## TECHNICAL SPECIFICATION ACCELERATED SOLVENT EXTRACTION SYSTEM

- 1. The extractor shall use a combination of solvent(s) under set temperature and pressure conditions to perform rapid and efficient extractions.
- 2.Extractor shall automatically sense extraction cell volumes and automatically adjust method control parameters, including temperature and solvent volume, to ensure constant results regardless of extraction cell volume.
- 3.Extractor shall be capable of oven temperature control of up to 200°C and cell pressure control at 1500 psi. Extractor must have controls to prevent operation at excessive temperatures and pressures.
- 4. The extractor must be able to be run unattended and be able to automatically shut down once the extraction sequence is completed.
- 5. Extractor must have minimum of 19-position sample carousel with minimum of two rinse positions for unattended operation.
- 6. Extractor shall have the ability to use 1mL, 5mL 10mL, 22mL, 34mL, 66mL and 100mL extraction cells interspersed on the sample carousel.
- 7. Extractor shall have built in fluid sensors that detect fluid levels during the extract collection.
- 8. Extractor shall have automatic shut-off in the event of pressure or temperature sensor failure.
- 9. Extractor shall have the ability to perform multiple sequential extractions per individual cells. Extracts can then be collected into the same or different collection vials or bottles.
- 10. Extractor shall have an integrated solvent controller permitting the use of up to three solvents. These solvents can be mixed and introduced to the extraction cell in selectable volume ratios.
- 11. Extractor shall allow extracts to be automatically filtered prior to collection in the vial or bottle.
- 14. Extractor shall be able to operate without fume-hood and solvent vapor is not expelled into the atmosphere. Extractor shall have a built in vapor sensor and the extractor will shut down if vapor levels are detected.
- 15. Extractor shall be able to monitor each sample for pressure and temperature. Every sample is monitored to ensure samples are extracted according to the users' method parameters.
- 16. The extractor shall be able to accommodate either 60mL or 250mL collection vials or bottles.
- 17. The extractor shall be capable of extracting acidified or basic samples with the use of a pH hardened pathway and pH resistant extraction cells.
- 18. Extractor shall have acid or basic resistant tubing in the solvent flow path. Optional corrosion resistant extraction cells and extraction cell components must be available.
- 19. The solvent pump should pump at least 70mL/minute.
- 20. Extractor shall be able to operate in a Solvent Saver™ mode, either flow or pressure control.
- 21. Extractor should have optional facility of PC control through the software. 5 KVA Online UPS, Nitrogen Cylinder with regulator, Gas purification Panel.

## Other Terms & Conditions:

- 1. Manufacturer of Equipment & Accessories should be ISO 9001 / ISO 13485 certified.
- 2. Equipment and Accessories should be US FDA / European CE certified by Notified Body.
- 3. **Guarantee:** Three years on equipment, accessories and all peripherals / sub systems from the date of installation, which Includes 4 visits and unlimited breakdown calls by service/application support engineer during the Guarantee period.
- 4. Basic training for a period of not less than <u>two weeks</u> after installation of the equipment to technical personnel includes Operational & Trouble shooting training as and when required.
- 5. Manufacturer should provide an Training Instructor for initial 6 month (minimum) to train on duty staff and after 6 month as per demand of user department as an when required.
- 6. Installation will be done by supplier free of cost including all parts like wires, tubes, joints & attachments, small fixtures etc.
- 7. Firm should mention all the pre-installation requirements in technical bid.
- 8. Technical Compliance statement should be submitted in Technical Bid Documents, along with every above mentioned point should be submitted with relevant literature, specification sheets and brochures. Any deviation from specifications should be clearly mentioned in compliance statement.
- 9. Comprehensive Maintenance Service: The CMC may be awarded for five years (on yearly basis) after Guarantee period of three years. CMC should be quoted in BOQ inclusive of Excise Duty & exclusive of VAT/CST etc.) plus service tax (as applicable).

Manufacturer should provide SOP, I.Q & O.Q etc. as per System requirements.

30 M

Executive Director (EPM)
Rajasthan Medical Services Corporation Ltd,
Jaipur