REPORT
ON
ESSAR STEEL LTD

Bachelor of Business Administration
[B.B.A]
Semester-4th

BY
PUNIT R UPADHYAY
S.Y.B.B.A
ROLL NO:-57

Supervising Teacher
Prof. Rajesh Sir

MANIBA INSTITUDE
OF BUSINESS MANAGEMENT
&
AMBABA COMMERCE COLLEGE
SABARGAM

APRIL-JUNE-2009

CERTIFICATE

This is to certify that the project entitled ESSAR STEEL LTD. submitted in partial fulfillment of the requirement of VEER NARMAD SOUTH GUJARAT UNIVERSITY,SURAT in record of bonofied general study work carried out by PUNIT UPADHYAY 'under my supervision.

The project or any part of it has not been previously submitted for any degree..

I/c Principal
Dr.Yogesh N Vansiya
Ambaba Commerce Collage & MIBM,
Sabargam.

Date:-

Place:-

DECLARATION

I declare that the project entitled ESSAR STEEL LTD submitted in partial fulfillment of the requirement of VEER NARMAD SOUTH GUJARAT UNIVERSITY,SURAT in record of bonofide general study work cerried out at Ambaba commerce college & Maniba institute of Business Management, Sabargam.

The project or any part of it has not been previously submitted for any degree..

Signature of the student

(Punit R.Upadhyay)

Date:-

Place:-

ACKNOWLEDGEMENT

I would like to thank my project company guide at Essar Steel **Mr. Suneel Raichur (Essar steel)** for his selfless support and encouragement during my entire training program.

I express my gratitude to my project faculty guide **Mr. Rajesh Sir** (faculty MIBM-Surat) for his guidance and an unflinching support through my project.

My sincere thanks to **Dr. J.G.PARMAR (Director- MIBM)** And **Dr.Yogesh N Vansiya(I/c Principal)** for giving me the privilege to be associated with such an esteemed organization and carry the institutes name forward. I am thankful to him.

I would also like to extend my gratitude to all the present employees of Essar Steel, who by their patience and cooperation, have made my research rewarding and fun filled experience.

This project would not been possible without the untiring support provided by my family and friends. The input and guidance provided by my seniors have been invaluable. I would like to express my gratitude to all these people.

With sincere thanks
PUNIT R. UPADHYAY
[Roll no.57]

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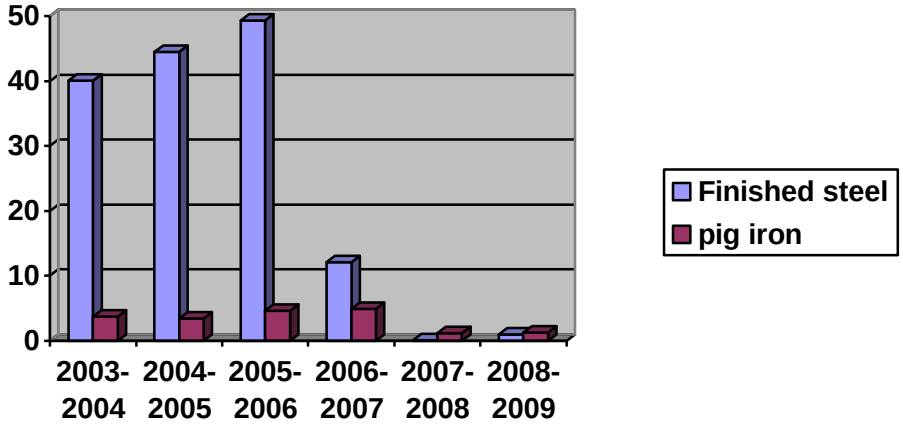
INTRODUCTION

Industry Detail

Steel , the recycled material Is one of the top production in the manufacturing sector of the world. New innovations are also taking place in Steel Industry for cost minimization and at the same time production maximization. Some of the cutting edge technologies that are being implemented in this industry are thin-slab casting,making of steel through the use of electric furnace, vacuum degassing,etc..



The liberazation of industrial policy and other initiatives taken by the government have given a definite impetus for entry , participation and growth of the private sector in the steel industry. While the existing units are being modernized/expanded, a large number of new/Greenfield steel plants have also come up in different parts of the country based on modern , cost effective, state of-the-art technologies. At prey of sent, total (crude) steel making capacity is over 34 million tones and India , the 8th largest producer

