



# भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान तिरुपति

**INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH TIRUPATI**

Transit campus: Sree Rama Engineering College Campus, Rami Reddy Nagar, Karakambadi Road, Mangalam (B.O), Tirupati - 517 507

Website: <http://www.iisertirupati.ac.in/>

## **CLARIFICATION ON TENDER NUMBER: IISERT/PUR/0522/21**

### **ITEM DESCRIPTION- SUPPLY, INSTALLATION, AND COMMISSIONING OF HIGH THRU-PUT ROBOTIC LIQUID HANDLING FOR PROTEIN CRYSTAL PLATE SCREENING SETUP**

Tender Reference Number –IISERT/PUR/0522/21 dated 18/03/2022 for **Supply, Installation, and Commissioning of High thru-put Robotic Liquid Handling for Protein Crystal Plate Screening Setup**

The pre-Bid meeting was held on March 24<sup>th</sup>, 2022 at 15.30, and the minutes of the meeting are as under.

At the outset, the Chairman welcomed all the Members and the representative of the Prospective Bidders and briefed in general the scope of the Project and thereafter requested Deputy Registrar (A&P) to brief the vendors on the salient features of the commercial terms and the indenting Officer to read out the clarification sought by the Prospective Bidders and replied thereto as detailed in Annexure-II

The representatives present were satisfied with the replies given and it was informed that the corrections / additions / clarifications given, as discussed during the Pre-Bid Conference would be hosted on the website of IISER Tirupati and all the Prospective Bidders are required to take cognizance of the proceedings of the Pre-Bid Conference before submitting their bids as stipulated in the Bidding Documents.

The other terms & conditions of the notice issued on our IISER website [www.iisertirupati.ac.in](http://www.iisertirupati.ac.in) will remain unchanged. No more correspondence in this regard will be entertained

The meeting ended with a vote of thanks to the Chair

DATE: 05/04/2022

Sd/-  
Deputy Registrar (A&P)

**PRE-BID CONFERENCE FOR PROCUREMENT OF SUPPLY, INSTALLATION, AND COMMISSIONING OF HIGH THRU-PUT ROBOTIC LIQUID HANDLING FOR PROTEIN CRYSTAL PLATE SCREENING SETUP**

**TECHNICAL QUERIES AND CLARIFICATION**

TENDER NUMBER -: IISERT/PUR/0522/21

DATE: 24.03.2022

S. No	Query/Clarification Sought	Clarification / Amendment
1.	<p><b>Existing Tender specifications:</b> A high precision and accurate screening robot for doing high density hanging drops, sitting drops, micro batch underoil, micro seeding, experiments in all universal 96 well format SBS format crystallography plates</p> <p>--- A request was put up by the vendor to amend by exclude seeding experiments in the above specification</p>	<p>As per suggestions of the technical committee members who have vetted the technical specifications, modification of the existing specification is not possible.</p>
2	<p><b>Existing Tender specifications:</b> <i>Pipetting volume and accuracy:</i> extremely accurate and precise pipetting of volumes between 25 nl and 1 <math>\mu</math>l - with an accuracy of &lt;5% CVs at 1 <math>\mu</math>l</p> <p>--A request was put forward to amend volume range to the above specifications</p>	<p>The request was considered and the amended specification stands as follows:</p> <p><i>Pipetting volume and accuracy:</i> extremely accurate and precise pipetting of volumes between 50 nl and 1 <math>\mu</math>l - with an accuracy of &lt;5% CVs at 1 <math>\mu</math>l.</p>

