



**AYUB TEACHING HOSPITAL
ABBOTTABAD**

Standard Bidding Document

For

**PROCUREMENT OF ELECTRO MEDICAL
EQUIPMENT**

Under

National Competitive Bidding (NCB)

FOR THE YEAR 2026-27

ADVERTISEMENT

**SPECIAL INSTRUCTION FOR PREPARATION OF TECHNICAL
BIDS**

- ▶ ***S. No.1, The contract/firm should be Registered with income tax/ sale tax & should be on ATL maintained by the bid must be in booklet form with proper page marking.***
- ▶ ***S. No.2, The bid must be in booklet form with proper page marking.***
- ▶ ***S. No.3, The Mandatory documents must be attached in sequence duly flagged.***
- ▶ ***S. No.4, The documents required for Technical Evaluation marks may also be attached after the mandatory documents according to relevant LOT available in bedding documents duly flagged.***
- ▶ ***S. No.5. The bids without booklets & don't fulfilled the above conditions will not be consider for Technical Evaluation.***

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Bid Data Sheet

ITB Ref	Description	Detail	
ITB Clause 1.1	Bid reference number	Ayub Teaching Hospital- Abbottabad Tender FY2026-27	
ITB Clause 2.1	Name of Client & source of funds	MTI/ ATH/.	
ITB Clause 3.1	Name of Goods	Electro Medical Equipment	
ITB Clause 3.1	Equipment Sale License	NA	
ITB Clause 6.1	Bidding Documents available on EPADS and ATH Website		
ITB Clause 7	Bidding for Selective Items	Yes	
ITB Clause 9.1	Bidding procedure	Single Stage Two Envelops Procedure	
ITB Clause 9.2	Method determining the Lowest Evaluated Responsive Bidder	<u>MEDICAL & TECHNICAL ITEMS</u> <u>(Electro medical Equipment etc.)</u>	
ITB Clause 11.1	Clarification(s) on Bidding Documents	Ayub Teaching Hospital Abbottabad	
ITB Clause 12	Pre-Bid meeting date, time and venue	Ayub Teaching Hospital Abbottabad	
ITB Clause 13	Language of bid	English	
ITB Clause 14.2	Specific Description of Goods in the Bidding Documents	Quotation shall be submitted for Lot-I as mentioned of standard bidding documents.	
ITB Clause 15.4	Bid Price	Bid Price shall be inclusive of all duties and taxes as applicable by the Govt.	
ITB Clause 16	Currency of Bid	PKR	
ITB Clause 18.1	Name of the Bid Form(s)	<u>Primary Documents Bid Cover sheet</u>	
		Bid Form-1	Letter of Attention
		Bid Form-2	Affidavit
		Bid Form-3 (A) Eligibility of Bidders & Goods	
		Bid Form-3 (B) Manufacturer's Authorization	
		Bid Form-4 Firm's Past performance	
		Bid Form-5 Price schedule	
		Bid Form -6 Performance Guarantee	
		Failure to submit Bid Forms shall render the bidders non-responsive.	

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ITB Clause 18.2	Technical Bid Proforma's	Sample Bid Evaluation Proforma: In the relevant lot
ITB Clause 20	Amount of Bid Security / Earnest Money	The Bidder shall furnish, as part of its bid, a Bid Security equal to 2% of the bid price in the name of Hospital Director, ATH, Abbottabad.
ITB Clause 21	Bid validity period	90-days from the opening date
ITB Clause 25	Last date and time for uploading of bidding document on E-PADS	As per advertisement
ITB Clause 28	Date, time and venue of opening of technical bids	As per advertisement
ITB Clause 41	Duration of Contract	For the Financial Year 2026-27
ITB Clause 44	Performance Bank Guaranty / Performance Security	The Performance Security shall be 10% of the total contract price quoted and shall be submitted in the name of Hospital Director AYUB Teaching Hospital Abbottabad

Primary Documents to be submitted for Firm Evaluation Documentation:

1. Bid Cover sheet.
2. Bid form letter of attention
3. Bid form to affidavit.
4. Bid form 03-A eligibility of bidder & goods
5. Bid form 03-B manufacturer authorization if eligible.
6. Bid form 04 firm past performance.
7. Bid form 05- price schedule. (Financial Bid).
8. Bid for 06- performance guarantee.
9. Certificate to the effect that the requisite bid security equal to 2% of the bid price in form bank draft or CDR is enclosed in the financial bid.
10. Non submission primary documents duly signed & stamps shall render the non-responsive.

Instructions to Bidders (ITB)

1. Scope of Bid	1.1	The Ayub Teaching Hospital Abbottabad invites bids for supply Of items relating to Article Store Department, to meet the requirement of Ayub Teaching Hospital Abbottabad with Bid Reference Number for the procurement activity as Mentioned in Bid Data Sheet (BDS) .
2. Source of Funds	2.1	The client as mentioned in the Bid Data Sheet (BDS)
3. Eligible Bidders.	3.1	According to Advertisement Notice.
	3.2	Government-owned enterprises in Pakistan may participate only if they are legally and financially autonomous and authorized to participate in bidding.
	3.3	The Importer/Agent must possess valid authorization from the Manufacturer and shall have to submit a copy of Equipment Sale License/ Memorandum of Association/ Partnership Deed registered with the Registrar of Companies. However, in case of Manufacturer, they should have a documentary proof as prescribed in the Bid Form of these Standard Bidding Documents to the effect that they are the pre-qualified Manufacturer of the required specifications of Goods.
	3.4	Bidders under a declaration of ineligibility for corrupt and fraudulent practices issued by any Government (Federal, Provincial or Local) or a public sector organization are NOT ELIGIBLE.
	3.5	A Bidder shall not have a conflict of interest. All bidders found to have conflict of interest shall be disqualified. Bidders may be considered to have a conflict of interest with one or more parties in this bidding process, if they: (a) are or have been associated in the past, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under these Standard Bidding Documents ; or (b) submit more than one bid in this bidding process, except for alternative offers permitted under ITB Clause 15.6 of these Standard Bidding documents. However, this does not limit the participation of subcontractors in more than one bid.
	3.6	Bidders shall provide such evidence of their continued eligibility satisfactory to the Purchaser, as the Purchaser shall reasonably request.

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4. Corruption and Fraud	4.1	The Government of Khyber Pakhtunkhwa defines Corrupt and Fraudulent Practices as —the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official or the supplier or contractor in the procurement process or in contract execution to the detriment of the Procuring agencies; or misrepresentation of facts in order to influence a procurement process or the execution of a contract, collusive practices among bidders (prior to or after bid submission) designed to establish bid prices at artificial, non-competitive levels and to deprive the Procuring agencies of the benefits of free and open competition and any request for, or solicitation of anything of value by any public official in the course of the exercise of his duty
	4.2	Indulgence in corruption and Fraudulent practice rejection of bids, cancellation of contracts, the barring of blacklisting of the bidders, for stated or indefinite period of time.
5. Eligible Goods and Services.	5.1	All goods and related services to be supplied under the contract shall conform to the policies of the Government of Khyber Pakhtunkhwa in vogue. All expenditures made under the contract Shall be limited to such goods and services. For purposes of this clause, (a) the term —Goodsll includes any goods that are the subject of this Invitation for Bids and (b) the term —Servicesll includes related ancillary services such as transportation, installation, insurance, port releases, after sale service etc.
6. Cost of Bidding.	6.1	The Bidding Documents will be available from the date of publishing of the IFB and will be available upto to the period as mentioned in the Bid Data Sheet . The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Procuring Agency shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
7. Bidding for Selective Items.	7.1	A Bidder, if he so chooses, can bid for selective items from the list of goods provided for in the Schedule of Requirements. A Bidder is also at a liberty to bid for all the goods mentioned in the Schedule of Requirements provided he fulfills Requirements. However, a Bidder cannot bid for partial quantities Of an item in the Schedule of requirement. THE BID MUST BE FOR THE WHOLE QUANTITY OF AN ITEM REQUIRED IN THE SCHEDULE OF REQUIREMENT.
8. Bidding		The Bidding procedure shall be governed by the Procurement of

Procedure / Governing Rules.		Rules KAPPRA rules 2014
	8.1	The bidding procedure is governed by Rule 06 (2) KPRA Rules 2014 Bidders are advised also to refer to the Bid Data Sheet (BDS) to confirm the Bidding procedure applicable in the present bidding process
	8.2	The bidding procedure prescribed in the Bid Data Sheet above is explained below: Single Stage Two Envelops Procedure: The bid shall comprise a single package containing two separate envelopes. Each envelope shall contain separately the Technical bid and the financial bid; i) the envelopes shall be marked as —TECHNICAL BID and —FINANCIAL BID in bold and legible letters to avoid confusion; ii) Initially, only the envelope marked —TECHNICAL BID shall be opened. Technical bid contains requirements for the responsiveness and technical and financial eligibility for the firm and its quoted product. The extent of compliance to the stated requirements will determine that the firm and its product qualify technically before the opening of the financial bids. iii) the envelope marked as —FINANCIAL BID shall be retained in the custody of Procuring Agency without being opened; iv) the Procuring Agency shall evaluate the technical proposal without reference to the price and may reject any bid which does not conform to the specified requirements; v) during the technical evaluation no amendments in the technical bid shall be permitted; vi) the financial bids of only the technically qualified bids shall be opened publicly by the Procuring Entity at a time, date and venue to be announced and communicated to the Bidders in advance; vii) The financial bids found technically non-qualified or rendered dis-qualified shall be returned un-opened to the respective Bidders; and The bid found to be the lowest evaluated responsive bid as per the Technical & Financial Evaluation Criteria shall be accepted for contract award.

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10. Contents of the Standard Bidding Documents	10.1	The goods required, applicable bidding procedures, and Contract terms & conditions are prescribed in the Standard Bidding Documents. Contents of the Standard Bidding Documents include: a) Invitation for Bids (IFB) b) Instructions To the Bidders (ITB) c) General Conditions of Contract (GCC) d) Special Conditions of Contract (SCC) e) Technical & Financial Evaluation Criteria f) List of Required items/Equipment/ films g) Technical Specifications of the intended goods h) Sample Size & Ancillary Services i) Schedule of Requirements j) Distribution Plan for Health Institutions k) Sample Forms, Schedules & contract template
	10.2	In case of any discrepancy between the contents of the Invitation for Bid (IFB) and those of the Standard Bidding Documents listed in 10.1 above, the Standard Bidding Documents shall take Precedence.
	10.3	The Bidder is expected to examine all instructions, forms, terms, and specifications in the Invitation For Bids (IFB) and the Standard Bidding Documents (SBDs). Failure to furnish all information required by the Standard Bidding Documents or to submit a bid not substantially responsive to the Bidding Document in every respect shall be at the bidder risk and may result in the rejection of its bid.
11. Clarification(s) on Standard Bidding Documents	11.1	A prospective Bidder requiring any clarification(s) on the Bidding Documents may notify the Procuring Agency in a Pre-Bid meeting or in writing at the Procuring Agency's address indicated in the Bid Data Sheet (BDS). The Procuring Agency shall respond in writing to any request for clarification(s) of the bidding documents, which it receives no later than ten (10) days prior to the deadline for the submission of bids prescribed in the Invitation for Bids. Written copies of the Procuring Agency's response (including an explanation of the query but without identifying the source of inquiry) shall be sent to all prospective Bidders that have received the Bidding Documents. To respond to all such queries, the Procuring Entity will hold a Pre-Bid Meeting under Rule 17 of the NWFP Procurement of Goods, Works and Services Rules 2003, on a date specified in the Bid Data Sheet (BDS) as explained in ITB Clause 23.
	12.1	At any time prior to the deadline for submission of bids, the Procuring Agency, for any reason, whether at its own initiative or in response to a clarification(s) requested by a prospective Bidder, Weather in a Pre-Bid Meeting held on a 16,17&18 January 2019 date specified in the Bid Data Sheet (BDS) or through official
12. Amendment(s) to the Bidding Documents		

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		communication to the prospective bidders, may modify the Standard Bidding Documents by amendment(s).
	12.2	All prospective Bidders who have received the Standard Bidding Documents shall be notified of the amendment(s) in writing through Post, e-mail or fax or advertisement in two national dailies. The said amendment(s) shall be binding on them.
	12.3	In order to allow prospective bidders reasonable time for taking the amendments into account in preparing their bids, the procuring agency at its discretion may extend the deadline for submission of bids.
13. Language of Bids	13.1	All correspondences, communications, associated with preparation of Bids, clarifications, amendments, submissions shall be written in English. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the Bid, the said translation shall take precedence.
14. Documents comprising the Bids	14.1	The Bid shall comprise the Bid Forms of these Standard Bidding Documents and all those ancillary documentation that are prescribed for the eligibility of the bidders and goods, and ancillary services that are found necessary and highlighted in the Bid Forms in Section V of these Standard Bidding Documents.
	14.2	The Bidder shall complete the Bid Forms and an appropriate Price Schedule furnished in these Standard Bidding Documents, indicating the goods to be supplied, a brief description of the goods, their general and specific characteristics as specified in the Bid Data Sheet (BDS) , ancillary services that the bidder is willing or required to provide along with the proposed price.
15. Bid Price.	15.1	The Bidder shall indicate on the appropriate form prescribed in these Standard Bidding Documents the unit prices and total bid Package price of the goods where applicable, it proposes to supply under the Contract.
	15.2	Form prescribed for quoting of prices is to be filled in very Carefully, preferably typed. Every page of these Standard Bidding Documents is to be signed and stamped at the bottom by the Bidder. No alteration of any Term or Condition is allowed.
	15.3	The Bidder should quote the prices of goods according to the technical specifications as provided in Part-Two: Section III of these Standard Bidding Documents. The technical specifications of goods, different from the required specifications, shall be rejected out rightly.
	15.4	The Bidder is required to offer a competitive price which must include all the taxes, duties, prescribed price and any other price As mentioned in the Bid Data Sheet (BDS) where applicable. If there is no mention of taxes, the offered/ quoted price shall be Considered as inclusive of all prevailing taxes/ duties, etc. However the ATH is exempted for payment of sales tax.
	15.5	The benefit of exemption from or reduction in the taxes and duties Shall be passed on to the Procuring Agency.

	15.6	Prices offered should be for the entire quantity of an item demanded in the Schedule of Requirement or in a lot; partial Quantity offers within a lot shall straightaway be rejected. Conditional, alternate or provisional offer shall also render the bid as non-responsive. No negotiation on price is allowed.
	15.7	While making a price quote, trend/ inflation in the rate of goods and services in the market should be kept in mind. No request for increase in price due to market fluctuation in the cost of goods and services shall be entertained. The bidder needs to consider including any probable price fluctuation or expected inflation in the quoted price before the bid submission.
16. Bid Currencies	16.1	Prices shall be quoted in the currency as mentioned in the Bid Data Sheet .
17. Samples.	17.1	The Bidder shall provide samples of quoted items at his own expenses
18. Documentation on Eligibility of Bidders.	18.1	Bidder shall furnish, as part of his bid, the Bid Form(s) as primary document (s) provided in Part-Two: Section IV of the Standard Bidding Documents and as specified in the Bid Data Sheet (BDS) , establishing Bidder's eligibility to bid and his qualifications to perform the Contract if his bid is accepted.
	18.2	Bid Evaluation Proformas provided as Annexures in Part-Two: Section IV of these Standard Bidding Documents may be filled and submitted by the bidders to facilitate the Procuring Entity for the preliminary evaluation of their Technical Bids if specified in Bid data Sheet (BDS) .
	18.3	The Bidder shall furnish, as part of his technical bid, the Bid Forms provided in Part-Two: Section IV of these Standard Bidding Documents as specified in the Bid Data Sheet (BDS) , establishing his substantial responsiveness required for establishing his eligibility for further evaluation of his technical bid as defined under ITB Clause 3 of these Standard Bidding Documents.
19. Documentation on Eligibility of Goods		The documentary evidence required in the evaluation criteria of these Standard Bidding Documents as specified in the Bid Data Sheet (BDS) for Bidder's eligibility to bid for the intended goods, shall establish to the Procuring Entity's satisfaction that the Bidder, at the time of submission of his bid, is an eligible bidder
20. Bid Security	20.1	The Bidder shall furnish, as part of its bid, a Bid Security to the extent of a percentage of the total bid value or as a specified amount as mentioned in the Bid Data Sheet (BDS) . Unsuccessful bidder's bid security shall be discharged or returned. Unsuccessful bidder bid security shall be discharge or return soon after announcement of the successful bidders
	20.2	The successful bidder bid security shall be discharge upon signing of contract and furnishing the performance security / Guarantee.
	20.3	The Bid security may be forfeited

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a) If a Bidder withdraws its bid during the period of bid validity:

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OR

- b) in the case of successful bidder, if the Bidder fails to sign the contract or fails to provide a Performance Security/ Guarantee for the duration of the contract.

21. Bid Validity	21.1	Bids shall remain valid for the period identified in the Bid Data Sheet (BDS) after the date of opening of technical bid prescribed by the Procuring Agency. A bid valid for a period shorter than the one prescribed in the Bid Data Sheet (BDS) shall be rejected by the Procuring Entity as non-responsive.
	21.2	The Procuring Entity shall ordinarily be under an obligation to process and evaluate the bid within the stipulated bid validity period. However under exceptional circumstances and for reason to be recorded in writing, if an extension is considered necessary, all those who have submitted their bids, shall be asked to extend their respective bid validity period. Such extension shall not exceed the period of the original bid validity.
	21.3	Bidders who,- a) agree to the Procuring Entity's request for extension of bid validity period, shall not be permitted to change the substance of their bids; and b) do not agree to an extension of the bid validity period, shall be allowed to withdraw their bids without forfeiture of their bid security
22. Format and Signing of Bids.	22.1	The Bidder shall prepare and submit his bid and provide original documents, as appropriate. Copies of any documents must be signed and stamped by the bidder.
	22.2	The Bid shall be accompanied by the original receipt for payment made for the purchase of the bidding document. In an event where the Bidder has downloaded the bidding document from the web, they will require to get the original payment receipt of the prescribed fee from the Procuring Agency well before the date of Submission of bid.
	22.3	The original bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. The person or persons signing the bid shall initial and stamp all pages of the Standard Bidding Documents.
	22.4	Any tampering, illegitimate inclusion or exclusion in any part of the Standard Bidding Documents shall lead to disqualification of the bidder.
23. Pre Bidding Meeting / Clarification of Tender Documents	23.1	The Procuring Entity, may convene a Pre-Bid/ Conference anytime after the issuance of the Standard Bidding Documents and before the Bid opening to invite all the prospective bidders: (a) to brief them to submit responsive bids, (b) to respond to any queries made by them for clarification, (c) to make any changes or modifications in the Standard Bidding Documents in the light of such clarifications if agreed by the procuring Entity.

	23.2	Any such changes or modifications, after approval of the Procuring entity, shall reflected be in the form of an addendum or minutes of meeting and shall be timely: (a) communicated in writing to all such bidders who have purchased the Standard Bidding Documents, or (b) posted on the website of the Health Department Khyber Pakhtunkhwa for wider disseminated to all the prospective bidders if the same have earlier been posted on the said website.
24. Submission of Bids / Sealing and Marking of Bids	23.3 24.1	Reasonable time shall be given to all the prospective bidders after the Pre-Bid Meeting and before the bid opening so that they may adequately reflect the approved changes in their bids accordingly within the given time before the bid submission. The Procuring Entity may give a new date for bid opening either through an advertisement or through any written communication to the prospective bidders if it deems necessary that a new bid opening date is required for providing reasonable time to the prospective bidders. The envelopes shall be marked as —TECHNICAL BIDI and —FINANCIAL BIDI and in bold and legible letters to avoid confusion. Similarly, the Bidder shall seal both the bids in separate envelopes. The said two envelopes shall then be sealed in an outer envelope.
	24.2	The inner and outer envelopes shall: (a) be addressed to the Procuring Agency at the address given in the Invitation for Bids (IFB); and; (b) contain Bid Reference Number indicated in the Bid Data Sheet (BDS), and a statement: —DO NOT OPEN BEFORE, and the time and the date specified in the Bid Data Sheet (BDS) for opening of Bids.
	24.3	The inner envelopes shall also indicate the name and address of the Bidder to enable the bid to be returned unopened in case it is declared as — non-responsivell or — latell .
	24.4	If the outer as well as inner envelope is not sealed and marked as required by the ITB Clauses 24.1 to 24.3 above the Procuring Agency shall assume no responsibility for the bid's misplacement, premature opening or accidental revelation of bid price.
25. Deadline for Submission of Bids	25.1 25.2	Bids must be submitted by the Bidder and received by the Procuring Agency at the address on the time and date specified in The Bid Data Sheet (BDS) . Bids received later than the time and date specified in the Bid Data Sheet will be rendered non-responsive and will be returned to the bidder unopened. The Procuring Agency may, in its discretion, extend the prescribed deadline for the submission of bids by amending the Standard Bidding Documents in accordance with ITB Clause 12 above, in which case all rights and obligations of the Procuring Agency and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.
26. Late Bids	26.1	Any bid received by the Procuring Agency after the deadline for submission of bids prescribed by the Procuring Agency pursuant to ITB Clause 24 shall be rejected and returned unopened to the Bidder.

