# PROJECT PROFILE

ON

TITLE : " REPAIR & SERVICE OF ELECTRICAL APPLIANCES AND GOODS ( NEW )

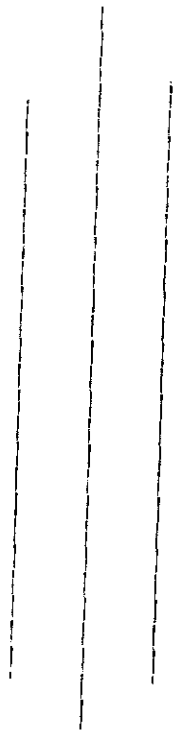
PRODUCT CODE :

(i) ASICC : 97115
(ii) NIC : 52602
(iii) ITC(HS):

QUALITY STANDARD : As per customers requirement

PRODUCTION CAPACITY QTY : 3,000Nos. Per Annum

YEAR OF PREPARATION : 2006 – 07



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## 1. INTODUCTION ;

With the increase expansion of electrification throughout the country Electricity is now available in remote rural areas also, not only in urban areas This has results in increase used of household and other purposes electrical Appliances and goods. Not only economically well off people, even poor rural Peoples also started using these appliances due to ease of used, time saving, And cleanliness etc..Hence,the demand for these appliances is expected to Increase.

## 2. MARKET POTENTIAL :

The common electrical appliances & goods viz, electric iron, electric Mixer/grinder, ceiling/exhaust/table/pedestal fan, electric Motor, washing Machines,Air-conditions, Transformers etc. are very much essential now a days in Domestic houses, schools/colleges,factory,hospitals,business establishment etc.

The demand for these products are mainly governed by spread of educational Institutions, expansion of trade & commerce, improvement in living standards And many others. Hence, there is a good scope for undertaking such ventures.

## 3. BASIS AND PRESUMPTION

i) The basis for calculation of production capacity has been taken on a single Shift basis on 75 % efficiency.

ii) The maximum capacity utilization on a single shift basis for 300 days a year. During the first year and second year of operations the capacity utilization is 60 % and 80 % respectively The unit is expected to achieve full capacity utilisation from the third year onwards.

iii) The salary and wages, cost of materials,utilities,rents,etc. are base on the Prevailing rates in and around Imphal.These cost factors are likely to vary with time and location.

iv) Interest on term loan and working capital loan must be preferably current rate. Otherwise, the rate of 14 % on an average may be taken.

Iv) The cost of machineries and equipments refer to a particular make/model And prices are approximate.

v) The breakeven point percentage indicated is of full capacity utilization.

vi) The project preparation cost etc. whenever required could be consider as pre-operative expenses.

vii) The essential production machinery and test equipment required for the project have been indicated.

## 4. IMPLEMENTATION SCHEDULED

The major activities in the implementation of the project listed and the average time for Implementation of the project is estimated at 12 months:

| Sl.no | Events | Period( in months) |
|---|---|---|
| 1. | Preparation of project report | 1/2 |
| 2. | Registration and other formalities | 1/2 |
| 3. | Sanction of loans by financial institutions | 1 |
| 4. | Plant and Machinery | |
| | a) Placement of order | 1 |
| | b) Procurement | 1 |
| | c) Power connection/electrification | 1/2 |
| | d) Installation/Erection of machineries/Test equipments | 1/2 |
| 5. | Recruitment of technical persons | 1 |
| 6. | commercial production | ¼ |
| | Total | 6.25 mths |

## 5. TECHNICAL ASPECTS

### 5.1 PROCESS OF MANUFACTURE :

Since this is a service oriented unit, the process involved fault detection By visual observation, testing with measuring instruments etc. may be carried out before any parts is repair/service or replace. The process flowchart is given below :

**To read & interpret data given on the name plate**

↓

**Measuring the insulation resistance between the terminals and body o Of the appliance/equipment**

↓

**Dismantling the electrical appliance/equipment**

↓

**Trace, identify and locate the fault**

↓

**Replace the faulty parts/rewind the coils**

↓

**Make end connection**

↓

**Solder and insulate each end connection**

↓

**Bind with a tape and shape overhang coils**

↓

**Pre-heat and varnish the winding**

↓

**Clean and lubricate the bearing**

↓

**Assemble the unit & test for its working**

5.2. QUALITY STANDARDS : **As per customers satisfaction**

5.3 PRODUCTION CAPACITY PER ANNUM

QTY : **3,000 nos electrical appliance/equipment**

VALUE : **Rs, 6,75,000/-**

5.4 MOTIVE POWER : **4 Kw(Appx.)**

5.5 POLLUTION CONTROL

The Govt. accords utmost importance to control environments pollution. The small scale entrepreneurs should have an environmental friendly attitude and adopt pollution control measures by process modification and technology substitutions. India having acceded to the Montreal Protocol in Sept. 1992 the production and use of Ozone Depleting Substance(ODS)

Like CHLOROFLUONE CARBON (CFC) Carbon [illegible] chlorotoform etc. need to be phas[illegible] Chemical Solvents. A notification for detail rules [illegible] phase out under the Environment Protection [illegible] with effect from 19th July.2000.

