

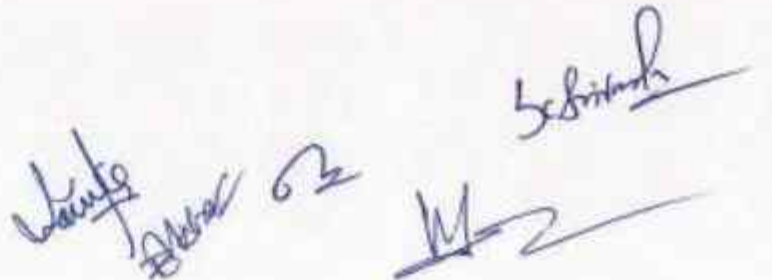
**DIRECTORATE OF RESEARCH SERVICES**  
**RAJMATA VIJAYRAJE SCINDIA KRISHI VISHWA VIDYALAYA GWALIOR- 474002, M.P.**

**E-TENDER NOTICE FOR THE PURCHASE OF LABORATORY EQUIPMENTS/  
ITEMS/STRUCTURES/UNITS**

**I/PRO/CIC/2023-24/101 dated 05.10.2023**

Following laboratory equipments/instruments/structures/items/units are to be procured at Directorate of Research Services, RVSKV, Gwalior for the establishment of Establishment of Common Incubation Centre, at College of Agriculture, Gwalior, KVK Morena and College of Agriculture, Sehore, RVSKVV, Gwalior, M.P., India. This procurement will be carried out through the e-procurement system of [www.mptenders.gov.in](http://www.mptenders.gov.in). On-line bids, under Open Tender Enquiry, following the two bids' systems are invited for supply of these equipments/instruments. Tender documents with specifications can be purchased from this site by paying the stipulated cost as mentioned below:

Item #	Name of the Equipment/ Item/Structure/Unit	Document Cost	EMD
<b>First Call</b>			
1.	Oil Processing Unit	₹ 5,000	₹300000
2.	Major Millet Processing Unit	₹ 4,000	₹200000
3.	Bakery Unit	₹ 3,000	₹75000
4.	Solar Dryer-Polycarbonate	₹ 2,000	₹10000
5.	Utilities, Auxillary Equipment Waste Management, etc for Oil Processing Unit	₹ 3,000	₹40000
6.	Potato Processing Unit	₹ 10,000	₹500000
7.	Bakery Line for Wheat and Millets (Cookies and Bread)	₹ 3,000	₹75000
8.	Utilities, Auxillary Equipment Waste Management, etc for Potato Processing Unit	₹ 3,000	₹120000
9.	Fruit pulp processing line	₹ 5,000	₹300000
10.	Onion Dehydration Unit	₹ 3,000	₹100000
11.	Vegetable Dehydration Line	₹ 3,000	₹90000
12.	Utilities, Auxillary Equipment Waste Management, Etc. for Fruit Pulp Processing Line ( First Call)	₹2,000	₹30000
13.	Horizontal Laminar Air Flow Cabinet	₹2,000	₹6,000
14.	Hot Air Oven	₹1,000	₹3,000
15.	BOD Incubator	₹1,000	₹3,000
16.	pH meter	₹1,000	₹3,000
17.	Electronic Analytical Balance	₹1,000	₹3,000
18.	Automatic Autoclave	₹1,000	₹5,000
19.	Laboratory Refrigerators	₹1,000	₹5,000
20.	Distillation Unit	₹ 1000	₹3000
21.	Moisture meter	₹ 1000	₹2000



22.	Bomb Calorimeter	₹ 2000	₹25000
23.	Gun Thermometer	₹ 1000	₹2000
24.	Refractometer	₹ 1000	₹2000
25.	Binocular Microscope	₹ 1000	₹2000
26.	Soxhlet extraction apparatus	₹ 1000	₹2000
27.	Viscometer	₹ 1000	₹2000

Please read and follow the instructions carefully to avoid the rejection of the tender. You may also send your representatives, duly authorized in writing to attend the Technical Evaluation and clarification regarding bids which is scheduled at 3:00 PM on 10<sup>th</sup> November, 2023 at Office of Directorate, Research Services, RVSKVV, Gwalior.

  
Director Research Services, RVSKVV, Gwalior

  
Director

  
Director

  
Director

**DIRECTORATE OF RESEARCH SERVICES**  
**RAJMATA VIJAYRAJE SCINDIA KRISHI VISHVA VIDYALAYA GWALIOR- 474002, M.P.**

**E-Tender Document**

**CRITICAL DATES**

S. No.	Item	Date	Time
a)	Publishing Date	06 October, 2023	16:00
b)	Document Purchase Start Date	06 October, 2023	10:30
c)	e-Bid Submission End Date	06 November, 2023	17:00
d)	Physical bid document Submission end date in the Office physically at Office of Directorate, Research Servicers, RVSKVV, Gwalior	09 November, 2023	17:00
e)	Opening of the Technical Bid at Office of Directorate, Research Servicers, RVSKVV, Gwalior	10 November, 2023	15:00
f)	Technical Evaluation of Bids at Office of Directorate, Research Servicers, RVSKVV, Gwalior	10 November, 2023	15:00
g)	Financial/Price Bid e-Opening Date at Office of Directorate, Research Servicers, RVSKVV, Gwalior	20 November, 2023	15:00

**DEPOSITING THE BIDS:**

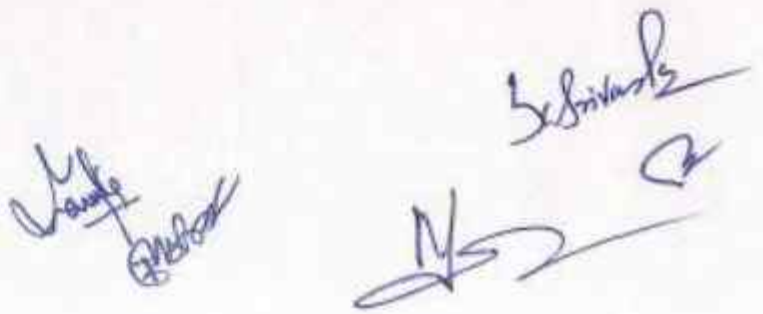
The bids will be submitted through on-line mode of [www.mptenders.gov.in](http://www.mptenders.gov.in). However, certain documents would be required to be submitted physically to our office. Details are as follows:

**(A) On-line Submission:**

**(i) Cover-I:** Will contain the Technical Bids with the following documents:

- Detailed technical write-up highlighting the model Name/Number features of the equipment offered and / or technical literature/manuals.
- Certificate for acceptance of terms and conditions of tender enquiry on firms' letterhead.
- Original Equipment Manufacturer (OEM) certificate or authorized dealership/distributorship certificate as applicable.
- Manufacturing Registration No.
- Company Printed Price List (If available)
- Last 3 (three) years Income Tax Return.
- Audited Balance Sheet for Last 3 (Three) years.
- TIN number/PAN Number/Certificate/GST number
- Business Registration Certificate.
- Supplier should have at least an average annual turnover of **Rs one Crore** for major equipments and **50 lakhs** for minor items for last 3 years.
- Scanned Copy of EMD as shown against each item.
- Compliance Certificate, Certificate of clause-by-clause compliance of specifications as mentioned in tender.

**(B) Physical Submission:**





Following documents to be submitted in hard copy physically in a sealed envelope by Speed Post/ Registered post to reach prior to bid submission closing date & time. The responsibility to ensure this lies with the Bidder.

