

# PROJECT REPORT

Of

# CONCERTINA WIRE

## PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Concertina Wire.

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.]

Lucknow Office: Sidhivinayak Building ,  
27/1/B, Gokhley Marg, Lucknow-226001

Delhi Office : Multi Disciplinary Training  
Centre, Gandhi Darshan Rajghat,  
New Delhi 110002

Email : [info@udyami.org.in](mailto:info@udyami.org.in)  
Contact : +91 7526000333, 444, 555



**PROJECT AT A GLANCE**

- 1 Name of the Entrepreneur : xxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxx
- 3 Father / Spouse Name : xxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxx
- Pin: xxxxxx State: xxxxxxxx
- Mobile xxxxxx
- 5 Product and By Product : **CONCERTINA WIRE**
- 6 Name of the project / business activity proposed : **CONCERTINA WIRE MAKING UNIT**
- 7 Cost of Project : Rs.20.67 Lakhs
- 8 Means of Finance
- Term Loan Rs.12.6 Lakhs
- Own Capital Rs.2.07 Lakhs
- Working Capital Rs.6 Lakhs
- 9 Debt Service Coverage Ratio : 2.25
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 36%
- 13 Employment : 8 Persons
- 14 Power Requirement : 15.00 HP
- 15 Major Raw materials : GI Strip, GI Wire
- 16 Estimated Annual Sales Turnover (Max Capacity) : 142.29 Lakhs
- 17 Detailed Cost of Project & Means of Finance

**COST OF PROJECT**

(Rs. In Lakhs)

Particulars	Amount
	Own/Rented
Land	12.00
Plant & Machinery	2.00
Furniture & Fixtures	6.67
Working Capital	20.67
<b>Total</b>	<b>20.67</b>

**MEANS OF FINANCE**

Particulars	Amount
Own Contribution	2.07
Working Capital(Finance)	12.60
Term Loan	6.00
<b>Total</b>	<b>20.67</b>

# **CONCERTINA WIRE**

**Introduction:** Concertina wire or Dannert wire is a type of barbed wire or razor wire that is formed in large coils which can be expanded like a concertina (a small handheld bellows-type instrument in the same family as the accordion). In conjunction with plain barbed wire (and/or razor wire/tape) and steel pickets, it is most often used to form military-style wire obstacles. Concertina wire packs flat for ease of transport and can then be deployed as an obstacle much more quickly than ordinary barbed wire, since the flattened coil of wire can easily be stretched out, forming an instant obstacle that will at least slow enemy passage. Several such coils with a few stakes to secure them in place are just as effective as an ordinary barbed wire fence, which must be built by driving stakes and running multiple wires between them.



**Uses & Market Potential:** Concertina wire is an essential item to safeguard houses, gardens, forests, nurseries and specified prohibited areas pertaining to the defense establishment, aerodromes, railways, warehouses and other Govt. and Private properties. They are essential items to make and safeguard international boundaries. Also, these are the cheapest materials to use for these various purposes. Growing population, increasing numbers of building and construction, increasing the security issues in the current

socioeconomic zone, are the major factors of the increasing demand for barbed wire. The potential of this industry is increasing day by day. The demand for concertina wire depends mainly on the performance of its end-user (i.e. the construction sector). Therefore, the demand for the products under consideration is a derived demand, which depends directly on the performance of its major end – user.

**Raw material Sources:** Concertina wire (coil) is made by Galvanized Iron wire and GI Strip. It has a beautiful crossing outlook and it is suitable for uses after extending, making an ideal security fencing with great anti-climb and anti-cutting property.

1. GI Strip: Cost Rs. 54 per Kg
2. GI Wire: Cost Rs. 43 per Kg

**Machinery Requirements:** Following Plant & machinery equipment's are required for concertina wire manufacturing machine:

1. Heavy Duty Power Press for Punching of Strip: 50 tonnes (With Electricals)
2. 9 Bar Die for Punching
3. Feeder for Power Press
4. De Coiler for Strip Bundles
5. Recoiling stand for strips
6. Wooden Spools for recoiling of Strip: 18 Pieces
7. Heavy Duty Air compressor for Feeder: 5HP
8. Crimping Machine set for Mechanical crimping of strip on wire
9. Mechanical Clipping stands for clipping of coils including Pliers for same.
10. Hammering Stand

The whole cost of Plant set up is Rs 12 Lac. (Approx.) The cost is exclusive of GST.

