



**DETAILED PROJECT REPORT**  
**CORN PUFF MAKING UNIT**  
**UNDER PMFME SCHEME**



National Institute of Food Technology Entrepreneurship and Management

Ministry of Food Processing Industries

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**1. PROJECT SUMMARY**

1. Name of the proposed project	:	Corn Puff Making Unit
2. Nature of proposed project	:	Proprietorship/Company/Partnership
3. Proposed project capacity	:	120000 Kg/annum(60,65,70,75&80% capacity utilization in 1 <sup>st</sup> to 5 <sup>th</sup> Year respectively)
4. Raw material	:	Corn Meal, Salt, oil, spices and water.
5. Major product outputs	:	Corn Puff
6. Total project cost	:	Rs. 22.15 Lakh
• Land development, building & Civil Construction	:	Nil
• Machinery and equipment's	:	Rs. 14.82 Lakh
• Miscellaneous Fixed Assets	:	Rs. 2.00 Lakh
• Working capital	:	Rs. 5.33 Lakh
8. Means of Finance		
• Subsidy (max 10lakhs)	:	Rs. 5.89 Lakh
• Promoter's contribution (min10%)	:	Rs. 2.22 Lakh
• Term loan	:	Rs. 9.25 Lakh
• Working Capital Requirement	:	Rs. 4.80 Lakh
9. Profit after Depreciation, Interest & Tax		
• 1 <sup>st</sup> year	:	Rs. 2.07 Lakh
• 2 <sup>nd</sup> year	:	Rs. 3.59 Lakh
• 3 <sup>rd</sup> year	:	Rs. 5.24 Lakh
• 4 <sup>th</sup> year	:	Rs. 6.71 Lakh
• 5 <sup>th</sup> year	:	Rs. 8.55 Lakh
11. Average DSCR	:	Rs. 3.21
12. Term loan repayment	:	5 Years with 6 months grace period

## **2. ABOUT THE PRODUCT**

### **2.1. PRODUCT INTRODUCTION:**

Puff corn or Corn puffs are puffed or extruded corn snacks made with Corn meal and baked. Products by the name of puff corn (instead of the more generic term corn puff) in particular can be made to look similar to popcorn, although the latter is made from whole grains.

Puff corn is an extruded corn snack which belongs in the snack group products made with corn grits, rice, wheat, or other cereals. Puff corn is often flavored with cheese, oil, Chili, Onion or garlic powder, and many other spices. Types of puff corn can vary between specific length, higher bulk density, lower lightness, higher redness, lower yellowness, higher hardness, and lower springiness, gumminess and chewiness when using different percentage of oat flour. Puffed corn snacks are tasty and affordable cereal-based food products

#### **Benefits:**

- Reduces the Risk of Breast Cancer
- Makes Teeth & Bones Strong
- Aids in Weight Loss
- Ensures a Healthy Digestive System.
- Great for Those Having Diabetes.

## **2.2. MARKET POTENTIAL:**

Puffed food has a primary role in human consumption. Consumer demand is increasing for puffed food due to various health benefits such as weight loss, therefore increasing the market share of puffed food market. Increasing demand for flavor food products is expected to increase the puffed food market over the forecast period. Consumers believe in ready to eat products which have high nutrients like popcorns and Cheetos. The growing puffed market attributed to the shift in consumer demand for various flavors and nutritious food.

Puffed food is segmented by category type, application and region. By category, puffin comes in wheat, rice, sorghum and ragi. Puffed wheat is prepared by heating wheat grains under pressure and the rapidly releasing pressure when the superheated steam in the grain expands, then grain is puffed. It is good source of copper, protein and iron. Puffed rice used in breakfast cereal and snack foods served as popular food street food. It is made by heating rice kernels under high pressure in the presence of steam. Puffed food is segmented by applications as bakery Industry and Snack Industry. The demand for corn puff is in urban as well as in rural areas too.

