



Kerala State Homoeopathic Co-Operative Pharmacy Ltd.

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

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Supplier's Copy

USER REQUIREMENT SPECIFICATION

Name of the Company	:	
Contact Person	:	
Address	:	
Contact Details	:	
Department	:	Raw material store (Ancillary Building)-Ground Floor
Equipment and Code No.	:	Alcohol Storage tank, Blending tank, Day storage tank, Transfer system with pump with accessories, Interconnecting SS pipes, platform for alcohol storage tank etc. including the following major items: 1) Alcohol storage tanks -10000 liter (Qty - 4 nos). Including SS platform for access, transfer pumps from tankers to tank and tanks to blending tanks, interconnecting pipes and valve between all four tanks with pumps etc. 2) Blending tanks - 500 liter tanks with stirrer (Qty - 4 nos). Transfer pump from blending tanks to day storage tanks with pumps and interconnecting piping from ground to second floor. 3) Day storage tanks with stirrer-500 liter (Qty - 4 nos). Transfer pump from day storage tanks to user points with pumps and interconnecting piping.
Name of work	:	Supply, Installation, Commissioning & Validation of cGMP model Alcohol storage and the distribution system from ground floor to second floor At M/s. Homco -Kerala
Ref. No.	:	
Date	:	
Enclosures	:	



CONSULTANT : M/S. KNACK TECHNOCRATS

111, AVINASH, SEVEN BUNGALOWS, JAY PRAKASH ROAD, ANDHERI (W), MUMBAI - 400 053

TEL. NO. : 022-2636 1629, Email : infoknack@gmail.com 1





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**ALCOHOL STORAGE & THE DISTRIBUTION SYSTEM
(FROM GROUND FLOOR TO 2nd FLOOR)**

ANNEXURE - I&II : BASIC & OPERATIONAL DETAILS.

DESCRIPTION	
(To be specified by the supplier, if any variation)	
Scope	<p>Supply, Installation, Commissioning and Validation of Alcohol Storage tanks, Blending tanks, day storage tanks including the transfer system pumps, interconnecting pipes, platform and automation of system etc., necessary for the successful running of the entire alcohol transfer system.</p> <p>Details:</p> <ol style="list-style-type: none"> 1) Alcohol storage tanks -Capacity: 10000 liters, Qty. 4 nos. (at ground floor). Including SS platform for easy access. 2) Transfer pumps: Transfer pumps from Lorry tankers to Storage tank and Storage tanks to Blending tanks including interconnecting piping between all four tanks with pumps, valves, instruments etc. 3) Blending tanks - Capacity: 500 liters, Qty. 4 nos. (at ground floor), Four Tanks with Agitator including interconnecting piping from ground to second floor. 4) Transfer pumps: Transfer pumps from Blending tanks to Day Storage tanks with interconnecting piping between two set of tanks with pumps, valves, instruments etc. 5) Day Storage tanks Capacity: 500 liters (at second floor) with stirrer, Qty. 4 nos. 6) Transfer pumps: Transfer pump from Day Storage tanks to user points with pumps.
Standard	: cGMP guidelines, ASME Sec. VIII, Div.1
Design	: <ul style="list-style-type: none"> • Alcohol storage 10000 liters tank - 4 Nos. • Blending tank (500 Liters) - 4 Nos. • Day storage tank (500 Liters) - 4 Nos. • Automation & Transfer as per shift



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DESCRIPTION

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

Process Overview

- The Alcohol will be unloaded from the Lorry Tanker by transfer pump to fill the Alcohol storage tanks (Capacity: 10000L, Qty.4 Nos.) in Raw material Storage Area at ground floor.
- Then the Alcohol will be transferred by transfer pumps from Storage tanks to Blending tanks (Capacity: 500L, Qty.4 Nos.) in Blending Room at ground floor.
- In the 4 Nos. of Blending Tanks, 2 Nos. of tanks for the Mother Tincture solution purpose and the other 2 Nos. for the Dilution purpose.
- The Mother Tincture Solution from the two Blending Tanks will be transferred by transfer pump to the 2 Nos. of Day Storage Tanks (500L, Qty.2 Nos.)at second floor Production Area for Mother Tincture Mfg. purpose.
- The Dilution from the two Blending Tanks will be transferred by transfer pump to the 2 Nos. of Day Storage Tanks (500L, Qty. 2 Nos.) at second floor in Production Area for Dilution Mfg. purpose.
- On the second floor Production area the Mother Tincture Solution/Dilution solution from the Day Storage Tanks (4 Nos.) will be transferred by Peristaltic pump to the respective user points in Filling and Process Room.