**Manufacturing Process:** Concertina Wire Making Process:

Step 1: Procurement of raw material and first of all strip is to be punched with the help of power press and after that inside die single strip is to be created in the form of 9 pati, 13 pati etc. and stored strips in wooden spools.

Step 2: With the help of crimping machine stocked strip is to be mechanically crimped on GI wire and after that as per customer requirement diameter of concertina wire to be decided like: 2 feet, 2.5 feet etc. After diameter decision coil to be prepared and count the number of spiral terms.

Step 3: Incorporation of GI Clips for spring form in wire. Hamering and final packaging of goods.

**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 1800 to 2000Sqft.

**Power Requirement:** The power consumption required to run all the machinery could be approximated as 15 Hp

**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**

<b>PROJECTED BALANCE SHEET</b>					
<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b>SOURCES OF FUND</b>					
<b>Capital Account</b>					
Opening Balance	-	3.23	6.35	8.82	12.21
Add: Additions	2.07	-	-	-	-
Add: Net Profit	2.67	4.72	4.97	6.09	7.46
Less: Drawings	1.50	1.60	2.50	2.70	3.50
<b>Closing Balance</b>	<b>3.23</b>	<b>6.35</b>	<b>8.82</b>	<b>12.21</b>	<b>16.18</b>
CC Limit	6.00	6.00	6.00	6.00	6.00
Term Loan	11.20	8.40	5.60	2.80	-
Sundry Creditors	3.33	3.81	4.32	4.85	5.41
<b>TOTAL :</b>	<b>23.77</b>	<b>24.56</b>	<b>24.74</b>	<b>25.86</b>	<b>27.59</b>
<b>APPLICATION OF FUND</b>					
<b>Fixed Assets ( Gross)</b>	14.00	14.00	14.00	14.00	14.00
Gross Dep.	2.00	3.71	5.17	6.42	7.49
Net Fixed Assets	12.00	10.29	8.83	7.58	6.51
<b>Current Assets</b>					
Sundry Debtors	2.85	3.39	3.82	4.27	4.74
Stock in Hand	7.16	8.16	9.22	10.32	11.48
Cash and Bank	1.76	2.72	2.87	3.69	4.86
<b>TOTAL :</b>	<b>23.77</b>	<b>24.56</b>	<b>24.74</b>	<b>25.86</b>	<b>27.59</b>

<b>PROJECTED PROFITABILITY STATEMENT</b>					
<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b>A) SALES</b>					
Gross Sale	85.50	101.84	114.72	128.21	142.29
<b>Total (A)</b>	<b>85.50</b>	<b>101.84</b>	<b>114.72</b>	<b>128.21</b>	<b>142.29</b>
<b>B) COST OF SALES</b>					
Raw Material Consumed	66.67	76.27	86.40	97.07	108.27
Electricity Expenses	1.28	1.40	1.53	1.66	1.79
Repair & Maintenance	0.86	1.12	1.15	1.28	1.42
Labour & Wages	7.31	7.60	8.36	8.95	9.57
Depreciation	2.00	1.71	1.46	1.25	1.07
<b>Cost of Production</b>	<b>78.11</b>	<b>88.10</b>	<b>98.90</b>	<b>110.20</b>	<b>122.12</b>
<b>Add: Opening Stock /WIP</b>	<b>-</b>	<b>3.83</b>	<b>4.35</b>	<b>4.90</b>	<b>5.47</b>
<b>Less: Closing Stock /WIP</b>	<b>3.83</b>	<b>4.35</b>	<b>4.90</b>	<b>5.47</b>	<b>6.07</b>
Cost of Sales (B)	74.28	87.58	98.35	109.63	121.52
<b>C) GROSS PROFIT (A-B)</b>	<b>11.22</b>	<b>14.26</b>	<b>16.37</b>	<b>18.57</b>	<b>20.77</b>
	<b>13.12%</b>	<b>14.00%</b>	<b>14.27%</b>	<b>14.49%</b>	<b>14.60%</b>
D) Bank Interest (Term Loan )	1.37	1.12	0.81	0.50	0.19
ii) Interest On Working Capital	0.66	0.66	0.66	0.66	0.66
E) Salary to Staff	5.67	6.24	6.99	7.68	8.45
F) Selling & Adm Expenses Exp.	0.86	1.53	2.06	2.56	2.13
<b>TOTAL (D+E)</b>	<b>8.55</b>	<b>9.54</b>	<b>10.52</b>	<b>11.41</b>	<b>11.44</b>
<b>H) NET PROFIT</b>	<b>2.67</b>	<b>4.72</b>	<b>5.85</b>	<b>7.17</b>	<b>9.33</b>
I) Taxation	-	-	0.88	1.07	1.87
<b>J) PROFIT (After Tax)</b>	<b>2.67</b>	<b>4.72</b>	<b>4.97</b>	<b>6.09</b>	<b>7.46</b>

