#### Directorate of Research (Veterinary) AAU, Khanapara, Guwahati 781 022 Telefax: +91-361-2364941

#### **NOTICE INVITING QUOTATION**

Sealed quotations are invited from authorized manufacture/ dealer for supply of following laboratory/meat processing equipments for DBT sponsored project viz. 'Value Chain on Processing of Novel Duck Meat and Egg Products under Existing Farming Systems of NER for Entrepreneurship Development' being implemented in the Department of Livestock Products Technology, Faculty of Veterinary Science, Assam Agricultural University, Khanapara, Guwahati 781 022.

List of Equipments:

- 1. Glass Top Deep Freezer
- 2. Deep Freezer
- 3. Digital Balance
- 4. pH Meter (probe Type)
- 5. Protein Estimation System
- 6. Fat Estimation System

- 8. 30 Kg Load Cell for TA HD Plus
- 9. Chomometer
- 10. Smoke Cabinet
- 11. Cooking Vat
- 12. Manual Sausage Filler
- 13. Meat Mincer
- 7. Dietary Fibre Estimation System

The quotations will be received at the Department of Livestock Products Technology, Faculty of Veterinary Science, Assam Agricultural University, Khanapara, Guwahati 781 022 during office hours up to 20<sup>th</sup> November, 2018.

The details of the items along with terms and conditions may be collected from the Office of the undersigned or from the Professor & Head, Department of Livestock Products Technology, CVSc, AAU, Khanapara, Guwahati – 22 during office hours on payment of Rs. 100.00 (non-refundable) as Demand Draft in favour of the Comptroller, Assam Agricultural University, Jorhat 785 013 payable at Jorhat. The details of the offer may also be downloaded from the website *www.vetbifg.ac.in*. However, the downloaded form must be accompanied by a DD of Rs. 100.00 (non-refundable) at the time of submission.

|                                    |             | (110 1 100)                  |
|------------------------------------|-------------|------------------------------|
|                                    |             | Director of Research (Vety.) |
|                                    | A           | AAU, Khanpara, Ghy-22        |
| Memo No. 99/250/DRV/2018-19/       | 4569-71     | / Date:/ L-L1. LF            |
| Copy for information and necessary | action to : |                              |

- 1. The Professor and Head cum P.I., DBT Sponsored Project on 'Value Chain on ......Development', Dept. of LPT, CVSc, AAU, Khanapara, Guwahati 781 022.
- 2. In-charge, ARIS Cell, AAU, Khanapara with a request to upload the NIQ in the website.
- 3. Office Copy.

(**N. Kalita**) Director of Research (Vety.) AAU, Khanpara, Ghy-22

(N Kalita)

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# : TERMS AND CONDITIONS:

### **GENERAL TERMS AND CONDITIONS**

- 1. Any item offered/quoted should conform to the technical specifications desired by the purchaser. Quotations for items beyond the scope of the technical specification asked for shall not be entertained.
- 2. The compliance statement (technical specification desired and offered) along with separate sheet of Terms & Conditions should invariably accompany the quotation both as 'hard copy' and 'soft copy' in a CD typed in MS word in A4 size paper in landscape orientation (Font size 12, Times New Roman) in the prescribed format (Annexure-I), without which the quotation shall not be considered.
- 3. Each Quotation should accompany with non-refundable **IPO of Rs. 100.00** (Rupees One Hundred) only drawn in favour of Comptroller, AAU, Jorhat- 13.
- 4. In case the tender document is downloaded from the website, the bidder shall have to deposit an extra amount of **Rs. 100.00 in the form of Bank Demand Draft** drawn in favour of Comptroller, AAU, Jorhat and payable at Jorhat along with the tender documents.

## **INSTRUCTION TO BIDDERS**

1. All Quotations should mention in the cover of the Envelope distinctly the Name of the Item,

Item No., NIQ Ref. No., Bidder's Name & Address, Contact No. etc. as shown below:-

## QUOTATION FOR SUPPLY -----

## DEPARTMENT OF LIVESTOCK PRODUCTS TECHNOLOGY, CVSC., AAU, KHANAPARA, GUWAHATI

NIQ REF NO......DATED.....,

LAST DATE FOR SUBMISSION.....

