

TECHNICAL SPECIFICATION FOR X-RAY 500 MA

S.N	Purchaser's Specifications	Bidders Compliance sheet		
		Yes/No	Page No. in catalogue	Remarks
	X-Ray 500 mA			
	Manufacturer			
	Brand			
	Type/Model			
	Country of origin			
1	Descriptions of functions			
1.1	A general propose 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 pediatric patient in general radiography examination.			
3	System Configurations			
3.1	X-Ray generator, 1 unit			
3.2	X-ray tube and tube support system, 1 unit			
3.3	Radiographic patient table, 1 unit			
3.4	Chest 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 and high frequency generator, the generator shall have at least 40 kHz,			
4.2	Generator output: not less than 40 KW (500MA at 125KV)			
4.3	Radiographic voltage: 40 kvp to 125 kvp, in 1 kvp step or better			
4.4	Radiographic current: 50 to 500 mA or better			
4.5	Exposure time: 0.1 sec(1msec) – 6 sec or better			
4.6	Shall come with overload protection device			
4.8	Power supply: 2-phase, 415V or single phase			
II	X-ray tube: (Approx.)			
4.1	X-ray tube rotating: +/-120°.			
4.11	Large focus not more than 2 mm			
4.12	Small focus not more than 1 mm.			
4.13	Maximum tube output shall match with the generator output of not less than 30 KW.			
4.14	Filtration: min 2.4 mm Al equivalent.			
4.15	Cooling method passive or forced air and/or oil cooling .			
4.16	Anode rating speed: More than 2700 rpm.			

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4.17	Anode heat capacity shall not be less than 140 KHU			
III	Radiography patient Table :(approx)			
4.18	Radiography table shall be Multiposition Bucky Table, Fixed or 4-way floating top type.			
4.19	Come with grid and cassette tray, with grid ratio: not less than 10:1.grid line number: 40 lime/cm . Focus distance: 115 cm			
4.20	Cassette size: accept all size from cassette to 14"x17" type.			
4.21	Radiography table shall be fixed height of about 60 cm.			
4.22	Table top to film distance: approx 6 cm.			
IV	Chest stand:(approx.)			
4.28	Vertical travel: from 630-1850 mm or in the range.			
4.31	Cassette size: accept all size from 5"x7" to 14"x17".			
V	Floor Mounted tube stand :(approx.)			
4.33	Longitudinal travel : approx. 1750 mm.			
4.34	Vertical travel: from 630-1850mm or in the range.			
4.35	Rotation of tube arm around vertical axis:180 °; lockable at 0° to +/-90°			
VI	Collimator:			
4.37	Manually adjustable			
4.38	Manually selectable filters.			
4.39	Light localizer with timer controlled light.			
4.40	Build-in light switch shoe be provided.			
4.41	Turning angle should be min +/- 45 degree.			
4.42	Halogen lamp.			
4.43	Auto shut down Facilities(Collimator will automatically switched off)			
VII	Control console:			
4.43	Digital Display of mA, Kv, mA5			
4.44	Minimum 3 point exposure technique.			
4.45	Status display, error display			
5	Accessories, spare part and consumables			
5.1	• Lead apron, light white with lead equivalence 2 mm-01 nos. 1			
5.2	All standard accessories, consumable and part required to operate the equipment, including all standard tools and cleaning and lubrications materials, to be included in the offer. Bidder 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 operated normally under the conditions of the purchaser's country. The conditions include power supply , climate, temperature, Humidity, etc.			
6.2	Power supply: 220V 1-PHASE 50 Hz fitted with appropriate plug fro the units. The power cable must be at least 3 meters in length.			
7	Standard and safety requirements			
7.1	Must submit ISO 13485:2003-ac :2007			
7.2	CE(93/42 EEC Directives) or AERB OR USFDA approved product certificate.			

	Shall meet.			
7.3	<ul style="list-style-type: none"> IEC60601-1-3 part 1: general requirements for safety – collateral standard: general requirements for protection for Diagnostic X-Ray equipment. 			
	<ul style="list-style-type: none"> IEC60601-2-7- part-2-7 particular requirement for the safety og high voltage generators of Diagnostic X-ray generator. 			
8	User Training			
8.1	The supplier shall conduct user training for the equipments enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine chck and maintenance expected by users.			
9	Warranty			
9.1	Comprehensive warranty for 1 year from acceptance.			
10	Maintenance service during warranty period			
10.1	During warranty period suppliers must ensure preventive maintenance and corrective / breakdown maintenance whenever required.			
11	The bidder must arrange for the equipment to be installed by certified or required personnel: any prerequisites for installation to be communicate 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.			
12.4	Certificate and calibration and inspections from factory.			

Bidder must completely fill the technical specification form (TSF). only Yes/no/all complies should not be written. Page numbers in the catalogue of all the required parameters must be clearly mentioned and highlighted. Failure in doing so many lead to rejection of bid from technical committee.

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