HAITIAN INTERNATIONAL

Advantage

Plastics News from Haitian International

A Magazine of Haitian International | Issue 10/2014

ZHAFIR PLASTICS MACHINERY | HAITIAN PLASTICS MACHINERY | TIANJIAN PLASTICS MACHINERY

ZERES ON TOUR

EXTEND ELECTRICAL OPTIONS

... and discover the new Zhafir Zeres Series

ZERES

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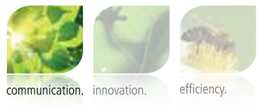
EDITORIAL

DEAR READERS, DEAR CUSTOMERS, DEAR COLLEAGUES,

Advantage Magazine Open House 2014
Chief Editor, Prof. h.c. mult. Helmar Franz
Text: Prof. Franz



If you look at the current reports from the relevant media regarding the European market, there is room for optimism. Things are happening in Europe; the indications of an economic upswing are mounting and the latest figures are encouraging. After a record year in 2013, the plastics processing industry continues to see itself on an expansion course. In all important segments – packaging, construction, consumer goods, technical parts – growth has been steady after a rather cautious start.

And something else is striking when you look at the plastics media: the topic of resource efficiency, particularly energy efficiency, is becoming ever more important. A study by VDMA, for example, indicates that resource efficiency encompasses "a highly strategic aspect" for 55% of the companies surveyed. For a third of all those questioned, "resource efficiency is actually an issue at all stages of value creation." It is apparent that the pressure from high energy costs are of increasingly great concern to companies everywhere.

This is why developing the new Zhafir Zeres Series was just as logical a step as Zhafir's subsequent European Tour. Efficient standard machines are prevalent in the market. Understandably so, when they offer processors a high degree of flexibility with their broad versatility, effectively and sustainably rewarding processors' efforts to keep energy costs in check via substantial savings. Every company has its strengths, its goals, and its quite specific demands to meet local market requirements and individual customer needs. We support them in this with a wide range of modern injection molding machines that offer technical possibilities and an equally wide margin of performance-oriented excellence – with technology to the point. With all-electric or with servo-hydraulic drives.

The new Zeres now comfortably offers solutions for traditional hydraulically-oriented processors, operating molds with hydraulic core pulling systems and allows them to enter the "all-electric world". The ME-X project, which will be introduced first time at our Open House in Germany, has a very similar target: currently in the development phase, it intends to represents the entry-level model to the Mercury Premium series and will arrive very soon. Both designs, the Zeres and the ME-X, stand for expanded flexibility and modularity in the future, uncompromising quality and performance, customer-orientation, and solutions tailored to demand. Just let our services portfolio persuade you and come see for yourself at our European Open House 2014 in Ebermannsdorf. Welcome!

Sincerely yours,
Prof. Helmar Franz

ZHAFIR PLASTICS MACHINERY
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TIANJIAN PLASTICS MACHINERY

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2006 — HAITIAN INTERNATIONAL became a listed company

2009 — THREE BRAND STRATEGY with Zhafir, Haitian and Tianjian

2010 — ACCOMPLISHMENT of the vision for the first time

2012 — INTRODUCTION of the 2nd Generation

LEADERSHIP HAS MANY DIMENSIONS

Communication, innovation and efficiency are the cornerstones for future developments of Haitian International. In focus: technology to the point for convenient customer solutions at a fair price. An interview with the Executive Director and CEO of Haitian International, Zhang Jianming and CSO of Haitian International Professor Helmar Franz.

More than 100.000 machines with the "Mars-Technology" sold

Leadership has many dimensions. With this motto, you have declared the new strategic direction of Haitian International at the recent K-Messe. Efficiency underpins "sustainable growth." What does that actually mean?

In our belief, continuously improving efficiency can be the only source of sustainable growth, meaning growth which would be resistant to market ups and downs within certain limits. It requires us to continuously question our manufacturing process and improve it by efficient use of all kind of recourses, including electricity, raw material, resources like water, heat, air, and others. It also means increasing flexibility.
Although our lead times are already unmatched in the industry, we must provide even better and shorter lead times to have a sustainable competitive advantage. This also requires intelligent work shift models, further standardization, and complexity reduction including careful handling of inventories.
This has to be performed as a common and coordinated effort of R&D and manufacturing, which are two partners in this process.

We are in the process of building up two new factories, in Chun Xiao for all-electric machines and in Tong Tu Lu II for large two platen machines. Those two new factories will provide us with the opportunity to implement those process changes.

The future direction in the area of "Innovations" is all-electric in small and two-platen in the large clamping force classes. This is an ambitious strategy in light of the successful hydraulic Mars series. How do you see the road ahead?

Of course, we are excited by the positive response the MA II has received in the market, and as a result we already have sold more than 100.000 machines with the servo-hydraulic Mars System to the market since introduction. The success of Mars is the combination of energy efficiency, technology to the point and reasonable cost. We believe this success is still sustainable and we provide industry specific solutions for example, to secure further success in the market.

