

S.J.M Vidyapeetha , Chitradurga

S.J.M College of Arts, Science and Commerce,
Chandravalli, Chitradurga. 577-501
Accredited by NAAC with "A"

PROJECT REPORT OF SOLE PROPRIETORSHIP CONCERN

**“CNC Laser Cutting Machine
Manufacturing Industry”**

SUBMITTED BY- 3rd B.Com

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SUBMITTED TO
Dr. R.V Hegadal
Associate Professor
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: 2022-23:

PROJECT REPORT

ON

CNC LASER CUTTING MACHINE
MANUFACTURING INDUSTRY

FOR

M.S. GALAXY ENGINEERING WORKS

PROP: SUFIYA KHANUM C.

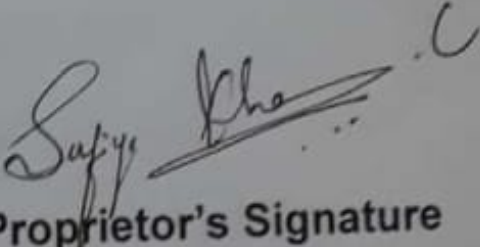
D/o. CHAND BASHA

UNIT AT: KSSIDC INDUSTRIAL ESTATE

SHED No. 35, B.D. ROAD,

CHITRADURGA

BANK : SBI, Chitradurga


Proprietor's Signature

PROJECT AT GLANCE

Unit name and Address	:	M/S GALAXY ENGINEERING WORKS KSSIDC INDUSTRIAL ESTATE SHED No. 35, B.D. ROAD CHITRADURGA
Proprietor's Name and Address	:	SUFIYA KHANUM C. D/o. CHAND BASHA Opp. TAJ KUSHION WORKS, HORPET, CHITRADURGA
Project	:	CNC LASER CUTTING MACHINE
Cost of Project	:	Rs. 69,96,000.00
Cost of Machinery	:	Rs. 43,76,000.00

BIO-DATA OF PROPRIETOR

Age	:	21 YEARS
Education	:	B.Com
Category	:	MINORITY
Experience	:	2 YEARS IN FABRICATION
Employment	:	3 PERSONS

<u>COST OF PROJECT:-</u>		
1) Building	:	Own
2) Machinery and Equipments	:	Rs.43,76,000/-
3) Working Capital	:	Rs.26,20,000/-
Total	:	Rs.69,96,000/-

<u>MEANS OF FINANCE: MINORITY CATEGORY:-</u>		
1) Proprietor Contribution 5%	:	Rs.3,49,800/-
2) Bank Loan	:	
a) Term Loan : 41,57,200		
b) W.Capital: <u>24,89,000</u>		Rs.66,46,200/-
Total	:	Rs.69,96,000/-

MARGIN MONEY FORM DIC/35%:(24,48,600/-)

Margin money (subsidy) is related in favour of lonee. It will be kept in the term deposit receipts (TDR) for one year. No interest will be paid on the TDR and no interest will be charged on loan to the corresponding amount of TDR. Margin money will be credited to the borrowers loan account after three years from the date of first disbursement to the borrower by the bank. In case bank's advance goes before the one year period, due to reasons the margin money (subsidy) will be adjusted by the bank to liquidate the loan liability of the borrower either in part or full.

INTRODUCTION :-

SUFIYA KHANUM C. D/o. CHAND BASHA is to establish CNC LASER CUTTING MACHINERY, Shed No.35 KSSIDC Industrial area, B.D.Road, Chitradurga.

The place is having all the infrastructural facilities to establish the unit.

The unit will be established at its own building.

Required Machinery and equipments will be purchased at 43.76 lakhs.

The designed cut sheets will use at all fabrication works, i.e. base plates, gates, grill works, railings and all engineering works at Chitradurga District and near by 4-5 districts and whole sale dealers of Hardware shops.

