

PXB:9

PORTABLE X-RAY BETATRON



WIRELESS
OPTION COMING SOON



SEE DEDICATED DATASHEET

9MeV Model For illustration purposes only

PXB:9 PORTABLE X-RAY BETATRON

PIPELINE CRAWLERS · BETATRON PORTABLE X-RAY · DIGITAL RADIOGRAPHY

The **JME PXB:9** Portable Betatron is a compact circular electron accelerator producing a high energy directional X-Ray beam. Containing no moving parts except small airflow fans, and no circulating liquids, the Betatron is easy to assemble, operate and maintain.

Interlock able to safety systems or supplied with a stand alone audio visual warning system. The Betatron produces radiographs of very high contrast, sensitivity and resolution, meeting the tightest inspection standards.

The **PXB:9** can replace cobalt isotope gamma sources which may not give acceptable quality and require costly periodic replenishment. Compared to cobalt, the Betatron's shot time is drastically reduced and the extremely small focal spot size provides a sharper, higher quality radiograph, thus increasing production rate and profit.

APPLICATIONS:

JME's range of Betatron systems have been supplied for a wide variety of applications within many sectors of the NDT industry. Examples of the work we have previously supplied systems for include but are not limited to the inspection of:

- Large Forgings ▪ Castings ▪ Valves ▪ Beams ▪ Ships Hulls ▪ Pressure Vessels
- Engine Blocks ▪ Thick Welds ▪ Composites ▪ Reinforced Concrete Buildings
- Bridges ▪ Cargo ▪ Security Scanning Solutions

PXB:9 'WIRELESS' SYSTEM **COMING SOON**



CONTACT **JME** FOR INFORMATION REGARDING SERVICE PACKAGES AND EXTENDED WARRANTIES

PROUDLY SUPPLYING THE NDT INDUSTRY FOR OVER 35 YEARS



CALL OUR SALES TEAM FOR MORE INFORMATION

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JME LTD. ELECTRON HOUSE, OLD NELSON STREET
LOWESTOFT, SUFFOLK NR32 1EQ UNITED KINGDOM

TECHNICAL SPECIFICATIONS

Maximum X-Ray Output

9 MeV

Dose Rate at 1m (3.3ft)

>20R/minute

Focal Spot Size

0.3 x 3 mm

Duty Cycle Radiation Beam

50% per hour

Beam Coverage

250 x 250mm @ 1m

Radiographic Sensitivity

Down to 1%

Supply Voltage

3-phase, 220V or 380V, 50/60Hz

Adjustment Range of Energy

2.0 to 9.0MeV in 0.1MeV increments

Power Consumption

5.0kW, 7.6A per phase

Standard Cable Length

PSU to Radiator 5m - PSU to Control Panel 15m

Mains Supply to Power Unit 5m

Generator

Recommended 10kVA

Please contact JME for more information.

DIMENSIONS AND WEIGHT

Accelerator (Radiator)

595 x 510 x 644mm 160kg

Power Unit

640 x 320 x 590mm 60kg

Control Panel

235 x 200 x 115mm 1.5kg



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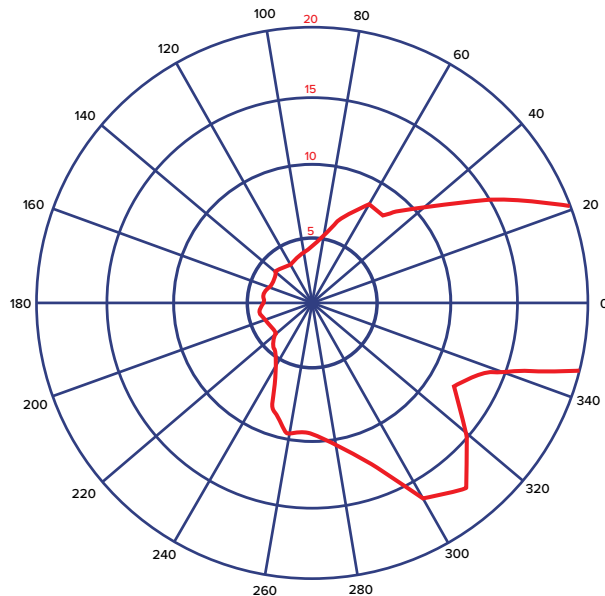
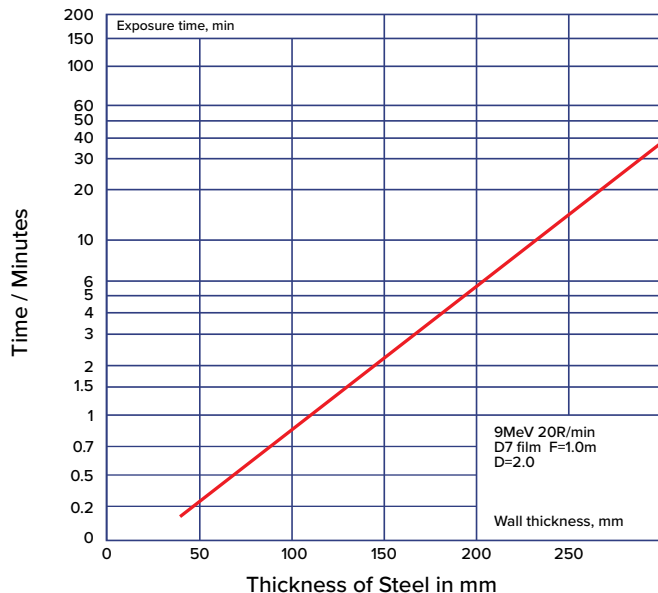
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VIEW MORE INFORMATION ABOUT THE PORTABLE X-RAY BETATRON SYSTEMS at www.jme.co.uk

PXB9M DOSE RATE DISTRIBUTION IN THE HORIZONTAL PLANE

Degrees	0	20	40	60	80	100	120	140	160
Dose rate %	100	20.3	10.9	8.4	4.8	3.6	3.1	3.3	3.2
Degrees	180	200	220	240	260	280	300	320	340
Dose rate %	3.4	3.4	3.4	4.7	9.7	10.3	16.3	13.7	14.4



FEATURES

- Inert when not powered
- Instant Stop of X-Ray / Cut off
- CNSC Approved
- Completely Portable
- Output energy selectable up to 9 MeV
- Excellent sensitivity and resolution
- Penetrates upto 11.81 inch's (300mm) of steel, 39.37 inch's (1m) concrete*

*Dependent on Model

REQUIRED RELATIVE DOSES IN COMPARISON WITH D7 FILM UNDER SIMILAR CONDITIONS

Film type	D4	MX5	AX	CX	PT-1	PT-4M
Dose coefficient relative to D7	2.65	2.8	1.25	0.57	0.53	1.6

AVAILABLE MODELS



PXB:2.5
PORTABLE X-RAY BETATRON
ALSO AVAILABLE AS WIRELESS AND BATTERY SYSTEM



PXB:6
PORTABLE X-RAY BETATRON
ALSO AVAILABLE AS A WIRELESS SYSTEM



PXB:7.5
PORTABLE X-RAY BETATRON
ALSO AVAILABLE AS A WIRELESS SYSTEM



SALES AND MANUFACTURING
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