

**PROJECT REPORT**

**OF**

**ELECTRIC KETTLE  
MANUFACTURING UNIT**

**PURPOSE OF THE DOCUMENT**

This particular pre-feasibility is regarding Electric Kettle Manufacturing unit.

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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**PROJECT AT A GLANCE**

- 1 Name of the Entrepreneur : xxxxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxxxx
- 3 Father / Spouse Name : xxxxxxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxxxx
- Pin: xxxxxxxx State: xxxxx
- Mobile xxxxxxxx
- 5 Product and By Product : **ELECTRIC KETTLE**
- 6 Name of the project / business activity proposed : **ELECTRIC KETTLE MANUFACTURING UNIT**
- 7 Cost of Project : Rs.20.89 Lakhs
- 8 Means of Finance
- Term Loan Rs.12.6 Lakhs
- Own Capital Rs.2.09 Lakhs
- Working Capital Rs.6.2 Lakhs
- 9 Debt Service Coverage Ratio : 3.48
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 37%
- 13 Employment : 11 Persons
- 14 Power Requirement : 18.00 KW
- 15 Major Raw materials : High Grade Steel, Rubber, Copper, Brass, Nickle
- 16 Estimated Annual Sales Turnover : 90.48 Lakhs
- 17 Detailed Cost of Project & Means of Finance

**COST OF PROJECT**

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Plant & Machinery	13.00
Miss Assets	1.00
Furniture & Fixtures	-
Working Capital	6.89
<b>Total</b>	<b>20.89</b>

**MEANS OF FINANCE**

Particulars	Amount
Own Contribution	2.09
Working Capital(Finance)	6.20
Term Loan	12.60
<b>Total</b>	<b>20.89</b>

## **1. INTRODUCTION**



An electric kettle is an electrical appliance, that has a self-contained heating unit, for heating water, and automatically switches off when the water reaches boiling point or at a preset temperature below 100 °C. It is thus different to the stove top kettle, which is less energy efficient and takes longer to boil the same volume of water as the electric kettle. An electric kettle comes with a heating element inside it, which, heats the liquid inside the kettle within comparatively least time.

An electric kettle is one of the simplest household appliances available on the market right now. There are more than a thousand models of electric kettles available on the market today. When you plug in an electric kettle to an outlet, a large amount of electric current passes through the cord and it, in turn, heats the heating element. The element heats because of the resistance offered by the heating element. This resistance converts the electrical energy into heat, which, in turn, heats the liquid inside the kettle.

## **2. USES & MARKET POTENTIAL:**

An Electric Kettle or simply electric tea kettle is a household appliance that is widely used hot water for drinking or cooking. The heating element or the coil at the bottom of the container helps for quick heating. It heats water within a minute than any type of conventional kettle used for making tea. This is perfectly safe in use in the kitchen or in small areas where cooking space is very limited.

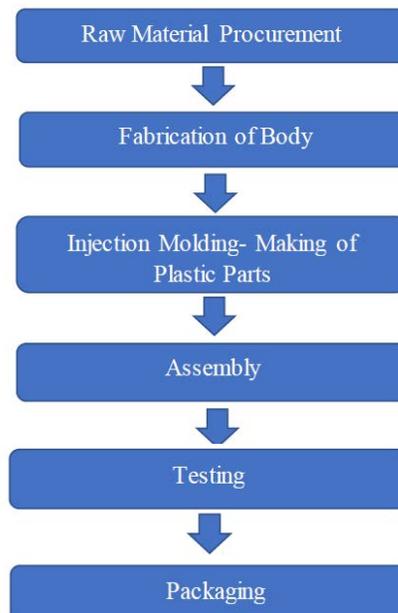
The global electric kettle market exhibited moderate growth during recent years. Looking forward, the market is expected to grow at a CAGR of around 5% during the next five years. An electric kettle is a kitchen appliance that assists in boiling water that can be used for the preparation of tea, coffee, soups, and other beverages instantly. It is generally made using materials that help conduct heat efficiently, such as metals.

### **PRODUCT RAW MATERIAL**

- High Grade Steel
- Heat Resistant Plastic (such as low density polyethylene (LDPE), polypropylene (PP), or polystyrene (PS))
- Rubber
- Copper, Brass and Nickle
- On/Off Switches
- A connection linking the element to the cord
- Plug
- Packaging Materials (Such as plastic bags, cartoon boxes, etc.)

