

1.4.2. ADVANCEMENTS IN DIGITAL RADIOGRAPHY: CR, DR, AND DICONDE

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As times change, so does technology. Especially technology is going very fast and at the same it adds complexity but more important it enables customers to work smarter and faster. The world of radiography in nondestructive testing is no exception.

In the advent of computed radiography (CR) as the new “film,” many questions arise. What are the benefits of CR over film? How difficult is it to make the switch? Is it more complicated? Does it meet ASME / EN standards? When to use CR over DR (direct radiography)?

The scope of this presentation is to provide an overview of how and why to make the shift from film to CR. This paper will discuss how a CR solution system (X-ray source, scanner, imaging plate and software) provides accurate imaging in less time with enhanced probability of detection and decision-making.

Computed radiography is applicable in most areas where traditional film-based radiography is successful. Computed Radiography (CR), which uses a flexible, reusable, phosphor-based media that can be implemented in the same manner as film. The phosphor imaging plate can be carried into the field, exposed and returned to a location for processing.

The power behind the scanner technology is a DICONDE software platform enabling the user to acquire, review, and store digital images in a efficient method. Enhanced imaging filters are available to improve the contrast sensitivity of the images leading to a better, more accurate probability of detection. Additional feature as WTMT, Quality Control, Local Archive further enhance the software flexibility. On top of this we introduced a very powerful tool which enables the users to get excellent images with just one button push. No window leveling needed any more.

GE Sensing & Inspection Technologies is able to provide a complete solution (source, scanner, imaging plates & software) suited for use in the erosion / corrosion, weld inspection and aerospace applications.