



New Tube Latexing Machine TGA-200/300

» Page 2



Coating automotive interior efficiently

Thanks to an extensive modernization of the paint supply, plastic parts at Key Plastics are now coated more efficient.

» P.3

OVERVIEW

1 Editorial

New mixing unit generation

2 News + Facts

- » Success at spring trade fairs
- » Online service support
- » Sprimag at K 2013

Production start for the TGA-200/300

Compact robot spray cabin for small batch sizes

3 Coating automotive interior paint efficiently

4 Design and function combined in a lacquer

Interview with Michael Hinger, technical manager at Berlac

New employees

Imprint

Calendar



Joachim Baumann and Philippe Nollet, Managing Directors of Sprimag

Dear Readers,

The fall issue of our Sprimagazine is dominated by innovations. We have clearly defined "The right product at the right time" as part of our corporate philosophy. It is now time to inform you about two product innovations: The new TGA-200/300 tube latexing machine and a new sprMix II mixing unit generation. These two developments are further enhancing our expertise in the area of process engineering because, in addition to machine construction, we have a firm grasp of the complete process and the procedure.

Thanks to the new TGA-200 tube latexing machine, Sprimag satisfies the high demands in the metal packaging sector. The TGA-200 was designed with a transfer and latexing concept on a drum in order to ensure an absolutely precise position of the aluminum tubes. The impressive features of the new automatic tube latexing machine are its higher output, improved

application quality and greater flexibility.

The new sprMix II mixing unit generation makes it easy to change a wide range of coating systems. The sprMix II is characterized by high process reliability, shorter cleaning and rinsing times, and a compact design. An integrated database module facilitates intuitive operation. The new mixing unit can also be used with existing machines in order to optimize coating efficiency. We have summarized a practical example for you on Page 3.

We hope you enjoy reading the informative articles about our innovations and other exciting topics in this current issue of our Sprimagazine!

Joachim Baumann *Philippe Nollet*
Joachim Baumann Philippe Nollet

New mixing unit generation

The new Sprimag sprMix II impresses with its compact design, intuitive operation and shorter cleaning and rinsing times.

Sprimag multi-component mixing units have already been used successfully for just under ten years. The sprMix units offer uncompromising accuracy, especially with discontinuous coating, when several application systems are used simultaneously or with low output volumes. This ensures maximum coating efficiency with all layer requirements. The unit can be operated intuitively since it is equipped with an integrated database module, a visualization system, a pot life alarm with automatic rinsing and a coating application rate monitor. When combined with Sprimag coating systems, the mixing unit control system can be combined completely with the machine control system.

Only dead space-optimized components have now been used in the new sprMix II. This firstly increases process reliability, even with coatings which are commonly regarded as difficult to process, and secondly leads to higher availability due to substantially shorter rinsing and pressing times. Changing many different coating systems is not only possible on paper. Testing or cleaning of the main units is carried out with just a few movements. The optimized software contains, for example, user-defined rinsing sequences, a VOC meter and an integrated help system. The new basic unit is much more compact and therefore requires less installation space. However, this does not lead to any restricted accessibility.

sprMix units can easily be extended or their functions updated at a later date.

sprMix II – the new mixing unit generation



» Rainer.Mendl@sprimag.de

NEWS + FACTS



Sprimag at the PaintExpo 2012

Success at spring trade fairs

Sprimag was represented at two coating technology trade fairs this spring. PaintExpo in Karlsruhe set a new record with more than 8,000 visitors. Sprimag's attendance was also a total success: A large number of prospective customers came to our stand to obtain information on the new mixing unit and other product innovations. O&S, International Trade Fair for Surface Treatments and Coatings, in Stuttgart also attracted a record number of visitors and provided Sprimag with a good presentation platform.

» Marketing@sprimag.de



Sprimag Remote Support – Service without costly traveling expenses

Online service support Sprimag at K 2013

Sprimag is continuing to extend its support services. Thanks to the new Sprimag Remote Support, we can provide remote service as if we were directly at your premises: We will therefore provide you with fast support throughout the world in future without any extensive travel costs. The online support service will be shortly available on our website: www.sprimag.com/service. If you are interested in this service, please contact our Customer Care Department at:

Service@sprimag.de

K, the world's largest trade fair for the plastics and rubber industries, will be held again in Düsseldorf from October 16 to 23, 2013. The entire exhibition space in the 19 halls at the Düsseldorf Trade Fair Center has already been booked. This industry meeting-point, which only takes place every three years, is also one of the highlights of the event calendar for Sprimag. Sprimag will again present exciting innovations from the area of plastic coating to experts in Hall 4.

