PROUDLY SUPPLYING THE **NDT** INDUSTRY FOR OVER **35 YEARS**

35TH ANNIVERSARY
EST. 1986

2022/23 EDITION

PRODUCT CATALOGUE

PIPELINE CRAWLERS • BETATRON PORTABLE X-RAY • DIGITAL RADIOGRAPHY

VIEW
JME
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JME
ADVANCED INSPECTION SYSTEMS

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SCAN THE **QR CODE** TO FIND OUT MORE AT **WWW.JME.CO.UK**

If you would like to speak to member of our sales team regarding our products, services or demonstrations, please contact us on **+44(0)1502 500969 / sales@jme.co.uk**

JME ADVANCED INSPECTION SYSTEMS

PROUDLY SUPPORTING THE NDT INDUSTRY FOR OVER 35 YEARS

JME ADVANCED INSPECTION SYSTEMS

JME is regarded across the globe as the market leader for the development and manufacture of high quality inspection systems. JME are very proud to have supplied the industry over the past 35 years.

For over three decades, JME's objective has been to build it's reputation on Innovation, Quality, Service and Commitment to the NDT industry. As a company, JME thrives on customer satisfaction, which explains why the majority of our customers have stayed with us for three decades.

The products that JME designs and manufactures are recognised around the world as the premium brand in NDT, this is one of the reasons why JME remains far ahead of our competition for reliability, innovation and customer care. We offer field-service and support for all of our products, coupled with an extensive stock of spares, you can be assured of a prompt and efficient service at all times. Our core product range consists of the JME Pipeline Crawler Inspection System, DXB Digital X-Ray Buggy, Portable X-Ray Betatron Systems and Bespoke Digital X-Ray Systems supporting a variety of industry specific inspection tasks.

JME's Pipeline Crawler Systems are designed for the inspection of circumferential butt welds in a variety of pipeline sizes from 5.5" to 60" in diameter. The systems offer exceptional reliability and include a wide range of unique safety features. Our systems interface with a wide range of X-Ray generators from various manufacturers.

The Portable X-Ray Betatron systems are unique within the market place, available with energy output from 2.5Mev to 9MeV, they are capable of undertaking the inspection of a variety of materials. They will successfully produce radiographs of objects with a thickness of up to 300mm of steel or 1 meter of concrete. They are capable of producing radiographs of exceptional contrast, sensitivity and resolution, meeting the highest inspection standards.

YOUR **JME** SALES REPRESENTATIVES

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JME SERVICE PLAN

EQUIPMENT SERVICING

JME's 'Annual Service and Inspection' packages assist in supporting your JME products. Although our NDT systems offer the user exceptional reliability, planned and preventative maintenance is always preferable to reactive repairs during a live project. On-site repairs are not only more costly to arrange, the down-time on an active project can quickly reduce your profit margins.

For this reason, the majority of our clients find JME's service plans invaluable for maintaining and maximising the productivity of their equipment. JME offers plans that cover Pipeline Crawler and Betatron Systems, these can be activated at the time of equipment purchase, or after your warranty period has expired.

FOR MORE INFORMATION: PLEASE CONTACT YOUR ACCOUNT HANDLER ON +44(0)1502 500969

NDT EQUIPMENT RENTAL

JME recently invested in growing our stock of rental equipment to include high-energy Betatron systems (2.5 and 7.5MeV) and various COMET X-Ray Tubes. If you require additional/ replacement equipment for large, or one-off projects, contact us for stock availablity.

JME are able to offer both Long and Short term rental, so whether you require an X-ray source for the duration of a project, or just short term cover for equipment breakdown, we have a solution to suit your requirements.

We are also able to supply a range of additional accessories to support our hire systems, including X-Ray tube stands and Audio/Visual Radiation Alarms. Please enquire for the availability of our full range of accessories.

