

## CR<sup>x</sup>Flex

*Proven Computed Radiography Scanner -  
now upgraded with better performance*



Designed specifically for applications in non-destructive testing, the CR<sup>x</sup>Flex™ is optimized for usage with both isotopes and X-ray sources. The system versatility can be seen through the premium performance across a wide range of applications.

The new CR<sup>x</sup>Flex: a reliable field proven platform with upgraded core technology for

- Improved Noise Performance
- Excellent Image Quality
- DICOM compliant image analysis and data management



# Extending the Boundaries of Computed Radiography

## Versatility

The CRxFlex offers wide dynamic range and high signal-to-noise ratio, which typically results in streamlined technique development and higher component throughput. A broad range of thicknesses can be inspected in a single exposure with the wide dynamic range, making the CRxFlex a perfect match for the inspection of castings and piping for erosion/corrosion. This capability also leads to less exposures and fewer re-takes.

## Flexibility

One of the more unique features that the CRxFlex offers is its ability to be utilized with either hard cassettes (in which the phosphor imaging plate never leaves the cassette) or some pre-defined size of imaging plates that can be exposed using a soft, flexible cassette and then scanned using a rigid insert cassette.

## Reliability and Service

The robust CRxFlex has a small tabletop footprint and is designed for reliable operation in the harshest of NDT environments. Its modular internal construction allows ease of servicing and features long mean-times-between-failures (MTBF) and maintenance (MTBM) — minimizing downtime and maximizing uptime.

## Horizontal Transport System

The CRxFlex has a state-of-the-art, horizontal transport system that is designed to have limited contact with the imaging plate during the scanning process. The result of this is that there is very minimal plate damage or physical wear that occurs during the scan. The scanner can accept imaging plates in hard cassettes or imaging plates fed in to rigid insert cassettes for scanning. The use of hard cassettes for applications in which the imaging plate would not be removed from the cassette can help extend the life of the imaging plate.



## Improved Image Quality

Because of its specially designed optics, true square 50 micron pixel size and its 30 micron laser spot size, the CRxFlex provides image quality with excellent IQI sensitivity. This high image quality is supported by its BAM certificate that states that CRxFlex is IP Class Special/50 (ASTM E2446-05) and IP Class 1/50 (EN 14784-1).

## Rhythm® Software

The CRxFlex, in conjunction with GE's Rhythm software, allows users to acquire, review, report and archive inspection data. The DICOM-compliant Rhythm platform also permits image enhancement and data sharing to provide significant improvements in productivity and faster identification of defect indications. With GE's Flash!Filters™ image optimization technology, image inspection and interpretation becomes faster and more reliable, while Rhythm Enterprise Archive offers a solid solution for DICOM / ASTM compliant long-term NDT data storage in enterprise networks.

## Applications

The CRxFlex is suitable for a wide range of applications across various industries.

### Aerospace

- Turbine blades
- Structural casting
- On-wing inspection



### Power generation

- Power Generation
- Investment castings
- Asset integrity



### Oil & Gas

- Erosion
- Corrosion
- Weld





## Imaging Plates

Our offering consists of different types of phosphor imaging plates. The plates have patented protection layers that prevent scratches and damage.

### Fewer Retakes

High tolerance for varying exposure conditions and a greater freedom in the selection of the exposure dose.

### Dose Reduction

In many cases, imaging plates allow the visualization of all diagnostic information with only one exposure.

