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*for a sustainable future*

## OCCASION

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UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION

# ***TECHMART INDIA'92 for SMEs***

17-20 November 1992, New Delhi

CATALOGUE OF  
TECHNOLOGY OPPORTUNITIES  
FOR MANUFACTURING INDUSTRY

Industrial and Technological Information Bank of UNIDO  
and  
National Small Industries Corporation Ltd., India  
in cooperation with  
Technology Exchange,  
United Kingdom of Great Britain and Northern Ireland

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## **INTRODUCTION**

This Catalogue has been prepared by The Technology Exchange Ltd from technology offers and requests submitted to them either directly, or to The Industrial and Technological Information Bank of UNIDO and by The National Small Industries Corporation Ltd of India.

The Catalogue of technology opportunities for manufacturing industry is not simply a guide to the Techmart India '92 Fair in New Delhi, although many of the organizations who have submitted items for it will be attending the Fair as exhibitors or visitors, but it is intended primarily to be used as a handbook to stimulate contacts between technology sources and those with technology needs. Contact may be made by letter, telephone, telex or by fax and we have included all these details, where available, in the directory section at the back of the catalogue.

We hope that you will use this information to make contact either directly or via INTIB, but we do ask that you should only request information on licence and joint-venture offers if you, or your organization, has a positive need for the technology and could have access to the necessary resources to employ or to manufacture and market the item on offer. When making a request to the source you should describe your organization, its size, products and resources, both human, physical and financial, and state your intentions with regard to both the manufacture and marketing of the product or process, this will enable the source of the offer to decide which responding organizations are best placed to exploit the technology in each region.

For new developments which are subject to patent application, before any confidential technical information is sent out by the source to any person or organization, they may require you to sign a confidentiality agreement.

Techmart India '92 is the third in a series of UNIDO Techmart or Technology Transfer Fairs. The preceding events were held in Beijing, China in December 1991 and Bulawayo, Zimbabwe in September 1992. Further Techmart events are being planned for 1993 and you are invited to submit your own offers and requests for technology for publication in the next edition of the Techmart catalogue.

Each offer or request should be appropriate to the needs of a developing country and should relate to a specific product or process. **General offers of services or consultancy will not be accepted.**

## **HOW TO USE THIS CATALOGUE**

### **A For organizations seeking technology.**

If your search for technology is for a specific item please refer to the key word index towards the rear of the catalogue. This index will refer you to the particular section or page of the catalogue in which the item concerned appears. But please note that the offers which you are seeking will be in the front section of the catalogue since the key words will also refer you to requests which are in the following section of the catalogue.

If you are interested in all technology offers in a particular category then we recommend that you read through the whole section which most nearly corresponds to your field of interest, e.g. chemical engineering, light industry, computers etc.

When you have found the item which you require make a note of the catalogue reference number of the title and the offer and look up the organization number in the directory section of the catalogue. This will give you all the contact details which have been supplied to us by the source of technology when preparing the catalogue. If your enquiry must be directed to an intermediary organization then the first two digits of the organization will give you their address and contact details but you must also give them the name of the organization who provided the offer and this is indicated by the second two digits and they are listed by name only under the intermediary organization in the directory section.

### **B If you are offering technology:**

To find the organizations who are seeking the technology which you are offering use the key word index to identify the requests in the second section of the catalogue and follow the above procedure to locate the contact details of the requesting organization in the directory section of the catalogue.

**It is recommended that all enquiries made should seek a full description of the technology being offered or requested. If you are responding to a technology request please give full details of the technology projects which you are offering and where possible include a brochure describing your own activities or product range.**

**In many cases both offers and requests involve the purchase and installation of equipment, training and technical assistance.**

**The stage of development will give you an indication of the further work and investment required for the product or process to be brought to full commercialisation. If you have research and development facilities you may be prepared to consider an offer which is at patent or laboratory model stage only but if you are wishing to commence production immediately or establish new turn key industry you will be seeking offers which are in current production (code F) or which are fully commercialised (code C).**

**If you are seeking a partner who is willing to share in the risks of the new venture then you will be looking for items which have the code letter J under 'offer' which means joint venture but if you are willing to buy the rights outright or under a licence agreement you will be seeking offers coded L or S.**

**Neither UNIDO, National Small Industries Corporation Ltd, nor The Technology Exchange Limited can accept any responsibility for any misunderstandings or loss incurred as a result of using this catalogue and it is recommended that you take steps to verify any information provided to you by any of the organizations offering or requesting technology.**

## EXPLANATION OF CODING SYSTEM

At the head of each entry you will see the following:-

**Ref .No.    Org. No.    Cat                    Status                    Offer**

**Ref No:**The unique catalogue reference number given to each item which should be quoted on each entry.

**Org No:**Gives the identity of the organization from which the item originates and (eg 21.15)should be quoted on each enquiry. The first two digits (eg 21.) indicate the intermediary to whom enquiries should be addressed. The full contact address can be found in the directory at rear of catalogue. The second two digits (eg. 15) indicate the name of the original source. See "Index of Organizations by Number".

**Cat:**Indicates the industrial category as explained in the introduction.

- eg. 1. Chemical Engineering
- 2. Light Industry

**Status:**Indicates the stage of development of the technology or process:-

	Code
Patent or Design only	P
Laboratory Model	M
Working Prototype	W
Pre-production units available	U
In current production	F
Commercialised	C

**Offer/**

**Request:** Indicates the type of agreement or co-operation being offered or sought:-

	Code
Manufacture under licence	L
Design and/or patent for sale	S
Joint venture offer	J

**Note:** Codes L and J may also include the supply of manufacturing equipment and technical assistance.

**Source:** Indicates the type of organisation making the offer.

	Code
Limited Company	C
Educational Institution	U
Independent Research Organisation	R
Government Research	G
Private Individual	P

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
1009	210	C	L	C	1215	165	F/C	L/S	C
<b>TOILET CLEANERS</b> Processes and formulations available for manufacture of both liquid and powder.					<b>CHEMICAL GROUT</b> is used for reducing leakage in water bearing strata eg tunnels, dams, reservoirs and other water bearing structures.				
1036	396	C	L	G	1218	165	F/C	L/S	C
<b>COATED COMPLEX FERTILIZER</b> the product is a kind of particle fertilizer with many kinds of trace elements besides nitrogen, phosphorus, potassium needed by crops. it is an ideal agriculture fertilizer with increasing the output by 10-25% than the single nutrient fertilizer. The product is widely used at home and exported to Southeast Asia					<b>CAN LINING COMPOUND</b> based on synthetic rubber latex. The lining compound, which is applied to the peripheral channel of the top and bottom ends of the can after drying is mechanically interlocked with the flange of cylindrical can body.				
1045	396	C	L	R	1221	165	F/C	L/S	C
<b>LOW HYDRATED ZINC BORATE FOR FLAME RESISTANCE</b> The product is a heat resisting, stable and non-poisonous flame resistant agent. It is widely used in fire retarding treatment of resins, fibres, rubber products, electrical equipment, insulating materials, shell of electronic product, automobile spares, wall materials, wires and cables etc.					<b>TERT-BUTYL CATECHOL</b> is used as a stabiliser of polymerisation inhibitor in the synthetic rubber industry.				
1206	247	C	L	G	1227	165	F/C	L/S	C
<b>COBALT-PLATED MAGNETIC POWDER</b> It is the first time that FE201 the cobalt-plated magnetic powder has been mainly made from a -Fe <sub>3</sub> O <sub>4</sub> particle. In the course of preparation the special additive and new techniques have been used. The thermal stability of the product has been improved and the magnetic property and surface performance are excellent. Meanwhile diverse technical targets are better than that of other domestic products of the same magnetic type, compared favourably with Pferric-0070 made in USA. After tape plants use the product, they all show that its dispersion, polish and spotlessness are of high quality.					<b>PITCH COKE FROM COAL TAR HARD PITCH</b> Pitch coke made by distilling coal tar has a high carbon content, above 99% with a low sulphur content and the ash is suitable for the manufacture of carbon electrode. These electrodes are found to be superior to the petroleum coke based type.				
					1230	165	F/C	L/S	C
					<b>CASTOR STEARIN AND STEARIC ACID FROM CASTOR OIL</b> It is being used in industries like rubber compounding greases, cosmetics, textiles etc.				
					1236	165	F/C	L/S	C
					<b>PLATINISED TITANIUM ANODES</b> The platinised titanium anodes find application in electrochemical cells for electrodeposition, preparation of inorganic chemicals such as hypothalites, halates and persalts and for electrolytic oxidation of reduction reactions.				

## OFFERS

## CATEGORY I: CHEMICAL ENGINEERING

Ref. No. Org.No. Status Offer Source

1242 165 F/C L/S C  
**DIMETHYL PHTHALATE AND DIETHYL PHTHALATE (DMP & DEP)** DMP and DEP are used as plasticisers.

1293 372 F S G  
**WASTELESS SALT MINE WATER UTILISATION TECHNOLOGY** and plant development are appointed to utilise salt mine water with concentration more than 70g/cu dm and to wasteless mother liquor utilisation from the basic salt mine water utilisation plant. The process is based on thermal distillation and selective crystallisation of sodium chloride / purity-99, 6%, calcium sulphate / as a waste/, and depends on the chemical composition of the mother liquor, technical magnesium chloride, carnallite a. other salts obtained.

1327 379 P S C  
**FLUE GAS DESULPHURISATION**

1354 400 U L U  
**TECHNOLOGY OF ZIRCONIA NANOPOWDERS** Zirconia nanopowders with no limitations for the alloying components can be produced by our technology based on coprecipitation technique under controlled conditions. The powders are composed of extremely soft agglomerates. That is why they can be used for sintering both, fully - as well as partially (TZP) stabilized zirconia. Another application of the powders is toughening of different materials.

1361 396 C S/J C  
**BUTADIENE EXTRACTION PROCESS** This processing dimethyl formamide (DMF) as solvent can be used to recover high purity butadiene from mixed C4 stream. Flexible to raw material, high purity product, low energy consumption, operation continuously and safely with long running life.

Ref No. Org.No. Status Offer Source

1390 396 C J G  
**ENALAPRIL MALEATE** The product is a anti-hypertension drug developed in the 1980's. It is a long acting angiotension converting inhibitor for oral administration. It is indicated for the treatment of hypertension and as adjunctive therapy in the management of heart failure. Enalapril maleate is a white crystal or crystalline powder, the peak serum concentrations of enalapril occur within about one hour.

1409 396 C L R  
**DOUBLE LAYER BED CATALYSTS FOR THE MANUFACTURING OF PHTHALIC ANHYDRIDE** The products are used for the processing of the oxidation of oxylene by the air to phthalic anhydride. The preparation of the catalysts is simple and the raw material is cheap and easily available. The manufacturing process is stable and operated easily.

1436 396 P S G  
**ONE-STEP PROCESS FOR PREPARATION OF FATTY NITRILES FROM FAT AND OILS** A new technique cannot only use purified natural fat and oil, but also neutral deteriorated fat and oil as raw materials. Therefore, the natural resources of oil and fat can be fully and rationally utilised. The advantages of the new technique are as follows: simple technique; little investment; high benefit; and no (low) corrosion. The yield and the quality of product in the intermediate test arrive at or approach to the recent advanced level of the same technique in the world

1503 35 F C  
**MARGARINE, HARD SOAP AND POWDERED DETERGENT (BULK AND PACKETED)**

**OFFERS CATEGORY 1: CHEMICAL ENGINEERING**

**Ref. No. Org.No. Status Offer Source**

1560 61  
**TECHNOLOGY FOR PRODUCING MYCOPROTEIN** The technology for producing mycoprotein by directly fermentating corn bagasses and corn light yellow liquid with microbes without enzymatic or acidic hydrolysis. The technology features a short processing time with low costs and high returns. The product is non toxic and good for poultry and domestic animals.

1581 79 C L C  
**LEAD CHROMATE PIGMENTS** for paints, ink, plastic and rubber compounding. Manufactured from lead and sodium bichromate. Beautiful shades are developed from basic chemicals.

1658 106 C L/S/J G  
**PRODUCING STERILE AIR** Use of new filtering materials for cleaning used air during the bisynthesis of various preparations. The new filtering materials, ie the anti-microbe viscous filtering material and bazalt paper are inflammable, non toxic, explosion proof and non radioactive.

1672 106 W L/S/J G  
**WEAR RESISTANT COMPOSITE MATERIALS** on high melting mix of titanium. Compositions of wear resistant materials on carbide, carbonitrid, titanium boride with metal connections (ferrum and nickel alloys). Articles from the metals are made by method of powder metallurgy by press fitting, slip casting with further baking and hot pressing.

**Ref No. Org.No. Status Offer Source**

1736 106 C L/S/J G  
**DRYING OF MATERIALS** in spouting layer. Drying of fine dispersal highly moist materials in circulat spouting jets of a heat carrier operating in the oscillation mode. For chemical, chemico-pharmaceutical, food industry, construction material industry. High drying speed, low metal and energy consumption, high quality of materials.

1804 140 F L C  
**FORMIC ACID MANUFACTURE** from carbon monoxide (CO), caustic soda and sulphuric acid. Used principally in rubber plantation, leather tanning, pharmaceuticals etc. Suited for medium scale production. Toxic, Atmospheric pollutant carbon monoxide converted into value added product. CO 25-45% can be used. Low pressure process (8 kg/sq cm).

1808 143 C L C  
**LIQUID DETERGENT MANUFACTURE** For textiles, hospitals, laundries, hotels and household. Possesses excellent wetting properties in soft and hard water over a wide range of temperature and PH. It is an ideal wetting and scouring agent for cellulosic and synthetic fibres. Standard capacity 400 ton per year.

1809 143 J C  
**SULPHONIC ACID SULPHONATION UNIT** For detergent and soap industries. Capacity of 5 tons per hour. From linear alkyl benzene (LAB). Turnover: N 100,000.

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No. Org.No. Status Offer Source

1814 146 L G  
**STRAIN OF BACILLUS AMYLOLIQUEFACIENS** producing thermostable alpha-amylase of Bacillus licheniformis. Obtained with technique of recombinant DNA. Contains a plasmid with the structural gene of thermostable alpha-amylase of Bacillus licheniformis. Hydrolysed starch is the main raw material. Enzyme activity is about 4500-5000 units Novo/ml culture broth after 70-77 h of fermentation. Thermostable alpha-amylase is widely used in food and textile industries.

1815 146 L G  
**RIBROFLAVIN (VITAMIN B2) PRODUCTION** The method is based on the use of the bacterial strain of Bacillus subtilis as a producer which is constructed using gene engineering procedures. After 60-65 h fermentation at 40 degrees C the method makes possible the production of 8-10 g/l of riboflavin using nutritional medium which contains molasses, sugar or glucose as a carbon source.

1817 146 L G  
**THE STRAIN PENCILLIUM CANESCENS** producer of beta-galactosidase. The strain is obtained by genetic and selection procedures. In laboratory scale of fermentation the strain accumulates 100-130 units beta-galactosidase activity per ml (hydrolise of ONFG, 30 degrees C) or 130-160 units per ml (hydrolise of ONFG 37 degrees C). 62-68 units (hydrolise of lactose 30 degrees C). The strain isn't pathogenic.

1828 160 F S C  
**PRODUCTION OF HYDRATED LIME** from lime stone.

1829 161 F S C  
**PLASTER OF PARIS PRODUCTION** Development of processing method for gypsum into plaster of paris.

Ref No. Org.No. Status Offer Source

1834 165 C C  
**TANNING OF HIDES** It is used in shoe manufacturing and other leather goods manufacturing. Raw materials: sulphate acid, sodium sulphate, oxalic acid, detergent etc. Covered area: 1500 sq mt. Production capacity: 6000 hides.

1835 165 C C  
**STARCH FROM TAMARIND SEEDS** It is used in textile industries and industries making starch based adhesives. Raw materials: tamarind seeds, chemicals. Covered area: 400 sq mt. Production capacity: 30 metric tons/month.

1909 210 C L C  
**MANUFACTURE OF TOOTHPASTE** Process and formulation available.

1982 247 P S G  
**A ONE-STEP PROCESS FOR PREPARATION OF FATTY NITRILES FROM FAT AND OILS** This new technique can not only use purified natural fat and oil, but also neutral deteriorated fat and oil as raw materials. Therefore, the natural resources of oil and fat can be fully and rationally utilised. The advantages of the new technique are as follows: simple technique; little investment; high benefit; and no (low) corrosion. The yield and the quality of product in the intermediate test arrive at or approach to the recent advanced level of the same technique in the world.



## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
2103	302	C	L/J	C	2163	165	F/C	L/S	C
<b>ANTI-OXIDIZABLE SN-PB SOLDER</b> In the molten condition, the surface of this solder can be kept oxide free for a long time. Under the conditions of dip-soldering and simulating wave-soldering, the dressing weight of the solder is about one-third of the common HLSNPB 39 solder or H63A solder (made in Japan). Its ability to withstand water is 20% larger than the common solder. The expense of soldering can obviously be reduced in using the anti-oxidizable solder. It causes no smoke, no smell, no poison when using.					<b>LOW CHROMATE CORROSION INHIBITOR</b> for cooling water. It has been the particle of employ chromates at very high concentrations of 300-500 ppm for effecting of corrosion in cooling water.				
2106	305	C	L/J	C	2172	165	F/C	L/S	C
<b>ACTIVE CARBON TECHNOLOGY</b> Raw materials: white coal, pitch, coal tar. Investment in the construction of a new factory with a 150 tonnes. Production: RMB 150,000-170,000 yuan. Factory building area: only 200 sq m. The factory will be responsible for supplying a complete set of technological data and can offer helps in the construction of new factory and training of personnel and in the purchase of equipments as well as raw materials. Transfer fee: RMB 70,000 yuan.					<b>SUCCINIC ACID</b> is used in the synthesis of the pharmaceutical viz; succinyl sulphathiazole, rhodamines and is also used as an important intermediate for the synthesis of a wide variety of organic compounds.				
2154	165	F/C	L/S	C	2181	165	F/C	L/S	C
<b>ACID INHIBITOR FOR PICKLING</b> This can be used both in hydrochloric acid and sulphuric acid and for a number of metals like Fe, steel, Zn and Al.					<b>POTASSIUM SILICATE</b> is required in the manufacture of electrodes and as a binder, adhesive filler and coating in the manufacture of TV tubes.				
2160	165	F/C	L/S	C	2196	165	F/C	L/S	C
<b>ELECTROCHEMICAL MARKING OF METALS</b> A know-how for the electrochemical marking of metals so that metal articles can be marked for the purpose of identification, certificate of quality and for advertisement.					<b>CHEMICAL LIGHT STICKS</b> The device could be effectively used in distress signalling at night and working light for miners and also for decorative lighting.				
					2234	209	C	L/J	C
					<b>POWDER COATING PRODUCTION</b> Epoxy polyester coating, polyester coating, epoxy coating, powder coating for facades - polyester based. Its main uses are in metal furniture (interior/exterior), household appliances, tools, transformers, automobile parts, agricultural equipment, metal facades, profiles, pipelines, shelving, lighting equipment, bicycles. Advantages include: better chemical resistance, climatic conditions, best for outdoor use as well as indoor.				

**OFFERS CATEGORY 1: CHEMICAL ENGINEERING**

Ref. No. Org.No. Status Offer Source

2288 319.03 L  
**TECHNOLOGY OF DISTILLATION AND ABSORPTION USED NEW CORRUGATED PACKINGS** Distillation and absorption are one of the most important unit operation in the chemical, refining, petrochem, chemical fertiliser and other industries. It can increase the throughput and product quality, save energy, further to result in excellent economic benefits.

2338 395 P L U  
**TRIAZINE NETWORKS WITH HOMOGENEOUS AND ORIENTED STRUCTURES** A method has been developed to produce a highly oriented, triazine superstructural network whose structural alignment is magnetically induced in the liquid crystalline phase during the curing process of its liquid crystalline cyanate ester precursor. This results in material with very high mechanical strength (eg high tensile strength and elongation). The resulting dicyanates show liquid crystalline behaviour, have a nematic mesophase.

101008 199 W L/J C  
**SYNTHETIC RESINS** Technology and equipment offered to manufacture alkyds, unsaturated polyesters, UF and PF glues, PVA, impregnating varnishes.

101026 395 P L U  
**LATTICE MATCHED MATERIAL ON SILICON WITH DIRECT BAND GAP QUANTUM WELL** A semi-conductor structure for use in forming optical devices, such as lasers and LED's. The structure includes a silicon base on which is formed by epitaxial growth, a crystalline material (such as AlGaP) that is nearly lattice matched to silicon.

Ref No. Org.No. Status Offer Source

101035 396 C L G  
**THE SYNTHESIS OF POLYESTER RESIN** the product has been widely used in raw materials of preparing pure polyester and polyester-epoxy powder coating with its excellent weatherproof feature. The method of emulsion polymerization may overcome the defects from normal technique. Before the synthesis the reaction mixture are first emulsified then neopentyl glycol and terephthalic acid are undertaken condensation polymerization in the present of catalysts. An excellent polyester resin is obtained by controlling of softening point, viscosity and acid value

101062 396 C L/J C  
**CYANURIC AMMONIA** The product is manufactured by fluidised technology under dry ordinary pressure. It can be applied in plastic, coating material, woodworking, paper making and textile printing etc.

101104 395 L U  
**SYNTHESIS OF TITANIUM NITRIDE FILMS** Titanium nitride (TiN) is extremely hard, abrasion and corrosion resistant, has a high melting point (approx 3000 degrees C) and good electrical conductivity. This invention produces TiN films of high purity by nitridation of sol-gel titania films at 900 degrees C. This expands potential applications of TiN films.

101109 395 L U  
**CONVERSION OF METHANE** Computer modelling has been used to develop a method of converting methane to higher hydrocarbons, homogeneously in gas phase. This process can generate increased product; a favourable economic gain of approximately a factor of four can be achieved. No costly catalyst is required. This conversion can be induced in the simplest type of hot tube flow reactor.

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No. Org.No. Status Offer Source

101118 395 L U  
**DELIVERY OF COMPOSITIONS TO THE OCULAR TISSUES** A method has been developed to administer medications to ocular tissues without the attendant side effects frequently encountered and with a minimum amount of trauma. Medication can be injected at pre-determined intervals until a steady state of the desired therapeutic level is obtained.

101145 393 W L U  
**POLYMER PRECURSORS** suitable for RIM and RRIM. Chemical route from non oil-based starting materials to precursors which are especially attractive for industrial processes such as casting, low pressure dispensing, RIM and RRIM technology based on difunctional furan derogates.

101199 186 C L/J C  
**ANTISEPTIC TECHNOLOGY FOR CIGARETTES** is a kind of compound reacted physically and chemically by several kinds of organic acid and a family of annular low polymeric carbohydrate connected in the way of -1 4 carbon atoms. It is mainly used for storing cigarettes and projecting cigarettes from mould. Meanwhile, it can also be used in protecting crops and foodstuff from mould.

101224 165 F/C L/S C  
**ZINC OXIDE FROM ZINC WASTE** Zinc oxide is used in rubber, paint, pharmaceutical and ceramic industries and the zinc metal is used in galvanising industry.

101233 165 F/C L/S C  
**SURGICAL GRADE PLASTER OF PARIS** is used in orthopaedic department for fractures etc.

Ref No. Org.No. Status Offer Source

101239 165 F/C L/S C  
**CALCIUM CHROMATE/IRON OXIDE PRIMER** can be used on all types of steel structures such as bridges, towers, tanks and girders. The advantages of using calcium chromate iron oxide primer are: 1) it gives twice the life of zinc chromate red oxide primer 2) the performance is quite comparable with the costlier zinc chromate primer.

101363 396 C L C  
**ABS/TIO2 PORCELAIN WHITE MASTER BATCH** The ABS/TiO2 master batch with TiO2 content above 40% is made from ABS resin and titanium dioxide through the processing of mechanical blending. It is of high TiO2 content, good dispersibility and light shield. The new treatment method of coupling, blending and plastifying is applied to the process. The product is manufactured with mature technique and excellent quality.

101372 396 C L C  
**PE ANTIOXIDANT MASTERBATCH** The product is made with PE as base material and adding antioxidant and dispersion agents, with a common single screw extruder and one through extrusion and granulation operation. It has advantages of less equipment, simple process and available raw materials.

101566 66 F/C S C  
**MANUFACTURERS OF PLANT AND PRODUCTS FOR HORTICULTURE** They have decided to combine their professional skills to meet the demands of growers, market gardeners, nurserymen and open space engineers. They ensure global, consistent solutions of the highest quality.

101695 106 M L/S/J G  
**DICYANOGEN DIAMIDE** from carbamide. Reduction of capital expenses and self cost of dicyanogen diamide.

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
101833	165	C	C	C	102127	371	C	L	C
<b>CASHEW NUTS SHELL LIQUID (CNSL) OIL</b> It is used in the manufacturing of paints, insulating varnish, adhesive cement, brake linings, automobile etc. Raw materials: cashew shell. Production capacity: 2.5 MT tonnes. Covered area: 150 sq mt.					<b>FEEDING CONCENTRATE OF VITAMIN B 12</b> The feeding concentrate of vitamin B 12 is obtained by a production process by fermentation of alcohol-yeast production process waste products (post-yeast molasses distillery shop) by thermophilic methanogenic bacteria. Simultaneously produced is biogas, a production process by-product, being used as fuel. The feeding concentrate of vitamin B 12 is intended by enriching the feeds for farm and animals and poultry.				
101882	188	F	J	C	102157	165	F/C	L/S	C
<b>SAUSAGE TREE FRUIT EXTRACT (KIGELIA)</b> A herbal remedy for removing sun spots from fair skin. Extracted with alcohol, mixed 50:50 with aqueous cream and presented in 140 ml containers.					<b>COPPER BOTTOM STAINLESS STEEL</b> Stainless steel vessels because of their corrosion and tarnish resistance properties are widely used and preferred to copper and brass vessels by housewives and hotels.				
101886	191			U	102166	165	F/C	L/S	C
<b>GASIFIERS</b> The centre has some useful information and practical experience on the use of agricultural waste, noise in running gasifiers.					<b>PERCHLORATES</b> Sodium perchlorate is used as the starting material for production of other perchlorates. It is also used as an oxidiser in the slurry type of explosives in mines and as an important reagent in analysis.				
101917	210	C	L	C	102169	165	F/C	L/S	C
<b>SOAP MANUFACTURE</b> Both laundry and toilet. Starting from beef tallow, coconut oil or equivalent. Processes are pan boiling, drying, milling and plodding.					<b>POTASSIUM IODATE</b> An electrochemical method for production of potassium iodate which finds application in the manufacture of iodised salts has been developed.				
102076	228	W	L	G	102175	165	F/C	L/S	C
<b>AEROBIC DEGRADATION OF VARIOUS XENOBIOTICS BY BACTERIA</b> Bacterial strains selected from environment can use various compounds (phenols, benzoic acid and its nitro-, amino- derivatives) as a sole source of carbon during cultivation in aerobic conditions on the synthetic mineral salt medium M9 or on wastewater samples, which contain these compounds. On our data all these strains are nonpathogenic; intermediate accumulation in cultivation media do not occur.					<b>ZINC SILICATE GREEN PHOSPHOR</b> is mainly used in green fluorescent tube lighting, zinc oxide, silica and manganese sulphate. Silica dishes are the main raw materials.				
					102178	165	F/C	L/S	C
					<b>RESCALITE</b> is used in self-rescue masks, gas masks in carbon monoxide atmosphere in mines, gas plants, chemical plants etc.				

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
102184	165	F/C	L/S	C	102211	165	F/C	L/S	C
<p><b>SODIUM CHLORIDE AR AND IP FROM MARINE SALT</b> The manufacture of analytic reagent grade, and India pharmaceutical grade sodium chloride must involve the quantitative removal of all the impurities from salt.</p>					<p><b>ZINC PHOSPHATE PIGMENT AS ANTI-CORROSIVE PRIMER</b> Zinc phosphate finds application in the preparation of anti-corrosive primer.</p>				
102187	165	F/C	L/S	C	102218	165	F/C	L/S	C
<p><b>LOW DENSITY PRECIPITATE SILICA</b> is used in tyres, rubber rollers, pesticides, cosmetics and shoe/chappal industries and also in rubber products like sheets, gaskets etc.</p>					<p><b>SYNTHETIC INORGANIC PIGMENT</b> is used as an ingredient in paints. It can also be used in belt polishes.</p>				
102190	165	F/C	L/S	C	102220	165	F/C	L/S	C
<p><b>TRICHLOROBENZENE</b> is used as a solvent in the chemical manufacturing industry particularly dyes and intermediates.</p>					<p><b>HET ACID BASED POLYESTER RESINS</b> The HET acid based polyester resins are flame retardant/self extinguishing and find applications where low flammability and transparency are required. The characteristics of these resins are the translucency and flame retardancy of these resins are inherent in them; the smoke produced by these resins are less toxic than conventional polyester resin, and the chemical resistance of these resins is superior.</p>				
102193	165	F/C	L/S	C	102263	344	C	J	P
<p><b>CHROMIC OXIDE</b> is used as a lapping medium in ball bearing industry. It is also used in glass, lense etc.</p>					<p><b>MINERAL CHELATES</b> of amino acids to be used in the field of agriculture, veterinary and fisheries as a yield booster.</p>				
102199	165	F/C	L/S	C	102265	343	P	S	P
<p><b>SAPONIN</b> The Saponin have various uses in detergents, shampoos, textile, pharmaceutical and photo film industry.</p>					<p><b>SOLVENT FILM CARBONS</b> process. Resilient honeycomb ink coating on polyester film. Produces high grade typewriter, pencil carbons and ribbons. Outlasts 20 to 100 times and costs 1/3rd of ordinary carbons. Typewriter keys never touch ribbon ink. Project cost US\$ 350,000, technology fee US\$ 20,000 plus 5% royalty. Profit above 60%.</p>				
102202	165	F/C	L/S	C					
<p><b>FIRE RETARDANT PAINTS</b> Wood is a building material invariably used in all types of building, but no treatment is known which will prevent wood from charring at elevated temperature.</p>									
102209	165	F/C	L/S	C					
<p><b>RUST PREVENTION COMPOSITION</b> can be used on phosphate steel structures after removing rust and scale, to prevent the structures from rusting before painting.</p>									

## OFFERS

## CATEGORY I: CHEMICAL ENGINEERING

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
102290	319.05	C	J	<b>GK ALLOY FOR DENTAL AMALGAM IN FORMS OF POWDER AND CAPSULES</b> with a special rapid coding technique, using optimum heat treatment and grinding process. The amalgam prepared with GK alloy contains no zinc and no gamma 2 phase. It has high strength, low dimensional change and low static creep. GK alloy is certified by 'American Dental Association'. All properties conform to ISO 1559-1986 and standard of ADA. Chinese patent granted.	201034	396	C	L G	<b>BINDERS FOR MAGNETIC TAPES</b> The materials are used to manufacture magnetic tape. A series of products have been developed and can be used for manufacturing tapes for different purpose, among them the copolymer of vinyl chloride-vinyl acetate-vinyl alcohol, MB-VAGH, PU=100 and PU 8602 have been put into industrial production at advanced level
102292	319.07	C	L	<b>HIGH CALCINED LOW SODA ALUMINAS (-AL2O3)</b> High calcined aluminas from aluminahydroxide by using special additive for electrical insulators, substrates, grinding media and wear resistant parts etc.	201043	396	C	L C	<b>DISTILLATE HYDROTREATING CATALYST</b> The catalyst newly developed has series products namely 481, 482-3 and FH-5, they can be widely used in hydrotreating straight run and secondary processing gasoline, kerosene and gas oil.
102299	323	C	L/J	<b>MANUFACTURING PROCESS FOR ABSORBENT COTTON WOOL PRODUCTS FOR MEDICAL AND COSMETIC/DOMESTIC APPLICATIONS</b> A plant for processing bleached cotton fibres to provide absorbent cotton wool products using, in part, fully reconditioned and modified carding machinery. The offer includes supply, installation and commissioning of plant, training of personnel on site and assistance in sourcing raw materials etc.	201061	396	C	L/J C	<b>COATED COMPOUND FERTILISER</b> The product contains rich Nitrogen, phosphates, Potassium and other trace elements. It is suitable for a large variety of crops.
102336	396	C	L R	<b>2-ETHYLHEXANATE</b> The product is mainly used as paint and printing ink siccativ, catalyst in processing unsaturated polyester and polyurethane foam and polymer stabiliser.	201158	393	C	L C	<b>IMMUNO ASSAY TECHNOLOGY</b> A range of convenient biomedical tests can be undertaken using a one-step paired monoclonal antibody sandwich assay format. The detection 'label' can be enzyme, radiotope fluorescent or particulate material. Possible tests include hormones, drug monitoring, cancer markers, infectious diseases, food bacteria, addictive drug detection etc.
					201176	88	C	L/J C	<b>SODA ASH AND AMMONIUM CHLORIDE PRODUCTION</b> The technologies has the following specialities: high salt utilisation (over 90%), low cost, no environmental pollution. The quality of the soda ash produced is in accordance with the China National Standard GB210-80 and has a worldwide market.

## OFFERS

## CATEGORY I: CHEMICAL ENGINEERING

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
201185	106	C	L/S/J	G	201374	396	C	L	C
<p><b>LOCAL RAWs FOR CONCRETE</b> with plasticiser additives. On the basis of modelling the process arrangement of grains rational and multicomponent mixes under realistic conditions. Required values for reasonable arrangement, consumption and strength of concrete. Controlled condition of treatment and hardening of concrete mixes. Low consumption of concrete, short term thermal and moisture treatment, steamless technology.</p>					<p><b>REGENERATION OF CATALYST FOR DEHYDROGENATION OF LONG CHAIN PARAFFINS</b> The regeneration process is to remove the carbon deposit on the catalyst surface by burning the coated carbon in several steps. A special process is also used to rediffuse the active metal components in catalyst, so that the catalytic property can be restored. After single regeneration, the catalytic activity and selectivity are thoroughly restored to the fresh state. Its stability is superior to the fresh catalyst (UOP DEH-5 dehydrogenation catalyst) by 30-50%.</p>				
201331	385	C/L	S	J/C	201383	396	C	J	G
<p><b>RESIN BASED PAPER SIZE</b> using gum resin as raw material. Fragrance, disinfections (Terpineol) and special chemicals (p-Cymene...) based on gum turpentine. Technology for Formaldehyde, Urea, Melamine - resins for wood industry. Raw materials for paint industry (alkyd resins, polyester resins).</p>					<p><b>LARGE DIAMETER SINGLE CRYSTAL OF LITHIUM NIOBATE (LN)</b> The material is an electronic and laser material which was developed in the 80's. It is used in SAW technical field, for example, middle frequency filter for black-white and colour TV sets and SAW delay in radar.</p>				
201365	396	C	L	C	201392	396	C	J	G
<p><b>ABS/PVC PLASTIC ALLOY</b> The material is made from ABS resin and PVC resin by blending through an extruder, and it is a kind of polymer material with excellent properties such as: high mechanical strength, high rigidity, good dyeing and processing properties etc. ABS/PVC plastic alloy can substitute for metal, timber and can be widely applied in household electric appliances, building materials, instruments, furniture and various kinds of sheet, pipe, rod and special materials with the method of extruding and vacuum moulding in light industry.</p>					<p><b>CHITOSAN</b> Chitosan is a non-toxic biodegradable polymer (polysaccharide) with such side uses as a basic medicative material, food and cosmetic additives, industrial catalyst, flocculant and coagulant, bioactive substance and micro-organisms. It has been widely used in recovery of valuable proteinous materials, water purification, food processing and many medical fields. Chitosan and its various derivatives can be prepared into flakes, powder, films and membranes etc to satisfy different requirements.</p>				

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
201394	396	C	J	G	201935	228	L	G	
<p><b>L-ASPARTIC ACID (BY FIXED CELL FERMENTATION)</b> The product produced by fixed cell fermentation is based on the technology of continuous processing with its strains, raw materials and overall equipment utilisation being higher than that of using the traditional batch process. As a result, its process is shorter and more reasonable with improved product quality and better profitability. The adoption of the new technique and technological process will greatly promote the technical advancement of the production of the L-Aspartic acid and other products concerned in the fermentation industry.</p>					<p><b>USE OF ENTRAPPED BACTERIAL CELLS</b> for wastewater treatment. Bacterial cells selected previously strains capable of degrade various compounds (surfactants, aromatic, compounds, acrylic acid) are entrapped in natural polysaccharide gels with granulas formation of the one determined shape and high damage resistance. The degradative activity of entrapped cells remains at the same level that free cells of these strains had before immobilisation.</p>				
201407	396	C	J/L	R	201998	380.01	C	L/J	C
<p><b>TETRA-2-ETHYL HEXYL PYROMELLITATE</b> The product is mainly used in the production of hyper-F level (heat resistance 150 degrees C) cable material as heat resistant plasticiser. This technique applied non acid catalyst and omitted neutralisation and water washing engineering. It does not discharge sewage. Low production cost.</p>					<p><b>SYNTHETIC CAMPHOR PRODUCTION LINE</b> Synthetic camphor is widely used in medicine and in chemical industries, for example cardiotonics, celluloid plasticiser, bullet primer etc. It is also used in the daily life, such as in insect repellent. The product quality coincides with the international pharmacopoeia standards. We will offer a whole set of engineering designs and detailed drawings.</p>				
201452	393	F	L	C	202305	226	C	L	
<p><b>RHEOLOGY OF EMULSIONS</b> rheometric measurement, fluid dynamics. Modelling of flows, process equipment design.</p>					<p><b>EPOXY RESIN COMPOSITIONS</b> Mixing of liquid and solid components epoxy resin, hardeners, curing accelerators, modifiers, fillers etc. The compositions are used as coatings, putties, seamless flooring adhesives, electro-insulating materials, polymer concrete, reinforced plastics and many others.</p>				
201664	106	W	L/S/J	G	301024	379	P	S	C
<p><b>PLASMA POWDER MATERIAL COATING</b> to strengthen and restore parts in 700 degrees C. Self-fluxing alloy based powder materials with refractory additives are applied by plasma or other gasometric methods to the working surfaces of metal parts. The coating is molten and mechanically treated to a desired thickness and surface fineness.</p>					<p><b>SULPHUR COMPOUNDS/SULPHURIC ACID</b> and its derivatives.</p>				
201916	210	C	L	C	301060	396	C	J	C
<p><b>GLYCERINE</b> Manufacture of explosive, pharmaceutical or cosmetic grade glycerine from spent lye, produced in soap manufacture.</p>					<p><b>PMDA CATALYST</b> Pyromellitic anhydride (PMDA) is the essential material for manufacturing polyimide which is widely used in aviation, astronavigation and electronics.</p>				



## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
301103	395	L	U	<b>N-ACETYLE GLUTATHIONE</b> Glutathione depletion in cells has been shown to increase a cell's susceptibility to irradiation or certain drugs. Conversely, increased concentrations of cellular GSH may lead to cellular resistance to certain drugs. In this new method, esterified N-acyl GSH monoester is transported intact into the cell.	301198	228	L	G	<b>AEROBIC DEGREDDATION OF XENOBIOTICS BY BACTERIA</b> Bacterial strains selected from environment can use various compounds (nonionic surfactants) as a sole source of carbon during cultivation in aerobic conditions on the synthetic mineral salt medium M9 or on wastewater samples, which content these compounds. On our data all these strains are non-pathogenic.
301108	395	L	U	<b>SURFACE MODIFIED POROUS POLYMER BEADS</b> Polymer beads have been produced which have specific surface functionality. The polymer beads produced have a hydrophobic core with hydrophilic or chiral surface functionality. The process can be altered to produce beads of various sizes and shapes. The porosity can also be altered, depending upon the end use.	301211	324	C	L	<b>EPOXY RESINS PLANT</b> product mix includes a range of standard epoxies and one proprietary type. Raw materials, bisphenol A epichlorhydrin, sodium hydroxide, toluene.
301130	393	W	S	U	301217	165	F/C	L/S	C
<b>MICROBIAL BIOTRANSFORMATIONS</b> particularly dehalogenation. Microbially derived enzymes offer great potential in the breakdown of pollutants and in the modification of organic intermediates. Applications may include production of optically pure organics and detoxification of liquid waste and solid waste.					<b>BUTYL TITANATE</b> is used in insulating varnishes, fire and rustproof paints. It is also used as catalyst for polymerisation and condensation.				
301135	393	W	L	U	301220	165	F/C	L/S	C
<b>OXYGEN ENRICHMENT CATALYSTS</b> (and processes). A range of chemical products and applications, including gas absorption and purification and use for hydrogen storage. Gases include molecular oxygen, carbon monoxide, nitric oxide and sulphur dioxide.					<b>TERPINEOL</b> is an important organic chemical used in perfumery, soaps, cosmetics etc.				
					301226	165	F/C	L/S	C
					<b>DISTILLATION OF COAL TAR</b> Fractional solvent extraction based process for the distillation of coal tar has been developed. Variety of pitches and pitch coke so obtained, wide usage in electrode and chemical industry.				
					301235	165	F/C	L/S	C
					<b>CHROME LIGNITE</b> is one of the vital drilling mud additives which is extensively and universally used to achieve and maintain desired rheological properties of water based drilling mud at high temperature.				

## OFFERS

## CATEGORY I: CHEMICAL ENGINEERING

Ref. No. Org.No. Status Offer Source

301292 372 U S/J G  
**COAL SORBENT** for removal of sulphur dioxide and nitrogen oxides from flue gases. The technology of coal sorbent production with high utilisation quality designed for SO<sub>2</sub> and NO<sub>x</sub> removal from flue gases has been elaborated. Hard coal was used as a raw material and coke tar as a binder for the formation of granules under high pressure. According to the degree of the activation of granules, the sorbent so called 'WET' or 'DRY' is obtained.

301324 379 P S C  
**SODA** and its derivatives.

301349 399 C S C  
**BASIC AND DETAILED ENGINEERING** know-how, supply of equipment training and technical assistance for plants producing pesticides both as active principles (alachlor, butachlor, dithiocarbamates, fungicides and rubber accelerators, Ametryne, Atrazine, Dimethoate, Linuron, DDT, Dichlorobenzenes, Carbofuran, Endosulfan etc) and formulated products (wetable powders, emulsifiable concentrates, granules, flowables, micronized dusts).

301358 396 C S/J C  
**POLYPROPYLENE PRODUCTION OF BATCH LIQUID MASS POLYMERISATION** The process consists of the section of monomer purification polymerisation, deactivation by flash, remain gas recovering, product pelletising and packing. It has the advantages of simplified process, small area occupied, low capital investment and less production costs, no waste discharged, short period of the project construction.

Ref No. Org.No. Status Offer Source

301367 396 C L C  
**PE/PP ANTI COPPER MASTERBATCH** PE, PP anti copper masterbatch is one kind of cylinder granules, in which polyolefins are used as carrier; proper quantity of antioxidant, anti copper agent and dispersant are added. It is extruded through single screw extruder. It can effectively solve the copper ageing problem of PE, PP resin. The index of oxidation induction period is above 30 minutes. It is a better insulation material for manufacturing wire and cable.

301378 396 C L C  
**GASOIL HYDRODEWAXING CATALYST** The product, catalyst NDZ-1, is guaranteed for 720 hours of hydrogen activation cycle length, 3700 hours of oxygen regeneration cycle period and 14800 hours of life. The long chain normal paraffins can be selectively cracked into shorter chain hydrocarbons, so the light products can be produced from the heavy distillates. With the isomerisation property, the catalyst can be used to produce gasoline with MON over 80 and diesel fuel with pour point lower than -10 degree celsius.

301403 396 C L R  
**METAL SEALANT** The sealant is designed for sealing porous product of cast and powder metallurgy aiming at improving pressure tightness, the viscosity reaches 14 C.P, surface tension 36.

301477 15 F J P  
**TICK FEVER VACCINE** Protects cattle against Piroplasmiasis and anaplasmosis.

301567 67 F/C S C  
**MANUFACTURERS OF STORAGE AND HANDLING EQUIPMENT** Specialists in grain conditioning and engineering. The objective is to promote the grain storage technology and to develop co-operation with foreign operators.

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No. Org.No. Status Offer Source

301570 70 F/C S C  
**EXCHANGE OF FOOD PRODUCTS AND AGRICULTURAL TECHNOLOGY**  
 Exporting professionals seeking to become partners in the fields of research, engineering, transporters, equipment constructors, agricultural suppliers, public and financing organisations.

301582 79 C L R  
**SYNTHETIC IRON OXIDE** Different shades of yellow, red and black largely used in paints, wall coatings, flooring, rubber and plastic compounding etc. Process makes use of waste ferrous sulphate/chloride from iron and steel industries and scrap iron. Creation of value added product from wastes.

301588 81 C L/J C  
**DI CALCIUM PHOSPHATE** The essential ingredient required for animal/cattle/poultry feed. It is also used in toothpaste, tooth creams, food and pharmaceutical industry.

301594 83 C S/J C  
**ACETYLENE BLACK** In-house research as an import substitute developed to export the potential for the manufacture of dry batteries. Two decades of experience geared to supply/instal plant and machinery including technology on turn key basis. Capacities ranging from 500 to 3000 tonnes annually with guaranteed quality as per International Standards.

301691 106 C L/S/J G  
**GLASS CERAMIC COATING** of parts from heat resistant materials. The coating may be stripped for re-use of assemblies. The high resistance of the coat is ensured through special technology of surface treatment and metal ageing using non traditional method of control of surface cleanness and coat thickness in difficult to access and easy to access places.

Ref No. Org.No. Status Offer Source

301729 106 C L/S/J G  
**ADHESIVE FOR UHF DEVICES** Adhesives for gluing and pressurising parts and assemblies of UHF devices. Ensures the working temperature range between -60 and +150 degrees C, impact and vibration resistance up to 10 and air tightness up to 28 MPa after an effect of temperature at 150 degrees C, resistant to temperature variation between -60 and +80 degrees C.

301738 106 M L/S/J G  
**PURIFICATION OF RUNNING WATERS** and electroplating waste solutions. A closed system of water consumption and branching of electroplating. There is a scheme for processing the running waters which makes it possible to utilise valuable components in the waters, regenerate the solutions from degreasing and pickling baths. Prevents pollution of environment, recovers valuable components.

301792 133 C S/L G  
**SOAPMAKING EQUIPMENT** The invention is concerned with the design and manufacture of a complete equipment package for small scale industrial processing of soap base. The component items are the reactor, alkali tank, cutting table, soap trays, stamping machine.

302153 165 F/C L/S C  
**FIRST-AID CHEMICAL FOAM EXTINGUISHER** designed for upright operation which is not available in India. The advantage of having a first-aid chemical foam extinguisher capable of upright operation is obvious.

302162 165 F/C L/S C  
**HIGH TEMPERATURE MANGANESE PHOSPHATING** Manganese phosphate coating is ideal for moving parts such as cam shafts, gears and piston rings, to give maximum protection against wear.

**OFFERS CATEGORY 1: CHEMICAL ENGINEERING**

Ref. No. Org.No. Status Offer Source

302204 165 F/C L/S C  
**PREVENTION OF CORROSION COOLING WATER SYSTEM** The inhibitor is useful for control of corrosion in cooling water systems.

302206 165 F/C L/S C  
**PAINT STRIPPER** is used for removing old paint (stoved enamel rubber paints, bituminous and coal tar based paints).

302213 165 F/C L/S C  
**ALUMINA CERAMICS** are used for grinding media, kiln furniture, ignition boat, tubes and rods, laboratory wares, cylindrical pins (insulating), thermostat switches, crucibles, spark plugs, flow controller (oil drilling), wire drawing nozzles, TIG nozzles chemical slurry nozzles, friction rings etc.

302215 165 F/C L/S C  
**MICA BASED TEXTURED COATING** Mica based textured coatings are used for protection and decoration of most exterior surfaces. It is ideal for metal, concrete masonry and wood surfaces and can be used for buildings, hotels, schools etc.

302294 323 M L  
**DIAGNOSTIC TESTS FOR TUBERCULOSIS PATIENTS** and know-how are available for three gene probes and monoclonal antibodies which have been isolated for the rapid detection of TB.

Ref No. Org.No. Status Offer Source

302296 322  
**AN ECOLOGICALLY CLEAN REAGENT FREE WATER TREATMENT PLANT** The plant incorporates a row of contact and contactless heat and mass exchange apparatus consecutively connected down the flow of water, heating the inflowing water to the temperature of 160 degrees C, subsequently softening the water by thermal process, and cooling it to the temperature of 70 degrees. The plant is used to obtain make up water for open heating and hot water supply systems and for thermal softening of feed water in desalinating plants.

401014 165 F/C L/S C  
**PIGMENT GRADE RED OXIDE OF IRON** Red oxide of iron finds application in paints, plastics, rubber, ceramic and other industries.

401032 396 C L G  
**CYANURIC ACID** the product is a kind of fine chemical product, which has good heat-resisting, ageing-resisting, and high hardness features etc. It can be applied for plastic, coating, wood processing, paper making, weaving, printing and dyeing industries, and also can be used as a kind of wrinkle-resisting marshalling agent, surface decorating board, amine resin, suppressing plastic powder, paint and fabric

401041 396 C S/J C  
**ETHYLENE PLANT** The plant produces high purity ethylene and propylene by pyrolysis of various feedstocks. The plant also produces a range of co-products including C4s, raw pyrolysis gasoline hydrogen and fuels. The new type CBL cracking furnace is used in the plant.

**OFFERS****CATEGORY 1: CHEMICAL ENGINEERING**

Ref. No. Org.No. Status Offer Source

401050 395 P L U  
**WICK CULTURES FOR AERIAL DISPERSION OF BIOLOGICAL CONTROL ORGANISMS** When twine (approx 2 mm in diameter) is soaked in a nutrient medium and then inoculated with mycelial fragments and incubated, colonisation of the twine results. When the twine is subjected to a rain event significant conidia are released. If inoculation is made with a biocontrol agent and then arranged in a trellis over any crop that would allow such an arrangement (ie grapes, fruit trees) significant crop protection can be expected. When tested with grapes suppression of powdery mildew was significant.

401175 57 F L G  
**WELDED BELLOWS** It is used in mechanical engineering, vacuum equipment, chemical engineering etc. Compressed shift is the free length of 50%.

401214 165 F/C L/S C  
**PRECIPITATE SILICA** finds its use in the rubber industry, surface coating industry. It is used for the manufacture of paints, inks, varnishes, toothpastes, skin cream etc.

401223 165 F/C L/S C  
**INHIBITOR SUITABLE FOR PICKLING OF STEELS IN HYDROCHLORIC ACID SOLUTION** Ferrous metals when formed into steel sheets, plates, bars etc are subjected to high temperatures which resulted in the formation of coating of iron oxide on the metal surface are removed by acid pickling.

401229 165 F/C L/S C  
**METHYL ANTHRANILATE AND ETHYLANTHRANILATE FROM ISATOIC ANHYDRIDE** Methyl anthranilate and ethyl anthranilate are used in perfumery industry.

Ref No. Org.No. Status Offer Source

401232 165 F/C L/S C  
**HYDRAZINE HYDRATE** finds use in the manufacture of INH, in boiler feed water as an antioxidant. It is a raw material for the production of sodium azide.

401238 165 F/C L/S C  
**ANTI-CORROSION PACKAGING PAPER** The anti-corrosion packaging paper is used for the prevention of corrosion of all types of ferrous engineering items such as machine tools, hardwares machine parts, automobile parts etc.

401241 165 F/C L/S C  
**DIBUTYL PHTHALATE (DBP) AND DIOCTYL PHTHALATE (DOP)** DBP and DOP are used as plasticisers in vinyl resins and other synthetic resins.

401244 165 F/C L/S C  
**CHEMICAL MILLING PRIMER PAINT** system for aircraft grade aluminium alloys. This is used for protection of chemically treated aircraft grade aluminium alloys during chemical milling operations carried out in alkali bath. Exposed areas produce smooth contours of desired dimensions and shape. The system protects unexposed surfaces during chemical milling operations and at the end of operation, facilitates easy peeling of the system.

401259 319.09 C L  
**A COMPLETED SET OF NEW TECHNIQUES FOR SUPER OUTPUT SEED PRODUCTION OF HYBRID RICE** To achieve the aim of super output seed production of hybrid rice without cutting leaves, five technical indicators were established. The different cultivated methods were used following the various plant developing stage. Those methods are two couple, three big, five reform, applying certain chemicals and without cutting leaves and finally made the plants growth under the direction breeding.

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No. Org.No. Status Offer Source

401333 61 F L G  
AUTOMIX HIGH BIOGAS

FERMENTATION Pig manure as raw material, room temperature, automix with no extra energy necessary, quantity and vitality of microbe have doubled and redoubled. The proportion of raw material usage and gas output can be increased by a big margin. The gas output is 0.71-0.94 M<sup>3</sup>/M<sup>3</sup>.D on an average, methane content of gas is 61.1%. Gas output of solid material is 0.386-0.397 M/Kg on the output of volatile solid material is 0.487-0.500 M/Kg.

401360 396 C S/J C

PROCESS AND PLANT DESIGN OF BUTADIENE PRODUCTION BY OXIDATIVE DEHYDROGENATION OF BUTENE This technology is based on cracking gas C<sub>4</sub> or refinery gas C<sub>4</sub>. Butene is converted to crude butadiene. The butadiene by further extracting separation to the butadiene of polymerisation grade. The B-02 catalyst with non C<sub>4</sub> and non-ferro compounds and fixed bed adiabatic reactor developed by China.

401376 396 C L C

HEXANE SOLVENT PRODUCTION PROCESS AND PLANT DESIGN Hexane solvent is a general purpose solvent with low poison, widely used in petrochemical, light and food industry. Hexane rectification is based on reformed raffinate oil by continuous rectifying separation hexane out. The equipment parameters and process operation are given by process simulation program based on the material composition and requirements.

401401 396 C L R

CATALYST FOR THE PREPARATION OF PMDA Pyromellitic anhydride (PMDA) is the essential material for manufacturing polyimide which is used in aviation, astronavigation and electronics.

Ref No. Org.No. Status Offer Source

401410 396 C L R  
MANUFACTURING TECHNIQUE OF METHYLENE DIANILINE

4,4-diaminodiphenylmethane is intermediary for organic synthesis. It is used mainly in isocyanate, polyurethane, phymide, insulating material, adhesive etc.

401421 395 P L U  
PRODUCTION OF UNIFORM MACROPOROUS POLYMER BEADS

A new process considered to be an improvement over the Ugelstad method for producing macroporous polymer beads yields beads of uniform size and shape ranging in size from 2 to 20 nm. Macroporosity, as measured by solvent regain (cyclohexane or water) varies from 1.2 ml/gm to 1.36 ml/gm. Yields ranged from 75% to 95% of the theoretical.

401439 396 C L G  
COATED COMPLEX FERTILIZER

the product is a kind of particle fertilizer with many kinds of trace elements besides nitrogen, phosphorus, potassium needed by crops. it is an ideal agriculture fertilizer with increasing the output by 10-25% than the single nutrient fertilizer. The product is widely used at home and exported to Southeast Asia

401448 393 U L C  
HYDROMETALLURGICAL PURIFICATION PROCESSES

(Liquid/liquid extraction, rare metal purification, ocean bed nodules) for processing rare earths, copper, cobalt, nickel, zinc, tungsten, vanadium, platinum, gold, tantalum, niobium, ocean bed manganese nodules are processed by liquid/liquid extraction.

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
401484	21	P	S	R	401775	123	C	L	C
<b>BIO ORGANIC FERTILIZER</b> This is a natural fertilization system, prepared from ecological materials by gestation with concentrates vide accelerated microbial induction. It is then milled and further enriched with builders trace elements and binders. It is dried in rotary dryer, granulated and packaged - mail transfer.					<b>MIBI PRODUCTION</b> 2-methoxyisobutylisocyanide with finest quality of the final product without separation of the intermediates, with full regeneration of practically all the solvents, without usage of dangerous substances, low level of production expenses. MIBI - ligand for producing Tc-99m complex for clinical application (cardiology).				
401633	106	W	L/S/J	G	401793	133		S/L	G
<b>WATER BORNE WOOD PRESERVATIVE</b> arsenic antiseptic for impregnating posts. Betters the biological resistance of impregnated wood, elevated protective ability of antiseptics.					<b>SKIN CREAM FORMULATION</b> from local materials. Technological specifications were established for the production of Nico cream, a cosmetic cream, based on the use of cocoa butter and palm kernel oil for application as a skin protective agent.				
401642	106	P	L/S/J	G	401915	210	C	L	C
<b>PRODUCTION OF TUNGSTEN METAL POWDERS</b> with a preset physical and mechanical properties and possibility of their utilisation in the manufacture of various articles.					<b>SPRAY DRIED DETERGENT POWDER</b> Process include sulphonation, batch making and spraying.				
401665	106	C	L/S/J	G	401987	247	P	S	G
<b>INSULATION OF ABSORPTION OF WELL HOLE</b> with viscous and elastic polymer based mixture having regulating properties and whose volume can be further increased by a multiple. Protection against absorption of liquids, drilling and overhauling of wells in various conditions.					<b>PREPARATION OF PRIMARY AMINES</b> A new process by hydrogenation of nitriles with the Al DOF ammonia synthesis gas. Aliphatic primary amines is one of fundamental materials of surfactants. It is widely used as a flotation agent, an anti-agglomerating agent of chemical fertilizer, and a transforming agent of rubber. Its derivatives are extensively used as a flexibiliser of textile, an emulsifying agent of asphalt, an organic modified bentonite, an auxiliary of dyeing, a germicidal antiseptic agent in the field of oil and a detergent etc.				
401696	106	C	L/S/J	G					
<b>WALL STONES</b> from loam and slag on concrete and concreteless adhesives. Use of microsilica, fine sands from burning mixes on ordinary concrete solution assy with the utilisation of mixer rolls and press and mould equipment.									

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
402117	316				402159	165	F/C	L/S	C
<b>ZINC SULPHATE BY HOT PROCESS FROM ZINC ASH AND ZINC METAL</b> Zinc sulphate as a zinc salt is used as a fertilizer which can be directly introduced to the crops. Also used in rayon manufacture, dietary supplement, animal feeds, wood preservative, mordant and analytical reagent. Zinc sulphate mono hydrate, which is used as a chemical intermediate for dyestuffs and electroplating, can be produced in the same plant.					<b>DIALDEHYDE STARCH</b> finds wide applications in the tanning industry, plywood industry and in the tobacco industry.				
402123	327	C	S	G	402165	165	F/C	L/S	C
<b>TANNERY WASTEWATER TREATMENT</b> Tannery waste waters are out to mechanical treatment, then to biological and in the end to chemical processing. Main advantages: high level of waste treatment/BOD over 90%, COD over 80%, chromium and sedimentary solids over 98%, sulfides 100%. Excessive activated sludge can be utilised in agriculture.					<b>LOW TEMPERATURE ZINC PHOSPHATING FORMULATION</b> It is used in the treatment of iron and steel surfaces before painting, used in cold drawing operations; it is used as an oil absorption layer to increase the lubricating properties.				
402129	321	C	L		402168	165	F/C	L/S	C
<b>METHOD OF CHICKEN OIL MANUFACTURE FOR PERFUME AND COSMETIC INDUSTRY</b> Method for the manufacture of chicken oil, which is used as a component of a fat base for cosmetic products: nourishing creams, shampoos, soap, make-up cosmetics. The raw material for this product is adipose tissue of broiler chickens, hens or water fowl carcasses. In comparison to the traditional method of animal fat production the offered one reduces 10 times the duration of the technological process, reduces labour costs and power consumption, improves labour conditions.					<b>POTASSIUM CHLORATE</b> is used in the manufacture of matches.				
402156	165	F/C	L/S	C	402171	165	F/C	L/S	C
<b>ANODISING OF ALUMINIUM AND ITS ALLOYS</b> is a process of building up the natural oxide which offers protection to the basis metal from corrosion.					<b>SODIUM CHLORATE</b> finds extensive application as a starting material for the production of perchlorates.				
					402174	165	F/C	L/S	C
					<b>ZINC ALLOY ANODE FOR CATHODIC PROTECTION</b> The zinc alloy anode can be used in a variety of environments ranging from heat exchangers, water storage tanks, underground structures etc in a variety of shapes to obtain maximum current distribution at minimum weight. These anodes are used with galvanised core steel which can be directly welded onto the structure.				
					402177	165	F/C	L/S	C
					<b>THICK FILM, CONDUCTOR PASTE</b> Resistive pastes of various ranges, and conductive paste which are required in thick film technology for hybrid micro electronic circuits have been developed.				
					402180	165	F/C	L/S	C
					<b>POTASSIUM NITRATE</b> from potash salt and nitric acid. Potassium nitrate is utilised in the manufacture of gun powder and fireworks.				



