



# JAMMU AND KASHMIR MEDICAL SUPPLIES CORPORATION LTD.

(Public Sector Undertaking of the Government of Jammu and Kashmir)

Corporate Head Office: Corporate Head Office: Plot No. 58, Friends Colony Satyam Road Trikuta Nagar Jammu  
Corporate Office: Corporate Office Kashmir: Near Haj House, Bemina (190018), Srinagar  
email: mdjkmcl2@gmail.com; website: www.jkmsclbusiness.com

M/S S.R Technomed  
Bakshi Nagar, Jammu (Bidder)

Dated: 08-10-2025.

No: JKMSCL/GM(Adm.)/2025/6774-88

Sub: E.bid for the finalization of Rate Contract for the procurement of "Machinery & Equipments" - issuance of rate contract thereof for the item "(Radiation Therapy Beam Analyzer (Dosimeter))".

Ref. No.

1 NIT/JKMSCL/M&E/2023/605 dated 19-10-2023

2. Minutes of Purchase Committee vide No JKMSCL/PS/MD/2025-26/492-510 dated 30.08.2025.

3. LOI No. JKMSCL/GM(Adm)/2025/5480-85 dated : 30.08.2025.

Sir,

As per the decision of the Purchase Committee, the Jammu and Kashmir Medical Supplies Corporation J&K has approved the following item/item(s) under group "Machinery & Equipments" in your favour on the quoted rates by you in the NIT:

S. No.	Name of item	Currency	Basic Rate without Tax with Conversion (1)	Taxes (2)	Total Amount (in Rs) with taxes (1+2)
1	<b>Radiation Therapy Beam Analyzer (Dosimeter)</b>  M/S Pocl Medical Solutions, Mumbai. (Importer)  M/S Sun Nuclear, USA.(Manufacturer) Model No. Sun Scan3D automatic RFA	INR	31106679.96  Consumables 312500.00	5599202.39  56250.00	<b>3,70,74,632.35</b>  (Rupees three crores seventy lakhs seventy four thousand six hundred thirty two and thirty five paise only)

The approved rates for Comprehensive Maintenance Contract after the expiry of warranty period of 05 (Five) years are as follows:

S.No	Name of item	CMC for five years with taxes
1	<b>Radiation Therapy Beam Analyzer (Dosimeter)</b>	6th Yr 2018823.52 7th Yr 2119764.70 8th Yr 2225752.94 9TH Yr 2337040.58 10TH Yr 2453892.60 TOTAL -11155274.34


## Terms and Conditions:

- Delivery Site :** Rate are FOR Drug warehouse of JKMSCL/any Govt. Institution of J&K State, wherever installation is required.
- Validity :** The rate contract shall remain valid for a period of two years from the date of issuance of the Contract which may be extended for a period of 90 days or till such time the new rate contract is finalized, whichever is earlier, with mutual consent of JKMSCL and successful bidder.
- Taxes:** As mentioned above and as applicable.
- Warranty:** Five Years from the date of installation.
- Performance Security**  
You are further required to deposit the performance security equivalent to 5% of the total invoice value in the shape of Bank Guarantee in favour of FA/CAO, JKMSCL within seven days from the date of issuance of Purchase Order(s) from time to time.
- Supplies**  
Within 90 days from the date of issuance of supply order.
- Penalty**  
In case of extension in the delivery period with liquidated damages, recovery of liquidated damages shall be made at the rate of 0.25% per day for every day of delay subject to maximum of 10%.

