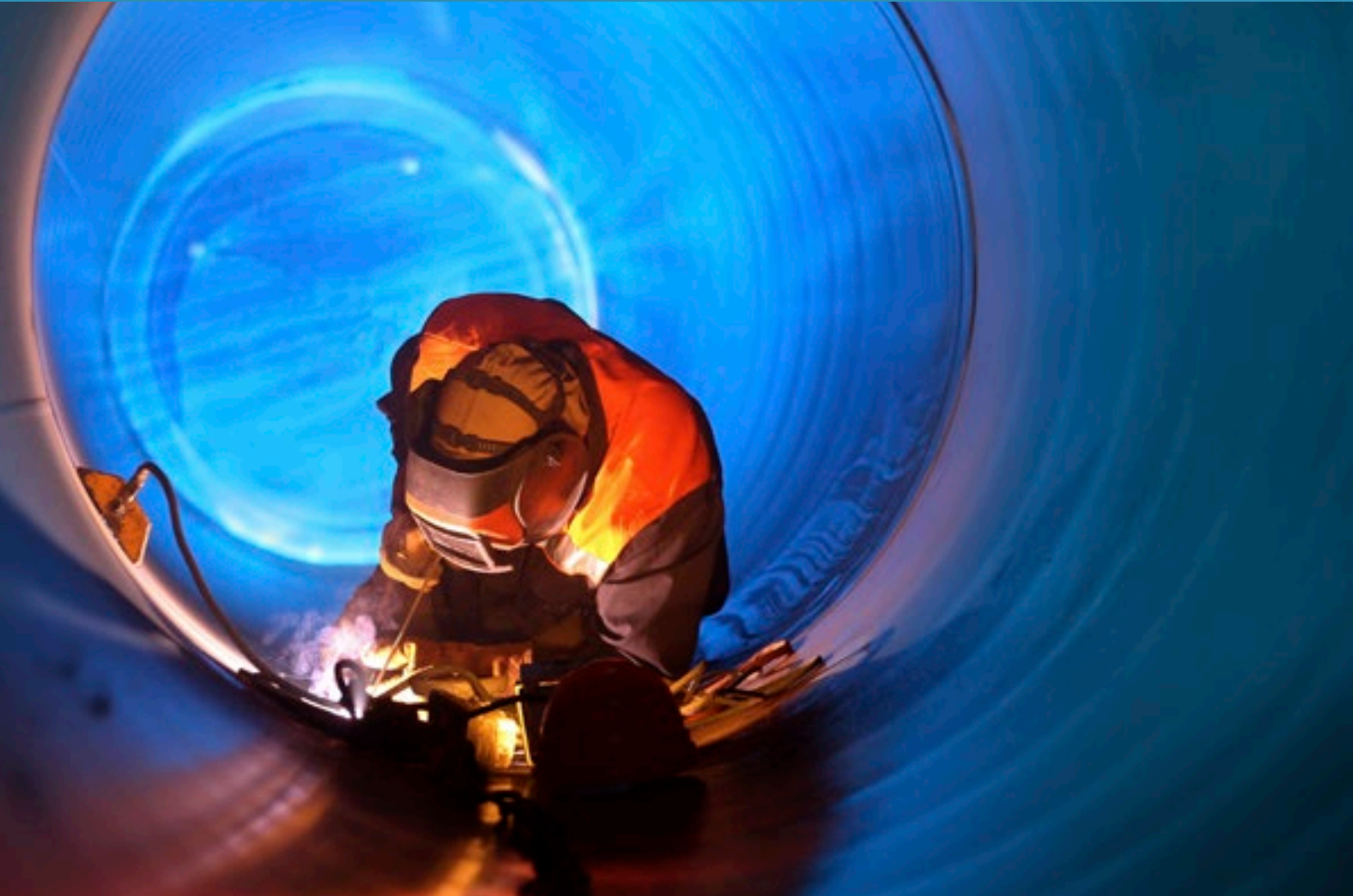


GE
Measurement & Control

High Resolution Weld Inspection and All-Purpose Computed Radiography Scanner



Inspection Technologies:

CRxVision

Packed with innovative features to increase throughput, extend plate life and provide excellent image quality, the CRxVision is designed specifically for the inspection of welds. The scanner is developed to cover the stringent ISO 17636-2 Class A and B requirements, as well as ASTM, ASME and EN weld standards. Because of its versatility, it can also be used for many other applications across the NDT industry.



GE imagination at work

CRxVision: the versatile, new tabletop scanner from GE.

Flexible

accepting a wide range of sizes, shapes and classes of imaging plates

Intuitive

no gain setting or photomultiplier adjustments required when exposing various thicknesses

Fast

multiple plate scanning option: side-by-side and back-to-back with a flat transport path

High Resolution

new laser optics for profound reading and higher data extraction

Extended Plate Life

no mechanical handling of the imaging plate during scanning and erasing



6 ASTM DICONDE Compliant fully compatible with GE's existing Rhythm Software Platform

7 Ambient Operation cover protects the imaging plate from light exposure

8 Direct Laser Contact the laser beam is in direct contact with the imaging plate (no glass to obscure data collection)

Your Benefits:

— Compliant to ISO 17636-2 Class A and B, ASME, ASTM and EN weld inspection standards.

— The CRxVision has an **extremely wide latitude** eliminating the need for multiple gain settings when exposing over a wide range of thicknesses. This is the result of a 16 bit image processing at selectable **35 or 70 microns resolution**.

— **Exposure times** for welds are equal or better than existing film exposure times (to comply with Code Standards like EN and ASME) and can be reduced by up to ten times for non-code type applications like erosion/corrosion or valve placement.

— Designed for extremely **high throughput**: 90 plates/hr at 70 microns or 28 plates/hr at 35 microns for a 10 x 40 cm (4.5 x 17") plate. The scanner allows multiple imaging plates to be scanned simultaneously ... side-by-side and back-to-back as well as various lengths to be scanned together. This is a result of the straight and flat, in-line scan and erase transport path.