## OFFERS

## CATEGORY I: CHEMICAL ENGINEERING

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
402183	165	F/C	L/S	C	402303	326.01	C	L	
<p><b>PRECIPITATED SILICA</b> find applications in textile, printing ink, polishes, varnishes, toothpaste and as a rheological control additive in PVC pastes etc.</p>					<p><b>EQUIPMENT FOR WASTE WATER AERATION</b> Technology for production of ceramic diffusers for fine bubble waste water aeration. The diffuser watt-hour efficiency lies in the range of 2-3 kg O<sub>2</sub> from 1 kWh.</p>				
402186	165	F/C	L/S	C	501031	395	P	L	U
<p><b>ALUMINIUM SILICATE</b> is used as filler material in rubber, paint, paper and toothpaste industries.</p>					<p><b>IMPROVED FUSION OF METAL/CERAMIC BONDS</b> Fusing metal and ceramic materials is important in various technologies including electronic packaging. This invention yields high strength metal/ceramic interfaces by abutting refractory oxide ceramic and a metal, fusing them by heating and using further heating procedures to form a thin layer of solid solution of intermetallic compound at the metal/ceramic interface. The thickness and strength of the layer can be controlled. Materials that can withstand shear forces of over 25 inch-pounds are typically produced.</p>				
402192	165	F/C	L/S	C	501040	396	C	S/J	C
<p><b>ETCHING COMPOSITION SUITABLE FOR ETCHING ON GLASS</b> The composition can also be used for obtaining fine granules giving sharp lines which do not require any filling material for getting contrast when projected.</p>					<p><b>NEW TYPE (CBL) ETHYLENE CRACKING FURNACE</b> CBL cracking furnace possesses the advantages of shortened project schedule, reduced capital requirement, high yields of ethylene, propylene and butadiene, benzene, toluene and xylene. Easy to operate, full flexibility for wide range of feedstocks and flow rates anticipated and a long running life.</p>				
402198	165	F/C	L/S	C	501059	396	C	J	C
<p><b>POUR POINT DEPRESSANT (FLOW IMPROVER)</b> This is a chemical formulation, which when added to the waxy petroleum crude helps the crude flow better during pipeline transportation over long distances.</p>					<p><b>H S ANTIOXIDANT 330</b> The product can be added into polypropylene, polyethylene, polyvinyl chloride rubbers, high temperature-resistant adhesives and the like, so that it greatly increases lifetime of these high polymers. This product is non toxic, non contaminative and low in evaporation in its use. This product has excellent property of antioxidation, so it is used, preferably in cable and food packing.</p>				
402287	319.02		L						
<p><b>THE TECHNOLOGY FOR PRODUCING CHEMICAL GYPSUM</b> from treating the waste of phosphoric acid extraction with washing purification, separation, drying, dewatering. The quality of product can reach national architectural gypsum standard GB9776.</p>									
402301	326.01								
<p><b>BIOFILTERS</b> The biological treatment of the waste water on the biofilters with plastic packings. For treatment of industrial wastes and municipal wastes.</p>									

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source	
501102	395	L	U	<b>MOLECULAR CLONING AND TRANSFORMATION OF CYCLODIENE RESISTANCE</b> An invertebrate GABA receptor has now been cloned which provides a unique ability to manipulate the resistance status of an insect via genetic transformation. In addition, when expressed in <i>Xenopus</i> oocytes or cell lines, the gene could be used to test the mode of action of new pesticides and drugs, to screen novel compounds and substances and for the biorational design of new insecticides with increased vertebrate safety.	501398	396	C	L	R	
501111	395	L	U	<b>PREPARING THIOIMIDAZOLE INTERMEDIATE FOR THIAZINE</b> Biologically active thiazine has been synthesised. One of the key intermediates, termed 3-chloroneamphine, has antiviral, antineoplastic and immune system stimulatory functionality.	501419	395	P	L	U	
501134	393	W	L	U	<b>MONOSACCHARIDE ANALOG BASED GLYCOSIDASE INHIBITORS</b> Glycosidases are enzymes that catalyse the hydrolysis of glycosidic bonds and are essential for the normal growth and development of all organisms and are widely distributed in nature. Certain glycosidase inhibitors have been found to inhibit human immunodeficiency virus (HIV) syncytium formation and virus replication.	501428	395	P	L	U
501143	393	W	L	U	<b>BIOMASS LIQUEFACTION</b> to liquid fuels and chemical feedstocks. Continuous system for hydrogenation with little or no consumption of exogenous hydrogen. Uses novel catalyst system and mild conditions, oil product essentially sulphur and nitrogen free, high calorific value.	501437	396	C	L	G
501326	379	P	S	C	<b>HYPERBRANCHED POLYESTER AND POLYAMIDES</b> High molecular hyperbranched polyesters and polyamide polyesters have been produced by a one step process in such a way that side reactions, ie reverse reactions, isomerisation, crosslinking etc are avoided. The resulting polymers have high polarity, low crystallinity and lower than usual viscosity.	<b>LC-8701 COBALTPLATED MAGNETIC POWDER</b> the product is mainly made from FeOOH particles. A special additive and a new technique was used in the course of preparation. The product can be used for manufacturing a medium and high grade video-tape with excellent magnetic and surface properties				

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

- | Ref. No.  | Org.No. | Status | Offer | Source | Ref No.   | Org.No. | Status | Offer | Source |
|---|---------|--------|-------|--------|---|---------|--------|-------|--------|
| 501455  | 393     | W      | L     | U      | 501731  | 106     | C      | L/S/J | G      |
| <b>PURIFYING MDH (MALATE DEHYDROGENASE)</b> A simple elution technique has been developed for purifying MDH from pig heart mitochondria and a number of mesophilic bacteria. This technique should be applicable to other enzymes eg isocitrate dehydrogenase, glycerol dehydrogenase and generally two substrate enzymes.  |         |        |       |        | <b>PURIFICATION OF WATERS</b> in natural biological purification constructions. Purification of waters in faultries, inhibited localities, agricultural and industrial enterprises with the use of a system of ponds (lagoons) operating in running and contact modes with a certain filling depth and exposition of running water and by introducing into the running liquid of algological complex.   |         |        |       |        |
| 501683  | 106     | M      | L/S/J | G      | 501785  | 129     | M      | L/J   | R      |
| <b>PURIFICATION OF RUNNING WATER</b> Components for dehydrating deposits of running water. Preparation of water solutions, dosing them while mixing into the deposit and holding the deposit of clay areas. Effective separation of hard and liquid phases of the deposit that give the possibility for decantation of the above clay water, reduction of reagent consumption as compared to the cation active flocculants approximately twice. |         |        |       |        | <b>WHITE WEATHERPROOF PIGMENT</b> The raw rubber latex treated with chemicals is mixed in required proportions with titanium dioxide powder of the required micron size, homogenised, filtered and packed for commercial applications. The product can be used as a highly useful cheap water resistant paint. Used for buildings and furniture. Production cost is low and product highly competitive in today's market.   |         |        |       |        |
| 501692  | 106     | C      | L/S/J | G      | 501914  | 210     | C      | L     | C      |
| <b>MANUFACTURE OF FINE DISPERSION HOLES</b> for liquids and gases are made in injectors, jet tubes and flow washers made of conducting materials. The holes made to the technology are made by way of electroerosion treatment with pre-assessment of quality and correction of the treatment condition. The holes are treated to prescribed consumption characteristics by way of hydro-abrasive treatment and active control.                 |         |        |       |        | <b>DETERGENT PASTE</b> Process and formulation available.   |         |        |       |        |
| 501704  | 106     | P      | L/S/J | G      | 501986  | 247     | C      | L     | G      |
| <b>DETAILED ANALYSIS OF SOILS</b> for phosphates, potassium. Simplified process of sample preparation as to the metrological characteristics.   |         |        |       |        | <b>THE SYNTHESIS OF POLYESTER RESIN</b> by means of emulsion polymerisation. This new polyester resin has been widely used in the preparation of pure polyester and polyester-epoxy powder coating, because of its excellent weatherproof. The method of emulsion polymerisation may overcome the defects from the normal technique. The processes are: 1) before the synthesis, the reaction mixture are first emulsified, then 2) neopentyl glycol and terephthalic acid are undertaken condensation polymerisation in the presence of catalysts. |         |        |       |        |

**OFFERS CATEGORY 1: CHEMICAL ENGINEERING**

Ref. No. Org.No. Status Offer Source

502088 294 C L/J G

**TECHNIQUE FOR EXTRACTING MIXED FATTY ACID AND LECITHIN FROM WASTE OIL FOODS** such as cottonseed oil, soybean oil, sunflower oil and rapeseed oil. This technique can be carried out according to buyers requirements, generally design capacity is about 1,000 to 10,000 tonnes annually. The price is US\$ 500 per tonne. Product cost is US\$ 200 per tonne, original investment is about US\$ 100,000 according to output of 100 tonnes a month. The offer will provide whole the technique, including design drawings, operation and training of operators it will be available as a turnkey project.

502189 165 F/C L/S C

**MEMBRANE TECHNIQUE IN INDUSTRIAL PROCESSING** At present conventional waste treatment technology (mostly based on bio chemical reaction) is used in waste effluent treatment for pollution control without water recovery and the process is capital intensive and operational costs very high.

502195 165 F/C L/S C

**CASTOR OLEIN AND OLEIC ACID FROM CASTOR OIL** It is being used in industries like non ionic surfactants, wetting agents, ore flotation carbon paper, stencil paper etc.

502201 165 F/C L/S C

**CEMENT PAINTS** are widely used as decorative and waterproofing exterior coating for surfaces such as cement concrete, cement plaster, asbestos cement sheet, brickworks etc. These paints can be used on interior surfaces.

502208 165 F/C L/S C

**RED LEAD OXIDE PRIMER** has applications on all steel structures, ie bridges, towers, tanks rail coaches, exposed to atmosphere.

Ref No. Org.No. Status Offer Source

502210 165 F/C L/S C

**ZINC ETHYL SILICATE PRIMER** This primer can be used for the protection of all types of steel structures in marine environments in place of conventional primers like red oxide/zinc chromate, red lead etc which do not give adequate protection and therefore require finishing paints.

502217 165 F/C L/S C

**BUTYL OCTYL PHTHALATE (BOP)** It is used as plasticiser.

502280 154 C L/J C

**N541 MMA MONOMER** A new method of using liquefied petroleum gas (LPG) to produce methylmethacrylate (MMA) monomer, which is used in the production of transparent plastics.

502291 319.06 C L

**MANUFACTURING TECHNIQUE OF OXALIC ACID** Gas is produced by burning coke in a furnace, sodium formate is synthesised from gas and caustic soda under high temperature and pressure, concentrated and dehydrogenated into sodium oxalate, acidated into oxalic acid with sulphuric acid, then refined, crystallised, separated and dried to produce the end product.

502298 323 C L

**A THERMAL/CHEMICAL PROCESS FOR OIL RECYCLING** A licence/joint venture agreement is offered for the patent and know-how relating to the process for the reconditioning of mineral oils (industrial and automotive). The process removes between 95% and 98% of the carbon and metallic content at half the cost of the sulphuric acid process.

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No. Org.No. Status Offer Source

502337 395 P L U

**USE OF ARGINASE TO CONTROL NITRIC OXIDE FORMATION** Nitric oxide, formed in endothelial cells from arginine, is an important component of endothelium derived relaxing factor. When taken up by vascular smooth muscle cells, nitric oxide causes relaxation of those cells with concomitant decrease in vascular resistance and blood pressure. Buy reducing plasma levels of arginine by administration of arginase production of nitric oxide is limited. This effect is potentiated by an arginine antagonist, Ng-amino-arginine.

502339 396 C J/L R

**HS ANTIOXIDANT 330** The agent can be added into polypropylene, polyethylene, polyvinyl chloride, synthetic rubber, high temperature resistant adhesive and the like, greatly increasing the useful life of these polymers. The product is non toxic, non contaminative and low evaporable in its use. It is preferably used in cable and food packing materials with excellent property of antioxidation.

601021 372 F S/J G

**WASTES DISPOSAL IN COAL MINES** Industrial wastes are stored underground in coal mines to fill the empty, after mining, places, to pack cavings and dams in order to avoid fires and occurrence of so called artificial roof. The elaborate technology covers preparation and storage of a duly composed water-ash mixture and hydraulic transport to the place of destination.

Ref No. Org.No. Status Offer Source

601049 396 P S G

**A NEW PROCESS FOR PREPARATION OF PRIMARY AMINES** aliphatic primary amines, made by hydrogenation of nitriles with the aid of ammonia synthesis gas, is one of fundamental materials of surfactants. It is widely used as a flotation agent in mines, an anti-agglomerating agent of chemical fertilizer, and a transforming agent of rubber. Its derivatives are extensively used as a flexibilizer of textile, an emulsifying agent of asphalt, an organic modified bentonite, an auxiliary of dyeing, a germicidal antiseptic agent in the field of oil, and a detergent etc.,

601058 396 F J C

**ZINC BORATE FOR FLAME-RESISTANCE** The product is a heat resisting, stable and non-poisonous flame-resistant. It can be widely used in fire-retarding treatment of resins, fibers, rubber products, electrical equipment, insulating materials, shell of electronic products, automobiles spares, wall materials, wires and cables etc. It is also used in antirust paint.

601094 396 C J C

**IN-D TOBACCO BUD INHIBITOR** The product is mainly used in the middle and late growth period leaf to inhibit the growing of tobacco bud. The utilisation of the product will improve the yield and quality of tobacco leaf. The properties of the product have come up to the level of the same kind of international products.

601156 393 F L C

**COMPLEX ORGANIC COMPOUNDS SYNTHESIS** for medical research. Compounds for research largely in the life sciences include prostaglandins and leukotrienes required for the study of hypersensitive reactions. Biological standards and compounds for immunoassay are also studied.

## OFFERS

## CATEGORY I: CHEMICAL ENGINEERING

- | Ref. No.  | Org.No. | Status | Offer | Source | Ref No.  | Org.No. | Status | Offer | Source |
|---|---------|--------|-------|--------|--|---------|--------|-------|--------|
| 601179  | 106     | P      | L/S/J | G      | 601417   | 395     | P      | L     | U      |
| <p><b>HEAT UTILISERS</b> with rotating heating surface for water boilers. The devices are intended for reducing the temperature of combustion product of liquid and gaseous fuels in low power heat generators. Usage of waste heat as the combustion products of gaseous and liquid fuels, heated air.</p>   |         |        |       |        | <p><b>RECOMBINANT VIRAL VACCINE</b> A new recombinant viral vaccine has been developed which is effective against feline panleukopenia. This particular vaccine relies upon the formation of a construct incorporating the raccoon poxvirus in combination with a genomic element of the feline panleukopenia virus. Cats vaccinated with this vaccine responded with high antibody titers which levels were not dependent upon route of administration.</p> |         |        |       |        |
| 601183  | 106     | C      | L/S/J | G      | 601435   | 395     | P      | L     | U      |
| <p><b>FINE GRINDING OF HIGH HARDNESS MATERIALS</b> in pneumopulse devices. Self grinding by way of periodic high speed strike at the dispersion material pick surface. Expansion of the field of use in hardness, initial grain size, physical and chemical properties.</p>   |         |        |       |        | <p><b>DEPOSITION OF TUNGSTEN ON TISL2</b> An improved process for selective deposition of conductive metals on disilicide encroachment barriers allows the construction of integrated circuit components wherein the metal/disilicide interface is substantially free of oxygen and/or fluorine contamination.</p>   |         |        |       |        |
| 601188  | 106     | W      | L/S/J | G      | 601634   | 106     | W      | L/S/J | G      |
| <p><b>PROTECTION OF CULTURAL PLANTS</b> from wireworms on the basis of pheromomes. The technology is based on breaking up the procedure of spawn of pests.</p>  |         |        |       |        | <p><b>SUPER PURE HYDROGEN</b> Samples of non standard process equipment, installation and devices for obtaining super pure hydrogen.</p>   |         |        |       |        |
| 601225  | 165     | F/C    | L/S   | C      | 601705   | 106     | P      | L/S/J | G      |
| <p><b>BLACKSTAMP CANCELLATION INK</b> The ink is used by Post and Telegraph Departments for the cancellation of stamps.</p>   |         |        |       |        | <p><b>INCREASE OF FERTILITY OF LIGHT SOILS</b> yield of field in crop rotation. Reduction of scope of chemical treatment of seeding and fuel consumption.</p>  |         |        |       |        |
| 601391  | 396     | C      | J     | G      | 601794   | 133     | C      | S/L   | G      |
| <p><b>DIAGNOSTIC REAGENTS WITH MCAB AND CELL PRODUCTS</b> McAb diagnostic reagents characterised with high sensitivity and specificity, as one of the most advanced biotech products, is more and more fascinating. The immuno-potentiators received from cell culture vitro have been clinically used. The determination tech of HBV, HAV Syphillis and Rubella has reached the level of the 80's.</p> |         |        |       |        | <p><b>PRODUCTION OF ADHESIVES USING CASSAVA STARCH</b> Cassava starch is pre-cooked in a reactor and treated with appropriate chemical reagents. The resulting slurry is then evaporated, allowed to set, dried and finished into gums, glue or adhesives.</p>   |         |        |       |        |
| 601913  | 210     | C      | L     | C      | 601913   | 210     | C      | L     | C      |
| <p><b>LIQUID DETERGENT</b> Process and formulation available.</p>   |         |        |       |        | <p><b>LIQUID DETERGENT</b> Process and formulation available.</p>  |         |        |       |        |

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No. Org.No. Status Offer Source

601985 247 C L G  
**BINDERS FOR MAGNETIC TAPE** The magnetic tape binder is one of the main materials used to produce magnetic tape. Our institute has already developed a series of products, among which the copolymer of vinyl chloride-vinyl acetate-vinyl alcohol, has been put into industrial production, and used in more than ten domestic magnetic tape plants. The copolymer of vinyl chloride-vinyl acetate-vinyl alcohol allows magnetic powders to disperse well and flow smoothly. After the powder gets onto the film, it has a certain intensity and can be singly used to meet the demands of low grade tape.

602083 215 C L/J U  
**UTILISATION OF EXHAUSTED ZEOLITE** containing cracking catalysts. (Exhausted cracking catalysts) after acid treatment are (converted) in hydrothermal conditions in (ZSM-5) or other (high silica zeolites). Acid solutions are neutralised and obtained hydroxides are used as a rare earth containing matrix for catalysts used in petrochemical industry: cracking, alkylation, conversion of methanol to gasoline etc.

602219 165 F/C L/S C  
**SYNTHETIC IRON OXIDE (RED & BLACK)** Iron oxide is used as inorganic pigment. The new process involves the addition of milk of lime to the solution of ferrous chloride resulting in the precipitation of ferrous hydroxide.

602273 174 C J C  
**BASE MINERALS** lime based products.

Ref No. Org.No. Status Offer Source

602289 319.04 L  
**PURE GOSSYPOL AND GOSSYPOL ACETATE** These products are prepared after repeat purification and recrystallisation, with high purity and good quality as well as reliability. Both products are good in anti-tumour activity and in the use of male contraceptive medicines. It is possible that these products can cure AIDS disease. Gossypol acetate can cure the intrauterine tumour of woman.

701057 396 C J C  
**GRAFT NEOPRENE ADHESIVE** The product can be used to bind the plastic substrates which cannot be bound by general neoprene adhesives. As the adhesive is especially used for bonding soft PVC to various synthetic leathers, it is used as a speciality adhesive for shoe manufacture. It is also useful in interior decoration and repair of green house PVC film.

701093 396 C J C  
**METHYLENE DIANILINE** Diaminodiphenylmethane is an intermedator for organic synthesis. It is mainly used in isocyanate, polyurethane, polyimide, insulating material, adhesive etc.

701133 393 W L U  
**BIOMASS SUPPORT PARTICLES** for microbial cell immobilisation. Many fermentations/biological reactions can benefit from microbial cell immobilisation. Biomass support particles provide a simple means of achieving such immobilisation. Several different types of particle have been developed together with a range of reactor systems enabling a wide variety of different species to be effectively immobilised.

701213 165 F/C L/S C  
**GELATIN OPTICAL FILTER** These filters are used in instruments like calorimeters, flame photometers etc.

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No. Org.No. Status Offer Source  
 701216 165 F/C L/S C  
**ADHESIVE FOR STAPLE PINS** is used for joining the single metal wire staples on automatic machines.

701219 165 F/C L/S C  
**NECELONE** is a new specialty perfumery chemical from longifolene. process consists of isomerisation of longifolene and acylation into accetyl allisolongifolene.

701222 165 F/C L/S C  
**CHLORINE TABLETS** are a very useful product for the disinfection of water.

701228 165 F/C L/S C  
**ISATOIC ANHYDRIDE** is a versatile organic intermediate useful in the manufacture of several industrially important chemicals related to anthranillic acid.

701231 165 F/C L/S C  
**DEHYDRATED CASTOR OIL FATTY ACID** This finds extensive application in surface coating industries. They are an excellent source of dionic acids are used in the preparation of dimer acids which are important intermediates for polyimide resins.

701234 165 F/C L/S C  
**B P P S** This is a plant growth promoting soil additive.

701237 165 F/C L/S C  
**DECORATING NICKEL-IRON ALLOY PLATING** with chromium overlays. Nickel plating is common to the automobile and other decorative applications. The current escalation in the price of nickel, necessitates the need for a viable alternative.

Ref No. Org.No. Status Offer Source  
 701240 165 F/C L/S C  
**ZINC SODIUM SILICATE PRIMER** Primers are used for the protection of steel surfaces. The process developed consists of reacting zinc dust with sodium silicate and the addition of red lead.

701243 165 F/C L/S C  
**POLYURETHANE COATING** The process is for the manufacture of shellac polyester urethane compositions for use in textiles, waterproofing, adhesives, paints, varnishes and electrical insulating varnishes.

701294 372 F J G  
**TECHNOLOGY OF BOLTING OF MINING WORKINGS** 1. Complex investigations on the surrounding rocks properties, by means of pentrometer, 2. Complex designing of bolting support systems, 3. Selection of optimum bolting equipment and materials, 4. Control tests of support work parameters, 5. Approval tests for materials and equipment applied for bolting.

701312 375 C L C  
**FUEL CATALYST** improves combustion performance, removes carbon, wax and gum deposits from the engine and reduces the emission of carbon dioxide and unburnt hydrocarbons. Suitable for all petrol, diesel or oil engines. Local manufacture of housings offered.

701357 401 F L U/P  
**COMPLEX ALUMINA AND CEMENT PRODUCTION** by self disintegration. The raw materials used are limestone and alumina bearing components. The mixture is burned out in a rotary kiln. The self disintegration of sinter occurs on cooling giving the powder. This powder is leached. From solution A1/OH/3 and A1 2 O3 is produced. From the slime Portland Cement is produced.



## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No. Org.No. Status Offer Source

701373 396 C L C

**HC-402-2 TYPE HOMOGENEOUS CATALYST FOR HYDROGENATION** The product is a new kind of catalyst of hydrogenation. It is used for hydrogenation of aromatic hydrocarbon and olefins. It is especially used for the benzene hydrogenation to make cyclohexane as well as for the reaction of the sulphoene hydrogenation to make sulpholane.

701377 396 C L C

**PRODUCTION TECHNOLOGY OF CIS-1-4 POLYBUTADIENE RUBBER** Cis-1, 4 polybutadiene rubber is obtained by stereo specific polymerisation of 1,3 butadiene monomer in solution in the presence of a catalyst and through coagulating in water, drying, shaping and packing. The product possesses superior properties such as high resilience, good abrasion resistance, better processability, low heat build up at dynamic load and low gel etc.

701424 395 P L U

**CHITINASES ACTIVE AGAINST INSECTS** Chitinases have been isolated from a strain of *Trichoderma harzianum* which, when used as an anti-fungal, significantly reduced spore germination in both *Fusarium* and *Trichoderma*. Among spores producing germ tubes the average length was 55-58 um compared to 198 um for controls. When tested against two insects (cabbage looper and imported cabbage worm) larval growth was reduced to 60% of normal.

701433 395 P L U

**POLARISATION SELF MODULATION EFFECT LASERS** A self modulated laser which provides optical pulses in excess of several hundred MHz without high speed electronic circuitry. This invention overcomes the inherent limitation of other semi-conductor lasers in achieving ultra-high frequency modulation by avoiding the constraints of relaxation oscillatory frequency.

Ref No. Org.No. Status Offer Source

701451 393 W L U

**FUNCTIONALLY TERMINATED POLYMERS** (terpene derivative, liquid rubbers). Especially useful in production of 'liquid rubbers' for sealants, coating materials, lubricants, elastomers, foams, solid fuel propellants also for reaction injection moulding techniques. Terpenes readily available from non oil-based materials (eg wastes from paper pulp and fruit processing industries, agricultural residues).

701535 57 F L G

**PLASMA ENHANCE CHEMICAL VAPOUR DEPOSITION AMORPHOUS SILICON SOLAR ENERGY CELL EQUIPMENT** specially designed for developing the silicon solar energy cell with small area and high efficiency.

701583 79 C L C

**A RANGE OF BLUE AND GREEN PIGMENTS** for various applications. Phthalic anhydride urea and copper salts are the raw materials. Used to create these versatile pigments.

701592 82 C J C

**PRODUCTION OF FERRO SILICON** including commissioning and stabilisation in arc smelting furnace and used mainly in steel production. The versatile furnace design allows interchangeability of product and in the same furnace different products like calcium carbide, silico manganese, ferro silicon etc can be produced by minor parameter adjustment.

701595 83 C S/J C

**CALCIUM CARBIDE** Pioneers with three decades of experience and credibility. Well equipped to supply/install plant and machinery, including technology on turn key basis. Capacities ranging from 5 MVA to 20 MVA and guaranteed annual production of 9,000 to 36,000 tonnes with quality internationally acceptable.

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
701639	106	F	L/S/J	G	701741	106	C	L/S	G
<b>COMPLEX UTILISATION OF BASIC ORE</b> Thermochemical enrichment of low quality tungsten, molybdenum, bismuth, silver concentrates, pyrite containing polymetal ores and concentrates, combination method of refining the sinnirites.					<b>FOAM PLASTIC COATING</b> for heat insulation and heat protection. Syntact foam plastic coat by way of spraying of a mix including glass microspheres, demethylsilylan resin, hardener, thermostabiliser and solvent using pneumatic sprayer and mixer. For aircraft building, ship building and construction, High strength features under a temperature up to 573 degrees by Kelvin.				
701643	106	P	L/S/J	G	701796	136	C	S/L	G
<b>CATALYTIC TREATMENT OF EXHAUST GASES</b> Basic design and technological data for neutralising in non-standard conditions of exhaust gases from organic admixtures with the employment of mathematical modelling and plenum-circulation installation. Recommendations for designing the installation operating in a non-standard mode.					<b>BOVINE PLEUROPNEUMONIA VACCINE</b> Development of an oil based inactivated contagious bovine pleuropneumonia vaccine (SAFL-83). Vaccination of cattle against pleuropneumonia to achieve immunisation against the disease.				
701684	106	C	L/S/J	G	701903	205	J		G
<b>OCCLUDED FERTILIZERS</b> The granules of any fertilizer are coated with a thin film of biological adhesives acting as half-penetrating membranes. The prolongation of effect of the fertilizer depends on the thickness of the film. High harvest of plants, economy of fertilizers, high quality structure of the harvest.					<b>DESALINATION UNITS</b> Assembling of autonomous desalination units and other equipment. For water supply at small human settlements, tourist camps, medical institutions. Capacity: 30 cu m or 50 cu m water per day. Using sea water or mineralised water. Cash minimum: 2.5 million rubles. Cash maximum: 3 million rubles.				
701715	106	M	L/S/J	G	701912	210	C	L	C
<b>PROTECTION OF PLANTS</b> B.thuringiensis and B.spherucus, storage, stabilisation of insecticide pr. Insecticide activity against Colorado potato beetle of B.thuringensis and B.sphericus has been investigated. Use of biomethod for plant protection.					<b>DISHWASHING LIQUID DETERGENT</b> Process and formulation available.				
					702033	264	F	J	C
					<b>VETERINARY PHARMACEUTICALS</b> Manufacturing technology for dewormers, antibiotics and powders in veterinary pharmaceuticals. Preparation of syrups to treat chloroquine resistant malaria in the tropics. Formulae for human pharmaceuticals.				

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No. Org.No. Status Offer Source

702087 294 C L/J G

**ABSTRACTING CALCIUM PHYTATE FROM THE WATER IMMERSING MAIZE TO PRODUCE INOSITOL** On processing maize for various purposes, the maize should be immersed in water at the beginning. Calcium phytate may be abstracted from the water to produce inositol so as to increase profits. The technique can be introduced to any mill processing 20,000-100,000 tonnes of maize every year. 21 tonnes of inositol can be obtained from the water immersing 60,000 tonnes of maize. The domestic price for one tonne of inositol is US\$ 55,000 or more. The total required investment for the project to produce inositol from the water immersing 60,000 tonnes of maize a year is US\$ 280,000.

702116 316 C L C

**ZINC OXIDE MANUFACTURE** using low budget plant. A comprehensive consultancy and know-how is offered on a turnkey basis for the manufacture of zinc oxide by the French process. The unique and cost effective simplified plant is easy to operate and can process both virgin zinc and ingots based on zinc dross. Zinc oxide is used in rubber, ceramics, paint, plating, cosmetics and pharmaceuticals.

702155 165 F/C L/S C

**ACID INHIBITOR IN SOLID FORM** which can be used for inhibition of corrosion during acid pickling of ferrous items.

702158 165 F/C L/S C

**CORROSION INHIBITOR FORMULATIONS** for cooling water in heat exchange system. The product is the inhibitive formulation based on a non-toxic organic and inorganic compounds, for steel, copper, copper and brass in cooling water system.

Ref No. Org.No. Status Offer Source

702161 165 F/C L/S C

**FORMULATION OF SRHS CHROME SALT** (Self Regulation High Speed) chrome salt can be used for the preparation of a hard chromium plating bath and also for the replenishment of its ingredients during use.

702164 165 F/C L/S C

**LOW NICKEL ROOM TEMPERATURE BRIGHT NICKEL PLATING SALT FORMULATION** This special formulation is used for bright nickel plating and has advantages over the conventional Watts' nickel solution and that it operates at a lower concentration of nickel and a lower temperature range, 30-40 degrees C compared to 55-60 degrees C (recommended for bright Watts' bath).

702167 165 F/C L/S C

**POTASSIUM AND SODIUM BROMATE** is extensively used in hair wave preparation and flour treatment. Sodium bromate is mostly used as a laboratory reagent for analysis.

702170 165 F/C L/S C

**SOAK CLEANING COMPOUND FOR STEEL CONTAMINATED WITH OIL** Soak cleaning compound is used for removing the mineral oils, vegetable oils and greases which are usually applied to ferrous surface for corrosion protection during transit and storage.

702173 165 F/C L/S C

**TITANIUM SUBSTRATE INSOLUBLE ANODE** This is prepared by treating titanium metal suitably and later coating it with electro catalytic materials of the platinum group metals viz ruthenium, iridium etc or its oxides or mixture of oxides of platinum group metals and valve metals (like Ti, Ta and Zr).

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No. Org.No. Status Offer Source

702182 165 F/C L/S C  
**PRECIPITATE CALCIUM CARBONATE**  
 is widely used as filler in paints, and in the paper industry.

702191 165 F/C L/S C  
**HIGH PURITY MAGNESIA** and magnesium carbonate from low grade magnesite ore. The products magnesia and basic magnesium carbonate conform to the specification for the pharmaceutical and rubber industries.

702197 165 F/C L/S C  
**SECOND GENERATION ANTI-FOULING PAINT (SGAF)** paint is useful for prevention of fouling of water structures.

702203 165 F/C L/S C  
**SILICATE BASED WATERPROOFING FORMULATION** Cement paints currently in use as protective coatings for plaster are porous in nature and therefore can be considered as a best damp proof.

702205 165 F/C L/S C  
**LACQUER FOR CORROSION PREVENTION** Lacquer can be used for the preservation of simple metal assemblies eg crane shaft, crank-shafts, hand tools etc. It may also be suitable for the preservation of metal structures during storage and transit.

702212 165 F/C L/S C  
**ZINC RICH PRIMER** in organic medium may find application in the protection of steel structures in marine and industrial environments.

702293 319.08 C L  
**REPLATING TECHNOLOGY OF DUPLICATOR SELENIUM DRUM** A newly developed technology for preparing photosensitive materials and film forming on selenium drum to recondition selenium drums of duplicators after replating.

Ref No. Org.No. Status Offer Source

702306 326.04 C L  
**TANNERY WASTE WATER TREATMENT**  
 Waste waters are mechanically treated, then biologically and finally are processed chemically. High level of waste treatment BOD over 90, COD over 80, chromium and sedimentary solids over 98, sulfides 100. Excess of activated sludge can be utilised in agriculture.

801047 396 C L G  
**HIGH TEMPERATURE SEAL ADHESIVE HM-1** the product is used for sealing and jointing high effective air filter in nuclear reactor. By means of sifting a large number of raw materials, we determined the composition of the seal adhesive on the basis of some additives and silastics which prepared by means of block-polymerization from hydrolyl vinyl terminal dimethylsiloxane and low polymer of methyl triethoxysilicone. The main feature of the adhesive are as follows: cured under the condition of normal temperature and pressure, dampnessproof, steamproof, weatherproof, fire resistant, acidproof, alkaline proof, radiation proof.

801119 395 L U  
**BACTERIAL PROTEIN WHICH STIMULATES LIGATION** A protein having a molecular weight of approximately 22.8 kDa and the DNA encoding this protein have been isolated. When an expression vector containing the encoding DNA molecule is introduced into a suitable host cell such as E.coli the protein is expressed from the cells. In addition, a method has been developed to ligate separate nucleic acid molecules.

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
801182	106	M	L/S/J	G	801422	395	P	L	U
<b>CLEANING OF NATURAL AND DRAINAGE WATER WITH SORBENTS</b> Production of grain sorbents on a porous base, apparatuses and technology of utilisation of sorbents for cleaning water solutions, sorbents, employment of selective and collective sorbents on the basis of hardly soluble non-organic sorbents.					<b>INHIBITION OF INTIMAL HYPERPLASIA</b> Fucoidin, isolated from a marine algae, has been found to inhibit smooth muscle cell proliferation, suppressed angioplasty induced hyperplasia and had little, if any, anticoagulant activity. In this respect, fucoidin appears to be a superior treatment to that of heparin which is the accepted treatment to reduce intimal hyperplasia following percutaneous transluminal angioplasty.				
801375	396	C	L	C	801442	396	F	J	C
<b>TECHNOLOGY FOR SYNTHESIS OF RUBBER ANTI-AGER IPP</b> The product (4010 NA) is synthesised with 4-aminodiphenylamine and acetone as feedstocks by using a continuous process. Owing to the higher catalytic activity and selectivity, the qualified product can be achieved just by using a once through process without any recycling and final treatment. High yield and low consumption as well the stable property are the advantages of the technology.					<b>POLYVINYL ACETATE ADHESIVE</b> characterised by good rapid set ability and used for bonding of fibrous materials eg wood, paper, especially to tobacco and filters in high speed cigarette machines. It is widely used in industries of construction, woodworking, packaging, bookbinding, cigarette and pencils.				
801395	396	C	J	G	801476	14	F	L	C
<b>GLUTAMIC ACID NEOSTRAIN AND ZYMOTIC COARSE MAIZE PRODUCING GLUTAMIC ACID</b> Polished white rice or starch is substituted by coarse maize to produce glucose and glutamic acid. The adopted neostrain Ts27-89 can resist high strength biopolerm and high temperature (37-40 C). Its metabolism is active and keeps long and minimises zymotic cycle by 20%. Fitting in with high strength glucose ded-batch, cultivation technology can raise acid quantity and mitotic indexes.					<b>SOIL STABILISING CHEMICALS</b> For application to activate the soil, enabling irreversible agglomeration, when compacted asho density increase substantially. Californian bearing ratio (CBR) of soil improves 3-7 times. Water resistivity improves and arrests surface water penetration and capillary rise. Application to build sub-base and base of roads, highways, in dams, railway embankments, canals, runways, warehouses etc.				
801413	396	C	L	R	801485	21	P	S	R
<b>2-ETHYLHEXANATE</b> The product is mainly used as paint and printing ink siccativ, catalyst in processing unsaturated polyester and polyurethane foam and polymer stabiliser.					<b>PLANT GROWTH STIMULANTS</b> This is a general purpose growth stimulant for leafy grains and tuberous plants which when mixed with peat provides instant change and marked increase in productivity. A substitute to pure chemical fertilizer and farm yard manure - mail transfer.				

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
801644	106	P	L/S/J	G	802128	320	C	L	
<b>CONVECTIVE COOLING SYSTEM FOR GAS TURBINE</b> with limit conditions for heat gas exchange. Three programme complexes: to calculate the distribution of flux speed along turbine profile; to calculate distribution of heat transfer factors from the gas side along turbine profile; to calculate stationary heat intensity state of blades being cooled.					<b>A NEW PESTICIDE 'VINDITAT'</b> A new original pesticide 'Vinditat' created in the USSR is offered under a licence. It is a white crystalline powder with a slight odour, fast soluble in water, with little toxicity for warm-blooded, stable during storage. It is produced with the help of simple technology from raw material available for the industry.				
801707	106	P	L/S/J	G	802176	165	F/C	L/S	C
<b>FERTILISATION SYSTEM FOR FRUIT AND BERRY CULTURES</b> Low energy consumption system which rehabilitates the fertility of soils and elevates the yield of plants.					<b>GLASS ENAMELS/GLASS COLOURS</b> Glass enamels are used on glass surfaces for decorative and coloured effects on tableware, lighting fixtures, permanent marking and labelling of glass apparatus and beverage bottles.				
801911	210	C	L	C	802179	165	F/C	L/S	C
<b>SCOURING POWDER</b> Process and formulation available.					<b>HIGH STRENGTH PLASTER OF PARIS</b> (Alpha plaster) has specific uses in the preparation of Jigger moulds in the ceramic industry, as building blocks and partition walls.				
801938	132	U/F/C	S	P	802185	165	F/C	L/S	C
<b>CHEMICAL MANUFACTURING</b> Technology transfer and sale of machinery for the manufacture of chemicals such as ethyl acetate, magnesium sulphate etc - technical assistance in plant installation, plant rehabilitation, modernisation, personnel training and feasibility studies.					<b>SYNTHETIC CALCIUM SILICATE</b> Fine synthetic calcium silicate finds use as reinforcing filler. The product prepared by a novel process from lime, active silica and aluminium trichloride is uniform in respect of chemical composition.				
802005	250	C	L/J		802188	165	F/C	L/S	C
<b>BARRIER CREAMS</b> Technology for the manufacture of skin protective barrier creams used by industrial workers while handling hazardous chemicals.					<b>SEPARATION OF PROTEIN FRACTION FROM BLOOD PLASMA</b> Human plasma as such has found a variety of clinical applications.				
802082	216	C	L/J	C	802194	165	F/C	L/S	C
<b>CLEANING SUBSTANCE FOR SPOTS AND WASTE OF CONSTRUCTION AND BUILDING MATERIALS</b> The substance cleans spots and rests of erection and building materials and solutions. It does not affect carbon steels. It acts with a hot water jet stream for 15-20 minutes without danger of corrosion.					<b>METHYL ANTHRANILATE FROM PHTHALIC ANHYDRIDE</b> Methyl anthranilate is used in perfumery industry and also in flavour work especially in synthetic grape juice.				

**OFFERS****CATEGORY 1: CHEMICAL ENGINEERING**

Ref. No.	Org.No.	Status	Offer	Source
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802214	165	F/C	L/S	C
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**LOW LEAD WIREWOUND RESISTORS**  
Vitreous enamels are used for applying an impervious coating on wirewound resistors. The process envisages lesser use of lead oxide which is an imported material.

802241	360	C	J	
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**BUTYLATED MELAMINE AND UREA RESINS** Etherification of hexa uritoxo creating melamine or dimethylolumia. Proposed uses include: industrial chemicals and baking chemicals.

802295	323.02	W	J	
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**DETECTION OF GAS OR VAPOUR LEAKAGE** from pipelines or storage facilities given non intrusive on-line detection of leakage by acoustic monitoring. Using sensor arrays, the spatial location of the leakage source can be determined.

802304	326.02	C	L	
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**PRODUCTION OF ELTEX TEXTILE DRESSING** Process of manufacturing: moistening of potato starch with a chemical solution in the mixer for loose materials, drying and roasting. No waste products. ELTEX is insoluble in cold water, after heating water suspension, it forms a gel with neutral reaction and high stability.

802340	396	C	L/J	C
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**TETRA-2-ETHYL HEXYL PYROMELLITATE** This technique applies non-acid catalyst and omits neutralisation and water washing engineering. It does not discharge sewage and reduces production costs. The product is mainly used in the production of hyper- F level (heat resistance 150 C) cable material as heat resistant plasticiser.

Ref No.	Org.No.	Status	Offer	Source
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901046	396	C	J/L	R
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**HS ANTIOXIDANT 330** The agent can be added into polypropylene, polyethylene, polyvinyl chloride, synthetic rubber, high temperature resistant adhesive and the like, greatly increasing the useful life of these polymers. The product is non toxic, non contaminative and low evaporable in its use. It is preferably used in cable and food packing materials with excellent property of antioxidation.

901055	395			U
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**FABRICATING SUBMICRON GALLIUM ARSENIDE ELECTRO-MECHANICAL STRUCTURES** Chemically assisted ion beam etching (CAIBE) is used to make deep vertical structures on a substrate such as single crystal GaAs after which reactive ion etching is used to laterally undercut the structure. The CAIBE process is independent of crystal orientation and produces vertical profiles in the GaAs with mirror finishes of the type compatible with laser devices.

901105	395		L	U
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**BLOCKING INDUCTION OF NITRIC OXIDE SYNTHESIS** It has been discovered that it is possible to inhibit the synthesis of tetrahydrobiopterin in vascular smooth muscle cells thereby selectively inhibiting the induction of nitric oxide synthesis in those cells. Since the over production of nitric oxide is the basis for insensitivity to clinically used pressor agents, this method has significant clinical potential.

901132	393	W	L	U
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**THERMOPHILIC LYPOLYTIC BACTERIA** and their lipases. Several highly thermophilic bacteria have been isolated that produce lipase extracellularly in reasonable yield. These isolates and their lipases have potential for industrial exploitation.

**OFFERS CATEGORY 1: CHEMICAL ENGINEERING**

Ref. No. Org.No. Status Offer Source

901323 379 P S C  
**PHOSPHORUS COMPOUNDS/**  
**PHOSPHURIC ACID** complex fertilisers.

901325 379 P S C  
**CHROMIUM** compounds.

901359 396 C S/J C  
**BUTADIENE EXTRACTION BY**  
**ACETONITRILE METHOD** The technology  
 is two steps extraction distillation process flow  
 a mid reboiler of extraction tower to decrease the  
 ratio of solvent and to save operation cost and  
 investment. The technology is applicable for  
 butadiene separation from mixed C4 fraction  
 with butadiene.

901368 396 C L C  
**POLYPROPYLENE 1396D FOR**  
**COMMUNICATION CABLE INSULATION**  
 The product has many outstanding properties  
 such as low specific gravity, high mechanical  
 strength, copper inhibition, thermal-oxidation  
 ageing resistance, good stress cracking resistance,  
 abrasion resistance, low temperature impact  
 strength, good formability, good for high speed  
 extrusion, good dielectrical properties and fine  
 compatibility with petroleum factice etc.

901420 395 P L U  
**BIOLOGICALLY ACTIVE THIAZINE A**  
 new compound, (5-methylimidazo[4,5,d]-1,2-  
 thizin-4(5H)-one, has been isolated from the  
 sponge neamphius huxleyi which, when tested  
 against murine leukemia cells, inhibits cell  
 growth by 50% at an effective dose of less than  
 10 ug/ml. The compound has structural  
 features related to the nucleotide bases of DNA  
 and RNA which gives it the potential as an anti  
 viral agent.

Ref No. Org.No. Status Offer Source

901640 106 P L/S/J G  
**PREPARING CONCRETE MIXES** Optional  
 dosages and a reasonable procedure of loading  
 the materials into the mixers, the activating  
 mixers and concrete mixers. Better strength,  
 low consumption, short period for heat treatment  
 of concrete.

901676 106 C L/S/J G  
**POLYURETHANE CKO-OM -**  
**CONSTRUCTION MATERIAL** Polyurethane  
 aco-OM is obtained through interaction of  
 oligoether with diisocyanate with catalising  
 amount of dimethylaminomethylphenol products  
 by way of continuous and periodic casting. The  
 polymer has elevated elasticity, resistant to  
 multiple deformations and high speed impact  
 loads, resistant to gasoline and oil temperature  
 and heat.

901698 106 C L/S/J G  
**CORROSION INHIBITOR** The inhibitor is  
 obtained by way of mixing certain wastes of  
 production of caprolactam. Protection of oil  
 well equipment from carbonic acid and hydrogen  
 sulphide corrosion. Low price at effective  
 protective properties and utilisation of production  
 wastes.

901788 131  
**PESTICIDES PROCESS DETAILS** Technical  
 know-how for manufacturing carbofuran  
 technical, propoxur, methyl parathion,  
 fenitrothion, chlora thalonil, decamethrin and  
 bio products. On joint venture. For crop  
 protection.

901789 131 J C  
**PESTICIDE MANUFACTURE** (technical  
 grade) such as quinalphos tech, monocrotophos  
 tech, phosphamidon & DDVP. Used in  
 agriculture, plant protection and household  
 purpose.



**OFFERS****CATEGORY 1: CHEMICAL ENGINEERING**

Ref. No. Org.No. Status Offer Source

901900 203 W S P  
**PURIFYING EARTH SALTS** New process to purifying of any type of earth salt (mine, sebkha etc) which eliminate all insoluble particles such as earth and stones without modifying the original chemical composition. A very bad salt can be used in the process and salt produced is of very good quality. The process is simple and the cost of the production is very low. The salt can be used for all usages (table salt, conservation etc).

901910 210 C L C  
**SHAMPOOS** process and formulation available.

901919 213  
**ASSEMBLY AND WELDING** of large constructions for trucks, tractors and farm machinery with the help of welding lines. Welding lines have the modular construction. Universal handling systems used in the lines provide handling, accumulation, installation and removal of items. Welding lines are intended for assembly and welding of large constructions (frames, cabs, screw conveyors etc). Welding lines provide the production flexibility because of their modular construction.

901983 247 C L G  
**THE HIGH TEMPERATURE SEALING ADHESIVE HM-1** is used for sealing and jointing high effective air filters in nuclear reactors. By means of sifting a large number of raw materials, we determined the composition of the seal adhesive on the basis of some additives and silastics which were prepared by means of block polymerisation from hydroly vinyl terminal dimethylsiloxane and low polymer of methyl phenyl triethoxysilicone. The main feature of the adhesive is as follows: it is cured under the conditions of normal temperatures and pressure, it is steamproof, acidproof, alkalinproof, high temperature proof.

Ref No. Org.No. Status Offer Source

902100 88 C L/J C  
**PRODUCTION OF THE FOOD ADDITIVE AMMONIUM BICARBONATE** The procedure is simple and the technologies are advanced and rational. The quality of the product is in accordance with the China National Standard GB 1888-80. The ammonium bicarbonate product has white powder crystal, like fine sand, with no caking. It has been sold in over 20 countries and areas. It is mainly used in food industry, also in pharmacy, chemicals and recovery of rare metals. The total price for the technology transfer will be negotiated with interested parties.

902200 165 F/C L/S C  
**2,4 DIHYDROXY QUINOLINE AND NICKEL AZO YELLOW** 2,4 Dihydroxy quinoline is a derivative of isatoic anhydride via methyl anthranilate. It is the intermediate for organometallic pigment nickel azo yellow.

902207 165 F/C L/S C  
**WATER DISPLACING RUST PREVENTIVE OIL** Pickled or Phosphated mild steel components have to be dried before the application of temporary corrosion preventives. Because of the time lage involved between drying and oiling, the components develop rusting. The water displacing rust preventive oil developed displaces the water from the metals components and forms an oil film on the surface.

## OFFERS

## CATEGORY 1: CHEMICAL ENGINEERING

Ref. No. Org.No. Status Offer Source

902216 165 F/C L/S C  
**SPATTER RESISTANT PAINT** While welding, the weld metal spatter falls on the base metal adjacent to the area being welded. These globules of metal stick onto the base metal and have to be ground off. In certain applications, these globules get dislodged due to vibrations and get access into the various piping systems creating operational difficulties. By painting the adjacent area with the spatter resistant paint to welding, the spatter can be easily removed by simple brushing.

902268 343 P S P  
**PHOTO** One step developer. Developer rinse or fixer baths not required. Coat exposed film with this viscous developer. Correct development in 10 minutes. Technology US\$ 500.

902297 323 C L  
**COMPLETE TURNKEY WATER PURIFICATION AND PRODUCT RECOVERY PLANTS FOR TRADE EFFLUENTS** Water purification plant which recover useful products such as protein and oils from the effluent of the food industry. The process can also be applied to pulp and paper, mineral oil, metal plating and tanning industries. Operating costs usually paid by sale of recovered material.

902300 325.01 C L  
**ACTIVATED CARBON FROM COCONUT SHELL** The coconut shell is fired under controlled carbonisation to become activated carbon. The technical specifications are: carbon - 73%, ash - 1.9%, water - 6-8%, volatile substances - 15-17%.

Ref No. Org.No. Status Offer Source

902302 326.01 C L  
**BIOLOGICAL WASTE WATER TREATMENT** Combination of three processes such as the organic contaminants oxidation, nitrification and denitrification in one equipment. Technology removes organic and nitrogen compounds, reduces capital costs as well as sludge quantity compared with conventional methods.

The following Project Profiles are available from The National Small Industries Corporation Ltd (NSIC). For more details see the section entitled NSIC Project Profiles at the back of this catalogue.

Acetic Acid  
 Acid Slurry  
 Activated Carbon  
 Adhesive based on Vinyl Acetate  
 Adhesive for Leather  
 Aerosol Insecticide  
 Aluminium Casting  
 Aluminium Hydroxide Gel  
 Ammonia Paper; Ferro Prussiate Paper  
 Azo Dyes  
 Basic Dyes (Auramine 'O')  
 Basic Dyes (Methyl Violet)  
 Cadmium Cyanide  
 Calcium Carbonate  
 Calcium Chloride  
 Calcium Gluconate  
 Cellophane Tape  
 Chemical Porcelain  
 Copper Sulphate  
 Corrugated Fibre Board  
 Detergent Cakes

**OFFERS****CATEGORY 1: CHEMICAL ENGINEERING**

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
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Detergent Powder									
Di-Calcium Phosphate									
Di-Methyl Sulphate									
Dry Distemper									
Electroplating Unit									
Ferric Alum									
Floor Polish									
Formic Acid									
Foundry of Castings									
Guar Gum									
Hair Oil									
Hydrated Lime									
ISO Propyl Xanthate									
Lime									
Menthol Crystal									
Naphthelene Powder/Balls									
Oil Bound Distemper									
Ortho Amino Phenol									
Paper to Paper Type Adhesive									
Phenyl-Ethyl Alcohol									
Phosphoric Acid									
Recovery of Silver									
Recycling of Waste Oil									
Rosin and Turpentine Oil									
Rubber Blowing Agent									
Sodium Silicate									
Sodium/Potassium Citrate									
Tartaric Acid and Salt									
Trisodium Phosphate									
Waste Oil Recycling									
Water Soluble Wood Preservatives									
Zinc Chloride									
Zinc Nitrate									
Zinc Oxide									
Zinc Sulphate									

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No. Org.No. Status Offer Source

1063 396 C S/J  
**SILK SCREEN COLOUR PRINTING TECHNOLOGY OF FOUR COLOURS** The technique is mainly used in making fine net-dotted plate. It can print any patterns in many kinds of materials such as plank, bamboo, leather, plastic and textile etc. Easy to operate, low cost.

1072 394 F L C  
**SENSORS** Company offers wide range of automotive aerospace and industrial sensors.

1081 394 F L C  
**OIL SPILL RESPONSE VESSELS** Complete range of equipment for rapid oil recovery up to 600 tons/hr.

1186 106 P L/S/J G  
**METAL CORD FOR CAR TYRES** Manufacture of brass coated wire for tyre making and rubber article production. Straight linearity, non-twisting properties of metal cord increases adhesiveness, high breaking resistance at low mass.

1245 165 F/C L/S C  
**OXALIC ACID FROM THE BARK OF TERMINALIA SPECIES** Oxalic acid is an important industrial chemical for the textile and pharmaceutical industries.

1260 323 C L  
**SMALL SCALE FIBRE-CONCRETE TILE MANUFACTURING TECHNOLOGY** This revolutionary technology produces the world's lowest cost durable roof covering suitable for less developed countries with low wage economies. The equipment centres on a small 12c dc powered vibrating table that produces a cement screed which is transferred to a mould for setting. Plant sizes are from 250 tiles/week (20 sq m/week) up to 2000 tiles/week (16000 sq m/week) employing from 1 to 30 workers.

Ref No. Org.No. Status Offer Source

1352 400 C L/J C/P  
**TECHNOLOGY AND EQUIPMENT FOR COLD ROLLING OF FINNED TUBES** mono and bi-metallic, made of aluminium and copper. The possibility of obtaining the finned tubes having ribs situated at both surfaces: inner/longitudinal ribs/ and outer/ spiral ribs. The ratio of outer to inner surfaces: 3-25, height of ribs: 1,3-14mm, outer diameter of finned tubes: 10-57mm, rib pitch 6-12 ribs/inch for high ribbed tubes and 19-25 ribs/inch for low ribbed tubes.

1381 396 C J G  
**DIRECTIONAL REFLECTIVE MATERIALS** The materials and its devices have outstanding night visual property in reflecting cone shape beams of headlight of the car. The reflective property remains unchanged when the incidence angle and the normal angle projected on the reflective sheet vary in certain range (+65). The light spot of the traffic mark can be aware within the range of 250-300 meters.

1447 393 U L C  
**SAMPLING AND MONITORING (SOLIDS/ LIQUIDS/ GASES/ AEROSOLS/ RADIATION)** Fully automated liquor sampling and transport system suitable for hazardous as well as radioactive liquors; simple low active manual sampling systems, multiphase continuous sampling and on-line monitoring of dispersions of aqueous/organic liquids containing solids; air, gas and aerosol sampling and monitoring; monitoring of stack discharges.

1536 57 F L G  
**GLASS VIEW PORT** Used in ultrahigh vacuum instrument and equipment for observing the conditions in systems. Used as screen after coating.

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
1542	58	C	L	C	1596	84	C	L/J	C
<b>BELT CONVEYORS</b> Capacity: 50-90 ton, motor power: 1.5 - 15 kw, L: 10 - 165, speed of belt: 0.3 - 0.4 m/s, trough angle: 30, material of construction: structural steels. Use for conveying raw sugar.					<b>HAND/FOOT OPERATED HEAT SEALING MACHINES</b> for sealing plastic pouches of various sizes, most convenient device for use in small scale industries, grocers shops, dairies, confectionery industries, sea food industries, spices and spice powder industries, dry fruits industries etc. Price per piece ranges from US\$40 - 250.				
1548	58	C	L	C	1609	86	C	L/J	C
<b>VERTICAL PUMPS</b> Discharge: 3000 m/hr, total head: 15 m, speed: 740 rpm, medium: water, power: 200 kw, material of construction: high grade CI and alloy steels.					<b>STABILISING VIBRATION TREATMENT</b> of welded and cast parts and structures.				
1554	58	C	L	C	1663	106	C	L/S/J	G
<b>BUTTERFLY VALVE</b> DN: 700 mm, PN: 6Bar, medium: water, control: manual, hydraulic, material of construction: high grade cast iron and alloy steel.					<b>DETERMINATION OF STRESS IN CONCRETE OF STRUCTURES IN USE</b> Connection of multiple use sensor to structure surface, making of stress relieving slot in concrete, determination of the degree of deformation. Slot may be made to 10-12 mm.				
1569	69	F/C	S	C	1690	106	M	L/S/J	G
<b>CONDITIONING AND PACKAGING</b> This Association of French Societies promotes to foreign countries all known technologies with regards to conditioning and packaging.					<b>WELDING WIRE</b> Production of low carbon alloyed and copper plated welding wire from low carbon alloyed steels on stop contact coppering installations in dry drag multiple mill. Surface cleanness, high quality of welding seam, easy for operation.				
1572	71	C	S	G	1717	106	C	L/S/J	G
<b>AGRICULTURAL TRAILERS</b> for tractor or vehicle drawing. Four wheel inflatable, heavy construction, welded metal frame. Loading capacity from 4 tons. Simple design for manufacture in small workshops.					<b>IRRIGATION SYSTEMS</b> Balancing networks of hard drainage at regulated waterways. At even sections of rivers carrying large amount of weighed accerations bank water reservoirs are made to regulate the hard waterways passing fertile silt particles to irrigated lands.				
1590	81	C	L/J	C	1718	106	C	L/S/J	G
<b>AGRICULTURAL TOOLS AND IMPLEMENTS</b> Complete project on turn key basis.					<b>IRRIGATION OF FIELD CULTURES</b> Use of collector and drainage waters for regular irrigation to wash salted soils. Economy of irrigation water and protection of water reservoirs from mineral waters.				

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
1744	106	C	S	G	1805	141	C	J	P
<p><b>TRUCK FOR FOOD WASTES</b> A dump truck whose body is welded into a closed tank with loading and unloading doors. The truck is equipped with loader having guides with limiting cross bar and carriage, hinged platform with fork catch for the containers, arc element and hydraulic cylinder controlled by the tierod block system by way of moving the carriage.</p>					<p><b>MINI CEMENT PLANTS</b> to be located in places where cheap cement grade limestone and coal/coke is available. Maximum capacity 50 tons per day. Vertical shaft - kiln process. Lower cost of production per unit and lower transportation cost of raw material and final product of portland cement grade are assured.</p>				
1763	114	F	L/J	R	1807	142	C	J	P
<p><b>SELF ADHESIVE TAPES</b> for industrial, packaging, office, school, home and specific usages. Complete technology offering - for making adhesives, for coating and slitting processes. The producer of the necessary equipment which is directly adapted to the mentioned technology is from Austria. References in function are available.</p>					<p><b>RUBBER PRODUCTION MACHINERY</b> Manufacture of machinery used for production for rubber based products, mixing mills, extruders, hydraulic press, vulcanisers etc.</p>				
1772	120	F/C	S/J	P	1810	144	C		C
<p><b>GALVANOPLASTIC TOOLS</b> or moulds. Technology proved itself in rotomoulding polyurethane, PVC etc, extrusion blow moulding and other uses. Suitable for flexible industries whose products are liable to constant change of design, with high demanding surface structures (leather imitation).</p>					<p><b>OPEN MINING</b> of gemstones and industrial minerals. This involves the removal of top soil in form of making paddocks so as to get to the minerals. Manual labour is mainly used. For where the soil is loose and tunneling will be very costly and also risky to life. It is cheap and less hazardous to life.</p>				
1790	133	C	S/J	G	1812	144		J	C
<p><b>EXTRACTION OF PLANT FIBRES</b> from banana and plantains. A process known as the scraping method is developed for the production of fibres from felled trunks of banana and plantain plants. It entails separating stalks into sheaths and scraping them with knives having serrated edges. Resulting fibres are washed and sun dried. For spinning into yarns to produce rope, twine and other cordage or weaving into coarse sacks and other products for use in the packaging industry or upholstery industry.</p>					<p><b>MARBLE CUTTING AND POLISHING</b> Producing polished marble slabs of various sizes by machine industry. Capacity: 72,000 M2. White, pink, black and grey marble. Turnover: N 800,000.</p>				
					1818	147		J	C
					<p><b>TEXTILE GOODS</b> Textile production and distribution. Spinning and weaving and finishing processes. Capacity: 6 300 000 metres of finished cloth per annum. 100% cotton fibres. Turnover: N 7.71 M. Expected foreign contribution: N 2.4 M to N 3.2 M.</p>				

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No. Org.No. Status Offer Source

1819 148 F S C

**COLLAPSIBLE FOLDABLE TANKS** fill 300,000 litres - efficient and economical alternative to store, to transport a large range of liquids, from water to hydrocarbons. Lightweight, compact when empty, inexpensive transportation and installation - no pollution - no evaporation of the liquids - no rusting. 20 years of experience.

1820 149 C L C

**STEEL ROLLING MILL** The mill is a 210,000t/y continuous single strand combined wire and light section two high/horizontal stand hot rolling mill. For wire associated industries and construction industries.

1824 156 C S/L C

**ROAD TRANSPORT EQUIPMENT** 1. waste disposal equipment, 2. airport ground support equipment, 3. petroleum and LPG tankers inclusive of aircraft refuellers, 4. bulk tankers for flour, cement, feed, chemicals etc. 5. general cargo trailers and port trailers.

1830 133 C G

**PRODUCTION OF MECHANICAL PARTS** Machining/fabrication, foundry facilities to produce different types of equipment, machines and spare parts.

1864 178 C S C

**MANUFACTURE OF TRAILERS, BUSES, TANKERS** used in road transport. Manufacture of leaf and coil springs and fibreglass accessories boats and sanitary ware. Principal materials include steel and aluminium. Superior design and quality.

1869 181 C S C

**JEWELLERY MANUFACTURE** Hand crafted gold using indigenous gems for investment jewellery. Supply of gemstones as agency potential.

Ref No. Org.No. Status Offer Source

1885 191 U

**VEGETABLE TANNING** Tanning of small live stock skins using vegetable tannins. The method is simple and environmentally friendly. This is ideal for cottage tanneries.

1918 211 F L/J C

**INTEGRATED PHARMACEUTICAL UNIT** Technology, equipment and manpower offered for turnkey integrated pharmaceutical unit. Manufacturing basic inputs like empty gelatine capsules, soft capsules, bulk drugs, formulations like capsules, tablets, syrups, ointments, injectables, absorbent cotton packing materials like vials, ampoules, corrugated boxes. Software for computer aided manufacture.

1927 219 J C

**IRON CASTINGS** weighing up to 50 kg/ piece. Development of nodular iron castings production. Help in obtaining orders and sale of castings for automotive industry, agricultural machines and machine industry. Capacity: 30 thousand metric tons of castings including 7 thousand metric tons of nodular iron castings and 23 thousand metric tons of grey iron castings.

2072 288 C L C

**SPHEROIDAL GRAPHITE CAST IRON** The technology covers the production of FeMg-treated grey cast iron to give very good mechanical and physical characteristics. Spheroidal graphite cast iron can be used in alloys or otherwise, according to requirements. It is at present in the process of replacing certain steel alloys.

2121 318 F S G

**AUTOMATIC MACHINES FOR TWIST DRILL ROLLING FROM HIGH SPEED STEEL** The machines represent the highest level of technology, are designed for skew rolling short twist drills with cylindrical or tapered shanks.

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No. Org.No. Status Offer Source

2130 332 C S/L

**MEASUREMENT METHOD AND DEVICE FOR MAGNETIC INCLUSIONS CONTROL IN GROUND MATERIALS**

based on measurement of magnetic permeability for materials with magnetic inclusions. The device operating in weak magnetic alternating fields transforms the parameter to be measured into proper reading on a pointer type indicator. The device is equipped with built in calibration unit, and ensures a full metrology control.

2151 329 L/J

**FILM AND PAPER COATING TECHNOLOGY**

Various types of polyester film and papers are coated to manufacture sensitised paper, sensitised polyester film. Diazo film, clear sensitised film and reproduction on copiers and xerox. Once the coating is completed, it is then converted in the form of reels, rolls, cutsheets as desired by the customer.

2309 323 M L

**MITREING JOINT SYSTEM FOR PICTURE FRAMES ETC**

This novel design of clamp for the accurate production of mitre joints for picture frames, drawers etc, comprises two adjustable-angle clamps and a saw guide. A router on a second machine produces the slots for a concealed wooden key. No finishing operations required.

101044 396 F L R

**JAMB SEALING STRIP OF MODIFIED BUTYL RUBBER**

The product is widely used for dust proof, thermal and acoustical insulation of building jambs. It was proved that the product could increase room temperature 2-3 degrees C, decrease energy consumption 10%, reduce noise about 6 DB and have obviously dust proof effect.

Ref No. Org.No. Status Offer Source

101131 393 U L C

**MEASURING THERMAL CONDUCTIVITY**

A guarded hot plate rig may be used to measure the thermal conductivities of dry specimens of insulating building and other materials. For these measurements two 'discs' of material 12 in diameter and no greater than 2 in thick are required. The range covered by this facility is such that conductance values up to 10 chu/sq ft hour deg C and a temperature of 600 deg C can be measured.

101154 393 F L C

**GAS SEPARATION TECHNOLOGY**

Hydrogen recovery units for ammonia purge gas, refinery and petrochemical off gases applications. LPG recovery units for treatment of both refinery and natural gas applications, LNG peak shaving plants, helium recovery and natural gas upgrading.

101163 393 U L C

**HEAT TRANSFER COEFFICIENT MEASUREMENT IN COMPLEX GEOMETRIES**

The technique involves the attachment of a thin absorbent paper to the surface in question. A volatile fluid is sprayed on to the paper and air blown over the surface. The rate of evaporation is proportional to the heat transfer coefficient and is measured using an infra red light beam and photoelectric cell.

101181 106 C L/S/J G

**BLOWING OF GAS WELLS**

and separation of stratum product in subsurface tank. Investigation of thermal condition of well head heaters, gathering lines and collectors on the basis of production experiments and calculations through up to date models of technology describing the heat exchange regarding the potential energy of the flow.



## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref.No. Org.No. Status Offer Source

101190 106 C L/S/J G  
**GRANULATED ALLOY** of nonstandard wastes. Wastes on the basis of ferrum, nickel, chrome with various proportion of main elements and mixes are loaded into a melting aggregate, melted there and pored into a granulation pool. The product alloy can be reasonably used in charge base for corrosion resistant types of steel. The product can be utilised in pig iron alloy as well. There is a possibility of utilisation of molibdenum and tungsten that may joint the alloy from the wastes.

101194 217 J C  
**SCREW MANUFACTURE** Screws of rustproof materials M2-M4, 12 000 000 pieces per year. Equity participation offered: \$300,000. Export: 95%. Pre-feasibility study data available.

101248 165 F/C L/S C  
**GALLIC ACID FROM MYROBALAN** Gallic acid is used in pharmaceutical industry as astringent and gallic acid esters have been in use as anti-oxidant, and photographic development, in testing free mineral acids in dihydroxy acetone and in alkaloids.

101345 380.01 C L/J C  
**ANODIZING TECHNOLOGY FOR ALUMINIUM AND ALUMINIUM ALLOY AT NORMAL ATMOSPHERIC TEMPERATURE** Anodizing technology for aluminium and aluminium alloy at normal atmospheric temperature. The thickness, hardness, tinctorial power and rust preventing ability of oxide film conform to the standards issued by the Ministry of Aerospace Industry. The working temperature is extended from 13-23 degrees C to 12-45 degrees C. As a result, refrigerating units are saved and the electric energy is cut down.

Ref.No. Org.No. Status Offer Source

101347 397 C J P  
**AGRICULTURE IMPLEMENTS AND EQUIPMENT** suitable for hand operated and/or bullock driven use. Technology suitable for backward/no power area. Implements like rotovators, winnowing fans, ploughs can be supplied in CKD or SKD condition to be assembled at site in the country which has its requirement.

101399 396 C L R  
**GRAFT NEOPRENE ADHESIVE** The title adhesive can be used to bind the plastic substances which cannot be bound by general neoprene adhesives. As the adhesive is especially useful for bonding of soft PVC with various synthetic leather, it is used as a special adhesive for shoe manufacturing and also be used for interior decoration and reparation of green house PVC films.