However, we still believe in the years to come, all-electric machines, especially for smaller clamping sizes, will dominate and take over the market, just because they will eliminate one challenge – hydraulic oil – from the process. Electric drives are now able to provide even better precision, energy saving and speed, than hydraulic drives. The only argument, which at this very moment prevents all-electric machines from replacing the hydraulic ones is the cost of electric machines.

However – looking carefully to it, the price of an electric machine is a result of the technology it provides. At this time an all-electric machine is at the same time also a high tech machine.
But we think, this is not the end of all developments. We believe, if we design an all-electric machine with the technical parameters of a standard mass market hydraulic machine, and manufacture such machines in big numbers, we can also reach a similar cost structure.
And if this target is reached – all other advantages of an electric machine will add to it, silence and cleanness of operation amongst others.

There is still a way to go, but we strongly believe in it. On that path we have just now introduced our Zeres Series, integrating a small hydraulic unit for cores. In our believe this will allow many customers, who still operate a lot of molds with hydraulic core pullers to comfortably use their molds and at the same time get used to the superior advantages of an all-electric machine.

As a next step we will have a look to further development of our very successful Venus Series so to provide new and cost effective solutions for customers with more standard kinds of plastics parts to manufacture. But more to this may be later this year.

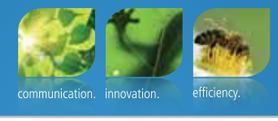
2013 — NEW Strategies and vision

2014 — CONSOLIDATE LEADERSHIP Trust through communication Technology to the point, Sustainable growth

ANNUAL FIGURES 2013

HISTORICAL RECORDS

Haitian International wishes not only to consolidate its sustained market leadership in plastic injection-molding machines but also to expand it. The company is pursuing this goal through a two-pronged strategy geared towards providing advantages for the customer: all-electric designs for the small and medium-sized ranges of clamping force; in-line with this, the expansion of space-saving double-platen technology, with the innovative Mars drive technology offered as standard.



FINANCIAL HIGHLIGHTS

- Historical record in sales and profit
- 27,000 machines sold and delivered
- More than 100,000 Mars machines sold so far
- Nearly 4,000 Venus Series sold so far
- Ongoing success with Machine Generation II
- Top 10 brand value in the complete Chinese machinery manufacturing industry

(RMB million)	FY2013
Sales	7,200.7
Gross Profit	2,273.7
Operating Profit	1,355.9
Profit before Income Tax	1,475.5
Profit Attributable to Shareholders	1,206.2

Energy saving all-electric:
Zhafir Venus Series increased in sales by 22%

Energy saving two-platen:
Haitian Jupiter Series increased in sales by 39%

Energy saving servo-hydraulic:
Haitian Mars Series increased in sales by 18%

ZHAFIR ZERES SERIES

LOVE AT FIRST SIGHT

Zhafir | Advantage Magazine
Stage report of the Zeres Tour 2014

communication. innovation. efficiency.

Italy celebrates the first sold Zeres Series. From the left: Mr. Bandini, IMG Sales; Walter Motta, Product Manager S.L.A.M.P. ; Andrea Remonti owner of S.L.A.M.P.; Davide Bonfadini, Managing Director of IMG, Italy.

On 14th of May, the ZERES TOUR 2014 started with our Italian sales partner IMG in Capriano del Colle (Brescia). Davide Bonfadini and his team greeted some 50 prestigious processing companies at the premises of IMG. It was occasioned by the project launch of the new electric Zhafir Zeres Series. "At the end of April, it was still on view in Shanghai at the Chinaplas but it's already here with us now in Capriano.

This Tour is exactly the right setting for showcasing the new series," says Bonfadini full of anticipation. "The Zeres seems made for market demands in Italy: energy-saving, precise, dynamic, electric, and with integrated hydraulics for more than 70% of applications with core pull." The Tour machine is equipped with a 4-cavity mold by Salomon, producing components made of PA6+GF for ski bindings. "I see great potential for this little sister of the fully electric and already successful Venus Series. It has inherited all the advantages of the Venus and as a bonus it still comes at a fabulous price," says Davide Bonfadini, Head of IMG.

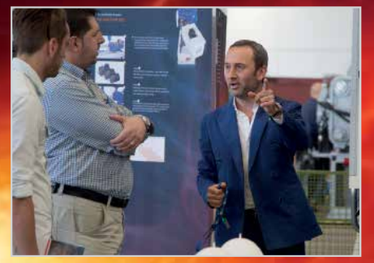
At the end of the first day of the Tour, the team celebrated not only a successful Tour premier but also the order for the first Zeres in Europe. The happy owner of a ZE1900/830 is Andrea Remonti, Head of S.L.A.M.P., S.R.L., located in Arcore, in Northern Italy. Remonti has been a customer for many years and already has 3 Venus and 3 Mars machines in his production. "The Zeres is in my opinion the perfect symbiosis of the Venus and the Mars, at a really attractive price. It continues to have electric precision for mold movement and injection.

