



बिनोद कुमार न्यौपाने
प्रमुख प्रशासकीय अधिकृत

TECHNICAL SPECIFICATION FOR X-RAY 500 MA

S. N.	Purchaser's Specifications(BTM municipality. F/Y 78/79)	Bidder's Compliance Sheet		
		Yes/No	Page No. in Catalogue	Remarks
	X-ray,500ma			
	Manufacturer			
	Brand			
	Type/Model			
	Country of Origin			
1	Description of Functions			
1.1	A general purpose X-ray machine for routine X-ray examinations at healthcare facilities.			
2	Operational Requirements			
2.1	It shall be suitable to be used for adult and paediatric patients in general Radiography examination.			
3	System Configurations			
3.1	X-ray Generator, 1 unit			
3.2	X-Ray tube & tube support system, 1 unit			
3.3	Radiographic patient table, 1 unit			
3.4	Floor mounted bucky stand, 1 unit			
4	Technical Specifications			
I	X-ray Generator: Bidder shall indicate brand and model information here and provide technical data document for X-ray generator offered			
4.1	Line frequency or high frequency generator , the generator shall have approx. 40kHz.			
4.2	Generator Output: approx. 40 kW (500mA at 125kV)			
4.3	Radiographic voltage: approx. 40 kV to 125kV, in 1kV step or better			

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4.4	Radiographic current: 40 to 500mA or better			
4.5	Exposure time: 0.01sec(1msec) - 5sec or better			
4.7	Shall come with overload protection device.			
4.8	Power supply: 3 phase, 380-415V 50/60Hz or single phase			
II	X-Ray Tube:(approx.)			
4.1	X-ray tube rotating: +/-120°.			
4.11	Large focus not more than 1.2 mm.			
4.12	Small focus not more than 0.6 mm.			
4.14	Filtration: min 2.5mm Al equivalent.			
4.15	Cooling method passive or forced air and/or oil cooling.			
4.16	Anode heat capacity shall be atleast 146 KHU.			
III	Radiography Patient Table:(approx.)			
4.18	Radiography table shall be fixed height or height adjustable, 4-way floating top type with foot switch control or sensor control			
4.19	Come with grid and cassette tray, with grid ratio: not less than 10:1. Grid line number: 40 line/cm. Focus distance: 115cm.			
4.2	Cassette size: accept all sizes from cassette 5"x7" cm to 14"x17" type.			
4.21	Radiography table shall be fixed height of about 60cm.			
4.22	Table top to film distance: approx. 6cm.			
4.23	Table top transverse movement ; approx. ±14cm.			

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4.24	Table longitudinal movement : approx. ± 29 cm.			
4.25	Table top dimension: approx. 2000 mm x 800 mm.			
4.26	Shall come with a three-field AEC or equivalent			
4.27	Table movement arrested by electromagnetic brakes or manual brakes.			
IV	Floor Mounted Bucky Stand:(approx.)			
4.28	Vertical travel: from 460-1700mm or in the range.			
4.29	Moving Grid with Grid ratio not less than 10:1. Grid line number: 40 lines/cm.			
4.3	Shall come with Automatic Exposure Control for vertical bucky exposures.			
4.31	Cassette size: accept all sizes from 5"x7" to 14"x17".			
4.32	Movement arrested by electromagnetic brakes.			
V	Floor Mounted Tube Stand:(approx.)			
4.33	Longitudinal travel: approx. 1750mm.			
4.34	Vertical travel: from 630 -1850mm or in the range.			
4.35	Movement arrested by electromagnetic brakes or manual brakes.			
4.36	Rotation of tube arm around vertical axis: 180° ; lockable at 0° to $\pm 90^{\circ}$.			
VI	Collimator:			
4.37	Manually adjustable.			

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	X-ray, 500mm			
4.38	Manually selectable filters adds advantage.			
4.39	Light localizer with timer controlled light.			
4.4	Built-in light switch should be provided.			
4.41	Turning angle should be min +/- 45 degree.			
4.42	Halogen lamp.			
VII	Control Console:			
4.43	Digital Display.			
4.44	Minimum 3 Point Exposure Technique.			
4.45	Status display, error display.			
5	Accessories, Spare Parts and Consumables			
5.1	Accessories: <ul style="list-style-type: none">• Lead apron, light weight with Lead equivalence 2mm-01 nos.			
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 be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			

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	X-ray, 500ma			
6.2	Power supply: 380-415VAC 3 phase 50Hz fitted with appropriate plug for X-ray generator fitted with appropriate plug for other units. The power cable must be at least 3 metres in length.			
7	Standards & Safety Requirements			
7.1	Must submit ISO 13485:2003/AC: 2007 AND			
7.2	CE (93/42 EEC Directives) or AERB OR USFDA approved product certificate.			
8	User Training			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	Warranty			
9.1	Comprehensive warranty for 2 years from acceptance.			
10	Maintenance Service During Warranty Period			
10.1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required.			
11	Installation and Commissioning			

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11.1	The bidder must arrange for the equipment to be installed 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 numbers and costing.			

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