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27. Withdrawal of Bids	27.1	The Bidder may withdraw its bid after the bid's submission and prior to the deadline prescribed for opening of bids.
	27.2	No bid may be withdrawn in the period between deadline for Submission of bids and the Bid opening. Withdrawal of a bid during this period shall result in forfeiture of the Bid Security Submitted by the Bidder, pursuant to the ITB Clause 20 above.
28. Opening of Bids by the Procuring Agency.	28.1	All bids received, shall be opened by the Procuring Agency publicly under Rule 21 of the NWFP Procurement of Goods, Works & Services Rules 2003, in the presence of the Bidders or their representatives on the date, time and venue prescribed in the Bid Data Sheet .
	28.2	The opening of Bids shall be subject to the Bidding Procedure prescribed in the Bid Data Sheet and elaborated in ITB Clause 9 above.
	28.3	All Bidders in attendance shall sign an attendance sheet
	28.4	The Purchaser shall open one Bid at a time and read out aloud its contents which may include name of the Bidder, category tendered for, any discounts, any bid modifications or withdrawal, the presence or absence of requisite bid security, unit as well as total bid price and such other details as the Purchaser, at its discretion, may consider appropriate if not in conflict. The Procuring Agency shall have the minutes of the Bid opening
	28.5	(technical and when applicable financial) recorded. No Bid shall be rejected at technical proposal / bid opening accept
		for late bids which shall be return unopened to the bidder. vi) The financial bids found having without bid security shall also be return un announce to the bidders. however, prior to returned to the bidder the Chiarmen of the Puchacse / procurement committee shall record his statement giving reason for returen of such bids.
	28.8	The bids found without Bid Security shall also be returned Unannounced to the Bidders. However, prior to return to the Bidder, the Chairman of the Purchase / Procurement Committee shall record a statement giving reasons for return of such bid(s).
30. Preliminary Examination	30.1	The Procuring Agency shall examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order.
	30.2	In the financial bids the arithmetical errors shall be rectified on the following basis. a) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be

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		corrected. b) If the Bidder does not accept the correction of the errors, its bid shall be rejected, and its Bid Security may be forfeited. c) If there is a discrepancy between words and figures, lower of the two shall be considered as per Rule 28(2)(b) of the NWFP Procurement of Goods, Works and Services Rules 2003. d) The evaluation shall include all taxes and duties inclusive of local levies as a part of the price under Rule 28(2)(c) of NWFP Procurement of Goods, Works and Services Rules 2003.
	30.3	The Procuring Agency may waive any minor informality, nonconformity, or irregularity in a bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.
	30.4	Prior to the determine the substantial responsiveness of each bid to the bidding documents. For purposes of this clause, a substantially responsive bid is one, which at the time of bid opening, conforms to all the terms and conditions of the Invitation For Bid (IFB) and the Standard Bidding Documents without material deviations. Deviations from the critical provisions, such as those concerning Applicable Laws, Taxes, Duties and internationally recognized best practices detailed evaluation, the Procuring Agency shall or imposition of conditionalities by the bidder shall be deemed to be a material deviation for rendering a technical bid as non-responsive. The Procuring Agency's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
	30.5	If a bid is not substantially responsive, it shall be rejected by the Procuring Agency and may not subsequently be made responsive nonconformity.

31.Evaluationof 31.1

Bids in accordance
with the Evaluation

The Procuring Agency evaluate and compare the bids which have determine to be substantively responsive in accordance with ITB Clauses above.

Criteria.
32. qualification f bidder

All bids shall be evaluated as per evaluation criteria and other terms and condition set forth in in the Standard Bidding Documents Evaluation Methodology specified in the **Bid Data Sheet (BDS)** and other terms and conditions set forth in these Standard Bidding Documents (SBDs). Only those bids shall be evaluated which have been determined to be substantially responsive in accordance with ITB Clause 28 above. The Procuring Entity shall choose the Evaluation Methodology under the rules keeping in view the complexity of the procurement activity to determine the Lowest Evaluated Responsive Bidder and shall either be based

on:

- (a) Merit Point Evaluation Methodology to identify the highest ranking quoted item (Most Economically Advantageous Bid), or
- (b) Lowest Price Evaluation Methodology

31.2	For the purposes of comparison of bids quoted in different currencies, the price shall be converted into Pak Rupees. The rate of exchange shall be the selling rate, prevailing on the date of opening of bids specified in the Standard Bidding Documents, as notified by the State Bank of Pakistan/ National Bank of Pakistan on that day.
31.3	A bid once opened in accordance with the prescribed procedure, shall be subject to only those evaluation criteria in the Standard Bidding Documents, rules, regulations and policies that are in force at the time of issue of notice for Invitation For Bids (IFB).

	32.4	The determination can take into account the Bidder's financial, technical, and production capabilities. It shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, as well as such other information as the Procuring Agency deems necessary and appropriate. Further, during the process of technical evaluation of Bidder, the Procuring Agency may inspect the manufacturing plant/ production capacity/ warehousing system/ practices by a team of experts for assessment, if it deems necessary.
	32.5	An affirmative determination shall be a pre-requisite for award of the Contract to the Bidder. A negative determination shall result in non-qualification/dis-qualification of the Bidder's bid, in which event the Procuring Entity shall proceed to the next lowest evaluated responsive bid to make a similar determination of that Bidder's capabilities to perform satisfactorily.
	33.1	If the Procuring Entity finds at any time that a bidder has attempted to defraud or hoodwink the Procuring Entity or an Evaluation Committee constituted there under, by intentional provision of false, mis-stated, mis-represented, incomplete or materially inaccurate information concerning qualification of the product or the firm, through unauthorized submission of another firm's proprietary clinical or product research, certification or any data as specified in the Bid Data Sheet (BDS) against his own quoted product or firm and fails to remedy such deficiencies, the said bidder shall be disqualified under the prevailing rules and any attempt by the bidder to offer inducement of any sort, formation of a cartel to discourage fair competition or failure to complete his earlier contract within a period of five years of initiation of procurement may lead to cancellation of his bid or contract, and his debarring & blacklisting under prevailing law for a stated or indefinite period of time
	33.2	The Procuring Entity may opt for arranging a Pre-Award Debriefing session to inform the non-qualified/dis-qualified bidders before the opening of Financial bids of technically qualified bidders.
	33.2	The Procuring Entity may opt for arranging a Pre-Award Debriefing session to inform the non-qualified/dis-qualified bidders before the opening of Financial bids of technically qualified bidders.
34. Rejection of Bids	34.1	The Procuring Agency may reject any or all bids at any time prior to the acceptance of a bid under the rules. However, before rejection of tender on basis of the bid being unworkable, the bidder shall upon request be given an opportunity to give a detailed analysis of workability of his bid.
	34.2	The workability of a bid may depend, among other factors, upon the objectives of a procurement activity as specified in the Bid Data Sheet (BDS) wherein wider coverage for disease prevention, diagnosis or treatment of patients is required with intended cost-effective healthcare goods of high therapeutic value.
	34.3	The Procuring Agency shall upon request communicate to any Bidder who submitted a bid, the grounds for its rejection of any or

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		all bids, but is not required to justify those grounds.
	34.4	The Procuring Agency incurs no liability, by virtue of its invoking ITB Clause 34.1 above towards Bidders who have submitted bids.
	34.5	Notice of the rejection of any or all bids shall be given promptly to the concerned Bidders that submitted bids.
35. Re-Bidding	35.1	If the Purchaser rejected all bids in pursuant to ITB Clause 32, it may call for a re-bidding by adopting the requisite procedure under the rules. . Notice of rejection of the tender shall be given to all the bidders who submitted the bids.
	35.2	The Procuring Agency before invitation for re-bidding shall assess the reasons for rejection of tender and may accordingly revise specifications, evaluation criteria or any other condition for Bidders, as it may deem necessary under Rule 33(1) of the NWFP Procurement of Goods, Works & Services Rules 2003 .
36. De-Briefing Sessions for Access to Information on Evaluation Process	36.1	The Purchaser, upon written request of a bidder, may make available to him information on evaluation process as mentioned in the said Rule, or may either: a) convene a Pre-Award De-Briefing session to apprise the technically non-qualified/disqualified bidders about the reasons of their non-qualification/disqualification, or, b) convene a Post-Award De-Briefing to apprise the technically qualified but unsuccessful bidders about shortcomings of their bids and reasons of success of the selected bid.
39. Award / Acceptance of Bid and Award Criteria.	39.1	The Bidder whose bid is found to be most closely conforming to the Evaluation Criteria prescribed in Part-Two: Section II of these Standard Bidding Documents if not in conflict with any other law, rules, regulations or policy of the Government of Khyber Pakhtunkhwa, shall be awarded the Contract, within the original or extended period of bid validity.
40. Procuring Agency's Right to vary quantities at the time of Award.	40.1	The Procuring Agency reserves the right at the time of award of Contract to increase or decrease, the quantity of goods originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions.
41. Notification of Award	41.1	Prior to the expiration of the period of bid validity, the Procuring Agency shall notify to the successful Bidder in writing that its bid has been accepted.
	41.2	The notification of award shall constitute the formation of the Contract between the Procuring Agency and the successful Bidder.
	41.3	The enforcement of the Contract shall be governed by Rule 42 of the NWFP Procurement of Goods, Works and Services Rules, 2003. The procuring Entity and the successful bidder shall sign a written contract within thirty (30) days of the dispatch of the notice of acceptance of bid to the successful bidder.
	41.4	Upon receipt of the Notification of Award, the successful Bidder shall submit a Performance Security equal to the percentage of the Contract price, as specified in the Bid Data Sheet (BDS) under Rule 15 of the NWFP Procurement of Goods, Works and Services Rules, 2003 and within the time specified in the Bid

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		Data Sheet (BDS).
	41.5	Upon submission of the requisite Performance Security, the Procuring Entity shall release the Bid Security to the successful bidder. The Bid Securities of the unsuccessful bidders shall also be released to them.
42. Limitation on Negotiations	42.1	Negotiations, that may be undertaken in finalization of the Contract shall not relate to the price or substance of bid specified by the Bidder, but only to minor technical, contractual or logistical details. Negotiations shall not be used to: substantially change the technical quality or details of the requirement, including the tasks or responsibilities of the Bidder or the performance of the goods; substantially alter the terms and conditions of Contract; reduce unit rates or reimbursable costs; substantially alter anything which formed a crucial or deciding factor in the evaluation of the bids or proposals alter the submitted financial bid.
43. Signing of Contract.	43.1	Within thirty (30) days of dispatch of the notice of acceptance of bid to the successful bidder the Purchaser and the bidder shall sign the Contract Agreement Form provided in Part-Two: Section IV of these Standard Bidding Documents, incorporating all the Terms & Conditions of these Standard Bidding Documents as agreed between the Parties and in accordance with the legal requirements in vogue. Entering into a Repeat Order shall be governed separately under Rule 21 of the KAPRA Rules 2014.
	43.2	Review against a contract award shall be carried out in
	43.3	If the successful Bidder, after completion of all codal formalities shows an inability to sign the Contract then its Bid Security shall stand forfeited and the firm may be blacklisted and de-barred from future participation, whether temporarily or permanently. In such situation the Purchaser may award the contract to the next lowest evaluated Bidder or the next highest ranking bid or call for new bids.
	43.4	The Contract shall become effective upon affixation of signature of the Purchaser and the selected Bidder on the Contract document, and shall be governed for the period specified in the Bid Data Sheet (BDS) and by the terms and conditions mutually agreed in the contract.
44. Performance Security	44.1	On the date of signing of Contract, the successful Bidder shall furnish a Performance Security in the form of a Bank Guarantee for a percentage amount (10% of the total items' quoted price) as specified in the Bid Data Sheet (BDS) , on the Form and in the
		mannered prescribed by the Procuring Agency in Part-Two: Section-IV of these Standard Bidding Documents within the time prescribed in the Bid Data Sheet (BDS) .
	44.2	The Bid Security submitted by the bidder at the time of submitting its bid shall be returned to the successful Bidder upon submission of Performance Security.
	44.3	Failure to provide a Performance Security by the successful Bidder is a sufficient ground for annulment of the award and forfeiture of his Bid Security. In such event the Procuring Entity may award the contract to the next lowest evaluated responsive bidder or call for new bid.

General Conditions of Contract (GCC)

1. Definitions	1.1	In this Contract, the following terms shall be interpreted as indicated: (a) —The Contract^{II} means the agreement entered into between the Ayub Teaching Hospital and Supplier, as recorded in the Agreement signed by the Parties including all attached & appendices thereto an all documents incorporated by reference therein (b) —The Contract Price^{II} means the price payable to the Supplier under the Contract for the full and proper performance of its Contractual obligations. (c) —The Goods^{II} means all those supplies which the Supplier is required to supply to the Purchaser under the Contract. (d) —The Services^{II} means those services ancillary to the supply of above goods, such as printing of special instructions on the label and packing, design and logo of the government of Khyber Pakhtunkhwa, transportation of goods upto the desired destinations, installation and other such obligations of the Supplier covered under the Contract. (e) —GCC^{II} means the General Conditions of Contract contained in this section. (f) —SCC^{II} means Special Conditions of the Contract. (g) —The Purchaser^{II} means the Client as mentioned in the SCC. (h) —The Supplier^{II} means the individual or firm supplying the goods under this Contract. (i) —Day^{II} means calendar day.
2. Application	2.1	These General Conditions shall apply to the extent that they are not superseded by provisions of other parts of the Contract.
3. Source of Import	3.1	All goods and related services to be supplied under the contract that are required to be imported in Pakistan shall have their origin in eligible source countries as prescribed by the commercial policies of the Federal Government of Pakistan and all expenditures made under the contract shall be limited to such goods and services.
	3.2	For purposes of this clause, —origin ^{II} means the place where the goods are produced, or the place from

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		which the related services are supplied. Goods are produced when, through manufacturing or processing.
4. Standards	4.1	The goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications.
	4.2	In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of this Contract.
	4.3	If the Supplier provide substandard item and fail to provide the fresh supply, the payment of risk purchase (which will be purchased by the Health Department) the price difference shall be paid by the Supplier.
	4.4	In case of supply of substandard product the cost associated with disposal/destruction or associated handling shall be borne by the Supplier i.e. removal from purchaser's premises, burning, dumping, or incineration.
5. Use of Contract Documents and Information.	5.1	The Supplier shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in the performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
	5.2	The Supplier shall not, without the Purchaser's prior written consent, make use of any document or information enumerated in GCC Clause 5.1 except for purposes of performing the Contract.
	5.3	Any document, other than the Contract itself, enumerated in GCC Clause 5.1 shall remain the property of the Purchaser and shall be returned (all copies) to the Purchaser on completion of the Supplier's performance under the Contract if so required by the Purchaser.
	5.4	The Supplier shall permit the Purchaser to inspect the Supplier's accounts and records relating to the performance of the Supplier.
6. Patent Rights	6.1	The Supplier shall indemnify the Purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the

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		Goods or any part thereof in the country.
7. Performance Security	7.1	Within twenty (20) days of receipt of the notification of Contract award, the successful Bidder shall furnish to the Purchaser the performance security in the amount specified in SCC.
	7.2	The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
	7.3	The performance security shall be denominated in the currency of the Contract acceptable to the Purchaser and shall be in one of the following forms: (a) a Bank Guarantee or an irrevocable letter of credit issued by a reputable bank located in the Purchaser's country on behalf of the Supplier, in the form provided in the bidding documents or another form acceptable to the Purchaser; or (b) a cashier's or certified check.
	7.4	The performance security will be discharged by the Purchaser and returned to the Supplier not later than thirty (30) days following the date of completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in SCC .
8. Submission of Samples		Before commencing supplies, the Supplier shall provide samples free of cost, if and as specified in the Schedule of Requirements of the product to the designated office or staff, as the case may be.
9. Ensuring storage arrangements		To ensure storage arrangements for the intended supplies, the Supplier shall inform the Purchaser at least One (01) week in advance. However, in case no space is available at the Purchaser's premises at the time of supply, the Purchaser shall, at least 02 days prior to such situation, shall inform the Supplier, in writing, of the possible time frame of availability of space by which the supplies can be made. In case the Supplier abides by the given time frame it shall not be penalized for delay.
10. Inspections and Tests	10.1	The Purchaser or its representative shall have the right to inspect and/or to test the goods in accordance with the procedure given in the SCC to confirm their conformity to the Contract specifications at no extra cost to the Purchaser.
	10.2	All costs associated with testing shall be borne by the Supplier.
		The Purchaser's right to inspect, test and, where

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	10.3	necessary, reject the goods after the goods either at Supplier's premises or upon arrival at Purchaser's destinations shall in no way be limited or waived by reason of the goods having previously been inspected, tested, and passed by the Purchaser or its representative prior to the goods delivery from the point of Supply or manufacturing.
	10.4	Nothing in GCC Clause 10 shall in any way release the Supplier from any warranty or other obligations under this Contract.
11. Packing	11.1	The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.
	11.2	The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in SCC , and in any subsequent instructions ordered by the Purchaser.
12. Delivery and Documents	12.1	The Supplier in accordance with the terms and manner specified in the Schedule of Requirements shall make delivery of the goods
	12.2	The Supplier shall furnish all necessary documentation necessary for completion of the delivery, at the time of delivery and in the manner prescribed.
	12.3	The goods supplied under the Contract shall be Delivered Duty Paid (DDP) under which risk is transferred to the buyer after the Goods have been delivered;
13. Insurance		The supplier shall be solely responsible for Insurance of the Goods subject to the contract.
14. Transportation	14.1	The Supplier shall arrange such transportation of the goods as is required to prevent their damage or deterioration during transit to their final destination and in accordance with the terms and manner prescribed in the Schedule of Requirement.
	14.2	All costs associated with the transportation of the goods subject to this contract shall be borne by the

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		Supplier.
15. Incidental Services		The Supplier shall be required to provide the incidental services as specified in the SCC and the cost of which is included in the total bid price.
16. Spare Parts		As specified in SCC, the Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier: (a) such spare parts as the Purchaser may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under the Contract; and (b) in the event of termination of production of the spare parts: (c) advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and (d) following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.
17. Warranty	17.1	All goods subject to this contract shall be accompanied by the necessary warranty in the manner prescribed in the SCC .
	17.2	The Purchaser shall promptly notify the Supplier in writing of any claims arising under this warranty.
18. Payment	18.1	The purchaser shall make payments to the Supplier in accordance with the conditions set forth in the Payment Schedule agreed in SCC and annexed to this contract.
	18.2	The currency of payment shall be Pakistan Rupee.
19. Prices		Prices charged by the Supplier for goods delivered under the Contract shall not vary from the prices quoted by the Supplier in its bid and shall remain the same till the expiry of the contract unless the Parties to this contract mutually agree to vary the prices.
20. Change Orders	20.1	The Purchaser may at any time, by a written order given to the Supplier pursuant to GCC Clause 33 for notices, make changes within the general scope of the Contract in any one or more of the following: (a) drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser; (b) the method of shipment or packing; (c) the place of delivery; and/or (d) The Services to be provided by the Supplier.

	20.2	If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within thirty (30) days from the date of the Supplier's receipt of the Purchaser's change order.
21. Contract Amendments		No variation in or modification of the terms of the Contract shall be made except by written amendment signed by the Parties.
22. Assignment		The Supplier shall not assign, in whole or in part, its obligations to perform under this Contract, except with the Purchaser's prior written consent.
23. Subcontracts		The Supplier shall not be allowed to sublet and award subcontracts under this Contract.
24. Delays in the Supplier's Performance	24.1	Delivery of the goods shall be made by the Supplier in accordance with the time schedule/supply schedule prescribed by the Purchaser in the Schedule of Requirements.
	24.2	If at any time during performance of the Contract, the Supplier encounters conditions impeding timely delivery of the goods, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier's time for performance, with or without liquidated damages, in which case the extension shall be ratified by the Parties by an Amendment to the Contract.
25. Liquidated Damages & Penalties	24.3	Except as provided under GCC Clause 24, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of liquidated damages as prescribed in the SCC , unless the parties to this contract mutually agree for extension of time. Subject to GCC Clause 25, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or

		performance, up to a maximum deduction of the percentage specified in SCC. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC Clause 26. Applicable rate for penalties in case of a breach of contract by the supplier regarding delivery of Goods is specified in the Supply Schedule.
26. Termination for Default		The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate this Contract as mentioned in the SCC in whole or in part: (a) if the Supplier fails to deliver any or all installments of the goods within the period(s) specified in the Supply Schedule in Part-II: Section-III of the Standard Bidding Documents within the period specified in and subsequent purchase order, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 24; or (b) if the Supplier fails to perform any other Obligation under the Contract. (c) if the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in Competing for or in executing the Contract. For the purpose of this clause Corrupt and fraudulent practices means: <i>the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official or the supplier or contractor in the procurement process or in contract execution to the detriment of the Procuring agencies; or misrepresentation of facts in order to influence a procurement process or the execution of a contract, collusive practices among bidders (prior to or after bid submission) designed to establish bid prices at artificial, non-competitive levels and to deprive the Procuring agencies of the benefits of free and open competition and any request for, or solicitation of anything of value by any public official in the course of the exercise of his duty."</i>
27. Force Majeure	27.1	Notwithstanding the provisions of GCC Clauses 24, 25 & 26, the Supplier shall not be liable for forfeiture of its Performance Guaranty, or termination/ blacklisting for default if and to the extent that it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure. For the purposes of this clause Force Majeure

		means an act of God or an event beyond the control of the Supplier and not involving the Supplier's fault or negligence directly or indirectly purporting to mis-planning, mismanagement and/or lack of foresight to handle the situation. Such events may include but are not restricted to acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, earthquakes, strikes, epidemics, quarantine restrictions and freight embargoes.
	27.2	If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing with sufficient and valid evidence of such condition and the cause thereof. The Purchaser shall examine the merits of the case and all reasonable alternative means for completion of purchase order under the Contract and inform the Supplier of its findings promptly.
	27.3	Unless Purchaser informs the Supplier in writing of its agreement on the application of force majeure, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical and shall seek reasonable alternative means for performance not prevented by the Force Majeure event.
28. Termination for Insolvency		The Purchaser may at any time terminate the Contract by giving written notice of one month time to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination shall be without compensation to the Supplier, provided that such termination shall not prejudice or affect any right of action or remedy which has accrued or shall accrue thereafter to the Parties.
29. Termination for Convenience	29.1	The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.
	29.2	The Goods that are complete and ready for shipment within thirty (30) days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect: (a) to have any portion completed and delivered at the Contract terms and prices; and/or

(b) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Services and for materials and parts previously procured by the Supplier.

30. Arbitration and Resolution of Disputes	30.1	The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
	30.2	If, after thirty (30) days from the commencement of such informal negotiations, the Purchaser and the Supplier have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred to the Arbitrator for resolution through arbitration.
	30.3	In case of any dispute concerning the interpretation and/or application of this Contract shall be settled through arbitration under the Arbitration Act of 1940 (As amended from time to time) in a court of relevant Jurisdiction as mentioned in the SCC .
31. Governing Language		The Contract shall be written in English language. Subject to GCC Clause 32, the version of the Contract written in the specified language shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the Parties, shall be written in English.
32. Applicable Law		This Contract shall be governed by the Laws of Pakistan and the courts of Pakistan shall have exclusive jurisdiction.
33. Notices	33.1	Any Notice given by one party to the other pursuant to this Contract shall be sent to the other party in writing and on the others address specified in SCC .
	33.2	A notice shall be effective when delivered or on the notice's effective date, whichever is later.
34. Taxes & Duties		All taxation, whether International, Federal, Provincial or Local, shall be borne by the Supplier.

Special Conditions of Contract

The following Special Conditions of Contract shall supplement the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the GCC is indicated in parentheses.

1. Definitions (GCC Clause 1)

GCC 1.1 (c)—**The Goods are: as mentioned in the advertisement.**

GCC 1.1 (g)—The Purchaser is: **AYUB Teaching Hospital, Abbottabad**

GCC 1.1 (h)—The Supplier is: _____

2. Country of Origin (GCC Clause 3)

All countries and territories as indicated in **Part Two: Section V** of the Standard Bidding Documents, —Eligibility for the Provisions of Goods, Works, and Services. II

3. Standards (GCC Clause 4)

GCC 4.1 — the quoted product, at the time of delivery, shall conform to the standards as prescribed in the Technical Evaluation Criteria. The said conformance shall lead to subsequent issuance of the Acceptance Certificate to the Supplier by the Purchaser.

