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Submitted to

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SULTANATE OF OMAN

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PROJECT PROFILE
FOR SETTING UP
WIRE NAIL MANUFACTURING UNIT

CONTENTS

1. PROJECT BRIEF

This report relates to a study on the feasibility of setting up a Wire Nail Manufacturing Unit in Sultanate of Oman. The following is the Brief illustration of the project:

Name of Product		**Wire Nails**
Domestic Market Potential (as of 2021)		2,700 Tons per Annum
Export Potential in target markets		36,365 Tons per Annum
Export Target Markets		GCC Countries
Capacity of the Project		1200 tons per Annum
Total Investment		RO 154,000
Equity Investment		RO 61,600
Key Appraisal Criteria:		
IRR on total investment		22.57%
IRR on Equity		35.73%
Payback period of Total Investment		5 years 1 month
Payback period on equity		3 Years 11 month
Break Even Point (as % of Capacity)		46%
Cash Break Even Point (as % of Capacity)		42.7%
Debt Equity Ratio		1.5:1
DSCR		3.83
Manpower	Total	15
	Nationals	6

2. GENERAL INDUSTRY ANALYSIS

2.1. OVERVIEW OF CONSTRUCTION SECTOR IN OMAN

The following table illustrates the trend in the growth of the construction sector GDP during 2010 to 2020.

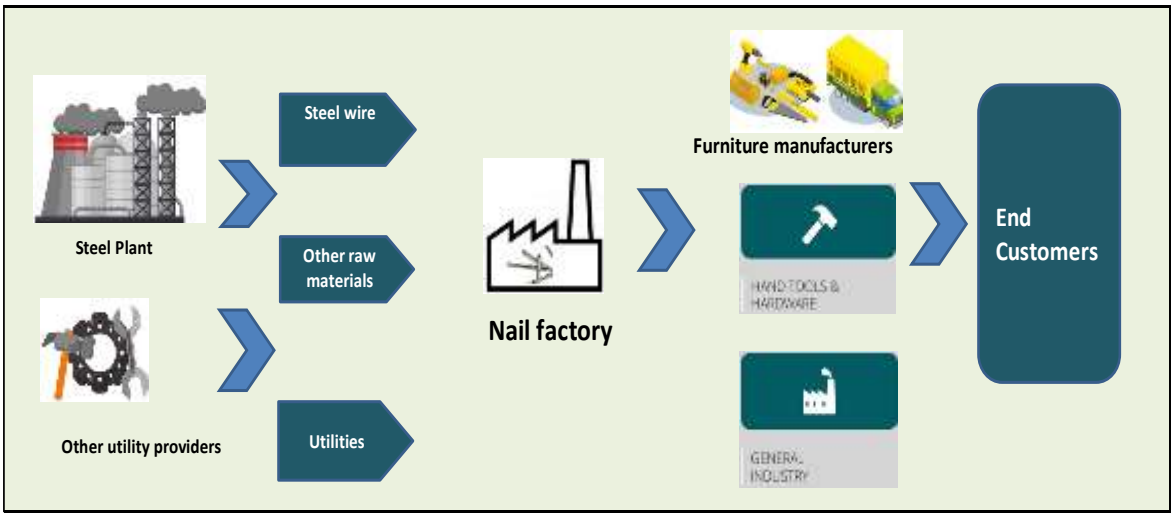
Details	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
GDP (RO million)	21,935	26,152	29,458	30,292	31,174	26,500	25,354	27,216	35,184	33,859	28,442
Construction GDP (RO Million)	1,314	1,390	1,747	1,803	1,904	2,067	2,285	2,080	3,258	3,202	2,623
Growth Rate (%)	6%	6%	26%	3%	6%	9%	11%	-9%	57%	-2%	-18%
Construction / Total GDP (%)	6%	5%	6%	6%	6%	8%	9%	8%	9%	9%	9%

Source: NCSI Statistical Year Book 2021

- The construction sector contribution to the GDP has consistently grown till 2018. However, with limited new projects being executed it has witnessed a slide during 2019 and 2020.
- The Construction sector GDP was around 2,623 million in 2020 which is about 9% of the total GDP of Oman.

2.2. VALUE-CHAIN OF NAIL PRODUCTS

The following chart illustrates the overall value chain of Wire Nail Unit:



2.3. VALUE CHAIN IN OMAN

2.3.1. Upstream Value Chain activities

The raw material for nails IS Steel Wires. Following are some of the upstream Iron steel players in the Sultanate:

- **Jindal Shadeed Iron & Steel LLC. (JSIS)** located in Sohar, operates a 1.8 MTPA Direct Reduced Iron (DRI) Plant which was established in 2010. The company established a Steel Making Shop in 2014 having a capacity of 2.4 MTPA. Jindal Shadeed also operates a 1.4 MTPA Rebar Rolling Mill which was established in 2016.
- **Sohar Steel LLC** located in Sohar Industrial Port is capable of producing 600,000 MT of Steel Billets and 500,000 MT of Re-bars annually.

2.3.2. Downstream Value Chain activities

The products find application in all the construction related activities, furniture manufacturing, carpentry etc. Comprehensive use of different sizes of nails are detailed in the Appendix attached along with this report.

2.4. ENABLERS IN VALUE CHAIN IN OMAN

World class infrastructure and required utilities are provided by Madayn for establishing industrial units in Oman.

2.5. HURDLES IN VALUE CHAIN IN OMAN

- High labor cost
- Comparatively lower local demand but can be addressed if the proposed project targets export markets.

2.6. SWOT ANALYSIS

SWOT ANALYSIS	
Strengths	**Weaknesses**
• Low-technology manufacturing which can be effectively adopted by a Small Industry • Cheaper Land Rentals / Utilities	• Rising input costs
Opportunity	**Threats**
• Product Acceptance • Demand from Infrastructure projects & Buildings • Potential for exports	• Fluctuations in demand • Competition from cheaper imports

3. MARKET ANALYSIS

3.1. PRODUCT USES & APPLICATIONS

Steel nails are primarily used in the Construction sector mainly in carpentry and in associated wood works. Generally nails have a sharp point on one end and a flattened head on the other. Nails are made in a variety of forms for specialized purposes. The most common is the wire nail. Other types of nails include pins, tacks, brads, and spikes. Nails are typically driven into the work piece by a hammer, a pneumatic nail gun, or a small explosive charge or primer. A nail holds materials together by friction in the axial direction and shear strength laterally. The point of the nail is also sometimes bent over or clinched after driving to prevent pulling out.

The parts of the nail are the head, shank or shaft, point, and the gripper marks – slight grooves incised into the shank near the head of most varieties of nails.

The nail functions by displacing wood fibers when it is pounded into the work piece, and the pressure exerted against the shaft by the displaced wood provides the holding power.

Different types of nails are:

- **Common Nail:** Used for rough construction work, the common nail can be purchased in lengths varying from one to six inches.
- **Box Nail:** These look like common nails, but are thinner. Box nails are generally available in lengths from one inch to three and a half inches.
- **Finishing Nail:** Finishing nails are used for finish work. Finishing nails are generally available in lengths ranging from one to four inches.
- **Casing Nail:** A near relation of the finishing nail, the casing nail is slightly larger and has increased holding power. It is most often used for attaching moldings such as window and door casings where added strength is required.

- **Brad:** Are essentially diminutive finishing nails, proportionately smaller in diameter and length (one inch or less). They are used in making frames, attaching plywood paneling, and in cabinetwork.
- **Roofing Nail:** Roofing nails have disproportionately large, round heads and heavier shafts for their length. They are designed to hold roofing materials in place, in particular composition and asphalt- based materials.
- **Masonry Nail:** Several types of masonry nails are sold; all are designed to be driven into brick or concrete walls. These hard nails may be rectangular in section or have fluted shafts, but all are hardened to resist bending and breaking as they are driven into almost rock-hard materials.
- **Cut Flooring Nail:** These nails are large, strong, and are often used in a nailing machine.
- **Spiral Flooring Nail:** Spiral flooring nails feature a spiraled shaft and were traditionally used for nailing subfloors. Nail guns and the specially designed nails used in them have superseded these nails in much construction work today.
- **Annular Ring Nail:** Often sold in galvanized steel, annular ring nails are commonly used as siding nails, to hold clapboards or shingles in place, or for underlayment or paneling. They are thin, lined with rings for added holding power, and resistant to rust.
- **Duplex Nail:** This is a variation of the common nail. Featuring a second head formed a short distance down the shaft from the end of the nail, the duplex nail is used for temporary construction (like scaffolding and staging) because it can be driven snug, yet be easily removed.
- **Other Nails:** Drywall nails, which feature rings on their shafts, are sold for hanging wallboard; their heads are traditionally driven slightly below the surface of the plaster panel (the hammer stroke creates a dimple that is then filled in with joint compound or plaster). Cement-coated nails are roughly the size and weight of box nails, but are coated with a resin for added holding power. They're used to nail outside sheathing.

3.2. GLOBAL MARKET OUTLOOK

Steel Wire Nails is internationally classified under HS code:

731700 *- Nails, tacks, drawing pins, corrugated nails, staples and similar articles of iron or steel, whether or not with heads of other material (excluding such articles with heads of copper and staples in strips)*

3.2.1 Major Global Exporters

The table below details the major exporting countries of wire nail in both quantity and value for the last 5 years.

