

PROJECT REPORT

OF

KITCHEN CHIMNEY MANUFACTURING UNIT

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Kitchen Chimney 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 : **KITCHEN CHIMNEY**
- 6 Name of the project / business activity proposed : **KITCHEN CHIMNEY MANUFACTURING UNIT**
- 7 Cost of Project : Rs.24.18 Lakhs
- 8 Means of Finance
- Term Loan Rs.19.59 Lakhs
- Own Capital Rs.2.42 Lakhs
- Working Capital Rs.2.17 Lakhs
- 9 Debt Service Coverage Ratio : 2.86
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 15%
- 13 Employment : 10 Persons
- 14 Power Requirement : 30.00 KW
- 15 Major Raw materials : SS Metal Sheets, Resistors, Capacitors, Diodes
- 16 Estimated Annual Sales Turnover : 92.46 Lakhs
- 17 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Plant & Machinery	21.27
Miss Assets	0.50
Furniture & Fixtures	-
Working Capital	2.41
Total	24.18

MEANS OF FINANCE

Particulars	Amount
Own Contribution	2.42
Working Capital(Finance)	2.17
Term Loan	19.59
Total	24.18

1. INTRODUCTION



A chimney is fitted right above the cooking appliance. When turned on it sucks the oil, smoke, steam, odor generated during cooking. Chimneys technical name is extractor hood consists of three main components: a capture panel to contain the rising gases, one or more oil collectors or grease filters (depends upon the type of chimney), and a fan of tangential blower for forced ventilation. The oil gets trapped into the oil collectors and the odor, smoke, steam, and heat are thrown out of the kitchen through the duct. A chimney provides ventilation for hot gases or smoke from a cooking pan to the outside atmosphere. Chimneys are used to remove the grease and smoke straight from the pan to the outside so that it doesn't react with the walls and kitchen furniture and leaves the greasy layer on the same which normally happens when one uses the exhaust fan.

2. USES & MARKET POTENTIAL:

Chimney, also known as a kitchen hood, is referred to as an appliance that absorbs fumes/smoke produced in the kitchen. Built-in hobs, on the other hand, are the gas stovetops that are permanently installed on the kitchen counter surface. Chimney and built-in hobs are both among the popular additions in modular kitchens due to their ability to keep the kitchen clean, along with enhancing the look and décor of the kitchen.

The Indian kitchen chimney market attained a value of USD 1.3 billion in the year 2020 and is expected to attain USD 2.74 billion by 2026, which is expected to aid the growth of the market in the country. The main objective is to keep the kitchen air clean so that it doesn't become difficult to breathe and cause suffocation. The Indian kitchens back in the day were very hazardous to health given to their design. The women working in those kitchens very often suffered from respiratory disorders due to constant exposure. Many households still manage with exhaust fans which are meant for the bathrooms and the difference is only felt after installing a chimney. Thus, safety and well-being are of paramount importance. The modern chimneys have a variety of designs and concepts to choose from depending on customers' styles and requirements.

PRODUCT RAW MATERIAL

- **Metal:** SS metal sheets are used to form chimney hope or housing.
- **Electrical Components:** Resistors, Capacitors, Crystal oscillator, Diodes, Transformer, Transistors, Connectors, Power Cords, Relay, Buzzer, Heat sink, Wires, Switches ICs, Motion sensor, Led bulb, Customized circuit board, etc.
- **Motor and Blower:** BLDC motor can be used in chimneys. This motor has a longer life, it produces low heat, and it creates lower noise. The blower pulls air in from the kitchen and forces it through a channel on the exterior.
- **Plastic:** ABS, PC, etc. types of plastic granules can be used to form some plastic parts for the chimney.
- **Filters-** Baffle filter, Mesh filter, and Carbon filters are three types of filters that can be used in the chimney. The polluted air first enters the primary filter which removes the oil droplets. Then the air moves through the carbon filter which eliminates bad odors, smoke and humid air. These Filter can also be made at the manufacturing plant.

