## PROJECT REPORT

## Of

## AUTOMATIC VOLTAGE STABILIZER

## PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Automatic Voltage stabilizer.

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and management.
[We can modify the project capacity and project cost as per your requirement. We can also prepare project report on any subject as per your requirement.]

## PROJECT PROFILE

## ON

## AUTOMATIC VOLTAGE STABLIZER

## INTRODUCTION

The Voltage stabilizer provides an output voltage with a specified limit for supplying to load irrespective of wide fluctuation in the input voltage, independent of load power factor and without introducing harmonic distortion. The voltage stabilizer adjusts automatically the voltage variation whether high or low to the proper voltage level necessary for the safe operation of equipments.

Excessive voltage fluctuation are hazard to costly electronic and electrical equipments like T.V. sets, VCRs, refrigerators and other scientific and medical equipments etc. Voltage stabilizers are used along with this equipment to protect them from damage due to wide line voltage fluctuations.

## Market Potential

Consumer electronic products are the backbone of the electronic industry in the country. Consumer electronics contributes about one third of total electronics production in the country. Since the item is of great utility of the consumer electronics its demand is growing at a rapid pace in keeping with the increasing production of consumer electronics item.

## BASIS AND PRESUMPTIONS

i. The basis for calculation of production capacity has been taken on single shift basis on $60 \%$ efficiency.
ii. The maximum capacity utilization on single sift basis for 300 days a year. During first year and second year of operations the capacity utilization is $60 \% 70 \%$ and $80 \%$ respectively. The unit is expected to achieve full capacity utilization from the fifth year onward.
iii. The salary and wages, cost of raw materials, utilities, rent, etc. are base on competitive rates. 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 interest on an average may be taken as $11.50 \%$. This rate may vary depending upon the policy of the financial institutions/agencies from time to time.
v. The cost of machinery and equipments refer to a particular make / model and prices are approximate.
vi. The breakeven point percentage indicated is of average capacity utilization.
vii. The project preparation cost etc. whenever required could be considered under pre-operative expenses.
viii. The essential production machinery and equipment required for the project have been indicated. The unit may also utilize common test facilities available at Electronics Test \& Development Centers (ETDCs) and Electronic Regional Test Laboratories (ERTLs) and Regional Testing Centers (RTCs).

## TECHNICAL ASPECTS

## I. Process of Manufacture

Components are assembled on a printed circuit boards as per the circuit design. The assembled PCB, Relay, Transformer, switch indicating lamps and power cables are further assembled to form a compact unit. The whole assembled unit is enclosed in metal case with an appealing front panel. Finally the stabilizer is tested for the performance as per the design.

## RAW MATERIAL REQUIREMENT

| PARTICULARS |  | RATE FOR <br> EACH SET | TOTAL COST <br> IN RS. |
| :--- | :---: | :---: | :---: |
| 0.5KVA |  |  |  |
| Transformer |  | 500 |  |
| Fiber box and Chassis | 120 |  |  |
| Mains Card and Socket and <br> lamps |  | 70 |  |
| PCB with components |  | 80 |  |
| Relays (2 Nos.) |  | 70 |  |
| Screws and spares insulation and <br> sleevings |  | 40 |  |
| Packing material |  | 985 |  |
| Volt meter | $\mathbf{6 0 0}$ |  |  |
| Subtotal for 1 |  |  |  |
| Subtotal for 600 |  | 180 |  |
| 0.25KVA |  | 90 |  |
| Transformer | Fiber box \& chassis |  |  |


| Plug and Socket |  | 30 |  |
| :--- | :---: | :---: | :---: |
| Lamps and mains card name <br> Plate |  | 16 |  |
| PCB with the components |  | 50 |  |
| Relays, 2 Nos. |  | 35 |  |
| Screens and spares-insulation, <br> sleeving |  | 20 |  |
| Packing material |  | 15 |  |
| Volt Meter | $\mathbf{2 4 0 0}$ |  |  |
| Subtotal for 1 | $\mathbf{3 0 0 0}$ |  | $\mathbf{1 2 , 3 8 , 4 0 0 . 0 0}$ |
| Subtotal for 2400 | $\mathbf{1 8 , 2 9 , 4 0 0 . 0 0}$ |  |  |
| Total |  |  |  |

Note: These rates are indicative and subject to variation as per quality and availability

## II. Quality Standards

As per BIS standards.