3	<p><b>Existing Tender specifications:</b> <i>Capacity:</i> Minimum 3 SBS format crystallography plates or more. These plate position should be in addition to space for keeping tips on system</p> <p>--A request was put up by the vendor to amend the number of plates from 3 to one or more.</p>	<p>No modifications to the existing specifications are required. These existing specifications are the minimum requirement. Anything better would be acceptable.</p>
4	<p><b>Existing Tender specifications:</b> <i>Zero cross contamination:</i> Pipetting technology should offer zero cross contamination in experiments</p> <p>---No amend request was put up by the vendor to this specification</p>	<p>No changes in the specification</p>
5	<p><b>Existing Tender specifications:</b> <i>Tubing/lines wash: Zero washing/purging of lines between or after pipetting steps.</i></p> <p>-- A request was put up by the vendor to remove the above specification.</p>	<p>The request has been considered and this specification is now removed.</p>
6	<p><b>Existing Tender specifications:</b> <i>Experimental capability:</i> Setting up crystallization trials in SBS-format 96-well plates for all the following techniques - sitting drop vapour diffusion, hanging drop vapour diffusion, microbatch, additive screening, seeding.</p> <p>--A request was put up by the vendor to amend the above point by excluding seeding technique.</p>	<p>No modifications to the existing specifications are required. These existing specifications are the minimum requirement. Anything better would be acceptable.</p>
7	<p><b>Existing Tender specifications:</b> <i>Versatile liquid handling:</i> Robotic liquid handling system should efficiently handle varied kind of solvents used in protein crystallography applications and systems must be able to use all solvents without any liquid classifications using true positive displacement technology</p>	<p>No changes in the specification.</p>

	<p>---No amend request was put up by the vendor to this specification.</p>	
8	<p><b>Existing Tender specifications:</b> <i>Switch between screening techniques:</i> Quoted system must allow users to easily switch between hanging drop, sitting drop and Microbatch screening techniques without any set up changes. Tips for over 250 plates must be available on board for uninterrupted (no manual tip loading between up to 250 plates) screening setups.</p> <p>--A request was put up by the vendor to amend the above point.</p>	<p>The request has been considered and the amended specification stands as follows:</p> <p><i>Switch between screening techniques:</i> Quoted system must allow users to easily switch between hanging drop, sitting drop and Microbatch screening techniques without any set up changes. If required, tips for over 250 plates must be available on board for uninterrupted (no manual tip loading between up to 250 plates) screening setups.</p>
9	<p><b>Existing Tender specifications:</b> <i>Minimum accessible volume:</i> should be 10 nl or less</p> <p>--A request was put up by the vendor to remove the above specification.</p>	<p>No modifications to the existing specifications are required. This existing specification are the minimum requirements. Anything better would be acceptable.</p>
10	<p><b>Existing Tender specifications:</b> <i>Dead volume of the system:</i> should be 0.3 µl or less</p> <p>-- A request was put up by the vendor to remove the above specification.</p>	<p>The request has been considered and this specification is now removed.</p>
11	<p><b>Existing Tender specifications:</b> <i>Liquid handling performance:</i> capable of accurately dispensing very small volumes of highly viscous liquids such as 50% (w/v) polyethylene glycol 4000 at temperatures between 4°C and 37°C.</p> <p>-- A request was put up by the vendor to amend the above specification.</p>	<p>No modifications to the existing specifications are required. These existing specifications are the minimum requirement. Anything better than would be acceptable.</p>

12	<p><b>Existing Tender specifications:</b> <i>Active Humidity Control:</i> the system should have a software-controlled humidity chamber to protect drops from evaporation by offering precise control of the humidity with a setpoint accuracy of +/- 5%. This should be removable if required.</p> <p>-- A request was put up by the vendor to amend the above specification.</p>	<p>This point has been explained in detail and no modifications to the existing specifications are required. These existing specifications are the minimum requirement. Anything better than would be acceptable.</p>
13	<p><b>Existing Tender specifications:</b> <i>Number of drops per well:</i> Capable of creating at least three multi-component drops per well within a 96-well sitting and hanging drop plate.</p> <p>---- A request was put up by the vendor to amend the above specification.</p>	<p>No modifications to the existing specifications are required. These existing specifications are the minimum requirement. Anything better than would be acceptable.</p>
14	<p><b>Existing Tender specifications:</b> <i>Speed:</i> The plate setup time should be &lt;2 min for standard 96 well plates.</p> <p>---No amend request was put up by the vendor to this specification.</p>	<p>No changes to the specification.</p>
15	<p><b>Existing Tender specifications:</b> <i>Compatibility:</i> Compatible with all standard crystallization screens.</p> <p>---No amend request was put up by the vendor to this specification.</p>	<p>No changes to the specification</p>
16	<p><b>Existing Tender specifications:</b> <i>User friendliness:</i> Easily accessible to first-time users in a multi-user environment.</p>	<p>No changes to the specification</p>