» Marketing@sprimag.de

Production start for the new machine generation TGA-200/300

After a year of development and construction, Sprimag starts with the manufacturing of a new latexing machine generation.

The machine, named TGA-200 or rather TGA-300 will extend the production range of the existing TGA-250. After successful offering of latexing machines with a belt transportation system, the new generation differs mainly in the conception of transferring and latexing on a drum. Thus Sprimag will be the only manufacturer that can offer an alternative latexing machine concept to its customers.

Please be informed about the advantages of TGA-250: This machine is typical for its customer-friendly conception, as well as the belt transportation system, which does not need any format parts in the selected diameter range, as well as the good accessibility to all machine components. The machines of the new TGA-200/300 range will meet all future requirements in accurate latexing- and heat-seal lacquer applying much better. Depending on the corresponding type of the top-mounted machine a cradle transporting system with plastic teeter cradles is prior to the infeed drum. The aluminum tubes are accurately positioned by this infeed drum and transferred directly onto the latexing drum. The tubes are optionally coated by either two centrifugal guns (TGA-200, max. speed: 180 tubes/min.) or three centrifugal guns (TGA-300, max. speed: 300



The new drum design ensures precise positioning of the aluminum tubes.

tubes/min.) of the newest model S-540. Afterwards the tubes are transferred onto an outfeed belt, which grants an accurate unloading into the following

packing machine. The outfeed belt is, in case of the optional heat-seal lacquer apply, provided with driven transportation rolls, which avoid any mixing of the lacquers.

Due to the flexible infeed, this machine is compatible with all existing machines – not depending on the technology and manufacturing year of the prior top-mounted-machine. Please draw your attention especially on the optional extensibility of the new TGA-200/300 to a complete whole-/crack testing machine. Hereby the

transfer, in the basic version only the transfer drum, is extended to a test station with 20 test heads. These grant sufficient long test periods. This solution

is space-saving and makes the test conceptions of high-priced stand-alone-machines, as well as the additional required tube transfers not necessary.

Furthermore Sprimag offer also for this machine its own developed application system Easy-Step. This system enables the re-/and adjusting of the latex apply during the production via the operating panel, thus unnecessary machine stops or parts wastage during the ma-



The belt transportation system works without format parts.

chine start can be reduced to a minimum. The design of the new TGA-range is similar to all Sprimag machines used for the internal coating area. Operators comfortably reach all function- and format parts due to the huge, safety windowed doors. All machine functions are simply and intuitively operable by the integrated touchscreen operating panel.

Sprimag has already started manufacturing the first machines – according to customer's purchase orders. Joachim Baumann, responsible manager for technology and sales, feels sure that Sprimag will reach with this new machine generation lots of success: „We are able to offer our customers two completely different systems in the future, each is optimal customized to the requirements of the customer. With the new TGA generation we will also meet new, constantly increased requirements both regarding speed, quality of application and flexibility. So we geared up for latexing and challenges in the next few years.“

» Joachim.Baumann@sprimag.de

Compact robot spray cabin for small batch sizes

The new, compact robot spray cabin from Sprimag saves space, is flexible and can be used for many different part coatings.

Sprimag has developed a new coating system in order to satisfy the increasing demand for a flexible system for small batch sizes. The compact robot spray cabin ideally complements Sprimag's existing product portfolio.

The system features a Fanuc Paint Mate Robot placed on a base frame. The robot's controls are connected to a servo-assisted rotating spindle.

The flexible system can also be used primarily for small batch sizes, e.g. for feasibility analyses, parts sampling or pilot series. It is also ideally suited as an addition to the production system: Samples of new series parts can be tested, for example, without interrupting the production process. The set parameters



The compact robot spray cabin is an ideal addition to a large production system (above).

in the small system can be used for later production on the large system, thereby reducing costs and time considerably.

The compact dimensions of the system (2100 x 2000 x 3000 mm) make it easy to transport and set up at the customer's premises. The system is practically ready to use immediately.

Another advantage of the compact system is its flexible use. Many different part geometries can be shown on the system. A wide range of parts can be coated - from rotation symmetrical parts, which are positioned on a rotating spindle, through to two-dimensional parts mounted on a conveyor system (dimensions: 400 x 400 mm). In order to show this wide range of parts, the system contains extensive basic equipment. Different example programs for area spraying, externally and internally spray rotating parts, and spraying with spray gun positioning are programmed as standard. These programs can be adapted by the customer to

specific parts in order to ensure exact reproducibility of the coating quality with different parts.

