

# NEWS FROM HAITIAN INTERNATIONAL ADVANTAGE

Plastics News from Haitian International | Issue 23



COMMUNICATION. INNOVATION. EFFICIENCY.  
TECHNOLOGY TO THE POINT

WE CREATE AND EXTEND ADVANTAGE.

## Worldwide.

9

SUBSIDIARIES

GLOBAL

80

PARTNERS FOR

SALES &  
SERVICE

FOR OVER

30,000

CUSTOMERS

WORLDWIDE CONTACT:

CHINA

EUROPE

ASIA

AFRICA

AMERICA

AUSTRALIA



## NEW EFFICIENCY, NEW FLEXIBILITY AND NEW OPPORTUNITIES FOR THE FUTURE

### 3<sup>rd</sup> GENERATION TECHNOLOGY

NEW DEVELOPMENTS  
NEW MODULARITY  
OPEN INTEGRATION



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04/09



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### Getting Started with Electrics

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## UPCOMING EVENTS



### SAVE THE DATE

11/06 - 11/09/2019  
MOLDPLAS 2019, Batalya, Portugal

02/12 - 02/15/2020  
IPF 2020, Dhaka, Bangladesh, India

11/20 - 11/22/2019  
CENTRAL ASIA PLAST WORLD 2019  
Almaty, Kazakhstan

03/11 - 03/13/2020  
EXPO PLASTICOS  
GUADALAJARA  
Guadalajara, Mexico

11/20 - 11/23/2019  
PLASTIC AND RUBBER INDONESIA  
Jakarta, Indonesia

03/26 - 03/28/2020  
MECSPE 2020, Parma, Italy

01/09 - 01/12/2020  
ACG-ITF & DMG GLOBAL ENERGY  
2020, Cairo, Egypt

05/12 - 05/14/2020  
3. KUTENO  
Rheda-Wiedenbrück, Germany

01/16 - 01/20/2020  
PLASTIVISION 2020, Mumbai, India

05/12 - 05/15/2020  
ELMIA POLYMER  
Jönköping, Sweden

01/28 - 01/31/2020  
INTERPLASTICA 2020  
Moscow, Russia

05/19 - 05/22/2020  
PLASTPOL, KIELCE, Poland

02/11 - 02/13/2020  
PLASTEC WEST 2020, Anaheim, USA

05/21 - 05/24/2020  
Chinaplas 2020, Shanghai, China



ZHAFIR  
PLASTICS MACHINERY

HAITIAN  
PLASTICS MACHINERY

 All Events  
you will find here:  
<http://haitianinter.com/en/newsroom/events/>





# 3<sup>rd</sup> GENERATION TECHNOLOGY

NEW DEVELOPMENTS  
NEW MODULARITY  
OPEN INTEGRATION

## New efficiency, new flexibility and new opportunities for the future

Haitian International's 3rd Generation Technology is much more than just another machine update. It consistently fits into the success strategy of "Technology to the Point" and includes many beneficial innovations on several levels:

### New Developments

for instance

- New generation of servo drive systems – tailor-made, high-performance
- Electric injection units in a new dimension
- Economical machine concepts

### New Modularity

- Modular combination of mature core technologies
- Hybrid solutions for increased flexibility

### Open Integration

- New intelligence through Connectivity Plus
- Highest performance with Motion Plus

The move into the 3rd Generation Technology opens up numerous new possibilities and intelligent solutions for us in order to meet the increasing economic and ecological requirements even better. Our aim is to keep the ongoing development of hardware and software in a customer-oriented balance. Every development idea is put to the test in terms of efficiency and flexibility. Only what guarantees these two benefits will be realized.

continued on next page >



**“With the 3rd generation, the customer buys a platform with intelligent software that is extremely quick to learn.”**



One example of our Zhaifir Family:  
The new hybrid JENIUS Series with two-platen clamping unit and electrical injection unit from 3,600 kN - 33,000 kN

### 3<sup>rd</sup> GENERATION TECHNOLOGY

NEW DEVELOPMENTS  
NEW MODULARITY  
OPEN INTEGRATION



One example of our Haitian Family:  
Our bestseller Haitian Mars Series in 3rd generation from 600 - 33,000 kN

## Technology Generation 3: Much more than a machine upgrade



Also visit  
[www.zhaifir.com](http://www.zhaifir.com)



Productivity and flexibility are the pillars of success in manufacturing. Modern injection molding machines from Haitian and Zhaifir serve both sides and keep them in perfect balance. Our machine technologies to the point increase production efficiency while conserving resources, increase application diversity and always pursue the same goal: the best possible utilisation of production capacities at a high level.