<b>PROJECTED CASH FLOW STATEMENT</b>					
<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b>SOURCES OF FUND</b>					
Own Contribution	2.07	-			
Reserve & Surplus	2.67	4.72	5.85	7.17	9.33
Depriciation & Exp. W/off	2.00	1.71	1.46	1.25	1.07
Increase In Cash Credit	6.00				
Increase In Term Loan	12.60	-	-	-	-
Increase in Creditors	3.33	0.48	0.51	0.53	0.56
<b>TOTAL :</b>	<b>28.67</b>	<b>6.91</b>	<b>7.82</b>	<b>8.95</b>	<b>10.96</b>
<b>APPLICATION OF FUND</b>					
Increase in Fixed Assets	14.00	-	-	-	-
Increase in Stock	7.16	1.00	1.05	1.11	1.16
Increase in Debtors	2.85	0.54	0.43	0.45	0.47
Repayment of Term Loan	1.40	2.80	2.80	2.80	2.80
Taxation	-	-	0.88	1.07	1.87
Drawings	1.50	1.60	2.50	2.70	3.50
<b>TOTAL :</b>	<b>26.91</b>	<b>5.95</b>	<b>7.66</b>	<b>8.13</b>	<b>9.79</b>
Opening Cash & Bank Balance	-	1.76	2.72	2.87	3.69
Add : Surplus	1.76	0.96	0.16	0.82	1.17
Closing Cash & Bank Balance	<b>1.76</b>	<b>2.72</b>	<b>2.87</b>	<b>3.69</b>	<b>4.86</b>

<b>COMPUTATION OF MAKING OF CONCERTINA WIRE</b>			
<b>Item to be Manufactured Concertina Wire</b>			
Manufacturing Capacity per day		100	Rolls
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		30,000	Rolls
Total Production per Annum		30,000	Rolls
Year		Capacity Utilisation	CONCERTINA WIRE
I		50%	15,000.00
II		55%	16,500.00
III		60%	18,000.00
IV		65%	19,500.00
V		70%	21,000.00

Raw material required per Roll	8	Kg	
Wastage In Production	10%	of Input	
Total Raw material requirement per day	888.89	Kg	
Total Raw material requirement per annum	2,66,666.67	Kg	
Raw Material Consumed	Capacity Utilisation	Rate per Kg	Amount (Rs.)
I	50%	50.00	66.67
II	55%	52.00	76.27
III	60%	54.00	86.40
IV	65%	56.00	97.07
V	70%	58.00	108.27

<b>COMPUTATION OF SALE</b>					
Particulars	I	II	III	IV	V
Op Stock	-	750.00	825.00	900.00	975.00
Production	15,000.00	16,500.00	18,000.00	19,500.00	21,000.00
	15,000.00	17,250.00	18,825.00	20,400.00	21,975.00
Less : Closing Stock(15 Days)	750.00	825.00	900.00	975.00	1,050.00
Net Sale	14,250.00	16,425.00	17,925.00	19,425.00	20,925.00
Sale Price per Roll	600.00	620.00	640.00	660.00	680.00
<b>Sale (in Lacs)</b>	<b>85.50</b>	<b>101.84</b>	<b>114.72</b>	<b>128.21</b>	<b>142.29</b>

