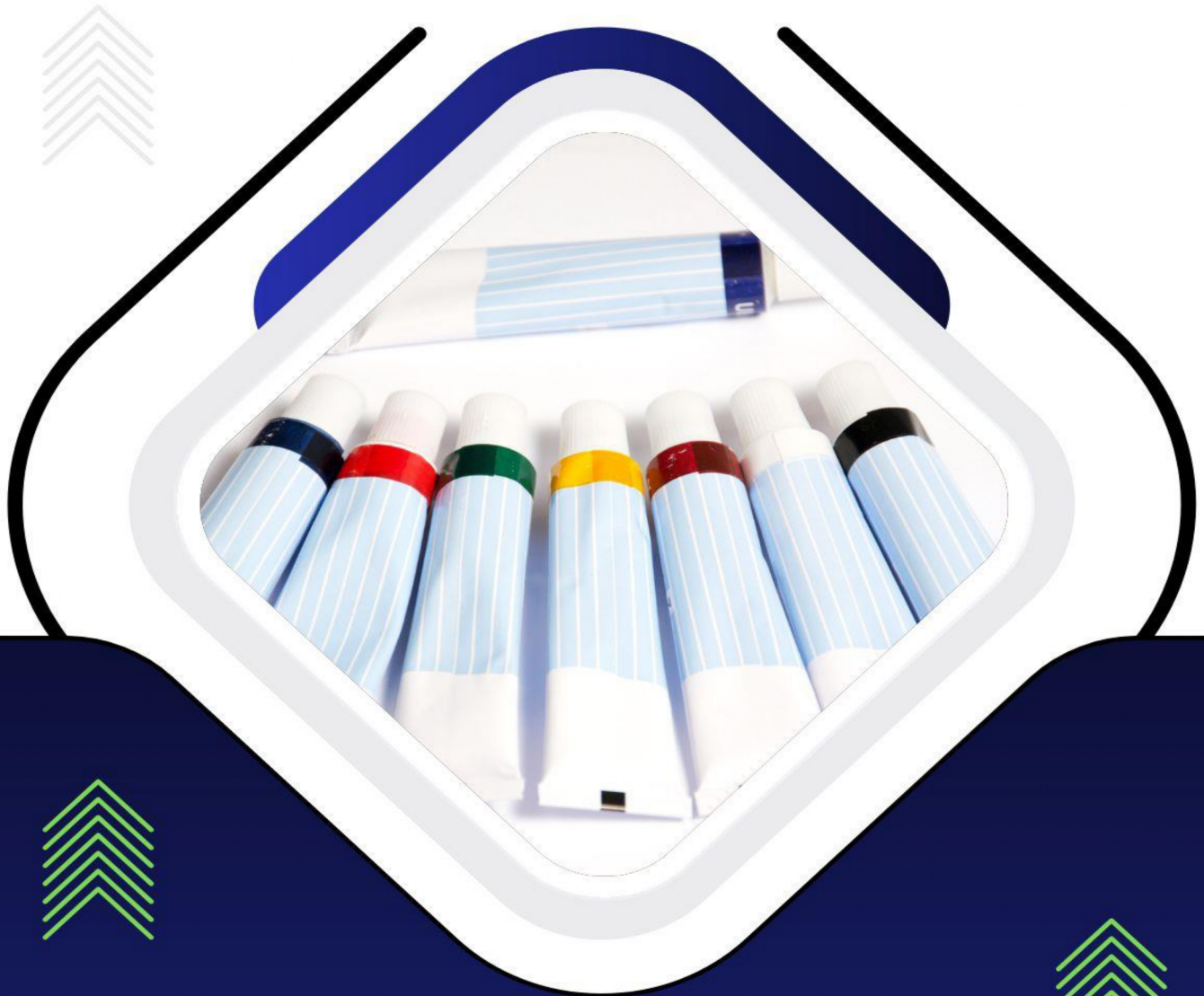




MODEL PROJECT REPORT



PROJECT REPORT ON ACRYLIC PAINTS

SWAVALAMBI BHARAT ABHIYAN

PROJECT AT A GLANCE

- 1 Name of the Entrepreneur : xxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxx
- 3 Father / Spouse Name : xxxxxxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxxxx
Pin: xxxxxxxx State: xxxxxxxxx
Mobile xxxxxxxx
- 5 Product and By Product : ACRYLIC PAINTS
- 6 Name of the project / business activity proposed : ACRYLIC PAINTS MANUFACTURING UNIT
- 7 Cost of Project : Rs.21.56 Lakhs
- 8 Means of Finance
Term Loan Rs.14.4 Lakhs
Own Capital Rs.2.16 Lakhs
Working capital Rs.5 Lakhs
- 9 Debt Service Coverage Ratio : 2.57
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 26%
- 13 Employment : 8 Persons
- 14 Power Requirement : 40.00 HP
- 15 Major Raw materials : DM Water, Wetting Agent, HEC, Pine Oil, Titanium Dioxide, China Clay, Calcite, Acrylic Emulsion, Thickener, Defoamer, Other Preservative and Emulsifiers.
- 16 Estimated Annual Sales Turnover (Max Capacity) : 142.16 Lakhs
- 17 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lakhs)	
Particulars	Amount
Land	Own/ Rented
Building / Shed 800 Sq ft	3.00
Plant & Machinery	12.00
Furniture & Fixtures	1.00
Working Capital	5.56
Total	21.56

MEANS OF FINANCE

Particulars	Amount
Own Contribution	2.16
Working Capital(Finance)	5.00
Term Loan	14.40
Total	21.56

ACRYLIC PAINTS

Introduction: In the 1940s after the Second World War, the paint manufacturing industry moved away from the old tried and true methods of making linseed oil paint and began heavily promoting chemical, petroleum and solvent based paints. With the awareness of danger of petroleum products in the environment, we are entering a new period for the painting industry. Major difference in modern paint is the change in the binder from the used natural boiled linseed oil to alkyd oil, which is generally derived from Soybean and Safflower oil. Use of synthetic resins, such as acrylics and epoxies, has become prevalent in paint manufacture in the last 30 years. Acrylic resin emulsions in latex paints with water thinner have also become common.



