HAITIAN INTERNATIONAL

Advantage

Plastics News from Haitian International

A Magazine of Haitian International | Issue 15/2015

ZHAFIR PLASTICS MACHINERY | HAITIAN PLASTICS MACHINERY | TIANJIAN PLASTICS MACHINERY

WE EXPAND FOR YOU!

Plant expansion at Haitian International Germany.

Read more:

HAITIAN INTERNATIONAL
"Challenges 4.0", page 4

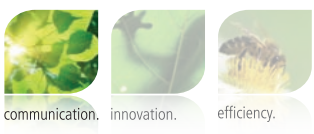
BKW Kunststoff GmbH
You only get ahead if you take action, page 10

MONIER ROOFING COMPONENTS
Into the future with Haitian, page 12

EDITORIAL

DEAR READER, DEAR CUSTOMERS, DEAR COLLEAGUES,

Advantage Magazin Fakuma 2015
Chief Editor, Prof. h.c. mult. Helmar Franz



This edition of our Newsletter coincides with FAKUMA 2015. This trade fair is certainly one of the most important communication platforms in the European market. The team at Haitian International Germany will be there right at the start, highly motivated and looking forward to many interesting conversations with our guests. We continue to believe that exchange of experiences and constructive dialog are an essential way to learn more about our customer desires and intentions. This is the only way to continue to provide them with Technology to the Point and meet the challenges of the future with concerted effort, across every national border but also across what seem to be technological boundaries.

Since China remains our most successful market by far, we naturally believe that the greatest challenges today lie in overseas markets or in the goals set by our globally operating customers. But consequently, our greatest potential for growth also comes with these challenges. We already generate 30 % of our turnover via our overseas business locations and our machines have been installed in some 130 countries around the globe. This is no coincidence. Our experience shows that you can successfully sell machines at the international level only if you adapt to and engage with the conditions particular to each country. And we do just that, together with all that it implies: Engaging with the past and the present, with society and culture, with the industrial infrastructure, and not least of all, with the skills of the local employees. We deliberately use and foster the strengths of local experts and networks. Long ago Haitian International began setting up independently operating manufacturing sites in regions that are big and important for the plastics industry, for example in Brazil in 2003 and in Vietnam in 2010. For India too there are concrete plans to set up a manufacturing site using local teams. And of course it is more important than ever to have available warehouse machines and technology centers for mold tests and customizing in the important regions of the world such as Turkey, Russia, Indonesia, Thailand, or Mexico.

In order to respond with even greater flexibility to the high demands of the European market and to serve it with even greater efficiency, the parent company has decided to expand considerably the capacity at its German site. To be more precise, the production area in Ebermannsdorf is to be almost tripled, from 4,500 to 12,000 m². Haitian machines are scheduled to be assembled alongside Zhafir machines by the end of 2016. Specifically, this involves two of the construction series currently in greatest demand: The Venus II and Zeres electrical series, with 6,000 units already sold worldwide and counting, and the two-platen Jupiter II Series, which began a veritable boom with growth of more than 64% in the first half of 2015.

The expansion of the sales and service network operating throughout Germany will also be an important component central to European applications. In this way we can devote ourselves intensively to the increasing demands of local processors beyond the Fakuma show, and by doing so we can also create new competitive advantages for them and further develop successful cooperation in the future.

Sincerely yours,
Prof. Helmar Franz

We Create and Extend Advantage.

ZHAFIR PLASTICS MACHINERY
HAITIAN PLASTICS MACHINERY
TIANJIAN PLASTICS MACHINERY

→ more Information under www.haitianinter.com

Publishing details:

Publisher
Haitian International Holdings Ltd.
Unit 1105 Level 11
Metroplaza Tower 2
223 Hing Fong RD Kwai Fong N.T, China
E-Mail: haitian@mail.haitian.com
http://www.haitianinter.com

Chief Editor
Prof. h.c. mult. Helmar Franz
Assistant Editors
Zoe Zhao, Yuanjie Zhu, Sonja Haug
Translation
Zoe Zhao, Patrice Aylward, Sonja Haug

"CHALLENGES 4.0" CHALLENGES FACING A STANDARD MACHINE MANUFACTURER

Interview with Prof. h.c. mult. Helmar Franz, Haitian International

The Fakuma 2015 Show seems to be in the thrall of "Industry 4.0". In a conversation with Prof. Helmar Franz, Board Member and CSO of Haitian International, we discovered what position the company takes on this subject and what challenges await in the next few years.

Professor Helmar Franz gave a lecture at the "International Injection Moulding Conference 2015" IKV Aachen on the future challenges for the industry (Picture source: IKV/Fröls)

Professor Franz, to what extent is the topic of Industry 4.0 a concern for the biggest manufacturer of standard injection molding machines?

"Naturally we discuss both in-house and with our customers the sensible use of concepts and modules with regard to "Industry 4.0". But with any development what is crucial for us is always the benefit for the entrepreneur. Both for our customers and for us. And in this respect, to be frank, there are still problems to be solved."

Can you give us an example?

"Let's just take the issue of data security: Every supplier, for example for the automotive industry, signs non-disclosure agreements and is thus responsible for data security. But how is a company supposed to do that when even entire countries and states can't manage to guarantee data security? Not to mention that as a processor you also have to provide an "intelligent factory". So far we still don't know of any customer who is doing this consistently in terms of the goals of "Industry 4.0". Quite the contrary. A customer survey in Germany has shown that for the short and medium term the subject comes up in very few companies because of its complexity. And I assume of course that in other parts of the world it is considered even less frequently. "

So is "Industry 4.0" of no interest to Haitian International?

"The movement towards the 4th Industrial Revolution is certainly important – assuming that the 3rd Industrial Revolution has also been safely completed. Of course, this depends on many factors: qualification, economic environment, prosperity, societal demands, and many more. Since many customers operate business premises in multiple countries, in our view every industrial company should consider what measures are sensible and economically justifiable in each respective country. We ourselves have been doing it at Haitian International for some time now, and very intensively also."

