



Mexico: A strong business partner

For many companies, this Central American country is the perfect location for a production site – and Sprimag, too, is delivering more and more coating systems to customers in Mexico

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Joachim Baumann, Managing Director of Sprimag

Dear readers,

No matter whether you are a large group of companies or a medium-sized business like Sprimag, forming a strategic partnership can offer a wealth of benefits. It enables the partners to use resources efficiently, reduce risks and respond to the situation on the market more effectively. Financial success is not the sole reason for entering a partnership, however; the expertise that both parties stand to gain is also a key factor in deciding to join forces. In many industries – and the mechanical engineering industry is no exception – cooperation between companies results in projects that could never have been run otherwise and it often generates unexpected synergies.

Starting with this edition of Sprimagazine, we will now be bringing you regular reports on a number of our strategic partners. This will give you an insight into the market requirements that have given rise to these collaborations and how the projects are progressing. To kick off this series we have an article about TEMA Vision, an inspection

system supplier that has been part of the globally active Mühlbauer Group for over 30 years. TEMA and Sprimag have been working together to develop a promising concept for a fully automatic final inspection system for cans.

But it is not just the networking of cooperation partners that is crucial for Sprimag – networking in general is becoming increasingly important for us, too. This is why we are using this issue to present a country with which Sprimag has run numerous projects already and to which we have sent seven coating systems in the past year and a half alone: Mexico. Having a local presence in Puebla makes it possible for us to offer our customers even greater support on-site and keep a watchful eye on the market there.

I hope you enjoy reading this issue of the magazine.

Joachim Baumann
Joachim Baumann

New company website

From this summer, an impressively intuitive user interface and modern design have lent a new shine to the Sprimag company website

Whether coating systems, application technology or services – as a modern company, Sprimag is always up-to-date with technology, which is why the company website recently underwent a complete overhaul. Now it impresses with its high userfriendliness. Inspired by the design of our webshop, where our range of application technology has been available since last year, we have updated the website both visually and technically. In so doing, we want to provide our customers with yet more information about our range of products and Sprimag services. The intuitive navigation structure enables you to reach the information you are looking for in an instant. Whether you are on a mobile, tablet, laptop or desktop computer – the responsive web design makes the website accessible to all output devices and adjusts to suit the terminal.

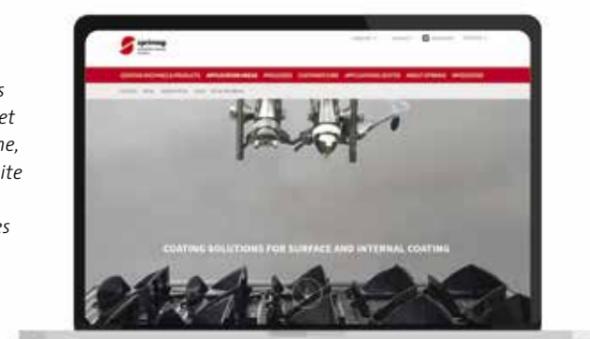
Besides this, all issues of Sprimagazine from the last 15 years as well as our current brochures and catalogs are available for download under "Infocenter", where you can also find all current trade fairs at which Sprimag is represented.

Why not come and take a look at www.sprimag.com?

» Marketing@sprimag.de



Whether it's desktop, tablet or smartphone, the new website is suitable for all devices



NEWS

Sprimag at METPACK 2017

From 2nd to 6th May, over 300 exhibitors from the field of metal packaging presented their product innovations, systems and services in Essen, attracting over 7000 trade visitors. Sprimag was also on site as an exhibitor, showcasing two new products alongside the HIL-34 (horizontal internal coating machine) for beverage cans: Within the field of aerosol can internal coating, we presented the HIL-56 from the ECOMPACT series which, thanks to its



modular system, has significantly lower production costs than conventional systems and can also be integrated into existing system concepts as an exchange system. The LRP-30 from our testing machine division also made its "trade fair debut": The leak detection machine for aerosol cans rounds off our range of products in this field, following Sprimag's launch of a leak detection machine for aluminum tubes which was also shown on the trade fair stand.