To, The Professor & Head Department of Livestock Products Technology College of Veterinary Science Assam Agricultural University Khanapara, Guwahati- 781022 Assam, India Telefax: +91-361-2364941/ 9435110805(M)

| From: M/s    |  |
|--------------|--|
| Contact No.: |  |
| Email ID:    |  |

2. Quotation for each Item will have to be submitted in separate envelope indicating Name of the Item, Item No. in NIQ, NIQ Ref. No. on the cover of the Envelope. In case the **bidder** 

submits multiple quotations the envelope of each item will have to be put in one large envelope mentioning the Sl. Nos. of NIQ and Bidder's Address.

- 3. The bidder must submit a compliance statement mentioning technical specification desired and offered both as 'hard copy' and 'soft copy' typed in MS word in A4 size paper in landscape orientation (Font size 12, Times New Roman) in the prescribed format (Annexure-I), without which the quotation shall not be considered.
- 4. Standard Technical literature strictly printed & supplied by manufacturer concerned on each of the items offered.
- 5. Dealership certificate on the offered products in case of dealer/s.
- 6. List of reputed organizations/Institutions, where similar orders have been executed (copies of the purchase/work orders will have to be enclosed).
- Up-to-date Sales Tax clearance certificate (*for vendors outside the State of Assam*)/VAT Registration Certificate indicating also the TIN number (*for vendors from within the State of Assam*) OF THE FIRM will have to accompany the quotation to be submitted. (According to the GST rule)
- 8. In case the offered price is inclusive of GST, the tax components in details should be shown separately.
- 9. Details of nature and maximum period of **warranty** offered by the Bidder/Vendor must be given.
- 10. After Sales Service: The name & address of the available authorized service centre nearest to College of Veterinary Science, Assam Agricultural University, Khanapara, should be stated in the quotation.
- 11. NOTE: The bid documents are not transferable and the firm's seal and signature of the authorized official must appear on all the papers and envelopes submitted.
- 12. At the time of delivery/Instillation the supplier should put a Sticker in front side of the instrument/Machine indicating the following:-

#### The name of the company/supplier:-

Date of Delivery: Department/Office:-Date of Installation:-Expiry date of warranty period as per tender:-Date of start for AMC:-Contact No.:

#### TERMS & CONDITIONS:

(Please note the term **'both imported & indigenous'** wherever mentioned, means the term is applicable to both foreign & indigenous purchase)

 Rates: Rates quoted for indigenous items must be on FOR Department of Livestock products Technology, College of Veterinary Science, Assam Agricultural University, Khanapara, Guwahati- 781022 on DOOR DELIVERY Basis, with break-ups as per details below (For imported items please refer 'Additional Terms for imported goods' below).

#### **Break-ups of cost:**

- i. Basic Price
- ii. (+) CGST/AGST as per GST
- iii. (+) Freight & Insurance Charge, if any
- iv. (+) Installation & Commissioning Charge, if any
- v. Grand Total F.O.R. Department of Livestock products Technology, College of Veterinary Science, Assam Agricultural University, Khanapara Price.

Note: Vague terms like "packing, forwarding, transportation etc. extra" without mentioning the specific amount will not be accepted. Such offers shall be treated as incomplete and rejected. Bidders shall indicate their rates in clear/visible figures as well as in words and shall not alter/overwrite/ erase/ cut in the quotation. In case of a mismatch, the rates written in words will prevail.

- 2. Validity (Both foreign & indigenous): Quoted rates must be valid for minimum 120 days.
- 3. Earnest Money (Both foreign & indigenous):

All firms are required to submit Earnest Money along with the Quotation. The EMD of unsuccessful bidders shall be returned after award of contract. All tenders received without EMD shall be summarily rejected.

Refundable earnest money deposit, amounting to minimum 2.5% of the total quoted value (rounded off to the nearest thousand rupees) through demand draft, drawn in favour of Comptroller, Assam Agricultural University, Jorhat - 785013, Assam, India payable at Jorhat, will have to accompany all quotations to be submitted. Quotations submitted without appropriate amount of earnest money are likely to be rejected. Accumulated earnest money for instruments should be shown in your forwarding letter.

