



**Government of Pakistan
PAKISTAN ORDNANCE FACTORIES
TENDER ENQUIRY**

TO

PPRA & MIS

Dear Sirs,

Reference: TENDER ENQUIRY NO. 4145-EM-18(06)-FP-PUR-Hosp DATED 22.01.2018

You are requested to submit sealed quotations for the item(s) NOTED ON THE Schedule to the Tender. Please note the following instructions for filling the tender:-

1. SUBMISSION OF TENDER

1.1 Tenders will be opened at **1230** hours on **22-February-2018** and must reach this office on or before **1200** hours. Tender received late will not be entertained. You may witness the opening of the tender if you so desire. If a representative is deputed, he should bring a letter of authority from you.

1.2 Only one tender should be included in one envelope. The outside of the envelope should be inscribed with:-

Tender Enquiry No: **4145-EM-18(06)-FP-PUR-Hosp**
Tender to be opened on: **22-February-2018**
Address as follows:- **DY.COMMNADANT-POF-HOSPITAL
POF WAH CANTT. (PAKISTAN)**

2. GENERAL INSTRUCTIONS REGARDING PREPERATION OF QUOTATIONS

2.1 For materials, the prices should be filled in column 5 and delivery date in column 6 of the schedule to this Tender Enquiry. The undertaking should be signed at the bottom of the schedule, which shall form the Quotation. You may use a separate sheet if necessary.

2.2 For plant and Machinery, you are required to quote in two parts:-

Part-I "Technical Offer": It should exclusively give technical details and literatures/brochures of the offered plant, machinery and equipment; validity date; delivery schedule; signed undertaking given on the schedule to this Tender Enquiry. It must not indicate price, costs etc.

Part II "Commercial Offer": It should indicate the commercial terms e.g. price, terms of payment, mode of payment, mode of supply.

Each part should be placed in a separate sealed cover. The envelopes should be inscribed with: Part I **"Technical Quotation without price"** and Part II **"Commercial Quotation with Price"**.

- 2.3 The quotation must remain valid for, at least 90 days from the date of opening of tenders.
- 2.4 The quotations should hold good for any reduced or enhanced quantities without notice.
- 2.5 In the event of non-acceptance of offer, intimation may be given to the renderers on their request.
- 2.6 Conditional offers or alternative offers are likely to be ignored.
- 2.7 Quotations should be based on FOB. The consignment will be shipped through Pakistan National Shipping Corporation (PNSC). In case there is no PNSC service in the country of shipping, please quote on C&F basis. The freight should be indicated separately. Insurance premium should not be included in the quoted price. However, where insurance is considered necessary, advice to that effect should be given in the quotation.
- 2.8 Submission of the offer through an agent in Pakistan should be avoided. In case it is considered inevitable, the agent's quotation must invariably be accompanied by the original proforma invoice from the principals/ manufacturers. Offer submitted only by manufacturers/principals will be entertained and respective OEM must be submitted authorization certificate about their sole distributors/ local representative in Pakistan.
- 2.9 Country of origin and port of shipment to be stated.
- 2.10 If the requisite information is not furnished on the T.E forms or offer received is not in conformity with the requirement of T.E, such offer shall be ignored.
- 2.11 The supplier will render necessary information regarding hazardous effects on environment of the material/products supplied by them, alongwith dispatch documents.
- 2.12 Please ensure fulfillment of condition specified in sub para 2.2 alongwith other conditions.
- 2.13 If the requisite information is not furnished on the T.E form or offer received is not in conformity with the requirement of the T.E such offer shall be ignored

3. INSPECTION

- 3.1 Supplies shall be subject to the inspection and acceptance by the competent inspection authority nominated by the Purchaser, who will arrange it at his own cost. Inspection facilities such as tools, test equipment, instruments etc will, however, be provided by the suppliers in accordance with the relevant specifications.
- 3.2 Third party inspection;- Firm will supply the store duly inspected/cleared by the renowned inspecting Agencies like SGS, Lloyd Bureau Varitas etc.
- 3.3 Where considered necessary by the Purchaser, the stores may be obtained on Warranty/Guarantee, subject to inspection on receipt. Rejected stores will be removed and replaced with the acceptable stores by the supplier at his own expense, within a specified time.

4 ACCEPTANCE OF OFFERS

- 4.1.1 The procuring agency may reject all bids or proposals at any time prior to the acceptance of a bid or proposal. The procuring agency shall upon request communicate to any supplier or contractor who submitted a bid or proposal, the grounds for its rejection of all bids or proposals, but is not required to justify those grounds.
- 4.1.2 Procuring agency shall incur no liability, solely by virtue of its invoking sub-rule (1.1) towards suppliers or contractors who have submitted bids or proposals.
- 4.1.3 Notice of the rejection of all bids or proposals shall be given promptly to all suppliers or contractors that submitted bids or proposals.

