

PROJECT PROFILE ON DIGITAL SAFE LOCKER

1. Product:-

Digital safe Locker

2. Production capacity:-

Qty. 3600 Nos

(Value Rs 2,01,60,000)

3. Month & year of Preparation:-

2009 – 2010

4. Prepared by:-

**MSME-Development Institute
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Introduction:

In today's hi-tech world every one has access to state of the art security systems. One of the latest trends in security systems is Digital safes locker. This digital safe lockers are Electronic safe locking systems which operates as per the signals received through the input key boards . They are tamper proof and provide many security options for the user. Digital Electronic keypad entry lock offers several advantages also as it is not only more reliable and strong but also easy to use. It works on keypad number entry and is based on the combination of locks. The Digital lockers automatically go into locking mode if left idle for more than a pre-programmed time period.

Market:

With the increase of crimes in the society, Safety and security have become a primary concern for all. It is advisable to have the cash, ornaments and other valuables under safe custody because burglars these days are very tech savvy and they have a lot of modern equipments with them. Burglars are now equipped with instruments and they can destroy most of the conventional safety locker systems. The enhanced security features of the digital safe lockers have made it very difficult for the thieves to operate a digital safe locker. The need for safe locker systems in homes, Offices, shops business establishments, banks, financial institutions, Petrol stations, Brokers, Hotels and Hospitals is increasingly felt in these days due to the increase in the security concerns.

There are very few micro/small enterprises engaged in manufacturing Digital safe lockers in the country. There is enough scope for setting up a few more units to manufacture Digital Safe Lockers. If the entrepreneurs can manufacture this product with all the advanced security features and can provide excellent after sales services, there is enough scope for this product not only in the domestic market but also on the export front also.

➤ Basis & Presumptions:

i) The basis for calculation of production capacity has been taken on a single shift of 8 hrs each per day basis on 70% efficiency.

(ii) The maximum capacity utilization on single shift basis for 300 days a year. The Capacity Utilization of the unit is taken as 100% for financial analysis.

(iii) The salaries and wages, cost of raw materials, utilities, civil construction etc. are based on the prevailing rates in and around Kerala. These cost factors are likely to vary with time and location.

(iv) The cost of machinery, raw material , components and equipments refer to a particular make/model and prices are approximate.

(vi) The project preparation cost etc. whenever required could be considered under pre-operative expenses.

(vii) The break even point percentage indicated is of full capacity utilization

(viii) Interest on term and working capital loan must be preferably on current rate. Otherwise, the rate of interest on an average may be taken as 13%. The rate may vary depending upon the policy of the financial institutions/agencies from time to time

(ix) The essential production machinery and test equipment required for the project have been indicated. The unit may also utilize common test facilities available at Electronics Test and Development Centers (ETDCs) and Electronic Regional Test Laboratories (ERTLs) set up by the State Governments and STQC Directorate of the Department of Information Technology, Ministry of Communication and Information Technology, to manufacture products conforming to Bureau of Indian Standards.

Implementation Schedule:

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

Sl.No	Name of the activity	Period in months (Estimated)
1	Preparation of project report	1
2	Registration & other formalities	1
3	Sanction of loan by financial institution	3
4	Plant & machinery:	
a	Placement of orders	1
b	Procurement	2

c	Electrification & installation	2
5	Procurement of raw materials	2
6	Recruitment of technical personnel	2
7	Trial operation	11 th month
8	Commercial operation	12 th month

Note:

Many of the above activities shall be initiated concurrently,
When imported equipments are required, the implementation period of the project may vary from 12 months to 15 months,
Procurement of raw materials commences from the 8th month onwards.

Technical aspects:

The following are the main technical specifications of the Digital Safe Locker considered for this project:

Password 3 to 6 Digit Code

Mechanical Override key

Knob Solenoid Operation

Double locking bolts

Low battery indication

Solid steel Door Thickness 5mm & Body 2mm

Emergency Mechanical Overriding lock

Size: 200 x 450 x400 mm

Net weight: 15 Kg

Opening: Two sets of password operation 6-digit guest password/
8-digit master password and override key

Thickness: door-5mm, wall-2mm

Power:4AA #5 battery.