[illegible] which may help to control pollution in electronics industries wherever applicable:

i) In electronic industry fumes and gases are released during hand soldering/wave soldering/Dip soldering, which are harmful to people as well as environment and the end products.. Alternate technologies may be

used to phase out the existing polluting technologies.Numerious new flux have been

Developed containing 2- 10% solids as opposed to the traditional 15-35 % solids

ii) Electronics industry uses CFC s,Carbon Tetrachloride and Methyl Chloroform for cleaning of printed circuit board after assembly to remove flux residues left after soldering, and various kinds of foam for packing.

Many alternatives solvents could replace CFC -113 and methyl Chloroform in Electronic industry cleaning. Other chlorinated solvents such as trichloroethylene, per chloroethvle and methylene chloride have been used as effective cleaners in electronic industry for many years. Other organic solvents such as ketenes and alcohols are effective in removing both solder fluxes and many polar contaminants.

## 6.ENERGY CONSERVATION

With the growing energy needs and shortage coupled with rising energy cost, a greater Thrust in energy efficiency in industrial sector has been given by the Govt. of India since 1980s. The energy conservation Act 2001,which provides for efficient used of energy, its conservation & capacity building of Bureau of Energy Efficiency created under the Act. The following steps may help for conservation of electrical energy:

i) Adoption of energy conservation technologies, production aids and testing Facilities.

ii) Efficient management of process/manufacturing machineries and systems QC,and testing equipments for yielding maximum energy conservation.

iii) Optimum used of electrical energy for heating during soldering process can be obtained by using efficient temperature controlled soldering and de soldering stations.

iv) Periodical maintenance of Motor compressors etc.

v) Use of power factor correction capacitors. Proper selection and layout of lighting system, timely switching off of the lights, use of compact fluorescent lamps wherever possible etc.

## 7. FINANCIAL ASPECTS

| | | |
|---|---|---|
| **Land and Building**<br>Built-up Area<br>Office ,Stores | Rented(20 ft * 20ft) | Rs. 2,000 |
| Assembly and testing | | -- |
| Rent payable per annum | | -- |
| | Total | -- |
| | | Rs. 2,000 |

## 8. MACHINERY AND EQUIPMENT

| Sl.no | Description | Ind/Imp | Qty. | Value (Rs.) |
|---|---|---|---|---|
| 1. | Ceiling fan winding machine | Ind | 1no | 15,000 |
| 2. | Layer coil winding machine With electric motor | -do- | 1no | 10,000 |
| 3. | Thick coil winding machine With electric motor | -do- | 1no | 14,000 |
| 4 | Clutch Paddle | -do- | 1no | 1,600 |
| 5. | Fabricated table stand | -do- | 1no | 3,400 |
| 6. | 5 digit up/down digital counter | -do- | 1no | 2,500 |
| 7. | High voltage tester | -do- | 1no | 10,000 |
| 8 | Tachometer | -do- | 1no | 3,500 |
| 9. | Growler | -do- | 1no | 3,300 |
| 10. | Megger | -do- | 1no | 3,500 |
| 11. | Test panel with, Ammeter, voltmeter etc. | -do- | 1no | 15,000 |
| | TOTAL | | | 82,000 |
| 13 | Other fixed assets | | | |
| | Electrification charges @ 10 % of the cost of machinery and equipments | -- | -- | 9,000 |
| 14 | Office equipments, furniture and working tables etc. | -do- | L.S | 15,000 |
| 15 | Mould, Die Tools, Jigs and fixtures,etc. | -do- | L.S | 5,000 |
| 16 | Pre-operative expenses | | L.S | 10,000 |
| | | | Total | 39,000 |
| | | | Total Fixed capital | 1,21,000 |

## 9. WORKING CAPITAL PER MONTH

### (i) Staffs & Labor

| Sl.no | Designation | No. of persons | Salary/Month(Rs.) | Total salary per month (Rs.) |
|---|---|---|---|---|
| 1. | Skill labor | 2 nos | 2800 | 5600 |
| 2. | Semi-skill labor | 1 no | 1900 | 1900 |
| 3. | Helper | 2 nos. | 1500 | 3000 |
| | | | Total | 10,500 |
| | Add perquisites @15% of salary | | | 1575 |
| | | | Total | 12,075 |
| | | | Say, | 12,000 |

(ii) **Raw Materials Requirement per month**

| Sl.no | Description | Ind/Imp | Quantity | Value (Rs.) |
|---|---|---|---|---|
| 1. | Copper winding wires (Different gauges) | Ind. | 35 Kg | 18,550 |
| 2. | Electrical spares | Ind | L.S | 5,000 |
| 3. | Insulating materials Like, cotton tape, Varnish oil PVC sleeves etc. | Ind | L.S | 2000 |
| | | | Total | 25,550 |

