



**शिवराज नगरपालिका**  
**नगर कार्यपालिकाको कार्यालय**  
**चन्द्रौटा, कपिलवस्तु**  
**लुम्बिनी प्रदेश, नेपाल**

पत्र संख्या : ०७८/०७८

चलानी नम्बर :

मिति : २०७८।११।१२

क्याटलग सहित विभिन्न X-ray machine 100mA fixed with horizontal table & flat panel detectors system खरिद सम्बन्धी सूचना ।

(प्रथम पटक प्रकाशित सूचना : २०७८।११।१२)

(ID No. : SM/XM/078/079-43)

यस कार्यालय अन्तर्गत संचालित आधारभूत स्वास्थ्य सेवा अस्पताललाई आवश्यक पर्ने X-ray machine 100mA fixed with horizontal table & flat panel detectors system सार्वजनिक खरिद ऐन, २०६३ को दफा ८ उपदफा १ को खण्ड (क) र तथा सार्वजनिक खरिद नियमावली २०६४ नियम ३१ (ख) बमोजिम त्यस्तो X-ray machine उत्पादन वा वितरण गर्ने उत्पादक वा त्यसको आधिकारीक विक्रेता विच मात्र प्रतिस्पर्धा गराउने क्याटलक (Catalog Shopping) विधिबाट खरिद गर्नु पर्ने भएकोले सार्वजनिक खरिद नियमावली २०६४ को नियम ३१ (ख) को उपनियम २ अनुसार देशभर बमोजिमको X-ray machine विक्री गर्ने चाहने उत्पादन वा वितरण गर्ने उत्पादक वा त्यसको आधिकारीक विक्रेताहरू जा-जाफ्नो आधिकारीक स्पेसिफिकेसन, गुणस्तर, मूल्य र सुविधा सहितको विवरण (Catalog वा Browser) संलग्न राखी यो सूचना प्रकाशन भएको मितिले १५ दिन भित्र यस कार्यालयमा निविदन दर्ता गराउनको लागि यो सूचना प्रकाशन गरिएको छ ।

तपसिल:Specifications

S.N.	Criteria	Requirement
1.	X-ray Machine	100mA fixed with horizontal table & flat panel detectors system
2.	Detector System	Flat panel should have cesium iodide (CSI) a-Si TFT, AED (automatic exposure detection), the pixel size should be 140 microns, waterproof and water resistance, regulation 2500x3000.
3.	Printer	Printer should have dry laser image technology, compactable with DICOM and PACS., Print size 14x17, 10x12, 8x10, pixel size 75um.

*Note: For further information please visit our Website: <http://shivrajmunicipal.gov.np>*





**Technical Specifications of X-Ray Machine 100 mA Fixed with Horizontal Table & Flat Panel Detector System**

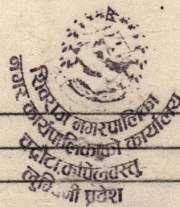
S.N.	Purchaser's Specifications	Bidders Offer
	<b>X-Ray Machine 100 mA Fixed with Horizontal Table &amp; Flat Panel Detector System</b>	
	<b>Manufacturer</b>	
	<b>Brand</b>	
	<b>Type/Model</b>	
	<b>Country of Origin</b>	
1	<b>Description of Function</b>	
1.1	A general X-Ray Machine 100 mA, Fixed with Horizontal Table & Flat Panel Detector System	
2	<b>System Configuration</b>	
2.1	100 mA Fixed X-Ray Machine with Horizontal Table & Flat Panel Detector System with standard accessories	
3	<b>Technical Specifications</b>	
A	<b>X-Ray Machine 100 mA Fixed with Horizontal Table</b>	
	<b>X-Ray System</b>	
3.1	Line Frequency X-Ray system.	
3.2	It should have power rating of 8 kW or more.	
3.3	It should have a digital display of mA, mAs and kV.	
3.4	Radiography KV range should be 40kV to 100 kVp or wider range in steps of 2 kVp.	
3.5	mA range (Rad): upto 100mA.	
3.6	mAs selection (Rad): upto 200mAs	
	<b>X-Ray Tube and Collimator:</b>	
3.7	One nos stationary anode X-Ray tube with focal spot size of 2.8 mm <sup>2</sup>	
3.8	Should have collimator, manually operated with light beam diaphragm.	
	<b>Control:</b>	
3.9	Machine ON/OFF switch	
3.10	Display: Digital display of mA, mAs and kV for easy parameter settings.	
3.11	Should have anatomical programming more than 155 program options for precise selection of kV and mAs	
3.12	The machine should be equipped with double step exposure switch with long cord.	
3.13	The Systems should be fully safe with	