Earnest money deposit will not bear any interest, and have to be in the form of DEMAND DRAFT only.

#### 5. PENALTY FOR DELAYED DELIVERY (for both foreign & indigenous):

In case of supply order for the SCIENTIFIC EQUIPMENTS/ APPARATUS, the date of delivery should be strictly adhered to. In the event of delayed delivery, installation & commissioning i.e. after the expiry of the period as agreed by both the parties, the vendor shall be liable for a penalty deduction at a percentage of the value of the

Undelivered equipment at the rate as detailed below:

@1% up to one week;

@2.5% up to two weeks;

@5% up to three weeks;

@10% for four weeks and above

For the purpose of this clause, part of the week is considered as a full week. In case of delayed delivery, the Chairman, Purchase committee, CVSc., AAU, Khanapara, Guwahati reserves the right not to accept the subject consignment.

- 6. IN CASE OF INDIGENOUS SUPPLIES, the goods should be insured against theft, loss or breakage during transit and insurance charges should not exceed 1% of the cost of material supplied, the rates of GST etc. (as applicable) should be clearly indicated.
- PRE-INSTALLATION REQUISITES (Both imported & indigenous): Pre-installation requisites (electrical/floor/space/air-conditioning etc.), if any should invariably be mentioned clearly. Installation/ Training will be the full responsibility of the supplier/ Indian Agent.
- 8. GENUINE PRICING (Both imported & indigenous):

Vendor is to ensure that quoted price is not more than the price offered to any other customer in India to whom this particular item has been sold, particularly to other SAU/ IIT/ICAR Institutes and other Government Organizations. Copy of the latest price list for the quoted item, applicable in India, must be enclosed with your offer.

- EXCISE DUTY (if applicable): The Institute is exempted from payment of Customs vide Govt. Notification No.51/96-Customs, dated 23.07.96 (as amended by Notification No. 28/2003 dtd. 01/03/2003 & Notification No. 43/2017 dtd. 30.06.2017 ) with Regn. No. TU/V/RG-CDE (500)/2017 dated 07/11/2017.
- 10. TAX: As per GST.

#### **11. DELIVERY:**

- (a) Delivery of goods at Department of Livestock products Technology, CVSc, Khanapara, Guwahati, will have to be maximum within 45(Forty-five) days from the date of issue of the Purchase Order.
- (b) SAFE DELIVERY OF GOODS: All aspects of safe delivery shall be the exclusive responsibility of the vendor. At the destination site, the cartons will be opened only in the presence of CVSc, Khanapara, Guwahati user/representative and vendor's representative and the intact position of the seal for not being tampered with, shall form the basis for certifying the receipt in good condition.
- (c) NO PART DELIVERY: Part shipment will not be allowed.
- 12. Mode of Payment for Indigenous Purchase (For import items please refer 'Additional Terms for imported goods'): Payment for Indigenous Purchases will be made after successful delivery and installation of goods at Department of Livestock products Technology, CVSc., AAU, Khanapara Guwahati-22, generally through A/c PAYEE CHEQUE. In case payment is to be made by DD, the Draft commission will be deducted from the bill amount.

#### Note: Please note as per Institute's norm advance payment is not allowed for any purchase.

- 13. **The offers** (Both foreign & indigenous) submitted by telex/ telegram/ fax/ E-mail etc. shall not be considered. No correspondence will be entertained on this matter.
- 14. Late and delayed tender (Both foreign & indigenous): Late and delayed tender will not be considered. In case any unscheduled holiday occurs on prescribed closing the next working day shall be the prescribed date of closing.
- 15. Conditional tenders not acceptable (Both foreign & indigenous): Conditional tenders shall not be accepted on any ground and shall be rejected straightway. In other word, printed conditions mentioned in the tender bids submitted by vendors will not be binding on CVSc, AAU, Khanapara. All the terms and conditions for the supply, payment terms, penalty etc. will be as those mentioned herein and no change in the terms and conditions by the vendors will be acceptable.
- 16. **Specifications are basic essence of the product** (Both foreign & indigenous): It must be ensured that the offers are strictly as per our specifications. At the same time it must also be kept in mind that merely copying our specifications in their quotation shall not make firms eligible for consideration. A quotation has to be supported with the printed technical

leaflet/literature (wherever applicable) and the specifications mentioned in the quotation must be reflected/ supported by such printed technical leaflet/literature, model quoted/tendered specifications should invariably be highlighted in the leaflet/literature for easy reference.