101425 395 P L U  
**SCANNING PROBE MICROSCOPE** An integrated scanning probe has been developed which can be used to build microscopic versions of analytical instruments fully integrated with electronic circuits on a single chip. The probe tips have reached 5,000,000 oscillations per second. Since the probe tips are made of silicon integrating them into silicon chips should be done relatively quickly. Measurements possible with these probe tips include, vibration detection, chemical spectroscopy or as an accelerometer.

**OFFERS**

**CATEGORY 2: LIGHT INDUSTRY**

**Ref. No. Org.No. Status Offer Source**

101427 395 P L U  
**NON BEADING THIN FILM, METAL COATED CERAMIC SUBSTRATE** Thin film metallisation of ceramics are essential in electronic packaging, catalytic converters, fabrication of metal matrix composites and in devices employing metal coated ceramic materials used in optical, sensor and superconductor technologies. This invention overcomes beading problems by providing a novel composite composition which does not bead even at thicknesses less than 150 nm.

101443 396 C S  
**CAST DUCTILE IRON** The technique is applied to as cast iron without graphitisation annealing. Matrix content in ductile iron is controlled by charge make up method. Good spheroidisation effect is obtained by improving geometrical size and construction of spheroidisation chamber. In the process carbide in ductile iron is eliminated with 'C - control agent'. Consequently ductile iron is got without graphitisation annealing.

101463 4 C  
**LEADERS IN THE FIELD OF REFRIGERATION** and air-conditioning units (room, packaged with different capacities). Manufacturing equipment and units for central air-conditioning, humidification ventilation, heating projects, water coolers, display cabinets and fully automatic washing machines are also available.

101539 58 C L C  
**BARGES** Max capacity: 450 ton, dimension: 51 x 7.6 x 2.2 m, engine power: 230 hp, max velocity: 12-15 km/hr, own weight: 110 ton, material of construction: anti corrosive steel, alloy steel.

**Ref No. Org.No. Status Offer Source**

101545 58 C L C  
**VACUUM PANS** Capacity: 300, 550, 750 HL, PN 1.8 bar, test pressure 3.7 bar, material of construction: anti corrosive steel, stainless steel. Use: food industries and similar industries.

101557 59 C L C  
**THE PRODUCT EQUIPMENT AND TECHNIQUE FOR ACTIVE HEAVY CARBONATE OF LIME** Main materials are white marble or white cale spar. The product made by the product equipment and technique has high grade purity, whiteness and flowing performance. If the product is mixed in plastic and rubber the gloss and thermostability are better and their physical performance can be improved.

101593 82 C S C  
**ARC SMELTING FURNACE** to produce ferro alloys in particular ferro silicon. Designs permits productions of different products like calcium carbide, silico manganese etc in the same furnace with minor parameter adjustment. Commissioning and stabilisation of production can also be attended to.

101599 84 C L/J C  
**SHRINK WRAPPING MACHINES** for shrink wrapping of numerous items like batteries, fruits, bottles, pesticides, spices, sea foods etc. Relatively very low power consumption ideally suited for small scale manufacturers. Shrinkable PVC films are used for wrapping. Price of machine approximately US\$ 950.

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
101650	106	M	S/L/J	G	101745	106	C	S/L	G
<p><b>CONTOURED IRON AND CONCRETE PLATE DESIGN ESTIMATION OF THEIR STRENGTH</b> The plates are designed proceeding from their bearing strength and with due regard for the influence of outward thrust received by contour structures. Calculations are realised through computer system. Main advantages of technology: Use of limit equilibrium method to determine the bearing strength of the plates.</p>					<p><b>FILTERING HEAT RESISTANT NICKEL ALLOYS</b> in casting into mould. The device consists of pouring basin, adaptor and filter and is made stationary and detachable. The device is placed in the receiver hole of the cast mould before pouring the melt. The device does not require refitting of the equipment to be used in the existing vacuum casting process in heat resistant nickel alloys.</p>				
101699	106	W	L/S/J	G	101773	121	F	L	C
<p><b>FOUNDATION STRUCTURES</b> During manufacture, installation and pressing with pre-stress fitting the rigidity and strength of the foundation are regulated at the expense of the number and degree of tension of highly strong fittings. Foundations of dwelling houses and civic buildings in adverse engineering and geological conditions. Low consumption of steel fitting and concrete.</p>					<p><b>INDUSTRIAL FURNACE INSULATION</b> Technology for thermal insulation of industrial furnaces. Mainly thermal insulation of silica crown of glass melting furnaces. Efficient thermal insulation at a lower material cost. Savings of liquid fuels or gas, reduction of the amount of burned fuels.</p>				
101701	106	W	L/S/J	G	101821	150	C	L	C
<p><b>FOUNDATION STRUCTURES</b> Two or more horizontal frames are linked through monolith posts. The space between them is filled with concrete or reinforced base panels. For foundations for dwelling houses and civic buildings in adverse engineering and geologic conditions.</p>					<p><b>SHEET GLASS PRODUCTION</b> by four cauld method. The raw materials are weighed in correct proportion after they have been adequately prepared. They are converted into molten glass in a furnace at a temperature of about 1500 degrees C. The molten glass is finally drawn into sheet glass by drawing machines. For building construction, automobile and partitioning. Can draw as low as 1.5 mm thickness. The process is also simple to operate.</p>				
101719	106	W	L/S/J	G	101851	171	M		C
<p><b>CLEANING OF CLOSED DRAINAGE</b> from silting done by creating a speedy flow of alternating direction water by way of creating pressure at one end and suction at the other end. For operation of land reclamation systems. Simplicity of the process, high efficiency, low labour consumption, ecologically clean.</p>					<p><b>PRODUCT STANDARDS</b> Preparation and implementation of standards for products, laboratory testing facilities, product mark certification scheme, quality systems registration to international standard sizes 300: 1990/ISO 9000 - 9004: 1987.</p>				

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
101861	176	F	L	C	101908	391	J	G	
<b>LEATHER PRODUCTS</b> The process involves the cutting of leather which is then assembled after this the actual sewing of the product is conducted which is then followed by cleaning.					<b>TUBES WITH POROUS LAYER</b> Inner surface(s), tubes surfaces are covered with different kinds of powders through special operations of sintering; tube length up to 6 m; diameter 8 mm no limitations on tubes a. powders materials combination a. tubes machining. For use in all kinds of heat exchangers in energetics, cryogenic technologies, oil industry etc; heat tubes. Capacity: 100-1000 t in one module (block). Cash minium 150.000 rb/t. Cash maximum 225,000 rb/t.				
101877	183	C	J	C/P	101945	231	C	L/J	C
<b>EXHAUST AND SHOCK FITTING SERVICES</b> A service applicable to any vehicle to give it super-performance and a long lasting span. Professionally conducted to guarantee safety and comfort on the road. Non-complex fitting service requiring not much of capital investment.					<b>IMPLANTATION OF THE INTERACTIVE TV</b> in Europe and South America. Agreements on collaboration to implant this important and innovative technology in other countries. This incipient technology presents a wide range of applications, but the very first applications will be: to avoid zaping among the telespectators increasing in that way the revenues of the TV in advertising. To allow the telespectators to participate in real time in the TV concourses, opening a new way for advertising. To give information of added value to the telespectator.				
101881	187	C		C	101999	380	C	L/J	C
<b>INDUSTRIAL BOOT</b> with and without steel caps, antistatic rubber sole.					<b>PUMPLESS WATER CURTAIN SPRAY PAINTING CHAMBER</b> This spray painting chamber is a new generation chamber of the 1980's characterised by a novel structure, reliable performance, a high spray purification rate. It is widely used in the areas of machinery, automobiles, light industry, electric installaion, instrumentation and furniture.				
101883	189	F	J	C					
<b>MANUFACTURERS OF WIRE NAILS</b> panel pins, shoe rivets, carpet pins, wire tacks and galvanised staples. We have the machines and wire, if you have the premises and market.									
101888	193	F	L	C					
<b>IRRIGATION/WATER AND BOREHOLE PUMPS</b> and equipment manufacturers. Require more advanced product lines to manufacture in Zimbabwe.									
101896	201	F	J	C					
<b>PRECIOUS AND SEMI-PRECIOUS GEM STONE</b> Rough, polished. Available for Far East European country and USA marketing. Cam cut according design.									

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
102004	250	C	L/J		102254	348	F/C	L/S/J	C
<b>BARRIER CREAMS</b> Technology for the manufacture of skin protective barrier creams used by industrial workers while handling hazardous chemicals.					<b>PANELISED MODULAR BUILDING SYSTEM</b> technology including manufacturing techniques, designs, erection training and marketing programmes and printed material. Product suitable for low and medium cost housing, schools, construction camps, offices, medical centres and other uses.				
102013	255	C	L	C	102307	319.09	P	J	
<b>MANUFACTURING PLANTS</b> 1. Small and large capacity cane sugar plant. 2. Plant for manufacturing egg trays from waste paper. 3. Utensil making plant. 4. Leather tannery. 5. Welding electrode manufacturing plant.					<b>STEEL WOOL PRODUCTION</b> To take advantage of available raw material they wish to purchase advanced equipment to produce steel wool for brake pads for automobile and other uses.				
102031	262				201007	184	P	S	C
<b>FOOD PRODUCTS</b> Turnkey projects in the field of biscuits, bread, confectionery and allied food products. Also offering technical assistance and consultation in the field of food, packaging and any small scale industry.					<b>PLASTIC INJECTION MOULDING</b> in polystyrene, ABS, nylon high and low density polyethylene and polypropylene. In all shapes and sizes from 3 grams to 500 grams. Variety of machines from 5 to 320 ton.				
102067	288	C	L	C	201016	165	F/C	L/S	C
<b>MARTENSITIC CAST IRON</b> Know-how for production of alloy cast iron with high resistance to impact and wear for use in quarries and cement works.					<b>INSULATING BRICKS FROM RICE HUSK ASH</b> These bricks made from rice husk ash can be used for the insulation of all types of industrial furnaces, particularly ceramic kilns and furnaces in steel and cement plants as well as in non ferrous and petro chemical industries.				
102085	292	F	L	C	201070	394	F	L/J	C
<b>PAPER PRODUCTS</b> We can supply paper, pulp and board plants from 3 TPD to 50 TPD. Raw materials - agro waste and waste paper waste.					<b>HEAVY METALS IN EFFLUENT</b> New techniques for measuring and extracting heavy metals in wastewater.				
102245	357	C	J	C	201089	394	F	L	C
<b>CAST IRON AUTOMOTIVE PARTS AND MACHINE PARTS</b> They are produced from up to 5000 kg, grey cast iron, nodular cast iron and chill casting and machining. The proposed uses include automotive parts, various machine parts and ingot moulds. The proposed standard capacity is 12000 tons/year requiring 12000 tons/year of raw materials.					<b>MUNICIPAL SOLID WASTES</b> glass and plastics screened sterile and acceptable for recycling. Pulped wastes used for fuel or for cellulose conversion.				

**OFFERS**

**CATEGORY 2: LIGHT INDUSTRY**

**Ref. No. Org.No. Status Offer Source**

201098 395 L U  
**INORGANIC/ORGANIC COMPOSITES**  
 Unique composites consisting of organic polymers intercalated between planar layers of ceramic material which exploit the synergistic properties of the two materials. The composites exhibit the mechanical strength, coefficient of thermal expansion, and thermal stability of a ceramic as well as the low dielectric characteristics and good processability of the polymer.

201149 393 F L C  
**MINIMUM PIPELINE EXCAVATION TECHNIQUE** Replacing old cast iron main with one of equivalent size by bursting old main with hydraulic torpedo drawn through main together with sleeve into which new main is inserted.

201167 393 C L/S R  
**PLASMA TORCH** for precision cutting of metals and non-metals. The power densities achieved with plasmas (high temperature ionized gas) up to 3 MW/sq cm make them compatible with lasers. The compactness of the plasma torch and its significantly lower cost make it a preferable option for many applications.

201338 389 P S J  
**A GRAIN POWER ASSEMBLY** is adapted to a hand tractor and supported by the vertically adjustable free arm. The stripped grains and chaffs and tailings fall by gravity to the ground.

201340 389 C L P  
**A SINGLE, MULTI-PURPOSE TYPE TWO CAGE WHEEL** tractor fitted with a spiral plough, equipped with a tiller assembly, while the operator sits comfortably on the assembly equipped with a foot control which does most of the work on the levelling operations.

**Ref No. Org.No. Status Offer Source**

201356 400  
**EMERGENCY ARRESTING OF CONVEYANCES IN CASE OF OVERWINDS** The friction emergency arresting device can develop braking forces from a few hundred kN to a few thousand kN and stop the conveyances with the payloads up to 50 Mg running with the speed up to 20 m/s. In this device the arresting force in the friction force is developed between the steel plates being pressed together by elastic forces of rubber elements. The device can be used independently of the guiding system of conveyances. By the variation of the parameters of the arrestor the braking force on the overrun travel can be freely selected.

201385 396 C J G  
**MICROSCOPIC APERTURE FILTERING CERAMICS BASED ON THE MATERIAL OF DIATOMITE** The product is the pioneer product either internally or externally. Compared with the conventional filter material, it has advantages of high porosity, high filter ability, high efficiency, long service life and low cost etc. It also opens a new way to the aseptic filtration as well as precise filtration.

201434 395 P L U  
**SELECTIVE METALLISATIONS FOR HIGH TEMPERATURE SEMI-CONDUCTOR** A process for metallising precisely designated surface areas of wide band gap semi-conductor substrates (eg SiC, Diamond, Si<sub>3</sub>Ni<sub>4</sub>, and BN) with metals (eg Si, Ge, W, B) to produce electrical (ohmic, Schottky, or gate) contacts with high thermal stability, excellent adhesion to substrate, high current carrying capacity and high electromigration resistance. Applications in blue lasers, high frequency/high power devices and high temperature IC sensors.

**OFFERS****CATEGORY 2: LIGHT INDUSTRY**

Ref. No. Org.No. Status Offer Source

201601 86 C S C  
**ELECTROCHEMICAL MACHINING OF SMALL HOLES** Machining is performed by a metal tubular electrode with insulated side walls. Main usages of the technology include making channels in turbine blades-holes in parts of fuel equipment etc. The main advantages of the technology is the increased speed of parts machining. Availability: know-how, training, technoeconomic data.

201610 86 C L/J  
**PHOTOCHROMIC CUPRIHALOID SHEET GLASS** Improves existing production process with use of new additives to base material. Designed to decrease brightness of visible spectrum of sun light in rooms and cabs of vehicles. Low co-efficient of thermal linear expansion with high strength properties and high translucent percentage.

201641 106 P L/S/J G  
**HEAT TREATMENT OF STEEL PARTS** New method for heat treatment of spring steels - high speed electric tempering under load ensuring high strength characteristics. We offer a paste to be applied to the surface of steel and then fused with carbon electrode in the open and cooled in water. This increases the wear resistance of parts operating in abrasive media.

201668 106 M L/S/J G  
**UTILISATION OF WASTES** of tanned leather. Thermal hydrolysis of tanned and untanned leather wastes to obtain modified protein adhesive, recommended for use in textile, paper cardboard industry, surface finishing in construction material production for reducing the adhesion time of gypsum plaster mixes.

Ref No. Org.No. Status Offer Source

201686 106 W L/S/J G  
**WATER BOILER WITH BURNING LAYER FURNACE** Burning of low grade solid fuel in heater and water heater boilers. Heat supply of industrial, civil and rural buildings. Effective burning of high ash content and low grade coals.

201702 106 W L/S/J G  
**ANTI-LANDSLIDE PILE FOUNDATIONS** Concrete mix is placed after fitting structure and separate short rods whose length is not more than the depth of the landslide layer. The rods are shifted relative to the vertical axis of the support towards the side opposite to the direction of landslide pressure. After placing of the concrete the short rods are tensioned.

201720 106 C L/S/J G  
**HYDRODYNAMIC PROCESSES IN METAL CASTING MODELLING AND DIAGNOSIS** On automated stand for hydrodynamic modelling of casting processes the flow of liquid metal is modelled in reality. During the modelling and diagnosis the parameters characterising the structure of the flow are monitored and measured for perfection of the processes for casting liquid metals.

201737 106 M L/S/J G  
**MOISTURE AND HEAT TREATMENT OF JACKETS** The process is based on combining the process of formation and final moisture and heat treatment of all parts of ready made jacket by using vapour and air vibro model. Decrease of operations and time of treatment, energy saving, better quality of ready articles.

**OFFERS****CATEGORY 2: LIGHT INDUSTRY**

Ref. No.	Org.No.	Status	Offer	Source
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201746	106	C	S/L	G
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**MINIATURE PLASMA FURNACE** To apply metal and ceramic coats by way of plasma spraying of the internal and external surfaces of any configuration. The furnace consists of cathode and anode casings separated with an insulator. It is furnished with air and water cooling. The nozzle and electrode are designed so that the furnace can operate for 24 hours.

201791	133	C	S/L	G
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**DYEING JIG** The dyeing equipment comprises two major parts namely the dye tank and cloth hanger. The latter is placed inside the tank which is filled with the right dye when dyeing is in operation. The hanger is equipped with a device for lowering and raising the cloth and because the cloth is attached spirally folds are efficiently separated to prevent sticking together.

201907	391		J	G
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**MATRIXES OF DIES** and other parts manufacturing from grinding slimes of high speed, high chromium, bearing steels and cast iron. For dies and other parts manufacturers; dies and other parts users. Capacity: 100-1000 t/year dependently on parts type. From grinding slimes of high speed, high chromium, bearing steels and cast iron. Cash minimum 30.000 rb/t. Cash maximum 60.000 rt/t.

201926	218		J	C
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**LIQUID STORAGE TANKS** and vessel sheets. Hand lay U/P fibreglass reinforced plastic moulding. Consumer production. Industrial production. Standard capacity: tanks 100 litres to 5,000 litres, sheet - standard size.

Ref No.	Org.No.	Status	Offer	Source
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201944	231	C	L/J	C
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**DIAGNOSTIC KIT FOR CERTAIN HUMAN ILLNESSES** An innovative development in the biotechnology field. It concerns a kit for the detection and quantification of the TNF-alpha molecule. The excess of the said molecule implies the existence of inflammatory processes within the human body, which allows the detection of important illnesses such as certain types of cancer, AIDS, hepatitis, arthritis.

201962	232	C	L	C
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**ROOFING TILES PROJECT** Burnt clay roofing tiles of size 420 mm x 250 mm with weight of 2 kg per tile can be manufactured from clay only, so free raw material is available in every country. Capacity 2 million tiles per annum. Employs 60 unskilled workers. Import component only 20% of project cost. Bright prospects in every developing country.

202008	252	C	J	P
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**PAINT TECHNOLOGY** Backed with thirty years of extraordinary experience in paint technology and management. We seek alliance and offer state of art technology which is most competitive, in the field of decorative paints, synthetic resins, adhesives and allied products.

202071	288	C	L	C
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**CORE MOULDING PROCESS** A core moulding process which involves filling the box with projected sand (prepared sand) and heat for hardening. Main advantages: high productivity; highly complex cores; perfect demoulding.

202229	368	C	L/J	C
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**AUTOMOTIVE AND INDUSTRIAL GASKETS**



**OFFERS**

**CATEGORY 2: LIGHT INDUSTRY**

**Ref. No. Org.No. Status Offer Source**

301015 165 F/C L/S C  
**PALATABLE LAXATIVE FROM SEED HUSK OF PSYLLIUM** Isapgol husk is used as a laxative but it is disliked by people due to its bland taste.

301033 396 C L G  
**CL-A SERIES OF STUFFING FOR PLASTIC** the stuffing is a new cheap material for plastic with many excellent features such as filling in quantity, good flowing and fine processing etc., it is widely used in polyole fine string for packing, flat thread like materials for weaving, film, tube materials, corrugated paper box, container, injector PVC and ABS etc., it can increase whiteness, rigidity, thermal stability, anti-deformation and improve mechanical character of the products

301042 396 C L C  
**CARBON BLACK COLOUR CONCENTRATE FOR AGRICULTURAL MULCHING FILM AND OTHER POLYOLEFINES** The product is a kind of colourant which is made from low density polyethylene, carbon black and dispersant by fully mixing in Bambury. With the colour concentrate, the final product would have smooth surface and uniform dispersion of carbon black. The resistance to ageing of final product would be increased.

301088 394 F L/J C  
**HIGH SPECIFICATION MIXING** dramatically reduces mixing time, costs and clean room requirements eliminates contamination. Applications in chemicals, pharmaceuticals, process industries etc.

**Ref No. Org.No. Status Offer Source**

301112 395 L U  
**FABRICATION OF COPPER INTERCONNECTS** Submicron ultra large scale integrated (ULSI) circuits require long metal interconnects having small contacts and cross sections. Previous methods of depositing Cu interconnects have suffered from poor step coverage, high resistivity from residual ions, and high costs. This invention mitigates those problems by providing a low temperature, self-encapsulating method of Cu interconnect fabrication.

301121 394 P J C  
**BARREL ASSEMBLY** An integrated system which cuts, firms, welds, tests etc sheet metal to finished product.

301144 393 C L U  
**CELLULOSIC FLAMEPROOF FABRIC** These fabrics have been catalytically dehydrated to give a partially carbonised structure which has excellent resistance to temperatures up to 1400 deg C. Good strength and wear resistance making the fabrics suitable for continuous wear applications have been achieved by blending; fabrics and protective clothing manufactured from these materials are now commercially available.

301180 106 M S/L/J G  
**DESIGN OF IRON AND CONCRETE STRUCTURES** Design of unitised assortments (series) of structures in which each type of article is determined by one basic parameter of the series ensuring minimus consumption for unitisation. Handy for choosing framework sizes for each standard size, finding the load range for the given standard size and classifying it by types of articles.

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No. Org.No. Status Offer Source

301387 396 C J G  
**HIGH TOUGH CERAMIC COMPOSITE FOR CUTTING TOOLS** A variety of improved ceramic inserts are now available. Thus ceramics possess the best performance in its own application scope including the following systems: Al<sub>2</sub>O<sub>3</sub>-TiC-Metal, Al<sub>2</sub>O<sub>3</sub>-TiC-Metal and special add, Al<sub>2</sub>O<sub>3</sub>-Ti(C,N) Metal, Al<sub>2</sub>O<sub>3</sub>-(Ti, W)C-Metal, Si<sub>3</sub>N<sub>4</sub>-Ti(C,N) etc.

301430 395 P L U  
**PUMP STEERING MIRROR CAVITY** A continuously tunable optical parametric oscillator capable of operating in the 0.30 to 0.4 micrometer wavelength range has been developed.

301441 396 F J C  
**HOT MELT ADHESIVE FOR CABLES** mainly used to joint heat-shrink fit cover of plastic cable attachment and to seal the plastic ends of communication cables and electric wires. It is also used for bonding of wood, metals, plastics, leathers, paper and so on.

301493 27 C L G  
**POLYFUNCTIONAL AUXILIARY TANNING AGENT (PAT)** An active acrylic resin which can be reacted with tanning materials and collagen fibers in situ of leather for preventing leather fibers adhesion when drying, that makes the leather soft, plump and its elasticity also as good as desired.

301540 58 C L C  
**LOCOMOTIVES** Designed to drag the railway wagons, either narrow or wide gauges. Power: 200 hp, 300 hp, speed: 40 km/hr, dimension: 5.2x3 2x2.2 m, dead weight: 17-25 tons.

Ref No. Org.No. Status Offer Source

301628 105 C L/J U  
**TECHNIQUE OF GIVING OPTIMUM LAYOUT OF STEEL PLATE CUTTING** The technique is suitable for a factory using a shearing machine to cut rectangle blanks of steel. An optimum layout of steel plate cutting is automatically generated after the user inputs the size of steel plate and blank of machine part to the microcomputer. The technique could make the utility rate of steel plate achieve over 90%, while handmake layout is only 80%.

301646 106 P L/S/J G  
**DEEPENING OF MINING WELL HOLE** to ensure the tapping at various abnormal pressures. Hard facing of hole in permeable deposits and design of a device for contact hard facing of filtration crust. For oil and gas well drilling in permeable deposits.

301655 106 C L/S/J G  
**MANUFACTURE OF FIXTURES** by method of hot heading with use of press tool, HF generator and a photoelectric complex. High reliability of fixing under the conditions of monocyclic loads, expansion of standard sizes of the hot headed blanks, low energy consumption.

301669 106 W L/S/J G  
**SHOE CONSTRUCTION** Digital flexible module to apply thermoplastic polymer underfoot on shoe top. Application of thermoplastic material formed after hardening of underfoot to the shoe top pattern with the use of digital flexible module avoiding the use of master form, patterns and stencils.

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No. Org.No. Status Offer Source

301673 106 C L/S/J G  
**REFRACTORY COATING** of lining of thermal aggregates. Preparation of refractive mass and applying it on the lining of furnace with further burning. The resistance of the lining with refractory coating at operational temperatures 1200 degrees C on vacuum compressor induction furnace increases up to 40 thermocyclic loads.

301712 106 C L/S/J G  
**PLANTATION GROWING** of coniferous trees. Scientifically based organisation of plantation growing of conifer trees and perspective technology of planting such trees on selection basis. For plantation forestry of pine and spruce. Accelerated growing of highly productive spruce and pine with minimum effect on fertility of soil and surrounding medium.

301730 106 C L/S/J G  
**MANURE DRAINS FOR IRRIGATION** Use of manure drains and low fertilisation running waters for irrigating crops. Preparation, storage, mixing, fertilising and moistening irrigation. Alternating use of manure drains and running waters, economy of natural water, protection of water sources.

301906 205 J G  
**ASSEMBLY MACHINES** cells and lines new pneumovortical assembly process for automotive, tractor and machine building. Capacity: 20-25 machines/year. Cash minimum 0.5 million rubles. Cash maximum 2.5 million rubles.

301934 227 C L  
**WOOD DRYING AND TREATMENT**  
 Drying and Protective Impregnation (PIT).

Ref No. Org.No. Status Offer Source

301961 232 C L C  
**TINY CEMENT PLANT** Portland cement as per Indian or British standard can be manufactured. Capacity 20 tonnes/day. Capital investment per tonne of installed capacity only 50% of big cement plants. Saves transport cost. Requires very small limestone reserve. Ideally suitable as captive unit for builders, contractors.

301988 248 F L/J C  
**FLEXIBLE METALLIC CONDUITS** Know-how, design, technology and equipment is available for the manufacture of various kinds of flexible metal conduits and strip wound hoses for use in household, electrical and general purpose applications.

301997 380 C L/J C  
**ROTARY CULTIVATOR SERIES** is a new generation of driving machine which combines the function of ploughing and raking in one tool. It can be used in wet earth as well as in dry earth. It can loosen the dry earth, slurry the wet earth and also flatten the field. It is an adaptable till machine of high quality and low cost. The company's products can be used with all kinds of tractors of 8.8 - 88 KW.

302066 287 C L C  
**LOST WAX MOULDING PROCESS** for precision moulding of parts for use in general mechanical engineering. Know-how available, also data on ways of preparing master patterns (process, equipment and tools; materials).

302075 288 C L C  
**ENGINEERING CAST IRON** production technology Ft 20; Ft 25; Ft 30; Ft 35 and Ft 0,

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No. Org.No. Status Offer Source

302098 299 C L/J C

**A NEW TYPE OF SALT-DENDRITIC SALT**

Technology for producing a new type of salt dendritic salt which is superior to the regular refined salt in the following distinctive ways: higher capacity for absorbing moisture, low bulk density, rapid solubility, good blending properties with other finely divided materials, outstanding non-caking and flow properties. These features offer a variety of applications for dendritic salt, such as curing sausage casings, flavouring butter, dry curing bacon and ham.

302102 302 C L/J C

**ANTI-OXIDIZABLE SN-PB SOLDER**

In the molten condition, the surface of this solder can be kept oxide free for a long time. Under the conditions of dip-soldering and simulating wave-soldering, the dressing weight of the solder is about one-third of the common HLSNPB 39 solder or H63A solder (made in Japan). Its ability to withstand water is 20% larger than the common solder. The expense of soldering can obviously be reduced in using the anti-oxidizable solder. It causes no smoke, no smell, no poison when using.

302105 304 C L/J C

**LANTHANUM CHROMATE HEATING ELEMENTS**

Lanthanum chromate, a complex oxide material with semi-conduction, can be operated at 1500-1800 DC. Its electric properties at elevated temperatures maintain constant and electric resistance is less dependent on temperature. In addition, it has other advantages, such as higher thermal efficiency, better heat uniformity over all heating portions, precise temperature control and higher mechanical strength at room temperature and excellent thermal shock resistance. The electric furnaces, in which the lanthanum chromate heating elements are installed.

Ref No. Org.No. Status Offer Source

302120 318 F S G

**ORBITAL FORMING OF THE PRECISION**

**FORGINGS** Cold and warm orbital forming of parts is performed on special rocking die presses type PXW. The method is particularly advantageous for workpieces of considerable cross dimensions at low heights as discs, rings or flange type shapes.

302222 165 F/C L/S C

**SPECIALITY PAPER** consists of filter papers, drawing papers, document and bond papers etc.

302249 353 C J C

**MARTU CELLULAR CONCRETE**

(sand-line brick). Martu cellular concrete is suitable for basement walls, external walls, internal walls and curtain walls. Proposed standard capacity: 120.000 cub m per year.

302251 351 C J C

**PRODUCTION AND MARKETING OF**

**SAFES** The proposed process is the marketing of safes which are produced according to demand in Turkey, for the other third world countries. Partners who are in Turkey are responsible for the production and partners who are abroad are responsible of marketing. The proposed standard capacity: 80-100 safes/month. Raw materials will be provided from inside (Turkey).

302341 394 F L C

**GAS LEAK DETECTION**

System for the quick detection of hazardous gas leaks down to trace levels. 8 hour time weighted concentrations. Automatic shutdowns.

401023 376 W J C

**RUBBER WASTE AND TYRE RECYCLING**

**MACHINE** to convert waste into granules which can be used again for environmentally friendly and usable products, such as tiles, furniture, mats, shoe soles etc.

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
401069	394	U	L/J	C	401184	106	C	L/S/J	G
<p><b>TUFTING MACHINE</b> (hand held) has been developed suitable for craft and home use. Very high quality finish and wide range of attractive designs, including wallcovering, cushions etc.</p>					<p><b>PIPELINE CORROSION PROTECTION</b> Protection of the inner surface of oil gas pipes containing Co<sub>2</sub> and H<sub>2</sub>S by injecting a dose of inhibitor and constant spray feeding with the inhibitor for 4-5 days employing injector and stationary doser. Low consumption of inhibitor, high effect of reagents, synergism of the inhibitor, presence of amine type inhibitors.</p>				
401087	394	F	L/J	C	401189	106	W	L/S/J	G
<p><b>3D MICROSTRUCTURES</b> in metals, ceramics and plastics. Applications in automotive, optics, telecoms, power engineering, process and measuring, medical and environmental and aerospace industries.</p>					<p><b>CLOSED DRAIN COLLECTORS</b> Long plastic pipes with a diameter of some 200 mm are stretched in two lines along the main line in a depth of 4 mm. For land reclamation. High effectiveness and adaptability to technology, low labour consumption.</p>				
401139	393	W	L	U	401247	165	F/C	L/S	C
<p><b>RESISTANCE THERMOMETER</b> microprocessed based. A high speed instrument for use with platinum resistance sensors. Measures resistance ratio to an accuracy of 50 parts per million and hence computes temperature to accuracy of 10 mK. Each reading requires less than one second. Up to six sensors may be multiplexed. The instrument will also measure the response time of the sensor in situ.</p>					<p><b>EXTRACTION OF STRYCHNINE AND BRUCINE FROM NUX AND VOMICA SEEDS</b> Strychnine and Strychnine sulphate are used as rodenticide. Brucine and its salts are useful for denaturing alcohol and as an analytical agent for separating optical isomers.</p>				
401148	393	F	L	C	401342	389	C	L	P
<p><b>BULKHEAD PENETRATOR</b> for electrical cables. A high integrity penetrator to carry a single or multicore electrical conductor through a pressure tight bulkhead. It is designed to withstand high pressure differentials, high temperature and shock loading.</p>					<p><b>A VACUMATIC FLOATING</b> type walking tractor which can effectively till water-logged rice fields or fishponds. The conventional power tiller bogs down or sinks in very wet or water-logged rice fields. Manufactured by using steel materials and welded.</p>				
401157	393	W	L	C					
<p><b>'POLYHIPE' MATERIALS</b> Novel highly porous materials made by polymerisation of high internal phase emulsion systems, with a very high fully connected surface area. The materials are excellent substrates for peptide synthesis. As catalyst and immobilised cell supports, and for other applications such as filtration.</p>									

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No. Org.No. Status Offer Source  
 401351 400 W/U/F L/S/J U  
**INDUSTRIAL CONTROL SYSTEM OF TECHNOLOGICAL PROCESSES**  
 Programmable industrial control systems have been developed in AGH and applied at the VSZ - Kosica (CSFR) Steelworks. There are multitasking and multilevel control systems based on the logical and numerical microprocessors, connected in the networks and equipped with the A/D and D/A converters, which served to control drives and technological processes at the Blast Furnace and Agglomeration Plant.

401380 396 C J G  
**CORROSION RESISTANT EQUIPMENT WITH THIN LININGS OF TEFLON WITH METAL GRID** The new material is free from the disadvantages of common PTFE materials such as hot expansion. It can be used over a long period of time in any strong corrosive chemical medium below 250 degrees C. Even shock cooled and heated or interspersed between cold and heat. Its life time is increased by ten or tens of times.

401537 57 F L G  
**VACUUM VALVES** Used in ultrahigh vacuum equipment and analysis instruments as valves between ultrahigh vacuum and low vacuum (atmosphere) and valves for controlling gas flow.

401543 58 C L C  
**CHAIN CONVEYORS** Pitch (mm): up to 160, breaking load: up to 120 tons, material of construction: case hardened steel, carbonsteel. Use: conveying mud, bagasse, sugar, ashes, pulp.

Ref No. Org.No. Status Offer Source  
 401546 58 C L C  
**BAROMETRIC CONDENSER** Capacity: 20-30 ton/hr, dimension: 3000x21014x16 mm, dead weight: 27.7 ton, material of construction: anti corrosive steel, grey cast iron. Use: condensation of vapours.

401549 58 C L C  
**ELBOW PUMP** Capacity: 25 m/min, total head: 40 m, speed: 785 rpm, power: 250 kw, material: anticorrosive steel, carbon steel and cast iron. Use: conveying of bagasse.

401552 58 C L C  
**VACUUM PUMP** Medium: air, discharge: 4000 cu m/hr, vacuum: 60 cm/Hg, power: 110 Kw, impeller speed: 450 rpm, water consumption: 70 gpm, water temp: 60F, material of construction: high grade cast steel and cast iron.

401555 58 C L C  
**GATE VALVE** Dia: 700 mm, PN 5Bar, medium: steam, motion: manual - electric, power: 1.86 Kw, speed: 52 rpm, material of construction: carbon steels - alloy steels.

401558 59 C L C  
**THE PRODUCT EQUIPMENT AND TECHNIQUE FOR ACTIVE LIGHT CARBONATE OF LIME** Its production capacity is 3000t/year. The product is useful for plastic and rubber. Such as, PVC soft carpet shoe bind, micro hole plastic foam carpet shoe, square floor brick. Materials of pipe and plant, frame of door and window, tyre, cable, wire, rubber plate and conveyor belt and so on.

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No. Org.No. Status Offer Source

401564 65 F/C S C  
**EQUIPMENT MANUFACTURERS FOR FRUIT AND VEGETABLE PROCESSING** consists of 14 members who manufacture machines for: grading and packaging of fresh fruit and vegetables, processing of fruit, vegetables and roots for juice, canning, freezing and dehydrating.

401579 77 C S C  
**ASTA POLE COMBUSTION** This product can save a lot of money to end users and can contribute to a better environment (up to 15% of fuel economy and up to 35% of noxious exhaust gases reduction). (For cars, boats, motorcycles, trucks, buses, tractors, construction and road machines, boilers, stoves etc).

401585 81 C L/J C  
**MS, SS, ELECTRODES AND WELDING RODS** complete technology on turn key basis.

401597 84 C L/J C  
**AUTOMATIC SEALING MACHINE** used by small scale industries for heat sealing of plastic pouches. In this machine all sealing parameters like sealing pressure, sealing temperature, sealing time and cooling time can be independently controlled to result in perfect sealing of pouches of different film thickness and material. Price approximately US\$ 600.

Ref No. Org.No. Status Offer Source

401620 96 C L C  
**MANUFACTURING DOT GRAPHITE CAST IRON** which can be used on castings with strength, toughness and wearability, with this cast iron, steel can be replaced by iron and forging can be replaced by casting. Compared with other high strength cast iron, the technological process and technique of 'Xiao dot graphite cast iron' has the following advantages: as to the main furnace charges, pigiron is not confined to that of low phosphorus and low sulphur; the front treatment is table; the number of dot graphites reaches 700-800/sq mm; the castings have a good machinability and haven't any sinking or cracking tendencies.

401739 106 C L/S/J G  
**HEAT RESISTANT, HEAT INSULATION, MATERIAL** for steel casting. Natural mineral is brought into grain, milled and then is used, in a certain fractional proportion, as a protective and heat insulating to cast steel, to warm up the metal mirror, to manufacture, by way of pressing and drying, the heat insulating blocks and plates.

401747 106 C S/L G  
**SELF ADJUSTING PULSE GENERATOR** The pulse generator in set with the feeder is used for recovery of broced dies, drills, screws, piercing small holes in hard alloy and hardened tempered metals by electro-erosion. For mechanical assemblage, repair and other works.

401748 106 W S/L G  
**HIGHLY EFFECTIVE CATALYSERS** Components of mixed catalysers, preparation of the catalysers, experimental models of catalysers on full size units made of silicon nitride. Technology of preparation of unit catalysers or metal carriers for cleaning waste gases of internal combustion engines operating on ethylated gasoline.

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No. Org.No. Status Offer Source

401924 218 C L/J C  
**FIBREGLASS REINFORCED PLASTIC MOULDING** hand lay-up process. Consumer and industrial products moulded from glass fibre. Uses: consumer - sheets, storage tanks, furniture, cladding etc. Industrial - FRP lining, chemical storage tank, acid proofing. More durable than plastic because of fibreglass reinforced, completely anti-corrosive, lightweight, easy moulding, aesthetic, weatherproof.

401933 226 J  
**MACHINERY AND PUMPS** Irrigation pumps, various industrial fittings and accessories. Pre-feasibility study available.

401996 380 C L/J C  
**MSGI CERAMIC SENSOR SERIES** Our MSGI ceramic humidity products are composed of a convertor (humidity resistance) which is made from the natural ceramic ore. The structure of the product is simple. It has the character of small volume, is corrosion resistant and has a long usage life. It can be cleaned without being warmed. The series of sensors apply to industry, agriculture, military defence and the testing of humidity and environment.

402070 288 C L C  
**CORE MOULDING PROCESS** involves filling of core box with sand mixed with furanic resin and hardening agent for the production of complex cores of higher quality.

402233 364 C L/J C  
**ALUMINIUM BURNER TAPS FOR LPG COOKERS** The process consists of hot (or cold) forging of aluminium slugs, machining to size, punching out of the holes and machining (or polishing) to final size and shape. Its main uses are in kitchen cooking appliances (cookers) which use LPG or natural gas.

Ref No. Org.No. Status Offer Source

402242 360 C J  
**TEXTILE FINISHING RESINS** (thermosetting resins). The processes available include the production of melamine resins, urea resins, phenolic resins, furan resins.

402310 323 W S/L  
**TRAY PACKING MACHINE** This fully automated tray erector/loader is designed for collating bottles, cans, cartons etc and loading them on to a cardboard blank, which is then formed into a tray for the storage and distribution of the products. Its compact dimensions and standard conveyor heights enable it to be integrated onto existing production lines with the minimum of alterations.

402312 323 C L  
**SMALL SCALE CONCRETE BLOCK EQUIPMENT** A small 12v vibrator, the Multi-vibe, can be attached to wooden or metal formers for wall blocks and interlocking concrete water tank blocks. By the use of vibration the cement content of these products can be kept as low as possible.

501022 376 C L C  
**MOBILE COMBINATION ROLL-FORMER** and represents a 'factory on wheels' which transforms the conventional procedures of roll-forming ferrous and non-ferrous material into a fast, safe and efficient operation. Runs on single phase electricity or generator or on solar energy.

501068 394 W J C  
**COMPOSITE STRUCTURES** High volume, high quality manufacturing equipment for composite structures. Very low cost mould tools available.



## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No. Org.No. Status Offer Source

501077 394 F L C  
**NEW BOLT DESIGN** Existing bolts and rivets have many deficiencies. A new bolt has been developed which grips radially and longitudinally and resists all load combinations. Is vibration resistant insensitive and undemanding of tolerance, easily fitted and cheap to make.

501086 394 F L/J C  
**MEMBRANE BASED SEPARATIONS** for water, wastewater and industrial process separations includes process control instrumentation.

501095 396 C J C  
**COPPER BASED BRAZING ALLOYS** Low silver brazing alloys that contain 5-24% Ag have low melting point (602 - 760 C) and high tensile strength (400-499 N/mm); H1Cu-3-B silver free brazing filler metal is low melting point (800-830 C) high tensile strength (greater than 450 N/mm) and good ductility (greater than 28%).

501120 394 U L/J C  
**PLASTIC WELDING** High speed, high integrity welding process for sheet plastic. Suitable for geophysical applications, landfill sites, rivers and water authorities inflatable structures.

501125 393 U L C  
**GAS/SOLID REACTION TECHNOLOGY** Expertise in fluid beds, rotary kilns, computer models. Theory and practice. A dynamic simulation model of rotary kilns provides a theoretical understanding which is transferable to non-nuclear applications.

501152 393 F L C  
**REMOTE GAS PRESSURE CONTROL** Electronic gas pressure control and telemetry unit for remote governor installation.

Ref No. Org.No. Status Offer Source

501170 19 C J R  
**EXPORT AND IMPORT AGENTS** for primary and manufactured products and industrial raw materials. Acting as agents and representative for locating and evaluating firms for joint ventures and collaborations. Agents to locate and negotiate with buyers or sellers. Agents for contract manufacturing.

501192 129 U S/J R  
**FRESH RUBBER WOOD FOR FURNITURE MAKING** Freshly cut rubber of regular sheets are soaked in tanks filled with a previously prepared chemical solution (mixed chemicals), taken out, drained and kept enclosed in bundles of polythene sheets for the required duration, later dried and used for furniture making and other similar purposes. Rubber wood freshly cut is now being used for firewood etc and there is big value addition in the process. There is a wide market for such wood for furniture making.

501344 380 C L C  
**DIVING ELECTRIC PUMP FOR SEWAGE** Rate of flow: 400 cu m/h. Lift: 15M. Necessary power: 30 kw. Efficiency: 57.09%. Max granule size passed: 80 mm.

501362 396 C L C  
**MODIFIED POLYSTYRENE MATERIAL FOR HOUSEHOLD ELECTRIC APPLIANCES** The product made by mechanical blending of polystyrene with thermoplastic elastomer is a kind of plastic alloy with excellent properties. It is used to replace ABS resin to make lining materials of refrigerators and doors and various injection mouldings. The material can be easily extruded and processed. In the process no pollutants are discharged. The product is not poisonous and can be used as material for food packaging.

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref.No. Org.No. Status Offer Source

501369 396 C L/J C  
**ANTI-BLOCKING MASTER BATCH** The product is made by taking polyethylene as base material and adding anti-blocking agent and dispersant. The process is simple and the raw material is easy available. The new product has reached the standard of the same type product abroad in appearance and stability in uniform dispersion as well as film shaping, anti-blocking, mechanical property and transmittancy etc.

501371 396 C L C  
**COLOUR MASTERBATCH FOR POLYETHYLENE CABLES** The product produced by a special process is a high efficient colourant for plastics with the properties of high dispersibility, good resistance to heat, migration, grease, solvent and chemicals. The product has many advantages such as: no negative effects on the electric properties, mechanical and ageing properties of the cable, good recapitulation of colour and lustre, simple colouring process and no pollution.

501408 396 C L R  
**IN-D TOBACCO BUD INHIBITOR** The product is mainly used to inhibit the growing of tobacco bud in the middle and late growth period of tobacco leaf. The utilisation of the product will improve the yield and quality of tobacco, save a great amount of manpower and reduce the production cost of tobacco leaf.

501446 394 U L R  
**MYOCARDIAL INFARCTION** Apparatus for correct and prompt diagnosis of myocardial infarction based on detecting changes in frequency of sounds from the heart.

Ref.No. Org.No. Status Offer Source

501457 2 F L/J C  
**CENTRIFUGAL PUMPS** Size 3 in. x 2 1/2 in. to 8 in. x 7 in. (suction x delivery) having capacity 1000 GPM to 1400 GPM. Head range 30-100 feet for different models. Applications in agriculture, water supply and industry.

501647 106 P L/S/J G  
**ORGANISATION OF FORESTRY** Mathematical models and tables of the process of growth of forestry and model stand of trees, simulating model of transferring the faults when planning the fellings.

501670 106 C L/S/J G  
**SOLDERING PASTE** for high temperature soldering. The suggested paste has been prepared on the basis of biologically harmless water soluble adhesive. The paste is adaptable to the technology and betters the soldering quality, does not lose its properties while in store for 10 days, ensures firm adhesion, excludes the formation of soots due to complete burning of the adhesive. Non toxic and inflammable.

501722 106 C L/S/J G  
**NOISELESS DISC SAWS** for sawing wood, stone and metal. Manufacture of piece and layer sections in the body of saw disc in order to diminish the harmful effect of vibration and noise. For wood and stone work industry. Tolerable noise.

501749 106 C S/L G  
**INSTALLATION OF DETERMINING VOLUMES** by gas method. Closed volumes in capacities of various configuration are determined by gas method on installation consisting of an air feed system, thermostat, power supply cabinet. The installation makes it possible to determine the volumes by way of comparing the air pressure in the target and standard capacities while feeding the air in equal portions.

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No. Org.No. Status Offer Source

501776 124 F L R  
**PRODUCTION OF ROOF TILES** and for other smaller parts by automated casting of high aerated and fine granulous concrete is developed for industrial use. The energy consumption is lower and roof tiles are 15% easier.

501923 217 J C  
**WELDING TORCHES** 10 000 pieces per year. Equity participation \$ 2 000 000. Export: 50%. Pre-feasibility study data available.

501995 380 C L/J C  
**HARD CHROMIUM PLATING PROCESS**  
 The technologic indices of the invention are as follows: 1) cathode efficiency is in range of 50 - 55%. 2) when cathode current density is 50-60 A/sq dm single sided plating rate is at least 130 m/h normally in range of 140-170 m/h. 3) the deposit is clear bright and its hardness is 900-1100Hv. 4) the adhesion of deposit is dependable. 5) Throwing and covering power for rapid plating bath is better than of conventional bath. 6) the rapid chromium bath has no low current etching on aluminium alloy and steel substrate.

502011 254 F S P  
**GRINDING MACHINES** 1. Cylindrical grinding machines. 2. Bore and track grinding machines for bearing industry.

502034 265 U S P  
**ABRASIVES** I can offer technical know-how for coated abrasives (flint paper, emery cloth, aloxite resin sander discs, SiC waterproof paper, aloxite resin cloth etc) with or without machinery. Machinery/plant to cost Rs 2.00 lacs to RS 30.00 lacs depending on capacity and products to be manufactured.

Ref No. Org.No. Status Offer Source

502056 281 W S U  
**TIMBER INDUSTRY** Modern techniques in timber industry. Mainly in wood processing. With relevant information on wood cutting tools and wood machinery.

502246 356 C J C  
**REINFORCED HIGH PRESSURE HOSES**  
 The proposed process is to invest in a plant in Turkey to produce the mentioned product with foreign investment and Turkish production working together. The proposed standard capacity is approx 50,000 mt (various diameters) using steel-rubber-fabric as a raw material.

502253 349 C J C  
**WOODEN BUILDING ELEMENTS** - furniture. Proposed standard capacity: per year; 600 bedroom sets, 200 dining room sets, 400 living room sets, 7500 m2 doors and windows, 1000 m3 baked timber.

601003 86 C L/J P  
**THERMAL DRESSING REINFORCEMENT OF ROLLED SHAPES**  
 Technology envisages optimisation of deformation modes in stand of rolls and accelerated shapes cooling regulated over the section. Cooling device is of the through type, used before or after finishing stand. Used in section mills.

601012 380 C L/J C  
**JF SERIES OXYHYDROGEN WELDING CUTTING MACHINE** has new and original techniques and a compact structure. It is easy to operate and safe to use without pollution. The machine costs only 1/10 of the operation of oxycetylene flame, saving more than 50% of electric consumption. It is the perfect substitute product for the traditional oxycetylene generator. It is suitable to the process of a wide range of industries.

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No. Org.No. Status Offer Source

601030 395 P L U  
**NANOSECOND RF SWITCHDRIVER** An extremely high speed driver circuit for nanosecond switching of GaAs semi-conductor devices and other reactive loads such as PIN diodes in microwave switch modules. The device utilises two stages of voltage level translation to permit low voltage TTL logic control signals to control the application of high voltage switching pulses to a load.

601067 396 C L/J C  
**COMPLEX GLAZED CORRUGATED SHEET** the large size rigid tile roofing, the perfect construction material substitute for the corrugated asbestos-cement sheet (CACS). Because of its complex structure adopted, the advantage of every substance from which the product is made is fully brought out, so that CGCS is a fine looking, cheap and durable article with perfect materials and excellent mechanical properties.

601147 393 F L C  
**LIGHT WEIGHT COMPOSITE MATERIAL** for buoyancy applications or as a reinforcement. Licence offered for the manufacture and sale of 'Vicast'. The material consists of hollow spherical silicate microspheres in a resin matrix with an optional inert filler, allowing accurate control of density and buoyancy. It may also be used as a reinforcement for lightweight structures such as honeycombs.

601165 393 U L U  
**PROPERTIES OF CONCRETE** Effects of admixtures; rheology of fresh concrete and cement paste. Non destructive testing of concrete and structural brickwork.

Ref No. Org.No. Status Offer Source

601353 400  
**ELASTIC GUIDING OF CONVEYANCES ON RIGID GUIDES** Elastic guiding of the conveyances running on rigid guides limits the influence of the mass and winding speed on the dynamic loads of the guides and buttons and increases the durability of the conveyance and winding and balance ropes. In this system the elastic guiding is achieved by an independent elastic connection of the guide roller axle with the conveyance. Three guide rollers are joined together into one rigid set which is mounted resiliently to the conveyance. This system allows to increase the transverse displacements of the conveyance without increasing the spacing.

601355 400  
**MAGNETIC METHOD (MAGNETIC DEFECTOSCOPY)** the most objective way of an assessment of wire ropes and ferromagnetic elements from 10 to 105 mm diameter. It is used also to test rubber coated flat ropes, steel reinforced belts etc. The instruments for rope testing use of static magnetic field and detect broken wires corrosion, abrasion, notches etc.

601364 396 C L C  
**COLOUR MASTER BATCH FOR ABS RESIN** The colour masterbatch for ABS resin is a kind of colourant produced by completely mixing ABS, AS, pigment, dispersant and other aids. Colouring of ABS resin articles with the colour masterbatch is simple. During the process the equipment cannot be contaminated, no pollution to environment. The articles in which pigment is dispersed uniformly have smooth surface and good appearance.

**OFFERS**

**CATEGORY 2: LIGHT INDUSTRY**

**Ref. No. Org.No. Status Offer Source**

601382 396 C J G  
**PITCH BASED CARBON FIBRE (GPCF) FOR GENERAL USAGE** The product possessed of the characteristics of lightweight, high temperature resistance, high corrosion resistance, high specific strength and modulus, excellent thermal and electrical conductivity etc. A lot of special materials are made of GPCF and cement, plastic, rubber and pyrolytic carbon, such as thermal insulation material, building materials, anti-static materials and seal materials etc. Also activated carbon fibre can be produced from GPCF.

601415 396 C L/J C  
**SELF LOCKING MULTI-ROLL SHEARING MACHINE** The machine can be used to conduct the longitudinal shearing for plate steel, spring steel, silicon steel sheet, aluminium, copper and their alloys. The shearing length is not limited. The shearing width can be adjusted by stepless control. It is possible to achieve the composite shearing for various specification of materials and to replace the group cutter blade.

601444 394 M L C  
**COMBINED CONTROL SYSTEM** for sensors and wastewater treatment plant.

601453 393 F L C  
**AIR SEPARATION TECHNOLOGY** using low temperature fractionation principles. Nitrogen plants, oxygen plants, liquefiers and multi-product air separation plants including argon. Plant capacity range from 5 tonnes/day nitrogen and upwards. Products offered may be any or all of the following: nitrogen, oxygen and argon; liquid or gas.

**Ref No. Org.No. Status Offer Source**

601489 24 F S R  
**TCTX - 460 DECORATING EDGE AND GOLD SETTING MACHINE** for ellipse porcelain dish can use the decorating edge and gold setting of any ellipse product and different circle blank. The machine is simple to operate. Advantages of the machine include adjustable speed settings and saving on electricity. Good efficiency and comfortableness are the main features of the machine. The sizes of ceramic products: 152 mm - 460 mm (6 in. - 16 in.).

601498 30 F J C  
**PLASTIC PROCESSING** including extrusion, injection moulding, blow mouldings. Designing of plastic piping systems for various applications, including irrigations.

601568 68 F/C C S  
**FRUIT AND VEGETABLE DEVELOPMENT PROJECTS** For: research and production, conditioning and packaging, canning and cold storage, transport and logistic, trading, financing and compensation.

601616 92 C L/J C  
**INFRARED THERAPEUTIC INSTRUMENT TO CURE HYPERTENSION WITH SPECIAL EFFICACY** The instrument outputs infrared radiation signal modulated by low frequency fluctuation. Simply put the radiation head on the centre of the top of human head while using, then therapeutic effect will be achieved. Clinical examination indicates that the effective rate of treating hypertension is 71.07%. In addition, other inventions by the Institute for generating the special electromagnetic signal are available.

**OFFERS****CATEGORY 2: LIGHT INDUSTRY**

Ref. No.	Org.No.	Status	Offer	Source
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601656	106	C	L/S/J	G
<b>DEVICE FOR REBURNING EXHAUST GASES</b> The reburning takes place as follows: additional fuel (natural gas) is fed through a burner into the chamber. The fuel burns, while getting mixed with injected air, and the high temperature flame is directed by dissector into the exhaust gas zone. There the gases are mixed with flame and burn out. The products are evacuated from the chamber by an exhaust ventilator through branch pipe, they mix with air and get cooled to 120 - 150 degrees C.				

601675	106	P	L/S/J	G
<b>ALBUM OF STAIN GLASS PANEL STRUCTURES</b> Determination of snow loads on panels. Calculation of smelting for separate pyramidal glass panels and panels adjacent to the height difference wall of building top, for three types of transverse transparent guard at different slant angles and building temperatures.				

601679	106	W	L/S/J	G
<b>TUNNEL VENTILATION</b> Non-reversible system of tunnel ventilation of underground (metro). All year air feed into the tunnel, evacuation of air from under the platform. Reduction of power consumption for tunnel ventilation, improvement of microclimate.				

601688	106	C	L/S/J	G
<b>MANUFACTURE OF MULTI-LAYER WIRE</b> with high magnetic permeability. Manufacture of wire with copper core and alloyed steel coat. For use in manufacture of noise suppressing conductors for electric supply, electronics and electrical equipment. The manufacture of wire absorbing high frequency interference reduces the demands to the filters and in some cases, to preclude them at all.				

Ref. No.	Org.No.	Status	Offer	Source
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601697	106	C	L/S/J	G
<b>MAKING OF DEEP HOLES</b> by electroerosion. The problem of evacuation of wastes has been realised by an instrument electrode of an up to date design for machine building, machine tool industry. Simple and easy in use, small size of new class electro-erosion machines.				

601706	106	P	L/S/J	G
<b>HOT EXTRUSION</b> of fine profiled blanks tool for machine tool building industry.				

601723	106	C	L/S/J	G
<b>VOLUMATRIC PUZZLE</b> The play is designed to develop spatial imagination and logic thinking.				

601750	107	F	J	P
<b>PRINTING INKS</b> Technical know-how and expertise in all types of printing inks manufacture with latest type motor mill triple roll mill and bead mill.				

601795	134	W	S/L	G
<b>WARNING SYSTEM FOR GAS CYLINDER</b> Design and fabrication of a measuring instrument for attachment to the domestic gas cylinder to monitor and serve as a warning system of fuel gas depletion from locally sourced materials. To measure fuel gas pressure and to give an early warning of depletion.				

601922	217		J	C
<b>DOOR LOCKS, PADLOCKS</b> 70 ; 100 000 pieces per year. Equity participation offered \$ 500 000. Export: 80%. Pre-feasibility study data available.				

602074	288	C	L	C
<b>MANGANESE STEEL</b> Steel production technology using Mn (Manganese) GX120 Mn12.				

**OFFERS**

**CATEGORY 2: LIGHT INDUSTRY**

Ref. No. Org.No. Status Offer Source  
 602237 362 C J C  
**CABLE MANUFACTURING** Telephone cable, PVC sheathed cable for energy and control, XLPE insulated energy and central cables. Rubber sheeted cables, damp-proof cables, N-insulated wires.

602308 322  
**A POWER TRANSMISSION** The link reduction gear is designed to transmit rotation between two parallel or coinciding axes with both stepping up or stepping down the output shafts. In heavy engineering industry, incorporated into cargo winches drive mechanism, into that of cranes, underground escalators, conveyors, vessel shaft lines, speed gearboxes, be used as a moment multiplier for tightening threaded connections etc.

701048 396 C L G  
**SAFETY GLASS PREPARED BY CURING POLYURETHANE COMPOSITIONS** Safety glass is widely used and for the most part such glass laminates are made using polyvinyl butyral in sheet form as the interlayer material and they are produced using high temperature and high pressure laminating techniques. Not only are such laminating techniques difficult and cumbersome, but the thermoplastic interlayers often do not meet the level of performance. New types of interlayers, polyurethane compositions, are used to produce safety glass by cast-in-place procedure, which possesses highly desirable characteristics

701066 396 F S C  
**ROTATABLE SOLE** The technology is suitable to use for various kinds of shoe factories and rubber plants (sole products) to make moulds. The technology is very practical, the shoes manufactured by such technology have longer heel life.

Ref No. Org.No. Status Offer Source  
 701075 394 F L C  
**REMOVAL OF HEAVY METALS** from waste streams. Volume minimisation ratios of 10,000 to 1. Significantly reduces costs compared to similar processes.

701084 394 F L J  
**REHABILITATION OF UTILITY CONDUITS** including water and gas.

701142 393 U L U  
**HYDROSTATIC BEARING SYSTEMS** A number of applications have already been successfully licensed. High speed machining and stationary arbor back-up roll bearings are being developed.

701151 393 U L C  
**GUIDED HYDRAULIC MOLE** bores underground track to enable small diameter pipes to be inserted with minimum excavation.

701160 393 W L C  
**INTEGRAL PYROLISIS AND INCINERATION** High temperature system - capable of producing 30 million BTU/unit from materials such as rubber tyres, animal and human excrement, waste oil, oil sand/shale. Emissions rendered colourless, odourless and harmless. Low operating cost.

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No. Org.No. Status Offer Source

701246 165 F/C L/S C  
**PURE CATACHINE FROM KHAIR TREES**  
 Pure catachine is known to have medicinal values and finds its application in a number of pharmacological preparations.

701339 389 C L P  
**A PORTABLE LIGHTWEIGHT SINEL CYLINDER** pegtoothed type corn sheller, consisting of hopper, shelling assembly, cleaning and discharge outlet made of steel and welded. Capacity of 1 ton per hour.

701346 267 P S R  
**DOUBLE FILAMENT GENERAL STANDARD BULBS** low cost, technical know-how and on turnkey basis.

701384 396 C J G  
**GLUED RARE EARTH PERMANENT MAGNETICS** The materials have the advantages of single injection moulding, extrusion moulding, high precision in size, being able to be made to all kinds of complex and thin parts, and also being able to be mixed with other metal element. So the materials can be widely used in the field of electrical machinery, medical apparatus, outer devices computers, electrical equipment for household, automobile etc.

701406 396 C L R  
**HIGH TEMPERATURE RESISTANCE CARBON GRAPHITE SEAL MATERIAL**  
 A carbon graphite impregnated seal material characterised by good seal ability, lower friction coefficient at high temperature, lower costs and broader prospects as high temperature material.

Ref No. Org.No. Status Offer Source

701487 22 C J U  
**HSS STEEL WIRE ROPE HAND OPERATED HOIST** is a new type of lifting and pulling machine. It can work at any direction and length with no power supply. It is noted its compact, lightweight and its portable feature. (main technical parameter: lift 1600 kg, draw 2500 kg).

701541 58 C L C  
**RAILWAY WAGONS** Designed for cane transportation from fields to factories. Gauge: 600 mm, 750 mm, nominal capacity: (10-17) ton, dead weight: 2.7, 3.8 ton, dimension: 6x1 8x2.2 m, 7.6x2x2.3, material of construction: alloy steels, mild steels.

701544 58 C L C  
**HEAT EXCHANGERS** Surface area: up to 300 sq m, dimensions: dia 1000 m, length: 4100 mm, dead weight: 13 ton, No of tubes: 750, tube dia: 100 mm, material of construction: anti corrosive steel, stainless steel. Use: juice heating and similar industrial operation.

701547 58 C L C  
**VACUUM FILTER** Capacity: 60 ton/day, surface area: 42.4 m, medium: pulp, total weight: 38 ton, working speed: 1-5 rpm, material of construction: alloy steels, stainless steels.

701556 59 C L C  
**THE PRODUCT EQUIPMENT AND TECHNIQUE FOR LIGHT CARBONATE OF LIME** Our plants production capacity is 40000t/year. Main product is useful for rubber and plastic and other lines. Such as, making paper medicine and dope and so on. Our plant undertook many times design of plant of foundation. Based on user's needs. We can design plant needed by user and are willing to co-operate with foreign users.



## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No. Org.No. Status Offer Source

701571 70 F/C S C  
**EXCHANGE OF FOOD PRODUCTS AND AGRICULTURAL TECHNOLOGY**  
 Exporting professionals seeking to become partners in the fields of research, engineering, transporters, equipment constructors, agricultural suppliers, public and financing organisations.

701598 84 C L/J C  
**TONG TYPE PLASTIC BAG SEALING MACHINE** used for heat sealing of large sized plastic bags. This device is very convenient when the bag is very heavy to be carried to the sealing machine. But the sealing jaw can be conveniently taken to the bags for sealing. Price approximately US\$ 215.

701603 86 C L/J P  
**PRODUCTION PROCESS OF HIGH RESISTANT ABRASIVE TOOLS**  
 Compositions for reinforcement of abrasive grains, composite fillers which decrease oxidation of surface and heat release in zone of contact; new compoundings of abrasive tools which increase their resistance and cutting ability.

701612 89 C L/J R  
**MANUFACTURING LASER DISTANCER AND COMPASS IN FOREST** The instrument from the Forestry Science Research Institute of Jilin Province has three functions as follows: direction finding, distance finding and the horizontal distance reading on a mountain slope. Its specifications include: measurement range - 60 M or 120 M, the mainimal graduation scale reading - 5 CM or 10 CM, the length of receiving staff - 160 CM.

Ref No. Org.No. Status Offer Source

701657 106 P L/S/J G  
**HYDROMETRIC AL WEIGHS** Measurement of the gas mass consumption when determining the volume of capacities by liquidless method. Include pressure accumulator, aquarium with distilled water, receiver for balances. Pressure accumulators with a reserve of gas are balanced by a pushing force of water, thus enabling to measure the gas consumption at the highest accuracy.

701661 106 M L/S/J G  
**ITEMS OF BASALT FIBROUS CONCRETE** and technology of their manufacture. Metalless and low metal content structure from fibrous concrete on the basis of coarse basalt fiber. No or reduced (by 40% to 60%) consumption of steel in concrete structure.

