short cuts will impact product quality – it's as simple as that."

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Expansion, progression and service

The company recently announced the construction of a new administration building in Dortmund and substantial investment in new equipment.

"Dortmund was too small for a long time and working conditions were very cramped for the staff, so we needed to upgrade the administration facility," says Bruderer. "We also wanted to increase its capacity for parts storage. This enables us to offer a better service to our German customers."

However, he is not planning to increase his 32,000 sq. metre production facility in Frasnacht for the moment but does not rule out the possibility of building a heavy equipment factory for 125 – 250 tonne machines (depending upon machine production and orders received) over the next three years.

Although Bruderer is not a tool-maker or stamped parts producer, it does appreciate that its customers may seek advice, over and above the training they already receive, on how to get the best from their machines and cut costs. Markus Bruderer confirmed to ISMR that it is constantly looking at ways it can help customers in any way, by recommending experts in various fields, but it is still very much 'in the early stages'.

Bruderer intends to concentrate on its core competency, as a machine tool builder, with no plans to move into other areas, such as tool making etc. It does however, track advances in tool-making which affect the way it designs its machines.

"We would possibly look at an area like ancillary equipment for our fast performance machines," says Bruderer. "We could source this type

of equipment from other manufacturers e.g. ask them to build something that is suitable and matches the machine's performance.

"Another of the challenges we have to face is the need for a 24-hour global capability, so there will be more of an emphasis on service. We are thinking about ideas like call centres – for example, our Indian office could be a portal to the East and West. We may even increase the number of engineers we have or make our 'outposts' more autonomous and more competent. We are looking at more investment, certainly, in the service side of the business."

Below: A selection of components made on Bruderer presses

