

PROJECT REPORT

Of

WROUGHT IRON FURNITURE

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **WROUGHT IRON FURNITURE**

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and 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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PROJECT AT A GLANCE

- 1 Name of the Entrepreneur : XXXXXXXX
- 2 Constitution (legal Status) : XXXXXXXX
- 3 Father's/Spouce's Name : XXXXXXXX
- 4 Unit Address : XXXXXXXX
- Taluk/Block: XXXXX
 District : XXXXX
 Pin: XXXXX State: XXXXX
 E-Mail : XXXXX
 Mobile XXXXX
- 5 Product and By Product : **Wrought Iron furniture**
- 6 Name of the project / business activity proposed : **Wrought Iron furniture**
- 7 Cost of Project : Rs23.81lac
- 8 Means of Finance
 Term Loan Rs.13.45 Lacs
 KVIC Margin Money - As per Project Eligibility
 Own Capital Rs.2.38 Lacs
 Working Capital Rs.7.99 Lacs
- 9 Debt Service Coverage Ratio : 2.64
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 6 Months
- 12 Break Even Point : 32%
- 13 Employment : 9 Persons
- 14 Power Requirement : 15.00 HP
- 15 Major Raw materials : forging grade hot rolled steel
- 16 Estimated Annual Sales Turnover : 67.50 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)	4.13
Plant & Machinery	9.81
Furniture & Fixtures	1.00
Pre-operative Expenses	-
Working Capital Requirement	8.87
Total	23.81

MEANS OF FINANCE

(Rs. In Lacs)

Particulars	Amount
Own Contribution @10%	2.38
Term Loan	13.45
Workign Capital Finance	7.99
Total	23.81

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

WROUGHT IRON FURNITURE



INTRODUCTION:

Wrought iron is an iron alloy with a very low carbon – less than 0.08% content. Wrought iron is tough, malleable, ductile, corrosion-resistant and easily welded. The term Wrought Iron is specific to the fibrous, hand-refined material that served historically for millennia as the most used and useful form of iron. It is characterized by its composite structure. In the process of refining, iron and iron silicate are fused together. For most purposes, ductility is a more important measure of the quality of wrought iron than tensile strength.

Wrought iron is no longer produced on a commercial scale. At present, most products described as wrought iron, are actually made of hot rolled forgeable steel, viz. Guard rails, garden furniture gates etc. of ornamental designs.

PRODUCT & ITS APPLICATION:

The so called “Wrought iron furniture” is now made from hot rolled forging grade mild steel having good ductility, is used to make home decor items such as racks, table bases, desks, gates, beds, candle holders, curtain rods, bars and bar stools, fences and railing, with ornate designs.

Furniture is a product of design with several sizes, shapes and décor, to provide appealing aesthetics in addition to convenience and space saving. It serves as a form of decorative art. The “wrought Iron” or hot rolled products are easy to process and get desired shapes and ornate designs and may fulfill the purpose of designer or artists.

INDUSTRY OUTLOOK/TREND

The furniture market in India is highly fragmented with majority of the revenue being generated by unorganized sector, which includes onsite carpenters, independent furniture manufacturers and domestic retailers have accounted for nearly 85% of the furniture market revenue in the country. In the recent years, wrought iron furniture have found a niche market due to its unique designs and ornate designs.

The Indian furniture market, which has grown at a CAGR of 17.2% in last decade. The economic growth and policies of house for all, huge infrastructure investments, etc is likely to see annual rate growth of 15 % for next 5~7 year period. Heavy demand of household items including furniture and furnishing products from the urban class has historically been conducive to the growth of furniture market in India. This trend is expected stay in the future as well, as greater number of people are even in semi urban and rural areas are aspiring to achieve rise in the standard of living.

The outlook of furniture industry prospects remains optimistic, mainly driven by the demand from construction, household remodeling, commercial etc sectors; due to recent economic and industrial policies and measures taken by government.

MARKET POTENTIAL AND MARKETING ISSUES. IF ANY:

Demand for “Wrought Iron” furniture is generated from high income group in residential, commercial and office building as also from public place construction as it provides excellent aesthetic appeal for landscaping and decoration.