Process:

The incoming raw materials and components are tested for required quality and specifications. The components are formed, shaped and soldered on pre-designed printed circuit boards and tested for desired performance. The electronic and mechanical sub assemblies are carried as per design specifications .The tested PCBs are fixed in the back side of front door of the enclosure, the key pad unit is fixed and the inter connections are made with proper electrical wiring .The batteries are connected in the system and the

whole unit is checked for the required performance. Finally the tested products are packed attractively for dispatch to the dealers/customers.

Production Capacity per annum:

Quantity	3600 Nos
Value	Rs. 2,01,60,000
Motive power required	3 KVA

Pollution Control:

Government 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 September 1992, the production and use of Ozone Depleting Substances (ODS) like Chlorofluoro Carbon (CFC), Carbon Tetrachloride, Halons and Methyl Chloroform etc. need to be phased out immediately with alternative chemicals/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 19th July, 2000.

The following steps are suggested which may help to control pollution in electronics industry wherever applicable:

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. Numerous new fluxes have been developed containing 2 – 10% solids as opposed to the traditional 15 – 33% solids. Electronic industry uses CFC, 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 solvents such as

Trichloroethylene, Perchloroethylene and Methylene Chloride have been used as effective cleaners in electronics industry for many years. Other organic solvents such as Ketones and Alcohols are effective in removing both solder fluxes and many polar contaminants.

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 18th August, 2001 which provides for efficient use of energy, its conservation and capacity building of Bureau of Energy Efficiency created under the Act.

The following steps may help for conservation of electrical energy:

- Adoption of energy conserving technologies, production aids and testing facilities.,
- Efficient management of process/manufacturing machineries and systems, QC and testing equipments for yielding maximum Energy Conservation,
- Optimum use of electrical energy for heating during soldering process can be obtained by using efficient temperature controlled soldering and disordering stations,
- Periodical maintenance of motors, compressors, etc.
- 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.

Financial Aspects

A) Fixed Capital

i) Land and Building

Built up Area	200 sq.mtr.
Office, stores	50 sq.mtr.
Assembly and Testing	150 sq.mtr.
Rent payable per annum	Rs.1,20,000/-

ii) Machinery & Equipments

S.No.	Description	Unit	Cost
1	Electronic screw driver & screw feeder	5	30,000
2	Temp Controlled Soldering Unit	3	21,000
3	LCR Meter (programmable)	1	35,000
4	Drilling machine	1	6,000
5	Analog Multimeter	2	2,000
6	Tool Kit	-	20,000
7	Personal Computer with UPS and Printer	2	1,00,000
8	Combined Soldering De soldering Station	2	24,000
9	High speed mini drill set	2	20,000
10	Digital Multimeter(4 ¾ Digit)	2	32,000
11	Digital Storage Oscilloscope (100 MHz)	1	60,000
Total			3,50,000
12	Electrification/Installation charges @ 10% cost of machinery & equipments		35,000
13	Cost of office furniture/test bench etc.		1,00,000
14.	Pre Operative expenses		50,000
	Total fixed Capital		5,35,000

B) Working Capital**Recurring expenditure per month****i) Staff & Labour/month**

S.No.	Designation	No.of person	Total salary/month
1	Manager-cum technical Expert	1	15,000
2	Skilled worker	5	35,000
3	Semi skilled worker	2	8,000
4	Office Assistant/Peon/Unskilled	4	10,000
5	Accountant/Office Manager	1	5,000
6.	Sales/Service Support Engineer	<u>2</u>	10,000
		Total	83,000
	Perquisites @ 15%		12,450
		Total Say	95,450
			95,000

ii) Raw Materials p.m

S.No	Description	Ind/i mp	Qty	Value(Rs.)
1	Motorized Electronic Locking unit with key pad	Ind	300	4,20,000
2	Solid Steel Bolts	Ind	600	32,000
3	Interior Carpet	Ind	Ls	9,000
4	Powder coated Single moulded case	Ind	300	6,90,000
5	Battery	Ind	300	63,000
6	Packing material	Ind	300	18,000
7	Electronic components, consumables	Ind	Ls	30,000
8.			Total	12,62,000

iii) Utilities per month

1	Power	4,500
2	Water	500
	Total	5,000

iv) Other contingent expenses per month

S.No.	Description	Amount(Rs.)
1	Rent	10,000
2	Postage & Stationery	2,000
3	Telephone	5,000
4	Repair & Maintenance	2,000
5	Transport & Conveyance	15,000
6	Advertisement & Publicity	20,000
7	Insurance	1,000
8	Miscellaneous expenditure	5,000
	Total	60,000