Uses & Market Potential: Acrylic paint is a fast-drying paint made of pigment suspended in acrylic polymer emulsion and plasticizers, silicon oils, defoamers, stabilizers, metal soaps. Acrylic paints are water-soluble, but become water-resistant when dry. Acrylic painters can modify the appearance, hardness, flexibility, texture, and other characteristics of the

paint surface by using acrylic mediums. Acrylics can be used on paper, canvas and a range of other materials. Acrylic paints have good adhesion on difficult substrates. This pure acrylic emulsion paint helps prevent adhesion related failures after a long period of time; blistering, peeling and cracking, and flaking. Also paint discoloration is an undesirable change in the colour of exterior paint. Pure acrylic emulsions ensure to paint a very constant and durable colour for long periods of time. The resistance to chalking and fading of the acrylic paints is much better than any other paint particularly in sunny exposure. Due to above said qualities acrylic paints especially exterior paints are preferably used in place of oil based paints.

Machinery & Equipments : Basic machines & equipments are as follows:

S No.	Machine	Unit	Price
1.	Sand mill fitted with pump, cap. 5 litres shell size and flow rate of 4 – 5 litres per hour with 5 HP motor & starter	2	300000
2.	Variable speed High Speed Disperser cap. 15 HP motor with starter.	1	200000
3.	Electronic weighing machine	1	20000
4.	Brook field viscometer LCV mode	1	300000
5.	Weight per litre cup 100 ml cap	1	5000
6.	Wet scrubability tester	1	25000
7.	DM Water Plant cap. 25 litres per hour	2	200000
8.	Water overhead tank of 10,000 liters capacity and tube well fitted with accessories	1	80000
9.	Other machines & equipments		70000
	Total Amount		1200000

Raw material: Major raw materials are as follows:

1. DM Water
2. Wetting Agent
3. HEC
4. Pine Oil
5. Titanium Dioxide
6. China Clay
7. Calcite
8. Acrylic Emulsion
9. Thickener
10. Defoamer
11. Other Preservatives and emulsifiers

