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In the beginning, there was the spray gun

Over 100 years ago, Sprimag founder Otto Heinrich developed one of the first spray guns. To this day, Sprimag has been producing its own application technology in regards to painting and coating.

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Joachim Baumann and Philippe Nollet, new Managing Directors of Sprimag Spritzmaschinenbau GmbH & Co. KG.

Dear Reader,

In this, the final quarter of the year, we can already relax and look ahead to the New Year. For Sprimag, 2011 has been a positive year, and one full of changes. We can record successes in our core activities, such as in systems for coating brake discs. We have also succeeded in gaining a presence in additional sectors of the cosmetics industry. In 2011, we benefited once again from the continued growth in the tube and aerosol can industry. The HIL-70, which was introduced last year, has been very well received by customers, and has already been successfully used in powder applications.

Changes have also occurred in the personnel area: Michael Anger stepped down from the management board of Sprimag Spritzmaschinenbau GmbH & Co. KG on September 30, 2011. Together with Joachim Sander from AISA he will continue to devote his energies in his position as manager of

Sprimag Holding GmbH.

His successor as manager in charge of Technology and Sales will be Joachim Baumann, who started at this position on October 1, 2011. Mr. Baumann will be joined in the senior management of Sprimag Spritzmaschinenbau GmbH & Co. KG by Philippe Nollet.

In addition to this, the Surface Coating Division sales team is also being expanded. Starting on October 1, 2011, Axel Bolowich will become the new manager of the Surface Coating Division sales department. You can learn more about our expanded sales team on Page 2 in this issue of Sprimagazine.

We would like to thank you for your confidence in us throughout 2011 and ask you to help support our new staff members.

Joachim Baumann
Joachim Baumann

Philippe Nollet
Philippe Nollet

Demand for metal packaging remains high

Metpack 2011 sets new attendance record with its 7,100 trade visitors

Once again, Metpack in Essen proved to be the central international meeting point for the metal packaging industry. Visitors from around the world were all specialists in the field and again distinguished the Messe Essen 2011. The positive economic situation was clearly noticeable in the high demand for metal packaging. As early as 2010, with 405,100 tons of aerosol and beverage cans, tubes, flexible packaging and films, about 14 percent more aluminum packaging was produced in Germany alone than in the previous year. The increase in visitor and exhibit numbers at Metpack 2011 further reflected this trend.

At Metpack, which took place from May 10 to May 14, 2011, Sprimag presented its new HIL-70, with which either aluminum tubes or aerosol cans can be coated internally with wet or powder

coatings. The new technology was well received by the visitors who were excited to experience the working machine in person. The innovations of the HIL-34, which is the basic machine for the interior coating of beverage cans, were evaluated by a large number of industry specialists and received a positive response.

Interesting discussions at Metpack provided new stimuli and encouraged Sprimag in the further development of new technologies to fulfill both current and future market requirements, and to extend its technology leadership.

The next Metpack will take place from May 6 through May 10, 2014 at Messe Essen – at that time, Sprimag will certainly be on-site again with new innovations.



Sprimag booth at Metpack 2011

NEWS + FACTS

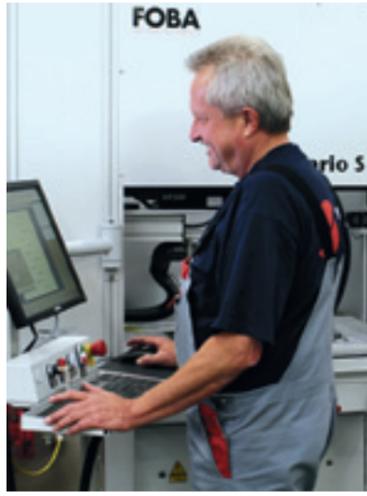


Sprimag produces its own presentation video

Start the film!