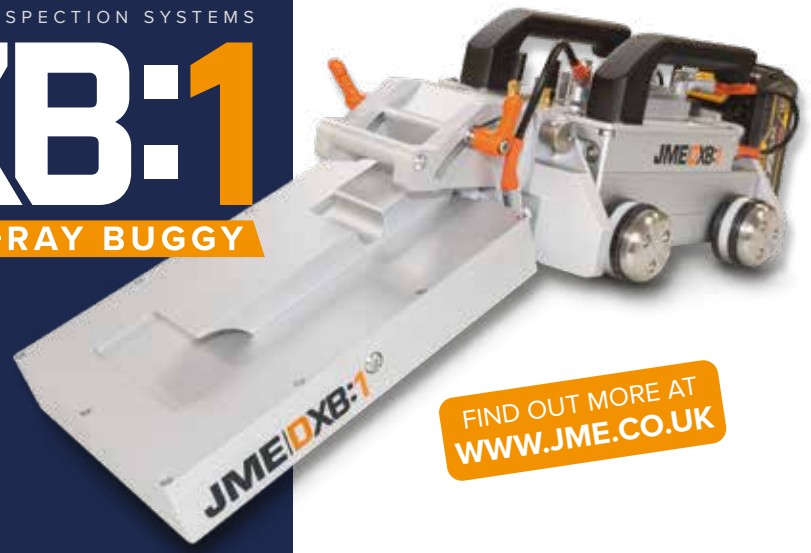
In the event of your designated Radiographer requiring orientation/operation training on our systems, this can be offered alongside the rental agreement.

Due to the nature of Industrial X-Ray Equipment, terms and conditions must be met prior to a Hire Agreement being issued.

JME ADVANCED INSPECTION SYSTEMS

DXB:1

DIGITAL X-RAY BUGGY



FIND OUT MORE AT WWW.JME.CO.UK

JME would like to present our newest product range, the DXB:1 Digital X-Ray Buggy; designed to produce high-quality panoramic radiographs of circumferential welds in applications such as new pipelines. As a versatile and configurable system, it can also be utilised for use in various non-pipeline applications, such as the inspection of tank walls or other ferrous metal structures.

This digital system is a replacement for traditional film radiography; this eliminates chemical processing, dark rooms, or flaws associated with conventional radiography. With an articulating digital panel, the system is fully adjustable for a range of different radiused surfaces.

The DXB:1 includes a high-definition digital panel for instant verification of image quality and system settings. Images are digitally stored, preventing the need for film storage and enabling a permanent record to be saved within the control panel. These can be backed up via USB, a secondary hard-drive or using a Network connection, allowing the images to be sent to an off-site Radiographer immediately after acquisition.

With a rapid magnetic deployment system, the DXB:1 can be positioned by a single person in less than a minute, dramatically increasing productivity on-site.

Project settings, DXB Control and basic image manipulation can be controlled directly from the control panel which is supplied in a rugged case.

DXB:1 SYSTEM FEATURES

- Single Wall Single Image (SWSI) + Double Wall Single Image (DWSI) + Stand-Alone Applications
- Deployed in seconds
- Film replacement technology
- Allows for 'Cloud-Based' storage and review
- Fully integrated with crawler operation
- One-touch operation
- Comprehensive safety interlocks
- Automatic back-up of images
- Magnetic mounting
- Integrated functionality with the CR2 Remote Handset Unit

WHO WE SERVICE:
JOB SECTORS

PIPELINE RADIOGRAPHY

JME have been involved in pipeline Radiography since 1986 See the 'Historical Product Page' of the JME website for more information.

Since then we have continually developed out products and services and now offer a multitude of products for global applications. Including Pipeline Crawlers for Girth Weld/New Pipeline radiography using X-Ray or Gamma, Stand-alone X-Ray generators for static and external imaging including DWSI with our DXB system, enabling a bolt-on solution for digital radiography. And not forgetting our Betatron systems for heavy wall, In-service valve inspections or even Pig retrieval applications. Along with the OVX, stand-alone tubes and the Betatron for in service CUI applications.

INDUSTRIAL RADIOGRAPHY

JME offer a wide range of industrial radiography solutions, from our stand alone – tubes from COMET, Balteau, ICM, to our Betatron range for heavy wall castings, pipeworks and large automotive components.

SECURITY

JME offer both mobile/portable systems for events, AED, and dynamic security applications such as the OV Security from QSA Global.

SUBSEA

Over the years JME have been involved in many subsea applications whether for direct project support or end-user product applications.

These applications include Subsea Pipeline Inspection with a Betatron and a ROV, Subsea telecoms inspection with a DXR, or Subsea Pipeline Inspection with JME Pipeline Crawlers.