## III. Production Capacity Per Annum

Quantity 2,400 Nos. (250 VA) 600 Nos. (500VA)
IV. Motive Power
: $\quad 5 \mathrm{KVA}$

## V. Pollution Control

The Govt. accords utmost importance to control environmental pollution. The small-scale entrepreneurs should have an environmental friendly attitude and adopt pollution control measures by process modification and technology substitution. India having acceded to the Montreal Protocol in sept. 1992, the production and use of Ozone Depleting Substances (ODS) like Chlorofluore Carbon (CFCs), Carbon Tetrachloride, Halons and methyl Chloroform etc. need to be phased out immediately with alternative chemical/solvents. A notification for detailed Rules to regulate ODS phase out under the Environment Protection Act, 1986 have been put in place with effect from $19^{\text {th }}$ July 2000.

The following steps are suggested which may help to control pollution in electronics industry 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 environmental and the end products. Alternate technologies may be used to phase out the existing polluting technologies. Numerous new fluxes have been developed containing 2-10\% solids as opposed to the traditional $15-35 \%$ solids.
ii) Electronic industry uses CFCs, Carbon Tetrachloride and Methyl Chloroform for cleaning of printed circuit boards after assembly to remove flux residues left after soldering, and various kinds of foams for packaging.

Many alternative solvents could replace CFC-113 and methyl Chloroform in electronics cleaning. Other Chlorinated convents such as trichloroethylene, per chloroethylene and methylene chloride have been used an effective cleaners in electronics industry for many years. Other organic solvents such as ketenes and Alcohols are effective in removing both solder fluxes and many polar contaminants.

## VI. 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 has been enacted on $18^{\text {th }}$ August 2001, which provides for efficient use 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 conserving technologies, production Aids and testing facilities.
ii) Efficient management of process/manufacturing machineries and system, QC and testing equipment for yielding maximum energy conservation.
iii) Optimum use of electrical energy for heating during soldering process can be obtained by using efficient temperature controlled soldering and disordering station.
iv) Periodical maintenance of motors compressors etc.
v) Use of power factor correction capacitors. Proper selection and layout of lighting system; timely switching on-off of the lights; use of compact fluorescent lamps wherever possible etc.

## ADDITIONAL INFORMATION

a. The project profile may be modified/ tailored to suit the individual entrepreneurship qualities/capacity, production programme and also to suit the locational characteristics, wherever applicable.
b. The Electronics Technology is undergoing rapid strides of change and there is need for regular monitoring of the national and international technology scenario. The unit may, therefore, 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 the product or service alone. It also extends to the process and environment in which they are generated. The ISO 9000 defines standards for quality Management System and ISO 14001 defines standards for Environmental Management System for acceptability at environment level. The unit may therefore adopt these standards for global competition.
d. The margin money is $10 \%$ of the working capital .However the percentage of margin money may vary as per PMEGP guidelines

## PROJECT AT A GLANCE

| 1 | Name of the Entreprenuer | XXXXXXX |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | Constitution (legal Status) | XXXXXXX |  |  |  |
| 3 | Father's/Spouce's Name | XXXXXXXX |  |  |  |
| 4 | Unit Address | XXXXXXXX |  |  |  |
|  |  | Taluk/Block: <br> District : <br> Pin: <br> E-Mail <br> Mobile |  | XXXXX <br> XXXXX <br> XXXXX <br> XXXXX | State: |
| 5 | Product and By Product | Voltage Stabiliser |  |  |  |
| 6 | Name of the project / business activity proposed : | Voltage Stabiliser |  |  |  |
| 7 | Cost of Project | Rs10.71lac |  |  |  |
| 8 | Means of Finance |  |  |  |  |
|  | Term Loan | Rs.4.62 Lacs |  |  |  |
|  | KVIC Margin Money | As per Project Eligibility |  |  |  |
|  | Own Capital | Rs.1.07 Lacs |  |  |  |
|  | Working Capital | Rs.5.02 Lacs |  |  |  |
| 9 | Debt Service Coverage Ratio |  | 7.11 |  |  |
| 10 | Pay Back Period |  | 5 | Years |  |
| 11 | Project Implementation Period |  | 8 | Months |  |
| 12 | Break Even Point |  | 20\% |  |  |
| 13 | Employment |  | 6 | Persons |  |
| 14 | Power Requirement |  | 5.00 | HP |  |

