

Credit link capital subsidy scheme



GOVERNMENT OF INDIA Revised Guidelines on Credit Linked Capital Subsidy Scheme (CLCSS) for Technology Upgradation of Small Scale Industries (SSI) (As on April 20, 2006) Office of the Development Commissioner (SSI) Ministry of Small Scale Industries Government of India Nirman Bhavan, New Delhi-110011

These guidelines can also be downloaded from the following

Websites : <http://www.dcmsme.gov.in/> [http://www.dcmsme.gov.in/ INDEX](http://www.dcmsme.gov.in/INDEX)

Sl. No. CONTENTS 1. Guidelines of the Credit Linked Capital Subsidy

Scheme (CLCSS) 2 Appendices:-) Approved list of Well Established and

Improved Technologies under the CLCSS (Appendix – I) i) Bio-tech Industry

ii) Common Effluent Treatment Plant iii) Corrugated Boxes iv) Drugs and

Pharmaceuticals v) Dyes and Intermediates vi) Industry based on Medicinal

and Aromatic plants vii) Plastic Moulded/ Extruded Products and Parts/

Components viii) Rubber Processing including Cycle/ Rickshaw Tyres ix) Food

Processing (including Ice Cream manufacturing) x) Poultry Hatchery & Cattle

Feed Industry xi) Dimensional Stone Industry (excluding Quarrying and

Mining) xii) Glass and Ceramic Items including Tiles iii) Leather and Leather

Products including Footwear and Garments xiv) Electronic equipment viz

test, measuring and assembly/ manufacturing, Industrial process control;

Analytical, Medical, Electronic Consumer & Communication equipment etc.

xv) Fans & Motors Industry xvi) General Light Service (GLS) Lamps xvii)

Information Technology (Hardware) xviii) Mineral Filled Sheathed Heating

Elements xxix) Transformer/ Electrical Stampings/ Laminations /Coils/Chokes

including Solenoid coils xx) Wires & Cable Industry xxi) Auto Parts and

Components xxii) Bicycle Parts xxiii) Combustion Devices/ Appliances xxiv)

Forging & Hand Tools xv) Foundries – Steel and Cast Iron xxvi) General

Engineering Works xxvii) Gold Plating and Jewellery xxviii) Locks xxix) Steel

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Furniture xxx) Toys xxxi) Non-Ferrous Foundry xxxii) Sport Goods xxxiii)
Cosmetics xxxiv) Readymade Garments xxxv) Wooden Furniture xxxvi)
Mineral Water Bottle xxxvii) Paints, Varnishes, Alkyds and Alkyd products
xxxviii) Agricultural Implements and Post Harvest Equipment xxxix)
Beneficiation of Graphite and Phosphate xxxx) Khadi and Village Industries
xxxxi) Coir and Coir Products xxxxi) Steel Re-rolling and /or Pencil Ingot
making Industries xxxxi) Zinc Sulphate xxxxiv) Welding Electrodes xxxv)
Sewing Machine Industry xxxvi) Industrial Gases xxxvii) Printing Industry
xxxviii) Machine Tools b) List of Primary Lending Institutions (PLI)
(Scheduled Commercial Banks, State Financial Corporation (SFC) & the NSIC
Ltd, Cooperative Banks, Regional Rural Banks and North Eastern
Development Financial Institution, other nodal banks / agencies participating
in the scheme (Appendix II). c) Agreement for Financial Assistance under the
CLCSS (Appendix III) d) Application Form for Assistance under the CLCSS
(Appendix IV). e) Addresses of the SIDBI Head Office and its branches. f)
Addresses of the NABARD Head office and its field offices.

Credit Linked Capital Subsidy Scheme (CLCSS) for Technology Upgradation of
the Small Scale Industries 1. Background 1. 1 The Ministry of Small Scale
Industries (SSI) is operating a scheme for technology upgradation of Small
Scale Industries (SSI) called the Credit Linked Capital Subsidy Scheme
(CLCSS). The Scheme aims at facilitating technology upgradation by
providing upfront capital subsidy to SSI units, including tiny, khadi, village
and coir industrial units, on institutional finance (credit) availed of by them
for modernisation of their production equipment (plant and machinery) and
techniques.

The Scheme (pre-revised) provided for 12 per cent capital subsidy to SSI units, including tiny units, on institutional finance availed of by them for induction of well established and improved technology in selected sub-sectors/products approved under the Scheme. The eligible amount of subsidy calculated under the pre-revised scheme was based on the actual loan amount not exceeding Rs. 40 lakh. 1. 2 Due to insufficient investment and lack of awareness of both the quality standards and access to modern technologies, a large percentage of SSI units continue with outdated technology and plant & machinery.

With increasing competition due to liberalisation of the economy, the survival and growth of the SSI units are critically dependent on their modernisation and technological upgradation. Upgradation of both the process of manufacture and corresponding plant and machinery is necessary for the small enterprises to reduce the cost of production and remain price competitive at a time when cheaper products are easily available in the global market. 1. 3 It is in this background that the Finance Minister made an announcement in the Budget Speech of 2004-05 to raise the ceiling for loans under the Scheme from Rs. 40 lakh to Rs. 1 crore and rate of subsidy from 12 per cent to 15 per cent. Further, in the light of the experience gathered in implementing the Scheme, certain other modifications were also required to make it more useful to the SSI units, including tiny, khadi, village and coir industrial units, in taking up technology upgradation on a larger scale. 1. 4 After considering these issues, the CLCSS has been amended as follows : (a). the ceiling on loans under the Scheme has been raised from Rs. 40 lakh to Rs. 1 crore; (b). the rate of subsidy has been enhanced from 12 per cent to 15

per cent; (c). the admissible capital subsidy is to be calculated with reference to the purchase price of plant and machinery, instead of the term loan disbursed to the beneficiary unit; (d). the practice of categorisation of SSI units in different slabs on the basis of their present investment for determining the eligible subsidy has been done away with ; and (e). the operation of the Scheme has been extended upto 31 st March, 2007. The above amendments are effective from September 29, 2005. 2. Objective 2. The revised scheme aims at facilitating technology upgradation by providing 15 per cent upfront capital subsidy with effect from the 29 th September, 2005 (12 per cent prior to 29. 09. 2005) to SSI units, including tiny, khadi, village and coir industrial units (hereinafter referred to as SSI units), on institutional finance availed of by them for induction of well established and improved technologies in the specified sub-sectors / products approved under the scheme. 3. Scope of the Scheme 3. 1 The scheme would cover the following technology needs / products/sub – sectors:) Bio-tech Industry ii) Common Effluent Treatment Plant iii) Corrugated Boxes iv) Drugs and Pharmaceuticals v) Dyes and Intermediates vi) Industry based on Medicinal and Aromatic plants vii) Plastic Moulded/ Extruded Products and Parts/ Components viii) Rubber Processing including Cycle/ Rickshaw Tyres ix) Food Processing (including Ice Cream manufacturing) x) Poultry Hatchery & Cattle Feed Industry xi) Dimensional Stone Industry (excluding Quarrying and Mining) xii) Glass and Ceramic Items including Tiles iii) Leather and Leather Products including Footwear and Garments xiv) Electronic equipment viz test, measuring and assembly/ manufacturing, Industrial process control; Analytical, Medical, Electronic Consumer & Communication equipment etc. xv) Fans & Motors Industry xvi) General Light Service(GLS) lamps xvii)

