PROJECT REPORT

HOLLOW & CEMENT CONCRETE BLOCKS

PURPOSE OF THE DOCUMENT

This particular pre-feasiblity is regarding Hollow & Cement Concrete Blocks

The objective of the pre-feasibility is primarily to facilitate potential entrepreneurs' in project identification for investment and in order to serve this objective; the document covers various aspects of the project concept development, startup, marketing, and finance and business 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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PRODUCT REPORT
ON
HOLLOW AND CEMENT CONCRETE BRICKS

INTRODUCTION:

Cement concrete dense/ hollow bricks and blocks are very popular and are extensively used in building construction throughout the country because of the many advantages such as durability, strength and structural stability, fire resistance, insulation and sound absorption it
Possess. The cement concrete blocks have an attractive appearance and are readily adaptable to any style of architecture. It lends itself to a wide variety of surface finishes for both exterior and interior walls. The blocks are used for both load bearing and non-load bearing walls. The hilly states of India have high humidity, dampness and rainfall, so the blocks are much useful for the N.E. Region, Himachal Pradesh, J&K, and U.P. etc. The blocks are made out of these blocks in masonry there is stone chips. With the use of these blocks in masonry there is saving in cement, stell, time and labour as compared with burnt bricks masonry. This saving, therefore, brings down the cost of construction considerably.

PRODUCT & ITS APPLICATION:

It is much needed in regions where traditional bricks are not easily available. It is also popular in case of requirement of low-cost housing. The main advantage of concrete blocks is that their strength can be engineered to requirement. Thus, making them relatively stronger than bricks by 15-20%. These blocks are 4-5 times bigger than burnt bricks; the size of the block or bricks used has a bearing on the

strength of masonry. As the bigger size accounts for reduction in number of mortar joints, thereby increasing wall strength. Concrete blocks have an excellent thermal property, comparable to other masonry blocks. The cavities in the blocks provide better thermal protection and also do not need external or internal plastering. The performance of the blocks increases with increase in number of hollow cores, which may or may not be filled with some insulating material. The hollow blocks provide an acceptable degree of sound insulation. Concrete blocks are inert, nontoxic and not prone to off gassing of volatile material. It has been observed that concrete blocks enable savings of approx. 8-9% per sq. mt. of masonry as compared with burnt brick. This is primarily because of the savings in mortar and faster construction speed, both due to larger block size and also due to the savings in plaster. Size optimization of concrete blocks also leads to increase in usable internal space, when compared to conventional fired brick construction. Construction technique involved is similar to other masonry units thus easily adaptable. Through decentralized local production it is easily available through a large number of manufacturers and distributors in most parts of the country in both rural and urban areas.
Applicability: Hollow concrete blocks are commonly used in Load bearing structure: - low rise residential and office buildings, bungalows, shelter units for rural housing, institutional buildings, godowns and warehouses etc.
In frame structures: - High rise residential apartment, office buildings, market complexes, Hospitals, Hotels etc.

INDUSTRY LOOK OUT AND TRENDS

The global concrete block and brick manufacturing market is gaining from the booming construction sector worldwide. Rapid urbanization leading to the demand for new housing units in developing countries is stoking demand for concrete blocks and bricks. For instance, Brazil is a key domestic market in Latin America in terms of manufacturing volume of concrete blocks and bricks. Concrete blocks are preferred in the construction of walls as they are less susceptible to damage and provide insulation as well.

Apart from this, foreign direct investments in manufacturing and construction sectors in several countries of Asia Pacific have led to significant expansion of the concrete block and brick manufacturing market in recent years.
The emergence of eco-friendly building materials has been significant factor acting in favor of this market predominantly in developed regions. Countries in North America and Europe are increasingly shifting towards sustainable construction with the introduction of green building materials. Eco-friendly building materials such as

autoclaved aerated concrete (AAC) are obtained from non-toxic ingredients and industrial waste that do not leave fumes, unlike synthetic building materials.

