

DXB:1

DIGITAL X-RAY BUGGY



DXB:1 DIGITAL X-RAY BUGGY

SINGLE WALL SINGLE IMAGE (SWSI) + DOUBLE WALL SINGLE IMAGE (DWSI) OPERATION

JME would like to present our newest product, the **DXB:1** Digital X-Ray Buggy; designed to produce high-quality panoramic digital 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.

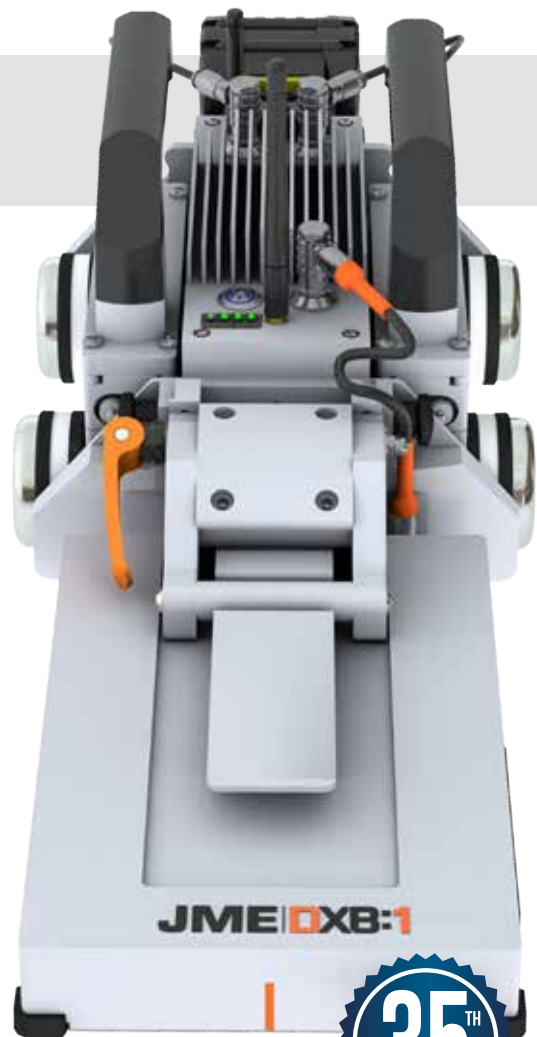
This digital system is a replacement for traditional film radiography; so no more chemical processing, dark rooms, or flaws associated with conventional radiography. The **DXB:1** includes a high-definition digital panel for instant verification of image quality and system settings. Images are digitally stored, preventing the need for film storage and enabling a permanent record to be saved within the control tablet. These can be backed up via USB or using a Network connection, allowing the images to be sent to an off-site Radiographer seconds from acquisition.

JME's **DXB:1** system also communicates and integrates with our entire **CR2** Pipeline Crawler Range. This allows 2-way communication between the Pipeline Crawler and **DXB:1**, giving configuration of key crawler parameters from the **DXB:1** control tablet. This integration also allows commencement of inspection with the push of a single button. The **DXB:1** operator is able to control, adjust and view the status of the **CR2** crawler at all times during an inspection task.

With a rapid magnetic deployment system, the **DXB:1** can be positioned by a single person in less than a minute. The system is attached using permanent magnets, meaning in the event of a loss of power the unit will remain firmly attached to the pipe. This quick and efficient deployment dramatically increases productivity on-site. There is no need for welding bands to be deployed and relocated between each inspection which again greatly improves efficiency on-site.