A hydraulics system has been integrated for the minor auxiliary axes. That's exactly what I need. For a large number of my molds, for example, the reduction in pressure achieved by the hydraulic nozzle unit is very important. And with the integrated hydraulics, I also gain additional savings in terms of set-up space," the enthusiastic fan tells us.

In 2010, Remonti already had the opportunity to visit the Haitian and Zhafir plants in China, when making one of his earlier machine purchases. He remembers: "When I look back to the unbelievable development and manufacturing potential, I am firmly convinced that Haitian International will continue to provide us processors even more leeway for investments in the future. I am a real fan of the new Zeres Series."

ZE 2014 ON TOUR

1 - Capriano & Ancona, Italy



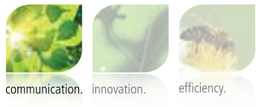
Right at the end of the event, the Zeres was loaded onto the Tour truck and traveled on to the next stop, southwards to Civitanove Marche. Where the Zeres was presented to interested customers from central and Southern Italy. Here too, specific sales talks were held for more Zeres machines. "For months, our sales companies throughout Europe have been excited at the prospect of the launching of this product," says Philippe Porret, Technical Director of Haitian Europe and the main person in charge of the Zeres Tour. "All in all, the first stage of the Tour was a complete success for the whole organizational team."

ADVANTAGE_A Magazine of Haitian International

ZHAFIR ZERES SERIES

WE EXTEND ELECTRICAL OPTIONS

Zhafir | Advantage Magazine
Product launch of the Zeres



Zhafir has developed a new electric injection molding machine series, the Zhafir Zeres Series, a tremendously flexible molding machine. It is based on electric technology and equipped with an integrated energy-efficient hydraulic unit, for example, for an efficient use of molds with hydraulic core pulls. This extends Zhafir's range of electrical solutions, opening up new and enhanced possibilities, and offering plastics processors an optimal solution for their specific requirements for operating such molds.

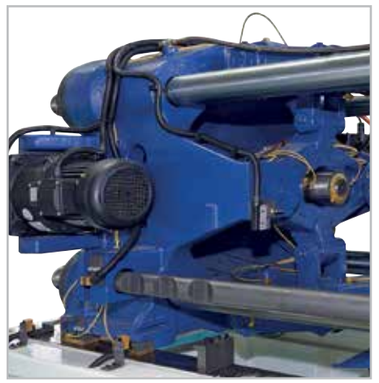
Fit for molds with hydraulic core pulling function.

ZERES

400 - 2,300 kN

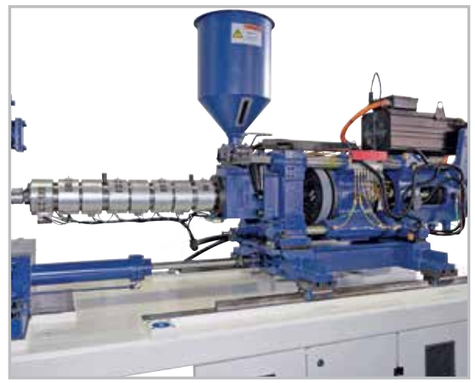
The Zeres is the optimum machine for molds with hydraulic core pulls. Molded parts, requiring high precision and high repeatability rather than short cycle time, for example high precision and optical components, will be ideally manufactured on this machine series. The Zeres is structurally identical to the Venus II Series, and it offers all the advantages of the electric injection-molding technology: precision, energy efficiency, independent parallel movement throughout the whole cycle, and, not least, easy maintenance.

SERVO-ELECTRIC CLAMPING UNIT



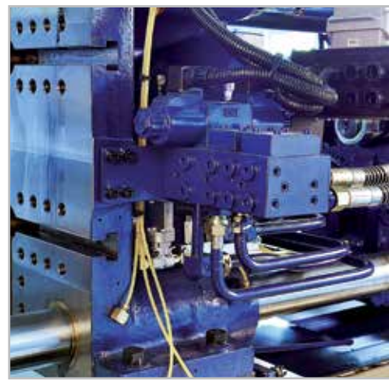
The redesigned 5-point-toggle-system increases the platen intensity, reduces platen inertia and joint stress. This optimizes the kinematics and reduces the dry cycle time.

SERVO-ELECTRIC INJECTION UNIT



The servo-electric injection unit provides improved response time and reliability; enables further improvement of the acceleration rate, realizing even more energy saving.

INTEGRATED HYDRAULICS

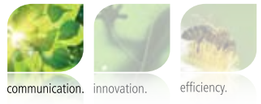


Two integrated hydraulic core puller interfaces are fixed on the moving platen, providing even more flow and an increased pressure compared to external power pack solutions. Pressure and flow are adjustable on the machine control unit.