— Ability to scan **any shape or size of imaging plate** from from 20 to 1500 mm (0.75 to 60") in length. Imaging plates can be exposed in any type of cassette, then simply removed and inserted directly into the scanner without the need of any type of adapter, template or leader.

— A new **innovative imaging plate design** now provides the GE CRxVision imaging plates with more flexibility. This new design allows each imaging plate the ability to return to a flat state after being constantly bent around pipes for the inspection of welds. This feature also helps **improve productivity** by allowing the imaging plates to be easily extracted and reinserted into cassettes.

— Plate transport through the scanners is achieved by a **magnetic transportation system**. This new combination of scanner and imaging plate design allows the imaging plate to be transported through the scanner without any mechanical

handling of the phosphor ultimately extending the overall life of the plate.

— The updated Rhythm RT software simplifies inspection workflow. It now has the ability to **automatically crop the images** by detecting the physical edges of each individual plate when they are processed. Consequently, each individual plate can be separately identified and saved or grouped together and saved as one file.

— The new scanner enjoys all the functionality offered by GE's Rhythm Software giving the inspector the ability to view, enhance, measure, annotate and comment on the images. The CRxVision

system is completely **DICONDE compliant** and compatible with all existing modules in GE's Rhythm Software platform.

— The CRxVision can be used in **ambient light conditions** with suitable handling as the light cover protects the plates from light exposure during the scan cycle. The cover can be removed for work in darkrooms if required.

— The scanner weighs **less than 45 kg** (99 lbs) and has a footprint of 560 x 560 mm (22 x 22 inches). It extends to 560 x 1280 mm (22 x 50 inches) when the feed and exit tables are attached.

— The light guide can be easily cleaned with an internal brush which is operated by simply turning a set screw. The eraser section of the scanner is **completely sealed** from the optics section to prevent migration of any dust particles into the machine.



Applications

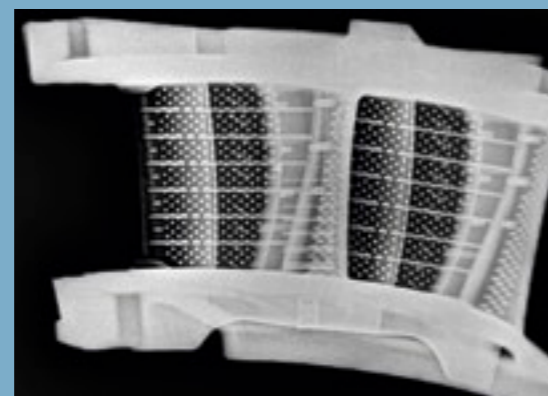
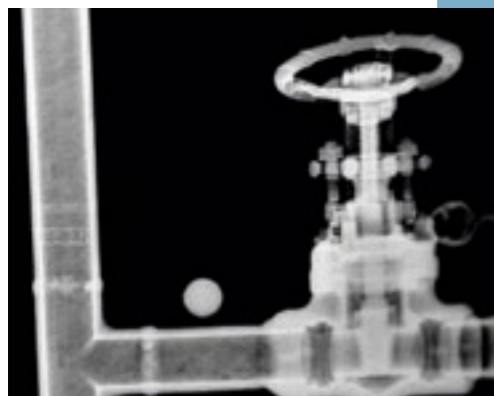
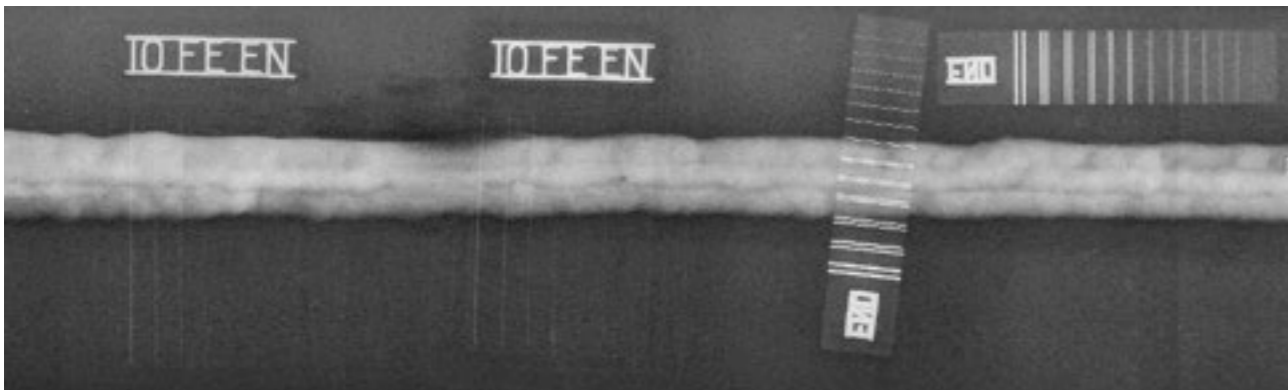
Even though the CRxVision was designed for the inspection of welds, it also has the ability to cover a wide range of industrial radiography applications, from Oil & Gas to Aerospace, and from Power Generation to General NDT.

- Weld inspection
- Erosion/Corrosion inspection (CUI, FAC, etc.)
- Castings (In-process and final)
- Valve positioning
- Concrete and Structure inspection
- Government (Arsenals, National Laboratories, Proving Grounds)
- Military (in-service aircraft, ships, etc.)