Information Technology (Hardware) xviii) Mineral Filled Sheathed Heating Elements xix) Transformer/ Electrical Stampings/ Laminations /Coils/Chokes including Solenoid coils xx) Wires & Cable Industry xxi) Auto Parts and Components xxii) Bicycle Parts xxiii) Combustion Devices/ Appliances xxiv) Forging & Hand Tools xv) Foundries – Steel and Cast Iron xxvi) General Engineering Works xxvii) Gold Plating and Jewellery xxviii) Locks xxix) Steel Furniture xxx) Toys xxxi) Non-Ferrous Foundry xxxii) Sport Goods xxxiii) Cosmetics xxxiv) Readymade Garments xxxv) Wooden Furniture xxxvi) Mineral Water Bottle xxxvii) Paints, Varnishes, Alkyds and Alkyd products xxxviii) Agricultural Implements and Post Harvest Equipment xxxix) Beneficiation of Graphite and Phosphate xxxx) Khadi and Village Industries xxxxi) Coir and Coir Products xxxxii) Steel Re-rolling and /or Pencil Ingot making Industries xxxxiii) Zinc Sulphate xxxxiv) Welding Electrodes xxxv) Sewing Machine Industry xxxxvi) Industrial Gases xxxxvii) Printing Industry xxxxviii) Machine Tools A list of Well Established and Improved Technologies is enclosed at Appendix-I. The cost of plant and machinery mentioned in Appendix – I is only indicative. Actual cost may be taken for the purpose of calculation of subsidy 3. 2 As the Scheme progresses, the list of products / sub-sectors may be expanded by inducting new technologies / products / sub-sectors with the approval of the Competent Authority, i. e. the Governing and Technology Approval Board (GTAB) / Technical Sub-Committee(TSC) of the CLCSS. . Nodal Agencies 4. 1 The Small Industries Development Bank of India (SIDBI) and the National Bank for Agriculture and Rural Development (NABARD) will continue to act as the Nodal Agencies for the implementation of this scheme. 4. 2 As decided in the 5 th meeting of the Governing and Technology Approval Board (GTAB) of the Credit Linked Capital Subsidy

Scheme (CLCSS) held on February 17, 2006 the following nine Public Sector Banks/ Government Agencies have also been inducted as nodal banks/agencies for implementation and release of capital subsidy under the CLCSS:

S. No. Name of Bank/Agencies 1. State Bank of India 2. Canara Bank 3. Bank of Baroda 4. Punjab National Bank 5. Bank of India 6. Andhra Bank 7. State Bank of Bikaner & Jaipur 8. Tamil Nadu Industrial Investment Corporation 9. The National Small Industries Corporation Ltd. 4. 3 The inclusion of above-mentioned nodal banks/agencies will be in addition to the existing nodal agencies, namely, the Small Industries Development Bank of India (SIDBI) and the National Bank for Agriculture and Rural Development (NABARD) under the CLCSS.

These nodal banks/ agencies would consider proposals only in respect of credit approved by their respective branches, whereas, for other Primary Lending Institutions (PLI), the SIDBI and the NABARD would continue to be the nodal agencies for release of subsidy under this scheme. 4. 4 The cut-off date for implementing the above decision is April 04, 2006 . No proposals after this cut off date will be sent to the SIDBI or the NABARD, as the case may be, by these banks/agencies and the new nodal banks/agencies would start processing proposals directly after this cut-off date for release of subsidy under the CLCSS. . 5 Other modalities for implementing the above decision will remain the same as are currently in practice in the case of the SIDBI and the NABARD. 5. Eligible Primary Lending Institutions (PLI) 5. 1 All Scheduled Commercial Banks , Scheduled Cooperative Banks [including the urban cooperative banks co-opted by the SIDBI under the Technological

Upgradation Fund Scheme(TUFS) of the Ministry of Textiles], Regional Rural Banks (RRBs), State Financial Corporations (SFCs) and North Eastern

Development Financial Institution (NEDFi) are eligible as PLI under this scheme after they execute a General Agreement (GA) with any of the nodal agencies, i. e. , the Small Industries Development Bank of India (SIDBI) and National Bank for Agriculture and Rural Development (NABARD). 5. 2 Details of eligible Scheduled Commercial Banks, SFC, Cooperative Banks [including urban cooperative banks co-opted by the SIDBI under the Technological Upgradation Fund Scheme(TUFS) of the Ministry of Textiles]/ and RRBs under this scheme are provided at Appendix II. . Eligible Beneficiaries 6. 1 The eligible beneficiaries include sole Proprietorships, Partnerships, Co-operative societies, Private and Public limited companies in the SSI sector. Priority shall be given to Women entrepreneurs. 7. Types of units to be covered under the Scheme i). Existing SSI units registered with the State Directorate of Industries, which upgrade their existing plant and machinery with the state-of -the -art technology, with or without expansion. ii).

New SSI units which are registered with the State Directorate of Industries and which have set up their facilities only with the appropriate eligible and proven technology duly approved by the GTAB/TSC. 8. Eligibility Criteria i). Capital subsidy at the revised rate of 15 per cent of the eligible investment in plant and machinery under the Scheme shall be available only for such projects, where terms loans have been sanctioned by the eligible PLI on or after September 29, 2005 . Machinery purchased under Hire Purchase Scheme of the NSIC are also eligible for subsidy under this Scheme . i).

Industry graduating from small scale to medium scale on account of sanction

of additional loan under CLCSS shall be eligible for assistance. iii). Eligibility for capital subsidy under the Scheme is not linked to any refinance Scheme of the Nodal Agency (ies). Hence, it is not necessary that the PLI will have to seek refinance in respect of the term loans sanctioned by them from any of the refinancing Nodal Agencies. iv). Labour intensive and/or export oriented new sectors/ activities will be considered for inclusion under the scheme. .