- 17. Enquiry during the course of evaluation not allowed (Both foreign & indigenous): No enquiry shall be made by the bidder(s) during the course of evaluation of the tender till final decision is conveyed to the successful bidder(s). However, the Committee/its authorized representative and office of DR (VETY), AAU, KHANAPARA, GUWAHATI can make any enquiry/seek clarification from the bidders. In such a situation, the agency shall extend full co-operation. The bidders can also be asked to arrange demo of the offered items, in a short period notice, as such the bidders have to be ready for the same.
- 18. The acceptance of the quotation (Both foreign & indigenous) will rest solely with the DR(Vety.), AAU, Khanapara, Guwahati, who in the interest of the Institute is not bound to accept the lowest quotation and reserves the right to himself to reject or partially accept any or all the quotations received without assigning any reasons.
- 19. Force Majeure (Both foreign & indigenous): If the performance of the obligation of either party is rendered commercially impossible by any of the events hereafter mentioned that party shall be under no obligation to perform the agreement under order after giving notice of 15 days from the date of such an event in writing to the other party, and the events referred to are as follows: (I) any law, statute or ordinance, order action or regulations of the Government of India. (II) Any kind of natural disaster and (III) Strikes, acts of the Public enemy, war, insurrections, riots, lockouts, sabotage.
- 20. Termination for default (Both foreign & indigenous): Default is said to have occurred:-
- If the supplier fails to deliver any or all of the services within the time period(s) specified in the purchase order or any extension thereof granted by FVSc, AAU, Khanapara, Guwahati.
- If the supplier fails to perform any other obligation(s) under the contract. If the vendor, in either of the above circumstances, does not take remedial steps within a period of 30 days after receipt of the default notice from FVSc., AAU, Khanapara, Guwahati (or takes longer period in-spite of what FVSc., AAU, Khanapara, Guwahati may authorize in writing), FVSc., AAU, Khanapara, Guwahati, may terminate the contract/ purchase order in whole or in part and forfeit the EMD as applicable. In addition to above, FVSc., AAU, Khanapara, Guwahati, may at its discretion also take the following actions: *FVSc., AAU, Khanapara, Guwahati, may procure, upon such terms and in such manner, as it deems appropriate,*

goods similar to the undelivered items/products and the defaulting supplier shall be liable to compensate FVSc., AAU, Khanapara, Guwahati, for any extra expenditure involved towards goods and services obtained.

- 21. Applicable Law (Both foreign & indigenous):
- (a) The contract shall be governed by the laws and procedures established by Govt. of India and *subject to exclusive jurisdiction of Competent Court and Forum in Guwahati, India only.*
- (b) Any dispute arising out of this purchase shall be referred to the DR(Vety), AAU, Khanapara, Guwahati, and if either of the parties hereto is dissatisfied with the decision, the dispute shall be referred to the decision of an Arbitrator, who should be acceptable to both the parties, to be appointed by the DR(Vety), AAU, Khanapara, Guwahati. The decision of such Arbitrator shall be final and binding on both the parties.

#### 22. ADDITIONAL TERMS FOR IMPORTED GOODS:

Following terms besides the fore mentioned terms will be applicable in case of foreign purchases:

All Items including for imported items, the code should be strictly F.O.R., Khanapara, Guwahati Campus of the University. Logistic expenditures towards Customs Duty, Clearing Charges, Transportation cost etc. should be included in the rate and shown separately.

