



## **DETAILED PROJECT REPORT**

### **TUR DAL MILL 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	:	Tur Dal Mill Unit
2. Nature of proposed project	:	Proprietorship/Company/Partnership
3. Proposed project capacity	:	432000Kg/annum(55,58,60,62,&65% capacity utilization in 1 <sup>st</sup> to 5 <sup>th</sup> Year respectively)
4. Raw materials	:	Pigeon Peas
5. Major product outputs	:	Tur Dal
6. Total project cost	:	Rs.22.46 Lakh
• Land development, building & Civil Construction	:	Nil
• Machinery and equipment's	:	Rs.11.82 Lakh
• Miscellaneous Fixed Assets	:	Rs.1.20 Lakh
• Working capital	:	Rs.9.44 Lakh
8. Means of Finance		
• Subsidy (max 10lakhs)	:	Rs.4.56 Lakh
• Promoter's contribution (min10%)	:	Rs.2.24 Lakh
• Term loan	:	Rs.7.16 Lakh
• Working Capital Requirement	:	Rs.8.50 Lakh
9. Profit after Depreciation, Interest & Tax		
• 1 <sup>st</sup> year	:	Rs.1.16 Lakh
• 2 <sup>nd</sup> year	:	Rs.2.16 Lakh
• 3 <sup>rd</sup> year	:	Rs.3.41 Lakh
• 4 <sup>th</sup> year	:	Rs.4.76 Lakh
• 5th year	:	Rs.6.37 Lakh
11. Average DSCR	:	2.97
12. Term loan repayment	:	5 Years with 6 months grace period

## **2. ABOUT THE PRODUCT**

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

Pulses refer to the dried, edible seeds of leguminous crops. Pulses play a fundamental role as a low-fat source of protein and an essential component of traditional food baskets. These are most essential element for a well-balanced diet and major source of protein to vegetarian people of India. There are several varieties of pulses in India. Most of them are produced and consumed locally. Chickpeas (Chana), pigeon peas (Arhar / Toor Dal), Urad (Urad Dal), Mung (Moong) and red lentils (Masoor) are the top five pulses grown in India.

These pulses account for over 80 per cent of the total production in the country. The conversion of pulses seed into Dal is done through the process of milling. A Dal mill should be located in rural or semi-urban area which have excess production of pulses and connected to market. The project deals with variety of dal such as Masoor Dal, Chana Dal, Urad Dal, etc.

### **HEALTH BENEFITS OF TUR DAL**

The product provides numerous health benefits some of which are listed below;

- Provides energy
- Excellent source of vegetarian protein
- Keeps your heart healthy
- Diabetic friendly
- Improves Insulin Response
- Lowers Blood Pressure
- High Fiber
- Weight loss

## **2.2 MARKET POTENTIAL:**

Pulses are generally used along with rice and Chapatti as Dal. Dal, garnished with onions, tomatoes and spices is an indispensable nibble in household. The various pulses are part of the normal diet of all vegetarians and are also used frequently by non-vegetarians too. They are the main sources of protein. The pulses are used for preparing hot dishes, sweet dishes and other varieties. Pulses are the most common diet part of Indian families. Dal is dry cereal, which is taken to fulfill the requirements of protein for a normal human being. Due to the high content of proteins pulses are mixed in other cereal foods to increase the quality of proteins to be injected in the body.

India pulses market reached a volume of 27.5 Million Tons in 2019. The market for pulses/Dal is present largely in India where ninety per cent of the produce is consumed locally. Pulses are now increasingly being used in the processing of ready-to-eat (RTE) food products. As a result of rapid urbanization, changing lifestyle and hectic work schedules, healthy snack foods are becoming popular amongst the working population. The demand for pulses will never end but will increase in a increasing rate and rise in population also drives the demand for pulses.