### **MANUFACTURING PROCESS**

#### **FLOW CHART OF THE PROCESS**



### **3. PROJECT COMPONENTS**

#### **3.1 Land & Building**

The land required for this manufacturing unit will be approx. around 1200 square feet. Land Purchase and Building Civil Work Cost have not been considered as part of the cost of project. It is expected that the premises will be on rental and approximate rentals assumed of the same will be Rs.25,000 per month.

#### **3.2 Plant and Machinery**

<b>Machine</b>	<b>Quantity</b>	<b>Price</b>
Turret Punch Press	1	4,00,000
Injection Molding Machine	1	7,00,000
Belt Conveyor	1	60,000
Packaging Machine	1	1,00,000
Tools & Other equipment's		40,000
<b>TOTAL</b>		<b>13,00,000</b>

**Note:** Total Machinery cost shall be Rs 13.00 lakh including GST and Transportation Cost.

#### **3.3 Power Requirement**

The borrower shall require power load of 18 KW which shall be applied with Power Corporation. However, for standby power arrangement the borrower shall also purchase DG Set.

#### **3.4 Manpower Requirement**

Manpower required for this manufacturing unit is depend on the land, type of manufacturing unit etc. For this unit around 11 people will be required which includes:

3 Skilled Labour

4 Unskilled Labour

1 Helper

1 Administrative Staff

1 Manager

1 Accountant

## 4. FINANCIALS

<b><u>PROJECTED BALANCE SHEET</u></b>	<b>(in Lacs)</b>				
<b>PARTICULARS</b>	<b>1st year</b>	<b>2nd year</b>	<b>3rd year</b>	<b>4th year</b>	<b>5th year</b>
<b><u>Liabilities</u></b>					
<b>Capital</b>					
Opening balance		2.79	4.82	7.18	9.96
Add:- Own Capital	2.09				
Add:- Retained Profit	5.10	6.83	8.76	11.48	13.20
Less:- Drawings	4.40	4.80	6.40	8.70	10.20
<b>Closing Balance</b>	<b>2.79</b>	<b>4.82</b>	<b>7.18</b>	<b>9.96</b>	<b>12.97</b>
Term Loan	11.20	8.40	5.60	2.80	-
Working Capital Limit	6.20	6.20	6.20	6.20	6.20
Sundry Creditors	1.24	1.41	1.58	1.76	1.96
Provisions & Other Liability	0.20	0.24	0.29	0.35	0.41
<b>TOTAL :</b>	<b>21.63</b>	<b>21.07</b>	<b>20.85</b>	<b>21.07</b>	<b>21.54</b>
<b><u>Assets</u></b>					
<b>Fixed Assets (Gross)</b>	14.00	14.00	14.00	14.00	14.00
Gross Dep.	2.10	3.89	5.40	6.69	7.79
<b>Net Fixed Assets</b>	<b>11.90</b>	<b>10.12</b>	<b>8.60</b>	<b>7.31</b>	<b>6.21</b>
<b>Current Assets</b>					
Sundry Debtors	3.02	3.60	4.12	4.69	5.30
Stock in Hand	5.12	5.83	6.57	7.38	8.24
Cash and Bank	0.40	0.24	0.16	0.20	0.18
Loans & Advances /Other Current Assets	1.20	1.30	1.40	1.50	1.60
<b>TOTAL :</b>	<b>21.63</b>	<b>21.07</b>	<b>20.85</b>	<b>21.07</b>	<b>21.54</b>

