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Email: homcokerala@gmail.com

Supplier's Copy

USER REQUIREMENT SPECIFICATION

| Name of the Company | : | HO586 |
|----------------------------|-------------|--|
| Contact Person | | (To be specified by the |
| Address Moon 4505 16 Mil | • | |
| Contact Details | | |
| Department | : | QCL-First Floor & Production second floor |
| Equipment and Code No. | err em C | Moisture Analyzer (Digital) |
| Name of work | | Supply, Installation, Commissioning & Validation of cGLP model Digital Moisture Analyzer at M/s. HOMCO -Kerala |
| Ref. No. | : | Denktly readout practice |
| Date (pd 4 pigma?) | | |
| Enclosures | : | Humidity measurement repeatability |
| Quantity | | 2 No. |

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DIGITAL MOISTURE ANALYZER

ANNEXURE - I

BASIC DETAILS OF THE MACHINE

| by the | 아이들은 사람들은 내용을 보는 사람들이 되었다면 하는 것이 되었다면 하는 것이 없는 것이 없는 것이 없는 것이 없는 것이 없다면 하는 것이 없다면 없다면 없다면 없다면 없다면 없다면 없다면 없다면 다른 것이다면 없다면 없다면 없다면 없다면 없다면 없다면 없다면 없다면 없다면 없 |
|--------|---|
| , | e supplier, if any variation) |
| • | Supply, Installation, Commissioning & Validation of cGLP model Digital Moisture Analyzer along with connecting accessories, cables etc. at M/s. HOMCO –Kerala |
| :, | * |
| • | 50 to 110 g |
| | 1 mg * |
| • | 20 mg * |
| | 15° C to 35° C * |
| | 0.001 g |
| | 1% (Sample 0.02 to 0.5g) or better* 0.1% (Sample 0.5 to 5g) or better* 0.01% (Sample > 5g) or better* |
| | ±0.1% (Sample 2g) or better* ±0.04% (Sample 5g) or better* |
| | 160° C or better. |
| : | 1 to 180 secs. * |
| | 10 Hrs. * |
| : | Instrument should be supplied with printer. |
| | |

^{*} To be specified and confirm by the supplier as per their equipment design



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| | | RIPTION |
|--|--------|---|
| (To be specified | by the | e supplier, if any variation) |
| Drying mode | • | Time, Short (Automatic), Manual, * |
| Radiator | • | Halogen lamp * |
| Drying chamber heating time up to 100° C | | < 3 min. * |
| Pan Dimensions | : | Dia. 80mm-90 mm. * |
| Connections | • | RS232C (for computer & printer). USB (for computer), PS2 (for computer keyboard). * |
| Memory | 1 | 20 drying settings |
| GLP STANDARD. | ı | Shedd store 20 styling generalas |
| Calibration standard | | Required calibration standard need to be included. |

^{*} To be specified and confirm by the supplier as per their equipment design



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ANNEXURE - II & III : COMP

FEATURES

AND

OPERATIONAL

FEATURES:

| | | DES | SCRIPTION | 1079/08/9 |
|--------|----------------|---------|---------------------------------|-----------|
| | (To be specifi | ed by t | the supplier, if any variation) | edi enivo |
| мос | | : | * | 2003 |
| Finish | · man Qemanati | | * gnes | |

The machine should consist of:

- > Should consist of Halogen radiators. *
- > Text menu should be convenient. *
- Should display drying graph. *
- Should store 20 drying programs. *
- Should cooperate with printer & computer. *
- Report should be edited by using computer keyboard. *
- Scale of moisture analyzer should allow measuring mass loss material sample placed in drier. *
- Halogen radiators should provide fast drying of a sample. *
- > Time, temperature and profile of drying process can be matched to physio-chemical properties of drying material. *
- > To facilitate drying parameter 'selection for examined material moisture analyzer should allow initial drying, the result of which should displayed on a graph. *
- Connecting external printer should allow printing reports of measurement. *
- > Computer keyboard to PS2 port should connect in order to facilitate report edition. *



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DESCRIPTION

(To be specified by the supplier, if any variation)

Available ways to evaluate humidity:

- · Humidity in proportion to initial weight. *
- · Humidity in proportion to dried weight. *
- Percentage content of dried weight. *

Drying mode:

- · Time. *
- Short (Automatic). *
- Manual. *

Equipment:

- Disposable pans made of aluminum foil (10 pcs.) *
- Computer program (archiving, graphs). *