4.2 PERFORMANCE BOND

- (a) The successful bidders will provide Performance Bond at the rate upto 10% of F.O.B. value of contract in favour of the Controller Military Accounts (CMA) POF Wah Cantt. The Performance Bond will be furnished in the form of an unconditional bank guarantee on prescribed proforma covered by any scheduled bank in Pakistan. The Performance Bond shall be furnished within 45 days from the date of opening of Letter of Credit. It shall be valid for a period of 03 years after the date of expiry of letter of credit. If the Performance Bond is not furnished within the prescribed time of 45 days, the Purchaser reserves the right to:
- i. Impose penalty @ 1 % per month of the value of CDR/BG.
(Clause-4.2 (a i) is not applicable in case of procurement of Plant / Equipment / Machinery items)
- OR
- ii. Cancel the contract and make other arrangements for purchase of the stores at the risk and expense of the Supplier.
- (b) No Performance Bond will be required if the total FOB value of the contract is less than US \$ 50,000 and contract is placed directly on the foreign Supplier.

4.3 FAILURE TO SUPPLY THE STORES

All deliveries must be completed by the specified date. If the failure to deliver the stores within the scheduled time should have arisen from "Force Majeure", which the Purchaser may admit as reasonable ground for further time, he will allow such additional time as he may consider to have been required by the circumstances of the case. Otherwise, he will be entitled, at his discretion, to cancel the contract; and/or, claim liquidated damages upto 2% but not less than 1% of the contract price of the items and their quantities for each and every month or part of a month, beyond the specified delivery date, during which these may not be delivered, subject to a maximum of 10% of the total contract value; or, to purchase, from elsewhere, the unsupplied stores at the risk and cost of the Supplier.

4.4 PAYMENT

Payment will normally be made by means of irrevocable letter of credit. Unless otherwise stated 70% payment will be released on submission of Dispatch documents to Bank while balance 30% payment will be released on receipt and acceptance of store by the consignee.

All Bank charges incurred in Pakistan in connection with the establishment of L.C. will be borne by the Purchaser, whereas all Bank charges incurred in connection with drawing of payment including charges for confirmation of L.C. by the advising Bank/Foreign Bank will be borne by the Supplier.

5. SECURITY OF INFORMATION

The Tenderers and his employees must not communicate any information relating to the sale/purchase of stores under this enquiry to any person other than the manufacturer or to any press or agent not authorized in writing by POFs to receive it.

Please return the Schedule to the Tender duly signed by the specified date, alongwith the specification drawings etc, if any, enclosed herewith – even if you are unable to quote.

WARNING

In case the firm abstain from making offers or fail to return/acknowledge the tender form by the specified date on three consecutive occasions, no further tender enquiry may be issued to them and their names would liable to be removed from the approved list.

Yours faithfully,

(DR.SUMMAYA KHURRAM)
MANAGER-PURCHASE-HOSPITAL
for PAKISTAN ORDNANCE FACTORIES

Tele:

Fax:

Telex:

Cable:

PAKISTAN ORDNANCE FACTORIES

SCHEDULE TO TENDER ENQUIRY NO. 4145-EM-18(06)-FP-PUR-HOSP

DATE 22.01.2018.

(1) **FOR MATERIALS**

Item No	Description with Spec etc.	Unit	Quantity	Price Figure	Price in Words	Delivery Date
	<u>Detail of Machinery:-</u>					Immediate
1	Digital X-Ray Machine	No.	01			
2	Mobile Digital X-Ray Machine	Nos.	04			
3	Ultrasound Machine	No.	01			
4	C-Arm Image Intensifier <u>SPECIFICATIONS</u> Attached As Annexure-“B”	No.	01			

(2) **For Plant & Machinery:-**

(3) **Special Conditions.**

- 1 The store must be protected adequately and appropriately to the mode of dispatch against damage from environmental effects, water or other substances during the sea voyage and overland journey to withstand the rough handling involved in transit and prove proper preservation of materials while held in storage by the consignee.
2. Firm should not quote the rates, if their Govt. does not permit them for export of the material to Pakistan.
(ATTACHED AS ANNEXURE-C).

(4) **Undertaking**

Should our offer be accepted, we hereby undertake to supply the stores/render the services contracted on the basis of Conditions of Contract embodied in Form POF 1280, and to deposit the performance bond within the prescribed time, failing which it will constitute a breach of contract, and POF will have the right to purchase the stores/services elsewhere at our risk and cost.

Place _____

Signature of the Tenderer _____

Date _____

Name _____

Position _____

Address _____

Income Tax G.I.R No. _____

- | | |
|--------------------------------|---|
| 1. Detail of Machinery: | 1. Digital X-Ray Machine (Qty-01 No.)
2. Mobile Digital X-ray Machine (Qty-04 Nos.)
3. Ultrasound Machine (Qty-01 No.)
4. C-arm Image Intensifier (Qty-01 No.) |
|--------------------------------|---|

Specifications:

ITEM NO.1

Digital X-ray Machine (Qty-01 No.)

1. Advanced Digital X-ray system capable of managing all the radiological examinations in supine, erect and seated positions.
2. Fully motorized ceiling mounted X-ray tube assembly for auto-tracking and auto-positioning in all axis.
3. Motorized wall stand with Bucky tilting & auto-tracking.
4. High frequency generator, automatic collimator and acquisition workstation with One Fixed for wall stand Detector and One Wireless for table Detector.
5. Remote control exposure option allowing the technician to remain closed to the patient during positioning of table, wall stand and X-ray tube.