### 2.3. RAW MATERIAL DESCRIPTION:

Major raw materials that are used in corn puff making unit are:

- Corn Meal
- Salt
- Spices
- Oil
- Water

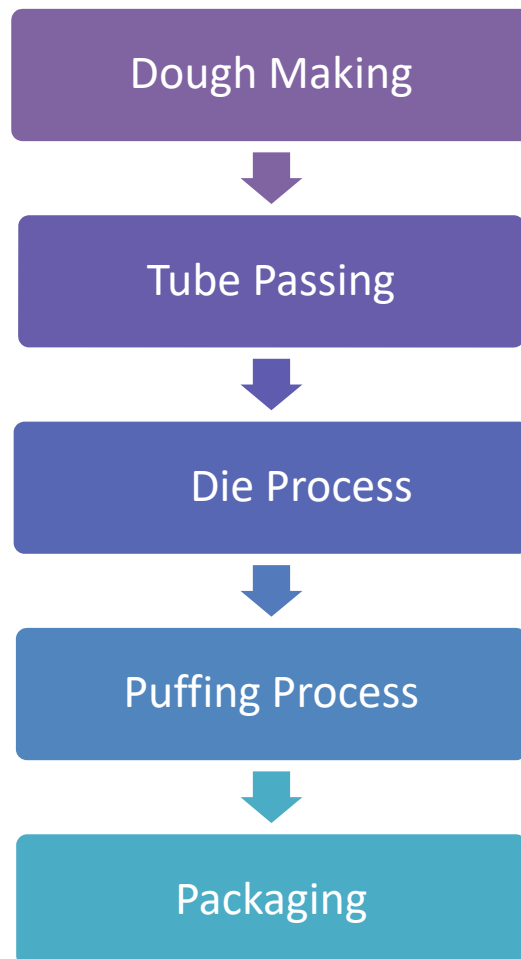
S.N.	Particulars	Rate
1	Corn Meal	Rs. 15-18/kg
2	Salt	Rs. 10-12/Kg
3	Spices	Rs. 150-180/kg
4	Oil	Rs. 100-120/Ltr

Average raw material cost per 50 gm packet of Corn Puff: Rs. 2.50-3.00

## 3. PROCESS FLOW CHART

Puff corn, much like other puffed products such as cereals and crisp breads are processed by Extrusion cooking through an extruder. This is a thermo dynamic process where the dough is passed through a tube and heated under a certain amount of pressure. The puff corn dough product is then forced through a narrow opening called a die, and as it gets released, the change in pressure and temperature causes the product to puff out, giving the texture and consistency of puff corn.

The different shapes and textures of puff corn are manipulated by the die at the end of the extruder and the type of extruder used. Specific types of grain size of the starch required during processing also depends on the snack type itself, for example; if the puff corn snack requires a fine structure with small pores an extruder with smaller granulation should be used whereas crispier puff corn would require larger granulation. The final product is then packed in different sizes (25gm, 50gm, etc.) and are sent for sale.



## **4. ECONOMICS OF THE PROJECT**

### **4.1. BASIS & PRESUMPTIONS**

1. Production Capacity of Corn Puff is 50 kg per hr. First year, Capacity has been taken @ 60%.
2. Working shift of 8 hours per day has been considered.
3. Raw Material stock is for 15 days and Finished goods Closing Stock has been taken for 15 days.
4. Credit period to Sundry Debtors has been given for 7 days.
5. Credit period by the Sundry Creditors has been provided for 7 days.
6. Depreciation and Income tax has been taken as per the Income tax Act, 1961.
7. Interest on working Capital Loan and Term loan has been taken at 11%.
8. Salary and wages rates are taken as per the Current Market Scenario.
9. Power Consumption has been taken at 10 KW.
10. Increase in sales and raw material costing has been taken @ 5% on a yearly basis.



## 4.2. CAPACITY, UTILIZATION, PRODUCTION & OUTPUT

<b><u>COMPUTATION OF PRODUCTION OF CORN PUFF</u></b>		
<b>Items to be Manufactured</b>		
Corn Puff		
Machine capacity Per hour	50	Kg
Total working Hours	8	
Machine capacity Per Day	400	Kg
Working days in a month	25	Days
Working days per annum	300	
Raw material requirement	120000	Kg
Final Output per annum	120000	Kg
Final Product to be packed in 50 gm packet		
Number of packets per annum	2400000	50 gm packet