In this era of video platforms, it is becoming increasingly easy to distribute videos over the Internet. More and more companies are recognizing this potential and are spreading information about themselves via short product clips or company videos. Sprimag also decided to take this step and produced its own presentation film. It is of primary importance to have its video, which is entitled "Initial contacts", graphically describe in just a few minutes what Sprimag does and who we are. We think that we succeeded very well! Take a look for yourself - the video will soon be available on our website.

» www.sprimag.de



The new laser marking helps the customers to order spare parts easily.

Marking for life

To simplify the reordering of Sprimag replacement parts, the production department at Sprimag has invested in a new laser machine. The FOBA Vario DP2oF marks the most widely varying parts of Sprimag application technology with an identification number, and it takes just a few seconds. In this way, Sprimag facilitates the future procurement of replacement parts for its customers, because - even after many years - application technology parts can be identified quickly and be easily reordered.

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Satisfied customers

The Sprimag philosophy states that "It is only through satisfied customers that Sprimag will achieve lasting success in the market." In order to live up to this philosophy, we have extended our customer satisfaction metrics since the spring of this year into the area of service operations. After four months, we made an initial assessment: our service team was graded with the highest marks. Because of regular feedback from our customers, we can act quickly and thus always continue to improve.

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Expertise in coating and the overall process

As already was the case for numerous installed systems, Sprimag could once again put its expertise in the design of coating processes for mass-produced parts to the test. At mid-year, Sprimag delivered a completely automated system for coating glass parts. Plasma pre-treatment was integrated into this system.

This type of pre-treatment is being used more and more in complete coating systems. The arguments for the use of this procedure are provided by the manufacturer in the article on the right.

To test the effectiveness of this procedure in connection with your product, Sprimag provides a modern Applications Center where the individual processes for the coating, as well as the overall process, can be designed and technically verified.

For inquiries regarding the availability of the Applications Center and the test setup, please contact Michael Blankenhorn.

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PLASMA FOR A PERFECT FINISH

Whenever plastics, metals or glass must have an impeccable look, a particularly good pre-treatment prior to coating is required. Despite the high efforts by the industry, the rejection rate caused by painting over dust particles during production can be from 10 to 15 percent for high-quality applications. The static charging of the surfaces that can occur as a result of the surroundings and the actual manufacturing process leads to a build-up of fine dust and other substances. These are the most common cause of problems that may occur during the coating process.

By using the plasma technology called Openair® that was developed back in 1995 by Plasmatreat GmbH, Steinhagen, and has since been used by industries throughout the world, a pre-treatment procedure was implemented during which none of the above problems occur and consequently a substantial reduction in the rejection rate can be attained. The potential-free, atmospheric pressure plasma causes the ultra-fine cleaning and the high activation of material surfaces. The result is not only a particularly strong and long-term stable adhesion of paints, adhesives and other coatings, but also an improved

coating process due to the increased wettability of the substrate after the plasma treatment.

The systems that are based on the nozzle principle work inline at normal atmospheric conditions and are operated solely by air pressure and high voltage. The still widespread use of wet chemicals in the pre-treatment process can be completely eliminated.

As a special feature, the emerging plasma beam is electrically neutral, which greatly increases and simplifies its applicability. Its intensity is so high that processing speeds of several 100 m/min can be achieved when using a fixed single nozzle. Typical heating of plastic surfaces during the treatment is $\Delta T < 30$ °C. Among the major advantages of the Openair® plasma technology is the high process reliability and quality in the production process, as well as the low costs for primary energy and auxiliary energy during the operation of the system.

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Plasma technology is increasingly being used as a pre-treatment process in complete coating systems

SALES FORCE BUILDUP IN THE SURFACE COATING DIVISION

Axel Bolowich
Sales Manager for the
Surface Coating Division

We are pleased to welcome Mr. Axel Bolowich, who will be starting in October, 2011, as our new Sales Manager in the Surface Coating Division. Even during his studies in mechanical engineering, he applied himself to the subject of "Fully automated coating processes in the automotive industry"; he could then apply the theory that he had learned as a sales engineer for coating systems at Eisenmann in Holzgerlingen. During a restructuring of the Group in 2007, Mr. Bolowich moved into the Sales Department and actively built it up. Besides the definition and integration of a sales process for the Group, as well as the management of sales activities, regular reporting and support of strategic corporate planning were among his areas of responsibility.