**Please do not submit the hard copy of "Commercial/Price bid".**

- All the documents submitted on-line in Cover I.
- **EMD as shown against each item on-line submitted and proof enclosed physically.**
- Tender fee receipt copy (as applicable).
- Tender conditions Acceptance Certificate in form of downloaded Tender documents duly stamped and signed.
- Client list/ List of users on manufacturers' letter head duly stamped and signed.
- User Certificate with Phone No. and E mail address.
- Guarantee/warranty on manufacturers' letterhead.
- The supplier is bounded to supply spare parts of equipments for the **at least next 10 years.**

#### **GENERAL TERMS AND CONDITIONS:**

1. \*Only the manufactures and/or their authorized dealer/distributors/sole agents/ need to submit their tender. The authorized firms should furnish a certificate from the manufacturer for their dealership/distributorship **in original** with the physical bid otherwise the offer will not be considered.
2. No person or firm shall submit more than one Tender for the same item. No offer should have more than one model quoted; in case of more than one alternate offer only the first option will be considered.
3. It is mandatory to provide all the relevant information in Annexure -I.
4. Broad-based specifications of equipment/items/systems/works etc. are given in Annexure- II of purchased tender. The tenderer should also take note of the remarks, if any, given their in.
5. a. Last date for submission of e-Tender is 06.11.2023 up to 5:00 PM on www.mptenders.gov.in.  
b. Tender must be submitted in sealed cover to the **Office of Director Research Services, RVSKVV, Gwalior 474002** by Registered/Speed Post, to reach on or before dated 09.11.2023, AT 5:00 PM.  
c. Belated tender due to postal or any other delay will be rejected.  
d. The tender for each item should be sent separately. The duly sealed envelope should super scribe TENDER FOR THE ITEM № \_\_\_\_\_ (NAME OF THE EQUIPMENT/ITEMS/INSTRUMENTS/ STRUCTURES/ UNITS) DUE ON 10<sup>th</sup> NOVEMBER 2023 with reference number.  
e. If offers for more than one item are clubbed together, tender will be rejected.  
f. The tender offers should have a validity of 180 days or more from the due date. The tenders will be valid for 6 months from the date of opening and may be asked for extension by taking written concern of the firms if needed.  
g. Price bid will be opened online at www.mptenders.gov.in on 20-11-2023 from 3:00P.M. to 5.00PM. If date of opening of price bid will be changed due to any circumstances. That will be informed to bidders.









- h. R.V.S. Krishi Vishwa Vidyalaya (RVSKVV) reserves the right to extend the opening due date and or the date of opening the tenders.
- i. All the leaflets in the offer should be marked with signature and seal of authorized person.
6. a. The rates quoted should in Indian Rupees (₹) for a **single complete unit** with F.O.R. delivery at any Centre/College of RVSKVV, Gwalior. The rates quoted should be inclusive of packing and forwarding charges/loading/unloading/handling charges/freight/full risk coverage/insurance, etc. In case of imported goods all the expenses towards custom duty, clearing charges and transportation with insurance will be borne by the firm/tenderer and they must quote the rates inclusive of all FOR, RVSKVV, Gwalior in INR.
- b. Excise duty/Sales Tax/GST/Custom duty (with and without concession certificate) and other levies, if any should be shown separately and the **total price** of each item should be worked out incorporating the all.
- c. Any other charges, such as technical service charges, cost of training, installation charges, TA/DA of tenderer's staff etc. if any, should be shown separately for each item and each sub-item and the total price of each item should be worked out incorporating the same in final quoted price.
7. All losses during transit will have to be made good by the tenderers at his cost within a period of 15 days.
8. The tenderers must provide guarantee/warranty on **manufacturers' letterhead** of satisfactory functioning of the equipment/system/units/structures/items and free service including free replacement of parts for a period of at least **3 years** from the successful and satisfactory installation of the equipment/system/units/structures/items. Original to be deposited by the successful bidder at the time of supply.
9. **Performance Guarantee:** The Successful bidder/supplier will be required to furnish a Performance Guarantee in the form of FDR from a public sector bank or a private sector bank authorized to conduct government business for a sum equal to **10%** of the Supply Order value within 30 days of signing of the Supply Order. Performance Bank Guarantee will be valid up to 3 years beyond the date of guarantee/warranty.
10. Offer must be accompanied by **Earnest Money** as stated against each item must be submitted **on-line**. Without the deposition of earnest money, the offers will be rejected.
11. The standard terms and conditions of payment is in full only after the installation is affected to the satisfaction of RVSKVV authorities in INR only.
12. Please quote maximum discounted price, as no further negotiations will be made.
13. Complimentary items/gifts offered will not be given any preference and will not be considered for calculating the cost of the item.
14. The offers must mention make, model all the specifications of the item clearly. The company must enclose printed literature/catalogue/manufacturer's web-site showing detailed technical specifications required. A folder showing many instruments without detailed technical specification, or tailor-made literature mentioning "yes" or "as per your specifications" for the specifications asked for, will not be considered. Specifications given in the offer must match to the website and/or printed technical literature otherwise the offers shall be rejected.





15. Technical specifications of the equipment / items have been very clearly formulated by the users/experts of the field as per the requirement of the work to be conducted. It will be sole discretion of the bidder whether to quote or not for equipment/items/structures/units with particular specifications.

16. \*Firm must provide a compliance statement vis-à-vis specifications in a following "tabular form" clearly stating the compliance, supported by technical literature with clear reference. This statement must be signed, with the company seal, by the Tenderer for its authenticity and acceptance that any incorrect or ambiguous information found submitted will result in disqualification of the offer.

Name of Equipment:		
Technical Specification	Compliance (Y/N)	Deviation, If any

17. \*Offer must be accompanied with a comprehensive list of users on manufacturers' letterhead, wherever possible bidders may also provide certificates for satisfactory working of the equipment from users of universities and institutions of repute.

18. a. If so desired by RVSKVV, the bidders shall have to enter in to an agreement.

b. Any wrong information about item, any forged document and any deviation, variation of non-compliance of the terms and conditions by the tenderers shall be considered as a breach of contract and RVSKVV reserves the right to forfeit the amount of earnest money and/or security deposit in full and take action as per legal arrangement.

19. **Should there arise any dispute, the Hon'ble Vice Chancellor, RVSKVV, Gwalior shall be the sole Arbitrator whose decision in the matter shall be final and binding. Each and every judiciary transaction shall be subjected to Gwalior only.**

20. \*Tender will not be considered if the firm does not supply a copy of the TIN/ GST& PAN/ Registration of the firm allotted to it for relevant items. PAN of the owner or any other persons will not be accepted.

21. This tender is being issued with no financial commitment and the Buyer reserves the right to change or vary any part thereof at any stage. Buyer also reserves the right to withdraw the tender, should it become necessary at any stage.

22. RVSKVV reserves the right to accept or reject any or all offers in full or in part without assigning any reason (s) thereof. It also reserves the right to place and order wholly or in part with one or more than one firm as it may be convenient to RVSKVV, Gwalior.

23. The tenderer shall have to give an undertaking that the terms and conditions as mentioned above of this tender are acceptable to the tenderers in form of downloaded Tender documents duly stamped and signed.

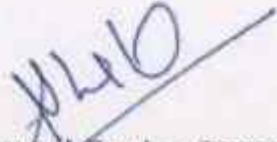
24. If firm wishes, they can send their representatives, duly authorized in writing, to attend the Technical Evaluation and clarification regarding bids which is scheduled at 3:00 PM on 10<sup>th</sup> November, 2023.

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25. In case, if single manufacturer of the any item and having propriety rights. Items may be purchased with the permission of concerned higher authority.