<b>Production of Corn Puff</b>		
<b>Production</b>	<b>Capacity</b>	<b>KG</b>
1st year	60%	14,40,000
2nd year	65%	15,60,000
3rd year	70%	16,80,000
4th year	75%	18,00,000
5th year	80%	19,20,000




<b>Raw Material Cost</b>			
<b>Year</b>	<b>Capacity Utilisation</b>	<b>Rate (per packet)</b>	<b>Amount (Rs. in lacs)</b>
1st year	60%	2.50	36.00
2nd year	65%	2.63	40.95
3rd year	70%	2.76	46.31
4th year	75%	2.89	52.09
5th year	80%	3.04	58.34




<b>COMPUTATION OF SALE</b>					
<b>Particulars</b>	<b>1st year</b>	<b>2nd year</b>	<b>3rd year</b>	<b>4th year</b>	<b>5th year</b>
Op Stock	-	72,000	78,000	84,000	90,000
Production	14,40,000	15,60,000	16,80,000	18,00,000	19,20,000
Less : Closing Stock	72,000	78,000	84,000	90,000	96,000
<b>Net Sale</b>	<b>13,68,000</b>	<b>15,54,000</b>	<b>16,74,000</b>	<b>17,94,000</b>	<b>19,14,000</b>
Sale price per packet	5.00	5.25	5.51	5.79	6.08
<b>Sales (in Lacs)</b>	<b>68.40</b>	<b>81.59</b>	<b>92.28</b>	<b>103.84</b>	<b>116.32</b>

### 4.3. PREMISES/INFRASTRUCTURE

The approximate total area required for complete factory setup is 2000-2500 Sq. ft. for smooth production including storage area. It is expected that the premises will be on rental.

#### 4.4. MACHINERY & EQUIPMENTS

Machine Name	Description	Machine Image.
Batch Mixer with Screw feeder	This machine is designed for uniform blending of a wide variety of materials such as rice-corn grit. The ribbon blender channels material from the hopper sides through the center resulting in quick, even blending and easy material removal through the center discharge hatch, and then on to the attached discharge incline Screw conveyor.	
Puff Extruder	Puffing extruders are generally designed to convert number two grade dry-milled cornmeal (hull and germ removed) into various shapes and sizes of expanded snack pieces.	
Conveyor	The main purpose of a conveyor system is to move objects from one location to another. The design allows for movement of objects that are too heavy or too bulky for humans to carry by hand. Conveyor systems save time when transporting items	

	from one location to another	
Rotary roaster	<p>Rotary dryers have been used to dry seeds, corn gluten, distiller's grains, and some ... rotary dryers can also function as roasters for nuts, sesame seeds, and cocoa ... Heat can be introduced into the subsurface by electrical resistance heating,</p>	
Automatic collar Type cup filler Packing Machine	<p>Collar type cup filler machine is a packing machine used for filling and packing of cups. It has a collar type structure hence the name. It has several advantages primary of which is low wastage of product.</p>	
Air Compressor	<p>An air compressor is a pneumatic device that converts power (using an electric motor, diesel or gasoline engine, etc.) into potential energy stored in pressurized air (i.e., compressed air). By one of several methods, an air compressor forces more and more air into a storage tank, increasing the pressure.</p>	

Nitrogen Generator	Nitrogen generators are used in hypoxic air fire prevention systems to produce air with a low oxygen content which will suppress a fire.	
RO Water Plant	It is a water purification process that uses a partially permeable membrane to separate ions, unwanted molecules and larger particles from drinking water.	
Material handling and other Equipments	These Equipments are used for material handling.	

Machine	Unit	Rate	Price
Batch Mixer with Screw feeder (200 kg/hr)	1	1,12,000	1,12,000
Puff Extruder (50-100 kg/hr)	1	2,00,000	2,00,000
Conveyor	1	1,50,000	1,50,000
Rotary roaster (150 kg/hr)	1	1,95,000	1,95,000
Automatic collar Type cup filler Packing Machine (60-100 pouches per minute)	1	3,50,000	3,50,000
Air Compressor (1 HP, Flow Rate 20 cfm)	1	65,000	65,000
Nitrogen Generator (Inlet Pressure 7.5 bar)	1	1,10,000	1,10,000

RO Water Plant (200-500 L)	1	1,80,000	1,80,000
Material handling and other equipments	-	1,20,000	1,20,000

**Note:** Approx. Total Machinery cost shall be Rs 14.82 lakh including equipment's but excluding GST and Transportation Cost.