701666 106 M L/S/J G  
**DRY TANNAGE OF LEATHER** for thread and glue secured shoe bottom. Traditional method of shoe making with the use of specially elaborated and tested processes. Production of high quality leather at short pre-tanning and tanning operations, decrease of tanner, water consumption. Complete absence of free phenols and chrome content.

701724 106 C L/S/J G  
**MINIATURE BELLOWS CONSTRUCTION**  
 Automated process of laser welding. The welded bellows is assembled of profiled diaphragms and are welded by laser beam along the inner hole and outer contour. The bellows are made of corrosion resistant non-magnetic band with high elastic properties. The laser welding makes the bellows airtight when pressure tested.

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No. Org.No. Status Offer Source

701733 106 C L/S/J G  
**FLYING WING** Flying wing screen plane with fuselage on air cushion. Structurally, it is a delta shaped wing, on whose lower surface the deflecting rigid flaps create under the wing a multichamber cupola. In the cupola, the air bleed from the gas turbine engines creates static air cushion necessary for take off and landing. High aerodynamic properties at subsonic speeds, amphibious and landing on no runway terrain.

701742 106 C L/S G  
**MANUFACTURE OF MESHED ARTICLES** by electrochemical treatment. This technology does not require the use of chrome containing components for the electrolyte and reduces the toxicity. For machine building, chemical and food industry, in the manufacture of commodities. High quality meshed articles due to even etching of the blank holes and obtaining clear contour of each cell.

701948 231 C L/J C  
**ARTIFICIAL ANTIQUE STONE PANELS** made with polyester resin and glassfibre, which, due to the manufacturing system, results in unique characteristics not found anywhere else in the world. Due to components used, the panels present an accurate imitation which is difficult to distinguish from the real thing. The product is offered in different imitation finishes: stone, to the 'opus spicatum', blackboard, round stone etc and different forms: wall, angular, arches, curves etc.

702069 288 C L C  
**MOULD CASTING** The technology comprises a moulding process using sodium silicate hardened with CO<sub>2</sub>. The process is suitable for casting large parts. Process suitable for core moulding: higher quality as compared with green sand; casting of parts in ordinary steel; non-corrosive for cast iron of all kinds.

Ref No. Org.No. Status Offer Source

702078 291 C J C  
**ROBOTISED WELDING OF FORK PRONGS FOR FORK-LIFT TRUCKS** Welding of 12,500 to 15,000 small and medium size details of low alloy, medium carbon, high strength per year, requiring pre-heating steel. Fully automated process, high quality of the welded seam, produced by pulse arc welding. Raw material and flat strip steel.

702096 298 C L/J C  
**RARE EARTH MODIFIED CASTING NYLON (RMC NYLON)** The RMC nylon manufactured by using the technology is more superior than the conventional modified casting nylon (MC nylon) in both physical and mechanical properties. RMC nylon is good for making gears, turbines, axle sleeves, bearings, slide blocks, pins and other machinery parts. By using the technology, 10-100 tonnes of qualified RMC products can be made per month. The sale price: 3800-4000 US\$/tonne. The initial investment will be 150 000 US\$ if the monthly output of 10 tonnes of RMC is planned.

702113 313 C L/J C  
**MANUFACTURING OF LABORATORY GLASSWARE** The technology and the technique is mainly used for making and repairing laboratory glassware. The services include: A. technique transfer, the technique charge: US\$ 12,000. B. training course at home (6 months), the tuition (with accommodation) is US\$ 2,000. C. Training course abroad or co-operation in any way, the specific agreement can be reached through negotiation with the interested customers. The developing countries will have the preferential fee for the above 3 items. The working language is English and Chinese.

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No. Org.No. Status Offer Source

702122 318 F S G  
**MECHANICALLY FED RESISTANCE HEATERS** The heater type UR-201 designed for heating round steel bar ends before forming is especially suitable to production of different screws, bolts, rivets etc, manufacturing by heading. Type UR-224 is used for heating bar middle parts. Energy consumption is 40% lower than in chamber furnaces.

702152 329 W L/J  
**NEW MACHINE TOOL FOR MUFF MACHINING** Machines for cutting pipes and for threading pipes of muffs from 1,9 inches up to 24 inch diameter. Allows simultaneous machining both tips of a muff, increasing productivity. Machine uses the most recent technologies allowing its integration in fully automatic flexible systems.

702221 165 F/C L/S C  
**EXPANSION JOINT FILLER FROM COCONUT PITH** The expansion joint filler can be used for concrete pavements, bridge decks and other structures.

702250 352 C J C  
**WOODEN BUILDING ELEMENTS** - furniture. Proposed standard capacity: 12000 cu m per year.

702266 343 P S P  
**SOLVENT FILM CARBONS** process. Resilient honeycomb ink coating on polyester film. Produces high grade typewriter, pencil carbons and ribbons. Outlasts 20 to 100 times and costs 1/3rd of ordinary carbons. Typewriter keys never touch ribbon ink. Project cost US\$ 350,000, technology fee US\$ 20,000 plus 5% royalty. Profit above 60%.

Ref No. Org.No. Status Offer Source

801010 212 W L C  
**MECHANICAL PROPERTIES OF SOIL** New method provides effective determination of optimal humidity for maximal density of soil, for construction of roads, investigation of soil, for building of aerodromes, railway.

801029 395 P L U  
**METHOD AND APPARATUS FOR DETERMINING SEMI-CONDUCTOR CHARACTERISTICS** A method and apparatus for improved measurement of the profile of carrier concentration versus depth of pn semi-conductor junctions which compensates for the capacitance of the junction and is, therefore, more accurate than previous techniques.

801038 396 C L G  
**MODEL U60W HORIZONTAL TANK CAR FOR BULK CEMENT** type U60W pneumatic unloading horizontal tank car for bulk cement is a special one for transporting cement, the tank car was welcomed by users

801065 396 F S  
**CONSTRUCTION ENGINEERING STEEL** (bars/pipe) of curl field stress. This new invention can be applied to the concrete products, such as columns, beams, piers, foundation, concrete slabs and piers of bridge and so on. The steel produced by this technology can be used in buildings, bridges and tunnels or in any concrete products without any technological alteration and hindrance when the steel is applied.

801074 394 W L/J C  
**WASTE GAS RECOVERY** High performance membrane for recovering industrial waste gases.

801083 394 F L J  
**MIXED PLASTICS WASTE** Plant and equipment for separation and recycling.

**OFFERS****CATEGORY 2: LIGHT INDUSTRY**

Ref. No.	Org.No.	Status	Offer	Source
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801092	394	F	L	C
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**WATER DESALINATION PLANT (ON BOARD)** through reverse osmosis automation analysis and control plant.

801155	393	F	L	C
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**AQUEOUS COATINGS** on rigid substrates. Specialist capability for manufacturing coated rigid substrates eg glass, up to 0.5 m square. Strippable and adhering gelatin coatings. Other aqueous based coatings can also be used.

801164	393	U	L	U
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**INTERNAL COMBUSTION ENGINE DESIGN** A suite of computer programs (in Fortran) for performance evaluation of diesel and petrol engines, in turbo charged or naturally aspirated form. The programs allow for the passage of pressure waves in the intake and exhaust manifolds, for dissociation and rate kinetics and may include data on pipe junction loss co-efficients.

801178	106	P	L/S/J	G
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**IMPROVING GEAR WHEEL MANUFACTURE** Control of the reliability when manufacturing the gear wheels. We offer the technology of production of the gear wheels. Increased reliability of production of the gear wheels.

801332	386	F	J	P
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**ELECTRICAL INDUSTRIAL FURNACES** for annealing normalising salt bath, carburising and all other industrial applications. Type - pit type, bogie hearts, pusher type, vacuum or inert gas atmosphere etc. Laboratory model furnaces. Temperature sensors as thermocouples.

Ref No.	Org.No.	Status	Offer	Source
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801341	389	C	L	P
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**A PORTABLE AXIAL FLOW** throw-in, pegtoothed type with pneumatic thrower thresher, made of steel and welded. Thresher capacity if 99.5% purity, damaged grain 0 and cracked grain 1 which is an advantage over the other threshers.

801366	396	C	L	C
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**FIRE RETARDING HIGH IMPACT POLYSTYRENE** Taking high impact polystyrene (HIPS) as base material the product is made by adding fire retardant, impact modifier, dispersant and other additives, and by once through process with a common single screw extruder. The material is mainly used for manufacturing cases of household electric appliances such as television set, radio set, tape recorder, computer etc. It can also be used to manufacture distribution panel, cases of small electric instruments, furniture etc.

801386	396	C	J	G
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**HIGH TOUGH CERAMIC COMPOSITE FOR CUTTING TOOLS** A variety of improved ceramic inserts are now available. Thus ceramics possess the best performance in its own application scope including the following systems: Al<sub>2</sub>O<sub>3</sub>-TiC-Metal, Al<sub>2</sub>O<sub>3</sub>-TiC-Metal and special add, Al<sub>2</sub>O<sub>3</sub>-Ti(C,N)-Metal, Al<sub>2</sub>O<sub>3</sub>-(Ti, W)C-Metal, Si N -Ti(C,N) etc.

801404	396	C	L	R
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**LIGHTWEIGHT MATERIAL FOR HEAT INSULATION AND SOUNDPROOFING** The product is designed for heatproof material on steel pipeline in the field of petroleum transportation. It can also be applied to chemical engineering equipment and architecture.

**OFFERS**

**CATEGORY 2: LIGHT INDUSTRY**

**Ref. No. Org.No. Status Offer Source**

801458 2 F L/J C  
**TURBINE PUMPS** Vertical line shaft turbine pumps of bowl diameters 5 5/8 in. (143 MM) to 13 1/2 in. (343 MM). Capacity 60 GPM to 2250 GPM (0.16-6 cu secs). Heads up to 500 feet (152 metres). Design: mixed flow-impeller with guide vanes (bowls) in multistage. Fitting suspended through column pipe, sockets fitted with bearing for line shaft. Discharge to hold suspension of column and bowl assembly. Applications in water supply and irrigation.

801553 58 C L C  
**CENTRIFUGAL PUMPS** Discharge: 120-900 L/S, power: 130-300 Hp, head: 5-40, medium: water - juice, material of construction: grey cast iron, stainless steel.

801608 86 C L/J C  
**REINFORCED CONCRETE MATERIALS** Technology of heat and moisture treatment of reinforced concrete and other items. Reinforced concrete and other porous materials are subjected to heat treatment by vapour-smoke-air mixture obtained in vapour-heat generator mounted in the immediate vicinity of the treated item.

801626 102 C L/J C  
**ATTAPULGITE CLAY ACTIVE TREATMENT** Its technology property is as follows: the processing is rather simple. It not only reduces its energy consumption, but also can avoid the three wastes. The decolour capability of the product can reach over 200. Free acid < 0.2%.

801689 106 C L/S/J G  
**PREPARATION OF MESHES FOR SAMPS** used in manufacture of plate materials. Manufacture of filtering meshes of special interweaving. The use of flexible mesh samps has made it possible to intensify pressing processes.

**Ref No. Org.No. Status Offer Source**

801716 106 C L/S G  
**AGRICULTURAL DRAINAGE** Inclineless and closed horizontal drainage. At natural slopes less than 0.002 a drain line with little slope which is the replica of the terrain slope. Increases intermediary drainage to some 25%.

801725 106 C L/S/J G  
**STRAIGHT DRAINAGE** A design of deep straight drainage with risen waterways which makes it possible to better the land reclamation condition in the given area. For use in salty and irrigated fields. Possibility to use the collector drainage systems at risen waterways of drainage.

801743 106 C S G  
**MANUFACTURE OF MESHED ARTICLES** by electrochemical treatment. The meshes are manufactured by way of two-side electrochemical milling with an AC while suspending blanks to all electrode bars with photochemical portraying of the mesh on both sides of metal plate. Thereafter the ready articles are washed dried, enlightened. This technology does not require the use of chrome containing components for the electrolite and reduces the toxicity.

801751 108 F S C  
**PRODUCTION OF COLOUR TV** (21, 25, 28 inch stereo/mono) teletext, SCART, multistandard and technology for assembling, soldering adjusting and controlling of electronic modules (including SMD technology).

801770 118 L C  
**DENTAL EQUIPMENT** (chairs and units) very modern dental patient chair. The co-operation should be based on the fact that we use a lot of modern plastic technology in many parts of the chair, the plastic technology with expensive moulds being designed for large quantities. The rest of the chair (metal, electronics, installation) could be made locally.

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No. Org.No. Status Offer Source

801779 128 C S P

**PRODUCTION OF CITRONELLA OIL**

Production consists of two stages i) cultivation of citronella grass; and ii) distillation of cultivated grass for extraction of oil. Cultivation of citronella grass can be undertaken on wastelands, hilly slopes and on high lands which are not suitable for cultivation of crops like paddy.

801920 214 J

**DOUBLE LAYERS BLANKET** covers etc, made of pure wool pile and blends with manmade fibres. Production of knitted pile fabrics 'maxipile' pure wool or blends, finishing to 'lamb effect' and 'biber effect'. Capacity: 1 mln linear m/year (2 shifts) 4400 hours. Cash maximum US\$ 2,000,000.

801921 217 J C

**HAND POWER TOOLS** all kind, 25 000 pieces per year. Equity participation offered: \$ 500 000. Export: 70%. Pre-feasibility study data available.

801929 222 C L C

**COMBINED MACHINING OF HOLES** The equipment is designed for machining of holes in hydraulic and pneumatic cylinder bodies in the 119 accuracy class. Machining process is performed in one pass by simultaneous boring and burnishing. The equipment is used in series production of hydraulic cylinders, including long cylinders.

801965 233 C L/J C

**AIR BUBBLE FILM** versatile packaging material to provide, protection against shock, abrasion to goods during transportation and is a must for exports and electronic goods.

Ref No. Org.No. Status Offer Source

801984 247 C L G

**SAFETY GLASS PREPARED BY CURING**

**POLYURETHANE COMPOSITIONS** Safety glass is widely used in glass areas of automobiles, aircraft and the like, as well as in certain architectural applications. For the most part, such glass laminates are made using polyvinyl butyral in sheet form as the interlayer material and they are produced using high temperature and high pressure laminating techniques. Not only are such laminating techniques difficult and cumbersome, but the thermoplastic interlayers, such as polyvinyl butyral, employed therein often does not meet the level of performance.

802073 288 C L C

**MILLING BALL PRODUCTION** technology, grade GX300 Cr Mo 12.2.

802119 318 F S G

**TR UPSETTING FORGING DEVICES**

installed on multipurpose eccentric or crank presses of 1,5-2 MN capacity. Enable the production of forgings of elongated shape (TRW types, 10-50 mm dia) and are designed for upsetting of elements which are formed simultaneously on both ends (TRD types, base dia 10-40 mm).

802232 365 C L/J C

**GLASS HOUSEHOLD WARE**

**PRODUCTION** Suitable raw materials are mixed at predetermined ratios and the mixture is melted in a furnace at high temperatures. Molten glass is formed either automatically by specialised machines or manually by mouth-blowing into moulds. Hot ware are cooled at a controlled rate to remove residual stresses. Cooled ware are inspected and packed for shipment to the customers. Glass household ware production.

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No. Org.No. Status Offer Source

901037 396 F S G  
**ROTOR DYNAMIC BALANCING TECHNIQUE FOR ROTATING MACHINERY** three microcomputer aided balancing systems MCAB-I, MCAB-II, MCAB-III are included. They are suitable for a variety of rotating machines such large steam turbine generator sets, centrifuges, fans, pumps, electric motor etc.; for shaft system, rigid and flexible rotor balancing and whole machine field balancing

901064 396 C S/J C  
**LTC-A TYPE SLIT DIESEL OIL SAVERS** suitable for automobiles, tractors, ships, project mechanisms, agriculture diesels, matched with 75, 85, 95, 100, 110, 120, 130, 135, 160 type diesels. The savers can be projected to match large power diesels according to the requests of users.

901073 394 F L C  
**POWER CONVERTERS** Compact, high density power converters (HPDC) 2 in x 1.5 in x 0.3 in input 20.55 VDC nominal 90% efficiency at pull load output 5.28 VDC.

901082 394 F L J  
**DRYING AND RECYCLING SURFACE SLUDGE** to enable the recovery of nutrients and organics.

901091 394 F L C  
**BATTERY CHARGING** technology increases battery life, reduces charge time BX 50-95%, reduces energy consumption by 40%. Applicable to lead, acid and nickel cadmium .

Ref No. Org.No. Status Offer Source

901100 395 L U  
**METHOD OF METALLISATION OF SEMI-CONDUCTOR SURFACE** A process to fabricate a new class of integrated circuit metallisation systems with improved conductor grain structure and metallurgy. Assembled on a semi-conductor substrate, the one or more layers of metal conductor exhibit improved reliability in terms of thermal stress induced grain boundary cavitation and retarded electromigration.

901141 393 U L U  
**ALIGNMENT ERRORS** Error correction system for slideway alignment errors in machine tools.

901150 393 F L C  
**UNDERGROUND PRESSURE REGULATION MODULE** A sealed fully integrated pressure regulation module for buried installation designed for 5 year maintenance free cycle: inlet pressure range 70 mbar - 2 bar; outlet pressure range 22 mbar - 47 mbar; flow capacity 850 cu m/hr - 3400 cu m/hr.

901370 396 C L/J C  
**LOW DENSITY POLYETHYLENE (LDPE) WEATHERPROOF MASTERBATCH** LDPE weatherproof masterbatch, using LDPE as carrier, is manufactured by means of adding light stabiliser, antioxidant, metal ionic passivator and other agents. Single screw extruder and one through extrusion and granulation process are adopted for LDPE masterbatch production. It is of short flow diagram, simple equipment, low investment, low agents consumption and good working conditions.

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No. Org.No. Status Offer Source

901379 396 C J G

**ITO TRANSPARENT AND CONDUCTIVE GLASS** The product is mainly used in liquid crystal display, charge couple device and liquid crystal radio television set. The visible light transmittance of the product will be more than 90%. The resistance resistivity of the product will be in the magnitude of 10 minus 4 power. The average difference of the film is less than 10% with silicon dioxide barrier coating.

901400 396 C L R

**HOT MELT ADHESIVE FOR CABLE** The title adhesive is mainly used to joint hot shrinkage fit cover of plastic cable attachment and to seal the plastic ends of communication cables and electric wires. It is also used for bonding of wood, metals, plastics, paper and so on.

901402 396 F L/J R

**3,3-DIMETHYL, 4,4-DIAMINO-DIPHENYLMETHAN** The title product is the essential material for manufacturing H grade insulating varnish.

901438 396 F/C J/S G

**SILVER-FREE BRAZING FILLER METAL** the product is characterised by low melting point (800-830 C), high tensile strength (450 N/mm) and good plasticity (28%). It may be used instead of silver-based brazing filler.

901449 393 U L C

**TOTAL DIRECTIONAL EMISSIVITIES** measurement in air. The radiometric method measures radiance emanating from a target using a total radiation pyrometer and by comparison with radiance from a black body an accurate measurement of the target emissivity can be made. The facility can also measure directional values up to 86 deg from the target normal.

Ref No. Org.No. Status Offer Source

901600 85 C L/J C

**RUBBER SHEET DRIER** Device for smoke drying of ribbed rubber sheets. Convenient, fuel efficient, compact design to replace less efficient smoking rooms for drying natural rubber sheets. Made of sheet steel construction. Modular design. Particularly used for small rubber estates of area 1 to 6 Hectares.

901604 86 C C

**NEW VETERINARY PREPARATIONS FOR TREATMENT OF COW MASTITIS** Furahin and sulfabiciretin for use in the dairy cattle breeding. The therapeutic effect of furahin and sulfabiciretin is higher than that of masticid 2.

901613 90 C L/J R

**PRODUCING NATURAL ANTHOCYANIDINS AS FOOD COLORANT** Developed by Zhejiang Light Industry Research Institute, this process includes extraction, purified by ultrafiltration etc. The complete technology includes the following: producing process, technology for quality administration, process specification, personnel training.

901662 106 C L/S/J G

**MEMBRANE STRUCTURES OF ROOFINGS** Roofing of production premises, stores, parking lots, depots; reconstruction of buildings whose roof has to be changed; construction of public buildings. Thick plate roofing due to small weight, easy for transportation, adaptable for placing, good in hard to access places and in northern and seismic areas.



## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
901667	106	M	L/S/J	G	901797	137	C	S/L	C
<p><b>SPECIAL SHOES</b> for protecting against phosphorous. There is a packet of shoe materials and a design of special shoes for men with a complex of protective properties against phosphorous. Protection from the effect of high temperatures (sprays of hot phosphorous).</p>					<p><b>FIBRE GLASS TANK</b> Storage and holding container for, especially, liquid materials.</p>				
901685	106	C	L/S/J	G	901901	204	J		C
<p><b>MANUFACTURE OF LOCK PARTS</b> lock bars and metal powder inserts. Press fitting and caking of complex parts of locks using metal powder. Effective burning of high ash content and low grade coals.</p>					<p><b>METAL BUILDING PRODUCTS</b> doors, windows etc made from aluminium and steel. Process varies: i) standard; ii) specific depending on client/customers requirements; iii) batch etc. Proposed turnover: N 500 million/annum. Foreign participation: minimum 40%, maximum 45%.</p>				
901700	106	W	L/S/J	G	901928	221	C	L	C
<p><b>FOUNDATION STRUCTURES</b> Assembled monolith foundations for pillars made of assembled through rest and monolith plate. Simplifies and reduces the scope of processes when at zero cycle. Low consumption of steel fittings and concrete.</p>					<p><b>METAL CUTTING</b> of non-rotational workpieces by milling, drilling and boring, thread cutting, face and conical surfaces machining, neck and groove making. Power and accurate five side machining in one clamping with high accuracy of machining operation. High work productivity by reducing of preparatory and side timings by workpiece, tools, technology attachments and chips manipulation.</p>				
901726	106	P	L/S/J	G	901947	231	C	L/J	C
<p><b>CRT LOCAL SOLDERING</b> Local soldering with high temperature solders in vacuum or in protective gas medium on specialised equipment. The design and control system of the equipment guarantee local warm up of parts by circular electronic beam. Energy saving, ecologically clean, better working conditions for the operator.</p>					<p><b>PLASTIC COATINGS</b> Two new developments in the coating field: electrostatic varnish for plastic pieces, primers for polypropylene. Electrostatic varnish for plastic pieces: most of the plastic materials have very low conductivity so are unsuitable for electrostatic painting. Primers for polypropylene: One of the disadvantages is its high surface tension. This inconvenience produces a very important effect, it is extremely hard to paint.</p>				
901752	109	W	L	C					
<p><b>BACKHOELOADERS</b> Production of universal backhoeloaders for civil engineering works.</p>									
901771	119	F	L	P					
<p><b>JOINT CONNECTION FOR TUBE</b> (ex Losflache DA at DIN) where is waste 8%. Dimensions are 120-1400 mm. Production time is 1-4 minutes. Next step of production is plastification. Factory need 1000 sq m or more. Using conn of tube line for water, gas, fluids.</p>									

## OFFERS

## CATEGORY 2: LIGHT INDUSTRY

Ref. No. Org.No. Status Offer Source

902000 380.01 C L/J C

**HYDRAULIC LIQUID CONTAMINATION DETECTOR** The degree of contamination in hydraulic liquid is an important factor in judging the operation and reliability of a hydraulic system, guaranteeing the operation life of the elements and the system. This detector can detect the degree of contamination and offers its results on computer printout.

902068 288 C L C

**COLD BOX CORE MOULDING** for intricate castings. Process involves filling the core moulding box with sand previously mixed with resin and the hardening agent to accommodate complex cores.

902252 350 C J C

**TIMBER AND WOODEN BUILDING ELEMENTS** (doors and windows). Proposed standard capacity: timber 12000 cu m per year, door 24000 piece per year.

902311 323 C L

**SMALL SCALE CLAY BRICK MANUFACTURING TECHNOLOGY** The equipment is aimed at less developed countries and produces high class, bricks using technology methods. It is suitable for low wage economies and produces from 4000 to 20000 bricks per week. The equipment supplied consists of clay crushers, portable clay hoppers, brick presses, brick carrying frames, 3 wheel and 2 wheel carrying trucks, clamp fire doors.

Ref No. Org.No. Status Offer Source

902313 323 C L

**WASTE PAPER RECYCLING MACHINE FOR THE PRODUCTION OF EGG PACKAGING, BIODEGRADABLE PLANT POTS, FOOD TRAYS ETC** A manually operated plant with simple maintenance procedures. Low floor loading, low initial capital cost, easy operation - high standard finished products. All electrics 220/240V single phase. Production output eg egg trays 4 moulds x 60 strokes = 240 per hour. Materials required waste paper, water waxes (emulsified) and dyes. Training course available.

701586 81 C L/J C

**POLYTHENE BAGS** Printed and simple bags including the extrusion of HDP/LDP/PP extruded films.

701270 319.18 C L

**DY-COMPUTERISED MALIGNANCY DIAGNOSTIC UNIT** The patented computerised malignancy diagnostic unit (CMDU) has been developed, basing on the theory of extra acupoints relating malignancy (EAM). CMDU is a highly advanced product combining Chinese traditional medicine and modern electronic technique.

301162 393 U L C

**DUST COLLECTOR FAN** with novel flexible fibre impeller. The fibre impeller spins at high speed and propels an air stream in a similar manner to a conventional centrifugal fan. The impeller is irrigated by a liquid, and dust particles in gas streams are collected on the wetted fibres. The slurry so formed is led away to drain or may be recycled to an earlier stage of a manufacturing process.

**OFFERS****CATEGORY 2: LIGHT INDUSTRY**

Ref. No.	Org.No.	Status	Offer	Source
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101416	396	C	L/J	C
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**ZSL TYPE INDRAFT PRESSURE SIEVE**

The equipment is used in the field of paper making with following features: novel mechanical design, energy saving, wide application and easy operation. The sieves are fitted with slot screen cylinder made of thick stainless steel plate and also can be used for screening stock before bleaching and fine selection in the running of paper machine.

2279	155	F	L	C
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**GOAT SKIN PROCESSING** into garment suede.

102342	267	C	L/J	C
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**LATEX DIPPING** technology and plant - gloves, balloons, teats, condoms, catheters, etc. Consultancy, service, plant, processes and laboratory equipment. Plastic dip-coating and dip-moulding plant and services. Dip-finishing and coating plant for other industrial processes.

Ref No.	Org.No.	Status	Offer	Source
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Brake Lining for Automobile Vehicles

Builders Hardware (Aluminium Hinges)

Builders Hardware (Tower Bolts)

Circular Saw (Wooden Working)

Concrete Mixer

Diesel Engines

Flexible Pipes

Galvanised Pipes

Gas Appliances

Hydraulic Jacks

MS Pipe Fitting

Mini Cement Plant

Tin Cutters

Water Storage Tanks

Weighing M/C

Polythene Film & Bags

Frictional Horse Power Motors

Radio & TV Coils

Soldering Wire

Anti Vibration Engine Mounting

PVC Pipe Fittings

Rigid PVC Pipes

Scientific Laboratory Glass Wares

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The following Project Profiles are available from The National Small Industries Corporation Ltd (NSIC). For more details see the section entitled NSIC Project Profiles at the back of this catalogue.

Air & Oil Filters

Air Compressor

Aluminium Furniture

Animal Driven Implements

Barbed Wire

Bench Grinder

**OFFERS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES**

**Ref.No. Org.No. Status Offer Source**

1027 395 P L U

**MOUNTING A FOCUSING X-RAY FIBRE**

An apparatus for guiding X-rays along the hollow bore of a tapered glass capillary and a method and apparatus for securing the critical tip portion of the capillary such that the guide maximises the transmission efficiency and spatial focus intensity of the X-ray.

1212 336 U S/L

**PRODUCTION OF WEAR RESISTANT PIPES/ELBOWS**

Technique is based on fusing the inner surface of a steel pipe/elbow with wear-resistant alloys by high temperature carbonisation. Thus the inner layer of a pipe-elbow acquires high resistance against abrasive wear. Hard pipes/elbows makes it possible to increase pipes lifetime from 1-3 years to 5-15 years and that of elbows from 1-2 years to 5-10 years.

1418 395 P L U

**METHOD FOR THREE DIMENSIONAL OPTICAL DATA STORAGE AND RETRIEVAL**

Utilising two photon excitation in refractive media. Information is written as submicron voxels of modified index of refraction that are induced by two photon excited crosslinking or degradation of a polymer medium in the volume defined by the waist of a highly focused modelocked laser. Information so stored is later read with three dimensional resolution via laser differential interference contrast microscopy. Allows data storage density of more than 10 bits/cc.

**Ref.No. Org.No. Status Offer Source**

1445 395 L U

**RE-ORIENTATION OF 3D IMAGES**

A system for rotating a 3D image so that a selected projection is oriented to a chosen angular orientation in a three-dimensional space. The system includes a data processor for storing pixel co-ordinates and includes circuitry for rapidly altering the pixel spatial co-ordinate values to accomplish 90 degree rotations of the 3D image about axes of a three-dimensional space.

1631 106 P L/S/J G

**POLYMER PEDESTAL INSULATOR**

with high performances and wet flash over voltage. For use in the areas of seismic activity and high pollution. High reliability of equipment insulation.

1649 106 C L/S/J G

**ELECTRIC SPARK REMOVAL OF BURRS**

and metal chips in slots of cores of rotors after assembly and mandrelling. Complete removal of crumb, burrs and metal dust by HE.

1735 106 M L/S/J G

**LASERS**

Thermochemical colouring and manufacture of corund-based laser elements. High temperature treatment of monocrystals in metal vapours for manufacturing laser elements on the basis of corund and titanium. Increase of concentration of trivalence ions of titanium in corund, increase of generation efficiency.

1798 138 C L C

**SOLAR THERMIC ENERGY**

panels and systems.

1801 139 U J U

**SHORT HYDRO-TURBINES**

(up to 50 kw).  
Michell-Banki type.

## OFFERS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES

Ref.No.	Org.No.	Status	Offer	Source	Ref.No.	Org.No.	Status	Offer	Source
1802	139	W	J	U	2090	295	C	L/J	R
<p><b>DIGITAL COMMUNICATIONS</b> central, with 8 extensions. Totally digital.</p>					<p><b>PLASTIC OPTIC FIBRES</b> The plastic optic fibres can be used for making decorative lanterns, advertisements, window decoratings of stores, illuminating instruments, panels of cars, teaching instrumentations etc. By using the technology, 20 tonnes of plastic optic fibres per annum can be produced. The price is US\$ 8 per kg and the production cost is US\$ 3 per kg. Initial investment (including equipment, technology, 20 tonnes of raw materials and other chemicals) is US\$ 145,000 (building and utilities costs are excluded).</p>				
1803	139	M	S	U	2318	319.12	C	L	
<p><b>PRINTED CIRCUITS LABORATORY</b> to produce PC and research.</p>					<p><b>STAINLESS STEEL SURFACE TREATMENT TECHNOLOGY</b> Stainless steel material is used in ultrahigh vacuum instruments and equipment. After the surface of stainless steel is treated, the quantity of product and its surface finish can be improved.</p>				
1867	180	F	S	C	2327	326.05	W	L/S	
<p><b>PRINTED CIRCUIT BOARDS</b> from single sided phenolic through the range up to double sided through hole plated fibreglass, fully solder masked with component location legend.</p>					<p><b>MACHINES AND INSTALLATION FOR CUTTING ROCKS USING NON-CONVENTIONAL METHODS</b> 1. Breaking blocks of stone and concrete into fragments by electrohydraulic method. 2. Cutting with high pressure flows, up to 2500 bars. Usages: Disintegration of oversize blocks and mining of hard rocks and in coal mines with high gas hazard or steep galleries.</p>				
1946	231	C	L/J	C	2329	326.06	C	L/S	
<p><b>IMPLANTATION OF THE INTERACTIVE TV</b> in Europe and South America. Agreements on collaboration to implant this important and innovative technology in other countries. This incipient technology presents a wide range of applications, but the very first applications will be: to avoid zaping among the telespectators increasing in that way the revenues of the TV in advertising. To allow the telespectators to participate in real time in the TV concourses, opening a new way for advertising. To give information of added value to the telespectator.</p>					<p><b>CASTING OF IRON AND SEWAGE PIPES AND PIPE FITTINGS</b> Casting of pipes on double-permanent mould centrifugal casting machines without heat treatment. Casting of pipe fittings in permanent moulds on carousel. For production of sewage pipes and pipe fittings.</p>				
1990	380	C	L/J	C					
<p><b>LONG LIFE NEON LAMP</b> New type long life span neon lamp is rational in the choice of material and makes some innovations in design. The lamp has made great improvements in the field of electrode material, by withdrawing mica and by the usage of gas dispersal preparation. The lamp promotes the luminous efficiency, prolongs the life span, saves material and diminishes the damage of mercury.</p>									

**OFFERS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES**

**Ref.No. Org.No. Status Offer Source**

101017 319.04 C L  
**TECHNOLOGY AND EQUIPMENT OF CONTINUOUS HOT DIPPING ZN-5%AL-RE COATED STRIP** The technology of improved Sendzmir process is used in the production of hot dip Zn-5% Al-Re coated strip. The behaviour of the coated strip meets ASTM requirements. Strip width: 600 mm, thickness 0.3-1.5 mm, coating thickness: 30-50 mm.

101099 395 L U  
**MYOMETRIAL ACTIVITY MONITOR** Myometrial activity in pregnant females can be monitored by the use of electrical impedance imaging (EII) which is also known as applied potential tomography. This technique can distinguish between contractions and contractures, the former being indicative of labor.

101113 395 L U  
**FABRICATION OF OPTICAL FILTERS** For synthesizing alternating, ultra-thin layers of TiO<sub>2</sub> and SiO<sub>2</sub> to produce optical interference filters that exhibit optical properties identical to filters produced by thermal methods. Efficient filter performance is achieved. Optical filters produced have few defects and are much harder than other sol-gel films. For electronic devices, batteries and capacitors.

101454 393 U L C  
**HIGH POWERED FLICKER FREE LIGHTING SYSTEMS** Portable gas discharge lighting. Use of electronic, lightweight ballasts up to 20 KW.

101479 17 F L/J R  
**HI-TECH ELECTRONIC PRODUCTS** Microwave, vacuum, computers, telecommunications, testing instrumentation. Hard to find industrial/electronics, thermal and other related products.

**Ref.No. Org.No. Status Offer Source**

101533 57 F L G  
**MBE (MOLECULAR BEAM EPITAXY) SYSTEM** Used in various semi-conductor materials for studying crystal growth mechanism and surface physics. Its compatible instruments are AES, HEED and QMS.

101632 106 P L/S/J G  
**PHOTON REGISTER WITH MICROPROCESSOR CONTROL** The device is intended to register integral and spectral characteristics of low power level optical radiation. The device can be utilised for metrologic registration of low power level optical radiation.

101636 106 P L/S/J G  
**SOLAR POWER CONCENTRATORS** Concentrators for use at solar photoelectric stations on silicon elements. Preparation, on special installation, of matrixes with a preset form of density distribution, making of glass copies of the matrixes, application of the copies on copper and aluminium reflective layers and protective coat. Better the efficiency of photoelectric modules as compared with the concentrates using the aluminium reflective layer.

101677 106 M L/S/J G  
**LASER ELECTRIC POWER** Research and elaboration of effective means for electric power of lasers on the basis of the gate type, resonance and quazi resonance current converters. Sources of secondary supply with high specific characteristics and efficiency and licensability.

**OFFERS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES**

**Ref.No. Org.No. Status Offer Source**

101710 106 C L/S/J G  
**MAKING DC MOTOR ARMATURE WINDINGS** with pre-impregnated tape insulation. The armature winding is made of the coils of the main and balancing windings, whose cone and turn winding insulation is made of pre-impregnated tapes. Unlike technology adopted in most of the electrical machine building plants, the winding is not subjected to molding or baking in special press moulds.

101727 106 C L/S/J G  
**PRESSURISATION OF PARTS** made of porous ferrites for UHF devices. The parts are impregnated in autoclave at 25 +/-100 degrees C with a composition consisting of a mix of hydroxylo containing titanium and silicon organic oligomer and methyl phenilspyrosiloxan. Hardening at 190 +/-10 degrees C. Wide range of operating temperatures from -60 to +200 degrees C. Low and stable losses of UHF energy in ferrite parts of the phase shifters.

101754 111 F S C  
**ANTISTATIC ITEMS** Offer for sale the formulae/process of making the following static control products for the semi-conductor industries: antistatic PE bag, antistatic polyfoam, conductive PE bag, antistatic fingercots, antistatic sandal/shoes, antistatic latex gloves, antistatic adhesive tape, antistatic rubberband. All finished products are guaranteed to meet USA military specifications.

101799 138 C L C  
**SOLAR PHOTOVOLTAIC ELECTRICITY** lighting, pumping, refrigerating, telecom.

**Ref.No. Org.No. Status Offer Source**

102133 332 C S  
**METHOD AND 24-STRAND DIRECT RESISTANCE HEATING UNIT FOR WIRE HEAT TREATMENT** Comprises the operations of wire patenting and preparation of its surface for drawing. The process of wire surface preparation for drawing is carried out in traditional ways. When wire patenting the resistance heating is carried out by passing current through the wire. The unit output up to 2000 kg/h, wire diameter, mm - 1,8-4,5, wire travelling speed up to 0,5 m/s, power consumption for resistance heating - 250kW h/t, unit dimensions, mm - 7000 x 3000 x 2000.

102136 337 W J  
**ULTRAHIGH PRESSURE COMPACT PRESS** The press 'KOUZKO' is designed to develop pressures from 2 to 60 thousand tons. It can process metals, polymers, composites and other materials using the technique of cold hydromechanic extrusion.

102256 13 C L/J R  
**FIBRE OPTIC COMPONENTS**

102272 289 F L/J C  
**MICROWAVE TUBES** for S,L,X bands.

201025 395 P L U  
**OPTICAL WALKOFF COMPENSATION IN CRITICALLY PHASE MATCHED THREE WAVE FREQUENCY CONVERSION SYSTEMS** An optical conversion system utilising a pair of non-linear crystals in such a way that it overcomes the problem of walkoff found in prior critically phase matched systems. This technology utilises one or more pairs of non-linear optical crystals in a linear cavity, the crystals in each pair being so aligned as to cause each crystal to compensate for the walkoff produced by the other, thus achieving a substantial improvement in conversion efficiency.

## OFFERS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES

Ref.No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
201659	106	M	L/S/J	G	202314	319.10	C	L	
<p><b>COLLECTORS OF ELECTRIC MACHINE MOULDING</b> The machine operates in all the regimes set by the program automatically. The current data is constantly monitored and displayed. After moulding there is full information on the punched card as to the process of moulding.</p>					<p><b>SHORT HYDRAULIC TAP GUN WITH INCLINED FOUNDATION FOR BLAST-FURNACE</b> The short hydraulic tap gun with inclined foundation for blast furnace was a special machinery of oblique gun, a roll back machinery corresponded to it and a day beating machinery. It can be adapted to operate with blast furnace under high pressure and machinery operating before the furnace. The hydraulic system can compensate the circuit to guarantee the working reliability of the tap gun. Great social and economic profits have been made.</p>				
201728	106	C	L/S/J	G	202316	319.11	C	L	
<p><b>ELECTROPLATING FOR UHF PARTS</b> in place of silver. Bimetallic coating is obtained by way of placing on aluminium alloys of a thick current conducting copper layer of pyrophosphate universal copper electrolyte and then a thin layer of protective layer (cadmium-tin, tin-zinc, tin-vismuth and other alloys). For use in radio and instrument engineering for replacing silver coating.</p>					<p><b>MANUFACTURING TECHNOLOGY OF WEAR-RESISTANT BRONZE SLIPPER</b> exerted appropriate heat treatment, the slipper metal of a rolling mill slipper type universal coupling is made of special aluminium bronze casting and it has excellent mechanical properties and heat treated with tensile strength 740MPa and over, yield strength 430MPa and over, more than 10% and hardness 210-240HB gives a 3 fold improvement of service life.</p>				
201765	116	F	J	C	202325	323	P	L/S	
<p><b>INFRARED MESSAGES</b> allow companies to exploit the infrared message in their own predictive maintenance programs, of electrical fittings (high/low voltage) energy installations. Thermal performance of refractory materials, of cylinders with thermal fluids, cold rooms. Diversified experience (paper, plastic, metal, television, transport).</p>					<p><b>PORTABLE WORKSHOP</b> Especially applicable to developing countries this mobile workshop is designed on a modular basis. These modules can be toolkits, spare parts, welders, compressors, work benches etc. All the units can be picked up and loaded onto a flat-bed truck with a built-in crane, then unloaded if necessary at the work site.</p>				
201989	380	C	L/J	C					
<p><b>RPT-1 RELAY COMPREHENSIVE PARAMETER TESTER</b> RPT-1 is a new generation of Intelligent Relay Comprehension Parameter Tester. It can automatically test all kinds of electrical properties of DC Electromagnetic Relay in A, B, C model or in their mixed model. It can be used on the production line as well as in laboratory. On the production line it takes high speed measurements of relay parameters. Whenever a relay has been tested, it shows 'PASS' or 'FAIL' to tell the operator the condition of the relay and shows which parameter fails.</p>									



**OFFERS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES**

Ref.No. Org.No. Status Offer Source

301097 395 L U  
**FIBER OPTIC SWITCH** A non-mechanical optical fiber switch that has performance specifications equivalent to electro-mechanical optical switches but is mechanically much simpler and less expensive. The device provides controllable switching of unpolarised light between two pairs of optical fibers. The device requires fewer components, is more compact, and exhibits lower insertion loss than other optical switching devices.

301126 393 U L C  
**SENSORS** Eddy current, ultrasonic and optical procedures have been developed for continuous in-line monitoring of the dimensions, soundness and integrity of various small scale metallic and ceramic components. This technology is adaptable to component fabrication and assembly in fields where quality assurance is paramount.

301295 373 F J U  
**PROPORTIONAL COUNTERS FOR X-RAY MEASUREMENTS** in the energy range 2,3 keV - 40 keV. Applications: non-dispersive fluorescence analysis, ie determination of Ea, Fe and Cu in raw materials; determination of ash content in coal; Moesstauer spectroscopy; astrophysics - detection of soft x-ray on spacecraft board; biology - 'in vivo' study of the transport of assimilated substances.

301432 395 P L U  
**OPTOELECTRIC SENSOR AND CONVERTER FOR CONTINUOUS FLUID AND TEMPERATURE MEASUREMENT IN DIFFICULT ENVIRONMENTS** An optoelectric sensor and converter for fluid level measurement in environments in which strict safety requirements must be met. Particularly useful for continuous measurement of explosive fluids. The system is simple, inexpensive, accurate and adheres to strict requirements for electrical isolation.

Ref.No. Org.No. Status Offer Source

301534 57 F L G  
**FTL-450 MAGNETRON AND ION BEAM COMPOUND SPUTTER EQUIPMENT** Used for various function ceramic films and high temperature and super-conductive films made and film devices made with great applied value.

301637 106 P L/S/J G  
**SOLAR ENERGY CONVERSION** Concentrating devices for radiating seeds and treating patients with pulsed concentrated sun and neon light. For use in heat and power supply, agriculture, medicine.

301703 106 W L/S/J G  
**HEATER BATTERIES** Electrohydraulic treatment. The battery is placed in a working chamber filled with running water. At the same time a pulse current source and an electrode drive are switched on. Hydraulic pulses that act on the battery are formed. Thereafter the battery is washed, stripping into sections. If necessary the gaskets and valves are replaced. Then, the battery is assembled and pressure tested.

301711 106 C L/S/J G  
**DEVICE FOR DRY ARMATURES** of electric machine rotors. For enterprises engaged in the manufacture and repair of DC electric machines. Low energy consumption for drying, high speed warm up, even warm up of all the elements, high effectiveness of drying process due to emission of heat on the object.

301756 112 C L C  
**DIGITAL (TELECOMMUNICATION) TEST EQUIPMENT** A full range of equipment testing digital transmission, switching subscriber lines and protocols (X.25/C7 signalling) in the modern telecommunication networks.

**OFFERS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES**

**Ref.No. Org.No. Status Offer Source**

302089 295 C L/J R

**COMPOUND GLASS OPTIC FIBRES** It is suitable for use in transmitting light energy and signals, in making light guides, image guides sensor probes and various medical devices, optic devices etc. The compound glass optic fibers are made of highly purified optical glass, the core having a higher refractive index and the cladding a lower refractive index. The price is about US\$ 60 per kg and the cost of production is US\$ 25 per kg. To set up a plant with the above mentioned capacity you would require an initial investment of US\$ 128,000. Equipment, technology, turnkey service and training can be provided.

302258 13 C L/J R

**ELECTRO OPTICAL COMPONENTS** couplers, switches etc.

302323 323.02 F J/L

**ELECTROMAGNET FLOWMETER FOR LIQUID METALS** Two types of flowmeter of simple robust construction cover pipe and bulk or open channel flow measurement. A range of induced voltage meters cover flow in pipe diameters from 6 mm to 100 mm to a 3% accuracy. They use permanent magnets for temperatures up to 500 degrees C and refractory materials at temperatures above 500 degrees C. Special designs for larger pipes and open channels.

302332 372 C L

**TECHNOLOGY FOR ECONOMIC STRATA SUPPORT IN SMALL SCALE MINE** Yielding steel arches made from new section steel with various reinforcements meeting requirements of soft and squeezing rocks. Advantages: low costs as compared with concrete or reinforced concrete supports, 30% higher load bearing capacity as compared with traditional supports, high yielding capacity.

**Ref.No. Org.No. Status Offer Source**

401096 395 L U

**WAVEGUIDE ADAPTOR** A waveguide to transmission line adaptor which can serve as a low reflection interconnect between a waveguide and various transmission lines such as coplanar waveguide, trench waveguide or other lines of similar geometrics.

401166 393 W L C

**BIOSENSOR DEVICE** Four electrochemical capillary fill biosensors are available for a variety of analyses, such as glucose measurement. The sensor is a cheap disposable item fitting an instrument and an array of different sensors can provide for multiple simultaneous assay.

401262 323 C L

**AUTOMATIC CALENDAR** A battery powered automatic calendar of falling leaf display type. Will run for one year on a small battery without attention. Retail cost comparable to hand changed models.

401660 106 C L/S/J G

**ANNEALING OF LEADS OF ARMATURE COILS** after cold plastic deformation. To link leads to slip ring of armature coils, the latter are first caulked to a required thickness. During the caulking the latter becomes considerably hard and breakable when cold; winding becomes difficult. To remove the 'cold hardening' the conductors are placed into the inductor of special installations connected to VHF current generator.

401687 106 C L/S/J G

**FUNNEL SHAPING OF MICROCHANNEL PLATES** inputs, updating surface at first strike. Effect of changing geometric and emission characteristics of the first strike surface of microchannel surface is achieved through CRT treatment in vacuum. Low noise, high gain factor.

**OFFERS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES**

Ref.No. Org.No. Status Offer Source

401713 106 P L/S/J G  
**PRODUCTION OF MICROELECTRONIC STRUCTURES** Automated methods of control of technology of production of photosensitive materials on the basis of indium phosphide used for the manufacture of mm-band antenna. For microelectronics, production of semiconductor materials, devices and integrated circuits.

401721 106 C L/S/J G  
**ELECTRIC CONNECTOR** with zero connection effort is designed for linking with 1.5 to 0.2 mm thick printed circuit board and operation in low frequency electric circuits of DC, AC and pulse currents of up to 3 MHz, up to 100 V and 3 A.

402114 314 C L/J C  
**PRODUCTION OF THE AUTOMATIC POWER TIMING CONTROLLER** The controller is mainly used for measuring power timing parameters and controlling power timing switches and is effective in saving power economising on electricity and tightening up the power control. The controller is provided with AC contactor and operates soundlessly. Besides, this controller is reliable and easy to operate. The unit price of the controller is 100 yuan RMB. The research unit will provide turnkey projects, sharing know-how with clients and will help train personnel and build the factory starting operation within one month.

402135 336 C S/L  
**LOW WASTE CONTAMINATION FREE TECHNOLOGY OF ELECTRO-CHEMICAL CLEANING OF METAL PRODUCTS** The technique is based on electrochemical cleaning by means of contamination free solution. The technology can be used in car industry, machine industry, steel tubular industry etc.

Ref.No. Org.No. Status Offer Source

402321 319.07 C L  
**ENERGY SAVING TECHNOLOGY FOR THE RE-HEATING FURNACE** A highly efficient waste heat recovery rate. A new type of burner use 100% pre-heated high temperature air for a better heat exchange in the furnace and consequently a high combustion efficiency, with optimal design of bottom cooling piping to reduce the system heat loss to a minimum.

402330 326.06 C L  
**MANUFACTURE OF HIGH-CHROMIUM CAST IRON GRINDING MEDIA FOR CEMENT INDUSTRY** Green sand casting of grinding media in sand moulds, heat treatment of castings. Advantages: high quality of castings, hardness of casting about 55 HRC, low wear of grinding media during production of cement.

501107 395 L U  
**ELECTRO-OPTIC TRANSDUCER** A unique photoelectric material and apparatus based on photobiochemicals extracted from bacteria exhibit novel properties. For example, the transducer may perform arithmetic operations at the transducer level and can be used for 3D optical data storage. In addition to numerous photochromic uses, applications include novel sensors and electro-optics.

501116 395 L U  
**SILICON TIP FIELD EMISSION CATHODE ARRAYS** Field emission cathode arrays have been constructed which provide uniform electron emission and improved emission control. Accurate and precise formation of emitter tips having uniform radii. The oxidation step is also utilised to precisely align gate electrode apertures with respect to corresponding emitter tips so that large arrays can be formed with great accuracy and reliability.

**OFFERS - CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES**

**Ref.No. Org.No. Status Offer Source**

501161 393 U L C  
**ROBOTICS AND REMOTE HANDLING TECHNOLOGY** Master slave manipulators, underwater manipulators, cranes, hoists, grabs and pipe crawlers have been developed to carry out operations in hostile environments.

501197 225 J  
**ELECTROTECHNICS** Design - delivery - assembly - putting into operation electrical equipment up to 110 kW including control system and computers.

501611 87 W L/J P  
**PHOTO - ELECTROTHERAPY INSTRUMENT SUITABLE FOR CURE MYOPTA** The instrument, successfully combining the optics principle with the electrotherapy principle, can effectively relieve the adjustment fatigue of eye muscles, improve the blood circulation around the eyes, raise the sensitivity to light of optical nerve cells and thus can improve the eyesight significantly and efficiently.

501674 106 C L/S/J G  
**VACUUM GLASS PASSIVATION** of high voltage transistors. Protection of p-n junction of crystals thin glass coating by means of vacuum CRT sequential spraying on silicon plates with structures of 0.7 - 0.8 m thick glass layers. The glasses have simple composition and are adaptable to technology. For manufacture of silicon devices for power electronics.

501740 106 C L/S G  
**PLASTIC HOUSING FOR MEMORY** with optical port for erasure. For use in multiple data record and erasure memory devices. Cheap storage due to the plastic housing, low crystal consumption for the inserts.

**Ref.No. Org.No. Status Offer Source**

501757 113 F L C  
**THREE PHASE SOURCE CALIBRATOR (PHASE ADJUSTABLE)** It is an electronic assembly for supply of measuring circuits at calibration and testing of measuring instruments and measuring transducers of electrical power values for AC current, voltage, active and reactive power frequency and phase angle.

501759 113 F L C  
**RESISTANCE METER** for precise measurement of ohmic resistance, with 4 1/2 digit display of measured values. Suitable for measuring and calibrating shunts and resistors with small ohmic resistance. Range 0,01 ohm, 1M ohm max error +/- 0,05% reading +/- 0.05% rating +/- 1 digit.

501905 205 J G  
**AUTOMATED WINDMILL ELECTRIC UNIT** Energy supply for far off inhabited areas as an independent source of energy like diesel and thermal power stations. Capacity: 3-15 units per year, starting in 1993. Cash minimum 116 million rubles. Cash maximum 130 million rubles.

502138 334 F S  
**COPPER CONTACT FOR WELDING** with a continuous electrode wire - the contact nozzles are used with automatic or semi-automatic welding machines with a melting electrode which are operated in a protective gas medium under flux protection and with flux-cored electrode wire. They are made of copper or copper alloys.

502235 208 C L/J C  
**MANUFACTURING OF SWITCHING EQUIPMENT** Main uses are in digital rural exchange, business parks and in power plants. Main advantages: reliable, flexible communication with advanced features and easy maintenance for rural areas.

**OFFERS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES**

Ref.No. Org.No. Status Offer Source  
 502255 13 C L/J R  
**ELECTRONIC BOOK PRODUCTION** data entry.

502271 289 F L/J C  
**POWER SEMICONDUCTOR DEVICES**  
 Manufacture of medium and high power diodes, thyristors, fast switching diodes, fast thyristors, pulse thyristors, inverter thyristors, avalanche diodes, power modules, assemblies, triacs.

502319 319.13 C L  
**NOISE ELIMINATOR OF WIDE FREQUENCY SPECTRUM AND HIGH VOLUME LEVEL** This unit is a new type sound absorber housing installed around the noise source. It has good advantages of absorbing sound of wide frequency spectrum and good results of noise drop. It can both eliminate sound and absorb sound (mainly for eliminating sound). Ventilation system is used in this unit for heat extraction so as to reach the purpose of noise drop and guarantee the proper performance of the unit.

502328 326.06 C L  
**VENTILATION HEAT RECOVERY IN FOUNDRIES AND OTHER PLANTS**  
 Utilisation of heat carried away by local extractors for heating of drawn-in air by means of rotary regeneration exchanges. Advantages: heat energy economy.

601076 394 W L R  
**DISTRIBUTED OPTICAL FIBRE** sensing system with applications in buildings, aircraft, pressure vessels, generators.

601085 394 F L J  
**VARIOUS TECHNOLOGIES** Radio frequency technology, opto-electronic measuring equipment, custom specific IC's opto-electronic measuring equipment etc.

Ref.No. Org.No. Status Offer Source  
 601138 393 W L U  
**HALL EFFECT** Non-intrusive electrical measuring. Various inventions based on Hall effect technology. Compact hand held instruments for non-intrusive measurements of DC and AC currents. Related applications in energy measurement, measurement of hydrostatic pressure and flow, calibration of Hall effect flux meters by NMR techniques.

601652 106 M L/S/J G  
**LINEAR DISPLACEMENT INDICATOR**  
 wide band photoelectric model. The operation of the indicator is based on a unique method of measurement with microprocessor inverse data processing. The algorithm of formation of digital code takes into account irregularity of distribution of bands in the scale and makes it possible to ease the requirements to the accuracy of their preparation retaining the effective metrological measurement parameters. Simple design, low self cost, easy mass production process.

601732 106 C L/S/J G  
**ASSEMBLAGE OF MICROCIRCUITS** on flexible aluminium polyimid basis. The microcircuits are semiconductor crystals with a flexible carrier made of a double layer composition material aluminium and polyimid. The technology includes ultra-sound attachment, protection of crystal surfaces and rejection tests. Dense arrangement of element base on area (3 to 5 times) and in volume (up to 10 times), automated assembly and fitting of the elements.

601758 113 F L C  
**MEASURING AND CONTROL DEVICES**  
 designed for supervision, control and regulation of industrial processes. Measurement of maximum 60 analogue values (temperature), testing (reading) of maximum 120 digital inputs and control of maximum 120 digital outputs. Sample programming, 16 prog regulators, RS 232, LCD display.

**OFFERS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES**

**Ref.No. Org.No. Status Offer Source**

601760 113 F L C  
**PANEL INSTRUMENTS** for voltage and current measurements. Case standard dimensions are 72 x 72 mm, 96 x 96 mm and 144 x 144 mm. Manufacturing process includes assembling from components, testing final inspection, packing. Instruments are of our own design.

601904 205 J G  
**PHOTO-ELECTRIC UNIT** for energy supply of electronic equipment. For power supply of metro-stations, movable objects, radio and light signalling, domestic appliances, water lifting units, water desalinating systems etc. Capacity: 360,000 kw hours per year. Cash minimum 50 million rubles. Cash maximum 70 million rubles.

601940 230 C L P  
**ELECTRONIC FIRECRACKERS** of the palace lantern type - a kind of article for auspicious use patent producer which instead of traditional powder ignited firecrackers, it adopts microcomputer and CMEs technology. No powder, no pollution. Lifelike in sound and shape, easy to operate and can be used repeatedly and safely on celebration ceremony, by hotels, restaurants and households. It is suitable for countries and cities which forbid firecrackers. It can also be used as decoration.

602101 301 C L/J C  
**SINGLE PHASE METERS AND 3-PHASE METERS** A Chinese instrument works offers the technology of the single phase meters of type DD862A the 3-phase meters of type DT862A and DS862A. The type 862A meters series is based on the meters of 4-fold overload. The works can also provide the manufacturing technology of the meters of 5-fold overload and 3-fold overload using advanced design methods and a special technology, the meters, once adjusted, can obtain precision readings for 10 years. The fee for technical transfer will be discussed directly with interested parties.

**Ref.No. Org.No. Status Offer Source**

602317 319.11 C L  
**A TECHNOLOGY FOR IMPROVING ABRASIVE RESISTANCE OF FANS** Materials will show different resistance to erosion when abrasive particles impact on them at different angles. To improve abrasion resistance measures include bonding wear-resistant ceramic blocks with high strength adhesive, bead welding and spraying etc onto different sections of the fan according to the impact angle.

701101 395 L U  
**ALKALI-FREE ELECTROLESS COPPER DEPOSITION** A process that selectively deposits uniform, continuous and reproducible metal layers free of alkali impurities. Eliminates electrical defects caused by residual alkali metal in deposited metal layers that result from existing processes. The process deposits pure metals such as copper, nickel and cobalt on noble metal substrates by electroless deposition to produce nano sized metal lines that exhibit excellent electrical properties. Applications include enhanced fabrication of microelectronic devices.

701191 106 C L/S/J G  
**SILICON PLATES FOR SEMICONDUCTORS** New method of manufacture of silicon plates with heteriting layer on the back side by way of diffusion of phosphorous to a level of difference of its solubility in a reasonably etched surface after abrasive treatment. Reduction to 3-5 times of the number of point defects on crystals.

701196 220 J  
**ELECTRONICS MANUFACTURE** Bipolar ICs, power FET, microwave semi-conductor devices, LED.

**OFFERS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES**

**Ref.No. Org.No. Status Offer Source**

701261 326.06 C L  
**AUTOMATIC MOULDING LINE FOR PRODUCTION OF BOILER SECTION**  
 Production of boiler sections of grey cast iron in moulding boxes - dimension 1475 x 160/160 mm. Output 120 moulds/h. Moulding process - classical densifying of moulding sand by sand slinger with squeezing.

701930 223 C L C  
**ELECTRICAL SWITCHBOARD PRODUCTS** To make a corresponding steel case from starting material/sheet metal/ make surface form on the case - electrical equipment assembly - electrical switchboard checkout. This is closed cycle eg possibility to produce complete switchboard.

701931 223 J  
**ELECTROTECHNICS** Electrical switchboard assembly. Electronics equipment and electronics total assembly circuitboard produce. Plastic product into dimension, 300 x 300 mm. Introduction of new production according to mutual agreement - area 12 000 sq m is going to use for investment design. Export: 40%. Pre-feasibility study available.

701994 380 C L/J C  
**BRUSHLESS SYNCHRONOUS GENERATORS** Specifications are as follows: Rated output: 90/120/150/200/250 KW. Rated voltage: 400 V. Rated speed: 1500 r/min. Power factor: 0.8. Frequency: 50 Hz. Phase and connections: 3 phase 4 wires.

**Ref.No. Org.No. Status Offer Source**

702001 380 P L/J C  
**NOISELESS AND ELECTRICITY SAVING AC CONTACTOR** The product is a kind of high efficiency vibrationless, noiseless new low voltage electrical product. The average percentage of active power economisation is about 90% and it economises all types of wattless power, with a little wattless power returning to electrified wire netting to improve its power efficiency.

702131 331 C S  
**HIGH TEMPERATURE ELECTRON BEAM BRAZING TECHNOLOGY** Developed for manufacture and repair of components and units from high-alloy steels and Nickel-, Cobalt- and Titanium-based alloys. Based on a local heating in vacuum of required areas of the component using composite powder or compact solders. The technology may be used to repair components of different thickness and with thin walls, including those with thermal barrier coating on the surface.

702134 335 C S/L  
**TIN BASED SILVER FREE SOLDER FOR LOW TEMPERATURE BRAZING** Manufacturing of electro and radio equipment by tinning and resin brazing of articles, working under different weather conditions under permanent and cyclic temperature graduation of -70 degrees C to +200 degrees C.

702257 13 C L/J R  
**LOCAL AREA NETWORKS**

702315 319.11 C L  
**HEAT RECOVERY SYSTEM FROM HOT AIR OVENS OF BLAST FURNACE BY WATER MEDIA** Heat is received by a closed circulation system in which the furnace after combustion in the oven transfers the heat to inlet combustion air via water heat exchangers.

**OFFERS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES**

**Ref.No. Org.No. Status Offer Source**

702324 3230.2 F J/L  
**LIQUID METAL TEMPERATURE MEASUREMENT DEVICES** ranging from 3 mm dia conventional thermocouples to 1 mm dia coaxial thermocouples with a time constant of less than 50 ms to even smaller diameters for faster response. The ultimate for rapid response is the inductive sensor available in 8 mm dia.

702326 326.04 C L  
**BRAKE SHOES MADE OF PHOSPHORUS CAST IRON** The modified cast iron with elevated content of P is characterised by a pearlitic structure with the lattice of phosphorus eutectic. Hardness of castings 200-260 HB. Wide range of applicability of the technology from automatic moulding line to hand-made products.

801128 393 W S U  
**SPECIALIST COMMUNICATION DEVICES** From our knowledge of electromagnetic communication methods, we have developed two special devices. Simrep is a portable self contained repeater for rapid deployment in remote areas. Molefone is for verbal communication through rock over 200 metres.

801146 393 U L U  
**OPTICAL FIBRE-BASED SENSOR SYSTEMS** with wide application in power switchgear, aerospace, plasma processing, gas industry and medicine.

801431 395 P L U  
**OPTICAL LOGIC BASED RING LASER** An interconnected ring laser responsive to selected optical inputs to produce corresponding optical logic outputs.

**Ref.No. Org.No. Status Offer Source**

801440 395 U  
**OPTICAL READ ONLY MEMORIES** A method for making three dimensional optical read only memory devices. These devices are simple to fabricate and allow multiple readings of the shared information without decay or destruction. The devices have multiple layers utilising fluorescent interfaces to store data which are retrieved by detecting refractive index interfaces.

801693 106 W L/S/J G  
**CHECK AND MEASURING EQUIPMENT** A technical object operating in a given mode is taken through primary measuring converter (PMC) consisting of tuned circuit windings. From PMC the signal is processed by computer center which computes, according to a preset program, 15 first members of potential row and the magnetic field in any sphere beyond the objective. Make as per versions from 3 and 8 factors possible.

801761 113 F L C  
**ANALOG/MULTIMETERS** Handheld instruments offer measuring advantages in the electronics, radio and television fields and are especially suitable for electricians and maintenance personnel.

801993 380 C L/J C  
**DIRECT VOLTAGE DROP AND PHASE DISPLACEMENT RECTIFIER TRANSFORMER** The 110 KV leads of the transformer are arranged to cross on both sides of the three core and winding assemblies and successfully apply a neutral voltage regulating circuit in an auto-regulating direct voltage drop rectifier transformer, thus the weight and cost of the product is lower. The application of the same phase contrary paralleled connection makes its efficiency rate up to 98.9%. Its rectifying efficiency is 3% higher than that of traditional domestic products.



**OFFERS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES**

**Ref.No. Org.No. Status Offer Source**  
 802091 92 C L/J R  
**BIOELECTRICAL SIGNAL DETECTING DEVICE** It is suitable for use in the general examination of people's health to get an early judgement on various diseases. This device can be used to test the electric current between every acupoint and reference point or any two points on the surface of human body and cure various diseases. The costs of manufacturing the instrument are about US\$ 1,600 per unit and the local selling price is about US\$ 2,000 per unit. To set up a factory with a production capacity of 600 units per month, the initial investment required is US\$ 50,000.