	---No amend request was put up by the vendor to this specification.	
17	<p><b>Existing Tender specifications:</b> <i>Software:</i> Touch screen application-led windows-based software with pre-defined experimental templates and video guides.</p> <p>---A request was put up by the vendor to amend the above specification.</p>	<p>The request has been considered and the amended specification stands as follows:</p> <p><i>Software:</i> Windows-based software with pre-defined experimental templates and video guides.</p>
18	<p><b>Existing Tender specifications:</b> <i>Software Licence fees:</i> One off perpetual site license for an unlimited number of seats within the site.</p> <p>---No amend request was put up by the vendor to this specification.</p>	No changes to the specification
19	<p><b>Existing Tender specifications:</b> <i>Installations:</i> There should be more than 5 installations in India for same system and proof of installation must be submitted with tender</p> <p>-- A request was put up by the vendor to amend/relax the above specification.</p>	<p>The request has been considered and the amended specification stands as follows:</p> <p><i>Installations:</i> There should be more than 2 installations in India for same system and proof of installation must be submitted with tender. The installation date should be no later than 2018.</p>
20	<p><b>Existing Tender specifications:</b> <i>Comprehensive Warranty:</i> 5 years (Should include cost for all consumables for maintenance/repair during this period).</p> <p>---No amend request was put up by the vendor to this specification.</p>	No changes to the specifications.
21	<p><b>Existing Tender specifications:</b> <i>Size and weight:</i> The system should fit on a laboratory bench no wider than 1 metre.</p>	The request has been considered and the amended specification stands as follows:

	<p>Height should be less than 1 metre. Depth should be less than 50 cm. Weight should be &lt;50 kg</p> <p>-- A request was put up by the vendor to amend the specification.</p>	<p><i>Size and weight:</i> The system should fit on a laboratory bench/table measuring 4 x 2 foot to fit robot along with its accessories. Weight should be &lt;100 kg.</p>
22	<p><b>Existing Tender specifications:</b> <i>Two installation:</i> cost of packing, unpacking and reinstallation should be included</p> <p>---No amend request was put up by the vendor to this specification.</p>	<p>No changes required to the specification</p>
23	<p><b>Existing Tender specifications:</b> <i>Essential Accessories</i></p> <ul style="list-style-type: none"> <li>• Plate storage: Vibration free crystal plate storage device (RuMed) for 400 liter or more. 5 years comprehensive warranty.</li> <li>• Microscope: Imaging systems (one number) for screening plates with polariser and CMOS camera and image acquisition software and suitable laptop, 5 years comprehensive warranty.</li> <li>• Tips: Additional tips (6000 or more) and protective cover for this, if the system requires</li> <li>• Dewars: A set of 3 foam dewars (tall and two medium)</li> <li>• Dry shipper with case: CX100 with shipping case 1 no – should hold LN2 temperature for two weeks or more.</li> <li>• Vials with loops: magnetic cryo vials, cryo caps 100 Nos – strictly follow SPINE specifications, loops 100 Nos and cryoWand magnetic</li> <li>• Cover slips: siliconized round 22 mm coverslips 3000 nos,</li> <li>• Plates: 24 well XRL plates 300 Nos and sealing grease 150 gm,</li> <li>• Loops: Cryo mounted loops 10 sets (three 25 microns, four 50 microns and three 100 microns)</li> <li>• Plates - 96 well: hanging drop plates and seals 200 Nos,</li> <li>• Sitting drop plates: Swissci /MRC 3 subwell sitting drop plates 300 nos</li> </ul>	<p>The statement “Tips: Additional tips (6000 or more) and protective cover for this, if the system requires” clearly says that if the systems requires tips, only then the vendor needs to provide additional tips.</p> <p>No changes required to this specification.</p>



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<ul style="list-style-type: none"><li>• Screens: 8 commonly used screens supported by PDB in 96x10 ml for soluble proteins</li><li>• UniPuck: One number UniPuck complete set (starter kit).</li></ul> <p>--A request was made by the vendor to amend the specification regarding the tips</p>	
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**ANNEXURE -III**

## IISER TIRUPATI

**PRE-BID CONFERENCE FOR PROCUREMENT OF Supply, Installation, and Commissioning of High thru-put Robotic Liquid Handling for Protein Crystal Plate Screening Setup**

### COMMERCIAL QUERIES AND CLARIFICATION

TENDER NUMBER -: IISERT/PUR/0522/21

DATE: 24.03.2022

S.No	Query/Clarification Sought	Clarification / Amendment
	-----NIL-----	-----NIL-----