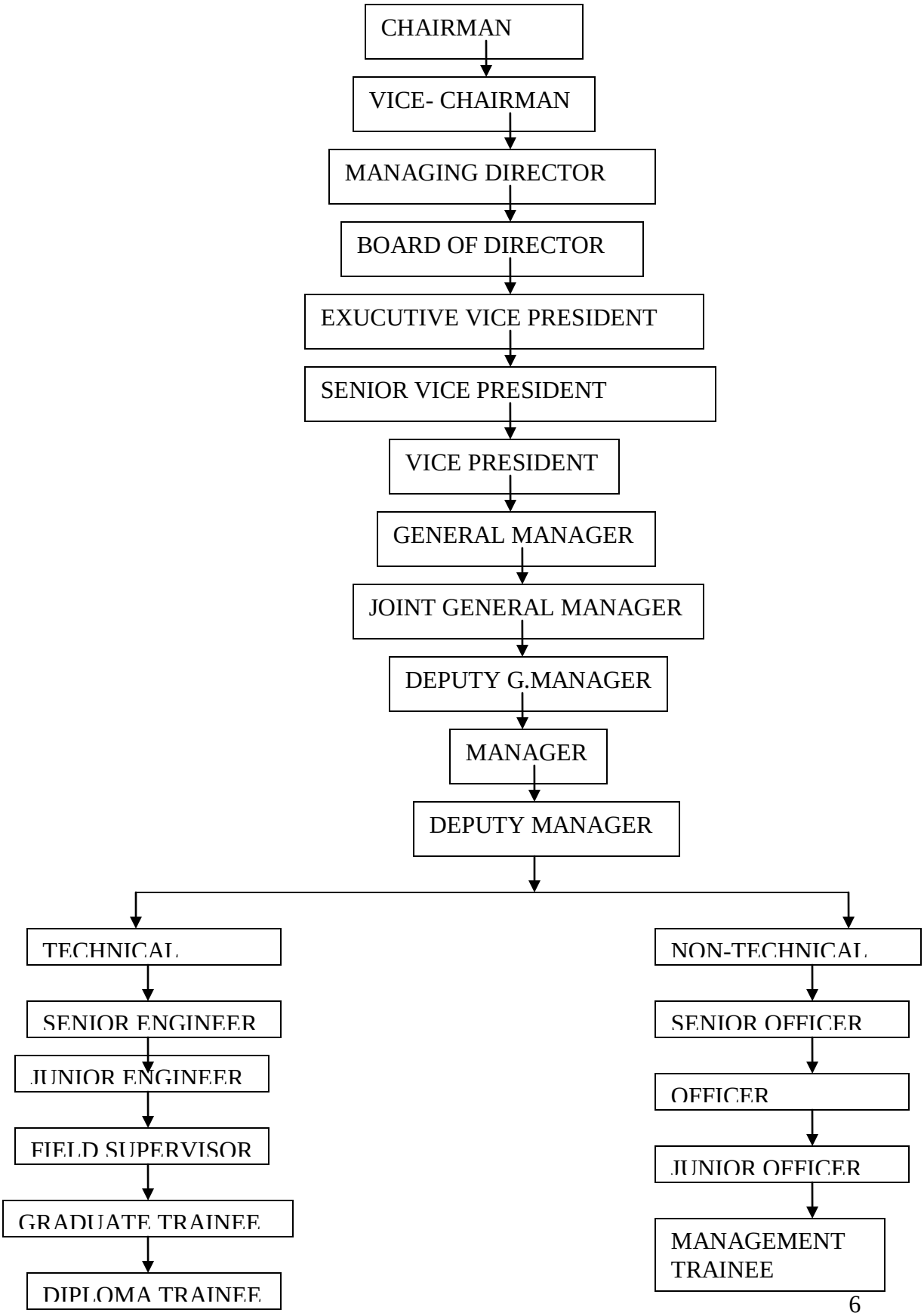
of steel in the world, has to its credit, the capability to produce a variety of grades and that too, of international quality standards.

ESSAR GLOBAL LIMITED (EGL):

Essar Global ltd is a diversified business corporation with a balanced portfolio of assets in the manufacturing and service sector of Steel, Energy, Power, Communications, Shipping Ports & Logistics and Constructions. EGL through its six sect oral holding companies, has an enterprise value of over US $ 50 billion (INR 2,00,000 cores) and employs 40,000 people worldwide.

With a firm foothold in India, Essar Global has been focusing on global expansion with projects/investments in Canada, USA, Africa, the Middle East, the Caribbean and South East Asia. Among its recent Global acquisition are the Ontario (Canada) based Alogma Steel, and US-based companies, Minnesota Steel, as well as Global Vanedge EGL has an excellent track record, having succeeded in the capital intensive and competitive manufacturing sectors. Better focus on each business through integration, incorporation of state-of-the-art technology and innovative in house research has made Essar Global a leading player in each of its business. The Group takes pride in being a high performance multinational organization, providing world class service and products. Managed by a highly efficient and dynamic team of employees , the Group is growing stronger every day. A committed Corporate citizen, the Group provides unwavering support to to community as well as initiates various social and ecological drives that have a positive impact on the society.

ORGANIZATION CHART



Chpt-1:- Company Detail

The name of Essar is getting from the first letter of the two brothers 'Sashi' and'Ravi' 'S' as 'ESS' & 'R' as 'AR' thus the combination of them make "**ESSAR"** .

Essar Steel is versatile manufacturer , capable of producing highly customized products. The new competitive arena in 2005 indian mills are among the lowest cost produce in the world. Essar steel limited is a key component of Essar Group. Located at Hazira in the state of Gujarat, Essar steel has a current capacity will be increased to 3.0 million tpa by the year 2003. the company is one of the india's largest HRC producers and is india's largest exporter of HRC to discerning customers in all corners of the globe. Using state-of-the-art technology, essar steel manufactures an extensive and customized product range , tailored to high demands of a wide customer base . Essar steel is one of the lowest cost producers in the world and is successfully competing internationally in very demanding value – added products. The company also has the largest DC electric steel making plant the World , with 3 x 150t electric Arc Furnance. It was the first Indian steel company

To be awarded ISO 9002 for its entire operations and was also the first to received the prestigious ISO 14001 certificate for it's complete environmental management from Det Norske Veritas.

THE FOLLOWING CERTIFICATE PHOTO COPY OF ESSAR WHICH IT'S ACHIEVE:-

(1) DNV(Det Norske Veritas) **(2)TUV CERTIFICATE**

DET NORSKE VERITAS
MANAGEMENT SYSTEM CERTIFICATE

Certificate No. CERT-12239-2007-AQ-HOU-IATF
IATF Certificate No. 0055265
Page 1 of 1

This is to certify that the Quality Management System of

ESSAR STEEL LIMITED

at

27th KM, Surat Hazira Road, Hazira 394270, Dist. Surat, Gujarat, India

Remote Supporting Functions

Name	Address	Scope
Essar Steel Limited	3rd Floor, Interface Building, No. 16, Off Link Road, Malad (W) Mumbai 400064, India	Marketing

Has been found to conform to Technical Specification:

ISO/TS 16949:2002

having been audited in accordance with the:
Rules for the registration scheme for ISO/TS 16949:2002 – 2nd Edition.
This Certificate is valid for the following products/service ranges:

MANUFACTURE OF HOT BRIQUETTE IRON/HOT DRI, HOT ROLLED COILS AND SHEETS/ PLATES, HOT ROLLED PICKLED AND OILED COILS AND SHEETS, COLD ROLLED COILS/ SHEETS, HOT ROLLED AND COLD ROLLED GALVANIZED OR GPSP COILS/ PLAIN, COLD ROLLED ANNEALED SKIN PASSED COILS AND SHEETS
EXCLUSION: 7.3 PRODUCT DESIGN

Place and date: Houston, Texas; 08 August 2007

This certificate is valid until: 05 August 2010

Initial Certification Date: 06 August 2007

for the Recognized Office: DET NORSKE VERITAS CERTIFICATION, INC. Houston, TX USA

Robert Kozub
Management Representative
Det Norske Veritas Certification, Inc.

Bhavya Mangla
Lead Auditor

Audit Conducted by DNV Office located in: New Delhi, India

DET NORSKE VERITAS CERTIFICATION, INC., 16340 Park Ten Place, Suite 100, Houston, TX 77084 USA TEL: (281) 721-0001 FAX: (281) 721-0015

TÜV CERT

CERTIFICATE

The TUV CERT Certification Body of RWTÜV Systems GmbH

hereby certifies in accordance with TÜV CERT procedure that

HY-GRADE PELLETS LIMITED
Near Flyover, Scindia Road,
Visakhapatnam – 530 004,
India

has established and applies a quality system for

Manufacture of Iron Ore Pellets

An audit was performed, Report No. 7.5-233/0883

Proof has been furnished that the requirements according to ISO 9001 : 2000

are fulfilled. The certificate is valid until 27 July 2006

Certificate Registration No. 04100 31282

The company has been certified since

Essen, 2003-08-08

RWTUV

"TÜV CERT Certification Body of RWTÜV Systems GmbH"

Essar has an obsession with continuous quality improvement . the unrelenting drive on production quality excellence and unsurpassed marketing se vice led the company to brand its flat products under the unique banner "24 carat steel". Essar is one of the few manufactures globally who can make API grade steel with low sulphur . it cater to a wide variety of product segments including Roofing, Automobiles, Oil & Gas, Shipbuilding, Fabrication and white goods. Domestically , it has a emerged as its leading position , their R&D team is constancy developing new grades and application.

Group History:

The name of the Company 'ESSAR' is getting from the first letter of the two brothers 'SHASHI' and 'RAVI' 'S' as 'ESS' and 'AR' thus the combination of them makes "ESSAR".

The Essar groups builds enduring value through:

- Assets of &4.4 bn (RS 20000cr) in service and manufacturing.
- Rapid growth in key sectors, build on firm foundations.
- Setting and surpassing world class benchmarks.
- Using cutting edge technology for strategic advantage.
- Moving even closer to customer and building strong brands.
- Our valuable employee and their 'positive attitude".

Sitting: Shashi Ruia, (r) Ravi Ruia, (l)
Standing: (l) to (r): Rewant Ruia, Anshuman Ruia, Smiti Ruia and Prashant Ruia

The Ruia family has been in business and trading since 1980, when the family first moved to Mumbai to Rajasthan in western India. In 1956 , Nand Kishore Ruia, the Group founder, moved south to begin independent business activities. In 1969, following the untimely demise of Nand Kishore Ruia, his son's Sashi & Ravi Ruia took over the Group. Along with a team of seasoned professionals, the Ruias have built the perfect platform for Essars accelerating growth. With a strong foundation at Indias Industrial core and in the sunrise service sector, Essar has stayed firmly in the forefront of new opportunities. An early start has made Essar a key player in Indias Exploding telecom market. Similaraly Essar has set up a Indias first Independent power plant and its first new generation private steel plant.

2.2 ESSAR MISSION

"To create enduring value for customers and stakeholders in core manufacturing and service business, through world-class operating business, through world-class operating standards, state of-the-art technology and the 'positive attitude' of our people

2.3 ESSAR VISION

The seven E's can define vision of Essar Group

- **Effectiveness**

- **Doing the right things at the right time Efficiently**
- **Doing things the right way**
- **Conserving resources**
- **Being cost effective**
- **Being simple**
- **Observing system discipline**

- **Entrepreneurship**

- **Creating Opportunities**
- **Innovative**
- **Taking Initiatives**

➢ **Empowerment**

- **Nurturing self esteem**
- **Providing self respect**
- **Ensuring self work**
- **Creating trust**

➢ **Education**

- **Sharing Information and knowledge**
- **Learning**
- **Communicating**

➢ **Ethics**

- **Having transparent business operation**

➢ **Environmental harmony**

- **Adding value to society**
- **Creating sustainable development**

2.4 ESSAR Philosophy

"The success of Essar group is dependent on the development and realization of the potential of each one of us. The mindset of yesterday's managers was to accept compromise and keep things need and orderly which leads to complacency. We should not afraid to go against today's currents because we know that tomorrow is ours. We must work on the vision of what business can become".

There are various groups in Essar which includes:-

- **Essar constructions**
- **Essar power**
- **Essar oil**
- **Essar telecom**
- **Essar steel and lastly**
- **Essar shipping logistics ports limited**

2.4.1 Essar Constructions

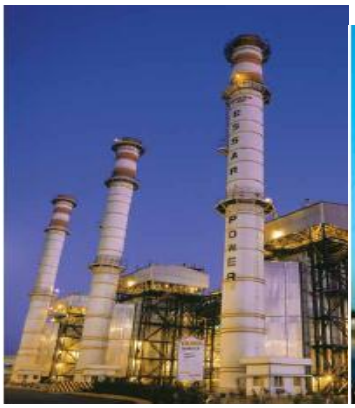
Essar Projects is a 4,000 people strong global engineering procurement and construction company headquartered in Dubai. It has offices in India, China and the Czech Republic. It provides complete construction solutions under one roof. It operates through five main businesses:

• Essar Constructions: This division has over four decades of experience in executing projects involving industrial plants, civil & irrigation projects, laying of onshore pipelines, and highways and expressways. With a pipeline division certified at ISO 9001, it has developed capabilities to undertake turnkey projects.