Besides this, DWI bottles were a key trend at the fair – as a side note, we reported on these extensively in the last Sprimagazine, since the multifaceted system concept also optimally equips Sprimag for the internal coating of these lightweight aluminum bottles.

We look back on a successful trade fair week and, at this point, offer you once more our heartfelt thanks for visiting our stand.

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Specialists of tomorrow

The new training year only began in September, yet once more there are already candidates for next year. Although there are currently more apprenticeship openings than ever before, Sprimag continues to expand its apprenticeship scheme, thereby investing long-term in the future. Alongside training industrial mechanics, electronics engineers for automation technology and industrial clerks, Sprimag also recently began to offer training for careers in warehouse logistics and information technology for system administration. In addition, Sprimag also offers places for "work-study" students in mechanical engineering and electrical engineering (B.Eng.). The theoretical part of the course is taught



at the DHBW (Baden-Wuerttemberg Cooperative State University) in Stuttgart. Previously, we have been fortunate enough to fill all of our apprenticeship places, and we hope to see this trend continued and are optimistic about the future.

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Strong business partner – more and more coating systems for Mexico

Since 2016 seven of Sprimag's coating systems made their way across the Atlantic to customers in Mexico. Alongside a coating system for the internal coating of aerosol cans are other systems that spray brake discs, wheel bearings or plastic parts for automobile production



Ready to help: Employees in Mexico, Frank Flehr (left) and Roberto Joatas de Lima (right), at the site of our customer SKF in Puebla

The fact that Mexico is a popular production location for many international corporations is something that we at Sprimag also ascertain time and again. For many years now, we have provided long-standing customers there such as Alltub, Brembo, Preh, Rassini, Extral, Ball, Delphi, Federal Mogul, Kolbenschmidt, Pioneer, Visteo and Volkswagen with Sprimag coating systems. The automotive industry is especially well represented here; over the past year and a half, we have delivered six coating systems for automotive parts to the Latin American country.

A system for the internal coating of aerosol cans was also delivered. Since Sprimag not only has premises in the USA but also a subsidiary directly in Mexico, onsite customers can be even better attended to. This is a great advantage since, with a sales and service department that has a background in coating technology and a service technician on site, there is always a point of contact nearby to offer any help or advice required, meaning that geographic and linguistic barriers no longer pose an issue. For many customers, this is a key deciding factor when commissioning work. A

particularly frequented location in Mexico is the conurbation around Mexico City, where over half of the country's total industrial production is handled. This makes the region an ideal point of departure for imports and exports.

The following larger projects have been completed since 2016:

>> Fagor

Brand new: Since 2016, the automobile supplier Fagor Ederlan has been serving the automobile industry of the NAFTA market from a plant in San Luis Potosi. Within the next five years, it is expected to generate 140 new jobs and reach a production capacity of five million mechanized entities. At these premises, suspension parts, flywheels and differential cases are produced alongside brake discs, which are coated using a Sprimag Chain-on-Edge Coating Machine.

>> Plasess

As a producer of plastic parts, Plasess covers nearly the whole production process, from mold making to spraying and assembly. The plant in Irapuato, which opened in 2014, is so far this global company's only premises in Latin America. Here, plastic parts for automobile interiors will be coated using a Sprimag Robot Coating Cell.

>> SKF

With over 44,000 employees worldwide, SKF is one of the largest producers of bearings and bearing units, seals, mechatronics systems and similar. The site in Puebla, Mexico, specializes in the production of ball bearings; last year, Sprimag supplied a coating system for bearing shells to the Puebla plant with an area of over 42,000 m². The application of UV coatings makes the parts that are still to be coated particularly robust. This coating method is also particularly environmentally friendly.

>> MAHLE Components de Motor

Another Sprimag coating system found its way to Mexico in the form of a Round Table Coating Machine for the antifriction coating of bearing shells for MAHLE Componentes de Motor. Their plant in Lerma manufactures gearbox parts and other parts for the aftermarket, as for workshops and trading.

