



Kerala State Homoeopathic Co-Operative Pharmacy Ltd.

(sponsored by government of Kerala & aided by govt. of India)

Office: Pathirappally, Alappuzha, Kerala, India - 688 521

Phone : 0477 2258012

:0477 2258665

Fax : 0477 2258012

Website : www.homcokerala.com

Email : homcokerala@gmail.com

Supplier's Copy

USER REQUIREMENT SPECIFICATION

Name of the Company	:	
Contact Person	:	
Address	:	
Contact Details	:	
Department	:	QC – First Floor
Equipment and Code No.	:	1) Supply and installation of Refrigerated circulation bath
Name of work	:	Supply, Installation, Commissioning & Validation of Refrigerated circulation bath, at M/s. HOMCO, Pathirappally –Kerala at First floor as per the proposed location layout.
Ref. No.	:	
Date	:	
Enclosures	:	
Qty.	:	1 Nos.



Kerala State Homoeopathic Co-Operative Pharmacy Ltd.

(sponsored by government of Kerala & aided by govt. of India)

Office: Pathirappally, Alappuzha, Kerala, India - 688 521

Phone : 0477 2258012

:0477 2258665

Fax : 0477 2258012

Website : www.homcokerala.com

Email : homcokerala@gmail.com

AIR COOLED WATER CHILLER 1 TR

ANNEXURE- I : BASIC DETAILS OF THE MACHINE

DESCRIPTION		
(To be specified by the supplier, if any variation)		
Scope	:	Supply, Installation, Commissioning & Validation of Air cooled Refrigerated circulation bath, at M/s. HOMCO –Kerala at First floor.
Model	:	*
Type	:	- Air cooled system - Refrigerant: R407c / R134a (Eco-Friendly)
Operating Ambient temperature	:	15 – 45 ° C *
Leaving water temperature (cooling temp)	:	-10 to 100 ° C
Process Pump flow rate	:	Minimum 8 LPM *
Bath Tank capacity	:	10L
Inner tank MOC	:	SS 304
Temperature Accuracy	:	±0.05 ° C
Temperature Control	:	Microprocessor PID
Display	:	Touchscreen
Control system	:	Temperature controller with sensor *
Feed water	:	Soft water / DM water.
Suitable Size	:	Table top
Tank size (LxWxD)	:	270 x 200 x 200mm

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



Kerala State Homoeopathic Co-Operative Pharmacy Ltd.

(sponsored by government of Kerala & aided by govt. of India)

Office: Pathirappally, Alappuzha, Kerala, India - 688 521

Phone : 0477 2258012

:0477 2258665

Fax : 0477 2258012

Website : www.homcokerala.com

Email : homcokerala@gmail.com

ANNEXURE – II & III : DESIGN & PROCESS CONTROL FEATURES

FOR WATER CHILLER

DESCRIPTION		
(To be specified by the supplier, if any variation)		
Design requirement	:	Water chiller with Air cooled system with circulation pump. Water in the tank should be cooled as per the temperature set in the temperature controller (set temperature at controller will be -10 to 100 °C). Hooter alarm system should be provided, during any fault in the system hooter should be triggered. *
Process Control Features	:	The water chiller is required for chemical distillation process. The chilled water should circulate in the distillation glassware area to reduce the temperature to make the condensation process.
Usage detail	:	This water chiller is required for circulating chilled water in the Distillation setup.

*** To be specified and confirm by the supplier as per their equipment design.**



Kerala State Homoeopathic Co-Operative Pharmacy Ltd.

(sponsored by government of Kerala & aided by govt. of India)

Office: Pathirappally, Alappuzha, Kerala, India - 688 521

Phone : 0477 2258012

:0477 2258665

Fax : 0477 2258012

Website : www.homcokerala.com

Email : homcokerala@gmail.com

DESCRIPTION

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

ANNEXURE - IV

: OPERATIONAL & CONTROL FEATURES

FOR WATER CHILLER

DESCRIPTION

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

Controls	:	Temperature controlled system through temperature controller and sensor, High accuracy temperature controller and sensor need to be used. *
		(i) Audio-visual alarm for water low level and interlock for the operation need to be provided. (ii) MCB's and electrical components should be provided for all electrical operation of pump and refrigeration system. (iii) Complete internal wiring to ensure power supply at a single point on the panel. - Indication lamp for power supply is required. (viii) Pressure switch should be provided for refrigeration system. *
Accessories	:	Air cooling exhaust fan with drive motor *
		Inlet and outlet flexible hose with connectors need to be provided *
	:	Proper insulation and covering for the Water tank need to be provided *
	:	Proper insulation for the refrigeration system required. *

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



Kerala State Homoeopathic Co-Operative Pharmacy Ltd.

