

SPECIFICATION OF COMPUTERISED STRESS TEST SYSTEM (TMT MACHINE)

1. System should acquire display and analyze 12 simultaneous leads (option for 15 simultaneous leads).
2. Should have the facility of online storage of (median ECG & raw data. Storage of at least 100 patients on the HDD in addition to storage on CD drive should be possible (DVD archive should be optional). It should have beat-to-beat storage with the facility to review the entire test.
3. Updated median with Elimination of artifact ectopy and aberrancy in all leads. Facility to eliminate artifact due to respiratory muscle noise and Ac interference, baseline wandering without comprising/distortion in ST-segment changes.
4. Should have the facility to do reanalysis of stored ECG by changing the measurement points like S and J.
5. The monitors should display an auto comparison of resting ECG versus current lead of maximum ST depression separately with a waterfall color-coded display.
6. System should display total exercise time/current protocol stage time, PVCs/minute Target HR, treadmill speed grade, Warning messages, lead check etc.
7. System should have user-defined report generation in different formats. ST/HR loops & indices if available should also be quoted for.
8. System should provide standard protocols and user-defined protocols.
9. System should print a comprehensive final report on minute-by-minute record of ST-segment trend. Facility for continuous printout on thermal paper of raw & median data is essential. Additional Laser Jet output should also be provided. The laser jet should be a high-end Laser printer with at least 12 ppm and have the capacity to print up to 500 sheets continuously without any stop due to heating etc.
10. Automatic arrhythmia detection.
11. System should have Duke exercise program software & scoring system.
12. System should have an optional facility for T wave alternates, SAECG.
13. System should have a dynamic scan to show the worst ECG template lead.
14. System should have online help.
15. Should be able to provide real-time printing in auto or manual mode in desired formats on a thermal writer with resolution 1000 line/sec x 200 dpi for printing.

16. System should use the auto programmable imported heavy-duty treadmill and always start from 0 mph with a range 0-13.5 MPH and have a load capacity of >150kgs. The slope range should be from 0 to over 20%.
17. Treadmill should have auto-calibration, should have two stop modes with digital microprocessor control and be manually operable. The treadmill should comply to AHA/CE guidelines for exercise testing equipment.
18. All future software upgrades should be free.
19. The treadmill should be capable of doing the test for children above the age of 6 years.
20. The vendor should also quote separately for the oxygen consumption anaerobic threshold module; the vendor should clearly give an undertaking regarding maintaining the oxygen consumption unit on a regular basis that should include calibration of gases, measurements etc. This unit should also have a facility for doing paediatric cases and therefore have appropriate masks and tubings. (This is an optional feature).
21. Facility to export the report in PDF format to a computer.
22. Flat-screen 17/19" monitor preferably with LCD display.
23. Optional upgrade to the wireless module for patients.
24. Programmable Filter for the frequency response and special filters to decrease noise/baseline artifact without compromising ECG frequency response. (Optional).
25. Pacemaker rhythm detection facility should be available.
26. Entire digital system should be on a treadmill on appropriate UPS.
27. Complete report in PDF format (optional).
28. Complete raw data to be stored on rewriteable CD.
29. Running trends of heart rate METS & ST level of the enlarged complex during the exercise phase.
30. Should provide NIBP and SpO2 for adults and pediatrics (6 – 15 years). Appropriate Size Cuffs (5 each for adult & Paediatric (6-10yrs) & 10-15years, total 15) should be provided and quoted separately also. Saturation monitoring should be by ear probes and have provision for elimination of artifacts due to exercise, with an error of + 2% in all ranges. Five probes (reusable) should be provided. Option for viewing the SpO2 trace. The entire SpO2 module is an optional feature.
31. Facility to have an entire trace of the raw data.