In order to satisfy the many different demands of customers, we have compiled an extensive range of accessories. The large number of options ensure that the system will also be flexible in future.

» Mark.Dekreon@sprimag.de



Feasibility analyses, parts sampling or pilot series can be shown on the compact system



The 43 supply tanks are centrally coordinated and controlled by one software.

"Thanks to the modernization of the paint supply system, product changeover times have improved significantly"

Manuela Alves, Process Engineering, Key Plastics Portugal

The combination of a Flat Bed Coating Machine and a Sprimag Paint Supply System is achieving the best coating efficiency at Key Plastics.

Key Plastics is an international supplier of automotive plastic parts. This world-renowned supplier designs, develops, manufactures and assembles components for automotive interiors, as well as exterior parts, such as door handles. At its site in Leiria, Portugal, there are over 600 employees. Starting from the CAD drawings, the prototype fabrication, the injection molding and going through to the coating, the laser treatment and all the way up to the assembly - all the steps are carried out at this location.

From its site in Leiria, Key Plastics supplies several Tier One international Clients. The end Products equip most European OEMs.

A wide range of parts and the most widely different types of paints at a single facility

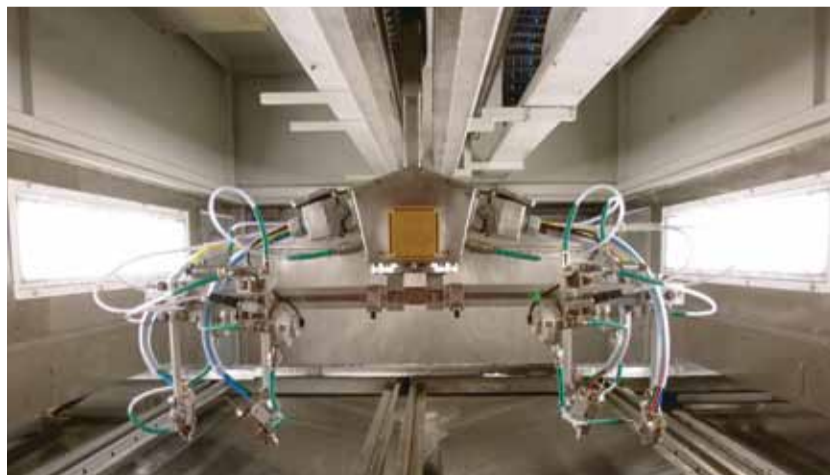
From window control knobs to radio/navigation buttons and all the way up to entire control consoles, the most widely different types of parts are painted at Key Plastics. To provide this wide range

of a 1-component water-based paint system, as well as a 1-component solvent-based paint system. The 43 supply tanks are centrally controlled via software. The most widely different types of coatings can be used: laser etch able paints, primers, metallic paints, clear coats, decorative paints, high-gloss paints and soft touch coatings can be processed using the Paint Supply System.

Latest Sprimag Application Technology

In recent years, Sprimag has continually developed new products to optimize paint handling systems. These new application products can also be installed in older facilities in order to reduce rejection rates as well as paint changeover times.

At Key Plastics in Portugal, the Paint Supply System for the existing Sprimag Flat Bed Coating Machine was modernized during the summer of 2012 when the company was closed for vacation. The aim was to further increase the performance of the facility in combination with the Paint Supply System.



As part of the modernization, the latest Sprimag Application Technology has been implemented.

of parts at a single facility, the Paint Supply Systems must be perfectly matched to the needs of the parts to be coated. At this time, the following systems are in use at the Flat Bed Coating Machine: a 3-component solvent-based paint system, a 2-component water-based paint system,

Together with the customer, a concept was developed for bringing the facility up to the current state-of-the-art. Since this successful implementation, Key Plastics has been able to increase its daily production, as lower set up times are now required.

Innovative components supplier

Key Plastics is an innovative supplier of components and is therefore always interested in further developing and continuously improving its painting processes. The modernization of the facility mainly consisted of replacing or supplementing old components with the latest Sprimag

operating convenience and the resulting time savings were achieved.

Another advantage of the modernization of the facility is the significantly lower solvent consumption during the flushing process. This saves not only solvent, but also protects our environment. Because of the reduced amount of time spent on

ally developed. The implementation at Key Plastics shows that Sprimag provides good service, also for upgrading of existing systems, and can achieve a high level of savings in resources and costs by carrying out suitable modernizations.

» Bernd.Koerner@sprimag.de



The team of Key Plastic is excited about the modernization and the achieved paint efficiency.