(sponsored by government of Kerala & aided by govt. of India)

Office: Pathirappally, Alappuzha, Kerala, India - 688 521

Phone : 0477 2258012

:0477 2258665

Fax : 0477 2258012

Website : www.homcokerala.com

Email : homcokerala@gmail.com

DESCRIPTION		
(To be specified by the supplier, if any variation)		
Instrumentation	:	
Water level controllers	:	Water tank level sensor / switch should be provided to avoid empty run of system*
Temperature controller	:	Temperature Controller for setting the desire temperature set for controlling the refrigeration system*
Control panel	:	1 no. for housing at the Equipment*
Guarantees	:	The chiller supplier should guarantee the following: • The Chiller should be guaranteed for trouble free operation for a period of 12 months form the date of installation over. * • Any defect due to faulty material / bad Supply of chiller should be rectified free of cost to the entire satisfaction of the purchaser. *

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



Kerala State Homoeopathic Co-Operative Pharmacy Ltd.

(sponsored by government of Kerala & aided by govt. of India)

Office: Pathirappally, Alappuzha, Kerala, India - 688 521

Phone : 0477 2258012

:0477 2258665

Fax : 0477 2258012

Website : www.homcokerala.com

Email : homcokerala@gmail.com

ANNEXURE – V & VI : SAFETY & ELECTRICAL DETAILS

DESCRIPTION		
(To be specified by the supplier, if any variation)		
Controls and safety	:	
Emergency Switch	:	Emergency operation stop need to be provided*
Safety Interlocks	:	Refrigeration system interlock for safety operation need to be provided.
	:	To avoid the empty run of the system tank low level interlock need to be provided.

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



Kerala State Homoeopathic Co-Operative Pharmacy Ltd.

(sponsored by government of Kerala & aided by govt. of India)

Office: Pathirappally, Alappuzha, Kerala, India - 688 521

Phone : 0477 2258012

:0477 2258665

Fax : 0477 2258012

Website : www.homcokerala.com

Email : homcokerala@gmail.com

DESCRIPTION

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

Electrical Panel

- The control panel must be a part chiller. It should contain all necessary switchgears, safety alarms/interlocks and Temperature controller and is to be mounted on the chiller itself eliminating any cabling requirement at site. *

Standard Operating Frequency : 50 Hz

Standard Operating Voltage : 230 / 415V *

Total power consumption : *

Motor Details with rpm : *

Any other detail not mentioned above, but required also to be informed & included in the scope of supply by the vendor.

Client will provide & connect the required cable in to vendor's panel only.

From machine panel to machine and its other accessories and controls, to be supplied and connected by vendor at site.

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



Kerala State Homoeopathic Co-Operative Pharmacy Ltd.

(sponsored by government of Kerala & aided by govt. of India)

Office: Pathirappally, Alappuzha, Kerala, India - 688 521

Phone : 0477 2258012

:0477 2258665

Fax : 0477 2258012

Website : www.homcokerala.com

Email : homcokerala@gmail.com

DESCRIPTION

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

Miscellaneous:

- ❖ All the Component Makes should match the Approved Makes list provided. *
- ❖ Any deviation from this should be documented and communicated to HOMCO for approval before submitting tenders. *
- ❖ 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. *

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



Kerala State Homoeopathic Co-Operative Pharmacy Ltd.

(sponsored by government of Kerala & aided by govt. of India)

Office: Pathirappally, Alappuzha, Kerala, India - 688 521

Phone : 0477 2258012

:0477 2258665

Fax : 0477 2258012

Website : www.homcokerala.com

Email : homcokerala@gmail.com

ANNEXURE – VII : UTILITY REQUIREMENT

DESCRIPTION		
(To be specified by the supplier, if any variation)		
Water	:	*
Compressed Air	:	*
Oil	:	*
Any other	:	*

Note: All necessary and required utilities with any filters along with required housing and accessories should be provided by vendor.