4. Performance Security (GCC Clause 7)

GCC 7.1 — The amount of performance security, as a percentage of the Contract Price, shall be: **Ten (10) percent of the Contract Price**

[The following provision shall be used in the case of Goods having warranty obligations.]

GCC 7.4 — After delivery and acceptance of the Goods, the Performance Security shall be returned after successful completion of the contract in accordance with Warranty Clause GCC 17.1.

5. Inspections and Tests (GCC Clause 10)

GCC 10.3— after delivery of store the inspection will be carried out by the Inspection Committee of Ayub Teaching Hospital Abbottabad before the payment.

Inspections & tests may include re-verification of any quality or manufacturing aspect from vendor or manufacturer by the Purchaser in the form of either a test run or production of an industrial process certificate or a Performance Certificate from the previous clients if the Purchaser feels that sufficient time has elapsed between the manufacturer's pre-qualification/preliminary assessment and bid evaluation.

6. Packing (GCC Clause 11)

Applicable as required by the Purchaser.

7. Delivery and Documents (GCC Clause 12)

GCC Clause 12.1—Delivery/Supply Period of the intended goods shall be **90 Days** for Imported Goods and **30 Days** for Local Goods

GCC 12.2—*In case of Import or as required otherwise, upon shipment*, the Supplier shall notify the Purchaser the full details of the shipment, including Contract number, description of Goods, quantity and usual transport document. The Supplier shall mail the following documents to the Purchaser:

- (i) Copies of the Supplier's invoice showing Goods' description, quantity, unit price, and total amount;
- (ii) original and two copies of the usual transport document (for example, a negotiable bill of lading, a non-negotiable sea waybill, an inland waterway document, an air waybill, a railway consignment note, a road consignment note, or a multimodal transport document) which the buyer may require to take the goods;
- (iii) Copies of the packing list identifying contents of each package;
- (iv) Insurance certificate;
- (v) Manufacturer's or Supplier's warranty certificate;
- (vi) Inspection certificate, issued by the nominated inspection agency, and the Supplier's factory inspection report; and
- (vii) Certificate of origin.

GCC 12.2— *Applicable Delivery Mode:***Delivered Duty Paid (DDP) of Inco terms 2011**

8. Insurance (GCC Clause 13)

GCC 13.1— The Goods supplied under the Contract shall be **Delivered Duty Paid(DDP)** under which all the risk is transferred to the buyer / concerned Health Institution only after the intended goods have been delivered to their desired destination. Hence insurance coverage is seller's responsibility for arranging appropriate coverage.

9. Spare Parts (GCC Clause 16)

After sale service with spare parts shall be 5 years, where applicable.

- (a) If cost is up to Rs. 2-3 million, **1%** of the approved cost per year will be given to the firm.
- (b) If cost is above Rs. 3 millions, **0.5%** of approved cost per year will be given to the firm.

Note: The conditions (a) & (b) will be subject to mutual agreement.

10. Warranty (GCC Clause 17)

GCC 17.2—**Warranty period FIVE (05) years.** The Supplier shall, in addition, comply with the guarantees associated with the performance and/or conformance specifications specified under the Contract. If, for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall, at its discretion, either:

Ayub Teaching Hospital

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- (a) make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance / conformance tests in accordance with GCC Clause 10,

or

- (b) pay liquidated damages to the Purchaser with respect to the failure to meet the contractual guarantees. The rate of these liquidated damages shall be 0.05% per day or 0.5% per week up to a maximum of 10% of the total Contract price.

11. Payment (GCC Clause 18)

GCC 18.1—The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:

Payment for Goods supplied:

Payment shall be made in **Pak. Rupees** through **crossed cheques** in the following manner:

- (iii) **On Delivery & goods 100% Payment will be made after installation by the Inspection Committee. However part supply part payment within stipulated period is allowed.**
- (iv)

In case of an import, payment of local currency portion shall be made in Pak Rupees within **thirty (30) days of presentation of claim** supported by a **Certificate from the Purchaser** declaring that the Goods have been delivered and accepted and that all other contracted Services have been performed.

12. Liquidated Damages & Penalties (GCC Clause 25)

GCC 25.1—Applicable rate: **0.5% per week or 0.05% per day of the total Contract price**

Maximum deduction: **≤ 10% of the total contract amount.**

13. Termination of Contract (GCC Clause 26):

GCC 26.1 —After exhausting all the delivery period as provided in the Supply Schedule in Part-II: Section-III of the Standard Bidding Documents and still failing to supply the intended goods, the Purchaser may terminate the Contract for default of the supplier, and procure the non-supplied goods at supplier's risk and cost from the open market, and shall enforce Supplier's Performance security.

14. Disputes Resolution (GCC Clause 31)

GCC 31.3—The dispute resolution mechanism to be applied pursuant to GCC Clause 31.2 shall be as follows:

In the case of a dispute between the Purchaser and the Supplier, the dispute shall be referred to adjudication or arbitration in accordance with **The Arbitration Act 1940**. The jurisdiction of Court shall be of **Peshawar, Khyber Pakhtun Khwa**.

15. Governing Language (GCC Clause 31)

GCC 31.1—The Governing Language shall be: **English**

16. Applicable Law (GCC Clause 32)

GCC 32.1-The Contract shall be interpreted in accordance with the laws of Islamic Republic of Pakistan which includes the following legislation:

Khyber Pakhtunkhwa Public Procurement Rules 2014

NWFP Procurement of Goods, Works & Consulting Services Ordinance

2002 NWFP Procurement of Goods, Works & Services Rules 2003

The Drug Act 1976

The Arbitration Act 1940

The Contract Act 1876

The Employment of Children (ECA) Act 1991

The Bonded Labour System (Abolition) Act of 1992

The Factories Act 1934

16. Notices (GCC Clause 33)

GCC 33.1—Purchaser's address for notice purposes:

AYUB TEACHING HOSPITAL ABBOTTABAD

Telephone(s): 0992-9311159

Website: <http://www.ath.gov.pk>

Supplier's address for notice purposes: Hospital Director, Ayub Teaching Hospital, Mansehra Road, Mandian, Abbottabad.

17. Duties & Taxes (GCC clause 34)

The Unit price quoted by the bidder shall be: **inclusive** of all duties and taxes.

APPROVED TECHNICAL EVALUATION CRITERIA

**TECHNICAL EVALUATION CRITERIA FOR ELECTRO MEDICAL EQUIPMENTS
PROCUREMENT PROCEDURE: SINGLE STAGE TWO ENVELOPES
FY 2026-27**

S #	Description of Knock Out Clauses (Mandatory Requirements)	Remarks
1.	<i>Proof of Registration with NTN / Valid Income Tax Registration/ Valid Sales Tax Registration and reflected on Active Taxpayer List (ATL) of FBR.</i>	Mandatory
2.	<i>03 years banks statement and audit report must attach.</i>	Mandatory
3.	<i>Certificate that CDR is attached with the Financial Bid (CDR Copy) and Uploading Bid Security (in original) on EPADS Portal with financial bid.</i>	Mandatory
4.	<i>Manufacturer or their embassy attested Sole Authorized Dealership for whole Pakistan territory. (Project base authorization is not allowed)</i>	Mandatory
5.	<i>The bidder must have minimum (10) Ten years relevant experience in the relevant field of business. (Documented Proof)</i>	Mandatory
6.	<i>The firm must have good performance certificate for the quoted product of 05 MTIs in KPK or any teaching hospital/research level/ armed forces hospital of the Pakistan.</i>	Mandatory
7.	<i>Product Certifications: US-FDA (510K) (Mandatory) Must have one of the following certificates. CE-MDR /EC or MHLW</i>	Mandatory
8.	<i>Comprehensive warranty of the equipment with all parts and services will be 05 years.</i>	Mandatory
9.	<i>A Certificate from the Original Manufacturer's head Office only (verifiable) indicates that in case of change of Authorize Dealer, the manufacturer will be responsible to execute the standard as well as post warranty obligations directly or through newly appointed Authorize Dealer.</i>	Mandatory
10.	<i>This undertaking should be tender specific. Submission of undertaking on legal valid and attested stamp paper that the firm is NOT BLACKLISTED by any of Government Department, Agency, Organization or autonomous body anywhere in Pakistan.</i>	Mandatory
11.	<i>The bidder has NOT been defaulter / insolvent nor bankrupt in past from any government department or financial institution.</i>	Mandatory
12.	<i>If the firm is already working in Ayub teaching hospital, the good performance of the installed equipment and backup support certificate of the firm must attached. The certificate must be latest and duly signed by the hospital Authority. In case these certificates are not attached the firm will consider as disqualified.</i>	Mandatory
13.	<i>Joint Venture or sub-distribution (Not Allowed)</i>	Mandatory




S #	INDICATORS	Marks Allocation
CONFORMANCE TO THE ATH ADVERTISED SPECIFICATIONS		
1	Conformance to the ATH advertised specifications. <i>The bidder shall prepare the bid specifications in an annotated for ease of comparison & evaluation. The specifications will also be supported with a reference picture/design of the product (where required).</i> Maximum 02 deviations (not affecting the performance of the product) shall be accepted. For each deviation two (02) marks shall be deducted less than 26 marks shall be treated as non-responsive.	30
2	Additional Features of the quoted equipment (02) marks will be given against each feature (max 10 marks)	10
PRODUCT PERFORMANCE (RELEVANT EXPERIENCE)		
3	The firm will provide latest (Current Year) 05 performance of the quoted equipment installed in the teaching / research level institutes (02 marks per performance) (Certificates older than 03 years will not be entertain)	10
4	In case country of manufacturer and Manufacturing of the quoted equipment is same the firm will get 10 marks Rest will get (05 marks)	10
5	In case of Manufacturing facility / Country of Shipment (Import) is USA, Europe or Japan of the quoted equipment will get 10 marks Rest will get (03 marks)	10
6	List of consumable items (for which the firm will not provide warranty) of the quoted items. The firm will provide the rates of the consumable items in technical bid. The lowest will get 10 marks. Rest will get 05 Marks. If the firm don't provide the cost of the consumable will be get zero marks.	10
HR CAPABILITIES/TOOLS		
7	Foreign Trained Engineer (PEC Registered) on the same modality (05 marks) (01 mark for one trained Engineer) <i>Training certificate and passport shall be inspected during the evaluation.</i> <i>No online training shall be considered. Short CV and Original Signature of HR showing complete name and designation.</i>	05
FINANCIAL CAPABILITIES (PKR)		
9	Annual turnover for the last three years in Above 01 Billion (PKR) (5 marks) 500 million to 01 Billion (PKR) (2 marks)	05

ADDITIONAL WARRANTY		
10	a. 01 year beyond mandatory warranty with parts will get 01 Marks b. 02 year beyond mandatory warranty with parts will get 03 Marks c. 03 year beyond mandatory warranty with parts will get 05 Marks d. Firm offer No additional warranty will get ZERO marks.	05
POST WARRANTY MAINTENANCE CONTRACT		
11	Post Warranty in % age (with parts), (after comprehensive warranty) (Lowest bidder will get full 05 marks) (2 nd lowest will get 03 marks) (Rest will get 01 marks)	05
Total Marks		100

- Minimum Score for Qualification is 80 out of 100.
- The firm with lowest price will be recommended for the award letter.


Sajjad Alam
 DD(EM)
 Co-Opted Member


Sardar Pervaiz
 Litigation Officer
 Member


Altaf Ur Rehman
 Finance Director
 Member


Wg Cdr (Retd) Asghar Khan
 Senior Manager Material Management
 Chairman

Notes for Preparing the Schedule of Requirements

The Schedule of Requirements shall be included in the bidding documents by the Govt-MCC/Purchaser, and shall cover, at a minimum, a description of the goods and services to be supplied and the delivery schedule.

The objective of the Schedule of Requirements is to provide sufficient information to enable bidders to prepare their bids efficiently and accurately, in particular, the Price Schedule, for which a Rate Form is provided in Part-II: Section-III. In addition, the Schedule of Requirements, together with the Bid Form-V: Price Schedule (which shall be submitted to the Procuring Entity by the selected Bidder), should serve as a basis in the event of quantity variation at the time of supply/delivery of contract pursuant to ITB Clause 37.

The date or period for delivery should be carefully specified, taking the date prescribed herein from which the Purchaser's delivery obligations start (i.e., notice of award, contract signature, opening or confirmation of the letter of credit etc.).

The supplies shall be delivered in accordance with the subsequent Purchase Orders to be issued by the Health Department (provincial enteritis, vertical programs and concerned districts) as per following schedule of requirements:-

Schedule of Requirements

The supplies and related services shall be delivered in accordance with the subsequent Purchase Order(s), being an integral part of Contract, to be issued by the Directorate General Health services to the successful bidders along with Contract as per following schedule of requirements: -

Supply Schedule:

B) For Local Goods:

² The validity of Purchase Order will start from its next date of issuance to the concerned Supplier.

Mode of Penalty	100% Quantity as per Purchase Order	Total delivery Period
Without penalty	30 days	30 days
With penalty @ 0.067 % per day after 30 days of Purchase Order	10 days	40 days

*Failure to deliver the goods after 40 days will lead to termination of contract for default and enforcement of Performance Security of the Supplier.

Note: *The total delivery period include opening of Letter of Credit (if any), transportation from manufacturer's destination to the Purchaser's CountryPort, custom clearance and inland transportation from Purchaser's Port to the end destination (districts). Installation, commissioning, test-run, relevant staff training and initial maintenance are NOT included in the delivery period. However, payment to the supplier will be subject to satisfactory report by the Inspection Team.*

Technical Specifications and Ancillary Services

a). Product Specifications:

Available on ATH Abbottabad website as a separate detailed Annexure at:

<http://www.ath.gov.pk>

and **E-PADS**

b). Liquidated Damages / Penalty

- i) Wherein the Supplier entirely fails to complete deliveries as per purchase order and within the stipulated time frame specified in the Schedule of Requirements, the Contract to the extent of non-delivered portion of supplies shall stand cancelled.
- ii) After the cancellation of the Contract no supplies shall be accepted and the amount of Performance Guaranty/ Security to the extent of non-delivered portion of supplies shall be forfeited.
- iii) If the Supplier fails to supply the whole consignment and not able to deliver to any destination, the entire amount of Performance Guaranty/ Security shall be forfeited to the Government account and the firm shall be blacklisted minimum for two years for future participation.
- iv) The exact time frame for making supplies with and without penalty shall be indicated in subsequent purchase orders.
- v) In case of late delivery of goods beyond the periods specified in the Schedule of Requirements and subsequent purchase order, a penalty @0.067% per day of the cost of late delivered supply shall be imposed upon the Supplier.
- vi) Extension in the delivery period (if any) will be considered by the Purchaser on case to case basis and strictly in accordance with Rule 35(2) of KPRA rules 2014.

c). Incidental Services

The bidders are required to either incorporate or quote separately the costs of following incidental services being part of the contract.

- i) **Transportation:** Equipment and supplies will be delivered up to the place of installation / final destination by the bidder at his cost and mode of transportation including loading / unloading.
- ii) **Insurance:** All insurance charges will be borne by the supplier.

- iii) **Custom Clearance:** Equipment and supplies will be cleared (from airport/seaport) customs department by the supplier and

charges/duty/taxes if any will be paid by the supplier.

- iv) **Installation:** Supplier will install the equipment at the designated place of work, free of charge, give test-run and if required, will impart on job training.
- v) **Test-Run / Commissioning:** Equipment will be subjected to test- run after commissioning.
- vi) **Staff Training:** Where required, on job training to be provided to working staff on the equipment to be supplied / installed.
- vii) **Initial Maintenance:** Supplier will be responsible for initial maintenance of the equipment (repair and parts), for FIVE complete years starting from the date of installation/test-run.
- viii) **Availability of Spare Parts and Consumables:** Supplier will guaranty through reliable means, acceptable to Purchaser, prompt and easy availability of spare parts & consumables for the period of TEN years (apart from initial FIVE years as in clause **vii** above), on reasonable rates.
- ix) **After Sales Service:** Supplier will provide free after sales service from trained and qualified technical staff, free of charge for EIGHT complete years (including FIVE years with parts as mentioned above in clause **vii**), after the date of installation / test-run.

d) **Warranty**

The supplier / original manufacturer will provide comprehensive warranty (on Judicial Paper) of free after sales service, maintenance, replacement of parts, and working of the equipment for **FIVE years** from the date of installation/test-run. Post warranty maintenance contract for another **five years**, including after sales service with parts, rates (companies to offer percentage (%) of the contract value in the technical bid as mentioned in clause A & B of the evaluation sheet of the bidding document. Warranty and post warranty maintenance contract rate shall be acknowledged from the original manufacturer regardless of change of local authorized dealer.

d) **Additional instructions**

- i. Please clearly indicate the country of origin, wholly or parts, etc.
- ii. Indicate place/port of shipment.
- iii. Any state licensing or permission of export/sales/use requirements will be the responsibility of the supplier/manufacturer. Department of Health will not be responsible for any refusal, penalty or delay in this regard.
- iv. Complete literature on working, installation, circuiting, maintenance to be provided in English language, with the equipment.
- v. Comprehensive training of working of the equipment and normal /minor repair, trouble-shooting will be arranged by the supplier/ manufacturer, for at least two working staff, (doctor/technician) at the manufacturer's location, prior to shipment / installation (for complex and high-tech equipment).

Price Schedule submitted by the Bidder.

(The approved price schedule submitted by the Bidder will be attached)

Purchaser's Notification of Award

(Copy of the final letter will be attached)

Ayub Teaching Hospital

SUPPLY / PURCHASE ORDER.

(Specimen Sample of Health Institution/Project Purchase Order)

OFFICE OF THE HOSPITAL DIRECTOR
AYUB TEACHING HOSPITAL,
ABBOTTABAD



1	Purchase Order No	
	Date	
2	Firm Name	
3	Firm's Address	
4	Firm Contact No	
5	Conditions of the Contract:	As already communicated in the Standard Bidding Document
6	Particulars of Stores:	As per detail given below

Item No.	Item Name	Approved Specifications	Unit Price in PKR (As per contract)	Quantity	Total Cost (PKR) <u>(Inclusive of all duties & taxes)</u>

Additional instructions (if any):

- 1.
- 2.
- 3.

Hospital Director
AYUB Teaching Hospital
Abbottabad

Payment Schedule

(Payment to the Suppliers will be made against satisfactory performance and upon submission of required documents along with report of inspection committee formulated for the purpose. However, if there is any alternate payment schedule, agreed by the Purchaser and Supplier, will be annexed here)

BID COVER SHEET

Bid Ref. No. -----

Date-----

Name of the Supplier/Firm Contractor: -----

Address:-----

E-mail: _____

Phone: _____

Facsimile: _____

Bid Security.

Bid Security attached with Financial Bid YES NO

Bid for:

† All Items mentioned in the Schedule of Requirements.

† Selected Items from the Schedule of Requirements.

List of Selected Items: *(In case the Bidder has opted to bid for Selected Items, pleasetype the Serial No⁴. and the name of the Items selected for Bidding. Use additional Sheets if Required)*

S. No.	Name of the Item

Signed:

Dated:

Official Stamp:

Attachment: † Original receipt for the purchase of the bidding documents.

In case a bidder is bidding for only some of the items mentioned in the list Technical Specifications, he is advised to take note of ITB Clauses 7 & 15.6

³ The Serial No. of the item as mentioned in the Technical Specifications.

⁴ The Attachment must be made with the Bid Cover Sheet.

†

BID FORM 1

Letter of Intention

Bid Ref No.

Date of the Opening of Bids

Name of the Contract :{ Add name e.g items etc)

To: *[Name **and address of Procuring Agency]***

Dear Sir/Madam,

Having examined the bidding documents, including Addenda Nos.*[insert **numbers & Date of individual Addendum]***, the receipt of which is hereby acknowledged, we, the undersigned, offer to supply and deliver the Goods under the above-named Contract in full conformity with the said bidding documents and at the rates/unit prices described in the price schedule or such other sums as may be determined in accordance with the terms and conditions of the Contract. The above amounts are in accordance with the Price Schedules attached herewith and are made part of this bid.

We undertake, if our bid is accepted, to deliver the Goods in accordance with the delivery schedule specified in the schedule of requirements.

If our bid is accepted, we undertake to provide a performance security/guaranty in the form, in the amounts, and within the times specified in the bidding documents.

We agree to abide by this bid, for the Bid Validity Period specified in the Bid Data Sheet and it shall remain binding upon us and may be accepted by you at any time before the expiration of that period.

Until the formal final Contract is prepared and executed between us, this bid, together with your written acceptance of the bid and your notification of award, shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any bid you may receive.

We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in Pakistan.

We confirm that we comply with the eligibility requirements as per ITB clauses 18 &19 of the bidding documents.

Dated this*[insert: number]* day of *[insert: month]*, *[insert: year]*.

Signed:

In the capacity of *[insert: **title or position]***

Duly authorized to sign this bid for and on behalf of *[insert: **name of Bidder]***

BID FORM 2

AFFIDAVIT

I/We, the undersigned solemnly state that:

- We have read the contents of the Bidding Document and have fully understood it.
- The Bid being submitted by the undersigned complies with the requirements enunciated in the bidding documents.
- The Goods that we propose to supply under this contract are eligible goods within the meaning of Clause 18 of the ITB.
- The undersigned are also eligible Bidders within the meaning of Clause 19 of the ITB of the Standard Bidding Documents.
- The undersigned are solvent and competent to undertake the subject contract under the Laws of Pakistan.
- The undersigned have not paid nor have agreed to pay, any Commissions or Gratuities to any official or agent related to this bid or award or contract.
- The undersigned are not blacklisted or facing debarment from any Government, or its organization or project.
- The undersigned has no dispute anywhere in the province regarding supplies.
- The undersigned agree to give warranty with repair and parts for 05 year, the firm will be bound to do so in the larger public interest in order to give maximum benefit to the masses by making the equipment/instruments operational for a maximum period of time).

We affirm that the contents of this affidavit are correct to the best of our knowledge and belief.

Signed

Note: The affidavit must be on judicial stamp paper by the Executive of the Firm attested by Oath Commissioner.

BID FORM 3(B)

MANUFACTURER'S AUTHORISATION¹¹

To:

The Hospital Director,

AYUB Teaching Hospital, Abbottabad

WHEREAS *[name of the Manufacturer]* who are established, reputable & Pre-Qualified Manufacturers of *[name and/or description of the goods]* having factories at *[address of factory]* do hereby authorize *[name and address of Supplier/ Agent]* to submit a bid, and subsequently negotiate and sign the Contract with you against the Invitation for Bids (IFB) No. *[Reference of the Invitation to Bid]* for the goods manufactured by us.