Manufacturing Process: Solution of hydroxy ethyl cellulose (HEC) is made with the help of water and ammonia. All the pigments and extenders are mixed with the small quantity of water and weighting agents with the help of high speed stirrer having the rpm of 1500. The prepared mill base is passed through the sand mill with the flow rate of 3 – 4 litres per minutes. For light colour mill based is passed once through the sand mill and for dark colour it is passed through twice or thrice depending upon the hardness of pigment. The grinded material is mixed with the remaining water and emulsion at a low rpm with the high speed stirrer. Thickener, coalescing agents, defoamer, buffer solution are added under slow speed to get the right consistency. Various water based stainers are added to the prepared paint to get the required shade of paint. After preparation and thorough checking of quality parameters the acrylic paint is packed to different small containers. Now it is ready for dispatch at various places.

Area:

The industrial setup requires space for Inventory, workshop or manufacturing area, space for power supply utilities and auxiliary like Generator setup. Also some of the area of building is required for office staff facilities, documentation, office furniture, etc. Thus, the approximate total area required for complete industrial setup is 800 to 1200Sqft. Civil work cost will be around 3 Lac Rs.(Approx.)

Power Requirement –The power consumption required to run all the machinery could be approximated as 40hp

Manpower Requirement– There are requirement of skilled machine operators to run the machine set. Experience quality engineers are required for desired quality control. Some helpers are also required to transfer the material from one work station to other. Office staffs are required to maintain the documentation. The approximate manpower required is 8 including 1 Supervisor, 1 Plant operator, 1 unskilled worker, 1 Helper and 1 Security guard. 3 Skilled worker including Accountant, Manager and Sales person.

Bank Term Loan: Rate of Interest is assumed to be at 11%

Depreciation: Depreciation has been calculated as per the Provisions of Income Tax Act, 1961

Approvals & Registration Requirement:

Basic registration required in this project:

- GST Registration
- Udyog Aadhar Registration (Optional)
- Choice of a Brand Name of the product and secure the name with Trademark if require

Implementation Schedule:

S No.	Activity	Time required
1.	Acquisition of premises	1-2 Months
2.	Procurement & installation of Plant & Machinery	1-2 Months
3.	Arrangement of Finance	1.5-2 Months
4.	Requirement of required Manpower	1 Month
5.	Commercial Trial Runs	1 Month
	Total time Required (some activities shall run concurrently)	5-6 Months

FINANCIALS

<u>PROJECTED CASH FLOW STATEMENT</u>					
PARTICULARS	I	II	III	IV	V
<u>SOURCES OF FUND</u>					
Own Contribution	2.16	-			
Reserve & Surplus	4.19	6.60	8.02	11.58	15.29
Depreciation & Exp. W/off	2.20	1.89	1.62	1.40	1.20
Increase In Cash Credit	5.00				
Increase In Term Loan	14.40	-	-	-	-
Increase in Creditors	1.03	0.19	0.13	0.13	0.13
TOTAL :	28.97	8.68	9.78	13.11	16.62
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	16.00	-	-	-	-
Increase in Stock	3.91	0.64	0.58	0.60	0.61
Increase in Debtors	2.78	0.52	0.46	0.48	0.49
Repayment of Term Loan	1.60	3.20	3.20	3.20	3.20
Taxation	-	0.66	1.20	3.47	4.59
Drawings	2.50	3.00	4.00	5.00	7.00
TOTAL :	26.80	8.03	9.44	12.75	15.89
Opening Cash & Bank Balance	-	2.17	2.83	3.16	3.52
Add : Surplus	2.17	0.65	0.33	0.36	0.73
Closing Cash & Bank Balance	2.17	2.83	3.16	3.52	4.25

