



भारतीय कृषि अनुसंधान परिषद,  
उत्तरपूर्वी पर्वतीय क्षेत्र अनुसंधान परिसर  
उमियम, मेघालय - 793 103  
INDIAN COUNCIL OF AGRICULTURAL RESEARCH  
ICAR Research Complex for NEH Region  
Umiam, Meghalaya - 793 103



Tender No. RC(S)116/ 2014

Dated: 13<sup>th</sup> December, 2016

**OPEN TENDER**

**RE-INVITATION OF TENDER IS INVITED FOR PROCUREMENT OF SCIENTIFIC EQUIPMENTS/MACHINERIES UNDER under XII<sup>th</sup> Plan EFC for the year 2016-17, FOR ICAR, RESEARCH COMPLEX FOR NEH REGION, UMIAM, MEGHALAYA**

Sealed bids are re-invited on from the reputed from reputed **Manufacturer/ Authorized Dealer/ Government organizations** for supply of Scientific Equipments, having at least 5 (Five) years experience in manufacturing/ marketing/ supply of such Equipments/Machineries by ICAR Research Complex for N.E.H. Region, Umiam, Umroi Road, 793103, Meghalaya. The details specification of equipments/machineries is as per Appendix -1.

**TERMS & CONDITIONS OF THE TENDER**

1. **Cost of Tender paper of Rs. 1000/- (Rupees one thousand) only** ( Non – refundable) to be deposited in the favour of the Director, ICAR Research Complex for NEH Region, Umiam – 793103 by means of Demand Draft payable at SBI, ICAR Complex Branch, Umiam. Non – submission of the cost of Tender paper (consolidated) shall lead to non – consideration of the Tender.
2. The Bidders should submit the proposals in two parts:
  - I. Technical Bid (Bid -I)
  - II. Financial Bid (Bid-II)
3. Technical part should contain all such details as mentioned in the Bid Document.
4. Financial part (BID-II) should contain the financial bid inclusive of all admissible taxes, duties and levies, installation charges, freight charges, Taxes, VAT etc., as may be applicable etc. **The rates quoted should be FOR up to ICAR Research Complex for NEH Region, Umiam for each particular item.** The Financial Bid should consist of the Rates, their detailed break –ups, etc. Non-compliance of this shall lead to non-consideration of the Bid. The rates must be valid for at least for 1(one) year from the date of quotation.
5. These two parts (BID-I & BID II) should be submitted in separate sealed envelopes. Both envelop should then be sealed in a third envelop **super scribed as “TENDER NO. RC(S)116/2014/Pt., dated 13<sup>th</sup> December, 2016 due on 4<sup>th</sup> January, 2017 FOR PROCUREMENT OF SCIENTIFIC EQUIPMENTS/MACHINERIES under XII<sup>th</sup> Plan EFC for the year 2016-17, FOR ICAR, RESEARCH COMPLEX FOR NEH REGION, UMIAM, MEGHALAYA** and addressed to “THE DIRECTOR, ICAR RESEARCH COMPLEX FOR NEH REGION UMIAM, MEGHALAYA-793103”. The firm should also super scribe on the top of the envelope the Sl. No. & name of the equipments to be supplied, date of opening and details of earnest money deposited otherwise their tender may not be considered.
6. **The Cost of the Tender (consolidated) as well as the Earnest Money (consolidated) in the form of Bank Draft along with all other Technical Details should be**

mandatory kept in the Technical Bid only. Cheque/Bank Guarantee/fixed deposit receipt/ money orders/Cash etc. are not acceptable towards deposit of earnest money.

7. In no case Earnest Money will be accepted after opening of tender.
8. **Details of Earnest Money i.e. draft number and date should be indicated on the cover of the big envelope** otherwise the tender may not be received or opened and returned to the party. All Tenders should be sent by Registered Post. Tenders to be handed delivered should be put in the Tender box, kept in the office chamber of Chief Administrative Officer, ICAR Research Complex for NEH Region, Umiam, Meghalaya-793103 not later than **12:30 P.M. on 4<sup>th</sup> January, 2017.** Tenders received after the due date and time shall not be considered under any circumstances.
9. On the date of opening, only Part-I (Technical Bid) will be opened. Part-II (Financial Bid) shall be opened subsequently only of those tender, whose Technical Bid qualifies as per the laid norms of this tender.
10. **Composition of Technical Bid –**
  - I. Profile & Track Record of the company
  - II. Document in support for Number of years in Scientific Equipments manufacturing/supply.
  - III. Document in support of last supply orders.
  - IV. Balance Sheet for last 3 financial years. Annual Turnover, which will be average of last three years on the basis of balance sheet.
  - V. Photo copy of PAN No. issued by Income – Tax Department. Photo copy of Service Tax/sale tax/VAT Registration etc. (If not applicable submit the relevant document).
  - VI. **Non refundable tender Document Fee of Rs. 1000/- in the form of Demand Draft** from any Nationalized Bank drawn in favour of the Director, ICAR, Research Complex for NEH Region, Umiam, Meghalaya payable at Sate Bank of India, ICAR complex branch (If exempted/relaxed submit the relevant document in support of claim). **Refundable Earnest Money Deposit (EMD) of Rs. 10000/- (Rupees ten thousand only) in the Form of Demand Draft from any Nationalized Bank, drawn in favour of the Director, ICAR, Research Complex for NEH /region, Umiam, Meghalaya.** (If exempted/relaxed submit the relevant document in support of claim) **The Cost of the Tender paper as well as the Earnest Money along with all other Technical Details should be mandatory kept in the Technical Bid only. Non submission of the Bid Security with quotation shall make the quotation/ bid liable to be rejected.**
  - VII. **Furnishing of related documents like detailed specifications, technical literature, brand name, model and make, catalogue, authorization letter, Dealership Certificate, Manufacturing company registration certificate, product certification, price list (if any) etc. is mandatory, Dealership certificate/Agency Certificate for the manufacturer/ manufacturing firm should be enclosed if the rates are quoted by the Dealers/Agents. Failing which the quotation shall not be considered.**
  - VIII. **Up-to-date sale tax certificate, tax clearance, valid registration certificate are mandatory.**
  - IX. **Other relevant technical documents/specifications in favour/ claim/ Support of equipments /machines if any may be submitted as additional with the technical bid.**
11. **The supply is effected at DGS&D rate contract, wherever is applicable. The rate should be quoted for list of items as per the tender document.**
12. The Buyer shall not be responsible for payment of transit insurance charges.