- 1. Rates: Quoted rates and charges to be stated in the following break-ups:
  - (a) Ex-works value
  - (b) Documentation & Handling Charge, if any
  - (c) Estimated Overseas Freight to be paid at actual against authentic documents and monetary receipt
  - (d) Estimated Overseas Insurance Charge to be paid at actual against authentic documents and monetary receipt (In case the firm holds open insurance policy, the Insurance Certificate relating to the consignment will have to be provided).
  - (e) Total CIP/CIF Kolkata value.
- 2. After Sales Service: In case of imported items, foreign manufacturing firms should indicate facilities available for after sales service, detail address and contact number of their local representative in India without which their offers are liable to be ignored.

#### 3. Delivery:

(a) Delivery of goods at FVSc., AAU, Khanapara, will have to be maximum within 90 (ninety) days from the date of issue of the Purchase Order.

- (b) Delivery at Kolkata Airport only: As we do not have clearing agent in any other Airport/Seaport, delivery is to be made only at Kolkata.
- (c) While transhipment will be allowed, part shipment will not be allowed.

#### 4. Payment:

On request by the supplier/s 100% payment by FDD will be made. In this case on receipt of your Order Acknowledgement an FDD will be established for total ordered value, thereupon, a Xerox copy of the FDD will be sent to you which will enable you to send the materials. On satisfactory receipt and acceptance of the materials or satisfactory installation and commission of the equipment the Original FDD will be sent to you.

**Note:** Please note FDD will not be opened unless and until Letter of Acknowledgement in original is received at FVSc, AAU, Khanapara directly from the principal (Even in case of firms having subsidiary office in India). The Indian agents are therefore advised to submit quotation after consultation with their respective principals).

- 5. Customs Duty: The Institute is generally exempted from payment of Customs Duty vide GOI Notification No.51/96-Customs, dated 23.07.96 (as amended by Notification No. 28/2003 dtd. 01/03/2003 & Notification No. 43/2017 dtd. 30.06.2017) with Regn. No. TU/V/RG-CDE (500)/2017 dated 07/11/2017. [CUSTOMS DUTY EXEMPTION CERTIFICATE WILL BE MADE AVAILABLE BY THE INSTITUTE IN REGARD TO QUOTES IN FOREIGN CURRENCY ONLY [ NOT AGAINST QUOTES MADE BY A FIRM IN INDIAN CURRENCY, UNLESS THE CONCERNED FIRM IS A FOREIGN HOLDING COMPANY WITH 'FDI' CERTIFICATE ISSUED BY THE MINISTRY OF FINANCE, GOVT. OF INDIA ].
- 6. Agency Commission: The percentage of ex-works value to be paid to Indian agent in equivalent to Indian currency as agency commission as applicable will have to be clearly stated in the quotation wherever applicable.
- 7. **Country of Origin**: While Country of Origin Certificate will not be insisted, the same however will have to be stated in the Original Invoice for payment through L/C.
- 8. **FDD Amendment**: FDD amendment charges due to mistake on the part of the supplier including delay in delivery of goods, if any, will have to be borne by the supplier.

(Niranjan Kalita) Director of Research (Vety) AAU, Khanapara, Guwahati-22 9

Annexure I

| Sl.<br>No. | SI. No.<br>NIQ | Name of the<br>Item | Desired<br>Specifications | Offered<br>Specification | Quoted<br>Unit<br>Price* | GST | Extra<br>charges,<br>if any, for<br>delivery at<br>destination | Customs<br>duty, if<br>applicable | Total<br>Amount * | Other<br>terms and<br>conditions |
|------------|----------------|---------------------|---------------------------|--------------------------|--------------------------|-----|--|-----------------------------------|-------------------|----------------------------------|
|            |                |                     |                           |                          |                          |     |  |                                   |                   |                                  |
|            |                |                     |                           |                          |                          |     |  |                                   |                   |                                  |
|            |                |                     |                           |                          |                          |     |  |                                   |                   |                                  |

Format for Quotation

\*In case of foreign currency, value in Indian Rupee at the current rate must be mentioned.