A report by Transparency Market Research (TMR) projects the global concrete block and brick manufacturing market to expand at a moderate 3.8% CAGR for the forecast period 2017-2027. At this pace, the market evaluated at 1,837.48 billion units in 2016 will become 2769.24 billion units by 2027 end.

MARKET POTENTIAL AND MARKETING ISSUES, IF ANY:

The cement concrete dense/ hollow bricks and blocks are replacing conventional building bricks gradually due to the inherent properties like strength, size accuracy and insulation. These are used both for laying load bearing and non- load bearing walls. The cost of blocks is very much compared to the cost of red bricks and quite low, specially, in hilly regions where building bricks cannot be made whereas red bricks have to be procured from distant places thus incurring extra heavy transportation costs. Only in a few regions the good quality clay is available and red brick industry has come up there. But the cement building blocks can be made anywhere. The main raw material for production such as stone metals, sand grit etc. is abundantly available in any state. The blocks have some advantageous properties over the red building bricks. It is easy to construct wall that requires less mortar for inside and outside plaster and joining. It provides good insulation against heat and cold and resists vibration and absorbs sound. So considering all the above mentioned factors, one can foresee to set up a unit.

RAW MATERIAL REQUIREMENTS:

All the raw materials required by the unit are available throughout the year. The raw material can also be procured from the nearby districts and from other states. The stock and procurement period proposed in this scheme is for a period of 10 days. The details of requirement for 100% capacity utilization in the unit are tabulated as below. The raw material required by the unit is proposed to be arranged through local distributors.

Concrete is a mixture of ordinary Portland cement, mineral aggregate (sand and stone chips) and water. The water used in preparing the concrete serves two purposes: (1) It combines with the cement to form a hardened paste (2) It lubricates the aggregates to form a plastic and workable mass The water that combines with the cement varies from about 22 to 28% of the total amount of mixing water in concrete. Mineral aggregates (sand and stone chips) are normally divided into two

fractions based on their particle size. Aggregate particles passing through the No.4 or 4.7 mm Indian Standard sieve are known as fine aggregate. The particles retained on this sieve are designated as coarse aggregate. Natural sand is often used as fine aggregate in cement concrete mixture. Coarse aggregate are crushed stone chips. Crushed stone chips broken into particle sizes passing through the 4.7 mm sieve may also be used as fine aggregate. The maximum size of the coarse aggregate that may be used in cement concrete hollow blocks is 12.5 mm. However, the particle size of the coarse aggregate should not exceed one third thickness of the thinnest web of the hollow blocks. Ordinary Portland cement is the cementing material used in cement concrete hollow blocks.

Cement is the highest priced material per unit weight of the concrete. Hence, the fine and coarse aggregates are combined in such proportions that the resulting concrete is workable and has minimum cement content for the desired quality.

MANUFACTURING PROCESS:

The process of manufacture of cement concrete hollow blocks involves the
Following 5 stages; (1) Proportioning (2) Mixing (3) Compacting (4) Curing (5) Drying
(1) Proportioning: The determination of suitable amounts of raw materials needed to produce concrete of desired quality under given conditions of mixing, placing and curing is known as proportioning. As per Indian Standard specifications, the combined aggregate content in the concrete mix used for making hollow blocks should not be more than 6 parts to 1 part by volume of Portland cement. If this ratio is taken in terms of weight basis this may average approximately at 1:7 (cement: aggregate). However, there have been instances of employing a lean mix of as high as 1:9 by manufacturers where hollow blocks are compacted by power operated vibrating machines. The water cement ratio of 0.62 by weight basis can be used for concrete hollow blocks.

(2) Mixing the objective of thorough mixing of aggregates, cement and water is to ensure that the cement -water paste completely covers the surface of the aggregates. All the raw materials including water are collected in a concrete mixer, which is rotated for about 1 ½ minutes. The prepared mix is discharged from the mixer and consumed within 30 minutes.