Rank	Exporting countries	Value/ Quantity	2017	2018	2019	2020	2021
1	China	USD('000)	1,195,931	1,545,201	1,509,522	1,619,097	1,996,790
		Ton	994,237	1,091,584	975,489	993,687	1,121,921
		USD/Ton	1203	1416	1547	1629	1780
2	Turkey	USD('000)	43,908	57,362	64,502	64,638	102,558
		Ton	49,201	56,703	71,246	77,711	90,509
		USD/Ton	892	1012	905	832	1133
3	Oman	USD('000)	67,378	116,407	105,073	96,955	136,923
		Ton	48,872	78,914	70,851	68,048	84,093
		USD/Ton	1379	1475	1483	1425	1628
4	Poland	USD('000)	71,687	90,247	82,249	93,702	129,200
		Ton	67,558	69,327	61,530	69,789	82,344
		USD/Ton	1061	1302	1337	1343	1569
5	Thailand	USD('000)	32,469	52,114	57,531	63,551	88,135
		Ton	29,339	42,144	47,169	54,408	66,590
		USD/Ton	1107	1237	1220	1168	1324
6	Taipei, Chinese	USD('000)	124,047	118,974	100,393	85,398	106,712
		Ton	92,526	78,095	60,765	51,440	58,710
		USD/Ton	1341	1523	1652	1660	1818
7	Malaysia	USD('000)	45,478	67,558	50,895	38,044	63,660
		Ton	56,585	65,372	51,691	38,613	54,357
		USD/Ton	804	1033	985	985	1171
8	Mexico	USD('000)	28,390	38,224	38,738	44,231	58,047
		Ton	31,116	35,815	15,379	19,091	52,062
		USD/Ton	912	1067	2519	2317	1115
9	Lithuania	USD('000)	29,641	38,925	36,519	35,532	72,752
		Ton	34,768	38,219	37,360	38,689	51,130
		USD/Ton	853	1018	977	918	1423

Source: UN Com Trade Data

3.2.2 Major Global Importers

The table below details the major importing countries of wire nail in both quantity and value for the last 5 years.

Rank	Importing countries	Value/ Quantity	2017	2018	2019	2020	2021
1	USA	USD('000)	819,557	1,052,908	917,509	884,940	1,296,734
		Ton	664,706	727,160	637,875	687,808	827,042
		USD/Ton	1233	1448	1438	1287	1568
2	Canada	USD('000)	107,145	133,363	114,843	112,765	161,320
		Ton	85,853	99,479	85,894	88,909	108,883
		USD/Ton	1248	1341	1337	1268	1482
3	Japan	USD('000)	101,703	117,922	115,108	102,480	123,263
		Ton	80,856	81,299	81,099	74,736	76,491
		USD/Ton	1258	1450	1419	1371	1611
4	Germany	USD('000)	113,589	125,662	120,167	116,699	153,028
		Ton	67,800	68,194	64,626	61,596	68,446
		USD/Ton	1675	1843	1859	1895	2236
5	United Kingdom	USD('000)	85,500	99,596	88,436	75,811	122,683
		Ton	47,124	48,420	43,213		51,177
		USD/Ton	1814	2057	2047		2397
6	Korea, Republic of	USD('000)	56,743	57,849	47,121	40,848	56,323
		Ton	54,877	49,971	43,621	40,819	44,996
		USD/Ton	1034	1158	1080	1001	1252
7	France	USD('000)	71,829	80,159	81,848	76,139	108,800
		Ton	34,477	33,461	35,002	32,835	42,784
		USD/Ton	2083	2396	2338	2319	2543
8	Netherlands	USD('000)	61,770	79,381	71,973	74,553	91,126
		Ton	22,290	33,476	31,158	37,580	40,820
		USD/Ton	2771	2371	2310	1984	2232
9	Chile	USD('000)	13,719	16,051	15,789	11,815	52,770
		Ton	12,685	12,978	13,583	10,672	36,868
		USD/Ton	1082	1237	1162	1107	1431

Source: UN Com Trade Data

3.3. ESTIMATE OF DOMESTIC DEMAND

3.3.1. Local Production

Nail Manufacturing units are present in Oman. Major manufacturers mainly cater to the export market targeting USA and UAE. These nails confirms to the US and British standards and are exported at a premium. The other local requirements are met through imports. The major players in Oman market is as detailed below.

- Muscat Industrial Company LLC (Brand – "Oman Nails")
- Oman Fasteners
- Muscat Nails

3.3.2. Foreign Trade

Wire nail is categorized under the following HS Code:

HS 73170010 – Nails, carpentry nails, of iron or steel, whether or not with heads of other material, but excluding such articles with heads of copper.

3.3.2.1.Imports Quantity and Value – 2017 to 2021

The table below details the imports of wire nail into Oman under the above mentioned HS Code.

Imported by HS code	Units	2017	2018	2019	2020	2021
73170010	Value in RO	1,615,714	1,583,370	881,812	746,787	624,875
	Quantity in Tons	5,058	4,165	2,836	2,123	1,374
	Value in RO/Ton	319	380	311	352	455

Source: ROP Statistics 2021

3.3.2.2.Import Sources - 2021

The following table illustrates the source of imports for the year 2021.

Import Source	Value (RO)	Quantity (Kg)	RO/Ton	% of Total
China	282,939	758,962	373	55%
UAE	331,339	604,350	548	44%
India	7,597	5,424	1,401	less than 1%
Qatar	1,301	4,034	323	
Saudi Arabia	150	340	441	
Canada	19	308	62	
United States	1,106	50	22,120	
Hong Kong	39	30	1,300	
Egypt	327	6	54,500	
France	46	5	9,200	
Japan	7	3	2,333	
Germany	3	1	3,000	
Malaysia	2	-		
Total	**624,875**	**1,373,513**	455	

Source: ROP Statistics 2021

As it can be seen from the above tables the total imports of wire nails into Oman for the year 2021 was 1,374 tons. Major imports are from China and UAE which comprises of about 99% of the total imports into Oman

3.3.2.3.Exports – 2017 to 2021

The table below details the imports of Wire Nails into Oman under the following HS Codes with quantities, values and country of origin.

Exported by HS code	Units	2017	2018	2019	2020	2021
73170010	Value in RO	519,083	595,194	378,963	244,240	1,975,498
	Quantity in Tons	1,350	1,427	952	647	2,890
	Value in RO/Ton	385	417	398	377	684

Source: ROP Statistics 2021

3.3.2.4.Export Destinations – 2021

The following table illustrates the export destinations for the year 2021.

Export Destination	Value (RO)	Quantity (Kg)	RO/Ton	% of Total
USA	1,603,448	2,017,011	794.96	70%
UAE	257,312	583,961	440.63	20%
Kuwait	36,560	98,070	372.79	3%
Qatar	30,997	95,787	323.60	3%
Bahrain	33,431	76,100	439.30	3%
Saudi Arabia	5,031	8,159	616.62	Less than 1%
Denmark	3,185	6,300	505.56	
Japan	5,534	4,671	1,184.76	
Total	**1,975,498**	**2,890,059**	**683.55**	

Source: ROP Statistics 2021

As it can be seen Oman has exported about 2,890 tons of wire nails in the year 2021. Majority of exports are to the US comprising about 70% of the total exports from the country and UAE comprising about 30% of the total exports from the country. The other countries of exports are Kuwait, Qatar and Bahrain in total comprising of about 9% of the total export. Based on the above figures we can understand that 30% of the total exports are to the GCC countries.

3.3.2.5.Re-exports from Oman – 2017 to 2021

Re Exported by HS code	Units	2017	2018	2019	2020	2021
73170010	Value in RO	90,430	210,136	188,239	235,409	204,782
	Quantity in Tons	262	663	703	829	588
	Value in RO/Ton	345	317	268	284	348

Source: ROP Statistics 2021

3.3.3. Estimated Demand / Consumption

The following rationale has been used to estimate the demand for wire nails in Oman:

- The net exports has been arrived at based on the Imports / Exports and Re-exports data provided by ROP customs.
- The local production data is not available. However, discussions with the local manufacturers indicate that about 60% of the production gets exported. The domestic production has been extrapolated based on this ratio.
- The domestic demand for wire nails has been estimated based on the above data i.e., Domestic Production + Imports – Exports – Re-exports.

The following table illustrates the overall demand for binding wires estimated based on the above rationale.

	Figures in Tons				
Year	**2017**	**2018**	**2019**	**2020**	**2021**
Estimated Local Production	2,250	2,379	1,586	1,078	4,817
Imports	5,058	4,165	2,836	2,123	1,374
Exports	1,350	1,427	952	647	2,890
Re-exports	262	663	703	829	588
Estimated Consumption (Local Production* + Imports - Exports - Re-exports	**5,697**	**4,453**	**2,767**	**1,725**	**2,712**

The total domestic demand for the wire nails in 2021 is estimated to be around 2,712 tons.

3.4. DEMAND PROJECTION

With improved oil prices, the market is expected to grow in the coming years. Following table illustrates the projected demand for wire nails considering a conservative growth rate of 3%.

Year	2021	2022	2023	2024	2025	2026	2027
Demand (Tons)	2,712						
Projected Growth rate	%	3%	3%	3%	3%	3%	3%
Projected Demand (Tons)		**2,793**	**2,877**	**2,963**	**3,052**	**3,144**	**3,238**

3.5. EXPORT POTENTIAL TO GCC COUNTRIES

The import of wire nails by the various GCC countries has been considered as the export potential for a manufacturing unit in Oman. The table below details the imports of wire nails by GCC countries for the last 5 years.

Imported by	Units	2017	2018	2019	2020	2021
UAE	Value in USD '000	23,565	28,530	23,321	17,158	28,626
	Quantity in Tons	28,843	26,848	24,663	18,153	20,918
	USD/Ton	**817**	**1,063**	**946**	**945**	**1,368**
Saudi Arabia	Value in USD '000	10,776	11,584	13,783	14,980	14,692
	Quantity in Tons	9,340	8,566	12,358	13,819	6,452
	USD/Ton	**1,154**	**1,352**	**1,115**	**1,084**	**2,277**
Kuwait	Value in USD '000	5,340	6,296	6,734	3,605	6,527
	Quantity in Tons	4,400	5,590	5,295	2,384	4,859
	USD/Ton	**1,214**	**1,126**	**1,272**	**1,512**	**1,343**
Qatar	Value in USD '000	6,316	7,653	4,038	4,611	6,682
	Quantity in Tons	7,083	7,621	4,380	5,165	3,081
	USD/Ton	**892**	**1,004**	**922**	**893**	**2,169**
Bahrain	Value in USD '000	2,366	2,613	1,709	2,303	2,266
	Quantity in Tons	2,680	2,433	1,692	2,367	1,055
	USD/Ton	**883**	**1,074**	**1,010**	**973**	**2,148**
Total Imports (Excluding Oman)	**Value in USD '000**	**48,363**	**56,676**	**49,585**	**42,657**	**58,793**
	Quantity in Tons	**52,346**	**51,058**	**48,388**	**41,888**	**36,365**
	USD/Ton	**924**	**1,110**	**1,025**	**1,018**	**1,617**

Source: UNCOM Trade Data

The total import into GCC countries excluding Oman for the year 2021 was around 36,365 tons

3.6. EXPORT POTENTIAL TO THE US

The major exporters of wire nails into US are detailed in the table below. The data has been collated based on the UN Trade Map Data for HS Code 731700 - Nails, tacks, drawing pins, corrugated Nails, staples and similar articles of iron and steel.