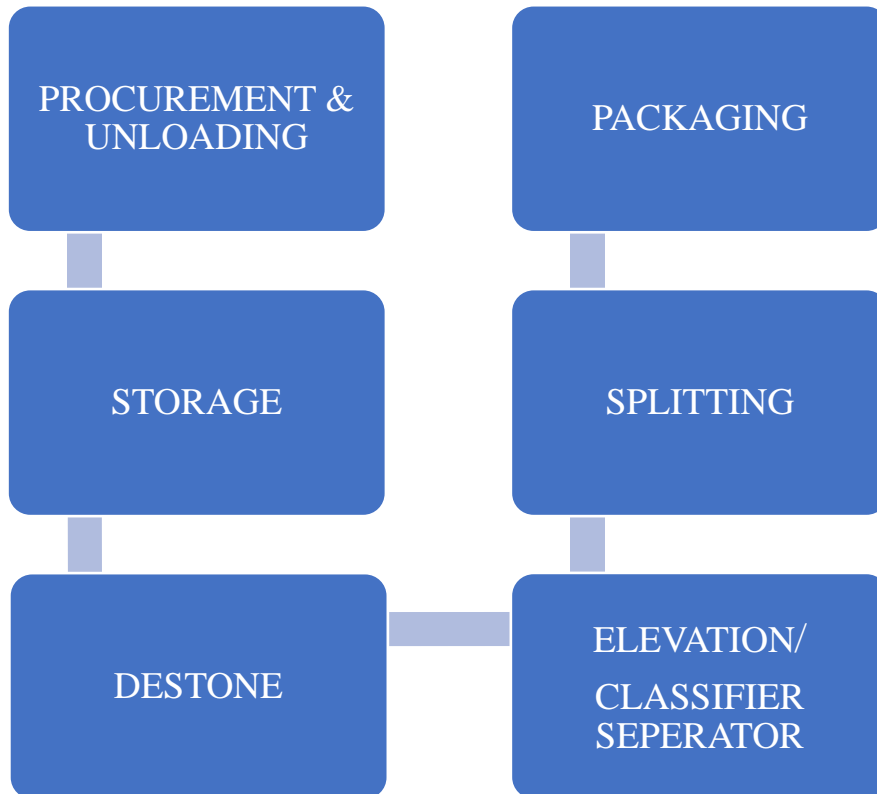
## **2.3 RAW MATERIAL DESCRIPTION:**

Basic raw material that is used in Dal mill is pigeon peas that are directly procured from farmers and packing material used to pack finished product.

### **3. PROCESS FLOW CHART**

- The Pigeon Pea crop is purchased from suppliers and unloaded in an unloading bin which is a bin with a rod or pipe grit to prevent large stones, branches and any other similarly large agent from entering the Pulse Milling Plant.
- Escalators carry the Pigeon Peas into the storage tank of milling plant, from here the pigeon peas are feed to cyclone separator which simply cleans these pigeon peas by removing dust, the pigeon peas are feed to Destoner while the dust is collected in a large dust collection bin.
- Destoner simply removes stones from pigeon peas, the stone fall of in a separate tank while pigeon peas fall into a silo, from where they are feed uniformly to various Emery Roll DE husker which simply utilize their respective emery roller set to remove husk of pigeon peas so as to obtain whole tur dal.
- This whole tur dal is elevated to a higher level by an elevator where it's feed to another silo which, in turn supplies it to various Classifier Separator, which simply remove any impurities like leaves, sand, other lighter grains etc. from tur dal.
- This whole tur dal is now feed to a Lentil Splitting Machine which simply splits the whole tur dal into two pieces generating the final product; which falls in a separate silo; from these silos tur dal are feed to Pulse grader which simply utilizes its vibration and grading trays to separate good tur dal from slightly broken dal, completely broken dal and remaining dirt, all these sorted components fall in separate silos while dirt is collected in a separate bin, with their own feeder arrangement.
- The feeder of these silos is opened after placing a sack in its open end so as to fill the sack with tur dal. These sacks are then stitched utilizing a sack stitching machine, weighed to verify the weight content and are then sent for sale.