#### 4.5. MISCELLANEOUS FIXED ASSETS

- Water Supply Arrangements
- Furniture & Fixtures
- Computers & Printers

#### 4.6. TOTAL COST OF PROJECT

<b>COST OF PROJECT</b>	
	(in Lacs)
<b>PARTICULARS</b>	<b>Amount</b>
Land & Building	Owned/Rented
Plant & Machinery	14.82
Miscellaneous Assets	2.00
Working capital	5.33
<b>Total</b>	<b>22.15</b>

#### 4.7. MEANS OF FINANCE

MEANS OF FINANCE	
PARTICULARS	AMOUNT
Own Contribution (min 10%)	2.22
Subsidy @35%(Max. Rs 10 Lac)	5.89
Term Loan @ 55%	9.25
Working Capital (Bank Finance)	4.80
<b>Total</b>	<b>22.15</b>

**4.8. TERM LOAN:** Term loan of Rs. 9.25 Lakh is required for project cost of Rs. 22.15 Lakh

#### 4.9. TERM LOAN REPAYMENT & INTEREST SCHEDULE

REPAYMENT SCHEDULE OF TERM LOAN								
							Interest	11.00%
Year	Particulars	Amount	Addition	Total	Interest	Repayment	Closing Balance	
1st	Opening Balance							
	1st month	-	9.25	9.25	-	-	9.25	
	2nd month	9.25	-	9.25	0.08	-	9.25	
	3rd month	9.25	-	9.25	0.08	-	9.25	
	4th month	9.25	-	9.25	0.08		9.25	
	5th month	9.25	-	9.25	0.08		9.25	
	6th month	9.25	-	9.25	0.08		9.25	
	7th month	9.25	-		0.08	0.17	9.08	

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			9.25				
8th month	9.08	-	9.08	0.08	0.17	8.91	
9th month	8.91	-	8.91	0.08	0.17	8.74	
10th month	8.74	-	8.74	0.08	0.17	8.57	
11th month	8.57	-	8.57	0.08	0.17	8.39	
12th month	8.39	-	8.39	0.08	0.17	8.22	
				0.91	1.03		
<b>2nd</b>	Opening Balance						
1st month	8.22	-	8.22	0.08	0.17	8.05	
2nd month	8.05	-	8.05	0.07	0.17	7.88	
3rd month	7.88	-	7.88	0.07	0.17	7.71	
4th month	7.71	-	7.71	0.07	0.17	7.54	
5th month	7.54	-	7.54	0.07	0.17	7.37	
6th month	7.37	-	7.37	0.07	0.17	7.20	
7th month	7.20	-	7.20	0.07	0.17	7.02	
8th month	7.02	-	7.02	0.06	0.17	6.85	
9th month	6.85	-	6.85	0.06	0.17	6.68	
10th month	6.68	-	6.68	0.06	0.17	6.51	
11th month	6.51	-	6.51	0.06	0.17	6.34	
12th month	6.34	-	6.34	0.06	0.17	6.17	
				<b>0.80</b>	<b>2.06</b>		
<b>3rd</b>	Opening Balance						
1st month	6.17	-	6.17	0.06	0.17	6.00	
2nd month	6.00	-	6.00	0.05	0.17	5.82	
3rd month	5.82	-	5.82	0.05	0.17	5.65	