Definition of Technology Upgradation 9. 1 Technology upgradation would ordinarily mean induction of state-of-the-art or near state-of-the-art technology. In the varying mosaic of technology obtaining in more than 7500 products in the Indian small scale sector, technology upgradation would mean a significant step up from the present technology level to a substantially higher one involving improved productivity, and/or improvement in the quality of products and/or improved environmental conditions including work environment for the unit.

It would also include installation of improved packaging techniques as well as anti-pollution measures and energy conservation machinery. Further, the units in need of introducing facilities for in-house testing and on-line quality control would qualify for assistance, as the same is a case of technology upgradation. 9. 2 Replacement of existing equipment/technology with the same equipment/technology will not qualify for subsidy under this scheme, nor would the scheme be applicable to units upgrading with second hand machinery. 10. Duration of the Scheme

Presently, the scheme is in operation up to March 31, 2007 or till the time sanctions of aggregate capital subsidy disbursed by the Nodal Agencies reaches Rs. 600 crore, whichever is earlier. 11. Ceiling on eligible loan

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amount and capital subsidy 11. 1 The maximum limit of eligible loan under the revised scheme is Rs. 100 lakh. Accordingly, the ceiling on subsidy would be Rs. 15 lakh or 15 per cent of the investment in eligible plant and machinery, whichever is lower. i). In calculating the value of plant & machinery, the following shall be excluded, namely : the cost of equipments such as tools, jigs, dies, moulds and spare parts for maintenance and the cost of consumable stores; • the cost of installation of plant & machinery; • the cost of research & development equipment and pollution control equipment (except where these have been approved for specific product/sub sector by the GTAB ; • the cost of generation sets and extra transformer installed by the undertaking as per the regulations of the State Electricity Board; (except where gas based generation sets have been approved for specific product/sub- sector by the GTAB). the bank charges and service charges paid to the National Small Industries Corporation Ltd or the State Small Industries Corporation; • the cost involved in procurement or installation of cables, wiring, bus bars, electrical control panels (not those mounted on individual machines), oil circuit breakers or miniature circuit breakers which are necessarily to be used for providing electrical power to the plant & machinery or for safety measures; • the cost of gas producer plants (except where these have been approved for specific product/sub sector by the GTAB) ; transportation charges (excluding of sales-tax and excise) for indigenous machinery from the place of manufacturing to the site of the factory; • charges paid for technical know-how for erection of plant & machinery; • cost of such storage tanks which store raw materials, finished products only and are not linked with the manufacturing process; and • cost

of fire fighting equipment. ii). The amendments to the existing CLCSS are applicable with effect from 29. 9. 2005.

The revised rates are applicable only in cases where the loans have been sanctioned/ approved on or after September 29, 2005 . Cases where the loans were sanctioned/ approved prior to September 29, 2005 will be governed by the pre-revised guidelines regarding ceiling on subsidy (Rs. 4. 80 lakh), method of calculation of subsidy, etc. iii). Units which have already availed subsidy under the pre-revised CLCSS scheme (before 29. 9. 2005), cannot claim additional subsidy on account of difference in the rate of subsidy which is now permissible under the revised guidelines.

2. Working Capital Requirements

12. 1 Since success of the technology upgradation scheme, to a large extent, depends upon the availability of adequate working capital, lending institutions would like to be assured that the borrowing units have made adequate arrangements for meeting the working capital requirements. Commercial banks should also accord priority in providing adequate working capital support to the assisted units.

13. Other conditions for loans

i). Promoters' contribution, security, debt-equity ratio, up-front fee, etc. ill be determined by the lending agency as per its existing norms. ii). Units availing subsidy under the CLCSS shall not avail any other subsidy for technology upgradation from the Central/State/UT Government. However, cases covered under National Equity Fund (NEF) Scheme, which are otherwise eligible under the CLCSS can also be covered under this scheme. iii). Units in the North-Eastern Region which are availing financial incentives/subsidy under any other scheme from the Government in the Region would, however, be eligible for subsidy under the CLCSS. iv).

One of the main requirements for sanction of assistance under the technology upgradation scheme will be availability of competent management in the unit concerned to carry out the upgradation programme and to manage the operation of the unit efficiently. Towards this end, the lending agencies may stipulate conditions as may be considered necessary.

14. Procedural Aspects i). All the eligible PLI (excluding the new nodal banks / agencies) will have to execute a General Agreement (GA) for availing capital subsidy under the scheme, irrespective of the fact whether refinance is availed by them or not. i). The PLI may have the flexibility to execute the GA with either of the nodal agencies or with both the nodal agencies for providing subsidy to the eligible beneficiaries under the scheme. However, in the latter case, while claiming the subsidy from one nodal agency, the PLIs will have to give the undertaking to the nodal agency that they have not claimed subsidy under CLCSS in respect of the beneficiary unit from the other nodal agency (as the case may be). ii). After sanction of the assistance, the eligible PLI will get an agreement executed with the concerned SSI unit on behalf of Government of India (GoI). Format of the agreement to be executed by the eligible PLI with the SSI unit is provided in Appendix III. iv). The eligible PLI would obtain application for assistance under the CLCSS in the prescribed form provided in Appendix – IV. v).

The eligible PLI shall furnish subsidy forecast on quarterly basis, through their Head Office (HO), which will act as a nodal office, to the Regional Office (RO)/Branch Office (BO) of the SIDBI or the NABARD (as the case may be) located in the region. The subsidy forecast information for every quarter on or before 1 st March for April-June quarter, on or before 1 st June for July-

September quarter, on or before 1 st September for October-December quarter and on or before 1 st December for January-March quarter, may be furnished as per prescribed format. i). The eligible PLI would release the subsidy amount with each installment of loan in a manner proportionate to the amount of term loan disbursed (on pro- rata basis), subject to the ceiling of the term loan/ subsidy amount as per applicable guidelines of the CLCSS. vii). The eligible PLI shall furnish details of release of subsidy to the beneficiary units, together with the request for replenishing advance money placed with PLI for release of subsidy, on quarterly basis on March 1, June 1, September 1 and December 1.

The requests of PLI for replenishment of advance money for subsidy, however, would be entertained by the nodal agencies only on receipt of complete details of subsidy released to the beneficiary units. viii). The eligible PLI shall be responsible for ensuring eligibility for sanction of subsidy to the SSI units in terms of Government of India guidelines under this scheme and also for disbursement and monitoring of the assisted units. 15. Other Parameters i). The Governmental assistance cannot be utilised for the purposes other than for which it has been sanctioned.