### FLOW CHART OF THE PROCESS



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

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

1. Production Capacity of Toor Dal taken is 200 kg per hour. First year, Capacity has been taken @ 55%.
2. Working shift of 8 hours per day has been considered.
3. Raw Material stock is for 08 days and Finished goods Closing Stock has been taken for 10 days.
4. Credit period to Sundry Debtors has been given for 06 days.
5. Credit period by the Sundry Creditors has been provided for 15 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 25 KW.
10. Increase in sales and raw material costing has been taken @ 5% on a yearly basis.



## 4.2. CAPACITY, UTILIZATION, PRODUCTION & OUTPUT

### COMPUTATION OF PRODUCTION OF TUR DAL

#### Items to be Manufactured

Tur Dal

Machine capacity Per hour	200	Kg
Total working Hours	8	
Machine capacity Per Day	1,600	Kg
Working days in a month	25	Days
Working days per annum	300	
Wastage Considered	10%	
Raw material requirement	480000	Kg
Final Output per annum after wastage	432000	Kg
Final Product to be packed in 1 kg Packet		
Number of Packets per annum	432000	Kg

### Production of Tur Dal

Production	Capacity	KG
1st year	55%	2,37,600
2nd year	58%	2,50,560
3rd year	60%	2,59,200
4th year	62%	2,67,840
5th year	65%	2,80,800

<b>Raw Material Cost</b>			
<b>Year</b>	<b>Capacity Utilisation</b>	<b>Rate (per Kg)</b>	<b>Amount (Rs. in lacs)</b>
1st year	55%	80.00	211.20
2nd year	58%	84.00	233.86
3rd year	60%	88.00	253.44
4th year	62%	92.00	273.79
5th year	65%	97.00	302.64






<b><u>COMPUTATION OF SALE</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>
Op Stock	-	7,920	8,352	8,640	8,928
Production	2,37,600	2,50,560	2,59,200	2,67,840	2,80,800
Less : Closing Stock	7,920	8,352	8,640	8,928	9,360
<b>Net Sale</b>	<b>2,29,680</b>	<b>2,50,128</b>	<b>2,58,912</b>	<b>2,67,552</b>	<b>2,80,368</b>
sale price per packet	120.00	126.00	132.00	139.00	146.00
<b>Sales (in Lacs)</b>	<b>275.62</b>	<b>315.16</b>	<b>341.76</b>	<b>371.90</b>	<b>409.34</b>

### **4.3. PREMISES/INFRASTRUCTURE**

The approximate total area required for complete small scale factory setup is 1200-1500 square feet for smooth production including storage area. It is expected that the premises will be on rental.

#### 4.4. MACHINERY & EQUIPMENTS

<p><b>Horizontal Cyclone Separator</b></p>	<p>It's used to separate particulate matter within an air suspension using their weight difference.</p>	
<p><b>Destoner</b></p>	<p>It's a machine designed to remove stones from the given product, which in this case are pulses.</p>	
<p><b>Emery Roll Dehusker</b></p>	<p>It's a machine which utilizes emery rollers to remove outer skin of pulses</p>	
<p><b>Classifier Separator</b></p>	<p>It's a machine which is used to separate whole dehusked pulse from husk.</p>	

<p><b>Lentil Splitting Machine</b></p>	<p>It's a machine designed to split the whole dehusked pulse into two halves, locally called as chakki.</p>	
<p><b>Pulse Grader</b></p>	<p>It's a machine used to separate pulses into unbroken, partially broken &amp; broken dal.</p>	
<p><b>Unloading Bin</b></p>	<p>These are large bins designed for unloading of grains &amp; similar product, they are equipped with large rod mess to prevent big impurities from entering system.</p>	
<p><b>Dust Collection Bin</b></p>	<p>These are large bins usually used in dust collection system to efficiently store the removed dirt from system or product.</p>	
<p><b>Silos</b></p>	<p>These equipments are class of storage equipments which are specifically designed for dry grain raw material of small granule composition. Usually used to store grains but can also be used to store cement &amp; aggregate.</p>	