(I. Ansum)

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DESCRIPTION

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

I. SS316 Alcohol Storage Tanks: 10000 Liters (4 Nos.)

SYSTEM DISCRIPTION:

- All four tanks should be placed in respective location with individual utility points and drain point with skid.
- The four tanks will be installed at ground floor and used for the Alcohol Storage.
- Tanks should be designed and supplied with following Component for Process Monitoring and Control:
 - Manhole: diameter 90 cm with air vent and SS mesh
 - Spray Ball: For CIP, should be mounted on top dish, operating at 2 bar, Size 1.5" static type
 - Light glass with 100 mm dia. viewing glass
 - Level indicator: For monitoring the level in the tank, tube type, height 3000 mm, Non breakable
 - Level Transmitter: For level monitoring in tank, Magnetic Float Operated Guided Level Transmitter, Mounting on Top of Tank, (Enclosure: Cast Al. IP66, Output: 4-20mA), (Display Type: Universal Indicator Controller , Wetted Part MOC:SS316), (Process Connection: flanged)
 - Manual ball valve for bottom outlet: SS 316, 50 NB TC end
 - Manual ball valve for Inlet and transfer: SS 316, 50 NB TC end
 - Drain valve and dip scale: SS 316, 40 mm TC end
 - Pressure Gauge: Size-100mmDial, MOC-SS316, Diaphragm Type, TC End Connection
 - Manual/Actuated Ball Valve at Pump suction & Discharge :SS 316, 50 NB TC end
 - Pressure Safety Valve: MOC-SS316, End connection-TC end, Type :self actuated
 - Flexible Hose Pipe: Flexible Hose Pipe suitable for application

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



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DESCRIPTION

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

- Flow Transmitter/Mass Flow Meter: SS 316, Positive displacement flow meter with mechanical counter/Coriolis type Mass Flow meter,Enclosure: Cast Al, coated. Output: 4-20mA, Wetted Part MOC: SS316, Process Connection: flanged
- Non-Return Valve:Type-Spring loaded/disc check valve, MOC-SS316, End connection-TC end, Operating pressure-up to 10 bar
- Control Panel: Electrical Relay Panel for manual transfer operations and PLC HMI panel for automatic transfer operations
- Air operated double diaphragm pump skid is provided for transfer
- AODD transfer pump skid consist of accessories such as suction valve, discharge valve, pressure gauge, flow indicator, non-return valve, pressure safety valve along with piping.
- Transfer of alcohol from tanker lorry to tank & from tank to the blending room tanks
- SS platform for easy access to the top of the tank

Operational Design:

Working Volume	:	10000 liters.
Geometric Volume	:	12000 liters.*
Quantity	:	4 numbers
Hight /Diameter Ratio	:	1.2:1*
Type of Vessel	:	Cylindrical Vertical
Top Dish	:	Tori spherical end top
Bottom Dish	:	10% tori spherical dish*
Hazards Area Classification	:	Flame proof area
Design Condition		
Design Code	:	cGMP/ASME guidelines
Shape	:	Vertical, Cylindrical
Working Pressure (Shell)	:	1.0 to 2.2 bar (g)*
Design Pressure (Shell)	:	1.0 to 3.3 bar (g) and full vacuum*
Working Temperature (Shell)	:	0 to 100°C*
Design Temperature (Shell)	:	120°C*
Hydro Test Pressure (Shell)	:	4.3 bar (g)*

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



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(J. An. 2022)



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DESCRIPTION

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

II. SS316 Blending Storage Tanks: 500 Liters -2 Nos. with Agitator (Dilution)

III. SS316 Blending Storage Tanks: 500 Liters - 2 Nos. with Agitator (MT)

SYSTEM DISCRIPTION:

- These two tanks should be placed in respective room with individual utility points and drain point and with skid.
- The Two tanks will be installed at ground floor and used for the dilution purpose.
- Tanks should be designed and supplied with following Component for Process Monitoring and Control:
 - Agitator: FLP motor with VFD, Gear Box, Shaft and impeller, MOC: SS 316
 - Manhole: diameter 90 cm with air vent and SS mesh
 - Spray Ball: For CIP, should be mounted on top dish, operating at 2 bar, Size 1.5" static type
 - Light glass with 100 mm dia. viewing glass
 - Level indicator: For monitoring the level in the tank, tube type, height 3000 mm
 - Level Transmitter: For level monitoring in tank, Magnetic Float Operated Guided Level Transmitter, Mounting on Top of Tank, Enclosure: Cast Al. IP66, Output: 4-20mA, Display Type: Universal Indicator Controller, Wetted Part MOC: SS316, Process Connection: flanged
 - Flow Transmitter/Mass Flow Meter: SS 316 Positive displacement flow meter with mechanical counter/Coriolis type Mass Flow meter, Enclosure: Cast Al, coated. Output: 4-20mA, Wetted Part MOC: SS316, Process Connection: flanged
 - Non-Return Valve: Type-Spring loaded/disc check valve, MOC-SS316, End connection-TC end, Operating pressure-up to 10 bar
 - Manual ball valve for bottom outlet: SS 316 50 NB TC end
 - Manual ball valve for Inlet and transfer: SS 316 50 NB TC end
 - Pressure Safety Valve: MOC-SS316, End connection-TC end, type-self actuated

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



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DESCRIPTION

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

- Drain valve and dip scale : SS 316, 50 NB TC End
- Pressure Gauge: Size-100mmDial, MOC-SS316, Diaphragm Type,TC End Connection
- Flexible Hose Pipe: Flexible Hose Pipe suitable for application
- Control Panel: Electrical Relay Panel for manual transfer operations and PLC HMI panel for automatic transfer operations
- Air operated double diaphragm pump skid is provided for transfer
- AODD transfer pump skid consist of accessories such as suction valve, discharge valve, pressure gauge, flow indicator, non-return valve, pressure safety valve along with piping.
- Transfer of alcohol to tanks at second floor Dilution Section and Mother Tincture Section

Operational Design:

Machine	:	Blending tank with agitator
Working Volume	:	500 liters.
Geometric Volume	:	600 liters. *
Hight /Diameter Ratio	:	1.2:1*
Type of Vessel	:	Cylindrical Vertical
Top Dish	:	Tori spherical dish end top
Bottom Dish	:	10% tori spherical dish*
Hazards Area Classification	:	Flameproof Area

Design Condition

Design Code	:	cGMP/ASME guidelines
Working Pressure (Shell)	:	1.0 to 2.2 bar (g) *
Design Pressure (Shell)	:	1.0 to 3.3 bar (g) *
Working Temperature (Shell)	:	0 to 100 °C*
Design Temperature (Shell)	:	120°C*
Hydro Test Pressure (Shell)	:	4.3 bar (g) *

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

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DESCRIPTION

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

IV. SS316 Day Storage Tanks: 500 Liters - 4 Nos. with Agitator

- Tanks for Dilution Section - 2 Nos.
- Tanks for Mother Tincture Section - 2 Nos.

- These tanks should be placed in respective room with individual utility points and drain point and with skid
- The four tanks will be installed at second floor and used for the Dilution and Mother Tincture Filling purpose.
- Tanks should be designed and supplied with following Component for Process Monitoring and Control:
 - Agitator: FLP motor with VFD, Gear Box, Shaft and impeller, MOC: SS 316
 - Manhole: diameter 90 cm with air vent and SS mesh
 - Spray Ball: For CIP, should be mounted on top dish, operating at 2 bar, Size 1.5"
 - Light glass with 100 mm dia. viewing glass
 - Level indicator: For monitoring the level in the tank, tube type, height 3000 mm
 - Level Transmitter: For level monitoring in tank, Magnetic Float Operated Guided Level Transmitter, Mounting on Top of Tank, Enclosure: Cast Al. IP66, Output: 4-20mA, Display Type: Universal Indicator Controller, Wetted Part MOC: SS316, Process Connection: flanged
 - Flow Transmitter/Mass Flow Meter: SS 316 Positive displacement flow meter with mechanical counter/Coriolis type Mass Flow meter, Enclosure: Cast Al, coated. Output: 4-20mA, Wetted Part MOC: SS316, Process Connection: flanged
 - Non-Return Valve: Type-Spring loaded/disc check valve, MOC-SS316, End connection-TC end, Operating pressure-up to 10 bar
 - Manual ball valve for bottom outlet: SS 316 50 NB TC end
 - Manual ball valve for Inlet and transfer: SS 316 50 NB TC end
 - Pressure Safety Valve: MOC-SS316, End connection-TC end, type-self actuated
 - Drain valve and dip scale : SS 316, 50 NB TC End