The eligible PLI shall have to strictly follow this norm and no deviation would be permitted. ii). In case, it is found that capital subsidy from the Government has been availed of on the basis of any false information, the industrial unit shall be liable to refund the Government the capital subsidy availed, along with interest to be charged from the date of disbursement to the date of refund. The rate of interest shall be the prime lending rate of the PLIs concerned at the time of invoking this penal clause. ii). The eligible PLI shall,

therefore, incorporate suitable conditions in respect of point at (ii) above in their security documents entered into with the unit, which would give necessary authorisation to proceed legally in such eventualities. iv). The credit risk under the Scheme will be borne by the eligible PLI and as such, they will have to make their own commercial judgement while appraising the project. The credit decision of the eligible PLI will be final. v).

There shall not be any binding obligation on the part of the nodal banks/agencies to obtain sanction from Gol for the government assistance in respect of the proposals which are covered under the CLCSS. vi). Both the SIDBI and the NABARD shall have the right to inspect the books of eligible PLI and the loan accounts irrespective of whether refinance is availed or not from the Nodal Agency (ies) under this Scheme and/ or call for any other information as may be required by Gol from time to time. ii). Both the SIDBI and the NABARD shall have the right to recall from eligible PLI the entire amount of the capital subsidy in respect of their assisted units irrespective of whether or not the eligible PLI have recovered the said subsidy from their units, if they come to the conclusion that any of the accounts do not conform to the policies, procedures and guidelines laid down under the CLCSS guidelines and as stipulated by the Gol/the Nodal Agencies from time to time. viii).

The beneficiary unit shall remain in commercial production for a period of at least three years after installation of eligible plant and machinery on which subsidy under CLCSS has been availed. 16. Monitoring of the scheme 16. 1 The scheme is monitored by the Governing and Technology Approval Board (GTAB of the CLCSS. The Secretary (SSI) is the Chairperson of the Board and <https://assignbuster.com/credit-link-capital-subsidy-scheme/>

the Additional Secretary & Development Commissioner (SSI) is its Member-Secretary. The GTAB would also periodically review the functioning of the scheme.

There is a Technical Sub-Committee under the GTAB to consider inclusion of new sub-sectors/products and Well Established and Improved Technologies under the Scheme

APPENDIX-I

i. Bio-tech Industry. (Cost mentioned is only indicative)

| Sl. No. | Activity | Technology | Need | Cost (Rs. in lakh) | Advantages |
|---------|---|-----------------------------|---------------------------------------|-----------------------------------|---|
| 1 | Manufacturing & Processing. | Fermentation or Bioreactor. | 50 | Technology for new emerging area. | Lyophilizer. 15 Refrigerated centrifuge. 5 Thermocycler.. |
| 20 | DNA/Micro organism synthesizers/sequencer. | 50 -80 | Sterlisation and autoclave equipment. | Incubators. | Variable as per actuals. |
| | High Pressure Liquid Chromatography/(HPLC). | do- | Spectrophotometers(UV Spectrometer). | - | |

do- ii. Common Effluent Treatment Plant.

iii. Corrugated Boxes.

| Sl. No. | Activity | Technology | Need | Cost (Rs. in lakh) | Advantages |
|---------|--|-----------------------------------|--|---|--|
| 1 | Manufacturing & Processing. | Automatic corrugated making plant | 35 for 3 ply and 60 for 5 ply | 3 - 5 ply can be made without any manual pasting on automatic machine, automatic drying facilities, improves productivity and quality of board. | |
| | Thermic fluid boiler or steam boiler using agri residue. | 7 - 10 | Heats up entire length of the roll uniformly, more thermal efficient | Web based coating machine for water based coating | 5 (Imported) Larger size of printing and faster drying of the printed material. |
| | Folder gluer - semi-automatic/- automatic. | 4 - 10 | Rust free pasting suitable for packaging of food | 2. Printing. Multi colour flexo printer slotter for flexographic printing | 7 processed products. Web based coating is echo-friendly, food grade, recyclable and being water based, free from fire hazard. |
| | 3. Testing & Quality Control. | Micro | | | |

processor based bursting strength tester 2 Equipment for testing strength of the box. Micro processor based compression strength tester. 3 Equipment for testing compression strength of the box. Micro processor based crust tester. . 75 Equipment for testing edge crush, flat crush and pin adhesion strength of the box. iv) Drugs and Pharmaceuticals. Sl. No. Activity

Technology Need Cost (Rs. in lakh) Advantages Tablet and capsule section .

1. Dispensing. Reverse laminar flow equipment. 1. 50 Safety of personnel. 2. Weighing. Automatic electronic balance 300 kg. ; 150 kg. and 1 kg. 0. 50-2. depending on the model. Accurate weighing of raw materials; Increased productivity. 3. Mixing and granulation . Rapid mixer granulator 200 L capacity. 3 to 4 Increased productivity; better quality product. 4. Dry granulation. Roller compactor. 1. 50 to 3

Increased productivity. 5. Drying. Fluidized bed dryer 200 L capacity. 3 -50 Increased productivity. 6. Size reduction. Clitzmill or Cadmill. 0. 40 Increased productivity. Oscillating granulator. 0. 15 Increased productivity. 7. Sifter. Vibrating sifter 24 inches diameter Increased productivity. 8. Coating suspension. Colloid mill 0. 80 Increased productivity. 10. Compression. 16 station rotary tablet machine. 2 Increased productivity. 27 station rotary tablet machine. 3. 25 Increased productivity. 11. De-dusting of tablets. On-line de-duster. 0. 25 Improved product quality. 12 Capsule filling. Semi-automatic capsule filling machine. Increased productivity. 13. Capsule polishing. Automatic polishing machine. 2 Increased productivity. 14. Printing of packaging cartons. Semi-automatic. 2 Increased productivity. Liquid oral section 15. Water generation. RO water plant. 6 16. Mixing vessel. Variable speed stirrer. 0. 50 Increased productivity. 17. Homogenization.. Colloid mill.

