RobotStudio™

Case Study: Comtri – specialist manufacturer

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An hour away from the capital, in the Swedish countryside, a group of farm buildings disguises a pocket of innovation. Comtri is a small company that improves working conditions in indoor shooting ranges. Operating out of a tin barn, this tiny outfit casts new light on the viability of ABB's robot programming software.

Torsten Werner, Comtri's CEO, Production Manager, Robot Programmer and Operator.

"For the four of us RobotStudio means healthy progress. What Ernie thinks is anybody's guess."

Having dominated the local market with his patented bullet trap, Torsten Werner is getting ready to clear the air at indoor shooting ranges abroad. Six months ago Comtri recruited Ernie (a second-hand robot) in order to streamline welding of the one-ton modules that make up a bullet trap. Comtri's trap, patented in Europe and the US, literally eats all the lead you can shoot at it, which means instructors and cleaners don't have to breathe poison all day. Torsten remembers getting in touch with ABB: "We were surprised how affordable a robot is – even for a company as small as ours. It cuts production time and improves the quality of both welding and cutting dramatically. But almost immediately I knew that the programming time was going to be a bottleneck for us."

Christmas – time to play

Torsten installed and previewed the simulation software RobotStudio during the holiday. By early January he was programming the robot from his PC. "It cuts programming time by 50% and I don't need to climb all over the components to get the job done." In fact, off-line programming allows him to use the robot for jobs that were previously unthinkable – due to the lengthy on-line programming they would have required. For example there was no time for etching out the cutting paths on rubber matting."The rubber matting is the front of the bullet trap – the surface the bullet penetrates. For a large shooting range, the matting alone can take a couple of weeks to prepare – just over half that time with robot assistance. But that was of no use to us as Ernie was fully

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Programming Ernie kept Torsten busy last year...

...now, Torsten and RobotStudio are keeping Ernie busy.

occupied at this stage of the manufacturing process", explains Torsten.

More overtime?

Last year there were a lot of late nights in the workshop for Torsten and the robot. Now he enjoys the comfort of his home when he programs for a new component. But Ernie is going to have to put in a lot more hours – RobotStudio has seen to that. Apart from having to weld and cut other components like bullet proof doors, Torsten is even considering taking in sub-contracting work for the robot – so Ernie will be working day and night!

It doesn't make coffee but it can count the money alright

While Ernie is speeding up production, Finance Manager Karin Söderberg is able to accurately estimate the next project. "Since RobotStudio can project the cycle time for each component, we can budget for bigger and more complicated projects. The shooting range we're about to start work on is four times bigger than anything we've ever built." Comtri is one of the first small companies to benefit from RobotStudio. But according to Torsten Werner, manufacturers with their own construction or short product series are likely to be scoring points with it for a long time to come.

Comtri AB's clients include the Swedish Police Force, Ministry of Defence as well as private security companies. Torsten Werner can be reached on +46 (0)18-357 085.

FACTS AND FIGURES ON THE COMTRI CASE:	
RobotStudio version:	1.01
Robot:	2400L 1996 model
Robot Controller:	Version 2.1
Start-up time:	One month, including a week's course with ABB
Pay-back time:	Within12 months (Comtri's estimate)
Necessary knowledge:	PC and Robot experience, CAD can be an advantage
Number of RobotStudio units:	3 (the workshop, the office and Torsten's bedroom).

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