• Essar Offshore Subsea: The marine construction expertise within Essar Oil, Essar Shipping, Essar Projects and Essar Construction has now demerged into a single entity namely Essar Offshore Subsea Ltd (EOSSL). The business provides Engineering, Procurement, Construction & Installation (EPCI) services in this sector in domestic as well as overseas markets. In the high-growth oil & gas sector, EOSSL provides EPC services for offshore logistics support and marine construction projects.

• Global Supplies: The Global Supplies team specializes in procurement, with a presence in India, China, the Middle East and Europe. It has excellent relationships with vendors across the globe, giving it the ability to procure materials in a timely manner and at competitive prices.

2.4.2 Essar Power



Power plant at Hazira

Essar power limited set up India's first new generation independent power project at Hazira. India in the early 1990s.the 515 MW natural gas fired combined cycle has consistently set new standards of excellence in the Indian power sector and meets the highest operating benchmarks. This environment friendly plant operates with a plant availability factor in excess of 94%.in addition to multi-fuel capability, the plant has the lower manpower to megawatt ratio and one of the lowest capital costs per megawatt in India.

Projects under execution

Essar power limited is currently executing a captive gas based combined cycle power plant of 355 MW in two phases at hazira,gujarat for mitigating the increasing power demand of its group company Essar steel limited. The phase-I is operating in open cycle Mode.
The combined cycle operation has also been commissioned. The phase-II is still in construction.

2.4.3Essar oil

Essar Oil Ltd

(EOL, NSE: ESSAROIL) operates a fully integrated oil company. Its assets include developmental rights in proven exploration blocks, a 12 MTPA refinery in the west coast of India and over 1,000 oil retail stations across India. Plans are under way to increase its exploration acreage in various parts of the globe, expand its refinery capacity to 34 MTPA (680,000 barrels per day) and open 5,000 retail outlets. Essa Oil's 10.5 MTPA refinery at Vadinar in Gujarat started commercial production on May 1,2008. It has been built with state-of-the-art technology and has the capability to produce petrol and diesel suitable for use in India as well as advanced international markets. It will also produce LPG, naphtha, light diesel oil, aviation turbine fuel (ATF) and kerosene.

The company plans to achieve a daily refining capacity of 1 million barrels per day through organic and inorganic growth.

2.4.4 Essar Telecom

Essar Communications operates in four business segments: Telecom, telecom retail, telecom infrastructure and Aegis Services.

- Vodafone-Essar is a joint venture of Essar Communication Holdings Ltd and the UK-based Vodafone Group. It is one of India's largest cellular service companies, with a subscriber base of over 50 million.

- Essar operates integrated IT enabled services through the Aegis brand name, with a presence in interaction services, back office services and value-added services. Aegis has a global delivery model with 20 centers across USA and India. It employs over 20,000 employees in India and the U.S who have expertise in the Telecom, Insurance, Banking and Healthcare domains.

- Essar has launched India's first national chain of multi-brand and multi-service outlets in the telecom retail space. The MobileStore Ltd currently runs over 1,000 "The Mobile Store" outlets. Over 2,500 stores outlets are expected across 650 cities.
- Essar Telecom Infrastructure is one of the largest independent telecom infrastructure service provisioning companies in the country. It builds telecom tower infrastructure and shares it with several telecom operators in India. It has already set up over 3,500 towers in India, with plans to build 20,000 towers.

2.4.5
ESSAR SHIPPING & LOGISTICS COMPANY

Essar Shipping Ports & Logistics Ltd (NSE: ESSARSHIP) is an end-to-end logistics provider with sea and surface transportation services, oilfield drilling services, dry and liquid terminals, tankage and associated pipelines. It provides complete supply chain management services to clients in oil & gas, steel and power generation industries.

- The **Sea Transportation** business provides transportation management services for crude oil and petroleum products, and dry bulk cargo to the global energy, steel and power industries. With an experience of more than 220 ship years, it owns a diverse fleet of 26 vessels, which is being expanded to 38 vessels.

- **The Ports & Terminals** business is among India's largest owners and operators of ports and terminal facilities. The operations include an oil terminal in Vadinar and bulk terminals in Hazira and Salaya, all in the state of Gujarat. Vadinar, which is an all-weather, deep draft port, serves major oil refineries and independent cargo traders in the region. The terminal has crude receiving capacity of 32 MTPA and sea-based product dispatch capacity of 14 MTPA. The port at Hazira has a capacity to handle 8 MTPA of bulk cargo.

2.4.6

Essar Steel

Essar Steel is a global producer of steel with a footprint covering India, Canada, USA, the Middle East and Asia. It is a fully integrated flat carbon steel manufacturer—from iron ore to ready-to market products. Essar Steel has a current capacity of 9 million tonnes per annum (MTPA). With its aggressive expansion plans in India as well as Asia and the Americas, its capacity will go up to 20 to 25 MTPA by 2012. Its products find wide acceptance in highly discerning consumer sectors, such as automotive, white goods, construction, engineering and shipbuilding. In 2007, Essar Steel acquired Algoma Steel in Canada, which has a capacity of 4 MTPA, and Minnesota Steel, which has iron ore reserves of over 1.4 billion tonnes. While the company is building a 4.1 MTPA steel plant in Minnesota, it is also setting up a 2 MTPA hot strip mill in Vietnam and a 2.5 MTPA integrated steel plant in Trinidad & Tobago. In Indonesia, it operates a 400,000 TPA cold rolling complex with a galvanising line of 150,000 TPA, making it the largest private steel company in that country.