What is the current situation, what conclusions have you made?

"Primarily, we see ourselves as machine builders. What we claim to do is to construct highly versatile injection-molding machines using innovative "Technology to the Point". Designed for mass production, for diverse categories of

standard plastic parts. These machines have to become even more versatile, efficient, and uncomplicated. They also have to be able to be networked through standardized interfaces, and in this regard, for us as machine builders there are still some challenges. Once again, however: Whether, when, and how our machines are to be integrated into an "intelligent" environment depends on the benefit that accrues from it."

What technical developments in machines should we expect?

"Let's take for example the subject of fully electrical machines, which we see as the new standard in the small and medium clamping force categories. This too seems so far to be self-contradictory, because up until now fully electrical has always been commonly associated with high-tech and expensive. It will be our challenge as experts in standard machines to "demystify" this article of faith and to offer our customers fully electrical solutions at the prices that are standard for hydraulic ones. This means, among other things, a rethinking, for example, defining what technical demands are to be made of electrical machines. Only then do we have a good chance of replacing hydraulic machines in the future by offering attractive prices for electrical machines. And that is our goal."

The issue of oil, as a medium in an injection-molding would then be a thing of the past...

"Correct. Not to mention further advantages, such as less noise during production or savings on energy-intensive cooling systems. Zhafir is firmly intent on revolutionizing the small and medium-size machine market, in addition to high-tech machines, through simplified and cheaper fully electrical machines. With the new Zhafir plant in Chunxiao we have already laid the ideal foundation for this."

What then would this revolutionary machine look like?

"In order to be able to substitute electrical machines for standard hydraulic machines, a lot of homework has to be done. As already mentioned, the price has to be right so that the issue of hydraulic or electrical no longer needs to be raised, at least not because of economic considerations. To achieve this, the manufacturing costs of such a machine must fall significantly. Thus currently we are hotly debating as to what equipment such a machine must have. "Reduce to the max" is the slogan here, just like it used to be with the Smart car. This then permits new approaches to design. For example, our opinion is that it is not absolutely necessary for such a "simple" machine for the mass market to have parallel functions. However, considerable cost savings can also be achieved by lighter component materials and optimized drives."

In addition to electrical machines for small and medium clamping force categories, Haitian International is also placing increasing emphasis on two-platen machines in the big clamping force classes. Indeed, this is what the new "Tong Tu Lu II" plant was built for, bigger than any previous Haitian plant...

"Correct. Our servo-hydraulic machines – particularly in the large clamping force categories – will continue to be an important component of our product strategy. The Jupiter Series with two-platen technology is constantly being optimized and adapted to the various market requirements. This is also how the Jupiter II plus was developed for the European market. With an additional drive we can offer more power for faster clamping movement and higher clamping pressures on demand. This was solved very efficiently. That's Technology to the Point!"

Professor Franz, we thank you for speaking with us.

HAITIAN INTERNATIONAL GERMANY

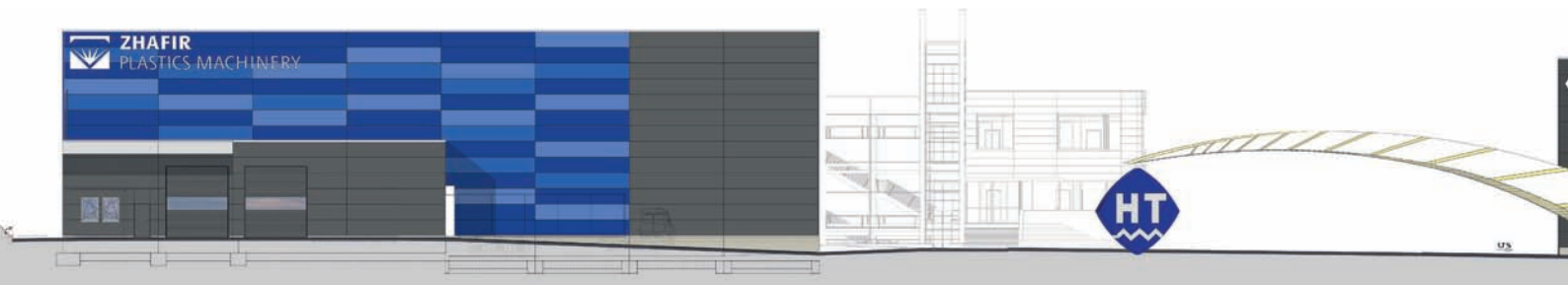
CLOSER CONTACT, GREATER FOCUS

Investments, site expansion, sales and service network growth: A lot is happening in Ebermannsdorf. Building on the successes of Haitian Europe and Zhafir Plastics Machinery, Haitian International Germany is currently laying a new, more extensive foundation for improved customer services and sustained growth.

By the end of 2016, the new factory (at the right of the picture) will increase the manufacturing area to 12,000 sqm

With the restructuring in Ebermannsdorf, the world's leading manufacturer did more than simply make a commitment to its presence in Germany. It was also a clear signal to the whole continent as an economic region. Haitian International Germany now manages its European business operations for both the Haitian and Zhafir brands out of Ebermannsdorf. In this way, Europe's potential for the parent company is to be tapped even further. "Germany is without question the largest and most innovative market in Europe; this is where the beating heart of important industrial applications is located. We want to reinforce the continuity of our investments in Germany and Europe and take the quality of our customer relations to an even higher level", explains Xiang Linfa, General Manager of Haitian International Germany.

German and European processors receive comprehensive service from Haitian International Germany: From consulting and sales, tool sampling, assembly and customized machinery adjustments, to extended services in pre- and



HAITIAN INTERNATIONAL GERMANY

The team of Haitian International Germany

after-sales, customers get everything from a single source. Main focus: The machine portfolios of the Haitian and Zhafir brand. In the smaller clamping force categories, attention centers on the electrical series of the Zhafir brand, while with larger clamping forces the two-platen technology of the Haitian Jupiter Series is developing as a trend product. This is fully in line with the company's overarching corporate strategy.