6. **Deleted.**

X-ray Generator

7. Generator: 80 kW high-frequency output.
8. Exposure Voltage: 40 to 150kV or better
9. mAs range: 0.1 to 800 mAs or better
10. Shortest exposure time: 1ms or better
11. Automatic Exposure Control: For table and wall stand both
12. Anatomical Programmed Radiography 800 or more should be available

X-ray Tube

13. Anode: Rotating
14. Anode heat storage capacity: 300kHU or better
15. Focal Spot: Dual (0.6mm & 1.2 mm)
16. Tube voltage range: 40 to 150kV or better
17. Dose Area Product meter: Integrated
18. User-interface: Touch screen user-interface on tube-head for patient info, parameters and collimation.

Motorized Multileaf Collimator

19. Automatic & Manual collimation with organ selection programs for table and wall stand Bucky
20. Manual knob control.
21. Digital display of SID, longitudinal and transverse blade position, and spectral filter selection LED light output.
22. Inherent filtration should be 1 mm Al at 70 kV or more.
23. Additional spectral/Copper filtration should be 0.1 mm, 0.2 mm, 0.3 mm or better.

Ceiling-mounted Overhead Tube Crane (OTC):

24. 3D ceiling suspension Overhead Tube Crane with 5 axis motorized movement for auto-tracking, auto-positioning and auto-centering through synchronization with table and wallstand Bucky
25. Auto-tracking should be in the horizontal and vertical planes including angulation
26. Longitudinal travel range should be 325cm or more
27. Transverse travel range should be 220cm or more (220cm or more)
28. Vertical travel range manual and motorized should be 160cm or more (manual & motorized)
29. Tube rotation around the horizontal axis should be +135 degrees and -154 degrees
30. Tube rotation around the vertical axis should be +/- 120 degrees

Patient Table

31. Motorized height adjustable and patient positioning table with 6-way movements
32. Weight bearing capacity should be 300KG or better
33. Vertical travel range should be 50 – 85cm or better
34. Longitudinal travel range should be +/- 48cm or better

35. Transverse travel range should be +/- 14cm or better
36. Patient must be accessible from all sides
37. Table detector and overhead tube can be set up with automatic tracking along the length of the table, avoiding the need to reach to reposition the tube.
38. Head to toe detector coverage range with auto-tracking and SID maintenance during table position adjustment.
39. Table movement to be enabled through double-tap foot pedals, providing more safety for patients

Flat Panel Detector:

40. Fixed Flat Panel Detector
41. Fixed flat panel detector with image size (active area): 42cmx 42cm or better
42. Active detector matrix: 2800x2800 or better
43. Pixel size: 148 μ m or less
44. Receptor type: Amorphous silicon
45. Material: Cesium iodide (CSI)
46. Full Image preview: 6 sec or less
47. Acquisition Depth: 16 bits or better.
48. DQE: 60% or higher
49. Battery charging time should not be more than 3.5 hours

Wireless Detector:

50. Wireless detector with image size (active area): 34cmx 42cm or better
51. Active detector matrix: 2300x2800 or better
52. Pixel size: 148 μ m or less
53. Receptor type: Amorphous silicon
54. Material: Cesium iodide (CSI)
55. Full Image preview: 5 sec or less
56. Detector weight: 5kg or less
57. Battery operation time: 500 images or more
58. Battery charging time: 4 hours or less
59. Charging location: built in the system (no separate battery charger required)
60. Detectors should be Water & Dust resistant.

Chest stand/Bucky stand

61. Chest Stand / Bucky stand should be motorized and tiltable.
62. Chest stand / Bucky stand should be height adjustable
63. Chest stand / Bucky stand should be tiltable
64. Chest end should have moving, exchangeable grid for scattered radiation protection, for pediatrics acquisition the grid should be removed from the beam projection.

Acquisition workstation (Imaging system) (Workstation & Software application should be from the same manufacturer)

65. High resolution console (19" TFT) for controlling all imaging functions.
66. Patient data entry through keyboard, or DICOM Worklist through HIS/RIS
67. System (CPU) configuration should be as per manufacturer's recommendation.
68. The console should support APR and multi-exam workflow protocols.
69. At least 4800 images should be saved for retransmission or reprocessing.
70. System should have enhanced visualization software to attain higher detail contrast (soft tissues and bone) and reducing noise with multi-scale procedure for image post processing of over and under penetrated areas.
71. Image processing should have amplification, harmonization and edge enhancement.
72. Fit to window view of full image.
73. Graphic functions should have Quantification with angle/distance measurement.
74. DICOM 3.0 compliance for Send, Print, Query, Worklist/MPPS, Dose Structured Report and CD writing.
75. Remote diagnostic service capability via internet connection.
76. **Country of origin and OEM:** UK/US/Europe/Japan
77. **Certification:** FDA CFG/CE/MHWL (Minimum two)
78. Power Supply: 220 V AC \pm 10%, 50 Hz.