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4th month	5.65	-	5.65	0.05	0.17	5.48
5th month	5.48	-	5.48	0.05	0.17	5.31
6th month	5.31	-	5.31	0.05	0.17	5.14
7th month	5.14	-	5.14	0.05	0.17	4.97
8th month	4.97	-	4.97	0.05	0.17	4.80
9th month	4.80	-	4.80	0.04	0.17	4.63
10th month	4.63	-	4.63	0.04	0.17	4.45
11th month	4.45	-	4.45	0.04	0.17	4.28
12th month	4.28	-	4.28	0.04	0.17	4.11
				<b>0.57</b>	<b>2.06</b>	
<b>4th</b>	<b>Opening Balance</b>					
1st month	4.11	-	4.11	0.04	0.17	3.94
2nd month	3.94	-	3.94	0.04	0.17	3.77
3rd month	3.77	-	3.77	0.03	0.17	3.60
4th month	3.60	-	3.60	0.03	0.17	3.43
5th month	3.43	-	3.43	0.03	0.17	3.25
6th month	3.25	-	3.25	0.03	0.17	3.08
7th month	3.08	-	3.08	0.03	0.17	2.91
8th month	2.91	-	2.91	0.03	0.17	2.74
9th month	2.74	-	2.74	0.03	0.17	2.57
10th month	2.57	-	2.57	0.02	0.17	2.40
11th month	2.40	-	2.40	0.02	0.17	2.23
12th month	2.23	-	2.23	0.02	0.17	2.06
				<b>0.35</b>	<b>2.06</b>	

<b>5th</b>	Opening Balance						
	1st month	2.06	-	2.06	0.02	0.17	1.88
	2nd month	1.88	-	1.88	0.02	0.17	1.71
	3rd month	1.71	-	1.71	0.02	0.17	1.54
	4th month	1.54	-	1.54	0.01	0.17	1.37
	5th month	1.37	-	1.37	0.01	0.17	1.20
	6th month	1.20	-	1.20	0.01	0.17	1.03
	7th month	1.03	-	1.03	0.01	0.17	0.86
	8th month	0.86	-	0.86	0.01	0.17	0.69
	9th month	0.69	-	0.69	0.01	0.17	0.51
	10th month	0.51	-	0.51	0.00	0.17	0.34
	11th month	0.34	-	0.34	0.00	0.17	0.17
	12th month	0.17	-	0.17	0.00	0.17	-
					<b>0.12</b>	<b>2.06</b>	
	DOOR TO DOOR MORATORIUM PERIOD	60		MONTHS			
	REPAYMENT PERIOD	6		MONTHS			
		54		MONTHS			

#### 4.10. WORKING CAPITAL CALCULATIONS

<b>COMPUTATION OF CLOSING STOCK &amp; WORKING CAPITAL</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>Finished Goods</u></b>						
	2.86	3.24	3.61	4.03	4.47	
<b><u>Raw Material</u></b>						
	1.80	2.05	2.32	2.60	2.92	
<b>Closing Stock</b>	<b>4.66</b>	<b>5.29</b>	<b>5.93</b>	<b>6.63</b>	<b>7.39</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	4.66				
Less : Creditors	0.84				
<b>Paid stock</b>	<b>3.82</b>	<b>10%</b>	<b>0.38</b>	<b>90%</b>	<b>3.44</b>
<b>Sundry Debtors</b>	<b>1.60</b>	<b>10%</b>	<b>0.16</b>	<b>90%</b>	<b>1.44</b>
	<b>5.42</b>		<b>0.54</b>		<b>4.87</b>
<b>MPBF</b>					<b>4.87</b>
<b>WORKING CAPITAL LIMIT DEMAND ( from Bank)</b>					<b>4.80</b>
<b>Working Capital Margin</b>					<b>0.53</b>

#### 4.11. SALARY & WAGES

<b><u>BREAK UP OF LABOUR CHARGES</u></b>			
<b>Particulars</b>	<b>Wages</b>	<b>No of</b>	<b>Total</b>
	<b>Rs. per Month</b>	<b>Employees</b>	<b>Salary</b>
Machine Operator	15,000	2	30,000
Supervisor	20,000	1	20,000
Skilled (in thousand rupees)	12,000	2	24,000
Unskilled (in thousand rupees)	8,500	3	25,500
<b>Total salary per month</b>			<b>99,500</b>
<b>Total annual labour charges</b>		<b>(in lacs)</b>	<b>11.94</b>

<b><u>BREAK UP OF STAFF SALARY CHARGES</u></b>			
<b>Particulars</b>	<b>Salary Rs. per Month</b>	<b>No of Employees</b>	<b>Total Salary</b>
Administrative Staff	8,000	2	16,000
Manager	20,000	1	20,000
Accountant	15,000	1	15,000
<b>Total salary per month</b>			<b>51,000</b>
<b>Total annual Staff charges</b>	<b>(in lacs)</b>		<b>6.12</b>

#### 4.12 POWER REQUIREMENT

<b>Utility Charges (per month)</b>		
<b>Particulars</b>	<b>value</b>	<b>Description</b>
Power connection required		10 KWH
consumption per day		80 units
Consumption per month	2,000 units	
Rate per Unit	10 Rs.	
power Bill per month	20,000 Rs.	