"Made in Germany" – Doubling capacities

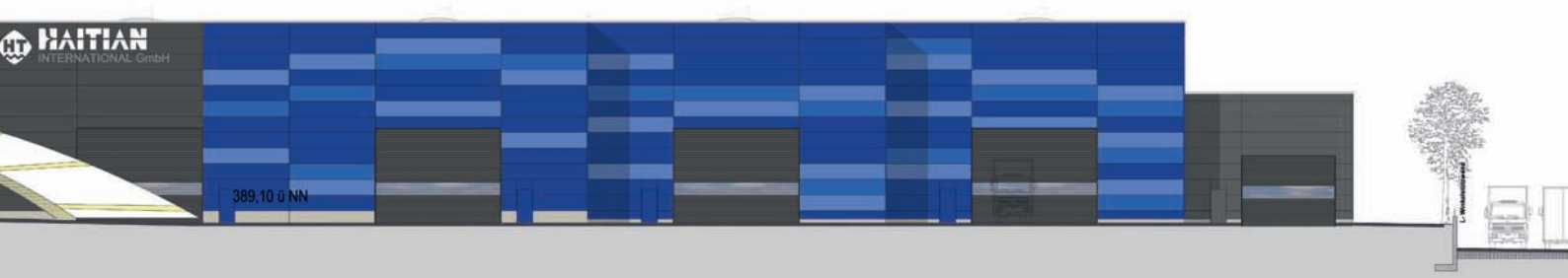
In the medium term, final assembly of Haitian and Zhafir machines for Europe, including customized adaptations, will take place in Upper Palatinate (northeastern Bavaria). The parent company set the course for this at the very beginning of the year when the "Ebermannsdorf Plant Extension Project" was launched at its headquarters with an investment worth tens of millions Euro. Construction measures for expansion of the site have already been initiated. With the commissioning of the second production hall, at the latest by the end of 2016, the production area will have more than doubled, from 4,500 to 12,000 m².

"With the construction of the new production hall, we open two doors simultaneously", says Mr. Xiang Linfa, General Manager of Haitian International Germany. "We get significantly more capacity and thus greater availability, and we can fulfill customer requirements even more quickly. At the same time, we create new options for the future for ourselves." In other words: This is by no means the end of the story; in the long term too, Germany remains a main pillar of Haitian International's global strategy.

The second pillar of support is the Zhafir Plastics Machinery engineering team, which continues to operate at the Ebermannsdorf site and is focused totally on strategic development issues. Steffen Franz, from Zhafir Engineering Team, says in this regard: "With our know-how and the increased networking at the German technological site, we can give effective support to strategic product development for the entire group." (Read more on this on Page 8)

Expansion of the sales and service network

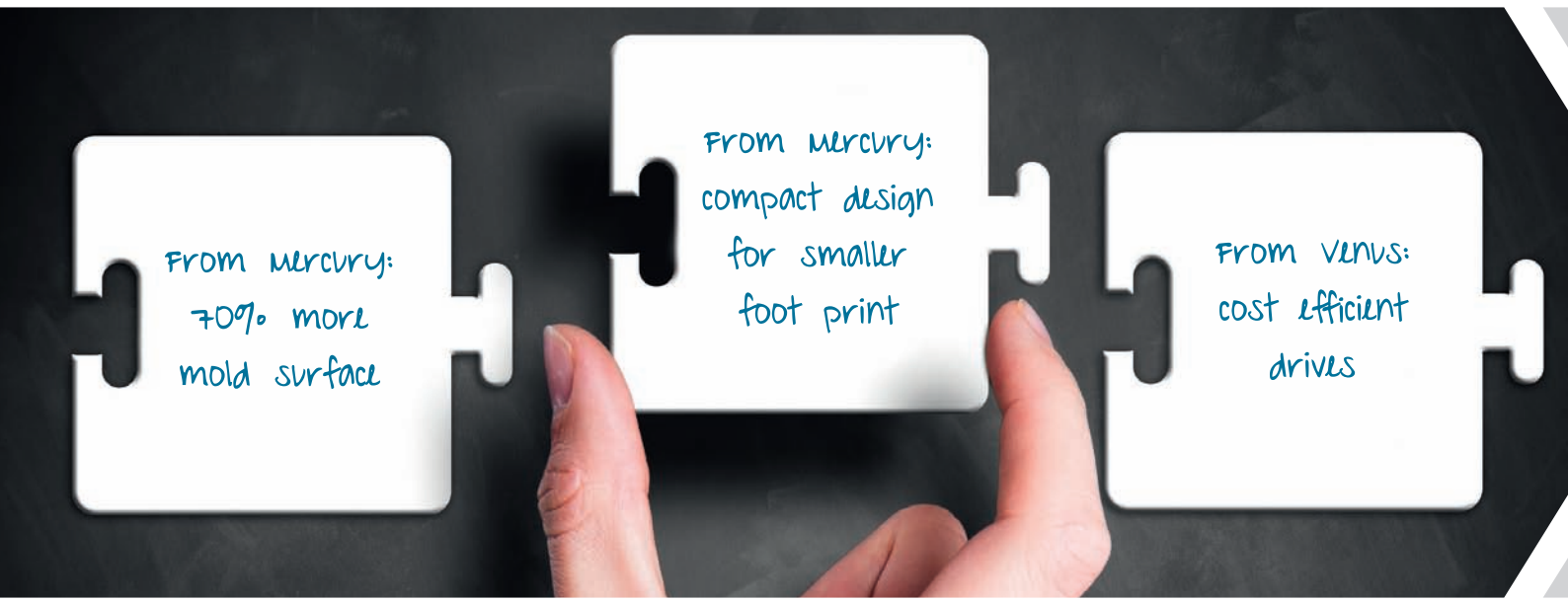
Word has long since spread about the efficiency and flexibility of Haitian and Zhafir injection-molding machines. Everywhere, throughout Europe, the initial skepticism towards Chinese brands has been transformed into an increasing demand. For Uwe Baer, member of the executive board at Haitian International Germany, it was only a matter of time: "The cost-benefit relationship of the electrical and servo-hydraulic series machines has now convinced practically everyone who has studied the key indicators." The gratifying sales figures of the last few months show that standard machines with flexibility and high savings potential are in demand throughout Europe. Currently, the team is exploring the German market nationwide in the search for suitable sales and service partners in order to be "there" for the customer.