We hereby extend our full guarantee and warranty as per Clause 15 of the General Conditions of Contract for the goods offered for supply by the above firm against this Invitation for Bids.

Signature:-----.

Designation:-----

Official Stamp:-----

⁹ This letter of authority should be on the letterhead of the Manufacturer and should be signed by a person competent and having the power of attorney to bind the Manufacturer. It should be included by the Bidder in its bid.

BID FORM 4

Firm's Past Performance¹².

Name of the Firm:

Bid Reference No:

Date of opening of Bid:

Assessment Period: (As per Technical Evaluation Criteria)

Name of the Purchaser/Institution	Purchase Order No.	Description Of Order	Value of Order	Date of Completion	Purchaser's ¹³ Certificate

¹⁰ Bidders may use additional Sheets if required.

¹¹ All certificates are to be attached with this form.

Ayub Teaching Hospital

BID FORM 5

Price Schedule

(To be provided to the Procuring Entity)

User Note: This form is to be filled by the Bidder and shall submit with Financial Bid to the Office of the Hospital Director AYUB Teaching Hospital, Abbottabad.

Name of the Firm:

Bid.Ref.No:

Date of opening of Bid.

S. No.	Name of the Item	Unit Price (Inclusive all applicable taxes)	No. of Units	Total Price	Discounts (if any)	Final Total Price (Inclusive of all taxes)
1	2	3	4	5	6	7
				3*4		5-6
1						
2						
	TOTAL					

Signature: -----

Designation: -----

Date: -----

Official Stamp: -----

-

BID FORM 6

Performance Bank Guarantee

To: *[Name & Address of the Procuring Agency]*

Whereas *[Name of Supplier]* (hereinafter called —the Supplier) has undertaken, in pursuance of Contract No. *[number]* dated *[date]* to supply *[description of goods]* (hereinafter called —the Contract).

And whereas it has been stipulated by you in the said Contract that the Supplier shall furnish you with a Bank Guarantee by a scheduled bank for the sum of 10% of the total Contract amount as a Security for compliance with the Supplier's performance obligations in accordance with the Contract.

And whereas we have agreed to give the Supplier a Guarantee:

Therefore we hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of *[Amount of the Guarantee in Words and Figures]* and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the Contract and without cavil or argument, any sum or sums within the limits of *[Amount of Guarantee]* as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the _____ day of _____, 2014

Signature and Seal of the Guarantors/ Bank

Address

Date

CONTRACT AGREEMENT

THIS CONTRACT is made at on day of 20__, between The Hospital Director AYUB Teaching Hospital, Abbottabad, (hereinafter referred to as the —PurchaserII) of the First Part; and M/s (*firm name*) a firm registered under the laws of Pakistan and having its registered office at (*address of the firm*) (hereinafter called the —SupplierII) of the Second Part (hereinafter referred to individually as —PartyII and collectively as the —PartiesII).

WHEREAS the Purchaser invited bids for procurement of goods, in pursuance whereof M/s (*firm name*) being the Manufacturer/ authorized Agent of (item name) in Pakistan and ancillary services offered to supply the required item (s); and Whereas, the Purchaser has accepted the bid by the Supplier;
NOW THE PARTIES TO THIS CONTRACT AGREE TO THE FOLLOWING;

3. **The Contract:** The following documents shall be deemed to form and be read and construed as integral part of this Contract , viz:-
 - a. Bid Data Sheet (**BDS**)
 - b. Instructions to Bidders (**ITB**).
 - c. General Conditions of Contract (**GCC**)
 - d. Special Conditions of Contract (**SCC**)
 - e. Schedule of Requirements.
 - i) Supply Schedule
 - f. Technical Specifications.
 - g. Price Schedule submitted by the Bidder.
 - h. Purchaser's Notification of Award.
 - i. Purchase Order.
 - j. Performance Security
 - k. List of Bio-Medical Equipment & Hospital supplies
2. **Interpretation:** In this Contract words and expressions shall have the same meanings as are respectively assigned to them in the General Conditions of this Contract hereinafter referred to as —ContractII:
3. **Term of the Contract:** This contract shall remain valid for/ *Duration* /from the date of signing, unless amended by mutual consent.
4. The Supplier declares as under:
 - i. *[Name of the Supplier]* hereby declares that it has not obtained or induced the procurement of any Contract, right, interest, privilege or other obligation or benefit from the Government of Khyber Pakhtunkhwa or any administrative subdivision or agency thereof or any other entity owned or by it (Government of Khyber Pakhtunkhwa) through any corrupt business practice.
 - ii. Without limiting the generality of the foregoing, [the Seller/ Supplier] represents and warrants that it has fully declared the brokerage, commission, fees etc., paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or

juridical person, including its affiliate, agent, associate, broker,

consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or including the procurement of a Contract, right interest, privilege or other obligation or benefit in whatsoever form from Government of Khyber Pakhtunkhwa, except that which has been expressly declared pursuant hereto.

- iii. *[The Supplier]* certifies that has made and shall make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with Government of Khyber Pakhtunkhwa and has not taken any action or shall not take any action to circumvent the above declaration, representation or warranty.
- iv. *[The Supplier]* accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any Contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to Procuring Agency under any law, Contract or other instrument, be voidable at the option of Procuring Agency.
- v. Notwithstanding any rights and remedies exercised by Procuring Agency in this regard, *[The Supplier]* agrees to indemnify Procuring Agency for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to Procuring Agency in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by *[The Supplier]* as aforesaid for the purpose of obtaining or inducing the procurement of any Contract, right, interest, privilege or other obligation or benefit in whatsoever form from Procuring Agency.
- vi. In case of any dispute concerning the interpretation and/or application of this Contract shall be settled through arbitration under the Arbitration Act of 1940 (As amended from time to time).

5. Items to be Supplied & Agreed Unit Cost: (i) The Supplier shall provide to the Purchaser the items on the agreed cost more specifically described in the Price Schedule Submitted by the Bidder (Annex C).

(ii) Each Item supplied shall strictly conform to the Schedule of Requirements (Annex A) and to the Technical Specifications (Annex B) prescribed by the Purchaser against each item

(iii) The Unit Cost agreed in the Price Schedule (Annex C), is inclusive of all taxation and costs associated with transportation and other agreed incidental costs.

7. Payments: The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services, as specified in the

Schedule of Requirements and Technical Specifications in accordance with the Price Schedule submitted by the Supplier, the amount against the delivered items or such other sum as may become payable under the provisions of this Contract at the time and in the manner prescribed by this Contract.

8. **Mode of Payment:** All payments to the Supplier shall be made through Crossed Cheques issued in the name of [supplier's name]
9. **Payment Schedule:** All payments to the Supplier shall be made in accordance with the SCC & agreed Payment Schedule at Annex: F of Part-II: Section-III of the Standard Bidding Documents, upon satisfactory completion of delivery and fulfillment of documentary and Codal formalities highlighted in the Payment Schedule.
10. **Performance Guarantee:**
 - (i) The Supplier, within 07 days upon the receipt of Purchase Order and upon signing the Unit Rate Contract (selected items as mentioned in the Contract in annexure) shall provide to the Purchaser a Performance Security equivalent to 10% of the total Contract amount on the prescribed format (Bank Guarantee) and in prescribed manner. This Performance Guarantee shall be released to the Supplier upon successful completion of the Contract.
 - ii) Supplier's Bid Security already submitted with the Bid shall only be released upon satisfactory submission of a Performance Guarantee in accordance with sub-clause (i) above.
 - iii) Failure to submit a Performance Guarantee shall result into forfeiture of Bid Security and Cancellation of Contract.
11. **Penalties/ Liquidated Damages.**
 - i) Wherein the Supplier fails to make deliveries as per purchase order and within the stipulated time frame specified in the Schedule of Requirement, the Contract to the extent of delivered portion of supplies shall stand cancelled.
 - ii) After the cancellation of the Contract no supplies shall be accepted and the amount of Performance Guaranty/Security to the extent of un-delivered portion of supplies shall be forfeited.
 - iii) If the Supplier fails to supply the whole consignment and not able to deliver to any district, the entire amount of Performance Guaranty/ Security shall be forfeited to the Government account and the firm shall be debarred minimum for two years for future participation.
 - iv) The exact time frame for making supplies with and without penalty shall be indicated in subsequent purchase orders.
- v) In case of late delivery of goods beyond the periods specified in the Schedule of Requirements and subsequent purchase order, a penalty @0.067% per day of the cost of late delivered supply shall be imposed upon the Supplier.
- VI) The raw material source and grade be clearly shown and accordingly the same be used in all supplies; if found changed anywhere in supply of the

same product, the firm/supplier will be liable for black-listing for all its products and forfeiting all its call deposits and performance guarantees

- VII) The rate offered should be less than/equal to any where quoted in same financial year. If any where quoted less, the firm/supplier will be liable for black-listing for all its products and forfeiting all its call deposits and performance guarantees

- VIII) The health department buying units and the manufacturers / suppliers are bound to make sure the receipt of copy of Supply Order to the Health Directorate General Peshawar for consolidation of total supplies along with amount in PKR issued.

Those who did not fulfill the above criteria's are liable to be proceeded against and be black listed

- 12. Notices:** All notices and correspondences incidental to this contract shall be in English language and shall be addressed to:

For the Purchaser:

Office of the Hospital Director AYUB Teaching, Abbottabad

Mansehra, Road, Abbottabad
Tel: 0992-920155
Fax: 0992-920154
Email: info@ath.gov.pk

Ayub Teaching Hospital

IN WITNESS Whereof the Parties hereto have caused this Contract to be executed at _____ (the place) and shall enter into force on the day, month and year first above mentioned.

Signed/ Sealed: For the Purchaser.

Signature: _____

Name: _____

Designation: _____

**Signed/ Sealed: For the
Manufacturer/ Authorized
Agent.**

Signature: _____

Name: _____

Designation: _____

THE LIST OF REQUIRED ITEMS WITH
QUANTITY IS ATTACHED HEREWITH
AS PART OF TENDER DOCUMENTS

LIST OF TENDER ITEMS.

i. **Electro Medical Equipment,**

along with Specifications (2026-27)

ATTACHED AS PER

Technical Specifications is also available on the
website of Ayub Teaching Hospital Abbottabad at:
www.ath.gov.pk and E-PADS

**MEDICAL TEACHING INSTITUTION
AYUB TEACHING HOSPITAL, ABBOTTABAD
Department of Cardiac Surgery**

No: 2761

Date: 31.07.2026

Deputy Director Electro Medical
Ayub Teaching Hospital
AMTI, Abbottabad

Subject: Submission of Specifications of Cardiac Surgery Equipment

Reference your letter No. ATH/EME/105-08/2026 dated 30-06-2026 regarding the submission of detailed specifications for the proposed Cardiac Surgery equipment.

In compliance with your letter, the detailed technical specifications of the required Cardiac Surgery equipment have been prepared in accordance with the clinical requirements of the department. The duly signed specifications are enclosed herewith for onward submission and further necessary procurement process.

It is requested that the attached specifications may kindly be processed accordingly.


Head of Cardiac Surgery Department
AMTI / Ayub Teaching Hospital
Abbottabad

**Assistant Professor
DR. DANISH NAVEED
MBBS (FCPS Surgery)
FCPS (Cardiac Surgery)
Consultant Cardiovascular Surgeon
Ayub Teaching Hospital Abbottabad**

TENDER SPECIFICATION OF HEART LUNG MACHINE

Description

The newly launched updated version of a modular Heart-Lung Machine designed for cardiopulmonary surgery. It temporarily takes over the function of the heart and lungs during surgery, ensuring continuous blood circulation and oxygenation. The system is engineered for safe, efficient, and user-friendly operation.

Technical Specifications

System Design

- Modular system designed for adult, pediatric, and infant patient groups.
- Console includes the following pump configuration:
 - 04 single roller pump and two small head roller pump or better.
 - 05 completely modular Pumps on console/MAST with all modular parameters and at least two Pumps should be on MAST.
 - 04 single Roller Pumps and 01 Cardioplegia Pump or two small pumps.
- Each pump has an individual digital display for RPM and LPM.
- Control panel should be touch-operated with a 12" TFT display or better.

Pump Features

- Roller pumps operate at **0–250 RPM**, with an articulation adapter for setting angles.
- Zero-flow emergency mode: single-button operation to stop all pump flow instantly.
- Visual and acoustic alarms for critical conditions.
- Self-diagnostic system with error display and audible alarms.
- LED indicators for visual identification and color-coded pump functions.
- Real-time central monitoring and control of all parameters.
- Pumps capable of independent and direct drive operation.
- Facility to operate in pulsatile flow mode.

Monitoring Capabilities

- Arterial and venous blood flow displayed in large digits on the monitor.
- Dual-channel temperature monitoring module with alarms.
- Monitoring flow in both LPM and RPM with digital display.
- Three or more digital timers with start, stop, and reset functions.
- Two temperature displays (Celsius) for patient and cardioplegia with 2 compatible probes.

Air and Bubble Detection

- Air bubble detector module with override function (e.g., during priming).
- Ultrasonic bubble detector with gel-free sensors for microbubble detection (adult & neonate).
- level sensor with audible and visual low blood level alarms.
- Built-in reverse flow safety mechanism.

Blood Monitoring (Non-Invasive Inline/online System)

- Advanced integrated online reusable type blood monitoring system with sensors and cables for arterial and venous lines.
- If in case of inline monitoring is offered, 1,500 complete disposable kits for arterial and venous lines.
- Parameters to be monitored:
 - Arterial oxygen saturation (SaO₂)
 - Venous oxygen saturation (SvO₂)
 - Hemoglobin (Hb)
 - Hematocrit (Hct)
 - Delivered oxygen (ecDO₂)
 - Indexed delivered oxygen (ecDO₂i)

Additional System Features

- Blood flow display for arterial and venous lines.
- Cardioplegia monitoring: volume ratio, timer, temperature, pressure, and flow rate.
- Stainless steel and painted aluminum body with lockable castor wheels.


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- Built-in workstation electronic patient data management software with complete case history recording.
- Patient trend data monitoring and readout during procedures.
- Venous occlusion system: electronic control based on venous line flow.
- **Power requirements:** 110–240V AC, 50/60Hz frequency.
- Pumps powered by 24V DC for safety.
- Hand crank backup for emergency use.
- Built-in rechargeable battery with minimum 90 minutes full-load backup.

Mechanical Gas blender Management system.

- Air-oxygen blender working at 50–60 PSI for membrane oxygenator.
- Water trap, dual flow meters, hoses, and necessary connectors included.

Accessories (OEM Recommended)

- Level sensor pads: 100 units or 3 transparent tapes.
- Non-invasive blood monitoring cables with connectors. 02
- Reusable bubble and flow detector sensors. 02
- Temperature probes. 02
- LED lamp. 01
- Level sensor cable. 01

Quality Certification:

- Certifications: FDA 510(k) Approved and CE (MDD) Marked.

HYPO-HYPERTHERMIA MACHINE

Description. Latest version available on-site Hypo Hyper Thermal system is used for temperature control (Hot & Cold) of patient during cardiac surgery.

Technical Specification.

- Unit should have independent temperature control separately flow control its own pump for oxygenator and blanket with connectivity to external circuit.
- Suitable arrangement for disinfecting of internal line and thermostatic system is available.
- Advance level of technology for less power consuming and no need to special power supply.
- Built-in automatic temperature control system through thermostatic heating and cooling transfer technology.
- Temperature setting range 5°C to 40° or equal.
- Noise level less than 50db or less.
- Tank volume capacity 10 liters or equal.
- Heating capacity 3000w or better.
- Flow capacity of patient circuit 12-15 l/min or equal.
- Initial cooling capacity 2100 kj/h (500 Kcal/h) or equal.
- Built-in cooling system Continuous cooling cap 2800 kj/h (670 Kcal/h) or equal.
- Circulating system: Pump
- Flow capacity (Total) 10-16 liters/min
- System should be operable at 220 VAC +10%, 50 Hz
- System to be usable with all age group i.e. adults, pediatrics and infants

Accessories.

- All standard OEM recommended accessories should be provided with the system including following:
- Reusable heater cooler unit circulation line for patient oxygenator side and blanket side. 01 set.
- Reusable type water blanket adult and peds. 02 each.

Quality Certification:

Certifications: FDA 510(k) Approved and CE (MDD) Marked.

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TENDER SPECIFICATION OF INTRA-AORTIC BALLOON PUMP

The Balloon Pump should be complete in all respects for in-house and same unit as detachable from trolley for transport mode with accessories for immediate and safe operation.

Technical Specifications:

1. System should select the best lead and trigger source, set optimal inflation and deflation timing, and still allow the clinician the ability to fine tune deflation timing with in vivo / inside body calibration and internal helium cylinder in case of emergency.
2. Should quickly adapt to rate or rhythm changes to optimize augmentation and support during diastole.
3. Color Display: 12.1" or Better Color Touch screen TFT Liquid Crystal Display.
4. Operation Modes: Auto, Semi Auto. Auto made should also have manual adjustment of fine tune of Deflation timing for better coronary artery perfusion.
5. **Triggers:**
 - **ECG Trigger:** Threshold dynamically adjusted by system for high sensitivity and selectivity of the R-wave detection; Minimum = $120\mu V \pm$ or $20\mu V$ or better. ECG Leads: In Auto Operation Mode: I, II, III, and External in Semi-Auto Mode: I, II, III, AVR, AVL, AVF, V, External (12 leads compatibility)
 - **Pressure Trigger:** range : 0-300 or better better and automatic Internal Zero / Calibrate Pressure with fiber optic IAB.
 - **Pacer A Trigger:** Minimum threshold is $80 \pm 20\mu V$ or better.
 - **R Wave Detection Mode/Pacer Blanking:** ECG trigger: 44 mS, Pacer A: 100 mS
 - **Pacer V/A – V Trigger:** In auto mode V Pacer: fixed at rate up to 180 bpm (no demand pacing).
 - **Internal Trigger:** 40-120 bpm or better; Normal mode: 80 ± 1 bpm or better.
6. **Tall T-Wave Rejection:** Rejects all T-Waves where Q-T interval is < 350 ms .
7. **Pacer Rejection:** Rejects all pulses of amplitude ± 2.0 mV to ± 700 mV durations between 0.1 mS to 2.0 mS or 4-100 mS time constant tails ≤ 2 mV better.
8. **Lead Fault Detection:** Guaranteed Lead fault detection with any active electrode wire becomes open. Should have no lead fault with electrode impedance $\leq 51K$ Ohms and with DC offsets ranging from -300 mV to +300 mV.
9. **Heart Rate Meter:** Usable range: 15-214 bpm or better.
10. **Pressure Fill** –should measures the catheter and tubing volume, then calculates a targeted fill pressure based on that volume
11. **Fiber Optics inside body calibration.** Fiber-optic signal In vivo or Inside body calibration Detected when sensor is connected to receptacle acquisition.
12. **Power Supply** Mains Voltage: Retractable Power cord with 110-240 VAC $\pm 10\%$ approx. 3 hrs or better battery backup.
13. **Battery Type:** Maintenance free; Lithium Ion. Hot Swappable Battery.
14. **System scroll Compressor:** Dual head scroll pump with DC motor for the maintain vacuum and pressure in the pneumatic circuit.
15. **IAB Helium (He+):** Medical –grade
16. **Water Condensate Removal:** Fully automatic condensate removal and disposal continually removes water vapor with each Inflate/deflate cycle. Nafion or Equivalent.
17. **Accessories with each unit** Integrated / tethered / attached - Handheld Doppler unit: with 8 MHz non-directional probe (Same manufacturer)
 - Saline Pole: Height adjustable. QTY- 01
 - Simulator/tester from same manufacture. QTY- 01.
 - Storage Case: Holds cables and spare items
 - External Helium Tank QTY- 02 and Internal Helium Tank QTY- 01
 - complete set of transducers with IBP Cable QTY- 01
 - Balloon Catheter. QTY- 03
18. **Power Requirement :** 220VAC
19. **Certification:** FDA 510K or CE.

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SPECIFICATION FOR DIATHERMY MACHINE

The unit should provide unsurpassed performance, flexibility, reliability and convenience. It should include the following features:

- The cutting modes should not be less than two
- The blend modes should have at least 10 levels
- Two Coagulation modes should be present
- The diathermy should incorporate a return electrode contact quality monitoring system to detect the type of return electrode: Solid and Split pads
- Should be incorporated with digital fast feedback system for tissue density detection
- Presets: At least 10 presets should be present
- The Memory unit should automatically power up to the last selected preset setting
- The RF output should be isolated
- Should have standard connectors to accept the latest mono polar and bi polar instruments
- The unit should be equipped with self diagnostics
- A foot switch indicator should be present on the front to detect number of switches connected
- The diathermy should be calibration free

Technical Specifications:

- Input voltage should be from 100 V AC to 240 V AC at 50 – 60 Hz
- The ambient temperature range should be from 10 ° C to not less than 40 ° C with relative humidity of 30% to maximum 75% (non condensing)
- Output Type: RF ISOLATED

Output Power:

The output power ranges should not be less than given below

- Cut I & II: 300 W @ 300 Ω
- Blend: 200 W @ 300 Ω
- Pinpoint: 120 W @ 500 Ω
- Spray: 80 W @ 500 Ω
- Bipolar: 80 W @ 150 Ω
- Duty Cycle: 10 S / 30 S
- Output Frequency: 490 kHz $\pm$ 5

Country of Origin: Western Europe, USA & Japan


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INVASIVE CARDIAC MONITOR SPECIFICATIONS

OPERATING FEATURES AND CHARACTERISTICS:

Non fade TFT color display

Electro-surgical interference suppression/protection

Defibrillator protection

Waveform: 7 Wave forms should be available

Waveforms trace speed: 25/50 mm/sec

Screen Size: min. 10" or more TFT/LCD color Touch Screen display

PARAMETERS:

- ECG:

Numeric: heart rate

ECG trace

12-Lead ECG option should be available in the monitor.

- Non-Invasive Blood Pressure (NIBP):

Method: Oscillometric principle

Numeric: Systolic, diastolic and mean pressures

Selectable auto inflate interval settings

Rising cuff / continuous pressure display

- Temperature:

Numeric: Temperature selectable in °C / °F

- Pulse Oximeter:

Numeric: 0-100% oxygen saturation measuring range.

