

# Maplan News



The Elastomer Injection Technology Report

October 2014



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## Editorial



Dear Reader

It has been over 3 months since MAPLAN held its "Days of Technology" in Ternitz. Instead of putting the focus on MAPLAN and the rubber injection machine, the idea behind this event was to select a concept involving the presentation of the whole product range from the material to the final product or quality control respectively.

In that context it was a logical consequence for us to invite important partners of ours who collaborate with us on numerous projects every day to participate in this internal trade fair. That gave our visitors a perfect opportunity for networking but also the possibility to attending speeches on specific subjects related to practical cases and research.

Offering our customers a platform to network was equally important as working closely with our partners. Additionally to the shorts breaks in between the high-quality speeches, the guests had a nice opportunity to connect during the evening event at the Belvedere Palace.

I like to remember that beautiful summer evening at the Belvedere, the breathtaking view, the graceful dancers and the joyful atmosphere.

I want to thank again personally all the guests, the owners as well as the whole MAPLAN team to have made such a successful event possible and am already looking forward to the next "MAPLAN Days of Technology".

Wolfgang Meyer, CEO

# MAPLAN Days of Technology 2014 - review of a successful event

Over 330 visitors at MAPLAN's internal trade fair

- 334 visitors
- 24 countries
- 24 partners
- 26 speeches
- 10 machine exhibits
- 18 machines in construction

On the occasion of the "MAPLAN Days of Technology" which took place on the 4<sup>th</sup> and 5<sup>th</sup> of June 2014, 334 visitors from all over the world came to the MAPLAN headquarters in Ternitz. Specialized lectures from 24 partners, machine exhibitions and demonstrations in the machine hall and the production plant gave opportunities for networking and illustrated the latest stage of the elastomer moulding injection technology.

Apart from visiting the wide updated product range of MAPLAN's horizontal and vertical machines customers had the opportunity to

attend lectures and visit the stands of well-established partners of MAPLAN. Next to these technical highlights, one of the most memorable parts of the event was the evening program at the Belvedere Palace.

While celebrating in "Viennese style" the guests enjoyed a private visit through the museum where well known works from the famous artist Gustav Klimt such as "Der Kuss" (the kiss) were exhibited.

The whole MAPLAN team thanks again to all participants who have contributed to make the "MAPLAN Days of Technology" such a successful event.



„The Belvedere Palace: a unique setting“



„Relaxed conversations“



„Viennese style in the Belvedere“



„Graceful dance shows“



„Presentation of the machines“



„Networking between machine exhibits“

## MAPLAN Event

# Highlights of the “Days of Technology 2014”

### Machine Highlights

In the machine hall and the production plant a wide range of models of vertical and horizontal machines with closing forces from 400 to 6.500 kN were presented.

Customer projects for special application, automation solutions, 2K technology and the processing of solid silicone illustrated the innovative technological solutions provided by MAPLAN.

The diversity of exhibited objects gave visitors a good overview about the modern facilities in the field of elastomer moulding injection with a high level of automation, recent tool technology and high energy efficiency.

Among the highlights at the machine exhibition there was a model **MTF2600F2000/460ergonomic wide base** with a closing force of 4.600 kN for producing 2K sealing rings. The 2K tool technology came from O.R.P. Stampi (Italy). The 8 channel cold runner system with open nozzles also had the ability to shuttle out of the press into an external ejector and brushing device.

The **MTF750/160editionS** model with a closing force of 1.600 kN was an exhibit which illustrated a tool solution developed by the firm PETA Formenbau (Germany). This installation was a two-cavity, 2-nozzle

cold channel system with hydraulically activated needle shut-off valves which also used an electric function shuttle system to take the parts out of the press for demoulding. Absolute highlight of the application was a variothermic process design equip-



MTF750/160editionS with PETA Formenbau and Single Temperiertechnik



MBHF6000/460 and MTF2600F2000/460ergonomic



MBHF6000/460 vertical machine

ped with temperature control from Single Temperiertechnik (Germany) to enlarge the processing window. This illustrates a very successful collaboration with our partners.

With the model **MBHF6000/460** a vertical machine with a closing force of 4.600 kN for producing silicone was also shown. The model displayed used a secondary separate injection unit on the split line of mould. Additional to that from the top side was an ejector for the cold runner. Also on the press was a fully automated silicone supply system and a hydraulic frame change system.