TELECOMMS

The JME DXR Digital Telecoms product can be used for the inspection of subsea fibre optic cabling. You can read more about the DXR here *www.jme.co.uk/dxr/*

RENEWABLES

Being Located in Lowestoft, the most Easterly point in the UK, we are ideally suited for Inspection equipment for the Renewables Sector. Lowestoft has become a hub for the construction and development of wind turbines which are built and shipped from the local port.

JME have increasingly become involved within the renewables sector, from carbon fibre and composite inspection, mechanical and heavy wall steel inspection, to subsea and ROV applications. As well as subsea infrastructure and cabling inspection. Whatever your need please reach out for assistance.

HEALTHCARE AND MEDICAL

JME has been supplying equipment for the medical sector since the early 90s with the first "Medical (electron) Betatron", supplied to a UK trust.

Since then we have not only been involved in the development and manufacture of medical systems such as the Papillion 50, the original cancer treatment system from Ariane Medical Systems, but also continue to supply standard equipment such as portable X-Ray Tubes and Betatron's for use within the sector for varying applications including medical shielding verification, and are now beginning to supply digital detectors for varying applications.

AEROSPACE

JME's range of Portable X-Ray Generators have been used in applications within the Aerospace industry to quickly and efficiently ensure the safety and integrity of components. In conjunction with Digital Radiography, allowing imaging of Aerospace's complex structures to identify small defects in assemblies from fuselages, wings and stabilisers, landing gear and bearings, to shielding and turbine engines.

JME has a range of low/mid energy X-Ray tubes available, as well as high energy Betatron systems. The varying range of X-Ray solutions we provide often mean that lengthy and costly dismantling is not required, minimising ground time.

DEFENSE

With the wide variety of radiography systems offered by JME, we are able to apply solutions to multiple areas in the defence industry, such as fuel inspection, Armour testing, in service submarine inspection, alongside War head, munitions, construction projects on vessels, rocket system inspection and overall failure analysis within both traditional and digital applications.

VIEW **JME** PRODUCT **CASE STUDIES** ONLINE www.jme.co.uk

ADDITIONAL JOB SECTORS JME SERVICES

ACADEMIA/MUSEUMS/GALLERIES - FORESTRY
MARITIME/VEVNSTRUCTION
FOOD INDUSTRY - RAIL INSPECTION - MINING

FIND OUT MORE AT WWW.JME.CO.UK

PORTABLE X-RAY BETATRON

FIND OUT MORE AT WWW.JME.CO.UK

JME Portable X-Ray Betatron Systems (PXB) are a range of compact circular electron accelerators, producing a high energy directional X-Ray beam. The Betatron systems are easy to assemble, operate and maintain, they contain no moving parts or cooling liquids, so system maintenance is kept to a minimum. They are capable of producing radiographs of very high contrast, sensitivity and resolution, allowing operators to meet the highest inspection standards.

JME offers 4 PXB systems within the Betatron range, each with a different maximum energy output, these include 2.5, 6, 7.5 and 9MeV. The energy output on all systems is variable from 1Mev through to the maximum energy, with adjustments being made in 0.1MeV increments. The systems offer cost savings and a greater degree of portability when compared with Linac generators, they also provide greater flexibility for mobile inspection tasks. JME can also supply PXB's with an optional Wireless Control Panel and Control Handset*, allowing operation up to a 1km distance.

*DEPENDENT UPON MODEL

JME has also completed many bespoke projects using betatron systems, including subsea pipeline inspection.

CONTACT JME FOR MORE INFORMATION

PXB:2.5
PORTABLE X-RAY BETATRON

PXB:6
PORTABLE X-RAY BETATRON

PXB:7.5
PORTABLE X-RAY BETATRON

PXB:9
PORTABLE X-RAY BETATRON

ALSO AVAILABLE IN RF

1. POWER SUPPLY UNIT
2. RADIATOR
3. LASER ALIGNMENT
4. REMOTE DOSIMETER
5. AV WARNING UNIT
6. REMOTE CONTROL UNIT
7. RF WIRELESS CONTROL PANEL + HANDSET
   AVAILABLE ON 6MEV AND 7.5MEV SYSTEMS

APPLICATIONS

JME's Betatron range has been supplied to many different sectors of the NDT industry for a variety of inspection tasks. Examples of inspection uses include, but are not limited to:

- Large Forgings
- Castings
- Valves
- Beams
- Ships Hulls
- Munitions
- Composites
- Propellants
- Pressure Vessels
- Cargo/Security Scanning
- Reinforced Concrete Buildings
- Billets
- Thick Welds
- Bridges
- Engine Blocks