CUSTOMER STORY GERMANY

USING TECHNOLOGIES SENSIBLY

Haitian | Advantage Magazine | Interview with senior executives of GIRA, systems supplier for building technology, medical and pharmaceutical industries



With more than 1,200 employees in Germany and agencies in 40 countries, GIRA is among the leading medium-sized companies in the electrical industry. Since March 2013, GIRA has been the owner of a Zhafir Mercury machine on which it produces plastic parts for the building technology sector. We spoke with the managing director, Mr. Alfred A. Bulitz, the Deputy Purchasing Manager, Ms. Heike Henze, and also with Mr. Andreas Höller, Project Director for Industrialization, and Dipl. –Ing. Bernhard Hoster, Director of Technology Management.

Ms. Henze, gentlemen, our global customer survey revealed a trend towards opting for standard machines with more sophisticated technology in complex manufacturing cells with downstream assembly steps. How does GIRA see this?

Bulitz: At GIRA, the trend is clearly towards automated manufacturing. We are investing heavily in automation: first, in highly automated manufacture of parts in large quantities, and then -proceeding with automation in batches.
And yes, I have to say you are right. But what does standard mean nowadays? In the last ten years, there has been a massive amount of upgrading here. Today, we at GIRA are investing with a greater focus than ever on the application, and the standard machines offered so far are in many cases adequate for this.

The Mercury, how did that come about?

Bulitz: Let me explain. And I have to admit that just a few years ago I was smiling wryly as I walked past Chinese exhibitors at a trade fair. On the other hand, GIRA has an international set-up. And a serious handling of our company resources demands testing of the available technologies in the world in order to know whether or not we can use them sensibly. For us, an international focus doesn't just mean a global orientation: it also affects procurement of our machines and tools. When a company like Haitian holds its ground as a world market leader year after year, and sells in such large quantities, such can only happen if the machines work well. So I began to familiarize myself with Chinese technologies. And in doing so I bumped into Zhafir's Mercury machine.

…which, however, was developed and built at Zhafir in Germany…

Bulitz: Correct. But only later did we find that out exactly.

At Chinaplas 2012, you visited Haitian International's stand. Did you already have the intention there to buy a Mercury?

Bulitz: Yes. We were determined to find out for ourselves what the machines can do and to draw conclusions from what we learned. Then in Ebermannsdorf I was hugely enthusiastic. There I found a brilliant company that was extremely structured and exuded outstanding expertise in its entirety. And then we bought the ME550, at a very fair price. Now it runs on three shifts, 7 days a week, and faces a hard test in comparison to two other machine types in terms of energy consumption per kg of material, cycle times, precision, and process stability.

Andreas Höller, Project Director for Industrialization

"Everyone tries to present arguments against the competition, and especially against Chinese manufacturers. There's a great danger of being led astray here."

Alfred A. Bulitz, Managing Director

"A serious handling of our company resources demands testing of the available technologies in the world in order to know whether or not we can use them sensibly."

Heike Henze, Deputy Purchasing Manager

"Change is very important. That's the only way that we can make progress."

Dipl. –Ing. Bernhard Hoster, Director of Technology Management

"We analyze each new technology very precisely and get right down to the nuts and bolts."

So the Mercury is really tested?

Bulitz: Yes. I want to know what such machines are really capable of. Only then can I have a say in the matter with confidence.

Hoster: We fitted the machines with internal-pressure mold sensors and tests included tolerances, dimensional accuracy, surface quality and material changes, plus we determined machine capability test values.

What impression do you have as to what the Mercury is like in everyday use?

Bulitz: Our employees are very pleased. There was no opposition whatsoever, quite the opposite. For us the Mercury is an injection molding machine on a par with any other.

Höller: Upon acceptance, I took a colleague along with me, who was more critical. On the return journey, his impressions were very positive. The controls, for example, are so self-explanatory that basically we did not have to give any training.

Henze: It's very important to be open to change. This is one of our keynotes at GIRA. That's the only way that we can make progress in our daily conduct.

Bulitz: We are responsible for our clients being more successful than their competitors. This is what constitutes our company culture. It obligates us in every facet of the company, including procurement of machines.

What in your opinion are the reasons for the hesitancy towards Chinese machine manufacturers?

Bulitz: Probably fear of change. In most cases, it's the works manager who makes the purchasing decisions. He is responsible for making sure that his operation creates value 24/7 as is demanded of him. Why should he take a risk? With this in mind, changes are often not even wanted.

You, on the other hand, have not shunned change.

Bulitz: I am the managing director and I am responsible both for the medical technology and for purchasing and production. I see myself as a role model – especially with regard to our company guidelines. Deciding on Zhafir was for me a welcome opportunity to demonstrate that role. I understand the position of the works managers, who are constantly geared towards performance and are measured only by their results. They often don't have the courage to strike out in a new direction and they choose the path of the least resistance, of the lowest risk.

Are you and GIRA being particularly bold in this matter then?

Bulitz: Let me put it this way: In all markets, there is the principle of the pioneer and the follower – and at some point in time it becomes the norm for everybody.

