

RobotStudio™

Case Study: SAPA Profilbäckning AB



Kent Svahn, robot programmer at SAPA Profilbäckning AB in Vetlanda, Sweden.

SAPA is an international industrial group that develops, manufactures and markets refined extrusions and heat exchanger bands in aluminium. SAPA is the world's leading independent manufacturer with customers in a large number of industrial sectors with good growth potential, high technological and knowledge content.

Flexible production with Robotstudio

Kent Svahn works as a production engineer at SAPA Profilbäckning AB in Vetlanda. SAPA bends aluminium extrusions, primarily for the car industry. "We also produce extrusions for smaller customers for production of shower cabinets, and also supply extrusions for larger suppliers such as ABB," explains Kent. Kent has worked on robot

programming at SAPA for three years, over the last year with the help of Robot-Studio. Kent goes on: "We have three robots in the production right now. Two handling robots for bending aluminium extrusions and one for milling aluminium. There are two robots in the cell I have programmed using RobotStudio."

RobotStudio the only alternative

A year ago Kent carried out tests for milling in aluminium of a specific component for one supplier. At that time we were introduced to RobotStudio for the first time. To be able to carry out the milling and meet quality requirements for our supplier, the system was programmed offline in RobotStudio. "It would have been impossible otherwise. We would not have been able to take on the project if we had not used RobotStudio," states Kent. "I have worked on offline programming in RobotStudio for the last year. The advantages of offline programming are that you can simulate before you operate in reality, which is a source of great comfort.

SAPA Profilbockning AB

The ability to make mistakes in a virtual environment instead of out in the workshop, which can lead to costly mistakes, is another advantage of offline programming,” says Kent.

High quality requirements from suppliers

The car industry, our suppliers, has very high quality requirements. RobotStudio has helped us to be able to meet these requirements using offline programs. Without RobotStudio, we would not have completed certain projects. In the latest project in which we used RobotStudio, it would not have been possible to program online. It is quite complex programming for milling a certain component.



Offline programming in RobotStudio.

Simple to correct

We minimise the risk of damage to machines and equipment by simulating the robot movements before we use them out in the workshop on the physical robot. “It is easier to make corrections offline in RobotStudio. The corrections we have gradually made in RobotStudio in order to get more effective milling, we definitely would not have been able to do online. These corrections have given us a higher quality in our components and helped us to ensure the quality,” states Kent.

The choice fell on RobotStudio

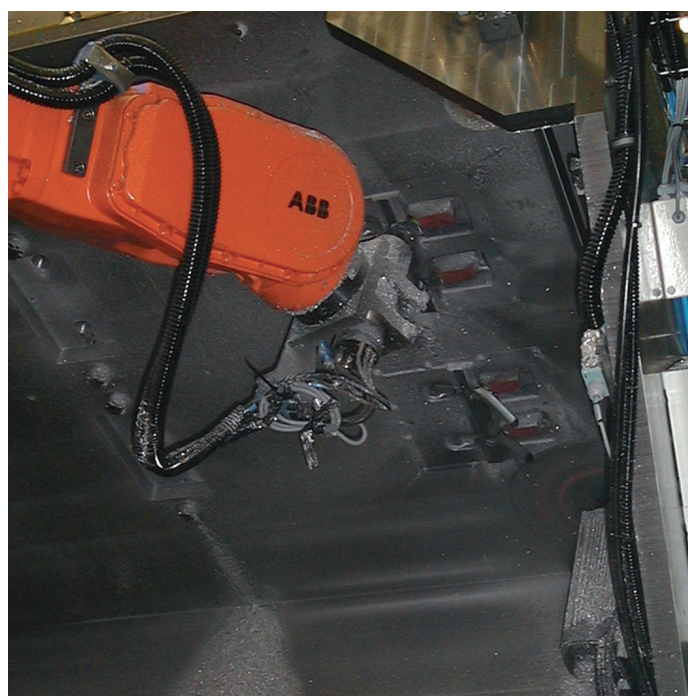
“We have looked at other software for offline programming but they were a bit too large and complex for our area of application. RobotStudio’s functions were completely adequate. By using ABB’s robots, it is very simple to move the programs between robots and RobotStudio,” explains Kent.

Pressurised project

Kent remembers the first project they did in RobotStudio. A component for the car industry had to be milled. “If you compare the time it would have taken us to run this project offline as opposed to online, I don’t think that it would have been possible for us to complete the project within specified time frames without RobotStudio.”

New project – doubled volume

We are currently building an identical copy of the previous robot cell which we programmed in RobotStudio. We are also continuing with RobotStudio in this project, where we are doubling our volume according to the customer’s wishes,” explains Kent in conclusion.



Bending of aluminium extrusions for roof racks, among other things.

FACTS SAPA PROFILBOCKNING'S FACILITY

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|------------------------|--------------------------|
| RobotStudio version: | RobotStudio 2.1 |
| Number of RS licenses: | 1 |
| Robot models: | IRB 6400, IRB 4400 |
| Control unit: | S4 |
| Payback RobotStudio: | After the first project. |

ABB Robotics

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