DXB:1 SYSTEM FEATURES

- Deployed in seconds, no welding bands required
- One-Touch Inspection
- Wireless, No Cable Management
- Comprehensive safety interlocks
- Allows for 'Cloud-Based' image inspection
- Digital storage of images locally or web-based
- Fully integrated with Crawler operation



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TECHNICAL SPECIFICATIONS

OVERALL SYSTEM SPECIFICATIONS

Buggy width	220 mm
Min. pipeline diameter	10" (254mm)
Average scan speed	15 mm/s (including imaging time and movement between images)*
Required Radial clearance from pipe surface	> 205mm from pipe surface
Image quality	Image quality class B acc. ISO19232-5, ISO 10893-7, ISO 17636-2
Image format	DICONDE compliant data export, via network or USB
System weight	Buggy, Detector and Battery - < 44.1 lbs (< 20Kg)
Dimensions (mm)	Overall Package Kit 2 Cases - 690(L) x 530(W) x 290(H)
Positioning	Manually positioned directly onto pipe cut back with no bands
Operating temperature	-20°C to +60°C
Power consumption	< 50W
Imaging X-Ray energy	Up to 300kV
Internal image storage	Capacity 500+ Images @ 36" pipe (+USB Drive Storage)

* DEPENDING UPON PIPE SCHEDULE

DXB SYSTEM IS SUPPLIED IN 2 RUGGED FLIGHT CASES

IMAGING

Resolution	100 µm
Technology	CMOS
Image stitching	Uses image feature matching algorithm

CONTROL TABLET SPECIFICATIONS

Display	10.1" 10-point capacitive multi touch screen, LED backlit for daylight visibility + Waterproof digitizer pen for improved ease of use
Certification	MIL-STD-810G certified at 180cm IP65 certified
Power option	Li-ion 11.4 V, 4360 mAh - Comes with 2 battery types
Dimensions (mm)	279(L) x 188(W) x 23.5(H) (11.0" x 7.4" x 0.93")
Weight	Approx 2.64 lbs (1.19Kg)
Operating system	Windows® 11 Pro

BUGGY POWER OPTIONS

Battery specifications (DeWalt FLEXVOLT)	18/54V (6/2Ah)	Available upon request
	18/54V (9/3Ah)	
	18/54V (12/4Ah)	= 125 shots* (18" Pipe)

*Average shots - dependent upon system settings

CONTROL SOFTWARE

User interface	Touch-screen use within user interface to improve user functionality. Image viewing functions for on-site checking of acquired images prior to formal interpretation.
Image acquisition	Automatic acquisition process, controlled by user
Crawler control	Full crawler control integration, to synchronise crawler operations and image acquisition
Additional functionality	Software includes functionality from the JME CR2 handset for Pipeline Crawler and X-Ray source control
Image control	Acquired images are stitched together within the control software
Image ID	All images are tagged with GPS co-ordinates

All specifications correct at time of printing - Please check for alterations before purchase



DXB:1 SOFTWARE SUITE

The **DXB** Software Suite allows for real-time X-Ray image acquisition, along with viewing, image processing and archiving of images. The Pipeline Crawler and X-Ray source settings can be controlled directly from within the software without the need for other control devices. X-Ray images are stored in DICONDE data format and saved to the current project, along with any additional photographs, notes, inspection date, time and GPS co-ordinates. Using the **JME** stitching algorithm, a single image can be viewed in real-time, with the full weld stitched upon completion of the weld acquisition.

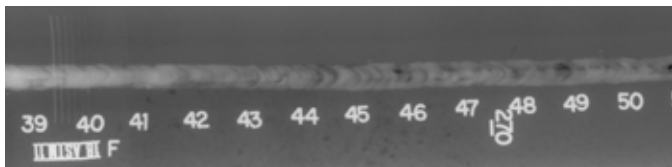
DXB:1 PACKAGE CONTENTS

- **DXB** Buggy
- 2x Spare Batteries
- Battery Charger
- Control Tablet
- 2x Control Tablet Spare Batteries
- Control Tablet Charger
- Raid-1 Configured External USB HDD
- Assortment of Aerials, Adapters and IQI's
- Box of Charging and Data Leads
- 3 Months Trial DURR Software
- Additional DURR Software Packages and Spares Kit Upon Request



DXB:1 EXAMPLE WELD IMAGE

Example of the exported, stitched, Diconde Images produced by the **DXB:1** Digital X-Ray System.



SALES AND MANUFACTURING

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