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(Niranjan Kalita) Director of Research (Vety) AAU, Khanapara, Guwahati-22

# **Detail Desired Specifications of the Equipments**

| Sl.<br>No. | Name of the<br>Instrument/<br>Equipment   | Specifications  |
|------------|---|---|
| 1.         | Glass Top Deep<br>Freezer   | 350-400 ltr. capacity, CFC Free, Temperature: -15 <sup>o</sup> C to -22 <sup>o</sup> C, 220-230 Volts/Single Phase/ 50 Hz, Low Emissive Toughened Glass-4mm, Inner cabinet: Anodised Aluminium, fitted with heavy duty wheels.  |
| 2.         | Deep Freezer  | 450-500 ltr. capacity, CFC Free, Temperature: -18 <sup>o</sup> C, 220-230 Volts/Single Phase/ 50 Hz fitted with heavy duty wheels.  |
| 3.         | Digital Balance   | 200-300g capacity with minimum display of 0.001g and linearity<br>of $\pm$ 0.002, response time (s):1-3s, LCD with backlight display,<br>ambient temperature and humidity tolerance level of 5-50°C and<br>30-90%, temp. coefficient sensitivity - $\pm$ 2-3  |
| 4.         | pH Meter (Probe Type)   | pH Range 0 to 14, fitted with penetrating type electrode, Display LCD, Compact, Easy operation, light weight, Accuracy $\pm$ 0.07 pH.   |
| 5.         | Protein Estimation<br>System<br>Comprising of:<br>(i) 250ml Block<br>Digestion System<br>(ii) Scrubber System<br>(iii) Distillation System<br>(iv) Refrigerated Water<br>Cooling System | Block Digestion System:<br>Six Place Digestion System with digital LCD display<br>Aluminium Digestion Metal Block perfectly insulated with<br>ceramic wool, Heaters :Casted Aluminium Alloy Block Heaters<br>for uniform heating and even digestion of samples, Power : 1500<br>W, Temperature Controller: Fuzzy logic Micro Processor based<br>PID<br>*Superior PC compatible Auto Sequencing features<br>*Microprocessor controls integrated programming of temperature<br>and Selectable Programs(Customizable):Auto Sequencing<br>Features with 30 intelligent memory programs<br>* 360 Intelligent memory segments<br>* Auto acoustic signal (alarm) on completion of digestion<br>* Auto power off mode on completion of digestion<br>* Display status : SV, PV, Program No. Step No., & timer<br>* Display Resolution : 0.1<br>* Alarm output : 3 alarm outputs with buzzer indication,<br>additional relay<br>* Upgradeable to Remote Control Module for wireless data<br>monitoring, control and transfer at a distance of 30 mtrs from<br>equipment.<br>Scrubber System:<br>Three Stage Semi Automatic Acid Neutralizer<br>Scrubber- First stage : Alkali (15% NaOH), Second stage : water,<br>Third stage : Dissolution of air free of acid fumes in raw tank<br>water<br>* Vacuum source : Giant Aspirator pump<br>* Tank Capacity: 15 litres, Alkali container capacity : 2 litres<br>* Water container capacity : 2 litres<br>* Water container capacity : 2 litres<br>* Water container capacity : 2 litres<br>* Outer cover : MS Powder Coated<br>* Tank: Fibre Reinforced Plastic Tank.<br>* Recirculation Pump: Non corrosive centrifugal inbuilt suction<br>pump for water recirculation in 10 ltrs tank avoids requirement of |