US Major Exporters	Unit	2017	2018	2019	2020	2021	% of Total
China	USD('000)	274,817	356,816	237,664	232,529	368,321	**32%**
	Ton	229,865	256,551	183,689	213,370	262,356	
	USD/Ton	1196	1391	1294	1090	1404	
Oman	USD('000)	55,971	97,192	98,308	92,715	131,895	**10%**
	Ton	42,816	61,838	66,396	65,425	82,163	
	USD/Ton	1307	1572	1481	1417	1605	
Turkey	USD('000)	32,708	40,248	50,291	48,041	70,698	**7%**
	Ton	32,086	33,101	44,417	48,278	55,436	
	USD/Ton	1019	1216	1132	995	1275	
Thailand	USD('000)	23,687	41,928	47,869	57,778	81,016	**6%**
	Ton	19,795	31,445	36,319	44,284	52,273	
	USD/Ton	1197	1333	1318	1305	1550	
Mexico	USD('000)	24,295	33,161	33,649	38,538	57,155	**6%**
	Ton	26,076	30,492	27,711	36,152	47,303	
	USD/Ton	932	1088	1214	1066	1208	
Total	**USD('000)**	**819,557**	**1,052,908**	**917,509**	**884,940**	**1,296,734**	
	Ton	**664,706**	**727,160**	**637,875**	**687,808**	**827,042**	
	USD/Ton	**1233**	**1448**	**1438**	**1287**	**1568**	

Source: UNCOM Trade Data

As it can be seen Oman is number two in the top exporters of Wire Nails to the US. Also as reflected in section 2.3.2.4, the major exports of wire nails from Oman are to the US. Considering the same, there is a potential to export to the US.

3.7. COMPETITION ANALYSIS

As detailed in the earlier sections, there are wire nails units in Oman catering mainly to special category markets in the US and UK. The competition for the proposed project shall be from the Imports mainly from UAE and China.

3.7.1. Local Manufacturers

The major players in Oman market is as detailed below.

S. No	Name of the Company
1	Muscat Industrial Company LLC (Brand – "Oman Nails")
2	Muscat Nails Factory
3	Oman Fasteners

- **Muscat Industrial Company LLC (MIC)** has been established since the year 1986. The Company has emerged as the leading manufacturer and supplier of premium quality construction wire nails under the brand "Oman Nails". The manufacturing facility is located at the Rusayl Industrial Estate in Muscat, Sultanate of Oman.
- **Muscat Nails Factory** is a leading manufacturer of common nails as well as other nail products in Oman. Since its foundation in 2014, the factory is engaged in the production and export of various steel nails for different uses. Main export market presently centers on Asia and GCC countries.
- **Oman Fasteners LLC** manufactures quality engineered steel nails. Their product range includes every collation type and is complemented by complete array of finish types including Bright, Electro-Galvanized, Hot Dip Galvanized, Vinyl Coated, and stainless Steel.

3.8. MARKETING MIX STRATEGY OF COMPETITORS

3.8.1. Product

The wires nails are of different sizes from ¾" to 4" nails and respective steel wires are used for making nails. Oman nails are available in a variety of sizes, gauges and packing sizes.

The following are the products manufactured by the companies in Oman

Name of Company	Product Types	Product Sizes
Muscat Industrial Company LLC	Wire Nails	1", 1.5", 2", 2.5", 3", 4", 5", 6"
Muscat Nails	Wire Nails	1.5" to 4 "
Oman Fasteners	Plastic Strip Nails	1 1/2", 2", 2 1/2", 3", 3 1/2"
	Wire Collated Nails	1 1/4", 1 3/4", 2 1/4", 2 3/4", 3 1/4"
	Paper Tape Nails	2", 2 1/2", 3", 3 1/2"
	Joist Hanger/Hardware Nails	1 1/2" , 2 1/2"
	Plastic Sheet Nails	1 3/4 ", 2", 2 1/4", 2 1/2"

Packaging is as per customer requirements. The common packaging sizes are detailed in the table below.

Packaging Sizes	Weight of Carton	Inner Packing
Outer Carton with inner packets	4 Kgs 5 Kgs 40 Lbs	Each carton has 16 inner packets
Bulk Packing	5 Kgs 20 Kgs 25 Kgs	Bulk Nails without inner packet

3.8.2. Pricing

Based on the brief primary survey and on secondary research, the wire nails are sold in the range of RO 540 – 600

3.8.3. Promotion

Competitive pricing is the key to promoting the product.

3.8.4. Trade Credit

The industry practice is to offer a reasonable credit period depending on the credit worthiness of the client (adopted by the traders importing mainly from UAE and China). Often discounts of 5 – 10 percent are also given to the clients.

3.8.5. Distribution

The distribution process is through direct sales to contractors in the construction industry and to traders seeking the product.

3.9. PROPOSED MARKETING MIX STRATEGY FOR THE COMPANY

3.9.1. Product Mix

Unlike the local players, the project being categorized as an SME unit, shall focus on Wire Nails to requisite sizes based on customer requirements and specifications. The Unit will manufacture nails of length ½ "– 3".

The wire nails technical specifications are as detailed below:

- Wire Diameter S.W.G (mm) : 14 – 10 / (2.0 – 3.2)
- Nail Length Inch (mm) : ½" – 3" (12 mm – 75 mm)

3.9.2. Target Market

The local market is relatively small and the unit has to focus on exports to GCC as well as the US market. The free trade agreement with USA shall be a major advantage for the project to compete in the US market.

3.9.3. Pricing

Based on the assessment of the past trend and the current steel prices, the following pricing has been considered for the financial projections.

Product	Selling Price (RO/Ton)	
	Local Market	Export Market
Wire Nails	550	580

3.9.4. Promotion

The company shall concentrate on building healthy personal contacts with various segments mainly in construction industry.

The plant manager shall be responsible for sales as well. The manager shall build and retain long term relationships with customer segments

3.9.5. Trade Credit

The company could also offer its customers a credit period of 90 days as per the industry norms.

3.9.6. Distribution

The company would concentrate on direct marketing to the contractors and traders in Oman. It will appoint wholesale distributors in other GCC markets.

3.10. PROJECTED MARKET SHARE

The unit with a production capacity of 1200 MT per day can effectively leverage its capability to service the target market.

DETAILS	2024	2025	2026	2027	2028
	Capacity and Production				
Production Capacity (tons)	1,200	1,200	1,200	1,200	1,200
Projected Capacity utilization (%)	40%	50%	60%	70%	70%
Projected Production (Tons)	480	600	720	840	840
	Domestic Market – Sales and Market share				
Estimated Domestic sales (Tons)	144	180	216	252	252
Total Local demand (Tons)	2,963	3,052	3,144	3,238	3,335
Estimated Domestic market share (%)	5%	6%	7%	8%	8%
	GCC Market - Sales and Market share				
Sales in GCC markets	336	420	504	588	588
Total imports by GCC countries (excluding Oman) (mainly GCC) (Tons)	39,737	40,929	42,157	43,422	44,724
Projected share of imports (%)	0.8%	1.0%	1.2%	1.4%	1.3%

4. TECHNICAL ANALYSIS

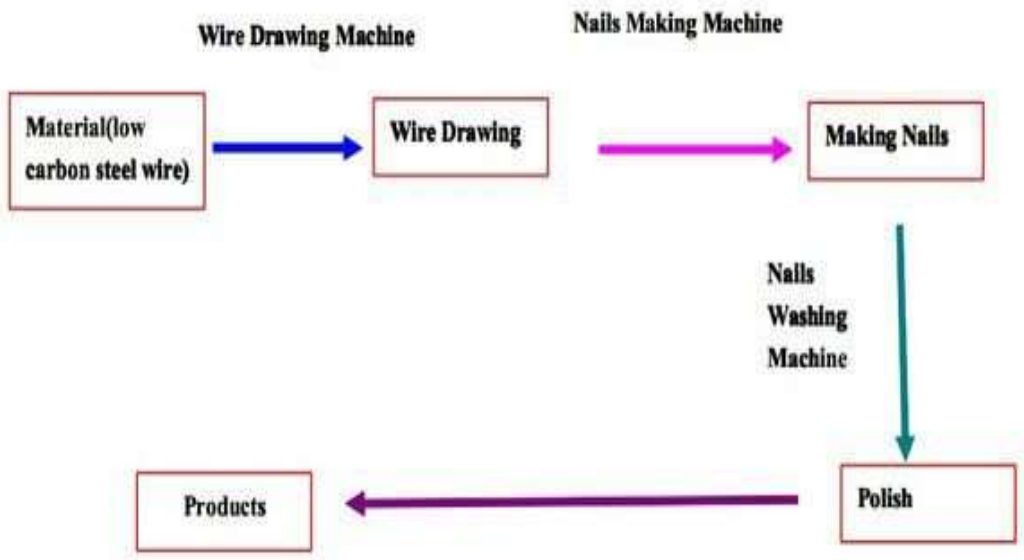
4.1. LOCATION

The proposed project can be located either at Sohar Industrial City or at the proposed Shinas Industrial City. The referred locations are taking proximity to raw material and the target market into consideration.

4.2. MANUFACTURING PROCESS

Typical Nail manufacturing process is provided in the figure below.

Process Flow Chart



The nail manufacturing process comprises of wire drawing, molding and polishing.

Wire Drawing: Cold drawn, bright wire is used to make nails, and this wire is available in various gauges (20 S.W.G. to 65 W.G.). This metal working process helps reduce cross section of a wire.

Nail Making Machine: The wires are found in round bundles, one end of the wire is fixed in tool stand and then the other is put in wire straightening rollers and the wire automatically reaches the machine.

To pull the wire further ahead, there is a grip after the rollers and this grip pulls only as much wire as is needed for the specific of the nail. The head of the nail is put into the mould's "rem", that can be pushed back & front through the crank shot. The front end of the wire is hit hard by the punch attached to the head-making mould. To make the other end and then cutting of the nail is done automatically. Here the moulds press the wire and nail gets bifurcated & cut from the wire. In this way, some part of the nail is still attached to the wire and an automatic trigger separates the nail from the wire.