The raw material required to the unit are Iron, Brass, Standard steel and Aluminum sheets. All the raw material will be purchased from Bengaluru whole sale agencies.

As the project place is located in Industrial area, it is having all the infrastructural facilities to the unit.

Water and current facilities available there.

Required workers will be available at Chitradurga.

BIO-DATA:

SUFIYA KHANUM C. D/o. CHAND BASHA resident of Chitradurga is the Proprietor of the unit.

Proprietor is aged about 21 years.

Proprietor studied B. Com, belongs to Minority category.

Proprietor is an experienced person in the field of FABRICATION since 2 years at Chitradurga.

Proprietor is having regular contracts with the purchaser and whole sale traders, of all variety of sheets at Chitradurga, Davangere and other cities.

The designed cut sheets will use at all fabrication works, i.e. base plates, gates, grill works, railings and all engineering works at Chitradurga District and near by 4-5 districts and whole sale dealers of Hardware shops.

DEMAND:

The designed cut sheets will use at all fabrication works, i.e. base plates, gates, grill works, railings and all engineering works at Chitradurga District and near by 4-5 districts and whole sale dealers of Hardware shops.

RECOMMENDATION:

There is regular demand to all designed sheets at all cities. The Industry technical feasible and economically viable. There is no such industry in between Bangalore & Hubli and hence recommended to implement.

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Annexure – 1

SEQUENCE OF MANUFACTURING OPERATION



DIFFERENT TYPES OF SHEETS



MARKING ACCORDING TO SIZE



CUTTING



DESIGNING ACCORDING TO HOLE SIZE



PACKING



SALES

RUNNING COST - N2

MODEL		F3015		1Kw	MAX	Remarks
PREMISE CONDITION					Unit	
1	WORKING HRS /SHIFT			7.50	Hrs	
2	NOS OF SHIFTS			1.00	No.s	
3	WORKING HRS / DAY			7.50	Hrs	
4	NO OF DAYS / MONTH			26.00	No.s	
5	NO OF DAYS / YEAR			312.00	No.s	
6	NO OF HRS / YEAR			2,340.00	Hrs	
7	MACHINE UP TIME			95%		
8	OPERATOR EFFICIENCY			80%		
9	QUALITY RATIO			98%		
10	OEE			74%		
11	NET HRS / YEAR			1,743	Hrs	
INVESTMENTS						
12	ESTIMATED MACHINE VALUE- LANDED AT CUSTOMER (WITHOUT)			37,76,000	INR	
	SCREW TYPE COMPRESSOR			6,00,000	INR	
13	ESTIMATED MACHINE VALUE- LANDED AT CUSTOMER (WITHOUT)			43,76,000	INR	
14	DEPRECIATION	15%		6,56,400	INR	
15	INTEREST	9%		3,93,840	INR	
16	DEPRECEATION & INTEREST COST			10,50,240	INR	
17	MACHINE COST / HR			449	INR	20%
18	CONNECTED LOAD			30	KW	
19	DIVERSITY FACTOR			1.60		
20	UTILIZED LOAD			24.00	KW	
21	UNIT COST		7.00	7.00	INR	
22	POWER COST / HR		168.00	84.00	INR	4%
23	GAS CONSUMPTION / HR (N2)			2,400	INR	62%
24	1 OPERATER & 2 LABOUR COST/ HR	1 shift		250	INR	
	20K+15+15K	1		250	INR	13%
25	CONSUMABLE COST / HR			30.00	INR	1%
26	TOTAL COST / HR			3,360	INR	
27	INCOME				Turn Over	Marin/Day (INR)
	POWER SOURCE	Thickness (mm)	Cutting speed (m/min)	Total/Hour (INR)		
	1KW	6	0	0	0	3,360

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Annexure – 3

RAW MATERIALS /290 DAYS/DAILY 08 HOURS ON SHIFT

Sl No.	Particulars	Qty/Hour	Qty/ Hour 290 Days	COST/KG	Total Raw Material Cost
1)	M.S. Sheet 1 mm 16 mm	200 Kg	4,68,000 Kg	Rs.145	Rs.7,02,00,000
				Total	Rs.7,02,00,000