0. 75 Increased productivity; Better product quality. 18. Bottle washing. Automatic rotary line. 4 Increased productivity, better product quality. 19. Liquid transfer. Transfer pump. 0. 20 Increased productivity. 20. Filling machine. 4- head automatic filling machine. 2

Accurate fill volumes. Injectable Section 21. Filtration. Filter cartridges. 0. 50 to 1 Increased productivity. 22. Integrity of the membrane filter. Bubble point apparatus. 0. 75 Better product quality. 23. Vial filling machine. Automated filling machine with sealing facility. 5 Increased productivity; better control on product sterility. 24 Equipment for Sterilisation by Moist Heat. S. S. Horizontal Autoclaves (Steam, Sterilizers), Double Door with automated control and monitoring systems as electronic timer with Digital indicator, automatic Low Water cut off device, temperature recorder (Thermograph) and pressure gauges. 1. 0 Increased productivity better control on the product quality and sterility. 25 Equipment for Sterilisation by dry Heat. S. S. Dry Heat Sterilizer (Class 100 with HEPA filter, Fully automatic S. S. Control Panel with Printer memory circuit, fixed probes and Thermo-graph for recording each sterilization cycle S. S. Cooling system, sealed Dampers, motorized internal Baffles, S. S. Loading trolley, S. S. Carriage. 10 -11 Increased productivity better control on the product quality and sterility. Dry Syrup Section 26. Filling machine. Automated auger filling machine. 2 Increased productivity. 27. Labeling. Automated labeling machine. Increased productivity. Lactum Tab/Cap Machine . 28. Acetum Tab/Cap Machine. 1)Blister Pack Machine. 2) Strip Packing Machine. 3. 80 2 These machines are required to avoid contamination with other non-B-Lactum group products. Quality Control Department 29. Drug assay. High performance liquid

chromatograph. 12 Accurate drug analysis. 30 Pollution control. Effluent Treatment Pollution Control machinery. 10 – 15 Biochemical treatment of effluent removes 90 to 95% of soluble organic matter in the waste. 31. Microbiological Lab in Quality Control Department. 1) B. O. D. Incubators. 2) Incubators. 3) Laminar Air Flow. 0. 45 0. 75 These machines are required to improve the quality of the finished products by way of testing. Environment Control Devices. 32 Air conditioning and humidity control of all types of areas. Air conditioning. Humidity control equipment (Dehumidifier). 0. 20 –0. 30 per ton 0. 10 -0. 25 per ton for Desiccant based; 0. 06 to 0. 10 per ton for Chiller based. Improve product stability, enhance personal comfort. Air handling for parenteral (Sterile)area. Air handling unit with HEPA filters, Ducting with insulation; Chilled water piping; electrical cabling and panels; chilled water pump; chilled water control. . 20 per ton 0. 30 – 0. 35 per ton. Improves product quality, enhanced personal safety. Air handling other for parenteral area. Air handling unit with 5 micron filters. 0. 15 per ton Improves product quality, enhanced personal safety. Miscellaneous fittings. Ducting with insulation; chilled water piping electrical cabling and panels; chilled water pump; chilled water control. 0. 20 – 0. 25 per ton. . General 1) Reverse Laminar Air Flow. 2) Dust Extractors. 3) Non A. C. -A. H. U. in Terms of C. F. M. 0. 60 1 0. 50 per unit. To avoid contamination during dispensing of raw materials.

To control environment at manufacturing section where dust is generated. To control environment at manufacturing section where dust is generated and Air conditioning is not required, only filtered air is required. N₂O Gas for Hospital use. 33. Testing and quality control. Gas Chromatograph and

Moisture Meter for On-line Quality Control for Purity of N₂O Gas used for anesthetic purpose. Variable as per actual. For controlling the purity of N₂O gas. b). Antacid Bulk Drugs like Aluminum Hydroxide Gel, Magnesium Hydroxide, Magnesium Trisilicate etc . Sl. No. Activity Technology Need Cost (Rs. in lakh)

Advantages 1 Reaction. S. S. Reactor. 4 for capacity of 15000 litre. 1. Tremendous improvement in the quality. 2. Teak wood trees are saved resulting in better environment & atmosphere. 2 Reaction. Glass lined Reactor. 40 for capacity of 10000 litre. 1. Tremendous improvement in the quality. 2. Teak wood trees are saved resulting in better environment. 3 Filtration. P. P. Filter Press. 8 for 60 pairs. 1. Quality improvement. 2. Time saving Device. 3. Saving of water consumption. 4. Quantitative improvement. 4. Drying. S. S. Dryer with modern facilities Spray/Flash. 40 1. Anti Air pollution device. 2.

Improves the quality of the product. 3. Free from foreign contamination. 5. Centrifugation. Centrifuge (S. S. or Rubber Lined). 10 1. Quality of the product improves. 2. No corrosion. 3. Saving of time. 4. Saving of labour. 6. Raw material and finished product weighing. Electronic Weighing Machine. 0. 15 1. Saving of time. 2. Saving of labour. 3. No loss of material. 4. Increase in the profitability. 7. Quality control. Laboratory Equipment of latest technology, spectrophotometer, Gas Chromatograph & others. 10 1. To get the best possible precise results. 2. Less time consuming & immediate results display. . Pulverisation. Latest technology pulverisers Impact Type. 4 1. Quality of products improves due to finest particles. 2. Physical loss of material is very less. v). Dyes & Intermediates. Sl. No. Activity Technology

Need Cost (Rs. in lakh) Advantages

1. Filtration System. Membrane Filtration System. 10. -12 Improved filtration system prevents formation of hard cake and improves filtration by reducing total dissolved solids (TDS) .
2. Ice Flaker. Flaker with Silo and Screw conveyer. 8 -10 -Ice could be made from soft water so that less insoluble in products has better solubility. Ease in charging ice since it is automatic. -No spillage and loss of energy. -No water losses and latent heat loss as compared to present practice. -Better process control.
3. Reactors. Closer vessels with planetary gears and high speed turbine stirrers. Depends on the batch size. -Better mixing of reactants, -Low power consumption, -Better yields.
4. Product Drying System. Flash dryers or Rotary Vacuum Dryers-RVD. 10 -12 -Low cost drying with minimum or no handling. -Instant drying with no pulverizing. -RVD effective for heat sensitive products. Low initial investment as compared to the Spray Dryer.
5. Incinerator. Use of Gasifier with slurry economizer. 5 -7 -Alternate fuel like rice husk, saw mill waste etc. could be used so cheaper. -Heat recovery leads to low temperature emissions and less cost and no corrossions to the chimney .
6. Blenders. Nauta Mixers. 12 -13 -Energy Efficient, No breaking of Grains. Less dusting and no manual charging and discharging. vi). Industry based on medicinal and Aromatic Plants.

