PROJECT REPORT

ON
'ALLEN SCREW'

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding 'Allen Screw'

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

PROJECT PROFILE

ON

'ASSEMBLY OF 'ALLEN SCREWS'

PRODUCT AND ITS USES:

Allen Screws are a Item of fasteners used to join two or more parts of metal or other hard material. These are used to join different parts of a Die/Fixtures etc. They have a cylindrical body with uniform threads all along the length. Round Head has hexagonal cavity is made for accommodating Allen Key which is used for tightening or unscrewing these screws. For screwing in or unscrewing an Allen Key is required for the same. These Screws are used in tapped holes having matching internal thread

MARKET POTENTIALITY:

Due to enhancement of industrial growth, the demand for these Allen screws, which may be termed as machine screws especially for quality screws, is increasing steadily. Moreover there is one or two such unit available in the operational jurisdiction of MSME-DI, Kanpur. Hence market potential for this Item is considered to be good.

BASIS AND PRESUMPTIONS:

i) The basis for calculation of production capacity on maximum capacity utilization has been taken on single shift basis for 300 days a year. During first year, second year and third year of operations the capacity utilization is 65%,70%, 75% and 80% respectively. The unit is expected to achieve full capacity utilization from the fifth year onward.

ii) The salaries and wages, cost of raw materials, utilities, rents etc. are based on the prevailing rates. These cost factors are likely to vary with time and location.

iii) Interest on term loan and working capital loan has been taken 11.00% per Annum.

iv) The cost of machinery and equipment as indicated in the scheme are approximate of these ruling at the time of preparation of scheme. Entrepreneur may check up the latest and exact price for specific make and model of the machine selected.

v) It is presumed that unit will get full capacity within fifth years.

vi) It is presumed that operative period of unit will be 10 years.

IMPLEMENTATION SCHEDULE

The major activities and their implementation schedule are furnished below. The assessment of the items required for implementation of the project has been considered and accounted from the date of sanction of the loan:

Sno	Activities	Period in No. months
1	Application to financial institutions, submission of documents, certificates for loan and other formalities	1
2	Placement of orders for machinery and equipments and application for power connection	2
3	Procurement of raw materials	1
4	Clearing machinery, installation, electrification etc.	2
5	Trial and commercial production	1
	Total	7

TECHNICAL PROCESS

PROCESS OF MANUFACTURE

First of all coils of the required size are cleaned and fed in to the Automatic Heading machine which gives required length & head, then trimming of head to required size is done in the Automatic Machine After this threads are cut in the Auto Thread Rolling Machine Then sorting is done by hundred percent usual inspection. Then heat treatment of the Allen Screws is done as per requirement. Finally gauging and few percentage of hardness testing is done. The packing is done accordingly to size & order

Summary of the production process:

- Wire - Uncoiled, straightened and cut to length.
- Cold forging - Molding the steel into the right shape at room temperature.
- Bolt head - Progressively formed by forcing the steel into various dies at high pressure.
- Threading - Threads are formed by rolling or cutting.
- Heat treatment - The bolt is exposed to extreme heat to harden steel.
- Surface treatment - It depends on the application. Zinc-plating is common to increase corrosion resistance.
- Packing/stocking - After quality control to ensure uniformity and consistency, and packaged

QUALITY CONTROL AND STANDARD:

The scheme envisages for manufacture of metric series Allen Screws (Socket head cap screw) M3 to M20 i.e. 2.5 mm to 17mmwrench size and generally conforming to IS:2269, IS:44762 and threads are as per IS:1367.

PRODUCTION CAPACITY:

The unit has capacity to produce approximately 345 Tons PA Allen Screws of assorted size and the unit has capacity to increase or decrease the quantity of each type as per orders on the unit.

MOTIVE POWER: 40 HP Power will be required.

POLLUTION CONTROL:

No pollution is involved in the manufacturing process of Allen Screws. However proper height of chimney should be maintained in the oil fired furnace.