After the successful establishment of the department, Axel Bolowich moved backed into operational sales and has been working as the key account for

coating facilities since 2009. He also served as a trainer at the Education Center and has trained about 300 employees. His extensive experience with sales processes, coupled with in-depth knowledge of the industry, distinguish Mr. Bolowich as someone who can optimally lead and manage sales at Sprimag.



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Mark Höhmann
Sales Representative
in the Surface Treatment Division
The sales area in the Surface Treatment

Division has received additional reinforcement in the person of Mark Höhmann, who has been supporting the sales team in Kirchheim since early September. As early as 1998, Mr. Höhmann was working for Sprimag as a process and applications engineer at the Applications Center and therefore is well-versed in regards to coatings. He gained more experience at Sorg Plastik in Mexico, where, among his other duties, he managed a coating facility. From 2006, he worked as a project engineer at Industrias KI Mexiko, where his duties included technical responsibility for system concepts. Mark Höhmann recently worked as a segment director for coating,



grinding and decor at Schuberth GmbH in Magdeburg. His many years of experience in the area of coating, as well as his intercultural expertise, are good prerequisites for capably supporting Sprimag customers worldwide.

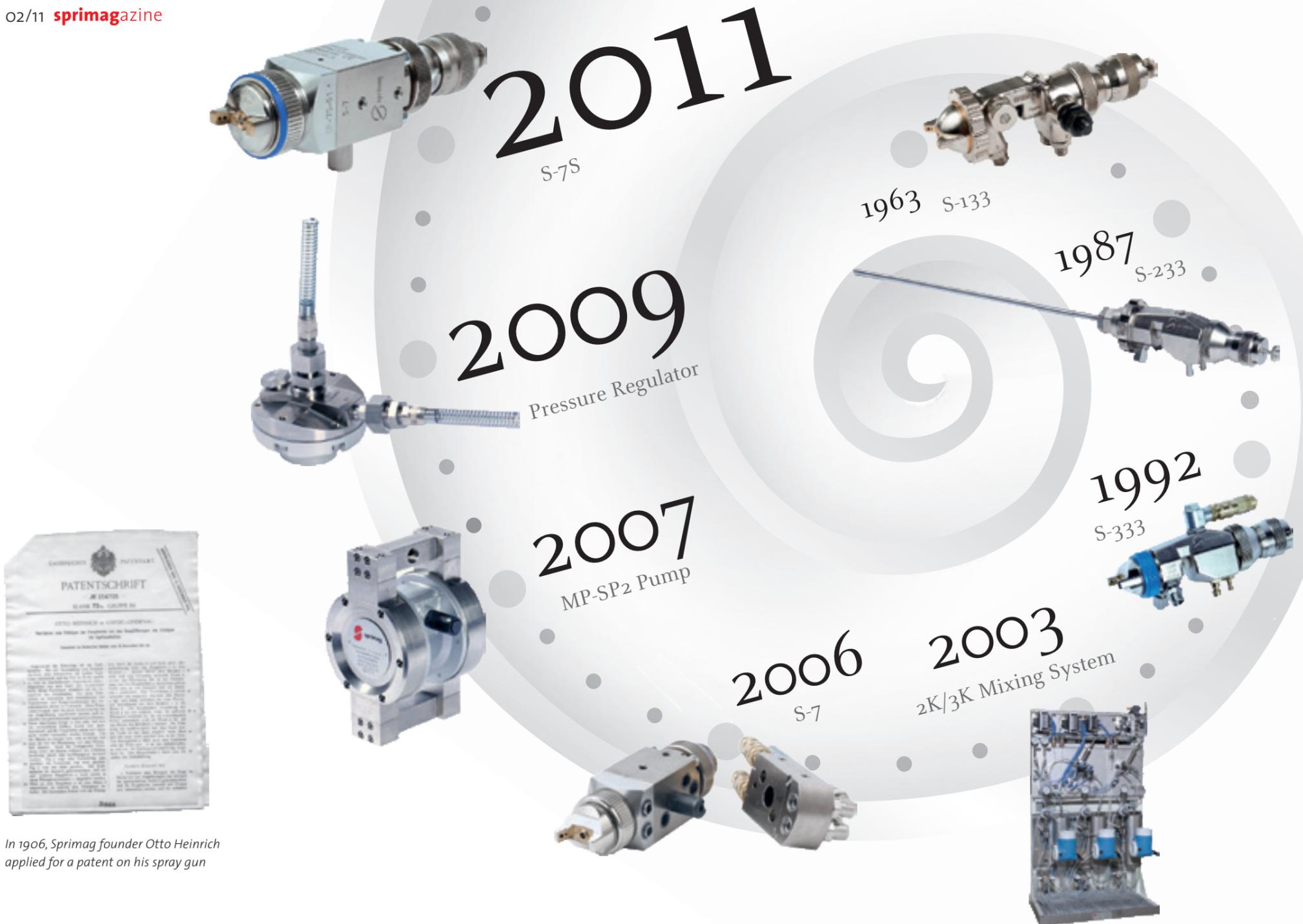
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Shinji Hagiwara
Business Development Director,
Sprimag Inc. USA
Since August 1, 2011, Mr. Shinji Hagiwara has been supporting product sales at Sprimag Inc., primarily for the Japanese market. Mr. Hagiwara, who was born and raised in Japan, began his professional career at Central Motor Wheel, one of the largest tire manufacturers in Japan. The company sent him to the US, where he completed his MBA at George Washington University in Washington DC. In addition, Mr. Hagiwara was head of sales for the TV Lens