Sl. No. Activity Technology Need Cost (Rs. in lakh) Advantages

1. Extraction of resinoid from refused material . Solvent extraction unit attached with stripping unit Extractor capacity – 500 kg. Stripping unit Capacity – 100 kg. 40 Proper utilization of refuse waste material for improving, economy of the process.
2. Menthol Bold Crystal. Deep freezers and extraction unit deep freezer cap. 250 kg. Extraction unit cap 180 kg. 25 Used bulk drugs, pan massala, Tobacco & Flavour products.

3. Manufacturing of Aroma chemicals. • Hydroxycit- Ronellal. 2. Ionones. 3. Rose crystals . 4. Orange crystals. 1. Glass lined reactor cap 60 liters. 2. Chilling plant cap 2. 5 tones. 3. Fractionation unit cap 180 kg. 30 Used in Fragrance & Flavour industries. 4. Extraction of Good Quality Neem oil using cold press expeller.

Cold press expeller for extraction of Neem oil with higher Azadirachtin content. (Capacity of expeller – 9 Bolts). 2. 50 To obtain Neem oil of improved quality for preparation of pesticide and other pharmaceutical preparation. 5. Quality assessment of essential oils. Establishment of modern (accredited) equipped with sophisticated equipment lab. 10 Proper quality assessment of essential oils. vii). Plastic Moulded/ Extruded Products and Parts/ Components including reinforced plastic/composite material. (a) Plastic Moulded/ Extruded Products and Parts/ Components. Sl. No. Activity Technology Need Cost (Rs. in lakh) Advantages . Moulding. a) fully automatic Micro processor controlled Plastic Injection Moulding machines. 10 – 20 Very high rate of production , cost effective, no wastage, better and consistent quality. 2. Tool making. b) CNC Milling Machine for In- house Tool room. 33 For production of quality dies and moulds. b). Plastic Moulded /Extruded products and Parts/components (products based on reinforced plastic/composite material). Sl. No. Activity Technology Need Cost (Rs. in lakh) Advantages 1 Manufacturing. Hydraulic Press. 45 PLC controlled-for constant and fast cycle time. Unit can get 8 batches instead of 6 batches per day. Filament winding machine. 0. 50 This is advanced technology for making FRP pipes by using low cost material. Rovings are used instead of woven fabrics to save cost. 3 Pultrosen machine. 1. 50 Latest technology

machine with reverse of extrusion- Pultrosen moulding for continuous moulding of section for structural application provided with 3 production stations. 3 times product can be made with 3 different dies at a time. 4 Impregnating machine. 3. 50 To make ' B' stage – prepeg impregnated material for constant quality of industrial plastic laminates. 5 Boiler. 13. 50 High pressure 250 psi-3. ton integral furnace boiler with fuel efficiency condensate recovery system. 6 Oven. 1 Infra red heaters to save electrical energy 30%-40%. 7 Resin Kettle. 0. 50 Normal good plant for making resins. 8 Guillotine Jointer. 2 Hydraulic clamping and hydraulic cutting to avoid rejection while cutting. 9 Plastic extruder machine with cutter. 1. 64 Increased production capacity, efficiency, less rejection rate and less cost of production. 10 Plastic pulveriser with screen. 1. 65 c). Fibre glass Reinforced Products. Sl. No. Activity Technology Need Cost (Rs. in lakh) Advantages 1. Trimming of formed plastic components.

Pneumatic hand tools. Receiver, Pneumatic piping & Dehumidifier. 0. 05 6. 20 Less maintenance and breakdown cost. Uninterrupted warming less rejection since operating at higher speed than electrical tools. Energy conservation. 2 Plastic components bonding. Electronic vibration welding & pressing machine. 2. 25 Friendly environment, less cycle time, cost saving. 3 Slots for components. Power press with interchangeable dies Press. 0. 85 Cost saving due to less rejection. 4 Painting on plastic & FRP product. Air handling equipment. Dehumidifier. 0. 90 0. 20 Superior finish with glass. d). Thermocol packaging. Sl. No.

Activity Technology Need Cost (Rs. in lakh) Advantages 1 Manufacturing. Fully automatic PLC hydraulically operated Moulding machine. As per

prevalent market rate. Increased productivity and efficiency. viii). Rubber Processing including Cycle/ Rickshaw Tyres. Sl. No. Activity Technology Need Cost (Rs. in lakh) Advantages

- 1 Small Rubber Mouldings, such as, oil seals, washers etc. Injection moulding Machine. 25 Very high rate of production, minimum wastage, better and consistent quality.
- 2 Continuous vulcanisation system. Roto-cure machine. 75 -100 Continuous production of high quality rubber mats. Wastage is minimum, output high.
- Rubber mixing. Kneader/ Banbury internal mixer. 10- 15 Suggested for the units where soft compounds are used for the manufacture of products like hawai sheets, mats etc. Relatively high output, less pollution due to avoidance flying chemicals.
- 4 Extruded products. Clod feed extruder. 20 – 25 By using this machinery, the additional operation of warming of rubber compound prior to extrusion can be avoided. This increases out put of the unit as this eliminates one intermediate operation.
- 5 Rubber bands. Multi channel extruder. 8-10 Presently the rubber bands are being manufactured from latex by dipping technology.

By using multi channel extruder, rubber bands can be manufactured from dry rubber. Advantages are high out put, no pollution, minimum cost of production.

- 6 Items such as hawai sheet/rubber mats. etc. Sheeting line. 20-30 High out put, minimum wastage, uniform quality.
- 7 Rubber mouldings. De flashing system. 15-20 High output, minimum rejection.
- 8 Heating system. Thermic fluid . 5 – 10 Uniform heating and more thermal efficiency.
- 9 Hydraulic press. Vacuum chamber type hydraulic moulding machine. 30 – 40 Eliminate bumbing operation for the removal of entrapped air in the product. Minimum rejection high output.
- 0 Testing equipment. 1. Rheometer. 2.

Tensile testing machine. 3. Mooney viscometer. 4. DIN/Abrader. 5. De-Mattia Flexing Machine. 6. Goodrich Flexometer. 7. Ross Flexing Machine. 8. MST Apparatus for latex. 9. Viscometer for latex. 20- 25 15. – 20 15 – 20 5 4 10 5 4 3

Introducing state-of-the art testing facility for in-house testing and online quality control. b). Latex Based Male Condoms. Sl. No. Activity Technology Need Cost (Rs. in lakh) Advantages

1. Sealing & packaging. Sealing Machine with facility for sealing both square and rectangular type formats with on line printing and v notch cutting facility. . 50 Saving in laminate consumption, higher yield, on line printing of individual stripes by means of hot foil stamping as per statutory requirement for exports.
2. Testing. Burst Volume Burst Pressure Equipment fully automatic with electronic sensors software and computer – with 2 testing stations. 5 Increase of efficiency in testing, accurate results , batch results are generated by the system automatically.
3. Testing. Conductivity Tester with software. 5. 50 Products are tested electronically and test results are recorded in the computer with accuracy.
4. Pollution Control.