*** 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 alongwith scope of supply.**



Kerala State Homoeopathic Co-Operative Pharmacy Ltd.

(sponsored by government of Kerala & aided by govt. of India)

Office: Pathirappally, Alappuzha, Kerala, India - 688 521

Phone : 0477 2258012

:0477 2258665

Fax : 0477 2258012

Website : www.homcokerala.com

Email : homcokerala@gmail.com

ANNEXURE - VIII : 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.		
Easy washing and cleaning facility should be available		
Drain points: Vendor should specify the pipe size and location of drain points if required as per their system's drain requirement with pipe /nozzle size, valve etc.*		

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

ANNEXURE - IX : 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	:	*

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



Kerala State Homoeopathic Co-Operative Pharmacy Ltd.

(sponsored by government of Kerala & aided by govt. of India)

Office: Pathirappally, Alappuzha, Kerala, India - 688 521

Phone : 0477 2258012

:0477 2258665

Fax : 0477 2258012

Website : www.homcokerala.com

Email : homcokerala@gmail.com

ANNEXURE - X : LIST OF ANCILLARY / ACCESSORIES / OPTIONAL ITEMS

DESCRIPTION

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

Vendors should inform, provide details and consider scope of supply for the following:

- Recommended Spares part list
- Essential Spares (For 1 year)
- If any items required but not included in URS, to be mentioned and submitted with unit rate and quantity * (And it can be informed to client during pre-bid meeting or before PO/WO)
- Any other ancillary or accessories or optional items not mentioned above but required for successful operation should also to be informed in advance before PO/WO
- *Any other ancillary, or accessories or optional items not mentioned also to be quoted*
 - *Details of Bought out components to be specified.*

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



Kerala State Homoeopathic Co-Operative Pharmacy Ltd.

(sponsored by government of Kerala & aided by govt. of India)

Office: Pathirappally, Alappuzha, Kerala, India - 688 521

Phone : 0477 2258012

:0477 2258665

Fax : 0477 2258012

Website : www.homcokerala.com

Email : homcokerala@gmail.com

ANNEXURE - XI : TRAINING REQUIREMENT

- Training to all concern of M/s. HOMCO, Kerala for the Installation, Operation, Maintenance of water chiller provided by vendor and training record should be documented.
- Testing of control panel should be carried out in presence of customer/Client's representative at the place of manufacturer before delivery.
- Vendor shall support client in execution of all the Qualification Phases.



Kerala State Homoeopathic Co-Operative Pharmacy Ltd.

(sponsored by government of Kerala & aided by govt. of India)

Office: Pathirappally, Alappuzha, Kerala, India - 688 521

Phone : 0477 2258012

:0477 2258665

Fax : 0477 2258012

Website : www.homcokerala.com

Email : homcokerala@gmail.com

ANNEXURE - XII : DOCUMENTATION

List of all Documents to be supplied along with equipment [AS APPLICABLE]

Sr. No.	Document to be supplied	Qty	Remarks
1	Design 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 (GA 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- If required	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, OQ , 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	



Kerala State Homoeopathic Co-Operative Pharmacy Ltd.

(sponsored by government of Kerala & aided by govt. of India)

Office: Pathirappally, Alappuzha, Kerala, India - 688 521

Phone : 0477 2258012

:0477 2258665

Fax : 0477 2258012

Website : www.homcokerala.com

Email : homcokerala@gmail.com

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
Response to URS and submission of quotation	:	Within 2 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	:	With equipment delivery
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 alongwith quotation.		
<i>Any other terms, not mentioned above, also to be specified.</i>		

*** To be specified by the supplier**



Kerala State Homoeopathic Co-Operative Pharmacy Ltd.

(sponsored by government of Kerala & aided by govt. of India)

Office: Pathirappally, Alappuzha, Kerala, India - 688 521

Phone : 0477 2258012

:0477 2258665

Fax : 0477 2258012

Website : www.homcokerala.com

Email : homcokerala@gmail.com

ANNEXURE - XIV : ABBREVIATION

1.	URS	:	User Requirement Specification.
2.	KSDPL	:	Kerala State Drugs & Pharmaceuticals 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.	HP	:	Horse Power
12.	RPM	:	Rotation Per Minute
13.	FLP	:	Flame Proof
14.	cGMP	:	Current Goods 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
23.	TR	:	Ton of refrigeration

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