Essar Hazira steel plant.

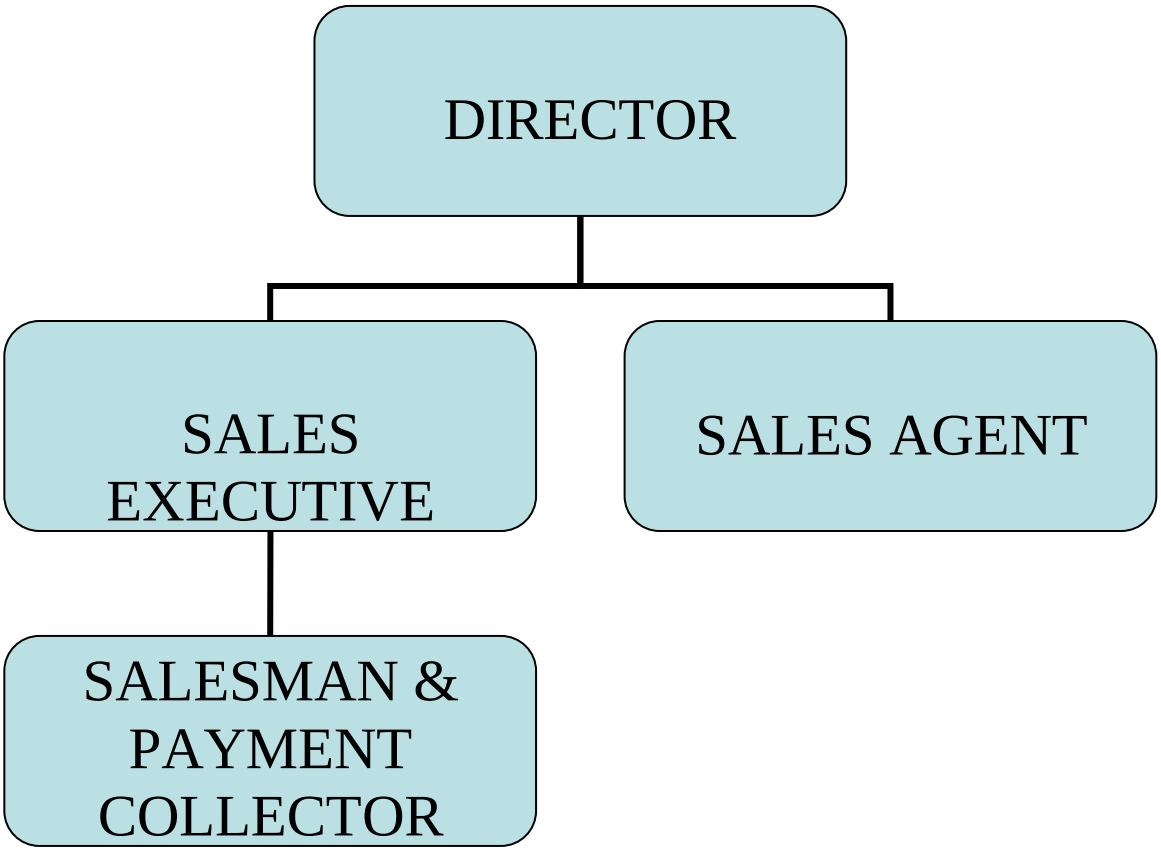
Essar Steel is the largest steel producer in western India, with a current capacity of 4.6 MTPA at Hazira, Gujarat, and plans to increase this to 10 MTPA. The Indian operations also include an 8 MTPA beneficiation plant at Bailadilla, Chattisgarh, and an 8 MTPA pellet complex at Visakhapatnam. Additionally, Essar is setting up a 6 MTPA integrated steel plant in Paradip, Orissa.

The Essar Steel complex at Hazira in Gujarat, India, houses the world's largest gas-based single location sponge iron plant, with a capacity of 5.5 MTPA. The complex also houses the steel plant and the 1.4 MTPA cold rolling mill. The steel complex has a complete infrastructure setup, including a captive port, lime plant and oxygen plant. The company is also building a 1.5 MTPA
plate mill and a 0.6 MTPA pipe mill in Hazira to make further value addition to its product portfolio.

Essar Steel produces highly customized products catering to a variety of product segments and is India's largest exporter of flat products to the highly demanding US and European markets, and to the growing markets of South East Asia and the Middle East. It has invested in downstream capabilities to evolve from being a product based company to becoming a value added service
provider. It has a global network of retail steel outlets, called Steel Hyper marts, and offers services, like cutting, slitting and blanking of steel sheets, through specialized Steel Service Centers worldwide.

Chpt-3:- Sales & Marketing Functions

Organization chart :--



3.1 MARKETING OBJECTIVE

To create brand image by offering 24 carat quality steel. Essar is the 1st steel company in the country to brand steel product.

Marketing Segmentation

Market segmentation of product is done in Two :-

- Regional Market
- Domestic & international market

Regional	Percentage(%) of sold
South East	**35%**
Europe	**36%**
Middle East	**29%**

The selling of steel worldwide in the south east the selling 35% and in the Europe 36% and Middle East selling 29%....