Online UPS

79. 3kVA online UPS for Acquisition workstation (Imaging system)

Accessories

80. Lead glasses Quantity 02 Nos

81. Double sided lead aprons with 0.35 lead equivalence (size to be confirmed by end user later on). Quantity 02 Nos

82. Thyroid shield & Gonadal shield Quantity 02 Nos each

Civil Works:

83. Complete pre installation and site preparation works including Air Condition, Flooring, False Ceiling, Lead lining, civil & Electrical works as per equipment requirements, all finishing work shall be carried out by the supplier.

Standard terms and conditions

84. Warranty: The vendor will be responsible for maintenance of the equipment including parts and service for the period of 5 years. Detailed warranty terms and conditions are mentioned below.

85. Firms should quote their latest model which must be available on the manufacturer's website.

86. The vendors must have at least two engineers locally trained by the manufacturer.

87. Local firm must provide three satisfactory service reports from hospitals in Pakistan using their services, hospitals must be Government or any renowned Private hospital.

88. Valid distribution certificate attested by the Pakistani embassy in respective country of the manufacturer should be submitted with the offer.

89. The manufacturer will be responsible for the service and maintenance for the whole contractual period directly or through new distributor if the existing one is replaced.

90. Above system must have previous installations in Pakistan (list must be attached). Otherwise, the company will provide the list of international installations.

91. Local firm and foreign principal must have at least five-year experience in concerned line of business, proof must be attached.

92. Original manufacturer's service manuals, operational manual and brochure of quoted model with detailed specifications must be provided by the firm. Net generated brochure will not be acceptable.

93. The Manufacturer will guarantee the availability of spare parts and accessories for the system for ten years as per service agreement.

WARRANTY TERMS & CONDITIONS

94. The supplier will undertake to maintain the equipment during the period of warranty which shall be for five years from the date of full functional commissioning with all specified parameters and shall cover labor and parts for all equipment supplied / stated in the contract.

95. The manufacturer will sign the contract agreement along with its local agent for ensuring prompt after sales services. Local agent should have company trained engineer at Islamabad/Rawalpindi. (Certificate should be attached with technical offer; otherwise it will be rejected)

96. The maintenance will be the responsibility of the manufacturer and the agent. An annual optimal uptime of 95% is considered as acceptable level of performance.

97. Uptime shall be defined as the time available to the user for doing procedures/ data acquisition and processing during working hours (08.00 am to 10.00pm) throughout the year excluding holidays.

98. Software and hardware upgradation of the computing system should be carried out as available during warranty period as recommended by the manufacturer.

99. Manufacturer/Supplier shall be responsible for rectifying with all possible speed at their own expense any defect or fault in the system which may arise at any time during warranty period.

100. The manufacturer will certify that the system will be used for continuous scanning/ examination purposes for at least two working shifts (at least from 8.00am to 10.00pm) without deterioration of performance and other parameters.

101. Manufacturer / Supplier shall check system performance during warranty one routine visit/month.

102. Manufacturer/Supplier shall check system performance during and after every 4-months. An "Optimal Percentage" will be calculated by dividing "System in Service" hours by hours available, both measured on the basis of working hours as detailed above.

103. If the uptime percentage for the measurement period (04-months) shall fall short of 95%, the

following formula will be applied to determine additional days in the warranty / service contract period: -

- i. 100% - 95% No Penalty
 - i. 95% - 90% The warranty period will be extended by 2.0 times the number of days as extra down time.
 - ii. 90% - 80% The warranty period will be extended by 3.0 times the number of days as extra down time
 - iii. Below - 80% The warranty period will be extended by 4.0 times the number of days as extra down time
104. Down time is defined as the failure in the equipment operation to acquire or process the data or procedure, resulting in inability to carry out the required procedure properly.
 105. Down time will start when the end user/ Staff In-charge notifies the designated service facility verbally or in writing to the firm.
 106. Down time will end once the repairs have been affected and the system is again available for clinical use.
 107. The firm will bound to execute the installation/ maintenance according to the installation/ service protocol and will replace the components/ kits recommended by the manufacturers for installation and Periodic Preventive maintenance.
 108. The scheduled preventive maintenance shall be in accordance with service protocol recommended/ advised by the manufacturer.
 109. Onsite local training of Radiologist, radio technician and Electromedical technicians in POF Hospital for 2 weeks.

ITEM NO.2

1. Mobile Digital X-ray Machine (Qty-04 Nos.)

2. Digital mobile X-ray battery operated and motor driven – General purpose digital mobile X-ray unit for radiography

X-ray Generator

3. Microprocessor controller high frequency generator with single tank tube unit and rotating anode tube
4. X-ray generator: 32 kW to 40kW
5. Power output: 400mA or better
6. kV Range: 40-150 kV or better
7. mAs Range:

{	lower limit : 0.5 mAs or better
	Upper limit: 320 mAs or better
8. Shortest exposure time: 2ms or lower
9. Maximum exposure time: 3s or better
10. Full Image preview: 8sec or less

X-ray Tube

11. Focal spot: Dual
12. Anode heat storage capacity: 300 KHU or better
13. Multi leaf rotatable collimator

Detector

14. Cesium Iodide Scintillator (CSI) Wireless detector
15. Detector size (Active area): 13"-14" x 16"-17" or better
16. Water proof IP7
17. Pixel Size: 150 µm or better
18. Battery: Rechargeable and exchangeable, can take 300 images (or more) With full charge
19. Detector weight: 4kg or less
20. Charging location: In Machine detector holder
21. Image should be preserved during battery swap.
22. Detector should not shutdown during battery swap.
23. **Note:**

This detector should be compatible with model manufacturer lunches in future.