802137 338 F J  
**METAL INDUSTRY REHABILITATION** A complete package of technology, equipment and services to establish, assist, improve, manage or rehabilitate metal industries and metal-related institutes in many countries. Emphasis on casting/foundry technology, industrial heat treatment and industrial development.

802322 319.14 C L  
**AUTO OR SEMI-AUTO ROLLING MILL MACHINE AND ROLLING TOOL FOR WATER TANK RADIATING BAND** The rolling mill machine and the rolling tool are advanced equipment and tool used in the production of automobile water tank radiating band. The performances of tool and equipment have reached or exceeded the equivalent products introduced from abroad. This is, nowadays, the most advanced equipment for water tank radiating band production in our country.

802331 326.07 C L  
**BUCKET MANUFACTURING PLANT GALVANISING SHEET** Plastic forming of sheet: blanking of discs forming and closing of the body double lap. Production of buckets in four basic dimensions using galvanised sheet.

**Ref.No. Org.No. Status Offer Source**  
 901028 395 P L U  
**VERTICALLY INTEGRATED MODULATION DOPED FIELD EFFECT TRANSISTOR AND LASER** A vertically integrated semi-conductor transistor structure that converts an electrical signal directly into an optical signal as well as a method for fabricating it. The method optimises coupling between logic circuits and optical components and can be fabricated by simple projection optical lithography.

901114 395 L U  
**RIE PROCESS FOR FABRICATION SUBMICRON, SILICON ELECTROMECHANICALSTRUCTURES** An improved process for fabricating suspended, single crystal silicon movable mechanical structures and actuators for use in micro-machined STM's. It is possible to produce single crystal silicon mechanical structures and actuators in the range of 250 nm. These devices can facilitate and optimise electronic and photonic system integration.

901429 395 P L U  
**BROADLY TUNABLE HIGH REPETITION RATE FEMTOSECOND OPTICAL PARAMETRIC OSCILLATOR** A tunable, singly resonant optical parametric oscillator produces femtosecond light pulses in the infra-red wavelength band. The oscillator contains an internally mounted thin crystal of potassium titanyl phosphate which is synchronously pumped by femtosecond pulses from a dye laser. When rotated, the crystal varies the wavelength of the oscillator.

901622 98 C L R  
**MANUFACTURING OF OPTICAL FIBRE TACHOMETER** suitable for the measurement of the rate of revolution with non-contact. The products feature fire resistance, explosion proof, anti electro-magnetic field interference and radiation resistance.

**OFFERS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES**

Ref.No. Org.No. Status Offer Source

901694 106 C L/S/J G  
**DETERMINATION OF EXTERNAL MAGNETIC FIELD** of technical objects. Technical object electric equipment is placed into a working zone of primary measuring converter and operated in an assigned mode. Signals from converter are processed by data measuring system where 8 members of potential row are determined and the magnetic field beyond the object is calculated through a preset program.

901753 110 C S C  
**CARD ACCESS (SECURITY SYSTEM)** will allow entry into restricted premises through the use of authorised cards. Suitable for government bodies, banks and finance institutions, telecommunications, computer vendors and computer site preparation companies.

901762 113 F L C  
**RESISTANCE METER** for precise measurement of ohmic resistance with 4 1/2 digit display of measured values. Suitable for measuring and calibrating shunts and resistors with small ohmic resistance. Range 0.01 ohm, 1 M ohm max, error +/- 0,05% reading +/- 0,05% rating +/- 1 digit.

901992 380 C L/J C  
**NTD-18J MICROCOMPUTER TIMING DISPLAY FOR BOXING** The machine can display the time of the match, the time between rounds and the time of the match being stopped. It can also display the number of rounds in the match and the number of seconds passed when a boxer is knocked down. The equipment consists of a main control machine and an all-round screen. It conforms to the rules of AZBA in timing, counting and automatic handling. It has been used in the 11th Asian games and other International matches and received high praise from boxing experts.

Ref.No. Org.No. Status Offer Source

902320 319.19 C L  
**ZN POWDER FOR HIGH ENERGY ALKALI BATTERIES** Suitable corrosion inhibiting material is added to the melting zinc, then zinc powder made by spray on process, screened and mercury is added. At high temperature and vacuum the composite in amalgame reactor can be obtained.

1284 323 C L  
**REMOTE PLANT SURVEILLANCE EQUIPMENT** Enables remote status and fault monitoring, using public- switched- telephone network. The licensee will be supplied with a configuration unit consisting of a small computer terminal and programmer to enable him to configure a number of outstations consisting of a modem, the outstation itself which receives digital from information on isolation interface unit and signals fault or no fault conditions to a local and/or remote printer.

1290 342.01 C L  
**LOAD CALL FOR ELECTRONIC WEIGHING SCALE** a transducer which converts applied pressure into an electrical signal, is a major component in electronic scales. Since this product is technology based, the time needed for testing and calibration is more than the time needed for manufacture. It is a labour intensive product and it has high precision in the order of 1/3,000 - 1/5,000.

2148 334 F S  
**CAPACITY SENSOR DEVICES** with frequency modulated output KSU-F the devices are designed for use in automated distance measurement apparatus. Working conditions: ambient temperature, 5 to 45 degrees C. Relative humidity % (at 30 degrees C) - 95. Degree of protection IP 65.

## OFFERS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES

Ref.No. Org.No. Status Offer Source

101266 319.11 C L  
**PRINTABLE SOLDER CREAM OF HIGH PURITY** for surface mounting of electronic components (leadless) onto various types of printed circuit boards. Gives high performance in application and excellent solderability.

101272 323.02 F L/J  
**FAST RESPONSE MINERAL INSULATED HIGH TEMPERATURE CO-AXIAL THERMOCOUPLE** Developed for consistent and reliable performance at temperatures over 1,000 degrees C. It is double sheathed and resistant to stresses induced by bending, thermal expansion and chemical action.

101278 323 P L/S  
**ADVANCED DATA LOGGER** A modular system has been developed, initially for draught animal work, to measure a range of variables under realistic conditions. By the use of sensors and hi-tec electronics; speed, force, heart rate, breathing rate, etc can be recorded with greater accuracy than before. This development undoubtedly has many other applications.

101281 323 U L  
**ELECTRONIC DETECTION OF OVERLOADED LORRIES** This system processes input from road mounted sensors to give information on axle loading, vehicle speeds, vehicle classification etc. It can be used for screening out overloaded vehicles for enforcement purposes or producing detailed information on traffic flow for survey and interactive protection of bridges etc.

Ref.No. Org.No. Status Offer Source

102142 336 C S/L  
**LASER MEASURING SYSTEM FOR CONTROL OF PIPE MANUFACTURING EQUIPMENT** Designed for adjustment control of the electrical welding, tooling, pressing and drawing plants for pipes. The system consists of a base model and a set of special mechanical and optical elements. The system is universal and can be used for setting and adjusting the main and auxiliary equipment of pipe producing units.

102145 334 U S  
**THERMOSENSITIVE QUARTZ OSCILLATORS** The thermosensitive quartz oscillators type TQO-26 are realised on the basis of integral highly sensitive temperature frequency response. Each quartz oscillator operates at 26.5 MHZ and has a frequency sensitivity at about 1000 HZ per grad C in the -60 to +250 degrees C range.

301286 323 C L  
**FILM AND SLIDE CAMERAS FOR THE COMPUTER GRAPHICS INDUSTRY** The world's first comprehensive range of custom designed computer graphic cameras for 35 mm slide, 35mm motion picture, 16mm and 70mm film camera backs. Incorporating the latest developments in solid state electronic control and interface technology. These compact easy to use cameras have registration pins diamond lapped to .0001 inch and with either 100 ft or 400 ft magazines. They have full electronic and mechanical interfaces to all major computer graphic recorders.

302150 334 U J  
**ELECTRONIC OPTICAL SET FOR LASER TECHNIQUE** pockels cell PC-14, optical receiver P-108 - for direct registration of light pulse form in visible and near IR. Application: in laser technics, ranging, optical communication, technological system.

**OFFERS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES**

Ref.No. Org.No. Status Offer Source

401265 319.03 L  
**NEGATIVE WAVE-FILTERING MULTI-COMPONENT ANALYTICAL TECHNIQUE**

is adopted, based on the principle of absorption of IR light by gases to be determined. It consists of a semi-conductive IR detector, an optical interfering filter and integrated circuits. An industrial on-line auto-analyser for the simultaneous analysis of the concentrations of two components.

401268 319.16 C L  
**MANUFACTURING TECHNOLOGY AND EQUIPMENT FOR TN-LCD DEVICE**

Liquid crystal display devices of up to 16 leads are made from transparent conductive glass (ITO glass) through following operations, clearing, etching, orientation, box assembling, scribing, liquid crystal injection, sealing, polariser, test and packing.

401271 323.01 W L  
**ARTIFICIAL NOSE - A MULTIELEMENT ODOUR DETECTOR**

Suitable for use in hazardous environments in compact portable and fixed installations using, as a sensor system, an array of semi-conducting polymer sensors and specially developed pattern recognition software, the architecture of which is derived from an understanding of the mammalian system. Like the human nose, it is sensitive to polar odorant molecules with molecular weights less than around 350 and has the capacity to learn by experience.

Ref.No. Org.No. Status Offer Source

402141 331 C S  
**ELECTRON BEAM PROGRAM CONTROL SYSTEM**

The system 'Termorelef - 01' is designed for electron beam path and rate control for creating temperature field. It is used in machine building, metallurgy, electrochemical and electronic industry. Operating principle is based on control of continuous electron beam movement of the machined part surface, performed with two orthogonal oriented coils of deflection system of electron beam gun.

501274 323.02 F L/J  
**WIDE DYNAMIC RANGE ANALOGUE DATA COLLECTION SYSTEM FOR IMAGING IN OPAQUE FLUIDS**

is used with ultrasonic transducers. The system incorporates a 5 MHz logarithmic amplifier and an analogue detection system with a dynamic range exceeding 90db. Subsequent computer analysis prepares a two dimensional image containing three dimensional information.

501283 323 U L  
**PORTABLE 8 CHANNEL DATALOGGER WITH BUILT-IN DISPLAY AND KEYBOARD**

The unit can be set to commence recording data at any future time and date. The scan interval is variable from one minute to 99 hours and up to 16000 individual records can be held in the internal memory. The unit will print data in the form of graphs or digitally onto a dot matrix printer in the form of tables.

502147 334 F S  
**GALLIUM ARSENIDE THERMODIODES**

Application: for thermometers, temperature controllers, thermostats, thermal relays.

**OFFERS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES**

Ref.No. Org.No. Status Offer Source

801273 323.02 F J  
**HIGH TEMPERATURE ULTRASONIC TRANSDUCERS** for remote imaging, leak detection, gas content monitoring, structural and temperature measurement. These rugged transducers of inorganic construction, cased in stainless steel, operate at temperatures up to 600 degrees C and are resistant to corrosion and radiation.

802146 334 F S  
**PHOTORESISTORS** The photoresistors are photoconductive devices designed as photodetectors in the ultraviolet, the visible and the near infra-red part of the spectrum. Applied in automatic systems radio-electronics and telemetry.

801279 323 M L  
**COMPACT CAPACITANCE DISTANCE MEASURING PROBE** The probe is positioned some distance away from a conductive surface, so that the probe, air gap and conductive surface together define a capacitor. Thus the capacitance measured is proportional to the distance between the probe and the surface. This probe is compact and cheap to produce. Applications include situations where the measurement of small distances is required and space is limited. Applications can be extended to determine contents.

702149 334 F S  
**BRIGHT COPPER FOR PRINTED CIRCUIT BOARDS** A technology for the deposition of 'first' and 'second' layer of electrochemical copper on the chemical deposited tracks of plated boards. Application: in the production of bi- and multi-layer printed boards with no imported components. A high quality of performance guaranteed.

Ref.No. Org.No. Status Offer Source

701124 393 U L C  
**REMOTE VIEWING SYSTEMS** The systems include in-cell, through-wall CCTV systems; underwater viewing systems and associated lighting; mobile articulated inspection camera for viewing pipe interiors; radiation tolerant CCTV systems. This technology could be applied to other industries where viewing of hazardous or toxic environments is required.

701291 326.09 C L  
**MICROWAVE TUBES, MAGNETRONS, CFA AND GAS DISCHARGE DUPLEXER TUBES** Usages: radiolocation, microwave heating, cancer treatment.

701020 342.02 C L  
**MICRO PROCESSOR BASED SYSTEMS FOR TELECOM APPLICATIONS** comprise: a) automatic call recording systems, b) station message details system, c) telephone call simulator, d) line observation equipment and e) uninterruptible power supply. These lower cost and simpler systems are appropriate for developing countries like India where imported complex, multi-spectral communication equipments are still being used.

601285 323 U L  
**X-RAY MONITORING SYSTEM** A compact, integrated system for the assessment and quality control of diagnostic x-ray equipment capable of accepting signals from a variety of sources, including a kv voltage divider, ion chamber and closed circuit TV video lines. These signals or profiles can be stored, displayed and analysed at the point of capture and archived on TV magnetic media. The user interface is via a laptop computer, all operations are menu driven.

## OFFERS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES

Ref.No.	Org.No.	Status	Offer	Source	Ref.No.	Org.No.	Status	Offer	Source
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901019	323.01	M	L/J						
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**PIEZOELECTRIC CO-POLYMER/  
ULTRASONIC PROBE** These polymers are based on vinylidene fluoride and show 3 to 5 times the electrical activity of commercially available piezoelectric polymers. This will enable the production of higher frequency, higher resolution ultrasonic inspection transducers. A further embodiment of this transducer technology relates to the use of laser fibre optics to induce ultrasound in the material being inspected. Joint R & D and patent licensing is available.

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The following Project Profiles are available from The National Small Industries Corporation Ltd (NSIC). For more details see the section entitled NSIC Project Profiles at the back of this catalogue.

- Link Clips for Electric Wiring
- AAC & ACSR Conductors
- Air Break Switches
- Armature Tester
- Auto Electric Fuse Boxes and Fuses
- Battery Cell Tester
- Battery Eliminators
- Carbon Brushes
- Carbon Track Potentiometer
- Electric Meter
- Electric Motor
- Electronic PABX System
- Push Button Starter
- Voltage Stabilizer

## OFFERS

## CATEGORY 4: COMPUTERS

Ref. No. Org.No. Status Offer Source

1018 326.08 C L  
**TECHNOLOGY OF ELECTRIC HEATING, ELECTRIC COOKERS AND HAIRDRYERS.** Overall design of technology of electric heaters, electric cookers, hairdryers and technological plant, delivery of the equipment.

1090 394 F L J  
**ULTRASONIC SENSORS** Microprocessor controlled ultrasonic non-contact sensors measure objects at a distance used in monitoring liquids and sounds. Regulating distance, measuring, avoiding obstacles.

1343 380 C L C  
**COMPUTER DEVICE INTELLIGENT CONTROLLER** connects 14 sets of IBM-PC/XT, AT 286, 386 and compatible systems, 2 sets of serial output device, 2 sets of parallel outputs device and 2 lines of switching output. To make the computer software change the line switch between the main computer and any other device.

1895 200 F L C  
**HALF-INCH STREAMING TAPE UNIT** Low cost, 9-track, 100 ips streamer for operation with most computers. 1600 and 3200 PE tape formats with 800 bpi option. Integral Pertec interface with Pertec Cache and SCSI as optional plug-in cards. Available in rack mount or desk top configuration. 9-track subsystem for most computers.

101053 395 U  
**FABULOUS** An interactive, multimedia recipe database that integrates menu planning, recipe formulations, and related culinary processes with video presentation.

Ref No. Org.No. Status Offer Source

101071 394 F L C  
**COMPUTER UPGRADE** Simple, easy to install 286 to 386 computer upgrade chip. 386-486 upgrades also available as memory upgrade cards.

101080 394 F L C  
**OPTICAL TORQUE SENSOR** High resolution non contact sensor suitable for variable torque measurement applications in industrial machines, transportation generating equipment etc.

101122 394  
**TELEMETRY RECEIVERS** BIT synchronisers, PCM decoders, signal conditioning, data display systems, digital analogue processors and control systems.

101136 393 W L U  
**COMPLEX SYSTEMS** Applications to management. Mark-opt: a software suite which provides a decision support capability in a key area of marketing ie the negotiation process between manufacturers and retailers.

101140 393 W L U  
**TOMOGRAPHIC FLOW IMAGING** using capacitance sensors. The computerised tomography (CT) provides a useful means of visualising cross sectional distribution of components in two component pipelines. A flow imaging system based on capacitance measuring techniques has been developed. Measurements are made on eight or more capacitance electrodes mounted on the outer surface of the pipe to produce a cross sectional image of the two component flow.

## OFFERS

## CATEGORY 4: COMPUTERS

Ref.No. Org.No. Status Offer Source

101263 342.03 C L

**SOFT START MOTOR STARTERS** with energy savers for welding sets. By using energy savers and soft starters, electrical energy consumption can be reduced substantially resulting in energy conservation.

102139 334 F S

**STEELS FOR MEDICINE** and stomatology - steels for medical implants, austenitic N-MO corrosion resistant steel, CR-CO-NI alloy for stomatological cermet materials. Very good biological toleration, good contact with various cellular structures.

201450 393 W L U

**RESOURCE-OPT** software for retail resource allocation. A software suite which solves the problem of optimal retail space allocation in supermarkets, hypermarkets, departmental stores, computer stores etc in a novel way with a view to maximising profits.

201619 94 C S U

**COMPUTER AIDED DESIGN SYSTEM FOR MECHANICAL APPLICATIONS ZD-MCAD** developed on VAX-11 series computers under UNIX operating system. The system, can be easily transplanted to any 32 bit engineering workstation and super minicomputer based on UNIX. The functions of ZD-MCAD cover the full CAD/CAM process from design, analysis and computing, optimal design to NC programming. ZD-MCAD system consists of 13 independent software packages with an assembly control module and associated CDS series graphical workstation. ZD-MCAD can be used as CAD/CAM support software for architecture, structure, industry design etc.

Ref No. Org.No. Status Offer Source

201755 112 C L C

**VME BUS (COMPUTER BOARDS)** Based on 16 and 32 bit processors, gate arrays and surface mounting technology and VME bus standard. These boards are used in applications as wide ranging as metering, imaging, robotics, communications and process control.

202035 266 C S C/P

**COMPUTER BASED TRAINING (CBT)** Didactic software and simulators (distribution and development) on personal computers for training or teaching managers and skilled workers with best efficiency thanks to graphic and interactive communication without risk of damaging real world.

202334 319.15 C/L

**PLASTIC MAGNETIC MATERIALS AND THE APPLICATION OF CCQ METHOD** This material is composed of magnetic conducting material and high strength resin, including type A and B. At ambient temperature a magnetic wedge pin is formed at the interface of the electric motor, increasing efficiency by 1-1.75%. Temperature decreases by 5-15 degrees C and vibration and noise are reduced.

301153 393 W L C

**INDUCTIVE AND MAGNETIC PROXIMITY SENSORS DESIGN** microprocessor control systems and servo controllers. CAD microcontroller workstations and CAD printed circuit design facilities. Specialist sensor coil winding equipment.



## OFFERS

## CATEGORY 4: COMPUTERS

Ref. No. Org.No. Status Offer Source

301943 231 C L/J C  
**INSTANT IDENTIFICATION OF SIGNATURES OF BANK USERS** Due to its great experience in the Banking Sector and with the objective of solving an important problem in the said sector, this company has developed a unique software system for the verification of signatures. SIGNA is an information system which allows bank employees to instantly verify, and for screen, the desired signature. The systems advantages emphasise: that it is the only system in the market created to solve the said problem and is compatible with all standard hardware. It picks up signatures from paper files. Easy to use as no prior training is necessary.

401602 86 C L P  
**PRESENTATION AND PROCESSING OF EDUCATIONAL KNOWLEDGE ON PERSONAL COMPUTERS** Automated educational working places and flexible automated educational programmes. Main usages include: training, retraining and skill advancing of personnel, compulsory education, self education. The advantages are its methodical and technological functional completeness, compactness, mobility, high rate of response and ease of use.

401624 100 C L/J R  
**COMPUTER AIDED TESTING LINE FOR PARAMETER OF ELECTRICAL RICE COOKER** The device can measure the parameters of power, insulating resistance, leak current, electrical intensity, holding temperature and restricting temperature. The data will be calculated and recorded in a memory buffer of computer. The parameters will be distinguished into qualified or bad. The device prints the statistical tables after each turn. Number of testing is 500 000 every year.

Ref No. Org.No. Status Offer Source

401651 106 M S/L/J G  
**DESIGN OF IRON AND CONCRETE STRUCTURES** Design of unitised assortments (series) of structures in which each type of article is determined by one basic parameter of the series ensuring minimum consumption for unitisation. Handy for choosing framework sizes for each standard size, finding the load range for the given standard size and classifying it by types of articles.

402132 331 C S  
**TECHNIQUE AND FACILITIES FOR COMPRESSOR BLADES PRODUCTION BY COLD ROLLING OF STEEL AND TITANIUM ALLOYS** Designed for compressor airfoils production by cold rolling of titanium and steel alloys in accordance with drawing requirements without further machining. Can be applied in aviation, machinery, shipbuilding, heavy and energy machinery, automobile and other fields for jet engine blades and gas turbine production.

501932 224 J  
**COMPUTER MANUFACTURE AND SERVICES** PC - installation, maintenance, repairs, personnel training, final products assembly. Pre-feasibility study available. Export: 50%.

501942 231 C L/J C  
**SOFTWARE FOR TOOL MANAGEMENT** which, following a methodology for tool management, helps in the optimum utilisation of the tools in a mechanical workshop. The system allows the improvement of the flow of tools, their whereabouts and availability. It is an open system which allows its adaptation to different tools and situations in the company. It is the only system that uses the windows environment which offers it an amicable interface. It has been especially designed to connect with other departments of the company.

## OFFERS

## CATEGORY 4: COMPUTERS

Ref.No.	Org.No.	Status	Offer	Source	Ref.No.	Org.No.	Status	Offer	Source
502002	249	F	J	P	702140	339	F	J	
<b>SOFTWARE DEVELOPMENT</b>					<b>HOUSEHOLD APPLIANCES - VACUUM CLEANERS, COFFEE GRINDERS, HAIRDRYERS, IRONS</b> industrial co-operation offered for production and marketing.				
501426	395	P	L	U	801137	393	W	L	U
<b>AUTOMATIC IMPACT ECHO FIELD SYSTEM FOR NON-DESTRUCTIVE TESTING</b> A device consisting of an impactor transducer integrated in a hand held configuration and a unique neural network software system for signal analysis. This device permits rapid, accurate location of defects in structures such as fractures in concrete slabs.					<b>PRICE-STRAT</b> pricing strategy software. An advanced software suite which enables companies in price-sensitive industries to tackle their pricing problems within a competitive environment. Application areas include interest rates for banks and building societies, fare structures, pricing for automobiles and consumer durables.				
602335	323.01	C	J		801264	326.09	C	L	
<b>RADIO RECORDER</b> The technology of welding, debugging and assembling.					<b>VACUUM EXTINGUISHING CHAMBER</b> Usages: switch panels. Advantages: elimination of explosive hazard, reliability.				
701106	395		L	U	801350	400	W/U/F	L/S/J	U
<b>CURVE SOLID CLASSIFICATION AND SOLID MODELING</b> A computer system specialised for curve solid classification (raycasting) of objects in constructive solid geometry modeling to produce image representations of two or three dimensional objects. The system carries out raycasting at much higher speed than general purpose computers.					<b>INDUSTRIAL CONTROL SYSTEM OF TECHNOLOGICAL PROCESSES</b> Programmable industrial control systems have been developed in AGH and applied at the VSZ - Kosica (CSFR) Steelworks. There are multitasking and multilevel control systems based on the logical and numerical microprocessors, connected in the networks and equipped with the A/D and D/A converters, which served to control drives and technological processes at the Blast Furnace and Agglomeration Plant.				
701110	395		L	U	802333	319.11		C/L	
<b>REAL TIME VERIFICATION OF DYNAMIC HUMAN SIGNATURES</b> A signature verification system having the capability of discriminating between the degrees of inconsistency that one expects to find in both speed and size of genuine signatures. This system is suitable for on-line implementation. Using a PC with a 386 processor, the verification algorithms require less than one and one-half second of verification time.					<b>CABLE FAULT LOCATION DETECTOR</b> Uses earth potentiometry and electro magnetic induction to locate the ground fault point of cable.				

## OFFERS

## CATEGORY 4: COMPUTERS

Ref. No. Org.No. Status Offer Source

901123 393 F J C  
**SOFTWARE PRODUCTS** for image analysis, signal processing, pattern recognition and neural network systems. These range from standard methods to leading edge research products. Both software packages and bespoke development is available.

1275 323.02 C J  
**QUALITY ASSURANCE OF SOFTWARE** is especially important for software used where safety and reliability are essential. New computer software production follows a structured approach in which all stages follow standard procedures and are fully documented. Strict change control of software and documentation is used to ensure that controlled multiple versions do not exist.

701267 319.11 C L  
**MANAGEMENT INFORMATION SYSTEM FOR CITIES AND TOWNS** The system consists of three parts 1) computer information processing system, 2) sound data integrational communication system, 3) word process printing system. The system possesses two functions: office automation (OA), the auxiliary decision making of MIS. It has good practicality and perfect function. The system is developed on the super-minicomputer and micro-computer. Data communication is done by using PABX.

702143 266 C S  
**COMPUTER BASED TRAINING (CBT)** Didactic software simulators (general or specifically developed) on personal computers for training or teaching people with high efficiency thanks to graphic and interactive communication without risk of damage to actual equipment.

Ref No. Org.No. Status Offer Source

701276 323.02 C J  
**COMPLETE DATA BANKING SERVICE FOR PC AND MAINFRAME COMPUTERS** includes file creation, data collection systems, programming and data retrieval, manipulation of data to suit customers requirements, quality control, statistical and graphical data analysis, materials accounting and component traceability. Raw data can be checked by scanning programmes to identify potential errors for correction.

801282 323 U L  
**A SINGLE BOARD COMPUTER FOR MEASUREMENT AND CONTROL APPLICATIONS** The unit has A/D converter and serial/parallel input and output ports. This compact unit can be used to control any piece of process plant according to a programme based on up to eight external events eg voltage, temperature, switch operation etc.

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The following Project Profile is available from The National Small Industries Corporation Ltd (NSIC). For more details see the section entitled NSIC Project Profiles at the back of this catalogue.

Desk Top Publishing

**OFFERS**

**CATEGORY 5: CONSUMER DURABLES**

Ref. No. Org.No. Status Offer Source

1159 393 F L P  
**SAFE BABY BATH** which fits into a conventional bath. The baby is held firmly but gently in the quick release safety harness, so freeing both hands of the adult to clean the child quickly and easily. Temperature control is facilitated by the built-in safety thermometer and recommended water levels are clearly marked.

1168 393 C L  
**SHOWER DRYER** You simply stand in your shower for a few minutes after showering and let warm jets of air dry your body. The system combines a neat, attractive design and finger tip control with an air flow that provides perfectly balanced heat throughout its whole volume.

1287 323 W L  
**INTEGRATED THEFT PROOF POWER SUPPLY AND CONTROL UNIT FOR CARS**  
 Power supply/control unit to drive 4 modules and interface to car electrical system. Includes anti-tamper (theft) protection for the unit and connector modules which activates the horn if any part of the system is disturbed. Modules include: car alarm, 'lights left on' reminder, battery monitor and windscreen wiper delay and speed adjuster.

1587 81 C L/J C  
**CROCKERY AND GLAZE TILES** plant and technology on turn key basis.

1806 142 C L/J P  
**RUBBER BASED PRODUCTS** Turnkey jobs for manufacture of rubber based products from both natural and synthetic moulded goods, tyres and tubes, hose pipes, conveyor belts, latex goods etc.

Ref No. Org.No. Status Offer Source

1889 194 C  
**LOW COST HOUSING** House built without use of bricks by wire mesh using mud balls from site. Construction is done by women and one experienced builder to supervise the straightness of walls. Building is called Terracrete and found cheapest and stronger than a brick house. Classified as low cost housing.

1890 195 C L C  
**COMMERCIAL VINYL FLOORING**  
 Homogeneous foam backed acoustic, slip resistant safety flooring and specialist static control ranges. Increased capacity and flexibility. Patented process to produce homogeneous non directional flooring.

101127 393 U L C  
**AIR MOVING FAN** based on a novel fibrous impeller. The flexible fibre impeller is spun at high speed inside a simple volute casing and thereby moves air in a similar manner to a conventional centrifugal fan. The lightweight impeller is ideally suited to mobile applications eg agricultural and military etc. The low inertia flexing impeller resists solids build up in dusty environments.

101269 319.17 C L  
**MANUFACTURING TECHNIQUE OF BROADCASTING MAGNETIC TAPE AND CASSETTE TAPE** Magnetic powder is mixed with binder and some chemical materials, the mixture is dispersed and then it is pulped (magnetic pulp). The magnetic pulp is coated on support, through calendering, cutting, erasing, packing, broadcasting tape and cassette tape processing is finished.

## OFFERS

## CATEGORY 5: CONSUMER DURABLES

Ref.No. Org.No. Status Offer Source

101488 23 F J P  
**LEATHER GOODS** Cottage scale production of sandal footwear, belts, passport cases, coin purses, key pouches, key holders, leather baskets etc by utilising locally produced leather requiring very minimum basic machinery and accessories. Possible to develop into higher scale production.

101887 192 F S C  
**FABRIC MANUFACTURE** Woven, knitted and narrow fabrics, including tipped shoe laces. Tapes for electrical industry, curtaining, bags and shoe industry. Elastic for underwear, bras, all clothing, seat belting, variety of laces for clothing industry, shoe laces for shoe manufacturers.

201461 3 W/F S G  
**TOILET SOAP** with whispering fragrances, fattening and softening additives and antioxidants which produce a rich foam. Available in pieces of 90 mg up to 150 gm. Total fatty matter 78-80%. A transparent glycerine soap. A soap for saline and hard water is also produced.

201623 98 C L C  
**NEW KIND OF HOME USE MULTI FUNCTION ROAST OVEN** which is suitable for homes and picnics. The oven can be used to roast, fry, stir fry and boil food. The fuel needed is charcoal, which has no positive side effect on the food. The oven is composed of the oven body, a grill, a small air blower, batteries, a support, spits and skewers. It is 40 cm long, 20 cm wide and 30 cm high.

201764 115 W L G  
**WHEELCHAIR** all kinds (standard, electronic, sanitary etc) from steel, aluminium in different colours for children and for older people.

Ref.No. Org.No. Status Offer Source

201979 244 F S C  
**TEXTILE MANUFACTURE** We can offer full technology for the manufacture of textile auxiliaries including products which are eco-friendly.

202283 251 C L/J C  
**PRODUCTION OF SHAMPOO, CREAM, POWDER, SOAP** We produce powder, liquid filling machines, labelling machines, bottle washing machines. Main use: cosmetic and medicine industry. Main advantages: quick and economical manufacturing, quality and service are also guaranteed.

301079 394 F L/J C  
**DIAGNOSTIC KITS** wide range.

301171 23 C/F/W J/S/L C/P  
**LEATHER PRODUCTION** Improvement of corrected grain upper leather from cow, wet blue goat leather and sole leather manufacture. Method of utilising wet blue shavings for cottage scale footwear insole boards and utilising fleshings and rejected limed pelts for paper glue. Manufacture on cottage scale.

301313 376 C L C  
**SOLAR COMBO WATER HEATING SYSTEM** available in the sensor/pump and thermo-syphon version, both are ideal for hotels, sports clubs or wherever showers and/or spa pools consume large quantities of hot water.

301414 396 C J C  
**HEATPROOF CERAMIC COOKING UTENSILS** The product possesses good thermal shock resistance. It stands wear and erosion without poison. It can be used to cook, fry, boil and stew food on gas stove, electric stove or oven.

## OFFERS

## CATEGORY 5: CONSUMER DURABLES

Ref. No. Org.No. Status Offer Source

301459 3 W/F S G  
**LAUNDRY SOAP** Rich foam, white or coloured. Available in pieces of 100-400 gm, or bars up to 1.5 kg, with or without citronella fragrance. Antioxydents are added. Total fatty matter 63-68%.

301468 7 F/C L/J P  
**DETERGENT AND CLEANING FORMULATIONS** such as laundry detergent powder, multi-purpose liquid cleaner, car shampoo, rug shampoo etc. Project can be started with a low investment of Rs 50,000 to RS 1,00,000/-.

302003 250 C L/J  
**BARRIER CREAMS** Technology for the manufacture of skin protective barrier creams used by industrial workers while handling hazardous chemicals.

401078 394 W J C  
**AUTO CURATIVE INSTRUMENT** Wristwatch and curative instrument measures the bodies reaction to a wide range of activities, liquids and foods etc. Initial development to be used in treatment of arthritis and osteo-porosis.

401277 323 C L  
**HUMAN TISSUE CARE AND REPAIR** 'CAR' is a white powder, that is extruded from meat homogenates in a highly purified form. It can be incorporated into creams, ointments and lotions as an active ingredient. It has strongly bacteriostatic, anti-inflammatory and immunomodulating properties. A manufacturing agreement is offered.

Ref No. Org.No. Status Offer Source

401280 323 W L  
**ELECTRO-MECHANICAL REMOTE CONTROL LOCK** A high security electro-mechanical locking system which can be opened and closed by remote control, and also opened with a coded key pad from outside. Automatic closure is by means of a half turn bolt, and additional security bolts are engaged once the door is fully closed and the half turn bolt entirely within its socket. Suitable for flats, offices, laboratories, etc where high security is required.

401289 323 W L  
**TELEPHONE CALL SCREENING DEVICE** A low cost call screening system used on an attended telephone to avoid and deter any unwelcome telephone callers. Operated manually by the call recipient and is suitable for use in the home or small business. Manufacturing cost under £20.

401573 71 C S G  
**HARD ENDURANCE WASHING MACHINE** Single tub, electrical connection of 220 volts, single phase (also other voltages). Can be produced in small workshops with normal metal working machinery.

402144 341 W J  
**FIRE PROTECTION SYSTEMS** Automatic/semi-automatic involving smoke/heat detection/ alarm systems integrated with combatting systems by wet risers, sprinklers, medium/high velocity water spray, foam, dry chemical powder or Halon.

## OFFERS

## CATEGORY 5: CONSUMER DURABLES

Ref.No. Org.No. Status Offer Source

501482 21 F S P  
**SPECIAL FIRE EXTINGUISHER** (for automobile). This formulation requires only two chemicals which are available everywhere and needs only a small mixer. The end product is a powdery mixture which when thrown on automobile fire a carbonic gas is liberated which is heavier than air and smothers the fire. Instantly very effective.

601129 393 U L C  
**SECURITY WARNING SYSTEM** The unit telephones one or more numbers previously entered into it by the user and replays a warning message relevant to any event on the premises that has triggered off the system. Events are detected through a variety of sensors, ranging from intruder sensors to a freezer defrost sensor in a food store.

601777 125 F L C  
**HOUSEHOLD APPLIANCES** Cookers, (gas, electric combined) refrigerators, freezers of different versions (regarding dimensions and capacity) and automatic washing machines (front loaders). All appliances are of up to date design. Their functions and quality comply with international standards. Every product meets at least one of the following international quality standards: VDE, DVE, NE, UL, N, S, E, GUST etc. They comply with standards concerning low electric energy consumption.

701011 380.01 C L/J C  
**HOT SPRING WATER THERAPEUTIC UNIT** The whole unit is controlled by the console in the control centre and can form bath of raindrop shape, fog type, needle shape, upward spray or spade shape to serve as massotherapy for the human body.

Ref.No. Org.No. Status Offer Source

701039 396 C L G  
**D35 SCHNABEL CAR** D35 schnabel car adopting external and internal guide and incorporating hydraulic lateral displacement, lifting and equalizing loading side-bearing. With interconnection between internal and external guide, the car can change the guide location automatically without stopping operation

701288 323 C L/J  
**THEFT AND INTRUDER DETECTION SYSTEM** A self powered electronic security system designed to protect glazed areas and precious objects. A small, thin, flat transmitter 1 1/4 in x 1 in x 1/4 in which can be mounted between the glass of a double glazed window, and will activate an alarm signal on breakage of the glass.

701460 3 W/F S G  
**GLYCERINE PRODUCTION** of a soap, crude glycerine + dynamite glycerine. Chemically pure glycerine is produced according to the British Standard specifications.

701532 56 C L R  
**TECHNOLOGY OF SPLITTING WHITE WET SKIN** can raise the grade and quality of soft pig leather and can save sodium bicarbonate by 30% - 40% and reduce chrome pollution by 50% compared with the normal process.

702125 327 C S G  
**PICKLING OF SHEEP SKINS** in analytically standardised used enzymes bath. Fur sheep skins are pickled in acid medium in baths which are 10 times used after analytically controlled of their activities. Main advantages: increase of a yielding, better softness and flexibility of ready made leathers.

702230 367 C L/J C  
**READY MADE CLOTHES**

## OFFERS

## CATEGORY 5: CONSUMER DURABLES

Ref. No.	Org.No.	Status	Offer	Source
702248	354	C	J	C

**MARKETING OF SAFES** produced in Turkey to other second and third world countries. The proposed process is to improve the quality and capacity of safes produced in Turkey and to increase the marketing departments. The proposed use will be defined after correspondence has taken place. Proposed standard capacity: 3000 safes/year.

901397	396	C	J	G
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**400MHX PERSONAL RADIO HAND SET**  
The product is a new generation transceiver with the following features: dynamic 80 channel sharing, automatic dial calling, microcomputer controlled, digital signalling, saving frequency resource, low power consumption, small in size and light in weight.

901483	21	F	S	P
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**AUTOMOBILE SHOCK ABSORBERS AND BRAKE HYDRAULIC FLUID TECHNOLOGIES** This formulation complies closely to society of automobile engineers specifications and ensures the following contents: solvent, lubricant, coupling agents, inhibitors and anti oxidants. Only a good scale and small mixer required can be started in a room and raw materials are available everywhere.

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Gas Lighters  
GI Bath Tubs  
Sewing Machine  
Solar Cooker

Ref No.	Org.No.	Status	Offer	Source

Toilet Soap  
Auto Telephone Recording & Answering Machine  
Cooking Range  
Cycle Dynamo  
Digital Clock  
Electric Iron  
Electric Kettles  
Electric Stoves  
Hair Dryer  
Hot Plates  
Quarter Analog Clock-Electronic Radio  
Room Heaters  
Table Fan  
Toaster  
Video Cassettes  
Washing Machine  
Water Heater  
PVC Watch Straps  
PVC Foot Wear  
PVC Rain Coats  
Plastic Flash Light Torches  
Spectacle Frames  
Ankle Shoes & Booties  
Chappals and Sandals  
Leather Garments  
Leather Goods (small items)  
Leather Handbags - Ladies (non-framed)  
Leather Handbags - Ladies (framed)  
Leather Hand Gloves & Other Products  
Leather Shoes (children)  
Leather Shoes (moccasin)  
Travel Goods (leather)  
Wooden Furniture & Fittings



## OFFERS

## CATEGORY 6: FOOD PROCESSING

Ref. No. Org.No. Status Offer Source

1177 104 C L/J R  
**CULTIVATION AND PROCESSION OF SE-RICH TEA** The technique is available in various areas. The tea production per hectare is 225 kg with the technique of cultivation. The selenium content of the se-rich tea contains all the advantages of the common green tea. It also has a strong anti-oxidation and it benefits human health. The trace elements of human body will increase by 0.9-8 milligram after drinking the tea of 6-200 each day.

1209 284 U S G  
**EXTRACELLULAR YEAST POLYGALACTURONASE** without contaminating enzymes for juices, winemaking and dietary nutrition. Enzyme increases juice yield and clarifies juices. It macerates fruit and vegetable tissues. Yeast poiylgalacturonase can be used in fields of pharmaceuticals, biotechnology of plant cell.

1251 165 F/C L/S C  
**DECUTICLING OF SEASAME SEEDS** Sesame seed is rich in oil and protein and as such, considerable importance has been given to the preparation of protein.

1456 1 C L/J C  
**SUGAR PLANT** capacity 500 TCD to 4000 TCD by sulphitation process, defacation remelt talo phosphitation process and double sulphitation process.

1472 11 W S C  
**PRESERVED FOODS** Canned: juices, jams, legums, vegetables and tomato products. Glass: jars (jams, pickles), bottles (juices, syrup). Freezing: vegetables and fruit pulp. Drying: grape.

Ref No. Org.No. Status Offer Source

1575 74 W S C  
**CONCENTRATION OF JUICES IN SOFT DRINKS** (carbonated - a process) for producing a beverage.

1578 75  
**THE TINYTECH OIL MILL** is an integrated system consisting of a decorticator, boiler, expeller, pump and filter press, powered by either a 7.5 - 10 hp electric motor or diesel engine. The mill enables unrefined edible oils to be manufactured from a variety of oilseed crops.

1627 103 C L/J C  
**BREWING RAPID FERMENTATION OF BEER** The technololgy is a one tank method of the fermentation of beer. The fermentation period will be reduced from 30 days to 7 days. Using this fermentation method it is possible to process 30 tonnes of beer a day. The cost of the production of 100 tonnes of beer will be US\$ 11 000. The product is Pilsener beer light in colour.

1645 106 P L/S/J G  
**PROPHYLACTIC DRINKS** of fruit and vegetable concentrates with organic and vegetable additive. Preparation of beverages which regulate the exchange processes and increase the body's adaptation to the media, has a marked adaptogenic effect when taken according to a special scheme of treatment. Another beverage regulates the exchange processes and stimulates the secretory function of the body.

1709 106 P L/S/J G  
**CULTIVATION OF RASPBERRY** and mechanised harvesting.

## OFFERS

## CATEGORY 6: FOOD PROCESSING

Ref.No. Org.No. Status Offer Source

1884 190 F J P  
**PLASTIC THERMOFORMED PACKAGING** In house design for all horticultural, fast food and specific design packaging out of latest and most up to date plastics. Lightweight clear/coloured inexpensive packaging for Africa's requirements.

1991 380 C L/J C  
**PRODUCTION OF QUICK DISSOLVE TEA**  
 The tea quickly dissolves, is brightly transparent, leaves no deposits and is fragrant. The production technology is unique and mature. One production line, quick dissolve tea and tea pigment can be produced simultaneously. Its quality reaches the first class and the product is well favoured in the world market.

2009 253 C L C  
**IRON + IODINE ENRICHED COOKING SALT** A process for manufacture of pure white free flowing cooking salt enriched with iron and iodine at 1000 ppm and 30 ppm respectively. Most ideal for providing iron and iodine through food in the convenient and economical way.

2018 258 W L G  
**SUNFLOWER OIL PROCESSING EQUIPMENT** The set of equipment consists of a decorticator, winmower, roller crusher, scorcher, press and boiling pan. The set is manual and very suitable for rural areas. Field tests have been conducted for the past 8 years on the equipment.

2054 278 U J C  
**FILLING OF FRUIT JUICES** in cartons to last for about one year. Required conditions for tropical countries.

Ref.No. Org.No. Status Offer Source

2112 311 C L/J R  
**COUPLING LOW POLYSACCHARIDE**  
 which is suitable for being used as a sweetener in candy, pastry and in the beverage industry. The saccharide is transformed from concentrated enzyme by utilising the starch of corn, potato and sweet potato as raw materials. The saccharide yields less calories and helps prevent tooth decay. The product is a viscous, transparent, light-yellow coloured liquid. To set up a factory with an annual output capacity of 1,000 tonnes, a total investment of about US\$ 300,000 to 400,000 is required. The production process is free from water, air and environment pollution.

2115 315  
**CONFECTIONERY** Products: chocolate; marshmallow; nougat; biscuits; wafers; candy; toffee; sweets; jelly; juices; jams.

2124 327 C S G  
**ENZYMATIC DEPILATION OF PIG SKINS**  
 Complex technology including preparation of skins, dynamic depilation and bristle recovery. Main advantages: good degreasing and uniform dyeing of skins, better surface yield, recovery of bristles of standard value, lower toxicity of tannery waste waters.

101254 165 F/C L/S C  
**OPTIMISED MILK FOOD FOR INFANTS**  
 The optimised milk food developed is unlike other commercial formulae which contain about 22% protein, the protein content of the infant food is only 12%, it also has an adequate level of essential juices and can be used in the textile industries for degumming and in the leather industries for tanning.

## OFFERS

## CATEGORY 6: FOOD PROCESSING

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
101551	58	C	L	C	101654	106	C	L/S/J	G
<b>TOASTER (SOYA BEAN CAKE)</b> Capacity: (50-100) ton/day, power: 75 kw, PN 10 bar, diameter: 2.7 m, max height: 5.9 m, material of construction: carbon steel - alloy steel. Use: urea enzyme reduction in soya bean cake.					<b>INDUSTRIALISED CULTIVATION OF MAIZE</b> into crop by watering in arid zones. Up to date technology includes the following stages: growing of high yield sorts of maize, effective initial cultivation of soil, system of pre-sow cultivation of soil, pre-sow use of new highly effective herbicides and immediate placement of the latter into the soil with the use of the suggested combination aggregate.				
101563	64	C	L	C	101681	106	C	L/S/J	G
<b>FRUIT WINES</b> A process for making good quality fruit wines from common tropical fruits such as pawpaw, plum, passion and pineapple. The process entails juice making, fermentation, bottling and packaging.					<b>PREPARATION OF FOOD PROTEIN LIPIDS</b> on continuous ethanol cultivation of yeast. Maintaining of clean yeast culture on agaric medium, accumulation of seeds in flusks on a rocker on ethanol containing medium, cultivation in ferment by continuous method, separation of biomass of yeast, plasmolysis and drying.				
101605	86	C		C	101781	129	F/S	J	R/P
<b>FERTILIZER SYSTEM FOR HIGH YIELD OF LUCERNE SEED</b> Mode of irrigation for lucerne seed depending on weather conditions and condition of herbage. Increases yield.					<b>TABLE VINEGAR FROM WASTE HONEY</b> Waste honey is discarded during processing, containing a large part of genuine honey, is fermented in two stages into alcohol and acid using specialised yeast bacteria respectively for the purpose. The plant is simple and continuous and product sold packed in pilfer proof glass bottles. A plant will cost a lakh of two rupees and fabricated and installed easily.				
101614	91	C	L/J	C	101816	146		L	G
<b>TECHNIQUE AND EQUIPMENT FOR PRODUCING SOYBEAN TISSUE PROTEIN</b> The equipment firstly defats soybeans and then produces out the soybean protein meat after eight steps of process. One kilogram of dried soybean protein meat can substitute three kilograms of lean meat for eating.					<b>STRAINS OF SACCHAROMYCES CEREVISIAE</b> producers of ethanol. There were created S.cerevisiae strains which are capable to secrete glucoamylase and in this way to ferment the starch. The strains are thermostable and it permits to make fermentations at 28-38 degrees C. Yield of alcohol is about 66,5 dal per 1 ton of starch.				
101618	93	C	L/J	R					
<b>BREEDING AND CULTIVATING OF WILD RICE</b> which is a hydrophilous vegetable in South of China and Vietnam. The cultivar of wild rice in Wuxi can be harvested in the summer and autumn. Seven new cultivars and their cultivated technology have been developed.									

## OFFERS

## CATEGORY 6: FOOD PROCESSING

Ref.No.	Org.No.	Status	Offer	Source	Ref.No.	Org.No.	Status	Offer	Source
102022	133	C	S	G	102227	165	F/C	L/S	C
<b>PRODUCTION OF SOY OGI</b> from soya beans and maize/sorghum.					<b>PECTIN FROM PECTINACEOUS MATERIALS</b> Pectin is used in the fruit and vegetable processing industry and in the pharmaceutical industry. Lime waste is a rich source of pectin. All these products have export potential.				
102099	88	C	L/J	C	201405	396	C	L	R
<b>PRODUCTION OF THE FOOD ADDITIVE AMMONIUM BICARBONATE</b> The procedure is simple and the technologies are advanced and rational. The quality of the product is in accordance with the China National Standard GB 1888-80. The ammonium bicarbonate product has white powder crystal, like fine sand, with no caking. It has been sold in over 20 countries and areas. It is mainly used in food industry, also in pharmacy, chemicals and recovery of rare metals. The total price for the technology transfer will be negotiated with interested parties.					<b>MANUFACTURING TECHNIQUE OF CONCENTRATED SOYBEAN PHOSPHOLIPID AND FINE PHOSPHOLIPID</b> This technique is deep processing for soybean oil residue. The product could be used for emulsifier in food, medicine, light and textile industry.				
102109	308	C	L/J	C	201423	395	P	L	U
<b>DETECTION OF MEAT QUALITY</b> This method comprises of a series of biochemical methods including 8 kinds of biochemical indices and 2 kinds of biochemical techniques. They can be used in: differentiation and identification of various kinds of meats. Detection of whether there is adulteration or blending of meats. Evaluation of the edible quality of meats. The transfer fee will be discussed directly with interested customers.					<b>WINE PRODUCTION - SYNTHETIC MEDIA FOR THE PRODUCTION OF MALOLACTIC STARTER CULTURES</b> Malolactic fermentation (MLF) by certain strains of lactic acid bacteria, plays a significant role in determining the final quality of wine by reducing its acidity. This is particularly significant for wines produced in cool wine growing regions. While MLF occurs in wine above pH 3.4 it is quite irregular in wines below pH 3.4. To overcome this, a synthetic media starter culture for the production of lactic acid bacteria to induce MLF has been developed which uses fructose as the primary carbohydrate source.				
102118	317				201486	21	P	S	R
<b>ENVIRONMENTALLY SAFE PACKAGING MATERIAL FROM COCONUT FIBRE DUST</b> Machine pressed and moulded can be re-used as a plant growing medium. As thermal insulation or used as a fuel for heating or cooking. This award winning development is from Sri Lanka.					<b>OLD STYLE GINGER BEER</b> This formula is for the ginger beer found in many markets. It is manufactured with and without yeast, ginger, a common fruit and two additives are used. Process is simple with plastic containers and ends in 3/4 days. Very good shelf life. Suitable for home and for commercial projects - mail transfer.				

## OFFERS

## CATEGORY 6: FOOD PROCESSING

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
201682	106	M	L/S/J	G	202017	258	W	L	G
<b>CLEANING AND DESALINATION</b> Modification of polymer membranes by implanted polymerisation physical and chemical methods: norms of technology of desalination of low mineral waters, fractioning of technical lignosulphonates. For softening of water, purification of running water, cleaning of technical lignosulphonates.					<b>CHICKEN FEED MILL AND MIXER</b> The equipment can be used to manufacture chicken mash. Production capacity is about 6 tons per day (8 hour shift). The mill runs on a 25 HP (18.5 KW) and the mixer on a 7 HP motor. Feeding into the mill is pneumatic and so is into the mixer.				
201782	129	W	S/J	R	202026	133	C	S	G
<b>MANUFACTURE OF COCOA BEAN PRODUCTS, MILK CHOCOLATE, COCOA BUTTER, COCOA POWDER, DRINKING CHOCOLATE</b> Raw cocoa beans can be fermented in a continuous fermentor, dried, roasted in a continuous roaster with recirculation of hot air at a particular temperature for flavour development, kibbled, cleaned of shell and plasticising in a continuous liquor mill and pressing in batch pressure filter, cocoa butter separated and cake made into cocoa powder of the required size. Total cost is approximately 25 lakhs of rupees.					<b>FISH DRYER</b>				
201783	129	U/S	J	R/P	202094	296	C	L/J	R
<b>GROWING OYSTER MUSHROOMS (PLEUROTUS SAJOR CAJU)</b> The tropical variety of edible mushroom (oyster type) are grown in simple ratproof sheds with stabilised paddy straw impregnated with pure spawns, kept in polythene bags with air holes of 5 litre capacity each, when the mycelium starts blooming the polythene bag is cut open and the fully grown mushrooms appearing on all sides are harvested 3-4 times, the yield being about 500 grams/kg of straw which will cost a rupee, the cost of making negligibly small and price of product as high as 30-40 rupees/kg.					<b>CONTINUOUS CONCENTRATION EVAPORATION TECHNOLOGY</b> The technique widely applied in the food industry, the chemical industry, the pharmaceutical industry and the oil industry for concentration and distillation since the technique adopts an instantaneous evaporating concentration, it especially fits to the treatment of heat sensitive materials. The advantages of this technology are as follows: its evaporation rate is 5-7 greater than the evaporation and 3-4 times what of the pipe evaporator; it can evaporate highly viscose liquid materials; within a very short time (about 10-60 seconds) in the evaporator.				
					301051	395			U
					<b>SUPERCRITICAL FLUIDS EXTRUSION</b> This is a process and apparatus for improved control of colour, flavour, rheology and other properties of extruded foods. The apparatus is a unique hybrid of supercritical fluid extraction and extrusion in which the extruder is modified to permit injection, mixing and selective removal of supercritical fluids in the extruder.				

## OFFERS

## CATEGORY-6: FOOD PROCESSING

Ref.No.	Org.No.	Status	Offer	Source	Ref.No.	Org.No.	Status	Offer	Source
301117	395	L	U		302012	255	C	L	C
<b>MONOCOT HAVING DICOT INDUCIBLE PROMOTER</b> Transgenic rice plants that express natural insecticides (ie serine-type proteinase inhibitor) only in response to specific insect associated damage are now possible. BT toxin genes can also be incorporated to produce toxins in response to insect caused insults. Any constructs shown to work in rice can be used to transform other monocots.					<b>MANUFACTURING PLANTS</b> 1. Small and large capacity cane sugar plant. 2. Plant for manufacturing egg trays from waste paper. 3. Utensil making plant. 4. Leather tannery. 5. Welding electrode manufacturing plant.				
301250	165	F/C	L/S	C	302021	260	M/W		G
<b>COMPOUNDED ASAFOETIDA</b> In powder/tablet form being uniform in quality finds use in the culinary preparation for various flavouring purposes.					<b>SWEET YAM FLOUR</b> Made from sweet yam after harvest is washed, peeled, sliced, blanched, dried, milled and packaged. It can be used as composite flour for bakery, as an enriched weaning mixture or reconstituted as chips.				
301501	33	F		C	302057	282	C	J	G
<b>RUM AND WINES</b>					<b>RED COLOURED CONCENTRATED JUICE</b> Extract from red flower of Hibiscus Sabddarifa L is concentrated up to 75 degrees brix. The process, the storage and the utilisation conditions are determined to obtain a stable and economic product. The same process is also used to produce Tamarin concentrate (Tamarindius Indica L). Both Hibiscus and Tamarin concentrate are produced using ITA pilot plant.				
301615	92	C	L/J	C	302111	310	C	L/J	R
<b>APPARATUS TO TREAT RICE AND WHEAT SEEDS</b> The apparatus outputs a set coded electric pulse signal with fixed frequency and duty cycle. Before sowing, the rice and wheat seeds were soaked in water and treated with this apparatus for one hour. Under identical climate and farming conditions, the treated rice and wheat will increase production 3-8%. Every set of such apparatus can treat 100 kg seeds at one time. In addition, other inventions of special electromagnetic signal apparatus provided by the Institute are available.					<b>HIGH PROTEIN AND NON BEANY FLAVOUR SOYAMILK</b> The soyamilk is made of soybean and vegetable oils by a special process to eliminate the beany flavour. The level of unsaturated fatty acids and iron content are more than in milk. The content of total sugar is only half that in milk. The production capacity is 40,000 to 50,000 bag (200 ml plastic bag) per day (10-12 hours). The local cost is US\$ 0.04 per bag. The Institute estimates that an investment of US\$ 0.55 million is required to set up a plant with a daily (10-12 hours) output of 8-10 tonnes soyamilk, including equipment cost of US\$ 0.3 million.				
301960	232	C	L	C					
<b>TINY SUGAR CUM JAGGERY PLANT</b> Crystal sugar and jaggery both can be produced in the farm itself without the use of sulphitation process. So natural sugar is obtained without any chemical contamination. Combined recovery more than big sugar factory. Hence strongly viable. Simplest machinery. Low investment project. Skilled workers essential.									

## OFFERS

## CATEGORY 6: FOOD PROCESSING

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
302260	346	M	L/J	G	401561	62			
<p><b>PROCESSED WEANING FOODS</b> based on locally available raw materials. Five (low cost and nutritious weaning food based on local cereals: (maize, sorghum and rice) and tubers: (yam and sweet potatoes) supplemented with cowpea and a small amount of milk have been developed. The methods used are simple and practical.</p>					<p><b>PRODUCING ICE CREAM DIRECTLY FROM SOYBEAN</b> It needs less equipment investment and can be easily adopted by the present ice cream factories. With the technique, the intrinsic rancid smelling of soybean can be eliminated and the activity of trypsin inhibitor can be passivated. Using the technique, about 0.5 tonnes of ice cream can be produced per day. The cost of 1 piece of ice cream (7 C) is about US\$ 0.05 at present. The investment for setting up a factory with production capacity of 0.5 tonnes is about US\$ 75 000.</p>				
302267	343	P	S	P	401591	81	C	L/J	C
<p><b>M-I-NIT RICE PROCESS</b> Produces one minute cooking rice, breakfast cereal and infant food - all from parboiled rice. Simple hot air process. Technology US\$ 500.</p>					<p><b>WINE/BEER INDUSTRIES</b> Complete plant and technology may be provided on turn key basis.</p>				
401253	165	F/C	L/S	C	401606	86	U	L/J	C
<p><b>MUSTARD POWDER</b> This is being used for the preparation of mustard paste, table mustard etc. The process involves splitting and dehusking the graded seeds. The husk and cotyledons are screened and air classified into different fractions where the cotyledons are ground to required fineness.</p>					<p><b>PRODUCTION OF PECTIN FROM VEGETABLE RAW MATERIAL</b> Vegetable raw material is poured over with extragent, hydrolised, and then pectin is extracted, extract is separated from remains of vegetable raw material purified by mechanical and chemical methods. Main usages of technology include: food, medical, pharmacological, chemical industries. Main advantages of technology are: technology does not depend on the type of processed vegetable raw material; production of quality pectin; exclusion of labour consuming processes of sedimentation and flushing of pectin by organic solvents.</p>				
401396	396	C	J	G	401678	106	M	L/S/J	G
<p><b>NATURAL PIGMENT FROM CHILLI</b> A series of refined product of natural red chilli pigment, yellow pigment, capsaicin and capsiol are produced in a new technique process. The series of refined products is applied in food industry, medicine production, cosmetics products etc.</p>					<p><b>CATTLE FEED FROM COTTON PLANTS</b> Processing of dry leafs of cotton plant for food fractions. Pneumatic separation to sizes and particles with the emission of high protein containing fractions for cattle raising, production of combined fodder.</p>				

## OFFERS

## CATEGORY 6: FOOD PROCESSING

Ref.No. Org.No. Status Offer Source

401784 129 P/L S/J R/P

**PROCESSING AND PRESERVING PLUM JUICE** could be preserved in natural sweet form by simple physical/chemical processing, preserving it either as a sweet tasty healthy drink after clarification, settling, filtration, pasteurisation etc. Entire plant is simple and inputs cheap. It can be preserved in airtight glass bottles/plastic containers. Attractive tasy syrup can also be made by vacuum evaporation. Tree is grown abundantly throughout India.

402016 64 C L C

**FRUIT WINE** Production of fruit juice and the technology of fruit wine with special reference to Papaya wine making for commercial purpose. The process entails simple equipment for juice extraction which requires no electrical power.

402025 133 C S G

**DISTILLATION OF ALCOHOL** from palm wine/molasses.

402084 76

**SUGAR PRODUCTION** The equipment ar technology for growing, harvesting and processing sugar beet, its bi-products and downstream products such as alcohol.

402093 296 C L/J R

**ABSTRACTION TECHNOLOGY FOR NATURAL ESSENCE** The technique is applied to abstract essences or pigments from natural plants by use of solvents (the solvent could be water, polar or nonpolar solvent) because of the adoption of advanced abstraction equipment and an instantaneous evaporating concentrator, it will turn out a product with natural flavour. The equipment production capacity is 3,000-5,000 kg/day. The technology and equipment are available for flat fee of US\$ 800,000.

Ref.No. Org.No. Status Offer Source

402108 307 C L/J R

**A NEW TYPE ALCOHOL FIGHTING DRINK** Jiu Le is a new alcohol clearing drink, which is made mainly from edible Chinese medicines with animal experiment and human body experiment show Jiu Le is an effective alcohol clearing drink. It has an obvious effect on eliminating alcohol as you drink 250 ml (1 bottle) of it after getting drunk. Annual output 30 million bottles. Annual profit US\$ 30 million. Transfer fee: US\$ 400,000 (including complete sets of equipment, but not including factory building).

402126 327 C S G

**UTILISATION OF ALL UNTANNED HIDE WASTES** Production of protein feed stuff and technical fat from hide wastes - raw and limmed on very simple equipment. Main advantages: feed meal of standard value for poultry farming and technical fat for chemical processing are obtained from hide wastes - reduction of environment pollution.

402224 165 F/C L/S C

**DEHULLING OF SEASAME SEED** The orange beverage prepared from the orange flavour is similar to 'FANTA' an item formally imported. A crystal clear lemon-lime beverage prepared is similar to 'seven up' a popular beverage in the USA. The deterpenated citrus oil finds use in flavouring confectionery, bakery goods and pharmaceuticals while the by-product terpene, a rich citrus oil, can be used as a flavouring agent in cosmetics and toiletries and also as a solvent in perfumery and thinner for paints.

402269 152 F L G

**CEREALS** Technology of producing powdered (baby foods) for infants and children. Method of producing (instant cereal) products by (drum drying) and modified milk formula for infants.



## OFFERS

## CATEGORY 6: FOOD PROCESSING

Ref.No. Org.No. Status Offer Source

501004 95 C L R  
**RICE BRAN OIL EXTRACTION, REFINING AND ITS BY PRODUCT UTILISATION** The technology of by product utilisation includes: crude fatty acid, oleic acid and stearic acid from soapstock. Oryzanol extracting technology and equipment, phytin and inositol preparing technology and equipment. Different standards of edible rice bran oil can be reached according to customers requirements eg high grade cooking oil and salad oil.

501335 388 C L C  
**TECHNOLOGY AND EQUIPMENT FOR EXTRACTING VEGETABLE OILS** Turnkey project takes raw material (such as sunflower seeds, cottonseeds, peanut, castor oil plant etc). Treatment includes: raw material treatment and raw material. Pre-processing for oil pressing, oil refining and oil filling.

501389 396 C J G  
**ASPARTAME AS SWEETNER** Aspartame is new type of sweetner which is synthesised from aspartic acid and phnylalanine. This product has been confirmed by JECFA as a new sweetner of A(1) class with low calorie value and high sweetness potency which is approximately 200 times more than that of refined sugar. It is a superb sweet additive conductive to food, drink and cosmetics industry.

501491 26 C S C  
**VEGETABLE OILSEED PROCESSING**  
 From the seed to salad, cooking oil, margarine.

Ref.No. Org.No. Status Offer Source

501607 86 M J C  
**PROTECTION OF CEREAL CROPS** Doses, terms and methods of introduction of protection means of cereal crops. 2;4D-amine salt, dialen, baileton, vofatox and their tank mixtures in growing of summer hard wheat. Used for protection of hard wheat from diseases and pests. Increased economic effect due to decrease of preparation expenditure rate and yield increase.

501625 101 C L/J U  
**TECHNIQUE OF PTC (POSITIVE TEMPERATURE COEFFICIENT) CERAMIC ELEMENTS** By the combination of some advanced techniques a series of BAT103 stables PTC ceramic elements with curie temperature ranging from 50 to 300 DC have been produced. The products have the features of quick heating, thermostatic, ballastic, safe and electricity saving. Besides PTC elements can also be used as motor starter, automatic switch alarm, demagnetising device in TV sets etc.

501629 106 P L/S G  
**LONG TERM STORAGE OF APPLES**  
 Utilising protective films on the basis of surface seective substances and antiseptic. Reduction of losses and extension of the storage terms.

501638 106 P L/S/J G  
**SOLAR ENERGY CONVERSION**  
 Concentrating devices for radiating seeds and treating patients with pulsed concentrated sun and neon light. For use in heat and power supply, agriculture, medicine.