In view of growing income and standard of living and growth of construction industry at a rapid rate in the country, there is scope for these items. It is recommended to develop and produce aesthetic and modular design or art for use in furniture components and outdoor use with good ornate and intricate engraved floral shapes. Railing, fences, poles and furniture legs are the most in demand for wrought iron furniture items.

The growing phase of infrastructure and real estate market has augmented the demand for furniture products in the country. In the organized retail segment, the market is occupied by leading companies such as Godrej Interio, Home centre, Nilkamal, Durian Furniture, Style Spa among others, which have over the years grabbed significant position in the domestic market. Furthermore, the entry of international brands like IKEA etc is likely to strengthen trend for modular design and brand awareness.

The scope is good for furniture units in the recent that offer modular designs for furniture retailing in India. It is recommended to develop and produce aesthetic and modular design of furniture components with precision and good decor.

RAW MATERIAL REQUIREMENTS:

The forging grade hot rolled steel in various sections are the main raw materials for the project. The other items are consumables like welding rods, heat treatment and surface treatment chemicals.

MANUFACTURING PROCESS:

The process of manufacture involves operations as below.

- Cutting of material sheets, tubes, pipes, sections as per required dimensions. Cutting is done by sawing, shearing, or chiseling or torching with hand-held torches. Certain components like cast iron and steel stock may be machined.
- Bending of steel rods, pipes etc. of round, and square, rectangular shape is done by hammering, with manual bending tools or via press.

- Black smithy has always been involved in wrought iron item fabrication and several process steps are cutting, splitting shaping and hot welding. The material with Artistic floral designs can be open die forged and hot welded to get the products similar to wrought iron quality.
- Assembling (joining of the pieces) is done by welding, hot forge welding, riveting, fasteners, or crimping. After the forging and welding the item is cooled and sand blasted.

It may undergo various surface treatments, coating polishing and painting. The assembly process is then completed. The finished product is then inspected and shipped.

PLANT & MACHINERY

Particulars	UOM	Quantity	Rate	Total Value
Main Machines/ Equipment				
Rod Twisting machine	Nos	1	160000	160000
Hand Shear Machines	Nos	3	12000	36000
Fly press	Nos	1	20000	20000
Manual Press brake	Nos	1	50000	50000
Forging Furnace	Nos	1	100000	100000
Open Die forging Hammer	Nos	1	230000	230000
Hot Forging Tools	LS	1	25000	25000
Sand Blasting Facility	Nos	1	80000	80000
Pickling and Surface treatment	Nos	1	60000	60000
Spray Painting Facility	Nos	1	30000	30000
Rod / Flat/ Pipe Bending Bench	Nos	2	20000	40000
Pillar Drill	Nos	1	30000	30000
Lathe	Nos	1	45000	45000
Welding Machine	Nos	2	25000	50000
Tools and Ancillaries				
Misc. equipment Dies tools etc.	LS	1	15000	15000
Hand Tools and gauges	LS	1	10000	10000
TOTAL PLANT MACHINERY COST				981000
Fixtures and Elect Installation				
Storage and transport bins	LS	1	10000	10000
Office Furniture	LS	1	5000	5000
Telephones/ Computer	LS	1	15000	15000
Electrical Installation	LS	1	70000	70000
Furniture and Fixture				100000

PROJECTED BALANCE SHEET

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>SOURCES OF FUND</u>					
Capital Account	2.38	2.38	2.38	2.38	2.38
Retained Profit	4.63	12.41	22.14	33.00	44.72
Term Loan	13.45	10.08	6.72	3.36	0.00
Cash Credit	7.99	7.99	7.99	7.99	7.99
Sundry Creditors	1.19	1.43	1.67	1.79	1.90
Provisions & Other Liab	0.36	0.40	0.44	0.48	0.53
TOTAL :	29.99	34.69	41.33	48.99	57.52
<u>APPLICATION OF FUND</u>					
Fixed Assets (Gross)	10.81	10.81	10.81	10.81	10.81
Gross Dep.	1.52	2.87	4.02	5.00	5.83
Net Fixed Assets	9.29	7.94	6.79	5.81	4.98
Current Assets					
Sundry Debtors	2.36	3.10	3.62	3.91	4.17
Stock in Hand	7.70	10.26	11.97	12.83	13.68
Cash and Bank	8.14	10.64	15.92	23.11	31.03
Deposits & Advances	2.50	2.75	3.03	3.33	3.66
TOTAL :	29.99	34.69	41.33	48.99	57.52
	-	-	-	-	-