In all applications the CRxVision offers the following significant benefits of digital radiography:

- No darkroom facilities/trucks needed
- Eliminate processing chemicals and chemical disposal/silver recovery
- Improved image interpretation and inspection quality level with Flash!Filters™
- Consistent & operator-independent results with the Automated WT Measurement tool
- High reduction in retakes due to the wide dynamic range of the imaging plates
- No development time, as images are immediately available after scanning
- High reduction in storage space when archiving digital images
- Data management (trending) and data sharing advantages
- Fully DICOM compliant



Rhythm RT for Workflow Optimization

Both GE's Rhythm RT and Rhythm RT Lite provide a powerful, ASTM DICOM Compliant operational software platform, which simplifies the overall inspection workflow.

After entering the component and technique data, select the required scan resolution and then the scanner will prompt you to insert the imaging plate. Once the imaging plate is scanned, the image will appear and any Region of Interest (ROI) may then be

identified on the computer screen and enhancements, annotations and measurements applied. The image can then be saved for further review and/or storage. The files can be saved in TIFF, BMP, JPEG, and/or DICOM formats.

Rhythm RT workflow

- 1 Select the required resolution
- 2 Enter the component and technique information
- 3 Insert the imaging plate(s) to start the cycle
- 4 Press scan
- 5 Select a specific ROI (if desired)
- 6 Send image to review

Imaging Plates

Four different types of imaging plates with a ferromagnetic back layer have been developed specifically for the CRxVision. This allows the imaging plates to be magnetically transported through the scanner with no phosphor touch points. In addition, this new design helps reduce backscatter which improves the overall quality of the image as well as allows the imaging plate the ability to return to a flat position after being constantly bent around curved objects.

GE's four imaging plate types are as follows:

- **IPC2:** Standard Resolution & High Speed - for general purpose
- **IPS:** High Resolution & Medium Speed - for inspection of welds
- **IPS2:** High Resolution & Medium Speed - for inspection of welds
Excellent for very low contrast, homogeneity type applications and premium weld quality inspections.
- **IPU:** Extreme High Resolution & Slow Speed - for extremely high resolution applications when very low micron range sensitivity is required.

Plates are available in various size formats ranging from 70 mm (2.76") wide to 1500 mm (60") in length.

Protective Cassettes

A range of flexible and hard cassettes are also available. Both versions may be supplied with or without lead, depending on the application.



Technical Specifications of CRxVision

Functional Data		
Principle	High performance table-top flatbed scanner with contactless plate transport	
Eraser	Inline	
Resolution	Standard resolution (SR)	70 µm
	High resolution (HR)	35 µm
Maximum basic	Standard resolution (SR)	80 µm (6,25 LP / mm)
	High resolution (HR)	40 µm (12,5 LP / mm)
Spatial resolution	High resolution (HR)	40 µm (12,5 LP / mm)
Scan width	35 cm (14 inch)	
Throughput (10 x 40 cm 4.5 x 17")	Standard resolution (SR)	90 plates/hour
	High resolution (HR)	28 plates/hour
Time to image (in Rhythm RT)	Standard resolution (SR)	40 sec
	High resolution (HR)	147 sec
LUT (look up table)	Linear (native Square root)	
Bit depth	16 Bit	
Dimensions	Scanner	56 x 56 x 47 cm (22" x 22" x 19")
	Scanner including I/O table and light cover	128 x 56 x 47 cm (52" x 22" x 19")
Weight	Scanner	45 kg (99 lbs)
	Scanner including I/O table and light cover	50 kg (110 lbs)
Interfaces	Ethernet, RJ45	
	DC voltage, coded 8-pin, female	
Certifications	CE, UL (NRTLus), cUL (cNRTLus), C-Tick, Customs Union Mark	

Environmental Conditions		
Operation	Temp. allowed	15 °C to 35 °C (59 °F to 95 °F)
	Relative humidity	15% to 80% (non condensed)
	Magnetic field	Compliant with EN 61000-4-8, Level 2
Transport	IEC 721-3-2 (1997): class 2K2 and 2M3, with following restrictions	
	Temperature	-25 °C to +55 °C (-13 °F to 131 °F)
	Vibration	5 to 200 Hz (vertical, longitudinal, transversal axis)
Mechanical conditions for transport	In packaging	IEC 721-3-2 (1997): class 2M2
Shock specifications	In packaging	IEC TR 60721-4-5 (1997): class 5M2

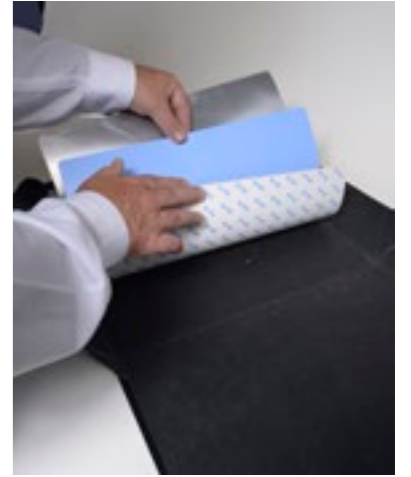
Electrical Data		
Operating voltage	Auto-ranging external power supply from 100 V to 240 V, DC Output 24V	
Mains frequency	50/60 Hz	
Mains fuse protection	Europe	min. 10 A, max. 16 A
	USA & Japan	min. 10 A, max. 15 A
Power consumption	Standby 110 V - 240 V / 50-60 Hz	max. 22 W
	During operation 110 V - 240 V / 50-60 Hz	max. 140 W (absolute peak)

Application Compliance		
ASME	ASME Code Section V Article 2	
ISO 17636-2	Class A / Class B (in defined exposure conditions)	Verified with X-ray, Ir-192, Se-75, Co-60
EN14784-1	IPS, IPS-2: 1/80, IPU: 1/40	Certified by BAM
EN2446-06	IPS, IPS-2: S/80, IPU: S/40	Certified by BAM

Accessories		
I/O Table with light cover	Quick mountable, stainless steel, input/output table set with 43 cm (17") tray length and light cover for input side	
Long I/O table	Input/output extension for long plates scanning 150 cm (59")	
Flight Case	Robust Flight Case with shock-absorbers, wheel, ruggedized handles and compartments for I/O tables, laptop, accessories	

