

## Instant and consistent programming

*The right software increases productivity, decreases errors and provides maximum flexibility when it comes to programming robots.*

Whether you produce car bumpers or mobile telephones, one sure way to improve production is with the right software to make it easier to program and operate the robots used in production. Production becomes more efficient all through installation, production set-up and optimization of the robot cycle.

ABB's RobotWare Plastics Mould is unique software that does just this. Especially designed for machine tending and post processing in injection moulding, it makes the programming and operation of ABB robots easy. The software provides a user-friendly interface for programming and production, including safe home run – which allows the robot to continue production around a problem – plus user authorization, production statistics and event log as well as a standardized and structured way of programming for machine tending. The software also minimizes the learning curve, setup time, error recovery time and improves error diagnostic accuracy.

“The safe home run is one of several key features of the program,” says Anna Liberg production manager at ABB. Should a problem occur in one of the stations, RobotWare Plastics allows the robot to continue production around the problem, going to an alternative station. “The secure and automatic home run system takes the robot safely from any situation where it has stopped without any need to jog the robot in difficult areas,” says Liberg.

With RobotWare Plastics Mould, the Program wizard guides the inexperienced robot programmer through making a robot program. In just a few steps a machine-tending program is created. The software is built with symbol programming that hides programming language (RAPID) from the user. The experienced programmer can utilize the advanced programming possibilities to create and modify unique stations and grippers. The combination of symbol programming and RAPID modifications offers a very powerful and flexible tool to program and modify machine tending programs, whether for beginners or the most experienced of users.

The operator starts the customized cycles typical for injection moulding – production, run machine without robot, machine warm-up, quality control etc. – by hitting a button in the production window. The robot's movement is displayed in real time by the active station indicated by the green and red station icons on the color screen. Production statistics, signal status and error log are presented in a pedagogic fashion. The program compiles statistics such as total running times, cycle times, and can be customized to compile whatever statistics the user needs. “Extract times are calculated as well,” says Liberg. “This time in which the robot is inside the injection moulding machine is important to track, because it is a bottleneck of the machine cycle time.”



The RobotWare family of controller software is designed to increase productivity and to lower the cost of robotized production. RobotWare ensures optimal process performance through ABB's advanced Motion Technology that has the most accurate path holding on the market. Motion control is the key to the robot's performance in the area of path accuracy, speed, cycle time, programmability and synchronization with external devices. By improving these parameters, users improve quality, productivity and reliability.

ABB ([www.abb.com](http://www.abb.com)) is a leader in power and automation technologies that enable utility and industry customers to improve their performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries and employs about 109,000 people.

ABB is a leading supplier of industrial robots - also providing robot software, peripheral equipment, modular manufacturing cells and service for tasks such as welding, handling, assembly, painting and finishing, picking, packing, palletizing and machine tending. Key markets include automotive, plastics, metal fabrication, foundry, electronics, pharmaceutical and food and beverage industries. A strong solutions focus helps manufacturers improve productivity, product quality and worker safety. ABB has installed more than 150,000 robots worldwide.

*For more information please contact:*

**ABB Unit: ABB Robotics**  
**Contact Person: Malin Rosqvist**  
**Tel: +46 21 344 944**  
**E-mail: [malin.rosqvist@se.abb.com](mailto:malin.rosqvist@se.abb.com)**