13. Payment shall be made on actual delivery in good condition and successful installation and demonstration (which should be free of cost and must be completed before payment).
14. In case for Imported goods:
- i. **The price may be quoted in foreign currency and import will be on FOB basis.** However, custom clearance, Inland freight etc. will be the responsibility of the supplier and no separate charges will be paid for that, however, custom duty exemption certificate shall be provided. The supplier should inform well in advance for sending these papers. No demurrage charges will be paid. If the supplier desires, rate in corresponding Indian currency may be quoted. It will be at the discretion of the authority of ICAR Research Complex for NEH Region to accept Indian or Foreign currency prices.
  - ii. In case of any custom duty charge, applicable as per Govt. of India's Notification, the same may be paid by the firm which will be reimbursed to the Indian Agent (who should be a registered firm and with DGS&D immediately, subject to the condition that the bill of entry in original along with all relevant papers are submitted immediately, after custom clearance and installation and demonstration of the items. Installation and demonstration should be free of cost.
  - iii. **The import & payment will be made by means of Foreign Bank Draft/ Site Draft in case of foreign imported goods.** Performance Bank guarantee of 10% FOB value valid till the end of warranty period should be submitted before the release of the security deposit. All bank charges outside and inside India shall go to the beneficiary's account. Performance bank guarantee of 10% FOB value, valid till the end of warranty period, should be submitted before the release of the security deposit. All bank charges outside and inside India shall go to the beneficiary's account. Draft making charges would go to the beneficiary's account and a scanned copy of the draft, if required, can be sent to the Indian agent by post. Draft would be handed over after successful installation and demonstration which should be completed within 45 days from the date of draft and submission of all documents like bill of entry etc.
  - iv. All imported items should be delivered up to destination i.e. all the import should be free of inland freight charges, insurance etc.
  - v. **Indian Agency Commission rate and amount should be clearly specified as per rules. IAC, wherever applicable, will be paid in Indian Currency only.**
  - vi. In case of delay in supply, penalty will be imposed @2% per week, subject to a maximum of 10% of the FOB value
  - vii. Indian Agents quoting on behalf of their principal must be registered firms with DGS&D .They are also requested to provide necessary authorization letter from their principal along with the quotation.
  - viii. **ICAR Research Complex for NEH Region, Umiam, Meghalaya, being a Scientific and Research Organization, is exempted from payment of Excise Duty (Certificate to this effect will be provided).**
15. **All Bidders should mandatory give their current, PAN Card No., TDS& other Bank A/C details to enable the office for releasing the dues via e- payment basis.**
16. Performance Bank Guarantee is required for all indigenous items also. For items less than Rs.50, 000, the amount should be 5% of the actual cost of the equipment and for items more than 50,000.00 the amount should be 10% of the actual cost of the equipment. The bank guarantee should cover the entire guarantee/ warranty period which should be of at least one year duration.
17. **The selected tenderers must complete the supply/ installation/ demonstration within 30 (thirty) days from the date of the supply order due to time factor or the said orders shall be treated as cancelled and no further correspondence will be entertained.**



18. The guarantee/ warrantee should be from the date of installation. All guarantee/ warranty services should be attended within a maximum limit of 15 days, failing which, proportionate deductions from the security deposit may be made at the discretion of the Institute.
19. The complete details regarding the Institutions/ Corporations/ Bodies, etc. where the Firm/ Dealer has made the supplies during the last 2/3 years should also be furnished, along with the supply orders.
20. The Bidders should mandatory provide their full Bank Details, PAN Card No. , IFS code No., and TDS so as to ensure e-payment to them directly on satisfactory completion of the Supply.
21. The Director, ICAR Research Complex reserves the right to reject any tender in part or full, without assigning any reason thereof.
22. Legal jurisdiction for all disputes shall be within the purview of the Shillong Court.
23. **KHADC license.**
  - I. The Firm/Agency run by the Non-tribal contractor's /firms/ companies/suppliers/stockiest/banded ware house/Private carriage contractors/Co-operative Societies etc. should produce Trading License issued by the KHADC (Govt. of Meghalaya).
  - II. Submission of tender paper does not fall under trade as per the above said act. However, if a Non-tribal becomes a successful bidder he has to furnish License issued by the KHADC (Govt. of Meghalaya) before any work involving trade is issued to him.  
Further those firm/agency opting for clause II above are requested to submit *an undertaking mandatorily* to this effect along with the technical bids as a certification about their capability of submission of the trade license when ask for, failing which the tender are liable to be rejected/not to be considered at any circumstances. (If not applicable submit the relevant document).
24. The bidders should mandatory sign on every page of the Tender Document, which would show their unconditional acceptance of all the terms and conditions of the Tender Document.
25. Tenders shall be opened on 4<sup>th</sup> January, 2017 at 2:30 pm, ICAR Research Complex for NEH Region, Umiam, Meghalaya – 793103. Interested bidders may attend the opening.
26. If the above mentioned closing /opening day of the tender happened to be non – working date due to Bandh/Strike as any other reasons, the tender will be received & opened on the following working day at the same time except on the 2<sup>nd</sup> (second) Saturday.
27. Other terms & conditions, as may be decided by the Competent Authority from time to time, depending upon the condition & requirement of the supply. The intimation in this regard, shall be provided well in advance & the bidder/ supplier shall be bound by the said terms & conditions.
28. For any query/ clarification, the undersigned may be approached at:  
Contact address:

E-mail: [kcjoshiicar@yahoo.in](mailto:kcjoshiicar@yahoo.in)/ [aogaicarneh@gmail.com](mailto:aogaicarneh@gmail.com) /[storesection@yahoo.in](mailto:storesection@yahoo.in)

Sd/- S. V. Ngachan  
DIRECTOR

*Before quoting for the Tender, it is requested to kindly go through the Tender Document thoroughly and abide by all the Terms and conditions given. Non-Compliance of any of the T & C mentioned above, shall lead to non-consideration of the Bid and no request what so ever shall be considered under any circumstances.*



**APPENDIX- I**

**List of equipments/ instruments for procurement under XII<sup>th</sup> Plan EFC for the year 2016-17 , along with specification:**

Sl.No	Name of the items	Specifications	Qty.	Whom to be supplied
1.	Digital Electronic balance	Capacity : up to 5kg Readability/ accuracy: 0.1mg to 10mg LCD Display , High performance, low maintenance, reliable	2	Agril. Engineering Divn., ICAR (RC) Umiam
2.	Pumping System ( Portable submersible engine mounted pump with accessories)	Head upto 150m Capacity upto 6000 lpm Rating – 2.2 to 110kW Motor- oil filled (vertical) Winding- pvc insulated (rewindable) Rpm- 2900 Seal – mechanical seal Supply- three phase, 440v/ 50Hz	2	Agril. Engineering Divn., ICAR (RC) Umiam
3.	Thermal welding machine (plastic lining of pond)	Power 1-2 KW/230 V, 20-500°C welding temp, 1-5 m/ min welding speed, light weight (5-15kg), Digital display of temperature, speed & voltage, controlled temperature & drive & suitable for HDPE & LDPE	1	Agril. Engineering Divn., ICAR (RC) Umiam
4	Digital Electronic Balance	<ul style="list-style-type: none"> <li>• Single pan with wind shields</li> <li>• Accuracy upto 0.001mg or 21 µ,g</li> <li>• Capacity 220g, Pan size 3.54"/90mm diameter.</li> <li>• Workable at 220 to 240 volts AC 01</li> </ul>	1	Entomology Divn., ICAR (RC) Umiam
5	Refrigerator 606 Lit Capacity	<ul style="list-style-type: none"> <li>• Dimensions Height: Depth: Width (1794 mm: 709mm: 860mm).</li> <li>• Capacity 606 liters</li> <li>• Electricity saving rating 5</li> <li>• Cooling Technology Green Ion Door cooling</li> </ul>	1	Entomology Divn., ICAR (RC) Umiam
6	UPS with power backup	Online or double conversion type, output 5KVA. Input voltage 220-240V.	1	Soil Science Divn., ICAR (RC) Umiam
7	Top pan weighing balance	Microprocessor based with full tare facilities , max capacity 0-3100g, readability 0.1 g, Weighing pan dia 180X180mm	1	Soil Science Divn., ICAR (RC) Umiam
8	Guelph constant head permeameter	The Guelph Permeameter is a complete kit consisting of the permeameter, field tripod, well auger, well preparation and cleanup tools, collapsible water container, and vacuum test hand pump. Measurements can be made in 1/2 to 2 hours, depending on soil type, and require only about 2.5 liters of water. Measurements can be made in the range of 15 to 75 cm below the soil surface.	1	Soil Science Divn., ICAR (RC) Umiam