<b><u>PROJECTED PROFITABILITY STATEMENT</u></b>					<b>(in Lacs)</b>
<b>PARTICULARS</b>	<b>1st year</b>	<b>2nd year</b>	<b>3rd year</b>	<b>4th year</b>	<b>5th year</b>
Capacity Utilisation %	<b>50%</b>	<b>55%</b>	<b>60%</b>	<b>65%</b>	<b>70%</b>
<b><u>SALES</u></b>					
<b>Gross Sale</b>					
Electric Kettle	90.48	107.86	123.55	140.60	159.09
<b>Total</b>	<b>90.48</b>	<b>107.86</b>	<b>123.55</b>	<b>140.60</b>	<b>159.09</b>
<b><u>COST OF SALES</u></b>					
Raw Material Consumed	53.28	60.35	67.74	75.63	83.87
Electricity Expenses	1.73	1.90	2.07	2.25	2.42
Depreciation	2.10	1.79	1.52	1.29	1.10
Wages & labour	12.00	15.36	18.74	22.49	26.98
Repair & maintenance	2.26	2.16	2.47	2.81	3.18
Packaging	2.26	2.70	3.09	3.52	3.98
<b>Cost of Production</b>	<b>73.63</b>	<b>84.25</b>	<b>95.63</b>	<b>107.98</b>	<b>121.52</b>
<b>Add: Opening Stock</b>	<b>-</b>	<b>2.45</b>	<b>2.81</b>	<b>3.19</b>	<b>3.60</b>
<b>Less: Closing Stock</b>	<b>2.45</b>	<b>2.81</b>	<b>3.19</b>	<b>3.60</b>	<b>4.05</b>
Cost of Sales	71.18	83.90	95.25	107.57	121.07
<b>GROSS PROFIT</b>	<b>19.30</b>	<b>23.96</b>	<b>28.31</b>	<b>33.03</b>	<b>38.01</b>
	<b>21.33%</b>	<b>22.22%</b>	<b>22.91%</b>	<b>23.49%</b>	<b>23.89%</b>
Salary to Staff	6.36	7.95	9.46	10.88	12.84
Interest on Term Loan	1.24	1.09	0.78	0.47	0.17
Interest on working Capital	0.68	0.68	0.68	0.68	0.68
Rent	3.00	3.15	3.31	3.47	3.65
Selling & Administrative Exp.	2.90	3.78	4.32	4.92	5.57
<b>TOTAL</b>	<b>14.18</b>	<b>16.65</b>	<b>18.56</b>	<b>20.43</b>	<b>22.90</b>
NET PROFIT	5.13	7.32	9.75	12.60	15.11
	<b>5.67%</b>	<b>6.78%</b>	<b>7.89%</b>	<b>8.96%</b>	<b>9.50%</b>
Taxation	0.03	0.48	0.99	1.12	1.91
PROFIT (After Tax)	5.10	6.83	8.76	11.48	13.20

<b><u>PROJECTED CASH FLOW STATEMENT</u></b>					<b>(in Lacs)</b>
<b>PARTICULARS</b>	<b>1st year</b>	<b>2nd year</b>	<b>3rd year</b>	<b>4th year</b>	<b>5th year</b>
<b><u>SOURCES OF FUND</u></b>					
Own Margin	2.09				
Net Profit	5.13	7.32	9.75	12.60	15.11
Depreciation & Exp. W/off	2.10	1.79	1.52	1.29	1.10
Increase in Cash Credit	6.20	-	-	-	-
Increase In Term Loan	12.60	-	-	-	-
Increase in Creditors	1.24	0.16	0.17	0.18	0.19
Increase in Provisions & Oth labilities	0.20	0.04	0.05	0.06	0.07
	-				
<b>TOTAL :</b>	<b>29.56</b>	<b>9.31</b>	<b>11.49</b>	<b>14.13</b>	<b>16.47</b>
<b><u>APPLICATION OF FUND</u></b>					
Increase in Fixed Assets	14.00				
Increase in Stock	5.12	0.71	0.75	0.81	0.86
Increase in Debtors	3.02	0.58	0.52	0.57	0.62
Repayment of Term Loan Loans & Advances /Other Current Assets	1.40	2.80	2.80	2.80	2.80
	1.20	0.10	0.10	0.10	0.10
Drawings	4.40	4.80	6.40	8.70	10.20
Taxation	0.03	0.48	0.99	1.12	1.91
<b>TOTAL :</b>	<b>29.16</b>	<b>9.47</b>	<b>11.56</b>	<b>14.10</b>	<b>16.49</b>
Opening Cash & Bank Balance	-	0.40	0.24	0.16	0.20
Add : Surplus	0.40	(0.16)	(0.07)	0.04	(0.02)
Closing Cash & Bank Balance	<b>0.40</b>	<b>0.24</b>	<b>0.16</b>	<b>0.20</b>	<b>0.18</b>