Dated: 04-10-2023



Director Research Services, RVSKVV, Gwalior



**DIRECTORATE OF RESEARCH SERVICES**  
**RAJMATA VIJAYRAJE SCINDIA KRISHI VISHWA VIDYALAYA GWALIOR 474002, M.P.**

**SUPPLEMENT / CHECK-LIST TO BE PROVIDED WITH TECHNICAL BID**

ITEM No. \_\_\_\_\_ NAME \_\_\_\_\_

S.No.	Information required	Proposed
1.	Make of main item	
2.	Model of main item	
3.	Name of manufacturer of Main Item	
4.	Country of origin of main item	
5.	Name, Make and model of sub item I (if any)	
6.	Name, Make and model of sub-item II (if any)	
7.	Name, Make and model of sub-item III (if any)	
8.	Delivery within (days)	
9.	Rate of Excise duty (%) with surcharge, if applicable (item-wise if different ED is applicable)	
10.	Rate of GST (%) livable. If no, state basis and terms of the exemption.	
11.	Is Service Tax extra? If yes, rate of Service Tax livable (%)	
12.	Is Custom Duty Exemption (CDE) required? If yes, Rate of Customs Duty (%) payable.	
13.	Any other Taxes / Duties / Octroi / Entry taxes etc. in %	
14.	Order to be placed on	
15.	Guarantee/Warrantee (3 years)	
16.	Validity (at least 180 days)	
17.	FOR: Any Centre/College of RVSKVV, Gwalior?	
18.	List of current users (Attach, if any)	
19.	Certification of satisfactory working of the equipment (Attach, if any)	
20.	Compliance of equipment with current directives of ISI / CE / EEC / US / EU or equivalent standards	
21.	Whether manufacturer / authorized distributor/sole agent? (Attach original certificate)	
22.	Technical literature (Attach, if any)	
23.	Earnest money (EMD) deposited on line and proof has been enclosed	
24.	Situations of Authorized service centers/ service personals etc. (Provide complete address)	

*Yamko*

*Alk*

*Schivade*

*W*

*Ca*



25.	Relevant documents such as ITCC, ST registration shop Act. establishment certificate, factory registration etc. (enlist and attach)	
26.	TIN and PAN allotted (Attach a copy)	
27.	GST number	
28.	Any other relevant information	

**DECLARATION**

The terms and conditions as mentioned in the tender are acceptable to us.

Authorized Signatory

(Seal of the Firm)











TECHNICAL SPECIFICATIONS

*ITEM NO.1 OIL PROCESSING UNIT: (FIRST CALL)*

Capacity: 1.2 tons of Mustard oil/day

**A. MUSTARD SEED PRE-PROCESSING MACHINERIES FOR OIL EXPELLING**

**I. Seed cleaner**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement for cleaning (lit./day):  
Other Specifications:

**II. Stone Remover**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement for cleaning (lit./day):  
Other Specifications:

**III. Decorticator and Roaster**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement for cleaning (lit./day):  
Other Specifications:

**IV. Shaker Screen with blower**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement for cleaning (lit./day):  
Other Specifications:

**V. Vibrating sifter**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement for cleaning (lit./day):  
Other Specifications:

**VI. Crusher**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement for cleaning (lit./day):  
Other Specifications:

**VII. Seed cooker/cooking machine**

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Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement for cleaning (lit./day):  
Other Specifications:

**VIII. Miscellaneous Item required (if any)**

Included Piping, Pumps, Valves, Joints, Bends, Buckets, Plastic Crates, Manual trolley etc.

**B. OIL EXTRACTION LINE**

**I. Cold Press Unit**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement for cleaning (lit./day):  
Other Specifications:

**II. Oil Screen Filtering Unit**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement for cleaning (lit./day):  
Other Specifications:

**III. Miscellaneous Item required (if any)**

Included Piping, Pumps, Valves, Joints, Bends, Buckets, Plastic Crates, Manual trolley etc.

**C. OIL PACKAGING UNIT**

**I. Tin container filling and sealing machine**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):  
Other Specifications:

**II. Volumetric filling and sealing machine (500g to 5000g ± 10g plastic bottles)**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Other Specifications:

**III. Box strapping machine**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):

*Handwritten signatures*

*Handwritten signature: Behrman*  
*Handwritten initials: M*

Air requirement (lit./day):  
Other Specifications:

**IV. Metal Can coding machine (embossing type)**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Other Specifications:

**V. Miscellaneous Item required (if any)**

Included Piping, Pumps, Valves, Joints, Bends, Buckets, Plastic Crates, Manual trolley etc.

Note: Cost of complete unit including GST, installation, Trial run with raw material and packing material and three years warranty should be quoted in INR

**ITEM NO.2 MAJOR MILLET PROCESSING UNIT(FIRST CALL)**

Capacity: 250 kg of grains/hour

**A. PRIMARY PROCESSING EQUIPMENTS FOR MAJOR MILLETS**

**I. Cleaning cum grader**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement for cleaning (lit./day):  
Other Specifications:

**II. De-stoner**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement for cleaning (lit./day):  
Other Specifications:

**III. Gravity Separator**

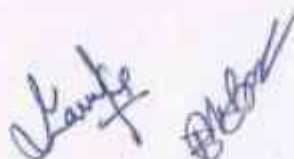
Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement for cleaning (lit./day):  
Other Specifications:

**IV. Tray Dryer**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement for cleaning (lit./day):  
Other Specifications:

**V. Color sorter**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade







Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement for cleaning (lit./day):  
Other Specifications:

**VI. Packing Line (Sac holder and sealer)**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement for cleaning (lit./day):  
Other Specifications:

**VII. Grain storage unit (20 Tonnes)**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement for cleaning (lit./day):  
Other Specifications:

**VIII. Miscellaneous Item required (if any)**

Included Piping, Pumps, Valves, Joints, Bends, Buckets, Plastic Crates, Manual trolley etc.

**B. SECONDARY PROCESSING: MILLING OF GRAINS INTO FLOUR**

**Capacity: 250 kg of flour/hour**

**I. Hammer Mill**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement for cleaning (lit./day):  
Other Specifications:

**II. Ribbon Blender**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):  
Other Specifications:

**III. Sieve Shaker/Sifter**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement for cleaning (lit./day):  
Other Specifications:

**IV. Storage Tank/Bin**

Capacity (200kg):  
No of Bin:  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):

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- A signature that appears to be "Sanku"  
- A signature that appears to be "Sanku"  
- A signature that appears to be "Sanku"  
- A signature that appears to be "Sanku"

Dimensions (mm x mm x mm):

Other Specifications:

**V. Packing Line (Band sealer)**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Other Specifications:

**VI. Miscellaneous Item required (if any)**

Included Piping, Pumps, Valves, Joints, Bends, Buckets, Plastic Crates, Manual trolley etc.

Note: Cost of complete unit including GST, installation, Trial run with raw material and packing material and three years warranty should be quoted in INR

**ITEM NO.3 BAKERY UNIT ( FIRST CALL)**

Capacity: 100 kg/hour short dough cookies /bread

**A. PRIMARY PROCESSING EQUIPMENTS FOR MAJOR MILLETS**

**I. Planetary Mixer**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Air requirement (lit./day):

Other Specifications:

**II. Dough kneader**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Air requirement (lit./day):

Other Specifications:

**III. Dough Sheeter**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Air requirement (lit./day):

Other Specifications:

**IV. Dough Cutter**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Air requirement (lit./day):

Other Specifications:

*Handwritten signatures and initials:*  
Shankar  
Kishore  
Seshu  
A



V. **Cookies dropper**  
Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Other Specifications:

VI. **Rotary oven with trays and moulds**  
Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):  
Other Specifications:

VII. **Packing Line (Band sealer)**  
Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Other Specifications:

VIII. **Impulse sealer (4-6 nos.)**  
Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Other Specifications:

IX. **Miscellaneous Item required (if any)**  
Included Piping, Pumps, Valves, Joints, Bends, Buckets, Plastic Crates, Manual trolley etc.