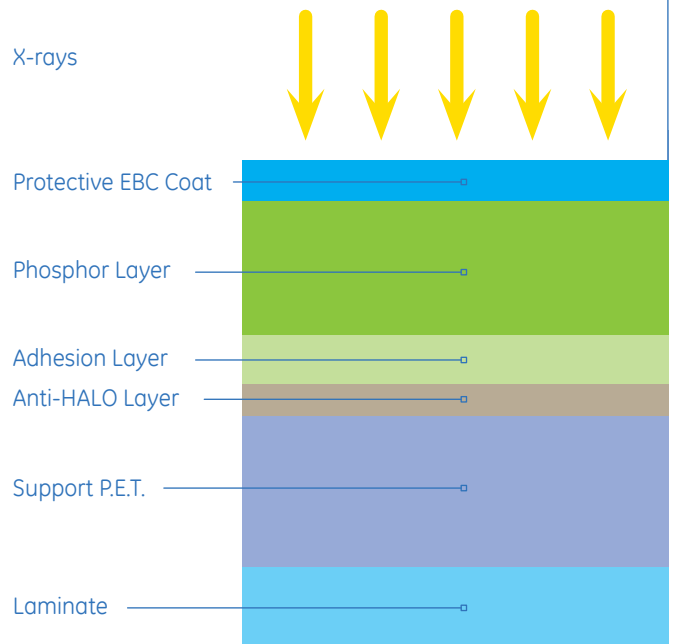
### Long Lifetime

Imaging plates are protected by an EBC (electron-beam-cured) topcoat. This results in plates with superb protection from mechanical wear and excellent chemical resistance.

### Image Quality

The composition of the imaging plate storage phosphor material ensures optimum performance. The material has high absorption efficiency, excellent homogeneity and short response time, to ensure high sharpness and contrast.

### Make-up of phosphor imaging plates



## Cassettes

GE cassettes are specifically designed for NDT applications. The CR cassettes are lightweight and simple to use. Synthetic material provides maximum rigidity for overall durability.

The higher radiation energies used in the industrial X-ray makes the use of standard medical cassettes impossible. Therefore, the cassettes can be supplied with various configurations including Copper in the front and additional Copper at the back to ensure optimal backscatter protection resulting in optimal image quality.



# Technical Specifications

Throughput		
(Cassettes/Hour)	35 x 43 cm (14 x 17")	54/Hour @ 100 µm 27/Hour @ 50 µm
	18 x 24 cm (7 x 9")	80/Hour @ 100 µm 40/Hour @ 50 µm
	<b>Multi-plate scanning</b>	
	4 x (6 x 24 cm)	208/Hour @ 100 µm 108/Hour @ 50 µm
	2 x (4.5 x 10")	208/Hour @ 100 µm 108/Hour @ 50 µm
	Other multi-plate options	IP 4.5x17" (2x), IP 5x7" (4x), IP 7x17" (1x), IP 8x10" (2x), IP 6x40 cm (4x), IP 8x36 cm (3x), IP 10x12 cm (2x), IP 10x16 cm (6x), IP 10x24 cm (3x), IP 10x40 cm (x), IP 15x40 cm (2x), IP 24x30 cm (1x)
System Performance		
Laser Spot Size	30 µm (Laser class 1)	
User Selectable Scan Resolution	50 µm and 100 µm	
Bit Depth	16-bit linear	
Image Buffer	256 MB	
Interface	Ethernet (RJ45, LAN)	
Dimensions		
Dimensions (WxDxH)	693 mm x 701 mm x 546 mm (27.3" x 27.6" x 21.5")	
Weight	72 kg (158 lbs)	
Compliance info	CE, UL, RoHS, WEEE	
Electrical Data		
Voltage	100 - 240 V AC, autosensing	
Frequency	50/60 Hz	
Power Consumption	120 W standby, 320 W peak	
Consumables		
Imaging Plate Sizes	All sizes up to 35 x 43 cm (14 x 17")	
Imaging Plate Types	IPS, IPC2, IPU	
Cassette Sizes	35 x 43 cm (14 x 17")	
	15 x 30 cm (6 x 12")	
	18 x 24 cm (7 x 9.5")	
	24 x 30 cm (9.5 x 12")	

## CR<sup>x</sup>Flex

*Proven CR scanner platform, optimized to deliver better performance and image quality*

- Adapted from globally accepted, field-proved workhorse CR<sup>x</sup>Flex platform
- Upgraded core technology optimizing noise performance, mechanical handling and image transfer
- DICONDE compliant image analysis, data management and image storage software with GE's powerful Rhythm software
- Faster, easier service with module, component based design



[www.gemeasurement.com/x-ray](http://www.gemeasurement.com/x-ray)

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