

## **Press release**

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### **Experiencing automation – hands-on programming of robotic systems!**

**Arburg’s Practical Automation Forum a  
complete success / 350 international  
visitors try out simple Selogica  
programming solution**

**Lossburg. There are many things that need to be  
experienced at first hand rather than merely  
being demonstrated. This is particularly true of  
the simple programming of complex automated  
sequences using the Selogica control system.  
Arburg offered precisely this opportunity to  
visitors during the “Practical Automation Forum”  
held at its Customer Center in Lossburg from 14  
to 18 December 2009. 350 international experts  
took advantage of this exclusive event to**

**program robotic systems for themselves during workshop sessions, to learn about the practical details during specialist presentations and to obtain information on the extensive range of automation solutions available from Arburg.**

The "Practical Automation Forum" was Arburg's response to the ever-growing interest in project and automation solutions. The modular range of machine and robotic systems provides the basis for the complex production cells that Arburg, acting as a main contractor, tailors to specific customer and industry requirements. Add to this the unique Selogica control system, with its graphic-oriented sequence programming, the enormous potential of which makes an especially significant contribution with regard to automation. This ensures that, in the light of increasingly complex moulded part production, the programming of even sophisticated production cells remains simple and reliable. Particularly impressive in this context are the teach-in function for the Multilift robotic systems and the implementation of the Selogica user interface on a six-axis robotic system from Kuka, which Arburg has realised together with system integrator FPT.

### **Customer Center provides the perfect forum**

As was the case during the Technology Days in the spring, the new Customer Center once again proved to be the perfect setting for the Practical Automation Forum. At the centre of the event was the generously proportioned 2,100 square metre exhibition space with numerous machines and production cells, a presentation area for the expert presentations and

plenty of room for personal demonstrations and individual customer consulting. The Arburg experts in attendance at the various stations during the three workshops explained the key details and helped visitors with programming advice. After all, the main focus of the event was hands-on experience of the Selogica system and its capabilities in order to overcome inhibitions with regard to robotic system programming.

### **Visitors “teach” Arburg’s robotic systems step-by-step**

The “Multilift” workshop presented the entire spectrum of Arburg robotic systems, which are fully integrated into the Selogica control system. The demonstrations ranged from the “teaching” of simple moulded-part removal and set-down operations, to cycle time optimisation.

The teach-in function enables the robotic system to learn the positions it has to move to in order to pick up and set down parts with the utmost precision. All the positions of the robotic system are travelled to manually in succession by the operator and confirmed with the “Teach” button. All the necessary parameter entries are then checked automatically by the control system. Simultaneously, Selogica independently generates the robotic sequence and integrates it in the machine cycle. Moreover, the permissible operating range of the robotic system can be configured with the greatest of ease, further increasing reliability.

Many visitors took the opportunity to try out the easy-to-use teach-in programming function of the Multilift robotic systems. They were particularly impressed at the fact that this requires no extensive prior knowledge. In practice, this not only reduces the training required for robot programming, but also significantly speeds up the set-up procedure.

### **Programming of six-axis robotic systems made easy**

The six-axis robotic system workshop clearly demonstrated that the complex movements of a six-axis robotic system are just as easy to program as the Allrounder injection moulding machines and Multilift robotic systems. The integration of the Selogica user interface in the robotic control system enables the machine installation technician to program the robot's complex sequence of six-axis movements within his familiar injection moulding environment. The integrated production cell automation allows communication with the Selogica machine control system via the standard robot interface and an additional fieldbus expansion. In particular, the extended real-time connection using the fieldbus offers much greater functionality. In addition to complex interventions in the mould, the start position can be moved to, random samples and good and reject parts can be separated out, and individual sequences for the first and last cycle can be easily implemented.

Appropriate activities were available for all the visitors, regardless of their level of experience in this

area: while the first station focused on familiarisation with the robotic system and its movements, as well as the insertion and removal of an injection moulded part in a separate clamping unit, the second station was much more complex. The task here was to integrate downstream production steps and to program the robotic system accordingly. Visitors were fascinated to see how even the complex movements of a six-axis robotic system could be programmed quickly, easily and without external help, thanks to the Selogica user interface. Those experts who already had experience with conventional sophisticated and complex six-axis programming were particularly impressed by the system's capabilities.