15 Major Raw materials
Estimated Annual Sales Turnover
Detailed Cost of Project \& Means of Finance
COST OF PROJECT

| (Rs. In Lacs) |  |
| :--- | ---: |
| Particulars | Amount |
| Land | Rented/Owned |
| Building \& Civil Work (1500 Sq Ft) | 3.00 |
| Plant \& Machinery | 1.03 |
| Furniture \& Fixtures | 0.75 |
| Pre-operative Expenses | 0.35 |
| Working Capital Requirement | 5.58 |
| Total | $\mathbf{1 0 . 7 1}$ |

MEANS OF FINANCE

| Particulars | Amount |
| :--- | ---: |
| Own Contribution @10\% | 1.07 |
| Term Loan | 4.62 |
| Workign Capital Finance | 5.02 |
| Total |  |
|  | General |
| Beneficiary's Margin Monery | $10 \%$ |

(\% of Project Cost)

## Electronic Parts

27.54 Lacs


| PARTICULARS | IST YEAR | IIND YEAR | IIIRD YEAR | IVTH YEAR | VTH YEAR |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SOURCES OF FUND |  |  |  |  |  |
| Capital Account | 1.07 | 1.07 | 1.07 | 1.07 | 1.07 |
| Retained Profit | 7.76 | 17.76 | 28.67 | 41.40 | 55.88 |
| Term Loan | 4.62 | 3.46 | 2.31 | 1.15 | 0.52 |
| Cash Credit | 5.02 | 5.02 | 5.02 | 5.02 | 5.02 |
| Sundry Creditors | 0.26 | 0.30 | 0.34 | 0.38 | 0.43 |
| Provisions \& Other Liab | 0.36 | 0.40 | 0.44 | 0.48 | 0.53 |
| TOTAL : | 19.09 | 28.01 | 37.84 | 49.51 | 62.41 |
| APPLICATION OF FUND |  |  |  |  |  |
| Fixed Assets ( Gross) | 4.78 | 4.78 | 4.78 | 4.78 | 4.78 |
| Gross Dep. | 0.49 | 0.96 | 1.38 | 1.75 | 2.08 |
| Net Fixed Assets | 4.29 | 3.82 | 3.40 | 3.03 | 2.70 |
| Current Assets |  |  |  |  |  |
| Sundry Debtors | 2.75 | 3.70 | 4.05 | 4.56 | 5.07 |
| Stock in Hand | 3.08 | 1.70 | 1.94 | 2.19 | 2.43 |
| Cash and Bank | 6.47 | 16.04 | 25.42 | 36.40 | 48.55 |
| Deposits \& Advances | 2.50 | 2.75 | 3.03 | 3.33 | 3.66 |
| TOTAL : | 19.09 | 28.01 | 37.84 | 49.51 | 62.41 |