3.2 Major Competitors

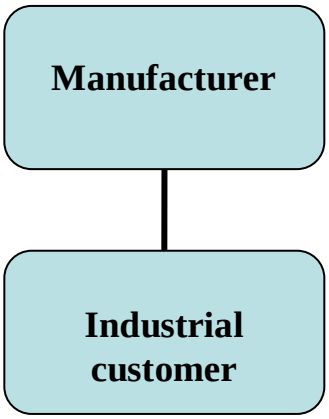
- **SAIL**
- **TISCO**
- **JINDAL VIJAY NAGAR STEEL LTD.**
- **JISCO**
- **SAW PIPES**
- **UTTAM STEEL LTD.**
- **ISPAT INDUSTRIES LTD.**
- **MUKAND LTD.**
- **MAHINDRA UJINE STEEL CO.LTD**
- **TATA STEEL LTD.**
- **USHA ISPAT LTD.**
- **KAIYANI STEEL LTD.**
- **ELECTRO STEEL CASTING LTD.**
- **SESA GOA LTD.**
- **NMDC**
- **LIOYOLS STEEL INDUSTRIES LTD.**

3.3 Distribution network

Marketing channel are sets of interdependent organization involved the process of making products or service available for use or consumption. As we know there are various level of channel like 0 level, 1 level, 2 level and 3 level.

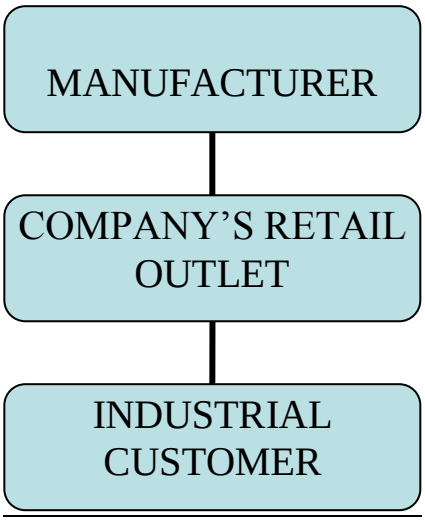
Essar follows these types of distribution channels.

0 level distribution channel :-



According to this type it consists of only manufacturer (Essar) and industrial customer (kokan railway, swaraj mazda, etc.). They directly place order to Essar steel only without involving any other intermediaries.

1 level distribution channel:-



According to this type industrial customer will contact to company's retail outlet to procure their material. So, manufacturer will supply material. So , manufacturer will supply material to company's retail outlet and it will provide material to industrial customer.

3.4 Sales Procedure

- As soon as the order received by essar first it will check with PPC department. PPC department is production planning control department . it will check if enough stock of that material is there or not in stock yard.

- If it is there then Essar will directly supply material to logistic department.

- If it is not possible to arrange material from present stock that then they go for another option i.e they checks with production planning and control department.

- If production plan is running into full swing and according to production scheduling if production of material as order can be produce within given time limit.

- Essar steel will do that. They will produce that materials and supply it to logistic department for delivery.

Company's facts and highlights:-

- **The Essar group has an asset base of Rs.20, 000 Crore (US $ 4.33 bn)**
- **The Essar group is one of India's largest spenders on continuous training, investing about Rs. 1.4 crore (US $3 m) annually**
- **Essar has the world's largest gas-based HBI plant at Hazira, Gujarat**
- **Essar Steel is India's largest exporter of flat steel products**
- **Essar Steel has the first Indian steel plant to receive ISO 14001 award for environment management and ISO 9002 for the entire plant operations**
- **Essar Shipping is the first Indian shipping company to comply with the IMO's International Safety Management Code**
- **Essar Shipping owns India's largest double hull double bottom VLCC, MT Ashna**
- **Essar Power is India's first independent power plant and first multi-fuel plant**
- **Essar Power has India's lowest manpower to megawatt ratio**
- **Essar Power is one of the few recipients of the 'Sword of Honour' from the British Safety Council and India's only power plant with the ISRS level-3 safety rating**
- **'Hutchison Essar' is the second largest cellular provider of India. It is a Joint Venture with Hutchison Whampoa, Hong Kong**
- **'Hutchison Essar' owns the two most successful cellular brands of India, Hutch and Orange**

- **The oil refinery of Essar Oil at Vadinar will have a capacity of 12 MTPA**
- **Essar Constructions is a more than three decade old EPC contractor in India**
- **Essar Constructions has poured enough concrete in the last 30 years to build a road that would circle the earth thrice**

ESL was the Indian company to operate in the quality conscious markets of USA and Europe. The company's foresight in identifying tomorrow's businesses has helped it keep ahead in highly competitive waters of the shipping industry. Its environment consciousness led it to invest in double bottom vessels which are considered a safer option.

- First Indian company to operate in the quality conscious markets of USA and Europe.
- The first Indian company to transport crude from the forbidding north sea-Canada route, one of the more difficult routes in the international tanker trade.
- The first shipping company to grasp that its revenue streams (from shipping services) impacted the bottom-line of its customers.
- One of the first companies to progress towards providing optimum logistics solutions than just shipping services.

3.5 24 carat steel mean Essar

Essar steel defines value as value to customers because when its customer prosper, the company prospers. Delighting its customer drives its unique approach to marketing. To helps it customer chose the best steel every time, it became the first Indian company to brand flat products, under the name"24 carat steel"

'24 carat steel' is more than just a brand name. it is a symbol of trust, a measure of perfection and promise of consistency. Every single product that roll out of the plants at Essar , guarantees that it has been produce in concurrence with the highest standards of manufacturing processes, state of the art technology and precision.

Domestic :-

Esaar steel's complex at Hazira, Gujarat, India is a ideally located to serve major domestic markets. Its location in western India places it close to the highly industrialized western region of India,home to the bulk of the demand for hot rolled steel flat products. Major cold rolling mills and galvanizing mills, along with a host of other industries including the automobiles sector, oil and refinery installations, white goods, general engineering, pipes and tubes are located in this region.

