

# LIGHT ENGINEERING

## (NUT, BOLT, WASHER, RIVETS, etc.)

- **Introduction**

The project is envisaged for establishing a machining unit for the manufacture of simple fastening components such as screws, bolts, nuts, washers, car clips, rivets and so on. These items are required by all types of industries including automobiles.

### **2. Market:**

The products have a good demand in local market. Transportation industries like bicycles, automobiles, body builders, aircrafts etc, building activities such as construction areas, electrical industries and other heavy and light industries are the common customers. Hence the marketing of these products will not be a tough

### **3. Manufacturing Process**

An unfinished work piece requiring machining will need to have some material cut away to create a finished product. A finished product would be a work piece that meets the specifications set out for that work piece by [engineering drawings](#) or [blueprints](#). A lathe is a machine tool that can be used to create that diameter by rotating a metal workpiece, so that a cutting tool can cut metal away, creating a smooth, round surface matching the required diameter and surface finish. A drill can be used to remove metal in the shape of a cylindrical hole. Other tools that may be used for various types of metal removal are milling machines, saws, and [grinding machines](#). Many of these same techniques are used in [woodworking](#).the "traditional" machining processes, such as [turning](#), [boring](#), [drilling](#), [milling](#), [broaching](#), [sawing](#),[shaping](#), [planing](#), [reaming](#), and [tapping](#), or sometimes to [grinding](#).

### **FINANCIAL ASPECTS**

1. Land Free hold  
2. Building Rented

• **Plant & Machinery**

Sl.N	Item	Qt	Rs.
1	Lathe Machine	1	Rs. 125,000.00
2	Tread rolling		Rs.
3	Stand Drill	1	Rs. 9,500.00
4	Hand Grinders	2	Rs. 13,000.00
5	Hand Driller	3	Rs. 16,000.00
6	Hammer & Tools		Rs. 6,000.00
7	Rivette Machine	1	Rs. 8,000.00
8	Cutting	1	Rs. 8,000.00
9	Sheet Cutters	2	Rs. 3,750.00
10	Transportation, Errection, Sales Tax etc.		Rs. 3,250.00
<b>Total</b>			<b>Rs. 3,00,000.00</b>

• **Raw Material Required per month**

1	M S	1675 kg & Rs. 55/=	Rs. 56,250.00
2	Metal Sheet	1100 kg & Rs.	Rs. 33,750.00
3	Other items	L S	Rs. 10,000.00
<b>Total</b>			<b>Rs. 1,62,225.00</b>

• **Man Power per month**

1	Manager	Rs. 8,000.00
2	Skilled Workers	Rs. 16,000.00
3	Helper	Rs. 4,500.00
<b>Total</b>		<b>Rs. 28,500.00</b>

• **Other Expense per month**

1	Power	Rs. 2,000.00
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Courtesy:



2	Rent	Rs.	3,000.00
3	Postage & Telephone	Rs.	500.00
4	Miscellaneous expenses	Rs.	2,500.00
	<b>Total</b>	<b>Rs.</b>	<b>8,000.00</b>

- **Working Capital Requirement**

1	Stock of Raw	30 Day	Rs.
2	Raw Materials in	2 Day	Rs.
3	Stock of Finished	3 Day	Rs.
4	Credit Sale	10 Day	Rs.
5	One Month working expenses		Rs.
	<b>Total</b>		<b>Rs.</b>

- **Production per Month**

	2500 Kgs of Nuts , Bolts , Washer etc @ Rs.90 / Kilo	Rs.	2,25,000.00
<b>9.</b>	<b>Total Project Cost</b>		
1	Land		Free hold
2	Building		Rented
3	Plant & Machinery	Rs.	3,00,000.00
4	Working Capital	Rs.	3,29,200.00
	<b>Total</b>	<b>Rs.</b>	<b>6,29,200</b>

- **MEANCE OF FINANCE**

1	Promoters Contribution	Rs.	1,88,800.00
2	Term Loan	Rs.	2,21,000.00
3	Working Capital Loan	Rs.	2,30,400.00
	<b>TOTAL</b>	<b>Rs.</b>	<b>6,29,200.00</b>

- **Cost of Production and Profitability Statement for a normal year of operation**

Year	1 <sup>st</sup>
Number of Working Days	300
Number of Shift	1
Installed Capacity	4500000.00
Capacity Utilisation	60
Production	2700000.00
<b>A. Net Sales</b>	<b>2700000.00</b>
<b>B. Cost of Production</b>	
Raw materials	1951500.00
Salaries	96000.00
Wages	246000.00
Power Charges	24000.00
Repairs and Maintenance	12000.00
Depreciation&insurance	39000.00
Total	2368500.00
<b>C. Gross Operating Profit</b>	<b>331500.00</b>
<b>D. Administrative and Selling Expenses</b>	
Administrative Expenses& Selling Expenses	72000.00
<b>E. Financial Expenses</b>	
Interest on Term Loan	26831.00
Interest on Working Capital Loan	32256.00
<b>F. Total D &amp; E</b>	<b>131087.00</b>
<b>G. Net Profit</b>	<b>200413.00</b>
<b>H. Provision for taxes</b>	<b>4041.00</b>
<b>I. Net profit</b>	<b>196372.00</b>
<b>J. Withdrawals</b>	<b>0.00</b>
<b>K. Depreciation</b>	<b>36000.00</b>
<b>L. Cash Surplus</b>	<b>232372.00</b>

12. Break- Even Point	42.37%
13. DSCR	3.1
14. Return on Investment	31%

Source:- Udyami Mitra/Sidbi

Courtesy:  **mudra**