MANUFACTURING PROCESS

- **Raw material procurement**
- **Metal parts fabrication: Hood making**
- **PCB Assembly**
- **Injection Moulding Process: Plastic molding**
- **Assembly**
- **Testing**

3. PROJECT COMPONENTS

3.1 Land & Building

The land required for this manufacturing unit will be approx. around 2000 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.30,000 per month.

3.2 Plant and Machinery

Machine	Quantity	Price
Metal Sheet shearing machine	1	1,80,000
Bending machine	1	60,000
CNC Punch press machine (or Hydraulic Punch press machine)	1	2,25,000
Spot Welding machine (Semi automatic)	1	20,000
Buffing machine	1	7,000
Pickling plant	1	30,000
Laser printing machine	1	1,00,000
Oven	1	90,000
PCB assembly (Set up)	1	12,90,000
Glass cutting machine	1	1,25,000
TOTAL		21,27,000

Note: Total Machinery cost shall be Rs 21.27 lakh including GST and Transportation Cost.

3.3 Power Requirement

The borrower shall require power load of 30 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 10 people will be required.

3.5 Other Utilities

General electrical apparatus, Water, Telephone, etc.

4. FINANCIALS

<u>PROJECTED BALANCE SHEET</u>	(in Lacs)				
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>Liabilities</u>					
Capital					
Opening balance		2.56	4.96	7.72	11.05
Add:- Own Capital	2.42				
Add:- Retained Profit	5.14	7.80	10.46	14.03	17.40
Less:- Drawings	5.00	5.40	7.70	10.70	13.80
Closing Balance	2.56	4.96	7.72	11.05	14.65
Term Loan	17.42	13.06	8.71	4.35	-
Working Capital Limit	2.17	2.17	2.17	2.17	2.17
Sundry Creditors	1.02	1.34	1.69	2.07	2.48
Provisions & Other Liability	0.20	0.24	0.29	0.35	0.41
TOTAL :	23.37	21.78	20.58	19.99	19.71
<u>Assets</u>					
Fixed Assets (Gross)	21.77	21.77	21.77	21.77	21.77
Gross Dep.	3.27	6.04	8.40	10.41	12.11
Net Fixed Assets	18.50	15.73	13.37	11.36	9.66
Current Assets					
Sundry Debtors	1.54	2.05	2.58	3.17	3.80
Stock in Hand	1.89	2.48	3.11	3.79	4.53
Cash and Bank	0.23	0.22	0.12	0.17	0.12
Loans & Advances /Other Current Assets	1.20	1.30	1.40	1.50	1.60
TOTAL :	23.37	21.78	20.58	19.99	19.71

<u>PROJECTED PROFITABILITY STATEMENT</u>					(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
Capacity Utilisation %	20%	25%	30%	35%	40%
<u>SALES</u>					
Gross Sale					
Kitchen Chimney	92.46	123.01	155.09	190.06	228.14
Total	92.46	123.01	155.09	190.06	228.14
COST OF SALES					
Raw Material Consumed	61.20	80.33	101.22	123.98	148.78
Electricity Expenses	1.15	1.44	1.73	2.02	2.30
Depreciation	3.27	2.78	2.36	2.01	1.70
Wages & labour	7.74	10.84	14.09	17.61	20.78
Repair & maintenance	1.02	1.85	2.33	2.85	3.42
Packaging	2.31	3.08	3.88	4.75	5.70
Cost of Production	76.69	100.31	125.60	153.22	182.69
Add: Opening Stock	-	1.28	1.67	2.09	2.55
Less: Closing Stock	1.28	1.67	2.09	2.55	3.04
Cost of Sales	75.41	99.91	125.17	152.76	182.20
GROSS PROFIT	17.06	23.10	29.91	37.30	45.94
	18.45%	18.78%	19.29%	19.63%	20.14%
Salary to Staff	4.26	6.39	9.27	12.05	15.30
Interest on Term Loan	1.93	1.70	1.22	0.74	0.26
Interest on working Capital	0.24	0.24	0.24	0.24	0.24
Rent	3.60	3.78	3.97	4.17	4.38
Selling & Administrative Exp.	1.85	2.46	3.10	3.80	4.56
TOTAL	11.87	14.57	17.79	20.99	24.73
NET PROFIT	5.18	8.54	12.12	16.31	21.20
	5.61%	6.94%	7.82%	8.58%	9.29%
Taxation	0.04	0.74	1.66	2.28	3.81
PROFIT (After Tax)	5.14	7.80	10.46	14.03	17.40

