

## Computed Radiography

### Portable Digital Radiography



Considered one of the most significant breakthroughs in x-ray imaging in the last 25 years, **Applus RTD** has added the latest computed digital radiography system to its suite of inspection technologies.

Rather than using film, computed radiography uses an imaging plate, this plate contains photostimulable storage phosphors, which retain the latent image. A reader scans the plate by means of a laser beam.

The laser energy releases the trapped electrons, causing visible light to be emitted. This light is captured and converted into a digital bit stream that encodes the digital image for transfer to a laptop computer for post inspection interpretation and enhancement.

## Examples of computed radiography applications include:

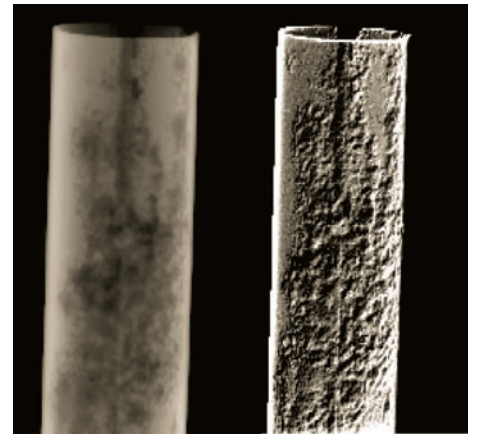
- ⊕ The detection and measurement of corrosion under insulation
- ⊕ Remote area pipeline inspection
- ⊕ Inspections carried out in areas requiring reduced exposure times, onboard offshore platforms for example
- ⊕ Inspection of valves and fittings
- ⊕ Inspection of rail welds
- ⊕ Wall Thickness software.

## Computed radiography advantages include:

- ⊕ Portable system that transports easily between sites and into remote areas
- ⊕ Digital images are available on the spot
- ⊕ Fewer retakes as a result of the wide dynamic latitude
- ⊕ Greatly reduced exposure times
- ⊕ Reduced exposure times result in radiation safety benefits
- ⊕ No chemicals required to develop the image, no dark room required
- ⊕ Environmental benefits.



*Computed Radiographic image of a valve and valve seat, showing the advantages of the wide dynamic range of the imaging plate. In this example the valve seat area has been selected for further analysis.*



*The image on the left shows the as collected digital radiograph, with the image on the right showing the post inspection enhancement (embossing) of the image.*