FINANCIAL ASPECTS

Product and By Product	:	**Allen Screw**	
Name of the project / business activity proposed :		**Allen Screw**	
Cost of Project	:	**Rs23.15lac**	
Means of Finance			
Term Loan		Rs.14.76 Lacs	
KVIC Margin Money	-	As per Project Eligibility	
Own Capital		Rs.2.41 Lacs	
Working Capital		Rs.6.95 Lacs	
Debt Service Coverage Ratio	:	2.61	
Pay Back Period	:	5	Years
Project Implementation Period	:	6	Months
Break Even Point	:	36%	
Employment	:	9	Persons
Power Requirement	:	40.00	HP
Major Raw materials	:	**Alloy Steel wire size 5 mm to 35mm**	
Estimated Annual Sales Turnover	:	71.32	Lacs

COST OF PROJECT (Rs. In Lacs)

Particulars	Amount
Land	Rented/Owned
Building & Civil Work (2000 Sq Ft)	3.50
Plant & Machinery	11.80
Furniture & Fixtures	0.75
Pre-operative Expenses	0.35
Working Capital Requirement	7.73
Total	**24.13**

MEANS OF FINANCE

Particulars	Amount
Own Contribution @10%	2.41
Term Loan	14.76
Workign Capital Finance	6.95
Total	**24.13**

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

PLANT & MACHINERY

	Machineries	No	Rate	AmountRs
1	Automatic double stroke cold heating machine capacity5mm to 10mm in dia and 5mm to 50mm in length with Motor of 7.5 HP.	One	1,50,000.00	1,50,000.00
2	Automatic double stroke cold heating machine capacity 10mm to 35mm in dia and 50mm to 75mm in length with Motor of 10 HP.	One	2,00,000.00	2,00,000.00
3	Automatic Screw head trimming machine for above size with 5HP motor	Two	1,00,000.00	1,00,000.00
4	Automatic cold thread rolling machine for above size with 5HP motor	Two	75,000.00	1,50,000.00
5	Oil fired furnace with 1 HP Blower with oil tank &other accessories	One	1,00,000.00	1,00,000.00
6	Hardness Tester	One	50,000.00	50,000.00
7	Centre Lathe capacity 1550mm bed length and centre height170mm with all standard accessorieswith 2 HP motor	One	1,00,000.00	1,00,000.00
8	Drilling Machine pillar type capacity 20mm-1.5HPMotor	One	25,000.00	25,000.00
9	Double ended Bench Grinder200mm dia x 25mmthickness with 1 HP Motor & 3000 rpm	One	25,000.00	25,000.00
10	Dies, Tools and Accessories		80,000.00	80,000.00
11	Installation & Electrification		1,00,000.00	1,00,000.00
	TOTAL			**11,80,000.00**

COMPUTATION OF MANUFACTURING OF ALLEN SCREWS

Manufacturing Capacity per day	0.50	MT
No. of Working Hour	8	
No of Working Days per month	25	
No. of Working Day per annum	300	
Total Production per Annum	150.00	MT
Year	Capacity	MT
	Utilisation	
IST YEAR	65%	97.50
IIND YEAR	70%	105.00
IIIRD YEAR	75%	112.50
IVTH YEAR	80%	120.00
VTH YEAR	85%	127.50

COMPUTATION OF RAW MATERIA

Item Name		Quantity of Raw Material	Unit Rate of / MT	Total Cost Per Annum (100%)
		MT		
Alloy Steel wire size 5 mm to 10mm	100 %	80.00	50,000.00	40.00
Alloy Steel wire size 10 mm to 35 mm	100 %	80.00	50,000.00	40.00
Annual Consumption cost Total (Rounded off in lacs)				80.00

Raw Material Consumed	Capacity	Amount (Rs.)
	Utilisation	
IST YEAR	65%	52.00
IIND YEAR	70%	56.00
IIIRD YEAR	75%	60.00
IVTH YEAR	80%	64.00
VTH YEAR	85%	68.00

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Finished Goods					
(15 Days requirement)	3.25	3.53	3.77	4.02	4.26
Raw Material					
(15 Days requirement)	2.60	2.80	3.00	3.20	3.40
Closing Stock	**5.85**	**6.33**	**6.77**	**7.22**	**7.66**

