CRˣ25P

Portable Computed Radiography

BAM Design-type tested
Certification-No.: BAM/ZBF/005/12

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## Portability, Versatility and Performance in Harsh NDT Environments

The CRˣ25P computed radiography scanner from GE's Inspection Technologies business combines portability and durability with simple operation to create high-quality digital images within seconds.

The scanner is constructed to withstand the demanding conditions of industrial radiography for both in house and field service applications.

The proven imaging performance of the CRˣ25P in conjunction with GE's phosphor plates is certified by the German BAM.

GE imagination at work
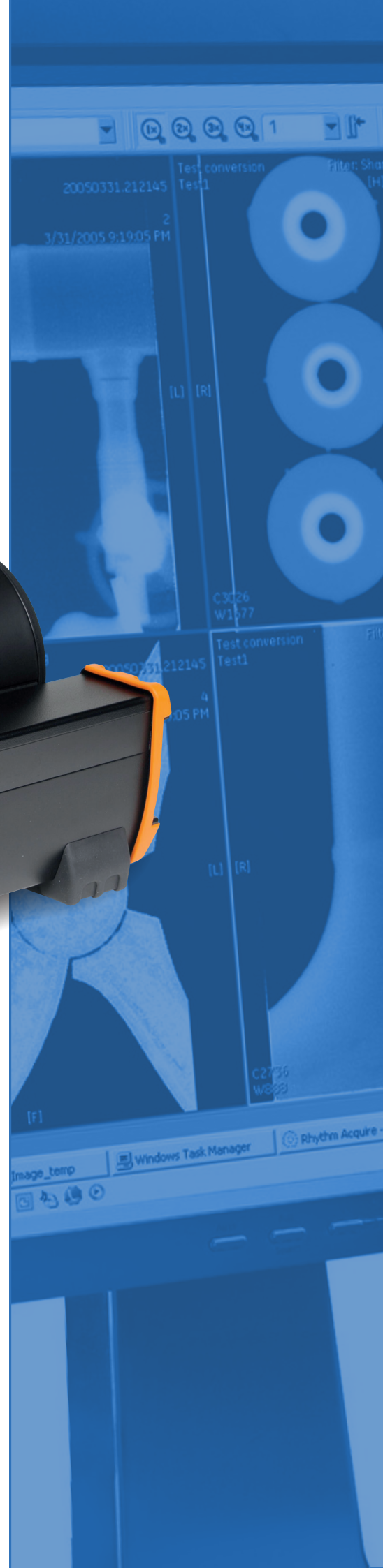
Extending Computed Radiography to Portable Applications

Designed for Field Service

Weighing only 21 kg (46 lb), the CR^{x}25P is a truly portable computed radiography system designed especially for applications requiring multiple relocation. The scanner offers a portable digital imaging solution for in-house, field and even off-shore applications where size and weight portability are critical to the environment and workflow.

A lightweight extruded aluminum frame resists dents. Rubberized isolating/damping feet minimize vibration and thus protect image quality. Users can select a rugged hard case. For operation in almost any environment, a built-in rechargeable battery option is also available.

Critical decisions on the spot

The new scanner produces excellent quality digital images in just seconds. The image quality is reliably consistent and results are repeatable, enabling you to make critical decisions in almost real time.

Simple, Familiar Operation

The CR^{x}25P scanner is extremely easy to use as it is seamlessly integrated into the Rhythm Software architecture. Imaging procedures are familiar because the system is built on familiar film techniques. Obtain quality digital images in three steps — Expose, Insert and View. These radiography systems produce a digital image by scanning reusable phosphor imaging plates (IP) coated with an X-ray photostimulable material. When exposed to X-ray or gamma rays emissions, the plate stores the image. Once the CR^{x}25P scans the plate, the image is ready for viewing on a computer within seconds. An in-line erase feature allows you to erase images in a single continuous cycle, so that you can immediately reuse the plates. The CR^{x}25P accepts Imaging Plates in all standard sizes up to 35 cm (14 in) wide, and a feed guide supports long plates during scanning.

Focus on Image Details

Once you have scanned the images into a computer, you can use Rhythm imaging software, delivered together with the scanner to magnify, invert, sharpen and enlarge the images. You can alter brightness and contrast or apply line segment and angle measurement tools Optional software tools like Flash!Filters enable instant image enhancement for faster reviewing and immediate decision-making. DICONDE image standards support retaining images and notes in a single file for consistent data management.

Economical and Eco-Friendly

By eliminating the need to chemically process film (along with the related costs including storage and disposal), the CR^{x}25P cuts imaging expenses. Also, digital imaging aids in protecting the environment from harmful chemicals.