## OFFERS

## CATEGORY 6: FOOD PROCESSING

Ref.No. Org.No. Status Offer Source

502097 299 C L/J C

**A NEW TYPE OF SALT-DENDRITIC SALT**

Technology for producing a new type of salt dendritic salt which is superior to the regular refined salt in the following distinctive ways: higher capacity for absorbing moisture, low bulk density, rapid solubility, good blending properties with other finely divided materials, outstanding non-caking and flow properties. These features offer a variety of applications for dendritic salt, such as curing sausage casings, flavouring butter, dry curing bacon and ham.

502226 165 F/C L/S C

**PAPAIN (IP) & PAPAIN CONCENTRATE**

**FROM PAPAYA** Papain (IP) is widely used in pharmaceutical industries for protein hydrolysate, lacto peptone etc in the food industries for clarification of juices, beer etc, textile industries.

601210 312 C L/J C

**REFINING NATURAL RED PIGMENT**

**FROM CHILLI** The red pigment is natural and

is widely used in foods, medicines and cosmetics. The process using simple equipment and a flexible investment level produces no waste and is environmentally friendly. The price of the red pigment is about US\$ 150,000 per tonne. The initial investment required is US\$ 300,000. This biotechnology, including know-how, feasibility research report and relevant information, is available for a flat fee of US\$ 100,000. The company is ready to co-operate with clients in joint venture, co-operation, turnkey and other styles.

601328 381 C S P

**SOYA NUTRITION PROJECT** (which is

carried out on a self-help basis) has shown that with soya beans it is possible to cover the demand for protein and energy at an affordable price. A booklet - 'How Can I Cook Soya Beans' is available.

Ref.No. Org.No. Status Offer Source

601574 73 C L C

**EQUIPMENT FOR THE SORTING, GRADING AND PACKING OF DELICATE FRUITS** particularly deciduous and citrus.

601580 78 C L/J C

**DESSERTS, FRUIT DRINKS AND BAKING**

**AIDS** (jelly, creams, cakes, milkshakes, ice cream, cream topping, mousse, orange drink, custard powder, baking powder etc) all in powder form in convenient packs for quick preparation.

601714 106 P L/S/J G

**AGRICULTURAL ENERGY SAVING**

**PROCESSES** for cultivating and harvesting

crops. Undercrust cultivator and energy saving technology of snow fence by means of wide catch units envisaging periodic cut of 7-10 rolls of 50-60 m long stripes alternating with untreated stripes at a proportion of 1:2 or 1:3.

601941 231 C L/J C

**MANUFACTURE AND CANNING OF**

**SOBRASADA** This company has created a

new technology for the manufacture of sobrasada with emphasis on: the possibility to manufacture in any part of the world; it allows the maturing of the product in 15 days; it allows the canning of the product; conservation in cans can be of more than one year; all the above means a big economical save in transportation and refrigerators.

602006 25 F J C

**PRODUCTION OF SUGAR SYRUP FROM**

**TAPIOCA AND SORGHUM** Development

of processing conditions for the production of sugar syrup from sorghum based on the extraction and hydrolysis of sorghum starch. Improvement of the raw material based for sugar syrup which the traditional raw material for is corn.

## OFFERS

## CATEGORY 6: FOOD PROCESSING

Ref. No. Org.No. Status Offer Source

602015 256 C J C  
**MANUFACTURE OF MOULDED ARTICLES** Setting up complete plant for manufacture of stretch blow moulded articles in pet, polycarbonate materials, like soft drink and beverage bottles, jars, baby feeding bottles, edible oil bottles etc.

602092 92 C L/J R  
**VITAL MESSAGE TEA** The tea produced by this technique and craft has both the special taste of various species of tea-leaves and a soft taste as natural mineral water. It is light and delicious, quenching in thirst. The product contains beneficial elements to human body. The apparatus can produce daily 250 kg the tea, needs an investment of US\$ 3,000. To establish a factory producing daily 10 tonnes of the tea, needs an investment of US\$ 200,000 (including the pouring equipment). Packing is in 500 ml bottle. Selling at the price of US\$ 0.625, the production cost is US\$ 0.3 per bottle.

602110 309 C L/J C  
**ACTIVE DRY YEAST PRODUCTION** The active dry yeast produced by this technology contains various nutrition its fermentation ability is 900-1200. Its activity of enzyme keeps 9-10 months. The price is US\$ 5,000 per tonne. The investment needed to set up a factory of 200 tonne per month is US\$ 5 million. The company prepares to share the key to technology with the purchaser in passing on engineering information providing training and building the factory. The technology is available for a fee of US\$ 200,000.

602228 165 F/C L/S C  
**PROTEIN ISOLATE FROM GROUNDNUT AND SOYBEANS** Isolated protein with low fat contents is superior to protein concentrates with respect to colour flavour and taste. Protein isolate can be used in the preparation of ready mixes, hydrolysate, textured protein preparation toning to milk, enriched bakery products.

Ref No. Org.No. Status Offer Source

701207 262  
**BISCUITS & BREAD.** Turnkey projects in the field of biscuits, bread, confectionery and allied food products. Also offering technical assistance and consultation in the field of food, packaging and any small scale industry.

701252 165 F/C L/S C  
**GARLIC POWDER** is used as a condiment in food preparations and the use of garlic powder is well established in European countries and in USA.

701462 3 W/F S G  
**ANIMAL FODDER** With specifications for different animals and ages. Fodders with high protein content are available. Produced as noodles of 12 or 6 mm diameters. Special additives can be added on request.

701538 58 C L C  
**CANE TRAILER** Equipped with opening mechanisms. Capacity: 8 ton, dead weight: 5.7 ton, max speed: 50 km/hr, dimension: 3.2x9 31x2.43 m, No of wheels: 6, wheel diameter: 1.2 m, material of construction: alloy steel and carbons teels, use: transportation of cane, beat.

701550 58 C L C  
**BLACK LIQUID FILTER** Capacity: 2000 L/ min, power: 105 kw, drum speed: 5 rpm, operating weight: 2350 kg, dimension: 2.1x1.9x1.95 m, material of construction: stainless steel, carbon steel.

## OFFERS

## CATEGORY 6: FOOD PROCESSING

Ref.No. Org.No. Status Offer Source

701562 63 C L/J R  
**CANS FOR FRESH PRESERVATION FOR BEER OR OTHER BEVERAGES** A technology for the production of cans which provide fresh preservation of the beverage. The product has 30-40 L volume of inner cans. The closed can consist of an inner can which is used to keep the beverage at the required temperature. A small steel bottle filled with dry ice is used as an additional cold resource. In China the production cost of one set is US\$ 45-55, selling US\$ 80.

701889 C L/J C

**GELATINE** Basic raw material for producing hard gellatine capsules. Used in the various projects for enhancing protein in food industry etc.

701621 97 C L C  
**NATURAL RED PIGMENT OF RED VINE SPINACH** This food additive is obtained from the ripe fruits of red vine spinach (basella rubra L) by physics methods. Its main ingredient is beet glucoside. The product is a sort of dry powder with a purple black colour. It has no abnormal taste and can be dissolved in water easily. The product can conform in the hygiene standard of the state.

701630 106 P L/S/J G  
**GROWING OF BERRIES** currants and mechanisation of harvesting. Cultivation of blackcurrants. High productivity and adaptability to mechanised harvesting of berries. Effectivity of late autumn cultivation of soil to preclude water erosion.

701778 127 C S C  
**MANUFACTURE OF SEED DRILLS** pneumatic precision seed drills, fertilizers and sprayers.

Ref.No. Org.No. Status Offer Source

702024 133 C L G  
**INDUSTRIAL STARCH PRODUCTION**

702104 303 C L/J C  
**A SERIES OF LYOPHILIZED PRODUCTS** Many of the biological materials (eg vegetables, the condiments, pharmaceutical materials and the edible fungi) are the articles difficult to transport and store because they contain a high percentage of water. This problem was solved by means of the lyophilizing technique. The lyophilized product can keep the original shape, colour, taste, smell and composition of the fresh item. An initial investment of US\$ 500,000 is required to set up a plant with a 100 tonne per annum capacity. This amount covers the cost of equipment and machinery, technical know-how, fees etc.

702107 306 C L/J C  
**A NEW TYPE OF NOODLES** which have better taste, higher nutrition, easier to cook than the old type noodles. The production cost of the new noodle is 90% of the old type of noodles. The cost of the technology transfer: US\$ 110 thousand, offers composition, technology, personnel, training, design and installation of the factory. US\$ 70 thousand, offers composition, technology and personnel training. US\$ 4.5 thousand, offers composition and the technology.

801001 37 F J R  
**NATURAL COCONUT JUICE** A processing method to produce a drinking product of natural coconut juice in good colour, better and sweeter taste with fresh pulp of the coconut as raw material. The coconut juice drink made with this method is an ideal nutritious drink.

## OFFERS

## CATEGORY 6: FOOD PROCESSING

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
801056	396	C	J	C	801565	65	F/C	S	C
<b>CONCENTRATED SOYBEAN PHOSPHOLIPID</b> the technique is process for soybean oil foods. The production could be used for emulsifier in food, medicine, light and textile industries.					<b>EQUIPMENT MANUFACTURERS FOR FRUIT AND VEGETABLE PROCESSING</b> consists of 14 members who manufacture machines for: grading and packaging of fresh fruit and vegetables, processing of fruit, vegetables and roots for juice, canning, freezing and dehydrating.				
801169	12				801617	93	C	L/J	R
<b>TROPICAL BEE-KEEPING</b> Information to all who need it.					<b>A TECHNOLOGY FOR PREVENTING AND CURING DISEASES OF WILD RICE STEMS</b> The wild rice stem, an aquatic vegetable, is a special product of China. Wuxi wild rice stem is famous for its good quality, high output in the whole country. During the last years, because of serious flax tache, the output and quality of the wild rice stem have been somewhat decreased. Having researched for many years, the Research Institute has mastered the synthetical technology to prevent and cure this disease.				
801187	106	P	L/S/J	G	801635	106	W	L/S/J	G
<b>PRODUCTION OF APPLES</b> Plant growing. Reduces pre-yield period of apple trees and increases harvest.					<b>HELIO DRIERS</b> Technology and means for drying vegetables and fruits using solar energy. Single line conveyor for helio driers with reverse operation, data for installation of the elements of helio driers, programmed process for helio drying with discrete ventilation.				
801249	165	F/C	L/S	C	801648	106	M	L/S/J	G
<b>ANNATTO DYE</b> finds its use in the dairy industry for the colouring of butter, cheese and margarine. It is also used in ice-creams, bakery products and edible oils.					<b>FISH PRODUCTS</b> Enlarging the assortment of culinary items on the basis of fish stuffing. Changes in the recipe of sausage stuffing, production of fish loaf wrapped in impregnated paper.				
801314	376	F	J	C					
<b>ORGANIC GEOTEXTILE</b> has been developed to promote growth and stability on steep slopes indeed those areas which could be affected by erosion and has the ability to enhance water filtration while protecting precious top soils.									
801559	60	C	L/J	C					
<b>NUTRITIOUS DAIRY SNACK</b> A small vitaminised cake, prepared from de-fat powdered milk, cane sugar, glucose and various vitamins. This piece form snack food is nutritional and convenient to eat. The transfer fee would be US\$ 25,000. The transfer items include technical know-how, feasibility study and engineering design.									

## OFFERS

## CATEGORY 6: FOOD PROCESSING

Ref.No. Org.No. Status Offer Source

801671 106 C L/S/J G  
**CONTINUOUS MACHINE TREATMENT OF SHEEP** Processes of zoo-veterinary treatment of sheep with the use of mechanisation means in the following sequence: separation of lambs, grading, veterinary treatment, hair trimming, fleece shearing, antiscabby bathing, formation of flock.

801680 106 W L/S/J G  
**CONSERVED FOOD FOR SEA MAMMALS** Recipes and technology of preparing formed sublimated food for sea mammals. Food for sea animals in emergency cases. Possibility of long term storage in non controlled medium.

802019 258 W L G  
**PRODUCTION OF CRYSTALLINE SUGAR** The equipment consists of a crusher, settling/clarification tank, crystalliser, centrifuge, boiling pan and dryer. The set can be run both on electric power and by diesel engines.

802223 165 F/C L/S C  
**ACIDO WHEY** Whey is a liquidous product separated from the solids in the process of preparation of cheese.

802284 251 C L/J C  
**PRODUCTION OF CANDY AND PASTILLES** We produce powder, liquid filling machines, labelling machines, bottle washing machines. Main use: food and medicine industry. Main advantages: quick and economical manufacturing, quality and service are also guaranteed.

Ref.No. Org.No. Status Offer Source

901334 387 F L C  
**CULTURE TECHNOLOGY FOR MULBERRY FIELDS** in beach with 100, 150, 200 kg cocoon output per mu (0.67 HA), suitable for popularisation in beach and mountainous area and are referred to sericultural area in plain. This culture technology is composed of 5 parts, that is, condition of mulberry plantation, mass structures of mulberry field, rational manuring technology and mulberry harvest and protection technology, containing 34 technologies, 381 technological datum and necessary silkworm rearing technology and equipment that ensure output in mulberry field per mu.

901388 396 C J G  
**TWO GENERATION HIGH FRUCTOSE SYRUP MADE DIRECTLY FROM CORN BY DRY MILLING METHOD** The production is divided into two parts: part one is to use corn direct milling to prepare the first generation glucose syrup; part two is to produce the second generation high fructose syrup through crystallisation and separation using the first generation glucose as raw materials.

901653 106 C L/S/J G  
**INTENSIVE CULTIVATION OF WINTER WHEAT** on irrigation in arid zones. Growing of winter wheats, high quality main and pre-sow cultivation of soil, more rational arrangement of plants along the field, fractional fertilisation with nitrogen fertiliser in calculated norms in combination with retardants, use of integrated system of fighting weeds, pests, diseases, utilisation of special technological set of machines.

901708 106 P L/S/J G  
**HIGHLY EFFECTIVE ANIMAL FOOD** mixes and combined fodder. Recipes of food mixes and combination fodder for sheep of various ages and sex.

## OFFERS

## CATEGORY 6: FOOD PROCESSING

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
901734	106	M	L/S/J	G	902059	283	U	S	G
<b>RAISING RAINBOW TROUT</b> Full process and normative base of mother flock, incubation of fish egg. Low wastes at all stages, large amount of growing material.					<b>MICROBIAL BETA-GALACTOSIDASA</b> Enzyme for lactose glycolysis in milk and milk products. Enzyme can be used in dairy confectionery, baking industry and for producing dietary low lactose containing products.				
901780	129	F	S/J	R/P	902095	297	C	L/J	R
<b>CASHEW APPLE/NELLIKAI - FOOD BEVERAGE</b> A process is developed for extraction of the juice, clarifying, filtering, flavouring and bottling the final product as aerated ready to serve drinks or syrup by addition of sugar, jaggery etc. The equipment will cost 45 lakhs of rupees for a small viable unit. The product is highly nutritious and is of high medicinal value. Alternatively cashew apple juice can be fermented into tasty wine.					<b>SOYBEAN PHOSPHOLIPID REFINING TECHNIQUE</b> by setting up a production workshop with a daily processing capacity of 3 tons hydrate of oil dregs, 15 tonnes of refining soybean phospholipid product can be produced each month. To produce 15 tonnes of refined soybean phospholipid per month needs an investment of US\$ 3 million for setting up the factory and US\$ 500,000 of circulating capital. Turnkey services would be provided and know-how may be shared with clients. Personnel training and factory building are also provided. The know-how, including feasibility research report and engineering design is available.				
901800	139	W	J	U	902225	165	F/C	L/S	C
<b>AUTOMATIC IRRIGATION SYSTEM</b> It can operate up to 16 outputs (solenoid valves). Low cost system with sensors and without humidity sensors.					<b>FRUIT BARS</b> are prepared from pulpy fruits such as mango, banana, guava and papaya which are abundantly available in the country.				
901964	232	C	L	C	902259	346	M	L/J	G
<b>MANUFACTURING TINY OIL MILL MACHINERY</b> consists of expeller, filter press, boiler, decorticator etc. All the machinery can be manufactured in a mechanical workshop. Scope for thousands of Tiny Oil Mills in every country. Provides edible oil to 5000 people. Simplest but most modern technology. Runs on 10 HP diesel engine/motor. 425 mills working in 13 countries.					<b>TRANSFORMATION AND CONSERVATION OF LOCAL VEGETABLES</b> Green leafy vegetables including C Oloriu and S nigrum, Amaranthus Gnetum, Veronia and cassava leaves have been processed into dried forms, as well an okra and hot pepper. Tomatoes and onions have been processed into flours. Their shelf life has improved several fold.				
902023	133	C	S	G					
<b>CEREAL GRAINS MANUFACTURING PLANT</b>									

**OFFERS****CATEGORY 6: FOOD PROCESSING**

Ref.No.	Org.No.	Status	Offer	Source
902261	346	M	L/J	G

**PROCESSING AND UTILISATION OF PLANTAINS AND TUBERS**

Plantains, yams, sweet potatoes and cocoyams have been processed into flours. Locally known products such as 'foufou' porriges, fritters and biscuits have been made from these flours. The flours obtained are of good quality with an energy content comparable to that of cereals.

902270	152	L	G
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**TECHNOLOGY OF INSTANT ERSATZ CORN**

Method of producing (instant corn coffee) using vegetables of high (carbohydrate) contents applying such procedures as (roasting) (extraction) (extract processing) and (spray drying).

Ref No.	Org.No.	Status	Offer	Source
			Dehydrated Vegetables	
			Fish Processing	
			Garlic Processing	
			Ginger Processing	
			Instant Noodle Making Plant	
			Mushroom Processing	
			Salt Refining	
			Soya Sauce Brewing Plant	
			Ice Cream Making Plant	
			Egg Trays of Different Sizes	
			Milk Pouch (bag)	
			Plastic Bottle Caps	
			Plastic Bottles	
			Cardboard Boxes	
			Tin Containers (up to 18.5 litres)	

The following Project Profiles are available from The National Small Industries Corporation Ltd (NSIC). For more details see the section entitled NSIC Project Profiles at the back of this catalogue.

Bread Cutter (stainless steel)

Cigarette Lighters

Dairy Cans

Meat & Food Safes (metallic)

Metallic Watch Straps (stainless steel)

Rice & Dal Mill Machinery Manufacturing

Banana Processing

Bread & Biscuit Plant

Candy Making

Canning of Meat & Allied Products

Canning of Potatoes

Cashew Nut Shell Liquid (CNSL) Oil

Cheese Making Unit

De-hydration of Fruits & Vegetables



**REQUESTS CATEGORY I: CHEMICAL ENGINEERING**

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
1309	285	C	L	C	1874	182	C/F	S	C
<p><b>TEXTILE FINISHING</b> and processing chemicals.</p>					<p><b>AMMONIUM PHOSPHATE FERTILIZER</b> production. Both methods of production, ie wet process and dry process to be considered. Ammonia and phosphoric acid which are the main raw materials are manufactured locally.</p>				
1584	80		J	C	1875	182	C/F	S	C
<p><b>PRODUCING SPRAY DRIED PRECIPITATED SILICA</b> in powder, granule and pellet form and of varying the physical and chemical properties as per customer specifications.</p>					<p><b>PRODUCTION OF SYNTHETIC RUBBERS</b> The main types manufactured being polybutadiene, polystyrene butadiene and nitrile rubber. Preferably fabrication of the production equipment to be done in Zimbabwe.</p>				
1823	151				2036	28	C	L	P
<p><b>TABLETING CAPSULATING AND INTRAVENOUS INFUSIONS</b> In tableting, we would be in need of powdered form. As regards capsules, machinery and raw materials are equally requested. For pharmaceutical use.</p>					<p><b>MANUFACTURE OF PARADICHLORO BENZENE</b> as insecticide, deoderants made of paradichlobenzene, automatic toilet bowl cleaner, naphthalene as insecticide, commerce of ortho di chlorobenzene, methyl naphthalene beta methyl naphthalene.</p>				
1840	166	C	L/J	C	101172	28	C	L/J	P
<p><b>MEDICAL AND HEALTHCARE PRODUCTS FROM PLANTS AND ROOTS</b> Technology, plant and equipment to process locally available plants and roots and the production of medical and healthcare products. Plant to be capable of carrying out different operations ie grinding, separation, sterilisation and packaging.</p>					<p><b>PRODUCTION OF SOYBEAN PRODUCTS</b> Technical know-how, plant and machinery.</p>				
1856	174	C	L/J	C	101302	165	C	L	C
<p><b>CEMENT PRODUCTION</b> Minicement, lime and lime mortar production plant (150 or 300 tonnes per day cement).</p>					<p><b>COPY MACHINE TONER</b></p>				
1859	174	C	L/J	C	101311	374	C	S	C
<p><b>MANUFACTURE OF CEMENT-ORGANIC PANELS</b> (cement bonded particle board from agricultural residues, forest waste and binding agent).</p>					<p><b>PLATE HEAT EXCHANGER</b> Design and supply of drawings along with the supply of plates of different sizes so that the heat exchanger may be manufactured/assembled in India.</p>				
1873	182	C/F	S	C	101336	384	F	J	P
<p><b>PRODUCTION OF VINYL CHLORIDE</b> which is a basic raw material for the manufacture of PVC (poly vinyl chloride).</p>					<p><b>HIGH ALUMINA REFRACTORY</b> for industrial application up to 900 degrees C such as mullite and recrystallised alumina tubes, element holding bricks and tubes, muffles round and rectangular insulating beads 1, 2 and 4 holes, alumina guides, bobbins and products for specific applications.</p>				

**REQUESTS CATEGORY 1: CHEMICAL ENGINEERING**

Ref.No.	Org.No.	Status	Offer	Source	Ref.No.	Org.No.	Status	Offer	Source
101826	158	C	J	C	101848	169	C	L/J	C
<p><b>EXTRACTION OF ESSENTIAL OILS</b> for use in fragrance industry. Infrastructure available. Joint venture partner is required.</p>					<p><b>CAUSTIC SODA USING LIME PROJECT</b> Commercialised process for the production of caustic soda from soda ash and lime. Capacity of plant is 180 000 tonnes per annum. Price quotation for whole plant from raw materials handling and treatment to product handling and storage.</p>				
101832	164	C		C	101849	169	C	L/J	C
<p><b>INDUSTRIAL STARCH</b> Plant and process know-how to produce industrial starch.</p>					<p><b>HYDROGEN PEROXIDE</b> Process, plant and equipment for the production of hydrogen peroxide. The peroxide is to be used in paper, textile, etc industries.</p>				
101837	166	C	L/J	C	101853	172	C	L/J	C
<p><b>ESSENTIAL AND VOLATILE OILS</b> distilling and refining (oils obtained from various plants and are used in production of soap, perfume, foodstuffs and several other products).</p>					<p><b>MANUFACTURE OF MINERAL WOOL</b> from rock and glass fibre (this is used extensively in the building, automotive and other industries for thermo-acoustic insulation).</p>				
101838	166	C	L/J	C	101871	182	C/F	S	C
<p><b>DIESEL FUEL</b> Biochemical process for the production of diesel fuel from methanol and soya bean oil.</p>					<p><b>MANUFACTURE OF CHLORINE GAS</b> Offer to include various methods of manufacture. Latest technology in this field will be acceptable because of low production cost.</p>				
101841	166	C	L/J	C	101872	182	C/F	S	C
<p><b>SUGAR AND SUGAR-BASED PETROCHEMICALS AND POLYMERS</b> Process, plant and equipment to produce 82 million litres per annum ethanol from sugar juice and 49 000 tonnes per annum raw sugar. Price quotation required for whole plant from cane handling to products handling. Price to include bagasse handling and effluent treatment plant.</p>					<p><b>PRODUCTION OF PVC</b> (poly vinyl chloride) also prepared to consider an offer of a second-hand plant.</p>				
101847	169	C	L/J	C	101876	182	C/F	S	C
<p><b>ACTIVATED CARBON PROJECT</b> Process for the production of activated carbon for gold purification from coal or coconut or any carbonaceous raw material. Plant capacity is 2 000 tonnes per annum. Price quotation required for whole plant from raw materials handling to product handling.</p>					<p><b>MANUFACTURING BUTADIENE</b> from either butane or ethanol. Ethanol is a product of Hipp &amp; Valley Estates. Butadiene is one of the basic raw materials in the manufacture of synthetic rubber.</p>				

**REQUESTS CATEGORY 1: CHEMICAL ENGINEERING**

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
101891	196	W	J	C	201971	238	U/F/C	L/J	C/P
<b>PHARMACEUTICAL MANUFACTURE</b> Secondary pharmaceutical manufacture seeks joint venture partners with know-how, technical, managerial and financial assistance in construction of plant and manufacture of bulk drugs such as ampicillin, amoxycillin cephalosporins and trimethoprim.					<b>FOOD PROCESSING</b> Dairy, spices, beverage.				
101894	199	W	L/J		301193	182	C/F	S	C
<b>DECORATIVE LAMINATES</b> Technology and equipment to manufacture formica sheets, including paper impregnation, impregnating resins, melamine surfacing.					<b>PRODUCTION OF ACETYLENE GAS</b> from calcium carbide and water. Quality of gas produced to be of pharmaceutical grade ie to exclude impurities such as hydrogen sulphides, phosphanes, ammonia etc. Preferably the process to be a wet process.				
101981	246		J	C	301202	235	C	J	C
<b>PHARMACEUTICALS</b> We are looking for an industrial joint venture project in India starting with seed marketing and its production in the 2nd phase in the areas of pharmaceuticals, agrobiotechnology, chemicals etc. We are also interested in setting up export oriented projects in the areas of food processing, textiles and other products of interest.					<b>CALCIUM SILICON ALLOY</b> (Ca-30-35%, Si 60-65%) in lump and powder form. The alloy is used for deoxidation and inclusion modification in steel manufacturing process. Manufacturing technology for production of approximately 2000 MT/yr.				
102281	154	C	L/J	C	301925	218			C
<b>N542 SILICON DIOXIDE FROM RICE HUSKS</b> A method of producing pure silicon dioxide from impure raw materials, including rice husks has been devised.					<b>UNSATURATED POLYESTER RESIN</b> gelcoat, FRP pigments. Unsaturated polyester resin, gelcoats and unsaturated polyester resin, gelcoats and colour pigment for fibreglass reinforced plastic moulding. For storage tank, sheets, pipes, boats, domes canopy, planters, water treatment plant.				
201470	9	W	L	C	302276	153	F		C
<b>TITANIUM - MICA LUSTROUS PEARL (NACREOUS) PIGMENTS</b> Technology required to coat titanium dioxide on mica particles to produce above pigments in various colours using titanium chloride/titanium hydroxide sludge as raw materials with an initial capacity of 100 kg/8 hrs/day.					<b>BRINE ELECTROLYSIS PLANT</b> Equipment for the production of sodium hypochloride from sodium chloride (salt) of 10% solution. Output of 3500 litres/day. The equipment shall be of a modular construction permitting expansion. The package shall also include filling machine in 1 litre plastic bottles.				
201495	28	C	J	P	401256	369	C	L/J	
<b>METHOD TO MANUFACTURE SYNTHETIC PYRETHROIDS</b> Plant machinery, technical know-how.					<b>POLYMERISATION OF ACRYLIC ACID</b> Acrylic acid copolymers for scale/deposit inhibitors in boilers and water cooling systems to prevent the precipitation of zinc in the cooling system.				

**REQUESTS CATEGORY 1: CHEMICAL ENGINEERING**

Ref.No.	Org.No.	Status	Offer	Source	Ref.No.	Org.No.	Status	Offer	Source
401306	165	C	L	C	602038	269		L	C
<b>POLYIMIDE 66</b>					<b>MANUFACTURE OF ACRYLAMIDES AND POLYACRYLAMIDES</b> Process to manufacture acrylamides and polyacrylamide. Consultant for vanadium based catalysts manufacture.				
401308	285	C	L	C	602060	285	P/F/C	L/S/J	C
<b>BASIC INDUSTRIAL CHEMICALS</b> like Yellow Phosphorus, Potassium Chlorate for match industry.					<b>PETROCHEMICALS AND INSECTICIDE AND PESTICIDES</b> Interested mainly in acquiring technology for the process chemical industry including heavy and fine chemicals, electrochemicals.				
402061	286				602264	344			
<b>DISTILLATION OF COAL TAR</b> required for the production of pitch and industrial oils such as resins. Know-how, training and techno-economic data requested for a commercialised process.					<b>MANUFACTURE OF GRAPE GUARD PAPER</b> and biotechnology products in the field of agriculture, Veterinary and fisheries.				
501310	285	C	L	C	602282	154			
<b>INTEGRATED PEST MANAGEMENT</b>					<b>BIOTECHNOLOGY BASED PRODUCTS</b> such as citric acid, alcohol from corn syrup, high fructose syrup from sugar cane, itaconic acid, xanthan gum etc.				
601768	117		J	C	701496	28	C	L/J	P
<b>SILICAT ZIRCON TECHNOLOGY</b> Joint venture sought for the manufacture of silicat zircon. A feasibility study has been prepared for the expansion/modernisation of the existing project. It is used in the glaze industry, frit industry, zircon fire-brick. Local investment capacity: US\$ 200.000.					<b>TECHNICAL GRADE PESTICIDES</b> Technical know-how to manufacture carbofuran, dichlorves, propoxur, penthion, methyl parathion, fenitrothion, dicofol, diuron, butachlor, alpha naphthyl acetic acid (ANA), monocrotophos, oxy dementon methyl, fenvalerate, cypermethrin, alachlorgibberelic acid, aldrin. All technical grade pesticides.				
601786	130	C	J	C	701975	242	P	J	C
<b>FORMULATION PLANT</b> for synthetic pyrethroids.					<b>FOOD PROCESSING</b> Vegetables, fruits - fresh or preserved with process of dehydration, freezing or drying etc.				
601967	236	C	J	C	702055	279	F	S	C
<b>WATER IN OIL EMULSIFICATION FOR OIL CONSERVATION AND POLLUTION CONTROL</b> Technology to make oil/water emulsion to save 3-8% of heavy fuel oil in boilers/furnaces and to control pollution. Process involves a special emulsification machine and chemical catalyst, making off line, permanent emulsion.					<b>FACTORY FOR PRODUCTION OF FILTERS</b> for engine oil and gasoil				

**REQUESTS CATEGORY 1: CHEMICAL ENGINEERING**

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
801494	28	C	L/J	P					
<p><b>METHOD TO MANUFACTURE ALLETHRIN</b> Development of processing conditions, plant and machinery, raw material, technical know-how. Installed capacity 1000 MT/annum.</p>									
801787	131	C	S	C					
<p><b>LIQUID PESTICIDE FORMULATION PLANT</b> We can give technical know-how on turnkey basis for pesticide formulation plant, liquids, wetting powders, granules and dusting powders, NPK granulated fertilizer plant, zinc phosphite plant and technical grade pesticides. Monocrotophos, DDVP, phosphamidon, phorate, cypermethrin, fenvalerate, quinalphos, chlorpyriphos, dimethoate, 2,4-D sodium salt. Used for plant protection, municipality and household purpose.</p>									
901195	218			C					
<p><b>FIBREGLASS SHEET MOULDING COMPOUND (SMC)</b> Bulk moulding compound (BMC), sheeting moulding compound and bulk moulding compound. Technique to manufacture two side finished panel, sandwiched structure. For insulation, switchgears, boxes, covers, parts for automobile, door frame.</p>									
901307	285	C	L	C					
<p><b>LEATHER TANNING CHEMICALS</b></p>									
901937	135	C	L/S	G					
<p><b>PLASTIC INTRA-VENOUS BAG</b> Development and production of a plastic bag, with a cap, for the packaging of intra-venous medical preparation in 500 ml units.</p>									
902032	263	C	L/J						
<p><b>BULK DRUGS AND CHEMICALS</b> with export potential.</p>									

**REQUESTS**

**CATEGORY 2: LIGHT INDUSTRY**

**Ref.No. Org.No. Status Offer Source**

1203 241 J P

**MANUFACTURE OF HOSES** 1. Technology to manufacture hydraulic high pressure hoses to SAE J157 June '81 standard and hydraulic hose fittings to SAE J516 Mar '81 standard. 2. Technology to manufacture stainless steel flexible bellow type hoses and hose end fittings. 3. Technology to manufacture PTFE (Teflon) hoses and hose assemblies.

1813 145

**STEEL SHEET GALVANISATION** Steel surface protection with zinc metal as provision against corrosion for roofing sheets and packaging industries. Piece rate galvanising, coil to coil galvanising.

1825 157 C J C

**LEATHER PROCESSING** Equipment/plant to process leather into 1.2 million sq ft wet blue leather for export and 0.4 sq ft finished leather for the local market per annum.

1839 166 C L/J C

**MANUFACTURE OF COTTON YARN AND FABRIC** State of the art technology and plant and equipment to manufacture high quality cotton yarn and fabric for export. Plant to be capable of handling production of lace.

1845 168 C L/J C

**SPRING PRODUCTION** Manufacture of small and large coil springs for applications in motor vehicles, agricultural machinery and throughout industry.

1857 174 C L/J C

**LIGHTWEIGHT CELLULAR CONCRETE** Manufacture of blocks and panels used in the building industry for both outside walls and partitions.

**Ref.No. Org.No. Status Offer Source**

1858 174 C L/J C

**MANUFACTURE OF SAND-LIME BRICKS** used as structural or non load bearing material.

1865 178 C L C

**ROAD TRANSPORT DESIGN** Method and design details of all road transport trailers etc and fuel road tankers - updated technology for trailer design and materials involved.

1870 181 C S C

**JEWELLERS WORKSHOP** requisites. Casting equipment. Tools and accessories.

1878 183 C J C

**EXHAUST MANUFACTURE** Development of a non-manual exhaust manufacturing process which is not labour intensive but requiring reasonable capital investments - versatile pipe bending procedures for exhaust modification.

1879 184 P S C

**TOOL DESIGN AND MANUFACTURE** Able to design tools, including moulding tools, from initial design concept through to finished product. Fully qualified design teams and toolmakers ensure optimum product and delivery performance.

1954 231 C L/J

**PRODUCTS IN THE TEXTILE FIELD** This dynamic company wants to diversify its activities in the textile field: Treatment and commercialisation of new materials for the garment sector (microfibre); Commercialisation of chemical products related to textile sector (additives, stain remover) especially ecologically advantageous products; Commercialisation of new products, systems and technologies within the garment field; Collaboration agreements to widen its present range of technologies to offer best service to its clients (printing); Subcontracting agreement to dye and finish garment fabrics.

**REQUESTS**

**CATEGORY 2: LIGHT INDUSTRY**

**Ref.No. Org.No. Statl Offer Source**

1973 239 F L/J C  
**MANUFACTURING OF PRECAST CONCRETE PRODUCTS** Pipes, poles, prefab building elements.

2045 272  
**COTTON LINTER PULP PLANT** 3000 t/yr (RM - raw cotton linters).

2063 286  
**NI/CR CAST IRON** Know-how requested in the field of heat treatment of chromium and nickel chromium alloy cast iron.

2081 291 C L C  
**FINAL PROCESSING OF GEAR-WHEELS** produce small lots of medium size gear-wheels for the motor reducers for fork-lift trucks. Modern technology sought.

101257 366 C J  
**CNC MACHINES/GENERAL-VARIOUS DIFFERENT PARTS OF MACHINES** A factory with more than 90 machines, we manufacture air chambers, palm couplings, several kinds of valves and various spare parts for commercial vehicles/buses/trucks etc. We need to use the latest technology for our manufacturing department to improve the overall efficiency.

101811 144  
**OPEN MINING MACHINERY** Bulldozers, excavators, water pumping machines, compressors.

101822 150  
**FLOAT GLASS PRODUCTION** For building automobile and allied industries for patterned, bronze and safety glass production.

**Ref.No. Org.No. Status Offer Source**

101831 163 U J C  
**MILL EQUIPMENT INSTALLATION (LARGE SCALE)** Fabrication of stainless steel tanks and vessels boilers, steam and product pipework. Silo installation and general machine installation.

101836 166 C L/J C  
**MANUFACTURE OF RIGID BUILDING PANELS** with a wide range of applications (ie pre-fabricated housing, schools, clinics, furniture, roofing, factory linings etc). Basic raw materials should be straw/stalks of wheat, maize etc or wild grass (70% value), recycled paper liner (20%) and (UF resin 10%).

101842 167 C L/J C  
**SPECIAL STEELS PROJECT** Process, plant and equipment required for production of special steels to include 316, 304 and 430 stainless steels and carbon steels. Plant to produce 90 000 tonnes of steel per annum.

101843 167 C L/J C  
**MOULDING AND FORGE PROJECT** Forging equipment to produce railway axles, high alloy billets, heavy and engineering spares, automotive spares, dies for plastic and rubber industries. Moulding machinery capable of producing various moulds to handle 131 tonnes of molten metal per day.

101844 167 C L/J C  
**SHEETING PRODUCTION** Manufacture of standard corrugated or trapezoidal sheeting used for roofing and building walls (production semi-automatically controlled).

101846 168 C L/J C  
**VEHICLE COMPONENT PRODUCTION** Flexible manufacturing of vehicle components and parts/production of various/several components and parts in one manufacturing plant.

**REQUESTS**

**CATEGORY 2: LIGHT INDUSTRY**

**Ref.No. Org.No. Status Offer Source**

101854 172 C L/J C  
**MANUFACTURE OF GLASS MOSAIC TILES** for interior and exterior applications in the building industry where decorative and protective finish are required.

101855 173 C L/J C  
**PROCESSING OF BLACK GRANITE** to produce tiles, slabs, tombstones and other building and construction materials.

101866 179 F C U  
**METHOD OF BONDING ALUMINIUM** heat transfer plate to the base of stainless steel houseware (pans) using molten aluminium.

101892 197 C L/J C  
**ENERGY CONSERVATION** systems/ devices, setting up of a model energy service company.

101893 198  
**PRODUCTION OF BUILDING MATERIALS** The process will have to make use of industrial waste, especially cellulose production waste - saw-dust, tree barks etc. For production of building and landscaping elements. Utilisation of cellulose production waste.

101953 231 C L/J  
**PRODUCTS FOR THE PETROCHEMICAL INDUSTRY** Company are searching for new technologies to harden austenitic stainless steel (of 316 degrees) and any other materials which could be substituted for the stainless steel with better performance. They also want to profit from their commercial network, and they would like to manufacture and/or commercialise new products or systems within instrument installations in the chemical and petrochemical industry (valves, adapters, filters, joints).

**Ref No. Org.No. Status Offer Source**

102236 207 C J  
**PAINT AND VARNISH** Required process: to produce paint and varnish - an integrated factory. Proposed standard capacity: 5000 tons/year.

102247 355 C J  
**TRANSPORTATION FOR CKD IMPORT** of washing machines, dishwashers, refrigerators and their transportation in Kenya.

201329 382 C L C  
**AIR BUBBLE POLYTHENE SHEETS MANUFACTURE** Know-how, details, requested by polythene sheet and bag manufacturer.

202062 286  
**ROUGH CASTINGS** Joint venture partner sought for production of up to 8,000 T per annum for domestic use. Co-operation sought for: equity participation, technical know-how and expertise and equipment supply.

202080 291 C L C  
**AUTOMATIC WELDING** of low and medium carbon steels to improve safety.

301322 378 C J C  
**SMALL PAPER MAKING PLANT** using recycled paper and rice straw or sugar cane waste as raw material.

301475 14 F L C  
**MOBILE BRICK PLANT** Hydraulic and automatic, mounted on wheels and towed away to construction site to produce soil-cement bricks of compressive strength over 80 kg/sq cm. Four unskilled workers can operate and run plant to produce 2400 bricks in 8 hours. Compaction pressure 15 tonne/sq cm and 30 tonne/sq cm depending upon material being pressed. Power source either diesel engine or electric motor mounted self contained.



**REQUESTS**

**CATEGORY 2: LIGHT INDUSTRY**

**Ref.No. Org.No. Status Offer Source**

301774 122  
**LOST FOAM PROCESS** Production of polyurethane models of the parts to be cast. Complete equipment will be installed to the foundry. Moulding equipment is also included. For moulding of cast pieces of automotive industry.

302044 272  
**METHYL AND HYDROXY ETHYL/PROPYL CELLULOSE** 3000 t/year.

302231 366 C J  
**AIR BRAKE EQUIPMENT** High quality/sufficient delivery/just in time manufacturing department has to be ready for all requests and all orders. Production level required: at least 70,000 pcs in a year has to be manufactured at our factory in Turkey.

302240 361 C J  
**SUPPLYING NEW AND MODERN MACHINES AND EQUIPMENT** The above mentioned equipment and machines will be for the production of metallised polypropylene capacitors. They are used to increase production capacity and by way of this decrease the cost.

302285 363 C L/J  
**SPLIT AIR CONDITIONERS** Main components should include compressor, control unit, outdoor unit propeller fan, sirocco fan assembly procured from abroad, local production of certain parts, local assembling all parts. Gas charge locally.

**Ref.No. Org.No. Status Offer Source**

401005 117 J C  
**WRAPPING GLASS TECHNOLOGY** Joint venture sought for the manufacture of wrapping glass. A feasibility study has been prepared for the expansion/modernisation of the existing project. This factory has a production capacity of 8000T/year. The products are exported to Russia, Germany, Rumania, Bulgaria. Product: soft drinking bottle, wine bottle, mineral water bottle. Planned capacity/output: 8000T/year. Local investment capacity: US\$ 1,000,000.

401208 273 U L  
**METAL AND SHEET FABRICATION** for wire and steel products and for small machined for sheet work.

401298 165 C L C  
**POWDER COATING COMPOUND**

401315 377 C L/J C  
**CIGARETTE MANUFACTURE** complex plant for manufacture and packaging.

401317 377 C L/J C  
**PLANT FOR TIN COATING**

501013 280 C L/J  
**MANUFACTURE OF AUTOMATIVE ALUMINIUM DIECAST PRODUCTS** Cost = 15 million US\$, foreign part to be financed. 35 million Z\$ including land and buildings produced by local sources. Export possibilities more or less received.

**REQUESTS****CATEGORY 2: LIGHT INDUSTRY**

Ref.No.	Org.No.	Status	Offer	Source
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501958	231	C	L/J	
<b>TOOLS AND MACHINE ACCESSORIES</b> that are sold to painters and powder paints to cover plastics which have added value, such as airless system painting machines, compressors, air and aerographic pistols, auxiliary paint tanks, electric agitators, glass paper polishers, drip sponges etc. Tools for painters, large and small brushes, spatulas etc. Paint to cover plastics. Powder paints. Paints with added value (flame retardant, anti-damp etc). New developments within the paint sector for the protection of wood, restoration of buildings etc.				

501968	236	C	L/J	C/F/G
<b>ENERGY CONSERVATION</b> Any relevant technology in the field of energy which will be suitable to a country like India.				

502043	271	C	L/J	
Application of modern control systems to process plants and discrete manufacturing operations. Design develop sophisticated control schemes for industrial applications. Engineering polymers application. Fired heater design.				

502065	286			
<b>CAST IRON</b> Know-how requested in production technology for FGS-60-90 cast iron.				

502079	291	C	L	C
<b>HYDRAULIC CYLINDERS - PISTON AND PLUNGER</b> manufacture for fork-lift trucks.				

Ref.No.	Org.No.	Status	Offer	Source
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601201	231	C	L/J	
<b>PAINTS AND COATINGS</b> This company wants to begin an expansion of its present range of products with new kinds of paints and coatings especially: With different compositions: water based, powder coatings, natural solvents and raw materials (without environmental problems), paints with high solids content. With special performances: fire-resistant paint, fire retardant paints, rustproofing paint, paints with special effects (antigraffiti, insecticide, ultraviolet). To coat steel and plastic (especially polyethylene, polypropylene and new plastics).				

601337	390	U	L/S	C
<b>10 TPD SODA ASH PLANT</b> grass root technology.				

601949	231	C	L/J	C
<b>PRODUCTS AND COVERINGS FOR DECORATION</b> New and innovative panels for both interior and exterior decoration (imitation, stone, bricks, paper, plastic). New applications based on plastic materials (resins, polyester) for decoration (such as columns, false fire screens or other materials). Decorative systems made with cement-fibre (artificial stones, fountains). Innovative decorative products. Systems that approach old decorative problems with innovative solutions (lights without wires, new locking systems).				

602047	272			
<b>MICRO CRYSTALLINE CELLULOSE POWDER</b> 3000 t/year.				

602051	277	P	J	C
<b>EXTRUDED BRASS, BRONZE AND COPPER RODS,</b> sections etc. Copper and brass sheet production. Joint venture to be tied up with international marketing.				

**REQUESTS****CATEGORY 2: LIGHT INDUSTRY**

Ref.No. Org.No. Status Offer Source

602244 358 C J  
**MACHINE PRODUCE** CNC rectifying machine.

701330 383 J C  
**HOTEL INDUSTRY, HOSPITAL AND MEDICAL EQUIPMENT** Public Limited Company interested in diversification in the hotel industry and hospital and medical equipment and medical requirements industry. Any technology relating to the above or suitable for South India can be considered.

701471 10 F/C L/S/J C/P  
**MANUFACTURERS OF RUBBER AND PLASTIC PARTS AND COMPONENTS**

701957 231 C L/J  
**TECHNICAL FABRICS** for geological safety, health, agriculture, construction etc. Fabrics with detailed technical characteristics: flame retardant, fireproof, thermal textiles, high-resistance against physical exertion, resistant to chemical attack. Sanitary fabrics such as bights, bedspreads, plastic and antibacterial mattress covers, shaggy fabrics for geriatric use etc. Fabrics for agriculture such as hailstorm protectors, for silos, for water storage systems etc. Geological fabrics such as those for consolidation: of bankings, of the subsoil, for sub-aquatic work.

701966 234 U L/J C  
**BUS/TRUCK TYRE MANUFACTURING PLANT** in the Chittagong export processing zone, Bangladesh, under joint venture with foreign private investment, with the transfer of the newest technology from a multinational tyre manufacturer. Multinational tyre manufacturers are requested to send their complete offer with process manuals etc.

Ref.No. Org.No. Status Offer Source

702010 254 L/S/J P  
**SPINDLES - MOTORS** 1. High frequency motorised grinding spindles + milling + boring spindles. 2. Stepper motors and FHP permanent magnet DC motors (ie less than 1 km rating).

702275 153 U C  
**NAIL MANUFACTURING PLANT** End products: roofing nails sizes (2.5 x 60 - 3.1 x 80 mm) 200 tons/year, ordinary nails (1.6 x 30 - 2.2 x 50 (mm x 100 tons/year, ordinary nails (2.5 x 60 - 3.8 x 1000) mm - 200 tons/year. Equipment for wire drawing, descaling, nail making, head forming, polishing and metalising are sought.

801258 206 C  
**PRODUCTION AND QUALITY CONTROL** of high strength nodular iron crank shafts used in automotive industry. Tensile strength 900 N/mm sq and minimum elongation 5%.

801305 165 C L C  
**CNC LATHE**

801902 204  
**EXTRUSION PLANT** 1) aluminium profile extrusion plant complete with anodising or oxidation unit with melting furnace right up to finishing and packing stage. 2) raw material for aluminium longspan roofing sheets aluminium profile for doors and windows. As a result of the great demand on our product our stock of material exhaust is less than in time. And as one of the biggest industrial set up in the North, it is desirous we establish an extrusion plant.

**REQUESTS****CATEGORY 2: LIGHT INDUSTRY****Ref.No. Org.No. Status Offer Source**

801974 240 F L/J C  
**ELECTRONIC PRODUCTS** in the following areas: 1) Telecommunication and data communication test equipment. 2) Medical electronic products. 3) Child development aids/ interactive teaching aids. We would like to work in a joint venture or under licence or even with a design and drawings transfer. We are open for any arrangement.

802037 268 C J C  
**POLYPROPYLENE ROPES** Required know-how for establishing project for PP/HDPE ropes in India for 3 strand (hawser laid) and 8 strand (braided) ropes - EOU. With overseas partner with/without financial participation. Marketing tie up and imports of equipment only where necessary, marketing tie up compulsory. Also know-how for metallic dyes wanted.

802046 272  
**CELLULOSE POWDER FOR PLASTICS** other industries - 6000 t/year.

802064 286  
**CASTINGS** Know-how sought for meehanite cast iron production technology.

901316 377 C L/J C  
**GALVANISED COLD-ROLLED (CR AND HOT-ROLLED (HR) COILS** galvanising being by electrolytic process.

**Ref.No. Org.No. Status Offer Source**

901955 231 C L/J  
**MATERIALS FOR PETROL PIPES** in the automobile sector. New rubber (caoutchouc) formulations, especially the ones applicable to petrol pipes. New materials (technical plastics, synthetic elastomers) and solutions (cloth to reinforce pipes) in order to improve the benefits of the petrol pipes. Adapters and quick connectors to facilitate the assembly of the pipes within the car (which can substitute the clamps presently used). New systems related to the fluid conduction (water, air, petrol, brake liquid) within the car.

902014 255  
**MANUFACTURING PLANTS** 1. Plant to manufacture bricks. 2. Plant to manufacture sanitary wares.

902086 293 F L/J C  
**MANUFACTURE OF CONSTRUCTION MATERIALS** seeks business co-operation for the production and marketing of glue laminated structural woods for rural buildings.

**REQUESTS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES**

Ref. No. Org.No. Status Offer Source  
 1296 165 C L C  
**HEAT SHRINKABLE TUBE COMPOUND**

1868 180 F L C  
**ELECTRONIC EQUIPMENT** of all kinds including electronic PABX systems telephone equipment, communications radios, computers. Offshore manufacture of your products from supplied kits of parts, at very competitive rates.

2243 359 C L  
**AUTOMOTIVE ELECTRONIC PRODUCTS** Proposed product process required involves the production of SMD and thick film circuits to be used in the automotive electronic industry.

101852 171 M S C  
**INFORMATION AND TECHNOLOGY OF METROLOGY**

101897 202 F S C  
**AIRBREAK CONTACTORS** 16 amp to 400 amp 440V 3PH 50c/s AC block type AC3/AC4 category, having special unique features ideal for switching various types of loads in industry, power station, mines etc and building motor starters and control panels.

101898 202 F S C  
**AIRBREAK AND VACUUM CONTACTORS** 6.6 Kv 250 amps 3 PH 50 c/s airbreak and vacuum contactors and systems ideally suitable for all types of industrial motor control and applications.

101899 202 F S C  
**MOTOR STARTERS** 3 PH 440V 50 c/s AC both manual and automatic suitable for squirrel cage/slipping induction motors up to 400 HP suitable for all industrial applications. Robust, reliable design having unique features and offering trouble free operation.

Ref No. Org.No. Status Offer Source  
 101980 245 F L C  
**MACHINES** Personal computers, plain paper copiers, facsimile, calculators, cash registers.

202238 362 C J  
**FIBER OPTIC CABLE** Telephone cables for use in telecommunications.

301006 126 J C  
**SOLAR ENERGY** for household and office use. To power the lighting etc.

301766 117 J C  
**SATELLITE TRANSRECEIVERS** To satisfy the demands of national TV program coverage in the promotion of dissemination and communication. Local investment capacity 12,000 US\$. Firstly, this project serve the CKD component national demands and then its product export will be expected in the future.

401473 13 P/F/C L/J  
**COMPUTER SOFTWARE - UNIX** for workstations. Data capture services for healthcare, insurance etc. Electro optical devices - optocouplers, optoswitches etc.

402048 274 F L/J C  
**MANUFACTURE OF OPTICAL FIBRE FOR TELECOMMUNICATION** Looking for joint venture partner. Transfer of technology.

501301 165 C L C  
**MULTILAYER TECHNOLOGY FOR PRINTED CIRCUITS**

**REQUESTS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES**

**Ref. No. Org.No. Status Offer Source**

501950 231 C L/J  
**TV OR RADIO INTERACTIVE SYSTEMS**  
 in any of their possibilities: broadcasted, cabled TV. New technologies and diffusion, treatment and codification systems of TV signals, transmitters, receivers, codifiers, decodifiers. Systems of information or assistance that offer services at home from an information central: centrals of alarm, security systems elaborated for old people, disease diagnostic, centrals of products acquisition, general information (weather, transit, economy). Systems and electrical machines (non appliances) that can be sold to individual homes.

601464 5  
**AUTOMATIC WINDING MACHINE**  
 capable of winding metallised polypropylene film capacitors, with element diameter from 20 mm up to 63 mm with high productivity.

701255 370 C L/J  
**ASSEMBLY OF AN ELECTRONIC BALANCE MACHINE** and manufacture of lathe and hydraulic press. The machine balances the rotor of an electric motor.

701297 165 C L C  
**EPOXY MOULDING COMPOUND** for IC encapsulation.

701303 165 C L C  
**PTC HEATERS (POSITIVE THERMAL CO-EFFICIENT)**

**Ref No. Org.No. Status Offer Source**

701769 117 J C  
**ASSEMBLY LINES FOR DIGITAL TELEPHONE** Joint venture sought for the manufacture of telephone as part of our expansion/modernisation programme. The products are sold in the domestic market as well as in countries in East and South of Asia. Popular digital telephone with CCITT standard. Planned capacity/output: 30,000 sets/year. Local investment capacity: US\$ 100,000.

801956 231 C L/J  
**INFORMATION TECHNOLOGY AND TELECOMMUNICATIONS** Looking for companies in information technology, telecommunications, electronics and service sectors who are interested in developing themselves in the Spanish market in the following ways. Companies with which to establish distribution/representation agreements; creation of joint ventures, the acquisition of Spanish companies. Direct investment (subsidiary) in the Spanish market.

802239 361 C J  
**CAPACITOR PRODUCTION** The technology is required to increase production capacity and by way of this decreasing the cost. The proposed standard capacity would be 2,000.000 pcs/year (for local market).

**REQUESTS CATEGORY 3: ELECTRONICS AND OPTICAL DEVICES**

Ref. No.	Org.No.	Status	Offer	Source	Ref No.	Org.No.	Status	Offer	Source
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901200	231	C	L/J						
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**ELECTRONIC AND COMPUTERISED PRODUCTS** for blind and disabled people. The company wants to expand its range of business. It is looking for novel or development state products with applications in the market of physically disabled people, especially products and systems: Electro-mechanical products for blind people: that makes their lives easier. Electromechanical based for physically disabled people: especially PC's, peripherals, new symbol language software and items that makes communication easier. With artificial voice incorporated: for all markets, voice alarms etc.

901300	165	C	L	C					
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**CARBON TRACK ELEMENTS** for variable resistors (potentiometers).

901465	5								
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**AUTOMATIC EPOXY ENCAPSULATION** element testing and finished capacitor element plant.

**REQUESTS**

**CATEGORY 4: COMPUTERS**

Ref. No. Org.No. Status Offer Source

1863 177 F L C

**COMPUTERISED REGISTER** of Zimbabwean export/import companies. It provides company profiles and their products together with product codes based on the Harmonised System (HS). The system has a mailshot facility for speedy communication with desired companies on a selective basis. Company profiles and/or product reports can be printed or viewed on screen on request. The database is also used to produce export/import directories.

101936 229

**MICRO-ELECTRONICS AND SOFTWARE ENGINEERING** Micro-electronics technology and applications and software engineering technology. For the operation, maintenance and design NC/CNC machines. CAD/CAM systems. Capital required: US\$ 50 million.

401952 231 C L/J

**DESIGNING AND IMPLEMENTATION OF INFORMATION SYSTEMS/STAFF TRAINING** Tools which allow, the training, the giving of support and/or the assistance in the making of decisions, in whichever area of the company (marketing, finances, human resource management). They are seeking only advanced and innovative tools, such as: business simulators, expert systems which help one to take decisions, multimedia training systems amongst others. Advanced tools to help and support in programming and in the development of complex informatic solutions. Standard software packages with direct applications to help in the management of activities.

Ref No. Org.No. Status Offer Source

501951 231 C L/J

**ELECTRONIC AND COMPUTERISED PRODUCTS** for blind and disabled people. This company wants to expand its range of business. For that reason it is looking for novel or development state products with applications in the market of physically disabled people, especially products and systems: Electromechanical products for blind people: that makes their lives easier. Electromechanical based for physically disabled people: especially PC's, peripherals, new symbol language software and items that makes communication easier. With artificial voice incorporated: for all markets, voice alarms etc.

701204 245 F L C

**MACHINES** Personal computers, plain paper copiers, facsimile, calculators, cash registers.

901474 13 P/F/C L/J

**COMPUTER SOFTWARE - UNIX** for workstations. Data capture services for healthcare, insurance etc. Electro optical devices - optocouplers, optoswitches etc.



**REQUESTS CATEGORY 5: CONSUMER DURABLES**

Ref.No.	Org.No.	Status	Offer	Source	Ref.No.	Org.No.	Status	Offer	Source
1850	170	C	S	C	401978	244	F	S	C
<p><b>CLOTHING PRODUCTION</b> Manufacturing of graduation dress, protective clothing, uniforms for all types of industries ie catering, schooling etc. Low raw materials used.</p>					<p><b>LEATHER PROCESSING</b> We would like to have the know-how for leather processing chemicals, especially the environmentally friendly types.</p>				
1860	175	C	L/J	C	601319	377	C	L/J	C
<p><b>MANUFACTURE OF QUILTING</b> (including single and multi-needle embroidery and quilting machines for a variety of applications such as bedspreads, sleeping bags, mattresses, furniture and car upholstery, insulating materials, clothing etc).</p>					<p><b>FANCY PLASTIC PRODUCTS</b> like hair brushes, hard coloured bottles (resembling glass) for cosmetics and toiletries and one litre bottles along with pilfer proof caps (plastic and/or metal) for mineral water and other liquid products.</p>				
101299	165	C	L	C	902041	270		L/J	C
<p><b>DOMESTIC ELECTRICAL APPLIANCES</b></p>					<p><b>REQUEST FOR ELECTRONICS</b> and optical devices, light industry, food processing and consumer durables.</p>				
101320	377	C	L/J	C	902077	290	C	L/J	C
<p><b>MARBLE PRODUCTS</b> like ash trays, pen stands, up to medium sized flower vases etc.</p>					<p><b>DOMESTIC REFRIGERATORS AND FREEZERS</b> Development of new range of hermetic compressors and units with displacement of 6 up to 13 cu cm for refrigeration. Development of new types household refrigerators and freezers. Increasing the production of the compressors and units under licence (with displacement of 14 up to 45 cu cm. Starting the production of equipment for internal use (ice-generators, beverage coolers and other similar products).</p>				
101827	159	C		C					
<p><b>RIGID WOVEN FABRIC PRODUCTION</b> Technology for production of rigid woven fabrics out of cotton eg mattress ribbons, lampwicks, shoe laces etc for domestic use and export. Infrastructure available.</p>									
101972	238	U/F/C	L/J	C/P					
<p><b>CHEMICAL</b> Production of ethyl alcohol.</p>									
201304	165	C	L	C					
<p><b>PIN TYPE CYLINDRICAL LOCKS</b></p>									
202049	275	C	J						
<p><b>COTTON CLOTHING MANUFACTURE</b> for the safari industry and hunters. We, however, require assistance in marketing our product in other African countries, USA and Europe.</p>									
401466	6	C	J	P					
<p><b>CONDOM (LATEX PROPHYLACTIC) PRODUCTION TECHNOLOGY</b></p>									

**REQUESTS**

**CATEGORY 6: FOOD PROCESSING**

**Ref.No. Org.No. Status Offer Source**

1318 377 C L/J C  
**PACKAGING FRUIT JUICES** iced tea etc in handy packs.

1481 20 W J C  
**DAIRY PRODUCTS** Technology of producing mayonnaise, yoghurt and another beverage from soya beans.

1490 25 F S/J C  
**PRODUCING SUGAR SYRUP FROM TAPIOCA AND SORGHUM** Development of processing conditions for the production of sugar syrup from sorghum based on the extraction and hydrolysis of sorghum starch. Improvement of the raw material based for sugar syrup which traditional raw material is corn.

1492 27 C L G  
**FAT LIQUOR** based on natural oil has been synthesized with a new method. It can combine with leather fibre firmly and suitable for various high quality soft leather. There is not the three wastes in processing. It sold 3000 ton a year.

1506 38 C L/J C  
**FAST FOOD** Method of producing fast food for domestic and neighbouring markets is being sought. Specific items of production would be determined in line with market needs. Offer should also contemplate upon machinery and expert assistance provisioning.

1509 41 C J C  
**ESSENTIAL OILS** from pepper and ginger is being sought. The licensee has already obtained government licence, acquired the necessary plot of land for the project and has the necessary managerial skill. Local and export demand for the product is high.

**Ref No. Org.No. Status Offer Source**

1512 42 C J P  
**BREWERY** Partner with know-how for building European type pub-brewery is being sought. Product has an attractive market at pub sites and classy hotels and the required raw materials are almost available locally. Licensee or local partner has already obtained the required licence and is well qualified in the field.

1515 43 C L/J P  
**CHEWING GUM PRODUCTION** A modern technology and expert assistance for the production of high quality chewing gum targeted for both the local and foreign markets are being looked for.

1518 45 C L/J P  
**BISCUIT PRODUCTION** Method of producing high quality packed cookies (biscuit) out of local and imported raw materials and destined both for upper end of domestic and neighbouring markets is being sought. Licensee has qualifications for and experience in the production of low quality similar products.

1521 47 C L/J P  
**CHEWING GUM PRODUCTION** Know-how and expert assistance for the manufacturing of high quality chewing gum are being sought. There is an unsatisfied demand for such products both at home and neighbouring countries. Licensee or joint venture partner seeker is already well experienced in the production of low quality candies.

1524 50 C L/J P  
**HIGH QUALITY FLOUR** Appropriate technology for the production of high quality flour from different types of local raw materials (wheat, barley, maize etc) is being sought. Scarcity of such product is forecasted to persist for a long time to come. Its bi-product is also in high demand for the production of animal feed.

**REQUESTS**

**CATEGORY 6: FOOD PROCESSING**

**Ref.No. Org.No. Status Offer Source**

1527 51 C L/J C  
**CONFECTIONERY** Method and expert assistance for producing various types of high quality candies and chocolates using sugar, cocoa and other ingredients is being sought. The upper class of the domestic and foreign market is the target for the produce.

1530 54 C L P  
**CONFECTIONERY** Know-how methods and expert assistance for the production of high quality candy products that uses sugar as its main raw material are being requested. The would be licensee has rich experience in the production of low quality candies.

2027 133 W S G  
**FRUIT JUICE PRODUCTION PLANT**

101499 31 P C  
**PRODUCTION OF COCONUT SHELL CHARCOAL AND ACTIVATED CARBON** for small scale operations. Technology for the production of dessicated and coconut cream.

102058 282 C J C  
**FRUIT CONCENTRATE EQUIPMENT** for the processing of Hibiscus Tamarin and mango into concentrate without any loss of the natural flavour and colour. For this purpose, contacts have been established with delegates from India.

201497 8 C L/J C  
**MANUFACTURE OF SOFT DRINKS** from fresh fruits and other artificial flavouring essences in disposable boxes and disposable cans, together with other fast food products.

201970 238 U/F/C L/J C/P  
**PHARMACEUTICAL PRODUCTS** Technology for commercial production of surgical cotton, gauze, clinical pads, surgical instruments etc and other surgical dressings, apparatus and disposables, cat gut etc.

**Ref.No. Org.No. Status Offer Source**

202053 278 U L C  
**TOMATO KETCHUP** Technology and machinery.

202274 153 U P  
**CANDY MAKING MACHINE** Equipment for the production of 500-800 kgs/8 hours of hard boiled sweets, equipment shall include cooker (steam or electric), centre filler, rape sizer, die forming machine, corlec double twist wrapping machine complete with auxiliaries.

301205 246 J C  
**PHARMACEUTICALS** We are looking for an industrial joint venture project in India starting with seed marketing and its production in the 2nd phase in the areas of pharmaceuticals, agrobiotechnology, chemicals etc. We are also interested in setting up export oriented projects in the areas of food processing, textiles and other products of interest.

301504 38 C L/J C  
**PRODUCTION OF EXPORT QUALITY DONUT** from flour and other ingredients is being sought. Demand for the product both at home and in neighbouring countries is high. Technology seeker is aiming to expand and upgrade existing factory and improve product quality.