**4.13. DEPRECIATION CALCULATION**

<b>COMPUTATION OF DEPRECIATION</b>			(in Lacs)
<b>Description</b>	<b>Plant &amp; Machinery</b>	<b>Miss. Assets</b>	<b>TOTAL</b>
Rate of Depreciation	<b>15.00%</b>	<b>10.00%</b>	
<b>Opening Balance</b>	-	-	-
Addition	14.82	2.00	16.82
<b>Total</b>	<b>14.82</b>	<b>2.00</b>	<b>16.82</b>
Less : Depreciation	2.22	0.20	2.42
<b>WDV at end of Year</b>	<b>12.60</b>	<b>1.80</b>	<b>14.40</b>
Additions During The Year	-	-	-
<b>Total</b>	<b>12.60</b>	<b>1.80</b>	<b>14.40</b>
Less : Depreciation	1.89	0.18	2.07
<b>WDV at end of Year</b>	<b>10.71</b>	<b>1.62</b>	<b>12.33</b>
Additions During The Year	-	-	-
<b>Total</b>	<b>10.71</b>	<b>1.62</b>	<b>12.33</b>
Less : Depreciation	1.61	0.16	1.77
<b>WDV at end of Year</b>	<b>9.10</b>	<b>1.46</b>	<b>10.56</b>
Additions During The Year	-	-	-
<b>Total</b>	<b>9.10</b>	<b>1.46</b>	<b>10.56</b>
Less : Depreciation	1.37	0.15	1.51
<b>WDV at end of Year</b>	<b>7.74</b>	<b>1.31</b>	<b>9.05</b>
Additions During The Year	-	-	-
<b>Total</b>	<b>7.74</b>	<b>1.31</b>	<b>9.05</b>
Less : Depreciation	1.16	0.13	1.29
<b>WDV at end of Year</b>	<b>6.58</b>	<b>1.18</b>	<b>7.76</b>

**4.14. REPAIR & MAINTENANCE:** Repair & Maintenance is 2.0% of Gross Sale.

#### 4.15. PROJECTIONS OF PROFITABILITY ANALYSIS

<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>60%</b>	<b>65%</b>	<b>70%</b>	<b>75%</b>	<b>80%</b>	
<b><u>SALES</u></b>						
<b>Gross Sale</b>						
Corn Puff	68.40	81.59	92.28	103.84	116.32	
<b>Total</b>	<b>68.40</b>	<b>81.59</b>	<b>92.28</b>	<b>103.84</b>	<b>116.32</b>	
<b><u>COST OF SALES</u></b>						
Raw Material Consumed	36.00	40.95	46.31	52.09	58.34	
Electricity Expenses	2.40	2.76	3.17	3.65	4.02	
Depreciation	2.42	2.07	1.77	1.51	1.29	
Wages & labour	11.94	14.09	15.50	17.05	18.75	
Repair & maintenance	1.37	1.63	1.85	2.08	2.33	
Packaging	3.08	3.26	3.69	4.15	4.65	
<b>Cost of Production</b>	<b>57.21</b>	<b>64.76</b>	<b>72.28</b>	<b>80.53</b>	<b>89.38</b>	
<b>Add: Opening Stock /WIP</b>	<b>-</b>	<b>2.86</b>	<b>3.24</b>	<b>3.61</b>	<b>4.03</b>	
<b>Less: Closing Stock /WIP</b>	<b>2.86</b>	<b>3.24</b>	<b>3.61</b>	<b>4.03</b>	<b>4.47</b>	
Cost of Sales	54.35	64.39	71.91	80.12	88.94	
<b>GROSS PROFIT</b>	<b>14.05</b>	<b>17.20</b>	<b>20.37</b>	<b>23.72</b>	<b>27.38</b>	
	<b>20.54%</b>	<b>21.08%</b>	<b>22.08%</b>	<b>22.84%</b>	<b>23.54%</b>	
Salary to Staff	6.12	7.34	8.08	8.89	9.77	
Interest on Term Loan	0.91	0.80	0.57	0.35	0.12	
Interest on working Capital	0.53	0.53	0.53	0.53	0.53	
Rent	3.60	3.96	4.36	4.79	5.27	
selling & adm exp	0.82	0.98	1.38	1.87	2.09	
<b>TOTAL</b>	<b>11.98</b>	<b>13.61</b>	<b>14.92</b>	<b>16.42</b>	<b>17.79</b>	
<b>NET PROFIT</b>	<b>2.07</b>	<b>3.59</b>	<b>5.45</b>	<b>7.30</b>	<b>9.59</b>	
	<b>3.03%</b>	<b>4.40%</b>	<b>5.91%</b>	<b>7.03%</b>	<b>8.25%</b>	
Taxation	-	-	0.22	0.58	1.04	
<b>PROFIT (After Tax)</b>	<b>2.07</b>	<b>3.59</b>	<b>5.24</b>	<b>6.71</b>	<b>8.55</b>	