System

24. **Collapsible column** with rotation or arm $\pm 90^\circ$ or better
25. Digital display of all set parameters 17" or better with touch operating console
26. Motor driven - easy to control from drive handles
27. RF Id login system or password protection: detector cannot be taken out of machine until user authentic identification
28. Arm collision sensor for bedside safety
29. Image storage in system (external hard drive option for memory enhancement)
30. DICOM facility including send, modality work list/ MPPS , storage and print
31. Battery backup of system:
32. Charging time 8.5 hours or less
33. Battery operation time 150 exposures or better

Accessories

34. Double sided lead aprons with 0.35 mm lead equivalence (size to be confirmed by end user later on). Quantity 04 Nos.
35. Lead glasses (Qty-04)
36. Thyroid Covered shield & Gonadal shield (Qty-04)
37. Bed side lead shields with lead equivalence 0.35 mm (Qty-03 with each machine i.e. total Qty= 12):
 - i. Height of screen = 6 ft , length and width should be according to beds available in POF Hospital.
 - ii. Screen should be equipped with four lockable casters.
 - iii. Lead impregnated outer window in 04 screens.

Standard terms and conditions

38. Firm will ensure training of one radiologist (end user) & one technician in hospital setting, one Electromedical engineer & one Electromedical technician in workshop setting for two weeks. Expenses would be the responsibility of firm.
39. X-ray tube: warranty of X-ray tube is 10 years, during this period if tube is damaged it will be replaced not repaired and to avoid down time of machine local firm will make temporary arrangements to keep the machine working.
40. Warranty of machine is 05 years: service, repair & replacement of parts will be done free of cost during warranty period by the firm.
41. Firm to guarantee the supply of spare parts up 10 years on as and when required basis
42. Firm should quote their latest model which fulfills above requirements; model should currently be in line of manufacturing.
43. Firm must have at least two foreign factory trained engineers on digital mobile X-ray system **OR** firm must have at least two engineers who have got training on digital mobile X-ray system locally from foreign factory trained engineer. In both cases proof of training must be provided i.e. certificates.
44. Local firm must provide three satisfactory service reports from hospitals in Pakistan using their services.
45. A comprehensive list of above said units installed in reputable hospitals along with after sale service infrastructure in Rawalpindi / Islamabad will be provided.(list must be attached with technical bid)
46. Valid distribution certificate for digital X-ray system must be part of offer which will be provided by manufacturer to local firm in Pakistan.
47. In case foreign principal change their local distributor who will be responsible for local service/maintenance of machine, a declaration must be attached by foreign principal.
48. Foreign principal must provide undertaking that they have visited workshop of their local distributor, available tools gadgets and equipment in workshop is sufficient for repair/maintenance of above system.
49. Local firm and foreign principal must have at least five year experience in concerned line of business, proof must be attached.
50. Original manufacturer's service manuals, operational manual and brochure of quoted model with detailed specifications must be provided by the firm. Net generated brochure will not be acceptable.
51. OEM and country of origin should be USA/Europe/Japan

52. Standardization: CE/FDA/JIS
53. Power Requirement: 220V \pm 10%, 50 Hz
54. Firm will ensure training of radiologist / End user in hospital setting for two weeks. Expenses would be the responsibility of firm.
55. Onsite training of Radiologist and radio technician in POF Hospital for 2 weeks.

ITEM NO.3

Ultrasound Machine (Qty-01 No.)

1. High end portable ultrasound machine with high performance, compact diagnostic system that provides edge imaging technologies. Which are commonly used in emergency requirement.
2. The system should be provided with the ability to measure anatomical structure (fetal, abdominal, small organ, Trans rectal, Trans vaginal, cerebrovascular, peripheral vessel, heart and musculoskeletal) and calculation packages that provide information which may be used adjunctively with other medical data for clinical diagnostic purposes.
3. Model : latest version
4. Monitor: 15" or more
5. Resolution full screen: 1280x800 pixels or better
6. Resolution Image area: 800x600 pixels or better
7. Viewing angle: minimum 175o
8. Dynamic Range: 200dB or more
9. Frame rate: 1200 fps or more
10. Viewing depth: 30 cm or better
11. Storage Capacity: 25000 images or more (B/W and color images)
12. Weight: 8kg or less (with battery)
13. Battery backup time: live scanning of minimum 1 hour
14. Transducer port: 3 Ports
Scan modes
15. B-Mode Imaging, M-Mode Imaging, Color Doppler, Power Doppler, PW / CW spectral Doppler, Mixed Mode, Mode display: (2D+2D with and without C or Power Doppler) triplex mode.
Scanning parameters and features
16. Multi Hertz imaging, user programmable system parameters, general imaging, automatic image optimization, contrast resolution, auto flash color artifact suppression, dynamic persistence and compound imaging
Measurements
17. Abdomen, gynecology/obstetric, peripheral vascular, cerebrovascular, thyroids, TCI, renal and MSK studies.
Transducers
18. Convex Probe: 2-7 MHz & penetration 25 cm or better
19. Liner Probe: 5-10 MHz & penetration 16 cm or better
20. TVS Probe: 4-9 MHz & penetration 20 cm or better
21. Phased array probe: 2-4 MHz & penetration 25 cm or better

Accessories

22. Black and white printer
23. Imported trolley for portable ultrasound

ITEM NO.4

C-arm Image Intensifier (Qty-01 No.)