Key Features

- Truly portable computed radiography system suitable for in-house and field service
- High and standard resolution images, capable of a resolution of 17 micron, 25 micron, 50 micron and 100 micron
- Can operate in direct sunlight
- Eliminates need for film, chemicals, and processor maintenance, as well as storage and disposal procedures
- Accepts phosphor imaging plates up to 35 cm (14 inch) wide by any practical length, and custom shapes
- Flexible, wire-free imaging plates to conform to object shape
- Feed guide supports long imaging plates
- Works with X-ray and gamma sources including Se 75, Ir 192 and Co 60
- Customizable settings for optimum dynamic range
- Built-in eraser with manual or auto erase function
- Lightweight extruded aluminum frame
- Hard-cases available for transportation
- Optional self-contained battery
- BAM Design-Type tested

One Solution for Specific Applications

CRˣ25P Scanner

The CRˣ25P represent the latest generation of portable scanners. It features an upgraded plate transport system, which optimizes plate handling and accepts flexible phosphor imaging plates up to 35.5 cm (14 inch) wide. The scanner offers all the acknowledged benefits of computed radiography over film radiography in terms of faster exposures, wider latitude, fewer retakes and overall reduced materials and labour costs.

The new CRˣ25P replaces the CR50 for high contrast / medium resolution applications in the corrosion / erosion space. In addition, it extends the application space because of its high resolution mode at a pixel size of 17 and 25 micron and is therefore designed for weld inspection in compliance with international standards.

Imaging Plates

Our offering consists of different types of phosphor imaging plates. The plates have special/proprietary protection layers that prevent scratches and damage. Odd sizes and/or shapes up to 35 x 43 cm (14" x 17") imaging plates can be manufactured to support your specific application and scanned by the CRˣ25P.

Rhythm Software

The Rhythm Radiography software suite from GE combines advanced image acquisition, review and data management tools for all X-ray testing methods, including computed radiography, digital radiography and film digitization. Its advanced data sharing capabilities allow significant improvements in productivity and enable faster identification of quality problems, leading to reduced production defects or better in-service asset management.

Key Features & Benefits

- **Save Time and Money:** Send information electronically to the inspection experts rather than sending the experts to the information. Automated Report Generators help to share information easily between workstations at different locations and within the supply chain.

- **Automate Specific Inspection Tasks:** Application specific tools improve process efficiency.

- **Improve Efficiency and Reproducibility:** Advanced image review tools for all modalities including computed radiography, digital radiography and film digitization.

- **Protect Your Investment:** Scalable architecture allows the solution to grow with your needs. DICOM/DICONDE compliance ensures your data will not become obsolete.

- **Reduce Training Requirements:** Quickly and easily learn this user friendly solution.
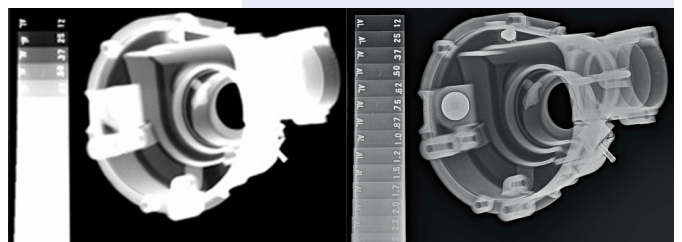
Two views of the same component. Left image shows a conventional radiograph (raw image), the one on the right with Flash! Filters software applied (enhanced image).
See the difference in detail and resolution.

Technical Specifications - CRˣ25P

Functional Data	
Dimensions	39 cm (15 1/2") W x 46 cm (18") L X 35.5 cm (14") H
Weight	20 kg (44 lbs.) without optional battery, 21 kg (46 lbs.) with optional battery
Grey Level Resolution	16 bit, 65536 greylevels
Laser Spot size	12.5 µm
User Selectable Scan Resolution	17 µm, 25 µm, 50 µm and 100 µm
Interface	USB
Accessories	Flight case, 55 cm (21 1/2") W x 63.5 cm (25") L x 56.5 cm (22 1/4") H, 16 kg (36 lbs) Image Plate Guide/Extension Kit Compatible Rhythm software required (not included)

Electrical Data	
Voltage	110-240 V AC
Frequency	50/60 Hz

Environmental Conditions	
Operating Temperature	20 to 104°F (-7 to 40°C), Humidity: 5% to 95% (Non-condensing)
Storage and Transport Temperature:	-21 to 130°F (-29 to 55°C), Humidity: 5% to 95% (Non-condensing)

Consumables	
Imaging Plate Sizes	All sizes up to 35 x 43 cm (14" x 17") Note: Images scanned in High-Res modes (17 µm, 25 µm) may exceed the file- and memory size limitations of the used operating system, application filters or software modules. Please ask your sales or service representative for detailed information on usable plate formats.

Certifications
Class I laser Product, Compliance with FDA HHS 21 CFR 1040.10 and IEC 60825-1
CE, UL
BAM Design-Type Tested

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