<b>Machine</b>	<b>Unit</b>	<b>Rate</b>	<b>Price</b>
Horizontal Cyclone Separator	1	65,000	65,000
Destoner (300 kg/hr)	1	52,000	52,000
Emery Roll Dehusker (300 kg/hr)	1	50,000	50,000
Classifier Separator	1	2,50,000	2,50,000
Lentil Splitting Machine (400 kg/hr)	1	1,75,000	1,75,000
Pulse Grader (300-400 kg/hr)	1	1,10,000	1,10,000
Unloading Bin (120 Liter)	2	2,100	4,200
Dust Collection Bin(1100 Liters)	1	25,500	25,500
Silos (50 Ton Capacity)	1	4,50,000	4,50,000

Note: Cost of the machinery is approx. Rs.11.82 Lakhs excluding GST and other transportation cost.

#### 4.5. MISCELLANEOUS FIXED ASSETS

- Water Supply Arrangements
- Furniture

#### 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	11.82
Miscellaneous Assets	1.20
Working capital	9.44
<b>Total</b>	<b>22.46</b>

**4.7. MEANS OF FINANCE**

<b>MEANS OF FINANCE</b>	
<b>PARTICULARS</b>	<b>AMOUNT</b>
Own Contribution (min 10%)	2.24
Subsidy @35%(Max. Rs 10 Lac)	4.56
Term Loan @ 55%	7.16
Working Capital (Bank Finance)	8.50
<b>Total</b>	<b>22.46</b>

**4.8. TERM LOAN:** Term loan of Rs.7.16 Lakh is required for project cost of Rs.22.46 Lakh.

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

<b>REPAYMENT SCHEDULE OF TERM LOAN</b>							
					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	-	7.16	7.16	-	-	7.16
	2nd month	7.16	-	7.16	0.07	-	7.16
	3rd month	7.16	-	7.16	0.07	-	7.16
	4th month	7.16	-	7.16	0.07	-	7.16
	5th month	7.16	-	7.16	0.07	-	7.16
	6th month	7.16	-	7.16	0.07	-	7.16
	7th month	7.16	-	7.16	0.07	0.13	7.03

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8th month	7.03	-	7.03	0.06	0.13	6.90
9th month	6.90	-	6.90	0.06	0.13	6.76
10th month	6.76	-	6.76	0.06	0.13	6.63
11th month	6.63	-	6.63	0.06	0.13	6.50
12th month	6.50	-	6.50	0.06	0.13	6.37
				0.70	0.80	
<b>2nd</b>	Opening Balance					
1st month	6.37	-	6.37	0.06	0.13	6.23
2nd month	6.23	-	6.23	0.06	0.13	6.10
3rd month	6.10	-	6.10	0.06	0.13	5.97
4th month	5.97	-	5.97	0.05	0.13	5.83
5th month	5.83	-	5.83	0.05	0.13	5.70
6th month	5.70	-	5.70	0.05	0.13	5.57
7th month	5.57	-	5.57	0.05	0.13	5.44
8th month	5.44	-	5.44	0.05	0.13	5.30
9th month	5.30	-	5.30	0.05	0.13	5.17
10th month	5.17	-	5.17	0.05	0.13	5.04
11th month	5.04	-	5.04	0.05	0.13	4.91
12th month	4.91	-	4.91	0.04	0.13	4.77
				<b>0.62</b>	<b>1.59</b>	
<b>3rd</b>	Opening Balance					
1st month	4.77	-	4.77	0.04	0.13	4.64
2nd month	4.64	-	4.64	0.04	0.13	4.51
3rd month	4.51	-	4.51	0.04	0.13	4.38
4th month	4.38	-	4.38	0.04	0.13	4.24