8. **Installation:** Installation / commissioning and necessary training for upkeep of the equipment shall be provided free of cost.
9. **Availability of Spares:** Firm shall certify that the parts of the equipment shall remain available at least for a period of **five years** after the year of expiry of warranty period of five years.
10. You have to certify that the rates mentioned above as quoted by your firm are the lowest rates applicable to all Govt./private Institution/PSU etc. Variation found if any, during the rate contract period by the Corporation/Intending department or any other agency shall be the sole responsibility of the Contractor/Supplier/manufacturer/importer.
11. The supplier/manufacturer/importer shall ensure to supply the Brand new and unused item(s) strictly as per specifications/sample(s) approved. Variations found, if any, in instant case/or in later stages by the Corporation/Intending department/any other agency which may lead to sub standard or Not of standard/approved quality, shall be the sole responsibility of the supplier/ manufacturer/ importer/contractor.
12. JKMSCL is at liberty to get the feedback from the end-user department/intending department regarding the functioning of the machinery & equipment supplied by your agency. Adverse report, if any, may lead to strict action against you under rules/terms & conditions of the NIT/guidelines issued by the Govt. from time to time.
13. **Fall Clause:** The prices under contract shall be subject to price fall clause. The prices charged for the goods supplies under the contract by successful bidder shall in no event exceed the lowest price at which the successful bidder sells the goods or offers to sell the goods of identical description to any other person(s)/Organization(s) including procurement agencies or any other department of Central Govt. or State Govt. as the case may be during the period till the performance of the contract. If at any time, during the period of the contract, the bidder reduces the sales price chargeable under the contract, he shall forth with notify such reduction to the JKMSCL, J&K and the price payable under the contract for the stores supplied after the date of coming into force of such reduction or sale shall stand reduced correspondingly. It imply that if the contract holder quotes/ reduces its price to render similar goods at a price lower than the contract price to anyone in the Central/State Govt. at any time during the currency of contract including extension period, the contract price shall be automatically be reduced with effect from the date of reducing or quoting lower price for all delivery of subject matter of procurement under contract and the contract shall be amended accordingly.
14. **Risk Purchase :** If the bidder is unable to complete the supply within the specified or extended period, the corporation shall be entitled to purchase the goods or any part thereof from elsewhere without notice to the bidder on his (i.e., bidders) account at his cost and risk, with the prior approval of Managing Director JKMSCL, J&K. The bidder shall be liable to pay any loss or damage which the purchasing officer may sustain by reasons of such failure on the part of the bidder.  
The bidder shall not be entitled to any gain on such purchases made against default. The recovery of such loss or damage shall be made from any sums accruing to the bidder under this or any other contract with the corporation/government. If recovery is not possible from the bill and the bidder fails to pay the loss or damage within one month of the demand, the recovery of such amount or sum due from the bidder shall be made from the bidder. In case supplier fails to deliver ordered goods, the risk purchases may be made at market rate from any other firm. It is mandatory for the approved supplier to acknowledge receipt of orders within seven days from the date of dispatch of order, failing which the procuring entity will be at liberty to initiate action to purchase the items on risk purchase provision at the expiry of the prescribed supply period.
15. **Orders shall only be placed on the basis of actual requirement and funds as available under the relevant Head of Accounts.**
16. **Payment shall be released after successful installation and commissioning of the equipment duly verified by the intending department.**
17. **Approved technical specifications shall remain same as per NIT (Annexure I)**


**All the terms and conditions of the NIT, Standard Procurement of Procedure (SPP) of JKMSCL & LOI shall be part of this Rate Contract.**

*Issued with the Decision and Authorization of Purchase Committee of JKMSCL vide its minutes No. JKMSCL/PS/MD/2025-26/492-510 dated 30.08.2025*

  
Yours sincerely,  
8.10.25  
(Mohd. Ashraf Choudhary) JKAS  
General Manager (Adm.), JKMSCL

Copy for information to the:

1. Principal, Govt. Medical College, Srinagar (Kashmir) (Director, Board of Directors- JKMSCL).
2. Principal, Government Medical College, Jammu (Director, Board of Directors JKMSCL).

3. Principal, Government Dental College, Srinagar (Director, Board of Directors- JKMSCL).
  4. Principal, Government Dental College, Jammu (Director, Board of Directors- JKMSCL).
  5. Director General, Indian System of Medicines, J&K (Director, Board of Directors- JKMSCL).
  6. Director, Family Welfare, MCH & Immunization, J&K (Director, Board of Directors- JKMSCL).
  7. Director, Health Services, Jammu (Director, Board of Directors- JKMSCL).
  8. Director, Health Services, Kashmir (Director, Board of Directors- JKMSCL).
  9. Mission Director, NHM, J&K (Director, Board of Directors- JKMSCL).
  10. Controller, Drug & Food Control Organization, J&K (Director, Board of Directors JKMSCL).
  11. F.A/Chief Accounts Officer, J&K Medical Supplies Corporation Limited.
  12. General Manager -K(P&S, IT), J&K Medical Supplies Corporation Limited.
  13. Asstt Programmer to upload on official website.
  14. I.T cell JKMSCL.
  15. File
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Radiation Therapy Beam Analyzer (Dosimeter)