(3) Compacting the purpose of compacting is to fill all air pockets with concrete as a whole Without movement of free water through the concrete. Excessive compaction would result in formation of water pockets or layers with higher water content and poor quality of the product.

Semi-automatic vibrating table type machines are widely used for making cement concrete hollow blocks. The machine consists of an automatic vibrating unit, a lever operated up and down metallic mould box and a stripper head contained in a frame work. 5 Wooden pallets are kept on the vibrating platform of the machine. The mould box is lowered on to the pallet. Concrete mix is poured into the mould and evenly leveled. The motorized vibrating causes the concrete to settle down the mould by approximately 1 ½ to 1 ¾ inches. More of concrete is then raked across the mould level. The stripper head is placed over the mould to bear on the leveled material. Vibration causes the concrete come down to its limit position. Then the mould box is lifted by the lever. The moulded hollow blocks resting on the pallet is removed and a new pallet is placed and the process repeated. The machine can accommodate interchangeable mould for producing blocks of different sizes of hollow or solid blocks.

(4) Curing: Hollow blocks removed from the mould are protected until they are sufficiently
Hardened to permit handling without damage. This may take about 24 hours in a shelter away from sun and winds. The hollow blocks thus hardened are cured in a curing yard to permit complete miniaturization for at least 21 days. When the hollow blocks are cured by immersing them in a water tank, water should be changed at least every four days. The greatest strength benefits occur during the first three days and valuable effects are secured up to 10 or 14 days. The longer the curing time permitted the better the product.

(5) Drying: Concrete shrinks slightly with loss of moisture. It is therefore essential that after curing is over, the blocks should be allowed to dry out gradually in shade so that the initial drying shrinkage of the blocks is completed before they are used in the construction work. Hollow blocks are stacked with their cavities horizontal to facilitate thorough passage of air. Generally, a period of 7 to 15 days of drying will bring the blocks to the desired degree of dryness to complete their initial shrinkage. After this the blocks are ready for use in construction work.

PROJECT AT A GLANCE

1	Name of the Entreprenuer		XXXXXXX		
2	Constitution (legal Status)		XXXXXXX		
3	Father's/Spouce's Name		XXXXXXXX		
4	Unit Address	:	XXXXXXXX		
			Taluk/Block:		
			District :	XXXXX	
			Pin:	XXXXX	State:
			E-Mail :	XXXXX	
			Mobile	XXXXX	
5	Product and By Product	:	**Hollow Cncrete Bricks**		
6	Name of the project / business activity proposed		**Hollow Cncrete Bricks**		
7	Cost of Project	:	Rs25.00 lac		
8	Means of Finance				
	Term Loan		Rs.17.43 Lacs		
	KVIC Margin Money	-	As per Project Eligibility		
	Own Capital		Rs.2.5 Lacs		
	Working Capital		Rs.5.07 Lacs		
9	Debt Service Coverage Ratio	:	6.18		
10	Pay Back Period	:	5	Years	
11	Project Implementation Period	:	6	Months	
12	Break Even Point	:	23%		
13	Employment	:	15	Persons	
14	Power Requirement	:	10.00	HP	
15	Major Raw materials	:	Cement Sand ,Stone dust		
16	Estimated Annual Sales Turnover	:	46.17	Lacs	
16	Detailed Cost of Project & Means of Finance				

COST OF PROJECT

(Rs. In Lacs)

Particulars	Amount
Land	Rented/Owned
Building & Civil Work (2000 Sq ft)	3.00
Plant & Machinery	15.74
Furniture & Fixtures	0.32
Pre-operative Expenses	0.30
Working Capital Requirement	5.64
Total	**25.00**

MEANS OF FINANCE

Particulars	Amount
Own Contribution @10%	2.50
Term Loan	17.43
Workign Capital Finance	5.07
Total	**25.00**