ZHAFIR PLASTICS MACHINERY

ENGINEERING FOR THE MARKET

The ME-X study, one of the Zhafir Group's most ambitious projects, is about to be completed. The new construction series combines significant advantages of the "Mercury" R&D project and the successful Venus Series.



The goal when developing the ME-X was to fuse the special features of two different lines. On the one hand there is the fully electric Venus Series, which has been sold almost 6,000 times so far and has been receiving high praise on all sides because of its high precision and energy savings in the double-figure percentage range.

On the other hand, there is Mercury: electrical premium class with an innovative design created for large moldings and complex geometries. "So far our team in Germany has built clamping-force categories of 500, 1,000, and 1,500 kN, prototypes of which are currently being pilot-manufactured in our new plant in Ningbo Chunxiao," says Steffen Franz, Managing Director and Technical Director at Zhafir Plastics Machinery GmbH in Ebermannsdorf, explaining the current situation.

The main goal was and still is that of creating clear competitive advantages for the processor together with versatility of use: First and foremost, more efficiency and freedom of action in the practical sense. The general principle of the Mercury, which has no tie bars, offers the user 70% more mold-fixing surface area than with comparable designs and is thus particularly well suited for molds with high cavities. There is a really amazing gain in space when you consider the 30% reduction in setup space because of the slimmer machine design.

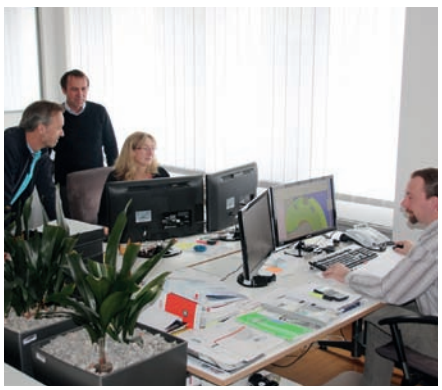
Zero Series will be built and sold in China

When used together with the Venus II High Performance injection unit, the symmetrical design structure ensures a high degree of platen parallelism and thus maximum precision with optimal tolerances. Software and control system are by Sigmatek. At first, the Zero Series is to be built and sold in China; European sales are not planned for the moment. Subsequently, the Zhafir and Haitian R&D teams will keep expanding the ME-X modular system and design new options and machine sizes.

Closely linked to practical application

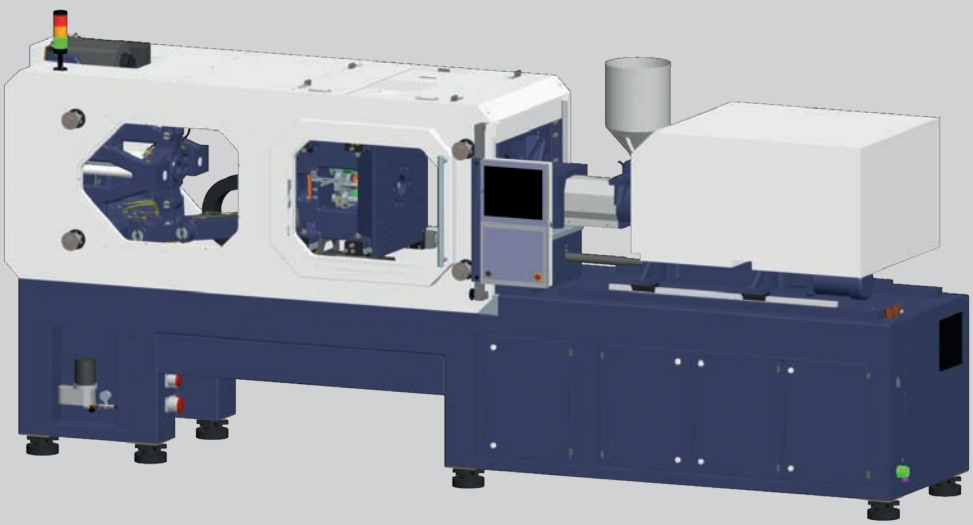
In addition to the ME-X, the Zhafir engineering team is involved in various intragroup R&D projects and also gives active support in matters of patent strategy. Several machine optimizations can be traced back to the Ebermannsdorf team or were developed in cooperation with in-house or outside engineers, for example, the special toggle-lever design for the Mars and Venus II Series as well as the optimization of the Jupi-

ZHAFIR
PLASTICS MACHINERY



Successful projects in production

- New toggle-lever and platen design for Venus II and Mars II Series
- Optimization concept for screw manufacture in Ningbo, developed in cooperation with a European screw manufacturer
- Improved hydraulics system for the Jupiter II Series, developed in cooperation with an external team of engineers



The ME-X takes shape – and creates new opportunities

ter II Series. "We consider ourselves to be the technical backbone of the company and offer internal support in a very wide range of fields" is how Steffen Franz describes the team's focus. The technical support of the sales and service teams also plays an important role here in generating continuous feedback on what concerns the user has that could bring changes in the market. In addition, the engineers work hand in hand with other Haitian R&D project teams, performing evaluations of the supplier network, for example, and using at the same time their good contacts both with business and with the sciences.

To ensure the sustainability of innovative developments in the field of safety technology, Zhafir is also actively involved in determining international guidelines for injection-molding machines, for example in the international standardization committee "Plastics and Rubber Machines – Injection Molding Machines – Safety Requirements". Here, industry representatives and standardization experts from China, Japan, USA, France, Brazil, Italy, Canada, Germany, Turkey, Austria, Switzerland and other countries are defining a global standard (ISO 20430) for safe injection-molding machines that is expected to come into force by the end of 2016.