Note: Cost of complete unit including GST, installation, Trial run with raw material and packing material and three years warranty should be quoted in INR

**ITEM NO.4 SOLAR DRYER-POLYCARBONATE ( FIRST CALL)**

Capacity: 100 m<sup>2</sup> collector size with stands, trays and automatic parameters control systems with minimum 40% dryer volume occupancy  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dryer Dimensions (mm x mm x mm):

Note: Cost of complete unit with including GST, installation, Trial run with raw material and packing material and three years warranty should be quoted in INR

**ITEM NO.5 UTILITIES, AUXILIARY EQUIPMENT WASTE MANAGEMENT, ETC FOR OIL PROCESSING UNIT ( FIRST CALL)**

I. **Boilers (1 - Set)**  
Capacity (kg/hr):

*(Handwritten signatures and initials)*

- Construction Material: Food contact part :  
 Electric Load (KW):  
 Dimensions (mm x mm x mm):  
 Air requirement (lit./day):  
 Water Requirement (lit/day)  
 Other Specifications:
- II. RO Plants (1 – Set)**  
 Capacity (kg/hr):  
 Construction Material: Food contact part : Food Grade  
 Electric Load (KW):  
 Dimensions (mm x mm x mm):  
 Other Specifications:
- III. Air Compressor (1 Set)**  
 Capacity (kg/hr):  
 Construction Material:  
 Electric Load (KW):  
 Dimensions (mm x mm x mm):  
 Other Specifications:
- IV. Fire extinguishers 10 Nos**  
 Capacity 2kg cylinder
- V. Effluent Treatment Plant for each component 1 Set**  
 Capacity (kg/hr):  
 Construction Material:  
 Electric Load (KW):  
 Dimensions (mm x mm x mm):  
 Air requirement (lit./day):  
 Water Requirement (lit/day)  
 Other Specifications:
- VI. Generator with Covered Structure 1 Set**  
 Capacity: 35KVA  
 Dimensions (mm x mm x mm):  
 Air requirement (lit./day):  
 Water Requirement (lit/day)  
 Other Specifications:
- 
- VII. Stove 6 Nos**  
 Standard Materials: ISI Marked.  
 Size: 8", 10" and 12" each 2 Nos.
- VIII. Trays 60 Nos**  
 Dimensions (mm x mm x mm):  
 Construction Material: SS-304  
 Other Specifications:
- IX. Cutter 50 Nos**  
 Construction Materials: SS-304
- X. Spoons 1 Set**  
 Dimensions: 0.5ft, 1ft, 2.5ft, 3ft, 4ft, 5ft, each 1dozen with hangers.  
 Construction Materials: SS-304
- XI. Utensils 1 Set**  
 Capacity: 0.5kg, 1kg, 2kg, 5kg, 7.5kg, 10kg, 20kg, 30kg, 50kg, 75kg, 100 kg each two piece with lid  
 Construction Materials: SS-304
- XII. Racks 6 Nos**  
 Dimensions (mm x mm x mm):

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- Construction Material:  
Other Specifications:
- XIII. Working Table SS top table 6Nos**  
Dimensions: (1.8 x 0.6x 0.8 m)  
Construction Material: Food Contact Surface: SS-304  
Other Specifications:
- XIV. Dehumidifier for dry room 1 Nos**  
Capacity (kg/hr):  
Construction Material:  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Water Requirement (lit/day)  
Other Specifications:
- XV. Inkjet printer/coding Machine (5x5 cm head size) 1 Unit**  
Capacity (kg/hr):  
Construction Material:  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Water Requirement (lit/day)  
Other Specifications:
- XVI. Accessories 1 Set**  
Specifications:  
Included Piping, Pumps, Valves, Joints, Bends, Buckets, Plastic Crates, Manual trolley etc.
- XVII. Electrical supply to individual machinery/equipment from Junction box:**  
As per requirement of machine.
- XVIII. Water supply line to individual machinery/equipment**  
As per requirement of machine.
- XIX. Waste recollection line**  
As per waste generation from processing line and machines.
- XX. Air supply line to individual machinery/equipment**  
As per requirement of machine.
- XXI. Steam supply line (wherever necessary) 1 Nos**  
As per requirement of machine.

Note: Cost of all utilities including GST, Installation, Trial run with raw material and packing material and three years warranty should be quoted in INR

**ITEM NO.6 POTATO PROCESSING UNIT ( FIRST CALL)**

Capacity 1TON /DAY

**A. PRIMARY POTATO PROCESSING MACHINE**

**I. Conveyor**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 / Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):

*[Signature]*

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*[Signature]*

Other Specifications:

**2. Potato Cleaner**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 / Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Air requirement (lit./day):

Other Specifications:

**3. Sorting Machine-**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 / Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Air requirement (lit./day):

Other Specifications:

**4. Potato Washer**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade/ Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Air requirement (lit./day):

Other Specifications:

**5. Miscellaneous Item required (if any)**

Included Piping, Pumps, Valves, Joints, Bends, Buckets, Plastic Crates, Manual trolley etc.

**B. POTATO CHIPS/ FRENCH FRIES PROCESING UNIT**

**1. Potato Peeler**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade/ Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Air requirement (lit./day):

Other Specifications:

**2. Slicing Machine with multiple blades (with Checks, Plain and Ridge )**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade/ Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Air requirement (lit./day):

Other Specifications:

**3. Dicing Machine for French fries with two blades (10 x10 mm, 15x15 mm)**

Capacity (kg/hr):



Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):  
Other Specifications:

**4. Rinsing Machine/surface moisture removal**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Other Specifications:

**5. Fryer/Electric Heating Machine**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):  
Other Specifications:

**6. De-oiling Machine/ Centrifuge type**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):  
Other Specifications:

**7. Sorting Conveyor for fried chips/French fries.**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):  
Other Specifications:

**8. Seasoning Unit**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):

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Other Specifications:

**9. Packaging Machine-FFS Unit with Nitrogen Flushing**

Capacity :

Construction Material: Food contact part : SS-304 Grade/ Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Air requirement (lit./day):

Other Specifications:

**10. Oil Storage Tank (2 Ton Capacity)**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade/ Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Other Specifications:

**11. Miscellaneous Item required (if any)**

Included Piping, Pumps, Valves, Joints, Bends, Buckets, Plastic Crates, Manual trolley etc.

**C. HASH BROWN/PATTIES PROCESSING UNIT**

**1. Potato Steaming Machine**

Capacity :

Construction Material: Food contact part : SS-304 Grade/ Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Air requirement (lit./day):

Other Specifications:

**2. Potato Mashing/Pulverizing Machine**

Capacity :

Construction Material: Food contact part : SS-304 Grade/ Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Air requirement (lit./day):

Other Specifications:

**3. Sigma Mixture Machine**

Capacity :

Construction Material: Food contact part : SS-304 Grade/ Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Air requirement (lit./day):

Other Specifications:

**4. Hash Brown Processing Machine**

Capacity :

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Construction Material: Food contact part : SS-304 Grade/ Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Air requirement (lit./day):

Other Specifications:

**5. Blast Freezer ( - 40°C)**

Capacity : 1 TONNS

Construction Material: Food contact part : SS-304 Grade/ Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Air requirement (lit./day):

Other Specifications:

**6. Deep Freezer ( - 20°C)**

Capacity : 5 TONNS

Construction Material: Food contact part : SS-304 Grade/ Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Air requirement (lit./day):

Other Specifications:

**7. Miscellaneous Item required (if any):**

Included Piping, Pumps, Valves, Joints, Bends, Buckets, Plastic Crates, Manual trolley etc.

Note: Cost of complete unit (A+B+C) including GST, installation, Trial run with raw material and packing material and three years warranty should be quoted in INR

**TEM NO. 7 BAKERY LINE FOR WHET AND MILLETS (COOKIES AND BREAD) ( First Call)**

Capacity: 100 Kg/Hour Short Dough Cookies/Bread

**A. PRIMARY PROCESSING EQUIPMENTS FOR MAJOR MILLETS**

**X. Planetary Mixer**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Air requirement (lit./day):

Other Specifications:

**XI. Dough kneader**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Air requirement (lit./day):

Other Specifications:

**XII. Dough Sheeter**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Air requirement (lit./day):

Other Specifications:

**XIII. Dough Cutter**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Air requirement (lit./day):

Other Specifications:

**XIV. Cookies dropper**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Air requirement (lit./day):

Other Specifications:

**XV. Rotary oven with trays and moulds**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Air requirement (lit./day):

Other Specifications:

**XVI. Packing Line (Band sealer)**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Air requirement (lit./day):

Other Specifications:

**XVII. Impulse sealer (4-6 nos.)**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Air requirement (lit./day):

Other Specifications:



XVIII. **Miscellaneous Item required (if any) :** Included Piping, Pumps, Valves, Joints, Bends, Buckets, Plastic Crates, Manual trolley etc.

