

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

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

Phone: 477 2258012 :477 2258665 Fax: 0477 2258012

Supplier's Copy

USER REQUIREMENT SPECIFICATION

Name of the Company	:	
Contact Person	:	
Address	:	
Contact Details	:	
Department	:	Store and Production department
Equipment and Code No.	:	Supply, installation and qualification of Weighing balance with printer.
Name of work	:	Supply, Installation, Commissioning & qualification of Weighing balance with printer at M/s. HOMCO – Kerala.
Ref. No.	:	
Date	:	
Enclosures	:	
Qty.	:	As per below tabulation



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1.0 : LIST OF WEIGHING BALANCE'S

S No	Equipment Name	Required Weighing Capacity	Quantity required
1.1	Precision Weighing Balance	200 grams	6
1.2	Electronic Weighing balance	1 kg's	3
1.3	Electronic Weighing balance	2 kg's	1
1.4	Electronic Weighing balance	5 kg's	3
1.5	Electronic Weighing balance	50 kg's	2
1.6	Electronic Weighing balance	100 kg's	3
1.7	Electronic Weighing balance	150 kg's	1
1.8	Electronic Weighing balance	250 kg's	3

2.0 : PROCESS REQUIREMENT DET	AIL
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(To be specified by the supplier, if any variation)

To weigh the raw material, packing material, finished goods and samples for testing.

3.0 :	DESIGN REQUIREMENT DETAIL
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Weighing design should be as per the international standard.



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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 Pre	4.1 Precision Weighing Balance – 200 grams :		
4.1.1	MOC	SS 304	
4.1.2	Cover with opening	Large glass windshield for side opening	
4.1.3	Battery operation	Dry Cell battery operation	
4.1.4	Display	LCD / LED. control key operate able or touchscreen	
4.1.5	Communication interface	RS232 / USB	
4.1.6	Power supply	230 v to suitable adaptor system	
4.1.7	Resolution	0.001 gm.	
4.1.8	Repeatability / error / accuracy	1 mg	
4.1.9	Stabilization time	2 sec	
4.1.10	Weighing pan dimension	100 to 120 mm dia	
4.1.11	Operating temperature	10 to 40 ° C	
4.1.12	Printer	Customizable dot matrix / Thermal printers required with communication cable *	
4.1.13	Internal storage	Should be available	



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S No	Description	Requirement
4.2 Electronic Weighing balance – 1 kg :		
4.2.1	MOC	SS 304
4.2.2	Printer	Customizable dot matrix / Thermal printers required with communication cable *
4.2.3	Display	LCD / LED. control key operate able or touchscreen
4.2.4	Communication interface	RS232 / USB / Ethernet
4.2.5	Power supply	230 v to suitable adaptor system
4.2.6	Resolution	0.1 gm or lesser.
4.2.7	Repeatability / error / accuracy	Less than 0.2 gm.
4.2.8	Stabilization time	2 sec
4.2.9	Operating temperature	10 to 40 ° C
4.2.10	Internal storage	Should be available
4.2.10	Power	230 V
4.3 Elec	ctronic Weighing balance – 2 kg :	
4.3.1	MOC	SS 304
4.3.2	Printer	Customizable dot matrix / Thermal printers required with communication cable *
4.3.3	Display	LCD / LED. control key operate able or touchscreen
4.3.4	Communication interface	RS232 / USB / Ethernet
4.3.5	Internal storage	Should be available
4.3.6	Resolution	0.2 gm or lesser.
4.3.7	Repeatability / error / accuracy	Less than 0.4 gm.
4.3.8	Stabilization time	2 sec
4.3.9	Operating temperature	10 to 40 ° C
4.3.10	Power	230 V



