

**KANNAPPAN IRON AND STEEL COMPANY PVT  
LIMITED  
UNIT II  
(Ingot & Billets Division)**

**S.F.Nos. 19/1pt, 19/6pt, 19/7pt, 19/8pt  
Paruvaai Village  
Palladam Taluk  
Tiruppur District**

**EXECUTIVE SUMMARY**

***The Proposed Unit***

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**Management Summary for the Proposed Unit of  
9000 tons/month Capacity M.S. Ingot & M.S. Billets**

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## 1.0 PROJECT DESCRIPTION

### 1.1 Introduction

M/s. Kannappan Iron and Steel Company Pvt Ltd. (Unit II) Ingot & billets Division will be located at Paruvaai Village, Pal ladam Taluk, Tiruppur District, which is proposed to produce 9000 T/M of M.S. Ingot and M.S. Billets.

### 1.2 Plant Location

M/s. Kannappan Iron and Steel Company Pvt Ltd. is located at S.F. Nos. 19/1pt, 19/6pt, 19/7pt, 19/8pt at Paruvaai Village, Palladam Taluk, Tiruppur District, which is located 15 km away from Tiruppur. The gross assets value of the expansion unit is about Rs.150 crores.

### 1.3 Products Manufactured

S.No	Materials	Quantity (T/M)
1.	M.S. Ingot & M.S. Billets	9000

### 1.4 Raw Materials

S. No.	Material	Quantity T/M
1.	M.S. Scrap	7600
2.	Sponge Iron	2300
3.	Ferro Alloys	100

### 1.5 Manufacturing Process

M.S. ingots are manufactured by melting of M.S. scraps in Electric Induction Furnaces and casted in cast iron moulds to get ingots. The molten metal in the Induction Furnaces is poured into the Cast Iron Moulds. The Ingots are cooled and separated from the Moulds.

The raw materials required for the manufacture of M.S. Ingots are M.S.Scrap obtained from the open market.

Required quantities of M.S. scraps from the stock yard are transported through Lorries into the furnace yard. By the electro magnet and crane fed into furnace. A minimum manual shoveling is required.

The Electric Furnace is open type, with a capacity of 25 tonnes. There are two furnaces (Crucible) out of which one is stand by. The furnace has solid state medium frequency induction generator.

The scrap charged into the furnace gets heated and melted at a temperature of about 1200°C to 1670°C.

When the required temperature is attained, the furnace crucible is tilted by means of hydraulic system and the molten material is poured into Iron moulds. This gets cooled to form the finished product – M.S. Ingots.

The molded material is rolling with roller machine and heat with reheating furnace. Then it is cool to form the Rods. The Rod size may vary depends upon the market requirement.

### **1.6 Power and Fuels**

At the production capacity, the peak power demand for the entire unit will be 25,000 KVA. The entire power requirement will be met from TNEB.

### **1.7 Raw Water**

This unit proposes to consume 16m<sup>3</sup>/day of raw water for its process and non-process uses. The entire raw water requirement for the unit will be met from Pilur water scheme and private water suppliers.

### **1.8 Land**

The total area allotted for this factory is 21.074 Acres.

### **1.9 Manpower**

The plant will have about 75 employees for its normal working.

### **1.10 Organization Structure**

The Senior General Manager is responsible for the factory operations. There are several executives for various sections such as Production, Human Resource, Purchase, Store, Accounts, Environmental & Safety, Maintenance, and Quality Control etc.

## **2.0 DESCRIPTION OF THE ENVIRONMENT**

### **2.1 Climate**

The study area is situated in the warm climatic belt with moderate humidity. During the summer the temperature ranges from 29°C to 35.75°C while during winter it varies between 17.4°C to 26°C. The rainfall is mostly due to the NE and SW monsoon season with the average precipitation of 644.3 mm per year. The maximum rainfall is generally experienced in the months of August, September and October.

### **2.2 Ecology**

There is no endangered species of flora and fauna noticed in this area. The area does not shelter any specific wildlife.

### **2.3 Hydrological Conditions**

#### **2.3.1 Surface Water**

The run-off during monsoon period contributes to the surface water. These villages get water due to rain in rainy season.

