

RobotStudio™ Case Study: Össur



The Flex-Foot will be used by the world's fastest amputee Marlon Shirley in the Olympic Games, Athens 2004.

Össur product line represents the best in modern prosthetics and orthotics. The carbon fiber Flex-Foot is synonymous with high performance. Familiar to millions through the achievements of Paralympic athletes, the special properties of the Flex-Foot are equally outstanding for daily use and different activity levels.

The world's fastest

The production at Össur is mainly divided into three main areas: silicon production, carbon fibre production and metal production. Örn Ingvi Jónsson, Production Manager at Össur Head Office in Reykjavik, proudly tells us that their prosthetics

constantly gain success. Marlon Shirley, the world's fastest amputee and user of the Flex-Foot, has been qualified for the American runners' team for able-bodied athletes at the Olympic Games in Athens 2004. Made of carbon fiber, the Flex-Foot returns energy to the athlete as he runs. The design replicates the running qualities of the cheetah, the world's fastest land animal, and it is exceptionally popular with athletes everywhere.

The only intelligent solution

The carbon fibre feet are cut with a water jet cutting robot. "In the past, we only used CNC machines. Converting to robots is an important and enjoyable step for us. We are cutting faster and have increased our production significantly", says Örn Ingvi Jónsson and continues: "We have been running a lathe shop for a number of years and we have been using CAD/CAM right from the beginning. We have substantial experience in this area, so we saw the use of RobotStudio as the only intelligent solution."

Driescher Wegberg GmbH

Hundreds of cutting programs

RobotStudio helps Össur to adjust programs without notice and make changes – substantial changes – in a short period of time. This accelerates the whole production process and development. Börkur Jónsson is Robot Programmer at Össur: “We run over 200 cutting programs. All of them are programmed offline in RobotStudio. Almost no time is spent on changing the programs. After programming and installation it’s just a question of pressing one button and start the cutting process. With offline programming we can run the production line and develop new items without having to stop the production. This enables us to market new products quicker.”



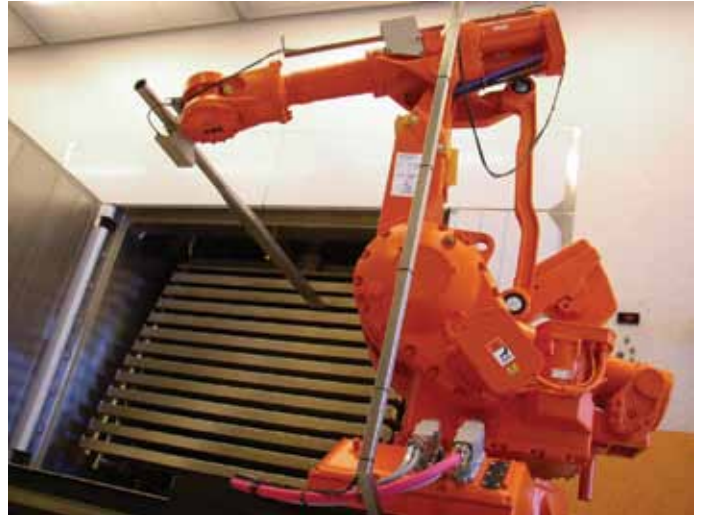
Börkur Jónsson has made over 200 programs in RobotStudio.

From design directly to production

“With RobotStudio productivity has increased as we can run the robot and program it at the same time. RobotStudio also helps to shorten our development time as we can take drawings directly from the designer’s drawing system and transfer it to RobotStudio. After only a few hours we have an item ready exactly as the designer want it. This is very important in the developmental process and thanks to this we’re very quick at getting items into production and on the market”, says Örn Ingvi Jónsson.



Örn Ingvi Jónsson is satisfied with the shortage of development



Preparation of antibiotics at Alpha HPI.

Improved quality

“The quality has improved as we quicker obtain the tolerance we require. By maintaining a balanced tolerance the quality turns out to be in very good order”, says Örn Ingvi Jónsson. Börkur Jónsson agrees: “With RobotStudio we have managed to solve almost all problems that we’ve encountered. It is a versatile tool which is very easy to use. RobotStudio has facilitated our production of almost all items. The processing from creating the program to the cutting process is very quick and reliable.”

Pictures all items

“RobotStudio is very easy to use. The interface facilitates all processing of intricate items, as they are visible – you can picture the items very well – as well as all programming of the cutting of these items”, explains Börkur Jónsson and concludes: “In the future, we envisage the use of robots performing various tasks here at Össur. RobotStudio substantially facilitates all of our programming and movement of the robots. Taking advantage of RobotStudio in coming projects will be exciting.”

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