PROJECTED PROFITABILITY STATEMENT

| PARTICULARS | IST YEAR | IIND YEAR | IIIRD YEAR | IVTH YEAR | VTH YEAR |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A) SALES |  |  |  |  |  |
| Gross Sale | 27.54 | 36.98 | 40.55 | 45.65 | 50.75 |
| Scrap sale | - | - | - | - | - |
| Total (A) | 27.54 | 36.98 | 40.55 | 45.65 | 50.75 |
| B) COST OF SALES |  |  |  |  |  |
| Raw Mateiral Consumed | 10.98 | 12.81 | 14.64 | 16.46 | 18.29 |
| Elecricity Expenses | 0.43 | 0.50 | 0.57 | 0.64 | 0.72 |
| Repair \& Maintenance | - | 0.37 | 0.41 | 0.46 | 0.51 |
| Labour \& Wages | 4.62 | 5.08 | 5.59 | 6.15 | 6.76 |
| Depriciation | 0.49 | 0.47 | 0.42 | 0.37 | 0.33 |
| Consumables and Other Expense | 0.55 | 0.74 | 0.81 | 0.91 | 1.01 |
| Cost of Production | 17.07 | 19.97 | 22.43 | 25.00 | 27.63 |
| Add: Opening Stock/WIP | - | 1.98 | 0.42 | 0.48 | 0.54 |
| Less: Closing Stock/WIP | 1.98 | 0.42 | 0.48 | 0.54 | 0.60 |
| Cost of Sales (B) | 15.09 | 21.53 | 22.37 | 24.94 | 27.57 |
| C) GROSS PROFIT (A-B) | 12.45 | 15.44 | 18.17 | 20.71 | 23.18 |
|  | 45\% | 42\% | 45\% | 45\% | 46\% |
| D) Bank Interest (Term Loan ) | 0.40 | 0.48 | 0.35 | 0.22 | 0.08 |
| Bank Interest ( C.C. Limit) | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| E) Salary to Staff | 2.38 | 2.61 | 2.87 | 3.16 | 3.48 |
| F) Selling \& Adm Expenses Exp. | 0.55 | 0.74 | 0.81 | 0.91 | 1.01 |
| TOTAL (D+E) | 3.83 | 4.34 | 4.54 | 4.79 | 5.07 |
| H) NET PROFIT | 8.63 | 11.10 | 13.64 | 15.91 | 18.11 |
| I) Taxation | 0.86 | 1.11 | 2.73 | 3.18 | 3.62 |
| J) PROFIT (After Tax) | 7.76 | 9.99 | 10.91 | 12.73 | 14.49 |

## SOURCES OF FUND

$\begin{array}{llllll}\text { Add }: \text { Surplus } & 6.47 & 9.58 & 9.38 & 10.98 & 12.14\end{array}$

Share Capital
Reserve \& Surplus
Depriciation \& Exp. W/ off Increase in Cash Credit
Increase In Term Loan
Increase in Creditors
Increase in Provisions

TOTAL :

APPLICATION OF FUND
Increase in Fixed Assets
Increase in Stock
Increase in Debtors
Increase in Deposits \& Adv
Repayment of Term Loan
Taxation
TOTAL:
Opening Cash \& Bank Balance
TOTAL:
Opening Cash \& Bank Balance

Closing Cash \& Bank Balance

| 1.07 | - |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 8.63 | 11.10 | 13.64 | 15.91 | 18.11 |
| 0.49 | 0.47 | 0.42 | 0.37 | 0.33 |
| 5.02 | - | - | - | - |
| 4.62 | - | - | - | - |
| 0.26 | 0.04 | 0.04 | 0.04 | 0.04 |
| 0.36 | 0.04 | 0.04 | 0.04 | 0.05 |
|  |  |  |  |  |
| $\mathbf{2 0 . 4 4}$ | $\mathbf{1 1 . 6 6}$ | $\mathbf{1 4 . 1 4}$ | $\mathbf{1 6 . 3 7}$ | $\mathbf{1 8 . 5 3}$ |