Nail Polishing: When the nails come out of the machine, then the tiny bits of iron & grease/lubricant deposited on the nails are re-moulded by putting them into a polishing drum in which iron balls and dust are also put and after the polish, they are sent for packaging.

4.3. LAND & BUILDING

The company will rent an industrial shed with a building area of 1,300 Sq. m Details are in Annexure 1.1 and 1.2.

4.4. MACHINERY

The major machinery required for the project is the automated nail making machine. Major suppliers are available in India and China.

S.No.	Item
1	Straight Line Wire Drawing Machine
2	Automatic Wire Nail making Machine – (2 machines)
3	Nail polishing machine
4	Nail cutter grinder
5	Other Associated Machineries

The details of the main and auxiliary machineries required for the project is as detailed in Annexure 1.3.

4.4.1. Machinery Suppliers

The following table illustrates the list of machinery manufacturers of wire drawing machines

No.	Detail
1	HEBEI RONGKUAI Machinery Manufacturing Co Ltd Luzhauang Industrial Zone, Anping County, Hebei Province, China www.jiakemeshmachine.com
2	Super Nail Machine Aji Industrial Area, On 80 Feet Main Road, Near Ambedkar Nagar Gate, Rajkot – 360003 www.supernailmachine.com

4.5. PLANT CAPACITY

The annual production capacity is estimated at 1,200 tons per annum for 20 hours operation. The details of capacity and the capacity utilization for various years are given in the table below:

Details	Year 1	Year 2	Year 3	Year 4	Year 5
Installed capacity (Tons)	1,200	1,200	1,200	1,200	1,200
Capacity utilization	40%	50%	60%	70%	70%
Actual Production considered for financial Projection (Tons)	480	600	720	840	840

4.6. VEHICLES

The vehicles are required for movement of raw materials and internal material movement. Details of Vehicles are provided in Annexure 1.4.

4.7. RAW MATERIALS AND CONSUMABLES

Raw materials include Steel Rods of requisite diameter apart from other required consumables. Details are in Annexure 2.1.

4.8. UTILITIES

4.8.1. Water

Water is required for mainly human consumption. It is estimated that 1,500 M^3 of water is required per annum.

4.8.2. Electricity

Electricity is used for machine operations and for general purpose lighting. The annual consumption of electricity is 745,425 KWH at 100% capacity utilization.

4.9. MANPOWER

The total manpower required in the normal year is 15. In the initial years when the capacity utilization is low, the production manpower is reduced.

4.10. PROJECT IMPLEMENTATION

The total expected time duration for implementation shall be around 12 months.

5. FINANCIAL ANALYSIS

5.1. PROJECT COST

The total cost of the project is estimated at RO 154,000. Details are given in Annexure – 1. The break-up is given below:

Details	Amount (RO)
Plant & Machinery	60,000
Vehicles and Internal Transport	11,000
Furniture & Office Equipment	5,000
Pre- Operative Expenses	16,000
Contingency & Escalation	5,000
Sub Total	***97,000***
Working Capital	57,000
TOTAL CAPITAL	**154,000**

5.1.1. Land & Building

The total extent of industrial shed area will be around 1,300 SQM which will be taken on lease. Details are provided in Annexure 1.1 and 1.2.

5.1.2. Plant & Machinery

The total cost of plant and machinery is estimated at RO 60,000. Details are given in Annexure- 1.3.

5.1.3. Vehicles & Internal Transport

The total cost of vehicles and internal transport is estimated at RO 11,000. Details are given in Annexure- 1.4.

5.1.4. Furniture & Office Equipment

The total cost of furniture and office equipment is estimated at RO 5,000. Details are given in Annexure- 1.5.

5.1.5. Pre-Operative Expenses

The pre-operative expenses include expenses for feasibility study, interest during project implementation, salaries and wages of project staff, travel and communication, legal fees, audit fees and other miscellaneous expenses. The total pre-operative expenses are estimated at R.O 16,000. Details are given in Annexure- 1.6.

5.1.6. Contingency & Escalation

A provision of 5 % of the estimated cost of items including building, plant & machinery, vehicles etc., is provided in the Project cost towards price escalation and any unforeseen expenses. This works out to RO 5,000. Details are given in Annexure- 1.7

5.1.7. Working Capital

Following assumptions are made for computation of working capital.

Details	Period
Accounts Receivable	2 Months
Raw Materials	1 Month
Consumables & packing	1 Month
Utilities	1 Month
Factory Wages	1 Month
Administration Expenses	1 Month
Sales Expenses	1 Month
Work in Progress	3 Days
Finished Goods	5 Days
Finance Cost	1 Month
PAYABLES	
Raw Materials	1 Month

The working capital requirements for the first 4 years of operation are given below. The working capital requirement in the first year comes to RO 57,000. Details are given in Annexure 1.8.

Particulars	Year 1	Year 2	Year 3	Year 4
Working Capital Requirement (RO '000)	**57**	**66**	**82**	**91**

5.2. MEANS OF FINANCE

It is proposed to finance the Project as indicated in the following table.

Means of Finance	Amount (RO)
Equity Capital (33% of Project Cost)	61,600
Term Loan at 6% interest rate	58,400
Commercial Loan for Working Capital	34,000
TOTAL	**154,000**

It is proposed that the total project cost of RO 154,000 will be financed by owner's fund [equity] to the tune of RO 61,600, term loan from ODB with an interest of 3% for RO 58,400 and commercial borrowings for working capital at RO 34,000. The working capital loan is expected to carry interest @ 6% per annum.

5.3. COST OF SALES

The cost of sale has been projected for the first ten years of operation (Annexure-2) and those of first five years are summarized as below:

Figures are in RO '000)

Details	Year 1	Year 2	Year 3	Year 4	Year 5
Raw Materials	141	176	212	247	247
Utilities	9	12	14	16	16
Factory Wages	32	33	65	66	67
PRIME COST	183	221	290	329	330
Rent for Shed	39	39	39	39	39
Factory Overheads	1	2	2	2	2
Misc. Factory Exp.	4	5	7	7	7
FACTORY COST	**227**	**267**	**338**	**378**	**379**
Admin. Salaries	17	17	17	18	18
Admin. Expenses	7	7	7	7	7
TOTAL ADMIN EXPENSES	23	24	24	25	25
Sales Salaries	8	9	9	9	9
Sales Expenses	1	1	2	2	2
Advert.& Business Promotion	5	7	8	10	10
Total sales & distribution costs	15	17	19	20	21
OPERATING COST	**266**	**308**	**381**	**423**	**425**
Finance cost					
Int. on Institutional finance	2	2	1	1	1
Int. on working capital	2	2	2	2	2
Total finance cost	4	4	3	3	3
Non-cash expenses					
Depreciation	10	10	10	10	10
Prelim Expenses written off	16	0	0	0	0
Total Cost	**296**	**322**	**395**	**436**	**438**

5.3.1. Raw Materials

The cost of raw materials & consumables works out to RO 352,500 at full capacity and the details are in Annexure 2.1.

5.3.2. Utilities

The total cost of utilities for working in full capacity is RO 23,518. The basis of estimate is given in Annexure 2.2.

5.3.3. Salaries & Wages

The cost of salaries and wages in the normal year of operation is RO 89,712 which is from year 3. In the first 2 years reduced manpower is considered as the production capacity in the first 2 years is at 40% and 50% of the total capacity. Details are given in Annexure 2.3.

5.3.4. Factory Overheads

The annual expenses include repairs and maintenance, civil repairs, cost of spares, spare parts, insurance and vehicle expense and the same is estimated at RO 1,200 for the first year, RO 2,100 for the second and RO 2,100 for the third year. Details are given in Annexure- 2.4.

5.3.5. Administrative Expenses

The basis of estimates of administrative expenses inclusive of salaries & wages is given in Annexure 2.5 and it works out to RO 23,305. Administrative expense includes salaries and benefits, vehicle expenses, communication related expenses, stationery, etc.

5.3.6. Depreciation

Depreciation works out to RO 10,204. Depreciation calculation is given in annexure- 2.7. The following are the rates considered for the calculation of depreciation.

Assets	Life (years)	% of depreciation
Plant & Machinery	10	10
Vehicles and Internal Transport	4	25
Furniture & Office Equipment	5	20

5.3.7. Loan & Interest Calculation

Interest rate for term loan and loan for working capital is taken at 3% and 6% respectively. Details of interest calculations are given in Annexure- 2.8.

5.4. INCOME TAX

No income tax is provided as the new units are exempted from tax for the first five years and 15% tax is considered from 6th year onwards.

5.5. SALES REALIZATION

The annual sales realization at installed capacity is given as annexure 3.1. The annual sales realization is provided below:

Detail	Year 1	Year 2	Year 3	Year 4	Year 5
Sales – RO '000	274	343	411	480	480

5.6. COST RATIOS

The major cost indicators as a percentage of sales realization are given in Annexure- 3.

Details	Year 1	Year 2	Year 3	Year 4	Year 5
Raw Material / Total Sales	51%	51%	51%	51%	51%
Utilities / Total Sales	3%	3%	3%	3%	3%
Factory wages / Total Sales	12%	10%	16%	14%	14%
Prime Cost / Total Sales	67%	64%	71%	69%	69%
Factory exp. / Total Sales	2%	2%	2%	2%	2%
Factory Cost / Total Sales	83%	78%	82%	79%	79%
Admin. exp. / Total Sales	9%	7%	6%	5%	5%
Selling exp. / Total Sales	6%	5%	5%	4%	4%
Finance Cost / Total Sales	1%	1%	1%	1%	1%
Non-Cash exp. /Total Sales	10%	3%	2%	2%	2%
Total Cost / Sales	108%	94%	96%	91%	91%

Being an engineering unit with skilled operators employed, the factory wages other than Raw Material costs would be a major cost element.

