

HENNECKE PRESS RELEASE

ElastoLine Days

"It was very worthwhile for us to attend."

As part of an extensive reengineering programme, Hennecke has significantly improved major functions of its elastomer machines. To let the customers know about the technical novelties, the company invited elastomer processors from German-speaking countries to attend the so-called ElastoLine Days which took place in Sankt Augustin, on 4 and 5 September 2007.

The focus was not only on the papers that were delivered on that occasion, such as "Overview of elastomer systems" (Bayer MaterialScience AG) and "New ElastoLine machine technology" (Hennecke), but also on the explanation and presentation of two ElastoLine plants.



photo: Hennecke GmbH

The most important novelty of both plant types is the Wintronic plant control system which is based on a Siemens PLC control system with a 12" TFT monitor. The plant control system represents the human-machine interface. The use of Wintronic has made this interface much more convenient and simple for users, for example through flow diagrams with setpoint and actual values which provide them with an instant overview of the machine's operating state.

The Wintronic control platform supports the operator in his work, helps him to avoid errors, assists him in the case of a fault and offers numerous extended storage and query options, a wide variety of interfaces as well as comprehensive language support. As an optional feature, service and diagnostics can be made available via modem. In future, Wintronic will be installed on all ElastoLine plants.

Vulkollan® application

Hennecke demonstrated the complete Vulkollan® production process from prepolymer preparation to machine processing on the example of a 2-component system.

The reaction tank for producing the prepolymer is no longer located at the same height as the work tanks, but above them. This eliminates the need for a pump. The reaction tank is placed on a scale which measures the material weight and automatically requests and adds the second component for the mixture preparation. Manual weighing and addition of the second component with its adverse health effects is now a thing of the past.

For the Vulkollan® application, Hennecke also offers a 3-component design of its ElastoLine equipped with two prepolymer tanks. This way, the output can be doubled from previously 7.5 kg/min to 15 kg/min. The mixture discharge is laminar despite the higher output, which has been achieved by adapting the geometry of the mixhead outlet to the flow conditions of the larger component quantities leaving the system.

The extended ElastoLine version increases the effective machine availability, because the alternate use of the two prepolymer tanks enables for the first time a 3-shift operation while adhering to cleaning and maintenance cycles.

"Quasi" system application

On the example of an extended 3-component ElastoLine system, Hennecke explained how to process so-called quasi systems preparing the components polyol, isocyanate and crosslinker in separate work tanks and mixing them together in the mixhead.

The crosslinker is no longer mixed with the polyol before being fed to the mixhead; instead, it is now added as a third component. As a result, wide ranges of hardness can be produced using the same raw material systems while enabling rapid formulation changes.

Upon request, ElastoLine can be equipped with buffer tanks for polyol and isocyanate with a max. volume of 500 litres. These buffer tanks automatically control the level of the work tanks and can be fed from 200-litre drums, rendering the need to fill the work tanks directly from the drums unnecessary. The buffer tanks are filled by vacuum without interrupting the production process.

The colour used for customised coding, e.g. of the different Shore hardness ranges of the PU cast elastomers, is no longer mixed into the polyol as an additive; instead, it is added as a fourth component via the mixhead. Hennecke has developed a mixhead expansion module especially for this purpose, suitable for up to four colours.

Positive conclusion ...

At the end of the 2-day event, Berthold Schimmelpfennig, project manager for moulded foam lines at Hennecke, drew a positive conclusion: "Our customers learned about the most important further developments of the ElastoLine machine, which has been on the market since 2001. It was a rather informal meeting of elastomer processors at a high technical level, with very interesting conversations and many helpful suggestions from our customers."

... and positive responses

Roland von Gersum (left), works manager, and Gerd Kesper (right), head of polyurethane processing, Wicke GmbH + Co. KG, Sprockhövel-Herzkamp

"We found the event very informative, the papers were very good. The 3-component ElastoLine is particularly interesting to us, because it opens up the possibility to realise various Shore hardnesses with different colours on one production day.



We have been working together with Hennecke for more than 20 years, and we are still using a SK machine for Vulkollan® that dates back to 1985. What we appreciate about the cooperation with Hennecke is their comprehensive expertise, the customer orientation and personal support as well as the fast availability of spare parts."

Joachim Kempe (right), managing director, and Jürgen Ott (left), production manager PU elastomers, PHILIPPINE GmbH & Co. Technische Kunststoffe KG, Lahnstein

"It was definitely worthwhile for us to attend. The event and the technical papers were very informative. Above all, it was interesting to see how the company responds to the customers'



requirements and that they offer elastomer machines that bring greater business benefit to users than standard machines.

We were particularly impressed with the extended ElastoLine version with three separate work tanks for polyol, isocyanate and crosslinker. This way, we have even more possibilities and can alter the Shore hardness from one step to the other.

We are already employing elastomer technology from Hennecke and are very satisfied with it. The service is excellent, we always have a personal contact to answer our questions."

Manfred Heckert, managing director P + S Polyurethan-Elastomere, Diepholz

"Personally, I wish that this type of events could be repeated regularly. For business managers, like me, being informed early on recent innovations means that we can plan activities more effectively.

I was particularly impressed with the 3-component plant, which allows covering different Shore hardness levels and where the colour can be added flexibly via the mixhead. The extremely user-friendly Wintronic control system was also very interesting to me.



We have been using Hennecke technology for some time now and are very satisfied with it. For next year, we are planning a further investment. We assume that by the end of 2008, we will have a 3-component ElastoLine of the type shown on this event. There is no alternative on the market."

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