Mobile Digital C-Arm imaging system for use in:

1. Trauma patients in Accident & Emergency department.
2. Urology surgical procedures in operation theater.

C-Arm CART:

3. C-Arm orbital rotation : 115° minimum
4. C-Arm lateral rotation : \pm 180°
5. Motorized vertical movement
6. Two paddle foot switch

GENERATOR:

7. High frequency inverter control X-Ray Generator with X-Ray Beam Limiting Device upto 5KW.
8. Fluoroscopy:
9. KV range : 40 – 110 KV (minimum)
10. mAs range : 0.2 – 15 mAs (minimum)

X-Ray TUBE:

11. Rotating anode type X-Ray tube.
12. Focal spot size: 0.6 mm.
13. Anode heat storage capacity: 250000 HU (minimum)

X-Ray TV SYSTEM:

14. High resolution X-Ray TV System with 1K² CCD technology
15. Constant image brightness due to automatic gain control.
16. High spatial resolution
17. TV matrix: 1k²
18. Digital image rotation: ± 360°

TV MONITOR:

19. TV monitor should be from same manufacturer.
20. Dual 21" or better LCD/LED monitors system.

IMAGE STORAGE & DOCUMENTATION:

21. Automatic storage on hard disk in digital radiography
22. Selectable for continuous and pulsed fluoroscopy
23. 40 GB Hard Disk with image storage capacity of more than 30,000 images
24. DVD -RW.
25. USB Port.
26. Integrated DICOM 3.0 interface

ACCESSORIES:

27. X-Ray Cassette Holder
28. Laser pointer.
29. Double sided lead aprons with 0.35 mm lead equivalence (size to be confirmed by end user later on). Quantity 06 Nos. with each machine

POWER SUPPLY:

30. 230 V, ±10%, 50 Hz AC

Standard Terms & Conditions:

110. Warranty: The vendor will be responsible for FOC maintenance of the equipment including parts and service for the period of 5 years. Detailed warranty terms and conditions are mentioned below.
111. Firms should quote their latest model which must be available on the manufacturer's website.
112. The vendors must have at least two engineers locally trained by the manufacturer.
113. Local firm must provide three satisfactory service reports from hospitals in Pakistan using their services, hospitals must be Government or any renowned Private hospital.
114. Valid distribution certificate attested by the Pakistani embassy in respective country of the manufacturer should be submitted with the offer.
115. The manufacturer will be responsible for the service and maintenance for the whole contractual period directly or through new distributor if the existing once is replaced.
116. Above system must have previous installations in Pakistan (list must be attached).

Otherwise, the company will provide the list of international installations.

117. Local firm and foreign principal must have at least five-year experience in concerned line of business, proof must be attached.
118. Original manufacturer's service manuals, operational manual and brochure of quoted model with detailed specifications must be provided by the firm. Net generated brochure will not be acceptable.
119. The Manufacturer will guarantee the availability of spare parts and accessories for the system for ten years as per service agreement.

WARRANTY TERMS & CONDITIONS

1. The supplier will undertake to maintain the equipment during the period of warranty which shall be for five years from the date of full functional commissioning with all specified parameters and shall cover labor and parts for all equipment supplied / stated in the contract.
2. The manufacturer will sign the contract agreement along with its local agent for ensuring prompt after sales services. Local agent should have company trained engineer at Islamabad/Rawalpindi. (Certificate should be attached with technical offer; otherwise it will be rejected)
3. The maintenance will be the responsibility of the manufacturer and the agent. An annual optimal uptime of 95% is considered as acceptable level of performance.
4. Uptime shall be defined as the time available to the user for doing procedures/ data acquisition and processing during working hours (08.00 am to 10.00pm) throughout the year excluding holidays.
5. Software and hardware upgradation of the computing system should be carried out as available during warranty period as recommended by the manufacturer.
6. Manufacturer/Supplier shall be responsible for rectifying with all possible speed at their own expense any defect or fault in the system which may arise at any time during installation, commissioning period.
7. The manufacturer will certify that the system will be used for continuous scanning/ examination purposes for at least two working shifts (at least from 8.00am to 10.00pm) without deterioration of performance and other parameters.
8. Manufacturer / Supplier shall check system performance during warranty one routine visit/month.
9. Manufacturer/Supplier shall check system performance during and after every 4-months. An "Optimal Percentage" will be calculated by dividing "System in Service" hours by hours available, both measured on the basis of working hours as detailed above.
10. If the uptime percentage for the measurement period (04-months) shall fall short of 95%, the following formula will be applied to determine additional days in the warranty / service contract period: -
 - ii. 100% - 95% No Penalty
 - iv. 95% - 90% The warranty period will be extended by 2.0 times the number of days as extra down time.
 - v. 90% - 80% The warranty period will be extended by 3.0 times the