- IBP DUAL CHANNEL

Two channel minimum

Numeric: systolic, diastolic and mean pressures

waveform: blood pressure

Variable scale: selectable scaling ranges

Adjustment: zero adjustment for offset compensation

- CAPNOGRAPHY (ETCO2)

Numeric: se LECTABLE MMHG, KPA, % of cO2; breath rate

Waveform: cO2 concentration

Adjustment: automatic ambient air pressure compensation.

- Arrhythmia Analysis:

Arrhythmia analysis and ST analysis

- Respiration:

Breath rate display and alarms.


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- Other Features:

Trend Data; 160 hours trend graphical and tabular

- Alarms:

High & low (settable) on all parameters

Visual and audible indication of alarms.

- The System should includes USB, RS-232, VGA, VLAN, WLAN, and a multifunctional port.

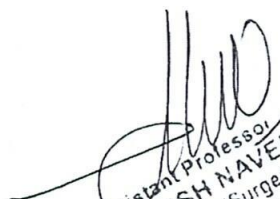
- The System should have capability to Interface with HL7 outbound.

- Operating Requirements:

Ac 220v/50hz

Built-in rechargeable battery for at least 2 hours AC power failure at full parameter.

Country of Origin: Europe, USA & Japan


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ICU Ventilator

Ventilation Modes:

(S)CMV+/APVcmv, PCV+ (biphasic), SIMV+/APVsimv, SPONT, close loop Ventilation,
P- SIMV+, NIV, NIV-ST

Special Functions:

Special functions should include nebulizer, manual breath, 100% O₂,
Standby, sigh, apnea backup ventilation, screen – lock, screen shot, suctioning tool,
dimmable screen, configurable quick start settings, tube resistance compensation,
start-up over body height and IBW, and inspiratory hold.

Patient Type

Should include neonates to adults

Technical Specifications:

(S)CMV+/APVcmv, PCV+	4 to 150b/min
SIMV+/APVsimv, DuoPAP	1 to 150b/min
PSIMV+, NIV-ST,	
APRV	1 to 200b/min

Tidal volume starting from 20 ml up to at least 2000 ml (Paed to Adult)

Tidal volume starting from 2ml to 300ml for Neonate (optional must be quoted)

PEEP and CPAP ranges from 0 cmH₂O not less than 35 cm H₂O

Oxygen from minimum range of 21% to 100%

The inspiratory to expiratory ratio (I:E) starting from 1:9 up to 4: 1

Flow range from 0 l/min not less than 240 l/min

% minute volume in Adaptive Support Ventilation from 25% up till 350%

Alarms

Operator adjustable alarms should include low/high minute volume, low/high pressure, low/high tidal volume, apnea rate.

Special alarms should include Oxygen concentration, disconnection, loss of PEEP, exhalation obstruction, flow sensor, close loop, power supply, gas supply alarms should be added features.

Event Log:

Storage and display of not less than 1000 events with date and time.

Ventilation Cockpit:

Dynamic Lung: Should show real time visualization of the lungs with representations of tidal volume, lung compliance, resistance and patient activity


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Vent Status: Visual representation of the ventilator dependency
Adaptive Support Ventilation target graphics
Not less than 41 monitoring parameters

Real time waveforms: simultaneous display of Paw, Flow, Volume, P-trachea, FCO₂, PCO₂

Loops: Display of P-V, V-Flow, P-Flow, V-FCO₂, V-PCO₂

Trending: Simultaneous display of 4 parameter trends for 1-, 6-, 12-, 24-, or 72-hours

Power Supplies:

Up to 240 V AC at 50/60Hz

Should have back up batteries with at least 3 hours functionality

Physical Dimensions:

Should have display of 8.4" or more, TFT color, with touch screen

To be supplied with.

1. Disposable patient breathing circuits for Peds, and Adults, 01 Each
2. supporting arm
3. original trolley.
4. Disposable Flow Sensor for Paed/Adult 01 Each
5. Operating & Service Manual

Necessary conditions:

- i. Supplier must attach 05 install base reference list (Reputable Organization) of quoted model with contact details.
- ii. The Ventilator must be FDA, CE or MHWL approved. (Any 02 certificates compulsory)
- iii. Supplier should be sole/authorized distributor of manufacturer.
- iv. Should provide confirmation of spare parts availability for minimum 10 years.
- v. Supplier must have team of trained engineers for back up support during and after warranty.
- vi. Ventilator should have feature to detach from trolley for intra Hospital Transportation

Country of Origin & manufacturing must: Europe, USA, JAPAN


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ANESTHESIA MACHINE

- Should have six conventional flow tubes to provide accurate control, particularly at low flow rates.
- The system has pipeline gas supply inputs for O₂, N₂O and Air; and backup cylinder supply inputs for O₂ and N₂O.
- Provision of communication port for sharing and transfer of data.
- The unit should have high standard built-in features to support patient safety.
- Vertically integrated breathing system (IBS) with breathing bag holder.
- GCX compatible aluminium uprights for additional accessory mounting
- Switchable front facing common gas outlet for open and closed circuit operation
- Non interchangeable pipeline inlets.
- Pin index cylinder yokes for Oxygen, Air and N₂O.
- O₂ flush control.
- Two Lockable casters.
- Stainless steel/ fiber work surface
- Aux O₂ flow meter,
- 3 Power outlets in the back to connect auxiliary equipment's.
- CO₂ absorber with integrated heater option 1500 gm or more.
- APL valve Range 0-70cmH₂O
- LED illuminated work spaces
- Scavenging system passive type.

ANESTHESIA VENTILATORS

- Anesthesia Ventilator with minimum 10" or more TFT colour touchscreen.
- Ventilator shall be capable of ventilating Neonates/Pediatric/Adult patients.
- Ventilator modes should have
 - Volume Control Ventilation (VCV)
 - Pressure Control Ventilation (PCV)
 - Synchronised Intermittent Mandatory Ventilation - Volume (SIMV-V)
 - Synchronised Intermittent Mandatory Ventilation - Pressure (SIMV-P)
 - Synchronised Intermittent Mandatory Ventilation - Pressure Regulated Volume Control (SIMV-PRVC)
 - SPONT/Pressure Support Ventilation (PSV) with apnea backup (VCV or PCV)
 - Manual or better
- Should have two user-selectable waveform displays with a choice of Airway Pressure, Flow Rate, Tidal Volume, P-V Loop, V-F Loop, CO₂ or Pleth.
- PEEP available in all modes, except Manual
- Respiratory Rate 1:E4:1 to 1:10
- Tidal volume 20 to 1400 ml.


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- PEEP: OFF, 2 to 20 cm H₂O or more better.
- Rate of frequency 4 to 70bpm.
- Inspiratory pause 0 to 60%.
- Pressure control 10 to 60 cmH₂O or more better
- Low Battery Alarm
- Low/High Fio₂ alarm.
- Mains failure alarm.
- Time, date, mains and battery indicators.
- Anti-Hypoxic Fresh Gas Mixture: Mechanical Type
- Battery backup minimum 120 minutes or more.
- Pre calibrated Selectatec interlock vaporizer of Isoflurane (Qty: 01) OR Sevoflaurane (Qty: 01) temperature and flow compensated. (Vaporizers must be same manufacturer)

STANDARD ACCESSORIES

The ventilator shall be supplied with

- CO₂ Absorber
- Air Oxygen and Nitrous hoses
- Vaporizer (QTY 2- ISO, SEVO)
- Adult/Peds Circuit
- Power Cord
- Agent (MAC) Monitoring

The Anesthesia Machine should be supplied with complete standard accessories.

Certificate: CE , MDR or FDA

Country of Origin: UK/USA/Europe/Japan


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Cardiac surgery OT Table

Weight bearing capacity of 450 kg or more

5 Sectional operation Table with two leg section.

Table top equipped with radiolucent material.

The mattress covers with washable, antistatic material.

X-ray Cassette holder for X-Ray and C-Arm facility

Sliding table top at least 300 mm or more

Electric Height adjustment: 660 to 1100 mm or more.

Electric Trendelenburg and Reverse Trendelenburg: 30° degree and -30° or better.

Electric lateral tilt: 20° degree and -20° degree or better.

Manual backrest adjustment: 70° degree and -40° degree or better. (Both are acceptable)

Manual leg section adjustment: 40° degree and -90° or better.

220-230 V, 50 Hz.

Hand control unit.

Override panel in the column or Wireless remote for back up control in emergency cases.

Battery backup control of table in case of main power failure.

Accessories:

1. Pair of Arm rest with clamp
2. Anesthesia screen
3. Large width body strap
4. Adjustable bottle holder rod
5. Shoulder support
6. Lateral Support.


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: Battery Operated Sternum Saw

Sr. No.	Product Description	QTY.
1	RECIPROCATING STERNUM SAW HAND PIECE Max. power approx. 250 W, frequency speed min. 0 - 15000rpm, Steam sterilizer in accordance with DIN EN 285 and validated in accordance with DIN EN ISO 17665, Sterilization in fractionated vacuum process at 134°C	1
2	LID FOR HAND PIECE	2
3	PROTECTION GUARD FOR STERNUM SAW BLADE	1
4	RECIPROCATING STERNUM SAW BLADE WORKING LENGTH 34MM, BLADE THICKNESS 0.7MM, BLADE CUTTING THICKNESS 1.10MM, RAPID ACTION RECIPROCATING, STERILE, REUSABLE	50
5	OSCILLATING REDO SAW SEPARATE HAND PIECE Max. power approx. 250 W, Oscillation frequency speed min. 0 -13000 rpm, Steam sterilizer in accordance with DIN EN 285 and validated in accordance with DIN EN ISO 17665, Sterilization in fractionated vacuum process at 134°C	1
6	OSCILLATING SAW BLADE RAPID ACTION WORKING LENGTH 35MM, BLADE WIDTH 75MM, BLADE THICKNESS 0.70mm, BLADE CUTTING THICKNESS 0.90MM, STERILE, REUSABLE	10
7	OSCILLATING SAW BLADE RAPID ACTION WORKING LENGTH 50MM, BLADE WIDTH 40MM, BLADE THICKNESS 0.70mm, BLADE CUTTING THICKNESS 0.90MM, STERILE, REUSABLE	10
8	NIMH RECHARGEABLE BATTERY integrated electronic motor control, 9.6V; 1.95Ah	4
9	CHARGING UNIT Automatic Battery diagnosis function , 04-charging bays separate slots Indicator fileds for charging bays	1
10	MAINS POWER CORD 5M LONG	1
	Sterilization Aand Storage Container system with fixation Basket of same manufacturer:	
11	FIXATION WIRE BASKET FOR MOTORS AND ACCESSORIES, HEIGHT 106MM	1
12	BOTTOM FOR CONTAINER HEIGHT:120MM	1
13	CONTAINER LID	1
14	LUBRICATION OIL SPRAY PACK OF 6 PIECES BOX	2
15	User Service Manual	1


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: CARDIAC SURGERY INSTRUMENTS SETS FOR ADULTS- IMPORTED

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Sr. No.	Product Description	QTY.
	SERIAL NO. 01: CABG AND VALVULAR SURGERY	
1	SCALPEL HANDLE #3 125MM	1
2	SCALPEL HANDLE #4 135MM	2
3	SCALPEL HANDLE #7 ENGLISH NO.5 160MM	2
4	WATSON-CHEYNE DISSECTOR LGTH 130MM	1
5	FREER ELEVATOR SHARP/BLUNT 185MM	1
6	FARABEUF PERIOSTEAL RASPATORY STR.12.5MM BR.145MM	1
7	WEITLANER RETR 3X4T.SHARP/DEEP130MM	1
8	WEITLANER RETR 3X4T.BLUNT/DEEP 130MM	1
9	ABDOMINAL BLD. SPATULA RETRACTOR MALEAB.25X330MM	1
10	ABDOMINAL BLD. SPATULA RETRACTOR MALEAB.25X330MM	1
11	RIBBON SPATULA RETRACTOR MALL 330X30MM	1
12	DE'BAKEY ATR.FCPS 2.0MM STR 200MM	4
13	DE'BAKEY ATR.FCPS 2.0MM STR240MM	2
14	DE'BAKEY ATR.FCPS 1.5MM STR200MM	2
15	DE'BAKEY VASC.ST FORCEPS 1MM TIP150MM	2
16	DE'BAKEY STRAIGHT FCPS 1MM TIP195MM	4
17	RUSSIAN TISSUE FORCEPS 200MM	1
18	RUSSIAN TISSUE FORCEPS 260MM	1
19	DE'BAKEY SEMB AORTA ANEURYSM CLMPCVD270MM	2
20	SEMB SUTURE FORCEPS HVY-CVD 240MM	2
21	DE'BAKEY ATR.AORTA CRSS-CLMP240MM	2
22	COLLIN DUVAL CLAMP 195MM	1
23	O'SHAUGHNESSY DISS.A.LIGAT.FORCEPS 160MM	1
24	O'SHAUGHNESSY DISS.A.LIGAT.FORCEPS 180MM	1
25	O'SHAUGHNESSY DISS.A.LIGAT.FORCEPS 200MM	1
26	ARTERY FORCEPS STRAIGHT 250MM	2
27	ARTERY FORCEPS CURVED 250MM	2
28	DERRA COOLEY CLAMP 16MM 170MM	1
29	DERRA COOLEY CLAMP 21MM 175MM	1
30	DERRA COOLEY CLAMP 27MM175MM	1
31	NELSON METZENBAUM (MC INDOE) Dissecting Scissors, curved, TC, blunt/blunt, 230 mm (9")	1
32	TC NELSON-METZ SCISS CVD 260MMNELSON-METZENBAUM Dissecting Scissors, curved, TC, blunt/blunt, 260 mm (10 1/4")	1
33	TC METZENBAUM SCISSORS CVD 200MMMETZENBAUM Dissecting Scissors, curved, TC, blunt/blunt, 200 mm (7 7/8")	3
34	METZENBAUM Dissecting Scissors, curved, TC, blunt/blunt, 180 mm (7")	1
35	Suture Scissors, curved, TC, wave cut, blunt/blunt, 180 mm (7")	1
36	MAYO Dissecting Scissors, curved, blunt/blunt, 200 mm (7 7/8")	1
37	RYDER Needle Holder, TC, straight, very delicate, 210 mm (8 1/4"), jaw: with 0.2 mm pitch of serration, for suture 6/0 - 10/0	4
38	CRILE-WOOD Needle Holder, TC, straight, 200 mm (7 7/8"), jaw: with 0.4 mm pitch of serration, for suture 4/0 - 6/0	4
39	CRILE-WOOD Needle Holder, TC, straight, 270 mm (10 5/8"), jaw: with 0.4 mm pitch of serration, for suture 4/0 - 6/0	4

: CARDIAC SURGERY INSTRUMENTS SETS FOR ADULTS- IMPORTED

Sr. No.	Product Description	QTY.
40	CRILE-WOOD Needle Holder, TC, straight, 200 mm (7 7/8"), jaw: with 0.4 mm pitch of serration, for suture 4/0 - 6/0	4
41	Micro Needle Holder, curved, 230 mm (9"), jaw: tungsten carbide coated, round handle, with ratchet, for suture up to 4/0	4
42	CRILE-WOOD Needle Holder, TC, straight, 185 mm (7 1/4"), jaw: with 0.4 mm pitch of serration, for suture 4/0 - 6/0	4
43	RANKIN FCPS LONG KELLY DEL CVD160MM	25
44	KOCHER-OCHSNER FORCEPS CVD 1X2 200MM	2
45	HALSTED-MOSQUITO FORCEPS DEL CVD125MM	15
46	ARTERY FORCEPS CURVED 225MM	5
47	HALSTED-MOSQUITO FORCEPS DEL CVD125MM	10
48	MAYO SCISSORS RND BLD STR 200MM	2
49	SPENCER-WELLS FORCEPS CVD 130MM	15
50	HARTMANN MOSQUITO FCSDEL STR 100MM	5
51	BERNHARD TOWEL CLAMP STR 160MM	10
52	LANGENBECK RETRACTOR 40X10MM	2
53	FOERSTER SPONGE FCPS SMOOTHSTR 245MM	3
54	YANKAUER SUCTION CANNULA 2.0MM 285MM	2
55	SCALPEL HANDLE #7 ENGLISH NO.5 160MM	2
56	BABCOCK ATR FORCEPS, 8", 215MM	2
57	ALLIS FORCEPS 5X6 190MM	2
58	COOLEY Patent Ductus Clamp, straight, 160 mm (6 1/4"), toothing COOLEY, jaw length: 41 mm, for pediatrics	1
59	DE BAKEY Vascular Clamp, angled, 15 °, 165 mm (6 1/2"), toothing DE BAKEY, jaw length: 50 mm	1
60	COOLEY Patent Ductus Clamp, angled, 160 mm (6 1/4"), toothing COOLEY, jaw length: 41 mm, for pediatrics	1
61	DUC Septum Forceps, knee bent, straight, 195 mm (7 3/4"), fenestrated, jaw width 750 mm	2
62	ST. BARTS Aortic Valve Rongeur, straight, work. length: 120 mm, jaw width 3 mm	1
63	ST. BARTS Aortic Valve Rongeur, downwards cutting, 140 °, work. length: 120 mm, jaw width 3 mm	1
64	ST. BARTS Aortic Valve Rongeur, Right upwards cutting, 140 °, work. length: 120 mm, jaw width 3 mm	1
65	POOL CARDIAC SUCTION CANNULA CHARR.23	1
66	CARDIAC SUCTION CANNULA RND-TIP 4.0MM 180MM	1
67	DAVIS INTIMA Dissector, slightly curved, 245 mm (9 5/8"), double ended, round handle, tip: blunt, jaw width 4.50 mm	1
68	HENLY RETRACTOR SET COMPLETE 180MM WITH EXCHANGEABLE BLADES, INCLUDES RETRACTOR FRAME, 04 CENTER BLADES, 03 SIDE BLADES	2
69	VOLKMANN RETR4-PRGSEMI-S8.5X19220MM	2
70	VOLKMAN RETR2-PRGSEMI-S8.5X8MM220MM	2
71	ALLISON Lung Spatula Retractor, angled, 255 mm (10"), fenestrated, jaw width 40 mm	1
72	ALLISON Lung Spatula Retractor, angled, 300 mm (11 3/4"), fenestrated, jaw width 137 mm	1

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: CARDIAC SURGERY INSTRUMENTS SETS FOR ADULTS- IMPORTED

Sr. No.	Product Description	QTY.
73	ALLISON Lung Spatula Retractor, angled, 320 mm (12 1/2"), fenestrated, jaw width 54 mm	1
74	BOTTOM FOR CONTAINER HEIGHT:120MM	1
75	PERF WIRE BASKET MESH TRAY 540X253X56MM	1
76	LID FOR CONTAINER	1
77	SILICONE CUSHIONING PAD	1
SERIAL NO. 02: CHEST RETRACTOR AND WIRE TWISTER INSTRUMENTS SET		
1	COOLEY Sternum/Rib Retractor Large, 180 mm (7"), jaw depth: 32 mm, jaw width 50 mm, for adults	1
2	COOLEY Sternum/Rib Retractor Small, 140 mm (5 1/2"), jaw depth: 21 mm, jaw width 45 mm, for children	1
3	AMI Sternum/Rib/Mammaria Retractor complete consisting of Retractor frame 140 mm (5 1/2"), pair of mammaria blades, jaw depth: 33 mm, jaw width: 120 mm, pair of sternum blades, jaw depth: 30 mm, jaw width: 100 mm, pair of sternum blades, jaw depth: 40 mm, jaw width: 100 mm	1
4	Wire Cutting Pliers, TC, angled, 240 mm (9 1/2"), double action	2
5	BERRY Wire Twister, TC, straight, 185 mm (7 1/4"), jaw: with 0.5 mm pitch of serration, for suture up to 3/0	2
6	Wire Holding Pliers, TC, straight, 170 mm (6 3/4"), lateral jaws	20
7	KLINIKUM BERLIN Tubing Clamp, straight, 145 mm (5 3/4"), heavy pattern, serrated, box lock	10
8	KIDNEY TRAY STAINLESS STEEL 250MM	2
9	GALLIPOT LABORATORY DISH 0.16 L	5
10	LABORATORY BASIN DISH 2.5 L	2
11	LABORATORY BASIN DISH 2.5 L	2
12	ROSS Aortic Valve Retractor, 255 mm (10"), Fig. 3, jaw depth: 17 mm, jaw width 24 mm	1
13	ROSS Aortic Valve Retractor, 245 mm (9 5/8"), Fig. 1, jaw depth: 15 mm, jaw width 15 mm	1
14	ROSS Aortic Valve Retractor, 255 mm (10"), Fig. 4, jaw depth: 13 mm, jaw width 27 mm	1
15	ROSS Atrial Retractor, 255 mm (10"), Fig. 5, jaw depth: 30 mm, jaw width 28 mm	2
16	SMITH-PETERSON Osteotome, curved, with handle, 205 mm (8"), width: 25 mm	1
17	SMITH-PETERSON Osteotome, curved, with handle, 205 mm (8"), width: 32 mm	1
18	LEKSELL-STILLE Bone Rongeur, angled to side, 240 mm (9 1/2"), blade length: 17 mm, jaw width 7.20 mm	2
19	PERF WIRE BASKET 540X253X56MM	1
20	RUSKIN-LISTON Bone Cutting Forceps, straight, 190 mm (7 1/2"), double action	1
21	LISTON BONE-CUTTING FORCEPS CVD 200MM	1
22	LISTON BONE-CUTTING FORCEPS STR280MM	1
23	BONE CUTTING FORCEPS ANG 240MM	1
24	SCHEDE BONE CURETTE #000 2.5MM 170MM	1
25	SCHEDE BONE CURETTE #00 3.4MM 170MM	1
26	SCHEDE BONE CURETTE #0 4.2MM 170MM	1

