PROJECT REPORT

ON
'AUTO LOCK'

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding 'Auto Lock'

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.]

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Nurturing Dreams - Innovative Solutions

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INTRODUCTION:

Auto Lock are one of the basic need of automobile of four wheel drive or two wheel drive. These locks are of different need for automobile i.e. for locking of vehicle/petrol tank locking etc. These are made by the processes of pressure die casting/sheet metal & finally assembled by pin locking. Most of the parts will be manufactured in the unit itself & only small spring will be procured from local unit.

Market:

This item has a good scope due to increase in production of automobile in the country. This item can be supplied to different automobile manufacturers as original equipment & can also be sold in the market as replacement market

BASIS & PRESUMPTIONS:

Raw material used in the manufacture of auto lock is indigenously available. Although we can manufacture all types of auto locks for different vehicle can be manufactured with the plants & machinery provided in the project but the economics of this project have been worked out for the handle lock of two-wheeler.

There is no IS Specification available on the auto locks, but these are manufactured as per the buyers specification of own design.

1. The basic for the calculation of the production capacity is normally on single shift basis on 65% efficiency and 300 working days have been considered per annum.
2. The rate of interest in return has been taken on the basis of 11.00% at an average; however, this figure is likely to vary depending on the financial outlay of the project as per location of the unit.
3. It will take 4-5 years to achieve full capacity utilization.
4. Labour wages have been taken as per prevailing rates of market.
5. Land and building has been provided on rental basis. An average rent have been taken (it varies from place to place.)
6. The break-even point in the scheme has been calculated on full capacity utilization basis.
7. The cost of machinery and equipment items as indicated as refer to particular make and the prices are approximate those ruling at the time of preparation of this report.

IMPLEMENTATION SCHEDULE:

The major activities in the implementation of the project have been listed below and the average time for implementation of the project is estimated at 6 months:

Work schedule	**Period (in months)**
• Preparation of project report	**1**
• Registration and other formalities	**1**
• Sanction of loan by financial institutions	**1**
• Plant & Machinery	
a) Placement of orders	
b) Procurement	**1**
c) Power connection/Electrification	**1**
d) Installation/Erection of machinery/ Test equipment	**1**
• Procurements of raw material	**1**
• Recruitment of Technical Staff etc.	**1**
• Trial Production Commercial Production	**1**

1. Many of the above activities shall be initiated concurrently

2. Procurement of raw materials commences from the 6-7th month onwards.

TECHNICAL ASPECTS:

Process Outline:

Main body of the lock/lever holding pin is made on pressure die casting with the help of dies. Die casting is a metal casting process that is characterized by forcing molten metal under high pressure into a mould cavity. The mould cavity is created using two hardened tool steel dies which have been machined into shape and work similarly to an injection mould during the process.

Lever holding pin is further machined on Lathe/milling for making slots for fixing of levers are made on power press with the help of punching dies. Then these levers are fitted in plunger & put in main body and pin is fixed for final assembly. Key will be procured from outside.

QUALITY CONTROL AND STANDARD:

The quality of the spare parts purchased for assembly purposes should be ascertained and after assembly, the performance of each part is checked manually.

PRODUCTION CAPACITY:

It is proposed that 1,50,000 Pcs. of Auto Locks of assorted size will be assembled / manufactured per annum

MOTIVE POWER: 25 HP Power will be required.

POLLUTION CONTROL:

No pollution is involved in the manufacturing process of Auto Clutch plates because it is only an assembly unit.

LABOUR REQUIREMENT:

6-7 Manpower is required for manufacturing Includes:
1 Production Engineer
2 Skilled Labour
4 Semiskilled Labour

BANK LOAN

Rate of Interest is assumed to be at 11.00%

DEPRECIATION

Depreciation has been calculated as per the provisions of Income Tax Act, 1961

APPROVALS & REGISTRATION REQUIREMENT:

Basic registration required in this project:

- GST Registration
- Udyam Registration
- Choice of Brand name of the product and secure the name with Trademark if required

PLANT SETUP & MACHINES

2000 Sq Ft space is sufficient for starting a small scale operation. Apart from the production area, you will need to have space for storage and office work. Check the location before finalizing the place. You must have electricity, adequate water supply, and good drainage system. Additionally, you must have a laboratory setup for testing and quality maintenance.