- number of days as extra down time
- vi. Below - 80% The warranty period will be extended by 4.0 times the number of days as extra down time
11. Down time is defined as the failure in the equipment operation to acquire or process the data or procedure, resulting in inability to carry out the required procedure properly.
 12. Down time will start when the end user/ Staff In-charge notifies the designated service facility verbally or in writing to the firm.
 13. Down time will end once the repairs have been affected and the system is again available for clinical use.
 14. The firm will bound to execute the installation/ maintenance according to the installation/ service protocol and will replace the components/ kits recommended by the manufacturers for installation and Periodic Preventive maintenance.
 15. The scheduled preventive maintenance shall be in accordance with service protocol recommended/ advised by the manufacturer.

SPECIAL CONDITIONS

1. STANDARD ACCESSORIES THE COST OF WHICH IS COVERED IN BASIC UNIT SHOULD BE CLEARLY INDICATED AND LISTED AS A PART OF BASIC EQUIPMENT.
2. OPTIONAL ACCESSORIES, IF AT ADDITIONAL COST, SHOULD BE SHOWN SEPARATELY.
3. THE LIST AND PRICE OF RECOMMENDED SPARE PARTS REQUIRED FOR THREE YEARS TROUBLE FREE OPERATION SHOULD BE QUOTED.
4. EQUIPMENT WILL BE INSTALLED AND COMMISSIONED AT POF HOSPITAL WAH CANTT FREE OF CHARGE.
5. THE FIRM WILL PROVIDE **05 YEARS** WARRAANTY/GUARANTEE OF THE ENTIRE SYSTEM FROM THE DATE OF SUCCESSFUL COMMISSIONING. DURING THIS PERIOD REPLACEMENT OF ANY COMPONENT/PART IF NECESSARY WILL BE MADE BY THE FIRM FREE OF CHARGE IN ADDITION TO FREE SERVICE. THE SUPPLIER SHOULD ALSO CONFIRM THAT THEY HAVE PROPER SERVICES AND CONFIRM THAT THEY HAVE LOCCAL REP. ADDRESS, TELEPHONE/FAX NUMBER AND THE CONTACT PERSONS SHOULD BE CLEARLY STATED IN THE QUOTATION AND UNDERTAKING DULY SIGNED BY YOUR LOCAL REP. FOR MAINTAINING AND PROVIDING AFTER SALES SERVICES TO THE EQUIPMENT ON YOUR BEHALF DURING AND AFTER WARRAANTY/GUARANTEE PERIOD MUST BE ENCLOSED.
6. THE FIRM WILL ENCLOSE AN UNDERTAKING TO GUARANTEE FOR SUPPLY OF SPARE PARTS UP TO 10 YEARS AS AND WHEN REQUIRED.
7. CONSUMABLE BEING OFFEREDE FREE OF CHARGE WILL BE IDENTIFIED SEPARATELY.
8. THE FIRM SHOULD MENTION PRODUCT YEAR OF MAUNFACTURING AND REFERENCES WHERE THE QUOTED MODEL IS AVAILABLE/ INSTALLED IN PAKISTAN.
9. THE PAYMENT WILL BE MADE AGAINST L.C. TO BE ESTABLISHED IN FAVOUR OF FOREIGN PRINCIPAL/FIRM. 70% PAYMENT WILL BE MADE AGAINST SHIPPING DOCUMENTS AND BALANCE 30 % ON RECEIPT AND ACCEPTANCE OF MACHINE/EQUIPMENT IN POF.
10. THE SUCCESSFUL BIDDER WILL PROVIDE PERFORMANCE BOND AT THE RATE OF 10% OF FOB VALUE.
11. OEMS HAVING AFTER SALE/BACK-UP SERVICES IN PAKISTAN WILL BE ELIGIBLE TO PARTICIPATE.
12. PERIOD OF VISIT/NO. OF DAYS ALONG WITH NAME OF CITY OF VISITING COUNTRY IS ALSO REQUIRED FOR CALCULATION OF DA. PROVISION OF PAYMENT OF 20/30 % DA OF THE VISITING TEAM WILL BE BORNE BY THE FIRM.

WARRANTY/ GUARANTEE CERTIFICATE

Firm's Name _____

Contract No. _____

1. We hereby guaranty that the goods supplied against the above contract are in all respect in accordance with the relevant specifications and terms of the contract and that the material used, whether or not of our manufacture, are in accordance with the latest approved standard specifications complete, are of good workshop/quality throughout, and that we shall replace free of cost, every article or part thereof which before use or in use, shall be found defective, or not within the limits and tolerance of specification requirements, or in any way not in accordance with the terms of the contract.

2. In case of our failure to replace the defective stores free of cost within the period specified by the purchaser, we will refund the relevant cost.