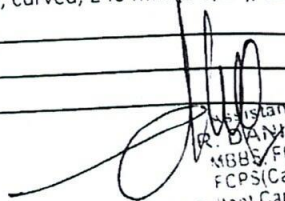
: CARDIAC SURGERY INSTRUMENTS SETS FOR ADULTS- IMPORTED

Sr. No.	Product Description	QTY.
27	SCHEDÉ BONE CURETTE #1 5.2MM 170MM	1
28	SCHEDÉ BONE CURETTE #2 6.3MM 170MM	1
29	SCHEDÉ BONE CURETTE #3 7.4MM 170MM	1
30	SCHEDÉ BONE CURETTE #4 8.0MM 170MM	1
31	BRUNS BONE CURETTE #00 4MM 165MM	1
32	Wire Twister, TC, straight, 155 mm (6 1/8"), jaw: with 0.5 mm pitch of serration, with ratchet, for suture up to 3/0	2
33	CUSHING VEIN ATRIAL RETRACTOR 14X18MM 205MM	2
34	CUSHING VEIN ATRIAL RETRACTOR 10X13MM 205MM	2
	SERIAL NO. 03: CORONARY MICRO INSTRUMENT SET	
1	GARRETT VASCULAR DILATOR PROBE 1MM 140MM	2
2	GARRETT VASCULAR DILATOR PROBE 1.5MM 140MM	2
3	GARRETT VASCULAR DILATOR PROBE 2MM 140MM	2
4	DE BAKEY Bulldog Clamp, curved, 45 mm (1 3/4"), toothing DE BAKEY, jaw length: 20 mm, micro	1
5	DE BAKEY Bulldog Clamp, double curved, 95 mm (3 3/4"), toothing DE BAKEY, jaw length: 54 mm, micro	1
6	DE'BAKEY ATR.BULLDOG CLAMP STR. JAW LENGTH 20/50MM DE BAKEY Bulldog Clamp, straight, 50 mm (2"), toothing DE BAKEY, jaw length: 20 mm, micro	1
7	DE'BAKEY ATR.BULLDOG CLAMP STR. JAW LEDE BAKEY Bulldog Clamp, straight, 80 mm (3 1/8"), work. length: 18 mm, toothing DE BAKEY, jaw length: 18 mm NGTH 20MM/80MM	1
8	DE BAKEY Bulldog Clamp, straight, 90 mm (3 1/2"), work. length: 28 mm, toothing DE BAKEY, jaw length: 28 mm	1
9	NOIR SUPREME Micro Scissors, angled, 45 °, blade length: 10 mm, very delicate blade, sharp/sharp, 185 mm (7 1/4"), round handle	1
10	NOIR SUPREME Micro Scissors, angled, 90 °, blade length: 10 mm, very delicate blade, sharp/sharp, 185 mm (7 1/4"), round handle	1
11	NOIR SUPREME Micro Scissors, angled, 125 °, blade length: 10 mm, very delicate blade, sharp/sharp, 185 mm (7 1/4"), round handle	1
12	DE BAKEY Atraumatic Titanium Forceps, straight, 195 mm (7 3/4"), jaw width 1.50 mm, toothing DE BAKEY, flat handle	2
13	GERALD FORCEPS 1MM SERRATED STR 180MM	4
14	Micro Ring Forceps, straight, ring tip, tungsten carbide coated, with weight, 185 mm (7 1/4"), jaw Ø: 1 mm	4
15	MICRO RING FORCEPS 1.5MM RING 180MM	2
16	Micro Needle Holder, TC, straight, 200 mm (7 7/8"), jaw: with 0.2 mm pitch of serration, round handle, with ratchet, for suture 6/0 - 10/0	4
17	TITANIUM Micro Needle Holder, straight, 210 mm (8 1/4"), jaw: tungsten carbide coated, round handle, with ratchet, suture up to 7/0	4
18	TITANIUM Micro Needle Holder, straight, 210 mm (8 1/4"), jaw: tungsten carbide coated, round handle, with ratchet, for suture up to 7/0	4
19	DE'BAKEY CORONARY SUCTION CANNULA 5MM/9MM 160MM	1
20	ADSON Coronary Suction Cannula, 155 mm (6 1/8"), curved, Ø 3 mm, angled	1
21	ADSON Nerve- and Vessel Hook, angled, 90 °, 185 mm (7 1/2"), straight, 1 prong, jaw depth: 4 mm, blunt	1
22	BOTTOM FOR CONTAINER HEIGHT: 120MM	1


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: CARDIAC SURGERY INSTRUMENTS SETS FOR ADULTS- IMPORTED

Sr. No.	Product Description	QTY.
23	PERF WIRE BASKET 540X253X56MM	1
24	LID FOR CONTAINER	1
25	SILICONE CUSHIONING PAD	1
26	METZENBAUM Dissecting Scissors, curved, TC, blunt/blunt, 180 mm (7")	1
27	METZENBAUM Dissecting Scissors, straight, TC, blunt/blunt, 180 mm (7")	1
28	JOSEPH SKIN HOOK SINGLE PRONG 165MM	1
29	IMA EPICARDIAL RETRACTOR MINI 3X3T.SHARP 25MMRetractor (self-retaining) (Epicardial Retractor), 25 mm (1"), mini, 3 x 3 prongs, jaw depth: 3 mm, jaw width: 4 mm, sharp	1
30	Retractor (self-retaining) (Epicardial Retractor), 32 mm (1 1/4"), small, 3 x 3 prongs, jaw depth: 3 mm, jaw width: 4 mm, sharp	1
31	LID FOR CONTAINER	1
32	BOTTOM FOR CONTAINER HEIGHT:90MM	1
33	PERF WIRE BASKET 406X253X56MM	1
34	SILICONE CUSHIONING PAD	1
SERIAL NO. 04: CARDIAC GENERAL INSTRUMENTS		
1	ARTERY HEMOSTATIC FORCEPS CURVED 225MM	2
2	ARTERY HEMOSTATIC FORCEPS STRAIGHT 250MM	2
3	SPENCER-WELLS FORCEPS STR 150MM	5
4	KOCHER-OCHSNER FORCEPS STR 1X2 200MM	2
5	CRILE FORCEPS STR 160MM	25
6	BABY CRILE FORCEPS DEL STR 140MM	25
7	BABY CRILE FORCEPSDELCDV140MM	25
8	MIXTER-O'SHAMIXTER-O'SHAUGHNESSY Dissecting a. Ligature Forceps, curved, 190 mm (7 1/2"), serratedUGNESSY FORCEPS ANGLE CVD 190MM	1
9	MIXTER-O'SHAUGHNESSY Dissecting a. Ligature Forceps, curved, 190 mm (7 1/2"), serrated	1
10	Suture Scissors, curved, TC, wave cut, blunt/blunt, 180 mm (7")	1
11	TC SUTURE SCISS W/1 SERR CVD 230MM	2
12	Suture Scissors, curved, TC, wave cut, blunt/blunt, 260 mm (10 1/4")	1
13	Suture Scissors, curved, TC, wave cut, blunt/blunt, 230 mm (9")	1
14	METZENBAUM Dissecting Scissors, straight, TC, delicate pattern, blunt/blunt, 180 mm (7")	2
15	TC METZENBAUM SCISSORS DELMETZENBAUM Dissecting Scissors, straight, TC, delicate pattern, blunt/blunt, 200 mm (7 7/8") STR200MM	2
16	TC HEGAR NEEDLE HOLDER HVY-SERR 205MMHEGAR Needle Holder, TC, straight, heavy pattern, 205 mm (8"), jaw: with 0.5 mm pitch of serration, for suture up to 3/0	2
17	TC DE'BAKEY NDL HOLDERX-DEL-SERR 210MMDE BAKEY Needle Holder, TC, straight, very delicate, 210 mm (8 1/4"), jaw: with 0.2 mm pitch of serration, for suture 6/0 - 10/0	2
18	DE BAKEY (MODIF. SEMB) Aorta Aneurysm Clamp, strongly curved, 265 mm (10 1/2"), toothing DE BAKEY, jaw length: 67 mm, width: 56 mm	2
19	DE BAKEY Dissecting Semb a. Ligature Forceps, curved, 240 mm (9 1/2"), toothing DE BAKEY, jaw length: 82 mm	2
20	DUVAL-COLLIN INTESTNAL FORCEPS 200MM	1
21	DUVACOLLIN INTESTINAL FORCEPS195MM	1


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: CARDIAC SURGERY INSTRUMENTS SETS FOR ADULTS- IMPORTED

Sr. No.	Product Description	QTY.
22	COLLIN INTESTINAL FORCEPS 180MM	1
23	SCALPEL HANDLE #3 125MM	2
24	SCALPEL HANDLE #4 135MM	2
25	SCALPEL HANDLE #7 ENGLISH NO.5 160MM	2
26	FARABEUF PERIOSTEAL ELEVATOR RASPATORY STR.WIDTH 12.5MM BR.145MM	1
27	LEMMON Intima Dissector, slightly curved, 165 mm (6 1/2"), single ended, tip: sharp, jaw width: 3.40 mm	1
28	LEMMON Intima Dissector, medium curved, 165 mm (6 1/2"), single ended, tip: sharp, jaw width: 3.40 mm	1
29	FREER ELEVATOR SHARP/BLUNT 185MM	1
30	YANKAUER SUCT TUBE LARGE W/BORNG4.8MM285MM	2
31	YANKAUER SUCTION CANNULA SMALL 2.0MM 285MM	2
32	US-ARMY RETRAC.26X15/43X15-23X15/40X15	2
33	Needle Holder, TC, straight, very delicate, 230 mm (9"), jaw: with 0.2 mm pitch of serration, for suture 6/0 - 10/0	2
34	CRILE-WOOD Needle Holder, TC, straight, 185 mm (7 1/4"), jaw: with 0.4 mm pitch of serration, for suture 4/0 - 6/0	2
35	TC RYDER NEERYDER Needle Holder, TC, straight, very delicate, 175 mm (6 7/8"), jaw: with 0.2 mm pitch of serration, for suture 6/0 - 10/0DLE HOLDERX-DELSERR175MM	2
36	LANGENBECK RETRACTOR 40X13MM 210MM	2
37	LANGENBECK GREEN RETRACTOR16 X6MM160MM	2
38	CUSHING VEIN RETRACTOR 10X13MM 205MM	2
39	CUSHING VEIN RETRACTOR 14X18MM 205MM	2
40	CUSHING-KOCHER RETRACTOR 10X10MM180MM	2
41	BABY-SENN-MILLER RECTOR.BL.8X7/22X7MM	2
42	ZENKER RETRACTOR 36X8MM 245MM	2
43	AORTIC VALVE RETRACTOR 17X21MM 270MM	2
44	AORTIC VALVE RETRACTOR 16X23MM 270MM	2
45	AORTIC VALVE RETRACTOR 20X25MM 270MM	1
46	ABDOMINAL BLD.RETRACTOR MALEAB.12X200MM	1
47	ABDOMINAL BLD.RETRACTOR MALEAB.17X200MM	1
48	ABDOMINAL BLD.RETRACTOR MALEAB.25X250MM	1
49	ABDOMINAL BLD.RETRACTOR MALEAB.25X330MM	1
50	RIBBON RETRACTOR MALL 330X30MM	1
51	RIBBON RETRACTOR MALL 330X40MM	1
52	ABDOMINAL BLD.RETRACTOR MALEAB.12X200MM	1
53	ABDOMINAL BLD.RETRACTOR MALEAB.17X200MM	1
54	ABDOMINAL BLD.RETRACTOR MALEAB.25X250MM	5
55	TOWEL CLAMP NON-PERF 150MM	5
56	BACKHAUS TOWEL CLAMP 110MM	2
57	DE'BAKEY ATR.FCPS 2.0MM STR 200MM	2
58	DE BAKEY Atraumatic Forceps, straight, 240 mm (9 1/2"), jaw width 1 mm, toothing	2

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: CARDIAC SURGERY INSTRUMENTS SETS FOR ADULTS- IMPORTED

Sr. No.	Product Description	QTY.
59	DE BAKEY toothed GERALD Atraumatic Micro Forceps, straight, 180 mm (7"), jaw width 1 mm, flat handle	4
60	RUSSIAN TISSUE FORCEPS 200MM	2
61	WEITLANER MASTOID RETRACTOR 2X3 SEMI-S110MM	1
62	WEITLANER MASTOID RETRACTOR 2X3T.BL.110MM	1
63	WEITLANER MASTOID RETRACTOR 3X4 SEMI-S 165	1
64	WEITLANER MASTOID RETRACTOR 3X4T.BL.165MM	1
65	COOLEY PATENT-DUCTUS CLAMP STR.41/160MM	1
66	COOLEY PEDIATRIC CLAMP CURVED 56MM 170MM	1
67	DERRA PEDIATRIC DERRA Vascular Clamp, curved, 165 mm (6 1/2"), toothed DE BAKEY, width: 16 mm, for pediatrics	1
68	DERRA Vascular Clamp, angled, 55 °, 170 mm (6 3/4"), toothed DE BAKEY, width: 20 mm, for pediatrics	1
69	DERRA Vascular Clamp, angled, 55 °, 175 mm (6 7/8"), toothed DE BAKEY, width: 26 mm, for pediatrics	1
70	ROSS Aortic Valve Retractor, 255 mm (10"), Fig. 5, jaw depth: 30 mm, jaw width 28 mm	3
71	BOTTOM FOR CONTAINER HEIGHT:120MM	1
72	PERF WIRE BASKET 540X253X56MM	1
73	LID FOR CONTAINER	1
74	SILICONE CUSHIONING PAD	1
SERIAL NO. 05: MICRO SURGERY FINE INSTRUMENTS		
1	Micro Needle Holder, straight, 210 mm (8 1/4"), jaw: tungsten carbide coated, round handle, with ratchet, for suture up to 5/0	2
2	Micro Needle Holder, straight, 230 mm (9"), jaw: smooth, round handle, with ratchet, for suture 9/0 - 11/0	2
3	Micro Needle Holder, straight, heavy pattern, 190 mm (7 1/2"), jaw: tungsten carbide coated, round handle, with ratchet, for suture up to 2/0	2
4	Micro Ring Forceps, straight, 185 mm (7 1/4"), ring tip, with weight, jaw Ø: 1 mm, tungsten carbide coated, round handle	2
5	Micro Plateau Forceps, straight, 185 mm (7 1/4"), ring tip, platform tip, without weight, jaw width 1 mm, tungsten carbide coated, round handle	2
6	Micro Scissors, angled, 45 °, blade length: 7 mm, ultra delicate blade, sharp/sharp, 165 mm (6 1/2"), round handle	2
7	Micro Scissors, angled, 125 °, blade length: 10 mm, very delicate blade, sharp/sharp, 165 mm (6 1/2"), round handle	1
8	METZENBAUM SUPERCUT Dissecting Scissors, curved, delicate pattern, wave cut, blunt/blunt, 180 mm (7")	1
9	DE BAKEY Atraumatic Micro Forceps, straight, 185 mm (7 1/4"), without weight, jaw width 1 mm, toothed DE BAKEY, round handle	1
10	Aorta Punch, straight, 140 mm (5 1/2"), Ø 4 mm	1
11	Sterilization and Storage Container system:	
12	BOTTOM FOR CONTAINER HEIGHT:120MM	1
13	PERF WIRE BASKET 540X253X56MM	1
14	LID FOR CONTAINER	1
15	SILICONE CUSHIONING PAD	1


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Must be FDA

Cardiac Surgery Instruments sets for Paeds

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Sr. No.	Product Description	QTY.
	SERIAL NO. 01: CHEST RETRACTOR AND WIRE TWISTER INSTRUMENTS	
1	COOLEY Sternum/Rib Retractor Baby size, 140 mm (5 1/2"), jaw depth: 21 mm, jaw width 45 mm, for children	1
2	FINOCHIETTO Sternum/Rib Retractor, 70 mm (2 3/4"), baby small size, jaw depth: 12 mm, jaw width 15 mm, aluminium	1
3	COOLEY Sternum/Rib Retractor, 140 mm (5 1/2"), jaw depth: 21 mm, jaw width 45 mm, for children	1
4	Wire Cutting Pliers, TC, straight, 235 mm (9 1/4"), double action, Suture / Wire Preference soft wire up to Ø 3.0 mm, hard wire up to Ø 2.2 mm	2
5	Wire Cutting Pliers, TC, angled, 180 mm (7"), double action, Suture / Wire Preference up to Ø 1.5 mm	2
6	Wire Twister, TC, straight, 155 mm (6 1/8"), jaw: with 0.5 mm pitch of serration, with ratchet, for suture up to 3/0,	2
7	TC BAUMGARTNER WIRE TWISTER MINI 200MMBAUMGARTNER Wire Twister, TC, straight, 205 mm (8"), jaw: with 0.5 mm pitch of serration, with ratchet, for suture up to 3/0	2
8	Wire Holding Pliers, TC, straight, 170 mm (6 3/4"), lateral jaws,	20
9	TUBING CLAMP SERRATED JAWS 180MM	10
10	KIDNEY TRAY STAINLESS STEEL 250MM	2
11	LABORATORY GALLIPOT DISH 0.16 L	5
12	LABORATORY BASIN DISH 2.5 L	2
13	LABORATORY BASIN DISH 2.5 L	3
14	ROSS AORTIC VALVE RETRACTOR SIZE 15X15MM FIG.1 245MM	1
15	ROSS VALVE RETRACTOR SIZE 13X22MM FIG.2 245MM	1
16	ROSS VALVE RETRACTOR SIZE 17X24MM FIG.3 255MM	1
17	LUER Bone Rongeur, curved, 180 mm (7"), blade length: 17 mm, jaw width: 3.80 mm	1
18	LISTON-KEY-HORSLEY Bone Cutting Forceps, angled, 250 mm (9 3/4"), double action	1
19	RUSKIN-LISTON Bone Cutting Forceps, angled, 180 mm (7")	1
20	LISTON Bone Cutting Forceps, angled, 240 mm (9 1/2"), double action	1
21	HEGAR Uterine Dilator Set, curved, rigid, with 14 dilators 4-17 mm	1
22	SCHEDE BONE CURETTE #000 2.5MM 170MM	1
23	SCHEDE BONE CURETTE #00 3.4MM 170MM	1
24	SCHEDE BONE CURETTE #0 4.2MM 170MM	1
25	SCHEDE BONE CURETTE #1 5.2MM 170MM	1
26	SCHEDE BONE CURETTE #2 6.3MM 170MM	1
27	SCHEDE BONE CURETTE #3 7.4MM 170MM	1
28	SCHEDE BONE CURETTE #4 8.0MM 170MM	1
29	FINOCHIETTO Sternum/Rib Retractor for babies, 70 mm (2 3/4"), baby, jaw depth: 12 mm, jaw width 15 mm, aluminium	1
30	FINOCHIETTO Sternum/Rib Retractor for babies, 75 mm (3"), jaw depth: 18 mm, jaw width 21 mm, for infants	1
31	BOTTOM FOR 1/1 CONTAINER HEIGHT:120MM	1
32	1/1 SIZE PERF BASKET 540X253X56MM	1
33	PRIMELINE PRO 1/1 LID GOLD	1
34	SILICONE CUSHIONING PAD 1/1 SIZE	1

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Cardiac Surgery Instruments sets for Paeds

Sr. No.	Product Description	QTY.
	SERIAL NO. 02: CORONARY MICRO INSTRUMENTS SET	
1	GARRETT VASCULAR DILATOR PROBE 1MM 140MM	2
2	GARRETT VASCULAR DILATOR PROBE 1.5MM 140MM	2
3	GARRETT VASCULAR DILATOR PROBE 2MM140MM	2
4	DE BAKEY Bulldog Clamp, curved, 45 mm (1 3/4"), toothing DE BAKEY, jaw length: 20 mm, micro	3
5	DE BAKEY Bulldog Clamp, straight, 90 mm (3 1/2"), work. length: 28 mm, toothing DE BAKEY, jaw length: 28 mm	2
6	NOIR SUPREME Micro Scissors, angled, 45 °, blade length: 10 mm, very delicate blade, sharp/sharp, 185 mm (7 1/4"), round handle	1
7	NOIR SUPREME Micro Scissors, angled, 90 °, blade length: 10 mm, very delicate blade, sharp/sharp, 185 mm (7 1/4"), round handle	1
8	NOIR SUPREME Micro Scissors, angled, 125 °, blade length: 10 mm, very delicate blade, sharp/sharp, 185 mm (7 1/4"), round handle	1
9	TITANIUM DE BAKEY Atraumatic Forceps, straight, 195 mm (7 3/4"), jaw width 1.50 mm, toothing DE BAKEY, flat handle, titanium	2
10	GERALD Atraumatic Micro Forceps, straight, 180 mm (7"), jaw width: 1 mm, toothing DE BAKEY, flat handle	4
11	Micro Ring Forceps, straight, 185 mm (7 1/4"), ring tip, without weight, jaw Ø: 1 mm, tungsten carbide coated, round handle	2
12	TITANIUM Micro Needle Holder, straight, 210 mm (8 1/4"), jaw: tungsten carbide coated, round handle, without ratchet, for suture up to 7/0	2
13	Micro Needle Holder, straight, heavy pattern, 190 mm (7 1/2"), jaw: tungsten carbide coated, round handle, with ratchet, for suture up to 2/0	2
14	TITANIUM Micro Needle Holder, straight, 210 mm (8 1/4"), jaw: tungsten carbide coated, round handle, without ratchet, for suture up to 5/0	2
15	ADSON CORONARY Suction Cannula, 155 mm (6 1/8"), curved, Ø 3 mm	1
16	ADSON CORONARY SUCTION CANNULA CURVED 4MM TIP/9MM OLIVE190MM	1
17	ADSON NERVE HOOK DURAL CVD BLUNT	2
18	ZENKER RETRACTOR 36X8MM 245MM	2
19	KELLY Dissecting Scissors, straight, sharp/sharp, 175 mm (6 7/8")	1
20	REYNOLDS Dissecting Scissors, curved, delicate pattern, blunt/blunt, 175 mm (6 7/8")	1
21	POTTS Dissecting Scissors (Tenotomy Scissors), curved, delicate pattern, blunt/blunt, 175 mm (6 7/8")	2
22	BOTTOM FOR 1/1 CONTAINER HEIGHT:120MM for Micro Instruments	1
23	1/1 SIZE PERF BASKET 540X253X56MM	1
24	PRIMELINE PRO 1/1 LID GOLD	1
25	INSTRUMENT RACK TYPE 4 240X40MM	4
26	SCREW SET	1
27	SILICONE CUSHIONING PAD 1/1 SIZE	1
28	1/1 SIZE PERF BASKET 540X253X56MM Container system for instruments	1
29	BOTTOM FOR 1/1 CONTAINER HEIGHT:120MM	1
30	1/1 SIZE PERF BASKET 540X253X56MM	1
31	PRIMELINE PRO 1/1 LID GOLD	1
32	SILICONE CUSHIONING PAD 1/1 SIZE	1


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Cardiac Surgery Instruments sets for Paeds