Pressurized Ventilation System with filtered air, temperature and humidity control. 12 Reduction in pollution by reducing dust in manufacturing area, better working conditions. To obtain required humidity for improvement in quality of product. c) Rubber Processing – Crumb Rubber. Sl. No. Activity Technology Cost (Rs. in lakh) Advantages

- 1 Rubber processing- crumb rubber units. Bio-mass Gasifier based drying furnace. 8 to 10 1 Saving of conventional fuel (diesel/electricity).
- 2 Reduction of wood consumption up to 50%.
3. Environment friendly technology.
- 4 Easy to operate and maintain.

ix).

Food Processing (including Ice cream Manufacturing). a). Food Processing. Sl. No. Activity Technology Need Cost (Rs. in lakh) Advantages 1. Pickles, Sauces and Chutney manufacturing. Automatic fruits and bottles washing machine with conveyor, blower, pump and agitator, fruit and vegetable cutting machine, stainless steel double walled steam jacketed kettles (tilting type), boiler, pulper/crusher, sterilizing tank/retort, mixer-cum-blender, spice roaster-cum-grinder, filling and sealing machine (crown and corking machine), shrink wrapping,, strapping machine, laboratory equipment, effluent treatment system. 20

Improvement in sanitary and hygienic conditions, micro contamination, quality and productivity. 2. Spice grinding. Cryogenic grinding, automatic FFS packaging. 20 Improves sensory qualities, productivity as well as shelf life of the product. 3. Bakery products Manufacturing. Shifting from semi-mechanisation to mechanisation, replacement of coal/wood fired oven to oil fired/electric oven, Bio mass fired multipurpose drier, energy efficient low cost bakery oven (wood fired) installation of quality testing instruments. 40 Improves quality and shelf life of the product, reduces smoke nuisance. 4. Cashew Processing .

Boiler, heat exchanger with complete accessories, packaging machine, electronic weighing machine, etc. 20 Recovery of cashew nut shell liquid, enhancement of shelf life of cashew nuts, less pollution. 5. Rice Milling with rubber roller cum sheller (without parboiling) and modern rice milling with parboiling system. Paddy cleaner, destoner, rubber roller cum Sheller, paddy separator, boiler, par boiling system, dryer, colour sorter, cone polisher, quality control lab and pollution control. 90 to 100 Better polished, less

breakage and high yield of rice, bran suitable for oil recovery, good export opportunity for scented/Basmati rice.

Wheat Flour Mill 1. a) Cleaning Section. 1) All Metal Aspirator Vibro Separator. 2) Scourer with Aspiration Channel. 3) D'Stoner with Fan & Cyclone. 4) Water Wheel Damper. 5) Low Pressure Fan. 6) Air Lock with Glass & Stand. 7) Cyclone. 8) Warm Conveyor. 9) Elevator-Bucket size. 10) Air Ducting. 11) Gravity Spouting Cleaning System. 0. 70 0. 55 1. 20 0. 08 0. 30 0. 11 0. 15 0. 70 1. 80 0. 42 0. 80 Modern mill producing atta, maida, suji and bran. b) Milling Section. 12) Roller Mills including Grooving & Grinding. 13) Wooden Plan Sifter & Feed 16 Sieves. 14) All Metal Purifiers. 15) Bran Finisher. 6) Low Pressure Fan. 17) Low Pressure Cyclone. 18) Air Lock with Stand. 19) Air Conducting for Pneumatic & Purifier. 20) Warm Conveyor 8'size for Milling Section Pneumatic System including Cyclone, Feeder, Rubber, Glasses, H. P. Fan, Lifet. 21) Pipe Bend etc. 22) Gravity Spouting of Milling Section with Hoopers, Packing, Stand etc. 23) Magnets. 24) Reduction Gear Box. 25) Swiss Bolting Cloth, Sifter, Purifier, Pad, Nam. 26) V'Belt for complete Mill(Fenner/Dunlop). 27) V'Belt Motor, Pulley for all machines. 28) Motor Rail Fabricated Fabrication Material-Plan Sifter, Cyclone, Air Ducting, Warms, H.

P. Fan, Stand, Pneumatic. 29) System Fitting etc. 6. 80 1. 70 0. 50 0. 22 0. 15 0. 15 0. 04 0. 40 0. 70 1. 95 1. 40 0. 16 0. 24 0. 70 0. 40 0. 30 0. 15 1. 50 7.

Ice cream Manufacturing. 1. Homogeniser. 2. Continuous freezers. 3. Automatic ice cream bar freezer. 4. Automatic rotary fillers. 5. Hardening Chamber. 6. Automatic wrapping machine. Quality control lab. Variable as per actual. Improved quality and productivity of ice cream and maintenance

of sanitary and hygienic conditions. b). Namkeen. Sl. No. Activity Technology Need Cost (Rs. in lakh) Advantages 1 Namkeen making.

Bio-mass Gasifier based furnace. 3 -4 1. Replacement of 10-15 litre/hour diesel with local biomass. 2 Eco-friendly. 3 Cost effective. c). Sweet meat . Sl. No. Activity Technology Need Cost (Rs. in lakh) Advantages 1 Sweet meat making. Bio-mass Gasifier based Furnace. 1 1. Replacement of 5-6 litre/hour diesel with local biomass. 2. Eco-friendly. 3. Cost effective. x). Poultry Hatchery & Cattle Feed Industry. Sl. No. Activity Technology Need Cost (Rs. in lakh) Advantages 1 Poultry Hatching. 1. Fully controlled sanitation and hygienic conditions of employees and premises. 2.