As a source of supply for molds, peripheral equipment or even for plastic parts for assemblies, China is at the very top of the list. Why in your opinion are there so many misgivings regarding the injection molding machines in particular?

Hoster: There is still much too little known about what these machines can do. There are still a lot of preconceptions, shaped by the media and opinion leaders. That's precisely why we ourselves carefully examined the Mercury in order to be certain.

Bulitz: In my view, the answer is quite simple: It's just that more molds are needed than machines. Bottlenecks in procurement compel the processor to look beyond Germany or Europe.

Höller: In talks with other manufacturers from Europe, I notice again and again that everyone naturally tries to present arguments against the competition, and especially against Chinese manufacturers. It's understandable, since nobody likes to see a competitor right next to him on the customer's production floor. The arguments, particularly against Chinese manufacturers, always revolve around production quality, adding substandard components, etc. There's a great danger of being led astray here. After being both in Ningbo and in Ebermannsdorf and seeing how they produce and what they install, these arguments were very quickly invalidated. We have put performance as well as precision and process stability to the acid test and thus formed our own opinion.

GIRA

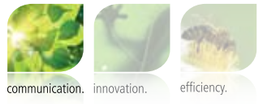
Read more about GIRA in our online-magazine:

http://haitianeurope.com/de/advantage_online/

CUSTOMER STORY GERMANY

ENSURING FLEXIBILITY THROUGH A BROAD VARIETY OF APPLICATIONS

Interview with Wolfgang Koos, Technical Managing Director at INOTECH, systems provider for various sectors and the first owner of two Zhafir Venus machines.



INOTECH Kunststofftechnik GmbH emerged about 25 years ago from a consulting engineers' office for plastics technology, and today, as a manufacturer, it is a provider for prestigious customers in the automotive, telecommunications, electronics, packaging, technical components and medical technology fields. Flexibility and innovative strength run like a common thread through the history of the company.

Produced on Venus: case sets for telecommunication systems and charging stations made by ABS

Mr. Koos, in 2009 Intech was one of the first companies in Germany which bought a Venus. Did you consider it a gamble at that time?

Koos: No, because the name Inotech already says it all, innovation and technology are our identity. Mr. Gleixner, our owner, sets great store by that, and we live by it too. I had learned from the local newspaper that a Chinese machine builder was investing heavily in our region. Obviously, that sounded fascinating and it was clear to us that we would test a machine.

Even though Zhafir at that time was still a very young brand in Europe…

Koos: Basically, Inotech has in fact been in business relationships with the Far East or China for more than 20 years. We are regularly on the ground in China and we scour the market. The Venus already looked really good as an offer on paper. Not a cheap product, pricewise, but still considerably less than the European machines. So we bought one Venus with a clamping force of 300 tons.

Have your expectations been met?

Koos: Oh yes. It was the first fully electric machine in production at our plant, and very soon we saw that the Venus fit beautifully into the rest of our portfolio, with the quite normal teething troubles such as all others have, but it needed only 30% of the energy. At that time, that wasn't yet so crucial. Today on the other hand, it's more the case.

So was the decision to acquire an all-electric machine less a necessity from the technical application perspective?

Koos: Whether hydraulic or electric was not the deciding factor for us. We have about 2 to 3 mold changes per week and short product life cycles, especially in cosmetics packaging. For us, the machines have to be designed so that they can be used flexibly. There's not an A and a B production line with different levels of technology, so our machines have to harmonize with each other. Each one has to be able to be used for everything, immediately.

Does that mean that you don't buy any production cells that are tailored to special applications?

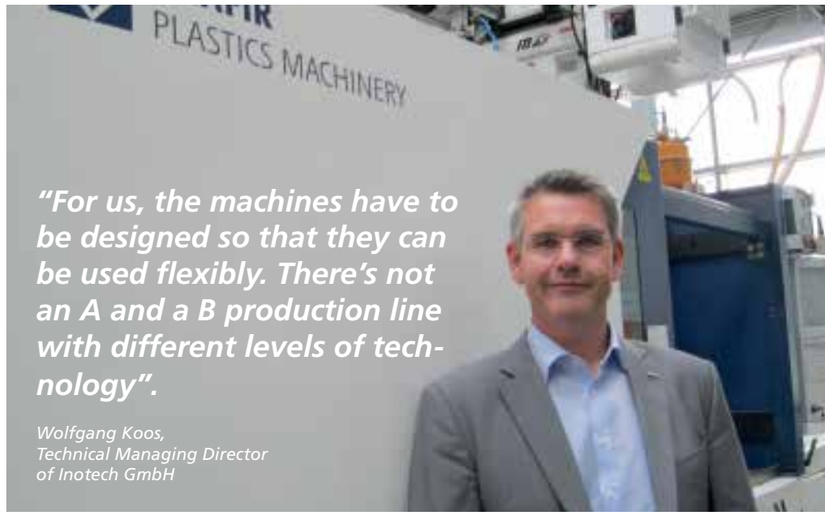
Koos: Rarely. That always depends on the product and the machine workload or product cycle. Other considerations are the cost for set-up when changing product, how flexible the machine is with the different molds, and so on.

