

SPECIFICATIONS FOR MULTI-COLOR FLOW CYTOMETER

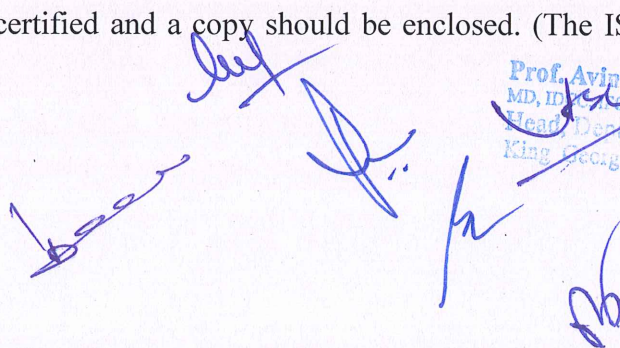
1. Solid State Laser: The instrument should have 3 solid state lasers i.e., Blue 488nm, Red 638nm-Red Laser & Violet 405nm lasers With at least 50mW power.
2. Colors: The number of Fluorescence channels should be a minimum of 11 COLOR from the laser and upgradeable to more colors will be given preference.
3. Scatter resolution: The scatter parameters Should be FSC and SSC with the ability to detect and resolve 200nm particles.
4. Sensitivity: The system should provide superior sensitivity: <30 MESF-FITC, and <10 MESF PE to measure events with low Staining index for rare detection and application with dim fluorescence staining which is achievable by high efficiency, and low noise.
5. Samples Flow Rate: The system should be able to Process samples at sample flow rates between 10 μ L and 200 μ L per minute providing high sensitivity and adjusting able flow rates, and sample sizes as low as 10 μ L for rare population collection.
6. Automated QC: The system should have automated quality control procedures, and automatically output reports to provide comprehensive information about the instrument (delay laser, laser power, channel gain, mean fluorescence intensity, rCV value, etc.), to protect your daily results and reliability and stability, and draw Levey-Jenning quality control chart, the entire instrument status monitoring.
7. Automated Maintenance: The system should be capable of doing automated maintenance by doing individual tube vortex, daily clean, and deep clean. Syringes having inner and outer wall automatic cleaning functions, reduce cross-contamination. Automatic maintenance procedure: automatic standby/initialization, automatic boot process, row bubble, recoil, automatic shutdown procedures.
8. Optics: The system should have Wavelength division Multiplier based optics for better sensitivity & detection.
9. Sample Automation: The system should have the option to upgrade to Multiple Tube carousel for at least 30 tubes with the capability to individually vortex each tube separately before acquisition.
10. Automatic intelligent software: user-friendly, intuitive, and easy to learn,

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- (a) Users should be able to use the graphical user tools, direct adjustment of the threshold, gain, compensation, and other parameters. Software should be able to determine the correct compensation matrix with a virtual multicolor panel and/or with new gain settings.
 - (b) Fully featured analysis software featuring time-saving functions such as “linear gain “to automatically modify compensation following gain setting changes and “auto threshold “function whereby the software automatically sets the threshold based on population scaling to easily find the target population.support for
 - (c) offline compensation and automatic compensation adjustment function.
11. A Separate offline analysis software capable to manage multiple data sets, with the feature of automatic plot organization, auto-layout, and data merging of different files. It should perform plots like a tree, 3D radars, and overlay histogram, as well as standard, scatter histogram, and contour plots.
 12. Open system to accept any company 5ml(12*75mm) polystyrene and polypropylene and microcentrifuge 1.5ml and 2ml.
 13. System should be capable of accepting INVITRO DIAGNOSTIC CERTIFIED Dry Reagents, Wet Reagents, cocktails, and individual color antibodies.
 14. System should be compact enough to fit inside the laminar hood & easily shift whenever applicable.
 15. Windows7 professional 64 bits OS, 23” Monitor, 4GB RAM,256 GB storage or higher.
 16. Minimum 7-decade digital resolution with minimum 24 bits Electronic Bit and with a nominal acquisition speed of minimum 20,000 events/sec, with CV Less than 3% & preferably within 2%. The digital sampling rate should be higher than10MHz.
 17. Suitable Online UPS with 30min back up and a color laser printer table to be included.
 18. System, Software and reagents should be CE-IVD/US-FDA & ISO certified for all 11 colors for invitro diagnostic us. The latest mode should be quoted.