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ANNEXURE - IV : ELECTRICAL

| (To be specified | | cription ne supplier, if any variation) |
|-------------------------------------|-----|---|
| Standard Operating Frequency | | 50 Hz* |
| Standard Operating Voltage | :, | 230 / 415V* |
| Total power consumption | , : | *e been or microgone in Whitmel |
| Motor Details with rpm | | *************************************** |
| Gear Box Details (If any) | II | * |
| PLC and HMI details | : | * |
| VFD details (If any) | : | * |
| Tower lamp | | * |
| Starter * (.250 D | | ** |
| Major Cabling details | | i sa prividant menjani adugmos e |
| For Main supply (In client's scope) | : | |
| For Main drive motor | : | * |
| End connection details | : | MCB or Socket should be with equipment * |
| Earthing requirement | : | Arrangement should be with system * |
| An Isolator Circuit breaker | | To be supplied with machine at power supply in point of appropriate capacity by vendor. * |
| Cable length with equipment | : | * |

Any other detail not mentioned above, also to be included.

Client will provide & connect the required cable in to vendor's panel. From machine panel to machine and its other accessories to be supplied and connected by vendor at site.



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DESCRIPTION

(To be specified by the supplier, if any variation)

Miscellaneous:

- Wiring between Panel and the Machine should be in the Scope of Vendor. The exact measurements shall be taken by visiting the site. *
- ❖ The Incomer to the Operating Panel shall be provided by HOMCO, however any Cable Trays or SS 304 Conduits required for the same shall be provided by the Vendor. *
- Cable routing from Operating Panel to the Machine shall be done as per cGMP i.e., routing through Cable Trays outside Clean Room Areas and SS 304 Conduits inside Clean Room Areas. *
- ❖ All the Component Makes should match the Approved Makes list provided. *
- ❖ Any deviation from this should be documented and communicated to HOMCO. *
- All Calibration Certificates are to be produced during Installation of Machine, without which the Installation is deemed incomplete. All the Certificates should be Traceable to National / International Standards. *
- The Validity of Calibration shall be minimum 9 months and maximum 12 months from the date of Installation. *
- All the Signal Cables should be shielded to avoid interference. *
- Complete Earthing of Equipment. *
- Complete covering of Electrical Cables and Other Connections. *



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ANNEXURE - V SAFETY FEATURES

DESCRIPTION

(To be specified by the supplier, if any variation)

The equipment should be provided with motor overload safety relay. *

In the event of equipment malfunction or stoppage of utilities, the unit must contain all necessary protection devices to ensure that equipment and product remain in safe condition*

Equipment settings should not get disturbed due to power failure. *

Equipment should not restart without human intervention. *

Equipment should indicate fault through audio / visual signal with details on Control panel (Failure mode detection) *

An easily accessible emergency stops to be provided on main control panel door. *

Lubricant should not come in product contact. *

Wherever possible, warning symbols should be provided.

Electrical wiring must be concealed*



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ANNEXURE - VI

UTILITY REQUIREMENT

| | | DESCRIPTION |
|-------------------|-------|---|
| (To be spe | cifie | ed by the supplier, if any variation) |
| Vacuum | : | As contact parts should be easily dismantise at * |
| Compressed Air | • | Ordinary * |
| | | Non-Lubricated * |
| Any other utility | • | *- |

^{*} To be specified and confirm by the supplier as per their equipment's design requirement with pressure and flow rate along with any valve, pipe, nozzles size required and scope of supply.



ANNEXURE - VII

CLEANING TECHNIQUE

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| (To be specif | | SCRIPTION the supplier, if any variation) |
|--|---------|---|
| Mode of machine cleaning | • | * |
| Use of Lubricants | | *vil particege ed off) |
| All contact parts should be easily di | smantle | ed and cleanable. * muuosy |
| Drain points: Vendor should specify per their system's drain requirement | | pe size and location of drain points if required as pipe, nozzle size, valve etc.* |

^{*} To be specified and confirm by the supplier as per their equipment design



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ANNEXURE - VIII

MECHANICAL DETAILS

| (To be specif | | SCRIPTION he supplier, if any variation) |
|----------------------------------|----------|--|
| Dimension (In mm) | | * |
| Net Weight (In Kgs.) | : | * |
| Type of Packing | | * ` |
| Case Dimension (In mm) | • | *i sit naa al binA) * yadnaup-bina atat |
| Gross Weight (In Kgs.) | • | * a sine nonmero que side pad lo elles ed |
| Foundation details (If required) | | * and the second second second testing |

^{*} To be specified and confirm by the supplier as per their equipment design



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ANNEXURE - IX :

ANGILLARY LIST OF

ACCESSORIES

OPTIONAL ITEMS

DESCRIPTION

(To be specified by the supplier, if any variation)

- Optional Items (If any, Vendor should provide the list with rate) *
- > If any items required but not included in URS, to be mentioned and submitted with unit rate and quantity * (And it can be indicated during pre-bid meeting)

Details of Bought out components to be specified.

Any other ancillary or accessories or optional items not mentioned above also to be quoted.



