

Datalogic helps Astra Tech sort sterilized products - Datalogic

We offer innovative solutions for many industrial sectors, from manufacturing, retail, healthcare and transportation logistics.

Astra Tech's growth means a new system: new conveyors, label printers and new bar code readers from Datalogic that read two dimensional codes.

Astra Tech is a Swedish company that is growing fast. At their production facility in Malmö, Sweden – which is also home to their headquarters – they develop, manufacture and market their medical implants and advanced disposable medical equipment. The company is a market leader in the Nordic countries and they are expanding into Europe and the USA as well. About 90% of their total sales come from outside Sweden and their growth is strong. With such growth come more demands on both the company's personnel and its technology. One example of the technological advances that Astra Tech is employing is their recent installation of a system that takes care of sorting their products after they have been sterilized in their new Beta Sterilizer equipment. Because of stricter rules for the tracking of products as well as Astra Tech's growth, this new sterilizing system became necessary. The sorting phase had previously been conducted manually, which was time consuming, laborious and was less effective than an automated system.

Why 2D codes?

Because of the new more demanding tracking rules, the bar code on each product's packaging was becoming bigger and bigger. It needed to hold more characters than ever, but the space for the bar code label stayed the same size. So Astra Tech decided to replace the old one dimensional bar codes with the two dimensional Datamatrix code. In a datamatrix code, it is possible to store large amounts of information, for example, article number, batch number, packaging date and production line – about 30 characters in all – with high security. The information in the code is even used to guide the product through Astra Tech's new Beta Sterilizer equipment.

How does the system work?

Astra Tech develops and manufactures most of the products that they sell themselves. It is extremely important that all of these medical products are sterilized before they leave Astra Tech to be delivered to the various hospitals and other medical facilities. In order to perform this sterilizing process, Astra Tech has invested in Beta Sterilizer equipment. It can sterilize products even after they have been packed into their individual boxes through the use of radiation.

Conveyor belts transport the packaged products by a label printer, which prints out a label that is placed by hand on the box. This makes the product an official "unit". Then the unit is transported further into the sterilization room where it is sterilized. After that, the unit is transported out of the sterilizing room and sorted automatically when Datalogic's Matrix-2000 scanner reads the 2D code. At last, all of the like products are set on a pallet where they can then be delivered out to the customers.

Matrix-2000 scanner

Datalogics Quality Partner, PMS Identcode, has supplied Astra Tech with the label printers, eight

Datalogic Matrix scanners and a Datalogic C-Box 300 with Profibus that allows that scanners to connect to a Profibus network. The Matrix scanners are especially able to meet certain demands in this application. First is that, of course, it is able to read Datamatrix codes. Secondly, it is very important that it have a broad range in its depth of field. Since there are many different articles that are transported past the scanners and thus, the boxes are of many different sizes, the depth of field can vary up to 100mm. The Matrix-2000 has no problem managing this range of distances.

“The Matrix scanners are especially able to meet certain demands in this application: reading Datamatrix codes and a broad range in its depth of field. Since there are many different articles that are transported past the scanners, the boxes are of many different sizes and the depth of field can vary up to 100mm but the Matrix-2000 has no problem managing this range of distances.”