Hazira steel complex in India:-

- Essar operates the widest Hot Strip Mill (HSM) in India (2000 mm)
- Houses the only mill in India offering skin pass material for high end steel applications
- Cold Rolling Mill is strategically located adjacent to the Hot Strip Mill, yielding significant competitive advantage.

There are certain customized lots and manufacture dimension that only Essar can produce to world-class quality standard. It has successfully replaced the high-value high-quality import for cold rolling grades in the country and currently enjoys a healthy market share.

Essar's quality in boiler, r, corrosion resistant and pressure vessel grades are well established in the market.

Sales heads are as follows:-

- National sales head : - ABHAY GARG
- Zonal manager(north):- SUKANT RATNAKAR

3.6 Internation

Essar steel is India‘s largest exporter of flat product and it export about half its production to the demanding western market as well as to the growth markets of Asia and the Middle East. Essar’s cumulative export over the past decade amount over Us$ 1.5 billion. Essar steel is a significant force in international markets and is recognized the world over as a supplier of high-value hot rolled steel coils. Essar varied ranged of product ,matches international delivery schedules as well as the quality and pricing parameters.

Essar Steel is a significant force in international markets and is recognised the world over as a supplier of high-value hot rolled steel coils.Essar’s varied range of products, matches international delivery schedules as well as the quality and pricing parameters.

Essar, since inception , has consistently been the largest exporter of Hot Rolled coilsin the country, deriving maximum benefit from its port location , good logistics and innovative export contracts with established & reputed traders. The emphasis on value-added grades like line pipe grades, LPG grades, high tensile grades ,CORTEN and cold rolling grades make Essar a versatile steel manufacturer . With customised lots and manufacture dimensions only Essar can produce , the company has adistinct advantage in the international markets. Catering to quality conscious niches, Essar

Steel competes against top-of-the-league foreign steel producers. For example, its API standard steel and low sulphur steel is made only by a few world-class manufacture.

Essar is constantly developing new segments in overseas markets such as:

- HSLA grades for pre-fabricated structures
- American Petroleum Institute grade steel for gas pipe lines
- Wide width coils for cold rolling and general engineering applications
- Thinner and thicker gauge Galvanised

Pricing & Distribution

- Price regulation of iron & steel was abolished on 16th January 1992.
- Distribution controls on iron & steel removed except 5 priority sectors, viz. Defense , Railways, Small Scale Industries Corporations, Exporters of Engineering Goods and North Eastern Region.
- Government has no control over prices of iron & steel.
- Open Market Prices have been generally stable, though fluctuations have been noticed
- Price increases of late have taken place mostly in long products than flat products.

With improvement in steel prices from January ’02,these sector is no longer viewed as non-performing industry. However, it is to be seen whether this momentum is actually sustained in the coming few month, international steel prices are likely to softend as a result of antidumping duties and other protection measure adopted by major steel consuming nation like USA,EUROPE and CHINA…

Advertising policy

(1) Essar’s advertising policy is non conventional they always do need base advertisement

(2) As company’s client are industrial buyers. ESSAR not in consumer goods . they don’t need to do frequent & heavy advertisement.

(3) They take part in industrial exhibition.

(4) They don’t do aggressive advertisement.

(5) Sometime useful move of company gives positive publicity. Essar has positive attitude towards donation to needy organization.

Chpt-4:- Human resource management function:-

Manpower for Indian steel industries:-

Global competitiveness of Indian steel industries requires quality manpower in sufficient numbers. Manpower includes engineering & science degree, diploma holders etc. Indian steel & metal sector is on a growth path. This will make the shortage more acute in future & is likely to be a major impediment for global competitiveness.

For the industry to remain competitive, indigenous innovations are a must for optimization of cost effectiveness , productivity &quality .Substantial indigenous research & development efforts are required not only for this but also for quality manpower development.

The HR policy of Essar group is based upon the belief that success of group primarily depends on its people & that developing of each employee is good for both the employee & the business & the group.

4.1 HR philosophy of Essar STEEL Ltd.

Essar's HR philosophy is strongly reflected from Essar's Hr mission statement. Its core HR philosophy is as follows:-

(1) To create sense of belonging & to develop a culture that makes its employees business leader.

(2) To create team spirit

(3) To enhance productivity & strive for growth with integrity & efficiency.

Human resources management is all about getting, selecting retaining employees. So here we have some secondary data . in ESSAR,

- 56% employees are satisfied and 34% are highly satisfied with cooperation level among employees with the subordinate.
- 100% employees are satisfied with cooperation level among employee with peers.
- 39% employee' working span is greater than 11 years, 39% employees' working span is between 6 to 10 years. 22% employees' working span is between 1 to 5 years .
- 72% employees are Male and 28% employees are Female.

ABBREVIATIONS OF JOB CODE

NM- Non Management

SM- Senior Management

CHR- Corporation Human Resource Management

JM- Junior Management

UHR- Unit HR.

EMPLOYEE CADRE (TECHNICAL & NON-TECHNICAL)

LEVEL	DESIGNATION
M1	Managing Director/Executive Director / CEO/ Head of Corporate Functions.
M2	Senior vice president
M3	Vice president
M4	General Manager
M5	Joint General Manager
M6	Deputy General Manager
M7	Manager/Senior Manager
M8	Deputy Manager/ Manager
M9	Senior officer/ Senior Engineer/Deputy Manager
M10	Officer/Engineer/Assistance Manager
M11	Junior officer/Junior Engineer

4.2 SUJHAV

Sujhav scheme has been launched in Essar Steel Ltd. In the year 2003, as a part of employees engagement & motivation, to enable employee participation by advice & suggestions.

Sujhav is a formal mechanism which encourage employees to contribute constructive ideas for improving the processes & systems in various aspects like working conditions, equipment maintenance, provision of new facility, and the list goes on.