| 6.47 | 16.04 | 25.42 | 36.40 | 48.55 |
| :--- | :--- | :--- | :--- | :--- |

Items to be Manufactured UPS and Voltage Stabiliser

|  | 500 VA |  | 250VA |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Manufacturing Capacity per day | 2.00 |  | 8.00 | Pcs | 10.00 |
|  |  |  |  |  |  |
| No. of Working Hour | 8 |  | 8 |  | 8.00 |
|  |  |  |  |  |  |
| No of Working Days per month | 25 |  | 25 |  | 25.00 |
|  |  |  |  |  |  |
| No. of Working Day per annum | 300 |  | 300 |  | 300.00 |
|  |  |  |  |  |  |
| Total Production per Annum | 600.00 | Pcs | 2,400.00 | Pcs | 3,000.00 |
|  |  |  |  |  |  |
| Year | Capacity |  | Capacity | Pcs | Total Pcs |
|  | Utilisation |  | Utilisation |  |  |
|  |  |  |  |  |  |
| IST YEAR | 60\% | 360 | 60\% | 1,440 | 1,800 |
| IIND YEAR | 70\% | 420 | 70\% | 1,680 | 2,100 |
| IIIRD YEAR | 80\% | 480 | 80\% | 1,920 | 2,400 |
| IVTH YEAR | 90\% | 540 | 90\% | 2,160 | 2,700 |
| VTH YEAR | 100\% | 600 | 100\% | 2,400 | 3,000 |
|  |  |  |  |  |  |

## COMPUTATION OF RAW MATERIAL



| COMPUTATION OF CLOSING STOCK \& WORKING CAPITAL |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PARTICULARS | IST YEAR | IIND YEAR | IIIRD YEAR | IVTH YEAR | VTH YEAR |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Finished Goods |  |  |  |  |  |
| (15 Days requirement) | 1.98 | 0.42 | 0.48 | 0.54 | 0.60 |
| Raw Material |  |  |  |  |  |
| (30 Days requirement) | 1.10 | 1.28 | 1.46 | 1.65 | 1.83 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Closing Stock | 3.08 | 1.70 | 1.94 | 2.19 | 2.43 |

COMPUTATION OF WORKING CAPITAL REQUIREMENT

| Particulars |  |  | Total |
| :--- | :--- | :--- | ---: |
|  |  |  | Amount |
| Stock in Hand |  |  | 3.08 |
|  |  |  |  |
| Sundry Debtors |  |  | 2.75 |
|  |  | Total | 5.83 |
| Sundry Creditors |  |  | 0.26 |
|  |  |  |  |
| Working Capital Requirement |  |  | $\mathbf{5 . 5 8}$ |
|  |  |  | 0.56 |
| Margin |  |  |  |
|  |  |  | $\mathbf{5 . 0 2}$ |
| Working Capital Finance |  |  |  |

BREAK UP OF LABOUR

| Particulars |  | Wages | No of | Total |  |
| :--- | ---: | ---: | ---: | ---: | :---: |
|  |  | Per Month | Employees | Salary |  |
|  |  |  |  |  |  |
| Skilled Worker |  | $10,000.00$ | 3 | $30,000.00$ |  |
| Unskilled Worker |  | $5,000.00$ | 1 | $5,000.00$ |  |
|  |  |  |  |  |  |
|  |  |  |  | $35,000.00$ |  |
|  |  |  |  | $3,500.00$ |  |
| Add: 10\% Fringe Benefit |  |  |  | $38,500.00$ |  |
| Total Labour Cost Per Month |  |  | 4.00 |  |  |
| Total Labour Cost for the year ( In Rs. Lakhs) |  |  |  |  |  |

BREAK UP OF SALARY

| Particulars |  | Salary | No of | Total |
| :--- | :--- | ---: | ---: | ---: |
|  |  | Per Month | Employees | Salary |
| Manager |  | $10,000.00$ | 1 | $10,000.00$ |
| Accountant |  | $8,000.00$ | 1 | $8,000.00$ |
|  |  |  |  | $18,000.00$ |
| Total Salary Per Month |  |  |  | $1,800.00$ |
|  |  |  |  | $19,800.00$ |
| Add: 10\% Fringe Benefit |  |  |  |  |
| Total Salary for the month |  |  |  |  |
|  |  |  |  |  |
| Total Salary for the year ( In Rs. Lakhs) | 2.00 |  |  |  |