What's your provisional appraisal, after almost 4 years?

Koos: We are very pleased. After one year, we bought an additional Venus of 90 tons and both machines now have approximately 30,000 production hours behind them. From the beginning, they dovetailed with the existing machinery and continue to run very reliably.

At Inotech, how flexible must a machine be? What parameters do you deal with daily?

Koos: We produce batch sizes from prototypes up to 5 million, with shot weights from 0.10 up to 3200 g and in the most varied of materials. The machines operate 7 days a week. At the same time, each machine must operate flexibly; this means, in our plant, injection molding machines should still be able to make a wide range of injection moldings. If we agree on this formulation, then we are talking about high-quality standard machines that are sensibly equipped and if need be can be retrofitted at minimal expense, e.g., with a different screw. That should no longer be an issue today. Another challenge is our short product life cycles. The cosmetics sector accounts for 20% of our production. Here we are talking about from 8 to 12 months, and no single design is the same as the next. With telecommunication products also, we have a a short life cycle. All this demands a certain standardization of the machinery.



"For us, the machines have to be designed so that they can be used flexibly. There's not an A and a B production line with different levels of technology".

Wolfgang Koos, Technical Managing Director of Inotech GmbH

What compromises do you make in that respect?

Koos: No very big ones, actually. We don't fight over every tenth of a second of cycle time. Our focus lies more on precision and quality of the parts. In automation, we focus more on flexibility than on individually tailored solutions. We use 6-arm robots for 60% to 70% of our applications. They may well be somewhat slower but they have great versatility. I just have one product removed one day and the next day I load an optical test or a complex assembly. At our plant, about ¾ of the automation applications are unspectacularly standard, as they are with most processors.

Given this spectrum and all the diversification, where do you see Inotech's core competence?

Koos: Reconciling the wide variety of products and materials with our machines. We process approximately 2,000 tons of raw material of the most varied kinds each year, whether ABS, PA, high performance materials such as PEEK, or even exotics such as magnetic materials. For our employees, this is a great challenge. But we are taking on the task and in many areas we are building new knowledge every day without dissipating our energies. This makes us strong.

INOTECH GRUPPE

Read more about INOTECH in our online - magazine:

http://haitianeurope.com/de/advantage_online/

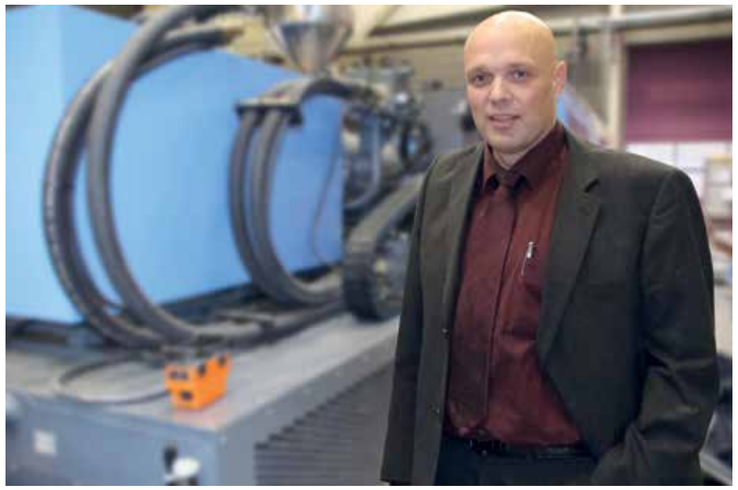
CUSTOMER STORY GERMANY

INDIVIDUAL PRODUCTION AT SERIES LEVEL

Haitian | Interview with Thilo Hofmann
Plant Manager of Wolpert Modell- und Formenbau AG, Germany.
Haitian customer since 2013

communication. innovation. efficiency.

Wolpert Modell- und Formenbau AG in Bretzeld-Schwabbach is one of the leading companies in producing prototypes, mini-series, and special series. Their product portfolio includes complete front aprons, dashboard padding, and door paneling for the automobile industry. Wolpert places a great emphasis on efficient solutions in all areas, from the design to outsourcing and extending to the training of qualified workers. We spoke with Plant Manager Thilo Hofmann.



"It does matter whether I get two machines or three for the money." Thilo Hofmann, Plant Manager of Wolpert Modell- und Formenbau AG

Mr. Hofmann, your colleagues were in China recently and visited the Haitian plant at Ningbo. What was their impression?

Hofmann: My colleagues were very surprised; that's a pretty big place there. You can see it on the Internet, and it is beautifully photographed. Then when you see how many machines are actually in the production hall, you're really surprised. Without a shadow of a doubt, Haitian is a big company that not only manufactures injection-molding machines to meet customer demands, but also offers high-standard series production.