SALES REALISATION/290 DAYS

Sl No.	Particulars	Qty/Hour	Qty/ Hour 290 Days	COST/KG	Total Raw Material Cost
1)	Designed M.S. Cut sheets	200 Kg	3,98.200 Kg	Rs.225	Rs.8,95,95,000
				Total	Rs.8,95,95,000

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Annexure – 4

COST OF PRODUCTION AND PROFITABILITY STATEMENTS (RS. LKS)

SI No.	PARTICULARS	I YR	II YR	III YR	IV YR	V YR
	INSTALLED CAPACITY/KG	4,38,750	4,38,750	4,38,750	4,38,750	4,38,750
	CAPACITY UTILISATION(%)	80	85	90	95	100
A.	RAW MATERIALS	702	746	789.75	833.63	877.50
B.	CURRENT CHARGES	61	64.8	68.63	72.44	76.25
C.	LABOUR CHARGES	5.8	6.16	6.52	6.89	7.25
D.	UNIT OVER HEADS 5% RAW MATERIAL COST	36.1	37.29	39.49	41.68	43.88
E.	ADMINISTRATIVE OVER HEADS 4% SALES COST	35.84	38.09	40.32	42.56	44.80
F.	TRANSPORT EXP. 2% SALES	17.92	19.05	20.16	21.28	22.40
	TOTAL (A to F)	857.66	911.39	964.87	1,018.48	1072.08

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Contd. from Annexure 4

SI No.	PARTICULARS	(Rs. LKS)				
		80	85	90	95	100
		I YR	II YR	III YR	IV YR	V YR
G.	COST OF PRODUCTION (A to F)	857.66	911.39	964.87	1,018.48	1,072.08
H.	SALES REALIZATION	895.95	951.95	1,007.94	1,063.94	1,118.75
I.	PROFIT BEFORE FIN. EXP. (H-G)	38.29	40.56	43.07	45.46	46.67
J.	TERM LOAN INTEREST	4.16	3.33	2.49	1.66	0.83
K.	WORKING CAPITAL INTEREST	2.61	2.61	2.61	2.61	2.61
L.	DEPRRECIATION	6.56	5.58	4.74	4.03	3.43
M.	NET PROFIT (I - J to L)	24.96	29.04	33.23	37.16	39.80
N.	TAX	3.74	4.36	4.98	5.57	5.97
O.	PROFIT AFTER TAX	21.22	24.68	28.25	31.59	33.83

Annexure – 5

WORKING CAPITAL ESTIMATE

SI No.	PARTICULARS	PERIOD/ DAYS	AMOUNT Rs. LKS)
1)	RAW MATERIAL	45	10.89
2)	LABOUR	45	0.9
3)	CURRENT	45	0.94
4)	INTEREST	45	0.65
5)	BILLS RECEIVABLE	--	12.73
TOTAL			26.20

Note 1) Working days : 290 days in a year.

2) 1st Year costs are considered to calculate working capital requirements.

Annexure - 6

TERM LOAN REPAYMENT

Loan: Rs.43.76 LKS

Int. Rate: 10% P.A

OPTG. Year	Installments QRTLY	Balance QRTLY	interest QRTLY	Annual Install	Annual Interest
I	2.19	41.57	1.10		
	2.19	39.38	1.09		
	2.19	37.19	1.09		
	2.18	35.01	1.09	8.75	4.37
II	2.19	32.82	0.88		
	2.19	30.63	0.88		
	2.19	28.44	0.87		
	2.18	26.26	0.87	8.75	3.50
III	2.19	24.07	0.66		
	2.19	21.88	0.66		
	2.19	19.69	0.66		
	2.18	17.51	0.65	8.75	2.63
IV	2.19	15.32	0.44		
	2.19	13.13	0.44		
	2.19	10.94	0.44		
	2.18	8.76	0.43	8.75	1.75
V	2.19	6.57	0.22		
	2.19	4.38	0.22		
	2.19	2.19	0.22		
	2.18	Nil	0.22	8.75	0.88

Annexure - 7

WORKING CAPITAL REQUIREMENT

Loan: Rs.26.20 LKS

Int. Rate: 10% P.A.