## COMPUTATION OF DEPRECIATION

| Description | Land | Building/shed | Plant \& | Furniture | TOTAL |
| :--- | :---: | ---: | ---: | ---: | ---: |
|  |  |  | Machinery |  |  |
|  |  |  |  |  |  |
| Rate of Depreciation |  |  | $\mathbf{1 0 . 0 0} \%$ | $\mathbf{1 5 . 0 0} \%$ | $\mathbf{1 0 . 0 0} \%$ |
| Opening Balance | Leased | - | - | - | - |
| Addition | - | 3.00 | 1.03 | 0.75 | 4.78 |
|  | - | 3.00 | 1.03 | 0.75 | 4.78 |
| Less : Depreciation | - | 0.30 | 0.15 | 0.04 | 0.49 |
| WDV at end of Ist year | - | 2.70 | 0.88 | 0.71 | 4.29 |
| Additions During The Year | - | - | - | - |  |
|  | - | 0.70 | 0.88 | 0.71 | 4.29 |
| Less : Depreciation | - | 0.27 | 0.13 | 0.07 | 0.47 |
| WDV at end of IInd Year | - | 2.43 | 0.74 | 0.64 | 3.82 |
| Additions During The Year | - | - | - | - | - |
|  | - | 2.43 | 0.74 | 0.64 | 3.82 |
| Less : Depreciation | - | 0.24 | 0.11 | 0.06 | 0.42 |
| WDV at end of IIIrd year | - | 2.19 | 0.63 | 0.58 | 3.40 |
| Additions During The Year | - | - | - | - | - |
|  | - | 2.19 | 0.63 | 0.58 | 3.40 |
| Less : Depreciation | - | 0.22 | 0.09 | 0.06 | 0.37 |
| WDV at end of IV year | - | 1.97 | 0.54 | 0.52 | 3.03 |
| Additions During The Year | - | - | - | - |  |
|  | - | 1.97 | 0.54 | 0.52 | 3.03 |
| Less : Depreciation | - | 0.20 | 0.08 | 0.05 | 0.33 |
| WDV at end of Vth year | - | 1.77 | 0.46 | 0.47 | 2.70 |


| REPAYMENT SCHEDULE OF TERM LOAN |  |  |  |  | 11.5\% |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Particulars | Amount | Addition | Total | Interest | Repayment | Cl Balance |
| IST YEAR | Opening Balance |  |  |  |  |  |  |
|  | Ist Quarter | - | 4.62 | 4.62 | - | - | 4.62 |
|  | Iind Quarter | 4.62 | - | 4.62 | 0.13 | - | 4.62 |
|  | IIIrd Quarter | 4.62 | - | 4.62 | 0.13 | - | 4.62 |
|  | Ivth Quarter | 4.62 | - | 4.62 | 0.13 | - | 4.62 |
|  |  |  |  |  | 0.40 | - |  |
| IIND YEAR | Opening Balance |  |  |  |  |  |  |
|  | Ist Quarter | 4.62 | - | 4.62 | 0.13 | 0.29 | 4.33 |
|  | Iind Quarter | 4.33 | - | 4.33 | 0.12 | 0.29 | 4.04 |
|  | IIIrd Quarter | 4.04 | - | 4.04 | 0.12 | 0.29 | 3.75 |
|  | Ivth Quarter | 3.75 |  | 3.75 | 0.11 | 0.29 | 3.46 |
|  |  |  |  |  | 0.48 | 1.15 |  |
| IIIRD YEAR | Opening Balance |  |  |  |  |  |  |
|  | Ist Quarter | 3.46 | - | 3.46 | 0.10 | 0.29 | 3.17 |
|  | Iind Quarter | 3.17 | - | 3.17 | 0.09 | 0.29 | 2.89 |
|  | IIIrd Quarter | 2.89 | - | 2.89 | 0.08 | 0.29 | 2.60 |
|  | Ivth Quarter | 2.60 |  | 2.60 | 0.07 | 0.29 | 2.31 |
|  |  |  |  |  | 0.35 | 1.15 |  |
| IVTH YEAR | Opening Balance |  |  |  |  |  |  |
|  | Ist Quarter | 2.31 | - | 2.31 | 0.07 | 0.29 | 2.02 |
|  | Iind Quarter | 2.02 | - | 2.02 | 0.06 | 0.29 | 1.73 |
|  | IIIrd Quarter | 1.73 | - | 1.73 | 0.05 | 0.29 | 1.44 |
|  | Ivth Quarter | 1.44 |  | 1.44 | 0.04 | 0.29 | 1.15 |
|  |  |  |  |  | 0.22 | 1.15 |  |
| VTH YEAR | Opening Balance |  |  |  |  |  |  |
|  | Ist Quarter | 1.15 | - | 1.15 | 0.03 | 0.29 | 0.87 |
|  | Iind Quarter | 0.87 | - | 0.87 | 0.02 | 0.29 | 0.58 |
|  | IIIrd Quarter | 0.58 | - | 0.58 | 0.02 | 0.55 | 0.03 |
|  | Ivth Quarter | 0.03 |  | 0.03 | 0.00 | 0.55 | 0.52 |
|  |  |  |  |  | 0.08 | 1.68 |  |