Just a few years ago, our research and development work was primarily focused on optimizing design, mechanics and control. The latter was largely in the hands of our system partners. With increasing digitalization and the nationwide expansion of stable Internet lines and infrastructures, the machines became more intelligent and communicative, opening up to the future requirements and scenarios of information technology at the “Industry 4.0” level.

While digital interfaces were initially still part of the optional machine equipment, today all internationally

demand interfaces in our company are part of the basic equipment, the technological standard. Both the electric Zhaifir Series and the servo-hydraulic Haitian Series are fit for the future, ready for new challenges. “With the 3rd technology generation, the customer no longer buys pure hardware. Instead, the customer buys a system, a platform with intelligent and extremely fast adaptive software. This is one of our core developments,” says Mr. Fu, Chief Engineer of Haitian International in Ningbo, China.

Our in-house developed software solutions offer the processor a very high flexibility in the process optimization of all axes. Together with OPC-UA, they enable an extremely open integration or connectivity with all common Euromap interfaces, and the smooth connection of automation or any MES systems. Mr Fu: “We supply the customer with an intelligent machine system that is open to all possibilities, leaving him free to choose his integration partners.” In this way, the highly standardized Haitian and Zhaifir machines can

## “With all the exciting software developments, we can’t forget the machine itself.”

be integrated into automated processes, cells and production lines as required - maximum flexibility with the best possible productivity.

As digitalization becomes more intelligent and complex, the machine becomes more and more a functional body - powerful, flexible and as susceptible to failure as possible, explains Mr. Fu. He continues: “However, this in no way diminishes the importance of the machine. In general, although the technical optimization of the injection molding machine is already quite exhausted, we still see potential for groundbreaking improvements. Not so much in mechanics as in frugal innovation.” Reductions in material and energy consumption, minimized transport and delivery costs, less susceptibility to faults, simplified maintenance and shortened maintenance times would just be some of the monetary consequences of concentrating on the essentials. With this in mind, around 400 engineers and process experts are constantly working on the optimization and further development of our servo-hydraulic and electric injection molding machines.

We see the further standardization of machine components and assemblies as an equally important task. This is the only way for us as machine builders to think in terms of large quantities, create cost-efficient production processes and pass on the cost advantage to our customers.

As a pioneer of high-quality standard machine construction, it was our aim from day one to deliver technology to the point. The worldwide response to our 1st machine generation has impressively confirmed this decision. The innovative servo-hydraulic drive technology of the Haitian Mars Series has been inspiring for more than 10 years with its outstanding economy and reliability.

**continued on next page >**



Also visit  
[www.haitianpm.com](http://www.haitianpm.com)





The all-electric Zhafir Venus Series is a prime example of efficient injection molding technology in terms of precision, dynamics and environment- competitive advantages with sustainability.

This demanding approach continues to drive us today. Mr. Fu says: “Our engineers are constantly working on optimizing our hardware components. The focus here is on dynamics, precise movements and process accuracy, but also on standardization with maximum flexibility. Our goal is to maintain a healthy balance between hardware and software. In our opinion, intelligent motion control can only develop into a real customer advantage and offer the injection molding machine new possibilities with well thought-out and above all cost-efficient hardware.”

Mr. Fu sees the further development of the drives as a typical example of this. “The new generation of electric and servo hydraulic drives in connection with the new inverter generation promise more power with less energy consumption and provide for more precise movements of all axes.” The specially developed servo motors are tailor-made for the most diverse application tasks, such as injection with long holding pressure, dynamic injection with medium holding pressure or extremely fast injection without holding pressure. The drives have been developed for each of these tasks. “Efficient and smart manufacturing processes and large-volume production make custom-

ized components a cost-efficient standard,” says Mr. Fu, smiling. “Paradoxically, one could also call it tailor-made standardization. This opens up completely new perspectives for the entire company.” Tailor-made drives, intelligent software and the unique manufacturing power in the Group allow us, for example, to

### “Mechanics and software become a high-performance symbiosis – one of the components of Motion Plus.”

think even larger in terms of electric drives and to further expand the still attractively priced range of future-oriented electric concepts – keywords being large clamping forces and above all large, affordable injection units.

