

**Minutes of Pre bid meeting for the purchase of Bench top flow cytometer (E-Tender No.2018\_CSIR\_15947\_1 )**

Pre bid meeting for the purchase of Bench top flow cytometer (E-Tender No.2018\_CSIR\_15947\_1 )was held on October 11, 2018 at 11:00am in CSIR-IHBT, Palampur

Three firms namely, Thermo Fisher Scientific, India, Becton Dickinson India Pvt. Ltd. and Beckman Coulter India Pvt. Ltd. attended the meeting and discussed their specific observations on tendered specifications before the Technical & Purchase committee. Following are the observations of different firms and the recommendations of the TSC on them

<b>Firm Represented</b>	<b>Observation on indented Specs.</b>	<b>Suggested Specs</b>	<b>TSC Recommendation</b>
Beckman Coulter India Pvt. Ltd.	<b>Specs Point No. 2</b> System should be supplied with minimum two lasers 488nm (Blue) and 405nm (violet laser) and further upgradable up to four or more lasers.	System should be supplied with minimum two lasers 488nm (Blue) and 405nm (violet laser) and further upgradable to third lasers.	TSC decided not to change the specification. Moreover, M/s Beckman Coulter India Pvt. Ltd. also have the four laser system.
	<b>Specs Point No. 13</b> System should be upgradable in future for auto sampler for high throughput analysis.	System is upgradable in future with 96 well plate for high throughput analysis.	Suggested amendment in the specification have been accepted.
Becton Dickinson India Pvt. Ltd	<b>Specs Point No. 2</b> System should be supplied with minimum two lasers 488nm (Blue) and 405nm (violet laser) and further upgradable up to four or more lasers.	System should be supplied with minimum two lasers 488nm (Blue) and 405nm (violet laser) and preferably upgradable up to four or more lasers.	TSC decided not to change the specification. Moreover, M/s Becton Dickinson India Pvt. Ltd. already have upgradable system.
	<b>Specs Point No. 7</b> System should have data acquisition rate: 30,000 events per second or more.	System should have data acquisition rate b/w 25,000 events per second to 30,000 events per second or more.	TSC decided not to change the specification. Moreover, M/s Becton Dickinson India Pvt. Ltd. already have system providing this requirement against tendered specification.
Thermo Fisher Scientific, India	<b>Specs Point No. 3</b> System should have minimum of four fluorescence detectors along with two light scatter detectors (forward & side scatter) with minimum measurement capabilities of six or more parameters.	<b>Suggestion:</b> In specification point no. 3 they suggested to consider for changing existing minimum four fluorescence detectors to minimum six or more fluorescence detectors.	TSC decided not to change the specification.

	<p><b>Specs Point No. 17</b> System should be supplied with branded compatible 5 KVA, IGBT based true online UPS with 30 mins back up on full load.</p>	<p><b>Suggestion:</b> For specification point no. 17 they suggested to change UPS capacity 5KVa to 3 KVa since their system requires less KVa consumption.</p>	<p>TSC decided not to change the specification since computer system installed along with the instrument also need the UPS back up.</p>
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Revised specifications drawn after Pre-Bid Meeting are as under (Annexure-I):-

**REVISED SPECIFICATIONS BENCH TOP FLOW-CYTOMETER**

1. Easy to operate bench top model of flow cytometer.
2. System should be supplied with minimum two lasers 488nm (Blue) and 405nm (violet laser) and further upgradable up to four or more lasers.
3. System should have minimum of four fluorescence detectors along with two light scatter detectors (forward & side scatter) with minimum measurement capabilities of six or more parameters.
4. All lasers and their excitation and collection optics should be fixed & pre-aligned
5. System should be fixed aligned with pre-optimized detector voltage to avoid repeated adjustment.
6. Minimum Detectable Particle Size should be 0.5  $\mu\text{m}$  or less.
7. System should have data acquisition rate: 30,000 events per second or more.
8. System should have fluorescent resolution of  $CV < 3\%$ .
9. System should have Fluorescence Sensitivity, i.e. MESF for FITC 80 or less; for PE 50 or less.
10. System should be able to perform absolute counting of cells.
11. System should be able to accept wide range of sample tubes upto 5 ml or more.
12. System should be supplied with latest version of compatible, third party, post acquisition data analysis software like FlowJo or Modfit or any other equivalent software to carry out following major applications (but should not be restricted to) immunophenotyping of given cell population, cell cycle assays and cell proliferation analysis, marker analysis for apoptosis, autophagy and oncogenesis etc. It also should be able to perform rare cell population analysis/side population analysis and other routine flow cytometric analysis.
13. System should be upgradable in future for auto sampler with 96 well format for high throughput analysis.
14. System should be supplied with latest compatible computer (make HP or Dell) with Windows<sup>™</sup> 7, 64 bit, Processor: Intel Core<sup>™</sup> i7, RAM: 8 GB or more, Hard drive: 500 GB or more, Monitor: 23-inch or more LED monitor .
15. Power Specifications: 220-240 volts; 50-60 Hz.
16. Consumable reagents required for the fluidics of the system should be supplied with the system. Should also supply following consumables required for initial testing and

calibration for desired applications; they are PI, DAPI, Annexin V/PI apoptosis kit and cell proliferation dyes/reagents.

17. System should be supplied with branded compatible 5 KVA, IGBT based true online UPS with 30 mins back up on full load.
18. Warranty from principal/manufacturer on each and every part of the system: At least three-year warranty from the date of installation along with 2 years free AMC after warranty period.
19. Letter from the principals providing commitment to supply consumables required and spare parts of each and every part of the instrument for next ten years.
20. During installation a proper training should be provided to the users for operating the system and analysis using the software for desired purpose and for all applications.
21. Proper and prompt technical support should be provided whenever needed; a documentary commitment may be furnished from the principal/manufacturer.
22. Compliance certificate table as per the specifications point by point must be submitted by the vendors. Also mention clearly the page number and paragraph in the technical brochure and highlight them where our technical specifications are meeting the requirements.
23. Vendor should quote the latest model of the system and required certifying documents may be furnished from the principal/manufacturer side for the same.
24. Technical brochure and literature of the quoted model should be enclosed.
25. List of users for the quoted model in India should be provided along with at least three latest PO copies.
26. Venders should provide a commitment from the principal/manufacturer for sales and services of related consumables/spare parts at CSIR- IHBT; Palampur.