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Conditions for tender:

1. All accessories should be from the same Original Equipment Manufacturer for the main unit.
2. Instruments must be ISO certified and a copy should be enclosed. (The ISO Certificate must be issued by any organization accredited by the Bureau of Indian Standard or accredited by the international accrediting forum "IAF" (Certificate to be attached).
3. Should be USA FDA and/ or European CE be approved by 4 digits notified body.
4. Other necessary certifications if any required will be provided by the bidder for the smooth functioning of the machine.
5. Installation process should be performed by O.E.M trained service engineers/ service representatives on OEM letterhead or Service Report within 15 days of supply, with the mandatory provision of providing preventive services visit of OEM trained Service Engineer/ Service Representative quarterly per year till the completion of warranty period (i.e., 20 visits for the first 05 years) & further quarterly visits (04 visits/year) year till the completion of CMC period.
6. The equipment should have a Brand name/ Model Number embossed/etched on the equipment.
7. All the technical specifications in the compliance statement must be supported by Original Literature from the firm/ O.E.M with highlighting Numbering & flagging of all technical certificates.
8. Offered Equipment should have a strong Government Installation base.
9. Offered Equipment should have a Regional Sales Service Centre of the Original Equipment Manufacturer in the region for a 95 % uptime guarantee.
10. For the offered main unit, the essential, optional required consumables'/accessories' shelf life should be declared on the Original Equipment Manufacturer's letterhead.
11. In case of technical snag/failure/breakdown the response time for the inspection should be within 24 hours and repair within 05 days otherwise provide a service machine/ alternate arrangement to be made till the period of recovery of the breakdown of the unit, failing which attracts penal action as per the decision of institute/ hospital.
12. For offered equipment the Training of technical staff and users should be performed by Original Equipment Manufacturer trained Service Engineers at the proper designated place- at bidders' cost.
13. Company should quote their latest model and need to provide an affidavit for the same.

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14. As a tendering process the Demonstration of the offered Equipment is Mandatory at hospital/institute premises or other designated places at the bidder's cost.
15. The bidder must comply with the General Financial Rules and their modifications if any issued by the Government of India- 2017.
16. Any bidder from a country that shares a land border with India will be eligible to bid in the tender only if the bidder is registered with the Competent Authority (i.e., Registration certificate issued by the Ministry of Commerce and Industry (Department for Promotion of Industry and Internal Trade- DPIIT after October 2020). If any such bidder is not registered with DPIIT they will be liable for technical disqualification.
17. Principal (OEM) must authorize only one agent to be quoted in the bid otherwise multiple quotes through different agents in the same bid will be canceled.
18. The Bidder and its OEM both have to submit a notarized affidavit on the Indian Non-Judicial Stamp Paper of Rs.100/- that the bidder has not quoted the price higher than the current financial year and last financial year supplied to any government Institute/ Organization/ reputed Private Organization. OEM also has to submit that the price quoted by the bidder in the bid is on its behalf and the lowest in the current and last financial year in the country. Therefore, if at any stage it has been found that the supplier and its OEM have quoted lower rates than those quoted in this bid; the Institute (the purchaser) would be given the benefit of lower rates by the Supplier and any excess payment if any, will become immediately payable to the Institute (the purchaser). If such an affidavit is not submitted, the bid will be outrightly rejected. (Part of technical bid).
19. Guarantee / Warranty Period: Separate offers of Comprehensive Maintenance Contract (CMC on main equipment) and Annual Maintenance Contract (AMC on main equipment) for further 5 years after expiry of 5 years of warranty (i.e., 6th, 7th, 8th, 9th and 10th years) in rupees only (and on basis of percentage of price) should be included in a financial bid in the absence of which the offer is liable to be rejected. Payment for CMC/AMC shall be made only after the expiry of the warranty of 5 years, in case the Institute (the purchaser) decides for availing of CMC/AMC services. Contract for CMC/AMC shall be decided on expiry of warranty but rates (not more than 5% inclusive of all taxes for 6th to 10th year) will be frozen at the price of an issued purchase order before the release of payment by the Institute (the purchaser). However, the Institute (the purchaser) may decide not to enter into any CMC/AMC contract without assigning any reason for the same, which shall be binding upon the bid.

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