DIGITAL DETECTOR OPTIONS AVAILABLE

CONTROL PANEL FEATURES

- Control of energy levels
- Exposure time settings
- Auto-stop feature
- Warning/system messages
- Adjustment of injection current and contractor timing
- Accumulated dose measurement

FEATURES

- Completely portable
- Output energy selectable up to 9 MeV - **Dependent on Model*
- Excellent sensitivity and resolution
- Light-weight and compact
- Penetrates upto 11.81 inch's (300mm) of steel, 39.37 inch's (1m) concrete - **Dependent on Model*
- Designed for portable and stationary applications
- High image resolution due to a small focal spot size
- Efficient power conversion
- Compatible with generator power

JME BETATRON SERVICE PLAN

Whilst JME's Betatron systems offer the user exceptional reliability, planned and preventative maintenance is always preferable to reactive maintenance and repairs.

The aim of our Annual Service Plan is to maximise the productivity of your PXB equipment and minimise the risk of breakdowns occurring during projects. JME's Betatron Service Plans offer the most cost effective solution to provide you with peace of mind, ensuring your system is always in optimum condition. Plans are available for our entire range of Betatron products that have been supplied after 2002. The service can be carried out at your premises or at our U.K. base, depending upon your preference.

CALL OUR SALES TEAM ON +44(0)1502 500969 FOR MORE INFORMATION.

PIPELINE CRAWLER
X-RAY SYSTEMS

FIND OUT MORE AT **WWW.JME.CO.UK**

JME Pipelines Crawlers have been continually improved and updated to produce panoramic radiographs of the highest quality. Our range of systems are designed to inspect circumferential butt welds in new pipelines, such as oil and gas transmission pipelines, from 5.5” to 60”.

As a self-contained and self-powered exposure vehicle, they are ideal for a vast range of NDT applications both on and off shore. JME Pipeline Crawlers are constructed using high grade materials to provide superior corrosion resistance, easy maintenance and an extended service life. Electronic circuits utilise microprocessor control allowing future software updates to be applied. They are constructed using military specification components to ensure reliability in harsh environments.

JME’s brand new system, the **10:CR2:S** is a shorter and lighter version of our flagship **10:CR2** Crawler, allowing for easier transportation and tighter pipeline bends. See website for more indepth info.

Our systems are unique within the industry, supporting X-Ray tubes from various manufacturers*, including JME, Comet, Balteau and ICM. JME also offers GAMMA projector integration onto the **10:CR2** and **24:CR2** Pipeline Crawlers, using either the SENTINEL™ DELTA 880 or Oserix Dual 120 Gamma Source, making JME’s Pipeline Crawler range the most versatile systems in the world.

1. CHASSIS
2. E-BOX
3. BATTERY PACK
4. 2.4GHZ ANTENNA
5. END OF PIPE/WATER SENSORS - FRONT AND REAR
6. RECOVERING RING
7. X-RAY SOURCE
8. D-BOX
9. WHEEL EXTENDER CONES
10. MOTOR / GEARBOX / TRACKER ISOTOPE
11. CRAWLER CONTROL UNIT (CCU)

Common electronics contained within the Crawler chassis allow the universal connection across the range of supported X-Ray/Gamma sources.

* For full compatibility list of X-Ray tube/Crawler configurations, please enquire. Options subject to Crawler model and territory.

GAMMA ACTUATOR OPTIONS

JME Pipeline Crawlers feature an easy conversion from X-Ray generator to Gamma projector. Gamma actuators are compliant with all manufacturers safety mechanisms.

Our complete Gamma pipeline solution will be delivered ready for loading with an appropriate source, this is supplied locally and can be reloaded as required using service centres.

SENTINEL™ Delta 880

Oserix Dual 120

VIEW PAGE 8-9 FOR OUR RANGE OF SOURCE OPTIONS ▸

CR2 REMOTE HANDSET CONTROL

JME’s unique handset, with 4.3” touchscreen and multi-language support, allows external control and monitoring of the crawler whilst operating in the pipe.