## CALCULATION OF D.S.C.R

| PARTICULARS | IST YEAR | IIND YEAR | IIIRD YEAR | IVTH YEAR | VTH YEAR |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| CASH ACCRUALS | 8.26 | 10.47 | 11.33 | 13.10 | 14.82 |
|  |  |  |  |  |  |
| Interest on Term Loan | 0.40 | 0.48 | 0.35 | 0.22 | 0.08 |
|  |  |  |  |  |  |
| Total | 8.65 | 10.95 | 11.68 | 13.32 | 14.89 |
|  |  |  |  |  |  |
| REPAYMENT |  |  |  |  |  |
| Instalment of Term Loan | 1.15 | 1.15 | 1.15 | 1.68 | 1.68 |
| Interest on Term Loan | 0.40 | 0.48 | 0.35 | 0.22 | 0.08 |
|  |  |  |  |  |  |
| Total | 1.55 | 1.64 | 1.50 | 1.89 | 1.75 |
|  |  |  |  |  |  |
| DEBT SERVICE COVERAGE R | 5.57 | 6.69 | 7.77 | 7.04 | 8.50 |
|  |  |  |  |  |  |
| AVERAGE D.S.C.R. |  |  | 7.11 |  |  |

COMPUTATION OF SALE
500VA

| Particulars | IST YEAR | IIND YEAR | IIIRD YEAR | IVTH YEAR | VTH YEAR |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Op Stock | - | 36 | 21 | 24 | 27 |
| Production | 360 | 420 | 480 | 540 | 600 |
|  | 360 | 456 | 501 | 564 | 627 |
| Less : Closing Stock | 36 | 21 | 24 | 27 | 30 |
| Net Sale | 324 | 435 | 477 | 537 | 597 |
| Sale Price per Piece | 2,500.00 | 2,500.00 | 2,500.00 | 2,500.00 | 2,500.00 |
| Sale (in Lacs) A | 8.10 | 10.88 | 11.93 | 13.43 | 14.93 |
| 250VA |  |  |  |  |  |
| Particulars |  |  |  |  |  |
| Op Stock | - | 144 | 84 | 96 | 108 |
| Production | 1,440 | 1,680 | 1,920 | 2,160 | 2,400 |
|  | 1,440 | 1,824 | 2,004 | 2,256 | 2,508 |
| Less : Closing Stock | 144 | 84 | 96 | 108 | 120 |
| Net Sale | 1,296 | 1,740 | 1,908 | 2,148 | 2,388 |
| Sale Price per Piece | 1,500.00 | 1,500.00 | 1,500.00 | 1,500.00 | 1,500.00 |
| Sale (in Lacs) B | 19.44 | 26.10 | 28.62 | 32.22 | 35.82 |
| Total Sales A+B | 27.54 | 36.98 | 40.55 | 45.65 | 50.75 |


