

## **Trends and developments in the surface decoration of plastic components**



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Jörg Günther has a Master's degree in Industrial Engineering (FH), and has worked at the Kunststoff-Institut Lüdenscheid GmbH since 1995. He initially worked in quality management and material testing/failure analysis. At the same time, he was involved in technology for coating and decorative processes for moulded plastic parts, and took on overall management of the Surface Technology department in 2000.

In 2004, he became an authorised signatory and member of the General Management of the Kunststoff-Institut Lüdenscheid.

As differences in quality and technology become increasingly minor, so end users frequently make their decision to purchase a product based simply on its design. And besides the product's geometry, the greatest influencing factor here is its surface finish.

With the aid of surface coatings, it is possible to lend the "naked" plastic part an aesthetically pleasing appearance, a more agreeable tactile quality and to make it appear more valuable. This is frequently combined with information conveyed by the application of symbols and text such as numbers, company logos, etc.

In addition, the type of surface is a decisive factor in respect of the chemical and mechanical/physical properties required of the component, such as resistance to abrasion or scratching, UV resistance and lack of sensitivity to cleaning agents, perspiration, etc.

In this presentation, an introduction to the subject is followed by a brief description of current techniques and a presentation of the latest trends and new surface decoration methods.

## **Key considerations in developing high performance molding systems for packaging**



**Jordan Robertson**

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Jordan Robertson has a Bachelor's degree in Mechanical Engineering and Management from the McMaster University, and is also a Master of Business Administration. He has 17 years' experience with moulds and machines for thin-walled items specifically for the drinks industry. Mr. Robertson has been General Sales Manager at StackTeck since 2001.

Mr. Robertson is a member of the Board of the "In Mold Decorating Association" (IMDA), and an industrial advisor for the McMaster University's engineering and management programme.

Where speed, availability and therefore productivity are concerned, it is the packaging sector that faces by far the most stringent requirements. In order to comprehensively satisfy these, innovative solutions are required, from product design through mould technology to automation.

This presentation deals with the topic of an ultra-light plastic component design (TRIM™), and discusses different mould concepts and their requirements. It also tackles the subjects of stack moulds and special mould features for screw caps, locks and seals, thin-walled items and IML applications. Further important points raised are the potentials of automation, part handling and rapid product change.

## **Combining production technologies intelligently – new ways to produce hybrid assemblies**



**Andreas Strobl**

**Otto Bihler Maschinenfabrik GmbH, Germany  
Internet [www.bihler.de](http://www.bihler.de)**

Andreas Strobl is a Sales Manager at Bihler, and is therefore responsible for the operative side of sales in Scandinavia, Germany and Switzerland. Before this, he gained experience as a field worker at Bihler, as a plant manager at a medium-sized supply company in Denmark, and spent eleven years as a managing partner in a trade and service company for capital goods in the metal industry, also in Denmark.

Increasing variety and ever smaller production series demand highly flexible production systems. Here, Bihler's system technology offers intelligent solutions in the field of hybrid parts, by combining the strengths of extremely varied production technologies in one production system. The result is fluid, highly flexible inline processes for made-to-measure products with maximum product quality.

As an actual case example, the speakers present the fully automated inline production of a variable switch assembly, starting with the blank metal strip and including NC stamping, bending, welding, thread production, assembly processes and the plastic injection moulding process, right up to the ready-to-install product.

**Efficient production –  
exploiting the potential of the SELOGICA**



**John Ward (HND – Mechanical Engineering)**

**ARBURG, Inc., USA  
Internet [www.arburg.us](http://www.arburg.us)**

John Ward has been working for several years for Arburg USA as National Sales Manager for North America. With over 20 years of experience in the industry of technical injection molding he has witnessed the evolution of the human - machine interface (HMI), and the continuous development of its role and importance as the central control for complex production cells.

The formula for success in global competition is to produce perfect product quality at the lowest unit cost. However, to achieve "efficient production", maximum productivity with the shortest possible cycle times and energy-efficient systems with maximum availability are required. To this aim, the production environment as a whole must be taken into consideration.

The presentation provides an overview of the different aspects of "efficient production". One key subject is the SELOGICA machine control system. With reference to concrete examples from the field of injection moulding, the presentation flags up potential optimisation measures and their effect on unit cost reduction.