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Website: www.homcokerala.com Email: homcokerala@gmail.com

Supplier's Copy

USER REQUIREMENT SPECIFICATION

Name of the Company	:	
Contact Person	:	
Address	:	
Contact Details	:	
Department	:	Production – Second Floor
Equipment and Code No.	:	Supply , installation and qualification of Bulk packing machine (Tablet & Powder) and its line machines.
Name of work	:	Supply, Installation, Commissioning & qualification of Bulk packing machine (Tablet & Powder) and its line machines at M/s. HOMCO –Kerala at Second floor production area.
Ref. No.	:	
Date	:	
Enclosures	:	
Qty.	:	1 Nos.



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BULK PACKING MACHINE (TABLET & POWDER) AND ITS LINE MACHINES

1.0 : LIST OF EQUIPMENT'S

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

S No	Equipment Name	Capacity	Requirement
1.1	Turn table	As per the speed of the machine	For loading the empty bottles
1.2	Air jet bottle cleaning with UV sterilizer	30 to 40 per minute	Air cleaning of Empty container with UV sterilization
1.3	Filling unit – 1	30 to 40 per minute	Automatic Powder filling unit , capacity is 500 gram per Container
1.4	Filling unit – 2	30 to 40 per minute	Automatic Tablet filling unit , capacity is 500 gram per Container
1.5	Metal detector	0.8 mm Fe, 1.2 mm Nfe, 1.5 mm SS	Detection of metal pieces in our product
1.6	Capping machine	30 to 40 per minute	Automatic capping activity after filling.
1.7	Induction sealing machine	30 to 40 per minute	Induction sealing
1.8	Labeling machine	30 to 40 per minute	Labelling
1.9	Turn table	As per the speed of the machine	For collection of filled bottles
1.8	Vacuum transfer system	As per the speed of the machine	For powder transfer from bin to hopper

Note: Kindly find the attached Annexure I Equipment layout drawing.





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2.0 : PROCESS REQUIREMENT DETAIL

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Single Bulk packing line is required for filling both tablets and powder, whenever required the tablet filling line should run as per the requirement and whenever required Power filling line should run as per the requirement.

Capacity powder filling per container: 500 gram Capacity tablet filling per container: 500 gram

Weight of single tablet: 1 gram

Container type: Plastic Container shape: round

Environment condition of the operating area: 20 to 25 °C

Process flow drawing is as below:

Equipment running flow during tablet filling		Equipment running flow during tablet filling	
Equipment Name	Status	Equipment Name	Status
Air jet cleaning machine	Running	Air jet cleaning machine	Running
Filling unit – 1 (powder)	Stop	Filling unit – 1 (powder)	Running
Filling unit – 2 (Tablet)	Running	Filling unit – 2 (Tablet)	Stop
Metal detector	Running	Metal detector	Running
Capping machine	Running	Capping machine	Running
Induction sealing machine	Running	Induction sealing machine	Running
Labeling machine	Running	Labeling machine	Running

The process should be completely automatic. Powder will be brought to the bulk packing area in process Bin from process bin the power need to transfer to filling machine with the help of vacuum suction system.

For transfer of tablet to the filling machine manual loading or conveyor based feeding system need to be provided.

3.0 : DESIGN REQUIREMENT DETAIL

Design requirement need to be as per the Annexure I Equipment layout drawing





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4.0 :

DETAILS OF THE MACHINE

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

S No	Description	Requirement	
4.1 Air	4.1 Air jet cleaning machine :		
4.1.1	MOC	SS 304	
4.1.2	Cleaning medium	Air	
4.1.3	Number of cleaning nozzles	As per the speed of the out the nozzles need to be designed	
4.2 Filli	ng unit – 1 (powder):		
4.2.1	Number of filling head	2 no's	
4.2.2	Filling unit control	Servo based filling unit	
4.2.3	Product contact parts MOC	SS316	
4.2.4	Other machine parts	SS 304	
4.2.5	Feeding unit	Infeed tower pan with vacuum powder transfer system need to be provided from bottom process bin to feeding tower pan	
4.2.6	Hopper	Leak proof Timing hopper	
4.2.7	Required maximum filling speed	30 to 40 containers per minute	
4.2.8	Filling range	500 gram	
4.2.9	Accuracy of filling	± 0.2 gram	
4.3 Filli	ng unit – 2 (Tablet) :		
4.3.1	Number of filling head	4	
4.3.2	Product contact parts MOC	SS 316	
4.3.3	Other machine parts	SS 304	
4.3.4	Filling system	Linear weighing	
4.3.5	Required maximum filling speed	Maximum 30 to 40 jar per minute	