|    |                       | running  |
|----|-----------------------|--|
|    |                       | water during digestion<br>* Electrical Dequirement: 220V/50Uz, AC Single Phase                                   |
|    |                       | * Electrical Requirement:230V/50Hz AC Single Phase   |
|    |                       | Distillation System:   |
|    |                       | Auto Intelligent run of Main Programmable Steps of Operation   |
|    |                       | with   |
|    |                       | Delay Steps inbetween main Programmes  |
|    |                       | * Predefinable 30 Autosequencing User Storage Programmes   |
|    |                       | (Standard / customizable) with memory chip   |
|    |                       | * Auto User friendly "Prompt – Helpguide" Alpha Numeric  |
|    |                       | Information Line with Menu Driven Software   |
|    |                       | * Auto sequencing of steps as per users' choice  |
|    |                       | * Auto Run mode & subsequent repeat run mode of samples.   |
|    |                       | * ATI – Auto hold feature of pre programmed menu.  |
|    |                       | * Auto Indication of current step under process  |
|    |                       | * 30 different user's programmable code on a single system.  |
|    |                       | * Bright Digital counter with real time count down LCD display.  |
|    |                       | * Machine Interface with 14 keys, 32 characters, Large 2 line  |
|    |                       | back-lit   |
|    |                       | Alpha Numeric Digital LCD Display.   |
|    |                       | Refrigerated Water Cooling System:   |
|    |                       | Refrigerated water circulating system with built in compressor   |
|    |                       | and  |
|    |                       | recirculation  |
|    |                       | * Compressor Capacity -1/8   |
|    |                       | * Fan- 10Watts, 1450 rpm   |
|    |                       | * Water Tank capacity : 10 Litres  |
|    |                       | * Recirculation Pump : Submergible pump  |
|    |                       | * Over load protection   |
|    |                       | * MS powder coating housing  |
|    |                       | * Nipples for inlet, outlet & overflow Drain -1/2 an inch ball   |
|    |                       | valve.<br>* Electrical Requirement: 220x/50Hz Mains  |
|    |                       | * Electrical Requirement: 220v/50Hz Mains.   |
| 6. | Fat Estimation System | Four Place Superior Graphical Version Automatic<br>Autosequencing PC Compatible Solvent / Fat Extraction System. |
|    |                       | Temperature Controller: Fuzzy logic Micro Processor based PID  |
|    |                       | Controller   |
|    |                       | * Controlling software to conveniently control operation of 6  |
|    |                       | unitsor more   |
|    |                       | * Superior PC compatible Auto Sequencing features  |
|    |                       | * Microprocessor controls integrated programming of time and   |
|    |                       | temperature<br>* Selectable Programs(Customizable): Auto Seguencing Features                                     |
|    |                       | * Selectable Programs(Customizable):Auto Sequencing Features   |
|    |                       | with 30 intelligent memory programs  |
|    |                       | * 12 desirable auto sequence ramp / steps of time and temp.  |
|    |                       | domain for each programme.   |
|    |                       | <ul><li>* 360 Intelligent memory segments</li><li>* Auto alarm for recovery phase</li></ul>                      |
|    |                       | * Inbuilt Air pump with stainless steel manifold, Independent  |
|    |                       | loading of sample with individual mechanical controls.   |
| L  | l                     | ioaung of sample with mulvidual meenanical controls.   |