	General	**Special**
Beneficiary's Margin Monery (% of Project Cost)	10%	5%

PLANT & MACHINERY

Hydraulically Operate concrete block makingmachine with triple vibrator and 8 HP Motor all fittings	1	400,000.00	400,000.00
Concrete Mixture machine with 10/7 cft 5 HP Motor	1	350,000.00	350,000.00
Block & moulds for hollow blocks 4'x6'x8'	3	20,000.00	60,000.00
Block moulds for solid blocks 4'x6'x8'	3	18,000.00	54,000.00
Wheel borrow	2	10,000.00	20,000.00
Weighing machine 500 kg	1	100,000.00	100,000.00
Water dosing pump	1	60,000.00	60,000.00
Electrical and EB Charges			290,000.00
Total			1,334,000.00
GST 18%			240120
Total			1,574,120.00

PROJECTED BALANCE SHEET

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
SOURCES OF FUND					
Capital Account	2.50	2.50	2.50	2.50	2.50
Retained Profit	14.33	30.71	48.87	70.51	95.48
Term Loan	17.43	13.07	8.71	4.36	2.18
Cash Credit	5.05	5.05	5.05	5.05	5.05
Sundry Creditors	0.40	0.47	0.54	0.61	0.67
Provisions & Other Liab	0.36	0.40	0.44	0.48	0.53
TOTAL :	**40.07**	**52.20**	**66.11**	**83.50**	**106.41**
APPLICATION OF FUND					
Fixed Assets (Gross)	19.06	19.06	19.06	19.06	19.06
Gross Dep.	2.68	4.98	6.96	8.65	10.11
Net Fixed Assets	16.38	14.08	12.10	10.41	8.96
Current Assets					
Sundry Debtors	3.23	3.94	4.51	5.07	5.64
Stock in Hand	2.81	3.28	3.75	4.21	4.68
Cash and Bank	15.15	28.16	42.73	60.48	83.47
Deposits & Advances	2.50	2.75	3.03	3.33	3.66
TOTAL :	**40.07**	**52.20**	**66.11**	**83.50**	**106.41**
	-	-	-	-	-

PROJECTED PROFITABILITY STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
A) SALES					
Gross Sale	46.17	56.30	64.40	72.50	80.60
Total (A)	**46.17**	**56.30**	**64.40**	**72.50**	**80.60**
B) COST OF SALES					
Raw Mateiral Consumed	17.32	20.20	23.09	25.97	28.86
Elecricity Expenses	0.86	1.00	1.15	1.29	1.43
Repair & Maintenance	-	0.56	0.64	0.72	0.81
Labour & Wages	6.86	7.55	8.31	9.14	10.05
Depriciation	2.68	2.31	1.98	1.69	1.45
Consumables and Other Expense	0.92	1.13	1.29	1.45	1.61
Cost of Production	28.64	32.75	36.45	40.27	44.21
Add: Opening Stock /WIP	-	1.94	2.27	2.59	2.92
Less: Closing Stock /WIP	1.94	2.27	2.59	2.92	3.24
Cost of Sales (B)	26.70	32.43	36.12	39.94	43.89
C) GROSS PROFIT (A-B)	19.47	23.87	28.27	32.55	36.71
	42%	**42%**	**44%**	**45%**	**46%**
D) Bank Interest (Term Loan)	1.47	1.57	1.06	0.56	0.09
Bank Interest (C.C. Limit)	0.51	0.51	0.51	0.51	0.51
E) Salary to Staff	2.24	2.47	2.72	2.99	3.29
F) Selling & Adm Expenses Exp.	0.92	1.13	1.29	1.45	1.61
TOTAL (D+E)	**5.14**	**5.67**	**5.57**	**5.51**	**5.50**
H) NET PROFIT	14.33	18.20	22.70	27.05	31.21
I) Taxation	-	1.82	4.54	5.41	6.24
J) PROFIT (After Tax)	14.33	16.38	18.16	21.64	24.97

