

**GOVERNMENT OF INDIA
MINISTRY OF EXTERNAL AFFAIRS**

**Sub: SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF MEDICAL EQUIPMENTS &
CSSD EQUIPMENTS**

IFB Reference: **HSCC/PUR/NEPAL/2012/A-B**

Dated 13/04/2012

ADDENDUM-2

Following items stands added to the IFB No. HSCC/PUR/NEPAL/2012/A-B dated 20.03.2012. Accordingly, with this addition, page 9- **Invitation for Bids** and page 59- **Schedule of Requirement** of the Tender Documents stands modified as under:

Invitation for Bids (IFB) at page 9

	Item No.	Name of Equipment	Quantity in Nos.	Bid Security (in Indian Rupees)	Last date of Sale of Tender Document	Last date & time of submission of bids
Imaging	43	500 mA X-Ray Machine with IITV	2	52,000	April 26, 2012	April 27, 2012 upto 1100 Hrs. IST
	44	Ultrasound Machine	2	1,20,000		

Schedule of Requirement at Page 59

	Item No.	Name of Equipment	Quantity in Nos.
Imaging	43	500 mA X-Ray Machine with IITV	2
	44	Ultrasound Machine	2

The technical specification of above items (i.e. item No. 43 & 44) are enclosed herewith and also stands added at page 167-172 of the Tender Documents.

The Tender Documents stands modified to this extent (i.e. Addendum-1 dated 11.04.2012 and Addendum-2 dated 13.04.2012). All other terms & conditions of the Tender Documents remain unchanged.

All future addendum, corrigendum, amendments, modifications, if any, will appear only on websites <http://www.hsccltd.co.in> or <http://www.mea.gov.in> or <http://www.eprocure.gov.in>.

**Joint Secretary (North)
Ministry of External Affairs, Govt. of India**

ITEM No.43

**SPECIFICATIONS FOR 500 mA X-RAY MACHINE
WITH MOTORIZED TABLE & I.I.T.V.**

Quantity

1. GENERATOR:

High frequency x-ray generator (specify frequency), microprocessor controlled 50 K.W. generator incorporating the latest technology having low space requirements small HT size, high dose yield, high accuracy and reproducibility.

- Radiographic Parameters
Maximum mA Output : 500mA
Maximum kV Output: 100 kV
- Fluoroscopic Parameters
Maximum mA Output : 3mA
Maximum kV Output : 90 kV
- Exposure Time
From 5 Millisecond to 5 Seconds with digital mAs integrator.

The generator should be provided with Rapid Anode Braking Device (to increase tube life). Automatic computation & display mAs value gr kV digitally to be provided .

2. X-RAY TUBE :

The unit should be complete with : 2 Nos. of 30/50kW' x-ray tube with high speed anode rotation of higher than 8500 rpm each with a pair of H.T Cable for under couch and over couch radiography.

3. TABLE:

Vertical to Trendelenberg position

Bucky with adjustable cassette tray with a grid ratio of 10:1 and 100 lines per inch Motorized Under Couch Collimator and Manual Over Couch collimator.

The Spot Film Device should include the following:

- 4 in 1 on 8"X10"Film
- 2 in 1 on 10"X12" Film
- 1 in 1 on 14"X14"Film
along with a suitable grid

Foot Rest, Compression Device foot Switch hand Grip, Skull Cone, Shoulder Rest, Strap Radiation flaps

157

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4. COLUMN STAND:

- * Floor to Ceiling with Counter Balancing System.

5. IITV

The entire system should consist of the following :

- Image Intensifier (II) capable of being coupled with the existing 500mA X-Ray machine and fluoroscopic tables.
- High resolution CCD camera to capture the image from the output phosphor of the II.
- Trolley mounted 17" Monitor (44")

Minimum specifications of the Image Intensifier:

- Nominal entrance field diameter of 23 cm with dual field selection capability
- Output window size 20-25 mm.
- Vertical & Horizontal image orientation reversal switches mounted on II.
- The assembly should have 'All metal' construction and provide magnetic and lead shielding.

Minimum specifications of the CCD camera.

- Should be of PAL Systems with minimum 750x 580 pixels.
- Video Standard 50 Hz. 625 lines interlaced.
- Video gain should have automatic gain control.
- Circular blanking facility.
- Video output - I-Vpp composite video.
- Last image hold facility must be present.

Minimum specification of the monitor.

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- Minimum 43 cm 17" diagonal with circular mask.
- Local controls for image contrast and brightness adjustment.
- Should be cart/ trolley mounted and movable anywhere in the fluoroscopy room.

The Image Intensifier should be fully counter balanced consisting of ceiling counterpoise system with rails.

6. Accessories::

- Voltage stabilizer servo controlled type of 75 KVA capacity.
- Lead Aprons - 4 nos.