Some of the basic required machines are

- Pressure die casting machine 150 grms withcompressor 200 lbs with electricals.
- Power Press 5 M.t on. Capacity complete with electrical fittings.
- Bench drilling machine 15 mm capacity with electrical fittings.
- Lathe 1300 mm bed size with cluth & motor
- Grinders and Milling Machines

FINANCIAL ASPECTS

PROJECT AT A GLANCE

Product and By Product	:	**Auto Lock**	
Name of the project / business activity proposed :		**Auto Lock**	
Cost of Project	:	Rs.16.67 Lacs	
Means of Finance			
Term Loan		Rs.8.06 Lacs	
KVIC Margin Money	-	As per Project Eligibility	
Own Capital		Rs.1.67 Lacs	
Working Capital		Rs.6.94 Lacs	
Debt Service Coverage Ratio	:	4.32	
Pay Back Period	:	5	Years
Project Implementation Period	:	6	Months
Break Even Point	:	33%	
Employment	:	11	Persons
Power Requirement	:	25.00	HP
Major Raw materials	:	**Zinc Alloy, spring rivet etc**	
Estimated Annual Sales Turnover	:	74.78	Lacs

COST OF PROJECT (Rs. In Lacs)

Particulars	Amount
Land	Rented/Owned
Building & Civil Work (2000 Sq Ft)	
Plant & Machinery	7.85
Furniture & Fixtures	0.75
Pre-operative Expenses	0.35
Working Capital Requirement	7.72
Total	**16.67**

MEANS OF FINANCE

Particulars	Amount
Own Contribution @10%	1.67
Term Loan	8.06
Workign Capital Finance	6.94
Total	**16.67**

Beneficiary's Margin Monery (% of Project Cost) **Special 5%** **General 10%**

PLANT & MACHINERY

1	Pressure die casting machine 150 grms withcompressor 200 lbs with electricals.	1	3,00,000.00	3,00,000.00
2	Injector for holding dies	1	15,000.00	15,000.00
3	Power Press 5 M.t on. Capacity complete with electrical fittings.	1	1,00,000.00	1,00,000.00
4	Bench drilling machine 15 mm capacity withelectrical fittings.	1	25,000.00	25,000.00
5	Lathe 1300 mm bed size with cluth & motor	**1**	1,50,000.00	1,50,000.00
6	Milling M/c small	**1**	50,000.00	50,000.00
7	Surface grinder manual 18”X12”	**1**	50,000.00	50,000.00
8	Double ended grinder 10” wheel dia	**1**	10,000.00	10,000.00
9	Double ended grinder 10” wheel dia	**1**	10,000.00	10,000.00
10	Electrification installation charges @ 10%	**LS**	50,000.00	50,000.00
11	Cost of fixture / tools/dies etc.	**LS**	25,000.00	25,000.00
	Total			7,85,000.00

COMPUTATION OF MANUFACTURING OF AUTO LOCK

Manufacturing Capacity per day	500.00	Pcs
No. of Working Hour	8	
No of Working Days per month	25	
No. of Working Day per annum	300	
Total Production per Annum	1,50,000.00	Pcs
Year	Capacity	Pcs
	Utilisation	
IST YEAR	65%	97,500
IIND YEAR	70%	1,05,000
IIIRD YEAR	75%	1,12,500
IVTH YEAR	80%	1,20,000
VTH YEAR	85%	1,27,500

COMPUTATION OF RAW MATERIAL

Item Name		Quantity of	Unit Rate of	Total Cost
		Raw Material	/ MT	Per Annum (100%)
Zinc alloy	Kg	9,600.00	200.00	19,20,000.00
Brass strip	Kg	72.00	167.00	12,024.00
Rivets/springs	Pcs	1,50,000.00	3.00	1,50,000.00
pair of keys	Pcs	1,50,000.00	6.00	9,00,000.00
card board boxers	No	1,50,000.00	3.00	4,50,000.00
Diesel	Ltr	12,000.00	65.00	7,80,000.00
		500.00	90.00	45,000.00
Annual Consumption cost Rs in lacs				42.57