Dosimetry and QA TOOLS

**RADIATION THERAPY BEAM ANALYZER**

Required a full-fledged three-dimensional Water phantom wired/wireless built-in-Wi-Fi transmitter & Dosimetry System and therapy beam analyzer for performing Off-axis profiles, PDD, point dose measurement, beam symmetry tuning, Dose rate constancy check, vector scan and TG51 Lead foil measurement for low and high energy photon, electrons. All the measurement should be computer controlled and user friendly.

All components with national and international regulations and safety rules. All components of the system; all available options are controlled by the same software that runs under Microsoft Windows of latest version of **windows 2000 and windows XP**. The system should be suitable to measure pulsed radiation with fluctuation dose rate Ion chamber;

**Necessary two thimble ionization chamber** should be there for measurement of field of volume less than 0.12cc and reference signal plane parallel chamber should be there for electron measurement. The necessary holding device extension cables for the above chambers must be included. The chamber specification should be quoted. The position accuracy should be **Certified equal and better than  $\pm 0.1\text{mm}$** . The chamber should be properly calibrated and given necessary calibration certificate.

The positioning tool should be there to allow and exact positioning of the chamber's geometric centre in the central beam and at the water surface apart from this, the exact position of the chamber and radiation beam should possible via software

The detector unit should be driven by stepper motor and step length should be adjustable in steps of mm. The scanning speed should be adjustable between 0.25mm/s and 20 mm/s in small steps. Further the delay times for each step should also be adjustable by the user. The acceleration of the step movement should also be changed as and when required.

The system should allow simultaneous movement in available direction for any vector- scan

The Zero point, reference point and limit of the different detector units should be stored separately and permanently in the control unit.

The wireless/wired control pedant should display the actual position of the chamber position at any given measuring time. **Height adjustable water tank should be provided for the verification of SSD.**

Water Phantom/ Radiant Field Analyzer:

**Two boxes of achromic films for dosimetry (std, size) with minimum two years validity.**

The Scanning volume should be large enough to scan and should not be less than 48x40x48 cm to avoid bending of the tank's walls by water pressure and water absorption of the acrylic 1 wall thickness should be greater than equal to 1.3 cm.

The motor of the moving mechanism should not touch nor dip into the water to avoid mechanical stress to the acrylic tank.

The reproducibility of apposition should be  $\pm 0.1\text{mm}$  throughout the whole phantom.

The digitally driven **stepper motors/ superior magnetostrictive Technology** should provide hysteresis free movement (stick and slip free), **step length should be adjustable in steps of mm.**

The lift table should be electrically as well as manually operable.

The velocity of the vertical motion should be quoted and preferably should have two vertical velocities. The water Tank must be rotatable into positions **0 degree,  $\pm 45$  degree and  $\pm 90$**

degree.

A highly accurate positioning device directly supplied by the principals must be included.

Water reservoir.

The water reservoir should be large enough to store the water and can be pump and drain to the water phantom as quick as possible. The water Reservoir must be able to hold the entire weight of the water without any change. **The weight of the whole system should not be on base plate i.e. wheels must be on ground, not on base plate.**

The weight of the whole assembly can be push or pull though the wheel with polyethylene or equivalent. The lifting carriage should be electromechanical/elevating screw mechanism that keeps the height absolutely accurate

The lifting carriage and water Reservoir must be imported and directly from the suppliers and must complete with all facilities including TRP and TMR measurements. Completely motorized lifting carriage and Water Reservoir. **Latest modular system with separate lifting carriage and water reservoir.**

The water Reservoir must be compatible for TPR measurement and hence TPR measurement 1 pump of the reservoir should drive automatically and electromagnetic valves makes sure that no water can flow from the phantom tank to the reservoir during automatic TPR measurement.