#### 4.16. BREAK EVEN POINT ANALYSIS

<b>BREAK EVEN POINT ANALYSIS</b>					
<b>Year</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b>Net Sales &amp; Other Income</b>	68.40	81.59	92.28	103.84	116.32
Less : Op. WIP Goods	-	2.86	3.24	3.61	4.03
Add : Cl. WIP Goods	2.86	3.24	3.61	4.03	4.47
<b>Total Sales</b>	<b>71.26</b>	<b>81.96</b>	<b>92.66</b>	<b>104.25</b>	<b>116.77</b>
<b>Variable &amp; Semi Variable Exp.</b>					
Raw Material Consumed	36.00	40.95	46.31	52.09	58.34
Electricity Exp/Coal Consumption at 85%	2.04	2.35	2.70	3.10	3.41
Wages & Salary at 60%	10.84	12.86	14.15	15.56	17.12
Selling & administrative Expenses 80%	0.66	0.78	1.11	1.50	1.68
Interest on working Capital	0.528	0.528	0.528	0.528	0.528
Repair & maintenance	1.37	1.63	1.85	2.08	2.33
Packaging	3.08	3.26	3.69	4.15	4.65
<b>Total Variable &amp; Semi Variable Exp</b>	<b>54.51</b>	<b>62.36</b>	<b>70.32</b>	<b>79.01</b>	<b>88.06</b>
<b>Contribution</b>	<b>16.75</b>	<b>19.60</b>	<b>22.33</b>	<b>25.24</b>	<b>28.71</b>
<b>Fixed &amp; Semi Fixed Expenses</b>					
Electricity Exp/Coal Consumption at 15%	0.36	0.41	0.48	0.55	0.60
Wages & Salary at 40%	7.22	8.57	9.43	10.37	11.41
Interest on Term Loan	0.91	0.80	0.57	0.35	0.12
Depreciation	2.42	2.07	1.77	1.51	1.29
Selling & administrative Expenses 20%	0.16	0.20	0.28	0.37	0.42
Rent	3.60	3.96	4.36	4.79	5.27
<b>Total Fixed Expenses</b>	<b>14.68</b>	<b>16.01</b>	<b>16.88</b>	<b>17.95</b>	<b>19.12</b>
<b>Capacity Utilization</b>	<b>60%</b>	<b>65%</b>	<b>70%</b>	<b>75%</b>	<b>80%</b>
<b>OPERATING PROFIT</b>	<b>2.07</b>	<b>3.59</b>	<b>5.45</b>	<b>7.30</b>	<b>9.59</b>
<b>BREAK EVEN POINT</b>	<b>53%</b>	<b>53%</b>	<b>53%</b>	<b>53%</b>	<b>53%</b>
<b>BREAK EVEN SALES</b>	<b>62.44</b>	<b>66.96</b>	<b>70.04</b>	<b>74.12</b>	<b>77.75</b>