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



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DESCRIPTION

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

- o Pressure Gauge: Size-100mmDial, MOC-SS316, Diaphragm Type,TC End Connection
- o Flexible Hose Pipe: Flexible Hose Pipe suitable for application
- o Control Panel: Electrical Relay Panel for manual transfer operations and PLC HMI panel for automatic transfer operations
- o Positive displacement Peristaltic metering pump is provided for product pumping & transfer
- o Mother Tincture & Dilution solution transfer from 500L Production Area Tanks to filling containers (at second floor) will be done automatically by PLC-HMI control panel (FLP) for precise pumping/filling using positive displacement peristaltic/diaphragm metering pumps.
- o Transfer of alcohol from tanks at second floor Dilution Section and Mother Tincture Section to user points

Operational Design:

Machine	:	Day storage tank with agitator
Working Volume	:	500 liters.
Geometric Volume	:	600 liters. *
Hight /Diameter Ratio	:	1.2:1*
Type of Vessel	:	Cylindrical Vertical
Top Dish	:	Tori spherical dish end top
Bottom Dish	:	10% tori spherical dish*
Hazards Area Classification	:	Flameproof Area

Design Condition

Design Code	:	cGMP/ASME guidelines
Working Pressure (Shell)	:	1.0 to 2.2 bar (g) *
Design Pressure (Shell)	:	1.0 to 3.3 bar (g) *
Working Temperature (Shell)	:	0 to 100 °C*
Design Temperature (Shell)	:	120°C*
Hydro Test Pressure (Shell)	:	4.3 bar (g) *

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



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DESCRIPTION

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

V. Inter connecting SS 316 Pipe, valve, Instruments and other accessories at:

- Ground Floor - 10 KL Tanks, 4 Nos.
- Ground floor - 500 Liters Tanks, 4Nos. with agitator for Dilution& MT
- Second floor -500 Liters Tanks, 4Nos. with agitator for Dilution& MT

- The piping system starting from the transfer of alcohol from tanker to supply till day storage tank on second floor
 - ❖ Tanker lorry to the alcohol storage tanks (10 KL Tanks, 4 Nos.)
 - ❖ Alcohol storage tanks (10 KL Tanks, 4 Nos.) to Blending tanks (500 Liters Tanks, 4 Nos.)
 - ❖ Blending tanks (500 Liters Tanks, 4 Nos.) to Day storage tanks (500 Liters Tanks, 4 Nos.)
- All piping and accessories for Product contact should be SS 316
- All piping should be installed to maintain self-draining system with no fluid collection area.
- For good clean ability, ball valves should be used.
- All pipes and fittings dimension should be as per ASME BPE
- All pipes should be Electro-polished (EP) internally and buffed from outside

VI. SS 304 Platform:

- Platform with railing and easy access to the top of each tank of 10 KL Liters
- Dimension : 11.0 L X 1.2 W (M) – Qty : 1 Lot

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



(I. Ansumi)



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DESCRIPTION

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

VII. Alcohol Transfer Pumps

1) From Alcohol Tanker Un-Loading to Storage Tanks (10 KL)

- a. AODD (Air operated Double Diaphragm) pump with mobile trolley
- b. Flow Capacity: 10 m³/hour
- c. Pump Head Pressure:3.0 Bar(g) *
- d. Air Pressure: 4.0 Bar(g) *
- e. Pump Type:Clamped-Metal*
- f. Size:1.5"*
- g. Wetted Material: Stainless Steel
- h. Diaphragm Material: PTFE
- i. Qty- 2numbers (one working and one standby)