PROJECTED CASH FLOW STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>SOURCES OF FUND</u>					
Share Capital	2.38	-	-	-	-
Reserve & Surplus	5.14	8.65	12.16	13.57	14.66
Depriciation & Exp. W/off	1.52	1.35	1.15	0.98	0.84
Increase in Cash Credit	7.99	-	-	-	-
Increase In Term Loan	13.45	-	-	-	-
Increase in Creditors	1.19	0.24	0.24	0.12	0.12
Increase in Provisions	0.36	0.04	0.04	0.04	0.05
TOTAL :	32.03	10.27	13.59	14.71	15.66
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	10.81	-	-	-	-
Increase in Stock	7.70	2.56	1.71	0.86	0.86
Increase in Debtors	2.36	0.74	0.53	0.29	0.26
Increase in Deposits & Adv	2.50	0.25	0.28	0.30	0.33
Repayment of Term Loan	-	3.36	3.36	3.36	3.36
Taxation	0.51	0.86	2.43	2.71	2.93
TOTAL :	23.89	7.77	8.30	7.52	7.74
Opening Cash & Bank Balance	-	8.14	10.64	15.92	23.11
Add : Surplus	8.14	2.50	5.29	7.19	7.92
Closing Cash & Bank Balance	8.14	10.64	15.92	23.11	31.03

PROJECTED PROFITABILITY STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
A) SALES					
Gross Sale	67.50	88.50	103.50	111.75	119.25
Scrap Sales 5%	3.38	4.43	5.18	5.59	5.96
Total (A)	70.88	92.93	108.68	117.34	125.21
B) COST OF SALES					
Raw Mateiral Consumed	51.00	61.20	71.40	76.50	81.60
Electricity Expenses	2.87	3.44	4.02	4.30	4.59
Repair & Maintenance	-	0.89	1.04	1.12	1.19
Labour & Wages	7.66	8.42	9.26	10.19	11.21
Depriciation	1.52	1.35	1.15	0.98	0.84
Consumables and Other Expenses	1.42	1.86	2.17	2.35	2.50
Cost of Production	64.46	77.15	89.04	95.44	101.93
Add: Opening Stock /WIP	-	6.00	7.20	8.40	9.00
Less: Closing Stock /WIP	6.00	7.20	8.40	9.00	9.60
Cost of Sales (B)	58.46	75.95	87.84	94.84	101.33
C) GROSS PROFIT (A-B)	12.41	16.97	20.84	22.50	23.88
	18%	19%	20%	20%	20%
D) Bank Interest (Term Loan)	1.16	1.40	1.01	0.63	0.24
Bank Interest (C.C. Limit)	0.80	0.80	0.80	0.80	0.80
E) Salary to Staff	3.96	4.36	4.79	5.27	5.80
F) Selling & Adm Expenses Exp.	1.35	1.77	2.07	2.24	2.39
TOTAL (D+E)	7.27	8.33	8.67	8.93	9.22
H) NET PROFIT	5.14	8.65	12.16	13.57	14.66
I) Taxation	0.51	0.86	2.43	2.71	2.93
J) PROFIT (After Tax)	4.63	7.78	9.73	10.85	11.73

COMPUTATION OF SALE

Particulars	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Op Stock	-	150	180	210	225
Production	1,500	1,800	2,100	2,250	2,400
	1,500	1,950	2,280	2,460	2,625
Less : Closing Stock	150	180	210	225	240
Net Sale	1,350	1,770	2,070	2,235	2,385
Sale Price per MT	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
Sale (in Lacs)	67.50	88.50	103.50	111.75	119.25