Imaging Plates		
IPC2	High speed plate	Use: CRxVision can scan any shape or size imaging plate from 20 to 1500 mm (0.75 to 60") in length.
IPS	High resolution	
IPS2	High resolution	
IPU	Extremely high resolution (X-ray)	

Cassettes		
Flexible cassettes	PVC or vinyl envelopes	different sizes
Hard cassettes (for defined exposure conditions)	35 x 43 cm, 20 x 24 cm, 24 x 30 cm, 15 x 30 cm 14" x 17", 8" x 10", 10" x 12", 6" x 12"	



Regional Offices

Europe

Germany

Niels-Bohr-Str. 7
31515 Wunstorf
P.O. Box 6241
31510 Wunstorf
+49 5031 172 0

Bogenstr. 41
22926 Ahrensburg
+49 4102 807 117

Belgium

Roderveldlaan 5
2600 Berchem
+32 3 456 2820

United Kingdom

Fir Tree Lane
Groby LE6 0FH
+44 845 601 5771

France

68, Chemin des Ormeaux
Limonest 69760
+33 47 217 9216

Spain

San Maximo, 31, Planta 4A, Nave 6
Madrid 28041
+34 915 500 59 90

Americas

United States

50 Industrial Park Road
Lewistown, PA 17044
+1 866 243 2638 (toll free)
+1 717 242 0327

201 Beltway Green
Pasadena, Texas 77503
+1 855 232 7470

Brazil

Av. Maria Coelho Aguiar, 215
Building C, 6th floor
Jd. Sao Luiz - Sao Paulo - SP
CEP 05804-900 – Brazil
+55 11 3614-1840

Asia

China

5F, Building 1, No.1 Huatuo Road,
Zhangjiang High-Tech Park,
Shanghai 201203
+86 800 915 9966 (toll-free)
+86 (0) 21-3877 7888

Unit 1602, 16/F Sing Pao Building
101 King's Road
North Point
Hong Kong
+852 2877 0801

Japan

Harumi Island Triton Square Office Tower X
1-8-10, Harumi, Chuo-ku, Tokyo 104-6023
Tel: +81 3 6890 4567
Fax: +81 3 6864 1738

GE has sales and service offices all over the world.

Below are some of our locations. Visit www.ge-mcs.com for a complete listing.

- Alzenau, Germany
- Burford, United Kingdom
- Moscow, Russia
- Bucharest, Romania
- Prague, Czech Republic
- Stockholm, Sweden
- Milan, Italy
- East Perth, Australia
- Singapore
- Dubai, UAE
- Buenos Aires, Argentina
- Mexico City, Mexico
- Airdrie, Alberta, Canada
- Toronto, Ontario, Canada
- Montreal, Quebec, Canada



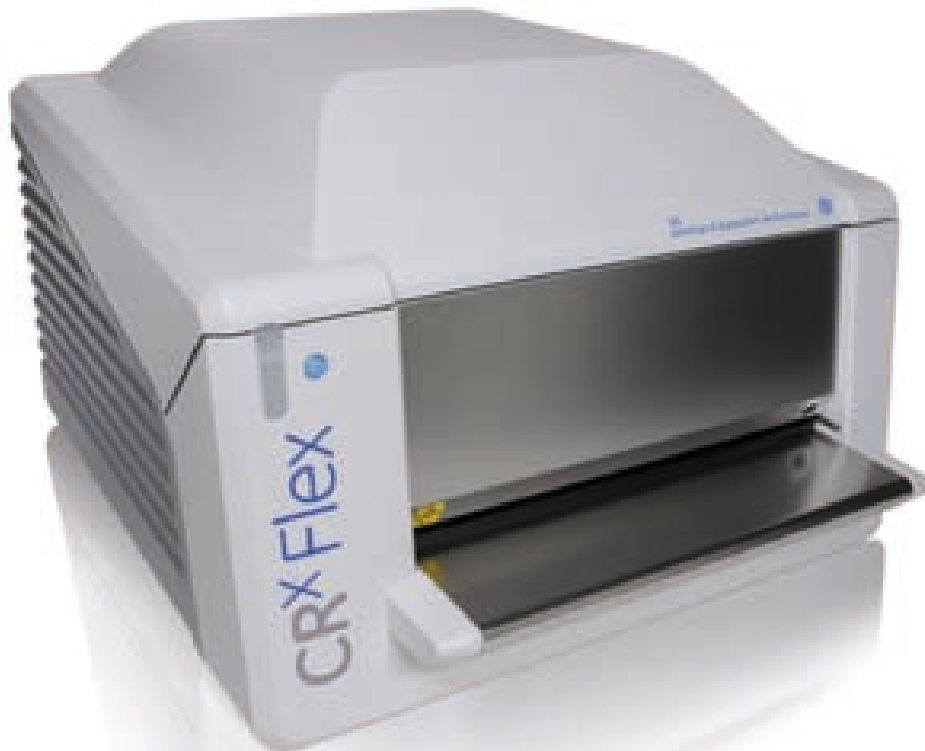
www.ge-mcs.com/x-ray

GEIT-40058EN (06/14)

GE
Sensing & Inspection Technologies

CR^xFlex

Computed Radiography



Reliability, Versatility and Performance in Harsh NDT Environments

The CR^xFlex computed radiography scanner from GE Sensing & Inspection Technologies combines flexibility, reliability, dynamic range and ease-of-use.

Designed specifically for applications in non-destructive testing, the CR^xFlex is suitable for usage with both isotopes and X-ray sources. It is well suited for a broad range of applications in the aerospace, oil & gas, power generation and automotive industries.



GE imagination at work

Extending the Boundaries of Computed Radiography

Versatility

The CR²Flex phosphor scanner also offers extremely 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 CR²Flex a perfect match for the inspection of castings and/or piping for erosion/corrosion. This capability also leads to less exposures and fewer re-takes.