Kerala State Homoeopathic Co-Operative Pharmacy Ltd. (sponsored by government of Kerala & aided by govt. of India)

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4.3.6	Filling range	500 gram	
4.3.7	Accuracy of filling	± 0.2 gram	
4.4 Met	al detector :		
4.4.1	Aperture size	250 mm width x 200 mm high	
4.4.2	MOC	SS 304	
4.4.3	Sensitivity	0.8 mm Fe, 1.2 mm Nfe, 1.5 mm SS	
4.5 Cap	oping machine:		
4.5.1	Capping control	Servo based	
4.5.2	Required maximum speed	30 to 40 containers per minute	
4.5.3	MOC	SS 304	
4.6 Ind	4.6 Induction sealing machine :		
4.6.1	Output	12meter/minute	
4.6.2	Cap Size	20mm to 120mm	
4.6.3	.6.3 Requirement: With temperature control option and height adjustment options need to be provided.		
4.7 Lab	peling machine :		
4.7.1	Required maximum speed	30 to 40 containers per minute	
4.7.2	Roll OD	280mm	
4.7.3	Label Material	PAPER / FILM / PP / PE	
4.7.4	Printer	Should able to data configure and Integrated with the Machine	
4.8 Tur	n table :		
4.8.1	Diameter	36 inch	
4.8.2	MOC	SS304	



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5.0 : OPERATIONAL & CONTROL FEATURES

S No	Description	Requirement
5.1	Controls	 (i) Operation panel with HMI need to be provided (ii) All graphical indication for the operation need to be provided in the machine (iii) Overall operation in single control* (iv) Audio-visual alarm with tower lamp need to be provided for indicating alarms. (v) MCB's and contactors should be provided for all electrical operation. (vi) Pilot lamp to indicate operating status of the equipment. (vii) Complete internal wiring to ensure power supply at a single point on the panel. (viii) Indication lamp for power supply is required.*
5.1.1	Accessories	Exhaust fan for all control panels and heating area * Powering cable source point requirement need to be provided *

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



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S No	Description	Requirement	
5.2 Instr	5.2 Instrumentation :		
5.2.1	HMI (Human machine interface)	7 inch and above size HMI screen need to be provided for better operation of the Equipment.	
5.2.2	Pressure sensor/ pressure switch	Alarm should be generated, when there was compressed air pressure.	
5.2.3	Control panel	1 no. for the Equipment*	
5.2.4	Level sensor	Level sensor for Powder hopper and tablet system need to be provided, to indicate the low level.	
5.2.5	Proximity sensors	Proximity sensor need to be provided in all required location like doors, positioning of the bottles, counting etc	
5.2.6	Guarantees	 The supplier should guarantee the following: The bulk packing machine should be guaranteed for trouble free operation for a period of 12 months from the date of successful commissioning of the unit. The supplier shall rectify, at their own expense, for any defects arising from defective materials or unsatisfactory performance of the Equipment, to the satisfaction of the purchaser.* 	

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6.0

SAFETY & ELECTRICAL DETAILS

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

S No	Description	Requirement	
6.1 Cont	6.1 Controls and safety :		
6.1.1	Emergency Switch	Emergency switch should be provided at the all machines control panel for operator ease acess.*	
		Machine to machine interlock should be provided machine should operate at required set speed.	
6.1.2	Safety Interlocks	Proximity sensor or door limit switches need to be provided to all moving parts doors. Machines should stop when the doors are open.	