<u>PROJECTED CASH FLOW STATEMENT</u>					(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>SOURCES OF FUND</u>					
Own Margin	2.42				
Net Profit	5.18	8.54	12.12	16.31	21.20
Depreciation & Exp. W/off	3.27	2.78	2.36	2.01	1.70
Increase in Cash Credit	2.17	-	-	-	-
Increase In Term Loan	19.59	-	-	-	-
Increase in Creditors	1.02	0.32	0.35	0.38	0.41
Increase in Provisions & Oth labilities	0.20	0.04	0.05	0.06	0.07
	-				
TOTAL :	33.85	11.67	14.88	18.75	23.39
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	21.77				
Increase in Stock	1.89	0.59	0.63	0.69	0.74
Increase in Debtors	1.54	0.51	0.53	0.58	0.63
Repayment of Term Loan	2.18	4.35	4.35	4.35	4.35
Loans & Advances /Other Current Assets	1.20	0.10	0.10	0.10	0.10
Drawings	5.00	5.40	7.70	10.70	13.80
Taxation	0.04	0.74	1.66	2.28	3.81
TOTAL :	33.62	11.68	14.98	18.71	23.44
Opening Cash & Bank Balance	-	0.23	0.22	0.12	0.17
Add : Surplus	0.23	(0.01)	(0.10)	0.05	(0.05)
Closing Cash & Bank Balance	0.23	0.22	0.12	0.17	0.12

CALCULATION OF D.S.C.R

PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
CASH ACCRUALS	8.41	10.58	12.82	16.04	19.10
Interest on Term Loan	1.93	1.70	1.22	0.74	0.26
Total	10.34	12.27	14.04	16.77	19.36
<u>REPAYMENT</u>					
Instalment of Term Loan	2.18	4.35	4.35	4.35	4.35
Interest on Term Loan	1.93	1.70	1.22	0.74	0.26
Total	4.10	6.05	5.57	5.09	4.61
DEBT SERVICE COVERAGE RATIO	2.52	2.03	2.52	3.29	4.20
AVERAGE D.S.C.R.					2.86

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL					(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
Finished Goods					
(5 Days)	1.28	1.67	2.09	2.55	3.04
Raw Material					
(3 Days)	0.61	0.80	1.01	1.24	1.49
Closing Stock	1.89	2.48	3.11	3.79	4.53

COMPUTATION OF WORKING CAPITAL REQUIREMENT					
TRADITIONAL METHOD					(in Lacs)
Particulars	Amount	Own Margin		Bank Finance	
Finished Goods & Raw Material	1.89				
Less : Creditors	1.02				
Paid stock	0.87	10%	0.09	90%	0.78
Sundry Debtors	1.54	10%	0.15	90%	1.39
	2.41		0.24		2.17
MPBF					2.17
WORKING CAPITAL LIMIT DEMAND (from Bank)					2.17
Working Capital Margin					0.24

REPAYMENT SCHEDULE OF TERM LOAN

Interest 11.00%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	Closing Balance
1st	Opening Balance						
	1st month	-	19.59	19.59	-	-	19.59
	2nd month	19.59	-	19.59	0.18	-	19.59
	3rd month	19.59	-	19.59	0.18	-	19.59
	4th month	19.59	-	19.59	0.18		19.59
	5th month	19.59	-	19.59	0.18		19.59
	6th month	19.59	-	19.59	0.18		19.59
	7th month	19.59	-	19.59	0.18	0.36	19.23
	8th month	19.23	-	19.23	0.18	0.36	18.87
	9th month	18.87	-	18.87	0.17	0.36	18.50
	10th month	18.50	-	18.50	0.17	0.36	18.14
	11th month	18.14	-	18.14	0.17	0.36	17.78
	12th month	17.78	-	17.78	0.16	0.36	17.42
					1.93	2.18	
2nd	Opening Balance						
	1st month	17.42	-	17.42	0.16	0.36	17.05
	2nd month	17.05	-	17.05	0.16	0.36	16.69
	3rd month	16.69	-	16.69	0.15	0.36	16.33
	4th month	16.33	-	16.33	0.15	0.36	15.96
	5th month	15.96	-	15.96	0.15	0.36	15.60
	6th month	15.60	-	15.60	0.14	0.36	15.24