>> CCL Container

Of course, Mexico also has other branches of industry; last year Sprimag delivered a coating system along with a dryer for the internal coating of aerosol cans to one of the leading producers of aerosol cans and aluminum packaging here. CCL Container has several premises in Mexico, one of which is located directly in Mexico City and another a short distance away in Guanaquato.

>> TG – Toyota Gosei

With the opening of their production plant in Irapuato in 2014, the Japanese company TG now has several premises in Mexico. From there, it is believed to supply the North American market in particular with interior and exterior parts for automobile production. Recently, two further robot systems for the coating of automotive interior parts have joined the Sprimag coating systems that are already used there. For a largescale project such as this, all Sprimag sites were involved throughout the project.

CUSTOMER SITES IN MEXICO



This year too, various projects are already underway in Mexico and, despite uncertainty over the economic situation, there are fortunately no signs of a downturn. Of course, we hope that this continues to be the case so that we can embark on many more joint projects.

» Marketing@sprimag.de

Mexico

A key location for industry and production

German companies value Mexico's good economic framework while at the same time contributing to the country's further economic development through their investments – a win-win situation for both nations



We would like to use this issue to present a country which has yielded good business relationships not only for us, but also for many other companies. For what do we in fact know about this country and how it compares economically to Germany? In recent years, Mexico has become an increasingly key business partner in the automotive industry in particular, and also in other branches of industry. For many years, we at Sprimag have also had a steadily growing solid customer base in Mexico and, in the past year and a half alone, have shipped a system for the internal coating of aerosol cans there, as well as six systems for the coating of automotive parts – whether for the coating of brake discs, interior or exterior parts, or engine parts. You can find out more about our specific projects in the article “Strong business partners – more and more coating systems for Mexico” in this Sprimagazine. One factor that could unbalance Mexico's economy is its uncertain trading relationship with the USA and the current renegotiation of NAFTA, which would also have direct consequences on German companies with production plants in Mexico. Alongside this uncertainty, Mexico is furthermore still struggling with social and economic problems; in this regard it remains a typical emerging nation.

Many companies consider Mexico an ideal production location, starting with the country's geographic position, which provides excellent conditions for trade with Asia, Latin America, Europe and of course the USA. Moreover, Mexico's numerous free trade agreements with over 40 countries mean that the country is optimally connected and offers ideal preconditions for the export of finished goods. Last but not least, the comparatively low wages and the competitive cost structures and tax rates lend the location yet more appeal. Cur-

rently, a total of 1900 companies with German equity investment are operational in Mexico, so it is unsurprising that Mexico will be the official partner of the Hannover Messe in 2018. This should serve to further expand economic relationships between Mexico and Europe, and Mexico will use the opportunity to emerge with innovative technological issues, growth strategies and investment opportunities.

It seems that German automotive manufacturers and suppliers in particular are moving to Mexico: Daimler, BMW, Volkswagen and Audi already all have plants in Mexico – or, as is the case with BMW, are currently occupied with plant development – and are even planning the expansion of existing production plants. In the past year alone, Mexico produced 3.46 million vehicles, up 1.8% on the year before, meaning that Mexico is now ranked as the largest automobile manufacturer in Latin America and the seventh largest worldwide. Neither has the establishment of supplier companies reached its zenith yet, which means that the increase in local content levels can be expected to continue. Now Bosch too aims to build up its capacity in the Latin American country with a plant for steering systems, and to increase its employee numbers to 16,000 by 2019. In return, German suppliers that serve a strong market in Mexico – not least through the German companies located there – also profit from these developments.

Mexico's development into an export country can be attributed not least to the structural change of the mid-1980s which, thanks to the deregulation and privatization of companies and banks, laid the foundation for a stable economic policy with open markets. Mexico's many free trade agreements make it one of the most open markets overall and thereby a highly attractive location for corpora-

tions. Until now, the close proximity of the USA with the largest sales market has strengthened this location's advantage enormously – approximately 80% of exported goods go to the USA – however, a dependence such as this can also quickly lead to problems. For this reason, Mexico has striven for some time to diversify its foreign trade structure, for example by cofounding the Pacific Alliance in 2012, and is striving to develop its economic relationships with Europe. Since the last US election or even earlier, great uncertainty has emerged over the trading relationship with the USA.