5.7. NET PROFIT AND PROFITABILITY ANALYSIS

As per the financial projection in Annexure – 3, the venture is financially viable. The summary of the analysis is given under:

(Figures are in RO '000)

Details	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue	274	343	411	480	480
PBDIT	**8**	**35**	**30**	**57**	**55**
Depreciation	10	10	10	10	10
Finance Cost	4	4	3	3	3
Prelim. Exp. Written Off	16	-	-	-	-
Profit after tax	-22	21	17	43	41

5.8. KEY APPRAISAL CRITERIA

The viability of the project based on major appraisal criteria is given below.

Detail	Value
IRR on total investment	22.57%
IRR on Equity	35.73%
Payback period of Total Investment	5 years 1 month
Payback period on equity	3 Years 11 months
DSCR	3.83

5.9. SENSITIVITY ANALYSIS

A sensitivity analysis has been carried out to determine the susceptibility of the project to changes in main variables. Effect on the IRR on equity investment, based on 10 years of operation due to change in various variables is as follows:

Particulars	Original	Sales Volume down by 5%	RM Cost up by 5%	Sales Value down by 5%
IRR on Investment	22.6	18.1	17.5	12.6
IRR on equity	35.7	27.5	26.4	18.3

6. FACTORS TO CONSIDER BEFORE PROJECT IMPLEMENTATION

The following key factors have to be considered before implementing the project:

- The cost estimates of Plant and Machinery is based on budgetary offer received. The actual cost during implementation stage could change based on various factors like currency exchange rates, raw material price increase etc. It is advisable that the investor for the project should receive revised quotations from potential machinery suppliers before implementing the project.

- Capacity utilization is one of the major factors that shall determine the actual viability of the project.

- Quality is another major parameter to consider based on which customer build up shall happen over the period of years. Failure in delivering quality service to clients shall lead to the failure of the unit. It is recommended that required qualified technical resources are deployed for the successful operation of the project.

- The cost of raw material is a major factor that influences the profitability of the project. Prudent management of raw material stocks is key to ensuring profitable operations.

7. CONCLUSION

The IRR on Total Investment for the project is 22.57% and the IRR on Equity Investment is 35.73%.

The project has a healthy DSCR of 3.83.

Based on the various analysis carried out and as detailed above, the project is found to be technically feasible and financially viable.

APPENDIX: Size and Uses of Nails

SIZE	LENGTH (IN.)[1]	DIAMETER (IN.)	REMARKS	WHERE USED
2d	1	.072	Small head	Finish work, shop work
2d	1	.072	Large flathead	Small timber, wood shingles, lathes
3d	1 1/4	.08	Small head	Finish work, shop work
3d	1 1/4	.08	Large flathead	Small timber, wood shingles, lathes
4d	1 1/2	.098	Small head	Finish work, shop work
4d	1 1/2	.098	Large flathead	Small timber, lathes, shop work
5d	1 3/4	.098	Small head	Finish work, shop work
5d	1 3/4	.098	Large flathead	Small timber, lathes, shop work
6d	2	.113	Small head	Finish work, casing, stops, etc., shop work
6d	2	.113	Large flathead	Small timber, siding, sheathing, etc., shop work
7d	2 1/4	.113	Small head	Casing, base, ceiling, stops, etc.
7d	2 1/4	.113	Large flathead	Sheathing, siding, subflooring, light framing
8d	2 1/2	.131	Small head	Casing, base, ceiling, wainscot, etc., shop work
8d	2 1/2	.131	Large flathead	Sheathing, siding, subflooring, light framing, shop work
8d	1 1/4	.131	Extra-large flathead	Roll roofing, composition shingles
9d	2 3/4	.131	Small head	Casing, base, ceiling, etc.
9d	2 3/4	.131	Large flathead	Sheathing, siding, subflooring, framing, shop work
10d	3	.148	Small head	Casing, base, ceiling, etc., shop work
10d	3	.148	Large flathead	Sheathing, siding, subflooring, framing, shop work
12d	3 1/4	.148	Large flathead	Sheathing, subflooring, framing
16d	3 1/2	.162	Large flathead	Framing, bridges, etc.
20d	4	.192	Large flathead	Framing, bridges, etc.
30d	4 1/2	.207	Large flathead	Heavy framing, bridges, etc.
40d	5	.225	Large flathead	Heavy framing, bridges, etc.
50d	5 1/2	.244	Large flathead	Extra-heavy framing, bridges, etc.
60d	6	.262	Large flathead	Extra-heavy framing, bridges, etc.

[1]This chart applies to wire nails, although it may be used to determine the length of cut nails.

ANNEXURE – FINANCIAL WORKINGS

ANNEXURE- 1					
WIRE NAIL MANUFACTURING UNIT					
ESTIMATED PROJECT COST					
S.No.	**Item**	**Refer**	**Amount**		**Remarks**
		App.	**(R.O.)**		
A1	**PROJECT COST**				
1	Land & Building etc.	1.1 & 1.2	0		Lease Rental - Included Separately
2	Plant & Machinery	1.3	60,000		Estimates
3	Vehicles and Int. Transport	1.4	11,000		Estimates
4	Furniture & Office Equip.	1.5	5,000		Estimates
5	Pre- Operative Expenses	1.6	16,000		Estimates
6	Contingency & Escalation	1.7	5,000		Estimates
	Sub Total		97,000	**97,000**	
A2	**WORKING CAPITAL**			**57,000**	
A3	**TOTAL**			154,000	
	Say			**154,000**	
B	**MODE OF FINANCE**				
1	Equity			61,600	40% of the Total Project Cost
2	Term loan (ODB)			58,400	
3	Total			**120,000**	
4	Working Capital Loan			34,000	
	TOTAL			**154,000**	

ANNEXURE- 1.1						
WIRE NAIL MANUFACTURING UNIT						
ESTIMATED COST OF LAND & SITE DEVELOPMENT						
S.No.	**Item**	**Unit**	**Q'ty**	**Rate**	**Amount**	**Remarks**
				(R.O.)	**(R.O.)**	
A	**LAND**					
1	Land for Plant	Sq. M		0	-	Lease
					-	

ANNEXURE- 1.2			
WIRE NAIL MANUFACTURING UNIT			
ESTIMATED BUILDING REQUIREMENT			
S.No.	**Item**	**Area**	**Remarks**
		(SqM)	
A	**MAIN PLANT BUILDINGS**		
1	Plant Area	500	
2	Store for Raw Materials	300	
3	Store for Finished Goods	200	
			On Lease Rental
B	**ADMIN BUILDING**		
1	Office Building	300	
	Grand Total	**1,300**	

ANNEXURE- 1.3						
WIRE NAIL MANUFACTURING UNIT						
ESTIMATED COST OF PLANT & MACHINERY						
S.No.	**Item**	**Power**	**Q'ty**	**Rate**	**Amount**	**Remarks**
		KW		**(R.O.)**	**(R.O.)**	
A	**MAIN PLANT AND MACHINERY**				0.385	
1	**Straight Line Wire Drawing Machine (LZ-560-2, 6 -2.2 mm, 8 drawing pots)**	22 KW * 8				
	Auxillary Equipments					
1.1	Upper pull out wire rack					
1.2	Wire Pointing Machine			69,800	**26,873**	
1.3	Mechanical Sheller					
1.4	Butt Welding Machine					
1.5	Electric Control cabinet					
1.6	Operation cabinet					
1.7	**Drawing Dies - Poly crystalline diamond cutting tools**					
	5.4 mm		1	85	33	
	4.7 mm		1	75	29	
	4.1 mm		1	65	25	
	3.6 mm		1	57	22	
	3.2 mm		1	51	20	
	2.8 mm		1	45	17	
	2.45 mm		1	39	15	
	2.2 mm		1	35	13	
1.8	Trunk Type Wire Coiling Machine		1	7,800	3,003	
	Sub total				**30,050**	
2	**Electric Furnace**		1	17,800	6,853	
2.1	Inner Pot		2	5,000	3,850	
	Sub Total				**10,703**	
3	SN 2 + 3 Wire Nail making Machine		2	7660	**5,898**	
4	Polishing Drum 250 Kg		1	1500	**578**	
5	Nail cutter grinder		1	700	**270**	
6			2	100	**77**	
B	**AT SITE COST**					
1	Total Plant				47,575	
2	Spares				1,000	Lumpsum
3	Packing, Insurance Forwarding				1,427	
4	C I F Cost				50,002	
5	Clearing & Transport to Site				1,000	
6	**At Site Cost**				**51,003**	
C	**ERECTED COST**					
1	At Site Cost				51,003	
2	Electrification				4,758	
3	Cost of erection - Local				3,330	
4	Technical Supervision				952	
	TOTAL ERECTED COST				**60,042**	
	Say				**60,000**	

ANNEXURE- 1.4					
WIRE NAIL MANUFACTURING UNIT					
ESTIMATED COST OF VEHICLES & INTERNAL TRANSPORT					
S.No.	**Item**	**Q'ty**	**Rate**	**Amount**	**Remarks**
		(Nos.)		**(R.O.)**	
A	**VEHICLES**				
1	Pick up	1	10,000	10,000	Estimate
	Sub Total	**1**		**10,000**	
B	Registration, Painting, Spares etc			1,000	10% of the above
	Sub Total	**-**		**1,000**	
C	**TOTAL**	1		11,000	
	Say			**11,000**	

ANNEXURE- 1.5					
WIRE NAIL MANUFACTURING UNIT					
ESTIMATED COST OF FURNITURE & OFFICE EQUIPMENT					
S.No.	**Item**	**Q'ty**		**Amount**	**Remarks**
				(R.O.)	
A	**OFFICE**				
1	P.C with Printer	4	300	1,200	Lumpsum
2	Photocopier	1		250	Lumpsum
3	Fax, Telephone	Set		250	Lumpsum
4	Other Office Equipment	Set		500	Lumpsum
5	Air Conditioners	2	250	500	Lumpsum
6	Office Furnitures			1,000	Lumpsum
	Sub Total			**3,700**	
B	**FACTORY FURNITURE**				
1	Work bench/Rack/Firniture etc			**500**	
	Sub Total			**500**	
B	**ACCOMODATION FURNITURE**				
1	Furniture / Fittings	Set		900	Lumpsum
	Sub Total			**900**	
C	**FACTORY**				
1	Furniture / Fittings	Set		-	Lumpsum
	Sub Total			**-**	
				5,100	
	Say			**5,000**	