PROJECTED BALANCE SHEET					
PARTICULARS	I	II	III	IV	V
<u>SOURCES OF FUND</u>					
Capital Account					
Opening Balance	-	3.85	6.79	9.60	12.71
Add: Additions	2.16	-	-	-	-
Add: Net Profit	4.19	5.94	6.81	8.11	10.70
Less: Drawings	2.50	3.00	4.00	5.00	7.00
Closing Balance	3.85	6.79	9.60	12.71	16.41
CC Limit	5.00	5.00	5.00	5.00	5.00
Term Loan	12.80	9.60	6.40	3.20	-
Sundry Creditors	1.03	1.21	1.35	1.48	1.62
TOTAL :	22.67	22.60	22.35	22.39	23.02
<u>APPLICATION OF FUND</u>					
Fixed Assets (Gross)	16.00	16.00	16.00	16.00	16.00
Gross Dep.	2.20	4.09	5.71	7.11	8.31
Net Fixed Assets	13.80	11.91	10.29	8.89	7.69
Current Assets					
Sundry Debtors	2.78	3.31	3.77	4.24	4.74
Stock in Hand	3.91	4.55	5.14	5.73	6.35
Cash and Bank	2.17	2.83	3.16	3.52	4.25
TOTAL :	22.67	22.60	22.35	22.39	23.02

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PROJECTED PROFITABILITY STATEMENT					
PARTICULARS	I	II	III	IV	V
A) SALES					
Gross Sale	83.52	99.26	113.02	127.32	142.16
Total (A)	83.52	99.26	113.02	127.32	142.16
B) COST OF SALES					
Raw Material Consumed	43.96	51.93	57.70	63.47	69.24
Electricity Expenses	2.36	2.66	2.95	3.25	3.55
Repair & Maintenance	16.70	18.86	22.60	25.46	28.43
Labour & Wages	7.43	7.73	8.58	9.53	10.57
Depreciation	2.20	1.89	1.62	1.40	1.20
Cost of Production	72.66	83.07	93.47	103.11	112.99
Add: Opening Stock /WIP	-	2.45	2.82	3.21	3.62
Less: Closing Stock /WIP	2.45	2.82	3.21	3.62	4.04
Cost of Sales (B)	70.22	82.70	93.08	102.70	112.57
C) GROSS PROFIT (A-B)	13.30	16.57	19.95	24.62	29.59
	15.93%	16.69%	17.65%	19.34%	20.81%
D) Bank Interest (Term Loan)	1.56	1.28	0.92	0.57	0.22
ii) Interest On Working Capital	0.55	0.55	0.55	0.55	0.55
E) Salary to Staff	4.91	5.16	5.93	6.82	7.85
F) Selling & Adm Expenses Exp.	2.09	2.98	4.52	5.09	5.69
TOTAL (D+E)	9.11	9.96	11.93	13.04	14.30
H) NET PROFIT	4.19	6.60	8.02	11.58	15.29
	5.0%	6.7%	7.1%	9.1%	10.8%
I) Taxation	-	0.66	1.20	3.47	4.59
J) PROFIT (After Tax)	4.19	5.94	6.81	8.11	10.70

COMPUTATION OF MAKING OF ACRYLIC PAINT			
Item to be Manufactured	Acrylic Paint		
Manufacturing Capacity per day		900	Ltr
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		2,70,000	Ltr
Total Production per Annum		2,70,000	Ltr
Year		Capacity	ACRYLIC PAINTS
		Utilisation	
I		40%	1,08,000.00
II		45%	1,21,500.00
III		50%	1,35,000.00
IV		55%	1,48,500.00
V		60%	1,62,000.00

COMPUTATION OF RAW MATERIAL					
Item Name		Quantity of Raw Material	Unit	Unit Rate of	Total CostPer Annum (100%)
DM Water		1,26,000.00	Ltr	8.00	10,08,000.00
Wetting Agent		720.00	Kg	90.00	64,800.00
HEC		1,260.00	Kg	450.00	5,67,000.00
Pine Oil		1,800.00	Kg	120.00	2,16,000.00
Titanium Dioxide		54.00	Kg	200.00	10,800.00
China Clay		36,000.00	Kg	30.00	10,80,000.00
Calcite		18,000.00	Kg	15.00	2,70,000.00
Acrylic Emulsion		54,000.00	Kg	95.00	51,30,000.00
Thickener & Defoamer		1,800.00	Kg	80.00	1,44,000.00
Preservative ,Emulsifier & Packing material		Lumsum			25,00,000.00
Total					1,09,90,600.00
Total Raw material in Rs lacs					109.91