**(iii) Utilities per month**

| | | |
|---|---|---|
| Power | 500units @ Rs.2.50 | 1,250 |
| Water | L.S | 100 |
| Total | | 1,350 |

**(iv) Other Contingent expenses per month**

| Sl.no. | Particular | Amount (Rs.) |
|---|---|---|
| 1. | Rent | 2,000 |
| 2. | Postage and stationery | 500 |
| 3. | Telephone/Fax/ charges | 500 |
| 4. | Repair and maintenance | 600 |
| 5 | Transport and conveyance | 800 |
| 6. | Advertisement and publicity | 500 |
| 7. | Insurance and taxes | 300 |
| 8. | Misc. Expenses | 300 |
| 9. | | Total 4,500 |

Total Recurring Expenditure per month : ; Rs.43,400
(i) + (ii) + (iii) + (iv)

**(10) Total Capital Investment**

| Sl.no | Particular | Amount (Rs.) |
|---|---|---|
| 1. | Fixed Capital | 1,21,000 |
| 2. | Working capital for three months | 1,33,000 |
| | Total | 2,54,000 |

**Financial Analysis :**

**(11) Cost of Production (per annum)**

| Sl.no | Particular | Amount (Rs.) |
|---|---|---|
| 1. | Recurring Expenses | 5,32,800 |
| 1. | Depreciation on machinery and equipment @10% | 8,700 |
| 2. | Depreciation on Tools, Jigs,& Fixtures @ 25% | 1,200 |
| 3. | Depreciation on officeEquipments,furniture@20% | 3,000 |

| | | |
|---|---|---|
| 4. | Interest on capital investment @ 14 % | 35,500 |
| 5. | Total | 5,81,200 |
| 6. | Say | 5,81,000 |

**(12) Turnover per annum**

| Item | Quantity (Nos) | Rate/unit (Rs.) | Total sales (Rs.) |
|---|---|---|---|
| Repair & Service charge of different electrical appliances& equipment | 3,000 nos | 225 | 6,75,000 |

**(13) Profit per Annum( before taxes)**

Turnover per annum - Cost of production per annum = Rs.6,75,000 -- 581,000
= Rs. 94,000

**(14).** Net profit ratio

$$\frac{\text{(Profit/annum) *100}}{\text{( Sales/ annum)}}$$

= 12.18 %

**(15).** Rate of Return

$$\frac{\text{Profit/annum * 100}}{\text{Total capital investment}}$$

= 37 %

**(16). Break Even Point**
**Fixed Cost per annum**

| Sl. no | Particular | Amount (Rs.) |
|---|---|---|
| 1. | Rent | 24,000 |
| 2. | Depreciation on machinery and equipment@ 10 % | 8,700 |
| 3. | Depreciation on tools, jigs and fixtures @ 25 % | 3,000 |
| 4. | Depression on office equipments, furniture@ 20 % | 1,200 |
| 5. | Interest on total capital investment @ 14 % | 35,500 |
| 6. | Insurance | 3,600 |
| 7. | 40 % salaries and wages | 57,600 |
| 8. | 40 % other contingents & utilities | 28,000 |
| 9. | Total fixed cost | 1,61,600 |
| | Or say | 1,62,000 |

**Break Even Point**

$$\frac{\text{Fixed Cost * 100}}{\text{Fixed cost + profit}}$$ = 60.32 %

17. **Additional Information's**

a) The project profile may be modified/tailor to suit the individual entrepreneurship Quality, production programmed and also to suit the location characteristic, Wherever applicable.

b) The electronics technology is undergoing rapid strides of changes and there is Need for regular monitoring of the international technology scenario. The unit may Therefore, keep abreast with the new technologies in order to keep them in pace With the developments for global competition.

c) Quality today is not only confined to product or service alone. It also extend to the process and environment in which they are generated.

The ISO-9000 defines standards for environment management systems and ISO-14001 defines standards for environmental management system for Acceptability at international level. The unit may therefore adopt these standards For global competition.

The margin money recommended is 25 % of the working capital requirement at an Average.However,the percentage of margin money may vary as per banks discretion.

**(16) Name and Addresses of the Machinery & Equipment Suppliers ( Winding Machine)**

1) Choudhary Trading Company
168/11, Bhagirath palace
Chandni Chowk.Delhi – 110006
2) RATCO
1681/17, Mangal Market
Bhagirath Palace,Chandni Chowk
New Delhi – 110006
3) Rowland Engineering
A 91/3, Naraina Industrial Area
Phase –I. New Delhi - 110028
4) Aggrawal Electronics
201,Shiv Shakti,Indl. Estate
Opp. Andhra Bank
L.B.S Marg.Ghatkopar (W)
Mumbai – 400086
5) Meco Instruments Pvt. Ltd.
301,Bharat Industrial Estate
T.J Road,Sewra
Mumbai - 400015
6) Hindusthan machine tools
Vishal Bhawan,95 Nehru Place
New Delhi - 19

Measuring Instruments

**(17) Name and addresses of Raw material Suppliers.**

Locally available