### 2.3.2 Ground water

Since ground water drawn from hand pumps, open wells and water supply systems at selected towns are the main sources for domestic use,

### 2.4 Water Quality

Water samples were collected from different locations, and the following parameters will be monitored for pH, Colour (Visual), Odour, Turbidity (NTU), Electrical Conductivity, Total Suspended Solids, Total Dissolved Solids, Chlorides (as Cl), Sulphates (asSO<sub>4</sub>), Calcium (as Ca), Magnesium (as Mg), Total Hardness(as CaCO<sub>3</sub>), Phenolphthalein Alkalinity(as CaCO<sub>3</sub>), Total Alkalinity (as CaCO<sub>3</sub>), Iron (as Fe).

### 2.5 Ambient Air Quality and Noise Levels

The ambient air quality was studied for various locations. It is found that the Suspended Particulate Matter (SPM) is found to vary from 93 µg/m<sup>3</sup> to a maximum of 130 µg/m<sup>3</sup>. The concentration of NO<sub>x</sub> and SO<sub>2</sub> are found to be very low. The noise levels recorded at various locations indicate that it is mostly less than 55 dB (A).

### 2.6 Land Use Pattern

This Site is classified as unclassified area recognized by the Tamilnadu Government.

## 3.0 ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

### 3.1 Air Emissions and Control Measures

Sl.No.	Description	APC Measures
1)	Induction Furnace with 4 Crucibles (Melting Rate - 25 T/hr)- 2Nos	30 m height and 0.3 m dia of stack with wet scrubber will be provided.
2)	D.G.Set (750 KVA)	8m height and 0.1m dia of stack will be provided

### 3.2 Wastewater Generation and Method of Treatment

Category	Quantity (m <sup>3</sup> /day)	Method of treatment
Domestic	7.0	Common STP in the Sponge Iron & Power division-Unit II premises
Wet Scrubber	0.2	Solar Evaporation Pan Size of 5X5X0.3 (2 Nos)

### 3.3 Solid Waste generation and method of disposal

Sl.No.	Particulars	Quantity	Method of disposal
1	Slag	800 T/M	Collected and sold out to traders
2	End cuttings+ Skull+ Mill scale	300 T/M	Reused in the process
3	Residue from solar evaporation pan	4 Kg/M	Collected and stored inside the premises.

### 3.4 Hazardous Waste

There will be no hazardous waste generated from this unit.

### 3.5 Noise Level

The noise level in the inside & outside the factory will be maintained at low level.

## 4.0 ENVIRONMENTAL MONITORING PROGRAMME

### 4.1 Environmental Monitoring

The environment, safety and health monitoring programme in the factory are as follows:

Particulars	Parameter	Frequency
Stack Emissions	SPM, SO <sub>2</sub> , NO <sub>x</sub>	Monthly
Ambient Air Quality	PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub>	Monthly
Noise monitoring	Noise Levels	Monthly
Safety and Occupational Health	--	Yearly

### 4.2 Budgetary Allocation for Environmental Management

S.No	DESCRIPTION	CAPITAL COST (Lakhs)
1	Air pollution management	25
2	Water and wastewater management	10
3	Solid waste management	10
4	Greenbelt	10
5	Environmental monitoring	5
	<b>Total</b>	<b>60</b>

## 5.0 ADDITIONAL STUDIES

### **5.1 Socio-economic Conditions**

The nearest village of karadivavi Village is having a population of 3113nos with 1570 males and 1543 females as per 2001 census data. The major source of income of the local population is from these types of industries only.

### **6.0 PROJECT BENEFITS**

#### **6.1 Socio-economic benefit**

The proposed project on implementation will generate 150 - potential jobs directly, and will also generate many indirect job opportunities.

Due to the proposed project, indirect employment to the extent of 300 will be generated. The Government revenue from the project will increase by way of direct and indirect taxes, duties, etc. The infrastructure development will get an impetus with this industrial growth. Communications, transport, schools, hospitals, trade and commerce will indirectly get an impetus.

### **7.0 ENVIRONMENTAL MANAGEMENT PLAN**

#### **7.1 Land Degradation**

Since, the small quantity of wastewater will be generated from domestic usages, the chances of contamination of soil will be nil. The vacant area in the industry will be used for tree plantation to improve the surrounding environment of the industry.

#### **7.2 Greenbelt Plan**

Greenbelt is developed inside the factory premises covering a total area of about 9.88 Acres The unit will also develop the nearby area around the industry for greenbelt. The inter-spaces are laid with shrubs. The inter-space between trees planted is about 5m. It is proposed to double the tree density in future.

**For Kannappan Iron And Steel Company Pvt Limited  
(Unit II-Ingot & Billet Division)**

**Managing Director**