Flexibility

One of the more unique features that the CR²Flex offers is its ability to be utilized with either hard cassettes (in which the phosphor imaging plate never leaves the cassette) or the ability to scan any size of phosphor screen up to 35 x 43 cm (14 x 17 inches): any unique shape or size: circles, triangles, rectangles, pie shape, etc. These unique sizes can be exposed using a soft, flexible cassette and then scanned by the CR²Flex.

Reliability

The robust CR²Flex 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 CR²Flex has a state-of-the-art, horizontal transport system that is designed to have limited, or no direct contact with the imaging plate during the scanning process. The result of this is that there is no imaging plate damage and/or physical wear that occurs during the scan. The phosphor scanner can accept imaging plates that are used with soft cassettes and/or can be used in a hard cassette for applications in which the imaging plate would not have to be removed from the cassette — extending the life of the imaging plate.



Superior Image Quality

Because of its specially designed optics, true square 50 micron pixel size and its unique 30 micron laser spot size, the CR²Flex can guarantee image quality with excellent IQI sensitivity. This superior image quality is supported by its BAM certificate that states that CR²Flex is IP Class Special/60 (ASTM E2446-05) and/or IP Class 1/60 (EN 14784-1) — ideal for weld inspection.

Rhythm[®] Software

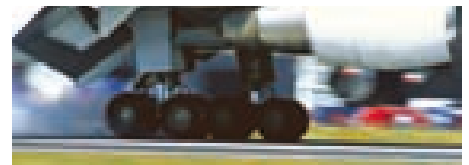
The CR²Flex, in conjunction with the GE's Rhythm software, allows users to acquire, review, report and archive inspection data. The DICOM-compliant Rhythm platform also permits image enhancement and data sharing to provide significant improvements in productivity and faster identification of defect indications.

Applications

The CR²Flex is suitable for a wide range of applications spanning various industries.

Aerospace

Manufacturing
On-wing inspection



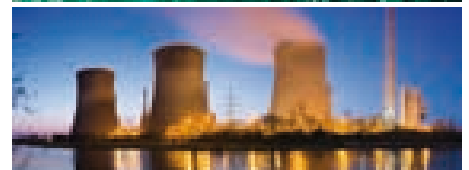
Oil & Gas

Plant construction
Asset management
On-stream inspection



Power generation

Plant construction
Asset management



Automotive

Component
manufacturing
Assembly inspection





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 and associated inserts can be manufactured to support your specific application and scanned by the CR*Flex.

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.

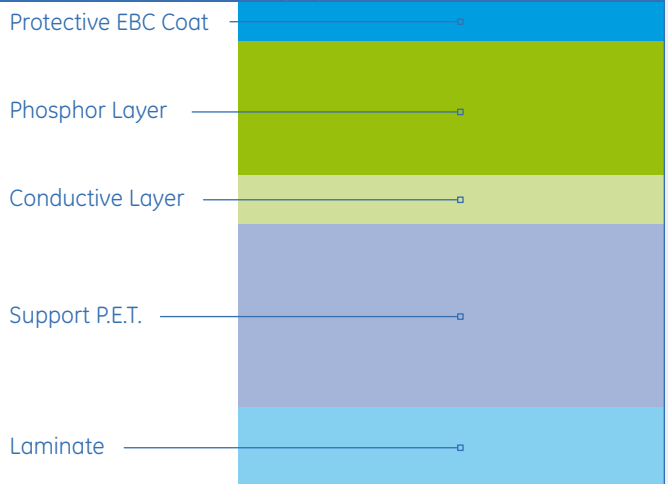
Long Lifetime

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 very simple to use. Synthetic material provides maximum rigidity for overall durability.

The higher radiation energies used in industrial X-ray makes the use of standard medical cassettes impossible. Therefore, the cassettes can be supplied with built-in, front lead (Pb) screens of 250µm (0.010") and are always lead-backed with 150µm (0.006") to ensure optimal backscatter protection resulting in optimal image quality.

Technical Specifications - CR*Flex

Functional Data

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
	Multi-plate scanning	
	e.g. 4 x (6 x 24 cm) OR 4 x (4.5 x 10")	216/Hour @ 100 µm 108/Hour @ 50 µm
Laser Spot Size	30 µm	
Pixel Size	50 µm and 100 µm	
Bit Depth	16-bit Linear	
Image Buffer	256 MB	
Certifications	CE, UL, RoHS, CCC, WEEE	
Dimensions	693 W x 786 D x 497 mm H (27.3 W x 30.9 D x 19.6" H)	
Weight	75 kg (165 lb)	
Interface	FireWire (IEEE 1394)	

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")	
Custom Imaging Plate Sizes	Any size and/or shape up to 35 x 43 cm (14 x 17")	
Cassette Sizes	35 x 43 cm (14 x 17")	
	15x 30 cm (6 x 12")	
	18 x 24 cm (7 x 9.5")	



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GEIT-40044EN(02/09)