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ANNEXURE - X

TRAINING REQUIREMENT

- > Training to all concern of M/s. HOMCO, Kerala for the Installation, commission and validation of this lab item should be provided by vendor and training record will be documented.
- Vendor shall support client in execution of all the Qualification Phases.

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ANNEXURE - XI

APPROVED MAKES

| Approved Make house someward below. | | Axis Poland, Sartorius, Mettler Toledo, A & D , wensar . |
|-------------------------------------|-------|--|
| All the Component Makes should ma | tch v | ned above, to be specified by the vendor. with the Approved Makes listed above. Any nted and communicated to HOMCO and |

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ANNEXURE - XII :

DOCUMENTATION

| Sr. No. | Document to be supplied | Qty | Remarks |
|------------|--|--------|------------|
| 1 | Design qualification | 2 sets | |
| 2 | SAT/FAT procedures | 2 sets | j. |
| 3 | Operation manual massing to the control of the cont | 2 sets | , |
| 4 | Maintenance manual | 2 sets | |
| 5 | Spare parts manual | 2 sets | |
| 6 | All engineering drawings | 2 sets | |
| 7 | List of instruments | 2 sets | |
| 8 | Calibration certificates | 2 sets | |
| 9 | Warranty / Guarantee | 2 sets | |
| 10 | List of all components with referencing | 2 sets | References |
| 11 | Civil foundation drawings | 2 sets | |
| 12 | Pre installation requirements | 2 sets | novennase |
| 13 | Installation requirements | 2 sets | |
| 14 | Installation manual | 2 sets | |
| 15 | Technical literature, data sheets and equipment catalogues | 2 sets | |
| 16 | DQ, IQ,OQ, PQ documents. | 2 sets | |
| 17 | Calibration Report of all sensors, controllers, PLC, transmitters, indicators etc. | 2 sets | |
| 18 | Test Certificates of all material of construction | 2 sets | |
| 19 | Test Certificates of the software used in machine control / monitoring system. | 2 sets | |

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ANNEXURE - XIII : TERMS AND CONDITIONS

| Delivery Period | • | * 0000000000000000000000000000000000000 |
|---|---|---|
| Payment Terms and bottom | : | As mentioned in tender. |
| Packaging and forwarding | | By Vendor |
| Un-loading at site | : | By vendor /Supplier |
| | | (If required, help for the arrangements |
| | | of unloading can be done by client) |
| | | Installation in position by the vendor |
| . Pigs T | | under the client's supervision |
| Excise / Taxes /GST | • | * |
| Material for Trial arrangement | : | * (To be arranged by client) |
| Installation and Commissioning | | By Vendor |
| Submission of documents and drawings | | |
| Response to URS and submission of quotation | | Within 2 week |
| Submission of detail functional design | : | Within a week after order finalization |
| specification and schematic drawings | | 13 Civil foundation drawings |
| Submission of FAT / SAT specification | | 2 weeks before FAT |
| Submission of IQ AND OQ documents | • | With equipment delivery |
| Drawings / diagrams | | Within a week after receiving PO |

The supplier should notify customer 2 weeks in advance of the beginning of FAT

Catalogue, Equipment drawing, List of clients and year of establishment to be submitted along with quotation.

Any other terms, not mentioned above, also to be specified.



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ANNEXURE - XIV

ABBREVIATION

| 1. | URS | | User Requirement Specification. |
|-----|-------|----|--|
| 2. | НОМСО | : | Kerala State Homeopathic Co-operative Pharmacy Ltd |
| 3. | DQ | : | Design Qualification |
| 4. | IQ | : | Installation Qualification |
| 5. | OQ | | Operational Qualification |
| 6. | PQ | : | Performance Qualification |
| 7. | SS | : | Stainless Steel |
| 8. | RHS | : | Right Hand Side |
| 9. | MOC . | : | Material of Construction |
| 10. | KW | : | Kilo Watt |
| 11. | НР | | Horse Power |
| 12. | RPM | : | Rotation Per Minute |
| 13. | FLP | : | Flame Proof |
| 14. | cGMP | : | Current Good Manufacturing Practices |
| 15. | O&M | | Operation and Maintenance |
| 16. | GA | :- | General Arrangement |
| 17. | SLD | : | Single Line Diagram |
| 18. | HOD | : | Head of Department |
| 19. | QA | | Quality Analysis |
| 20. | MRP | : | Maximum Retail Price |
| 21. | NMT . | : | Not more than |
| 22. | VFD | : | Variable frequency drive |
| 23 | FAT | : | Factory Acceptance Test |
| 24 | SAT | : | Site Acceptance Test |

Any other details, not mentioned in Annexure I to XIII, to be specified in the quotation/specification by the vendor.

