



2000 visitors at ENGEL Open House in Dietach

25 Years of Experience – 15,000 Robots

Schwertberg/Austria – September 2011. With competition and the demand for efficiency growing, system solutions – machine, automation, process technology, training and service from a single source – are becoming increasingly important. A trend that injection moulding machine builder ENGEL AUSTRIA identified at an early stage. ENGEL Automation Technology was founded 25 years ago, and 15,000 automation solutions have been built to date.

This anniversary was celebrated with an open house at the Dietach works in mid-September. 2000 visitors, mainly from Austria, the Czech Republic and Germany took this opportunity to take a peek behind the scenes of a state of the art robot production facility. "We didn't expect such large numbers of interested visitors", as Dr. Stefan Engleder, the works director at ENGEL Automation Technology in Dietach is happy to say.

"1200 new robots will be leaving the ENGEL works at Dietach this year for destinations all over the world", says engineer Johannes Brandstötter, Head of Sales at ENGEL Automation Technology during guided tours for visitors through the facility." And the trend continues to increase. This year, we anticipate record figures in terms of volume statistics for this location." Today, nearly one in two automated production cells sold by European injection moulding machine manufacturer is supplied by ENGEL, as is one in four robots delivered to the injection moulding industry. This makes ENGEL the clear global leader in injection moulding machine automation. More than 15,000 ENGEL robots are deployed worldwide. In addition to this, ENGEL cooperates with brand-name system partners to integrate multiple axis industrial robots into production cells for injection moulding processing, and designs and builds individually tailored automation solutions.



ENGEL viper range establishes a second line of business

"The huge success of ENGEL Automation Technology in the recent past has mainly been attributable to the new ENGEL viper robot generation," as Dr. Engleder emphasises. Thanks to the viper model range, this has opened up a second line of business in addition to system integration; after all, linear robots are often deployed as replacements for legacy machines and with third-party injection moulding machines.

The ENGEL viper robots are mainly characterised by their high load-bearing capability, the excellent positioning accuracy, and their dynamic motion. Three software features are responsible for this extraordinary profile of characteristics: vibration control eliminates structure-borne oscillation and ensures improved tracking and positional accuracy, while at the same time reducing cycle times. Mass identification detects the weight in the gripper and adjusts the speed of the axis movements to reflect the load on the gripper. This extends what is already an extremely long service life of the robot's mechanical system, while at the same time improving the productivity of the production plant. Efficiency control minimises robot wait times by allowing the robot to modify its motion outside of the injection moulding machine to automatically reflect the production plant's cycle time. This function again ensures a long service life of the robot's mechanical systems and makes a major contribution towards energy efficiency.

Five sizes with nominal load bearing capacities of between 6 and 60 kg are currently available. Visitors to Dietach were treated to a sneak preview of the new ENGEL viper 90, which will extend the top end of the model range as of the Fakuma trade fair in October this year. The viper 90 is designed for a nominal load bearing capacity of 90 kg.

Fully-integrated multiple axis robot

Complete integration of multiple axis industrial robots with the CC 200 control unit on the ENGEL injection moulding machines was another highlight of the product presentation during the anniversary event. Wherever ENGEL supplies injection moulding machines and



robots from a single source, full integration of the two control landscapes is guaranteed without needing an Euromap 67 interface. This sets the ENGEL solution apart from the many other suppliers whose understanding of integrating multiple-axis industrial robots is that of simply mirroring the robot's user interface on the injection moulding machine's display, without removing the need for the users to familiarise themselves with the two different control approaches. The ENGEL product developer's primary goal is thus: if you can operate the injection moulding machine, you can operate the robot, too. From the point of view of the CC 200 control unit on the ENGEL injection moulding machine, it really doesn't matter whether the machine cooperates with a linear device or a multiple-axis industrial robot. The control concept is identical for the two robot types. At the same time, the fact that the machine and the robot share data storage improves efficiency and process reliability.

Automation technology at three locations

ENGEL Automation Technology currently resides at three locations. Besides Dietach, automation centres exist at ENGEL's headquarters in Schwertberg/Austria and at Hagen/Germany. To do justice to ENGEL Automation Technology's continually increasing market share, substantial investments are also being made at the facility in Germany. Right now, the production floor space is being extended and the number of staff considerably increased.



2000 visitors attended the ENGEL Automation Technology open day in Dietach.



The ENGEL works in Dietach will be producing 1200 linear robots this year.

Pictures: ENGEL AUSTRIA

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ENGEL AUSTRIA GmbH

ENGEL is one of the global leaders in the manufacture of plastics processing machines. Today, the ENGEL Group offers a full range of technology modules for plastics processing as a single source supplier: Injection moulding machines for thermoplastics and elastomers, and automation, with the assurance that individual components are also competitive and successful in the world markets. With eight production plants in Europe, North America and Asia (China, Korea) as well as subsidiaries and representatives in over 85 countries, ENGEL offers its customers the optimal global support they need to compete and succeed with new technologies and leading-edge production systems.

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