<b>COMPUTATION OF CLOSING STOCK &amp; WORKING CAPITAL</b>					
<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b>Finished Goods</b>					
(15 Days requirement)	3.83	4.35	4.90	5.47	6.07
<b>Raw Material</b>					
(15 Days requirement)	3.33	3.81	4.32	4.85	5.41
<b>Closing Stock</b>	<b>7.16</b>	<b>8.16</b>	<b>9.22</b>	<b>10.32</b>	<b>11.48</b>

<b>COMPUTATION OF WORKING CAPITAL REQUIREMENT</b>			
<b>Particulars</b>	<b>Amount</b>	<b>Margin(10%)</b>	<b>Net Amount</b>
Stock in Hand	7.16		
Less:			
Sundry Creditors	3.33		
<b>Paid Stock</b>	<b>3.83</b>	<b>0.38</b>	<b>3.44</b>
Sundry Debtors	2.85	0.29	2.57
<b>Working Capital Requirement</b>			<b>6.01</b>
<b>Margin</b>			0.67
<b>MPBF</b>			<b>6.01</b>
<b>Working Capital Demand</b>			<b>6.00</b>

<b><u>BREAK UP OF LABOUR</u></b>				
Particulars		Wages	No of	Total
		Per Month	Employees	Salary
Supervisor		18,000.00	1	18,000.00
Plant Operator		16,000.00	1	16,000.00
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
				58,000.00
Add: 5% Fringe Benefit				2,900.00
Total Labour Cost Per Month				60,900.00
Total Labour Cost for the year ( In Rs. Lakhs)			5	7.31

<b><u>BREAK UP OF SALARY</u></b>				
Particulars		Salary	No of	Total
		Per Month	Employees	Salary
Manager		18,000.00	1	18,000.00
Accountant cum store keeper		15,000.00	1	15,000.00
Sales		12,000.00	1	12,000.00
Total Salary Per Month				45,000.00
Add: 5% Fringe Benefit				2,250.00
Total Salary for the month				47,250.00
Total Salary for the year ( In Rs. Lakhs)			3	5.67

<b>COMPUTATION OF DEPRECIATION</b>				
Description	Land	Plant & Machinery	Furniture	TOTAL
Rate of Depreciation		15.00%	10.00%	
<b>Opening Balance</b>	Leased	-	-	-
Addition	-	12.00	2.00	14.00
	-	12.00	2.00	14.00
		-	-	
TOTAL		12.00	2.00	14.00
Less : Depreciation	-	1.80	0.20	2.00
WDV at end of Ist year	-	10.20	1.80	12.00
Additions During The Year	-	-	-	-
	-	10.20	1.80	12.00
Less : Depreciation	-	1.53	0.18	1.71
WDV at end of IInd Year	-	8.67	1.62	10.29
Additions During The Year	-	-	-	-
	-	8.67	1.62	10.29
Less : Depreciation	-	1.30	0.16	1.46
WDV at end of IIIrd year	-	7.37	1.46	8.83
Additions During The Year	-	-	-	-
	-	7.37	1.46	8.83
Less : Depreciation	-	1.11	0.15	1.25
WDV at end of IV year	-	6.26	1.31	7.58
Additions During The Year	-	-	-	-
	-	6.26	1.31	7.58
Less : Depreciation	-	0.94	0.13	1.07
WDV at end of Vth year	-	5.32	1.18	6.51