This device allows the user to set up and configure the entire system, including X-Ray Tube/Gamma Projector prior to placing it in the pipe. It is also capable of providing real time data from the system whilst in operation. *Read more at www.jme.co.uk*

JME ADVANCED INSPECTION SYSTEMS

PIPELINE CRAWLER ACCESSORIES

- MOTOR VOLTS CHECK
- ARA CHECK
- AMAX CHECK
- MAG SWITCH CHECK
- END OF PIPE SENSOR CHECK
- WATER SENSOR CHECK
- EXPOSURE CHECK
- TUBE OVER HEAT CHECK

JME CR2 TEST BOX

The CR2 Test Box is designed to plug into any CR2 E-Box via the E-Box connector using an interconnecting cable. Using a simple control and interface method the Test Box can perform a variety of tests automatically at the touch of a button.

With visual feedback displayed directly on the test box, the user is able to quickly and effciently identify any faults with the Pipeline Crawler System. Because of its compact size, a full range of tests can be performed on site, minimising down time and allowing the user to quickly replace faulty or damaged components. The Test Box simulates sending commands to the E-Box to mimic live operation. Each of the following tests can be enabled/disabled to create a custom test routine. Any error codes are displayed on the Test Box interface to further identify issues with specific components. In the event that the issue cannot be rectified onsite, error codes can be supplied to JME technicians to aid our support process. You can also connect the Test Box to a PC, allowing you to configure an E-Box prior to use and to download updates for PCB's.

JME MAGNETOPE
NON ISOTOPE CONTROL SYSTEM

JME Crawlers can be supplied with our unique and proven, magnetic control system, replacing conventional isotope control systems and their inherent transportation and storage problems. The Magnetope is easy to install to new and existing JME Crawler equipment.

A magnetic transmitter (Magnetope) is used to control the functions of the crawler in a similar way to the signalling isotope. There are no trailing leads and all commands are executed from outside the pipeline via magnetic transmitter (Magnetope). The unit can be used to command travel, stop and exposure as required by the user.

AUDIO/VISUAL RADIATION ALARM

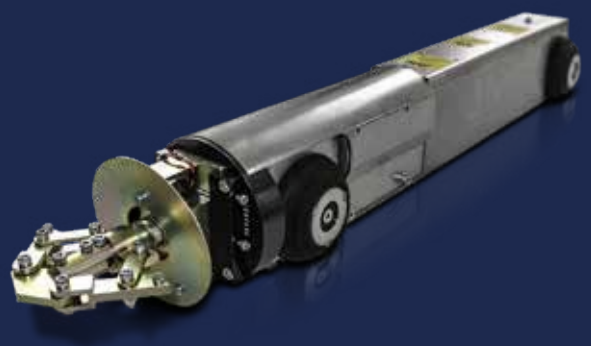
The JME Audio/Visual Radiation Alarm is a tool to assist radiographers in environments where controlled exposure bays are not possible.

Typical applications are landlines and offshore pipeline barges. The Alarm is normally used close to the area of X-ray emission to indicate visually and audibly the presence of Ionising Radiation. The alarm unit is connected to the remote control Handset to provide an accurate representation of the X-ray status, as well as an integrated GM tube for failsafe operation and non-CR2 linked modes.

RECOVERY VEHICLE

Purpose built recovery vehicle complete with latching harpoon. It can be sent into a pipe to recover the main crawler if it should become disabled.

Even with the very best equipment and on the best regulated projects, there is a possibility of the crawler becoming inoperable in the pipe. This unit will connect to a disabled crawler system allowing the unit to be recovered with the assistance of an attached steel cable. Available for 6CR2 and 10CR2 systems.



RADIO RECOVERY TRANSMITTER

A radio recovery transmitter used for when the crawler has broken down due to an electrical fault, this unit will reverse the crawler out of the pipe.

This recovery system is provided with every CR2 Pipeline Crawler chassis. This technology overrides the crawlers internal logic and provides an alternative means of recovery in the event of a failure in the crawlers internal electronics.

10 CHANNEL CHARGER

This is a 12V, 10 channel battery charger for lead acid batteries. All 10 of the channels operate individually and are controlled by a microprocessor.

The front display panel will show all of the relevant information about each individual battery and channel. The battery charger uses an algorithm which makes it possibleto significantly reduce recharging time. Average re-charge time is 6 hours.

We also supply a separate 4 Channel Charger.