Another example is our servo-hydraulic Haitian Series. Thanks to intelligent algorithms, the injection process has been optimized by replacing proportional valves with standard valves – closed-loop control, without sacrificing speed and pressure. Mr. Fu commented, “The sophisticated design of the injection unit in combination with a powerful servo drive system benefits from independent algorithm modules. Thanks to their fast, accurate calculations and highly efficient mathe-



**“Our goal is to maintain a healthy balance between hardware and software and to offer the injection molding machine new possibilities.”**

Mr. Fu Nanhong, Chief Engineer of Haitian International

matrical models, the stability of the injection process is now much higher, whether for extremely fast or slow injection. The improvement is significant.”

#### Big Dimensions

A very innovative example is provided by the new, big electric injection units. “Here you can see the perfect interaction of software and hardware,” says Mr. Fu. “The challenge was the exact synchronization of all four spindles and with high dynamic in acceleration. This is only possible with extremely powerful, reliable, but also flexible components that are controlled by an intelligent control center.”

Motion Plus is the bundling of already established and new developments around intelligent motion control. Although many of these components are already standard in the Zhafir Series, for the Haitian Series it was a big step towards the digital future, digital intelligence. “This may not sound spectacular across all competitors, but given the enormous power of performance and service capacity, this technological leap is taking on a new meaning,” says Mr. Fu.

The consistent standardization of mature core technologies opens up new possibilities for Haitian International to combine within the various systems. “We call this the “new” modularity and in many respects we mean the abandonment of familiar structures. Apart

from that, the R&D teams had to think modularly from the start, but for entire assemblies. This way of thinking allows us today to think of any combinations. Each clamping unit and each injection unit can be combined with any component – whether electric or hydraulic drive system, toggle system or two-platen solution, single or multi-color injection. The new Zhafir Jenius Series is the first result: electric injection unit and a two-platen clamping unit. The JE Series combines mature and proven core technologies from the electric and hydraulic world. Further hybrids will follow.

#### LIVE PREMIERE:

Electrical injection unit 12800 for JE Series

The new concept of electric injection units from Zhafir with the new generation of drives. Innovative and affordable.



#### 3<sup>rd</sup> GENERATION TECHNOLOGY

NEW DEVELOPMENTS  
NEW MODULARITY  
OPEN INTEGRATION



ELECTRICAL LIVE PERFORMANCE



3<sup>rd</sup> GENERATION TECHNOLOGY  
NEW DEVELOPMENTS  
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MEDICAL  
Zhafir Venus III Series

The all-electric Zhafir Venus Series is the basic technology of all Zhafir electric machines. The VE thus defines the high technological standard for all current and future Zhafir Series and performance variants. Exemplary in energy efficiency. Highly precise and very clean in operation (no oil). Ideal for medical applications.

- Fast acceleration and speed
- High precision
- Extremely energy efficient
- High tool protection
- Quiet in operation
- 15-inch SIGMATEK controller
- Medical package for ISO 7



Machine type.....	VE1200III-300
Injection unit .....	300
Application field.....	Medical
Application .....	Syringe pusher
Cavities.....	8
Screw .....	32
Shot weight .....	12.66 g
Part weight .....	1.56 g
Material .....	PP
Cycle time .....	11 s
Partners	
Mold.....	Werkzeugbau Ruhla
Auxiliaries .....	Max Petek



LIVE PERFORMANCE:  
A VE1200III-300 produces a PP medical part under a laminar flow box from Max Petek.

PACKAGING  
Zhafir Zeres-F Series

The Zhafir Zeres Series with integrated servo hydraulics stands for precision, energy efficiency and independent parallel movements throughout the cycle. Servo-electric drives ensure extremely high dynamics in injection, metering and mold movements. The ZE-F fits to a wide range of packaging applications and offers the best price/performance ratio in high-speed applications.

- Performance version "F"
- L/D 25:1 plasticizing unit
- Injection speed up to 350 mm/s
- High dynamics and process accuracy
- High stability with heavy molds/multicavities
- High ease of maintenance



Machine type.....	ZE2300F-830
Injection unit .....	830
Application field.....	Packaging
Application .....	Cover for 250 ml container
Cavities.....	4
Screw .....	45
Shot weight .....	24.0 g
Part weight .....	6.0 g
Material .....	PP
Cycle time .....	4.8 s
Application Technology .....	Inmold labeling
Partners	
Automation .....	SEPRO Robotique IML
Mold.....	StackTech
Auxiliaries .....	Piovan
Material supplier .....	MOL Chemical



LIVE PERFORMANCE:  
A ZE2300-830 F produces a PP packaging part with IML.