<b>REPAYMENT SCHEDULE OF TERM LOAN</b>						11.0%	
<b>Year</b>	<b>Particulars</b>	<b>Amount</b>	<b>Addition</b>	<b>Total</b>	<b>Interest</b>	<b>Repayment</b>	<b>CI Balance</b>
<b>I</b>	Opening Balance						
	Ist Quarter	-	12.60	12.60	0.35	-	12.60
	IInd Quarter	12.60	-	12.60	0.35	-	12.60
	IIIrd Quarter	12.60	-	12.60	0.35	0.70	11.90
	Ivth Quarter	11.90	-	11.90	0.33	0.70	11.20
					1.37	1.40	
<b>II</b>	Opening Balance						
	Ist Quarter	11.20	-	11.20	0.31	0.70	10.50
	IInd Quarter	10.50	-	10.50	0.29	0.70	9.80
	IIIrd Quarter	9.80	-	9.80	0.27	0.70	9.10
	Ivth Quarter	9.10	-	9.10	0.25	0.70	8.40
					1.12	2.80	
<b>III</b>	Opening Balance						
	Ist Quarter	8.40	-	8.40	0.23	0.70	7.70
	IInd Quarter	7.70	-	7.70	0.21	0.70	7.00
	IIIrd Quarter	7.00	-	7.00	0.19	0.70	6.30
	Ivth Quarter	6.30	-	6.30	0.17	0.70	5.60
					0.81	2.80	
<b>IV</b>	Opening Balance						
	Ist Quarter	5.60	-	5.60	0.15	0.70	4.90
	IInd Quarter	4.90	-	4.90	0.13	0.70	4.20
	IIIrd Quarter	4.20	-	4.20	0.12	0.70	3.50
	Ivth Quarter	3.50	-	3.50	0.10	0.70	2.80
					0.50	2.80	
<b>V</b>	Opening Balance						
	Ist Quarter	2.80	-	2.80	0.08	0.70	2.10
	IInd Quarter	2.10	-	2.10	0.06	0.70	1.40
	IIIrd Quarter	1.40	-	1.40	0.04	0.70	0.70
	Ivth Quarter	0.70	-	0.70	0.02	0.70	0.00
					0.19	2.80	

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

<b>CALCULATION OF D.S.C.R</b>					
<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b>CASH ACCRUALS</b>	4.67	6.43	6.43	7.34	8.54
Interest on Term Loan	1.37	1.12	0.81	0.50	0.19
Total	6.03	7.54	7.24	7.84	8.73
<b>REPAYMENT</b>					
Repayment of Term Loan	1.40	2.80	2.80	2.80	2.80
Interest on Term Loan	1.37	1.12	0.81	0.50	0.19
Total	2.77	3.92	3.61	3.30	2.99
<b>DEBT SERVICE COVERAGE RATIO</b>	<b>2.18</b>	<b>1.93</b>	<b>2.01</b>	<b>2.38</b>	<b>2.92</b>
<b>AVERAGE D.S.C.R.</b>			<b>2.25</b>		

<b>COMPUTATION OF ELECTRICITY</b>				
<b>(A) POWER CONNECTION</b>				
Total Working Hour per day		Hours	8	
Electric Load Required		HP	15	
Load Factor			0.7460	
Electricity Charges		per unit	7.50	
Total Working Days			300	
<b>Electricity Charges</b>				2,01,420.00
Add : Minimim Charges (@ 10%)				
<b>(B) DG set</b>				
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			<b>0.54</b>	
Total cost of Power & Fuel at 100%				2.55
<b>Year</b>		<b>Capacity</b>		<b>Amount</b>
				<b>(in Lacs)</b>
I		50%		1.28
II		55%		1.40
III		60%		1.53
IV		65%		1.66
V		70%		1.79

## **DISCLAIMER**

The views expressed in this Project Report are advisory in nature. SAMADHAN assume no financial liability to anyone using the content for any purpose. All the materials and content contained in Project report is for educational purpose and reflect the views of the industry which are drawn from various research material sources from internet, experts, suppliers and various other sources. The actual cost of the project or industry will have to be taken on case to case basis considering specific requirement of the project, capacity and type of plant and other specific factors/cost directly related to the implementation of project. It is intended for general guidance only and must not be considered a substitute for a competent legal advice provided by a licensed industry professional. SAMADHAN hereby disclaims any and all liability to any party for any direct, indirect, implied, punitive, special, incidental or other consequential damages arising directly or indirectly from any use of the Project Report Content, which is provided as is, and without warranties.