|    |                             | <ul> <li>* Heater Source: Casted Aluminium Alloy Heaters for uniform<br/>heating</li> <li>* Unique upward spring loaded movement of individual block for</li> </ul> |
|----|-----------------------------|---|
|    |                             | perfect leak proof alignment  |
|    |                             | * Auto acoustic signal (alarm) on completion of extraction  |
|    |                             | <ul> <li>* Auto power off mode on completion of extraction.</li> <li>* Performs Auto sequential extraction with auto phase</li> </ul>                               |
|    |                             | changeover of following five phases:  |
|    |                             | A. Boiling phase B. Condensation phase  |
|    |                             | C. Rinsing phase D. Recovery phase E. Pre-drying Phase<br>* Display : Bright Digital two line Alphanumeric LCD Display of<br>time and temperature                   |
|    |                             | time and temperature<br>* Display status: SV, PV, Program No. Step No., & timer   |
|    |                             | * Display Resolution : 0.1°C  |
|    |                             | * Alarm output : 3 alarm outputs with buzzer indication, additional relay   |
|    |                             | * Upgradeable to Remote Control Module for wireless data monitoring, control and transfer.  |
|    |                             | monitoring, control and transfer.   |
| 7. | Dietary Fiber<br>Estimation | Digestion System With Shaking Water Bath<br>* Water Bath : Bath tank made of Stainless Steel with Plate to  |
|    | Estimation                  | hold shaking clamps   |
|    |                             | * Heater : Immersion Heater with thermostat of 1500 Watts   |
|    |                             | * Temperature controller : Microprocessor based PID Digital   |
|    |                             | Temperature Controller<br>* Temperature Range : Ambient to 95° C  |
|    |                             | * Temperature Accuracy : + 1%   |
|    |                             | * Stirring : 0 to 120 strokes / minute continuously variable designed   |
|    |                             | with heavy duty permanent magnet DC motor with speed control  |
|    |                             | designed for uniform noiseless reciprocal motion. Can operate   |
|    |                             | continuously 12 -24 hrs with stirring involving reciprocal shaker<br>* Speed setting : Rotary potentiometric knob for continuously                                  |
|    |                             | variable speed  |
|    |                             | <ul><li>* Speed Indication : Digital Display with LED indication</li><li>* Beakers seated on ss clamps - 2 nos.</li></ul>   |
|    |                             | * Conical Flasks : 2 Nos.   |
|    |                             | * Safety features with CE to fulfill GLP Norms : Over   |
|    |                             | temperature protection, Auto error Indication, Sensor break protection, Heater cut  |
|    |                             | off feature with buzzer indication and alarm, Acoustic signals  |
|    |                             | with visual display, Auto tuning facility   |
|    |                             | * Structure : Acid prone parts made of stainless steel with Epoxy powder coating. Both tank and platform made of stainless steel.                                   |
|    |                             | Other parts of MS powder coated with anti corrosive epoxy finish.   |
|    |                             | Filtration Unit   |
|    |                             | * Filtration Unit designed to filter the enzymatic digested solution  |
|    |                             | <ul><li>* Crucible : Sintered Silica Glass Crucible</li><li>* Pore Size : P1 porosity disc (Optional P0/P2 Porosity Disc)</li></ul>                                 |
|    |                             | * Holders and Crucibles - 2 Nos.  |
|    |                             | * Suction Pressure Pump : Vacuum suction pressure pump for  |

|     |                                      | <ul> <li>rapid filtration</li> <li>* Fixed filtration glass chamber in the filtration module (6 Nos.)</li> <li>* Sample loading : Individual sample loading with independent mechanical control</li> <li>* Washing : Uniquely designed expansion vessel for washing</li> <li>* Control valves: Individual control valves for vacuum and filtration., MS housing with Anti corrosive Powder coated finish</li> <li>* At par with AOAC Methodology</li> <li>* Electrical Requirement:230V/50Hz. AC Mains.</li> </ul> |
|-----|--------------------------------------|--|
| 8.  | 30 Kg Load cell for texture Analyzer | 30 Kg Load cell for texture Analyzer- Stable Microsystems Pvt.<br>Ltd. Model: TA HD Plus   |
| 9.  | Chromometer                          | 8/d (8* illumination angle / diffuse viewing) SCI, Display modes-<br>$\Delta(L^*a^*b^*)/\Delta E^*ab$ or $\Delta(L^*C^*H^*)/\Delta E^*ab$<br>Storable Data-1000-1500 Nos., Measuring range- L*: 1 to 100 /<br>CR-10 L : 10 to 100, Observer: CIE 10* Standard Observer<br>Illuminant: CIE Standard Illuminant, Power source - AA-size<br>batteries / AC Adapter / USB Bus  |
| 10. | Smoke Cabinet                        | Stainless Steel Cabinet with double wall isolation (20-25 mm),<br>with drip-pan, pipe-regulator, thermostat and thermometer,<br>smoking pit and smoking hook. 40-50 Kg Capacity, 5000-6000W,<br>400-500V three phase power supply  |
| 11. | Cooking Vat                          | Double walled, Stainless steel inner and outer, lid with hinges,<br>thermostat, digital temperature controller, direct water heated<br>type, provision for water inlet and drain, 150-200 l capacity, 3<br>Phase power supply  |
| 12. | Manual Sausage Filler                | Outer body, cylinder, piston and cylinder all made of SS., Capacity of Cylinder: 10L, Productivity : 50Kg/H, Filling Tube : PP   |
| 13. | Meat Mincer                          | S/S, hole plate, hole diameter- 6-8mm and crossing knife.<br>ON/OFF Reverse switch, motor with cooling fan and overload<br>protection, Capacity upto 5 Kg/min. Power supply-600-800W,<br>230V  |

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