Raw Material Consumed	Capacity Utilisation	Amount (Rs.)
IST YEAR	65%	27.67
IIND YEAR	70%	29.80
IIIRD YEAR	75%	31.93
IVTH YEAR	80%	34.06
VTH YEAR	85%	36.18

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	**IST YEAR**	**IIND YEAR**	**IIIRD YEAR**	**IVTH YEAR**	**VTH YEAR**
Finished Goods					
(30Days requirement)	3.68	4.03	4.31	4.61	4.91
Raw Material					
(30 Days requirement)	2.77	2.98	3.19	3.41	3.62
Closing Stock	**6.44**	**7.01**	**7.50**	**8.01**	**8.53**

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars	**Total**
	Amount
Stock in Hand	6.44
Sundry Debtors	2.41
Total	8.86
Less :Sundry Creditors	1.08
Working Capital Requirement	**7.78**
Less:Margin	0.78
Working Capital Finance	**7.00**

PROJECTED BALANCE SHEET

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
SOURCES OF FUND					
Capital Account	1.67	3.76	6.84	10.69	14.65
Retained Profit	6.09	8.08	9.85	10.96	12.24
Less Withdrawal	4.00	5.00	6.00	7.00	8.00
	3.76	6.84	10.69	14.65	18.89
Term Loan	8.06	6.04	4.03	2.01	-0.09
Cash Credit	7.00	7.00	7.00	7.00	7.00
Sundry Creditors	1.08	0.99	1.06	1.14	1.21
Provisions & Other Liab	0.36	0.40	0.44	0.48	0.53
TOTAL :	**20.25**	**21.26**	**23.21**	**25.28**	**27.53**
APPLICATION OF FUND					
Fixed Assets (Gross)	8.60	8.60	8.60	8.60	8.60
Gross Dep.	1.22	2.29	3.20	3.98	4.65
Net Fixed Assets	7.39	6.31	5.40	4.62	3.95
Current Assets					
Sundry Debtors	2.41	2.92	3.18	3.46	3.74
Stock in Hand	6.44	7.01	7.50	8.01	8.53
Cash and Bank	1.01	1.03	2.12	3.19	4.31
Deposits & Advances	3.00	4.00	5.00	6.00	7.00
TOTAL :	**20.25**	**21.26**	**23.21**	**25.28**	**27.53**

PROJECTED PROFITABILITY STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
A) SALES					
Gross Sale	48.26	58.38	63.70	69.17	74.78
Total (A)	**48.26**	**58.38**	**63.70**	**69.17**	**74.78**
B) COST OF SALES					
Raw Mateiral Consumed	27.67	29.80	31.93	34.06	36.18
Elecricity Expenses	1.16	1.25	1.34	1.43	1.52
Repair & Maintenance	-	0.58	0.64	0.69	0.75
Labour & Wages	5.28	5.81	6.39	7.03	7.73
Depriciation	1.22	1.07	0.91	0.78	0.67
Consumables and Other Expenses	1.45	1.75	1.91	2.07	2.24
Cost of Production	36.78	40.27	43.12	46.06	49.09
Add: Opening Stock /WIP	-	3.68	4.03	4.31	4.61
Less: Closing Stock /WIP	3.68	4.03	4.31	4.61	4.91
Cost of Sales (B)	33.10	39.92	42.84	45.77	48.79
C) GROSS PROFIT (A-B)	15.16	18.46	20.86	23.40	25.99
	31%	**32%**	**33%**	**34%**	**35%**
D) Bank Interest (Term Loan)	0.66	0.80	0.58	0.36	0.14
Bank Interest (C.C. Limit)	0.70	0.70	0.70	0.70	0.70
E) Salary to Staff	4.09	4.50	4.95	5.45	5.99
F) Selling & Adm Expenses Exp.	3.62	4.38	4.78	5.19	5.61
TOTAL (D+E)	**9.08**	**10.38**	**11.01**	**11.69**	**12.44**
H) NET PROFIT	6.09	8.08	9.85	11.70	13.55
I) Taxation	-	-	-	0.74	1.31
J) PROFIT (After Tax)	6.09	8.08	9.85	10.96	12.24

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