7. Guarantee : 5 years for complete system.

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ITEM No. 44

SPECIFICATIONS FOR STATE-OF-THE-ART ULTRASOUND SYSTEM

Quotations are invited for the purchase of an advanced state-of-the-art ergonomically designed, flexible ultrasonography system introduced into market not earlier than 2005 and capable of all advanced vascular applications, including among others, duplex sonography, Colour doppler, power doppler, CDFI and tissue harmonic features. It must support transducers with linear, sector, convex and micro-convex formats. The system should be capable of all advanced qualitative and quantitative data and image management features. It should be fully Dicom-compliant and upgradeable for future developments. It should be ready for integration with any PACS system without any software upgrade. It should provide remote diagnostic facility with modem. The system including the camera and other peripheral devices, should be fully supported by UPS with a minimum of 25 minutes back-up time. In addition, the quoted system should be configured to include the following:

1. Designed for advanced qualitative and quantitative gray scale and color vascular, abdominal, trans-cranial, and small part applications. The system should be designed for diagnostic and interventional radiological procedures with all attachments, as deemed necessary, included in the original bid as essential components.
2. Integrated locking mechanism providing rolling lock and caster swivel lock.
3. Floating keyboard with feasibility for adjustment in three dimensions.
4. Operating modes should include B-mode, M-mode, color flow mode, power Doppler imaging with topographic and directional maps, harmonic imaging (tissue, harmonic, contrast harmonic, harmonic angio and qualification) and PW Doppler with high PRF. Please also mention whether these operating modes are available on all or selective transducers. B-flow mode and M-color flow mode will be preferred.
5. The scanning methods should be specified.
6. **Transducers:** The technology, type and band-width should be specified. It should be capable of image uniformity at all depths. Both linear and sector devices (phased, convex and matrix array, the last one or its alternative if available) should be quoted for use for the entire spectrum of clinical work involving abdominal, cranial, vascular and small parts evaluation in adults, children and neonates. Please specify the maximum bandwidth for each clinical application. Biopsy guide attachments for the above should be provided. The FOV should be mentioned. A minimum of the following probes must be included in the offer:
 - (a) High density convex probe 2-5 MHz, wide band probe with biopsy guide attachment
 - (b) High density linear probe 5-13 MHz(approx. 5 cm length), wide band probe with biopsy attachment



- (c) High density Linear probe 5-12 MHz wide band probe (small foot print approx. 3 cm length) for pediatric work.
7. ECG trigger facility should be available.
 8. The user interface should be state-of-art and preferably touch screen LCD panel and should be capable of automatic tissue optimization. It should automatically read and optimize for color and real-time doppler parameters including angle, PRF, baseline level, spectral and color flow mode sensitivity. Real-time quantitative analysis package should include comprehensive measurement package for vassal diameter, flow, volumes and spectral wave-form analysis. Zoom function in Doppler should be available. All indices, including acceleration and deceleration times should be included. The minimum number of digital calipers available should be specified 8 of these will be preferred.
 9. There should be minimum of 3 and preferably 4 active ports for probes.
 10. Digital architecture with up to 1024 channel acquisition and processing will be desirable. Facility for direct visualization for vascular blood flow in B -mode will be preferred.
 11. Provide real-time automatic tissue optimization in all modes.
 12. Should provide tissue harmonics facility, preferably with advanced coded harmonics technique for digital subtraction of unwanted frequencies.
 13. Should preferably have facility for reducing the speckle in real time.
 14. Should be able to capture real-time 3-D data without the need for any off-board processing equipment. It should also be possible to reconstruct 3-D images from 2-D acquisitions. It should be able to rotate these images in any position in any axis. 3-D of gray scale, color flow mode, and for both combined should be possible. There should be capability to obtain cut- plane reconstruction of the 3-D images. The system should be capable of performing all advanced 3 D techniques.
 15. There should be a minimum 15- inch , high resolution, non interlaced monitor, alternatively LCD (will be preferred), with auto adjustment of monitor parameters to suit room lighting conditions. A 17-inch monitor will be preferred. The speakers should be of good quality, high fidelity acoustics. The monitor should be tilt/rotate adjustable. Please specify the pixels in image display area and recordable area.
 16. Contrast- specific imaging mode should also be available.
 17. Image management system for analog S-VHS VCR, digital black & white and color laser paper printing of images and report, external color PC with desktop printer and connection kit, foot switch with programmable functionality.
 18. A high-end multi-format camera with hand - held switch for exposures, supported by 12 cassettes and automatic voltage stabilizer.
 19. Magnetic optical disk at least 1.3 GB, hard drive image storage at least 40 GB and CD writing (700 MB) facility. It should be possible to store a minimum of 3,000 images for ready review.
 20. Image archive facility to manipulate data in the absence of the patient will be preferred.
 21. Facility for voice scan will be preferred.
 22. Stand- by mode, if available, will be preferred. If present, please specify the time limit for portable applications.

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23. Dicom 3.0 (complete), Ethernet network connection. Please clearly specify the functions which the Dicom compliance will provide.
24. Please specify separately the additional features which give your system an edge.

The system should be provided with a comprehensive on-site 5-year guarantee and warranty for all parts, including the entire equipment and components, UPS and stabilizers and an additional 5-year free service for the entire installation. Modifications, alternations or construction in the available installation site, including air-conditioning, if necessary, will have to be performed by the vendor at his cost.

2012/12/15/08