Note: Cost of complete unit including GST, installation, Trial run with raw material and packing material and three years warranty should be quoted in INR

**ITEM NO.8 UTILITIES, AUXILIARY EQUIPMENT WASTE MANAGEMENT, ETC FOR POTATO PROCESSING UNIT ( FIRST CALL)**

- I. Boilers (1 – Set)**  
Capacity (kg/hr):  
Construction Material: Food contact part :  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Water Requirement (lit/day)  
Other Specifications:
- II. RO Plants (1 – Set)**  
Capacity (kg/hr):  
Construction Material: Food contact part : Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Other Specifications:
- III. Air Compressor (1 Set)**  
Capacity (kg/hr):  
Construction Material:  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Other Specifications:
- IV. Fire extinguishers 10 Nos**  
Capacity 2kg cylinder
- V. Effluent Treatment Plant for each component 1 Set**  
Capacity (kg/hr):  
Construction Material:  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Water Requirement (lit/day)  
Other Specifications:
- VI. Generator with Covered Structure 1 Set**  
**Capacity: 35KVA**  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Water Requirement (lit/day)  
Other Specifications:
- VII. Stove 6 Nos**  
Standard Materials: ISI Marked.  
Size: 8", 10" and 12" each 2 Nos.
- VIII. Trays 60 Nos**  
Dimensions (mm x mm x mm):

- Construction Material: SS-304  
Other Specifications:
- IX. Cutter 50 Nos**  
Construction Materials: SS-304
- X. Spoons 1 Set**  
Dimensions: 0.5ft, 1ft, 2.5ft, 3ft, 4ft, 5ft, each 1dozen with hangers.  
Construction Materials: SS-304
- XI. Utensils 1 Set**  
Capacity: 0.5kg, 1kg, 2kg, 5kg, 7.5kg, 10kg, 20kg, 30kg, 50kg, 75kg, 100 kg each two piece with lid  
Construction Materials: SS-304
- XII. Racks 6 Nos**  
Dimensions (mm x mm x mm):  
Construction Material:  
Other Specifications:
- XIII. Working Table SS top table 6Nos**  
Dimensions: (1.8 x 0.6 x 0.8 m)  
Construction Material: Food Contact Surface: SS-304  
Other Specifications:
- XIV. Dehumidifier for dry room 1 Nos**  
Capacity (kg/hr):  
Construction Material:  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Water Requirement (lit/day)  
Other Specifications:
- XV. Inkjet printer/coding Machine (5x5 cm head size) 1 Unit**  
Capacity (kg/hr):  
Construction Material:  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Water Requirement (lit/day)  
Other Specifications:
- XVI. Box strapping machine**  
Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Other Specifications:
- XVII. Accessories 1 Set**  
Included Piping, Pumps, Valves, Joints, Bends, Buckets, Plastic Crates, Manual trolley etc.  
Specifications:
- XVIII. Electrical supply to individual machinery/equipment from Junction box:**  
As per requirement of machine.
- XIX. Water supply line to individual machinery/equipment**  
As per requirement of machine.









- XX. Waste recollection line**  
As per waste generation from processing line and machines.
- XXI. Air supply line to individual machinery/equipment**  
As per requirement of machine.
- XXII. Steam supply line (wherever necessary) 1 Nos**  
As per requirement of machine.

Note: Cost of all utilities including GST, installation, Trial run with raw material and packing material and three years warranty should be quoted in INR

**ITEM NO.9 FRUIT PULP PROCESSING LINE (FIRST CALL)**

Capacity : 100 Kg/Hour Guava Pulp

- A. FRUIT PULP PROCESSING EXTRACTION LINE**
- 1. Fruit sorting cum inspection conveyer**  
Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Other Specifications:
  - 2. Fruit washing machine :**  
Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):  
Other Specifications:
  - 3. Working Table SS top table 6Nos**  
Dimensions: (1.8 x 0.6x 0.8 m)  
Construction Material: Food Contact Surface: SS-304  
Other Specifications:
  - 4. Screw feeder –**  
Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):  
Other Specifications:
  - 5. Fruit pulper cum finisher**  
Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):

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- Other Specifications:
- (iii) **Double tube juice heater with tank**  
Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):  
Other Specifications:
- (iv) **Homogenizer with insulated tank**  
Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):  
Other Specifications:
- (v) **Pasteurizer**  
Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):  
Other Specifications:
- (vi) **Filling tank (Insulated)**  
Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):  
Other Specifications:
- (vii) **Miscellaneous Item required (if any)**  
Included Piping, Pumps, Valves, Joints, Bends, Buckets, Plastic Crates, Manual trolley etc.

#### D. GUAVA PULP JAM & JELLY PROCESSING LINE

- (i) **Steam Jacketed kettle with scrapper impeller**  
Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):

*Signature 1*      *Signature 2*      *Signature 3*      *Signature 4*

Air requirement (lit./day):

Other Specifications:

(ii) **Jam – Jelly filling tank**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade/ Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Air requirement (lit./day):

Other Specifications:

(iii) **Jam – Jelly filling M/C**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade/ Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Air requirement (lit./day):

Other Specifications:

(iv) **Conveyors**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade/ Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Air requirement (lit./day):

Other Specifications:

(v) **Miscellaneous Item required (if any)**

Included Piping, Pumps, Valves, Joints, Bends, Buckets, Plastic Crates, Manual trolley etc.

**E. FRUIT PROCESSING PACKING LINE**

(i) **Can reforming unit**

Construction material

Capacity –

Dimension –

Electrical load –

Other specification –

Water requirement if any lit./hr.

(ii) **Hand flanger**

Construction material

Capacity –

Dimension –

Electrical load –

Other specification –

Water requirement if any lit./hr.

(iii) **Round can body header**

Construction material

*Sanjiv* *Shoban* *Schivash*  
*[Signature]* *[Signature]*

Capacity –  
Dimension –  
Electrical load –  
Other specification –  
Water requirement if any lit./hr.

**(iv) Empty can washer/exhaust box**

Construction material  
Capacity –  
Dimension –  
Electrical load –  
Other specification –  
Water requirement if any lit./hr.

**(v) PET bottle juice filling M/C (volumetric)**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):  
Other Specifications:

**(vi) Jam/Jelly cup filling M/C**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):  
Other Specifications:

**(vii) PET Bottle Capping M/C**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Other Specifications:


**(viii) Jam/Jelly Induction filling sealer**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Other Specifications:

**(ix) Glass bottle washer**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade



Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):  
Other Specifications:

**(x) Glass bottle cap (Lug capping M/C)**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Other Specifications:

**(xi) Miscellaneous Item required (if any)**

Included Piping, Pumps, Valves, Joints, Bends, Buckets, Plastic Crates, Manual trolley etc.

Note: Cost of complete unit (A+B+C+D+E) including GST, installation, Trial run with raw material and packing material and three years warranty should be quoted in INR

**ITEM NO. 10 ONION DEHYDRATION UNIT ( FIRST CALL)**

**Capacity 100 Kg of Onion/Hour**

**(i) Onion Cleaner**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Other Specifications:

**(ii) Onion Peeler (wet. peeler)**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):  
Other Specifications:

**(iii) Onion Washer**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):  
Other Specifications:

**(iv) Slicing Machine (slice thickness 5mm )**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):

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*Signature*

Air requirement (lit./day):

Other Specifications:

**(v) Dicing Machine with two blades (10 x10 mm, 15x15 mm)**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade/ Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Air requirement (lit./day):

Other Specifications:

**(vi) Electrical tray dryer with trays**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade/ Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Water requirement (lit./day):

Air requirement (lit./day):

Other Specifications:

**(vii) Pulverizing**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade/ Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Air requirement (lit./day):

Other Specifications:

**(viii) Sieve sifter**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade/ Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Air requirement (lit./day):

Other Specifications:

**(ix) Continuous band sealer**

Capacity (kg/hr):

Construction Material: Food contact part : SS-304 Grade/ Food Grade

Electric Load (KW):

Dimensions (mm x mm x mm):

Air requirement (lit./day):

Other Specifications:

**(x) Storage bin (250 kg)**

Construction Material: Food contact part : SS-304 Grade/ Food Grade

**(xi) Miscellaneous Item required (if any)**

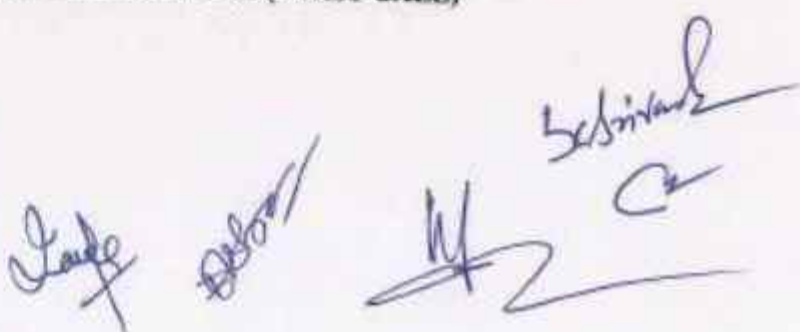
Included Piping, Pumps, Valves, Joints, Bends, Buckets, Plastic Crates, Manual trolley etc.