Application Products. Mixing units, Pressure Regulators with integrated pressure sensors, and a new Spray Gun Controller were installed, and the Spray Gun was replaced with the new Model S-7S. These Sprimag Application Technology parts were specially designed to enhance the performance of the systems. Developed for a new generation of Mixing Units, the Application Products can also be easily installed in older facilities to generate an increase in efficiency there as well.

Improved ease of use

Additional new software components that were developed by evaluating long term customer feedback were also installed at Key Plastics in Leiria. In addition to providing better control of the application components, additional advantages in

maintenance, costs can be significantly reduced in the future.

"The overall process of fully automatic plastic coating has proven itself as being one of the most difficult in coating. It is therefore important for the customer to have a competent service contact for all types of partial processes." Customer Care, Sprimag.

The all-round support provided by Sprimag has also become indispensable for Key Plastics. Sprimag distinguishes itself by having a very high level of technical expertise, ranging from system design through the development of the paint supply and all the way up to the manufacturing of the spray gun nozzle needle. Even the software is provided by Sprimag; it is matched in-house to the customer's requirements and is continu-

THE ADVANTAGES AT A GLANCE:

- Very good paint efficiency compared to other painting facilities.
- User-friendly operator control terminal with a graphical display that shows all of the components, including the Mixing Units.
- Complete process control, including the paint application amounts per carrier system.
- Searchable database for paints, hardeners, thinners and products.
- Low rejection rates, even for high-gloss paints.
- Sprimag is capable of modernizing existing facilities, and, because of its excellent service, can respond to changed requirements by making modifications and improvements.
- Sprimag Customer Care is in contact with over 500 customers worldwide. It handles problems and complaints about components, develops smaller-sized products and improvements, and carries out testing at the customer's facilities. These experiences were ultimately to the benefit of Key Plastics.
- The continuous development of application components is seen as positive. Sprimag's own new product developments were upgraded (Pumps, Pressure Regulators with integrated sensors, Mixing Units, S-7S Spray Guns).

INTERVIEW

Design and function combined in a lacquer

„Thanks to the colored clear lacquer developed by Berlac, it is possible to design chrome electroplated and chrome-plated plastic parts with individual colors“, said Michael Hinger, Technical Manager at Berlac

Berlac has launched a durable and individually colorable clear lacquer for chrome-plated plastic parts on the market. What were the reasons for this development?

For decades Berlac has specialized in surface coating of electroplated components for different industries. Customers have always been impressed by the attractive color design, for example of spectacle frames and writing implements. One of the reasons for the development of a new lacquer was that sufficient adhesion could only be ensured to date by using baking systems. However, since there was also demand for color design and individualization with chrome-plated plastic parts, we started development work in this area four years ago. We now have an automotive standard-approved system for surface coating of chrome-plated plastic parts. The customer can therefore also express the individuality of his brand through color design. Another reason was due to the problems with the salt



spray and CASS tests regarding corrosion resistance of exterior chrome-plated parts. Our system has improved corrosion resistance considerably.

What are the main advantages of the newly developed lacquer?

Individualization through color design plus improved corrosion protection is definitely one of the main arguments in favor of this lacquer. When combined with the UV top coat layer, the surface of the lacquer is also extremely scratch-resistant.

Expensive electroplating baths, for example a ruthenium bath, can be replaced entirely with no differences in color or degree of gloss by chrome electroplating and a correspondingly colored clear lacquer. Incidentally, this was one of our first projects implemented with a renowned automobile manufacturer. Gold or bronze color tones can also be individually adjusted.

In which industries is there demand for the lacquer?

At present, the clearest trend can be seen in the automotive industry. Other relevant industries are the sanitation and electronics industries. Since the lacquer is also used on metal substrates, great interest is also being shown, for example, by manufacturers of spectacles and writing implements.

What special demands does the lacquer place on the application technology?

That depends on whether a pure clear lacquer protective coating has to be applied or whether it should have a color design. Pure clear lacquers are easy to apply. They are available in gloss, silky gloss and matt formulations. In the case of colored layers, it be-

comes very complex in regard to the color tone, cloudiness, fat edges and naturally also gloss degree formulations. We carried out a great deal of development work in this respect both in regard to the formula know-how and the application technology.

» Individualization through color design plus improved corrosion protection is definitely one of the main arguments « Michael Hinger

Coating tests have already been carried out with the colored clear lacquer at the Sprimag Application Center. What experiences did you gain from these tests?