301507 39 C L P  
**SWEETENED FOOD STUFF FROM SESAME SEEDS** is requested. This is a product that has much demand in the rather large Muslim community both here and in neighbouring countries.

**REQUESTS**

**CATEGORY 6: FOOD PROCESSING**

Ref.No. Org.No. Status Offer Source

301510 41 C J C  
**KNOW-HOW FOR THE PRODUCTION OF POTATO CHIPS (CRISPS)** is being sought. The licensee has already obtained government licence, acquired the necessary plot of land for the project and has the necessary managerial skill. Local and export demand for the product is high.

301516 44 C L  
**CONCENTRATED ANIMAL FODDER** Know-how or method for the production of concentrate, composites and balanced feed for dairy, poultry and swine from barley, 'teff', and/or wheat straw coupled with wheat bran, wheat medlings, molasses, oil, salt, minerals etc is being sought.

301522 48 C L/J P  
**BAKING POWDER AND YEAST PRODUCTION** A technology and expert assistance for the production of baking powder and yeast using both local and imported raw materials are being requested. The products have high demand from local private industries, foreign markets and domestic users. The licensee has already obtained an investment licence from the government.

301528 53 C L/J P  
**DRIED FOOD** Processing technologies for the production and packaging of biscuit and other dried food based on local and imported materials and destined for the local market as import substitution are being sought. Licensee or partner sought who has qualification and experience in the stated field.

301576 74 P S C  
**A PROCESS FOR PRODUCING CARAMEL FROM GLUCOSE** (know-how) - method of producing caramel with high EBC.

Ref.No. Org.No. Status Offer Source

301969 237 C J P  
**REFINING AND HYDROGENATION OF EDIBLE OILS** palm and soyabean oils.

302030 133 W S G  
**GLUCOSE/FRUCTOSE PRODUCTION PLANT**

401513 43 C L/J P  
**MACARONI AND SPAGHETTI PRODUCTION** A modern technology and expert assistance capable of improving the quality of the macaroni and spaghetti being currently produced so as to enable entry to high class local and foreign markets are being looked for. Flour, eggs and other ingredients are expected to be the inputs.

401519 46 C L/J P  
**HYDROGENATED OILS** Manufacturing methods and technical assistance for the production of high quality hydrogenated oils, margarine, table oils etc are being sought. Both domestic and export markets are targeted.

401525 50 C L/J P  
**MACARONI AND SPAGHETTI PRODUCTION** Appropriate technology for the production of high quality macaroni and spaghetti from different types of local raw materials and imported ingredients is being sought. The demand for such product is expected to remain strong in the foreseeable future.

401531 55 C J P  
**BEER BREWING** Joint venture partnership for the establishment of European type pub brewery is hereby sought. The required raw materials are, by and large, locally available. The product would be sold at pub sites and big hotels. Local partner has more than 10 years experience in brewing practices. Investment licence is already obtained from the government.

**REQUESTS CATEGORY 6: FOOD PROCESSING**

**Ref.No. Org.No. Status Offer Source**

401959 231 C L/J  
**PLASTIC PRODUCTS** To develop their presence in the cosmetic, pharmaceutical and food markets, they are looking for plastic products with added value, which can be sold in the said markets especially: Plastic products (of whatever sort) which are sold to the following industries. Processing of cosmetics: bottles for shampoo, deoderant sticks, pots for creams, lids, dosers, sprays. Decorative cosmetics: cases for makeup, lipsticks and eyeshadow. Pharmaceuticals: bottles for medicines and samples, dosers, inhalers, special lids, catheters, one-does containers. Food: sweet containers etc.

402007 25 F J C  
**MODIFIED STARCH PRODUCTION** Method of producing modified starch from tapioca, maize and sorghum starches. Modified starches so produced are used in paper, textiles, packing, foundry, glue etc industries.

402052 278 U L C  
**FRUIT AND VEGETABLE PRESERVATON** Technology and machinery.

402278 153 F C  
**SPICE EXTRACTION PLANT** Equipment for the extraction of oleoresin from red pepper, ginger and turmeric. The oleoresin red pepper to be separated with the sweet and capsicum elements. Annual outputs, red pepper: 85 tons, ginger 9 tons and turmeric 9 tons per annum in finished product. Equipment for the extraction of essential oils of ginger, garlic, couaudec and eucalyptus oils of 2 tons each per annum.

501480 18 F/C L P  
**EXPORTER OF SEED AND GRAIN PROCESSING MACHINERY** Specialist in rice and dall (pulse) milling plants (compact automatic) on turn key basis. 30 years experience with professional team for after sales service.

**Ref.No. Org.No. Status Offer Source**

501767 117  
**MUSHROOM PRODUCTION** Besides domestic market, we have exported mushroom in Taiwan. Planned capacity/output: 500T/year. It is a kind of valuable food. Estimated total project cost: US\$ 900.000. Local investment capacity: US\$ 450.000.

501977 243 L P  
**MANUFACTURE OF CHEESE** Process/consultant to manufacture different types of cheese.

502020 259  
 1. Seafood smoking kiln. 2. Palm oil extraction unit. 3. Cassava processing/gari manufacturing equipment. 4. Biogas electricity plant/cooking gas. 5. Arc information system.

601174 52 C L P  
**BROWN AND WHITE BREAD** Methods for the improvement of the associated traditional raw materials and for the production of world standard brown and white bread are being sought.

601502 34 F  
**CASHEW NUT PROCESSING**

601508 40 C L P  
**ESSENTIAL OILS AND SPICE POWDERS** from different spices by utilizing hydrolysis and other extraction methods is being requested. Various domestic raw materials exist.

**REQUESTS**

**CATEGORY 6: FOOD PROCESSING**

**Ref.No. Org.No. Status Offer Source**

**601514 43 C L/J P**  
**CANDY PRODUCTION** A modern technology and expert assistance capable of improving the quality of the candy being currently produced and further entailing diversification into related products so as to enable entry to high class local and foreign markets are being looked for. Sugar and other ingredients are expected to be the inputs. Licensee has experience and qualification in low quality sweet production.

**601520 47 C L/J P**  
**CHOCOLATE CONFECTIONERY** Know-how and expert assistance for the manufacturing of high quality chocolates from cocoa and other flavouring ingredients are being sought. There is an unsatisfied demand for such products both at home and neighbouring countries. Licensee or joint venture partner seeker is already well experienced in the production of high quality candies.

**601976 242 P J C**  
**CHEMICAL ENGINEERING** Basic drugs for pharmaceutical industries or any specialty chemicals.

**602029 133 W S G**  
**FRUIT AND VEGETABLE PRESERVATION**

**701002 47 C L/J P**  
**CONFECTIONERY** Expert assistance and method of manufacturing high quality sweets from sugar and other ingredients are being sought. There is an unsatisfied demand for such products both at home and neighbouring countries. Licensees or joint venture partner sought already well experienced in the production of low quality candies.

**Ref.No. Org.No. Status Offer Source**

**701321 378 C J C**  
**FOOD PRODUCTS FROM TROPICAL FRUITS**

**701348 398 F J C**  
**FRUIT AND VEGETABLES** processing plant producing canned and bottled products (ie juices, fruits in syrups, jams, paste, puree and sauces).

**701505 38 C L/J C**  
**DRIED ICE CREAM** A technology, machinery and expert assistance for the production of dried ice cream basically for the export market is being sought. Inputs are expected to be both from foreign and domestic sources.

**701511 41 C J C**  
**MEAT PROCESSING** A know-how for meat processing is being sought. The licensee has already obtained government licence, acquired the necessary plot of land for the project and has the necessary managerial skill. Local and export demand for the product is high.

**701517 44 C L**  
**DAIRY PRODUCTS** Know-how or method for the production of dairy products (milk, cheese, cream etc) poultry products and swine products is being sought.

**701523 49 C L/J P**  
**BREW MASTER** Technology and collaboration are being sought for the building up of a European standard mini-brewery for the production of different types of beer. About 95% of the required raw materials are locally available. The product is intended to be sold to consumers mainly at the brewery's pub and beer garden and the rest to big hotels. Licensee or joint venture partner seeker is sought qualified and experienced brew master.

**REQUESTS**

**CATEGORY 6: FOOD PROCESSING**

**Ref.No. Org.No. Status Offer Source**

701526 50 C L/J P  
**BISCUIT PRODUCTION** Methods of producing high quality cookies (biscuit) from different types of local raw materials, in the main is being sought. The demand for such product both at home and in neighbouring countries is expected to remain strong in the foreseeable future. The licensee is already operating a plant that produces low quality

801173 41 C J C  
**GROUND NUT AND COFFEE ROASTING**  
 A know-how for ground nut and coffee roasting and packing is being sought. The licensee has already obtained government licence, acquired the necessary plot of land for the project and has the necessary managerial skill. Local and export demand for the product is high.

801469 8 U/C L/J P  
**PRODUCTION OF FAST FOODS**  
 Confectioneries and soft drinks beverage plants (small scale). Seeking financial assistance (under joint venture), technology know-how and machineries - production plants.

802028 133 W S G  
**TOMATO KETCHUP PRODUCTION PLANT**

802050 276 C L/J  
**FOOD PROCESSING** Animal products, cereals (maize, sorghum, millets), fruit and vegetables. General technology transfer contacts.

901467 7 C J P  
**MULTI-LAYERED PLASTIC FILMS** for packing of cooked food which can be directly heated in microwave oven without opening. Similar food packaging technology.

**Ref.No. Org.No. Status Offer Source**

901500 32 F  
**CURRY AND OTHER SPICES**

902277 153 U C  
**FRUIT JUICE PRODUCTION PLANT**  
 Process technology and equipment for the production of fruit concentrates of the following: orange, lemon, mandoline, papaya, mango, pineapple and grapes. Annual plant capacity 500,000 litres of concentrate in an 8 hour single shift operation. Product mix 40% citrus fruits, 50% tropical and 10% grapes.

701577 74 P L/S C  
**METHOD OF PRODUCING NATURAL ESSENCES (ESSENTIAL OILS)** including orange oil, lemon oil, dewaxing and purifying oil.

701529 53 C L/J P  
**CONFECTIONERY** Processing technologies and expert assistance for the production of export quality chocolate from cocoa, hydrogenated fat and other imported materials are being sought. The product is to be sold both in the local and export markets. Forecast indicate good demand for the product.

# DIRECTORY OF CONTACT ADDRESSES

## Org. 1

Managing Director  
Heavy Mechanical Complex (Pvt) Limited  
Taxila  
District Rawalpindi  
Pakistan  
Tel: 051-584166-67  
Fax: 92-51-584168  
Tlx: 5607 HMC PK

## Org. 2

Mr Munir-UD-Din  
Managing Director  
Pakistan Engineering Co Ltd  
6/7 Ganga Kam Trust Building  
Shahrah-E-Quaid-E-Azam  
Lahore 54000  
Pakistan  
Tel: 92-042-356292  
Fax: 92-042-323108  
Tlx: 44750 PECO PK

## Org. 3

PO Box 15  
Tanta Oils & Soap Co  
Tanta  
Egypt  
Tel: 040 333046  
Fax: 040 333803  
Tlx: 93513 AMOUD UN

## Org. 4

Mr S M Bushra  
Technical Director  
El-Naser Engineering & Refrigeration Co  
(Koldair)  
Sakiet Mikke  
Giza  
Cairo  
Egypt  
Tel: 620944-49  
Fax: 733322  
Tlx: 21209

## Org. 5

Mr J Basith  
Director  
M/s Solid State Systems Pvt Ltd  
Rehath Bagh  
Old Madras Road  
Bangalore 16  
India  
Tel: 581088/583625  
Fax: 91-812-215604  
Tlx: 0845-8955 PABS IN

## Org. 6

Mr M Sivapalan  
Chief Executive Officer  
Sidax Corporation Sdn Bhd  
Suite 5.49 5th Floor  
Wisma Central  
Jalan Ampang  
50450 Kuala Lumpur  
Malaysia  
Tel: 603-2612909  
Fax: 603-2611617  
Tlx: 31692 MA SCYA

## Org. 7

Mr S Jain  
Chemisynth  
91 Pocket  
Phase I Sheikh Sarai (SFS)  
New Delhi 17  
India  
Tel: 6423854  
Fax: 6422434

## Org. 8

Mr M M Jandowalla  
Proprietor  
Jamali Hardware & Automart  
PO Box 1467  
Tanga  
Tanzania  
Tel: (255) 53 42243



# DIRECTORY OF CONTACT ADDRESSES

## Org. 9

Mr M S P Rao  
R & D Executive  
W & D Mica Co Pvt Ltd  
17/736 Maluchuruvari Street  
Nellore  
(PIN 524 001)  
India  
Tel: 0091-0861-27617  
Fax: 0091-0861-25955  
Tlx: 0484-211 MICA IN

## Org. 10

Mr M A Bhutta  
Managing Director  
International Polymer Industries (Pvt) Ltd  
49 Industrial Area  
1-9 Islamabad  
Pakistan  
Tel: 051-411529  
Fax: 092-51-416323

## Org. 11

Mr H Eches  
Chairman  
El Nasr Co for Preserved Foods 'KAHA'  
43 Abdel Khalak Sarwat St  
Cairo  
Egypt  
Tel: 3912682  
Fax: 3903487  
Tlx: 94135 Kana UN

## Org. 12

Dr N Bradbear  
International Bee Research Association  
18 North Road  
Cardiff  
CF1 3DY  
England  
Tel: 010 44 222 372409  
Fax: 010 44 222 665522

## Org. 13

Mr D Simpson  
Chairman  
Simpson Research Limited  
Elvingston House  
Tranent  
East Lothian  
EH33 1EH  
England  
Tel: 0875 52878  
Fax: 0875 52358

## Org. 14

Mr V V Nathan  
Managing Director  
Intra Consolid (India) Ltd  
20-A Basantlock Complex  
Vasant Vihar  
New Delhi 110057  
India  
Tel: (011) 6877179  
Fax: (011) 6866926  
Tlx: (031) 72284 TRAN IN

## Org. 15

Mr Cifuentes  
Director  
International Business Specialists  
26 Marong St  
Sunnybank Hills  
Australia  
Tel: (617) 345-8892  
Fax: (617) 221-6219

## Org. 16

Mr S Panchal  
Partner  
Hindustan Consultancy & Services  
PO Box 24  
Dahanie Road 401602  
India  
Tel: 02528 2916

# DIRECTORY OF CONTACT ADDRESSES

## Org. 17

Mr J Shah  
President  
Hi-Tech Import Export Corporation  
6866 N W 20 th Avenue  
Fort Lauderdale  
FL 33309  
U S A  
Tel: (305) 974 4989  
Fax: (305) 978 0351

## Org. 18

Mr S Panchar  
Partner  
DIW Hindustan Industrial Works  
Ganjad  
Via Bombay  
Dist Thana 401602  
India  
Tel: 02528 2916

## Org. 19

Mr G Pola  
International Manager  
Pacific Contracts Inc  
239 New Road  
C-3 Box 10  
Parsippany  
New Jersey 07054  
U S A  
Tel: 201 808 3323  
Fax: 201 808 7016

## Org. 20

Prince S O Akiri  
Managing Director  
Akiri Goldsons Investments Limited  
38 Market Road  
PO Box 10A  
Warri  
Nigeria  
Tel: 053 230404  
Tlx: 43494 NG

## Org. 21

Chief A B C Onwuagana  
Director  
Alphs & Alphs & Associates  
Research Centre  
Umuazu Village  
Box 85  
Ntete Anambra  
Nigeria

## Org. 22

Mr Li Hong Pei  
Director  
Tianjin Mechanical Electronics Technology  
Factory  
Anding Li Huanghe Road  
Nankai  
Tianjin  
Post Code 300110  
China  
Tel: 76 3183

## Org. 23

Mr C S Amasi  
Acting Tannery Manager  
Liwonde Tannery Limited  
PO Box 138  
Liwonde  
Malawi  
Tel: 532515  
Fax: 532359  
Tlx: 43889

## Org. 24

Mr Wang Zhong Yin  
Factory Director  
Tangshan Lubei Porcelain Manufacturer  
Long Quan Building  
Long Dong District  
Tangshan  
China  
Tel: 86315 271510  
Fax: 063020

# DIRECTORY OF CONTACT ADDRESSES

## Org. 25

Mr S V Rajkumar  
Joint Managing Director  
Kamala Sugar Mills Limited  
Kamala Nilayan Annexe  
1338 Avanashi Road  
Peelamedu  
Coimbatore 4  
India  
Tel: 573692  
Tlx: 855 379

## Org. 26

Mr D Gilliot  
Area Manager  
Extraction De Smet sa  
Prins Boudewijnlaan 265  
B-2650 Edegem  
Belgium  
Tel: 32 3 449 42 40  
Fax: 32 3 449 42 04  
Tlx: 31824/72510 DESMET B

## Org. 27

Mr Song Xin  
Section Chief  
National Institute of Fur and Leather Ind  
Research Ministry  
No 3 Jiangfal Road  
Jinxiaugiao  
Chroyang District  
Beijing  
China  
Tel: 4363377

## Org. 28

Mr V K Sony  
Export Executive  
Vijay International  
Bldg No 44 Pocket 32  
Block H Sector 3  
Rohini  
Delhi 110085  
India  
Tel: 7272439

## Org. 30

Mr Z F Lashkari  
Vice President - Business Planning  
M/s Polyolefins Industries Limited  
Mafatial Centre 11th Floor  
Nariman Point  
Bombay 4000  
India  
Tel: 91 22 202 4226  
Fax: 91 22 202 0691  
Tlx: 011 83478

## Org. 31

Mr V Oditt  
Managing Director  
Vinelli Industries Limited  
'D' Lama Avenue  
Bel Air Park  
Georgetown  
Guyana  
Tel: 62658  
Fax: 51222

## Org. 32

Mr R Geer  
Continental Industries  
Industrial Site  
Ruimveldt  
Georgetown  
Guyana  
Tel: 64041

# DIRECTORY OF CONTACT ADDRESSES

**Org. 33**

Mr K D'Abreu  
Banks Dih Limited  
Thirst Park  
Georgetown  
Guyana  
Tel: 62491

**Org. 34**

Mr H Neher  
Director  
Interior Flowers Limited  
62 Main Street  
Georgetown  
Guyana  
Tel: 65732  
Fax: 69736

**Org. 35**

Mr M Raghobar  
Sterling Products Limited  
Providence  
East Bank Demerara  
Guyana  
Tel: 63486

**Org. 36**

Mr R Geer  
Pioneer Marketing  
72 Premnarengan Street  
Prashad Nagar  
Greater Georgetown  
Guyana  
Tel: 64041

**Org. 37**

Mr Xiong Meidiong  
Vice Director of Law Office  
China Hainan Local State Run Haikou  
Canned Food Factory  
No 41 Longhua Road  
Haikou City  
Hainan Province  
China  
Tel: 773891  
Fax: 773891

**Org. 38**

Mr A W Selassie  
General Manager  
Abel Private Limited Company  
PO Box 1472  
Addis Ababa  
Ethiopia  
Tel: 166857 or 164354

**Org. 39**

Mr S Metaferia  
Owner/Manager  
Abuare Oil Factory  
PO Box 30155  
Addis Ababa  
Ethiopia  
Tel: 112743

**Org. 40**

Mr K Seid  
General Manager  
Alma Spice Factory  
5 Kebele 17  
House No 779  
Addis Ababa  
Ethiopia  
Tel: 133339  
Tlx: 21266

# DIRECTORY OF CONTACT ADDRESSES

**Org. 41**  
Mr D Gutema  
General Manager  
Amanii Food Processing Co  
PO Box 21637  
Addis Ababa  
Ethiopia  
Tel: 110970  
Fax: 00 251 1 552399  
Tlx: 21653

**Org. 42**  
Mr B Seyoum  
General Manager  
Berhane Seyoum  
PO Box 31518  
Addis Ababa  
Ethiopia  
Tel: 151820

**Org. 43**  
Mr B Tesfaye  
General Manager  
Betru Tesfaye  
PO Box 50067  
Addis Ababa  
Ethiopia  
Tel: 135552

**Org. 44**  
Mr A Tafere  
Head Planning & Programming Division  
Ethiopian Livestock Development and Meat  
Corporation  
Higher 18  
Kebele 06  
Finifine Building  
Addis Ababa  
Ethiopia  
Tel: 156164  
Fax: 511999  
Tlx: 21095

**Org. 45**  
Mr A Bete  
General Manager  
Gebeya Assefa  
PO Box 40425  
Addis Ababa  
Ethiopia  
Tel: 65353

**Org. 46**  
Mr G Admasu  
General Manager  
Getachew Admassu  
PO Box 22080  
Addis Ababa  
Ethiopia  
Tel: 750290 or 126181

**Org. 47**  
Mr J M Hashim  
General Manager  
Haji Mussa Hashim  
PO Box 1275  
Addis Ababa  
Ethiopia  
Tel: 750474

**Org. 48**  
Mr K Haile  
General Manager  
Kassa Haile  
PO Box 2715  
Addis Ababa  
Ethiopia  
Tel: 131278 or 132064  
Tlx: 21907 ASFET

## DIRECTORY OF CONTACT ADDRESSES

**Org. 49**

Mr K Gizaw  
General Manager  
Kassahun Gizaw  
PO Box 737  
Addis Ababa  
Ethiopia  
Tel: 151829 or 185875

**Org. 50**

Mr M Yahenya Ali  
General Manager  
Metena Yaheya Ali  
PO Box 5238  
Addis Ababa  
Ethiopia  
Tel: 752124  
Fax: 552999

**Org. 51**

Mr M A Ibrahim  
General Manager  
Mohammed Afendi Ibrahim  
PO Box 25785  
Addis Ababa  
Ethiopia  
Tel: 125996  
Fax: 550763

**Org. 52**

Mr N H Ibrahim  
General Manager  
Nur Hussien Ibrahim (Nyala Bakery)  
PO Box 26546  
Addis Ababa  
Ethiopia  
Tel: 120504

**Org. 53**

Mr R Abreha  
General Manager  
Risan Abreha  
PO Box 21251  
Addis Ababa  
Ethiopia  
Tel: 130966 or 201127

**Org. 54**

Mr M Lemma  
General Manager  
Tadelech Legesse's Candy  
PO Box 50481  
Addis Ababa  
Ethiopia  
Tel: 791640  
Fax: 553055

**Org. 55**

Mr T G Mengiatu  
General Manager  
Tena Gashaw Mengistu  
PO Box 3351  
Addis Ababa  
Ethiopia  
Tel: 515955 or 153326

**Org. 56**

Mr Wang Luanjie  
Director  
Yantai Leather Industry Research Institute  
No 24 Shangkuang West Road  
Yantai City  
Shandong Province  
China  
Tel: 0535 226705

# DIRECTORY OF CONTACT ADDRESSES

## Org. 57

Mr Yang Jinming  
Shenyang Scientific Instrument Development  
Center  
Academia Sinica  
No 96 Sanhao Street  
Heping District  
Shenyang  
China  
Tel: 393850  
Fax: 390572

## Org. 58

Mr M A Kholeif  
Chairman  
Societe Des Sucreries et de Distillerie  
D'Egypte (SSDE)  
12 Gaward Hosni St  
Cairo  
PO Box 763  
Egypt  
Tel: 3929077-39290138  
Fax: 3934558-3920509  
Tlx: 21193-20906 SDE UN

## Org. 59

Mr Hui Guang Zhi  
Agent  
Tang Shan Dong Kuang Chemical Plant  
Bei Ja Dian Dong Kuang District Tang Shan  
He Bei  
China  
Tel: 0315 251833  
Fax: 063100

## Org. 60

Mr Yang Leping  
Haikou Dairy Products Factory of Wuhan  
City  
Beihaihou  
Dongxihu  
Wuhan  
430040  
China  
Tel: 8672 331495  
Tlx: 1215

## Org. 61

Mr Song Shuming  
Chengdu Institute of Biology Chinese  
Academy of Sciences  
9 Section 4 Ren Ming Nan Road  
Chengdu  
Sichuang Province  
China  
Tel: 8628 553920  
Tlx: 0416 CHENGDU

## Org. 62

Jilin Academy of Agricultural Sciences  
Soybean Institute  
No 5 West Xing Hua Street  
Congzhuling City  
Jilin Province  
136100  
China  
Tel: 086 04441 5194428  
Tlx: 83134 AASJL CN

## Org. 63

Mr Du Shangwu  
Tangshan Science and Technology Inf  
Research Institute  
Tangshan City  
Hebei Province  
063000  
China  
Tel: 86315 225330

## DIRECTORY OF CONTACT ADDRESSES

### Org. 64

Mr N B Kavita  
Kenya Wine Agencies Limited  
PO Box 40550  
Nairobi  
Tel: 557733  
Fax: 254 2 545634  
Tlx: 24175

### Org. 65

Mr Wanian  
General Secretary  
Acmatifel  
BP 198  
84009 Avignon  
Cedex  
France  
Tel: 90 82 40 00  
Fax: 90 85 56 28  
Tlx: 431917

### Org. 66

Mr Cascarano  
France Horticulture  
40 Adepta  
41 Rue de Bourgogne  
75001 Paris  
France  
Tel: 1 44 18 08 88  
Fax: 1 44 18 08 89  
Tlx: 201454

### Org. 67

Mrs de Beaudrap  
GEFEG  
c/o Adepta  
3 Rue Barret de Jouy  
75001 Paris  
France  
Tel: 1 44 18 08 88  
Fax: 1 44 18 08 89  
Tlx: 201454

### Org. 68

Mr Garinois  
FEL International  
c/o Sugres et Denrees  
133 Champs Elysees  
75008 Paris  
France  
Tel: 42 23 55 77  
Fax: 42 70 44 71  
Tlx: 648902

### Org. 69

Mr Bryden  
President  
France Emballage  
1 Rue Gaston Boissier  
75015 Paris  
France  
Tel: 1 40 43 31 13  
Fax: 1 40 43 37 37  
Tlx: 203319

### Org. 70

Ms V Du Passage  
International Public Relations  
Adepta  
41 Rue de Bourgogne  
75001 Paris  
France  
Tel: 1 44 18 08 92  
Fax: 1 44 18 08 89  
Tlx: 201454

### Org. 71

Mr M Badran  
Director  
Industrial Design Development Center IDDC  
203 Al Ahram Road  
Giza  
Egypt  
Tel: 845338  
Fax: 851466  
Tlx: 92739 EIDDC UN



## DIRECTORY OF CONTACT ADDRESSES

### Org. 72

Mr J M Justumus  
Directeur  
CRITT Agro Alimentaire D'Auch  
Zone Industrielle Est  
32000 Auch  
Midi Pyrenees  
France  
Tel: 62 61 62 33  
Fax: 62 61 62 34

### Org. 73

Mr P Kitchen  
Export Sales Manager  
MAF  
546 Rue Gustave Jay  
82001 Montauran  
Cedex  
France  
Tel: 63632770  
Fax: 63630785  
Tlx: 520250

### Org. 74

Mr H A Mohammadi  
Manager of Research  
Zam Zam Bottling Company  
Azadi Ave  
Tehran  
Iran  
Tel: 4014695-8  
Fax: 4014703  
Tlx: 213611

### Org. 75

Mr S Chipika  
ITDG Food Processing Programme  
Intermediate Technology Development Group  
156a Samora Machel Avenue  
PO Box 1744  
Harare  
Zimbabwe  
Tel: 796420  
Fax: 263 4 706409

### Org. 76

Turkish Sugar Factories Co  
Mithatpasa Caddesi No 14  
06100 Yenisehir  
Ankara  
Tel: 90 4 4359815  
Fax: 90 4 4315883  
Tlx: 42422 atsf tr

### Org. 77

Mr P de Barros Umbelina Junior  
Managing Director  
Ortokan  
PO Box 8004  
S-220 08 Lund  
Sweden  
Tel: +46 46 146893  
Fax: +46 46 146893

### Org. 78

Mr L Tryfon  
Director  
Coral Foods Limited  
PO Box 4896  
Nicosia  
Cyprus  
Tel: 498181  
Fax: 498403  
Tlx: 3203

### Org. 79

Mr C R Warriar  
Managing Director  
Pigments India Limited  
Thazhekkadu 680 697  
Thrissur District  
Kerala  
India  
Tel: 04882 2195  
Fax: 04854 5674  
Tlx: 882 225 SACMIN

## DIRECTORY OF CONTACT ADDRESSES

### Org. 80

Mr B Jacob  
Managing Director  
Bethel Chemical Industries Private Limited  
PB No 2218  
Cochin 682 024  
India  
Tel: 0484 345144

### Org. 81

Mr S S Bharati  
Manager  
Associated Enterprisers  
11 Bijasan Road  
Indore 452 005  
India  
Tel: 410444  
Tlx: 0735 360

### Org. 82

Mr S N Varadarajan  
Managing Director  
Sun Metals & Alloys P Ltd  
49 Avanashi Road  
Coimbatore 641 037  
India  
Tel: 422 210922  
Tlx: 855 493 SUN IN

### Org. 83

Mr S Somani  
Executive Director  
The Travancore Electro-Chemical Industries  
Limited  
Empire House 3rd Floor  
214 Dr D N Road  
Bombay 400 001  
Maharashtra  
India  
Tel: 2048381/2048382/2048383  
Fax: 022-2874294  
Tlx: 011-83699 TEC IN

### Org. 84

Mr C P Philipose  
Managing Director  
M/s Sevana Electrical Appliances (P) Ltd  
X/98 Post Bag No 2  
Kizhakkambalam 683 562  
Kerala  
S India  
Tel: 048548-302  
Fax: 0484-363560  
Tlx: 882-227 SEAL IN

### Org. 85

Mr J Paul  
Managing Director  
M/s Low Heat Driers (P) Ltd  
Kizhakkambalam  
Kerala 683 562  
S India  
Tel: 048548-505  
Fax: 0484-363560  
Tlx: 882-227 SEAL IN

### Org. 86

Binitec  
Pavilion 1  
VVTS  
Prospect Mirz  
129223 Moscow  
Russia  
Tei: 095 187-33-69  
Tlx: 411-566 SMT SU "BINITEC"

### Org. 87

Mr Huang Peiguang  
Traditional Chinese Medicine Hospital  
Yantai City  
Shandong Province  
264001  
China  
Tel: 86535 224137

# DIRECTORY OF CONTACT ADDRESSES

## Org. 88

Dalian Chemical Industries Import and  
Export Company  
Ganjingzi District  
Dalian City  
China  
Tel: 0411 661358  
Fax: 0411 661358  
Tlx: 86243 DCI CN

## Org. 89

Mr Zhao Tong-Tang  
Project Manager  
The Forestry Science Research Institute of  
Jilin Province  
Jingyue Tan  
Changchun  
Jilin 130117  
China  
Tel: 0431 43727

## Org. 90

Zhejiang Light Industry Research Institute  
124 Cheng Tou Xiang  
Hangzhou  
Zhejiang 31009  
China  
Tel: 0571 27962

## Org. 91

Mr Liu Dingshan  
General Manager  
Yellow River Meilefu Group General  
Corporation  
No 6 Middle Section of the Yellow River  
Road  
Sanmenxia City  
Henan  
472000  
China  
Tel: 863891 221664 ext 335

## Org. 92

Mr Han-Sen Gu  
China Vital Message Institute  
1950 Hong Qiao Road  
Shanghai  
200335  
China

## Org. 93

Mr Xu Yunyuan  
Wuxi Vegetable Research Institute  
Cuangnan Road  
Nanzan  
Wuxi  
Jiangsu 214026  
China  
Tel: 0510 441747  
Fax: 0510 201275

## Org. 94

Mr Shi Jiaoying  
Zhejiang University  
Hangzhou  
Zhejiang Province  
310027  
China  
Tel: 0571 572244-2460

## Org. 95

Mr Zhou Boren  
Wuxi Grain Sci Res and Design Inst under  
Ministry of Comm  
186 Huithe Road  
Wuxi  
Jiangsu  
214035  
China  
Tel: 0510 660510  
Fax: 0510 201215

## DIRECTORY OF CONTACT ADDRESSES

**Org. 96**

Mr Xiao Zhiqiang  
Hunan Medical University  
PO Box 57  
Changsha  
Hunan  
41007  
China  
Tel: 86731 448111 ext 2884  
Fax: 86731 444329

**Org. 97**

Chengou Institute of Biology Academia  
Sinica  
PO Box 416  
Chengou  
610041  
China  
Tel: 028 553920 553111-451

**Org. 98**

Mr Jiang Gong  
Senior Engineer  
Beijing Automatic Test Technology Institute  
A1 Bei Huan Xi Road  
Beijing  
China  
Tel: 01 2017318 ext 243

**Org. 99**

Mr Zhu Lanwei  
Beijing Information Centre for Science and  
Technology  
No 19 Xiwainanlu Road  
Beijing  
100044  
China  
Tel: 861 895183 or 894993  
Fax: 861 8319504

**Org. 100**

Mr Zhang Jian  
Wuxi Institute of Light Industry  
Science and Technology Development  
Incorporation  
170 Huithe Road  
Wuxi  
Jiangsu  
214036  
China  
Tel: 0510 669990  
Fax: 0510 667976

**Org. 101**

Mr Chen Hongjing  
Department of Chemical Engineering  
Fuzhou University  
Cong Ye Road  
Fuzhou  
Fujian Province  
350002  
China  
Tel: 0591 712197

**Org. 102**

Mr Peng Qi  
Hubei Society of Scientific and Technological  
Information  
44 Xiao Hongshan  
Wuchang District  
Hubei  
430071  
China  
Tel: 027 711479

# DIRECTORY OF CONTACT ADDRESSES

**Org. 103**

Mr Cao Manhua  
Senior Engineer  
The Institute of Fermentation Industry of  
Beijing  
Jianguo Road  
Beijing  
100022  
China  
Tel: 01 5025585

**Org. 104**

Mr Li Xiangmin  
The International Market Investigation  
Association of Shaanxi  
Xincheng  
Xian  
China  
Tel: 029 55774  
Fax: 029 791618

**Org. 105**

Mr Zhang Huixin  
Mechanical Engineering Department  
Research Group of Optimum Plate Cutting  
Jilin University of Technology  
Changchun  
Jilin Province  
130025  
China  
Tel: 0431 882351 ext 2374

**Org. 106**

All-Union Scientific and Technical  
Information Center  
14 Smolnaya Str  
Moscow 125493  
USSR  
Tel: 456-82-43  
Tlx: 411901 FRAM CO

**Org. 107**

Mr D G Babu  
Managing Partner  
Coronation Printing Ink Manufacturing  
Company  
H-1 Unit Sivakasi Co-operative Indus Estate  
Sivakasi  
India  
Tel: 20318  
Fax: 91 04560 2323  
Tlx: 0448 203 CLW IN

**Org. 108**

Gorenje Elektronika  
63320 Velenje  
Slovenia  
Yugoslavia  
Tel: 3863 853231  
Fax: 3863 854508

**Org. 109**

IMD Skip Ljubijana  
61210 Sentvid Ljubijana  
Celovska 479  
Yugoslavia  
Tel: 061 51592  
Fax: 061 52897  
Tlx: 31473 SKIP

**Org. 110**

Powermatic Sdn Bhd  
No 5 Jalan SS 13/5 Subang Jaya  
47500 Petaling Jaya  
Selangor  
Tel: 03-7336060  
Fax: 03-7346476

# DIRECTORY OF CONTACT ADDRESSES

## Org. 111

Tako Clean Products (S) Pte Ltd  
126 Joo Seng Road  
06-15 Goldpine Ind Bldg  
Singapore  
Tel: 02-3821898  
Fax: 02-3822382

## Org. 112

Tekelec Airtronic Singapore  
545 Orchard Road  
09-08 Far East Shopping Centre  
Singapore  
Tel: 7325618  
Fax: 7324611

## Org. 113

Iskra Instrument ddo  
Otoce 5a 64 Podnart  
Slovenija  
Yugoslavia  
Tel: 38 064 70 131  
Fax: 38 64 70 455  
Tlx: 34506 isioo

## Org. 114

Chemical Graphic and Paper Industrie AERO  
Kocenova 4  
63000 Celje  
Slovenia  
Yugoslavia  
Tel: 63/24-414  
Fax: 63/26-331  
Tlx: 36-511

## Org. 115

UZR - Soca Oprema  
Linhartova 51  
61000 Ljubljana  
Slovenija  
Yugoslavia  
Tel: 061 302 346  
Fax: 061 324 392  
Tlx: 32260 ZRI

## Org. 116

Infravision sprl  
Haut-Vinave de Momalle  
B.4359 Remicourt  
Bruxelles  
Tel: 041 504 502  
Fax: 041 505 502

## Org. 117

APCTT  
49 Palace Road  
Palace Road  
PO Box 115  
Bangalore 560 052  
India

## Org. 118

Mr S A Hilikka Tikka  
F1 Fimet OY  
Ilollisuustie G  
07230 Monninkyla  
Finland  
Tel: 358 15 25522  
Fax: 358 15 25651

## Org. 119

Chamber of Economy of Slovenia  
Titova 19  
61000 Ljubljana  
Slovenija  
Yugoslavia  
Tel: 061 216-122  
Fax: 061/219-636  
Tlx: 31138 GZ YU

## Org. 120

Galvanoplastic Tools Slovenija  
Stefancic Branko  
Kosovelova 53  
61000 Ljubljana  
Yugoslavia  
Tel: 061 447 749

## DIRECTORY OF CONTACT ADDRESSES

### Org. 121

Prof S Lutskanov  
President  
Lubisol Engineering Co  
Mladosti-1 BL27 AP 120  
PO Box 99  
Sofia 1184  
Sofia  
Bulgaria  
Tel: 74-44-87  
Fax: 46-20-86  
Tlx: 23195

### Org. 122

Mr K Karavelioglu  
Assistant General Manager  
Samsun Machinery Industries  
Yenifoca Sokak No 2  
Caziosmanpasa 06700  
Ankara  
Turkey  
Tel: 904 4463500  
Fax: 4463515  
Tlx: 42815 ayds-tr

### Org. 123

Pico Ltd  
1905 Goda Str 4-106  
123022 Moscow  
Russia  
Tel: 190-96-29  
Fax: 190-35-90

### Org. 124

ZRMK Institute for Materials and  
Construction Research  
Dimiceva 12  
61000 Ljubljana  
Slovenija  
Yugoslavia  
Tel: 38 61 344 07  
Fax: 38 61 348 369

### Org. 125

Gorenje GA  
63320 Velenje  
Partizanska 12  
Slovenija  
Yugoslavia

### Org. 126

Mr F Sujadi  
President & General Manager  
PT Orbit Trijadi Ltd  
Jl Biak 20-22 Roxy 3rd floor Orbit Bldg  
Jakarta Pusat  
Java  
Indonesia  
Tel: 021 3808182  
Fax: 021 3802613

### Org. 127

Mr H de Moroges  
Nodet Gougis  
5 Bd due General Leclerc  
77130 Montereau  
France  
Tel: 64 32 90 00  
Fax: 64 32 56 50  
Tlx: 693404

### Org. 128

Mr A Jallan  
Chief Executive  
Jallan Enterprises  
1119 Hemkunt Chambers  
89 Nehru Place  
New Delhi 110 019  
India  
Tel: 91 11 6466766  
Fax: 91 11 6442449  
Tlx: 031 71288 Attn Flora

## DIRECTORY OF CONTACT ADDRESSES

**Org. 129**

Mr C J Abraham  
Malankara Food Products  
Tragopan Avittom Road  
Kumarapuram  
Trivandrum  
695 011  
India  
Tel: 443301/437331

**Org. 130**

Mr J Shroff  
Project and Planning Executive  
United Phosphorus Limited  
Readymoney Terrace  
Dr A B Road  
Bombay 18  
India  
Tel: 4930681  
Fax: 4946974  
Tlx: 11 75074

**Org. 131**

Mr P P Dave  
Managing Director  
Aimco Pesticides Ltd  
Akhand Jyoti 8th Road Santacruz (E)  
PO Box 6822  
Maharashtra  
400 055  
India  
Tel: 6124831/6125287  
Fax: 022 6116736  
Tlx: 011 74538

**Org. 132**

Mr P Baskaran  
Proprietor  
CLIFF  
14 Thillaingar II Cross  
Trichy 620018  
S India  
Tel: 24719/44719

**Org. 133**

Director  
Federal Institute of Industrial Research  
Oshodi  
PMB 21023  
Ikeja  
Lagos  
Nigeria  
Tel: 521010 521042522957  
Tlx: 26006 FIIRO NG

**Org. 134**

Petroleum Training Institute  
PMB 1116  
Effurum  
Warri  
Bendel State  
Nigeria

**Org. 135**

Agbara Plastic Industry Ltd  
PO Box 2318  
Lagos  
Nigeria

**Org. 136**

National Veterinary Research Institute  
Vom  
near Jos  
Plateau State  
Nigeria

**Org. 137**

Rament Industrial Co Ltd  
PMB 1080  
Ebute Metta  
Lagos  
Nigeria



## DIRECTORY OF CONTACT ADDRESSES

**Org. 138**

Mr B Delville  
Manager  
Kilocal SA  
1 Rue due Monument  
B-5560 Mesnil-Eglise  
Belgium  
Tel: 32 82 744744  
Fax: 32 82 744949

**Org. 139**

Mr I Mazon  
Director Instituto de Investigaciones  
Universidad de Costa Rica  
Facultad de Ingenieria  
San Pedro  
San Jose  
Costa Rica  
Tel: 506 242619  
Fax: 506 242619

**Org. 140**

Mr C A Mani  
Works Manager  
Perivar Chemicals Limited  
Post Bag No 1  
Binanipuram 683 502  
Kerala  
India  
Tel: 85-5772 85-5081  
Fax: 91 0484 340009  
Tlx: 885 7075

**Org. 141**

Mr C J Abraham  
Chemical Engineering Project Consultants  
Tragopan Avittom Road  
Kumarapuram  
Trivandrum  
695 011  
India  
Tel: 443381

**Org. 142**

Mr C H M Basheer  
Managing Director  
Kerala Paper and Board Mills Limited  
1st Cross St Benedicts Road  
Eroakulam 682018  
Kerala  
India  
Tel: 91 484 364212

**Org. 143**

Mr A Y A Kwara  
Managing Director  
Plateau Marketing Co (Nig) Ltd  
No 15 Richard Road  
Bh'd Leventis Mtrs Jos  
PO Box 10239  
Jos Plateau  
Nigeria  
Tel: 073 55408

**Org. 144**

Mr I Shawai  
General Manager  
Nasbago Limited  
No 83 Abubakar Burga Road  
PO Box 148  
Keffi  
Plateau State  
Nigeria  
Tel: 047/62052

**Org. 145**

Mr I O Fayomi  
Managing Director  
Premier Metal Inds Nig Ltd  
Ondo Akure Road  
PO Box 1150  
Ondo State  
Nigeria  
Tel: 034 610278

# DIRECTORY OF CONTACT ADDRESSES

**Org. 146**

Vniigenetika Institute  
1 Dorozhny Proezd  
Moscow 113345  
Russia

**Org. 147**

Mr M Y Agboola  
General Manager  
Odua Textile Industries Limited  
Iyin Road  
PMB 5337  
Ado Ekiti  
Ondo State  
Nigeria  
Tel: 030-240731/932

**Org. 148**

Mr G Haricot  
General Manager  
Labaronne Citaf  
PO Box 323  
7 Rue Denfert Rochereau  
F Vienne  
Cedex  
France  
Tel: 33 74 532528  
Fax: 33 74 852094  
Tlx: 340451

**Org. 149**

Mr O Ojo  
General Manager/Chief Executive  
Oshogbo Steel Rolling Co Ltd  
Dagbolu New Ikirun Road  
PMB 4309  
Oshogbo  
Osun/Olorunda Local Government Area  
Nigeria  
Tel: 035 230071  
Fax: 035 231231

**Org. 150**

Mr C Ludlow  
Managing Director  
Oluwa Glass Plc  
Okitipupa Road  
323 Okitipupa  
Igbokoda  
Ondo  
Nigeria

**Org. 151**

Mr I S Tapere  
Managing Director  
Tisco Industries Ltd  
Plot 1218 Ilesha Road  
PO Box 1017  
Akure  
Ondo State  
Nigeria  
Tel: 034 232966

**Org. 152**

Ms M Filipiak  
Director  
Central Laboratory of Food Concentrates  
Industry  
42 Starolecka Street  
Pozan 60 693  
Poland  
Tel: 793 472  
Tlx: 0413787 pl

**Org. 153**

Mr D Metaferia  
Managing Director  
Sintec Plc  
PO Box 7604  
Addis Adaba  
Ethiopia  
Tel: 251 1 514061  
Fax: 251 1 514466

## DIRECTORY OF CONTACT ADDRESSES

**Org. 154**

Mr N N Majithia  
Director (Corp Planning and Development)  
Atol Products Limited  
PO Atul 396020  
Dist Valsad  
Gujarat  
India  
Tel: 91 02632 83 261  
Fax: 91 02632 2197  
Tlx: 0180 212 & 218 ATULIN

**Org. 155**

Mr A Didas  
Procurator  
Mosus Moda Co Ltd  
Jovana Subotica 16  
21000 Novi Sad  
Yugoslavia  
Tel: +38 21 334-904  
Fax: +38 21 334-903

**Org. 156**

Mr C S Fook  
Executive Director  
Wagon Engineering Sdn Bhd  
No 4 persiaran Raja Muda  
PO Box 7082  
40702 Shah Alam  
Selangor Darul Ehsan  
Malaysia  
Tel: 03 5594312  
Fax: 03 5598879  
Tlx: MA 38612

**Org. 157**

Mr M Buyondo  
Uganda Tannery and Leather Finishing  
Factory  
PO Box 5124  
Kampala  
Tel: 245460

**Org. 158**

Mr P Blick  
Managing Director  
Bukwiri Farmers and Processors Ltd  
PO Box 9300  
Kampala  
Tel: 241502 241369

**Org. 159**

Mrs R Kevune  
Director  
Roke Cottage Industry  
PO Box 2015  
Kampala  
Tel: 245460

**Org. 160**

Mrs L Okuyiga  
General Manager  
Tonykhat Co Ltd  
270 H Macaulay St  
Yaba  
Lagos  
Nigeria  
Tel: 860983  
Fax: 880238

**Org. 161**

Mr A Osunbayo  
Managing Director  
Adrosh Engineering Services  
3 Ohekenu St  
Abule - Ijesha  
Yaba  
Lagos  
Nigeria  
Tel: 863246

## DIRECTORY OF CONTACT ADDRESSES

### Org. 163

Mr F Eneli  
Executive Director  
Food and Beverages Engineering Limited  
31st Floor Western House  
8/10 Broad St  
Lagos  
Nigeria  
Tel: 01 631 382

### Org. 164

Chief G A B Agbebi  
Chairman/Managing Director  
Aropeju Farms Limited  
38 Agbebi St  
Ijesatedo - Surulere  
GPO Box 4626  
Lagos  
Nigeria  
Tel: 01 847309

### Org. 165

Mr S R Rajogopalan  
General Manager  
The National Small Industries Corporation  
Ltd  
NSIC Bhawan  
Okhla Industrial Estate  
New Delhi 110020  
India  
Tel: 00 91 6849129  
Fax: 00 91 11 6837669  
Tlx: NSIC 031 75131

### Org. 166

Mr L A Munywarara  
Deputy General Manager  
Industrial Development Corporation of  
Zimbabwe Limited  
93 Park Lane  
PO Box 8531  
Causeway  
Harare  
Zimbabwe  
Tel: 706971  
Fax: 263-4-796028  
Tlx: IDC 24409 ZW

### Org. 167

Mr D Mamik  
Managing Director  
F Issels & Son Limited  
Khami Road  
Box 2199  
Belmont  
Bulawayo  
Zimbabwe  
Tel: 69011  
Fax: 62311  
Tlx: 33331 ZW

### Org. 168

Mr D Gibson  
Managing Director  
Willowvale Motor Industries (Private)  
Limited  
Dagenham/Gleneagles Rds  
PO Box ST 520  
Southerton  
Harare  
Zimbabwe  
Tel: 63661  
Fax: 64647  
Tlx: 26411 ZW

## DIRECTORY OF CONTACT ADDRESSES

### Org. 169

Mr E M Makonese  
Managing Director  
Chemplex Corporation Limited  
Commercial Union House  
Baker Avenue  
Box 989  
Harare  
Zimbabwe  
Tel: 702971  
Tlx: 26397 ZW

### Org. 170

Mr I J Flood  
Mutare Clothing Industries (Pvt) Ltd  
PO Box 443  
Mutare  
Zimbabwe  
Tel: 60217  
Fax: 60217

### Org. 171

Mr P S Kupakuwana  
Divisional Director  
Standards Association of Zimbabwe  
PO Box RY 129  
Raylton  
Bulawayo  
Zimbabwe  
Tel: 70447  
Tlx: 26381 SAZ

### Org. 172

Mr M T Zharare  
Deputy General Manager  
National Glass (Private) Limited  
Owl Mine Road  
Box 339  
Kadoma  
Zimbabwe  
Tel: 3880/7  
Fax: 3672

### Org. 173

Mr A Marima  
General Manager  
Quarrying Enterprises (Private) Limited  
93 Park Lane  
PO Box 8531  
Causeway  
Harare  
Zimbabwe  
Tel: 706971  
Fax: 263-4-796028  
Tlx: IDC 24409 ZW

### Org. 174

Mr P Nhachi  
General Manager  
G & W Industrial Minerals (Private) Limited  
Tilbury Road  
Willowvale Industrial Area  
Harare  
Zimbabwe  
Tel: 62512 or 62511  
Fax: 263-4-796028  
Tlx: IDC 24409 ZW

### Org. 175

Mr J D Clark  
Managing Director  
Delswa C A (Private) Limited  
25 Edison Crescent  
Graniteside  
Box 2776  
Harare  
Zimbabwe  
Tel: 738955  
Tlx: 24377 Delswa ZW

# DIRECTORY OF CONTACT ADDRESSES

## Org. 176

Mrs G Mutariswa  
Managing Director  
Concert Enterprises (Pvt) Limited  
PO Box 5538  
Harare  
Zimbabwe  
Tel: 792341/792956

## Org. 177

Mrs M T Makaya  
Manager Information Services  
Information Services  
Zimtrade  
PO Box 2738  
Harare  
Zimbabwe  
Tel: 736703/731020  
Fax: 706930

## Org. 178

Mr N B Tobitt  
Marketing Manager  
Zambesi Coachworks Ltd  
PO Box 3291  
Harare  
Zimbabwe  
Tel: 65781  
Fax: 65787  
Tlx: 26555

## Org. 179

Mr F W A Emms  
Project Engineer  
Division of C M B  
Teco Houseware  
PO Box St 499  
Southerton  
Harare  
Zimbabwe  
Tel: 62717  
Fax: 60664  
Tlx: 26557 ZW

## Org. 180

Mr C Myers  
Managing Director  
Communication Systems of Zimbabwe  
PO Box 2579  
Harare  
Zimbabwe  
Tel: 791964/5  
Fax: 723500  
Tlx: 26486 ZW

## Org. 181

Mr P May  
Managing Director  
Paul May Pvt Ltd T/A Swiss Jewellers  
PO Box 3334  
Bulawayo  
Zimbabwe  
Tel: 63358

## Org. 182

Mr L M Chiuiya  
Senior Engineer  
Zimbabwe Development Corporation  
PO Box 5350  
Harare  
Zimbabwe  
Tel: 735995/9  
Fax: 735994  
Tlx: 22038

## Org. 183

Mr P T Bvunzawabaya  
Divisional Manager  
CMB Centraflex  
PO Box St 137  
Southerton  
Harare  
Zimbabwe  
Tel: 60664  
Fax: 60664  
Tlx: 22112 ZW

## DIRECTORY OF CONTACT ADDRESSES

**Org. 184**

Mr G M Bingham  
Marketing Manager  
Supersonic Radio Mfg Co (Pvt) Ltd  
PO Box 1196  
Bulawayo  
Zimbabwe  
Tel: 64631  
Fax: 64636  
Tlx: 3313924

**Org. 185**

Mrs J Gumpo  
The Manager  
Bulawayo Home Industries  
PO Box 2034  
Bulawayo  
Zimbabwe  
Tel: 65376

**Org. 186**

Mr Pan Cheng  
Guangxi Branch  
Chinese Modern Designing Institute  
117 Bayi Road  
Liuzhous  
Guangxi  
545001  
China  
Tel: 0771 25478

**Org. 187**

Mr O Rubicek  
Managing Director  
Footwear and Rubber Industries (Pvt) Ltd  
Box 8255  
Balmoral  
Bulawayo  
Zimbabwe  
Fax: 61117  
Tlx: 33484 RHINO

**Org. 188**

Dr K B Duguid  
Zambesia Botanica (Pvt) Ltd  
PO Box 943  
Kadoma  
Zimbabwe  
Tel: 2586  
Fax: 2639

**Org. 189**

Mr J Wagstaff  
Managing Director  
Radar Metal Industries  
PO Box 1008  
Bulawayo  
Zimbabwe  
Tel: 75911  
Fax: 75919  
Tlx: 33373

**Org. 190**

Mr R MacDonald  
Marketing Director  
Plastique Industries  
PO Box 66120  
Kopje  
Harare  
Zimbabwe  
Tel: 732634/5  
Fax: 7959/4  
Tlx: PLASMN ZW 26630

**Org. 191**

Mr J Ascough  
University of Zimbabwe  
Development Technology Centre  
MP 167  
Mount Pleasant  
Harare  
Zimbabwe  
Tel: 30321 ext 1664  
Fax: 263 4 732828  
Tlx: 26580 UNIV ZW

## DIRECTORY OF CONTACT ADDRESSES

### Org. 192

Mr A J Flood  
Manager  
Elastics & Tapes (Pvt) Ltd  
PO Box 443  
Mutare  
Zimbabwe  
Tel: 63882  
Fax: 60217

### Org. 193

Mr T R Parker  
Chief Executive  
Apex Corporation T/A Dunwell Products  
15 Wolverhampton Road  
Donnington  
Bulawayo  
Zimbabwe  
Tel: 76831/2  
Fax: 74541  
Tlx: 33010

### Org. 194

Mr H A Mushonga  
Managing Director  
Source Construction Private Limited  
PO Box 3661  
Harare  
Zimbabwe  
Tel: 790926/703012/3  
Fax: 703015

### Org. 195

Dr C M D Sanyangah  
Floortech (Zimbabwe) Pvt Ltd  
PO Box 6567  
Zimbabwe  
Tel: 723426  
Fax: 790826

### Org. 196

Mr P M Moyo  
Projects Manager  
CAPS (Pvt) Ltd  
PO Box St 202  
Southerton  
Harare  
Zimbabwe  
Tel: 63581  
Fax: 263 4 61228  
Tlx: 24146 CAPS ZW

### Org. 197

Mr U Prasad  
Marketing Manager  
Thackersey High Tech  
Yadavpatil Lane  
Veer Savarkar Marg  
Prabhadevi  
Bombay 400 025  
India  
Tel: 4306571  
Fax: 022 4224017  
Tlx: 011 76318 TGMD

### Org. 198

Mr S P Petkov  
Managing Director  
Drillex  
118 Osvobozhdeni bul  
PO Box 202  
Plovdiv 4000  
Bulgaria  
Tel: 32 27 36 23  
Fax: 82 31 57

### Org. 199

Plastex Industries (Pvt) Ltd  
57 The Mau  
Lahore  
Pakistan  
Tel: 353678



## DIRECTORY OF CONTACT ADDRESSES

### Org. 200

Mr D Cutler  
Development Manager  
M4 Data Ltd  
Mendip Court  
Bath Road  
Wells  
Somerset BA5 3DH  
England  
Tel: +44 749 679222  
Fax: +44 749 673928

### Org. 201

Mr B P Premji  
Director  
Mining Division  
Premji Industries Ltd  
PO Box 30115  
Lusaka  
Zambia  
Tel: 223011  
Tlx: ZA 42996

### Org. 202

Mr G Narasimha  
Director  
Kilburn Electricals Ltd  
374 Konnur High Road  
Madras 60012  
India  
Tel: 091 44 617610  
Tlx: 41 24053

### Org. 203

Dr G E D Jeseeph  
AZIZIE  
17/2 Rassafe Str  
Aleppo  
Syria  
Tel: 21 24 59 87

### Org. 204

Mr A I Bako  
Chairman  
Niger Aluminium Mfg Company Limited  
Km 2 Zuru Road  
PO Box 252  
Kontagora  
Niger State  
Nigeria  
Tel: 067 20044 20190

### Org. 205

Prof A Dashchenko  
Moscow Institute of Automotive Engineering  
Mami 38B Semenovskaya St  
105839 Moscow  
Russia  
Tel: 3691 11

### Org. 206

Mr M Akman  
Director  
Akman Dokum  
Kirackov  
Buyukcekmece  
Istanbul  
Turkey  
Tel: 90 1 596 15 22  
Fax: 90 1 559 33 12

### Org. 207

Mr N Sadikeglu  
Director  
Hacioellari Boya ve Kimya San Adi Kom Sti  
Kurekciier Cad No 44/2  
Karakoy  
Istanbul  
Turkey  
Tel: 144 94 81  
Fax: 149 62 29

## DIRECTORY OF CONTACT ADDRESSES

### Org. 208

Mr M Yucel  
Director  
Northern Electric Telekomunikasyon Anonim  
Sirketi  
Alemdag CAD  
Umraniye  
Istanbul  
Turkey  
Tel: 335 11 00  
Fax: 335 69 58  
Tlx: 29475 netf tr

### Org. 209

Mr S Ertas  
Director  
Corrocoat Toz Roya San Ve Tic AS  
Eski Buyukdere Cad  
Yunus cmre sok  
No 1 k 2/10 Ofosanayi 80660  
4 Levent Istanbul  
Turkey  
Tel: 1801642  
Fax: 1798940  
Tlx: 28405 Cora Tr

### Org. 210

Mr C L Chulu  
Manager Support Services  
ROP Limited  
Nakambala Road  
PO Box 71570  
India  
Tel: 650549/650550  
Fax: 650162  
Tlx: ZA 33120

### Org. 211

Mr D Shah  
Proprietor  
Sangula Enterprises  
14 Nagindas Master Road  
PO Box 2047  
Bombay 400 023  
India  
Tel: 242522 242571  
Fax: 2047449  
Tlx: 011 85 982

### Org. 212

Mr K L Andreanovich  
Director  
State Small Firm 'Granite'  
Student Passage h 1/3 flat 12  
PO Box 65  
Moscow  
429282  
Russia  
Tel: 095 477 14 23

### Org. 213

Mr E Ivanov  
Director  
Scientific Production Association of Machine  
Manufct  
61 Leninskaya Str  
Mogilev 212030  
Russia  
Tel: 23 10 42

### Org. 214

Mr D Merganov  
Director  
Samokovska Komuna  
14 Lesitchev Str  
Samokov  
2000  
Bulgaria

## DIRECTORY OF CONTACT ADDRESSES

### Org. 215

Prof L A Petrov  
Director  
Bulgaria Academy of Science  
Institute of Kinetics and Catalysis  
Sofia  
III3  
Bulgaria  
Tel: 70 21 81  
Fax: 92 720038  
Tlx: 22729

### Org. 216

Mr H S Apostolov  
President  
A K W E  
Ul Ivan Tenev 7  
B Et V app 9  
Jambol  
Bulgaria  
Tel: 046/2-28-44

### Org. 217

DZU - ZMP  
Stara Zagora  
Bulgaria  
Tel: 5 31 83  
Fax: 5 11 60  
Tlx: 88253

### Org. 218

Mr D K Rajak  
Chief Executive  
Rap Fibre Products Pvt Ltd  
304 Palmoham House  
5/67 WEA Padam Singh Rd  
PO Box 110005  
Karol Bagh New Delhi  
India  
Tel: 572 6978

### Org. 219

Mr S Majda  
Director  
Odlewnia Zeliwa SA  
Skleczkowska 18  
99-300 Kutno  
Woj Plockie  
Poland  
Tel: 361 21  
Fax: 36307

### Org. 220

Dr G Dimitrov  
Senior Scientist  
Institut of Micro-electronics and Opto-  
electronics  
Botevgrad  
Bulgaria  
Tel: 00359 723 27 26  
Fax: 00359 723 6114  
Tlx: 22227

### Org. 221

Skoda Plzen  
Zavod Obrabeci stroje Machine Tool Plant  
316 00 Plzen  
Czechoslovakia  
Tel: 0 192152788  
Fax: 0 19274382  
Tlx: 154221 skpl c

### Org. 222

Kydronika sp  
Gogolova 18  
852 02 Bratislava  
Czechoslovakia  
Tel: 56881-5 3396407-416  
Tlx: 093305

# DIRECTORY OF CONTACT ADDRESSES

**Org. 223**

MEZ Zabreh  
ul CSA c 37  
789 01 Zabreh  
Czechoslovakia  
Tel: 0648 314  
Tlx: 066 468

**Org. 224**

DATIS  
Sumavska 31  
612 69 Brno  
Czechoslovakia  
Tel: 7112/414  
Tlx: 625 20

**Org. 225**

Elektromont BRNO  
Nadrazni 14  
657 89 Brno  
Czechoslovakia  
Tel: 3163  
Fax: 330389  
Tlx: 62 442

**Org. 226**

ntersigna AS  
Vaclavske nam 60  
Praha 1  
Czechoslovakia  
Tel: 2357748/667  
Fax: 2369537  
Tlx: 121205

**Org. 227**

North-Celtic  
17 Bank Ban Str  
1115 Budapest  
Hungary  
Tel: 36 1 1853 999 ext 243  
Tlx: 22 6821

**Org. 228**

Mr S P Voronin  
Director  
VNII Genetics & Selection of Industrial  
Microorganisms  
7 Tulaykova Str  
a/ja 1650  
Saratov  
Russia  
Tel: 13 21 44 17 55 77

**Org. 229**

Mr A Adegite  
Acting Managing Director  
Nigeria Machine Tools Ltd  
Km 8 Ikirun Road  
PO Box 4343  
Osogbo  
Osun  
Nigeria  
Tel: 035 232500 03  
Tlx: 34255 NMT NG

**Org. 230**

Mr Wu Jmhua  
Manager  
Firecracker and Special Electron Technology  
Factory  
Tepin Town  
Cehlou County  
Gaoyou City  
Jiasigsu Province  
China  
Tel: 05247 621431

**Org. 231**

ICT  
Via Laietana 39  
4 rt 5e  
08003 Barcelona  
Spain  
Tel: 319 88 11  
Fax: 310 35 35

## DIRECTORY OF CONTACT ADDRESSES

**Org. 232**

Mr V K Desai  
Managing Director  
Tinytech Plants Pvt Ltd  
Tagore Road  
Rajkot 360002  
India  
Tel: 48466 53231  
Fax: 281 40552 24455  
Tlx: 169 249 TINT IN

**Org. 233**

Mr N M Janweja  
M/s Bilt Rite Packaging Pvt Ltd  
SCO-9  
Sector 17-E  
Chandigarh 160 017  
India  
Tel: 543085/562489  
Fax: 544533  
Tlx: 395367 (PCO IN)

**Org. 234**

Mr S K Chowdhury  
Managing Partner  
Expoconcern  
GPO Box 1153  
Chittagong 4000  
Bangladesh  
Tel: 00 880 31 220575  
Fax: 00 880 31 225645  
Tlx: 66341 CBLAG BJ

**Org. 235**

Mr B Sukhendu  
Managing Director  
Minex Metallurgical Company Pvt Ltd  
301 Rajguru Apts  
3 New Nagardas Road  
Andheri  
Bombay 69  
India  
Tel: 8362166 8370349  
Fax: 022 8378341  
Tlx: 011 79295

**Org. 236**

Mr V Jain  
Executive Director  
Synergy Emulsifuels (P) Ltd  
Synergy House  
Subhanpura  
Baroda 390007  
India  
Tel: 0265 333912  
Fax: 0265 330430  
Tlx: 175-690

**Org. 237**

Mr G K Sikaria  
CEO  
Mercantile International Enterprises  
Mercantile Building  
Adarsha Nagar  
Birganj  
Nepal  
Tel: 00977 51 22274  
Fax: 00977 51 21673  
Tlx: 4007 SIKRIA NP