Note: Cost of complete unit including GST, installation, Trial run with raw material and packing material and three years warranty should be quoted in INR

**ITEM NO.11 VEGETABLE DEHYDRATION LINE ( FIRST CALL)**

Capacity 100 Kg/Hour (Carrot)

(i) Sorting conveyer



Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Other Specifications:

**(ii) Vegetable washer**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):  
Other Specifications:

**(iii) Vegetable dewatering unit**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Other Specifications:

**(iv) Vegetable cutting, slicing and dicing machine**

Capacity (kg/hr):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Water requirement (lit./day):  
Air requirement (lit./day):  
Other Specifications:

**(v) SOLAR DRYER-POLYCARBONATE: 1 in no.**

Capacity: 100 m<sup>2</sup> collector size with stands, trays and automatic parameters control systems with minimum 40% dryer volume occupancy  
Construction Material: Food contact part : SS-304 Grade  
Electric Load (KW):  
Dryer Dimensions (mm x mm x mm):

**(vi) Storage Bin**

Capacity (Inches): 250 kg

**(vii) impulse sealer**

Capacity (Inches):  
Construction Material: Food contact part : SS-304 Grade/ Food Grade  
Electric Load (KW):  
Dimensions (mm x mm x mm):  
Air requirement (lit./day):  
Other Specifications:

**(viii) Miscellaneous Item required (if any)**

Included Piping, Pumps, Valves, Joints, Bends, Buckets, Plastic Crates, Manual trolley etc.

Note: Cost of complete unit including GST, installation, Trial run with raw material and packing material and three years warranty should be quoted in INR

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**ITEM NO.12. UTILITIES, AUXILLARY EQUIPMENT WASTE MANAGEMENT, ETC. FOR  
FRUIT PULP PROCESSING LINE ( FIRST CALL)**

**(i) Boilers (1 – Set)**

- Capacity (kg/hr):
- Construction Material: Food contact part :
- Electric Load (KW):
- Dimensions (mm x mm x mm):
- Air requirement (lit./day):
- Water Requirement (lit/day)
- Other Specifications:

**(ii) RO Plants (1 – Set)**

- Capacity (kg/hr):
- Construction Material: Food contact part : Food Grade
- Electric Load (KW):
- Dimensions (mm x mm x mm):
- Other Specifications:

**(iii) Air Compressor (1 Set)**

- Capacity (kg/hr):
- Construction Material:
- Electric Load (KW):
- Dimensions (mm x mm x mm):
- Other Specifications:

**(iv) Fire extinguishers 10 Nos**

Capacity 2kg cylinder

**(v) Effluent Treatment Plant for each component**

1 Set

- Capacity (kg/hr):
- Construction Material:
- Electric Load (KW):
- Dimensions (mm x mm x mm):
- Air requirement (lit./day):
- Water Requirement (lit/day)
- Other Specifications:

**(vi) Generator with Covered Structure 1 Set**

- Capacity: 35KVA
- Dimensions (mm x mm x mm):
- Air requirement (lit./day):
- Water Requirement (lit/day)
- Other Specifications:

**(vii) Stove 6 Nos**

Standard Materials: ISI Marked.  
Size: 8", 10" and 12" each 2 Nos.

**(viii) Trays 60 Nos**

- Dimensions (mm x mm x mm):
- Construction Material: SS-304
- Other Specifications:

**(ix) Cutter 50 Nos**

Construction Materials: SS-304

**(x) Spoons 1 Set**

Dimensions: 0.5ft, 1ft, 2.5ft, 3ft, 4ft, 5ft, each 1dozen with hangers.

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Note: Cost of all utilities including GST, installation, Trial run with raw material and packing material and three years warranty should be quoted in INR

**ITEM NO. 13 HORIZONTAL LAMINAR AIR FLOW CABINETS (FIRST CALL)**

**Dimension: 1200x 600x 600 mm (4'x2'x2')**

- Cabinet lighting located away from Laminar Air Flow Area.
- Ultraviolet lamp to sterilize and decontaminate work zone and cabinet contents between operating periods.
- Optional Night Door/Cover to protect cabinet interior when blowers are off. Contains UV radiation when UV activated.
- Disposable polyester fiber pre filter with 85% arrestance.
- Long-life Camfil-Farr ULPA main filter with efficiency of 99.999% at particle sizes between 0.1 to 0.3µm.
- Side window that allows ambient illumination into the chamber and provides users with an unobstructed view of its contents from three sides.
- GFCI outlet to power equipment in cabinet.
- Appropriate external rotor blower.
- Control panel On/Off switch for fan, lighting, GFCI outlets, Mini-helic ULPA pressure gauge to measure filter performance, UV lamp key switch.
- Fan speed control.
- Base Stand: Optional mobile cart with locking casters includes a convenient lower shelf.
- Stainless steel Work Surface with ULPA filters spill-retention lip on HLF units.
- Ergonomically angled front improves reach and comfort.
- Appropriate antimicrobial coating on all painted metal surfaces minimizes contamination – white colour.
- Protected work zone environment created for optimum product performance.
- Optional IV Bar with "S" hooks.
- Optional petcock service fixture (Maximum 4 per unit).
- Large, easy-to-read LED display presents a menu of functional readouts.
- A pre-filter traps large particles to extend the life of the ULPA filter.
- Alarms programmed to warn of ULPA Filter when it is blocked.
- Quiet, variable speed internal blower provides step less air velocity control.
- Glare-free fluorescent lamp/UV lamp for illumination and disinfection purposes.
- Non-glare stainless steel work surface for easy cleaning.
- UV lamp with Night door/cover Ultraviolet lamp for contamination of interior surfaces.
- Includes a timer, and key switch UV operation must comply with local codes and facility safety practices.

**Filter Specifications**

Pre-Filter	Disposable polyester fibers with 85% arrestance
Main Filter (2)	ULPA, 99.999% efficient at particle sizes between 0.1 to 0.3µm
Size	Full size of Work Zone
Clamping	Spring loaded, adjustable tension adjusts for gasket aging
Cabinet Lighting	Compact Fluorescent Bulb Removed from Air Stream
UV Lamp (3)	Compulsory
Noise,	dBA, 1 meter <65

**Side Windows**

Construction	Tempered Glass
Visible Opacity	Transparent
UV Opacity	UV Absorbing

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Colour	Colourless
<b>Construction</b>	
Colour	Epoxy coated steel frame
Working Surface	Stainless Steel
GFCI outlet	Standard
Finishing	Standard Anti-microbial Powder Coat
Monitoring	Mini helix ULPA pressure gauge

**ITEM No.14 HOT AIR OVEN (FIRST CALL)**

Programmable Microprocessor control with vacuum fluorescent/LED display.  
 Broad temperatures range 50°C to 250°C.  
 Temperature Uniformity at 150°C: ±3°C  
 Stainless steel perforated shelf at least :3  
 Capacity in liter: 400-500 liters  
 Machine should have to 2 PT-100 Sensor for Sample protection.  
 Inner chambers corrosion-resistant stainless steel 1.4016/AISI 430 with rounded corners for easy cleaning.  
 Automatic over temperature alarm system to protect samples.  
 Timer function to programme start or switch off times for additional energy savings.  
 Interior W x H x D: 500-600 x 1300-1400 x 500-600 mm.  
 Exterior W x H x D: 1500-1600 x 700-800 x 700-800 mm.  
 Access port allows the introduction of sensors for independent data monitoring by appropriate Thermometer with range from 0 To 300°C.  
 Ovens should come standard with a RS232 data interface with an optional facility for wireless temperature monitoring.  
 Lockable casters for mobility and easy set-up in lab.  
 Rated voltage: 230-volt 50 Hz with Less than 600-watt power consumption @ 150 degree Celsius.  
 Machine must be supplied with compatible appropriate voltage stabilizer.