### **Arburg production cells convince visitors during practical operation**

Different production cells were used to demonstrate how the systems work in practice. The different Multilift robotic systems and the six-axis robotic system with Selogica user interface handled tasks such as insertion, removal, downstream assembly and palletising in boxes. Arburg used these exhibits to demonstrate both the potential of its machines, robotic systems and Selogica control system, as well as the overall expertise of its project department, which designs, implements and commissions individual, customer- and industry-specific production cells.

### **FPT confirms 70 percent time saving thanks to Selogica**

The workshops were supplemented by three expert presentations that offered interesting insights into working practice. Thus, FPT, which implements the Selogica user interface on Kuka six-axis robotic systems, clearly demonstrated the decisive benefits of this solution. Injection moulding companies receive a production cell with a flexible six-axis robotic system that can be independently programmed simply, reliably and flexibly, in the same way as a Multilift system and which can be operated using the Selogica machine control system. Previous experience has shown that this reduces the time required for programming and commissioning by around 70 percent.

### **Arburg proves that automation pays off**

The fact that such an investment also pays off in business terms was demonstrated by the presentation made by the Arburg project department. The costs of different production concepts, for example, were compared on the basis of a product: from manual insertion and removal and integrated parts handling with a Multilift robotic system to automation with a six-axis robotic system. Automation solutions were shown to pay off from unit volumes of only around 300,000 in the case of the sample product presented and the higher acquisition costs are amortised after roughly six months. It was also clearly demonstrated that the use of a six-axis robotic system becomes more worthwhile with every

modification because the injection moulding company is independent and can carry out the relevant tasks in-house, avoiding the costs associated with external programming.

The question of which concept is the most cost-efficient depends on many factors and must be decided on a case-by-case basis. In this context, the example also shows clearly that Arburg's broad product range enables it to individually offer the customer the most cost-efficient solution.

### **Gira sees six-axis robotic systems employing Selogica as an investment for the future**

One company that makes great use of these opportunities is Arburg's long-established customer Gira, which gave a presentation on pioneering robotic systems. According to Gira, Arburg is one of its most important system suppliers, which also offers automation from a single source. The decision to install a six-axis robotic system with a Selogica user interface in production was not made on economic grounds alone. The choice was also based on the opportunity to train personnel for the future and to reduce inhibitions among system users. This underlines one of the company's key strategies. "In the case of advanced technologies, investments are made at pilot plants in order to test practical value and further applications."

### **Impressing and convincing visitors – one hundred percent fulfilment of the event objectives**

The varied mix of workshops and expert presentations meant that visitors had the opportunity to extend both their practical skills and their theoretical knowledge in relation to automation. They also witnessed in detail the superior potential of the Selogica control system, which is the subject of continuous development by Arburg. According to visitors, this enabled them to gather valuable tips for their own production and ideas for the future. In addition, this event also focused on personal customer support from their contacts and individual consulting from the Arburg experts, which was also welcomed by trade visitors. This means that Arburg has succeeded in achieving its objectives for the “Practical Automation Forum” one hundred percent, concluding 2009 with yet another highlight.

### **About Arburg**

Arburg, a German machine construction company, is one of the leading global manufacturers of injection moulding machines for plastics processing with clamping forces between 125 kN and 5,000 kN. Fields of application include the production of plastic parts for motor vehicles, communications and consumer electronics, medical technology, domestic appliances and packaging. The product range is completed by robotic systems, complex projects and other peripherals. Arburg's operations are coordinated by an integrated management system and are DIN EN ISO 9001 and 14001 certified. Arburg is represented by its own organisations in 24 countries at 32 locations and by trading partners in more than 50 countries. However, production takes place exclusively in the parent factory in Lossburg (Germany) – with the mark of quality “made by Arburg – made in Germany”. From a total of more than 2,000 Arburg employees, around 1,700 work in Germany. About 330 further employees work in Arburg's organisations around the world. Further information about Arburg can be found at [www.arburg.com](http://www.arburg.com)

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