COMPUTATION OF ELECTRICITY

(A) POWER CONNECTION				
Total Working Hour per day		Hours	8	
Electric Load Required			15	
Load Factor			0.7460	
Electricity Charges		per unit	8.00	
Total Working Days			300	
Electricity Charges (8 Hrs Per day)				2,14,848.00
Add : Minimim Charges (@ 10%)				
(B) D.G. SET				
No. of Working Days			300	days
No of Working Hours			2	Hour per day
Total no of Hour			600	
Diesel Consumption per Hour			8	
Total Consumption of Diesel			4,800	
Cost of Diesel			65.00	Rs. /Ltr
Total cost of Diesel			3.12	
Add : Lube Cost @15%			0.47	
Total			3.59	
Total cost of Power & Fuel at 100%				5.74
Year		Capacity		Amount
				(in Lacs)
IST YEAR		50%		2.87
IIND YEAR		60%		3.44
IIIRD YEAR		70%		4.02
IVTH YEAR		75%		4.30
VTH YEAR		80%		4.59

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Finished Goods					
(30 Days requirement)	6.00	7.20	8.40	9.00	9.60
Raw Material					
(10 Days requirement)	1.70	3.06	3.57	3.83	4.08
Closing Stock	7.70	10.26	11.97	12.83	13.68

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars			Total
			Amount
Stock in Hand			7.70
Sundry Debtors			2.36
		Total	10.06
Sundry Creditors			1.19
Working Capital Requirement			8.87
Margin			0.89
Working Capital Finance			7.99

BREAK UP OF LABOUR

Particulars		Wages	No of	Total
		Per Month	Employees	Salary
Skilled Worker		12,000.00	4	48,000.00
Unskilled Worker		5,000.00	2	10,000.00
				58,000.00
Add: 10% Fringe Benefit				5,800.00
Total Labour Cost Per Month				63,800.00
Total Labour Cost for the year (In Rs. Lakhs)				7.66

BREAK UP OF SALARY

Particulars		Salary	No of	Total
		Per Month	Employees	Salary
Manager		12,000.00	1	12,000.00
Accountant		8,000.00	1	8,000.00
Sales		10,000.00	1	10,000.00
Total Salary Per Month				30,000.00
Add: 10% Fringe Benefit				3,000.00
Total Salary for the month				33,000.00
Total Salary for the year (In Rs. Lakhs)				3.96

COMPUTATION OF DEPRECIATION

Description	Land	Building/shed	Plant & Machinery	Furniture	TOTAL
Rate of Depreciation		10.00%	15.00%	10.00%	
Opening Balance	Leased	-	-	-	-
Addition	-	-	9.81	1.00	10.81
	-	-	9.81	1.00	10.81
Less : Depreciation	-	-	1.47	0.05	1.52
WDV at end of Ist year	-	-	8.34	0.95	9.29
Additions During The Year	-	-	-	-	-
	-	-	8.34	0.95	9.29
Less : Depreciation	-	-	1.25	0.10	1.35
WDV at end of IIInd Year	-	-	7.09	0.86	7.94
Additions During The Year	-	-	-	-	-
	-	-	7.09	0.86	7.94
Less : Depreciation	-	-	1.06	0.09	1.15
WDV at end of IIIrd year	-	-	6.02	0.77	6.79
Additions During The Year	-	-	-	-	-
	-	-	6.02	0.77	6.79
Less : Depreciation	-	-	0.90	0.08	0.98
WDV at end of IV year	-	-	5.12	0.69	5.81
Additions During The Year	-	-	-	-	-
	-	-	5.12	0.69	5.81
Less : Depreciation	-	-	0.77	0.07	0.84
WDV at end of Vth year	-	-	4.35	0.62	4.98