9	Analytical balance	<ol style="list-style-type: none"> <li>1. Capacity : 200-250g</li> <li>2. Readability: 0.001g</li> <li>3. Repeatability : 0.001g</li> <li>4. Linearity : 0.002g</li> <li>5. Maximum response time : 2-3sec</li> <li>6. Pan size : 128x128 (mm)</li> <li>7. Operating temperature : Min 10°C to Max 40°C</li> <li>8. Calibration : Automatic external and motorized Internal</li> <li>9. Display : Digital</li> <li>10. Provision for data export to a printer or computer</li> </ol>	1	Water Management Divn., ICAR (RC) Umiam
10	pH meter (digital hand held)	<ol style="list-style-type: none"> <li>1. Range (pH) : 0.00 to 14.00</li> <li>2. Range (Temperature °C): 0 to 50</li> <li>3. Resolution (pH) : 0.1</li> <li>4. Accuracy (pH) : +1-0.1 pH</li> <li>5. Temperature compensation : Automatic</li> <li>6. Display : LCD</li> <li>7. Calibration: Up to 3 points</li> <li>8. Waterproof</li> <li>9. Buffer recognition : 4.01, 7.00, 10.01 USA</li> <li>10. Power : Four 1.5 V batteries (included)</li> <li>11. Including buffer pack, 500 mL each of 4.01, 7.00, and 10.00 buffer</li> </ol>	1	Water Management Divn., ICAR (RC) Umiam
11	Digital weigh bridge for weighing animals	<p>Weighing scale type: Animal weighing scale  capacity (kg):500  Platform size WxH (mm) : 500x500  Accuracy: 50gm  Maerial: Plastic, steel</p>		Farming System Research Project, ICAR (RC) Umiam
12	Milk chiller/ refrigerator	400-450 lts capacity double door refrigerator with high energy efficiency of 4-5 star ratings, multi air flow system for uniform cooling , frost free, moisture controlled , CIF free features.	1	Animal Nutrition Divn., ICAR(RC) UMAIM
13	Electronic Balance	<ul style="list-style-type: none"> <li>• Capacity 0.1 mg — 230 g, Pan Size 90 mm, accuracy 0.1 mg, digital weight indication with large figures for rapid and precise reading, unique locking system to transport the balance from one place to another.</li> <li>• Calibration: Built in calibration.</li> <li>• Application programs: Tare; Net Total: Counting; Weighing in % formulation; Calculating.</li> <li>• Various weighing units like gm, mg, ct, oz, dwt, mon, GN.</li> <li>• Display: LCD with Back Light.</li> <li>• Provided with Weighing chamber and AC Adaptor.</li> </ul>	1	Agronomy Divn., ICAR (RC) Umiam
14	Inverter 5KVA	5KVA online UPS with 4-5hrs backup, with isolation transformer, single phase input-output 230V, along with required no. of batteries, charger and rack, minimum 2yrs warranty	1	Horticulture Divn., ICAR (RC) Umiam

15	Submersible pump	Head 180m, capacity -4000LPH, delivery size-1.5inch, 5HP , minimum 1yr warranty	1	Horticulture Divn., ICAR (RC) Umiam
16	Gel DOC system	DNA/RNA Gel documentation for EtBr, SYBR green, SYBR Gold, and Gel star staining. Should have capability to accommodate large size gels/maximum (minimum 25x30 cm gel), scientific grade ST5 CCD camera with electronically variable shutter speed, camera with >7 megapixels image resolution, autofocus and manual mode, High sensitivity, minimum 5X optical zoom, black body imaging grade darkroom, smart control panel with UV security option, UV security timer, UV illuminator and F590 emission filter. Software and data logger for image acquisition and processing. Auto exposure, >8inch LCD s	1	Agroforestry Divn., ICAR (RC) Umiam
17	Refrigerated centrifuge	Refrigerated table top centrifuge with 200- 14,000rpm (20,817xG) in increments of 10rpm, Temp. Control range: -9°C to 40°C. Option to change values during centrifugation, Low-profile 11.2 in./28 cm access height for easy sample loading and unloading, Automatic rotor recognition senses rotor type to set maximum allowable speed. Fast, simple programming of time, temperature (refrigerated models), speed/ g-force values. Program memory for up to 35 individual user programs. Acceleration/braking ramps: 10/10. Adjustable speed short spin button for quick runs. Ten acceleration and deceleration rates for sensitive sample material Rotor capacity 48 x 1.5/2.0 mL, acceleration time to max. speed <14 s, braking time from max. speed <15 s, high-speed for separating cell lysates and for nucleic acid purifications, SOFT ramp adjustable, noise level with rotor <60 dB (A), weight without rotor less than 60 kg, power supply 230 V/50-60 Hz. Automatic rotor detection with speed limitation, Automatic imbalance detection avoiding damage to the centrifuge	1	Agroforestry Divn., ICAR (RC) Umiam
18	Microwave oven	35-40 Liter capacity, 220-250V, 50-60Hz, Single phase, digital display.	1	Agroforestry Divn., ICAR (RC) Umiam
19	Bench top Lyophilizer	Dimension (HxWxD): 340x470x680mm Maximum condenser chamber capacity: 5-10 liters Ice removal capacity (in 12 hours): 1.5 kg Maximum ice capacity: 5kg Operating temperature: -50°C Temperature display range: Ambient to -60°C Pressure display range: 30µbar to 50.0 mbar Refrigeration compressor type: 1/3 hp hermetic unit Condenser style: External or internal coil	1	Animal Health Division, ICAR (RC) Umiam

		<p>Condenser temperature: -75°C to -80°C          Stopping option: Hydraulic          Weight: &gt;50kg          Power: 230 VAC/50Hz, 8.0A          Digital display of temperature and vacuum should be provided with corrosion resistant Vacuum pump from reputed foreign company with accessories like vacuum hardware, and hose, clamp, tubes, power codes, etc, and pump oil (10 Liters), free of cost.          Separate adaptors for:              1. Round bottom flasks (50-500ml capacity)              2. Tubes (10-50ml capacity)              3. Vials (2ml-10ml capacity)          1000 Vials and 1000 tubes with rubber cork/stopping and 10 round bottom flask (50-500ml) free of cost          One 3KVA UPS of reputed brand and one (2-5 Star, 1.5 ton) split Air Conditioner (AC) of reputed brand to be supplied free of cost</p>		
20	Open Pan digital weighing balance	<p>Readability: 0.1mg          Capacity: 60gm          Repeatability: ± 0.1mg          Pan size: 90mm          Power connection: 220/230 volt-AC          Calibration: Built in calibration          Linearity: 0.02gm          Response time: 2.5 Sec          Selectable weighing units: Gram and mg          Display: LCD with back light          Operating temperature range: 10°C to 40°C          Warranty: 3 years          Provided with weighing chamber and AC Adaptor          Extra disposable weighing boat should be provided free of cost</p>		Animal Health Division, ICAR (RC) Umiam
21	Automated tissue lysis system / Homogenizer	<p>Dimension (HxWxD): 300x850x300mm          Maximum orbit: 150-170mm          Drive: DC motor preferable          Admissible temperature: 5-10°C to 50-60°C          Admissible humidity: 5-10% to 80-90%, preferably non-condensing          Volume: 0.5 to 1500 ml          Speed range: 3000-20000 rpm          Homogenizing time: 20sec-60sec          Speed &amp; temperature display: digital          Overhead protection: electronic          Frequency: 50/60Hz          Dispersing element: Stainless steel (able to cleaned quickly and easily)          Clamp, stand, head clamp: yes          Dry, wet and cryogenic grinding: yes          Power: 230/115/100 V          The homogeniser should be of reputed brand (preferably imported).          The system should preferably be able to break tissues and/or cells which help in isolation of protein / enzymes, DNA or RNA. It should be fast, and reproducible. The system should preferably have cooling chamber which can be filled with ice water or should be connected to the cooling system during homogenization. Should have minimum noise level</p>	1	Central Laboratory, ICAR (RC) Umiam
22	Plant extracts purification and	<b>Rotary Vacuum Evaporator</b>	1	