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	5th month	4.24	-	4.24	0.04	0.13	4.11
	6th month	4.11	-	4.11	0.04	0.13	3.98
	7th month	3.98	-	3.98	0.04	0.13	3.85
	8th month	3.85	-	3.85	0.04	0.13	3.71
	9th month	3.71	-	3.71	0.03	0.13	3.58
	10th month	3.58	-	3.58	0.03	0.13	3.45
	11th month	3.45	-	3.45	0.03	0.13	3.32
	12th month	3.32	-	3.32	0.03	0.13	3.18
					<b>0.44</b>	<b>1.59</b>	
<b>4th</b>	Opening Balance						
	1st month	3.18	-	3.18	0.03	0.13	3.05
	2nd month	3.05	-	3.05	0.03	0.13	2.92
	3rd month	2.92	-	2.92	0.03	0.13	2.78
	4th month	2.78	-	2.78	0.03	0.13	2.65
	5th month	2.65	-	2.65	0.02	0.13	2.52
	6th month	2.52	-	2.52	0.02	0.13	2.39
	7th month	2.39	-	2.39	0.02	0.13	2.25
	8th month	2.25	-	2.25	0.02	0.13	2.12
	9th month	2.12	-	2.12	0.02	0.13	1.99
	10th month	1.99	-	1.99	0.02	0.13	1.86
	11th month	1.86	-	1.86	0.02	0.13	1.72
	12th month	1.72	-	1.72	0.02	0.13	1.59
					<b>0.27</b>	<b>1.59</b>	
<b>5th</b>	Opening Balance						
	1st month	1.59	-	1.59	0.01	0.13	1.46

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2nd month	1.46	-	1.46	0.01	0.13	1.33
3rd month	1.33	-	1.33	0.01	0.13	1.19
4th month	1.19	-	1.19	0.01	0.13	1.06
5th month	1.06	-	1.06	0.01	0.13	0.93
6th month	0.93	-	0.93	0.01	0.13	0.80
7th month	0.80	-	0.80	0.01	0.13	0.66
8th month	0.66	-	0.66	0.01	0.13	0.53
9th month	0.53	-	0.53	0.00	0.13	0.40
10th month	0.40	-	0.40	0.00	0.13	0.27
11th month	0.27	-	0.27	0.00	0.13	0.13
12th month	0.13	-	0.13	0.00	0.13	-
				<b>0.09</b>	<b>1.59</b>	
DOOR TO DOOR MORATORIUM PERIOD	60	MONTHS				
	6	MONTHS				
REPAYMENT PERIOD	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>Finished Goods</b>					
	8.88	9.85	10.64	11.57	12.67
<b>Raw Material</b>					
	5.63	6.24	6.76	7.30	8.07
<b>Closing Stock</b>	<b>14.52</b>	<b>16.08</b>	<b>17.40</b>	<b>18.87</b>	<b>20.74</b>

<b>COMPUTATION OF WORKING CAPITAL REQUIREMENT</b>					
<b>TRADITIONAL METHOD</b>				<b>(in Lacs)</b>	
<b>Particulars</b>	<b>Amount</b>	<b>Own Margin</b>		<b>Bank Finance</b>	
Finished Goods & Raw Material	14.52				
Less : Creditors	10.56				
<b>Paid stock</b>	<b>3.96</b>	<b>10%</b>	<b>0.40</b>	<b>90%</b>	<b>3.56</b>
<b>Sundry Debtors</b>	<b>5.51</b>	<b>10%</b>	<b>0.55</b>	<b>90%</b>	<b>4.96</b>
	<b>9.47</b>		<b>0.95</b>		<b>8.52</b>
<b>MPBF</b>					<b>8.52</b>
<b>WORKING CAPITAL LIMIT DEMAND ( from Bank)</b>					<b>8.50</b>
<b>Working Capital Margin</b>					<b>0.94</b>