PROJECTED CASH FLOW STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
SOURCES OF FUND					
Share Capital	2.50	-			
Reserve & Surplus	14.33	18.20	22.70	27.05	31.21
Depriciation & Exp. W/off	2.68	2.31	1.98	1.69	1.45
Increase in Cash Credit	5.05	-	-	-	-
Increase In Term Loan	17.43	-	-	-	-
Increase in Creditors	0.40	0.07	0.07	0.07	0.07
Increase in Provisions	0.36	0.04	0.04	0.04	0.05
TOTAL :	**42.75**	**20.61**	**24.78**	**28.85**	**32.78**
APPLICATION OF FUND					
Increase in Fixed Assets	19.06	-	-	-	-
Increase in Stock	2.81	0.47	0.47	0.47	0.47
Increase in Debtors	3.23	0.71	0.57	0.57	0.57
Increase in Deposits & Adv	2.50	0.25	0.28	0.30	0.33
Repayment of Term Loan	-	4.36	4.36	4.36	2.18
Taxation	-	1.82	4.54	5.41	6.24
TOTAL :	**27.60**	**7.60**	**10.21**	**11.10**	**9.79**
Opening Cash & Bank Balance	-	15.15	28.16	42.73	60.48
Add : Surplus	15.15	13.01	14.58	17.75	22.99
Closing Cash & Bank Balance	**15.15**	**28.16**	**42.73**	**60.48**	**83.47**

COMPUTATION OF MANUFACTURING OF HOLLOW BRICKS

Items to be Manufactured **Hollow Bricks**

Manufacturing Capacity per day	No	1,800	Hollow Bricks
No. of Working Hour		8	
No of Shift per day		1	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		540,000.00	Hollow Bricks
Year		Capacity	
		Utilisation	
			Hollow Bricks
IST YEAR		60%	324,000
IIND YEAR		70%	378,000
IIIRD YEAR		80%	432,000
IVTH YEAR		90%	486,000
VTH YEAR		100%	540,000

COMPUTATION OF RAW MATERIAL

Item Name		Quantity of Raw Material MT	Recovery	Unit Rate of of RM	Total Cost Per Annum (100%
Cement	100%	180.00		7,000.00	12.60
Sand		684.00		1500.00	10.26
Jelly		180.00		1,000.00	1.80
Dust		120.00		3,500.00	4.20
			Total (Rounded off in lacs)		28.86

Annual Consumption cost (In Lacs) 28.86

Raw Material Consumed	Capacity Utilisation	Amount (Rs.)
IST YEAR	60%	17.32
IIND YEAR	70%	20.20
IIIRD YEAR	80%	23.09
IVTH YEAR	90%	25.97
VTH YEAR	100%	28.86

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Finished Goods					
(15 Days requirement)	1.94	2.27	2.59	2.92	3.24
Raw Material					
(15 Days requirement)	0.87	1.01	1.15	1.30	1.44
Closing Stock	**2.81**	**3.28**	**3.75**	**4.21**	**4.68**

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars			Total
			Amount
Stock in Hand			2.81
Sundry Debtors			3.23
		Total	6.04
Sundry Creditors			0.40
Working Capital Requirement			**5.64**
Margin			0.58
Working Capital Finance			**5.05**

BREAK UP OF LABOUR

Particulars		Wages Per Month	No of Employees	Total Salary
Skilled		8,000.00	2	16,000.00
Unskilled Worker		6,000.00	6	36,000.00
				52,000.00
Add: 10% Fringe Benefit				5,200.00
Total Labour Cost Per Month				57,200.00
Total Labour Cost for the year (In Rs. Lakhs)				6.86

BREAK UP OF SALARY

Particulars		Salary Per Month	No of Employees	Total Salary
Supervisor		10,000.00	1	10,000.00
Sales Man		7,000.00	1	7,000.00
Total Salary Per Month				17,000.00
Add: 10% Fringe Benefit				1,700.00
Total Salary for the month				18,700.00
Total Salary for the year (In Rs. Lakhs)				2.24