Conditions for tenderer:

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



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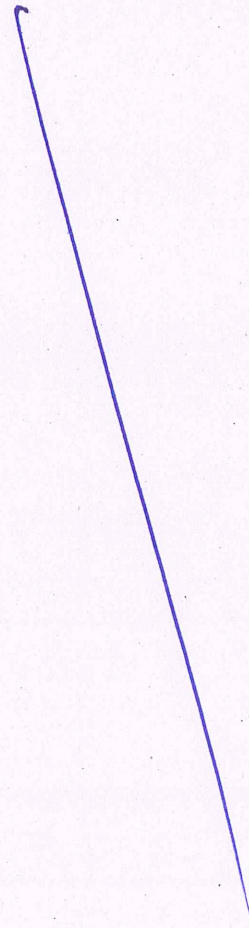
- must be issued by any organization accredited by the Bureau of Indian Standard or accredited by the international accrediting forum "IAF" (Certificate to be attached).
3. Should be USA FDA and European CE be approved by 4 digits notified body.
 4. Other necessary certifications if any required will 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.
 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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20. Should provide 5-year CMC. CMC cannot be more than 5% of the contract value.
21. System configured application-specific educational video tutorials shall be provided as standard with the system.
22. Details of service outlet in India to render services during 5 years warranty period.
23. The principals must give a certificate if the supplier/vendor is changed during the course of the guarantee/warranty period, the principals would be responsible for the upkeep/maintenance of the quote/supplied equipment, besides honouring all the terms and conditions of CMC/AMC in letter and spirit.

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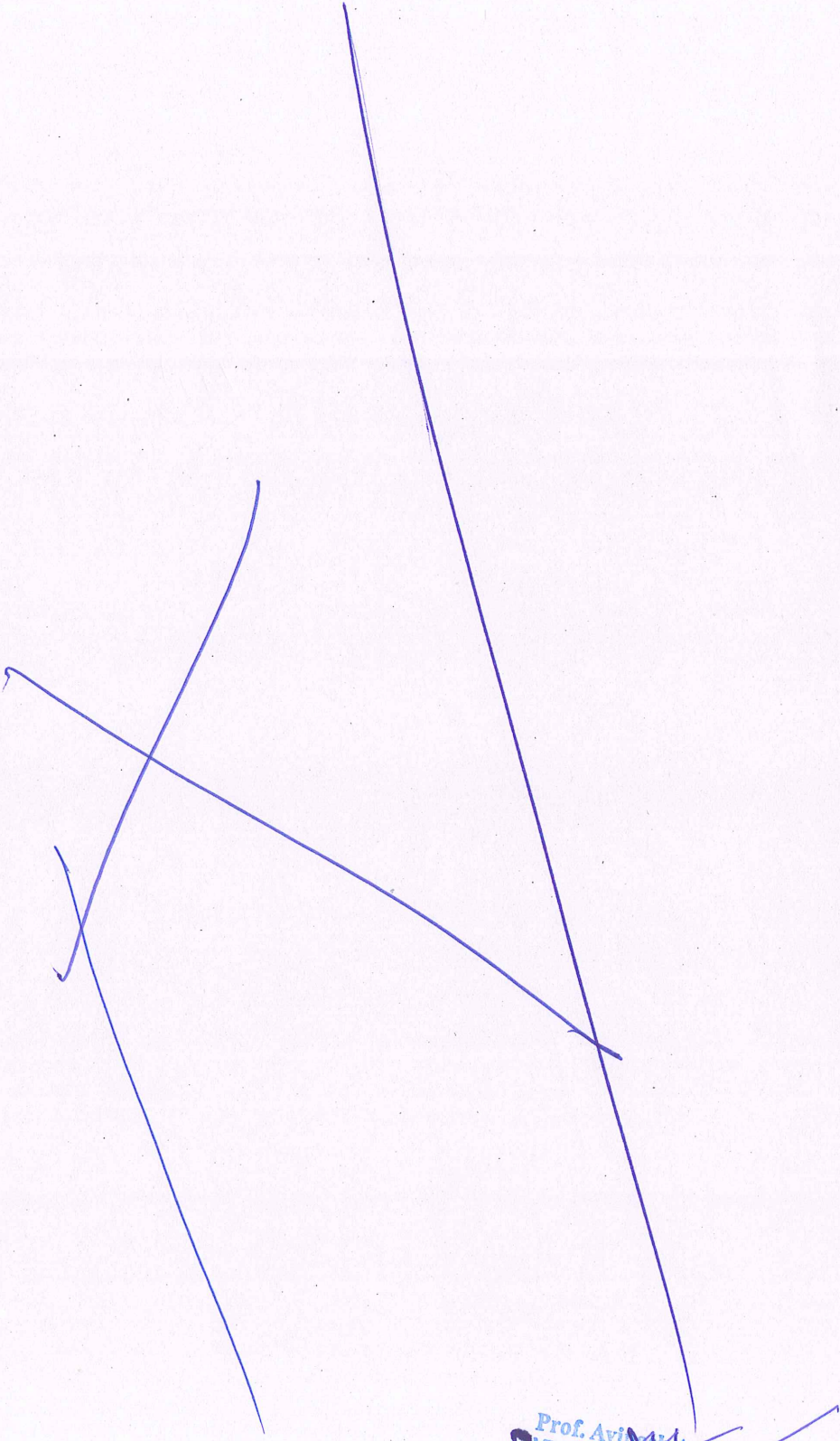
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