Furthermore a reviewed range of **horizontal machines** of the sizes **100, 200, 300, 400 and 650 tonnes** involving machines from a simple

version up to fully automated machines with final control modules as production cells.

As a development project MAPLAN presented a new pressure compensation element illustrated with a model **MHF200L/100editionS** with a closing force of 1.000 kN; using this new technology a much more balanced pressure repartition on the plates can be obtained. In that way tools can be used up to the limits of the capacity ranges.

Of course most machines were equipped with energy-saving Cool Drive II drives as well as the original FIFO injection system from MAPLAN which uses short flow paths to reach the tool.



MHF700D/300editionS XL horizontal machine



### Lecture Highlights

#### Uni Leoben, Prof. Walter Friesenbichler

Professor Friesenbichler provided information on the subject “Rubber processing – Potential of cure time reduction in rubber injection moulding with a calculated estimation”.



#### HF Group, Prof. Dr.-Ing. Andreas Limper

Andreas Limper presented the plenary lecture “The Mixing Room – a focal point to achieve substantial quality at good economic boundaries for rubber processors”.



#### IKV, Ulf Recht

Ulf Recht from the institute of plastics processing (Institut für Kunststoffverarbeitung - IKV) based in Aachen reported about the “innovative approach for manufacturing superhydrophobic elastomer parts in the injection moulding process”.



#### PETA Formenbau, Alexander Wolf

Alexander Wolf from the firm PETA Formenbau made a lecture on the subject “Evolution observation: hot runner - cold runner - valve gated cold runner - valve gated cold runner with Variotherm technology”.

### Feedback about the trade fair:

„An absolutely successful event.“  
Norbert Seipel, WOCO - Germany

“Thanks to all the MAPLAN team for a first class experience.”  
Steven West, James Walker & Co. - UK

“Absolutely added value to our cooperation.”  
Bartłomiej Boruta - General Manager, Takoni Sp. z o.o. - Poland

“The conferences were very useful for our company.”  
Halil Akgül, Managing Director, Belka - Turkey

„Well done to the MAPLAN team for arranging things so well.“  
Patrick Raleigh, European Rubber Journal - UK

„A very big thanks to you, it was the best equipment manufacturer open day I have ever attended in the last ...30 years!“  
Giorgio Cabrini, MESGO - Italy

## MAPLAN Event

# Successful well established partnerships

*A large network of partners from the elastomer branch at the „MAPLAN Days of Technology 2014“*

Thanks to an extraordinary network of partners which has been built up over the last decades, MAPLAN had the possibility of

gathering an interesting selection of 24 partners for the “MAPLAN Days of Technology”.

The scope of industrial partners included specialists in the field of elastomer tools, process-optimisation, quality-control systems and test instruments as well as specialists in the fields of coating, automation, rubber mixtures and raw materials.



The issues related to the interaction of materials, processing technologies and material mixtures again gave rise to exchange of experiences among the experts. The processing professionals were eager to listen

to the speeches from the industry. In that context solutions in the field of robotics and automation were as much in demand as clever tool concepts and information from the raw material suppliers.

Visitors were attracted by integrated solutions to the processing chain as shown by the Karousel project. This involved demonstrating strategies concerning the mixture, the injection process, stamping and reworking as well as automatic sorting and final control.



Presentations in the main tent



Presentations in the auditorium



Partner booths

## MAPLAN International

# MAPLAN France

*Presenting the French MAPLAN subsidiary*

MAPLAN France is located at the border of the Alps in Chambéry.

The company has a long history that is strongly related to the development of the original MAPLAN machine.

In the 1980's Michel Laurent, engineer from The Arts et Metiers School in France, and former technical director of the company SACOMAT in Chambéry, designed a new range of machines for an

Austrian company, inventing the FIFO system (FirstInFirstOut) for rubber injection machines. He was soon joined by Daniel Dietrich as technical sales director to offer the first rubber injection moulding machines. The machines were then very successfully distributed under the brand name PENTAJECT in France, the United States and Germany.

In 1989, the Starlinger Group bought this company and gave it the name MAPLAN.

In 2000, Michel Laurent designed the patented machines of the „ergonomic“ series. Since then the company has continually grown and more than 1.000 machines have been sold by MAPLAN France in France.