Division at Corning, Inc., and worked for a plastic injection molding company; at YAC Robot Systems, Inc., he headed the US subsidiary of the robot system integration company. In 2010, he opened a sales office in Cincinnati, Ohio, for Matsumoto US Technologies; this failed due to economic difficulties in the home market of Japan. With his many years of professional experience and his cultural background, he is the ideal partner for Sprimag Inc. in the Japanese market.



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In 1906, Sprimag founder Otto Heinrich applied for a patent on his spray gun

Spraying, pumping, conveying

Sprimag application technology offers a broad range of products

When company founder Otto Heinrich applied for a patent on his spray gun in 1906, not everyone was convinced by the inventor's idea: some thought that the process was perhaps something for painters and printmakers. But the new spraying process established itself in the industry and this success soon led to initial requests for complete painting machines. In 1917, a year before the end of the war, Otto Heinrich designed an automatic interior painting system for Singewald in Leipzig-Rückmarsdorf for coating cans for food that were made of black sheet metal. Revolution, chaos and inflation during the postwar years initially prevented further development. Otto Heinrich, however, managed to get on his feet again, and on July 31, 1925, he founded Sprimag Spritzmaschinenbau GmbH in Leipzig.

A great deal has happened since then in the field of coating technology. Sprimag now manufactures advanced, automated complete systems for coating the most

widely varying production parts. In addition to system construction, Sprimag has also gained expertise about the entire coating process and is still continuing to develop and manufacture its own spray guns. One of the first Sprimag models was the S-116 spray gun with only one material and one

air connection. Even the follow-up model, the S-133, which went on the market in 1963, was equipped with two air connections. A special delay design was also integrated, which allowed internal control of the atomizing air, thus eliminating the formation of drops after shutdown.

In 1987, the S-233 was developed, which is a model that is proving itself even today in the most widely diverse coating applications. Because the piston and the sealing sleeve are made of nonreactive PTFE, setting and adjustment is not required. The version with two material connections enabled use with a coating circulation system for the first time.