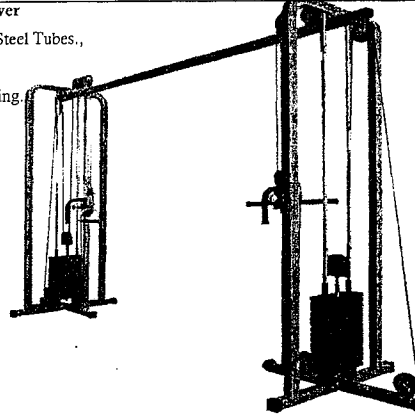
<p><b>separation system</b></p>	<p>Driving unit: Encased induction motor with electronic speed control</p> <p>Condenser: Vertical double spiral glass coil</p> <p>Drive unit: Motorized drive unit</p> <p>Jack up function: Electronic quick action jack and automatic lifting of the flasks during power failure</p> <p>Rotation speed: 280-300 rpm or better with microprocessor control</p> <p>Display: Digital display of rotation speed and heating bath</p> <p>Speed display: Digital</p> <p>Sample flask: 1 litre</p> <p>Receiving flask: 1 litre, round style with ball joint</p> <p>Vacuum seal: PTFE seal (warranty, period of min, 3 years)</p> <p>Liquid contact parts: Glass and PTFE</p> <p>Power: 230 VAC/50Hz, 8.0A</p> <p>Supplied with: Digital water bath, vacuum pump and chiller</p> <p>1. Digital water bath)</p> <p>Temp. Control range: Ambient temp. to 210° C or higher.</p> <p>Accuracy : 1°C</p> <ul style="list-style-type: none"> <li>Bath features : Inner Teflon coating and outer heat resistant cover</li> </ul> <p>Bath capacity : should be between 4 to 5L</p> <p>Temp controller: Microprocessor based PID Control</p> <p>Safety features: Overheating protector. auto cut off at 5°C secondary over temperature cut off 250°C</p> <p>2. VACUUM PUMP:</p> <ul style="list-style-type: none"> <li>Two stage oil free diaphragm pump made from chemically resistant material.</li> <li>Suction capacity in m<sup>3</sup> /hour : 2.0 m<sup>3</sup> /h or better.</li> </ul> <p>3. Vacuum pump should have ultimate vacuum of 7mbar or better.</p> <ul style="list-style-type: none"> <li>Power input in watt : 180</li> <li>Supply voltage (V/Hz): 230/50. C. CHILLER</li> <li>Temperature range : -10°C to ambient</li> <li>Precise temperature control of ± 0.2°C</li> <li>Flow: more than 6l/min</li> <li>Cooling capacity up to 560 watts @20°C</li> <li>Fluid level indicator</li> <li>Low flow shut off and high/low temperature alarms.</li> <li>digital display</li> </ul> <p><b><u>Flash Chromatography</u></b></p> <ul style="list-style-type: none"> <li>Compact Bench top size with Instrument Dimensions- 16.5" H x 21.5" W x 18.0" D (41.91cm H x 54.6cm W x 45.72cm D) with an in-built computer</li> <li>Auto mated solvent line priming</li> <li>Auto recognition of cartridges and trays</li> <li>Single click run gradient adjustment and hold</li> <li>Negative Peak signals for UV and ELSD. The chromatograms should display negative signal for UV and ELSD during runs and in the past run reports.</li> <li>Any detector can be turned off during run.</li> <li>Fraction collection triggering based on slope and/or threshold</li> <li>User control of the fraction collection tray with manual advance</li> <li>Automated software allows fast switching from normal phase to reversed phase</li> <li>Color-coded user guidance, status prompts and alerts</li> <li>System Safeguards: Auto run extension on peak detection</li> </ul>	
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- Automatic flow reduction and pressure monitoring cut off
- Automatic Flow Stop if collection tray is unavailable
- Upward solvent flow through cartridge for better purging of air during equilibration
- Use same solvents in multiple reservoirs with rapid auto line switching for extended capacity
- Air purging of used cartridges to help ensure safe disposal
- Vapour sensors for leak detection
- Solvent Options: Four independent solvent channels offering use of up to four solvents at any time during a run. Controlled by the software.
- Integrated ELSD exclusively designed for Flash system
- No carrier solvent for ELSD required
- Software selectable ELSD and UV detector sensitivity that actively controls the amount of sample being split to the ELSD
- Directs only 501.1.1/min or less to the ELSD meaning that sample recovery is greater than 99.9% under most circumstances
- High pressure (200 psi) precision HPLC pumping
- Solvent and waste safety sensors
- 12" Windows® based graphical LCD display with touch screen and full onscreen QWERTY keyboard
- Data Entry: Touchscreen or USB connection to mouse/keyboard
- Software: advanced detection technology with advanced signal processing to recognize peaks and collect previously undetected compounds
- Navigator Software Feature to convert TLC Rf data to Flash method and HPLC Method data to Flash methods.
- Solvent Delivery system : High pressure pumps (HPLC) ; Four independent channels with up to four solvents in a single run.
- **Auto-switches lines when solvent levels run low.**
- Normal phase and reversed phase solvent compatible
- Flow Rate: 4-200mL/min +/- 3%; auto flow reduction at high pressure
- Maximum Pressure: around 200 psig
- Gradients: Linear, step, isocratic. Four solvent binary. On-screen mid-run gradient adjustment, isocratic hold, pause
- Sample Injection: Liquid or solid sample modes, solid injection: up to —75 g Liquid injection up to 300gm. The system have the facility to use Inject (Liquid) / sample loading prep packed as well as empty screw type cartridges. Sample Loader Plunger: Three sizes, fitting into 15 mL, 75 mL and 150 mL solid loaders.
- Detector Sensitivity: Selectable sensitivity control high or low, based on concentration of target compound
- UV Wavelength Range: >200-500 nm along with the expansion of the UV-Vis range to >200-850 nm)
- Accommodates Cartridge Sizes: >4 g-300 g luer type; up to 1500 g with adapter
- Triggers: Combination of up to 3 UV/VIS signals plus ELSD with slope and/or threshold detection.
- Fraction Collection Trays: Holds two 5"x12" trays; Auto-tray recognition

- Power Options: 120/240 V, 50/60 Hz, 10 A
- Certifications: CE, TUV®, ISO® 9001

23 Heavy duty commercial cable cross over

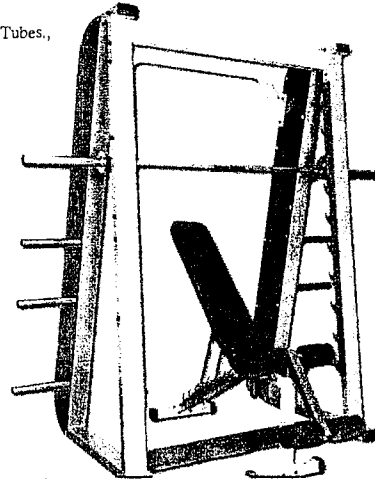
Heavy Duty Commercial Use Cable Cross Over  
 Frames & Stations are fabricated in 4 x 2 Pipe Steel Tubes.,  
 35 mm Cushion for seats.  
 Double Cover Seats, Leather foam Seat Covering.  
 P.V.C. Bushes for smooth action in plates.  
 Pullies with double ball bearing.  
 Handles & rods made from 25mm  
 M.S. Bright Bar with revolving /knurled Grips.  
 Thick Cushion (Profeel 25mm)  
 covered with top quality,  
 tear resistant Leatharite for seats.  
 Powder Coating for frames