Mexico is currently renegotiating with the USA and Canada over NAFTA, although a decision is expected here in spring 2018 at the earliest. Nevertheless, it is certain that the introduction of punitive tariffs on goods finished in Mexico as threatened by the USA would also affect the German companies located there.

As is the case everywhere, industry in Mexico is calling for more and more qualified specialists. However, the present education system is hardly designed for practical training and mainly comprises university programs, meaning that Mexico is working to redesign the vocational training system. Several of the larger German companies located there are therefore offering their own in-company training; however, this is not an option for smaller companies. Now they want to integrate “work-study” elements into middle school vocational training. So far, approximately 300 companies are participating in the project.

Sprimag will continue to foster intensive business relationships with Mexico, and planning has already begun on further projects for the coming year.

» Marketing@sprimag.de

COUNTRY COMPARISON MEXICO & GERMANY

	MEXICO	GERMANY
SURFACE AREA	1,944,000 km ²	348,900 km ²
POPULATION	127,540,400	82,667,700
AVERAGE INCOME	US\$ 8,555	US\$ 41,902
UNEMPLOYMENT RATE	4.1 %	4.6 %
EXPORTED GOODS	US\$ 373.9 billion	US\$ 1,340.8 billion
GROSS DOMESTIC PRODUCT GDP	US\$ 1,046 billion	5\$ 3,466.6 billion.
ECONOMIC GROWTH	2.3 %	1.8 %

* Information according to DESTATIS, Statistisches Bundesamt October 11th, 2017

» Mexico's many free trade agreements make it one of the most open markets overall «

STRATEGIC PARTNERSHIPS

End-of-line inspection with TEMA Vision

To start this new series, we would like to present TEMA, our strategic partner in the Mühlbauer Group. This productive partnership resulted in the CIM-12, a fully automated camera inspection machine for performing the final inspection on aerosol cans

Founded in 1981, the Mühlbauer Group has grown to a proven one-stop-shop technology partner for the smart card, ePassport, RFID and solar back-end industry. Some of the company's other business fields include micro-chip die sorting, carrier tape equipment, as well as automation, marking and traceability systems.

2002 saw the Mühlbauer Group acquire TEMA GmbH, a small company in the industrial image processing industry. Until that point, the main touch point had been the joint development of a print inspection system for smart cards. TEMA brought not only innovative ideas but also – and perhaps more importantly – a wealth of experience to the table, as the company has been involved in the development of industrial image processing from the very beginning. Indeed, the acquisition opened up brand new opportunities for implementing complex inspection solutions and marketing and maintaining them around the world. One of the industrial division's focal points was (and still is) inspection systems for the production of aerosol cans. The objective has always been to create an unbroken inspection chain from the

aluminum blank through to the finished aerosol can. This last logical step in this process is therefore the automated end-of-line inspection of the cans, which requires not only a vision backed by expertise but also the requisite can handling equipment.

Sprimag proved itself a competent and highly motivated partner in this project, and the collaboration progressed remarkably quickly. In a matter of weeks after initial discussions began, the preliminary version of a final inspection system for monobloc aerosol cans was unveiled at METPACK: the CIM. In this inspection solution, the ready shaped cans are taken from the outlet conveyor belt of the necking machine and fed into the inspection systems, where they are made to rotate before being placed back on the outlet conveyor belt. The inspection covers all aspects of can quality, that is to say the printing, the shoulder, the rim and the shape. The shape inspection employs Mühlbauer's brand new SHAPE CONTROL concept, which uses a 3D scan to check for deformation and damage. Both companies are confident that the market is ready for the CIM-12 fully automated end-of-line inspection for cans.