Zhafir Engineering "Made in Germany"

- Ongoing sharing of knowledge with the R&D teams in Ningbo
- Support for worldwide sales with more than 100 mold tests so far and machine deliveries to international customers
- Supplier evaluations for the R&D teams in Ningbo to optimize costs and performance
- Close cooperation with Universities and research institutions in Germany

→ more Information under www.haitianinter.com

CUSTOMER STORY FROM GERMANY

YOU ONLY GET AHEAD IF YOU TAKE ACTION

Interview with the General Managers of BKW Kunststoff GmbH

BKW Kunststoff GmbH is an innovative company based in Selb in Upper Franconia, Germany. This plastics specialist has established itself in its seven-year existence as a project partner and piece-work injection-molding company for the most exacting of industries by offering top quality in both products and services. Its team philosophy is based on maximum flexibility in meeting the customer's demands. Absolute customer satisfaction is the declared aim and the demands that BKW places on itself are clearly defined: "We want to deliver to our customers exactly what they want – and with speed and flexibility."

Absolutely convinced of the efficiency of fully electrical machines: (from left) Franz Poschenrieder, Stephan Auernhammer (Haitian International Germany) and Hans Elsner

The Bavarian plastics factory was founded by managing directors Hans Elsner and Franz Poschenrieder at a time when the market "was anything but good". Both men are from the plastics industry and so they already came with plenty of experience behind them. And both of them, to this very day, are very down-to-earth people. They are hands-on types with brains and a clear plan, open and likeable people, uncomplicated. In early 2008 they took over an abandoned injection plant in Selb, Upper Franconia, the venerable and world-renowned porcelain-manufacturing town – not a bad place for ambitious plans, located right on the border with the Czech Republic. They found themselves with 30 injection-molding machines, mostly small ones, all of which first had to be put back into operation. "We rolled up our sleeves and injected new life into the whole operation. If you want to get into the market looking professional, you have to invest. In every respect", Hans Elsner says. They got things up and running right from scratch. "You only get ahead if you take action", says Hans Eisner firmly. This seems to be BKW's motto, in every respect. So far this young company has invested almost two million euros. In central materials supply and drying alone, they have put in well over 300,000 euros. It's been worth it, for the whole region too.

Today the company has 48 employees, 15 of them in engineering and 5 in quality control. The fleet of machines has also grown handsomely in size and has proven to pack a punch in terms of both output and quality. Currently there are 38 injection-molding machines from 250 to 4,000 kN, four of which are fully electric Zhafir Venus Series machines of 1,500 and 2,300 kN. Most of them have 3-axis or 6-axis extraction. "Our cus-

Both Venus II Maschines with 1,500 kN clamping forces produce components for PLAYMOBIL® products

tomers are extremely demanding. They require deliveries to be on time and without interruptions", says Hans Eisner, and he is not referring only to their customers from the automobile industry, all of whom are T1 suppliers for luxury-class vehicles. Despite the success, he remains modest.

Excellent Reputation in the industry

BKW enjoys an excellent reputation in the industry; low-cost production and high efficiency are their trademarks. Certainly the team is very competitive in terms of price too. "We use the global market in order to stay attractive price-wise," adds Franz Poschenrieder. "That's the only way we can offer all-round benefits."

Their high degree of professional competence allows them to offer a one-stop service: product development, new project implementation, mold planning, mold design, and procurement. Plus, of course, serial manufacturing of plastic parts both single component and multi-component. One production focus is on long-flowing parts, such as light strips in car interiors, for example, with surfaces that are extremely uniform. Here, they cover not only all current standard materials in their applications but also in-demand extras such as a special compound of TPE and POM that adheres without mechanical undercutting. Poschenrieder says: "Injection molding isn't magic. Lots of people do it. If you have a high-quality form and a solid and reliable injection-molding machine it's not very difficult to produce a good plastic part." And that's what they do, and in no small measure. BKW produces and delivers around four to five million parts every month. Their annual turnover is around 5 million euros, with exports accounting for 10 percent. Almost half of the turnover is generated in the toy industry, supplying Playmobil, among others. Another 30% comes from the automobile industry: exteriors, interiors, lighting. They generate the rest from beverage packaging and contracts of all kinds. "We don't commit ourselves or focus on one particular industry", both of them say. "We accept whatever suits us and our machine fleet." Sounds simple and pragmatic, and that's also how they want to keep operating, says Franz Poschenrieder. "You can make things too complicated. Or you can call them standard right from the outset. Take for example the injection-molding machine. It just has to serve its purpose. So, in our opinion, many of today's options should be standard. At no extra cost. Just like it is with Haitian and Zhafir, who are already moving in the right direction." Hans Elsner nods in assent. He too feels confident about Haitian and Zhafir machines, especially the fully-electric machines, about which he is particularly enthusiastic. They already have eight of them, including four of Zhafir's Venus series. One was added recently.

Clear trend towards fully electric

The trend at BKW is clearly towards electric machines. Hans Elsner gives the essential reason for this: "Precision and energy consumption. With the two smaller Venus machines we measured just 1.8 kW over a 10-hour cycle. And that's with extremely high precision!" In addition, there is no cooling for the oil with fully-electric machines. "The maintenance and energy costs for this peripheral equipment should not to be underestimated. We, at any rate, want to reduce this whole periphery", he adds.

Just out of curiosity

Franz Poschenrieder also evaluates the switch to electric machine solutions objectively and pragmatically, and he sees their decision in favor of Zhafir as a logical consequence. Proximity to the plant at Ebermannsdorf, short travel routes, and rapid reaction times, all of this, plain and simple, is what has convinced them, he says. "We got our first Venus machine in 2012 shortly after having visited Haitian International just out of curiosity at the Fakuma Show", says Hans Elsner. After that, we just asked around in the market a bit. "The references were all positive, and now we also know why. The team in Ebermannsdorf is also very open-minded and their competence is without question. They know what they're doing."