ANNEXURE- 1.6				
WIRE NAIL MANUFACTURING UNIT				
ESTIMATED COST OF PRE-OPERATIVE EXPENSES				
S.No	**Item**		**Amount**	**Remarks**
		(R.O.)	**(R.O.)**	
1	Preliminary Expenses		500	Upto formation of Co.
2	Feasibility Studies		1,000	
3	Salary during construction period			
a	Salary & benefits -Plant manager	1,400		1 Month
b	Salary & benefits - Production Staff	3,976		1 Month
c	Salary & benefits - Admin. Staff	1,400		1 Month
d	Salary & benefits - Sales Staff	700		1 Month
e	Visa, Passage etc.	2,400		For Expatriates at R.O. 400 per Person
	Sub Total		9,876	
4	Financing Cost			
a	Institutional Loan Interest	876		At 3% for 6 months
b	Mortgage Expenses	292		At 0.5 % on Institu: Loan
c	Other Bank Charges	200		Lumpsum
	Sub Total		1,368	
5	Communication		600	lumpsum
6	Travel		500	Lumpsum
7	Recruitment & Training Charges		500	Lumpsum
8	Audit Fees, Legal Fees		500	Lumpsum
9	Insurance		240	At 0.4 % of Plant & Bldg.
10	Miscellaneous		500	Provision
11	Total		15,584	
	Say..		**16,000**	

ANNEXURE- 1.7					
WIRE NAIL MANUFACTURING UNIT					
ESTIMATES OF CONTINGENCY AND ESCALATION					
S.No.	**Item**	**Cost**	**Rate**	**Provision**	**Remarks**
		(R.O.)	**(%)**	**(R.O.)**	
A	**FIXED ASSETS**				
1	Land for Plant Site	-	0.0	-	
2	Building etc.	-	5.0	-	
3	Plant & Machinery	60,000	5.0	3,000	
4	Technical Know-How	-	5.0	-	
5	Vehicles and Int. Transport	11,000	5.0	550	
6	Furniture & Office Equip.	5,000	5.0	250	
7	Pre- Operative Expenses	16,000	5.0	800	
	TOTAL			4,600	
				5,000	say

ANNEXURE- 1.8								
WIRE NAIL MANUFACTURING UNIT								
ESTIMATES OF WORKING CAPITAL REQUIREMENTS								
S.No.	**Item**	**Req.**		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Remarks**
				In RO '000				
1	Acct. Receivable	2	Months	45	52	64	71	Cost of sales - Non C Ex.
2	Raw Materials	1	Month	11.8	14.7	17.6	20.6	
3	Utilities	1	Month	0.8	1.0	1.2	1.4	
4	Factory Wages	1	Month	3	3	5	5	
5	Admn. Expenses	1	Month	2	2	2	2	
6	Sales Expenses	1	Month	1.3	1.4	1.6	1.7	
7	Work in Progress	3	Days	1.9	2.2	2.8	3.1	At Factory Cost
8	Finished Goods	5	Days	3.5	4.0	5.0	5.6	At total Cost-Non cash-Selling and Distrbn
9	Finance Cost	1	Month	0.3	0.3	0.3	0.3	At Finance Cost
10	**Total**			**69**	**80**	**100**	**111**	
11	Payables		Months					
	Raw Materials	1	Months	12	15	18	21	
	subtotal			12	15	18	21	
	Say			**57**	**66**	**82**	**91**	

ANNEXURE- 2												
WIRE NAIL MANUFACTURING UNIT												
COST OF SALE												
	Year of Operation	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	
	Production	40%	50%	60%	70%	70%	70%	70%	70%	70%	70%	
No	**Item**	**In R.O.'000**										**Remarks**
1	Raw Material & Consumables	141	176	212	247	247	247	247	247	247	247	Ref. Annexure 2.1
2	Utilities	9	12	14	16	16	16	16	16	16	16	Ref. Annexure 2.2
3	Factory Wages	32	33	65	66	67	68	70	71	73	74	Ref Annexure 2.3
4	**PRIME COST**	183	221	290	329	330	332	333	334	336	337	Sub total of 1 to 4
5	Rent for Industrial Shed	39	39	39	39	39	39	39	39	39	39	RO 2.5 per sqm per month
6	Factory Overheads	1	2	2	2	2	2	2	2	2	2	Ref Annexure 2.4
7	Misc. Factory Exp.	4	5	7	7	7	7	7	8	8	8	At 2 % of (5)&(6)
8	**FACTORY COST**	**227**	**267**	**338**	**378**	**379**	**380**	**382**	**383**	**385**	**386**	Sub total of 5 to 7
9	Admin. Salaries	17	17	17	18	18	19	19	19	20	20	Ref Annexure2.3&2.5
10	Admin. Expenses	7	7	7	7	7	7	8	8	8	8	Ref Annexure 2.5
11	Total Admin expenses	23	24	24	25	25	26	26	27	28	28	Sum (9) to (10)
12	Sales Salaries	8	9	9	9	9	10	10	10	11	11	Ref Annexure2.3&2.6
13	Sales Expenses	1	1	2	2	2	2	2	2	2	2	Ref Annexure 2.6
14	Advert.& Business Promotion	5	7	8	10	10	10	10	10	10	10	2% on sales
15	Total sales & dist: costs	15	17	19	20	21	21	21	22	22	23	Sum of (12 to 14)
16	**OPERATING COST**	**266**	**308**	**381**	**423**	**425**	**427**	**430**	**432**	**434**	**437**	Sum(8)+(11)+(15)
	Finance cost											
17	Int on Institutional finanace	2	2	1	1	1	1	0	0	0	0	Ref Annexure 2.8
18	Int on working capital	2	2	2	2	2	2	2	2	2	2	Ref Annexure 2.8
19	Total finance cost	4	4	3	3	3	3	2	2	2	2	Sum(17)+(18)
	Non cash expenses											
20	Depreciation	10	10	10	10	10	10	10	10	10	10	Ref Annexure 2.7
21	Prelim Expenses written off	16	0	0	0	0	0	0	0	0	0	Ref Annexure 2.7
22		**296**	**322**	**395**	**436**	**438**	**440**	**442**	**444**	**447**	**449**	Sum16+19+20+21

ANNEXURE- 2.1						
WIRE NAIL MANUFACTURING UNIT						
ESTIMATED COST OF RAW MATERIALS (@ 100% utilisation)						
S.No.	**Item**	**Unit**	**Qty**	**Rate**	**Amount**	**Remarks**
A	**RAW MATERIALS**				**(R.O.)**	
1	MS Rods 6/8mm diameter (includes 2% wastage)	Tons	1,224	269	329,440	USD 700 per ton
	SubTotal		**1,224**		**329,440**	
B	**CONSUMABLES**					
1	Sawdust				16,472	For Polishing and surface finish
2	Zinc					
3	HCL					
4	Ammonium Chloride					
	SubTotal				**16,472**	
	TOTAL				**345,912**	
C	**PACKING MATERIALS**					
	Packing materials				**6,589**	
	Grand Total				**352,500**	

ANNEXURE- 2.2						
WIRE NAIL MANUFACTURING UNIT						
ESTIMATED COST OF UTILITIES (At installed capacity)						
S.No.	**Item**	**Unit**	**Qty**	**Rate**	**Amount**	**Remarks**
					(R.O.)	
	UTILITIES					
1	Water	Cu M	1,500	0.770	1,155	
2	Electricity	KWH	745,425	0.030	22,363	
	TOTAL				**23,518**	

ANNEXURE- 2.3

WIRE NAIL MANUFACTURING UNIT

ESTIMATES OF ANNUAL SALARIES AND WAGES

S.No.	Item	No of personnel		Salary (RO/month)		Annual RO	Remarks
		Expat	Omani	Expat	Omani		
A	**PRODUCTION**						
1	Plant Manager	1	0	1,000		12,000	
	Wire Drawing Machine Techicians	1		250		3,000	
2	Nail making Technicians	2	0	250	500	6,000	
3	Nail polishing Technicians	0	0	250		-	
4	Nail packing workers	2	2	180	350	12,720	
5	Unskilled	1	1	180	350	6,360	
6	Maintainance (Ele+Mech)	2		250		6,000	
	Sub Total	9	3			46,080	
	Total Manpower Cost						
	Total Salary					46,080	
	Other Benefits (40% of Salary)					18,432	
	Total Production Salary					**64,512**	
B	**ADMINISTRATION & ACCOUNTS**						
1	PRO		1		500	6,000	
2	Accountant/Stores in charge		1		500	6,000	
	Sub Total	0	2			**12,000**	
	Total Manpower Cost						
	Total Salary					12,000	
	Other Benefits (40% of Salary)					4,800	
	Total Cost	**0**	**2**			**16,800**	
C	**SALES**						
a	**Sales**						
1		0	1	0	500	6,000	
b	**Total Manpower Cost**						
1	Total Salary					6,000	
2	Other Benefits (40% of Salary)					2,400	
3	**Total Cost**					**8,400**	
D	**GRAND TOTAL**	**9**	**6**			**89,712**	
	Omanisation		**40%**				

ANNEXURE- 2.4					
WIRE NAIL MANUFACTURING UNIT					
ESTIMATES OF ANNUAL FACTORY EXPENSES					
S.No.	**Item**	**Year**	**Year**	**Year**	**Remarks**
		1	**2**	**3**	
1	Repairs & Maintenance	300	300	300	At 0.5 % of erected cost of Plant and Machinery
2	Civil Repairs	-	-	-	At 1 % , 2%,3%of cost of Building and Civil Works
3	Spare Parts	300	1,200	1,200	At 0.5%, 2.0% and 2.0% of 'at-site' cost of P&M
4	Insurance	600	600	600	At 1 % of cost Building, P & M
	TOTAL	**1,200**	**2,100**	**2,100**	

ANNEXURE- 2.5				
WIRE NAIL MANUFACTURING UNIT				
ESTIMATES OF ANNUAL ADMINISTRATIVE EXPENSES				
S.No.	**Item**		**Amount**	**Remarks**
		(R.O.)	**(R.O.)**	
	ADMINISTRATION			
1	Salaries & Benefits		16,800	
2	Vehicle Expenses & Petrol			
a	Pick up	1200		At R.O. 100/Month each
	Sub Total		1,200	
3	Telephone, Fax etc.		1,200	At R.O. 100/Month
4	Stationery		1,200	At R.O. 100/Month
5	Legal, Audit Fees		500	Lumpsum
6	Utilities outside Plant		1,200	At R.O. 1000/Month
7	Registratioin & Renewals		500	
8	Insurance		405	Lumpsum
9	Other Expenses		300	
	Total		**23,305**	