**ITEM NO. 15 BOD INCUBATOR (FIRST CALL)**

Temperature ranging from 10°C to +50°C with excellent stability.  
 Capacity: Minimum 550 liters  
 Temperature Uniformity @ 37°C ±0.5 °C.  
 Microprocessor control with easy-to-read display shows actual temperature within 0.1°C.  
 Push-button controls for temperature set point selection.  
 Forced-air circulation for excellent temperature stability.  
 CFC-free, foamed polyurethane insulation to prevent heat loss.  
 RTD temperature probe and protected set point mode to prevent accidental temperature change.  
 Door key lock to protect samples from unauthorized access.  
 Temperature set point selection with high and low temperature protection and simple calibration.  
 Available with dual lamp fluorescent lighting for plant growth studies and day/night cycles, programmable lighting conditions.  
 Safety relay and alarm LED alert to over/under temperature conditions.  
 Access port for independent sensors/connection of equipment inside unit.  
 Cooling switch provides high temperature accuracy and saves energy at temperatures above to ambient.  
 RS-232 and recorder jacks for data logging.

**ITEM NO.16 pH METER (FIRST CALL)**

pH Range not less than 0-14  
 Resolution 0.001/0.01/0.1

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Relative Accuracy  $\pm 0.05$   
Calibration points: 4  
Auto calibration  
Temperature range -5 to 50°C  
Relative Accuracy  $\pm 1.0$   
Milli Volt Range Approx. 1600.0 M $\mu$   
Resolution: 0.1  
Relative Accuracy  $\pm 0.2\text{m}\mu$  or  $\pm 0.05\%$  or better  
Display BNC, 2mm pin, ATC Power  
Real-time clock  
Data memory >100 records (measurement, temperature)  
Data output Display, interface for PC  
Analog interface – Corresponds to electrode potential, Analog output corresponding to display in combination with terminal Digital interface – Bidirectional RS 2  
Suitable electrodes: epoxy body and gel filled.  
Power requirements: 220V 50 Hz

#### ITEM NO.17 ELECTRONIC ANALYTICAL BALANCE (FIRST CALL)

- Capacity:  $\geq 60/200\text{gm}$ .
- Readability: 0.0001.
- Repeatability: 0.0001.
- Linearity:  $\pm 0.0001$ .
- Weighing Pan: 85-95mm dia.
- Calibration: Internal.
- Draft Shield: 240 mm.
- LCD, 7-Segment Back-light Display.
- Fully automatic temperature-controlled calibration.
- Adjustment with variable external weights.
- Permanent Shock protection & optimized overload protection.
- Dynamic weighing with automatic or manual start.
- Piece counting and percent weighing.

#### ITEM NO.18 AUTOMATIC AUTOCLAVE

##### (A) SEMI -AUTOMATIC VERTICAL AUTOCLAVE

Capacity: 75 liters (Approx.)

GMP Lab Type, Semi-Automatic model

##### Working parameters:

- Chamber Working Pressure : 1.2 Kg/Cm<sup>2</sup>.
- Chamber Working Temperature : 121°C.

##### Material Specification

- S.S.316 quality chamber, circumferential swing clam tighten Lid
- S.S.304 quality Mounting Legs, Control panel & outer cover
- Safety valve

- Steam Release cock
- Air valve
- Pressure gauge
- Low water level switch to protect the heater from low water level
- Digital Temperature Indicator cum controller with timer, Period over with buzzer, plug & cord etc
- 4 Kw load water immersion type heaters.

#### (B) VERTICAL AUTOCLAVE

- **Capacity: 50 ltr**
- **Type: Vertical Autoclave**
- Water Level cut-off - Regular Series - Top Loading.
- SS 304 double wall construction.
- Pressure is maintained at 15.0 PSI (~ 121°C) through a spring-loaded mechanical safety Valve.
- Low water level alarm & cut off.
- Supplied with SS-wire mesh Carrier.
- Handy raise device for easy working.
- Hydraulically die Press lid.
- Machine should be Hydraulically tested, safety valves for over pressure, Special Energy efficient.
- Heater saves electric energy.
- Supplied with Test Report / Calibration cert. Traceable up to national standards.
- With one spare gasket.

Note: Please quote rates for all capacities ( A & B) separately.

#### ITEEM NO 19 .LABORATORY REFRIGERATORS

##### (A) Refrigerator Capacity: 600 Ltrs

- Solid Door: 2 with uniform temperature throughout in one chamber
- Temperature (Chiller ): -2°C – 10°C
- GN Compatibility: 2 x GN 1 x 1
- No. of Shelves: 3
- Refrigerating or freezing are designed to meet the conditions.
- Suitable to perform at 40-45°C ambient temperature.
- DANFOSS/EMBRACO Compressor
- Dixell Controller
- EBM Fan Motor
- SS 304 Food Grade Steel
- Castors
- Lock
- Ventilated Cooling
- Environment Friendly Refrigerant for Chillers

##### (B) Refrigerator: Capacity: 1200 Ltrs

- Solid Door: 4 with uniform temperature throughout in one chamber.
- Temperature (Chillier): -2°C ~ 10°C.
- GN Compatibility: 2 x GN 1 x 1.
- No. of Shelves : 6

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- Refrigerating or freezing are designed to meet the conditions.
- Suitable to perform at 40-45°C ambient temperature.
- DANFOSS/EMBRACO Compressor.
- Dixell controller
- EBM Fan Motor
- SS 304 Food Grade Steel
- Castors
- Lock
- Ventilated Cooling
- Environment Friendly Refrigerant for chillier

**(C) Refrigerator: Capacity: 1200 -1500Ltrs**

- Temperature Range: -2°C - 25°C.
- Capacity: 1000-1500 L.
- Hermetically Sealed Compressor with Microprocessor Temperature Control.
- Should have Fan-forced Double Flow air circulation with two fans of at least 100-120 mm diameter each to ensure gentle air circulation.
- Should have Fully automatic Cycle Defrost Function (forced type, with heater) which is performed automatically during compressor "off" cycles & by sensing frost levels so that there is no need to turn off the power.
- Cycle defrost with heater should allow defrosting without increasing cabinet temperature.
- Should have hot pipe for automatic evaporation of drain water.
- Evaporator & Condenser should be Fin Tube type.
- Evaporation heater should also act as an emergency heat source to prevent samples from freezing.
- Control panel should be at eye level with digital display of temperature (1°C step) & full array of alarm & safety functions.
- Large framed windows should provide a clear view of stored items with Interior Lamp.
- Alarm & Safety Devices in-built including Audible & flashing LED Visual alarms to alert for High or Low Temperature condition and Door open alarm.
- Should have Self-diagnostics function to check and report for errors.
- Should have temperature lock & memory backup in case of power failure.
- Over shooting prevention circuit automatically switches off the fan motor or heater.
- Remote alarm contacts.
- Exterior & Interior cabinet should have acrylic finish baked on zinc galvanized steel with catch free rounded corners.
- Should have 2 Doors with Double Layer Paned Glass Window with self-closing & Outer Door Lock.
- Insulation: CFC Free rigid foamed-in-place polyurethane.
- Battery Backup: Inbuilt.
- 8 Polyester coated wire shelves (Should be adjustable, Approx. Max. load: 40 Kg/shelf).
- Should have Access ports to allow access for power cords.
- Should be mounted on moveable castors.
- Certifications ISO 9001 and CE.