I can only praise the fantastic cooperation concerning the application technology with Sprimag's employees in the Application Center. We experimented there with many different techniques on the most difficult color tones and geometries, and managed to substantially optimize the formula know-how. In the end we achieved very good results with a special robot painting program and the "Hydro" and "Jet" atomization techniques for the S-333 and S-7 spray guns from Sprimag.



MICHAEL HINGER,
Employed by Berlac since 1995,
in the lacquering industry since 1979

What fascinates you particularly about lacquers?

The main fascination is their versatility at Berlac and the constantly new demands. In over 30 years in the lacquer business my work has never been boring. We coat so many everyday items such as Swatch and Rolex watches, ski goggles, sunglasses, sanitary showers, household appliances, electronic devices and automotive parts. You always walk around then with your eyes open. I also believe that lacquer simply makes the world more functional and more beautiful!

BERLAC is a member of the globally operating Berlac Group which specializes in the development and manufacture of sophisticated solutions for surface coating and coloring of plastics for different industries and applications. As a leading international manufacturer

of high-quality special and effect lacquers for decorative applications made of plastic, precious metal, electroplated or PVD-metallized substrates, Berlac primarily supplies manufacturers of the following products: automobiles, spectacles, cosmetic packaging, house-

hold appliances, hearing aids, medical technology, mobile radio and telephony, sanitary fittings, writing implements and watches and jewelry.

Hauptsitz: Sissach, Schweiz
Gründungsjahr: 1928

CALENDAR 2013

Aerosol and Dispensing Forum

Paris, France
February 06 – 07, 2013
www.aerosol-forum.com



CANNEX

The World Canmaking Congress
Atlanta, Georgia, USA
May 01 – 03, 2013
www.spgevents.com



Aerosol Congress

FEA International Aerosol Congress and Exhibition
Madrid
September 24 – 26, 2013
www.aerosolmadrid2013.com



K 2013

International Trade Fair for Plastic and Rubber
Düsseldorf, Germany
October 16 – 23, 2013
www.k-online.de



ANNIVERSARIES 2012

10TH ANNIVERSARY

Günter Wache
» Steel Construction Mechanic
Sven Timke
» Electrical Project Engineer
Brigitte Braun
» Accountant
Markus Glück
» Industrial Mechanic

25TH ANNIVERSARY

Gino Chittaro
» Painter
Bernd Körner
» After Sales Service
Jürgen König
» After Sales Service
Wolfgang Weis
» Mechanical Service Technician
Gerhard Heberling
» Storage Specialist
Christof Göhring
» Manager Electrical Engineering

40TH ANNIVERSARY

Günther Attinger
» Technical Service Manager

50TH ANNIVERSARY

Manfred Beck
» After Sales Service



90 years Sprimag: Günther Attinger and Manfred Beck

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

NEW EMPLOYEES IN THE SURFACE COATING DIVISION

In order to serve the surface coating technology market even better, Sprimag has established a new project engineering department. Sprimag's project engineers work at the interface between sales and design, and ensure that projects run smoothly.



Stephan Reuter
Project Engineering
Phone: +49 (0) 7021 579 -214
Stephan.Reuter@sprimag.de

Stephan Reuter has been supporting the surface coating team in Kirchheim-Teck since May 1, 2012. The trained machine fitter and mechanical engineer was already involved in sales and had worldwide responsibility for technical support and product training. His experience in process and system planning will certainly benefit us and our customers.



Oliver Fuchslocher
Project Engineering
Phone: +49 (0) 7021 579 -245
Oliver.Fuchslocher@sprimag.de

Oliver Fuchslocher has many years of experience in project management and structural development of machine tools for assembly and test systems in the automotive industry. Since July 2012, he has been working as a project planner with responsibility for the design and offer preparation of surface coating machines. He will actively support our team thanks to his extensive knowledge.

IMPRINT



Sprimag
automated coating systems
Sprimag
Spritzmaschinenbau
GmbH & Co. KG
Henriettenstraße 90
73230 Kirchheim/Teck, Germany
Phone: +49 (0) 7021 579-0
Fax: +49 (0) 7021 41760
info@sprimag.de

Responsible for content:
Bettina Maier-Hermann
(V.i.S.d.P.)

Design and production:
pr+co GmbH,
Tine Bärthel, Martin Reinhardt
Fuchseckstraße 7
70188 Stuttgart

Picture credits:
Title: Shutterstock
P.4 top: Berlac
All other pictures: Sprimag

Repro and print:
Bertsch KG Medienproduktion
Friedrich-List-Straße 4
70771 L-Echterdingen, Germany