Total Recurring expenditure/month**14,20,000****Working capital (3 months)****42,60,000**

C	Total Capital Investment	Rs
	Fixed Capital	5,35,000
	Working Capital (for 3 months)	42,60,000
	Total	47,95,000

D	Financial Analysis	
1	Cost of production/annum	Rs
	Total recurring expenditure	1,70,40,000
	Depreciation on machinery & equipment @ 10%	35,000
	Depreciation on office equipment & furniture @ 20%	20,000
	Interest on total capital investment @ 13%	6,23,350
	Total	1,77,18,350
2	Turnover per annum	
	Quantity(Numbers)	3600
	Total turnover @ Rs 5600/-	2,01,60,000
3	Profit per annum(Before taxes)	24,41,650

4	Net profit ratio = $\frac{\text{Net profit} \times 100}{\text{Total Turnover}}$	12.1%
5	Rate of Return = $\frac{\text{Net profit} \times 100}{\text{Total Capital Investment}}$	51%
6	Break-even point	
	Fixed cost per annum	Rs
1	Rent	1,20,000
2	Depreciation on machinery & equipment @ 10%	35,000
3	Depreciation on office equipment, furniture @ 20%	20,000
4	Interest on total capital investment @ 13%	6,23,350
5	40% salary & wages	4,56,000
6	40% of other contingent expenses excluding rent and insurance	235200
	Total fixed cost	1489550
	Break-even point = $\frac{\text{Fixed cost} \times 100}{\text{Fixed cost} + \text{Net Profit}}$	37.8%

Additional Information:

- The project may be modified/tailored to suit the individual entrepreneurship qualities/capacity, production programme and also to suit the locational characteristics, wherever applicable,
- The technology in this sector is undergoing rapid strides of charge and there is a need for regular monitoring of the national and international technology scenario. The unit, may therefore, keep abreast with new technologies in order to keep them in pace with the developments for global competition,
- 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 international level. The unit may therefore adopt these standards for global competition,
- The margin money recommended is 25% of the working capital at an average. However the percentage of margin money vary as per bank's discretion.

NAMES AND ADDRESSES OF MACHINERY & EQUIPMENT SUPPLIERS

Raw Material Suppliers

M/s Sahajanand Industries
Near Dudhwali Pole Gheekanta Road
Ahmedabad - 380 001, Gujarat, India
Phone: 25620215 / 25623662
Fax: 25620215
Mobile: 9227223033

M/s Steel Safe Engineering
Plot No.3, G. I. D. C.-2, NH 8B
Gondal - 360 311, Gujarat, India
Phone: (2825)-225240
Fax: (2825)-225240
Mobile: 9426472508
Email: steelsafeengg@rediffmail.com

M/s Safeguard Systems, Bangalore
No. 36/1, Robertson Road, Off. Mosque Road,
Frazer Town Bengaluru - 560 005,
Karnataka, India
Phone. (80)-41250221 / 41227543 / 41252641
Fax. (80)-41252641
Mobile: 9343544350 / 93

M/s Shanti Metal Industries,
No. 2/5, 6th Cross, Padrayanpura
Bengaluru, Karnataka - 560 026, India
Email: shantimetal85@gmail.com
Phone: (80)-22975431
Mobile: 9880992140/ 9341247579
Fax : (80)-22975431

M/s Armour Electronics Pvt. Ltd.
Plot No: 3737, Phase -Iv, GIDC, Vatva,,
Ahmedabad, Gujarat – 38244
Telephone: (79)-25842111
Fax No: (79)-25840818

TEST EQUIPMENTS

Kamal Electronics
14, Lakshmi Building,
J.C Road, Bangalore
560002

Aplab Limited
XL 1/583,II Floor
Krishna Nivas
Adv.Eashwara Iyer Road,
Kochi 682 035 Phone 0484 2361623
Email aplabkochi@vsnl.net.

Guru Agencies,
M.G Road,
Ernamkulam,
Kerala.

M/s. Mecco Instruments Private Limited
P.O. Box 6388,
301, Bharat Industrial Estate
T.J. Road
Sewree(W)
Mumbai-400015
Tel.022-24137253/24137423
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