OPTG. Year	Installments QRTLTY	Balance QRTLTY	interest QRTLTY	Annual Install	Annual Interest
I	6.55	19.65	0.73		
	6.55	13.10	0.72		
	6.55	6.55	0.72		
	6.55	0.00	0.72	26.2	2.89
II	6.55	19.65	0.73		
	6.55	13.10	0.72		
	6.55	6.55	0.72		
	6.55	0.00	0.72	26.2	2.89
III	6.55	19.65	0.73		
	6.55	13.10	0.72		
	6.55	6.55	0.72		
	6.55	0.00	0.72	26.2	2.89
IV	6.55	19.65	0.73		
	6.55	13.10	0.72		
	6.55	6.55	0.72		
	6.55	0.00	0.72	26.2	2.89
V	6.55	19.65	0.73		
	6.55	13.10	0.72		
	6.55	6.55	0.72		
	6.55	0.00	0.72	26.2	2.89

DEBT SERVICE CONVERGE RATIO (Rs. Lks)

SI No.	DESCRIPTIONS	I YR	II YR	III YR	IV YR	V YR	
I. CASH ACCURALS							
1.	PROFIT AFTER TAX	21.22	24.68	28.25	31.59	33.83	
2.	TERM LOAN INTEREST	4.16	3.33	2.49	1.66	0.83	
3.	WORKING CAPITAL INTEREST	2.61	2.61	2.61	2.61	2.61	
4.	DEPRECIATION	6.56	5.58	4.74	4.03	3.43	
	TOTAL ('I')	34.55	36.20	38.09	39.89	40.70	
II. DEBT TO BE SERVICED							
1.	TERM LOAN INTEREST	4.16	3.33	2.49	1.66	0.83	
2.	WORKING CAPITAL INTEREST	2.61	2.61	2.61	2.61	2.61	
3.	TERM LOAN INSTALLMENT	8.75	8.75	8.75	8.75	8.75	
	TOTAL ('II')	15.52	14.69	13.85	13.02	12.19	
III.	D.S.C.R. = I/II	2.22:1	2.46:1	2.75:1	3.06:1	3.34:1	
IV.	C.D.S.C.R. FOR 5 YEARS	2.77:1					

Annexure – 9

RETURN ON INVESTMENTS

A)	COST OF PROJECTS	:	69.96 LKS
B)	NUMBER OF YEARS	:	05 Years
C)	CUMMULATIVE PROFIT BEFORE TAX	:	164.19
D)	CUMMULATIVE PROFIT AFTER TAX	:	139.57
E)	CUMMULATIVE INTEREST	:	25.52
F)	CUMMULATIVE DEPRECIATION	:	24.34

RETURN ON INVESTMENTS:

$$A. \text{ Before Tax (\%)} = \frac{C+E+F}{A \times B} = 15.3\%$$

$$B. \text{ After Tax (\%)} = \frac{D+E+F}{A \times B} = 13.54\%$$

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Annexure - 10

BREAK EVEN ANALYSIS (Rs. Lks)

