# PROJECT PROFILE

# ON

# COPPER COATED M.S. WIRE

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## PART-I

NAME OF THE PRODUCT : **COPPER COATED M.S. WIRE.**

QUALITY & STANDARD : As per Standard Specification.

PRODUCTION CAPACITY : The production capacity of the unit at 75% capacity utilisation.

| Item | Quantity | Amount |
|---|---|---|
| Copper Coated MS Wire | 240 MT | Rs. 132.00 lakhs |

MONTH & YEAR OF PREPARATION : December, 2010.

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## PART-II

## A) INTRODUCTION

1. Copper Coated M.S. Wire is used for Sub – Area welding process (SA) and Metal Inert Gas (MIG) welding process. Due to rapid growth of Industrial activities in Large/Medium and Small Scale Sector, the demand of copper coated M.S. Wire is in increasing order as the product is consumable.

## B) MARKET POTENTIAL

Due to inherent characteristics of Sub Area welding process and Metal Inert gas welding process, these welding processes are widely used in developed technology. The product is widely demanded by railways, ship building, chemical fertilizer, cement, petrochemical industries. There is demand in production of water pipe line also. The advantages of SA AND MIG welding is lesser labour cost, lesser rejection and perfect welding, hence the market potential of this product is very good.

## C) BASIS & PRESUMPTIONS

1. The project is based on single shift of 8 hours per day and 300 working days in a year.
2. The land and building is on rent.
3. Three years required for achievi9ng full capacity utilization.
4. Labour wages have been considered as per present market trend.
5. The rate of interest has been considered as 15% for calculation purpose.
6. The plant and machinery are indigenously available.

## D) IMPLEMENTATION SCHEDULE:

| Sl. No. | Activity | Period |
|---|---|---|
| i. | Scheme preparation and approval | 1 month |
| ii. | Provisional Registration as SSI unit. | 2 weeks |
| iii. | Financial arrangement | 1 month |
| iv. | Placement of order for delivery of M/c | 1 month |
| v. | Installation of machinery | 1 month |
| vi. | Power connection | 1 month |
| vii. | Trial run | 15 days |
| viii. | Permanent registration | 1 week |
| ix. | Commencement of production | 1 month |

# E) TECHNICAL ASPECTS:

## (i) Process of Manufacture:

Mild Steel Wire rod of 6 or 8 mm dia available in coil bundle is cleaned by pickling. Pickling process involves dipping of M.S. Coil first tin acid bath followed by dipping in Alkali Solution and then in water tank. The cleaned wire rod is drawn on heavy duty drum type wire drawing M/c. After annealing the drum wire is again drawn up to desired gauge. The wire is then passed through copper coating tank for coating of copper layer as per standard requirement.

## (ii) Pollution Control:

There is no pollution created during the production of copper coated M.S. Wire. So no anti-pollution measures are required. However, the building shed should be constructed as per parameters laid down for industrial buildings.

## (iii) Quality Control and Standards

The strict quality control is required for production of copper coated M.S. Wire. The incoming material should be properly tested as per relevant standard. During the production stage, dimensional test must be carried out. Chemical solution of copper coating bath should be checked at regular intervals. The chemical composition of raw materials used for SA welding wire is given below:

| Type | Carbon % | Silicon% | Manganese % | Molybdenum % | Nickel % |
|---|---|---|---|---|---|
| AS-1 | 0.10 | 0.03 | 0.4 to 0.6 | - | - |
| AS-2 si | 0.08 to 0.15 | 0.15 to 0.4 | 0.8 to 1.2 | - | - |
| AS-2 m | 0.08 to 0.15 | 0.05 to 0.15 | 0.8 to 1.2 | 0.45 to 0.6 | - |
| AS-3 | 0.8 to 1.2 | 0.05 to 0.25 | 1.3 to 1.7 | 0.45 to 0.6 | 1.8 to 1. |

**For MIG Wire**

| Type | Carbon % | Silicon% | Manganese % | Chromium % | Molybdenum % | Aluminum % |
|---|---|---|---|---|---|---|
| A-15 | 0.13 | 0.3 to 0.9 | 0.9 to 1.6 | - | - | 0.04 |
| A-16 | 0.25 | 0.3 to 0.5 | 1.3 to 1.6 | - | - | - |
| A-18 | 0.12 | 0.7 to 1.2 | 0.9 to 1.6 | - | - | - |
| A-30 | 0.12 | 0.2 to 0.9 | 0.4 to 1.6 | - | 0.45 to 0.65 | - |
| A-32 | 0.12 | 0.2 to 0.9 | 0.4 to 1.6 | 1.1 to 1.5 | 0.45 to0.65 | - |

Sulphur and phosphorous should not exceed 0.04% in all cases.