VIEW WWW.JME.CO.UK FOR OUR FULL RANGE OF ACCESSORIES

RADIATION SOURCES for PIPELINE CRAWLERS

FIND OUT MORE AT WWW.JME.CO.UK

X-RAY TUBE OPTIONS

JME Pipeline Crawler systems are unique within the industry, supporting X-Ray Tubes from manufacturers including JME, Comet, Balteau and ICM; making JME Crawlers the most versatile systems in the world.

X-Ray tubes are connected to our universal Crawler Chassis via an electrical interface, this is a bridge module that contains the electronics, allowing the Crawler to communicate with the tube. The interface also allows the Crawler and Tube to be controlled with the JME Remote Handset, including operation features such as tube parameters warmup, temperature and error reporting.

JME JMXT:180

High Voltage Range	120 - 180kV CP
mA Adjustment	1.8 - 2.4mA
Beam Angle	360° x 45°
Focal Spot Size	5.0 x 0.6mm
Max X-Ray Power	320W

JMXT:180

comet EVO 200P / EVO 300P

	200P	300P
High Voltage Range	30 - 200kV	50 - 300kV
mA Adjustment	0.5 - 6.0mA	0.5 - 4.5mA
Beam Angle	38° x 360°	38° x 360°
Focal Spot Size	0.4 x 4.0mm	0.5 x 5.5mm
Max X-Ray Power	750W	750W

COMET SMART EVO 200P

*i*CM CP160CR / C1802 / C3003 / CP300CR

	160CR	C3003
High Voltage Range	40 - 160kV	90 - 300kV
mA Adjustment	0.5 - 2.0mA	1.0 - 5.0mA
Beam Angle	360° x (2 x 20°)	360° x (2 x 20°)
Focal Spot Size	4.0 x 0.5mm	0.5 x 5.5mm
Max X-Ray Power	320W	750W

ADDITIONAL ICM TUBES AVAILABLE - www.jme.co.uk

ICM SITEX CP160CR

BalteauNDT GFC 160C / 200C / 300C

	160C	300C
High Voltage Range	112 - 160kV	150 - 300kV
mA Adjustment	3mA	3mA
Beam Angle	45° x 360°	45° x 360°
Focal Spot Size	4.0 x 0.9mm	4.0 x 1.3mm

BALTEAU GFC 200C

VISIT **WWW.JME.CO.UK** FOR A COMPLETE LIST OF X-RAY OPTIONS AND TUBE SPECIFICATIONS

QSA GLOBAL. OPENVISION DX™

- CORROSION UNDER INSULATION (CUI) SCANNING
- HEAT TRACER INSPECTION
- WELD LOCATION MAPPING

Inspect large amounts of piping in environments such as refineries and petrochemical plants onshore and offshore in a fraction of the time.

OpenVision™ DX - Digital CUI Scanning System

OpenVision DX is an easy to use, digital X-Ray system with live video output for real-time radiographic inspection and reporting. A combination of a c-arm mounted 70 kV X-Ray source and a digital imager allows observation of external defects as small as 0.010-inch/0.254mm (250 µm) on insulated piping. OpenVision DX can be used on various insulation and cladding combinations.

The OpenVision Method

OpenVision is a true nondestructive testing (NDT) method that uses real time digital imaging to locate indications of corrosion or corrosion precursors.

BENEFITS INCLUDE

- High speed screening
- Easy operator interpretation
- Minimal operator training
- Wireless image transmission
- Reduced false positives
- Video and still image recording
- Simplified report generation

QSA GLOBAL. OV SECURITY™

WHEN SECONDS COUNT, EXPEDITE YOUR SWEEP WITH OV SECURITY

OV Security has been deployed to safeguard our world for nearly fifteen years. From airports to package handling facilities, technicians have discovered high potential hazards, narcotics, money, and numerous other suspicious items quickly by using OV Security.

SAVING TIME SAVES LIVES: Deploy in under two minutes to minimize risk and expedite inspection without evacuation. Real-time live video X-Ray enables rapid assessment of unattended items in public areas or discreet VIP protective details.

SWEEP FROM THE GROUND UP: A unique imager explicitly designed for security enables the technician to sweep the entire item of interest from the ground up.

SAFETY: Highly collimated X-Rays and specially designed shielding reduces your radiation footprint to a few feet, enabling hand-held operation while ensuring public safety.