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	15.74	0.32	19.06
	-	3.00	15.74	0.32	19.06
Less : Depreciation	-	0.30	2.36	0.02	2.68
WDV at end of Ist year	-	2.70	13.38	0.30	16.38
Additions During The Year	-	-	-	-	-
	-	2.70	13.38	0.30	16.38
Less : Depreciation	-	0.27	2.01	0.03	2.31
WDV at end of IInd Year	-	2.43	11.37	0.27	14.08
Additions During The Year	-	-	-	-	-
	-	2.43	11.37	0.27	14.08
Less : Depreciation	-	0.24	1.71	0.03	1.98
WDV at end of IIIrd year	-	2.19	9.67	0.25	12.10
Additions During The Year	-	-	-	-	-
	-	2.19	9.67	0.25	12.10
Less : Depreciation	-	0.22	1.45	0.02	1.69
WDV at end of IV year	-	1.97	8.22	0.22	10.41
Additions During The Year	-	-	-	-	-
	-	1.97	8.22	0.22	10.41
Less : Depreciation	-	0.20	1.23	0.02	1.45
WDV at end of Vth year	-	1.77	6.98	0.20	8.96

REPAYMENT SCHEDULE OF TERM LOAN 11.5%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	Cl Balance
IST YEAR	Opening Balance						
	Ist Quarter	-	17.43	17.43	-	-	17.43
	Iind Quarter	17.43	-	17.43	0.50	-	17.43
	IIIrd Quarter	17.43	-	17.43	0.50	1.09	16.34
	Ivth Quarter	16.34	-	16.34	0.47	1.09	15.25
					1.47	2.18	
IIND YEAR	Opening Balance						
	Ist Quarter	15.25	-	15.25	0.44	1.09	14.16
	Iind Quarter	14.16	-	14.16	0.41	1.09	13.07
	IIIrd Quarter	13.07	-	13.07	0.38	1.09	11.98
	Ivth Quarter	11.98		11.98	0.34	1.09	10.89
					1.57	4.36	
IIIRD YEAR	Opening Balance						
	Ist Quarter	10.89	-	10.89	0.31	1.09	9.80
	Iind Quarter	9.80	-	9.80	0.28	1.09	8.71
	IIIrd Quarter	8.71	-	8.71	0.25	1.09	7.62
	Ivth Quarter	7.62		7.62	0.22	1.09	6.53
					1.06	4.36	
IVTH YEAR	Opening Balance						
	Ist Quarter	6.53	-	6.53	0.19	1.09	5.45
	Iind Quarter	5.45	-	5.45	0.16	1.09	4.36
	IIIrd Quarter	4.36	-	4.36	0.13	1.09	3.27
	Ivth Quarter	3.27		3.27	0.09	1.09	2.18
					0.56	4.36	
VTH YEAR	Opening Balance						
	Ist Quarter	2.18	-	2.18	0.06	1.09	1.09
	Iind Quarter	1.09	-	1.09	0.03	1.09 -	0.00
	IIIrd Quarter	- 0.00	-	- 0.00	- 0.00	-	- 0.00
	Ivth Quarter	- 0.00	-	0.00	- 0.00	-	- 0.00
					0.09	2.18	

CALCULATION OF D.S.C.R

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
CASH ACCRUALS	17.01	18.69	20.14	23.33	26.42
Interest on Term Loan	1.47	1.57	1.06	0.56	0.09
Total	18.48	20.26	21.20	23.89	26.51
REPAYMENT					
Instalment of Term Loan	4.36	4.36	4.36	2.18	2.18
Interest on Term Loan	1.47	1.57	1.06	0.56	0.09
Total	5.83	5.92	5.42	2.74	2.27
DEBT SERVICE COVERAGE R	**3.17**	**3.42**	**3.91**	**8.71**	**11.67**
AVERAGE D.S.C.R.			**6.18**		