SERVO-HYDRAULIC LIVE PERFORMANCE



3<sup>rd</sup> GENERATION TECHNOLOGY  
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**AUTOMOTIVE**  
Haitian Jupiter III Series

The Haitian Jupiter III Series offers a very wide range of applications thanks to its efficient two-platen technology, large mold cavity and customer-oriented design - with countless possible combinations on a minimum footprint. Whether waste containers, logistics boxes, white goods or high-tech precision parts with high surface quality: the JU III Series delivers optimum results.

- Space-saving design
- Fast response times
- High positioning accuracy ( $\pm 0.05\%$ )
- Short dry cycle times
- Energy-saving Mars Technology as a standard
- Latest control technology from KEBA

Machine type.....	JU5500III/2230
Injection unit .....	2230
Application field.....	Automotive
Application .....	LED guide light
Cavities.....	2
Screw.....	65
Shot weight .....	60 g
Part weight .....	30 g
Material .....	PC
Cycle time .....	60 s

**Partners**  
Automation ..... ABB 4600  
Mold..... HELLA



LIVE PERFORMANCE:  
A JU5500III/2230 produces  
a PP LED guide light.



**CONSUMER GOODS**  
Mars III Plus Series

The Haitian Mars III Series is more powerful and economical than ever before. Motion Plus and servo-hydraulic drives of the new Generation 3 ensure even more precise processes and movements of all axes. Optimised core technologies (system pressure, clamping unit, injection unit) further increase the efficiency and production quality of the world's best-selling injection molding machine.

- Energy-efficient drives
- New injection performance through closed loop
- Reduced resource consumption
- Plug & Play solution for 70 % of all standard applications
- PLUS package for Europe

Machine type.....	MA1700III/570 plus
Injection unit .....	570
Application field.....	Consumer Goods
Application .....	Bottle Opener
Cavities.....	4
Screw.....	40
Shot weight .....	23.3 g
Part weight .....	5.5 g
Material .....	PP
Cycle time .....	34.5 s
Application Technology .....	Insert technology

**Partners**  
Automation .....Hilectro V-900 IS  
Mold..... Mapro  
Material supplier..... MOL



LIVE PERFORMANCE:  
A MA1700III/570 plus produces a bottle  
opener made out of PP.





Joachim Stelzer, Head of Sales and QA (left) and Jochen Bartl, General Managing Director and Production Management (right)

## „Significant energy savings with the Zeres“

Interview at Spritzgussa Plastics GmbH & Co. KG

**Spritzgussa Plastics GmbH & Co. KG is one of the most experienced manufacturers of packaging for food, non-food, cosmetics and consumer goods. Sustainability aspects such as resource conservation or recycling play a special role here. At the end of 2018, the first ZhaFIR Zeres series came on board, the second followed in May 2019. Both times the delivery, installation and system start took place extremely fast and flawless. Time for a first evaluation.**

We talked to Joachim Stelzer, Head of Sales and QA, and Jochen Bartl, Managing Director and Head of Production, about internal adjustments towards a more environmentally friendly production method and the advantages of the electric Zeres Series.

**Mr. Stelzer, everyone is talking about sustainability. How does Spritzgussa feel about this?**

“We see sustainability as one of our main topics for the coming years. But: Blind actionism does not help much. The industry must provide serious answers. Not only in food packaging, but also for consumer goods. But especially in food packaging, due to food contact, we are very limited because of strict regulations.”

**What potential do you see for biobased plastics?**

“Bio-based plastics are not a long-term solution. It also decomposes into small particles, which are still plastics, only smaller. It is also not compostable in the usual sense.

**Where do you think the plastics industry can start?**

“First of all in the general attitude. For us, the preservation of our environment is a matter of the heart. We continuously try to optimize the energy consumption per ton of plastic granulate and the CO<sub>2</sub> emissions. Waste products that we produce are returned to the



### Significant advantages in energy consumption:

A comparison of the ZhaFIR Zeres Series with a hydraulic high-speed machine from Europe in the same tonnage. The lid (picture above) is produced. All machines run with a cycle of 7.5 seconds, according to Mr. Stelzer a normal cycle time for this product.