| (A) POWER CONNECTION |  |  |  |
| :---: | :---: | :---: | :---: |
| Total Working Hour per day | Hours | 8 |  |
| Electric Load Required | HP | 5 |  |
| Load Factor |  | 0.7460 |  |
| Electricity Charges | per unit | 8.00 |  |
| Total Working Days |  | 300 |  |
| Electricity Charges (8 Hrs Per day ) |  |  | 71,616.00 |
|  |  |  |  |
| Add : Minimim Charges (@ 10\%) |  |  |  |
|  |  |  |  |
|  |  |  |  |
| (B) D.G. SET |  |  |  |
| No. of Working Days |  | 300 | days |
| No of Working Hours |  | - | Hour per day |
| Total no of Hour |  | - |  |
| Diesel Consumption per Hour |  | 8 |  |
| Total Consumption of Diesel |  | - |  |
| Cost of Diesel |  | 65.00 | Rs. / Ltr |
| Total cost of Diesel |  | - |  |
| Add : Lube Cost @15\% |  | - |  |
| Total |  | - |  |
|  |  |  |  |
| Total cost of Power \& Fuel at 100\% |  |  | 0.72 |
|  |  |  |  |
| Year | Capacity |  | Amount |
|  |  |  | (in Lacs) |
|  |  |  |  |
| IST YEAR | 60\% |  | 0.43 |
| IIND YEAR | 70\% |  | 0.50 |
| IIIRD YEAR | 80\% |  | 0.57 |
| IVTH YEAR | 90\% |  | 0.64 |
| VTH YEAR | 100\% |  | 0.72 |
|  |  |  |  |

## BREAK EVEN POINT ANALYSIS

| Year | I | II | III | IV | V |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Net Sales \& Other Income | 27.54 | 36.98 | 40.55 | 45.65 | 50.75 |
| Less : Op. WIP Goods | - | 1.98 | 0.42 | 0.48 | 0.54 |
| Add : Cl. WIP Goods | 1.98 | 0.42 | 0.48 | 0.54 | 0.60 |
| Total Sales | 29.52 | 35.41 | 40.61 | 45.71 | 50.81 |
| Variable \& Semi Variable Exp. |  |  |  |  |  |
| Raw Material \& Tax | 10.98 | 12.81 | 14.64 | 16.46 | 18.29 |
| Electricity Exp/Coal Consumption at 85\% | 0.37 | 0.43 | 0.49 | 0.55 | 0.61 |
| Manufacturing Expenses 80\% | 0.44 | 0.89 | 0.97 | 1.10 | 1.22 |
| Wages \& Salary at 60\% | 4.20 | 4.62 | 5.08 | 5.59 | 6.15 |
| Selling \& adminstrative Expenses 80\% | 0.44 | 0.59 | 0.65 | 0.73 | 0.81 |
| Intt. On Working Capital Loan | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Total Variable \& Semi Variable Exp | 16.92 | 19.83 | 22.33 | 24.93 | 27.58 |
| Contribution | 12.60 | 15.58 | 18.28 | 20.78 | 23.22 |
| Fixed \& Semi Fixed Expenses |  |  |  |  |  |
| Manufacturing Expenses 20\% | 0.11 | 0.22 | 0.24 | 0.27 | 0.30 |
| Electricity Exp/Coal Consumption at 15\% | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 |
| Wages \& Salary at 40\% | 2.80 | 3.08 | 3.39 | 3.72 | 4.10 |
| Interest on Term Loan | 0.40 | 0.48 | 0.35 | 0.22 | 0.08 |
| Depreciation | 0.49 | 0.47 | 0.42 | 0.37 | 0.33 |
| Selling \& adminstrative Expenses 20\% | 0.11 | 0.15 | 0.16 | 0.18 | 0.20 |
| Total Fixed Expenses | 3.97 | 4.48 | 4.64 | 4.86 | 5.12 |
| Capacity Utilization | 60\% | 70\% | 80\% | 90\% | 100\% |
| OPERATING PROFIT | 8.63 | 11.10 | 13.64 | 15.91 | 18.11 |
| BREAK EVEN POINT | 19\% | 20\% | 20\% | 21\% | 22\% |
| BREAK EVEN SALES | 9.31 | 10.17 | 10.32 | 10.70 | 11.19 |

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