Today, Michel Laurent and Daniel Dietrich are retired, but MAPLAN France has grown further as it now consists of a dynamic and experienced team of 6 people:

- **Guillaume LAURENT**  
Director
- **Olivier HAURE**  
Sales Engineer
- **Jean-Marc VISENTIN**  
Service Technician
- **Victor ANTUNES**  
Service Technician
- **Fabienne AUBE**  
Accounting
- **Thierry BORTOT**  
Parts Manager

MAPLAN France has an excellent after sales service team to look after its many customers. For this, the company has a stock of spare parts that can be delivered to the client within 24 hours. Technical support is also provided by highly experienced technicians.

The diversity of its clients as well as the very close and long term relationships with its customers, ensure MAPLAN France a continuously growing activity in a mature market.



Victor Antunes, Thierry Bortot, Fabienne Aube, Jean-Marc Visentin, Guillaume Laurent



Olivier Haure

## MAPLAN Service

# Direct customer service

### Online service, the new offer

In addition to the service offers made available by MAPLAN up to now, such as the hotline, putting into service, repairs, spare part supply and machine upgrades, MAPLAN now offers the online service via Teamviewer. This online service offers the following advantages to MAPLAN customers:

#### Advantages for customers

- Fast error detection, many problems can be solved online without needing on-site inspection by a technician
- Time-saving
- Cost-saving

#### Functions

- Diagnostics of hardware and software problems
- Checking of parameter settings if the run of the cycle is disturbed

- Carrying out software updates
- Activation of functional extensions and implementation
- Remote diagnostics carried out via Teamviewer with the current control unit PC5000touch
- Security is guaranteed through password protection, coding as well as by a time limit for each session (5 hours). The setup of the connection must be confirmed by the customer on the console of the machine command.

Owing to these functions there is not only a possibility for the diagnostics of problems and making software updates and functional extensions but it also became possible to remedy to more complex types of errors.

Example: A MAPLAN customer has a problem of vibrations

occurring during the injection movements.

Up to now, that sort of error could only be remedied to if a customer recorded parameters with the help of the oscilloscope function integrated to the machine and then optimized the corresponding adjustment parameters. It was only by proceeding in that way that it became possible to eliminate the vibrations.

Using the online service it is now possible to solve that sort of problem from our company's site using Teamviewer.

With the new procedure it became feasible to remedy to the errors as soon as they occurred, which save both time and money considerably for MAPLAN customers.

MAPLAN is continuously striving

to extend these efficient services for its customers.



Teamviewer desktop sharing software



MAPLAN live customer service

#### Review

### FIP Fair in Lyon (France)

The „FIP solution plastique“ exhibition took place from 17 to 20 June 2014 in Lyon Eurexpo.

The event welcomed 9296 visitors, which was an increase of 37% compared to 2011; also the floor-size of the exhibition increased by 25%.

On this occasion MAPLAN presented the MTF130/40C, a rubber and solid silicon injection moulding machine with a closing force of

400 kN, equipped with the PC50touch control unit and featuring the following options: 2.000 cm<sup>3</sup> stock feeder system, ejector system and customer specific safety system with light shields and 2-hand control.

The machine raised a lot of interest amongst the visitors as its flexibility and small size allows the production of small and medium series for a modest investment.



MAPLAN booth with MTF130/40C at FIP in Lyon

#### Review

### MAPLAN at the PlastPol 2014 (Poland)

On the PlastPol 2014 trade fair this year, MAPLAN exposed in Kielce, Poland, in collaboration with its distributor DOPAK.

Poland is a very important and interesting market for MAPLAN. A larger number of clients and visitors had the opportunity to inform themselves about new MAPLAN products and to exchange experiences with MAPLAN on the booth.



#### Upcoming Events

<b>IEC</b>	Nashville, USA	14 - 16 Oct. 2014	Booth 906
<b>Plastimagen</b>	Mexico City, Mexico	18 - 21 Nov. 2014	Booth 518
<b>Rubber, Tuyap</b>	Istanbul, Turkey	27 - 30 Nov. 2014	Hall 7 - Stand 748
<b>Interplastica</b>	Moscow, Russia	27 - 30 Jan. 2015	
<b>Plast 2015</b>	Milan, Italy	05 - 09 May 2015	
<b>DKT / IRC 2015</b>	Nürnberg, Germany	29 June - 02 July 2015	

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