# F) FINANCIAL ASPECTS:

## A) Fixed Capital:

## (i) Land & Building:

Total land : 700 Sq. Mtrs. **Amount in Rs.**
Covered Area: 500 Sq. Mtrs. @ 28000/- per month

## (ii) Machinery & Equipment:

| Sl. No | Description | Qty. No. | Amount (In Rs.) |
|---|---|---|---|
| 1. | Non-slip recompilation type heavy duty wire drawing machine having 24" drum dia. Capacity to draw 6 or 8 mm dia. Wire rod with 25 HP motor and electricals. | 1 | 2,00,000/- |
| 2. | Heavy duty wire drawing machine non-slip Type 22" dia. Drum with 20 HP motor and electricals. | 1 | 1,50,000/- |
| 3. | Wire drawing machine 12" drum dia cap. To draw up to 12 SWG to 18 SWG with 5 HP Motor and electricals. | 4 | 3,00,000/- |
| 4. | Roller tuype wire pointing machine having cap. 10 mm to 2 mm with 3 HP motor and electricals | 1 | 30,000/- |
| 5. | Hand operated roller type wire pointing machine 2 mm to 1 mm. | 1 | 10,000/- |
| 6. | Butt welding machine cap. To weld from 6 mm to 2 mm wire with electricals. | - | 50,000/- |
| 7. | Die-polishing machine with 1 HP motor 2800 RPM 220 V and self containing choke. | 1 | 15,000/- |
| 8. | (a)Heavy duty reeling machine 0.8 to 1.6 mm with 1 HP motor and electricals | 1 | 35,000/- |
| | (b) Heavy duty reeling machine 1.2 to 5.0 mm with 2 HP motor and electricals | 1 | 50,000/- |
| 9. | Electrically heated annealing furnace with Automatic temp. Controller and indicator Rating 20 KVA with chain pulley block. | 1 | 1,50,000/- |
| 10. | Water tanks size 1m X 1m X 2 m of fibre Glass. | 1 | 20,000/- |
| 11. | Pickling and copper coating bath 1 m X 1m X 2m complete with bus bars and electricals. | 3 | 5,00,000/- |
| 12. | Wire polishing machine 5 mm to 0.8 mm cap. With 5 HP motor and electricals | 1 | 50,000/- |
| 13. | Pay of stand chain pulley block, hand tools, weighing balance etc. | L.S. | 50,000/- |
| 14. | Laboratory equipment and chemicals muffle, furnace, hot place, glass apparatus. Test Bench with sink distilled water unit. | L.S. | 1,00,000/- |
| | **TOTAL:** | | **17,10,000/-** |
| 15. | Installation and electrification @ 10% of cost of plant and machinery | | 1,70,000/- |
| 16. | Office and laboratory furniture and computer etc. | | 70,000/- |
| 17. | Pre-operative expenses | | 50,000/- |
| | | **Total:** | **20,00,000/-** |

## B) Working Capital (Per Month):

### (i) Personnel:

| Sl. No. | Designation | No. | Salary | Total (Rs.) |
|---|---|---|---|---|
| 1. | Works Manager | 1 | 12000/- | 12,000/- |
| 2. | Supervisor | 1 | 10000/- | 10,000/- |
| 3. | Chemist | 1 | 6000/- | 6,000/- |
| 4. | Skilled Workers | 2 | 5000/- | 10,000/- |
| 5. | Semi-Skilled/Unskilled Workers | 4 | 4000/- | 16,000/- |
| 6. | Accountant/Store Keeper | 1 | 3000/- | 3,000/- |
| 7. | Clerk/Typist | 1 | 3000/- | 3,000/- |
| 8. | Salesman | 1 | 5000/- | 5,000/- |
| 9. | Peon/Guard | 2 | 3000/- | 6,000/- |
| 10. | | | **Total:** | **71,000/-** |
| | Perquisites @ 15% of salary | | | 11,000/- |
| | | | **Total** | **82,000/-** |

### (ii) Raw Materials including Packaging Requirements:

| Sl. No. | Particulars | Qty. | Rate (In Rs.) | Amount (In Rs.) |
|---|---|---|---|---|
| 1. | EQ Grade M.S. wire rod 6 mm to 8 mm rod | 20.5 MT | 30,000/MT | 6,15,000/- |
| 2. | Copper coating chemicals, Acids anodes etc. | L.S. | - | 20,000/- |
| 3. | Masonite board spool | 400 Nos. | 30 each | 12,000/- |
| | | | **Total:** | **6,47,000/-** |

### (iii) Utilities:

| | | |
|---|---|---|
| 1. | Power | 50,000/- |
| 2. | Water | 1,000/- |
| | **Total:** | **51,000/-** |

