



## Notice Inviting e-Tender

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SUPPLY AND COMMISSIONING OF MEDICAL EQUIPMENTS (SET-I) FOR TRAUMA CARE  
FACILITY FOR THE HOSPITALS AND MEDICAL COLLEGES OF THE GOVT. OF WEST  
BENGAL

(Submission of Bid through *online*)

Bid Reference No.: WBMSCL /NIT- 20/2017

Dated – 26.04.2017

The following amendments have been made in the tender document,

### Amendment – II

#### SCHEDULE – I

#### 300 mA or more X-ray Machine

1. Description & Function
  - 1.1. X-Ray machine is required to perform radiological studies in emergency, trauma departments and also in the radiology Department for conventional radiography.
  - 1.2. Exposures with remotely controlled should be possible with hand switch
2. X-Ray Generators:
  - 2.1. Should consist of High frequency X-Ray generator of 40 KHz or more
  - 2.2. Power output: 30 KW or more.
  - 2.3. X-Ray Generator should have output of 300 mA at 100 KVP.
  - 2.4. Shortest exposure time: 5ms or lower.
  - 2.5. Free selection of radiographic setting in 2-point technique.
  - 2.6. It should have electronic timer and digital display of mAs & KV.

- 2.7. Should have voltage compensator.
- 2.8. KV range – 40kV to 125kV.
- 2.9. mA range - 20mA to 300mA or more
- 2.10. mAs: atleast 200
- 2.11. Operating distance > 10 feet.
3. X-Ray tube
  - 3.1. Dual focus X-Ray tube of 30 KW or more capacity.
  - 3.2. Output should match the output of the generator.
  - 3.3. Should have rotating anode.
  - 3.4. The unit should be offered with 1 (one) manual collimator.
  - 3.5. Focal Spot: 1 mm X 1 mm and 2 mm X 2 mm.
  - 3.6. Should have Inherent filtration.
  - 3.7. The exposure release switch should be detachable with a cord of at least 5 meters.
4. Patient Table:
  - 4.1. Motorized patient table.
  - 4.2. Table top should be radiolucent with negligible X-Ray absorption, stain free, break resistant and water proof.
  - 4.3. Table should be compatible of cassette size 14" X 17", 12"x 15", 10"x 12" & 10"x 8" with high grid ratio 6:1 and density at least 50 lines per cm. Grid should be aluminium interspaced.
  - 4.4. Bucky Stand – Fully counter balance moving bucky wall stand for cassette size 14" X 17", 12"x 15", 10"x 12" & 10"x 8" with high grid ratio 6:1 and density at least 50 lines per cm. Grid should be aluminium interspaced.
  - 4.5. The table should be incorporated with all safety provision against collision.
  - 4.6. The offered Equipment should have sufficient stock of spares in local office.
5. Environmental Factors
  - 5.1. Operating temperature 10 – 40 °c.
  - 5.2. Storage Temperature – 20-55 °c.
  - 5.3. Operating Humidity – 30%-80%.
  - 5.4. Storage Humidity – 10% -100%.
6. Power Supply (3 phase)
  - 6.1. Resettable Over current Breaker shall be fitted for protection.
7. Accessories
  - 7.1. Removable foot rest – 01.
  - 7.2. Lead aprons – 02. (AERB approved 0.5mm lead equivalent), Gonadal Shield = 02, Thyroid Shield = 02(as per AERB guidelines), Lead Goggles = 02(as per AERB guidelines).
  - 7.3. Lead separator for operating unit – 01 (with 3 folds)
  - 7.4. The Firm should have the local offices in the state to provide the efficient after sale service with sufficient stock of spare parts and team of trained engineers on the offered system. The firm should guaranty the availability of spare parts on the offered system for a period of minimum 10 years.

8. Standard & Safety

8.1. Should comply with AERB Guidelines for radiation leakage & X-Ray equipment & BIS / CE (from European union notified body having 4 digit identification number).

8.2. Should have protection against electrical shock.

8.3. Log Book with instruction for daily, weekly, monthly & quarterly maintenance checklist. The job description of the hospital technician and company engineer should be clearly spelt out.

9. Warranty & CMC

9.1. Warranty (comprehensive) for 2 years followed by 5 years Comprehensive Maintenance Contract (CMC) of complete system.

10. Documentation

10.1. User manual in English.

10.2. Service manual in English.

10.3. List of important Spare parts & accessories with their part number & costing should be available for at least 10 yrs.

10.4. Certificate of calibration & Inspection from Factory.