Interview with Jonas Auerswald (sales, business unit TEMA Vision)

How do you rate this joint project's chances of success?

Our strong presence in aerosol manufacturing enables me to say that demand for an automated solution to perform the final inspection on cans has grown considerably in recent years. This does not mean that the inspection systems in the individual stages of production will be dispensed with, however. But only having a final inspection at the end of the production chain makes it possible to definitively assess and control quality in what is becoming an increasingly automated production process. Increasing pressure on quality and the high demands imposed on materials are making this more and more important throughout the world.

There are companies other than yours that supply these kinds of camera systems for manufacturing cans, especially drinks cans. What are Mühlbauer's and TEMA's strengths and USPs?

Mühlbauer can draw on a unique mix of proven technologies and innovative new techniques. The company's experience in print quality control reaches back to the 1990s. The rim and shoulder inspection concept is unique in that it uses a new, patented, optical visualization technique that is compact and easy to use but doesn't have any blind spots. It is also the only system that actually checks the printing on the shoulder of the can. And because can geometries are becoming increasingly more complex, we are taking a completely new approach to inspecting the shape by measuring the can three-dimensionally. This, as you might expect, also uses a compact single-camera system.

The Mühlbauer Group is a big company with different business divisions. Are there any synergies that your business division – image recognition and processing – can benefit from?

Of course. We use the group's Design, Production and Assembly divisions, and the majority of our systems are manufactured in-house. It works the other way round too: Other business divisions in the Mühlbauer Group can draw on our expertise in image processing. Furthermore, it goes without saying that all departments have the Mühlbauer Group's service network at our disposal, too.

Sprimag and Mühlbauer are seen as two neutral companies supplying systems and machinery to the aerosol can industry. Was this the reason why you decided to join forces or are there other benefits too?

Definitely. We don't want to waste our energy going into politics. We want to have a purely functional relationship and we strive to make collaboration fruitful for the both of us. The commitment and flexibility shown by Sprimag was certainly a key factor in our decision too. That suits us very well.

What advice would you give any of your customers who are hesitant to purchase an inspection machine equipped with your inspection modules?

Many companies are now aiming at maximum automation in aerosol can production, and CIM is playing a pivotal role in this. Anyone who can guarantee – and prove – that they deliver the quality they promise thanks to using an automated final inspection system has a competitive advantage that should not be underestimated. Moreover, most can manufacturers have without a doubt experienced how



Jonas Auerswald (sales, business unit TEMA Vision)

costly customer returns can be. This means that investing in an inspection solution quickly pays for itself. What's more, our inspection modules practically bring our experiences from the production line with them, which makes them neither completely new territory nor an incalculable risk.

You had been looking after customers together with Mr Oelkers for many years before he recently announced his move elsewhere within the company. How have things changed in terms of staff? Who are you working with now?

I was able to learn a great deal during my time with Mr Oelkers and I'm delighted with my new position. I'm now passing on my experiences, for example to my new colleague Ms Regine Pflamminger, who will assist me in the future. Given the very male-dominated nature of our industry, even today, I think she will bring a fresh new perspective to things.



The headquarters of the Mühlbauer Group in Hagen

CALENDAR 2017/2018

AEROSOL & DISPENSING FORUM

31st January – 01st February 2018
Paris, France
Booth No. V10
www.aerosol-forum.com



PAINTEXPO

17th – 20th April 2018
Karlsruhe, Germany
Hall 2, Booth No. 2226
www.paintexpo.com

PaintExpo

CANNEX & FILLEX 2018

15th – 18th May 2018
Guangzhou, China
Booth No. 128
spgevents.com/cannex-fillex

cannex fillex

IMPRINT



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10TH ANNIVERSARY

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Mathias Epple Sven Hübel

25TH ANNIVERSARY

Sabine Sanwald
» team leader spare parts

40TH ANNIVERSARY

Adil Büyüktokatli Oliver Ruf
» mechanical production, » mechanical technician
in retirement since 31. August 2017



Sprimag thanks all of these employees for their many years of service and for their long-standing relationship with the company.