ANNEXURE- 2.6				
WIRE NAIL MANUFACTURING UNIT				
ESTIMATES OF ANNUAL SALES EXPENSES				
S.No.	**Item**		**Amount**	**Remarks**
		(R.O.)	**(R.O.)**	
1	Salaries		8,400	See Annexure 2.3
2	Travel		500	Lumpsum
3	Miscellaneous Expenses		890	10% of the above
	Total		**9,790**	

ANNEXURE- 2.7

WIRE NAIL MANUFACTURING UNIT

DEPRECIATION CALCULATIONS

	Item	Cost	Rate (%)	S.V. (R.O.)	Amount (R.O.)	Renewals
A	**FIXED ASSETS**					
1	Land for Plant Site	0	0	0	-	Nil
2	Building etc.	0	5	0	-	Nil
3	Plant & Machinery	59540	10	0	5,954	Year 11
4	Technical Know-How	0	10	0	-	Nil
5	Vehicles and Int. Transp.	11000	25	5500	2,750	Years 5, 9
6	Furniture & Office Equip.	5000	20	0	1,000	Years 6, 11
7	Contingency & Escalation	5000	10	0	500	Nil
8	Sub Total	80540		5500	**10,204**	
B	**PRELIM &PRE OPE: EXP**	16000	100	0	**16,000**	Nil
C	**WORKING CAPITAL**					
1	Working Capital	90544	0	90544	-	
D	**TOTAL**			**96,044**	**26,204**	
	Less Balance Loan			**34,000**		
E	**SALVAGE VALUE**			**62,044**		
	Note: S.V. = Salvage Value at the end of 10th year.					

ANNEXURE- 2.8								
WIRE NAIL MANUFACTURING UNIT								
LOAN & INTEREST CALCULATIONS								
		Term Loan			WC Loan		Annual	
No	**Year**	**Prn**	**Int**	**Rep**	**Prn**	**Int**	**Int**	**Rep**
	7		3%			6%		
1		58	0.9	0	34	1.0		
2	1	58	0.9	0	34	1.0	**3.8**	**0**
3		58	0.9	4	34	1.0		
4	2	54	0.8	4	34	1.0	**3.7**	**8**
5		50	0.8	4	34	1.0		
6	3	46	0.7	4	34	1.0	**3.5**	**8**
7		42	0.6	4	34	1.0		
8	4	38	0.6	4	34	1.0	**3.2**	**8**
9		33	0.5	4	34	1.0		
10	5	29	0.4	4	34	1.0	**3.0**	**8**
11		25	0.4	4	34	1.0		
12	6	21	0.3	4	34	1.0	**2.7**	**8**
13		17	0.3	4	34	1.0		
14	7	13	0.2	4	34	1.0	**2.5**	**8**
15		8	0.1	4	34	1.0		
16	8	4	0.1	4	34	1.0	**2.2**	**8**
17		0	0.0	0	34	1.0		
18	9	0	0.0	0	34	1.0	**2.0**	**0**
19		0	0.0	0	34	1.0		
20	10	0	0.0	0	34	1.0	**2.0**	**0**
20	10	0	0.0	0	34	1.0	**2.0**	**0**

ANNEXURE- 3												
WIRE NAIL MANUFACTURING UNIT												
ESTIMATED WORKING RESULTS												
	Year of Operation	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	
	Production	40%	50%	60%	70%	70%	70%	70%	70%	70%	70%	
No	**Item**	**In R.O.'000**										**Remarks**
1	**Operating Cost**	266	308	381	423	425	427	430	432	434	437	Ref Annexure 2
2	Expected Sales											
a	Local	79	99	119	139	139	139	139	139	139	139	Ref Annexure 3.1
b	Export	195	244	292	341	341	341	341	341	341	341	Ref Annexure 3.1
2	Expected Sales	274	343	411	480	480	480	480	480	480	480	
3	**Profit before Int & dep**	**8**	**35**	**30**	**57**	**55**	**52**	**50**	**48**	**45**	**43**	Sum of (2-1)
4	Depreciation	10	10	10	10	10	10	10	10	10	10	Ref Annexure 2.7
5	Finance Cost	4	4	3	3	3	3	2	2	2	2	Ref Annexure 2.8
6	**Operating profit**	**-6**	**21**	**17**	**43**	**41**	**39**	**37**	**35**	**33**	**31**	Sum of (3 - 4 - 5)
7	Prelim Expenses written off	16	-	-	-	-	-	-	-	-	-	Ref Annexure 2.7
8	Profit/Loss before tax	-22	21	17	43	41	39	37	35	33	31	Sum of (6 - 7 - 8)
9	Income Tax	0	0	0	0	0	6	6	5	5	5	15% of Profit after 5 years
10	**Profit after tax**	**-22**	**21**	**17**	**43**	**41**	**34**	**32**	**30**	**28**	**26**	
11	Statutory reserve	0	2	2	4	4	3	3	3	3	3	
12	Profit for appropriation	-22	19	15	39	37	30	29	27	25	23	
13	**Net cash accruals**	**4**	**31**	**27**	**54**	**52**	**44**	**42**	**40**	**38**	**36**	

ANNEXURE- 3.1											
WIRE NAIL MANUFACTURING UNIT											
ESTIMATES OF SALES REALISATION											
S.No.	**DETAILS**		**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
A			**Sales Volume in Tons**									
1	Production Capacity		1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
2	Projected Capacity		40%	50%	60%	70%	70%	70%	70%	70%	70%	70%
3	Projected Production		480	600	720	840	840	840	840	840	840	840
4	**Estimated Domestic sales**	**30%**	**144**	**180**	**216**	**252**	**252**	**252**	**252**	**252**	**252**	**252**
5	**Estimated export sales**	**70%**	**336**	**420**	**504**	**588**	**588**	**588**	**588**	**588**	**588**	**588**
6	**Total Sales Volume**		**480**	**600**	**720**	**840**	**840**	**840**	**840**	**840**	**840**	**840**
B			**Sales Revenue in RO**									
1	Domestic Sales Revenue	550	79,200	99,000	118,800	138,600	138,600	138,600	138,600	138,600	138,600	138,600
2	Export Sales Revenue	580	194,880	243,600	292,320	341,040	341,040	341,040	341,040	341,040	341,040	341,040
3	**Total sales Revenue**		**274,080**	**342,600**	**411,120**	**479,640**	**479,640**	**479,640**	**479,640**	**479,640**	**479,640**	**479,640**

ANNEXURE- 4													
WIRE NAIL MANUFACTURING UNIT													
PROJECTED CASH FLOW STATEMENT													
	Year of Operation		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	
	Production		40%	50%	60%	70%	70%	70%	70%	70%	70%	70%	
	Nos	000											
No	**Item**	**In R.O.'000**											**Remarks**
A	**CASH INFLOW**												
1	Equity	62	0	0	0	0	0	0	0	0	0	0	Ref Annexure 1
2	Profit bef tax & int		-18	24	20	47	44	42	40	37	35	33	Ref Annexure 3
3	Depreciation	0	10	10	10	10	10	10	10	10	10	10	Ref Annexure 2.7
4	Prel exp written off		16	-	-	-	-	-	-	-	-	-	Ref Annexure 2.7
5	Increase in Other term loan	0	0	0	0	0	0	0	0	0	0	0	Ref Annexure 1
6	Increase in Bank Term Loan	58	0	0	0	0	0	0	0	0	0	0	Ref Annexure 1
7	Increase in W C loan	34	0	0	0	0	0	0	0	0	0	0	Ref Annexure 1
8	Other income	0											Ref Annexure 3
9	Sub Total	154	8	35	30	57	55	52	50	48	45	43	Sum of A1 to A8
B	**CASH OUTFLOW**												
1	Capital Project expenditure	81	0	0	0	0	11	5	0	0	11	0	Ref Annexure 1& 2.7
2	Other normal cap exp	16											Ref Annexure 1& 2.7
3	Increse in Working Cap:	57	0	9	17	0	0	0	0	0	0	0	Ref Annexure 1.7
4	Decrease in Institu:Loan	0	0	8	8	8	8	8	8	8	0	0	Ref Annexure 2.8
5	Decrease in Other term loan		0	0	0	0	0	0	0	0	0	0	
5	Interest on term loans		2	2	1	1	1	1	0	0	0	0	Ref Annexure 2.8
6	Interest on work cap loan		2	2	2	2	2	2	2	2	2	2	Ref Annexure 2.8
7	Income Tax	0	0	0	0	0	0	6	6	5	5	5	Ref Annexure 3.2
8	Dividend	0	0	0	0	0	0	0	0	0	0	0	Provision
9	Sub Total	154	4	21	28	12	22	22	16	16	18	7	Sum of B1 to B10
10	**OPENING BALANCE**	0	0	4	18	20	65	98	128	162	194	221	
C	**SURPLUS**	**0**	**4**	**14**	**2**	**45**	**32**	**30**	**34**	**32**	**27**	**36**	Difference(A9)-(B11)
D		**0**	**4**	**18**	**20**	**65**	**98**	**128**	**162**	**194**	**221**	**257**	