**Result:** Up to 65 % energy savings with Zeres.

recycling cycle. A PET bottle does not find its way into the sea by itself. Here, everyone who picks up a bottle has to take responsibility and act accordingly.”

**Where do you see internal adjustments for more sustainability?**

“There are many. Energy consumption is a big issue for us, also a purchasing criteria. Then last year, for example, we integrated a heat recovery system. Energy is becoming more and more expensive and therefore more important. We produce large quantities with fast cycles, so the process and energy consumption must be optimally coordinated so that the profit margin can be achieved. That is why we are switching to electrical machines. Until now, we only had hydraulic premium brands, now we have switched to ZhaFIR.”

**What was the decisive factor?**

“The efficiency is significantly higher. In addition, there is easier maintenance due to fewer moving parts, longer maintenance intervals, so that maintenance costs stay manageable. Cleanliness is also a major issue, especially in our production for food packaging. Oil always carries the risk of leakage, but our production must remain clean.”

**What advantages do you see in performance?**

“The machines are obviously quieter, precise in their movements and, as I said, efficient and economical. In a mold test with hydraulic machines, we measured energy savings of up to 65%. We have become real fans and in the next few years we will replace our entire portfolio with electric machines from ZhaFIR. Because the ZhaFIR machine is also unbeatable in price”.



**“ZhaFIR machines are compact and uncomplicated, I like that. Retrofitting simple functions is absolutely easy and affordable at ZhaFIR - worlds away from the norm.”**

Joachim Stelzer

**How do you rate ZhaFIR's service and support?**

“Our demand on ZhaFIR is clearly defined: carefree production. The two machines run 52 weeks in a row. They must meet all requirements and deliver the best possible quality at the lowest possible maintenance costs. Both Zeres machines have done this so far. But of course service and support are important. We feel very comfortable with Hewaco. It is a very cooperative relationship. If we have any questions, they come immediately. Apart from that, we do a lot ourselves and also have mechanics in-house. The flexible spare parts policy of Haitian International Germany is very helpful in this case. In this area, ZhaFIR is pursuing a different, unique strategy in Germany.”

### Spritzgussa Plastics GmbH & Co. KG Facts & Figures

Year of foundation: 1965

Location: D-72827 Wannweil  
2,000 sqm production area  
12,000 sqm site area  
40 employees in 3 shifts  
23 Injection moulding machines + removal devices  
Clamping forces from 50 to 350 tons  
Internal tool construction for maintenance

Raw materials: PP, PS, PE, SAN, ABS  
Raw material consumption approx. 2,000 t/a

<https://www.spritzgussa.com>



Check for more about  
Spritzgussa Plastics GmbH & Co. KG





**SOREL**  
plastiques

## „Digitalization is the future“

Interview with Arnaud Joubert, CEO of Sorel Plastique

**For more than 30 years, SOREL Plastics has been developing and manufacturing a wide range of plastic containers for the food industry.**

As a partner of renowned food and confectionery manufacturers in France and Europe, the company offers more than 200 standard models in its range and in addition offers the production of exclusive forms. In autumn 2018, production capacity was tripled all at once - with electrical solutions from Zhafir.

We talked to Arnaud Joubert, CEO of Sorel Plastique, about the drive technology of the future, the limitations of the circular economy and why the Zeres series was selected.

**Mr. Joubert, so far you have only had hydraulic machines in production, but then last year you ordered several electric machines from Zhafir. Which type of drive is it that you prefer: hydraulic, electric or, last but not least, hybrid solutions?**

Joubert: "As soon as the tool does not need hydraulics, e.g. for cores, so no oil, there are only the electrical concepts for us. Although hybrid solutions are a good compromise, they are becoming less and less important for us."

**How important are topics like Industry 4.0 or Intelligent Factories for your company?**

"Digitalization cannot be stopped, and I think it is the future. Although our customers do not yet expect us to take any actions in this area, in the next step we will integrate all peripherals and embed our machines in an MES environment. Therefore machine connectivity is a must. Zhafir's open concept gives us a lot of flexibility when choosing an MES system. We find this very progressive and customer-friendly."

**Are you part of the circular economy?**

"The subject of recycling management is not an urgent one for our products, as most of them are reusable items. We strive to use a stable high proportion of recycled materials, although not in the food sector. Strict food regulations limit our use in this area."