**4.17. PROJECTED BALANCE SHEET**

<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>						
Capital						
opening balance		8.18	9.26	10.50	12.21	
Add:- Own Capital	2.22					
Add:- Retained Profit	2.07	3.59	5.24	6.71	8.55	
Less:- Drawings	2.00	2.50	4.00	5.00	7.00	
Subsidy/grant	5.89					
Closing Balance	8.18	9.26	10.50	12.21	13.76	
Term Loan	8.22	6.17	4.11	2.06	-	
Working Capital Limit	4.80	4.80	4.80	4.80	4.80	
Sundry Creditors	0.84	0.96	1.08	1.22	1.36	
Provisions & Other Liab	0.40	0.50	0.60	0.72	0.86	
<b>TOTAL :</b>	<b>22.44</b>	<b>21.69</b>	<b>21.09</b>	<b>21.00</b>	<b>20.79</b>	
<b><u>Assets</u></b>						
<b>Fixed Assets ( Gross)</b>	16.82	16.82	16.82	16.82	16.82	
Gross Dep.	2.42	4.49	6.26	7.77	9.06	
<b>Net Fixed Assets</b>	<b>14.40</b>	<b>12.33</b>	<b>10.56</b>	<b>9.05</b>	<b>7.76</b>	
<b>Current Assets</b>						
Sundry Debtors	1.60	1.90	2.15	2.42	2.71	
Stock in Hand	4.66	5.29	5.93	6.63	7.39	
Cash and Bank	1.79	2.17	2.45	2.90	2.93	
<b>TOTAL :</b>	<b>22.44</b>	<b>21.69</b>	<b>21.09</b>	<b>21.00</b>	<b>20.79</b>	



**4.18. CASH FLOW STATEMENT**

<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	2.22				
Net Profit	2.07	3.59	5.45	7.30	9.59
Depriciation & Exp. W/off	2.42	2.07	1.77	1.51	1.29
Increase in Cash Credit	4.80	-	-	-	-
Increase In Term Loan	9.25	-	-	-	-
Increase in Creditors	0.84	0.12	0.12	0.14	0.15
Increase in Provisions & Oth lib	0.40	0.10	0.10	0.12	0.14
Sunsidy/grant	5.89				
<b>TOTAL :</b>	<b>27.89</b>	<b>5.87</b>	<b>7.44</b>	<b>9.06</b>	<b>11.17</b>
<b><u>APPLICATION OF FUND</u></b>					
Increase in Fixed Assets	16.82				
Increase in Stock	4.66	0.63	0.64	0.70	0.76
Increase in Debtors	1.60	0.31	0.25	0.27	0.29
Repayment of Term Loan	1.03	2.06	2.06	2.06	2.06
Drawings	2.00	2.50	4.00	5.00	7.00
Taxation	-	-	0.22	0.58	1.04
<b>TOTAL :</b>	<b>26.10</b>	<b>5.49</b>	<b>7.16</b>	<b>8.61</b>	<b>11.15</b>
Opening Cash & Bank Balance	-	1.79	2.17	2.45	2.90
Add : Surplus	1.79	0.38	0.28	0.45	0.03
Closing Cash & Bank Balance	<b>1.79</b>	<b>2.17</b>	<b>2.45</b>	<b>2.90</b>	<b>2.93</b>

**4.19. DEBT SERVICE COVERAGE RATIO**

<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>
CASH ACCRUALS	4.50	5.66	7.00	8.22	9.84
Interest on Term Loan	0.91	0.80	0.57	0.35	0.12
<b>Total</b>	<b>5.41</b>	<b>6.46</b>	<b>7.58</b>	<b>8.57</b>	<b>9.96</b>
<b><u>REPAYMENT</u></b>					
Instalment of Term Loan	1.03	2.06	2.06	2.06	2.06
Interest on Term Loan	0.91	0.80	0.57	0.35	0.12
<b>Total</b>	<b>1.94</b>	<b>2.86</b>	<b>2.63</b>	<b>2.40</b>	<b>2.18</b>
<b>DEBT SERVICE COVERAGE RATIO</b>	<b>2.79</b>	<b>2.26</b>	<b>2.88</b>	<b>3.56</b>	<b>4.57</b>
<b>AVERAGE D.S.C.R.</b>	<b>3.21</b>				