Hans Elsner nods approvingly and they are also in agreement when it comes to service and customer support. "They are very open, it's true. But also brave. They prove that with what they're doing." He values their flexibility, the short coordination times, and the flat command structures. Overall communication is rated as being always constructive and uncomplicated. "We like that very much", he says. "It's very close to our own philosophy as well."

BKW Kunststoff GmbH

- Founded: 2008
- 48 employees

Specialist areas:
product development and execution of new products, mold planning, mold design and procurement plus serial manufacture of single-component and two-component injection moldings

- 38 injection-molding machines,
- of which 4 are Zhafir Venus Series
- Annual turnover: approx. EUR 5 million

CUSTOMER STORY FROM GERMANY

INTO THE FUTURE WITH HAITIAN

Interview with Monier Roofing Components

Monier Roofing Components is putting its faith in Haitian International as a long-term partner for the restructuring of its injection-molding plant at the Mittelheim site. We spoke with Herbert Hartl, Plant Manager, and Maik Siefert, Injection Molding Manager, about lean production, short routes, new machines, and joint visions.

Receiving the two Jupiter II Maschines in Ebermannsdorf: Herbert Hartl and Maik Siefert from Monier together with Mario Rathgeb (ATR Solutions) and a member of Haitian International Germany

The BRAAS MONIER BUILDING GROUP operates as a global manufacturer of high-quality products and systems components for constructing inclined roofs. This world market leader in roofing system parts offers its customers a broad range of products related to roofs and chimneys, together with energy systems for residential buildings. The German Monier Roofing Components GmbH (MRC), itself Europe's market leader in roofing system components, supplies the group with roof vents, skylights, gutters, underlays, ventilation systems, and other roofing accessories. The company can call on 45 years of experience in the plastics industry, has been certified according to DIN EN ISO 50001:2011; DIN EN ISO 9001 among others, and is established close to its customers in a total of six plants in Europe, Asia, and Africa.

MRC and Haitian are two companies that complement each other very well. The Mittelheim plant also possesses highly modern production equipment and solution-oriented experts, and it has made a name for itself through its pioneering spirit, reliability, and sustainable quality solutions. Around 300 patents and patent applications underline the team's drive for innovation. Its expert Molding Department team has received the BAKA Prize for Innovation, among other awards. Infrastructure for customer-oriented and process-optimized areas is also seen as an important building block for achieving high customer satisfaction. Dipl.-Ing. Herbert Hartl, Plant Manager in Mittelheim since 2012 and an acknowledged expert in lean production management, emphasizes efficient production processes and short routes within the production and assembly areas. The plant covers an area of 40,000 m² and has 92 employees. With 3-shift operation 5 days a week, and also on weekends, depending on the time of year and the demand, around 1,500 different products are manufac-

Herbert Hartl, Manager of the Mittelheim plant

Maik Siefert, (left) Injection-molding Plant Manager, explores together with Mario Rathgeb (ATR Solutions) the details of the newly delivered MA2800II

tured here. Annual turnover stands at 17 million euros. At the heart of the production are the 19 injection-molding machines, ranging in clamping forces from 2,500 up to 14,000 kN. Annually, approximately 2,500 tons of raw materials are processed: PVC, PP, PC and PC compounds, PPO, PA and PA compounds, both ASA and PMMA. For this, around 600 different molds are used, which as a rule are obtained from foreign and domestic partners. In addition to this, the plant MRC in Mittelheim keeps in readiness a thermoforming plant for small batches and makes prototypes using 3D printers. Further processing steps such as ultrasound welding, robot-assisted assembly and painting, plus comprehensive services ranging from R&D to mold manufacturing and maintenance, make the portfolio complete.

The initial contacts with Haitian machines were made several years ago when the team visited a few mold manufacturers in China. Even at that time, they came back with positive impressions from successful test applications. Finally, two years ago, contact assumed concrete form. In the course of the market testing for a strategic reorientation of the injection-molding plant, a suitable partner for the future was being sought. "We visited Haitian at the Fakuma show and immediately had the feeling that it could happen," remembers Maik Siefert, Team Leader for Injection Moldings. This is how the decision was made to put Haitian, with its Mars and Jupiter machines, on the short list.

There followed a phase of intensive analysis and performance comparisons with various machine types and makes during which, in comparison with the European competition's machines, the Jupiter Series was a hit "in almost all areas, most particularly with an investment savings of almost 40 percent!" says Herbert Hartl emphatically.

Clearly on top in performance comparisons with European competitors

The requirements profile was sharply defined. "The focus was on flexibility, for example through the ease of exchange of cylinders because of the PVC and thermoplastics finish, then of course the high availability of the machines overall and rapid troubleshooting when needed," explains Maik Siefert, who is responsible for the smooth-running manufacturing. "We were looking for reliable workhorses for our products, which of course are all standard applications. The Jupiter seems to have been created for this." With an eye on the tasks ahead, Plant Manager Herbert Hartl brings up a few extra considerations: "Our most important goals were more production efficiency, energy savings, and reliability. The Jupiter has an extremely good price-performance ratio, with up to 30 percent energy savings in comparison to the current machines. And it has a compact design, also an issue currently."

If everything continues to run as planned, the restructuring of the whole of the manufacturing will be completed by 2017 and the injection-molding plant will be equipped with new machines. Up until now, a MAII2800 has been operating in the plant at Mittelheim; shortly before editing deadline, two JUII4500 machines were received in Ebermannsdorf. "We are very confident that we have found the right partner in Haitian International. If the new Jupiters stand the test, and basically no one here doubts that, nothing stands in the way of another order," says Herbert Hartl, and he adds: "In addition to the price, service is a very important criterion in our purchasing decision. To our knowledge, Haitian International is still the only Asian manufacturer that operates in Germany nationwide with a German-speaking service team. By the expansion of the Haitian production plant in Ebermannsdorf this appears to be guaranteed in the long term."