**Do you also produce with recycled material?**

"We are only allowed to use a maximum of 15 percent recycled material. Since we hardly have any rejects, we cannot even cover the 15 percent with our own waste. And unfortunately, purchased recycled material is still more expensive than original material. The incentive to use recycled materials is still very low. This needs to change. The Packaging Association tried to include the recycling industry in the regulations and to extend the 15 percent regulation. So far however without result."

Sorel in Meaux, France: Production tripled with the Zhafir Zeres

**"Zhafir's open concept gives us a lot of flexibility in choosing an MES system. We find this very progressive and customer-friendly."**

Arnaud Joubert



From left: Mr. Arnaud Joubert and Mr. Eric Baubois from Sorel, together with Mr. Jean Louis Pras from FPPI - Sales and service partner of Haitian & Zhafir: "Soon all Zeres will be integrated into a MES environment"

**How are you organized in production?**

"We operate 20 injection moulding machines, five days a week, around the clock. We mainly manufacture reusable packaging parts for the food industry, with cycles of around 4 seconds. Each application is carried out with IML technology and is picked by robots. We only process PP that meets the requirements of the food industry and thus consume approx. 1,200 tons per year."

**What were the reasons for choosing the Zeres of Zhafir?**

"In 2018 we made the decision to significantly expand our potential in order to be sustainably competitive. Zhafir made it easy for us. The low acquisition costs, consultation and service in France, electrical injection and the related process stability, as well as the energy savings on a large scale ... If you upgrade from seven to 20 machines in a single step, each of these arguments speaks for itself."



### SOREL Plastics - Facts & Figures

Location: F-77100 Meaux

Revenues: 7 million EUR / year  
20 employees on a 3-shift plan  
20 injection moulding machines + robots  
of which 13 Zhafir Zeres (90 to 450 t)

Raw materials: exclusively PP in accordance with food requirements  
Raw material consumption approx. 1,200 t/y  
Automatic material conveying  
Energy-efficient cooling

[www.sorel-plastiques.com](http://www.sorel-plastiques.com)



Check for more  
about Sorel plastiques





# DAKOTA™

Dakota in Affi, Italy: all products are produced on Haitian and Zhafir machines

## Expansiv by conviction

Interview with Zeno Cipriani, Owner of Dakota Group

**The Dakota Group is one of the leading companies in the production and sale of construction products. The group has been on an expansion course for about 25 years. Always in focus: progress and innovations for more productivity.**

As early as the 1990s, the company was expanding, initially on the domestic market. Subsidiaries in Spain, Portugal and Romania followed. Today, the Dakota Group supplies more than 4,000 customers worldwide. The product portfolio includes drainage and grating systems, drainage systems, dock levellers and much more. Products for the automotive, packaging and the pharmaceutical industry complement the portfolio.

Dakota's management believes that they have been created for major tasks. By continuously investing in both new technologies and qualified employees, Dakota aims to provide a powerful infrastructure for the challenges of the future. The owner sees energy-efficient, automated and highly productive manufacturing systems as the key to success.

**Mr. Cipriani, you have been a Haitian customer since 1998. Which criteria were decisive for you at that time?**

"The overall concept convinced us, and it still convinces us today. All Dakota products are made with Haitian and Zhafir machines."

**Which series do you own?**

"The Zeres, Venus and Jupiter. Most of them are from the Zeres Series."

**What products does Jupiter manufacture?**

"We are currently producing a Smart Catch-Pit, a robust hollow body made of PP. We produce it on a Jupiter with 650 tons. The product varies in sizes from 200 x 200 mm to 550 x 550 mm."

**To what extent do you use automation in your production?**

"We use central systems for material feeding and drying, as well as internal and external centralized containers for the warehouse. In total, we have about 40 Hilectro robots, six-axis robots, assembly machines, automatic packaging and storage machines".



Mr. Cipriani (left) and Mr. Stella (right) from Dakota, together with Mr. Bonfadini from IMG - Sales and service partner of Haitian & Zhafir: "We are fans from the very beginning"

A smart catch-pit produced on a Jupiter 6,500 kN made of PP



**Do you also use recycled material?**

"We have been focusing on the recovery and reuse of plastic waste generated during production for a very long time. At the same time, we are systematically working on reducing microplastics."

**What do you think which drive will shape the future?**

"Certainly the electric one, especially since the electric machine reduces energy consumption and guarantees higher energy efficiency. Apart from that, we have been using self-produced energy for some time, through our photovoltaic systems in production and logistics. Solar energy can also reduce energy costs".