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars	Total Amount
Stock in Hand	5.85
Sundry Debtors	3.64
Total	9.49
Sundry Creditors	1.71
Working Capital Requirement	**7.78**
Margin	0.78
Working Capital Finance	**7.00**

COMPUTATION OF SALE

Particulars	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Op Stock	-	5	5	6	6
Production	98	105	113	120	128
	98	110	118	126	134
Less : Closing Stock	5	5	6	6	6
Net Sale	93	105	112	120	127
Sale Price per MT	77,000.00	77,770.00	78,547.70	79,333.18	80,126.51
Sale (in Lacs)	**71.32**	**81.37**	**88.07**	**94.90**	**101.86**

PROJECTED BALANCE SHEET

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
SOURCES OF FUND					
Capital Account	2.41	5.81	8.91	12.89	17.61
Retained Profit	5.39	6.11	7.97	9.73	11.06
Less Withdrawal	2.00	3.00	4.00	5.00	6.00
	5.81	8.91	12.89	17.61	22.68
Term Loan	14.76	11.07	7.38	3.69	0.74
Cash Credit	7.00	7.00	7.00	7.00	7.00
Sundry Creditors	1.73	1.87	2.00	2.13	2.27
Provisions & Other Liab	0.36	0.40	0.44	0.48	0.53
TOTAL :	**29.66**	**29.24**	**29.70**	**30.91**	**33.21**
APPLICATION OF FUND					
Fixed Assets (Gross)	16.05	16.05	16.05	16.05	16.05
Gross Dep.	2.16	4.05	5.67	7.07	8.28
Net Fixed Assets	13.89	12.00	10.38	8.98	7.77
Current Assets					
Sundry Debtors	3.64	4.14	4.48	4.82	5.17
Stock in Hand	5.85	6.33	6.77	7.22	7.66
Cash and Bank	3.78	4.02	5.08	6.65	9.11
Deposits & Advances	2.50	2.75	3.00	3.25	3.50
TOTAL :	**29.66**	**29.24**	**29.70**	**30.91**	**33.21**

PROJECTED PROFITABILITY STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
A) SALES					
Gross Sale	71.32	81.37	88.07	94.90	101.86
Scrap sale 10 MT @15000/MT	1.50	1.50	1.50	1.50	1.50
Total (A)	**72.82**	**82.87**	**89.57**	**96.40**	**103.36**
B) COST OF SALES					
Raw Mateiral Consumed	52.00	56.00	60.00	64.00	68.00
Elecricity Expenses	3.72	4.01	4.30	4.58	4.87
Repair & Maintenance	-	0.81	0.88	0.95	1.02
Labour & Wages	3.43	3.78	4.15	4.57	5.02
Depriciation	2.16	1.89	1.63	1.40	1.21
Consumables and Other Expenses	3.64	4.14	4.48	4.82	5.17
Cost of Production	64.95	70.63	75.44	80.32	85.29
Add: Opening Stock /WIP	-	3.25	3.53	3.77	4.02
Less: Closing Stock /WIP	3.25	3.53	3.77	4.02	4.26
Cost of Sales (B)	61.71	70.35	75.20	80.08	85.04
C) GROSS PROFIT (A-B)	11.11	12.52	14.38	16.33	18.32
	16%	**15%**	**16%**	**17%**	**18%**
D) Bank Interest (Term Loan)	1.22	1.47	1.07	0.66	0.26
Bank Interest (C.C. Limit)	0.70	0.70	0.70	0.70	0.70
E) Salary to Staff	2.38	2.61	2.87	3.16	3.48
F) Selling & Adm Expenses Exp.	1.43	1.63	1.76	1.90	2.04
TOTAL (D+E)	**5.72**	**6.41**	**6.40**	**6.42**	**6.48**
H) NET PROFIT	5.39	6.11	7.97	9.91	11.84
I) Taxation				0.18	0.78
J) PROFIT (After Tax)	5.39	6.11	7.97	9.73	11.06

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