**Note: Please quote cost for each capacity ( A, B and C separately).**

**ITEM N0.20. DISTILLATION UNIT**

Water distillation unit for distilled water.  
Capacity, 2-3 litres

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*S. Srinivas*



- a) Horizontal type boiler borosilicate glass
- b) Condenser
- c) Constant level device
- d) Silica sheathed (Quartz) heater
- e) With stand and clamp etc

**Key Features :**

- Borosilicate condenser and boiler are fitted with a removable silica sheathed (Quartz) heater.
- Distillate temperature is around 65 to 75°C which is ensured by an efficient condenser.
- The stand is powder coated for rust free operation and lustrous appearance.
- The unit automatically switches off if water level in the boiler falls below heater.
- Cooling water from the condenser is re-circulated into the boiling chamber, hence saving energy.
- Drain nozzle/Teflon stop cork is provided for easy cleaning and maintenance.
- The model is equipped with in-built temperature switch to protect the Glass parts in case of water failure or overheating.

**ITEM NO. 21 MOISTURE METER**

Measured Parameters Moisture

Calibration Manual

Range 3.5 – 40.0%

Accuracy ± 0.50%

Display 3.5-digit LCD Display

Resolution 0.1

Room Temperature Compensation Automatic

Power Supply 6 volts dc through adaptor or 1.5 V x 4 dry cell

Weight 1.5 kgs approx.

Dimensions 15 x 13.5 x 12 cms approx.

Packing Rexin bag supplied with hopper & Operation Manual

**Features :**

- Light weight and Compact, easy to carry
- Calibrated for 4 crops
- Easy to use and accurate readings
- Most suitable for Field applications
- Standard Calibration provided for Paddy, Wheat, Maize and Barley
- Customized Calibration can be provided for Cereals, Pulses, Oil Seeds, Vegetable Seeds etc. on request

**ITEM NO. 22 BOMB CALORIMETER ( FIRST CALL)**

- Calorimeter vessel with bomb support & insulating base - 01
- Water Jacket - 01
- Combined lid for calorimeter vessel & water jacket - 01
- Stirrer - 01 set
- Connecting lead for calorimeter bomb - 01 set
- Fine adjustment valve with built in pressure gauge - 01
- Connecting tube to connect bomb, pressure gauge and fine regulating valve - 01
- Safety Relief Valve fitted on gas filling tube adapter - 01
- Pellet Press - 01
- Spanner for Oxygen tube connection - 01
- Ignition Wire - Nichrome - 01 Roll of 5 meters
- Cotton Thread - 01 Roll

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- Stand for Bomb Lid - 01
- Hook for Lifting Bomb - 01
- Crucible SS - 01
- Gas Release Valve - 01
- Bomb Firing Unit - 01 Set
- Differential Type Digital Thermometer complete with sensor -01 No
- O-ring for bomb & valve - 01 set each
- Schrader Valve with Key - 01 each
- Standard Benzoic Acid - 01 Bottle
- **Salient Features of Microprocessor based controller**
- Eliminates manual calculations
- Microprocessor based controller executes automatic calculations of Calorific Value
- Automatic measurement and calculation of CALORIFIC VALUE / WATER EQUIVALENT
- 3.5 DIGIT LED display.
- Keypad for Menu driven settings of different parameters
- Automatic measurement and mathematical calculation of the calorific value/Water Equivalent; which eliminates the requirement of operator to be continuously present to note the maximum temperature rise & to do the calculations manually.
- Weight of tablet can be fed through keypad by user.
- Water equivalent settable through keypad by user.
- Automatic calculation for Sample Test or Water Equivalent Test from maximum temperature rise value.
- Sensor open detection.
- Fuse wire open detection.
- Type of test is selectable
- **Resolution of 0.001°C can be provided at extra cost of @ Rs 40,000.00**
- 14. Digital Top Pan Balance (0.0001 gm.)
- KVA UPS with Batteries (30 min backup).
- 16. RO (50 liter) approx.
- 17. Oxygen Cylinder 99.9% Purity (47L, minimum 70 kg/cm<sup>2</sup> pressure).
- 18. Clean Dust Free Room, Solid vibration free working table away from windows, ovens and other heat generating source

#### Consumables

1. Cotton reel
2. Bomb 'O' ring
3. Valve body 'O' ring
4. Ignition wire
5. Schrader valve

#### ITEM No. 23 GUN THERMOMETER

Infrared Range -40° to 536°F; -40° to 280°C  
 Resolution 0.1° F or C  
 Accuracy +/- 1° C (1.5° F) of reading from 32 to 150° F with 1/10th degree resolution  
 Below 32° F: +/- 1° C (+/- 2° F) +/- 0.1-degree/ F  
 and above 150° F: +/- 1.5% of reading conforming to HACCP accuracy  
 D:S ratio 16:1 (distance-spot ratio)  
 Response Time (90%) 1 second  
 Emissivity preset for food service applications

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Batteries 1 x 9V (included) for 14 hours of continuous use; low battery icon  
Automatic power OFF after 1 minute

#### ITEM NO. 24 REFRACTOMETER

- Measurement Range: 28-62% Brix.
- Resolution: 0,2% Brix.
- Accuracy:  $\pm 0,20\%$
- With Automatic Temperature Correction (ATC)
- Size (Length x  $\emptyset$  dia. mm): 157 x  $\emptyset$ 40 mm.
- Weight: 178 gram.
- Body Material: Full Copper.

#### ITEM NO. 25 BINOCULAR MICROSCOPE

- Color corrected optical system
- 30° inclined Silent of viewing head, 360 deg rotating.
- interpupillary distance: 50-75mm,  $\pm 5$  diopter adjustable
- Wide field plan eyepiece PL10X/18mm
- Achromatic objective 4X/0.10, WD=15.09mm
- Achromatic objective 10X/0.25, WD=8.6mm
- Achromatic objective 40XS/0.65, WD=0.38mm
- Achromatic objective 100XS/1.25 (Oil) ,WD=0.09mm
- Quadruple nosepiece reverse (for 4 objective)
- Low position Coaxial coarse and fine adjustment, range 12mm), precision: 0.002mm, with coarse adjustment stop and tightness adjustment, 0.2W LED(color temperature 5700-6500K) intensity adjustable, external wide voltage AC adapter, 100V-240V\_AC input, DC5V 1A output. Abbe Condenser, N.A.=1.25;with adjustable aperture and filter bracket, Double layer mechanical stage, moving range 70x30mm. Dust Cover, Power Coed ,Oil-immersion
- Note: upgradable to Built-in rechargeable module in the base can be charged when the microscope is working. With long battery life, can work when there is no alternate current, is available to make experiment anytime and anywhere. Charging indicator on the right side of the base, is clear to know the power usage

#### ITEM NO. 26 SOXHLET EXTRACTION APPARATUS

- Cooling water distribution, strips ensure uniform cooling at sample positions.
- Practical condenser ledge to safely deposit the condenser between hot extractions.
- Brackets for safely holding the intermediate extraction pieces after removing the sample container

Voltage : 230 VAC  
Frequency : 50/60 Hz  
Power consumption : 1500 W  
Power consumption : 7A

Dimensions in cm (W x D x H) : approx. 53 x 32 x 74

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Also Known as : 1900.EU.01




### ITEM NO. 27 VISCOMETER

Accurate viscosity measurement      Digital display with backlit  
Easy to install and operate      Alarm alert when measurement out of range  
Touch key pad operation      Linear calibration  
Measurement Range (mPa.s) 1 - 100K  
R.P.M (per min) 6, 12, 30, 60  
Rotor Amount #1, #2, #3, #4 are standard configurations (#0 is optional)  
Measurement Accuracy  $\pm 1.0\%$  (of the full range)  
Repeatability 0.5%  
Optional accessories - Printer  
- Temperature sensor  
- Standard oil  
- Constant temperature water bath


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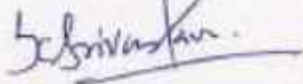
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