# DIRECTORY OF CONTACT ADDRESSES

**Org. 238**

Mr S Shaw  
Development Officer  
M/S Shaw Pharmaceuticals & Chemicals  
Dariapur Gola  
Patna 800004  
Bihar  
India

**Org. 239**

Mr S Abbhi  
Farm Fresh Foods Pvt Ltd  
Batamandi  
Distt Sirmur HP  
Paonta 2106  
India  
Tel: 01732 25806

**Org. 240**

Mr R P Selvam  
Managing Director  
M/S Transera Systems Pvt Ltd  
No 5 Shree Apartments  
21 Azeez Nagar Main Road  
Madras 600024  
India  
Tel: 4832361

**Org. 241**

Mr R C Malhotra  
Senior Partner  
Equipment  
10/1 Princep Street  
Calcutta 700 072  
India  
Tel: 27 7909

**Org. 242**

Mr U V Patel  
Director  
N S P Straw & Paper Products Pvt Ltd  
Digendranagar 396 570  
Dist Valsad  
Gujarat  
India  
Tel: 02634 2059 3109 2196

**Org. 243**

B32 Mayfair Gardens  
L Gibbs Road  
Bombay 400006  
India  
Tel: 3617722  
Fax: 2876128  
Tlx: 011 83586

**Org. 244**

Mr A R Mehra  
Partner  
M/S Auxichem  
402 VS Marg  
22 Pie  
Prabhadevi  
Bombay 25  
India  
Tel: 4300619/4300607  
Fax: 9122 202 9316  
Tlx: 011 83271 SARA IN

**Org. 245**

Mr I Beg  
Project Director  
Telephone Industries of Pakistan (Pvt) Ltd  
D-8 T & T Colony  
Haripur-Hazara NWFP  
Pakistan  
Tel: 0092 595 4186  
Fax: 0092 595 4187  
Tlx: 5716 TIPHP PK

## DIRECTORY OF CONTACT ADDRESSES

### Org. 246

Mr B M Saxena  
Vice President  
Dalmia (Bros) Pvt Ltd  
2nd Floor Indra Prakash  
21 Barakhamba Road  
New Delhi 110 001  
India  
Tel: 3714870/3320785  
Fax: 3317758  
Tlx: 031 65434

### Org. 247

Institute of Chemistry Henan Academy of  
Sciences  
1 Hongzhuan Road  
Zheng Zhou 450003  
China  
Tel: 556479 553688

### Org. 248

Mr D V Shah  
Director  
M/s Krishna Corporation (BOM) Pvt Ltd  
3rd Floor Dena Bank Bldg  
17/8 Horniman Circle  
Fort  
Bombay 400 001  
India  
Tel: 286 3 720/2860545  
Fax: 91 22 2875033  
Tlx: 011 75856 Inco In

### Org. 249

Mr A K Maheshwari  
Director  
Productivity & Systems Management  
8 Asho K Marg  
Lohagal Road  
PO Ajmer  
India  
Tel: 0145 22611 33511

### Org. 250

Mr P S Patel  
Chief Executive  
Patel Brothers & Engineering Private Limited  
6 Elphinston Building  
10 Veer Nariman Road  
Bombay 1  
India  
Tel: 2041072/2044295  
Fax: 91 22 2049178  
Tlx: 11 84837 PBSE IN

### Org. 251

Mr E D Kurtcebe  
Director  
Kurtsan Ilaclari AS  
Keresteciler Sanayi Sitesi  
Kasim sk 63 Merter  
Istanbul  
Turkey  
Tel: 507 04 00  
Fax: 575 22 05  
Tlx: 20040 krti tr

### Org. 252

Mr C J Bhumkar  
Managing Director  
Soujanya Enterprises  
2 Satyam  
Nr Natraj Soc  
Panchpakhadi  
Thane  
India  
Tel: 508732  
Fax: 508127  
Tlx: 91 22 204 4973

## DIRECTORY OF CONTACT ADDRESSES

### Org. 253

Mr K Ramu  
Chairman and Managing Director  
Sundar Nutritions Private Limited  
66 Century Plaza  
560-562 Anna Salai  
Teynampet  
Madras 600 018  
India  
Tel: 456220 457152  
Fax: 91 44 459456  
Tlx: 041 6431 SUND IN

### Org. 254

Mr Y Lavingia  
Chief Executive  
Lavingia Enterprise  
4901 Phase III  
GIDC Vatva  
Ahmedabad 380 009  
India  
Tel: 0272 83 2401

### Org. 255

Mr S K Rastogi  
Senior Marketing Manager  
USHA Intercontinental India  
8 Malcha Marg Market  
Chanakyapuri  
New Delhi 110021  
India  
Tel: 011 3013192  
Fax: 011 3010352  
Tlx: 31 66875

### Org. 256

Mr S K Mukherji  
General Manager  
Pearl Polymers Ltd  
704 Rohit House  
3 Tolstoy Marg  
New Delhi 110001  
India  
Tel: 011 331 7055  
Fax: 011 331 1601  
Tlx: 031 65493 PARL IN

### Org. 258

Prof C L C Migiro  
Director  
Institute of Production Innovation (IPI)  
PO Box 35075  
Dar es Salaam  
Tanzania  
Tel: 48571/2  
Fax: 48571  
Tlx: 41561 UNIVIP

### Org. 259

Mr M Nagiu  
Chief Divisional Inf Documentation  
BP 2435  
African Regional Centre for Technology  
Dakar  
Senegal  
Tel: 257712  
Fax: 221 257713  
Tlx: 61282 CRATEC SG

### Org. 260

Ms S Gwangwaia  
Chief of Centre  
Centre for Nutrition IMPM MINREST  
BP 6163  
Yaounde  
Cameroon  
Tel: 237 22 53 64  
Fax: 237 31 51 78  
Tlx: MRST 8418 KN



## DIRECTORY OF CONTACT ADDRESSES

### Org. 262

Mr S M Shipchandler  
Proprietor  
Shipchandler & Co  
6-3-352 Road No 1 Banjara Hills  
Hyderabad 500034  
India  
Tel: 33818 228252  
Fax: 91 842 895917  
Tlx: 420 6215 PCO IN

### Org. 263

Mr S Derashri  
Whitefield Chemical Technology Pvt Ltd  
India  
Tel: 330 550 ext 718  
Fax: 0091 265 330 834  
Tlx: 175301 ACW IN

### Org. 264

Dr I K Wanaruona  
Managing Director  
Meditec Pharmaceuticals Limited  
PO Box 60187  
Nairobi  
Kenya  
Tel: 211466/210736  
Fax: 213194

### Org. 265

K Vinayak  
1218 Sector 27  
Gandhinagar 382027  
Gujarat  
India  
Tel: 870358

### Org. 266

Mr Garncarek  
General Manager  
Gibeltec  
8 Rue Matefosse  
B-4631 Soumagne  
Belgium  
Tel: 00 32 41 77 17 76  
Fax: 00 32 41 77 50 60

### Org. 267

Mr B.C. Harrison  
Diptech (UK) Ltd  
29 Lansdown  
Stroud  
Glos. GL5 1BG  
England  
Tel: +44-453-752597  
Fax: +44-453-752654

### Org. 268

Mr S Jhawar  
Managing Director  
Chhotangpur Rope Works Pvt Ltd  
Namaskar  
Ground Floor  
24A Anil Roy Road  
Calcutta 700 029  
India  
Tel: 91 33 761654/76607  
Fax: 91 33 221971  
Tlx: 91/33-021-5040 UMR IN

### Org. 269

Mr V R Chinai  
Director  
Catalco Chemicals Pvt Ltd  
1004 Embassy Centre  
Nariman Point  
Bombay 21  
India  
Tel: 244497  
Fax: 91 22 2876128

## DIRECTORY OF CONTACT ADDRESSES

### Org. 270

Dr J Singh  
Managing Director  
Jaswant Industrial Co (P) Ltd  
Modern Market  
Nehru Garden Road  
Jalandhar City  
India  
Tel: 91 181 57439 222700  
Fax: 91 181 52162

### Org. 271

Mr R Kumar  
Principal Consultant  
Meshak Engineering  
229 Kilpauk Garden Road  
Kilpauk  
Madras 600 010  
India  
Tel: 044 641 3442

### Org. 272

Mr D N Azad  
Managing Director  
Thai Cellulose Products Ltd  
318/58 50122 Sukhumvit Road  
Bangkok  
Thailand  
Tel: 255 2693-4  
Fax: 622 259 0563  
Tlx: 20589 TH VISTA

### Org. 273

Managing Director  
Phase Engineering (Pvt) Ltd  
PO Box 207  
Kadoma  
Zimbabwe  
Tel: 3716 2727  
Fax: 263 68 3546

### Org. 274

Mr M M G Gumbie  
Managing Director  
Zimphotronics (Pvt) Ltd  
PO Box 51  
Madowe  
Zimbabwe  
Tel: 2590  
Fax: 09 263 75 2590

### Org. 275

Mr J Laxmidas  
Managing Director  
Leisure Fashions (Pvt) Ltd  
Box 1472  
Byo  
Zimbabwe  
Tel: 67785 69190  
Fax: 64997

### Org. 276

Dr A C Mosha  
Manager  
Botswana Technology Centre Food Tech  
Research Service  
Private Bag 008  
Kanye  
Botswana  
Tel: 340441  
Fax: 340713  
Tlx: 2928 BD

### Org. 277

Mr A Oza  
Managing Director  
Chemical and Engineering Supplies Ltd  
PO Box 35168  
Lusaka  
Zambia  
Tel: 260 1 288846  
Fax: 260 1 288813  
Tlx: ZA 40710

## DIRECTORY OF CONTACT ADDRESSES

### Org. 278

Dr A A Owusu  
Managing Director  
Astek Fruit Processing Ltd  
PO Box 4710  
Accra  
Ghana  
Tel: +233 21 221473  
Fax: +233 21 227864

### Org. 279

Sidibe Mamadou  
BP No 46  
Bamako  
Mali  
Tel: 227661-224687  
Fax: 222980  
Tlx: 2401

### Org. 280

Mr M G V Mataranyika  
Director  
Tozvidini Shridzinomwa Enterprises (Private)  
Limited  
PO Box 976  
Gwery 2  
Zimbabwe  
Tel: 3994/51090  
Fax: 51638

### Org. 281

Mr J O K Gyamfi  
Deputy Chief Instructor  
Timber Export Development Board -  
Sawdoctoring School  
PO Box 3813  
Kumasi  
Ghana  
Tel: 5970  
Tlx: 3036 BTH 10 GH

### Org. 282

Mr A H Doye  
Technical Director  
Institut de Technologie Alimentaire  
Route des Peres Maristes  
BP 2765  
Dakar  
Senegal  
Tel: 221 32 19 55  
Fax: 221 32 82 95

### Org. 283

Mr M Kersunskay  
Marketing Department  
Scientific Production Association  
'Biotechnology'  
8 Nauchny preezd  
Moscow 117246  
Russia  
Tel: 332 34 18  
Fax: 331 01 01

### Org. 284

Ms I Gracheva  
Biotechnology Department  
Moscow Technological Institut of Food  
Industry  
11 Valekeiamskee Shosse  
Moscow 125080  
Russia  
Tel: 158 71 27

### Org. 285

Mr M Ahmad  
Director  
Chemical Complex Limited  
124-D Model Town  
Lahore  
Pakistan  
Tel: 858711 857011 848322  
Fax: 92-42-868806

# DIRECTORY OF CONTACT ADDRESSES

**Org. 286**

E N F  
21 Rue Guellab Larbi  
BP 212  
Tiaret  
Algeria  
Tel: 07 28 30 88/90  
Tlx: 17099

**Org. 287**

FN-Formetal - Division of FN Herstal SA  
B-4400 Herstal  
Belgium  
Tel: 041 640800  
Tlx: 1304 1223

**Org. 288**

Gisag  
Refer to UNIDO Vienna International Centre

**Org. 289**

Mr A Sitnik  
Director  
Zaktady Elektronowe Lamina  
Pukawska 34  
05-500 Plaseczno  
Poland  
Tel: 48 22 570713  
Fax: 48 22 57 07 64  
Tlx: 813383

**Org. 290**

Mr D Ognian  
Director  
Refrigeration Works A Ivonov - Sofia  
11 Industriana Street  
Sofia 1202  
Bulgaria  
Tel: 39 51 01  
Fax: 39 50 08  
Tlx: 22930

**Org. 291**

Mr A Russev  
Director  
TKM Record  
Kuklensko shosse 13  
PO Box 83  
Plovdiv  
Bulgaria  
Tel: 77 17 75  
Fax: 00359 32 77 17 53

**Org. 292**

Mr M Singh  
Khalsa Engineering Works  
62/D/2 J N Mukherjee Road  
Ghusury  
Howrah 711107  
WB  
India  
Tel: 65 5039/5275

**Org. 293**

Mr L Plotkin  
Director  
Management Consulting Company 'Alliance'  
212017 Magilev  
PO Box 35  
Republic of Bebarus  
Tel: 23 67 19

**Org. 294**

Mr Zhao Changqing  
The Ministry of Aerospace Industry  
The Institute No 310 of the Third Academy  
PO Box 7254-1  
Beijing  
China  
Tel: 01 8375481

## DIRECTORY OF CONTACT ADDRESSES

### Org. 295

Mr Cao Jianshu  
Nanjing Fibreglass Research and Design  
Institute  
30 An de li  
West Yu Hua Road  
Nanjing  
210012  
China  
Tel: 086025 624462  
Fax: 086025 201475

### Org. 296

Mr Wu Changan  
Senior Engineer  
Tianjin Light Industry Chemical Research  
Institute  
Lioulin  
Hexi District  
Tianjin  
300222  
China  
Tel: 022 841249  
Fax: 022 840708

### Org. 297

Agricultural Science Soybean Research  
Institute  
The Jilin Province Academy  
5 Xixinghuajie  
Gongzhuling City  
Jilin Province  
China  
Tel: 04441 136100

### Org. 298

Mr Zhao Kanwei  
Techno Equipment Meeting and Exhibition  
Corporation  
Tianjin Economic Technological  
Development District  
24 Bldg 27 Section 11  
Zhongshanmen Xincun  
Hendong District  
Tianjin  
China  
Tel: 022 311780

### Org. 299

Mr Yang Chuanshu  
Tianjin Institute of Sea Water Desalination  
PO Box 52  
Tianjin 300019  
China  
Tel: 022 318282

### Org. 301

Hangzhou Instrument Works  
Xiaoheshan  
Liuxia Town  
Hangzhou  
Zhejiang 310023  
China  
Tel: 529205

### Org. 302

Mr Cao Changxin  
Nanjing Technology Import and Export Corp  
Bai Xia Hotel  
255 Bai Xia Road  
Nanjing  
China  
Tel: 025 408717-305  
Fax: 025 407536  
Tlx: 34049 CTCNJ CN

# DIRECTORY OF CONTACT ADDRESSES

**Org. 303**

Mr Liu Yao Bei  
Director  
Changchun Institute of Applied  
Biotechnology  
Post Code 130022  
Jilin Province  
China  
Tel: 884381

**Org. 304**

Mr Su Ning  
Project Manager  
Intertech Corp  
23-25 You Yi Ru  
Tianjin 300201  
China  
Tel: 86 22 319115  
Fax: 86 22 919391  
Tlx: 23332 ISTCC CN

**Org. 305**

Mr Gao Boran  
Science and Technology Commission  
Yutian County  
Tangshan  
Hebei  
China  
Tel: 2639

**Org. 306**

Mr Meng Fandong  
Editorial Department  
Shidai Fengcai Magazine of Fed of Trade  
Unions of Yunnan  
No 50 Milesi  
Kunming  
Yunnan  
China  
Tel: 21001-2563

**Org. 307**

Mr Wang Meiling  
Head of the Institute  
Shandong Academy of Medical Science  
The Institute of Basic Medical Science  
35 Jingshi Road  
Jinan  
Shandong  
China  
Tel: 39183 PPCSD CN  
Fax: 0531 612809

**Org. 308**

Mr Zeng Shi-Yuan  
Food Science Department  
Hangzhou Institute of Commerce  
Jiao Gong Road  
Hangzhou  
Zhejiang Province  
China  
Tel: 881024

**Org. 309**

Mr Mr Cao Xu Jun  
The Chinese Academy of Sciences  
Biotech Technology Corporation  
Zhongcuan Cun Haioian  
Beijing  
100080  
China  
Tel: 861 2566365  
Fax: 861 2566265

**Org. 310**

Mr Tang Wei  
Shanghai Cereal Science Research Institute  
441 Guang Fu Xi Lu  
Shanghai  
200063  
China  
Tel: 8621 2585142  
Fax: 8621 4336526

# DIRECTORY OF CONTACT ADDRESSES

**Org. 311**

Mr Song Shuming  
Chinese Academy of Sciences/Chengdu Inst  
of Biology  
No 9 Sec 4 Ren Min Nan Road  
Chengdu  
Sichuan Province  
610015  
China  
Tel: 8628 553920

**Org. 312**

Mr Liang Ghonede  
Hua Wei Patent Technology Development  
Company  
No 35 Laddong Nau Lu Xian  
Shaanxi Province  
710068  
China  
Tel: 8629 742439  
Fax: 8629 711959  
Tlx: 85 70185 NWTUY CN

**Org. 313**

Nr Wu Jingfang  
Xian Aihua Economic Technology Consult  
Service Co  
Xujiawuan  
Norih Suburb  
Xian  
Shaanxi  
China  
Tel: 029 61851-16  
Fax: 029 721618

**Org. 314**

The Scientific and Technical Information  
Centre  
Hanshou County  
Hunan Province  
China  
Tel: 322

**Org. 315**

Chairman  
The Alexandria Confectionery & Chocolate  
Co Corona  
173 Canal El Mahoudien  
Alexandria  
Egypt  
Tel: 4212315  
Tlx: 54321 ALCM

**Org. 316**

Mr S A Kumar  
Proprietor  
SP-28 111 Main Road  
Sakunth Chemicals  
South Phase XVII  
Ambattur Industrial Estate  
Madras 600 058  
India  
Tel: 662762  
Tlx: 041 6902 PCO IN

**Org. 317**

Mr P N Nandadasa  
Chairman/Managing Director  
Flexport (Pvt) Limited  
127 Jambugasmulla Mawatha  
Nugegoda  
Sri Lanka  
Tel: 553554  
Fax: 941 553 554  
Tlx: 22664 FLEXPO CE

**Org. 318**

Mr A Plewinski  
Manager  
Metal Forming Institute  
G1-120 Poznan  
Zamenhofa 4  
Poland  
Tel: 61 771081  
Fax: 61 791687  
Tlx: 0413480 inop pl

# DIRECTORY OF CONTACT ADDRESSES

## Org. 319

ISTIC

15 Fu Xing Lu

PO Box 3827

Beijing 100038

China

Tel: 8014020

Fax: 8014025

Tlx: 20079 ISTIC CN

## Org. 319.01

Refer to ISTIC Org. 319

Nanjing Research Institute of Cigarette

Filtering Material

## Org. 319.02

Refer to ISTIC Org. 319

Harbin Petro-Chemical Industry Corp Group

## Org. 319.03

Refer to ISTIC Org. 319

Shanghai Research of Chemical Industry

## Org. 319.04

Refer to ISTIC Org. 319

Central Iron & Steel Research Institute

## Org. 319.05

Refer to ISTIC Org. 319

Zhuzhou Flotation Reagent Company

## Org. 319.06

Refer to ISTIC Org. 319

Zhengzhou Metal Research Institute

## Org. 319.07

Refer to ISTIC Org. 319

Maanshan Iron & Steel Research Institute

## Org. 319.08

Refer to ISTIC Org. 319

Guandian Agricultural Technical Service Co  
of Fujian

## Org. 319.09

Refer to ISTIC Org. 319

Xiangxi Xinyu Iron and Steel Works of Hebei  
Province

## Org. 319.1

Refer to ISTIC Org. 319

Jinan Iron and Steel General Works

## Org. 319.11

Refer to ISTIC Org. 319

Baoshan General Iron and Steel Works

## Org. 319.12

Refer to ISTIC Org 319

Shenyang Scientific Instrument Centre

## Org. 319.13

Refer to ISTIC Org. 319

Maanshan Iron and Steel Co

## Org. 319.14

Refer to ISTIC Org. 319

Scientific & Tech Dev Dept of South Motive  
Power & Machinery

## Org. 319.15

Refer to ISTIC Org. 319

Anshan Iron and Steel Complex

## Org. 319.16

Refer to ISTIC Org. 319

Shuyang Electron Tube Factory

## Org. 319.17

Refer to ISTIC Org. 319

Ministry of Radio Film & TV Magnetic Tape  
Factory

## Org. 319.18

Refer to ISTIC Org. 319

Beijing Xi-Cheng District Medical Science &  
Tech Institute



## DIRECTORY OF CONTACT ADDRESSES

### Org. 320

Scientific Production Assoc for Drinks +  
Mineral Waters  
7 Rossolimo Str  
Moscow  
119021  
Russia  
Tel: 2466769  
Fax: 2461098

### Org. 321

Research and Production Association  
Complex  
PO Rzhavki  
Solnechnogorsk District  
Moscow Region 141552  
Russia  
Tel: 535 15 38

### Org. 322

The Lenin Komsomol Tech Coll of Naval  
Engineering  
13 Ul Sport Ivnya  
Nurmansk 183056  
Russia  
Tel: 78382  
Tlx: 126189 PARUS

### Org. 323

Mr B Padgett  
Managing Director  
The Technology Exchange Ltd  
Wrest Park  
Silsoe  
Beds  
MK45 4HS  
England  
Tel: +44 525 860333  
Fax: +44 525 860664

### Org. 323.01

Refer to Technology Exchange Ltd Org. 323  
Cogent Ltd

### Org. 323.02

Refer to Technology Exchange Ltd Org. 323  
Insyt (AEA Technology) Ltd

### Org. 324

PolSERVICE  
8 Chalubinskiego  
00 613 Warsaw  
Poland  
Tel: 301551  
Fax: 300076  
Tlx: 813539 upol

### Org. 325

Mr D N Dinn  
Director  
National Information & Documentation  
Centre for Science & Technology  
24 Ly Thuong Kiet  
Hanoi  
Vietnam  
Tel: 4254991  
Fax: 84 42 63127  
Tlx: 412287 UKKN VT

### Org. 325.01

Refer to Nat. Info. & Doc. Centre for  
Science & Technology Org. 325  
Corp for Manufacture of Essential Oils  
Aromas Cosmetics

### Org. 326

Mr K Loth  
Programme Co-ordinator  
UNIDO IPS WARSAW  
Stawki 2  
99 950 Warsaw  
Poland  
Tel: 635 71 12  
Fax: 635 12 60  
Tlx: 81 7916 UNIDO PL

# DIRECTORY OF CONTACT ADDRESSES

**Org. 326.01**

Refer to UNIDO Org. 326  
Biprowod

**Org. 326.02**

Refer to UNIDO Org. 326  
Starch and Potato Products Research

**Org. 326.03**

Refer to UNIDO Org. 326  
Industrial Chemistry Research Institute

**Org. 326.04**

Refer to UNIDO Org. 326  
Foundry Research Institute

**Org. 326.05**

Refer to UNIDO Org. 326  
Academy of Mining and Metallurgy in  
Cracow

**Org. 326.06**

Refer to UNIDO Org. 326  
Prodlew

**Org. 326.07**

Refer to UNIDO Org. 326  
Ponar - Pitron

**Org. 326.08**

Refer to UNIDO Org. 326  
Polam - Projekt

**Org. 326.09**

Refer to UNIDO Org. 326  
Unitra Lamina

**Org. 327**

Mr W Trojanowski  
Director  
Leather Research Institute  
90-960 Lodz  
Zgiaraks 73  
Poland  
Tel: 576210  
Tlx: 886423 ipes pl

**Org. 329**

Standard Gums & Chemicals  
MP Mehta  
62 Atlanta  
Nariman Point  
Bombay 400 0021  
India  
Tel: 244506  
Fax: 2046942  
Tlx: 011 84659

**Org. 330**

M J Ferette  
GTT c/o D G T R  
Avenue Prince de Liege 7  
B-5100 Jambes  
Belgium  
Tel: 32 81 32 16 80  
Fax: 32 81 30 66 00

**Org. 331**

Engineering & Technology  
Scientific Research Institute of Engine  
Production  
Electrolitny Proezd MA  
115230 Moscow  
Russia  
Fax: 111 23 33

## DIRECTORY OF CONTACT ADDRESSES

### Org. 332

All Union Research Institute for the Wire  
Industry  
6 Gertsen Str  
Mag Nitogorsk  
45001  
Russia  
Tel: 2 96 31

### Org. 334

Bulgarian Academy of Sciences Scientific  
Info Centre  
7 November Str  
1040 Sofia  
Bulgaria  
Tel: 35 9 2 892544  
Fax: 35 9 2 892544

### Org. 335

All Union Institute of Aviation Materials  
Moscow 107005  
Tel: 263 47 42

### Org. 336

The Urals Research Inst of Pipe Industry of  
Chelyabinsk  
30 Novorossiyskaya Street  
Chelyabinsk 454139  
Russia  
Tel: 535854  
Tlx: 124842 BLIK

### Org. 337

SPK Co  
2 Hobart Court  
New City  
NY 10956  
U S A  
Tel: 914 639 9163  
Fax: 914 639 0003

### Org. 338

Gemco Industries BV  
Science Paris  
Eindhoven 5053  
The Netherlands  
Tel: +31 40 643643  
Fax: +31 40 643770  
Tlx: 59388

### Org. 339

Informa Consult Ltd  
55 Chapeav Str  
1574 Sofia  
Bulgaria  
Tel: 71 81 53  
Fax: 70 41 45  
Tlx: 23 178

### Org. 341

Magnus Aerolubes Pvt Ltd  
PB 8142  
Bandra (E)  
Bombay 400 057  
India  
Tel: 4924698  
Fax: 4935371

### Org. 342

Asian & Pacific Centre for Transfer of  
Technology  
49 Palace Road  
PO Box 115  
Bangladore 560 052  
India  
Tel: 266930  
Fax: 91 812 263105

### Org. 342.01

Refer to Asian and Pacific Centre Org. 342  
Korea Development Technology Corp

# DIRECTORY OF CONTACT ADDRESSES

## Org. 342.02

Refer to Asian & Pacific Centre Org. 342  
Analog & Digital Systems

## Org. 342.03

Refer to Asian Pacific Centre Org. 342  
Vijay Energy Products

## Org. 343

P Kandaswami  
94/1 Peramanoor East Street  
Salem 636007  
India

## Org. 344

Dr R Y Angle  
President  
Priya Chemicals  
2 Larissa  
396/B Off S Temple Rd  
Opp Hammersmith Industrial Estate  
Mahim Bombay 400 016  
India  
Tel: 453084/454011  
Fax: 91 22 6407223  
Tlx: 011 78180 CBS IN

## Org. 345

Mr D S Joshi  
Director  
Metoxide Singapore Pte Ltd  
No 10 6th Lok Yang Road  
Singapore 2262  
Singapore  
Tel: 2655788  
Fax: 65 2640390  
Tlx: RS 24207

## Org. 346

Dr J Ngo Som  
Head Food Technology Laboratory  
Centre de Nutrition  
BP 6163  
Yaounde  
Cameroun  
Tel: 237 22 53 64  
Fax: 237 31 51 78  
Tlx: 8418 KN

## Org. 348

Mr S Muirhead  
Managing Director  
Speedispace Pty Ltd  
38 Advantage Road  
Highett Vic  
3190  
Australia  
Tel: 613 555 9111  
Fax: 613 555 9295

## Org. 349

Mr B Acikgoz  
Director  
Domsantas Dogu Mobilya Sanayi Ve Ticaret  
AS  
Gazi Bulvari Acar Sitesi No 2/1  
Agri  
Turkey  
Tel: 627 11716

## Org. 350

Mr B Acikgoz  
Director  
Goktarsan Goksun Tarim Urunleri Sanayi Ve  
Ticaret AS  
Kalesalyan Koyu  
Afsin Elbistan Karayolu 20 km  
Goksun  
Kahramanmaras  
Turkey  
Tel: 7731 1447  
Fax: 7731 2369

## DIRECTORY OF CONTACT ADDRESSES

**Org. 351**

Mr Y Ekinci  
Director  
Supersan Metal Kasa Sanayi  
No 10 KSS Golluce Cd 17 Nolu Sk  
Gaziantep  
Turkey  
Tel: 9 85 15 17 42

**Org. 352**

Mr B Acikgoz  
Director  
Yetas Yapi Elemanlari Endustri Ve Ticaret  
AS  
Sandikli Dinar Karayolu  
20 Km Kiziloren Mevkil  
Sandikli  
Afyon  
Turkey  
Tel: 4992 1648  
Fax: 4992 1005

**Org. 353**

Mr B Acikgoz  
Director  
Martu Insaat Malzemeleri Sanayi Ve Ticaret  
AS  
Organize Sanayi Bolgesi 47000  
Mardin  
Turkey  
Tel: 841 11250  
Fax: 841 11670

**Org. 354**

Mr M Yildiz  
Director  
BCS Elektronik Kilit San AS  
OSS 6 Nolu gecit No 19  
Gaziantep  
Turkey  
Tel: 9 85 15 39 56  
Fax: 9 85 15 41 15

**Org. 355**

Mr E Duysak  
Director  
OTO Duysak San Ve Tic  
Karatay San Gelik Sk 57  
Konya  
42300  
Turkey  
Tel: 33 163944  
Fax: 33 155 346  
Tlx: 48194

**Org. 356**

Mr I Findik  
Director  
Yuksel Lastik  
Meram San Somaki sok 22  
Konya  
42090  
Turkey  
Tel: 33 177 095 163 420  
Fax: 33 175 445  
Tlx: 48 322 inf tr

**Org. 357**

Mr R Ozer  
Director  
CER Foundry and Machinery Co  
PK 591  
Ulus  
06043  
Turkey  
Tel: 4 346 49 32  
Fax: 4 336 90 29

**Org. 358**

Mr I Saritas  
Director  
Saritas Motor Yenileme Makinalari Imalat  
No 2 Karatay San Sariyer Sok  
Konya  
Turkey  
Tel: 33 132158  
Fax: 33 150598

## DIRECTORY OF CONTACT ADDRESSES

### Org. 359

Mr M O Citci  
Director  
ERA Elektronik Sanayi Ve Tic AS  
Eski Buyukdere CAD 49/A  
4 Levent  
Istanbul  
Turkey  
Tel: 1 170 00 50  
Fax: 1 164 19 28  
Tlx: 26267 esta tr

### Org. 360

Mr T Erk  
Deputy Managing Director  
Meltas Melamin Sanayi Ticaret AS  
Topkapi - Maltepe  
Litros Tolu 24  
Istanbul  
Turkey  
Tel: 1 5676793  
Fax: 1 5772165

### Org. 361

Mr M Kacmaz  
Director  
Ede-Elektronik Devre Elemanlari AS  
Gokturk Yolu-Kemerburgaz  
Istanbul  
Turkey  
Tel: 139 14 40/2  
Fax: 379 01 61  
Tlx: 24561 pika tr

### Org. 362

Mr H Sorkun  
Director  
Hontel Kablo Sanayi Ve Ticaret AS  
Okcumusa CAD No 2 Sishane  
Istanbul  
Turkey  
Tel: 1564932  
Fax: 1535756  
Tlx: 25922 HNT TR

### Org. 363

Mr G Bolazar  
General Manager  
Alarko Sanayi Ve Ticaret AS  
Topcular  
Tikvesli Yolu 6  
Rami  
Istanbul  
Turkey  
Tel: 567 49 61  
Fax: 567 76 27  
Tlx: 23375 Acla tr

### Org. 364

Mr H B Aksu  
Director  
Konveyor Sanayi Ltd Sti  
No 3 Sokak Sanayi  
Kartal  
Istanbul  
Turkey  
Tel: 3530188  
Fax: 3871728  
Tlx: 36622 ktgx

### Org. 365

Dr A Kut  
Director  
Turkiye Sise Ve Cam Fabrikalari AS  
Barbaros Bulvari Camham No 125 Besiktas  
Istanbul  
80706  
Turkey  
Tel: 1 174 72 00  
Fax: 1 167 04 18  
Tlx: 26963 PCAM TR

## DIRECTORY OF CONTACT ADDRESSES

### Org. 366

Mr F Orman  
Chairman  
Orsan Yedek Parca Sanayi Ve Ticaret Ltd Sti  
A.101 Sok No 9  
Umraniye  
Istanbul  
81260  
Turkey  
Tel: 1 364 34 40  
Fax: 1 364 34 80  
Tlx: 29013 orf tr

### Org. 367

Mr T Gursay  
Director  
Mat at Giym San Ve Tic AS  
Kaz m Orbay Cad 88  
Istanbul  
80260  
Turkey  
Tel: 131 2782  
Fax: 131 27 87  
Tlx: 27868 Mom TR

### Org. 368

Mr O A Pekmezci  
Director  
Royal Gasket San ve Tic AS  
Y Dudullu Org Sanayi Bolgesi  
Umraniye  
Istanbul  
81260  
Turkey  
Tel: 90 1 364 87 60-61  
Fax: 90 1 364 42 23  
Tlx: 32303 OKPE TR

### Org. 369

Mr S Bilen  
Director  
Alim Kimya-Metalurji Sanayii Ve Ticaret AS  
Necatibey Cd No 88/3  
Karakoy  
Istanbul  
Turkey  
Tel: 143 19 37  
Fax: 152 67 50

### Org. 370

Mr S Esen  
Director  
Esen Bobinaj ve Makina Sanayi  
OTO Sanayi Sitesi 1 Cadde  
11 Sokak No 28 Guverlinlik  
Ankara  
Turkey  
Tel: 4 278 18 33

### Org. 371

All Union Research Institute for Food  
Products  
Babuskina Lane  
Kiev 3  
252190  
Russia  
Tel: 4220232

### Org. 372

Mr J Prus  
Central Mining Institute  
Plac Cwarkow 1  
40-951 Katowice  
Poland  
Tel: 581631-9  
Fax: 596533  
Tlx: 0312359 gig pi

## DIRECTORY OF CONTACT ADDRESSES

### Org. 373

Dr B Bednarek  
Assistant Professor  
Detector Laboratory  
Faculty of Physics and Nuclear Techniques  
AGH Al Mickiewicza 30  
30-059 Krakow  
Poland  
Tel: 0 48 12 33 37 40  
Fax: 0 48 12 34 00 10  
Tlx: 322294 IF3 PL

### Org. 374

Mr R P Agrawal  
Executive Director  
Multi-Max Engineering Works  
1127/A P L Sharma Road  
Meerut (UP)  
India  
Tel: 0121 14020

### Org. 375

Mr P G Fearn  
Managing Director  
Broquet International Limited  
54 Regent Street  
Rugby  
Warwickshire  
CV21 2PS  
England  
Tel: +44 788 540068  
Fax: +44 788 541396

### Org. 376

Mr H G Blass  
President  
Queensland India Business Development  
Association  
Conifer Grove  
Lot 3 Pine Ave  
Beenleigh  
4207  
Australia  
Tel: 07 807 20 29  
Fax: 07 907 20 29

### Org. 377

Mr P R Prasad  
Chief Executive  
Sammaan Exports Ltd  
21 Spur Tank Road  
Madras 600 031  
India  
Tel: 865551  
Fax: 91 44 862411  
Tlx: 041 7512 SEL-IN

### Org. 378

Mr M Amar  
Managing Director  
Ramak Industries Ltd  
Lot 1C O'Meara Industrial Estate  
Arima  
Trinidad  
West Indies  
Tel: 809 642 9064  
Fax: 809 642 0634



## DIRECTORY OF CONTACT ADDRESSES

**Org. 379**

Mr A Chomiskow  
President  
'Biprokwas' Engineering Ltd  
ul Konstytucji 11  
44-100 Gliwice  
Poland  
Tel: 32 313893  
Fax: 32 31 34 05  
Tlx: 036336

**Org. 380**

Jiangxi Science & Technology Comm  
Sheng Fu Da Yuan  
Nanchang 330046  
P R China  
Tel: 0086 791 64637  
Fax: 0086 791 221334

**Org. 380.01**

Refer to Jiangxi Sci & Tech Comm Org. 380  
Nanchang Aircraft Manufacturing Co

**Org. 380.02**

Refer to Jiangxi Sci & Tech Comm Org. 380  
Jiangxi Chemical Industry Design Institute

**Org. 381**

Mr R Schempp  
Co-ordinator  
United Church of Zambia and Rotary Club of  
Luanshya  
Soya Nutrition Project  
PO Box 90612  
Luanshya  
Zambia  
Tel: 02 511501

**Org. 382**

Mr T R Srinivasan  
Assistant Director  
The Tamil Nadu Plastic Industrial Co-op  
Societies Union  
Shed No SP 78 1st Main Road  
Ambattur Industrial Estate  
Madras 600 058  
India  
Tel: 6257490

**Org. 383**

Mr A P Rao  
Managing Director  
S V M Co Ltd  
Attavar  
Mangalore 575001  
India  
Tel: 25622  
Fax: 91 824 36104  
Tlx: 0824 201 ARUR IN

**Org. 384**

Mr S P Gupta  
Managing Partner  
Industrial Ceramics  
7-1-58 II Floor Room No 4  
Amrutha Business Complex  
Ameerpet Road  
HYD 16  
India  
Tel: 895174/896431  
Tlx: 420 6215 PCO IN

**Org. 385**

Dr E Prantz  
Managing Director  
Krems Chemie AG  
A-3500 Krems  
Hafenstrasse 77  
Austria  
Tel: +43 2732 899-210  
Fax: +43 2732 899-302  
Tlx: 71121

## DIRECTORY OF CONTACT ADDRESSES

### Org. 386

Mr S D Gupta  
Managing Partner  
Ceremo Enterprises  
7-1-58 II Floor Room No 4  
Amrutha Business Complex  
Ameerpet Road  
HYD 16  
India  
Tel: 221152/35149  
Tlx: 420 6215 PCO IN

### Org. 387

Mr Cou Yongzhu  
Xianju Local Product Corporation  
Jiefang Road No 85  
Xiangju County  
Zhejiang Province  
317300  
China  
Tel: 86577 772230 772247

### Org. 388

Ningbo Technical I/E Corp  
4/F Mayuan Mansion  
Ningbo  
Zhejiang  
China  
Tel: 0574 41148  
Fax: 0574 66650  
Tlx: 37026 NPNTC CN

### Org. 389

SV Agro-Industries Enterprises Inc  
Ungca 1  
Pavia  
Iloilo  
Philippines  
Tel: 7 99 12/7-79-12

### Org. 390

Mr M Amwar  
Managing Partner  
Allied Engineering Company  
G T Road  
Allied Building  
Gejranwale  
Pakistan  
Tel: 92 431 51576  
Fax: 92 431 34212  
Tlx: 45377 Pk

### Org. 391

Mr O V Padalko  
General Manager  
Ecovtormet Ltd  
Nizshny Kisloysky Per 8 of 7  
103009 Moscow  
Russia  
Tel: 095 246 3717  
Fax: 095 9732068

### Org. 392

Mr J Jalaluddin  
Managing Director  
SPE Consulting International  
Box 55016  
240 Sparks St  
Ottawa  
Ontario K1P 1A1  
Canada  
Tel: 1 613 830 2321

### Org. 393

Mr D Mannix  
Technology Transfer Manager  
NIMTECH  
1 Westgate  
Pennylands  
Skelmersdale  
Lancashire WN8 8LP  
England  
Tel: +44 695 50032  
Fax: +44 695 50812

## DIRECTORY OF CONTACT ADDRESSES

### Org. 394

Mr S Dore  
International Innovation Services  
Sheffield Technology Park  
60 Shirland Lane  
Sheffield  
S9 3SP  
England  
Tel: +44 742 560220  
Fax: +44 742 618555

### Org. 395

Dr A L Broseghini  
Associate Director  
Cornell Research Foundation Inc  
Cornell Business & Technology Park  
20 Thornwood Drive Suite 105  
Ithaca  
New York 14850  
U S A  
Tel: 010 1 607 257 1081  
Fax: 010 1 607 257 1015

### Org. 396

Mr Liu Dongsheng  
Director  
Sinotechmart  
PO Box 199-7  
Beijing 100036  
China  
Tel: 01 8015015  
Fax: 01 8016894

### Org. 397

Mr S K Garg  
Pawan Agrico  
G E Road  
Hirapur Road Crossing  
Tatibandh  
Raipur 492 010  
India  
Tel: 0 27223

### Org. 398

Mr B L Desai  
Managing Director  
Dabaga Vegetable and Fruit Canning Co Ltd  
PO Box 1957  
Dar Es Salaam  
Tanzania  
Tel: 30651

### Org. 399

Mr M Jacona  
R & D  
Sicplant International SRL  
Via Staurengi 37  
21100 Varese  
Italy  
Tel: 332 280184  
Fax: 332 237177  
Tlx: 323116 SICPLA I

### Org. 400

Mr H Zygmunt  
Associate Professor  
University of Mining and Metallurgy  
Al Mickiewicza 30  
30-059 Krakow  
Poland  
Tel: 4812 34 53 97  
Fax: 4812 33 10 14  
Tlx: 032203

### Org. 401

Dr A Suchanek  
Academy of Mining and Metallurgy  
Al Mickiewicza 30  
Krakow  
Poland  
Tel: 4812/335604  
Fax: 4812/334998  
Tlx: 0322274

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Information on the following NSIC Project Profiles, as well as those appearing within the catalogue sections, can be obtained by writing to the following address:

**TECHNOLOGY DATA BANK**  
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## MECHANICAL & ALLIED INDUSTRIES

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| 2  | Agricultural Implements       | 25 | Bread Cutter (stainless steel)              |
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- 206 Aluminium Casting
- 207 Aluminium Hydroxide Gel
- 208 Ammonia Paper; Ferro Prussiate Paper
- 209 Azo Dyes
- 210 Basic Dyes (Auramine 'O')
- 211 Basic Dyes (Methyl Violet)
- 212 Black Insulation Tape
- 213 Cadmium Cyanide
- 214 Calcium Carbonate
- 215 Calcium Chloride
- 216 Calcium Gluconate
- 217 Cellophane Tape
- 218 Chemical Porcelain
- 219 Copper Sulphate
- 220 Copper Wire
- 221 Corrugated Fibre Board
- 222 Detergent Cakes
- 223 Detergent Powder
- 224 Di-Calcium Phosphate
- 225 Di-Methyl Sulphate
- 226 Dry Distemper

## NSIC PROJECT PROFILES

- |                                  |                                      |
|----------------------------------|--------------------------------------|
| 227 Electroplating Unit          | 270 Tooth Powder (black & white)     |
| 228 Ferric Alum                  | 271 Trisodium Phosphate              |
| 229 Floor Polish                 | 272 Waste Oil Recycling              |
| 230 Formic Acid                  | 273 Water Soluble Wood Preservatives |
| 231 Foundry of Castings          | 274 Wax Candles                      |
| 232 French Polish                | 275 Zinc Chloride                    |
| 233 Guar Gum                     | 276 Zinc Nitrate                     |
| 234 Hair Oil                     | 277 Zinc Oxide                       |
| 235 Hydrated Lime                | 278 Zinc Sulphate                    |
| 236 ISO Propyl Xanthate          |                                      |
| 237 Joss Sticks                  |                                      |
| 238 Laundry Soap                 |                                      |
| 239 Lime                         |                                      |
| 240 Melamine Table Crockery      |                                      |
| 241 Menthol Crystal              |                                      |
| 242 Metal Polish                 |                                      |
| 243 Mosquito Smoke Oil           |                                      |
| 244 Naphelene Powder/Balls       |                                      |
| 245 Oil Bound Distemper          |                                      |
| 246 Ortho Amono Phenol           |                                      |
| 247 Other Inks (duplicating ink) |                                      |
| 248 Paints Driers                |                                      |
| 249 Paper to Paper Type Adhesive |                                      |
| 250 Phenyl-Ethyl Alcohol         |                                      |
| 251 Phosphoric Acid              |                                      |
| 252 Plaster of Paris             |                                      |
| 253 Polyethylene Film & Bags     |                                      |
| 254 Printing Ink                 |                                      |
| 255 Reactive Dyes                |                                      |
| 256 Recovery of Silver           |                                      |
| 257 Recycling of Waste Oil       |                                      |
| 258 Rose Scent                   |                                      |
| 259 Rosin and Turpentine Oil     |                                      |
| 260 Rubber Blowing Agent         |                                      |
| 261 Safety Matches               |                                      |
| 262 Sandal Wood Oil              |                                      |
| 263 Shoe Polish                  |                                      |
| 264 Sodium Silicate              |                                      |
| 265 Sodium/Potassium Citrate     |                                      |
| 266 Tablet Making                |                                      |
| 267 Tartaric Acid and Salt       |                                      |
| 268 Toilet Soap                  |                                      |
| 269 Tooth Powder                 |                                      |

### FOOD & ALLIED INDUSTRIES

- |   |
|---|
| 279 Aerated Water                       |
| 280 Baking Powder                       |
| 281 Banana Processing                   |
| 282 Bone Meal                           |
| 283 Bread & Biscuit Plant               |
| 284 Candy Making                        |
| 285 Canning of Meat & Allied Products   |
| 286 Canning of Potatoes                 |
| 287 Cashew Nut Shell Liquid (CNSL) Oil  |
| 288 Cashew Nuts (roasted & salted)      |
| 289 Cattle & Poultry Feed               |
| 290 Cheese Making Unit                  |
| 291 Confectionery                       |
| 292 De-hydration of Fruits & Vegetables |
| 293 Dehydrated Vegetables               |
| 294 Extrusion Cooked Products           |
| 295 Fish Fickle                         |
| 296 Fish Meal                           |
| 297 Fish Processing                     |
| 298 Flavoured Milk                      |
| 299 Garlic Processing                   |
| 300 GHEE                                |
| 301 Ginger Processing                   |
| 302 Groundnut Oil                       |
| 303 Ice                                 |
| 304 Ice Cream                           |
| 305 Ice Candy (lolly pops)              |
| 306 Ice Cream Cone (automatic)          |
| 307 Ice Cream Cone (semi automatic)     |
| 308 Instant Food Mixes                  |

# NSIC PROJECT PROFILES

- |     |                                     |     |   |
|-----|-------------------------------------|-----|---|
| 309 | Instant Noodle Making Plant         | 347 | Armature Tester                               |
| 310 | Iodised Salt                        | 348 | Auto Bulbs                                    |
| 311 | Jams                                | 349 | Auto Electric Fuse Boxes and Fuses            |
| 312 | Juices; nectars & beverages         | 350 | Auto Lamp Assemblies                          |
| 313 | Kattha & Catechu                    | 351 | Auto Telephone Recording & Answering Machines |
| 314 | Khandsari                           | 352 | Backlite Electrical Accessories               |
| 315 | Margarine                           | 353 | Baking Oven                                   |
| 316 | Mineral Water                       | 354 | Battery Cell Tester                           |
| 317 | Mini Flour Mill (maize corn)        | 355 | Battery Eliminators                           |
| 318 | Mushroom Processing                 | 356 | Carbon Brushes                                |
| 319 | Mustard Oil                         | 357 | Carbon Track Potentiometer                    |
| 320 | Oil Mill (palm oil)                 | 358 | Chokes  |
| 321 | Oil Mills (sunflower mafura sesame) | 359 | Ceiling Fan                                   |
| 322 | Papad Making                        | 360 | Cooking Range                                 |
| 323 | Potato Chips                        | 361 | Current Transformers                          |
| 324 | Potato Flour                        | 362 | Cycle Dynamo                                  |
| 325 | Potato Wafer                        | 363 | DC Micro Motors                               |
| 326 | Prawn Pickle                        | 364 | Desk Top Publishing                           |
| 327 | Puffed Snacks                       | 365 | Digital Clock                                 |
| 328 | Rice Flakes                         | 366 | Duplicating M/C                               |
| 329 | Saccharin                           | 367 | Duplicating Machines                          |
| 330 | Salt Refining                       | 368 | Electric Bulb                                 |
| 331 | Sesame Oil                          | 369 | Electric Horns                                |
| 332 | Soya Nuggets                        | 370 | Electric Iron                                 |
| 333 | Soya Sauce Brewing Plant            | 371 | Electric Kettles                              |
| 334 | Squashes and Syrups                 | 372 | Electric Meter                                |
| 335 | Starch from Tamarind Seeds          | 373 | Electric Mixers/Grinders                      |
| 336 | Starch from Tapioca                 | 374 | Electric Motor                                |
| 337 | Starch Syrup                        | 375 | Electric Stoves                               |
| 338 | Tamarind Concentrate                | 376 | Electronic Fan Regulator                      |
| 339 | Tamarind Powder                     | 377 | Electronic Flash Gun                          |
| 340 | Tanning of Hides                    | 378 | Electronic Gas Lighter                        |
| 341 | Tomato Ketchup Sauce                | 379 | Electronic PABX System                        |
| 342 | Vermicelli                          | 380 | Emergency Light                               |
| 343 | Vinegar                             | 381 | Exhaust Fan                                   |
| 344 | Yeast from Molasses                 | 382 | Frictional Horse Power Motors                 |
|     |                                     | 383 | General Light-Service Lamps (GLS)             |
|     |                                     | 384 | Hair Dryer                                    |
|     |                                     | 385 | Hot Case                                      |
|     |                                     | 386 | Hot Plates                                    |
|     |                                     | 387 | Ice Cream Making Plant                        |
|     |                                     | 388 | Immersion Rod                                 |
- ELECTRONICS AND ELECTRICAL INDUSTRIES**
- |     |                       |
|-----|-----------------------|
| 345 | AAC & ACSR Conductors |
| 346 | Air Break Switches    |

# NSIC PROJECT PROFILES

- 389 Inverters/Emergency Lights
  - 390 Loud Speaker
  - 391 Low Tension Porcelain Insulator
  - 392 Microphone
  - 393 Miniature Bulbs
  - 394 Miniature Circuit Board
  - 395 PA Amplifiers
  - 396 Potential Transformer
  - 397 Public Announcing Devices
  - 398 Push Button Starter
  - 399 Quarter Analog Clock-Electronic
  - 400 Radio
  - 401 Radio & TV Coils
  - 402 Room Heaters
  - 403 Rubber Insulated Cable
  - 404 Soldering Wire
  - 405 Starters for Fluorescent Lamps
  - 406 TV Antenna
  - 407 Table Fan
  - 408 Tape Deck Mechanism
  - 409 Toaster
  - 410 Uninterrupted Power Supply
  - 411 Video Cassettes
  - 412 Voltage Stabilizer
  - 413 Washing Machine
  - 414 Water Heater
  - 415 Wire Wound Resistors
  - 416 Ball Pen
  - 417 Ball Point Pens
  - 418 Bituminised Waterproof Paper
  - 419 Carbon Paper
  - 420 Craft Paper Manufacturing
  - 421 Drinking Straws
  - 422 Egg Trays of Different Sizes
  - 423 File Cover & Air Letters Envelopes
  - 424 Geometry Sets
  - 425 Gum Tape
  - 426 Hand Made Paper
  - 427 Paper Cones
  - 428 Paper Cups & Saucers
  - 429 Paper Cups for Yoghurt
  - 430 Paper Napkins & Toilet Paper Rolls
  - 431 Paper Pins & Gem Clips
  - 432 Pencil & Ink Eraser
  - 433 Pencil Sharpener
  - 434 Polypropylene Box Strapping
  - 435 Sanitary Napkins
  - 436 Synthetic Fibre Tips
  - 437 Telex; Teleprinter; Calculating Roll
  - 438 Typewriter Ribbons
  - 439 Anti Vibration Engine Mounting
  - 440 Auto Rubber Components
  - 441 Canvas Hoses
  - 442 Microcellular Sheets
  - 443 Reclaimed Rubber
  - 444 Rubber Balloons
  - 445 Rubber Beading
  - 446 Rubber Oil Seals
  - 447 Rubber Reclamation
  - 448 Rubber 'O' Rings
  - 449 Rubberised Coir Mattresses
  - 450 Surgical Gloves
  - 451 Tyre Flaps
  - 452 Tyre Retreading
  - 453 'O' Rings
- PVC INDUSTRIES**
- 454 Blow Moulded HDPE Containers
  - 455 Handle Bar Grips
  - 456 Latex Foam Mattresses
  - 457 Milk Pouch (bag)
  - 458 PVC Cable
  - 459 PVC Watch Straps
  - 460 Polythene Film
  - 461 Polythylene Films & Bags
  - 462 PVC Footwear
  - 463 PVC Gum Tape
  - 464 PVC Pipe Fittings
  - 465 PVC Rain Coats
  - 466 Rigid PVC Pipes
- PLASTIC INDUSTRIES**
- 467 Acrylic Sheets

# NSIC PROJECT PROFILES

- 468 Compression Moulded Plastic Goods
- 469 Disposable Syringes
- 470 Fibre Glass Products
- 471 Hope Woven Sacks
- 472 Injection Moulded Plastic Goods
- 473 Plastic Bottle Caps
- 474 Plastic Bottles
- 475 Plastic Buttons
- 476 Plastic Combs
- 477 Plastic Flash Light Torches
- 478 Plastic Recycling Unit
- 479 Polyester Sheets
- 480 Spectacle Frames

## LEATHER INDUSTRIES

- 481 Ankle Shoes & Booties
- 482 Chappals and Sandals
- 483 Industrial Leather Shoes
- 484 Leather Garments
- 485 Leather Goods (small items)
- 486 Leather Handbags - Ladies (non-framed)
- 487 Leather Handbags - Ladies (framed)
- 488 Leather Hand Gloves & Other Products
- 489 Leather Shoe Uppers
- 490 Leather Shoes (children)
- 491 Leather Shoes (moccasin)
- 492 Semi Finished Leather
- 493 Travel Goods (leather)

## GLASS & CERAMIC INDUSTRIES

- 494 Ceramic Table Ware
- 495 Glass Beads
- 496 Glass Flooring Tiles
- 497 Glass Marbles
- 498 Glass Tubing
- 499 Marble Tiles
- 500 Melamine Crockery Manufacturing Unit

- 501 Rear View Mirrors (auto)
- 502 Scientific Laboratory Glass Wares
- 503 Simple Glass Mirrors

## PACKAGING INDUSTRIES

- 504 Cardboard Boxes
- 505 Corrugated Box Making Plant
- 506 Corrugated Fibreboard Containers
- 507 Tin Containers (up to 18.5 litres)
- 508 Wax Coated Paper

## WOODEN INDUSTRIES

- 509 Drawing Boards
- 510 Fuel Briquettes
- 511 Plywood Making Plant
- 512 T-Squares
- 513 Universal Wood Working M/C
- 514 Wooden Furniture & Fittings



## TECHMART INDIA '92 SUPPLEMENT

### OFFERS

Ref No. Org.No. Status Offer Source

#### CATEGORY 1: CHEMICAL ENGINEERING

802349 453 M L/J R  
**CENTRIFUGAL PARTITION CHROMATOGRAPHY** Apparatus specialised in preparative separations: Kromaton composed of 2 coils (capacity 1,6 l).

302343 541 C L/J C  
**WATER BASED GLUES AND HOT MELT ADHESIVES** for industrial use in the packaging, labelling, cigarettes and bookbinding fields. Manufacturing technology offered includes: equipment, chemical formulations, studies for the use of local raw materials, on-site and off-site training.

302348 453 W L/J R  
**EXTRACTION BY MICRO-WAVES** for aromatic compounds and perfumes. Capacity: 10 l ; Power: 200 W.

2345 453 W L/J R  
**EXTRACTION USING ULTRASONIC TREATMENT** in order to increase the yield extraction or modify functional properties of macromolecules. Equipment includes sonoreactor equipped with 2 sonotrodes: 20 & 40 KHz.

502346 453 U L/J R  
**SOLVENT EXTRACTION** Solid/liquid and liquid/liquid solvent extraction capacity: 300 l with monofluid system (-7°C / +130°C).

902347 453 U L/J R  
**EXTRACTION AND PURIFICATION** with supercritical fluids of solid/liquid and liquid/liquid combinations. Pilot plant capacity: 2 l for both solid and liquid extraction.

Ref No. Org.No. Status Offer Source

#### CATEGORY 2: LIGHT INDUSTRY

102363 458 F L R  
**WAREHOUSE EQUIPMENT AND SURFACE TREATMENTS** Centre specialising in warehouse equipment and surface treatments; equipped with a sophisticated test laboratory and industrial production equipment for new technologies (thermal projection by electron torch, vacuum heat treatment, thermionic treatments, thick coating, non-destructive testing).

802342 450 C J C  
**ELECTROLYTIC PLATING PROCESS** following successive stages: electrolytic degreasing, two electrolytic etchings, an undercoat of nickel for adhesion and nickel-cobalt coating, always applied within tolerance.

302368 463 W L/J U  
**SOLAR MOTOR WATER PUMP** is an autonomous product, based on a simple technology to be manufactured, maintained as well as commercialised and marketed by third-world countries. The current prototype allows pumping of 2.5 cubic metres of water per hour at a depth of 30 metres.

102361 457 F/C S/J C  
**MILLING COMPLEXES** technological and managerial know-how offered from worldwide experience.

2365 460 U/C L/J C  
**SURFACE TREATMENT AND COATING** technology transfer offered.

## TECHMART INDIA '92 SUPPLEMENT

### OFFERS

Ref No. Org.No. Status Offer Source

502355 456 F/C J C  
**PNEUMATIC FLEXIBLE FORMS** including gutter casting techniques for surface water drainage, inflatable hoses, inflatable lifting jacks, etc.

802367 462 P/W S R  
**WATER AND GAS TREATMENT**, waste treatment, fermentation, cosmetics, food processing, etc: technology transfer and consultancy offered.

#### CATEGORY 4: COMPUTERS

702351 454 M/F  
**SOFTWARE ERGONOMICS** Observation laboratory used in order to improve man/machine interface by examining work on a computer.

602353 454 M/F  
**INFORMATIC METHODOLOGY AND HUMAN FACTORS** for human-centred approach to informatics.

202350 454  
**CAD/CAM TECHNICAL DATA EXCHANGE** Center of competence providing: IGEB and SET processor expertise; seminars for sensibility and knowledge transfer; processor testing; realisation of methodologies for exchange between prime and sub-contractors.

202352 454 M/F  
**ERGONOMICS OF ARCHITECTURE** Methods of activity analysis assisted by CAD/CAM in 3-D.

Ref No. Org.No. Status Offer Source

#### CATEGORY 6: FOOD PROCESSING

502344 452 P R  
**POST-HARVEST LOSS** analysis of the causes of post-harvest losses at different in the fruit and vegetable systems and to overcome physical and economic losses at the critical points.

302357 457 F/C S/J C  
**POULTRY** Egg production, production of broilers and breeders.

702360 457 F/C S/J C  
**AGRO-FOOD PLANTS** for baking, biscuits and rusks, pasta, animal feed, etc.

602362 457 F/C S/J C  
**AGRICULTURAL PRODUCTION TECHNIQUES** large scale production of food crops, cereals and mechanised industrial farming.

2354 455 P J C  
**QUALITY ANALYSIS OF FOOD PRODUCTS**, certification of conformity of products to worldwide regulations, especially in EEC countries.

502364 459 C L/J P  
**PRODUCTION OF MILK REPLACERS** used to replace mother's milk for young ruminants: calves, lambs and kids from birth after the colostrum to weaning. This licence should interest dairies enabling them to collect more cow, ewe or goat milk. A complete set of literature is available for inspection.

2356 457 F/C S/J C  
**INTEGRATED AGRO-FOOD COMPLEXES** Frozen and fresh food production; bread; croissants; viennese pastries; catering; etc.

## TECHMART INDIA '92 SUPPLEMENT

### OFFERS

Org.No. Ref No. Status Offer Source

402366 461 F L/S R  
**AGRI-FOOD PRODUCTION**  
**TECHNIQUES** product development, new processes, all types of processing, preserving and packaging (freezing, refrigeration, vacuum-packaging, pasteurisation, bottling, dehydration), agri-food projects and sensorial analyses. Meat, poultry, game, fish, fruit, vegetables and flours all covered.

802358 457 F/C S/J C  
**DAIRY PLANTS** U.H.T milk, yoghurt, cheeses, fresh cream, ices creams, fruit juices, etc.

302359 457 F/C S/J C  
**CANESUGAR PRODUCTION** This company has built and/or is managing 9 sugar plants throughout the world with a total potential output of 300,000 tons of granulated sugar per year.

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### DIRECTORY OF CONTACT ADDRESSES

The following companies will all be represented at the Techmart Fair by IPS Paris, except Org.No.463 ENSAM, who have their own stand.

**Org. 450**  
Mrs E. Fouillet  
Manager  
DALIC Selective Plating  
41 Rue des eaux  
BP 25 35501 VITRE Cedex  
France  
Tel: +33-99-75.53.699  
Fax: +33-99-24.49.31  
Tlx: 741350

**Org. 451**  
Mr J.E. Gancille  
Export Area Manager  
Heitz Alsacol Industries S.A.  
BP 66  
95020 Cergy-Pontoise Cedex  
France  
Tel: +33-1-34.25.01.25  
Fax: +33-1-34.24.97.69  
Tlx: 609782 F

**Org. 452**  
Mr M. Leusie  
Manager  
(Regional Centre for Innovation and  
Technology Transfer)  
CRITT Crisalide  
2 Rue Henri Becquael  
49070 Beaucouzé  
France  
Tel: 41-48-13-50  
Fax: 41-48-07-87

## TECHMART INDIA '92 SUPPLEMENT

### Org. 453

Mr B. Mompon  
General Manager  
ARCHIMEX  
P.I.B.S. CP 31  
56038 VANNES Cedex  
France  
Tel: +33-1-97-47.06.00  
Fax: +33-1-97-47.56.90

### Org. 454

Mr J. Tortos  
Manager  
(Innovation Logiciel Systeme)  
Association I.L.S.  
50 5A Allee Marine  
64400 BAYONNE  
France  
Tel: 59-46.59.71  
Fax: 59-46.59.47  
Tlx: 570001

### Org. 455

Mrs Sophie Breton  
Manager  
Centre de Conservation de Produits Agricoles  
44 Rue d'Allesia  
75682 Paris  
France  
Tel: +33-1-43.23.38.21  
Fax: +33-1-43.21.23.52

### Org. 456

Mr O. Moirand  
Export Manager  
SATUJO  
12 av. Francois Sommer  
ZI 92167  
ANTONY  
France  
Tel: +33-1-46.68.80.22  
Fax: +33-1-46.68.48.13

### Org. 457

Mr P. Guitard  
Executive Manager  
SOMDIAA  
39 Rue J.J. Rousseau  
75023 PARIS Cedex 01  
France  
Tel: +33-1-40.39.55.00  
Fax: +33-1-40.39.55.01  
Tlx: 212677 F

### Org. 458

Mr G. Le Magnau  
Directeur  
CRITT  
3 Boulevard Jean Delautre  
PARIS  
France  
Tel: +33-1-24.37.89.89  
Fax: +33-1-24.37.62.22

### Org. 459

Mr Rene Dufief  
Export Manager  
SERVAL S.A.  
B.P. No.4 La Creuse de Saint Eanne  
79800 La Mothe Saint Heray  
France  
Tel: +33-49-05.05.11  
Fax: +33-49-05.04.09  
Tlx: 790403 F

### Org. 460

Mr F. Garnier  
Chargé de Mission  
CRITT Surface ASTEC  
BP 85X  
38041 GRENOBLE Cedex  
France  
Tel: +33-76.88.47.26  
Fax: +33-76-88.36.89

## TECHMART INDIA '92 SUPPLEMENT

**Org. 461**

Mr J-M. Justumus  
Directeur  
CRITT Agro-Alimentaire D'Auch  
Zone Industrielle Est.  
32000 Auch  
MIDI-PYRENEES  
France  
Tel: +33-62.60.63.63  
Fax: +33-62.60.63.64

**Org. 462**

Mr G. Blanchard  
Manager  
CRITT Biotechnologies  
9 Rue du Clos Courtel  
35700 RENNES  
France  
Tel: +33-99-38.33.00  
Fax: +33-99-63.76.88

**Org. 463**

Mrs B. Pramil  
Researcher  
ENSAM CPN  
151 Bd. de l'Hopital  
75013 PARIS  
France  
Tel: +33-1-44.24.63.80  
Fax: +33-1-45.85.87.04