Estate Cell,  
 ICAR (RC)  
 Umiam

24 Heavy duty commercial use smith machine

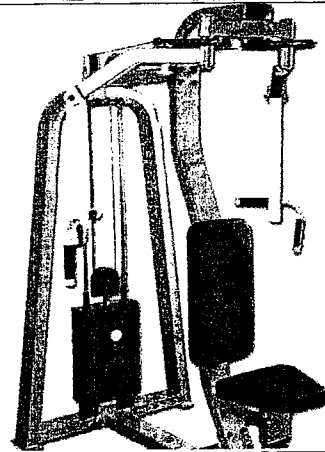
Heavy Duty Commercial Use Smith Machine  
 Frames & Stations are fabricated in 4 x 2 Pipe Steel Tubes.,  
 35 mm Cushion for seats.  
 Double Cover Seats, Leather foam Seat Covering.  
 P.V.C. Bushes for smooth action in plates.  
 Pullies with double ball bearing.  
 Handles & rods made from 25mm  
 M.S. Bright Bar with revolving /knurled Grips.  
 Thick Cushion (Profeel 25mm)  
 covered with top quality,  
 tear resistant Leatharite for seats.  
 Powder Coating for frames



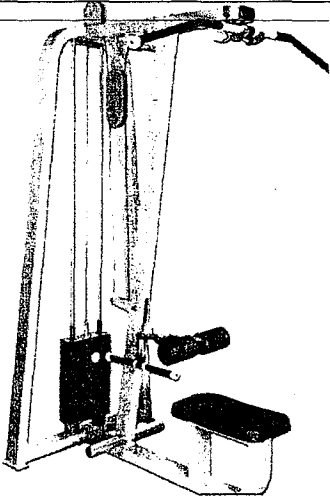
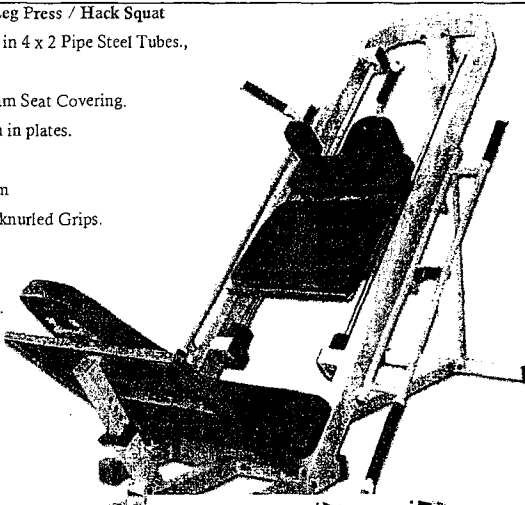
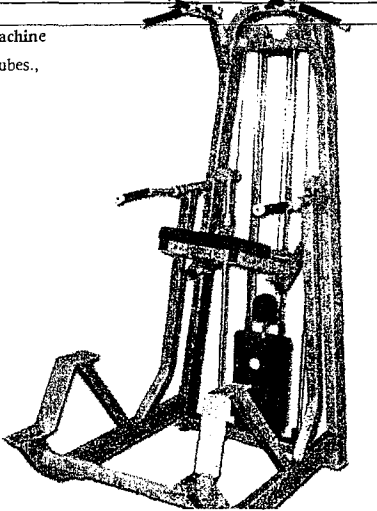
Estate Cell,  
 ICAR (RC)  
 Umiam

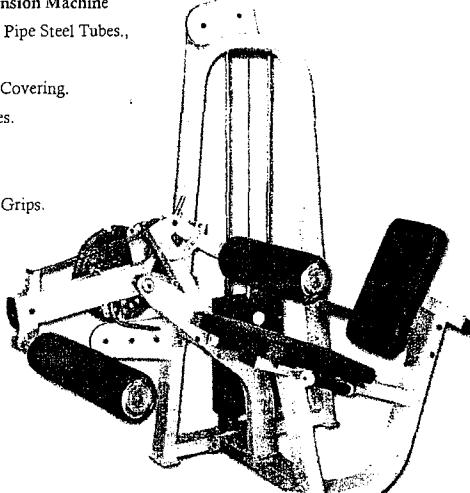
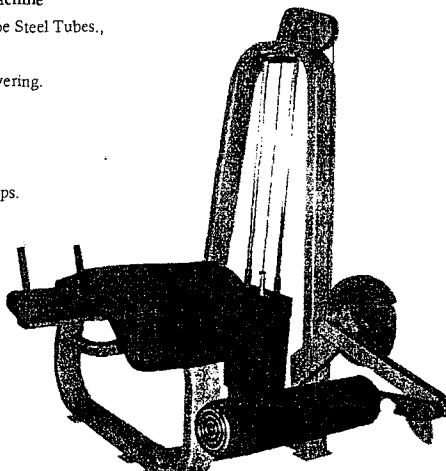
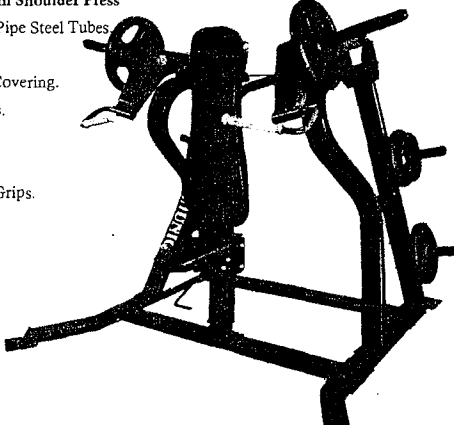
25 Heavy duty commercial peck fly

Heavy Duty Commercial Use Peck Deck Fly  
 Frames & Stations are fabricated in 4 x 2 Pipe Steel Tubes.,  
 35 mm Cushion for seats.  
 Double Cover Seats, Leather foam Seat Covering.  
 P.V.C. Bushes for smooth action in plates.  
 Pullies with double ball bearing.  
 Handles & rods made from 25mm  
 M.S. Bright Bar with revolving /knurled Grips.  
 Thick Cushion (Profeel 25mm)  
 covered with top quality,  
 tear resistant Leatharite for seats.

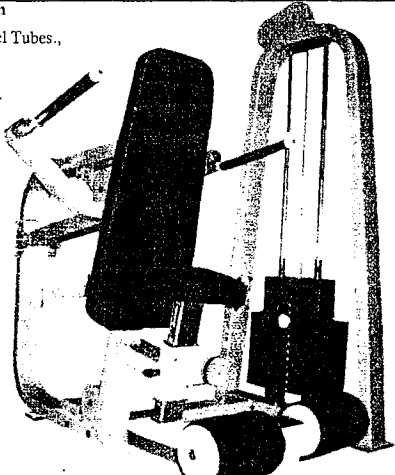
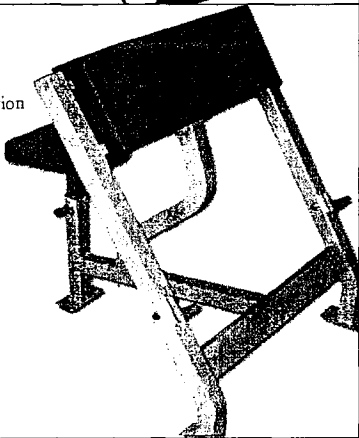
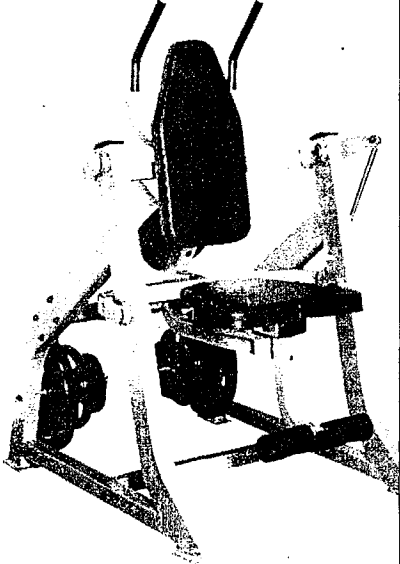