**(iv) Other Contingent Expenses (P.M.):**

| | | |
|---|---|---|
| 1 | Stationery and postage, telephone | 2,000/- |
| 2 | Publicity and advertisement | 4,000/- |
| 3 | Insurance | 2,000/- |
| 4 | Transportation | 3,000/- |
| 5 | Repair and maintenance | 14,000/- |
| 6 | Consumables and chemicals | 10,000/- |
| 7 | Misc. expenses | 10,000/- |
| | **Total:** | **45,000/-** |

**(v) Working Capital / Total Recurring Expenditure (P.M.):**

| | | |
|---|---|---|
| 1. | Personnel | 82,000/- |
| 2. | Raw Materials | 6,47,000/- |
| 3. | Utilities | 51,000/- |
| 4. | Other Contingent Expenses | 45,000/- |
| 5. | Rent | 28,000/- |
| | **Total:** | **8,53,000/-** |

**(vi) Total working capital for 3 months 8,53,000 X 3 = Rs.25,59,000/-**

**C) TOTAL CAPITAL INVESTMENT:**

| | | |
|---|---|---|
| I. | Fixed Capital | 20,00,000/- |
| II. | Working Capital for 3 months | 25,59,000/- |
| | **Total:** | **45,59,000/-** |

## G) FINANCIAL ANALYSIS:

**i) Cost of Production (Per annum)**

| Sl. No. | Particulars | Value(Rs.) |
|---|---|---|
| 1. | Total Recurring cost | 1,02,36,000/- |
| 2. | Depreciation on plant & machinery @ 10% | 1,71,000/- |
| 3. | Depreciation on office furniture @ 20% | 14,000/- |
| 4. | Interest on Total Capital Investment @ 15% | 6,84,000/- |
| | **Total: -** | **11,10,05,000/-** |

**ii) Sales/Turnover (Per Annum)**

| Sl. No. | Item | Quantity | Rate (Rs.) | Value (Rs.) |
|---|---|---|---|---|
| 1. | Copper coated M.S. SA/MIG welding rods | 240 /MT | 55000/MT | **1,32,00,000/-** |

**iii) NET PROFIT (Per annum) Before Taxation:**

| | | | | |
|---|---|---|---|---|
| Turn Over | (-) | Cost of Production | = | **20,95,000/-** |
| 1,32,00,000/- | (-) | 1,11,05,000/- | | |

**iv) PROFIT RATIO ON SALES (Per Annum):**

| | | | |
|---|---|---|---|
| Profit/annum X 100 | 20,95,000/- X 100 | = | **15.87%** |
| Turnover/Annum | 1,32,00,000/- | | |

**v) RATE OF RETURN (Per Annum):**

| | | | |
|---|---|---|---|
| Net Profit/annum X 100 | 20,95,000/- X 100 | = | **45.95%** |
| Total Capital Investment | 45,59,000/- | | |

**BREAK EVEN POINT**

**Fixed Cost:**

| | | | |
|---|---|---|---|
| 1. | Interest on Total Capital Investment | Rs. | 6,84,000/- |
| 2. | Depreciation on Plant & Machnery | Rs. | 1,85,000/- |
| 3. | 40% of Salary & Wages | Rs. | 3,94,000/- |
| 4. | 40% of other contingent expenses | Rs. | 4,60,000/- |
| 5. | Rent | Rs. | 3,36,000/- |
| | **Total:-** | **Rs.** | **20,59,000/-** |

**B.E.P.**

| | | | |
|---|---|---|---|
| Fixed Cost X 100 | 20,59,000/- X 100 | = | **49.56%** |
| Fixed Cost + Profit | 20,59,000/- + 20,95,000/- | | |

**Names & Address of Machinery & Equipment Suppliers:**

1. M/s Saran Engineering Works,
   A-147, Ghatkopar, Industrial Estate, Mumbai – 400086.

   *Wire Drawing Copper Coating Rewinding Machinery*

2. M/s Viksa Shahu Udyog,
   A-8/1, Jhilmil Tahirpur Industrial Area, G. T. Road, Shahadra,
   Delhi – 110032.

   *Wire Drawing Butt Welding Machine.*

3. M/s Regal Dies,
   25, Friends Colony, Indl. Area, Gali No.2, G. T. Road, Shahadra,
   Delhi – 110032.

   *Wire Drawing Dies.*

4. M/s Inducto Heat Inducto Therm India Ltd.,
   Ambli, Ahmedabad – 380 054.

   *Annealing Furnace.*

5. M/s Graver and Weel India Ltd.,
   Bharath Agencies, Ahad Missins, 1st Floor, 740, Mount Road,
   Chennai – 600 002.

   *Metal Coating Chemicals*
   .

6. M/s Meta Therm Furnace Pvt. Ltd.,
   MIDC Indl. Area, Balapur Road,
   Thane – 400 701.

   *Annealing Furnace.*

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**PSB*Dec.*2010***