BENEFITS INCLUDE

- High speed screening
- Easy operator interpretation
- Minimal operator training
- Wireless image transmission
- Reduced false positives
- Video and still image recording
- Simplified report generation
- Robot mountable


HANDGUN


HIGH POTENTIAL HAZARD

JME ADVANCED INSPECTION SYSTEMS

X-RAY TUBES AND GENERATORS

JME are proud to be the exclusive distributor of COMET Portable X-Ray products within the United Kingdom. COMET offers a full range of high quality X-Ray Sources, ideal for use on the JME Pipeline Crawler range or as stand-alone solutions for NDT Inspection projects.

The range includes Panoramic and Directional X-Ray tubes in a range of kV outputs. All tubes run at Constant Potential for high penetration, this also makes them suitable for traditional film capture and digital panels.

COMET SMART EVO DIRECTIONAL

SMART EVO tube heads and the CONTROL EVO is the key to a significantly improved workflow.

COMET SMART EVO WATER-COOLED

Ideal for confined spaces, offers 24/7 operation in ambient temperatures up to 30°C.

COMET XPO EVO DIRECTIONAL

Built around a robust metal ceramic X-Ray tube ensuring reliability.

COMET SMART EVO 200P/300P

Constant Potential power for high penetration.

The ideal companion for the JME Pipeline Crawler

COMET CONTROL EVO

Based on state of the art technology, the unit features an exposure calculator and an intuitive interface with a wide range of advanced functionality.

Backwards compatible with the Y.SMART and Y.XPO portable X-Ray systems. Ethernet interface allows for remote diagnostics and software updates. The USB interface controls the system via a USB-to-Serial converter, saving diagnostics reports and allowing for software updates in the field.

COMET Y.XMB

Available as a 100 kV, 160 kV and 225 kV with X-ray power up to 2.25 kW. All Y.XMB can be fitted with panoramic, directional and fan beam X-ray tubes. Available with different size focal spots. Benefits include:

- IP65 Waterproof
- Intuitive control panel with exposure calculator, data logging, 6.5 inch high contrast colour screen
- Power regulator
- Lightweight and easy to handle
- High quality metal ceramic X-Ray tube
- Ethernet, Bluetooth and USB interfaces
- 100 exposure profiles

Range of accessories including flight cases, tube stands, warning lamps, cables, lead cone package, water cooler, revolving hand ring, laser pointer and collimator.

The Y.XMB trolley systems are also available with a choice of heads ranging in KV output:

Y.XMB 100
7.5 - 100kV

Y.XMB 160
7.5 - 160kV

Y.XMB 225
10 - 225kV

COMET iVARIO GENERATORS

COMET Industrial X-Ray generators are built for remarkably stable performance. Designed to meet the demanding requirements of industrial X-Ray applications, they are the ideal workhorse for both film and real-time applications. All generators are factory-configured and pre-tested.

The future-oriented iVario generator employs latest technological advancements for adoptable, stable, and efficient design.

Flawlessly integrated components guarantee an effortless installation process to ensure the highest standard of performance.

- Extremely high X-Ray power
- Access to confined spaces
- Safe operation
- High quality system
- Easy to handle

Available in:
160kV
225kV
320kV
450kV
models

JME ADVANCED INSPECTION SYSTEMS

DIGITAL RADIOGRAPHY

JME has been designing and manufacturing bespoke Digital Radiography (DR) systems for nearly a decade - these products have been produced to the highest standards that meet specific customer requirements.

All JME DR Systems are built with an integrated safety system, which includes emergency stop buttons and monitored door interlocks, audible pre-warning and fail safe warning lamps. All JME DR systems meet all the statutory requirements of the current Ionising Radiation Regulations (IRR17).

DIGITAL IMAGING - THE WAY FORWARD

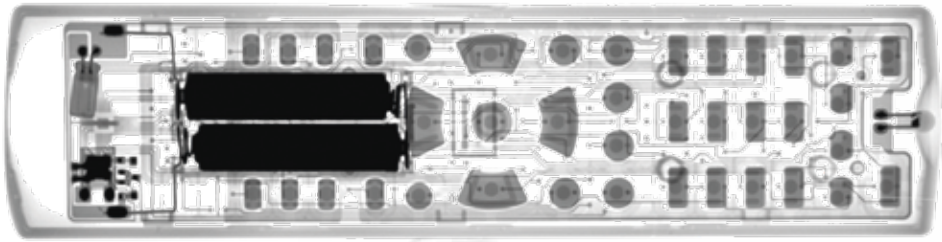
Wet film radiography has been accepted and used as a NDT technique for many years. However, new X-Ray imaging techniques are now available and offer many advantages over film. As a leader in the field of advanced inspection equipment JME can offer Digital Radiography to our customers.