The water reservoir should have a safety circuit that avoids the dry pump running control unit/electrometer:

**A separate control unit for controlling the movement of the detector in any three directions should be possible and integrated control unit with wireless/ wired control pendant for controlling the movement of detector in any of three direction should be possible.**

A separate electrometer to collect the ions /dose from the chamber/ detector should be there the voltage to the chamber should be adjusted in the electro meter in steps of 50V. The polarity of the chamber should be toggled between +/- . The electrometer should also be able to measure absolute doses for low and high photon and electron.

The gain of the electrometer should be automatic depending upon the signal collected by the field and reference separately.

Necessary software to use the electrometer for absolute measurement should be provided.

The time constant should allow 10ms measurement times.

The external dosimeter should also be connecting to the water phantom.

The control unit should permanently store zero-point, reference point and limit points for water phantom, air scanner and mechanical film densitometer separately.

These different sets of limits zero and reference points can be retrieved.

The coordinates of the probe should display for all directions, simultaneously on a control pendant.

The control pendant can be attached either to the water tank or to the control unit.

The communication between the control unit and the computer should be performed by a standard RS23/USB interface.

The high voltage for the probe should be switchable independently for each decrease in different voltage and the sign of the measuring signal can be reversed.

A solid, water equivalent phantom made up of slabs of different thicknesses shall be provided by the vendor for external beam teletherapy dosimetry. It shall be possible to use this phantom for both photon and electron beam dosimetry. The phantom shall be free of contaminants and

air bubbles. The slab shall be of 30x30 cm or more size totaling a thickness of 30cm.
QA tools; additional One Pressurized ION Chamber to be supplied.
Control Computer:
The latest version of windows OS computer 3 in number and 3 laptops (Dell/HP) should have all the latest features with color monitor and with 1 color printer, 1 plotter, 2 LASER printers for the maintenance of patient specific quality assurance result charts and branded UPS(45min.back-up)
The Software:
Measurements can be done against time, against a monitor signal or against reference chamber
With in the moving range arbitrary points can be measured.
An arbitrary vector scan measurement should be possible.
Point dose measurement, Beam symmetry tuning and TG5I foil measurement should also be possible
2D planes can be measured at any solid angle
ISO dose can be displayed and plotted that can be constructed out of profiles and depth dose curves or measured matrices. The Isodose level should be freely closable Warning before unsaved data in the RAM should be overwritten.
The Isodose levels can be chosen after the measurement and without the necessity to have the water phantom connected.
Multiple closed Isodose lines and hotspots should be detected automatically.
Single measuring points, complete curves and parts of curves should be re-measured from a user definable point.
During the measurement the measuring curves should be display graphically and online on the screen.
A special measuring program allows a dose rate constancy check including a statistical evaluation.
Any kind of open, regular shaped, blocked or wedged field can be measured.
Fields from asymmetric collimators can easily be measured.
A special measuring routine for service purposes allows to easily checking the beam with respect to symmetry, flatness, homogeneity and energy.
Implemented routines allow the measurement, formatting and transferring of basic data to all-important therapy planning systems.
<b>1 ION chamber based survey meters to be provided.</b>
Secondary standard Dosimeter with appropriate thimble chamber and parallel plate chambers with latest calibrations to be provided. Including pinpoint chamber for small field dosimetry with phantoms, barometre and thermometer (Digital)
Solid equivalent slab water phantom with adapters for the above-mentioned chambers should be provided.
Film Dosimetric software should be provided for treatment verification Administrative Data:
Comprehensive documentation of the measured data by automatic saving of the used measuring environment should simplify the interpretation of data even for longtime.
The used measuring routine data can be reused either unchanged or with some of the parameters changed Data can be printed and plotted in numerical and graphical from on all printers and plotters that are supported by windows.
The administrative data can be changed after saving the measuring data. All measuring data should be furnished automatically with their administrative information and comprehensive filter function allows the easy selection of specific data.
The necessary software software to network the 3D TBA system with the 3D TPS in the department of Radiotherapy must be offered.