Raw Material Consumed	Capacity		Amount (Rs.)		
	Utilisation				
I	40%		43.96		
II	45%		51.93	5% Increase in Cost	
III	50%		57.70	5% Increase in Cost	
IV	55%		63.47	5% Increase in Cost	
V	60%		69.24	5% Increase in Cost	

<u>COMPUTATION OF SALE</u>					
Particulars	I	II	III	IV	V
Op Stock	-	3,600.00	4,050.00	4,500.00	4,950.00
Production	1,08,000.00	1,21,500.00	1,35,000.00	1,48,500.00	1,62,000.00
	1,08,000.00	1,25,100.00	1,39,050.00	1,53,000.00	1,66,950.00
Less : Closing Stock(10 Days)	3,600.00	4,050.00	4,500.00	4,950.00	5,400.00
Net Sale	1,04,400.00	1,21,050.00	1,34,550.00	1,48,050.00	1,61,550.00
Sale Price per Ltr.	80.00	82.00	84.00	86.00	88.00
Sale (in Lacs)	83.52	99.26	113.02	127.32	142.16

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL					
PARTICULARS	I	II	III	IV	V
Finished Goods					
(7 Days requirement)	2.45	2.82	3.21	3.62	4.04
Raw Material					
(10 Days requirement)	1.47	1.73	1.92	2.12	2.31
Closing Stock	3.91	4.55	5.14	5.73	6.35

COMPUTATION OF WORKING CAPITAL REQUIREMENT			
Particulars	Amount	Margin(10%)	Net
			Amount
Stock in Hand	3.91		
Less:			
Sundry Creditors	1.03		
Paid Stock	2.89	0.29	2.60
Sundry Debtors	2.78	0.28	2.51
Working Capital Requirement			5.10
Margin			0.57
MPBF			5.10
Working Capital Demand			5.00

<u>BREAK UP OF LABOUR</u>				
Particulars		Wages	No of	Total
		Per Month	Employees	Salary
Supervisor		20,000.00	1	20,000.00
Plant Operator		15,000.00	1	15,000.00
Unskilled Worker		10,000.00	1	10,000.00
Helper		8,000.00	1	8,000.00
Security Guard		6,000.00	1	6,000.00
				59,000.00
Add: 5% Fringe Benefit				2,950.00
Total Labour Cost Per Month				61,950.00
Total Labour Cost for the year (In Rs. Lakhs)			5	7.43

<u>BREAK UP OF SALARY</u>				
Particulars		Salary	No of	Total
		Per Month	Employees	Salary
Manager		20,000.00	1	12,000.00
Accountant cum store keeper		15,000.00	1	15,000.00
Sales		12,000.00	1	12,000.00
Total Salary Per Month				39,000.00
Add: 5% Fringe Benefit				1,950.00
Total Salary for the month				40,950.00
Total Salary for the year (In Rs. Lakhs)			3	4.91

COMPUTATION OF DEPRECIATION					
Description	Land	Building/shed	Plant & Machinery	Furniture	TOTAL
Rate of Depreciation		10.00%	15.00%	10.00%	
Opening Balance	Leased		-	-	-
Addition	-	3.00	12.00	1.00	16.00
	-	3.00	12.00	1.00	16.00
		-	-	-	
TOTAL		3.00	12.00	1.00	16.00
Less : Depreciation	-	0.30	1.80	0.10	2.20
WDV at end of Ist year	-	2.70	10.20	0.90	13.80
Additions During The Year	-	-	-	-	-
	-	2.70	10.20	0.90	13.80
Less : Depreciation	-	0.27	1.53	0.09	1.89
WDV at end of IIInd Year	-	2.43	8.67	0.81	11.91
Additions During The Year	-	-	-	-	-
	-	2.43	8.67	0.81	11.91
Less : Depreciation	-	0.24	1.30	0.08	1.62
WDV at end of IIIrd year	-	2.19	7.37	0.73	10.29
Additions During The Year	-	-	-	-	-
	-	2.19	7.37	0.73	10.29
Less : Depreciation	-	0.22	1.11	0.07	1.40
WDV at end of IV year	-	1.97	6.26	0.66	8.89
Additions During The Year	-	-	-	-	-
	-	1.97	6.26	0.66	8.89
Less : Depreciation	-	0.20	0.94	0.07	1.20
WDV at end of Vth year	-	1.77	5.32	0.59	7.69

