

# Helsingborg General Hospital, Sweden



Delivering diagnostic confidence at  
state-of-the-art Swedish breast clinic



***“The uniformity and completeness of the images make me feel confident while diagnosing”.***

**Dr. Boel Heddson, Chief Radiologist and Head of the Diagnostic Section of the Breast Unit**

*In the summer of 2004, the Helsingborg General Hospital implemented Barco’s CORONIS SMP MAMMO display system in the hospital’s renowned mammography unit. According to Dr. Boel Heddson, Chief Radiologist and Head of the diagnostic section of the Breast Unit, key criteria in the hospital’s selection of Barco were the image quality and performance of the CORONIS imaging solution. “The display controller is extremely fast for digital mammography, and the imaging solution offers superior image quality,” she says. “These qualities enhance productivity and give me a high level of confidence when diagnosing.”*

The Breast Unit at Helsingborg General Hospital is one of the most advanced in the world. Uniting both diagnostic and clinical treatment, the unit was the first in Sweden – and one of the first in the world – to convert completely to digital mammography. As a result, the unit is able to offer a low radiation mammography solution. Two full-time radiologists perform some 20,000 mammography screenings and 4,000 clinical examinations each year. The Helsingborg unit was recently named the best mammography unit in Sweden by Sweden’s National Federation of Breast Cancer Patients’ Associations

#### **Increased productivity and reduced cost of ownership**

For Dr. Heddson, the greatest challenge is to reach a correct diagnosis in the shortest possible time. This means that accuracy and speed were key factors in the selection of all elements that make up the entire digital mammography

system in the hospital. “As far as the display system is concerned, we evaluated a number of alternative systems before we chose to install the Barco solution,” she explains. “When we tested the BARCO CORONIS SMP MAMMO display system, we were impressed by the very high speed at which it loaded images. Although the images can be up to 40 MB each, they appeared without delay.

Other features that help improve workflow are the I-GUARD sensor and Barco’s softcopy QA software. Together, they continuously and automatically monitor softcopy quality to ensure that it conforms to DICOM specifications, which is of particular importance in mammography. This automation allows staff to save valuable time and to handle more cases.

In addition, Barco’s softcopy QA software allows quality management of all Barco display systems in the unit from any

remote location. "As a result, quality assurance is automatically monitored and our technician receives notifications of any irregularities," Dr. Heddson says. "With our CRT displays, we regularly had to schedule an engineer to come and readjust the screens when there were no patients. Now, we don't need to worry anymore."

***"We were impressed by the very high speed at which it loaded images"***

Another benefit is the low hourly cost of the CORONIS display. "The Barco solution also includes a backlight with a prolonged lifetime, which means we don't have to replace it during the display's lifespan," says Dr. Heddson. "This results in a low

hourly cost – the lowest of all the display solutions we looked at."

### **Superior image quality in a comfortable viewing environment**

The mammography team at Helsingborg General Hospital is familiar with the efficiency and image quality advantages of digital mammography. Dr. Heddson explains how the quality of the display system is key to realizing all of the benefits of digital. "These advantages can only be fully experienced provided there is a display system that offers accuracy by delivering the highest image quality," she says. This is especially important for mammography, since it is essential that radiologists are able to distinguish the smallest structures and

the most subtle image details. Detection of minuscule microcalcifications can help to save lives.

"The whole chain of equipment needs to be of optimal quality. The display system plays a very important role in that chain and the Barco solution offers the best contrast and luminance," says Dr. Heddson. "This allows us to have an extremely user-friendly viewing environment. We have soft yellow paint on the walls, and we don't need to darken the reporting room completely. Radiologists can still read the documents they need when diagnosing, and other people in the room can still see what they are doing."



The CORONIS 5MP MAMMO system features a 5 MegaPixel 21.3" LCD display. "Apart from the ultra-high resolution and good contrast, we especially value the wide viewing angle and perfect geometry, which makes the display very pleasant to work with, ergonomically speaking," says Dr. Heddson. "The wide viewing angle allows two or more physicians to simultaneously view and interpret the images on the screen. When radiologists consult each other, they can easily share the view. The wide viewing angle also allows for easy and comfortable screening of images. You don't need to be precisely in front of an image to see it clearly, which allows for a far more relaxed head position. When you're looking at images for a couple of hours at a time, this level of comfort is very welcome."

### **More confident diagnoses thanks to accurate and high-contrast images**

To ensure constant image uniformity, the system is equipped with Defect Pixel Compensation (DPC) and Per Pixel Uniformity (PPU) functionality. PPU adjusts the luminance output at pixel level, so that every pixel is DICOM compliant and images are uniform across the screen. "We feel DPC is very important too, as DPC detects and compensates for missing pixels," says Dr. Heddson. "The uniformity and completeness of the images make me feel confident while diagnosing. In short, I know I can trust the display."



### **Request more information**

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