At the beginning of 2013, you bought a Haitian Mars Series machine …

Hofmann: An order finally gave an impetus to the purchase of a Mars Series machine. When the machine was delivered in China, our technicians were on site, and were pleasantly surprised by the results. Outstanding cost effectiveness. It's also gratifying that we had everything customized at an attractive price.

Do you produce the molds for prototypes and small series yourselves, or do the customers bring them with them?

Hofmann: We solve that internally. The customer comes to us for the sampling and then the mold is produced here at the plant or in China. We have partners there in the greater Hong Kong area.

There is more hesitancy to purchase injection-molding machines from Asian countries than there is in purchasing molds. Why is that so?

Hofmann: That's my impression too. With the machine, it's still a matter of prestige. But in the last few years, they've gotten off their high horse, simply because the pressure has increased, and in the end the investment costs are what count. Now, it does matter whether for the same money I get two machines from one manufacturer or three from a different one.

Where do you see Wolpert as different from the competition?

Hofmann: 95% of our orders come from the automotive sector. The manufacture of prototypes in itself is no longer a niche, since the market is growing ever bigger, due to the constantly changing number of vehicle models and types. This of course gives rise to specialization in competition. We supply complete modules to our customers. This means that the parts that we produce or finish in-house are refined, assembled, and then delivered to the customer. We purchase any further processing and refinement such as, for example, galvanizing. Only when we have a lower utilization rate, for example, do we recover for ourselves sub-areas, so that our workers are used to capacity.

Flexibility is in demand: on average 5 mold changes per week and shot weights between 10 g and 2.8 kg.

That means, you always decide on the basis of profitability what is outsourced and what is not?

Hofmann: Exactly. We purchase from 30% to 50% externally, but when it gets tight, we bring individual operations back in-house so that we can work at 100%. Never yet have we introduced short-time work and neither have there been wage losses. Over the year for example, we bring in molds and plastic components valued at 1 to 1.5 million Euros. These are mostly standard parts that we integrate into our assemblies and supply to the customers in the time planned and in the quality demanded.

How important is the energy cost curve in your future planning?

Hofmann: Very important. At the moment, we are preparing ourselves for an energy audit. Obviously, we have been concerned for years about developments in energy costs, and we have external consultants who support us in power procurement. This year, fortunately, we are in a position to have more favorable energy costs than in the previous year, because we bought at the right time. The energy consumption of our machines is also very important. In the large machines sector, we have to make a change because we have energy costs of around 20,000 Euros per month.

Then, flexibility is surely also what you expect of a machine?

Hofmann: Absolutely. Each machine of ours must be extremely flexible and multi-faceted. And the range is already very wide: On our 1,200 metric tons clamping force Mars machine, parts are produced with a shot weight of from 10 g to 2.8 kg. We pushed the performance to the maximum and were extremely surprised that the Mars machine molds even small parts with such precision. At all events, the investment has already proven worthwhile.

How many mold changes do you have per week on the machine?

Hofmann: The Mars, for example, operated almost around the clock last year with 7 mold changes per week. Overall, it varies between five and ten changes. Per day, it generally requires at least one change, at certain times even two. Naturally, we always try to be sure to use as many of the same materials at one stretch. But it's not inconceivable that we may have five different changes of material on the machine in one week.

How many (metric) tons of raw materials do you process per year? And how many products does that amount produce?

Hofmann: Annually, we process roughly around 150 tons. In 2013, we supplied close to 2,000 modules. Together with the individual parts, that gives us around 200,000 to 300,000 parts.

Does the greatest challenge for you consist in achieving a high degree of standardization in a relatively individual process? Is that the trick to being competitive on the basis of costs and delivery times?

Hofmann: Quite clearly, this is the task that we have set ourselves so that we can work at the highest level. The basic concept is the series. Last year, for example, we produced for a customer that was very taken with our production processes. We have a structural plan that defines when and which vehicles are built in which colors, and when and which bumper is needed of that color and design. In this way, on Monday we produce five of one, on Tuesday five of the other, etc. The employee plans the goods, so to speak, with the warehouseman, who then makes it available for production so that the daily plan can be met. After that, it goes out to the customer.

Mr. Hofmann, have you demystified the complex field of mold and die construction in the last few years and made it profitable?

Hofmann: We have adapted it to the requirements of the market, yes. And we've adapted ourselves to the competition in order to meet the demands of our customers long-term. To put it in Haitian's own words: "Technology to the point."

WOLPERT GRUPPE

Read more about Wolpert in our online-magazine:

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Mars
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R&D ZHAFIR

WHAT'S COMING NEXT?