Sr. No.	Product Description	QTY.
	SERIAL NO. 03: PAEDS CLAMP INSTRUMENTS SET	
1	CATANEDA NEONATAL VASCALAMP Vascular Clamp, angled, 30 °, 120 mm (4 3/4"), toothed DE BAKEY, jaw length: 48 mm, width: 33 mm, for neonatal	1
2	CATANEDA Vascular Clamp, angled, 45 °, 120 mm (4 3/4"), toothed DE BAKEY, jaw length: 48 mm, for neonatal	1
3	COOLEY PEDIATRIC CLAMP COOLEY Vascular Clamp, angled, 60 °, 160 mm (6 1/4"), toothed DE BAKEY, jaw length: 30 mm, for pediatrics	1
4	COOLEY Vascular Clamp, angled, 90 °, 150 mm (6"), toothed DE BAKEY, jaw length: 30 mm, for pediatrics	1
5	DE BAKEY Vascular Clamp, straight, 130 mm (5 1/8"), toothed DE BAKEY, jaw length: 53 mm	1
6	WYLIE Vascular Clamp, curved upwards, 180 mm (7"), toothed DE BAKEY	1
7	COOLEY ATR. VASCALAMP Vascular Clamp, straight, 125 mm (5"), toothed COOLEY, jaw length: 50 mm	1
8	COOLEY Vascular Clamp, angled, 15 °, 125 mm (5"), toothed COOLEY, jaw length: 50 mm	1
9	COOLEY Vascular Clamp, angled, 32 °, 120 mm (4 3/4"), toothed COOLEY, jaw length: 50 mm	1
10	COOLEY Vascular Clamp, angled, 50 °, 125 mm (5"), toothed COOLEY, jaw length: 52 mm	1
11	COOLEY Bulldog Clamp, curved, 125 mm (5"), toothed COOLEY, jaw length: 50 mm	1
12	COOLEY Vascular Clamp, angled, 40 °, 120 mm (4 3/4"), toothed COOLEY, jaw length: 50 mm	1
13	DERRA-COOLEY Vascular Clamp, angled, 55 °, 170 mm (6 3/4"), toothed COOLEY, jaw length: 71 mm, width: 16 mm, for pediatrics	1
14	COOLEY PEDIATRIC COARCOOLEY Vascular Clamp, angled, 50 °, 170 mm (6 3/4"), toothed COOLEY, jaw length: 56 mm, width: 33 mm, for pediatrics	1
15	COOLEY Vascular Clamp, angled, 30 °, 165 mm (6 1/2"), toothed COOLEY, jaw length: 35 mm, for pediatrics	1
16	COOLEY Vascular Clamp, angled, 60 °, 160 mm (6 1/4"), toothed COOLEY, jaw length: 35 mm, for pediatrics	1
17	COOLEY Vascular Clamp, angled, 90 °, 150 mm (6"), toothed COOLEY, jaw length: 37 mm, for pediatrics	1
18	BABY SATINSKY VENA CAVA CLAMP SATINSKY Vascular Clamp, angled, 38 °, 265 mm (10 1/2"), satinsky-shaped, serrated (cross)	1
19	GREGORY Profunda Clamp, angled, 55 °, 150 mm (6"), toothed DE BAKEY, jaw length: 45 mm, small	1
20	DE BAKEY Vascular Clamp, curved, 125 mm (5"), toothed DE BAKEY, jaw length: 53 mm	1
21	DE BAKEY Vascular Clamp, curved, 125 mm (5"), S-shaped, toothed DE BAKEY, jaw length: 53 mm	1
22	DE BAKEY Vascular Clamp, angled, 45 °, 125 mm (5"), toothed DE BAKEY, jaw length: 53 mm	1
23	DE BAKEY Vascular Clamp, angled, 90 °, 105 mm (4 1/8"), toothed DE BAKEY, jaw length: 53 mm	1

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Cardiac Surgery Instruments sets for Paeds

Sr. No.	Product Description	QTY.
24	DALE Vascular Clamp, curved, 180 mm (7"), toothing DE BAKEY, Size L, spoon-shaped jaw	1
25	COOLEY-BECK Vascular Clamp, strongly curved, 150 mm (6"), toothing COOLEY, jaw length: 56 mm, width: 25 mm, for pediatrics	1
26	DE BAKEY-SATINSKY Vascular Clamp, curved, 200 mm (7 7/8"), toothing DE BAKEY, jaw length: 40 mm	1
27	SATINSKY Vascular Clamp, angled, 38 °, 265 mm (10 1/2"), satinsky-shaped, serrated (cross)	1
28	DE BAKEY Tangential Occlusion Clamp, angled, 60 °, 280 mm (11"), satinsky-shaped, toothing DE BAKEY, jaw length: 119 mm, width: 75 mm	1
29	DERRA-COOLEY Vascular Clamp, angled, 55 °, 170 mm (6 3/4"), toothing COOLEY, jaw length: 71 mm, width: 16 mm, for pediatrics	1
30	DERRA-COOLEY Vascular Clamp, angled, 55 °, 175 mm (6 7/8"), toothing COOLEY, jaw length: 76 mm, width: 21 mm, for pediatrics	1
31	DERRA-COOLEY Vascular Clamp, angled, 55 °, 175 mm (6 7/8"), toothing COOLEY, jaw length: 80 mm, width: 27 mm, for pediatrics	1
32	DE BAKEY (MODIF. MORRIS) Aorta Clamp, angled, 70 °, 240 mm (9 1/2"), toothing DE BAKEY, jaw length: 70 mm	1
33	BOTTOM FOR 1/1 CONTAINER HEIGHT:120MM	1
34	1/1 SIZE PERF BASKET 540X253X56MM	1
35	PRIMELINE PRO 1/1 LID GOLD	1
36	SILICONE CUSHIONING PAD 1/1 SIZE	1
SERIAL NO. 05: MICRO SURGERY FINE INSTRUMENTS		
1	Micro Needle Holder, straight, 210 mm (8 1/4"), jaw: tungsten carbide coated, round handle, with ratchet, for suture up to 5/0	1
2	Micro Needle Holder, straight, 230 mm (9"), jaw: smooth, round handle, with ratchet, for suture 9/0 - 11/0	1
3	Micro Needle Holder, straight, heavy pattern, 190 mm (7 1/2"), jaw: tungsten carbide coated, round handle, with ratchet, for suture up to 2/0	1
4	Micro Ring Forceps, straight, 185 mm (7 1/4"), ring tip, with weight, jaw Ø: 1 mm, tungsten carbide coated, round handle	1
5	Micro Plateau Forceps, straight, 185 mm (7 1/4"), ring tip, platform tip, without weight, jaw width 1 mm, tungsten carbide coated, round handle	1
6	Micro Scissors, angled, 45 °, blade length: 7 mm, ultra delicate blade, sharp/sharp, 165 mm (6 1/2"), round handle	1
7	Micro Scissors, angled, 125 °, blade length: 10 mm, very delicate blade, sharp/sharp, 165 mm (6 1/2"), round handle	1
8	METZENBAUM SUPERCUT Dissecting Scissors, curved, delicate pattern, wave cut, blunt/blunt, 180 mm (7")	1
9	DE BAKEY Atraumatic Micro Forceps, straight, 185 mm (7 1/4"), without weight, jaw width 1 mm, toothing DE BAKEY, round handle	1
10	Aorta Punch, straight, 140 mm (5 1/2"), Ø 4 mm	1
11	Sterilization and Storage Container system:	1
12	BOTTOM FOR CONTAINER HEIGHT:120MM	1
13	PERF WIRE BASKET 540X253X56MM	1
14	LID FOR CONTAINER	1
15	SILICONE CUSHIONING PAD	1

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 F.P.S.C. Thoracic & Aortic

Must be FDA approved

VASCULAR SURGERY INSTRUMENTS SET

Sr. No.	Product Description	
1	MAYO SAFETY PIN F/RING-HDL INST 140MM	
2	GEMINI Dissecting a. Ligature Forceps, curved, 140 mm (5 1/2"), serrated	2
3	HALSTED-MOSQUITO FORCEPS DEL CVD125MM	12
4	DE BAKEY Vascular Clamp, angled, 60 °, 275 mm (10 3/4"), toothing DE BAKEY, jaw length: 65 mm	1
5	COOLEY Vascular Clamp, angled, 90 °, 160 mm (6 1/4"), toothing COOLEY, jaw length: 46 mm, width: 28 mm, for pediatrics	1
6	DERRA-COOLEY Vascular Clamp, angled, 55 °, 170 mm (6 3/4"), toothing COOLEY, jaw length: 71 mm, width: 16 mm, for pediatrics	1
7	DE BAKEY-BECK Vena Cava Clamp, angled, 60 °, 205 mm (8"), satinsky-shaped, toothing DE BAKEY, jaw length: 65 mm, width: 30 mm	1
8	DE BAKEY-BECK Vena Cava Clamp, angled, 60 °, 210 mm (8 1/4"), satinsky-shaped, toothing DE BAKEY, jaw length: 80 mm, width: 45 mm	1
9	DE BAKEY-HARKEN Vascular Clamp, curved, 255 mm (10"), toothing DE BAKEY, jaw length: 86 mm	1
10	LELAND-JONES Vascular Clamp, straight, 195 mm (7 3/4"), toothing DE BAKEY, jaw length: 77 mm	1
11	LELAND-JONES Vascular Clamp, angled, 30 °, 185 mm (7 1/4"), toothing DE BAKEY, jaw length: 69 mm	1
12	DE BAKEY Vascular Clamp, curved, 190 mm (7 1/2"), toothing DE BAKEY, jaw length: 75 mm	1
13	KANTROWITZ Dissecting a. Ligature Forceps, angled, 245 mm (9 5/8"), serrated	1
14	DE BAKEY Aorta Aneurysm Clamp, strongly curved, 270 mm (10 5/8"), toothing DE BAKEY, jaw length: 72 mm, width: 60 mm	1
15	DE BAKEY (MODIF. SEMB) Aorta Aneurysm Clamp, strongly curved, 265 mm (10 1/2"), toothing DE BAKEY, jaw length: 67 mm, width: 56 mm	1
16	DE BAKEY Aorta Aneurysm Clamp, curved, 300 mm (11 3/4"), toothing DE BAKEY, jaw length: 102 mm	1
17	DE BAKEY Aorta Aneurysm Clamp, curved, 315 mm (12 3/8"), toothing DE BAKEY, jaw length: 117 mm	1
18	DE BAKEY Aorta Aneurysm Clamp, curved, 330 mm (13"), toothing DE BAKEY, jaw length: 136 mm	1
19	DIETRICH VESSEL SCISSORS 45DG 180MMDIETRICH-HEGEMANN Vascular Scissors, angled, 45 °, blade length: 15 mm, sharp/sharp, 180 mm (7")	1
20	MAYO OPERATING SCISSRS STR S/S 140MM	2
21	SURGICAL SCISSORS STR S/S 150MM	2
22	SURGICAL SCISSORS STR S/S 165MM	2
23	SURGICAL SCISSORS CVD S/S 145MM	2

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VASCULAR SURGERY INSTRUMENTS SET

Sr. No.	Product Description	Qty.
24	SURGICAL SCISSORS CVD S/S 150MM	2
25	METZENBAUM (BABY) Dissecting Scissors, straight, TC, delicate pattern, blunt/blunt, 145 mm (5 3/4")	2
26	NOIR METZENBAUM WVCT SCISSORS CVD 145MMMETZENBAUM Dissecting Scissors, curved, TC, wave cut, blunt/blunt, 145 mm (5 3/4")	2
27	TC METZENBAUM SCISSORS STR 180MMMETZENBAUM Dissecting Scissors, straight, TC, blunt/blunt, 180 mm (7")	2
28	NOIR METZENBAUMMETZENBAUM Dissecting Scissors, curved, TC, blunt/blunt, 180 mm (7")M SCISSORS CVD 180MM	2
29	TC METZENBAUM SCISSORS CVD 200MMMETZENBAUM Dissecting Scissors, curved, TC, blunt/blunt, 200 mm (7 7/8")	2
30	METZENBAUM Dissecting Scissors, curved, TC, wave cut, blunt/blunt, 200 mm (7 7/8")	2
31	Suture Scissors, curved, TC, wave cut, blunt/blunt, 145 mm (5 3/4")	2
32	TC SUTURE WAVECUT SCISSORS CVD 180MM Suture Scissors, curved, TC, wave cut, blunt/blunt, 180 mm (7")	2
33	Wire Twister, TC, straight, 155 mm (6 1/8"), jaw: with 0.5 mm pitch of serration, with ratchet, for suture up to 3/0	2
34	TC WIRE TWISTER SQ-TIP 155.MM Wire Twister, TC, straight, 155 mm (6 1/8"), jaw: with 0.5 mm pitch of serration, with ratchet, for suture up to 3/0	2
35	POTTS-SMITH SUPERCUT Vascular Scissors, angled, 45 °, wave cut, sharp/sharp, 185 mm (7 1/4")	1
36	CRILE-WOOD Needle Holder, TC, straight, 185 mm (7 1/4"), jaw: with 0.4 mm pitch of serration, for suture 4/0 - 6/0	2
37	TC DE'BAKEY NDL HOLDER DEL SERR 230MMDE BAKEY Needle Holder, TC, straight, 230 mm (9"), jaw: with 0.4 mm pitch of serration, for suture 4/0 - 6/0	2
38	TC MASSON NEEDLE HOLDER SERR 265MMMASSON Needle Holder, TC, straight, 265 mm (10 1/2"), jaw: with 0.5 mm pitch of serration, for suture up to 3/0	2
39	RYDER Needle Holder, TC, straight, 225 mm (8 7/8"), jaw: smooth, extremely fine jaw, for suture 9/0 - 11/0	2
40	RUSSIAN TISSUE FORCEPS 200MMRUSSIAN PATTERN Tissue Forceps, straight, 200 mm (7 7/8"), ring tip, jaw Ø: 7 mm, jaw width: 7 mm, toothed	2
41	DE'BAKEY ATR.FCPS 2.0MM STR150MM	2
42	DE'BAKEY STRAIGHT FCPS 1MM TIP195MM	2
43	DE'BAKEY STRAIGHT FCPS 1MM TIP240MM	2
44	DE'BAKEY FCPSDEL1.5MM WIDE305MM LONG	2

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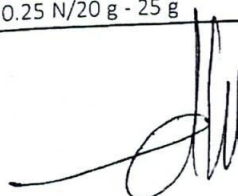
VASCULAR SURGERY INSTRUMENTS SET

Sr. No.	Product Description	Qty.
45	DIADUST MICRO NEEDLE HOLDER RD HDL 210MM Micro Needle Holder, straight, 210 mm (8 1/4"), jaw: tungsten carbide coated, round handle, with ratchet, for suture up to 7/0	2
46	DE BAKEY Vascular Clamp, straight, 130 mm (5 1/8"), toothing DE BAKEY, jaw length: 53 mm	2
47	CRILE FORCEPS CVD 160MM	4
48	DESCHAMPS STEEP TURNLFT-HNDBLUNT225MM	1
49	DESCHAMPS STEEP TURN RT-HANDBLNT225MM	1
50	ALLIS FORCEPS 5X6 155MM	3
51	RUSSIAN TISSUE FORCEPS 150MM	2
52	RUSSIAN TISSUE FORCEPS 200MM	2
53	LAHEY FORCEPS 3X3 155MM	1
54	SCALPEL HANDLE #3 125MM	3
55	SCALPEL HANDEL #3L	2
56	SCALPEL HDL.STR.NO.4	2
57	SCALPEL #4L	2
58	SCALPEL HANDLE #7 ENGLISH NO.5 160MM	2
59	FERG-FRAZIER SUCT 6FR 2/110MM WRK-LGTH	2
60	FERG-FRAZIER SUCT 7FR110MM WRK-LGT	2
61	FERG-FRAZIER SUCT 9FR 3/110MMWRK-LGTH	2
62	FERG-FRAZIER SUCT 12FR 110MM WRK-LGT	2
63	POOL SUCTION CANNULA CHARR.23	2
64	POOL SUCTION CANNULA CHARR.30	1
65	US-ARMY RETRAC.26X15/43X15-23X15/40X15	1
66	BABY-SENN-MILLER RECTOR.SH.8X7/22X7MM	1
67	BABY-SENN-MILLER RECTOR.BL.8X7/22X7MM	1
68	SENN-MILLER RECTOR.SH.8X7/18X5.5MM	1
69	ROUX RETRACTOR 28X24/43X24MM	1
70	LANGENBECK GREEN RETRACTOR16 X6MM160MM	1
71	LANGENBECK GREEN RETRACTOR24X6MM160MM	2
72	STRABISMUS SCISS SQ HDLB/B STR115MM	2
73	STRABISMUS SCISS SQ HDL B/B CVD 115MM	2
74	ADSON TISSUE FCPS FINE W/1X2T 120MM	12
75	HALSTED-MOSQUITO FORCEPS DEL CVD125MM	12
76	HALSTED-MOSQUITO FCPS DELCVD1X2125MM	
77	TC WEBSTER NEEDLE HOLDER SMOOTH 130MMWEBSTER Needle Holder, TC, straight, 130 mm (5 1/8"), jaw: smooth, for suture 9/0 - 11/0	2
78	ALLIS FORCEPS 4X5 155MM	6
79	FOERSTER-BALLENGR SPNG FCPSTR180MM	1
80	LAHEY FORCEPS 2X2 155MM	4
81	KOCHER-OCHSNER FORCEPS STR 1X2 160MM	6

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VASCULAR SURGERY INSTRUMENTS SET

Sr. No.	Product Description	Qty.
82	ROCHESTER-PEAN FORCEPS CVD 160MM	4
83	BIPOLAR COAGULATION FORCEPS .9MMX160MM	1
84	RUSSIAN TISSUE FORCEPS 150MM	1
85	FREER ELEVATOR S/B185MM	1
86	NERVE DISSECT.SCISSORS CVD.140MM	2
87	CUSHING VEIN RETRACTOR 10X13MM 205MM	2
88	CUSHING-KOCHER RETRACTOR 10X10MM180MM	2
89	GREENE RETRACTOR OPEN 28X22MM225MM	2
90	LAHEY GOITER RETRACTOR 24X8MM 200MM	2
91	RICHARDSON-EASTMAN RETRACSM250MM	2
92	WEITLANER RETRACTOR 3X4T.SH.130MM	2
93	STERILIZATION & STORAGE CONTAINER COMPLETE SYSTEM FOR INSTRUMENTS	
94	BOTTOM FOR CONTAINER SYSTEM HEIGHT:135MM	1
95	LID FOR CONTAINER SYSTEM WITH PTFE FILTER	1
96	TRAY INSERT FOR CONTAINER SYSTEM	1
97	PERF WIRE BASKET FOR CONTAINER SYSTEM	1
98	SILICON PAD FOR CONTAINER SYSTEM	1
99	IDENTIFICATION LABEL FOR CONTAINER SYSTEM	1
100	Needle Case, perforated, 150 mm (6"), width: 90 mm, height: 15.000 mm	1
101	jaw width 1 mm, toothing DE BAKEY, round handle	1
102	NOIR SUPREME Micro Ring Forceps, straight, 185 mm (7 1/4"), ring tip, without weight, jaw Ø: 1 mm, tungsten carbide coated, round handle	1
103	Micro Vascular Dilator, angled, 115 mm (4 1/2"), jaw width 0.40 mm, smooth, flat handle	1
104	NOIR SUPREME Micro Plateau Forceps, straight, 185 mm (7 1/4"), platform tip, without weight, jaw width 0.60 mm, tungsten carbide coated, round handle	1
105	NOIR SUPREME Micro Scissors, curved, blade length: 10 mm, very delicate blade, sharp/sharp, 165 mm (6 1/2"), round handle	1
106	NOIR SUPREME Micro Scissors, straight, blade length: 10 mm, very delicate blade, sharp/sharp, 165 mm (6 1/2"), round handle	1
107	NOIR SUPREME Micro Scissors, angled, 125 °, blade length: 10 mm, very delicate blade, sharp/sharp, 165 mm (6 1/2"), round handle	1
108	NOIR SUPREME Micro Scissors, angled, 45 °, blade length: 10 mm, very delicate blade, sharp/sharp, 165 mm (6 1/2"), round handle	1
109	BIEMER Micro Scissors (Vein Scissors), straight, with eye for vein, blunt/blunt, 130 mm (5 1/8"), flat handle, cross serration	1
110	Bulldog Clamp, curved, 34 mm (1 3/8"), jaw length: 13 mm, micro	2
111	BIEMER Micro Vascular Clip, straight, Stainless Steel, 15 mm, blade length: 6 mm, jaw width 1 mm, closing force: 0.29 N - 0.39 N/30 g - 40 g	2
112	BIEMER Micro Vascular Clip, straight, Stainless Steel, 18 mm, blade length: 9 mm, jaw width 1 mm, closing force: 0.29 N - 0.39 N/30 g - 40 g	2
113	BIEMER Micro Vascular Clip, straight, Stainless Steel, 18 mm, blade length: 9 mm, jaw width 0.60 mm, closing force: 0.20 N - 0.25 N/20 g - 25 g	2


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VASCULAR SURGERY INSTRUMENTS SET

Sr. No.	Product Description	Qty.
114	MUELLER ALPHA Vessel Clip, atraumatic, angled to side, for vein, 45 °, Stainless Steel, 39 mm, blade length: 16 mm, jaw width 1.70 mm, closing force: 0.50 N/50 g	2
115	BIEMER-MUELLER Micro Approximator, straight, Stainless Steel, 18 mm, blade length: 9 mm, closing force: 0.25 N - 0.29 N/25 g - 30 g	1
116	BIEMER-MUELLER Micro Approximator, straight, Stainless Steel, 18 mm, blade length: 9 mm, closing force: 0.25 N - 0.29 N/25 g - 30 g	1
117	MUELLER ALPHA Vessel Clip, atraumatic, straight, for vein, Stainless Steel, 38 mm, blade length: 12 mm, jaw width 1.70 mm, closing force: 0.50 N/50 g	2
118	MUELLER ALPHA Vessel Clip, atraumatic, curved, for vein, Stainless Steel, 37 mm, blade length: 12 mm, jaw width 1.70 mm, closing force: 0.50 N/50 g	2
119	ACLAND Approximator, straight, for artery, Stainless Steel, 24 mm, jaw width 2.20 mm, closing force: 0.44 N - 0.56 N/44 g - 56 g	1
120	ACLAND Approximator, straight, for vein, Stainless Steel, 24 mm, jaw width 2.20 mm, closing force: 0.44 N - 0.56 N/44 g - 56 g	1
121	ACLAND Vessel Clip, straight, for artery, Stainless Steel, 11 mm, jaw width 1.50 mm, closing force: 0.15 N - 0.19 N/15 g - 19 g	2
122	ACLAND Vessel Clip, straight, for vein, Stainless Steel, 11 mm, jaw width 1.50 mm, closing force: 0.15 N - 0.19 N/15 g - 19 g	2
123	NOIR SUPREME Micro Needle Holder, straight, 185 mm (7 1/4"), jaw: tungsten carbide coated, round handle, with ratchet, for suture up to 5/0	1
124	Noir Micro Needle Holder, curved, 170 mm (6 3/4"), Ø 0.50 mm, work. length: 80 mm, jaw: tungsten carbide coated, round handle, with ratchet	1
125	BIEMER Applying Forceps, straight, 145 mm (5 3/4"), with ratchet	1
126	ACLAND Applying Forceps, 140 mm (5 1/2"), used with 14-36 mm clips	1
127	ACLAND Applying Forceps, 140 mm (5 1/2"), used with 8-11 mm clips	1
128	KRAYENBUEHL Nerve- and Vessel Hook, angled, 90 °, 185 mm (7 1/4"), straight, 1 prong, jaw depth: 2.50 mm, blunt	1
129	VESSEL SPREADER BIEMER 165MM	1
130	VESSEL DILATOR D:1.0MM 125MM	
131	STERILIZATION & STORAGE CONTAINER SYSTEM:	2
132	BOTTOM FOR CONTAINER HEIGHT:120MM	2
133	LID FOR CONTAINER	2
134	PERF WIRE BASKET 540X253X76MM	2
135	SILICONE CUSHIONING PAD	2
136	STERILIT I OIL SPRAY	


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Technical Specifications

Single-Chamber External Temporary Cardiac Pacemaker

General

- Portable, battery-operated single-chamber external temporary cardiac pacemaker.
- Suitable for temporary atrial or ventricular pacing.
- Intended for Cath Lab, ICU, CCU, Emergency Department and Operating Room.
- Compact, lightweight design for bedside and transport use.

