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Supplier's Copy

USER REQUIREMENT SPECIFICATION

Name of the Company	:	
Contact Person	:	
Address	:	
Contact Details	:	
Department	:	QCL-First Floor
Equipment and Code No.		Centrifuge (Micro-processor based-Bench Top)
Name of work	:	Supply, Installation, Commissioning & Validation of cGLP Centrifuge (Microprocessor based-Bench Top) unit at M/s. HOMCO -Kerala
Ref. No.	:	
Date	:	
Enclosures	:	
Quantity	:	1 No.



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CENTRIFUGE (MICRO PROCESSOR BASED-BENCH TOP)

ANNEXURE - I : BASIC DETAILS OF THE MACHINE

DESCRIPTION					
(To be specified by the supplier, if any variation)					
Scope	•	Supply, Installation, Commissioning & Validation of cGLP model Centrifuge (Micro-processor based-Bench Top) unit along with connecting accessories, cables etc. at M/s. HOMCO –Kerala			
Model	:	*			
Time	:	1 to 99 minutes *			
Display	:	LCD			
Speed	:	300 to 6000 RPM *			
Maximum Load Capacity (RCF)		3950 g *			
Tube Size	:	5 ml to 15 ml *			
Maximum tube	:	4 – 8 tubes			
Programmable Acceleration/					
Deceleration Range	•	40 To 240 sec. *			

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



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ANNEXURE - II & III	: cGMP AND OPERATIONAL FEATURES				
DESCRIPTION					
	(To be specified by the supplier, if any variation)				
MOC	SS fabricated.*				
Finish	: *				
The unit should consis	t of the following:				
Should have Pr	ogrammable Advanced Microcontroller with soft touch key pad. *				
LCD should dis	play RCF value, set & working parameters. *				
Should have safety lid switch. Lid lock safety Mechanism*					
Should have imbalance detection and automatic switch off mechanism. *					
Minimum 4-8 samples should be placed at a time. *					
Should have last used program memory function.*					
> Temprature control, refrigeration capability for sensitive sample					
Standard Accessories:					
The unit should supply with following accessories					
Main Machine *					
Rotors. *	➤ Rotors. *				

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ANNEXURE - IV : ELECTRICAL DETAILS

DESCRIPTION				
(To be specified by the supplier, if any variation)				
Standard Operating Frequency		50 Hz		
Standard Operating Voltage		230 / 415V*		
Total power consumption	-	*		
Motor Details with rpm	-	*		
Gear Box Details (If any)	-	*		
PLC and HMI details	•	*		
VFD details (If any)	•	*		
Tower lamp		*		
Starter	•	*		
Major Cabling details				
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

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(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

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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) \ast

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 specified by the supplier, if any variation)					
Vacuum : *					
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.



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ANNEXURE - VII : CLEANING TECHNIQUE

DESCRIPTION (To be specified by the supplier, if any variation)				
Mode of machine cleaning *				
Use of Lubricants		*		
All contact parts should be easily dismantled and cleanable. *				
Drain points: Vendor should specify the pipe size and location of drain points if required as				
per their system's drain requirement	with p	ipe, nozzle size, valve etc.*		

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ANNEXURE - VIII : MECHANICAL DETAILS

DESCRIPTION (To be specified by the supplier, if any variation)				
Dimension (In mm)	•	*		
Net Weight (In Kgs.)	•	*		
Type of Packing	-	*		
Case Dimension (In mm)	-	*		
Gross Weight (In Kgs.)	-	*		
Foundation details (If required)	•	*		

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ANNEXURE - IX : LIST OF ANCILLARY / 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

Stainless Steel Sheet & Pipe: Tata / Jindal	:	*
PLC: Siemens / Allen Bradely / Delta	:	*
HMI: Siemens / Allen Bradely / Delta / Exor		*
Cables: Finolex / Polycab	:	*

- * Any other components, not mentioned above, to be specified by the vendor.
- * All the Component Makes should match with the Approved Makes listed above. Any deviation from this should be documented and communicated to HOMCO and Pharma Consultant.

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ANNEXURE - XII : DOCUMENTATION

Sr.	Document to be supplied	Qty	Remarks
No.			
1	Design and operational qualification	2 sets	
2	SAT/FAT procedures	2 sets	
3	Operation manual	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	
11	Civil foundation drawings	2 sets	
12	Pre installation requirements	2 sets	
13	Installation requirements	2 sets	
14	Installation manual	2 sets	
15	Technical literature, data sheets and equipment catalogues	2 sets	
16	DQ, IQ, 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	•	*
Payment Terms	•	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 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 1 week
Submission of detail functional design specification and schematic drawings	•	Within a week after order finalization
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.	HOMCO	:	Kerala State Homeopathic Co-operative Pharmacy Ltd.
3.	DQ	:	Design Qualification
4.	IQ		Installation Qualification
5.	0Q	:	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.	HP	:	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.