



KONICA MINOLTA

Case study

Joint practise

Dr. R. Knollmann und Dr. L. Welp

# Rapidly in the picture

Wireless mobile detector speeds up radiography



*Dr. Lars Welp: "Today, we manage to diagnose nearly all X-ray exams on a the same day"*

As the radiologists of the joint practise of Dres. med. Knollmann und Welp took over the Radiology Department at the Niederberg Hospital in Velbert in 2011, it was clear that a bucky workstation had to be modernised. While films and plates were still standard practice in the hospital, the radiologists had already started to look at direct digital flat panel detector complete systems. The decision was made in favour of an Aero DR X70 from Konica Minolta with generator, bucky table and wall stand.



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"A large Radiology Department, which also provides a ward building with 570 beds and a practice, can only be run digitally nowadays", explains Dr. Lars Welp and continues: "With the new digital system, we have achieved a work rate that could never have been achieved with image plates or even with a film/plate operation."

Direct digital systems have the advantage of the shortest route compared to x-ray films and image plates. The workflow is not only reduced by the fact that the image can be seen on the preview monitor of the console immediately after the recording, but one also avoids all the walking back and forth with the cassette to the recording device and the exposure or processing unit.

The work is quite different at a digital workstation. The radiographers always take care of the patients in teams of two. While one assistant deals with patient

positioning and adjusting in the X-ray room, the other colleague does the administrative part on the operating console. She selects the patients from the worklist, determines the recording parameters, presses the release button and sends an optimally prepared image to the radiologist's diagnostic workstation.

### More flexibility

Dr. Lars Welp: "One of the reasons why we chose digital radiography was certainly the high degree of flexibility which the Konica Minolta system also offers." The 35 cm x 43 cm detector covers the complete spectrum of radiological X-ray photographs: regardless of whether on the bucky, wall stand or via table. The WLAN detector sends the image data wirelessly to the practice network and offers all of the freedom of a film cassette.

At the same time, the Aero DR detector weighs a mere 2.9 kg. The



*Dr. Lars Welp compared the DR systems of all well-known manufacturers. He decided in favour of the Aero DR X70 from Konica Minolta.*

light weight is attributable to its compact carbon/glass fibre monocoque design to which it also owes its resistance to high pressures and shocks.

But the bucky table and the wall stand of the Konica Minolta Aero DR X70 system also offer maximum flexibility, which benefits patient comfort. The table has a motorised height adjustment feature and a floating plate. The detector table on the wall stand can also be easily tilted from -20° to +90° around the transverse axis.



*Dr. Rudolf Knollmann: "The work steps of X-ray examinations are reduced and process times are shortened with the mobile flat panel detector."*

The range of adjustment in height is 147 cm.

The tube is moved as light as a feather from one recording position to another via the 3D ceiling suspension by the radiographer Barbara Böllhoff: "With the new digital X-ray system, we are able to X-ray faster and yet the physical strain is less. I no longer have to walk back and forth so much and haul heavy cassettes."

"The short process times are the biggest advantage of digital radiography", explains Dr. Lars Welp. "Because digital technology not only avoids unnecessary walking, but also ensures that images and diagnostic results can be called up via the network in no time at all, even in remote stations."

### Reliable support

While the takeover of the Radiology Department at the Niederberg Hospital was planned over a longer period, the conversion of

*The Aero DR detector weighs a mere 2.9 kg.*

the bucky room took place very quickly.

As the radiologists have been very satisfied in their practice since 2003 with an imaging plate system from Konica Minolta, they contacted their customer advisor without further ado regarding the hospital radiology. The radiologists in Velbert attach great importance to good service, rapid assistance and personally known contacts.

They had obtained information on the digital systems of different manufacturers long before this point and had already shortlisted the Aero DR X70 from Konica Minolta. After brief negotiations, things began to move at a rapid pace and the flat panel system was installed within a few days. A



tailored training programme ensured that doctors and assistants quickly became accustomed to the new environment and were able to operate the Aero DR X70 safely. Most of the X-ray photographs have been taken in the flat panel detector room ever since. And with 25,000 recordings annually, that is not a mere few.

### Short workflows

The Aero DR X70 Control Station also contributes significantly to the smooth workflow of X-ray examinations. With the newly developed CS-7 multi-touch screen user interface, both Konica Minolta DR systems and existing CR systems of the Konica Minolta Regius series can be integrated for optimum flexibility. The control station can be operated intuitively in this case. At the same time, it offers the possibility of image acquisition, generator control (APR), collimator control and OAP measurement.

*As flexible as a normal x-ray cassette: the mobile WLAN flat panel detector of the radiology joint practice in Velbert.*





*The application equipment and generator can be controlled from the integrated operating console.*

## Specifications

### AeroDR S33 Wallstand

Stroke, vertical position:  
310 - 1710 mm, floor- center detector  
Stroke, horizontal position:  
~ 580 mm (Minimum), floor - top cover  
Positions detector:  
+90° to -20°

### AeroDR T50 Table

Dimensions:  
2400 x 800 mm  
Vertical stroke:  
540 - 850 mm, floor - Table top  
Movement table top:  
Lateral  $\pm 150$  mm, longitudinal  $\pm 500$  mm

### AeroDR 35x43 Detector

connection: Wireless  
Scintillator: CsI  
pixel size: 175 $\mu$ m  
Image field: 1,994 x 2,430

Furthermore, Konica Minolta's renowned and tried and trusted image processing technology ensures the highest image quality in every situation.

Barbara Böllhoff explains: "The operating console is not only able to control the workflow of the Aero DR system, but also the X-ray generator. It is no longer necessary to use the console on the X-ray unit." The positive

experience with the flexibility and speed of the new generation of wireless flat panel detectors allows Dr. Lars Welp to already contemplate the next steps. In the next few years, the second bucky room and also the intensive care unit are to be equipped with mobile WLAN detectors. ■



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