COMPUTATION OF SALE

Particulars	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Op Stock	-	16,200	18,900	21,600	24,300
Production	324,000	378,000	432,000	486,000	540,000
	324,000	394,200	450,900	507,600	564,300
Less : Closing Stock	16,200	18,900	21,600	24,300	27,000
Net Sale	307,800	375,300	429,300	483,300	537,300
Sale Price per brick	15.00	15.00	15.00	15.00	15.00
Sale (in Lacs)	**46.17**	**56.30**	**64.40**	**72.50**	**80.60**

COMPUTATION OF ELECTRICITY

(A) POWER CONNECTION				
Total Working Hour per day		Hours	8	
Electric Load Required			10	
Load Factor			0.7460	
Electricity Charges		per unit	8.00	
Total Working Days			300	
Electricity Charges (8 Hrs Per day)				143,232.00
Add : Minimim Charges (@ 10%)				
(B) D.G. SET				
No. of Working Days			300	days
No of Working Hours			-	Hour per day
Total no of Hour			-	
Diesel Consumption per Hour			8	
Total Consumption of Diesel			-	
Cost of Diesel			65.00	Rs. /Ltr
Total cost of Diesel			-	
Add : Lube Cost @15%			-	
Total			-	
Total cost of Power & Fuel at 100%				1.43
Year		**Capacity**		**Amount**
				(in Lacs)
IST YEAR		60%		0.86
IIND YEAR		70%		1.00
IIIRD YEAR		80%		1.15
IVTH YEAR		90%		1.29
VTH YEAR		100%		1.43

BREAK EVEN POINT ANALYSIS

Year	I	II	III	IV	V
Net Sales & Other Income	46.17	56.30	64.40	72.50	80.60
Less : Op. WIP Goods	-	1.94	2.27	2.59	2.92
Add : Cl. WIP Goods	1.94	2.27	2.59	2.92	3.24
Total Sales	**48.11**	**56.62**	**64.72**	**72.82**	**80.92**
Variable & Semi Variable Exp.					
Raw Material & Tax	17.32	20.20	23.09	25.97	28.86
Electricity Exp/Coal Consumption at 85%	0.73	0.85	0.97	1.10	1.22
Manufacturing Expenses 80%	0.74	1.35	1.55	1.74	1.93
Wages & Salary at 60%	5.46	6.01	6.61	7.27	8.00
Selling & adminstrative Expenses 80%	0.74	0.90	1.03	1.16	1.29
Intt. On Working Capital Loan	0.51	0.51	0.51	0.51	0.51
Total Variable & Semi Variable Exp	**25.49**	**29.82**	**33.76**	**37.75**	**41.81**
Contribution	**22.62**	**26.80**	**30.96**	**35.07**	**39.11**
Fixed & Semi Fixed Expenses					
Manufacturing Expenses 20%	0.18	0.34	0.39	0.43	0.48
Electricity Exp/Coal Consumption at 15%	0.13	0.15	0.17	0.19	0.21
Wages & Salary at 40%	3.64	4.01	4.41	4.85	5.33
Interest on Term Loan	1.47	1.57	1.06	0.56	0.09
Depreciation	2.68	2.31	1.98	1.69	1.45
Selling & adminstrative Expenses 20%	0.18	0.23	0.26	0.29	0.32
Total Fixed Expenses	**8.29**	**8.59**	**8.26**	**8.02**	**7.90**
Capacity Utilization	**75%**	**80%**	**85%**	**90%**	**95%**
OPERATING PROFIT	**14.33**	**18.20**	**22.70**	**27.05**	**31.21**
BREAK EVEN POINT	**27%**	**26%**	**23%**	**21%**	**19%**
BREAK EVEN SALES	**17.63**	**18.16**	**17.28**	**16.66**	**16.35**

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