ANNEXURE- 5													
WIRE NAIL MANUFACTURING UNIT													
INTERNAL RATE OF RETURN ON TOTAL CAPITAL													
	Year of Operation		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	
	Production		40%	50%	60%	70%	70%	70%	70%	70%	70%	70%	
No	**Item**	**In R.O.'000**											**Remarks**
A	**CASH INFLOW**												
1	Net Profit bef. Tax		-22	21	17	43	41	39	37	35	33	31	Refer Annexure - 3
2	Depreciation	0	10	10	10	10	10	10	10	10	10	10	Ref Annexure 2.7
3	Prelim Exp written off		16	0	0	0	0	0	0	0	0	0	Ref Annexure 2.7
4	Finance Cost	0	4	4	3	3	3	3	2	2	2	2	Ref Annexure 2.8
5	Salvage Value	0	0	0	0	0	0	0	0	0	0	311	Ref Annexure 2.7
6	Sub Total	0	8	35	30	57	55	52	50	48	45	354	Sum of A1 to A5
B	**CASH OUTFLOW**												
1	Capital Project expenditure	81	0	0	0	0	11	5	0	0	11	0	Refer Annexure - 1
2	Other normal cap exp	16	0	0	0	0	0	0	0	0	0	0	Refer Annexure - 1
3	Working Capital	57	0	9	17	0	0	0	0	0	0	0	Refer Annexure - 1
4	Income Tax		0	0	0	0	0	6	6	5	5	5	Refer Annexure - 3.2
5	Sub Total	154	0	9	17	0	11	11	6	5	16	5	Sum of B1 to B4
C	**NET CASHFLOW (AT)**	**-154**	**8**	**26**	**14**	**57**	**44**	**41**	**44**	**42**	**29**	**349**	
D	**NETCASH FLOW(PT)**	**-154**	**8**	**26**	**14**	**57**	**44**	**47**	**50**	**48**	**34**	**354**	
E	**INTERNAL RATE OF RETURN ON TOTAL INVESTMENT**										**22.57**	%	

ANNEXURE- 6													
WIRE NAIL MANUFACTURING UNIT													
INTERNAL RATE OF RETURN ON EQUITY CAPITAL (AFTER TAX)													
	Year of Operation	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	
	Production		40%	50%	60%	70%	70%	70%	70%	70%	70%	70%	
No	**Item**	**In R.O.'000**											**Remarks**
A	**CASH INFLOW**												
1	Net Profit before Tax	0	-22	21	17	43	41	39	37	35	33	31	Refer Annexure- 3
2	Depreciation	0	10	10	10	10	10	10	10	10	10	10	Refer Annexure - 2.7
3	Prelim Exp written off	0	16	0	0	0	0	0	0	0	0	0	Refer Annexure - 2.7
4	Salvage Value	0	0	0	0	0	0	0	0	0	0	311	Refer Annexure - 2.7
5	Sub Total	0	4	31	27	54	52	50	48	45	43	352	Sum of A1 to A4
B	**CASH OUTFLOW**												
1	Equity	62	0	0	0	0	0	0	0	0	0	0	Refer Annexure - 1
2	Fixed Assets	0	0	0	0	0	11	5	0	0	11	0	Refer Annexure - 1
3	Working Capital	0	0	9	17	0	0	0	0	0	0	0	Refer Annexure - 1
4	Loan Instalment	0	0	8	8	8	8	8	8	8	0	0	Refer Annexure - 2.8
5	Income Tax	0	0	0	0	0	0	6	6	5	5	5	Refer Annexure - 3.1
6	Sub Total	62	0	17	25	8	19	19	14	14	16	5	Sum of A1 to A5
C	**NET CASHFLOW**	**-62**	**4**	**14**	**2**	**45**	**32**	**30**	**34**	**32**	**27**	**347**	
D	**INTERNAL RATE OF RETURN ON EQUITY INVESTMENT**								**35.73**	%			

ANNEXURE- 6

WIRE NAIL MANUFACTURING UNIT

PROJECTED BALANCE SHEET

	Year of Operation		1	2	3	4	5	6	7	8	9	10	
	Production		40%	50%	60%	70%	70%	70%	70%	70%	70%	70%	
No	**Item**	**In R.O.'000**											**Remarks**
A	**ASSETS EMPLOYED**												
1	Fixed Assets												
a	Gross Fixed Assets	81	81	81	81	81	92	97	97	97	108	108	Refer Annexure - 2.7
b	Preliminary expenses	16	0	0	0	0	0	0	0	0	0	0	Refer Annexure- 2.7
c	Acc. Depreciation	0	10	20	31	41	51	61	71	82	92	102	Refer Annexure - 2.7
d	Net Fixed Assets	97	71	61	50	40	41	36	26	15	16	6	
2	Current Assets												
a	Cash	0	4	18	20	65	98	128	162	194	221	257	Refer Annexure - 4
b	Other Cur. Assets	57	57	66	82	82	82	82	82	82	82	82	Refer Annexure - 1.7
c	Total Cur. Assets	57	61	84	102	148	180	210	244	276	303	339	
3	Less: Cur. Liabilities	0	0	0	0	0	0	0	0	0	0	0	
		154	**132**	**144**	**153**	**188**	**221**	**246**	**270**	**291**	**319**	**345**	
B	**FINANCED BY**												
1	Equity	62	62	62	62	62	62	62	62	62	62	62	Refer Annexure - 1
2	Statutory reserve		0	2	4	8	12	16	19	22	25	27	
3	General reserves	0	-22	-3	12	51	88	118	147	174	199	223	Cu.NP-Cu.Divident
4	Other term loan	0	0	0	0	0	0	0	0	0	0	0	Refer Annexure - 2.8
5	Institutional Finance	58	58	50	42	33	25	17	8	0	0	0	Refer Annexure - 2.8
6	Bank Borrowings	34	34	34	34	34	34	34	34	34	34	34	Refer Annexure - 2.8
		154	**132**	**144**	**153**	**188**	**221**	**246**	**270**	**291**	**319**	**345**	

ANNEXURE- 7											
WIRE NAIL MANUFACTURING UNIT											
RATIO ANALYSIS											
	Years of Operation	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
A	**COST RATIOS**										
1	Raw Material / Total Sales	51%	51%	51%	51%	51%	51%	51%	51%	51%	51%
3	Utilities / Total Sales	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
4	Factory wages / Total Sales	12%	10%	16%	14%	14%	14%	15%	15%	15%	15%
5	Prime Cost / Total Sales	67%	64%	71%	69%	69%	69%	69%	70%	70%	70%
6	Factory exp. / Total Sales	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
7	Factory Cost / Total Sales	83%	78%	82%	79%	79%	79%	80%	80%	80%	80%
8	Administrative exp. / Total Sales	9%	7%	6%	5%	5%	5%	6%	6%	6%	6%
9	Selling exp. / Total Sales	6%	5%	5%	4%	4%	4%	4%	5%	5%	5%
10	Finanace Cost / Total Sales	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%
11	Non-Cash exp. /Total Sales	10%	3%	2%	2%	2%	2%	2%	2%	2%	2%
12	Total Cost / Sales	108%	94%	96%	91%	91%	92%	92%	93%	93%	94%
B	**PROFITABILITY RATIOS**										
1	PBDIT / Sales	3.0%	10.1%	7.4%	11.9%	11.4%	10.9%	10.4%	9.9%	9.4%	8.9%
2	Operating profit / Sales	-2.1%	6.0%	4.0%	9.1%	8.7%	8.2%	7.8%	7.3%	6.9%	6.4%
3		-8.0%	6.0%	4.0%	9.1%	8.7%	7.0%	6.6%	6.2%	5.8%	5.4%
4	PAT / Investment	-18.2%	17.2%	13.8%	36.2%	34.6%	28.0%	26.5%	25.0%	23.4%	21.6%

ANNEXURE- 8				
WIRE NAIL MANUFACTURING UNIT				
BREAK EVEN ANALYSIS				
S.No.	**Item**	**Year 1**	**Year 6**	**Remarks**
	In R.O. '000			
A	**FIXED COST**			
1	Production Wages	32	68	Refer Annexure - 2
2	Factory Overhads	1	2	Refer Annexure - 2
3	Misc. Factory Exp.	4	7	Refer Annexure - 2
4	Admin. Expenses	23	24	Refer Annexure - 2
5	Sales Expenses	15	21	Refer Annexure - 2
6	Depreciation	10	10	Refer Annexure - 2
7	Prelim. Expenses written off	16	0	Refer Annexure - 2
8	Financing Cost	4	3	Refer Annexure - 2
9	Income Tax	0	6	Refer Annexure - 2
10	Sub Total	106	142	
B	**VARIABLE COST**			
1	Raw materials	141	247	Refer Annexure - 2
2	Utilities	9	16	Refer Annexure - 2
3	Misc. Expenses	0	0	
4	Sub Total	150	263	
C	**SALES**	274	480	Refer Annexure - 3
D	**CONTRIBUTION**	124	216	Difference C - B
E	**BREAK EVEN POINT**	86.1	65.7	As % of Production
		34.4	46.0	As % of Plant Capacity
F	**CASH BEP**	64.9	61.0	As % of Production
		26.0	42.7	As % of Plant Capacity

ANNEXURE- 9					
WIRE NAIL MANUFACTURING UNIT					
SENSITIVITY ANALYSIS (IRR FOR 10 YEARS)					
		Projection	Change in One		
S.No.	Item	No Change	Variable at a Time		
A	VARIABLE		Volume	R. M	Sales
			Nos	Cost	Value
	Value- Original				
B	PESSIMISTIC				
	Change		-5%	5%	-5%
C	OPTIMISTIC				
	Change		5%	-5%	5%
D	I R R - PESSIMISTIC PROJECTION				
1	I R R on Investment	22.6	18.1	17.5	12.6
2	I R R on Equity	35.7	27.5	26.4	18.3
E	I R R - OPTIMISTIC PROJECTION				
1	I R R on Investment	22.6	27.0	27.7	32.5

ANNEXURE- 10												
WIRE NAIL MANUFACTURING UNIT												
DEBT SERVICE COVERAGE RATIO												
	Years of Operation	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
	Production in (%)		40%	50%	60%	70%	70%	70%	70%	70%	70%	70%
	Nos	000										
No	**Item**	**In R.O.'000**										
1	Profit after tax		-22	21	17	43	41	34	32	30	28	26
2	Depreciation		10	10	10	10	10	10	10	10	10	10
3	Prelimnery exp. Written off		16	0	0	0	0	0	0	0	0	0
4	Interest		4	4	3	3	3	3	2	2	2	2
5	Total		8	35	30	57	55	46	44	42	40	38
1	Annual repayment		0	8	8	8	8	8	8	8	0	0
2	Interest		4	4	3	3	3	3	2	2	2	2
3	Total		4	12	12	12	11	11	11	11	2	2
	D.S.C.R		2.16	2.86	2.56	4.92	4.83	4.20	4.11	4.01	20	19
	WT. AVERAGE D.S.C.R	**3.83**										