SI No.	DESCRIPTIONS	I YR	II YR	III YR	IV YR	V YR
1.	INSTALLED CAPACITY/ KG	4,38,750	4,38,750	4,38,750	4,38,750	4,38,750
2.	CAPACITY UTILISATION (%)	80	85	90	95	100
3.	SALES REVENUE/Rs.LKS	895.9	951.9	1,007.9	1,063.9	1,119.9
I.	VARIABLE COSTS					
A.	RAW MATERIALS	702.00	745.90	789.80	833.60	877.50
B.	UTILITIES	61.00	64.10	68.60	72.44	76.25
C.	LABOUR WAGES	5.80	6.16	6.52	6.89	7.25
D.	TRANSPORT EXPENSES	17.92	19.05	20.16	21.28	22.40
	TOTAL ('I')	786.72	835.21	885.08	934.21	983.40
II.	FIXED EXPENSES					
A.	TERM LOAN INTEREST	4.16	3.33	2.49	1.66	0.83
B.	WORKING CAPITAL INTEREST	2.61	2.61	2.61	2.61	2.61
C.	DEPRECIATION	6.56	5.58	4.74	4.03	3.43
D.	UNIT OVER HEADS	36.10	37.29	39.49	41.68	43.88
E.	ADMINISTRATIVE OVER HEADS	35.84	38.09	40.32	42.56	44.80
	TOTAL ('II')	85.27	86.90	89.65	92.54	95.55
	CONTRIBUTION = SALES - V COST	109.18	116.69	122.82	129.69	136.5
IV.	BREAK EVEN POINT(%) FCOST CONTR	78%	74%	73%	71%	70%
V.	BREAK EVEN SALES / Rs.LKS	698.1	704.4	735.76	755.37	783.93

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Annexure - 11

PROJECTED CASH FLOW STATEMENTS (Rs. Lks)

SI No.	DESCRIPTIONS	DATA	I YR	II YR	III YR	IV YR	V YR
A. SOURCE OF FUNDS							
1)	OPENING BALANCE	0.00	0.00	22.77	48.64	77.86	110.30
2)	PROFIT BEFORE FIN. EXP.	0.00	38.29	40.56	43.07	45.46	46.67
3)	TERM LOAN	41.57					
4)	WORKING CAPITAL LOAN	24.89					
5)	PROP. CONTRIBUTION	3.50					
TOTAL ('A')			38.29	63.33	91.71	123.32	156.97
B. APPLICATION OF FUNDS							
1)	CAPITAL EXPENDITURE	43.76					
2)	WORKING CAPITAL	26.20					
3)	TERM LOAN INTEREST		4.16	3.33	2.49	1.66	0.83
4)	WORKING CAPITAL INTEREST		2.61	2.61	2.61	2.61	2.61
5)	TERM LOAN INSTALLMENT		8.75	8.75	8.75	8.75	8.75
TOTAL ('B')			15.52	14.69	13.85	13.02	12.19
C. CLOSING BALANCE (A-B)			22.77	48.64	77.86	110.30	144.78

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Annexure – 12

PROJECTED BALANCE SHEET (Rs. LKS)

SI No.	DESCRIPTIONS	DATA	I YR	II YR	III YR	IV YR	V YR
I. LIABILITIES							
1)	PROPRIETOR CAPITAL A/C	3.50	3.50	20.65	34.75	50.36	66.75
2)	TERM LOAN	41.57	33.26	24.95	16.64	8.33	Nil
3)	WORKING CAPITAL LOAN	24.89	26.20	26.20	26.20	26.20	26.20
4)	NET PROFIT	0.00	21.22	24.68	28.25	31.59	33.83
	TOTAL ('I')	69.96	84.18	96.48	105.84	116.48	126.78
II. ASSETS							
1)	BUILDING						
2)	MACHINERY	43.76	37.20	31.62	26.87	22.84	19.41
3)	CASH IN HAND	26.20	26.20	26.20	26.20	26.20	26.20
4)	CASH AT BANK		8.00	10.60	11.70	15.60	18.60
5)	CLOSING STOCK		6.78	10.00	23.60	30.50	38.90
6)	SUNDRY DEBTORS		6.00	18.06	17.47	21.34	23.67
	TOTAL ('II')	69.96	84.18	96.48	105.84	116.48	126.78