3. The Warranty/ Guaranty will remain valid for **05 years** after the receipt of stores by the consignee/installation of the equipment.

Signature _____

Name _____

Status in firm _____

Date _____

**BANK GUARANTEE FOR PERFORMANCE ON
JUDICIAL STAMP PAPER OF RS.100/- OR AS
SUITABLE TO THE AMOUNT OF B.G.**

- i) Contract No. _____ Date. _____
- ii) Name of Firm/Contractor _____
- iii) Address of Firm/Contractor _____
- iv) Name of Guarantor _____
- v) Address of Guarantor _____
- vi) Amount of Guarantee Rs. _____
(_____)
(in words)
- vii) Date of Expiry of Guarantee _____

To: The President of the Islamic Republic of Pakistan through the Controller of
Military Accounts (CMA) POFs, Wah Cantt.

Sir,

1. Whereas your goodself have entered into Contract No. _____
_____ dated _____ with Messrs

(Full Name and Address)

hereinafter referred to as our customer and that one of the conditions of the contract is the
submission of unconditional Bank Guarantee by our customer to your goodself for a sum of Rs.

_____ Rupees/FE (as applicable) _____

2. In compliance with this stipulation of the contract, we hereby agree and undertake as under:-
- a. To pay to you unconditionally on demand and/or without any reference to our
Customer and amount not exceeding the sum of Rs. _____
Rupees or FE (as applicable) _____ as
would be mentioned in your written Demand Notice.
 - b. To keep this Guarantee in force till _____
 - c. That the validity of this Bank Guarantee shall be kept **FIVE** clear year ahead of
the original/extended delivery period or the warrantee of the stores which so ever
is later in duration on receipt of information from our Customer i.e. M/S
_____ or from your office. Claim, if any, must
be duly received by us on or before this day. Our liability under this Bank
Guarantee shall cease on the closing of banking hours on the last date of the
validity of this Bank Guarantee. Claim received thereafter shall not be entertained

by us whether you suffer a loss or not. On receipt of payment under this guarantee, this document i.e. Bank Guarantee must be clearly cancelled, discharged and returned to us.

- d. That we shall inform your office regarding termination of the validity of this Bank Guarantee one clear month before the actual expiry date of this Guarantee.
- e. That with the consent of our customer you may amend/alter any term/clause of the contract or add/delete any term/clause to/from this contract without making any reference to us. We do not reserve any right to receive any such amendment/alteration or addition/deletion provided such like actions do not increase our monetary liability under this Bank Guarantee which shall be limited only to or FE (as applicable) Rs._____ (Rupees_____).
- f. That the Bank Guarantee herein before given shall not be affected by any change in the constitution of the Bank or Customer/Seller or Vendor.
- g. That this is an unconditional Bank Guarantee, which shall be encashed on sight on presentation without any reference to our Customer/Seller or Vendor.

Guarantor

Dated: _____

(Bank Seal and Signatures)

No.4145-EM-18(06) -FP-PUR-HOSP
 Pakistan Ordnance Factories,
 Wah Cantt.
 Fax # 051-9271400, 9314100
 Date 9 -02-2018.

To
 M/s PPRA,
 E-mail: info@ppra.org.pk
 AM-Web MIS
 E-mail: amweb@pof.gov.pk

Subject: - T.E. NO. 4145-EM-18(06)-FP-PUR-HOSP, DATED 22.01.2018 TO BE OPENED ON 22.02.2018 FOR PROCUREMENT OF DIGITAL X-RAY MACHINE (04 ITEMS).

Dear Sir,

The following changes have been made in item No.1 (Digital X-Ray Machine against the subject T.E.

DIGITAL X-RAY MACHINE (ITEM NO.1)

<u>CLAUSE</u>	<u>FOR</u>	<u>READ</u>
6 (Note)	Existing	Deleted
14 (X-Ray Tube)	Existing	Anode heat storage capacity: 300 KHU or better
2.	Other terms and conditions remain unchanged.	


 (Dr. Summaya Khurram)
 Manager-Purchase
 For Commandant POF Hospital

No.4145-EM-18(06) -FP-PUR-HOSP

Pakistan Ordnance Factories,
Wah Cantt.

Fax # 051-9271400, 9314100

Date 9 -02-2018.

To

M/s PPRA,
E-mail: info@ppra.org.pk

AM-Web MIS
E-mail: amweb@pof.gov.pk

Subject: - **T.E NO. 4145- EM-18(06)-FP-PUR-HOSP, DATED 22.01.2018 TO BE OPNED
ON 22.02.2018 FOR PROCUREMENT OF DIGITAL X-RAY MACHINE (04 ITEMS).**

Dear Sir,

The following changes have been made in item No.1 (Digital X-Ray Machine against the subject T.E.

DIGITAL X-RAY MACHINE (ITEM NO.1)

<u>CLAUSE</u>	<u>FOR</u>	<u>READ</u>
6 (Note)	Existing	Deleted
14 (X-Ray Tube)	Existing	Anode heat storage capacity: 300 KHU or better

2. Other terms and conditions remain unchanged.


(Dr. Summaya Khurram)
Manager-Purchase

For Commandant POF Hospital