GE
Measurement & Control

CR^x25P

Portable Computed Radiography



Portability, Versatility and Performance in Harsh NDT Environments

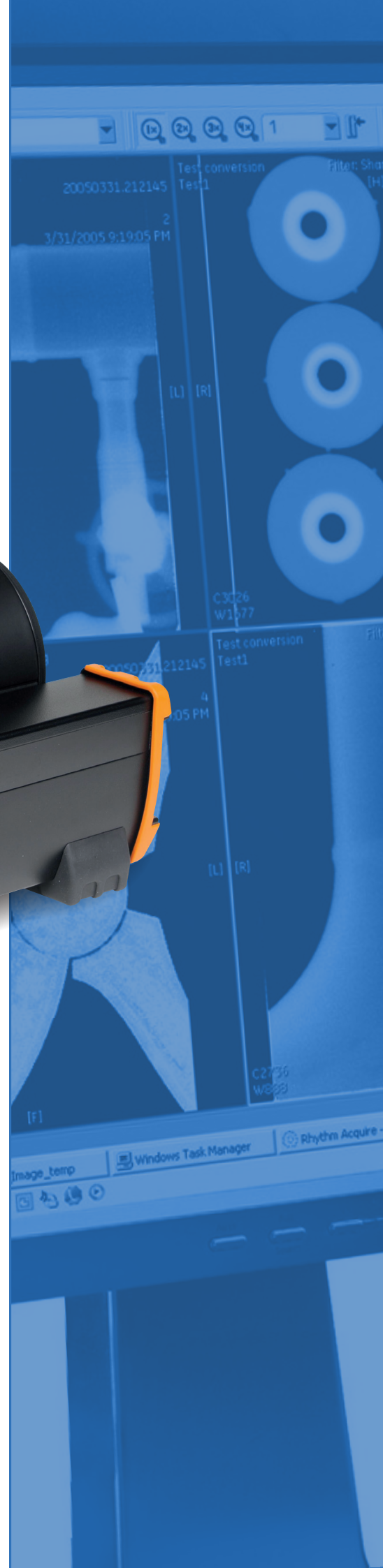
The CR^x25P computed radiography scanner from GE's Inspection Technologies business combines portability and durability with simple operation to create high-quality digital images within seconds.

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 CR^x25P 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*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*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*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*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*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



CR*25P Scanner

The CR*25P 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.

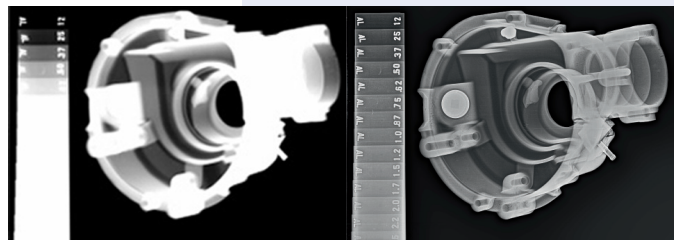
The new CR*25P replaces the CR50 for high contrast / medium resolution applications in the corrosion / erosion space. In addition, it extends the application space because of its high resolution mode at a pixel size of 17 and 25 micron and is therefore designed for weld inspection in compliance with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

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 - CR*25P

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.
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Certifications

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

Regional Contact Information

North America

50 Industrial Park Road
Lewistown, PA 17044
USA
+1 866 243 2638 (toll free)
+1 717 242 0327

Asia

5F, Building 1, No.1 Huatuo Road,
Zhangjiang High-Tech Park,
Shanghai 201203
China
+86 (0)21-3877 7888

Europe

Bogenstrasse 41
22926 Ahrensburg
Germany
Tel.: +49 4102 807 0



www.ge-mcs.com

GEIT-40051EN (04/11)

IPS & IPC2 Phosphor Imaging Plates

Computed Radiography

Exclusively designed for industrial use, targeting all classes in both ASTM and CEN standards, the IPS and IPC2 Imaging Plates from GE Inspection Technologies deliver superior image quality, exposure speed and enhanced life. The combination of a wide dynamic range and exposure latitude results in substantial reduction of downtime and greater throughput. Both plates are the latest high-tech components of GE's computed radiography systems for industrial applications.

Discover superior image quality

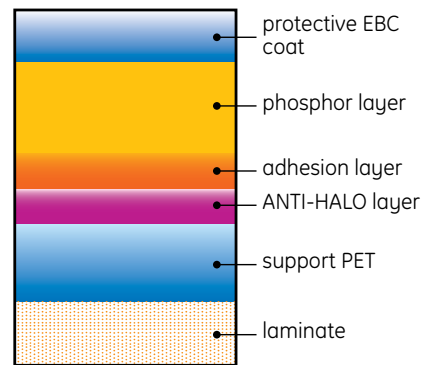
The storage phosphor in the IPS features excellent homogeneity and short response time. The previous pixel is fully faded before the laser stimulates the next one and, as a result, a very high level of sharpness and Signal-to-Noise Ratio (SNR) is obtained. The IPS imaging plate is ideal for weld inspection, castings, and honeycomb structure applications.

The storage phosphor in the IPC2 features high absorption efficiency with excellent homogeneity. This results in an extremely fast plate with higher image quality and better SNR than our traditional IPC. The IPC2 imaging plate is ideal for erosion-corrosion inspection applications.

Enjoy enhanced durability and lifespan

Both IPS and IPC2 plates are protected by an Electron-Beam-Cured (EBC) topcoat. This is proprietary technology for hardening a pre-polymer lacquer coat into a high-density polymer shield protecting the phosphor layer. The results are superb resistance to mechanical wear and extensive immunity to chemical cleaning solutions.

Overall, you'll enjoy greater return on your investment.

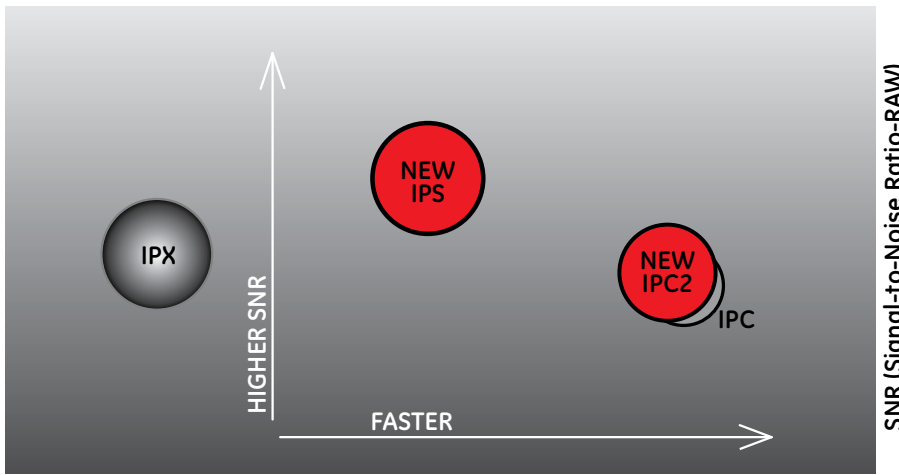


Profit from greater efficiency

The storage phosphors on our CR plates have a wide dynamic range, resulting in high tolerance conditions and a larger degree of freedom in selecting the used exposure dose.