Pacing Modes

- Minimum modes: VVI, VOO, AAI and AOO.
- Rapid atrial pacing facility preferred.

Pacing Rate

- Adjustable pacing rate: 30–180 pulses/min or wider.

Output

- Constant voltage pacing output.
- Adjustable output: 0.3–12 V or equivalent.

Pulse Width

- Fixed or programmable pulse width (approximately 0.75 ms or equivalent).

Sensitivity

- Adjustable sensing threshold: 1–20 mV or better.

Indicators

- Visual indication of pacing pulses, sensed cardiac activity, battery status and low battery warning.
- Audible pacing/sensing indication preferred.

Controls

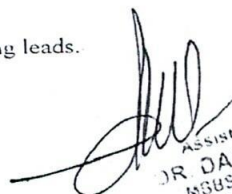
- Separate controls for pacing mode, rate, output and sensitivity.

Battery

- Replaceable or rechargeable battery.
- Battery operating life preferably ≥ 30 days under standard operating conditions.

Patient Connections

- Compatible with temporary transvenous pacing leads.
- Touch-protected connectors preferred.


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- Compatible with unipolar and/or bipolar leads.

Safety

- IEC 60601-1 compliant.
- IEC 60601-1-2 EMC compliant.
- Defibrillation-protected patient connections.

Accessories

- Pacemaker generator
- Patient cable(s)
- Battery/charger
- Carrying case
- User and service manuals
- Mounting bracket (if applicable)

Certifications

- CE Mark.
- US FDA clearance preferred.
- ISO 13485 certified manufacturer.

Warranty

- Minimum 5-year comprehensive warranty.
- Preventive maintenance during warranty.
- Spare parts availability for at least 7 years.

Training

- Installation and commissioning.
- On-site user training.
- Biomedical engineering training.
- Operation and service manuals.

Recommended Accessories (Quoted Separately)

- Temporary bipolar pacing lead (5F-7F, balloon-tipped).
- Temporary pacing cable/extension cable.
- Introducer sheath (6F-7F).
- Sterile accessory kit.



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Technical Specifications for Activated Clotting Time (ACT) Analyzer

General

The system shall be a portable, point-of-care Activated Clotting Time (ACT) analyzer for monitoring high-dose heparin therapy during cardiac catheterization, cardiovascular surgery, ECMO, vascular surgery, and dialysis.

The analyzer shall be CE marked and/or US FDA cleared for ACT testing.

Measurement Technology

- Whole blood ACT measurement.
- Mechanical, electro-mechanical, magnetic, optical, or equivalent clot detection technology.
- Automatic clot detection without operator interpretation.

Sample Requirements

- Fresh arterial or venous whole blood.
- Sample volume not exceeding 40 μ L.
- No sample pretreatment required.

Performance

- Measuring range: 50–1,000 seconds or wider.
- Accuracy and precision as validated by the manufacturer.
- Results available within a few minutes depending on clotting time.

Reagents

- Compatible with ACT cartridges/tubes using Kaolin and/or Celite activation.
- Shelf life of consumables preferably ≥ 12 months.

Display

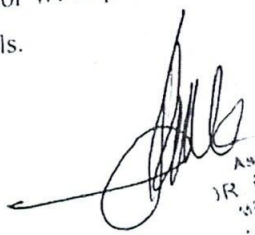
- Large LCD or color touchscreen displaying Patient ID, test type, ACT result, date/time, error messages, and QC status.

Memory

- Storage capacity of at least 500 patient results with date and time. Search and recall capability.

Connectivity

- USB port. Ethernet and/or Wi-Fi preferred. Compatible with LIS/HIS through standard communication protocols.


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Quality Control

- Built-in electronic self-check, internal QC, external QC compatibility, and automatic or factory calibration.

Power Supply

- 100–240 VAC, 50/60 Hz with rechargeable battery providing at least 4 hours of operation (preferred).

Environmental Conditions

- Operating temperature: 15–35°C.
- Humidity: 10–90% non-condensing.

Accessories

- Analyzer, power adapter, rechargeable battery, carrying case, user manual, starter reagent/cartridge pack, QC materials, and printer (built-in or external if offered).

Warranty

- Minimum 5 years comprehensive warranty covering parts and labor.
- Preventive maintenance.
- Availability of spare parts and consumables for at least 7–10 years.

Training

- On-site user and biomedical engineering training.
- Installation, commissioning, and acceptance testing included.



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ABG Machine

MEASURED PARAMETERS:

The measured parameters should include the following:

Type	Parameter
PH	pH, cH
Blood Gas	pCO ² , pO ²
Electrolytes	cCa ²⁺ Or cCl ⁻ , cK ⁺ , cNa ⁺
Metabolite	cGlu, cLac
Oximetry	ctHb, sO ₂ ,

INPUT PARAMETERS:

The input parameters should at least include the following:

Patient ID, Patient height, Patient department, T, Sample type, Patient note, Patient weight, Patient accession no. , Patient age, Patient sex, Draw time, Date of birth, Date of birth, Sample site, Patient birth weight, Patient gestational age, Patient name, Physician , Operator , Operator department, p50(st), RQ, FO2(I), Qt, VO2, VCO, sO2(v-), pO2(v-), ctHb, FCOHb(1), and FCOHb(2)

TECHNICAL SPECIFICATIONS:

Liquid Volume: 500µl or More

Cycle time: < 3 min

Scanning time: <30 sec with filled carousel

HARDWARE:

128 MB RAM or More

Hardisk 40 GB or More

CD/RW/DVD drive

Display

10 inch or More Color Touch Screen

ORIGIN: Europe, USA, Japan

Note: Machine should be operating on Reagent solution not on cartridge base.


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SPECIFICATION OF DIGITAL ECHOCARDIOGRAPHY UNIT

Gen Description: -

- A complete dedicated AI Based digital echocardiography unit for cardio vascular applications with sharp and high image production and heavy-duty performance having following general features: -
- Latest technology.
- Digital cardio vascular ultrasound system with multi-dimensional imaging.
- Processing Channels: 10,000,000 or more
- Mobile trolley mounted system.
- 2D & 4D cardiac imaging with volumetric quantification of LV.
- AI (Artificial Intelligence) powered technology.

a) Physical and Technical Characteristics: -

- Monitor 24 " dual layered LCD
- 13" touch screen.
- Tilt/Rotate adjustable monitor.
- Image size resolution 1920*1080.
- Alphanumeric keyboard.
- Gesture detection technology
- Track ball.
- CP Backlight.
- Probe ports :4
- Maximum depth: 55 cm
- Independent steer and lock wheels.

b) Imaging Modes: -

- 2D.
- M-Mode.
- Color M mode.
- Anatomical M-mode.
- Trapezoidal imaging.
- Color power angio, pulse wave doppler.
- CDE (Color Doppler Energy).
- CW Spectral doppler.
- DTI (Doppler tissue imaging).
- Live 3D software.
- AI 2D Heart.
- AI 4D Heart.
- Provides fully automated quantification of all four cardiac chambers from 3D datasets in seconds that Includes: LV volumes, RV volumes, LA and RA measurements.
- Automated 3D chamber analysis.
- TTE and TEE support.
- Stress Echo.
- Strain and strain rate.
- Color M-mode.
- Panoramic Imaging.
- Strain and Shear wave elastography.
- Tissue Harmonic Imaging.
- Advance Sie Clear Spatial compounding.
- Speckle reduction.
- TEQ Ultrasound technology for image optimization.
- AI feature that gives Automatic view recognition + Doppler placement + optimization in one workflow
- Write Zoom.
- Color Doppler Velocity.
- Customizable anatomy-based measurements.
- Live Dual Imaging.


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- Entire image remains in focus without focal zone adjustments
 - Smart remote controls
 - True Fusion
 - Raw data
 - Flexible report contents
 - Abdominal, fetal echo, TCD, MPE, Vascular, Interventional cardiology, echo cardiology pediatrics and adult
 - Stress echocardiography
 - HFA Adult
 - FVO Contrast (contrast imaging cardiac)
- c) **Connectivity and Storage:**
- Audio and video online digital input and output
 - USB port
 - LAN connectivity
 - System is DICOM compatible
 - External storage 15 TB HDD
- d) **Probes:**
- Multi frequency phased array sector probe for adults 1.0-5.0MHz
 - Multi frequency phased array sector probe for pediatrics 2.0-8.0MHz
 - Transoesophageal Probe 1D having frequency 2.0-7.0MHz


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03 CHANNEL ECG MACHINE

1. Display should be color and more than 4 inches or more
2. Should view 12-Lead ECG waveform on the screen.
3. 3 channel ECG machine with 12-lead ECG signal processing.
4. 3.5" TFT Color LCD
5. 12 Leads ECG simultaneous acquisition
6. Simultaneous display of 3/6/12 leads ECG waveform
7. ECG waveform in AUTO/Manual mode
8. Diagnosing ECG waveform parameters automatically with self-interpretation
9. "Lead off" and "Lack of paper" alarms
10. Patient History Management
11. Should support SD card for external storage
12. Capable to store approx 400 ECG files without SD CARD and more than 3000 on external storage.
13. Defibrillator proof
14. Should comply with IEC-60601-2-51

Country of Origin: Europe, USA, JAPAN


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**MEDICAL TEACHING INSTITUTION
AYUB TEACHING HOSPITAL, ABBOTTABAD
Department of Cardiology**

No: 2760

Dated: 31.07.2026

The Deputy Director Electro Medical

AMTI, Abbottabad

Subject: Submission of Specifications for Digital Flat Panel Angiography Machine

Reference your letter No. ATH/EM/101-04/2026 dated 30-06-2026 regarding the submission of specifications for the procurement of a **Digital Flat Panel Angiography Machine**.

In compliance with your letter, the detailed technical specifications of the required equipment have been prepared and are hereby enclosed for further necessary action and processing.

Encl: Detailed Technical Specifications of Digital Flat Panel Angiography Machine.


Associate Professor
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Head of Cardiology Department

AMTI, Abbottabad

CEILING MOUNTED SINGLE PLANE ANGIOGRAPHY MACHINE

Sr. No.	SPECIFICATION OF EQUIPMENT
	Latest and top of the line fully digital flat panel single plane angiography System with ceiling mounted C-Arm for diagnostic & interventional procedures including cardiac, peripheral and Neuro interventions. Complete site renovation according to manufacturer standard protocols and End-user requirement will be the responsibility of the firm. Site includes (ducting, railing, flooring, lead lining, storage cabinets, furniture, Air conditions for Technical room, Procedure room and control room.
A	POSITIONING ARM:
1	Ceiling mounted c-arm with motorized real-time display of rotation angulations with capability to move on all multi-axis of the table for ease of rotations, head to toe coverage without movement of the table or the patient, free space all around the table with lateral / transverse c-arm movement for radial access.
2	Real time display of rotation angulations.
3	Geometry: C-arm / G-arm
4	RAO / LAO: $\pm 120^\circ$ or more
5	C-Arm Sliding: Minimum RAO 45° to LAO 45° or better
6	Rotation Speed: $50^\circ/\text{sec}$ or more in LAO / RAO.
7	Isocentric Height: Variable / Fixed.
8	Auto Positioning: Programmable auto positioning of selected.
9	Angulations, (50 or more programmable positions.)
10	The control panel can be mounted at any side of the patient table.
11	All the rotational / angles should be digital displayed.
12	Motorized / rotation of the positioning arm.
13	Motorized lateral / transverse c-arm movement to cover fingertip to fingertip radial access and increased patient access from both sides of table (Xpand/flex move/lateral

	moveetc).
14	SID: $\leq 90\text{cm}$ $\geq 115\text{cm}$.
B	DIGITAL FLAT PANEL DETECTOR: FPD panel for advanced interventional works, size should be 30cm x 30cm or more.
1	Single plane C-Arm / G-Arm
2	Standard FPD size with four formats.
3	Flat Panel output should be 16-bit or more.
4	Pixel Size of 200um or better.
5	DQE: $>75\%$
6	Built in temperature stabilizer.
7	Integrated collision protection feature
8	All other standard accessories according to this digital flat panel.
9	Dose management with fluoro filters range of 0.1/0.2mm to 0.9/1.0 mm Cu.
C	PATIENT SUPPORT / CATERIZATION TABLE:
1	Floor mounted, 8 - ways horizontal floating top catheterization table with up / down, vertical, longitudinal, and transverse movements.
2	Table should have both lateral and longitudinal tilting facility ± 15 -degrees or more.
3	Tabletop length of 275cm or more.
4	Table top should be durability to accept patient's weight of not less than 200kg plus 100kg for resuscitation.
5	Table dimensions should be able to accommodate patients of all ages.
6	Compact tableside control unit with easily distinguished buttons and controls.
D	X-RAY GENERATOR:
1	Microprocessor based high frequency using fiber optic for data communication between each imaging system.
2	Dedicated X-Ray generator of 100kW or more
3	Radiographic rating minimum 1000mA or better
4	Serial filming exposures with shortest exposure of 1ms (mandatory requirement to

	ensure lower radiation dose), with automatic kV and mA control for optimum image quality.
5	The system should have capability of digital radiography and fluoroscopy.
6	Should have capability of doing digital pulsed fluoroscopy at 1, 2, 3, 5, 7.5, 10, 15, 20, 30 frames/sec. 60 frames / sec for pediatrics must be provided.
7	Automatic kV, mA & pulse width regulations.
E	High Resolution Digital Imaging and Acquisition and Fluoroscopy System with Real Time Image Processing:
1	Acquisition, processing, storage and display all at 16 bits or higher in DA and fluoroscopy.
2	Parallel processing capability / multitasking facility.
3	Real time filtering and road map function.
4	Magnetic Disk Capacity for Storage of 150,000 images or more in 1024 x 1024 matrix x 16 bit (including Cardiac Mode) on the magnetic disk of main console. Multiple Hard Disks (RAID) system for greater reliability.
5	Minimum scene length to be 10 seconds in 1024 matrix.
6	Digital pulsed fluoroscopy with 1, 2, 3, 5, 7.5, 10, 15, 20, 30 FPS or more flexible range in 1024 x 1024 x 16 bits or more and 512 x 512 @ 60fps for pediatrics.
7	Images to be stored on and retrieved from archival disks for possible manipulation and quantification using available software packages.
F	X-RAY TUBE (should be based on grid pulse technology):
1	Liquid metal bearing dual / triple focus with actual Anode Heat Storage Capacity should be 3.5MHU or more.
2	Capacity to enable continuous heat dissipation during serial exposure.
3	mA power of tube of 250mA or more at small focal spot.
4	Focus Tube of 0.5/0.8 mm for dual focus and 0.3/0.6/0.9-1.0 or similar for triple focus.
5	Dose management with auto adjustment fluoro filters.
6	Tube power should be same as generator power of 100KW approximately.
G	MONITORING SYSTEM:
1	Flat Screen LCD/LED 55 inches or better of 1024 x 1024 matrix 8MP or more monitor.

2	Monitors should be ceiling mounted in the operation room with the original ceiling suspension system.
3	Two monitors for live images and road mapping in the examination room 19 inch or larger LCD/LED as back up.
5	All the monitors will be of Medical Graded, complied with international standards for medical monitors.
H	CONTROLS:
	All controls of digital imaging shall be in the examination as well as control room.
I	RECORDING / ARCHIVING & COMMUNICATION SYSTEM:
1	Recording / archiving system should be DICOM-3 compatible.
2	They digital images should be stored as backup on CD/DVD.
3	DICOM (send/storage, commitment, retrieve/query)
4	Ethernet connection to connect with other terminals.
5	Integrated Intercom system.
J	Radiation Reduction and Monitoring Systems:
1	Advanced radiation dose reduction and image enhancement features are mandatory like Dose Rite or Clarity IQ / Smart IQ or OPTIQ or Score Opera or Auto Right intelligent image chain. Dose management and reduction / optimization to be done without image quality compromise.
K	SOFTWARE / HARDWARE PACKAGES:
1	Complete analysis package for the following applications.
2	Dynamic pre and post PTCA / valvotomy comparison with one image live and other reference.
3	Automatic loop replay after acquisition or fluoroscopy.
4	Dynamic real time pan / zoom.
5	Dynamic real time digital image processing like edge enhancement or gamma correction, noise reduction (spatial filtration.)
6	Fluoro individual mode to simultaneous display of fluoroscopy and Live reference images in dynamic loop both to be displayed simultaneously on same screen.
7	Online image density (gray scale) correction.



8	Facility to review previous studies in the examination room from the patients old CD.
9	Automatic positioning of the C-Arm corresponding to reference image.
10	Store fluoro facility to store fluoroscopy.
11	Dose Area Product to monitor and display air kerma radiation dose in numerical.
12	Digital Subtracted Angiography.
13	Rotational Angiography
14	Rotational DSA
15	Live Stent enhancement facility. Older technology of enhancement on frozen image is not acceptable.
16	Auto pixel shift for DSA
17	Radiation free patient positioning
18	Automatic collimation to reduce radiation dosage
19	Dedicated cardiovascular Workstation quoted should be from the original manufacturer of cath lab with integrated tableside controls for reviewing prior data. DICOM-3 Compatible. High resolution 18" or better LCD/LED Monitor. Online workstations to review studies directly and the facility to review studies on workstation with lossless compression and original image quality as on the console. CD. DVD writer and CD/DVD ROM Drive. Image storage capacity 3x80 GB with at least 10,000 rpm speed. And SCSI (SATA/IDE) or equivalent controller at each review station. Laser black & white printer, 2400 DPI or better (HP, LEXMARK, XEROX, CANON) network ready xl All License software with part numbers. (Verifiable direct from Manufacturer) Planning and guidance of TAVI procedures along with structural heart procedures software with all necessary hardware.
20	Parallel processing to allow live fluoroscopy acquisition of images while simultaneous burning data on CD and changing reference monitor layout, or and changing reference images dynamic and static.
21	Tableside tablet control (with minimum 10-inches size) to select the desired acquisition program and desired auto-positioning number and provide assistance in angiographic

	workstation operation including play back, stop and frame advance cine images capable to switch between a cine image file and a map/static image file from tablet full control of hemodynamic system including samplings, EDP, NIBP, Pullback, Gradient), IBP Zeroing, Cardiac Output, from table side console. Digital display of all physiological parameters, including invasive blood pressure (IBP), heart rate, and cardiac output parameters.
22	Cardiology PACS shall be provided, that perform comprehensive acquisition, storage, management, review, and archival of cardiovascular images and related patient data generated by the angiography systems.
L	QUALITY AND SAFETY STANDARDS FOR ANGIOGRAPHY MACHINE: Offered model must have at least two of the following quality certificates; (Mandatory)
1.	US-FDA 510K (For Adult Angiography and Hemodynamic System)
2.	MDD 93/42/EEC (CE) or MDR (CE) from Nando Notified Bodies
3.	MHLW
M	ACCESSORIES WITH THE SYSTEM:
	Physiological Hemodynamic Monitoring System with full integration with Angiography System with capability to manipulate Hemodynamic samplings, EDP, NIBP, Pullback, Gradient), IBP Zeroing, Cardiac Output, from table side console. Digital display of all physiological parameters, including invasive blood pressure (IBP), heart rate, and cardiac output parameters.
	Should be from the same Manufacturer of Angiography System. Integrated Hemodynamic System with full table side control having bi-directional communication with the machine. Multichannel to record at least 2-channels IBP, Cardiac output with thermo-dilution method, surface ECG in any configuration and simultaneous 12 lead ECG, NIBP and SpO2 measurement. Digital display of all the parameters like IBP, Heart rate, cardiac output parameter. It should be possible to print the waveforms simultaneously while acquiring the data in the back ground.

	10-inches tableside tablet control of Hemodynamic system to control sampling, ECG (leads), EDP, NIBP, Pullback, Gradient, Cardiac output and start/stop timers.
N	ADDITIONAL ACCESSORIES: (Mandatory & will be supplied with the Machine)
1.	Ceiling suspended surgical shadow less light for angiographic and related procedures.
1.	Ceiling suspended tiltable lead glass for radiation protection of operator shead & neck regions and lower body parts. Lower body radiation protection flaps.
2.	10x Lead Apron (2X piece) (Radiation attenuation report, 0.5mm Pb equiv. or better
3.	10x Lead Gloves (Radiation attenuation test report, 0.5mm Pb equivalence or better)
4.	10x Pb Goggle (Radiation attenuation test report, 0.5mm Pb equivalence or better)
5.	10x thyroid collar (Radiation attenuation test report, 0.5mm Pb equivalence or better)
6.	Lead glass window size 4x3 feet or more Pb. equivalent 2.0mm or better.
7.	2x Biphasic Defibrillators (must have FDA 510k approval)
8.	2x crash cart / resuscitation trolley
9.	2x Steel Tray Trolley for disposables
10.	1x Non-invasive hemodynamic monitoring system (FDA Approved)
11.	3x 12-channel ECG machines (FDA Approved)
12.	2x patient shifting trolleys
13.	5x Temporary Pace Maker (FDA approved)
14.	1x ACT Machine
15.	160KVA Compatible true on-line sine wave UPS for angiography system with a minimum back up time of atleast 15 minutes.
16.	Programmable contrast media injector (Medrad-Bayer or Guerbet or similar)
17.	1x Automatic CPR Machines, Radiolucent (must have FDA 510k approval)
18.	20 x Pressure line (IBP Cable) and 100 x Pressure Transducer
O	Country of Origin and Manufacture: USA, EU and Japan.
P	OPTIONAL (Price of each item must quote separately)
1	IVUS (intra-vascular ultrasound) machine with NIRS
2	Compatible power DG set for the entire suite.
3	IABP (Intra aortic balloon Pump)

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