**4.11. SALARY & WAGES**

<b><u>BREAK UP OF LABOUR CHARGES</u></b>			
<b>Particulars</b>	<b>Wages Rs. per Month</b>	<b>No of Employees</b>	<b>Total Salary</b>
Supervisor	20,000	1	20,000
Plant Operator	20,000	1	20,000
Skilled (in thousand rupees)	15,000	4	60,000
Unskilled (in thousand rupees)	8,500	8	68,000
<b>Total salary per month</b>			<b>1,68,000</b>
<b>Total annual labour charges</b>	<b>(in lacs)</b>		<b>20.16</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	10,000	2	20,000
Manger	20,000	1	20,000
Accountant	15,000	1	15,000
<b>Total salary per month</b>			<b>55,000</b>
<b>Total annual Staff charges</b>	<b>(in lacs)</b>		<b>6.60</b>

**4.12 POWER REQUIREMENT**

<b>Utility Charges (per month)</b>		
<b>Particulars</b>	<b>value</b>	<b>Description</b>
Power connection required	25	KWH
consumption per day	200	units
Consumption per month	5,000	units
Rate per Unit	10	Rs.
power Bill per month	50,000	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	11.82	1.20	13.02
Total	11.82	1.20	13.02
Less : Depreciation	1.77	0.12	1.89
<b>WDV at end of Year</b>	<b>10.05</b>	<b>1.08</b>	<b>11.13</b>
Additions During The Year	-	-	-
Total	10.05	1.08	11.13
Less : Depreciation	1.51	0.11	1.62
<b>WDV at end of Year</b>	<b>8.54</b>	<b>0.97</b>	<b>9.51</b>
Additions During The Year	-	-	-
Total	8.54	0.97	9.51
Less : Depreciation	1.28	0.10	1.38
<b>WDV at end of Year</b>	<b>7.26</b>	<b>0.87</b>	<b>8.13</b>
Additions During The Year	-	-	-
Total	7.26	0.87	8.13
Less : Depreciation	1.09	0.09	1.18
<b>WDV at end of Year</b>	<b>6.17</b>	<b>0.79</b>	<b>6.96</b>
Additions During The Year	-	-	-
Total	6.17	0.79	6.96
Less : Depreciation	0.93	0.08	1.00
<b>WDV at end of Year</b>	<b>5.24</b>	<b>0.71</b>	<b>5.95</b>

**4.14. REPAIR & MAINTENANCE:** Repair & Maintenance is 2.5% of Gross Sale.

**4.15. PROJECTIONS OF PROFITABILITY ANALYSIS**

<b>PROJECTED PROFITABILITY STATEMENT</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>
Capacity Utilisation %	<b>55%</b>	<b>58%</b>	<b>60%</b>	<b>62%</b>	<b>65%</b>
<b><u>SALES</u></b>					
<b>Gross Sale</b>					
Tur Dal	275.62	315.16	341.76	371.90	409.34
<b>Total</b>	<b>275.62</b>	<b>315.16</b>	<b>341.76</b>	<b>371.90</b>	<b>409.34</b>
<b>COST OF SALES</b>					
Raw Material Consumed	211.20	233.86	253.44	273.79	302.64
Electricity Expenses	6.00	6.90	7.94	9.13	10.04
Depreciation	1.89	1.62	1.38	1.18	1.00
Wages & labour	20.16	22.18	25.72	32.16	36.98
Repair & maintenance	6.89	7.88	8.54	9.30	10.23
Packaging	20.40	23.01	22.21	21.57	19.24
<b>Cost of Production</b>	<b>266.54</b>	<b>295.43</b>	<b>319.24</b>	<b>347.12</b>	<b>380.13</b>
<b>Add: Opening Stock /WIP</b>	<b>-</b>	<b>8.88</b>	<b>9.85</b>	<b>10.64</b>	<b>11.57</b>
<b>Less: Closing Stock /WIP</b>	<b>8.88</b>	<b>9.85</b>	<b>10.64</b>	<b>11.57</b>	<b>12.67</b>
Cost of Sales	257.65	294.47	318.44	346.19	379.03
<b>GROSS PROFIT</b>	<b>17.96</b>	<b>20.69</b>	<b>23.32</b>	<b>25.71</b>	<b>30.31</b>
	<b>6.52%</b>	<b>6.57%</b>	<b>6.82%</b>	<b>6.91%</b>	<b>7.40%</b>
Salary to Staff	6.60	7.66	9.34	10.74	11.82
Interest on Term Loan	0.70	0.62	0.44	0.27	0.09
Interest on working Capital	0.94	0.94	0.94	0.94	0.94
Rent	3.60	3.96	4.36	4.79	5.27
selling & adm exp	4.96	5.36	4.78	4.09	5.32
<b>TOTAL</b>	<b>16.80</b>	<b>18.53</b>	<b>19.86</b>	<b>20.83</b>	<b>23.44</b>
NET PROFIT	1.16	2.16	3.46	4.88	6.87
	<b>0.42%</b>	<b>0.69%</b>	<b>1.01%</b>	<b>1.31%</b>	<b>1.68%</b>
Taxation	-	-	0.05	0.12	0.50
PROFIT (After Tax)	1.16	2.16	3.41	4.76	6.37