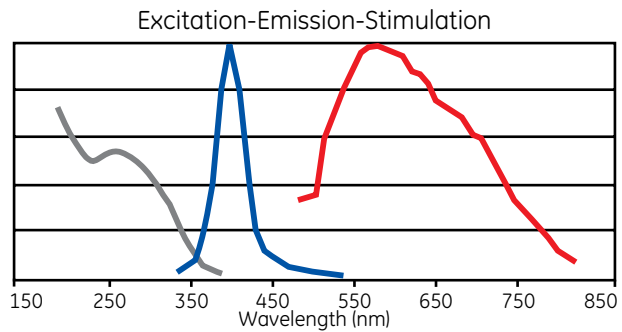
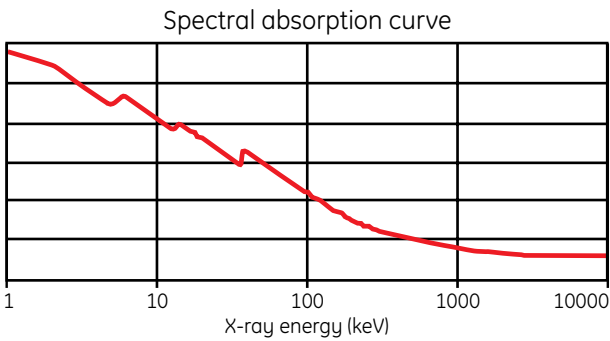
In addition, the wide exposure latitude of these imaging plates in many cases allows the visualization of all information with a single exposure - e.g. thick and thinner material. Combined, these features have the effect of drastically reducing the retake rate, helping substantially reduce downtime and/or facilitate higher throughput.





Exposure time at 3500 SAL

Relative exposure time and SNR using X-ray. The graph shows the improvement in speed, SNR and sharpness of the new IPS plates versus the former IPX. The new IPC2 results in an improved sharpness and SNR compared to the IPC.



Technical specifications:

- Phosphor composition:
 - BaSrFBrI:Eu²⁺
 - Typical luminescence: 390nm
- Sizes:

IPS:	14x17 inch	IPC2:	14x17 inch
	8x10 inch		8x10 inch
	6x12 inch		
	4,5x10 inch		
	4,5x17 inch		
- Customized sizes on request
- Handling:
 - Relative humidity: 30 – 80 %
 - Temperature: 10° C – 40° C (50° F – 104° F)
- Cleaning
 - For plate maintenance use only GE's Cleaning Wipes

GE Inspection Technologies The evolution of NDT

When it comes to technology-driven, non-destructive testing (NDT) solutions, GE Inspection Technologies has been setting the global standard. Our radiography systems epitomize our expertise in pioneering and developing proven technologies that offer real, tangible benefits for industries from aerospace to oil and gas.



GE Film Digitizer

FS50 / FS50B

GE Film Digitizers FS50 / FS50B

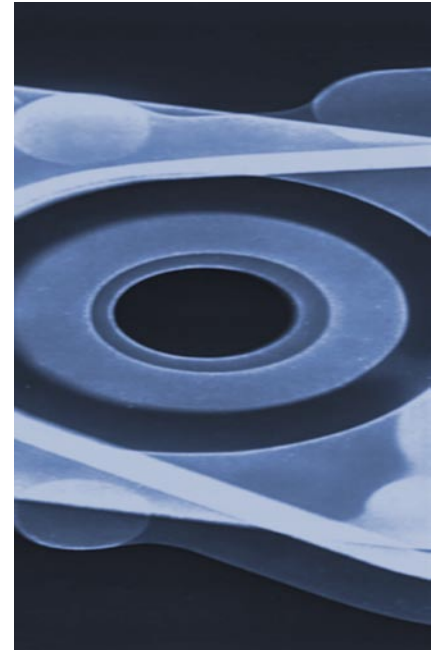
are designed to provide high-end performance in film digitizing, offering superior quality at high throughput. The steel housing gives the robustness needed for the industrial environment of NDT applications. All standard film formats can be digitized, up to a width of 14 inch (35 cm), without length limitation in any resolution between 50 μm and 500 μm . The FS50B is the first and only digitizer on the market that can handle the full density range ($D = 0$ up to 4.70 D) in one working range with the requested contrast sensitivity. This makes the scanner meet the requirements for class DS film digitizers, according to EN 14096 part 2. This classification has been evaluated and confirmed by BAM, the German Federal Institute for Materials Research and Testing.

The system employs a HeNe laser beam, which sweeps across the film by a polygon mirror system. The F-Teta lens avoids distortions of the image, by keeping the optical distance of the laser beam unchanged at all spots of the scanned area. The logarithmic amplification process guarantees high signal to noise ratios up to 4.70 density (FS50B).



Every scanner is calibrated and characterized at the time of shipment, and a unit-specific LUT is delivered with each machine. This guarantees an artifact-free scanning at the highest possible precision, repeatability and speed. A 14 x 17 inch film can be digitized in as little as 7 seconds.

The cost-effective film digitization solution for anyone handling archives, for easy image transfer or for using the advanced viewing features of the GE Inspection Technologies system.