Data analysis:
Various normalization should be possible viz. normalization to maximum for depth dose curves normalization to maximum or centre for profiles and normalization to maximum, enter, position and value for isodose lines.
Homogeneity and symmetry should be calculated automatically and various national and international protocols can be selected.
Depth dose curves can be analyzed according to the protocols DIN6800/2IAEATR277, ICRU 35CRMEI no. 2, AAPMTH21/TG 25 and NACP.
Data transfer and data presentation
Modules should allow automatic formatting and transferring of measured data to treatment planning system available in the department.
The measured data can be stored in two different ASCII formats (with selectable separation characters).
ASCII-data can be sent from external computers and be imported in to the water phantom software Image data for film dosimetry can be imported into water phantom software. Data can be display graphically on the screen.
Cross hairs should allow the easy manual evaluation of a curve.
Plotting/printing of the measured data and correction functions can be printed (alphanumerically) and plotted (graphically).
ARRAY DETECTOR
State of Art. Ion 4D cylindrical chamber/diode-based array detector fully compliant AAPM's TG-218 Guidelines for complete verification and patient plan has to be offered. The ion chamber/diode array resulting in an effective measuring of 20cmx20cm or above and given the facility to use with siab phantom for measurement. Chamber must be vented parallel square shaped ion chambers not more than 5mmX5mm5Xmm or diodes not more than 0.8mmX0.8mm and centre to centre spacing must be 10mm or less.
It should be able to use for the dose verification of IMRT beams and routine quality control of high energy photon and electron beams by using the software and also it should be able to check the MLC leaf positioning. It should be able to measure the dose from dynamic and static fields in one run and display the readings in both dose rates and absorbed dose mode.
It should be able to perform the QA for high energy beams and dose verification for IMRT, VMAT, ARC beam techniques, It should be capable of doing complete pre-treatment patient plan verification within measurement.
An additional advanced phantom is required for IMRT, VMAT, SBRT and SRS along with the provision to insert the 2D detector array/Film inside the phantom either static or rotational with gantry angle sensor or provision for angular correction
The software should have the functionality for import of 3D and 2D plan dose verification and with global and local dose comparison along with gamma hot and cold, digital gamma.
The same phantom should serve as a complete MT and QA test kit for doing CTMRI fusion multimet simulating atleast three brain metastasis single ISO centre QA
Winston lutz test point dosimetry with micro-chamber and film analysis, system should be able to do 6D couch QA.
One additional Array Device with 900 or above liquid filled lionization chamber/Detector for patient plane verification & quality control of small fields. <b>Detector spacing should be 2.5mm &amp; the field size should be atleast 07 cmX07cm.Detrctor size should be 1mm or less for small field dosimetry.</b> The Array detector should be provided with dedicated phantom capable of performing end to end testing for SRS which includes WL test, imaging and planning QA should be provide along with SRS phantom,
One parallel plate chamber for electron dosimetry, ope number of pin point chamber for small fit dosimetry along with the calibration certificate for all these chambers. (Can be removed as

already covered above)
Calibrated Barometer and thermometer (Digital) to be included.
<b>1D phantom for absolute dosimetry</b>
<b>Absolute Dosimetry system</b>
A small size motorized water phantom with minimum dimension of 30x30x30 cm <sup>3</sup> has to be provided for absolute dosimetry in photon beam with vertical beam incidence. There should a chamber adaptor to mount Farmer Type chamber and parallel plate. The phantom should have adjustable supports for leveling, etched cross hairs for alignment and a collision protected drain mechanism for emptying the water. The phantom should also a digital display to display the current exact position of the chamber. Dedicated PC software should be provided and the phantom should be remotely operable from the console. The phantom should be able to do PDD measurements for upto 25 cm depth.
<b>Daily QA Device (1Qty)</b>
A dedicated separate Daily QA device to check constancy of output, Flatness, Symmetry, photon Energy, Electron Energy and Light and Radiation Field Size congruence should be provided. The device should be compatible for 6FFF and 10FFF beams and should have a minimum of 13 detectors.
<b>Winston Lutz test tool with software with multiple targets for SRS Machine QA and</b>
6D Couch QA. (1 qty) A multi target WL test phantom or insert to do Single ISO centre Multi target (SIMT) Treatments) should be provided. The phantom should be provided with a software for analysis. There should be capability of the system to do 6D couch QA.