MONIER GROUP

BRAAS MONIER BUILDING GROUP

- Stock-listed group of companies
- Total turnover approx. EUR 1.2 billion /p.a.
- 7,200 employees worldwide
- Total of 106 plants worldwide
- Of these, 6 for roofing systems components

Brand portfolio:
Braas, Bramac, Klöber, Redland, Wierer, Coverland, Schiedel

The Mars II and both Jupiters II will be producing components for roof vents and roof ventilation.

JU 4500II produces a connection pipe for a Monier Company roof component!

CUSTOMER STORY FROM GERMANY

THE MARS SERIES – INFINITELY RELIABLE

Interview with FRÖTEK Kunststoff GmbH, location in Großbreitenbach

FRÖTEK Kunststofftechnik GmbH is among the most innovative of mid-sized German enterprises. This globally active company generates with its 400 employees an annual turnover of around 50 million euros. Its main line of business is in accessory systems for industrial batteries while at the same time becoming a world market leader in battery cell connector technology. Its automated production is supported by four Mars machines.

Gerd Schneider, Plant Manager in Großbreitenbach (left) and Danny Finn (right), responsible technician for both automation cells

The company was founded in 1985 by Dipl.-Ing. Bernhard Fröhlich and his wife Barbara in Bad Lauterberg, not far from what was later to be the parent plant in Osterode am Harz. Today they supply all of the world's big battery manufacturers and also supply customized injection moldings to big automobile manufacturers. What drives this steady growth is the development strength of the in-house research and development department coupled with a consistent investment policy, flexibility, and a strong international focus. Frötek maintains seven production workshops distributed over three continents. The total machine pool is comprised of more than 90 injection-molding machines with clamping forces of 10 to 400 tonnes plus numerous automated machines, developed in-house, for processing, assembly, and testing. "Quality is our top priority", says Frötek, "and we take strict care to live by this system." The company has been certified in accordance with ISO/TS 16949 since 2001. The core competencies of this developer and manufacturer, based in Lower Saxony, include injection molding of high-performance thermoplastics, multi-component injection moldings, and system developments for Moldflow, for example, in addition to resistance, ultrasound, and rotation welding. Further services include the creation of prototypes, construction of small systems and molds, and the assembly of component groups

Main supplier for the world market

Of the approximately 15 million connectors produced in the world each year, 12 million come from the Frötek subsidiary in Großbreitenbach, Thuringia. Currently, the plant has more than 19 injection-molding machines with clamping forces of from 300 to 2,500 kN. "We place special emphasis on quality and quantities", explains Plant Manager Gerd Schneider. "This is where we prepare the order and where the Production Department and a Quality Control Department are located. Purchasing and Logistics are controlled centrally in Osterode. This means that we don't get distracted and we are able to concentrate fully on our core tasks." Schneider renovated the plant in 1999 and built it up from the ground practically single-handedly. This year approxi-

Location in Großbreitenbach

Scetch of the two automation cells

Lower part (black) made from PP regranulate, part weight 58.3 g + 1.5 g sprue, and cover, (white) made from PP+TPE, part weight 26.3 g + 1.5 g sprue; both produced in 4 cavities, with a cycle of between 24 and 30 seconds

mately 300 tonnes of plastic will be processed here for injection moldings. Around 16,000 km of copper cables are delivered all around the globe, even as far as China.

Since early 2012, four 2,500 kN Haitian Mars machines have been assisting with the production process in Großbreitenbach; all of them are first-generation, standard designs equipped only with universal packages. Since then they have been operating on a 3-shift system and each of them has its 15,000 machine hours "with negligible downtime", Machine Supervisor Danny Finn assures us.

Flawless back-ups

Integrated in two identical production lines, the Mars machines produce different sizes of covers for motor-vehicle batteries. The process is fully automated. Both parts are removed with a time delay and placed in succession onto an automated production line. Here, flame-retardant materials are inserted and crimped in using ultrasound before both parts are welded with a laser. The process is accompanied by camera systems and numerous sensors. After final checks for leaks and quality, the parts are automatically packed.

In this manner, the two production lines produce approx. 3.6 million parts per year. "At the same time, there are hardly any rejects; we're well below one per cent," says Finn, with some pride. He is responsible for everything running so well. "From the very first, this unit has been my baby", he relates. "At first it was a real challenge. Even today, I still find it fascinating time and again how smoothly the process runs. After all, we start off here with three systems each with its own controls: the machine, the robot, and the automated machine. It makes it even better when we see from our measurements that we are well within tolerance limits in terms of dimensions and weight." Plant Manager Schneider is also pleased. "It took a lot of hard work before everything worked so smoothly", he remembers. "It's such a highly complicated system as well. For us, the injection-molding machines are purely supporting actors", he explains once again. "They simply have to do their job, which is to mold good plastic components. And that's what they do."

Tobias Vollrath, Vice President Finance and CFO of FRÖTEK Kunststofftechnik GmbH, has been happy to support the decision in favor of Haitian, and not only for cost reasons: "Our subsidiary in China has been operating various Haitian injection-molding machines for many years now.