Technical Specifications FS50 / FS50B

Light source	HeNe laser 632.8 nm
Laser scan resolution	50 µm to 500 µm in steps of 1 µm
Density range FS50	0.05 to 4.0 D
Density range FS50B	0.05 to 4.7 D
Scan speed	14 x 17 inch: 7 sec (Speed mode, 200 µm) 14 x 17 inch: 120 sec (Quality mode, 50 µm)
Pixel depth	12 bit (4096 gray levels) logarithmic
Film size	Min: 60 mm - 2.4 inch width Max: 355 mm - 14 inch width
Weight	45 kg
Dimensions	526 x 764 x 330 mm - 13 x 21 x 30 inch
Interface	SCSI, SCSI II
Power	100 - 120 V; 200 - 240 V 50 / 60 Hz; 400 W
Safety labels	CE, UL, GS
Operating condition	15 - 30 °C (59 - 86 °F), 30 - 75% RH
Storing condition	10 - 40 °C (14 - 104 °F), 10 - 90% RH
Transportation condition	10 - 50 °C (14 - 122 °F), 10 - 90% RH



Film Digitizer FS50



- ✦ Computed Radiography Imaging System
- ✦ Greater than 4 lp/mm, 16-bit Images
- ✦ On Target Equipment Weight Less Than 20 lbs (9 kg)
- ✦ Internal or External Image Plate Erasing Light
- ✦ Contact Free Image Processing

LOGOS



LOGOS

The Logos Digital Imaging System offers users a truly portable Computed Radiography (CR) product designed to be field deployable. With a footprint measuring 31 inches x 23 inches, the complete Pelican case mounted system fits in a typical response vehicle for easy transport to and from the work site. Additionally, the soft-sided carrying case option offers users the flexibility of choosing a smaller, one-man portable design.

The system uses thin, flexible, storage phosphor plates as the imaging medium. These image plates are reusable after being erased with fluorescent light, and they can be connected using the supplied image plate frame system to x-ray large objects in a single exposure with minimal downrange equipment weight and minimal downrange time.

The scanner relies on a contact free, carousel based scanning method to read the image plates. The benefit of contact free scanning is that dust and debris on the image plate surface will not damage the plate or the scanner during processing. Therefore, even in extreme environments, there is no consumable expense for daily cleaning products required to maintain trouble-free operation.

The wide dynamic range of the Logos Digital Imaging System also allows users the ability to capture a quality image in one X-ray exposure. The scanner outputs 16-bit grayscale images (65,536 levels of gray) providing a high level of contrast adjustment to easily correct over and under exposures without requiring another trip downrange. The standard Logos Imaging Application offers a suite of automated image processing filters enabling even novice computer users to quickly capitalize on this powerful image processing capability.

Specifications

Height:	15.5", 39.4 cm
Width:	19.4", 49.3 cm
Depth:	10.8", 27.4 cm
Weight:	35 lbs, 16 kg
Interface Cable:	USB 2.0 Cable
Voltage:	110-240 VAC
Frequency:	50/60 Hz
Power:	110 watts max (T100 - w/o integrated eraser) 150 watts max (T110 - with integrated eraser)
Laser Classification:	Compliance per DHHS Radiation Performance Standards 21 CFR, 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007. Also complies with IEC60825-1/A2: 2001 Class 1 Laser Device
Image Plate Size:	8"x10", 20 x 25 cm & 8"x17", 20 x 43 cm
Resolution:	150 dpi, 2.2 lp/mm, 51 second scan; 300 dpi, 4.4 lp/mm, 102 second scan

Specifications are subject to change without notice



DETEK, Inc.

6805 Coolridge Drive
Temple Hills, MD 20748-6940

800-638-0554 FAX 301-449-7011
www.detek.com sales@detek.com



- ✦ Compact, Desktop, Single Plate Reader
- ✦ 25 Plates/hr (14"x 17"), 60 sec to Image Display
- ✦ Multiple Image Plate Size Options
- ✦ Industry Leading Image Quality
- ✦ Logos Software Platform

EVRY
ΕΥΡΥ



EVRY

Specifications

CR Reader Type	Compact Desktop Reader with Integrated Image Plate Eraser	Storage and Shipping	-40° to 122° F (-40° to 50° C) (stored inside carrying case)
Image Plate & Cassette Sizes	14" x 17" (35 x 43 cm) 10" x 12" (25.4 x 30.5 cm) 8" x 10" (20.3 x 25.4 cm)	Environmental Operating Conditions (Reader)	Temperature 32° to 104° F (0° to 40° C) Relative Humidity 5% to 95% RH, Non-condensing
Throughput (with 120 sec erase / IP)		Environmental Operating Conditions (Image Plate)	Temperature 59° to 93° F (15° to 34° C) Relative Humidity 30% to 80% RH, Non-condensing
Standard Resolution	15 plates / hour	Safety Standards	
High Resolution	13 plates / hour	General	UL 60601-1 (2003), IEC 60601-1 (2005) CAN/CSA C22.2 No 601.1-M90
Image Display Time		EMI	EN 60601-1-2 (2007) Group 1 Class A IEC 60601-1-2 (2007) Group 1 Class A
Standard Resolution	90 seconds	Electrical	Class I (grounded)
High Resolution	130 seconds	Laser	IEC 60825-1 (2007) Class 1 Laser Device
Resolution			
Standard	150 DPI (5.9 pixels/mm) 169 micron square pixels approximately 2.9 lp/mm		
High	300 DPI (11.8 pixels/mm) 85 micron square pixels approximately 5.9 lp/mm		
16 bits/pixel			
Weight	49 lbs (22 kg)		
Dimensions (H,W,D)	12.6" x 28.4" x 16.4" (32 x 72.1 x 41.7 cm)		
Interface Cable	USB 2.0		
Electrical Voltage	100-240 VAC, 50/60 Hz Auto-sensing		
Power	110 W Max - 200 VA Max		



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www.detek.com sales@detek.com