	7th month	15.24	-	15.24	0.14	0.36	14.88
	8th month	14.88	-	14.88	0.14	0.36	14.51
	9th month	14.51	-	14.51	0.13	0.36	14.15
	10th month	14.15	-	14.15	0.13	0.36	13.79
	11th month	13.79	-	13.79	0.13	0.36	13.42
	12th month	13.42	-	13.42	0.12	0.36	13.06
					1.70	4.35	
3rd	Opening Balance						
	1st month	13.06	-	13.06	0.12	0.36	12.70
	2nd month	12.70	-	12.70	0.12	0.36	12.34
	3rd month	12.34	-	12.34	0.11	0.36	11.97
	4th month	11.97	-	11.97	0.11	0.36	11.61
	5th month	11.61	-	11.61	0.11	0.36	11.25
	6th month	11.25	-	11.25	0.10	0.36	10.89
	7th month	10.89	-	10.89	0.10	0.36	10.52
	8th month	10.52	-	10.52	0.10	0.36	10.16
	9th month	10.16	-	10.16	0.09	0.36	9.80
	10th month	9.80	-	9.80	0.09	0.36	9.43
	11th month	9.43	-	9.43	0.09	0.36	9.07
	12th month	9.07	-	9.07	0.08	0.36	8.71
					1.22	4.35	
4th	Opening Balance						
	1st month	8.71	-	8.71	0.08	0.36	8.35
	2nd month	8.35	-	8.35	0.08	0.36	7.98
	3rd month	7.98	-	7.98	0.07	0.36	7.62

	4th month	7.62	-	7.62	0.07	0.36	7.26
	5th month	7.26	-	7.26	0.07	0.36	6.89
	6th month	6.89	-	6.89	0.06	0.36	6.53
	7th month	6.53	-	6.53	0.06	0.36	6.17
	8th month	6.17	-	6.17	0.06	0.36	5.81
	9th month	5.81	-	5.81	0.05	0.36	5.44
	10th month	5.44	-	5.44	0.05	0.36	5.08
	11th month	5.08	-	5.08	0.05	0.36	4.72
	12th month	4.72	-	4.72	0.04	0.36	4.35
					0.74	4.35	
5th	Opening Balance						
	1st month	4.35	-	4.35	0.04	0.36	3.99
	2nd month	3.99	-	3.99	0.04	0.36	3.63
	3rd month	3.63	-	3.63	0.03	0.36	3.27
	4th month	3.27	-	3.27	0.03	0.36	2.90
	5th month	2.90	-	2.90	0.03	0.36	2.54
	6th month	2.54	-	2.54	0.02	0.36	2.18
	7th month	2.18	-	2.18	0.02	0.36	1.81
	8th month	1.81	-	1.81	0.02	0.36	1.45
	9th month	1.45	-	1.45	0.01	0.36	1.09
	10th month	1.09	-	1.09	0.01	0.36	0.73
	11th month	0.73	-	0.73	0.01	0.36	0.36
	12th month	0.36	-	0.36	0.00	0.36	-
					0.26	4.35	
	DOOR TO DOOR MORATORIUM PERIOD	60		MONTHS			
	REPAYMENT PERIOD	6		MONTHS			
		54		MONTHS			

Assumptions:

- Production Capacity of Kitchen Chimney taken is 24 Pieces per day. First year, Capacity has been taken @ 20%.
- Working shift of 8 hours per day has been considered.
- Raw Material stock is for 3 days and Finished goods Closing Stock has been taken for 5 days.
- Credit period to Sundry Debtors has been given for 5 days.
- Credit period by the Sundry Creditors has been provided for 5 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 30 HP.
- Selling Prices & Raw material costing has been increased by 5% & 5% respectively in the subsequent years.

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