**Do you already integrate digital concepts into production?**

"In fact, we can say that Dakota has been a smart factory for 15 years. We have been using the 4.0 concept since 2005. Each injection machine is connected to the central server. All data and processes are registered by the main computer and all information is exchanged between the branch, office and production. These activities are a must for 24/7 operation and a modern factory."

### DAKOTA GROUP - Facts & Figures

**Location:** Headquarter in Italy  
Subsidiaries in Spain, Portugal and Romania

**Revenues:** EUR 50 million turnover p.a.  
More than 100 employees  
24/7 Production  
approx. 120 machines from 60 to 2000 t

**Raw materials:** PP,PA,PE,POM,ABS,PS, PLA, ASA,TPE 30,000 t Raw material consumption p.a.

The Dakota Group has been a member of the Green Building Council Italia since January 2019. The GBC network promotes the culture and practice of sustainable building.

[www.dakota.eu](http://www.dakota.eu)



Check for more about Dakota Group





„In terms of the quality of parts as well as the cycle time, we can certainly compare Haitian and Zhafir with their main competitors.“

Mr. Šimun and Mr. Jurkovský, technicians at HELLA in Kočovce

## Getting Started with Electrics

Visit at HELLA Slovakia Front-Lighting, sro



HELLA is one of the largest suppliers to the automotive industry. The MDAX Group supplies almost all of the world’s leading automotive manufacturers with premium products and is one of the innovation leaders in the vehicle lighting segment. We visited HELLA Kočovce and talked to technicians Jozef Šimun and René Jurkovský about the first electric machine at HELLA worldwide - the Zhafir Zeres Series in their factory.

The company HELLA has grown with products for vehicle lighting. The portfolio includes headlights, combination rearlights, interior lights and reaches all the way to lighting electronics. Product development focuses on light-based driver assistance systems and LEDs. In addition, the company has established itself worldwide as a competent solution provider of comprehensive lighting and vehicle electronics – according to the claim “Technology with vision”.

Today, the Group has 125 locations around the globe, employs around 39,000 people, including around 7,700 in research and development, and generated sales of around EUR 7 billion in fiscal year 2018/19. EUR 5.8 billion of these were generated in the Lighting and Electronics Divisions alone.

### Premium quality for premium brands

First-class product quality to the highest standards means everything to the automotive specialists, it is the benchmark for all thinking and acting and enjoys the highest priority. “Zero defects” is the motto, simply because of our responsibility to our customers. In order to implement this high standard in all plants, HELLA has established an integrated quality management concept throughout the Group, which is based on internationally recognised quality standards and is continuously being further developed.

### Traditional with innovative spirit

“Not to stand still in development, to work out ideas and bring them into series production is what drives us every day” is the motto of this innovation leader. On the production level, the law of series production was to stick to the familiar ground; here, without exception, the company has so far relied on the services of European brands. That has changed. Haitian is the first non-European injection moulding machine manufacturer - although with German-Chinese roots as far as the development of the electric Zhafir series is concerned - that was able to convince those

responsible at HELLA of the performance, efficiency and quality work of its series. The decision in favour of Haitian respectively Zhafir was made at HELLA Kočovce, in western Slovakia.

“At the beginning it was not easy to show that Haitian builds reliable machines,” explains Filip Mizia, technical sales manager at Mapro, sales and service partner of Haitian International in Slovakia. “It took a little patience to show the operators how to use our machines. But now they can work with our machines without any problems, and we can say that they are very satisfied, both in terms of after sales support and technical support”.

With the plants in Bratislava, Banovce and Koovce, HELLA has three locations in Slovakia which produce different components for automotive lights independently of each other. The group employs a total of 2,100 people there, producing day and night – 24/7 in four shifts. Jozef Šimun, Production Manager: “I think it is particularly important for HELLA to have a high specification in the machine equipment, with many options. Every time I talk to the people in charge, they are more satisfied with the Zeres than with the European machines. More satisfied, both in terms of parameterisation and handling”.

In the meantime, also the first Haitian machine has been integrated in the Kočovce factory. A Jupiter series with 450 t clamping force was installed for a 6-month trial period. It proved its performance long before the end of this test phase.

### In conversation:

**Mr. Šimun, Mr. Jurkovský, how important is energy as a cost factor for HELLA?**

“It is certainly not the first priority, quality definitely comes first, but of course it is one of the more important points, because we at HELLA also want to save energy. In the end, it depends on the price.”

