

Mobile x-ray machine

S.N.	Purchaser's Specifications
	X-Ray Machine Mobile, 150mA
	Manufacturer
	Brand
	Type/Model
	Country Of Origin
1	Description of Function
1.1	Mobile X-Ray Unit is required to perform X-Ray studies in SNCU/NICU
2	Operational requirements
2.1	Compact, lightweight, easily transportable mobile radiographic unit suitable for bedside X-ray for trauma units (accidental cases), intensive care units, operation theatres and also in the Radiology department for conventional radiography.
3	System Configuration
3.1	X-ray Machine Mobile, 150mA complete unit and with complete accessories.
4	Technical Specifications
4.1	The Generator: <ul style="list-style-type: none"> • Microprocessor-controlled high frequency generator. • Max output: not less than 6kW at 125kv, 100ms • Voltage range: 40 - 125kV in more than 25 steps. • Max tube current: 150mA • mAs range: 0.5 - 200mAs in more than 30 steps • Minimum Exposure time: not more than 5ms • Soft touch key operations • Anatomical Programmable Radiographic mode shall be available.
4.2	X-Ray Tube: <ul style="list-style-type: none"> • Rotating anode type • Anode rotation: approx 2800rpm • Anode heat capacity: not less than 100 KHU • Dual focal spot: approx 0.2mm- 0.8mm
4.3	Collimator: <ul style="list-style-type: none"> • Manually adjustable multi-leaf collimator, rotatable $\pm 90^\circ$ • Collimator light halogen lamp: 180 lux at 1m SID
4.4	Tube positioning: <ul style="list-style-type: none"> • Max tube height: not less than 1800mm, • Min tube height: not more than 450 mm • Max horizontal extension: not less than 800mm
4.5	The unit shall have counter balanced arm system
4.6	Shall have remote control of exposure to protect operator.
4.7	It shall have cassette compartment of holding about 8 pieces of 35x43cm cassettes.

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4.8	The unit must have an effective braking system for parking, transport and emergency braking.
4.9	The unit shall come with overload protection device.
5	Accessories, spares and consumables
4.1	Accessories: <ul style="list-style-type: none"> • Lead apron lightweight- 1 nos. • Grid(Ratio 6:1) of 12"x15" and 10"x12": 01 each. • Remote control kit: 01 no. • Lead apron coat type 0.25mm lead with hanger: 1Piece • Chest Stand, Wall Mounting- 01 no • Children gonad shield, (male/female): 1 set each. • Abdomen Lead apron with backside hook.
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).
6	Operating Environment
6.1	The system offered shall be designed to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.
6.2	Power supply: 220 – 240 VAC, 50Hz fitted with 5m automatic retractable power cable for easy connection to any wall outlet with protective ground conductor.
7	Standards and Safety Requirements
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.
7.3	Shall meet: <ul style="list-style-type: none"> • IEC 60601-1-3 - Part 1: General Requirements for safety - Collateral Standard: General Requirements for Radiation Protection in Diagnostic X-Ray Equipment. • IEC 60601-2-7 - Part 2-7: Particular Requirements for the Safety of High-Voltage Generators of Diagnostic X-Ray Generators.
8	User Training
8.1	Must provide user training (including how to use and maintain the equipment).
9	Warranty
9.1	Comprehensive warranty for 2 years after acceptance.
10	Maintenance Service During Warranty Period
10.1	During the warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.
11	Installation and Commissioning
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.
12	Documentation
12.1	User (Operating) manual in English.
12.2	Service (Technical / Maintenance) manual in English.
12.3	List of important spare parts and accessories with their part number and costing.
12.4	Certificate of calibration and inspection from factory.