2) For Alcohol Transfer from 10 KL Storage Tanks to 500L Blending Tanks

- a. AODD (Air operated Double Diaphragm) pump with mobile trolley
- b. Flow Capacity: 1 m³/hour
- c. Pump Head Pressure: 3.0 Bar(g) *
- d. Air Pressure: 3.5 Bar(g) *
- e. Pump Type:Clamped-Metal*
- f. Size:0.5"*
- g. Wetted Material: Stainless Steel
- h. Diaphragm Material: PTFE
- i. Qty- 2numbers (one working and one standby)

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



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DESCRIPTION

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

3) For Transfer from Blending Tanks to Day Storage Tanks (Dilution)

- AODD (Air operated Double Diaphragm) pump with mobile trolley
- Flow Capacity: 1 m³/hour
- Pump Head Pressure: 5.0 Bar(g)*
- Air Pressure: 6.0 Bar(g) *
- Pump Type: Clamped-Metal*
- Size:0.5"*
- Wetted Material: Stainless Steel
- Diaphragm Material: PTFE
- Qty- 2numbers (one working and one standby)

4) For Transfer from Blending Tanks to Day Storage Tanks (Mother Tincture)

- AODD (Air operated Double Diaphragm) pump with mobile trolley
- Flow Capacity: 1 m³/hour
- Pump Head Pressure: 5.0 Bar(g)*
- Air Pressure: 6.0 Bar(g) *
- Pump Type: Clamped-Metal*
- Size:0.5"*
- Wetted Material: Stainless Steel
- Diaphragm Material: PTFE
- Qty- 2 numbers (one working and one standby)

5) For Transfer from Day Storage Tank to User Point - Individual Tank Pumps

- Peristaltic Metering Pumps
- Flow Capacity: 50 LPH to 200 LPH
- Pump Head Pressure: 4.0 Bar(g)*
- Wetted Material: Stainless Steel
- With all aids and accessories
- Qty.: 4 Numbers (Individual pumps for all 4 Nos. of tanks)

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



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DESCRIPTION				
(To be specified by the supplier, if any variation)				
VIII. Alcohol Transfer Pipes and Fittings				
Sl.No.	Description	Size	Qty	Unit
1	SS 316L Pipe 16Swg (Bead Removed) With internally Electropolished<0.8Ra and externally Buffed	1" OD	230 (Approx)	Mtrs
2	SS 316L Bend (Bead Removed)16Swg With internally Electropolished<0.8Ra and externally Buffed	1" OD	80 (Approx)	Nos
3	SS316L TC Union made of bar stock consist of (2Liners + 1 Silicon Gasket+1SS304 Clamp) Suitable for Orbital Welding	1" OD	50 (Approx)	Nos
4	SS 304 Pipe holder Assembly with 5" Long Distance Piece, Wall Patti, And Anchor Fastener	1" OD	80 (Approx)	Nos
5	Flexible pipe (For transfer the alcohol from tanker to 10KL storage vessel)	2" OD	20 (Approx)	Mtrs
6	SS 316L Auto Zero dead leg Square Diaphragm type Valvewith internally electroploshied and externally buffed, with Teflon Seat backed up in Epdm (For supply of purified water in blending room)	-	4	Nos
7	Interconnecteing Pipes, Fittings,Union,Bends,Tees,support etc. (Between 10KL vessels - 4nos to 500L storage tank - 4nos in Blending room)	2" OD	1	Lot
8	Closed Head Orbital Welding Joints	-	1	Lot
9	Internal Borescope of the Orbital Weld Joint	-	1	Lot
10	Other Accessories	-	1	Lot

NOTE: Materials should be supplied as per the site condition for the complete installation and commissioning of the alcohol storage tank and its transfer system as mentioned

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ANNEXURE - III : CGMP FEATURES

DESCRIPTION	
(To be specified by the supplier, if any variation)	
MOC	: Contact Parts: SS 316 : Non-Contact Parts : SS 304 : Gasket /Seal/ 'O' Ring : Food-grade
Working Area Environment	: Temperature: Ambient : Relative Humidity :Ambient
Finish	: Internal : Mirror Finish, Ra <0.5 µm Polished
	: External : Matt Finish, Ra <1.2 µm Matt finish
The equipment should be smooth finished without any sharp edges and crevices	