REPAYMENT SCHEDULE OF TERM LOAN

11.5%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
I ST YEAR	Opening Balance						
	Ist Quarter	-	13.45	13.45	-	-	13.45
	IInd Quarter	13.45	-	13.45	0.39	-	13.45
	IIIRD Quarter	13.45	-	13.45	0.39	-	13.45
	Ivth Quarter	13.45	-	13.45	0.39	-	13.45
					1.16	-	
II ND YEAR	Opening Balance						
	Ist Quarter	13.45	-	13.45	0.39	0.84	12.61
	IInd Quarter	12.61	-	12.61	0.36	0.84	11.77
	IIIRD Quarter	11.77	-	11.77	0.34	0.84	10.92
	Ivth Quarter	10.92	-	10.92	0.31	0.84	10.08
					1.40	3.36	
III RD YEAR	Opening Balance						
	Ist Quarter	10.08	-	10.08	0.29	0.84	9.24
	IInd Quarter	9.24	-	9.24	0.27	0.84	8.40
	IIIRD Quarter	8.40	-	8.40	0.24	0.84	7.56
	Ivth Quarter	7.56	-	7.56	0.22	0.84	6.72
					1.01	3.36	
IV TH YEAR	Opening Balance						
	Ist Quarter	6.72	-	6.72	0.19	0.84	5.88
	IInd Quarter	5.88	-	5.88	0.17	0.84	5.04
	IIIRD Quarter	5.04	-	5.04	0.14	0.84	4.20
	Ivth Quarter	4.20	-	4.20	0.12	0.84	3.36
					0.63	3.36	
V TH YEAR	Opening Balance						
	Ist Quarter	3.36	-	3.36	0.10	0.84	2.52
	IInd Quarter	2.52	-	2.52	0.07	0.84	1.68
	IIIRD Quarter	1.68	-	1.68	0.05	0.84	0.84
	Ivth Quarter	0.84	-	0.84	0.02	0.84	0.00
					0.24	3.36	

CALCULATION OF D.S.C.R

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>CASH ACCRUALS</u>	6.15	9.13	10.88	11.83	12.56
Interest on Term Loan	1.16	1.40	1.01	0.63	0.24
Total	7.31	10.53	11.89	12.46	12.80
<u>REPAYMENT</u>					
Instalment of Term Loan	3.36	3.36	3.36	3.36	3.36
Interest on Term Loan	1.16	1.40	1.01	0.63	0.24
Total	4.52	4.76	4.38	3.99	3.60
DEBT SERVICE COVERAGE RATIO	1.62	2.21	2.72	3.12	3.55
AVERAGE D.S.C.R.			2.64		

BREAK EVEN POINT ANALYSIS

Year	I	II	III	IV	V
Net Sales & Other Income	70.88	92.93	108.68	117.34	125.21
Less : Op. WIP Goods	-	6.00	7.20	8.40	9.00
Add : Cl. WIP Goods	6.00	7.20	8.40	9.00	9.60
Total Sales	76.88	94.13	109.88	117.94	125.81
Variable & Semi Variable Exp.					
Raw Material & Tax	51.00	61.20	71.40	76.50	81.60
Electricity Exp/Coal Consumption at 85%	2.44	2.93	3.41	3.66	3.90
Manufacturing Expenses 80%	1.13	2.19	2.57	2.77	2.96
Wages & Salary at 60%	6.97	7.67	8.43	9.28	10.20
Selling & administrative Expenses 80%	1.08	1.42	1.66	1.79	1.91
Intt. On Working Capital Loan	0.80	0.80	0.80	0.80	0.80
Total Variable & Semi Variable Exp	63.42	76.20	88.27	94.79	101.37
Contribution	13.45	17.92	21.61	23.15	24.44
Fixed & Semi Fixed Expenses					
Manufacturing Expenses 20%	0.28	0.55	0.64	0.69	0.74
Electricity Exp/Coal Consumption at 15%	0.43	0.52	0.60	0.65	0.69
Wages & Salary at 40%	4.65	5.11	5.62	6.18	6.80
Interest on Term Loan	1.16	1.40	1.01	0.63	0.24
Depreciation	1.52	1.35	1.15	0.98	0.84
Selling & administrative Expenses 20%	0.27	0.35	0.41	0.45	0.48
Total Fixed Expenses	8.31	9.28	9.44	9.58	9.79
Capacity Utilization	50%	60%	70%	80%	90%
OPERATING PROFIT	5.14	8.65	12.16	13.57	14.66
BREAK EVEN POINT	31%	31%	31%	33%	36%
BREAK EVEN SALES	47.49	48.72	48.02	48.81	50.37

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