6.2 Electrical Panel:

- Single control panel must be a bulk packing system. It should contain all necessary switchgears, safety alarms/interlocks, sensors. *
- SS conduit for bringing power supply, compressor line need to be provided by the vendor.

6.2.1	Standard Operating Frequency	50 Hz
6.2.2	Standard Operating Voltage	230 / 415V *
6.2.3	Total power consumption	*
6.2.4	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.

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DESCRIPTION

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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. *
- All required spare kit need to be provided along with the supply.



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7.0 : UTILITY REQUIREMENT

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

S No	Description	Requirement
7.1	Water	*
7.2	Compressed Air	4 to 6 bar *
7.3	Oil	*
7.4	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.



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8.0 CLEANING TECHNIQUE

DESCRIPTION				
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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

MECHANICAL DETAILS 9.0

DESCRIPTION			
(To be specified by the supplier, if any variation)			
Dimension (In mm)	:	Should be limited below are equal to as per the annexure 1 drawing *	
Net Weight (In Kgs.)	••	*	
Type of Packing	••	*	
Case Dimension (In mm)	••	*	
Gross Weight (In Kgs.)	:	*	
Foundation details if required	:	*	

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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

10.0

- 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

11.0 : TRAINING REQUIREMENT

- > Training to all concern of M/s. HOMCO, Kerala for the Installation, Operation, Maintenance of bulk packing machine 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.





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12.0 : DOCUMENTATION

Sr. No.	Document to be supplied	Qty	Remarks	
12.1	Design qualification	2 sets		
12.2	SAT/FAT procedures	2 sets		
12.3	Operation manual	2 sets		
12.4	Maintenance manual	2 sets		
12.5	Spare parts manual	2 sets		
12.6	All engineering drawings (GA drawings)	2 sets		
12.7	List of instruments	2 sets		
12.8	Calibration certificates	2 sets		
12.9	Warranty / Guarantee	2 sets		
12.10	List of all components with referencing	2 sets		
12.11	Civil foundation drawings- If required	2 sets		
12.12	Pre installation requirements	2 sets		
12.13	Installation requirements	2 sets		
12.14	Installation manual	2 sets		
12.15	Technical literature, data sheets and equipment	2 sets		
	catalogues			
12.16	DQ, IQ , OQ, PQ documents.	2 sets		
12.17	Calibration Report of all sensors, controllers, PLC,	2 sets		
	transmitters, indicators etc.			
12.18	Test Certificates of all material of construction	2 sets		
12.19	Test Certificates of the software used in machine	2 sets		
	control / monitoring system.			



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13.0 **TERMS AND CONDITIONS**

oned in tender.	
lor	
or /Supplier	
red, help for the arrangements	
ding can be done by client)	
on in position by the vendor	
e client's supervision	
arranged by client)	
lor	
week	
Within a week after order finalization	
before FAT	
ipment delivery	
lipment delivery	
e beginning of FAT	
9	

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

* To be specified by the supplier



alongwith quotation.



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14.0 : ABBREVIATION

14.1	URS	:	User Requirement Specification.
14.2	DQ	:	Design Qualification
14.3	IQ	:	Installation Qualification
14.4	OQ	•	Operational Qualification
14.5	PQ	•	Performance Qualification
14.6	SS	•	Stainless Steel
14.7	RHS	•	Right Hand Side
14.8	MOC	•	Material of Construction
14.9	KW	•	Kilo Watt
14.10	HP	:	Horse Power
14.11	RPM	•	Rotation Per Minute
14.12	FLP	:	Flame Proof
14.13	cGMP	•	Current Goods Manufacturing Practices
14.14	O&M	:	Operation and Maintenance
14.15	GA	•	General Arrangement
14.16	SLD	:	Single Line Diagram
14.17	HOD	:	Head of Department
14.18	QA	:	Quality Analysis
14.19	MRP	:	Maximum Retail Price
14.20	NMT	:	Not more than
14.21	BPM	:	Bottles per minutes

Any other details, not mentioned in section 1.0 to 14.0, to be specified in the quotation/specification by the vendor.