Estate Cell,  
 ICAR (RC)  
 Umiam

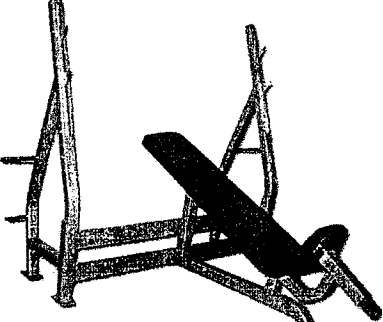
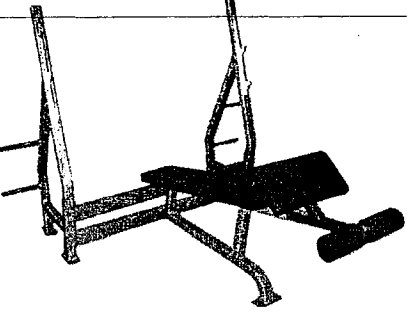
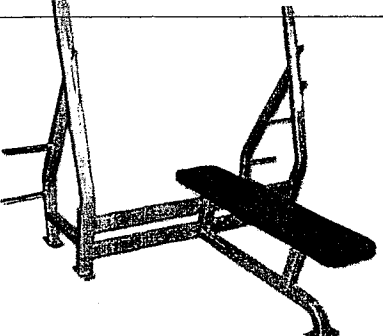
26	Heavy duty commercial use high lat pulley	<p><b>Heavy Duty Commercial Use High Lat Pulley</b>  Frames &amp; Stations are fabricated in 4 x 2 Pipe Steel Tubes.,  35 mm Cushion for seats.  Double Cover Seats, Leather foam Seat Covering.  P.V.C. Bushes for smooth action in plates.  Pulleys with double ball bearing.  Handles &amp; rods made from 25mm  M.S. Bright Bar with revolving /knurled Grips.  Thick Cushion (Profeel 25mm)  covered with top quality,  tear resistant Leatherite for seats</p> 	Estate Cell, ICAR (RC) Umiam
27	Heavy duty commercial use leg press/ hack squat	<p><b>Heavy Duty Commercial Use Leg Press / Hack Squat</b>  Frames &amp; Stations are fabricated in 4 x 2 Pipe Steel Tubes.,  35 mm Cushion for seats.  Double Cover Seats, Leather foam Seat Covering.  P.V.C. Bushes for smooth action in plates.  Pulleys with double ball bearing.  Handles &amp; rods made from 25mm  M.S. Bright Bar with revolving /knurled Grips.  Thick Cushion (Profeel 25mm)  covered with top quality,  tear resistant Leatherite for seats.  Powder Coating for frames</p> 	Estate Cell, ICAR (RC) Umiam
28	Heavy duty commercial use chinning dipping machine	<p><b>Heavy Duty Commercial Use Chinning Dipping Machine</b>  Frames &amp; Stations are fabricated in 4 x 2 Pipe Steel Tubes.,  35 mm Cushion for seats.  Double Cover Seats, Leather foam Seat Covering.  P.V.C. Bushes for smooth action in plates.  Pulleys with double ball bearing.  Handles &amp; rods made from 25mm  M.S. Bright Bar with revolving /knurled Grips.  Thick Cushion (Profeel 25mm)  covered with top quality,  tear resistant Leatherite for seats.  Powder Coating for frames</p> 	Estate Cell, ICAR (RC) Umiam

29	Heavy duty commercial use leg extension machine	<p>Heavy Duty Commercial Use Leg Extension Machine</p> <p>Frames &amp; Stations are fabricated in 4 x 2 Pipe Steel Tubes,, 35 mm Cushion for seats. Double Cover Seats, Leather foam Seat Covering. P.V.C. Bushes for smooth action in plates. Pulley with double ball bearing. Handles &amp; rods made from 25mm M.S. Bright Bar with revolving /knurled Grips. Thick Cushion (Profeel 25mm) covered with top quality, tear resistant Leatherite for seats. Powder Coating for frames</p> 	Estate Cell, ICAR (RC) Umiam
30	Heavy duty commercial use leg curl machine	<p>Heavy Duty Commercial Use Leg Curl Machine</p> <p>Frames &amp; Stations are fabricated in 4 x 2 Pipe Steel Tubes,, 35 mm Cushion for seats. Double Cover Seats, Leather foam Seat Covering. P.V.C. Bushes for smooth action in plates. Pulley with double ball bearing. Handles &amp; rods made from 25mm M.S. Bright Bar with revolving /knurled Grips. Thick Cushion (Profeel 25mm) covered with top quality, tear resistant Leatherite for seats. Powder Coating for frames</p> 	Estate Cell, ICAR (RC) Umiam
31	Heavy duty commercial use bench cum shoulder press	<p>Heavy Duty Commercial Use Bench Cum Shoulder Press</p> <p>Frames &amp; Stations are fabricated in 4 x 2 Pipe Steel Tubes 35 mm Cushion for seats. Double Cover Seats, Leather foam Seat Covering. P.V.C. Bushes for smooth action in plates. Pulley with double ball bearing. Handles &amp; rods made from 25mm M.S. Bright Bar with revolving /knurled Grips. Thick Cushion (Profeel 25mm) covered with top quality, tear resistant Leatherite for seats. Powder Coating for frames</p> 	Estate Cell, ICAR (RC) Umiam



32	Heavy duty commercial use tricep push down	<p>Heavy Duty Commercial Use Tricep Push Down  Frames &amp; Stations are fabricated in 4 x 2 Pipe Steel Tubes.,  35 mm Cushion for seats.  Double Cover Seats, Leather foam Seat Covering.  P.V.C. Bushes for smooth action in plates.  Pulleys with double ball bearing.  Handles &amp; rods made from 25mm  M. S. Bright Bar with revolving /knurled Grips.  Thick Cushion (Profeel 25mm)  covered with top quality,  tear resistant Leatharite for seats.  Powder Coating for frames</p> 	Estate Cell, ICAR (RC) Umiam
33	Preacher curl bench	<p>Preacher Curl Bench  35 mm Cushion for seats.  Double Cover Seats, Leather foam Seat Covering.  6mm thick flexible tested cables for weight &amp; pulley station  Handles &amp; rods made from 25mm.</p> 	Estate Cell, ICAR (RC) Umiam
34	Abs bench machine	<p>Abs Bench Machine  Heavy Duty Pipe Steel Tubes.,  35 mm Cushion for seats.  Double Cover Seats, Leather foam Seat Covering.  P.V.C. Bushes for smooth action in plates.  Pulleys with double ball bearing.  Handles &amp; rods made from 25mm  M. S. Bright Bar with revolving /knurled Grips.  Thick Cushion (Profeel 25mm)  covered with top quality,  tear resistant Leatharite for seats.  Powder Coating for frames</p> 	Estate Cell, ICAR (RC) Umiam