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S No	Description	Requirement	
4.4 Ele	4.4 Electronic Weighing balance – 5 kg :		
4.4.1	MOC	SS 304	
4.4.2	Printer	Customizable dot matrix / Thermal printers required with communication cable *	
4.4.3	Display	LCD / LED. control key operate able or touchscreen	
4.4.4	Communication interface	RS232 / USB / Ethernet	
4.4.5	Internal storage	Should be available	
4.4.6	Resolution	0.5 gm or lesser.	
4.4.7	Repeatability / error / accuracy	Less than 1 gm.	
4.4.8	Operating temperature	10 to 40 ° C	
4.4.9	Power	230 V	
4.4.10	Support	Indicator to platform scale SS support need to be provided	
4.5 Electronic Weighing balance – 50 kg :			
4.5.1	MOC	SS 304	
4.5.2	Printer	Customizable dot matrix / Thermal printers required with communication cable *	
4.5.3	Display	LCD / LED. control key operate able or touchscreen	
4.5.4	Communication interface	RS232 / USB / Ethernet	
4.5.5	Internal storage	Should be available	
4.5.6	Resolution	5 gm or lesser.	
4.5.7	Repeatability / error / accuracy	Less than 10 gm.	
4.5.8	Operating temperature	10 to 40 ° C	
4.5.9	Power	230 V	
4.5.10	Support	Indicator to platform scale SS support need to be provided	



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S No	Description	Requirement
4.6 Electronic Weighing balance – 150 kg :		
4.6.1	MOC	SS 304
4.6.2	Printer	Customizable dot matrix / Thermal printers required with communication cable *
4.6.3	Display	LCD / LED. control key operate able or touchscreen
4.6.4	Communication interface	RS232 / USB / Ethernet
4.6.5	Internal storage	Should be available
4.6.6	Resolution	10 gm or lesser.
4.6.7	Repeatability / error / accuracy	Less than 20 gm.
4.6.8	Operating temperature	10 to 40 ° C
4.6.9	Power	230 V
4.6.10	Support	Indicator to platform scale SS support need to be provided
4.7 Electronic Weighing balance – 250 kg :		
4.7.1	MOC	SS 304
4.7.2	Printer	Customizable dot matrix / Thermal printers required with communication cable *
4.7.3	Display	LCD / LED. control key operate able or touchscreen
4.7.4	Communication interface	RS232 / USB / Ethernet
4.7.5	Internal storage	Should be available
4.7.6	Resolution	20 gm or lesser.
4.7.7	Repeatability / error / accuracy	Less than 40 gm.
4.7.8	Operating temperature	10 to 40 ° C
4.7.9	Power	230 V
4.7.10	Support	Indicator to platform scale SS support need to be provided



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5.0 : OPERATIONAL & CONTROL FEATURES

S No	Description	Requirement
5.1	Controls	 (i) Customized printing option need to be provided (ii) All balance should be provided with Printer. (iii) Indication lamp for power supply is required.*
5.1.1	Accessories	Powering cable need to be provided *

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

S No	Description	Requirement	
5.2 Insti	5.2 Instrumentation :		
5.2.1	Load cell	High accurate load cell need to be used.	
5.2.2	Screen interface	Screen interface should be user friendly.	
5.2.3	Tare / Zero	Tare / zero options need to be provided.	
5.2.4	Calibration	Calibration mode with password protection need to be provided.	
5.2.5	Government stamping	Initial government stamping with certificate need to be provided	
5.2.6	Guarantees	 The supplier should guarantee the following: The balances 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.* 	

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





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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	Safety Interlocks	Safe Over Load Protection need to be provided.	
6.2 Elect	6.2 Electrical Panel :		
• 23	230 v AC power cable , if required adaptor with required voltage reducer need to be provided		
6.2.1	Standard Operating Frequency	50 Hz	
6.2.2	Standard Operating Voltage	230 V *	
6.2.3	Total power consumption	*	

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.

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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 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	*
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

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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

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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10.0 : 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
- > 2 years AMC quotation need to be provided with the balance.
- 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 balances 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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DOCUMENTATION 12.0

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

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.

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

* To be specified by the supplier





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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.