In the next Sprimag spray gun - the S-333 - new atomizer technology using "HVLV" (High Volume Low Pressure) was used. This can work both with coating circulation as well as with a tap line.

Original photo of one of the first Sprimag spray guns

Having decades of experience in the development of spray guns, Sprimag designed the latest spray gun generation, the S-7, in 2006. This model stands out because of its user-friendly and modular design that provides, when coupled with proven technology, clear advantages over existing spray gun models. The basic body, which is available in

different versions for different application areas, can be combined individually with or without manual material flow adjustments. Different sets of nozzles make the S-7 the all-around talent in many areas. A distinctive feature of the S-7 is the quick-connect mechanism:

by a single turn, the spray gun body can be separated from the rest of the supply elements, such as the paint and air hoses.

The quick release coupling that was further improved at the beginning of this year is now available in a two-piece design. The modular design also offers suitable combination options for the widest range of applications. The part that conveys air has been separated from the part that conveys material, so that the most widely varying fittings can be selected, for example, for flushing valves or the paint-stop function. The paint-stop, quick release coupling is our latest innovation. It was developed with the aim of providing an opportunity for the system operator to change the spray gun without emptying the paint supply. This eliminates the time-consuming rinsing process that must be carried out before changing the spray gun.

The latest model in the Sprimag family of spray guns is the S-7S. It is specifically designed as an external spray gun and is impressive because of a new generation of nozzles with easy handling and optimum spray results. The new generation of nozzles using RP® or HLVP technology (Reduced Pressure or High Volume Low Pressure) provides the best atomizer quality along with air consumption that is reduced by approximately 20 percent.

Because the paint supply - in addition to the spray guns - is receiving a higher and higher priority in application technology, Sprimag is investing in numerous developments in this area. This is because - with the right equipment - faults are avoided

during the coating process and production costs are reduced. With its product line for supplying coatings, Sprimag covers the entire range, from the smallest amount all the way up to mixing systems. Sprimag designed the 2K/3K mixing system specifically for use in automatic painting facilities. This system enables the processing of paints that have a very short pot life. Along with the paint supplies and the mixing systems, additional Sprimag application

technology products are coming into use, such as the MP-SP2 diaphragm pump and the pressure regulator. In comparison to other systems, the specially coated interior of the pump provides for optimum rinsing. After the diaphragm pump had become a real bestseller, Sprimag presented its own pressure regulator in 2009. The goal in designing the pressure regulator was to have a combination of function, maintenance and flexibility without making any compromises. As customer inquiries and feedback have confirmed, the pressure regulator has also become a success.

With its automatic coating systems and the matching application technology, Sprimag is constantly striving to optimize the coating process. The innovative spirit of Sprimag's founder, Otto Heinrich, will be a model and an incentive for us as we go forward into the future.

On July 31, 1925,
Otto Heinrich
founded Sprimag
Spritzmaschinen
GmbH in Leipzig

INTERVIEW

“The market follows the basic principle: The best is the enemy of the good”

TUBEX has been one of the leading companies in the cosmetics, pharmaceuticals, food and technical products packaging sector for more than 60 years.

In recent years, TUBEX has established itself as an aerosol can manufacturer and has become recognized across the industry as the market leader. What does the company's director see as the secret of this success?

Motivated and well-trained staff, swift decision-making processes, the courage to try out new things and question the status quo, and customers who trust us.

Over the last ten years, none of the company's competitors has invested so much in new plant technology and infrastructure-related measures.

Do your competitors need to adapt to this in the next few years and cast a jealous eye towards Rangendingen?

The market is in perpetual flux and requires the ability to be proactive rather than merely reactive. And it follows the basic principle: the best is the enemy of the good. For TUBEX, this basically means that we have to prove ourselves every day in order to survive, and everybody in the company knows this.

TUBEX was the first company to develop powder coatings for internal surfaces in standard production. What do you see as the future of powder coatings?