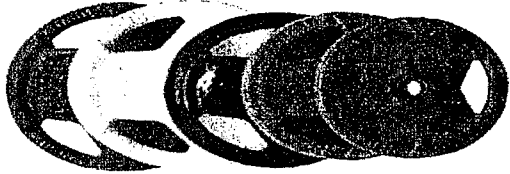
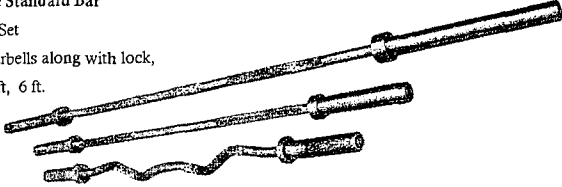
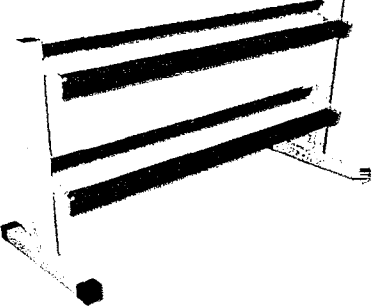
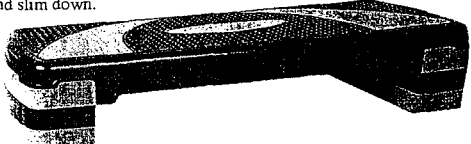
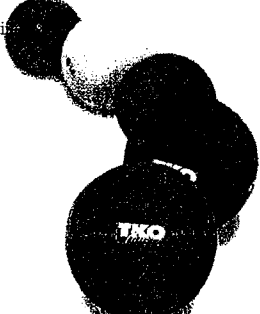


35	Olympic standard incline bench	<p><b>Olympic Standard Incline Bench</b>  Incline Bench Press  Heavy duty mainframe construction.  Electro statically applied powder coat paint finish,  35 mm Cushion for seats, Double Cover Seats,  Leather foam Seat Covering.</p>		<b>Estate Cell,  ICAR (RC)  Uniam</b>
36	Olympic standard decline bench	<p><b>Olympic Standard Decline Bench</b>  Decline Bench Press  Heavy duty mainframe construction.  Electro statically applied powder coat paint finish,  35 mm Cushion for seats, Double Cover Seats,  Leather foam Seat Covering.</p>		
37	Olympic standard flat bench	<p><b>Olympic Standard Flat Bench</b>  Flat Bench Press  Heavy duty mainframe construction.  Electro statically applied powder coat paint finish,  35 mm Cushion for seats, Double Cover Seats,  Leather foam Seat Covering.</p>		

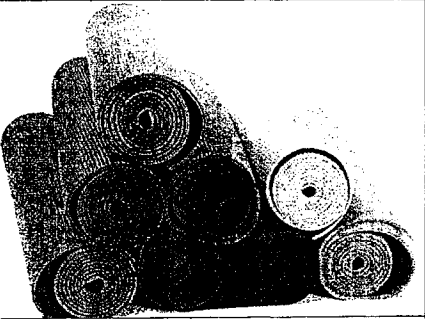

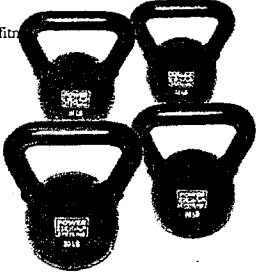
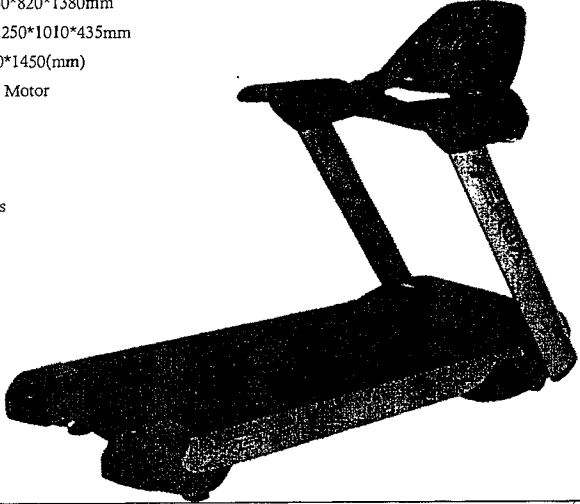
*[Handwritten mark]*

38	Incline T bar	<p><b>Incline T Bar</b>  Heavy duty mainframe construction.  Electro statically applied powder coat paint finish,  35 mm Cushion for seats, Double Cover Seats,  Leather foam Seat Covering.</p>	<p>Estate Cell,  ICAR (RC)  Umiam</p>
38	Seated calf bench	<p><b>Seated Calf Bench</b>  Frames and stations are fabricated in 2mmx2mmx12 GZ Steel  P.V.C. Bushes for smooth action in plates  Powder Coating for frames  35 mm Cushion for seats  Double Cover Seats.  Leather foam Seat Covering</p>	
39	Adjustable bench	<p><b>Adjustable Bench</b>  Handles &amp; rods made from 25mm M.S. Bright Bar  with revolving / knurled Grips.  Thick Cushion (Profeel 25mm) coverd with  top quality, tear resistant Leatharite for seats.  Powder Coating for frames.</p>	
40	Plain bench	<p><b>Plain Bench</b>  Frames and stations are fabricated in 4 x 2 Pipe  Powder Coating for frames  35 mm Cushion for seats  Double Cover Seats.  Leather foam Seat Covering</p> <p>Qty - 2 Nos</p>	<p>Estate Cell,  ICAR (RC)  Umiam</p>
41	Hex dumbbells	<p><b>Hex Dumbbells</b>  Permanently attached cast iron heads are encased in maintenance free virgin rubber.</p> <ul style="list-style-type: none"> <li>• Ergonomically designed solid steel handle for comfort and safety</li> <li>• Handles are knurled and chrome plated; will not peel or chip</li> <li>• Available from 1 Kg - 30 Kgs</li> </ul> <p>Qty - 300 Kg</p>	

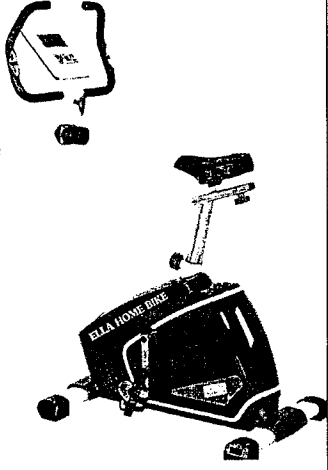
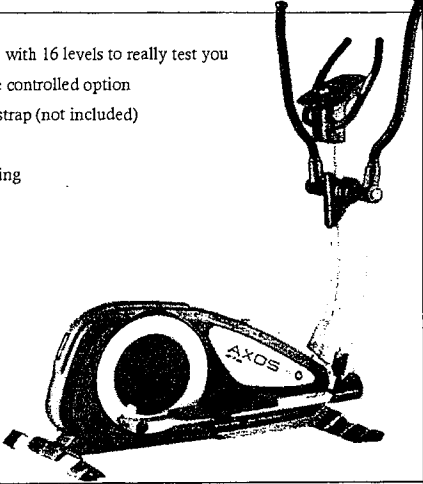