JME CAN:

- Provide advice on choosing and using our DR systems, radiographic techniques and safety requirements
- Conduct feasibility studies and trials
- Design and manufacture turn-key solutions
- Supply X-Ray sources
- Supply assessor and image manipulation software
- Provide after sales service and repair

HOW DOES DR WORK?

DR works by replacing the conventional radiographic film with an electronic imaging panel. The panel is connected to a computer which 'captures' the image digitally and stores it as a data file. A conventional X-ray source is used. There are other types of image capturing devices to suit different applications. The resulting image can be viewed on a monitor, digitally enhanced or manipulated, archived, printed or emailed as required. We can even make the image files tamper evident so that you will know if anyone has attempted to alter them in any way.



WHAT ARE THE ADVANTAGES?

- DR IS FASTER: Dependant on the application, images can be produced in seconds, increasing productivity dramatically.
- REDUCED RUNNING COST: DR uses no film or chemicals and therefore does not require conventional processing.
- IMPROVED IMAGE QUALITY: Dependant on the application, images can be produced which are superior to their film equivalent thereby enabling better inspection. A pixel size of down to 75 µm is achievable.
- AUTOMATED FLAW DETECTION: DR systems can be designed to automatically scan an image and report flaws. Such equipment can operate as an automated 'go / no-go' inspection system.
- FILE LABELLING: Image files can be electronically labelled with information about the work piece. This could include a description, job number, date, time etc. Labelling can appear as an overlay on the image, electronically embedded in the file or a combination of both.
- FILM EMULATION: If required images can be processed to emulate conventional radiographic film such as D4 or D7.
- IMAGE MANIPULATION: Computer software may be used to manipulate the images. This can help to highlight flaws by adjusting parameters such as contrast, brightness and dynamic range. Sections of image may be magnified. Also digital point to point measurements can be made.

DIGITAL RADIOGRAPHY CASE STUDY

for the FOOD INDUSTRY

The JME Digital Food Radiography System (DFR) was produced for Birds Eye/Iglo Foods, one of the largest food manufacturers in the UK. The focus of the project was to manufacture a unit that could X-Ray batches of inbound goods for quality control purposes, prior to accepting shipments into the factory.

Supplying Fast-Moving Consumer Goods (FMCG) or Consumer Packaged Goods (CPG), such as food products, require a fast turnaround to ensure perishable items reach the consumer as fresh as possible. Food safety is extremely important during this process, ensuring products reach the customer free from objects such as bones, foreign objects, defects and contaminations can often be challenging. Adding a Digital Radiography solution to a production workflow allows for fast, in-situ X-Ray imaging of products. This process can be added prior to goods entering the production workflow, such as purchased ingredients, or inline as part of the production process. Both methods are able to reduce the likelihood of unsafe objects or damaged goods reaching the consumer.

The DFR is capable of detecting each of the following in each type of food product block:

- 3mm Glass Ball
- 2mm Stainless steel ball
- 2mm Steel Ball
- 2mm Aluminium Ball

In blocks ranging from 62mm to 115mm

DIGITAL RADIOGRAPHY CASE STUDY

for SUBSEA INSPECTION

Global Marine

DIGITAL X-RAY AND ASSESSMENT DEVELOPMENT FOR SUBSEA CABLE JOINTING

Global Marine present the first digital submarine cable X-ray Camera, DXr1, developed in conjunction with leading UK Radiography company, JME. This state-of-the-art camera will supersede the Type 13 cameras and eliminate film technology and wet chemical processing.

The DXr1 is the successor to the Type 13 Mk III X-Ray Camera for submarine cable use and has the same rugged marine construction and radiation safety. As the camera is fully digital, system repair time is reduced by eliminating the film processing stage and allowing image assessment to commence as soon as the first image is available. The digital images can be stored in a dedicated folder on the vessel server and therefore immediately available for the assessor to assess them with special software, incorporating a range of drop-down tools such as wall-thickness and inclusion gauges. Image defects can be marked-up and stored together with comments. When all images have been assessed, a summary sheet is produced giving an overall result for the joint. The advanced software contains noise reduction features, brightness/contrast adjustment and identifies 16,000 levels of greyscale.

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