REPAYMENT SCHEDULE OF TERM LOAN						11.0%	
Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
I	Opening Balance						
	Ist Quarter	-	14.40	14.40	0.40	-	14.40
	IInd Quarter	14.40	-	14.40	0.40	-	14.40
	IIIRD Quarter	14.40	-	14.40	0.40	0.80	13.60
	Ivth Quarter	13.60	-	13.60	0.37	0.80	12.80
					1.56	1.60	
II	Opening Balance						
	Ist Quarter	12.80	-	12.80	0.35	0.80	12.00
	IInd Quarter	12.00	-	12.00	0.33	0.80	11.20
	IIIRD Quarter	11.20	-	11.20	0.31	0.80	10.40
	Ivth Quarter	10.40		10.40	0.29	0.80	9.60
					1.28	3.20	
III	Opening Balance						
	Ist Quarter	9.60	-	9.60	0.26	0.80	8.80
	IInd Quarter	8.80	-	8.80	0.24	0.80	8.00
	IIIRD Quarter	8.00	-	8.00	0.22	0.80	7.20
	Ivth Quarter	7.20		7.20	0.20	0.80	6.40
					0.92	3.20	
IV	Opening Balance						
	Ist Quarter	6.40	-	6.40	0.18	0.80	5.60
	IInd Quarter	5.60	-	5.60	0.15	0.80	4.80
	IIIRD Quarter	4.80	-	4.80	0.13	0.80	4.00
	Ivth Quarter	4.00		4.00	0.11	0.80	3.20
					0.57	3.20	
V	Opening Balance						
	Ist Quarter	3.20	-	3.20	0.09	0.80	2.40
	IInd Quarter	2.40	-	2.40	0.07	0.80	1.60
	IIIRD Quarter	1.60	-	1.60	0.04	0.80	0.80
	Ivth Quarter	0.80		0.80	0.02	0.80	- 0.00
					0.22	3.20	

Door to Door Period 60 Months
Moratorium Period 6 Months
Repayment Period 54 Months

CALCULATION OF D.S.C.R

PARTICULARS	I	II	III	IV	V
<u>CASH ACCRUALS</u>	6.39	7.83	8.44	9.50	11.90
Interest on Term Loan	1.56	1.28	0.92	0.57	0.22
Total	7.95	9.11	9.36	10.08	12.12
<u>REPAYMENT</u>					
Repayment of Term Loan	1.60	3.20	3.20	3.20	3.20
Interest on Term Loan	1.56	1.28	0.92	0.57	0.22
Total	3.16	4.48	4.12	3.77	3.42
DEBT SERVICE COVERAGE RATIO	2.51	2.03	2.27	2.67	3.54
AVERAGE D.S.C.R.			2.57		

COMPUTATION OF ELECTRICITY				
(A) POWER CONNECTION				
Total Working Hour per day		Hours	8	
Electric Load Required		HP	40	
Load Factor			0.7460	
Electricity Charges		per unit	7.50	
Total Working Days			300	
Electricity Charges				5,37,120.00
Add : Minimum Charges (@ 10%)				
(B) DG set				
No. of Working Days			300	days
No of Working Hours			0.3	Hour per day
Total no of Hour			90	
Diesel Consumption per Hour			8	
Total Consumption of Diesel			720	
Cost of Diesel			65.00	Rs. /Ltr
Total cost of Diesel			0.47	
Add : Lube Cost @15%			0.07	
Total			0.54	
Total cost of Power & Fuel at 100%				5.91
Year		Capacity		Amount
				(in Lacs)
I		40%		2.36
II		45%		2.66
III		50%		2.95
IV		55%		3.25
V		60%		3.55