**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>	275.62	315.16	341.76	371.90	409.34
Less : Op. WIP Goods	-	8.88	9.85	10.64	11.57
Add : Cl. WIP Goods	8.88	9.85	10.64	11.57	12.67
<b>Total Sales</b>	<b>284.50</b>	<b>316.12</b>	<b>342.56</b>	<b>372.83</b>	<b>410.44</b>
<b>Variable &amp; Semi Variable Exp.</b>					
Raw Material Consumed	211.20	233.86	253.44	273.79	302.64
Electricity Exp/Coal Consumption at 85%	5.10	5.87	6.74	7.76	8.53
Wages & Salary at 60%	16.06	17.90	21.04	25.74	29.28
Selling & administrative Expenses 80%	3.97	4.29	3.83	3.27	4.26
Interest on working Capital	0.935	0.935	0.935	0.935	0.935
Repair & maintenance	6.89	7.88	8.54	9.30	10.23
Packaging	20.40	23.01	22.21	21.57	19.24
<b>Total Variable &amp; Semi Variable Exp</b>	<b>264.55</b>	<b>293.73</b>	<b>316.74</b>	<b>342.36</b>	<b>375.11</b>
<b>Contribution</b>	<b>19.95</b>	<b>22.40</b>	<b>25.81</b>	<b>30.47</b>	<b>35.32</b>
<b>Fixed &amp; Semi Fixed Expenses</b>					
Electricity Exp/Coal Consumption at 15%	0.90	1.04	1.19	1.37	1.51
Wages & Salary at 40%	10.70	11.93	14.03	17.16	19.52
Interest on Term Loan	0.70	0.62	0.44	0.27	0.09
Depreciation	1.89	1.62	1.38	1.18	1.00
Selling & administrative Expenses 20%	0.99	1.07	0.96	0.82	1.06
Rent	3.60	3.96	4.36	4.79	5.27
<b>Total Fixed Expenses</b>	<b>18.79</b>	<b>20.23</b>	<b>22.35</b>	<b>25.58</b>	<b>28.46</b>
<b>Capacity Utilization</b>	<b>55%</b>	<b>58%</b>	<b>60%</b>	<b>62%</b>	<b>65%</b>
<b>OPERATING PROFIT</b>	<b>1.16</b>	<b>2.16</b>	<b>3.46</b>	<b>4.88</b>	<b>6.87</b>
<b>BREAK EVEN POINT</b>	<b>52%</b>	<b>52%</b>	<b>52%</b>	<b>52%</b>	<b>52%</b>
<b>BREAK EVEN SALES</b>	<b>267.94</b>	<b>285.60</b>	<b>296.64</b>	<b>313.09</b>	<b>330.64</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		7.96	8.62	10.03	11.79	
Add:- Own Capital	2.24					
Add:- Retained Profit	1.16	2.16	3.41	4.76	6.37	
Less:- Drawings	-	1.50	2.00	3.00	4.00	
Subsidy/grant	4.56					
Closing Balance	7.96	8.62	10.03	11.79	14.16	
Term Loan	6.37	4.77	3.18	1.59	-	
Working Capital Limit	8.50	8.50	8.50	8.50	8.50	
Sundry Creditors	10.56	11.69	12.67	13.69	15.13	