Vaccination to new hatched chicks (automation). 3. Fully automatic and controlled incubation system with quality control labs . 4. Pollution control equipment. Variable as per actuals. • Quality hatched with more disease resistance capacity. • Better value addition through export of day old chicks. 2 Cattle feed manufacturing. 1. Cleaning operation of raw material by using machine. 2. Automatic control grinding of raw material. 3. Fully automatic controlled blender for mixing of vitamins and minerals. 4. Complete Palletising unit. 5 . Automatic packaging system. 6. Quality control testing lab. . Pollution control equipment. 8. Energy conservation/energy saving system based on energy audit report. Variable as per actuals. More demand of cattle/poultry and fish feed in palletized form. High value addition and export opportunities. xi). Dimensional Stone Industry (excluding quarrying and mining) Sl. No. Activity Technology Need Cost (Rs. in lakh) Advantages 1. Stone Processing. Blocks Cutting Technology: (Block squaring machine, block cutters). 20 Capacity Enhancement, Uniform quality. Slab Cutting

Technology: (Gang saws, Granite cutters, Sandstone cutters). 5 Capacity Enhancement, Uniform quality. Tile cutting Technology: (Tiling Plant, Splitting Machines). 95 Better quality Capacity Enhancement. Surface Finish Technology (Automatic Polishing Lines, Continuous Polishing Lines, Bush Hammers, Flame Jets, Ageing machines, Edge Polishing Machines, Grinding and Lapping Machines. 95 Better quality, Capacity Enhancement. Resin Impregnation Technology for stone strength enhancement (resin coating plants, ovens, compressors, resin guns etc.). 65 Higher recovery percentage capability to process newer varieties to international norms.

Technology for Integrated manufacturing : (CNC operated Work Centres, sculpting machines). 90 Capability to mass-produce intricate product patterns, high precision. 2. Products Design. Laser Technology Duplicating Machines, Pantographs, etc. for sculpting and duplicating artwork and monuments. 90 Capability to mass-produce intricate product patterns, maintain high precision and introduce new product lines. 3. Edge Profiling. Chamfering machines, profiling machines, contouring machines. 75 Capability to mass-produce intricate. profiles and introduce new product lines. 4. Packaging.

Tile Packaging Machines Segregation & Sorting Machines, Foam Packaging machines. 20 Packaging for export market so as to enhance value and reduce breakage in transit. 5. Environment Conservation & Management. Water Recovery & Waste Disposal Technologies (including filter press, sedimentation tank, overhead/ underground tank, piping and channeling etc.). 20 Recovery of water, reduction in waste volume, improvement in ambient air, soil and water quality. 6. Waste Utilization. Machines using slurry as a

raw material. 50 Reduction in environmental degradation. 7. Testing and Standardization

In house Testing Technology (sizing & calibration equipment. 10 Quality control. xii). Glass and Ceramic Items (Insulator ceramic, electrical ceramics, porcelain, Bone china ware, Stone ware, earthen ware, Terra-cotta ceramic) including Tiles a). Glass Products Sl. No. Activity Technology Need Cost (Rs. in lakh) Advantages 1. Melting. Improved Gas Fired 12-Pot Furnace. 30 The improved version will have better fuel efficiency and longer life as compared to the conventional one. Day Tank Furnace. 15 Operation of Day Tank Furnace is intermittent like that of a Pot Furnace without the hassles of Pot breakage.

It may be employed in case of demand of a particular kind of glass is 500 kg. to 5 T/day. 2. Pot-Preheating. Improved Single Pot Arch. 1. 50 In the conventional Pot Arch, pots can be preheated properly and also the maximum achievable temperature is 950°C as against the required temperature (1200°C) chances of developing cracks in pot are higher. The improved version of Pot Arch overcomes these difficulties. 3. Pot making. Set up of different machines. 10 The improved Pot making facility will have the machines like Jaw Crusher, Blender, Pug – Mill, Edge Runner etc. or processing of raw materials and also temperature and humidity controlled room for molding and drying of Pot. Conventional Pot making facilities lack these things and do not yield good quality Pots. 4. Glass Forming. IS-Machine (10-12 Tons/day). 50 IS-Machines have much higher productivity than Press Machines and Mouth Blowing. Product. Quality will be much better. 5. Testing & Quality Contro Small Scale Laboratory. 15 A small in house laboratory to

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meet the need for simple and routine tests will prove very helpful in quality control and improve productivity. 6.

Energy Conservation and Improvement in working condition. Insulation, heat Recovery System, Modification of Furnace. 15 Its implementation will improve thermal efficiency of the furnace along with the working environment by reducing heat losses through furnace structure, recycling waste heat and improving furnace life and ease of furnace operation. 7. Heat Treatment. Improved Muffle Furnace. 1 Gas fired muffle furnace will improve productivity, the working condition and the working environment. 8. Raw material handling. Improved Batch House and Batch handling system. 0 Conventional system of Firozabad Glass Industry creates lot of dusting and health hazards to the workers. A properly designed system will be free from dusting and will reduce health hazards by providing improved working conditions. 9. Combustion Control for gas fired furnaces. Automatic Controllers & Recorders for Furnace Temperature. On-Line Oxygen Analyzer. 50 Automatic Control will improve energy/efficiency and productivity by optimizing the Combustion process and minimizing the energy and production losses. 10. Glass Forming Techniques. Spinning Machine -Head, 2-Head, 4-Head. 1. 50 2 3 Flat and round items like Bowls, Plates etc. can be produced in this machine with better surface finish than the same products of Press Machines. Presently, in Firozabad, these are produced mostly by Press machine. 11. Glass Forming Techniques. Injection Molding Machine. 2 Solid items like stem wares, which are produced manually, can be produced in this machine with much better accuracy & control. 12. Glass Beads

making. LPG fired Bead making Furnace. 0. 50 Multi coloured Glass Beads have very good export value.

These are mostly produced domestically in rural areas using Coal fired ovens which create very dirty and unhygienic atmosphere. LPG fired Bead making furnace developed by CGCRI, Khurja is clean, simple and easy to operate. It consumes 250 to 300 grams of LPG/hr. b). Ceramic Items (Insulator ceramic, electrical ceramics, porcelain, Bone china ware, Stone ware, earthen ware, Terra-cotta ceramic) including Tiles. Sl. No. Activity Technology Need Cost (Rs. in lakh) Advantages 1. 2. 3. 4. 5. Raw material processing. Fabrication. Drying. Glazing. Firing Section. Ball mill with high alumina tile lining, high alumina balls of different size.

Ball Mill with silex stone / porcelain lining of different size. Blunger/Agitator of different size. Magnet of different size. Filter press different size. Pug Mill different Size. Vibro energy mill for colour grinding. (different size). Vibro finishing mill. De-airing pug mill, capacity, 250-350 Kg/hr. Isostatic Press, Fettling machine, Stacking equipment. Fully automatic vertical copying m/c for Insulator. Roller Head machine for cup & saucer. Pressure casting plant.. Pillar Jolley Semi automatic Jigger Jolly. Universal jigger jolly. Humidity Driver Chamber.