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	<b>respect to</b>	
	Over current	
	Over Voltage	
	Maximum loading of tube.	
	<b>Stand:</b>	
3.14	Floor to ceiling stand with Counter Balanced Tube Head (Rotatable $\pm 180^\circ$ ) which should be easy to use and have the following specifications:	
3.15	Floor to Ceiling Stand with $360^\circ$ Axis Rotation	
3.16	For General Radiography X-Rays	
3.17	Column movement can be arrested by Foot-Lock	
3.18	Column Height :2400mm	
3.19	Column Horizontal Travel :1650mm	
3.20	Tube Horizontal Travel :800mm	
3.21	Tube Vertical Travel :1700mm	
3.22	Tube Rotation : $360^\circ$	
3.23	<b>Table: Horizontal table should be provided with following specifications:</b>	
	Radiolucent Table Top, Phenolic laminated sheet of 0.5 mm Al equivalent	
	Moving Bucky Cassette Tray, Compatible with Cassette size of - 8" x10", 10" X 12", 12" X 15" & 14"X17" with auto centering & Cassette lock	
3.24	Must submit ISO 13485:2003/AC:2007 for Medical Devices for X-Ray System	
3.25	Must Submit CE Certificate for X-Ray System	
3.26	Must Submit BIS and AERB type approval certificate for X-Ray System	
B	<b>Flat Panel Detector System</b>	
	<b>Flat Panel Detector</b>	
3.27	Flat Panel Detector should have Cesium Iodide (CSi) a-Si TFT Scintillator assuring lossless AED (automatic exposure detection)	
3.28	Portable, wireless, at least 14x17 inches size detector	
3.29	Detector should be water proof and water resistance must be grade IP54	
3.30	The Pixel size should be 140 microns.	
3.31	Should have a A/D conversion of 16 bit.	
3.32	Should have resolution of at least 2500 x	

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3.33	Data communication should be wireless or wired available.	
3.34	Battery backup of at least 3 hours on standby or at least 300 continuous images.	
3.35	Detector should have removable type lithium polymer battery	
3.36	The Detector should be able to withstand surface load of 150 kg.	
3.37	Easy Switch from sleep mode to acquisition mode for better battery performance.	
3.38	The Battery Charger should have facility to charge at least two batteries simultaneously.	
3.39	Software should have DICOM & PACS connectivity and should have at least 100 image storage facilities.	
3.40	The detector should be capable of connecting with the existing system of the Hospital.	
	<b>Image Station</b>	
3.41	Compatible PC: - CPU - Latest model processor, RAM - 8 GB, HDD - 1 TB, latest windows 10 of 64bit.	
3.42	Display Monitor: at least 24" size with resolution of 1920 x 1080 pixels	
	<b>Image Manipulation/Post processing Software:</b>	
3.43	Multi image viewing and printing.	
3.44	Facility of image magnification, cropping and masking of image, distance and angle measurement etc.	
3.45	Measurement tools, zoom and Pan, Brightness and contrast adjustment, horizontal and vertical flip, actual size printing capability for accurate representation of anatomical size.	
3.46	CD/DVD burning facility	
3.47	Should be compatible with DICOM and PACS system.	
	<b>Laser Printer:</b>	
3.48	Printer should have dry Laser image Technology, compatible with DICOM and PACS without loss of information, allowing multiple modalities to be connected at a time.	
3.49	Printing capacity of about 45 sheets/ hour.	
3.50	Film Print Sizes: 14 x17, 10 x 12, 8 x 10	
3.51	Pixel size of 75 um	

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3.52	Single Online Tray	
3.53	Daylight film loading	
3.54	Must submit ISO13485 for Medical Devices for Flat Panel Detector System	
3.55	Must submit CE and USFDA approved product certificate for Flat Panel Detector System	
3.56	Shall comply with IEC 60601-1-2 : Medical Electrical Equipment Electromagnetically Compatibility Requirement for Medical Devices.	
4	<b>Accessories, Spare Parts and Consumables</b>	
4.1	<b>Accessories</b>	
	Floor Mounted Chest Bucky Stand	
4.2	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. Bidder's must specify the quantity of every item included in their offer (including items not specified above)	
5	<b>Operating Environment</b>	
5.1	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	
5.2	440Vac, $\pm 10\%$ Three phase, 50/60 Hz for X-Ray System & Power supply: 220-240V AC, 50Hz fitted with appropriate plug type. The power cable must be at least 3 meter in length for Flat Panel Detector System	
6	<b>User Training</b>	
6.1	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	
7	<b>Warranty</b>	
7.1	Comprehensive Warranty for 1 Year after acceptance	
8	<b>Maintenance Service During Warranty Period</b>	
8.1	During warranty period supplier must ensure	

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	preventive maintenance breakdown whenever required	Respective/
9	<b>Installation &amp; Commissioning</b>	
9.1	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's in advance in details	
10	<b>Documentation</b>	
10.1	User(Operating) manual in English	
10.2	Service(Technical/maintenance) Manual in English	

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