42	Weight lifting Olympic steering plate	<p><b>Weight Lifting Olympic Steering Plate</b></p> <ul style="list-style-type: none"> <li>• Specially designed radial grip which assists with lifting plates and loading onto Olympic bars and Olympic plate-loading attachments.</li> <li>• Each disc is molded from cast iron and has a durable rubber coating which is color coded according to plate size.</li> <li>• The rubberized finish makes the product more durable, assists with noise reduction, is easily wiped clean, and reduces wear and damage to floor surfaces.</li> </ul> <p>Qty - 300 Kg</p> 	Estate Cell, ICAR (RC) Umiam
43	Weight lifting Olympic standard bar	<p><b>Weight Lifting Olympic Standard Bar</b></p> <p>Solid Steel Olympic Bar Set</p> <p>Different Size chrome barbells along with lock,</p> <p>Sizes 3 ft, 4 ft, 4 ft Ez, 7 ft, 6 ft.</p> <p>Both EZ and Plain Bar</p> <p>Qty : 5 Nos</p> 	Estate Cell, ICAR (RC) Umiam
44	Dumbbell stand	<p><b>DUMBBELL STAND</b></p> <p>Two-Tier Dumbbell Rack.</p> <p>This heavy gauge rack will stand up to years of abuse.</p> <p>This rack will hold the large weights with no problem.</p> <p>Powdercoat Paint.</p> <p>Qty : 01 Set</p> 	
45	Aerobic step	<p><b>AEROBIC STEP</b></p> <p>Adjustable height.</p> <p>Hard Wearing, Non-Slip surface give safe grip.</p> <p>Target wide range of muscle groups through varying your stepping positions.</p> <p>Ideal for those looking to tone up and slim down.</p> <p>Exceptional value for money</p> <p>Qty : 1 Nos</p> 	
46	Medicine ball	<p><b>Medicine Ball</b></p> <p>Rubberized medicine balls are a must for any core conditioning routine.</p> <p>These rubber medicine balls not only bounce, but come with a unique textured gripping surface for better control during use.</p> <p>Available in different weights</p> <p>Qty - 20 Kg,</p> 	Estate Cell, ICAR (RC) Umiam



47	Yoga mat	<p><b>Yoga Mat</b>  Imported High Quality  Non Slip Surface Provides Stability  Cushioned For Extra Comfort  Suitable For Beginners And Experts  Must For Every Yoga User  Available In Different Colors.</p> <p>Qty - 5 Nos,</p> 	Estate Cell, ICAR (RC) Umiam
48	Gym ball	<p><b>Gym Ball</b>  Easy-to- exercise.  Inflation pump included  Size: 55cm, 65, 75, 85, 95  Max user weight: (150 kgs)  Material: PVC plastic  Colour: Different Sizes.</p> <p>Qty - 4 Nos,</p> 	
49	Kettle bell	<p><b>Kettle Bell</b>  Increases muscle tone  Burns lot of energy Combines CV and resistance work to improve overall fit  Proven to significantly improve self-esteem  Develops inter-muscular teamwork and functional core stability  Offers the benefits of strength training combined with those of yoga, pilates &amp; aerobics  Increases stamina and strength-endurance like no other Form of exercise  Dramatically improves flexibility and speed  Space friendly, Available in Different Sizes</p> <p>Qty - 20 Kg</p> 	Estate Cell, ICAR (RC) Umiam
50	Heavy duty commercial use motorized treadmill	<p><b>Heavy Duty Commercial Use Motorized Treadmill</b>  Dimension(L.W.H): 1960*820*1380mm  Packing Measurement: 2250*1010*435mm  Walking Area(L.W): 520*1450(mm)  Horse power: 2.5HP AC Motor  Incline: 0-15%  LED display  Speed: 1.5-20km/h  Weight allowed: &lt;130kgs</p> <p>QTy - 3 Nos</p> 	



51	Upright bike	<p><b>Upright Bike</b>          Drive System : Magnetic          Fly Wheel : 7 Kg          Resistance Level : 10 Levels          Resistance Type :Manual-Magnetic          Display Feedback : Speed, Time, Distance, Calories &amp; Pulse          1 Big LCD Window , Adjustable Handle          Easy Seat Adjustment with Hydro Spring System          Seat Adjustable UPTO 7 Level's          Floor Leveller, Wheels for Easy Transportation          Frame: Heavy Gauge with Powder Coat Finish</p> <p>Qty - 3 Nos</p> 	Estate Cell, ICAR (RC) Umiam															
52	Elliptical cross trainer	<p><b>Elliptical Cross Trainer</b></p> <ul style="list-style-type: none"> <li>• Electronically controlled magnetic resistance with 16 levels to really test you</li> <li>• 12 Training programmes including heart rate controlled option</li> <li>• Polar compatible receiver for use with chest strap (not included)</li> <li>• Continuous display of seven functions</li> <li>• Fitness recovery test to keep training interesting</li> <li>• 14 kg Flywheel for a smooth experience</li> <li>• Pendulum ball-bearings in disk joints</li> <li>• Heavy duty transporter castors</li> <li>• Levellers at rear, for use on uneven surfaces</li> </ul> <p>Qty - 2 Nos</p> 																
Sl.No	Name of the items	Specifications	Qnt.	Whom to be supplied														
53	Deep Freezer Vertical(-20°C)	<ul style="list-style-type: none"> <li>• Cabinet Temperature Range: -20°C--40°C</li> <li>• Ambient Temperature: 10°C-32°C</li> <li>• Capacity (Litres): 600-700</li> <li>• Power Input (W): 700</li> <li>• Voltage/Frequency: 220V-240<sup>1</sup>/50HZ</li> <li>• Temperature Control-20°C---40°C</li> <li>• Interior Dimension ( W*D*H mm): 760*630*1300</li> <li>• Exterior Dimension ( W*D*H mm): 910*835*1950</li> <li>• Net/Gross Weight: 298/314</li> <li>• Door: Solid door</li> <li>• Shelves: 3</li> <li>• Container Load:20GP/40GQ/40HQ12/24/24</li> </ul>	1	Animal Production Divn., ICAR (RC) Umiam														
54	Generator set 125 KVA	<table border="1"> <thead> <tr> <th colspan="2">DG Set Specifications</th> </tr> </thead> <tbody> <tr> <td>Prime rating at 0.8 pf:</td> <td>125(100)</td> </tr> <tr> <td>Voltage:</td> <td>415</td> </tr> <tr> <td>Frequency:</td> <td>50</td> </tr> <tr> <td>Overall Dimensions with canopy (L*W*H):</td> <td>3200x1300x1805</td> </tr> <tr> <td>Dry weight of genset with canopy (Aprox):</td> <td>2034</td> </tr> <tr> <td>Electrical starting system:</td> <td>12V</td> </tr> </tbody> </table>	DG Set Specifications		Prime rating at 0.8 pf:	125(100)	Voltage:	415	Frequency:	50	Overall Dimensions with canopy (L*W*H):	3200x1300x1805	Dry weight of genset with canopy (Aprox):	2034	Electrical starting system:	12V	1	Flagship Transboundary, ICAR (RC) Umiam
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Dry weight of genset with canopy (Aprox):	2034																	
Electrical starting system:	12V																	



	<b>Battery Capacity:</b>	1x 120/130		
	Noise level :	<75dbA		
	<b>Engine Specification</b>			
	Rated output:	114.7(156)		
	No. of cylinder	4		
	Bore X Stroke	105*125		
	Aspiration :	TA		
	Governing Class	Electroic AO		
	SFC at 75% load	146		
	SFC at 100% load	146		
	Lub oil consumption	0.07		
	Lub oil sump period	500		
	Lub oil sump capacity	14.8		
	Engine coolant capacity	28		
	<b>Alternator Specification</b>			
	Rating	125		
	Insulation class	H		
	Protection	IP23		
	Time to built up rated voltage at rated RPM	<5		
	Alternator efficiency at 75% load	93.2		
	Alternator efficiency at 100 % load	92.6		
	Voltage regulation	1% with 4% engine governing		
	Wave from distortion at No load & at Non-distorting balance linear load	<1.8 & <4		
	Permissible transient voltage dip at full load 0.8 pf lag***	<18		

Sd/- S. V. Ngachan  
DIRECTOR