ANNEXURE - IV : CLEANING TECHNIQUE

DESCRIPTION	
(To be specified by the supplier, if any variation)	
Mode of machine cleaning	: Vessel cleaning through Spray Ball and Transfer lines by Transfer Pump *
Use of Lubricants	: *
All contact parts should be easily dismantled and cleanable.	
If required CIP, please provide the details of CIP and water consumption for the same. *	
Drain points: Vendor should specify the pipe size and location of drain points required as per system requirement *	

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



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ANNEXURE - V : 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	:	Vendor to specify
Motor Details with rpm	:	Vendor to specify
Gear Box Details (If any)	:	Vendor to specify
PLC and HMI details	:	Vendor to specify
VFD details (If any)	:	Vendor to specify
Starter	:	*
Major Cabling details		
For Main supply (In client's scope)	:	*
For Main drive motor	:	*
End connection details	:	MCB or Sockets 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	:	*
<i>All electrical items should be flam proof for this area: Yes</i>		
<i>Any other detail not mentioned above, also to be included.</i>		
<i>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.</i>		

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



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- ❖ Wiring between Panel and the Machine is 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 should be provided to Equipment.
- ❖ Complete covering of Electrical Cables and Other Connections.



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[Handwritten Name: T. Anand]



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ANNEXURE - VI : SAFETY FEATURES

DESCRIPTION

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

Safety of system operation is of utmost importance. All guards if any, to be with interlock switches. *

System to be provided with overload safety relay. *

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

System settings should not get disturbed due to power failure and should not

Re-start without human intervention. *

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

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

Lubricant should not come in product contact.*

Wherever possible, warning symbols should be provided.*

ANNEXURE - VII : UTILITY REQUIREMENT

DESCRIPTION

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

Compressed Air

: *

Purified Water

: *

Power

: *

Any other which is not mentioned but required

: *

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



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



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ANNEXURE - VIII : PHYSICAL 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	:	*

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) *
➤	Recommended Spares along with list & quantity (Vendors should submit with tender) *
➤	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 in writing also)
<i>Details of Bought out components to be specified.</i>	
<i>Any other ancillary or accessories or optional items not mentioned above also to be quoted.</i>	

ANNEXURE - X : TRAINING REQUIREMENT

- Training to all concern of HOMCO, Kerala for Installation, Operation, Maintenance and Cleaning of Blister Packing Machine should be provided by vendor and training record will be documented.
- Vendor shall support client in execution of all the Qualification Phases.

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



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ANNEXURE - XI : APPROVED MAKES

Stainless Steel Sheet : Tata / Jindal	:	*
Stainless Steel Pipe: Rensa / Reliant / Vishal	:	*
Motor: Siemens / Bharat Bijlee / Hindustan / Bonfiglioli / Panasonic	:	*
PLC: Siemens / Allen Bradely / Delta	:	*
HMI: Siemens / Allen Bradely / Delta / Exor	:	*
Air Operated Diaphragm Pump: Milton Roy / Wilden / Sandpiper	:	*
peristaltic pump: Positive Metering / Verder / Albin / pd pump	:	*
VFD: Schnieder / ABB / Siemens / Allen Bradely / Delta	:	*
FRL Unit & Pressure Switch: Festo / Euroswitch / SMC	:	*
Pressure Guage: Baumer / Wika / Cole-Parmer	:	*
Level Indicator / Flow Indicator : Spink / Pune Techtrol / Krohne	:	*
Ball Valve/Safety Valve : Unison / Aira / Mascon	:	*
Spray Ball : Jetspray/ Spraytech	:	*
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.**

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



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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 and operational qualification	2 sets	
2	SAT/FAT procedures and format	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, 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	:	*
Payment Terms	:	Payment terms mentioned in the tender document.
Un-loading at site	:	By Vendor. • (If required, help for the arrangements of unloading can be done by client) Installation in position by the vendor under the client's supervision
Taxes / GST	:	*
Material for Trial	:	To be arranged by client
Packaging and Forwarding	:	By Vendor
Installation and Commissioning	:	By Vendor
Submission of documents and drawings		
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 one week of 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 alongwith quotation.		
<i>Any other terms, not mentioned above, also to be specified.</i>		

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



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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.	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 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

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



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