<b><u>CALCULATION OF D.S.C.R</u></b>					
<b>PARTICULARS</b>	<b>1st year</b>	<b>2nd year</b>	<b>3rd year</b>	<b>4th year</b>	<b>5th year</b>
<b>CASH ACCRUALS</b>	7.20	8.62	10.28	12.77	14.30
Interest on Term Loan	1.24	1.09	0.78	0.47	0.17
<b>Total</b>	8.44	9.71	11.06	13.24	14.47
<b><u>REPAYMENT</u></b>					
Instalment of Term Loan	1.40	2.80	2.80	2.80	2.80
Interest on Term Loan	1.24	1.09	0.78	0.47	0.17
Total	2.64	3.89	3.58	3.27	2.97
<b>DEBT SERVICE COVERAGE RATIO</b>	<b>3.20</b>	<b>2.50</b>	<b>3.09</b>	<b>4.04</b>	<b>4.88</b>
<b>AVERAGE D.S.C.R.</b>	<b>3.48</b>				

<b>COMPUTATION OF CLOSING STOCK &amp; WORKING CAPITAL</b>					(in Lacs)
<b>PARTICULARS</b>	<b>1st year</b>	<b>2nd year</b>	<b>3rd year</b>	<b>4th year</b>	<b>5th year</b>
<b>Finished Goods</b>					
(10 Days)	2.45	2.81	3.19	3.60	4.05
<b>Raw Material</b>					
(15 Days)	2.66	3.02	3.39	3.78	4.19
<b>Closing Stock</b>	<b>5.12</b>	<b>5.83</b>	<b>6.57</b>	<b>7.38</b>	<b>8.24</b>

<b>COMPUTATION OF WORKING CAPITAL REQUIREMENT</b>					
<b>TRADITIONAL METHOD</b>					(in Lacs)
<b>Particulars</b>	<b>Amount</b>	<b>Own Margin</b>		<b>Bank Finance</b>	
Finished Goods & Raw Material	5.12				
Less : Creditors	1.24				
<b>Paid stock</b>	<b>3.88</b>	<b>10</b> <b>%</b>	<b>0.39</b>	<b>90</b> <b>%</b>	<b>3.49</b>
<b>Sundry Debtors</b>	<b>3.02</b>	<b>10</b> <b>%</b>	<b>0.30</b>	<b>90</b> <b>%</b>	<b>2.71</b>
	<b>6.89</b>		<b>0.69</b>		<b>6.20</b>
<b>MPBF</b>					<b>6.20</b>
<b>WORKING CAPITAL LIMIT DEMAND ( from Bank)</b>					<b>6.20</b>
<b>Working Capital Margin</b>					<b>0.69</b>

**REPAYMENT SCHEDULE OF TERM LOAN**

Interest 11.00%

<b>Year</b>	<b>Particulars</b>	<b>Amount</b>	<b>Addition</b>	<b>Total</b>	<b>Interest</b>	<b>Repayment</b>	<b>Closing Balance</b>
<b>1st</b>	Opening Balance						
	1st month	-	12.60	12.60	-	-	12.60
	2nd month	12.60	-	12.60	0.12	-	12.60
	3rd month	12.60	-	12.60	0.12	-	12.60
	4th month	12.60	-	12.60	0.12		12.60
	5th month	12.60	-	12.60	0.12		12.60
	6th month	12.60	-	12.60	0.12		12.60
	7th month	12.60	-	12.60	0.12	0.23	12.37
	8th month	12.37	-	12.37	0.11	0.23	12.13
	9th month	12.13	-	12.13	0.11	0.23	11.90
	10th month	11.90	-	11.90	0.11	0.23	11.67
	11th month	11.67	-	11.67	0.11	0.23	11.43
	12th month	11.43	-	11.43	0.10	0.23	11.20
					<b>1.24</b>	<b>1.40</b>	
<b>2nd</b>	Opening Balance						
	1st month	11.20	-	11.20	0.10	0.23	10.97
	2nd month	10.97	-	10.97	0.10	0.23	10.73
	3rd month	10.73	-	10.73	0.10	0.23	10.50
	4th month	10.50	-	10.50	0.10	0.23	10.27
	5th month	10.27	-	10.27	0.09	0.23	10.03
	6th month	10.03	-	10.03	0.09	0.23	9.80