We believe strongly in the future of this particularly environmentally-friendly new technology and expect it to further increase its market share as compared to conventional interior coatings. One aspect certainly providing the "added momentum" for the market is new high-performance powder suppliers.

What further technical innovations do you expect to see in the production lines of the future?

In addition to optimizing costs for materials and energy consumption, we expect technological advances in printing during the forming and stamping processes.

As a Group company, TUBEX runs

additional production facilities on different continents. What expansions are planned for the coming years, in particular with regard to aerosol can production?

Currently, we are planning new sites in Brazil and Russia.

At the moment, we are experiencing a boom in aerosol can manufacture; all manufacturers are completely booked and some have long delivery times. What do you think are the reasons for this situation, which is surely a good thing for your company?

On the one hand, we consider the increasing interest in aerosol cans to be due to the unique possibilities the aerosol can offers our customers in terms of design: printed images, can shape and stamping. On the other hand, users see them as simple, practical and convenient to use. The excellent recycling possibilities of aluminum is another aspect which, in our opinion, is becoming more important.

TUBEX is the largest employer in Rangendingen, a small location in a rural setting. Has the shortage of skilled labor, which is a widespread problem in Baden-Württemberg, been problematic for you too, and what strategies do you have in place for meeting this potential future difficulty? TUBEX has benefited greatly from our in-house training for skilled workers via apprenticeships and via the dual university system. Furthermore, in some cases, we are already seeing a third generation of employees working for TUBEX, standing testament to the appeal of our company and the area.

» We believe strongly in the future of the internal coating with powder. «

Leopold Werdich



TUBEX is a pioneer in the manufacturing of aerosol cans - the solvent-free inside powder coating is carried out with the installations of Sprimag.



LEOPOLD WERDICH,
Managing Director of
TUBEX Holding GmbH

After undertaking studies in Business Management at Friedrich Alexander Universität in Nuremberg, and Aston University in Birmingham, UK, Leopold Werdich then successfully completed a trainee program at Commerzbank AG in Frankfurt. In 1992, he joined the Schöller Group and was later appointed Commercial Director of Schöller AG in Vienna. Leopold Werdich has been the Managing Director of TUBEX GmbH since 2000, and the Managing Director of TUBEX Holding GmbH since 2009.

CALENDAR

Asia Cantech Conference

Conference for the beverage can industry
Ho Chi Minh City, Vietnam
October 17 – 20, 2011
www.asia-can.com



ChinaCan

Wuhan, China
March 21 – 23, 2012
www.worldcanconferences.com



NPE

The International Plastics Showcase
Orlando, Florida, USA
April 1 – 5, 2012
Stand 2003
www.npe.org



PaintExpo

World's Leading Trade Fair for Industrial Coating Technology
Karlsruhe, Germany
April 17 – 20, 2012
Hall 2, Booth 2511
www.paintexpo.de



GulfCan

Conference for the Metal Packaging Industry
Dubai
September 2012
www.worldcanconferences.com

LatinCan

Exhibition and Seminar for the Metal Packaging Industry
Miami, USA
November 2012
www.worldcanconferences.com

ANNIVERSARIES

10TH ANNIVERSARY

Sprimag Germany
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Mienis, Chyntia
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Rasch, Fred
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Schmid, Simone
» Technical Draftsperson
Schmidt, Albrecht
» Process Engineer
Zebisch, Stephan
» Documentation

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» Service Technician
Sprimag Brasil Ltda
Joel Pinto de Miranda
» Team Leader
Alessandra Branco de Oliveira
» Customer Care
Ailson da Silva
» Machine Operator

25TH ANNIVERSARY

Sprimag Germany
Niessner, Jochen
» Electrician
Schiedl, Hubert
» Service Technician

40TH ANNIVERSARY

Sprimag Germany
Friedl, Hans
» Mechanic
Lang, Elvira
» Office Clerk

40 Years of Service at Sprimag: Hans Friedl and Elvira Lang



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

IMPRINT



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