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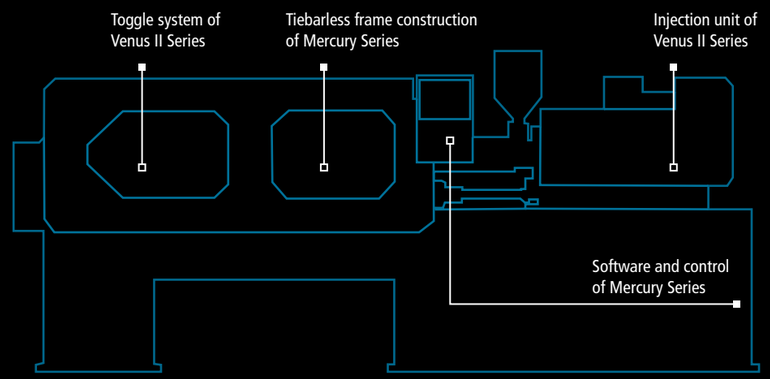
With the commercial launch of the new Zeres Series, Zhafir has extended the scope for the application of electric solutions, providing flexibility and meeting demands. What will come next? One of the current overriding issues for Zhafir's R&D team is the "ME-X Project". Here too, the business principle of "Technology to the Point" lays out the road map.

We want dialog

The first prototype is very promising. However, the Open House in Ebermannsdorf offers an excellent opportunity for extensive discussion of the prototype with customers and representatives from all over Europe. Since the project is in the development stage, customer requests can be identified, implemented and addressed by the machine solution. We look forward with great interest to the initial feedback.

= ME-X



After this success comes opening night. While at the moment all eyes are on the new Zeres Series, the development engineers in Ebermannsdorf are looking to the future, focusing anew on customer benefits. Currently the R&D team is working on a technical design combining the Venus and the Mercury Series. The intention is to expand the fully electric application spectrum of a Venus by incorporating the valuable insights gained from pilot projects with the Mercury. This is an exciting symbiosis that might well generate many new competitive advantages for the processor on their own terms.

The Venus Series represents the ultimate in dynamics, precision, and efficiency, plus energy savings in the double-digit percentage range. The Mercury Premium Series, equipped with standard high-end options, offers new potential for more complex mold geometry and also for plastics that are difficult to process and innovate. It too has aroused enthusiasm from all those who have become familiar with the strengths of its design and technology.

Bigger mold fixing platen, maximum precision

One of the core aims of the new project with the working title "ME-X" is to adopt the advantages of the unique Mercury design and offer the processor a clear benefit: high efficiency and at the same time a valuable gain in space. The four tie bars offset outwards to create 70% more clamping surface for molds with high cavities. Should high clamping forces not be needed, the machine can potentially be set for one to two clamping force categories smaller. This saves space and reduces costs. In addition, the mounting surface area, already minimized, is leaner by 30% because of the machine's design. Another advantage: the rigorously symmetrical structure balances the clamp forces that occur in the center of the platen and guarantees a high degree of platen parallelism and optimum tolerances. Allowance is made for an injection speed of up to 350 mm/s.

The "ME-X" must meet the requirements 100%

In the coming months, the project will be evaluated very carefully in terms of market potential, performance data, and manufacturing costs. Further possible combinations with Venus/Mercury assemblies will also be tested as a matter of course. Simply put – technology to the point. "We will certainly fine-tune here in order to best meet the market and sales demands. But that is the precise task that we want to accomplish," adds Steffen Franz, General Manager and Technical Director at Zhafir. Concurrently with the ME-X study, the German engineering team cooperates on group-wide R&D projects, a collaboration that for many years has reliably produced results. Thus, for example, the team led in the development of the new toggle lever design for Generation 2 of the Venus and Mars Series. German expertise was also in demand for the optimization of the hydraulics system for the Jupiter II Series in cooperation with an external engineering firm. As a complement to this, the Ebermannsdorf team supported other Haitian R&D project teams in the evaluation of the suppliers' network, utilizing the good relations they have with raw materials providers, mold-makers, and manufacturers of electronic components and drive systems. In addition, mold trials are continuously performed in the Applications Center in Ebermannsdorf for international customers of Haitian and Zhafir.

Furthermore, the engineering team here is involved in various cooperation projects with technical universities and plastics centers in Germany. Thus, for example, a "process-dependent change-over process for injection molding" is being developed on a Venus machine at the polymer technology department of the University of Applied Sciences Wuerzburg-Schweinfurt under the leadership of Professor Ansgar Jaeger.

Mercury continues to be a project for the future

"The Mercury continues to be Zhafir's big future project" says Prof. Dipl.-Ing. Helmar Franz. "It opens the market to completely new perspectives in plastics processing, and its huge performance potential has not yet been fully exhausted. For their part, these totally new ideas generate new, practice-oriented solutions, as can now be seen in the ME-X study. But it's normal for everything unusually new to take time."

Prof. Dipl-Ing. Ansgar Jaeger, manager of mold making at University of Applied Sciences Wuerzburg-Schweinfurt. Responsible for the R&D project "process-dependent change over process."

Haitian Plastics Machinery manufacturing hall in Ningbo, China

Zhafir Plastics Machinery manufacturing hall in Ebermannsdorf, Germany

Zhafir Plastics Machinery manufacturing hall in Ningbo, China

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