	7th month	9.80	-	9.80	0.09	0.23	9.57
	8th month	9.57	-	9.57	0.09	0.23	9.33
	9th month	9.33	-	9.33	0.09	0.23	9.10
	10th month	9.10	-	9.10	0.08	0.23	8.87
	11th month	8.87	-	8.87	0.08	0.23	8.63
	12th month	8.63	-	8.63	0.08	0.23	8.40
					<b>1.09</b>	<b>2.80</b>	
<b>3rd</b>	Opening Balance						
	1st month	8.40	-	8.40	0.08	0.23	8.17
	2nd month	8.17	-	8.17	0.07	0.23	7.93
	3rd month	7.93	-	7.93	0.07	0.23	7.70
	4th month	7.70	-	7.70	0.07	0.23	7.47
	5th month	7.47	-	7.47	0.07	0.23	7.23
	6th month	7.23	-	7.23	0.07	0.23	7.00
	7th month	7.00	-	7.00	0.06	0.23	6.77
	8th month	6.77	-	6.77	0.06	0.23	6.53
	9th month	6.53	-	6.53	0.06	0.23	6.30
	10th month	6.30	-	6.30	0.06	0.23	6.07
	11th month	6.07	-	6.07	0.06	0.23	5.83
	12th month	5.83	-	5.83	0.05	0.23	5.60
					<b>0.78</b>	<b>2.80</b>	
<b>4th</b>	Opening Balance						
	1st month	5.60	-	5.60	0.05	0.23	5.37
	2nd month	5.37	-	5.37	0.05	0.23	5.13
	3rd month	5.13	-	5.13	0.05	0.23	4.90

	4th month	4.90	-	4.90	0.04	0.23	4.67
	5th month	4.67	-	4.67	0.04	0.23	4.43
	6th month	4.43	-	4.43	0.04	0.23	4.20
	7th month	4.20	-	4.20	0.04	0.23	3.97
	8th month	3.97	-	3.97	0.04	0.23	3.73
	9th month	3.73	-	3.73	0.03	0.23	3.50
	10th month	3.50	-	3.50	0.03	0.23	3.27
	11th month	3.27	-	3.27	0.03	0.23	3.03
	12th month	3.03	-	3.03	0.03	0.23	2.80
					<b>0.47</b>	<b>2.80</b>	
<b>5th</b>	Opening Balance						
	1st month	2.80	-	2.80	0.03	0.23	2.57
	2nd month	2.57	-	2.57	0.02	0.23	2.33
	3rd month	2.33	-	2.33	0.02	0.23	2.10
	4th month	2.10	-	2.10	0.02	0.23	1.87
	5th month	1.87	-	1.87	0.02	0.23	1.63
	6th month	1.63	-	1.63	0.01	0.23	1.40
	7th month	1.40	-	1.40	0.01	0.23	1.17
	8th month	1.17	-	1.17	0.01	0.23	0.93
	9th month	0.93	-	0.93	0.01	0.23	0.70
	10th month	0.70	-	0.70	0.01	0.23	0.47
	11th month	0.47	-	0.47	0.00	0.23	0.23
	12th month	0.23	-	0.23	0.00	0.23	-
					<b>0.17</b>	<b>2.80</b>	
	DOOR TO DOOR MORATORIUM PERIOD	60		MONTHS			
		6		MONTHS			
	REPAYMENT PERIOD	54		MONTHS			

## **Assumptions:**

- Production Capacity of Electric Kettle taken is 96 Units per day. First year, Capacity has been taken @ 50%.
- Working shift of 8 hours per day has been considered.
- Raw Material stock is for 10 days and Finished goods Closing Stock has been taken for 15 days.
- Credit period to Sundry Debtors has been given for 10 days.
- Credit period by the Sundry Creditors has been provided for 7 days.
- Depreciation and Income tax has been taken as per the Income tax Act, 1961.
- Interest on working Capital Loan and Term loan has been taken at 11%.
- Salary and wages rates are taken as per the Current Market Scenario.
- Power Consumption has been taken at 18 KW.
- Selling Prices & Raw material costing has been increased by 5% & 3% respectively in the subsequent years.

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