**Is that the reason why you switch to electrical machines and what do you expect from them?**

“We expect the maintenance of electric machines to be more economical than other machines. This will certainly be even better the more electrical machines we have in the workshop. Apart from that, hydraulic machines are much louder than electric ones. And the price and the performance are very convincing.”

**What is your personal opinion about the drive technology of the future, is it electric, hydraulic or hybrid?**

“I think the best solution is electric machines. They are cleaner, the performance is very good and they are remarkably quiet. But I think the most important thing is the price.



Super visible part, high glossy lightguide holder, produced on a Zhafir ZERES 3600/830 mady by PC in 40 s



**Read more**  
Read the whole article:  
<http://haitianinter.com/de/newsroom/advantage-magazine/>



### HELLA SLOVAKIA FRONT-LIGHTING, S.R.O Facts & Figures

Foundation: 2003 in Slovakia  
Revenues: Turnover for the financial year 2017/2018: 203 Mio. EUR  
Number of employees: 2,100

Products: Front-Lighting for cars and trucks

[www.hella.sk](http://www.hella.sk)



Check for more  
about HELLA in Kočovce

### Further HELLA locations in Slovakia

BRATISLAVA  
Passenger car interior lighting systems  
BANOVCE NAD BEBRAVOU  
Car signal lamps



# 01

## Products

Through internal planning and control of the entire process chain, we will permanently optimize the resource consumption and environmental impact of our machine technologies in all phases of the life cycle - Technology to the Point.

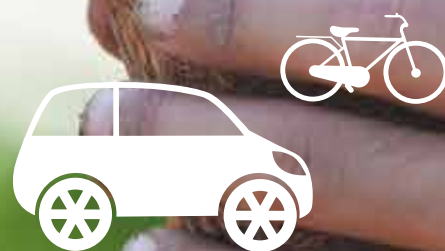
# 02



## Production

The core objectives of our environmental management are to reduce material consumption, reduce CO2 emissions, avoid harmful substances in production and implement our own water treatment plants worldwide.

# 03



## Employees, Mobility

We are committed to promoting eMobility and public transportation throughout the Group - from the electrification of our vehicle fleet to company shuttle bus and business trips by rail instead of air. We motivate our employees to use green energy in their private lives.

# 04



## Waste Management

Minimal plastic waste is our goal. We collect plastic waste, samples and rejects from tool tests. We also support customers with technology and know-how to produce using recyclable materials.

# 05



## Social Projects

The donation below is just one example of the many projects Haitian International supports in the areas of education, health, nature conservation, culture and education as an active partner, donor or sponsoring partner.



GREEN VANTAGE

## Ecological Responsibility

**Haitian International is a member of the global Haitian Group, with companies and participation in many countries around the world. We admire and respect the world in its beauty and diversity. Especially the sky and the sea - "Hai" and "Tian", our namesakes - are symbols for unlimited innovation and inexhaustible growth. Our respect and benevolence for nature is expressed in various actions and decisions of our company ...**

At the Group level, we have our own environmental protection department. A dedicated team works with clear organizational structures and responsibilities to ensure environmental protection, so that all related issues can be resolved quickly. In addition, each Haitian Group plant has one manager responsible for environmental issues, and larger plants have at least two. We received ISO40001 certification, which confirms our compliance with environmental standards.

The concrete, active environmental protection measures include annual investments of around 10 million RMB, which we use to modernize our facilities and processes for the treatment of pollutants and the reduction of pollutant emissions. In 2015, we put our first state-of-the-art water treatment station into operation; more will follow. In 2017, our innovative gas treatment plant was honored as a model plant in Zhejiang Province.



Every Haitian International employee is aware of his or her responsibility for the environment, so we also look at ways to influence others. For example, our suppliers. We intend to build a green supply chain by obliging our suppliers to act in an environmentally responsible manner: "Green action" is one of the key qualifications for evaluating our suppliers. To date, we have been able to persuade more than 30 suppliers to critically review and improve their environmental

protection measures. Of course, true environmental protection begins with everyone themselves. For example, in early 2016, we donated 1 million RMB to the Charity Fund in Beilun, Ningbo, to set up a voluntary Haitian environmental protection team. This team has undertaken many activities throughout the year to protect the environment – on our sites and in the surrounding communities, landscapes and mountains.