FRÖTEK Kunststofftechnik GmbH

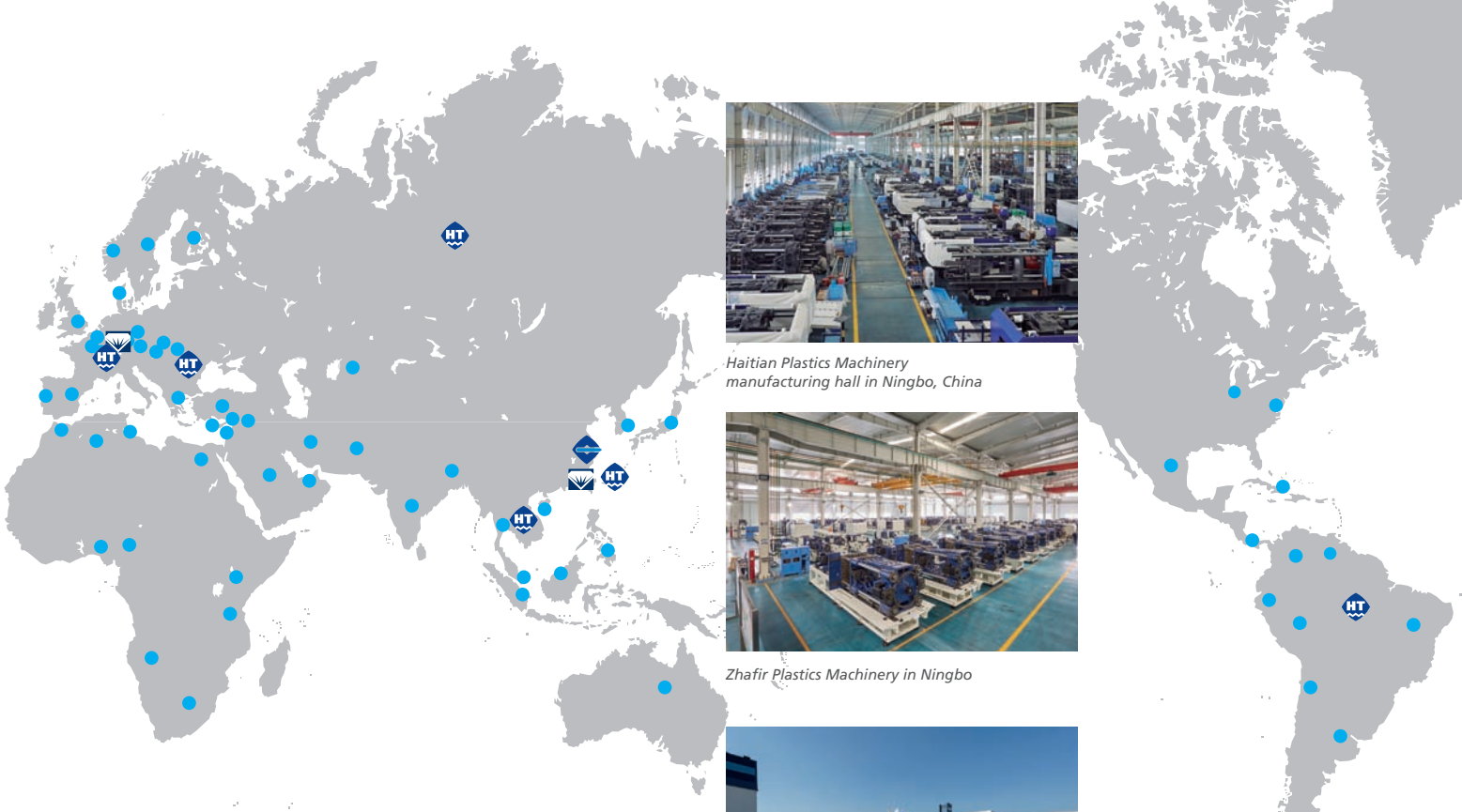
- Founded: 1985
- 400 employees worldwide

Specialist areas:
Automotive, battery technology, custom production, mold technology, rapid prototyping, mold construction

Locations:
Germany, China, South Africa, USA, Hungary, Ukraine

Sales partners:
Germany, Belgium, Dubai, Great Britain, Singapore

- Annual turnover: approx. EUR 50 million



Haitian Plastics Machinery manufacturing hall in Ningbo, China

Zhafir Plastics Machinery in Ningbo

Haitian International Germany

Proximity to customers creates advantage

Because of the permanent availability of important customer services, replacement parts and service features, our customers are always able to develop clear competitive advantages and to use them lucratively, both now and in the future.

Haitian International Holdings Limited
Unit 1105 Level 11
Metroplaza Tower 2
223 Hing Fong RD Kwai Fong N.T,
China
E-mail: haitian@mail.haitian.com

Zhafir Plastics Machinery GmbH
Jubatus-Allee 8-10
92263 Ebermannsdorf, Germany
E-mail: contact@zhafir.com

Ningbo Zhafir Plastics Machinery Co., Ltd.
No. 37, Laosan Road, Beilun, Ningbo,
P.R. China 315800
E-mail: contact@zhafir.cn

Haitian Plastics Machinery Group Co., Ltd.
No. 32 Jiangnan middle road, Xiaogang,
Beilun, Ningbo,
P.R.China 315821
E-mail: haitian@mail.haitian.com

Ningbo Haitian Huayuan Machinery Co., Ltd.
Export processing zone, Fuchun middle road,
Beilun district, Ningbo,
P.R. China 315800
E-mail: inter-sales@mail.haitian.com

Wuxi Haitian Tianjian Machinery Co., Ltd.
No. 97, Xixie Road, Shuo Fang,
High Technology Developing Zone, Wuxi
P.R. China 214000
E-mail: lxd@mail.haitian.com

South East Asia:
Haitian Huayuan Machinery Southeast Asia 112 My Kim I,P.Tan Phong,Q.7,
Phu My Hung,TP.HCMC,
Vietnam
E-mail: zh@mail.haitian.com
info@mail.haitianasia.com.vn

Europe:
Haitian International Germany GmbH
Jubatus-Allee 10
92263 Ebermannsdorf
Germany
E-mail: info@haitiangermany.com

South America:
Haitian Huanyuan South America Comercio De Maquinas Ltda.
Av. Bernardino De Lucca ,128
CEP:18132-295
Sao Roque-SP
Brazil
E-mail: xiang@haitian.com.br
xiang@mail.haitian.com

Middle East & North Africa:
Haitian Huayuan Middle East International Trading Co., Ltd.
Alkop San Sit B.6 Blok 8
Buyukcekmece, Istanbul
Turkey
E-mail: seasky600@vip.163.com

Russia:
Haitian Russia
Office 506, Stroenie 4, Volokolamskoe shosse 116,
Moscow 125371
Russia
E-mail: info@haitian-russia.ru

This QR code creates compact information about us and our product portfolio.

www.haitianinter.com