Provisions & Other Liab	0.40	0.50	0.60	0.72	0.86	
<b>TOTAL :</b>	<b>33.78</b>	<b>34.08</b>	<b>34.98</b>	<b>36.29</b>	<b>38.66</b>	
<b><u>Assets</u></b>						
<b>Fixed Assets ( Gross)</b>	13.02	13.02	13.02	13.02	13.02	
Gross Dep.	1.89	3.51	4.89	6.06	7.07	
<b>Net Fixed Assets</b>	<b>11.13</b>	<b>9.51</b>	<b>8.13</b>	<b>6.96</b>	<b>5.95</b>	
<b>Current Assets</b>						
Sundry Debtors	5.51	6.30	6.84	7.44	8.19	
Stock in Hand	14.52	16.08	17.40	18.87	20.74	
Cash and Bank	2.62	2.19	2.62	3.03	3.78	
<b>TOTAL :</b>	<b>33.78</b>	<b>34.08</b>	<b>34.98</b>	<b>36.29</b>	<b>38.66</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	2.24				
Net Profit	1.16	2.16	3.46	4.88	6.87
Depreciation & Exp. W/off	1.89	1.62	1.38	1.18	1.00
Increase in Cash Credit	8.50	-	-	-	-
Increase In Term Loan	7.16	-	-	-	-
Increase in Creditors	10.56	1.13	0.98	1.02	1.44
Increase in Provisions & Oth lib	0.40	0.10	0.10	0.12	0.14
Sunsidy/grant	4.56				
<b>TOTAL :</b>	<b>36.47</b>	<b>5.01</b>	<b>5.92</b>	<b>7.20</b>	<b>9.46</b>
<b><u>APPLICATION OF FUND</u></b>					
Increase in Fixed Assets	13.02				
Increase in Stock	14.52	1.57	1.32	1.47	1.87
Increase in Debtors	5.51	0.79	0.53	0.60	0.75
Repayment of Term Loan	0.80	1.59	1.59	1.59	1.59
Drawings	-	1.50	2.00	3.00	4.00
Taxation	-	-	0.05	0.12	0.50
<b>TOTAL :</b>	<b>33.84</b>	<b>5.45</b>	<b>5.49</b>	<b>6.79</b>	<b>8.71</b>
Opening Cash & Bank Balance	-	2.62	2.19	2.62	3.03
Add : Surplus	2.62	-0.44	0.43	0.41	0.75
Closing Cash & Bank Balance	<b>2.62</b>	<b>2.19</b>	<b>2.62</b>	<b>3.03</b>	<b>3.78</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	3.05	3.78	4.79	5.94	7.37
Interest on Term Loan	0.70	0.62	0.44	0.27	0.09
<b>Total</b>	<b>3.76</b>	<b>4.40</b>	<b>5.24</b>	<b>6.21</b>	<b>7.47</b>
<b><u>REPAYMENT</u></b>					
Instalment of Term Loan	0.80	1.59	1.59	1.59	1.59
Interest on Term Loan	0.70	0.62	0.44	0.27	0.09
<b>Total</b>	<b>1.50</b>	<b>2.21</b>	<b>2.04</b>	<b>1.86</b>	<b>1.69</b>
<b>DEBT SERVICE COVERAGE RATIO</b>	<b>2.51</b>	<b>1.99</b>	<b>2.57</b>	<b>3.34</b>	<b>4.43</b>
<b>AVERAGE D.S.C.R.</b>	<b>2.97</b>				