- Somehow, midyears till 2006, ratio of suggestions was down; however from 2006 the sujhav response is increasing in number o ways.
- Every department represents 1 SUJHAV COMPION who jointly manages all activities & follow-ups for the better execution & implemention.
- Various gifts & celebrations for sujhav are also organized to motivate employees for their valuable feedback for the betterment & development of organization.
- Sujhav day is celebrated every year to reward the sujhav giving employee & its family.
- Sujhav winner book is published every year
- In financial year 2008-2009, HR department received 148 sujhavs, out of which 48 were accepted & 20 were rejected. To appreciate those employees, HR department organized "SUJHAV DAY" on 5th January 2008. on that day, every team & individual whose sujhavs were accepted were rewarded shield, & cash prized to appreciate their contribution for organization

4.3 SOURCES OF RECRUITEMENT

- The company approaches the collages, which are standardized & reputed. Mostly the company has a list of collages to approach in search of candidates.
- Another important source is the resume received on the email-id of company. Daily about 100 applications are recived. These applications are than short-listed, where preference is given to the freshers.
-

STEPS IN RECRUITMENT

- Request from the concerned needy department is checked. Access the recuritement & vacancy position.
- To intimate the note to take approval for the post & its specifications as per guidelines.
- Releasing the advertisements or going through the applications, & listing the right applicant.
- Written tests, group discussions, & personal interview conducted. During the interview, technical skill are the main focus points & then knowledge.
- 15 days after the interview, an offer letter is sent & if the confirmation is received, placement is given.

ESSAR DIVIDES RECRUITMENT & SELECTION INTO -3

(1) FRESHER:

At this level , company decides various norms for recruitment & selection. Mainly the candidates who has minimum 60% can apply. It is related to graudates, diploma, engineering & MBA.

For selection, company goes for campus & off campus intervies:

- Written tests
- Group discussions
- Personal interview

(2) **MIDDLE LEVEL**:-

For the middle level, the candidate is approached either through the referral of existing employees, or add is placed in newspaper & internet.

(3) **SENIOR LEVEL**:-

For the senior level, the candidates of raval firms are approached or selection is done through consolation.

(4) **OTHER ADDITIONAL STEPS**:-

- The candidates selected is kept for training basis for 1 year & then placed as an employee.
- There are 4 day of induction, where in 2 day are for fire & safety & other 2 day plant visit.
- There are external faculties for training.
- The only problem faced by the company during recruitment is the contact numbers which expire, making the time consuming.

4.4 Process of Selection

Each panel is managed by a senior lead facilitator who anchors the assessment and recruitment process. The Talent Acquisition coordinator anchors the mandate and assists to smoothly facilitate the process the essence of the panel is to effectively evaluate each candidate in a comprehensive and consistent manner. The process aids in quicker decision making and also provides quick convergence of opinions on each candidate. The panel interview format is being utilized for all the senior management hires across the Essar group.

- **Interview evaluation**

An interview evaluation sheet (Annexure V) has been designed as a tool to enable the panel members to objectively evaluate the candidature of the interviewees even though intuition & judgment shall play an equally important role in the process of evaluation.

Interview expenses reimbursements to candidates

Outstation candidates appearing for interview shall be eligible for the travel expense reimbursement.

M 01- M02: Business Class Air Travel
M-07- M03: Air Economy Class to and fro
M-08 to M-11 & Trainees: II AC train fare.

- **Employment of spouse/relatives**

The following guidelines will be applicable in case of a candidate who is related to employee:

- The selection of the candidate who is relative of an employee shall purely be on merits. Any attempt on the part of employee to influence the selection process shall disqualify the candidate.

  b) The relation of an employee shall not be employed in the same function. Both shall not have any reporting relationship.

  c) Any of the HR matters of the relation of employee shall not be handled by the employee.

  d) Notwithstanding above, all cases of employment of spouse/relatives of an employee shall be approved by Business HR Head.

- **Notice pay**

Often in order to facilitate the employee to join us at the earliest we have to buy his notice period. Also, in case a vacancy adversely affects the efficiency of operations / project progress, it is reasonable to commit to reimburse notice pay. As the notice period pay is subject to tax deduction at our end, the HR Lead may agree to pay notice pay net of tax. It should be made clear that the reimbursement would essentially depend on documentary proof.

- **Reference check**

Objective :- The objective of a reference check is to obtain information on the individual's work performance and on personal characteristics that affect (positively or negatively) the individual's suitability for the particular position sought.

Background

- **Reference checks are generally used for 3 purposes:**
  1. To verify information given by job applicants through other selection processes (e.g. interview, resume)
  2. To serve as a basis for predicting job success of job applicants, and
  3. To uncover background information on applicants that may not have been identified by other selection procedures.

Scope of reference work

1. Education Qualification Check
2. Employment verification

A. HR Feedback

- Confirmation of length of employment
- Last position held
- Compliance with exit formalities
- Eligibility for rehiring

B. Supervisor's feedback

- Work ability & Competency
- Duties & Responsibilities
- Integrity, character & ethics
- Management & Supervisory skills
- Reason for leaving
- Eligibility for rehiring

3. Reference Check - To be conducted with three references provided by the candidate

Special agencies have been identified and impaneled for reference check.

Offer process

The decision to offer a selected candidate will be made by HR on the basis of the interview panel's inputs, technical reviews, reference check and other relevant criteria.
The offer decision will be influenced by:

a) Current compensation - component wise

b) Expected compensation

c) Comparison with like profiles within the organization

d) Any industry benchmarks

e) Specific items of offer like joining period, relocation time frame and expenses, notice Pay reimbursement, role agreed upon, tentative location and any other specific assistance to be provided on joining..

At the time of issuing offer letter, HR representative shall hand over a list containing the documents to be provided at the time of joining:

a) 4 colour passport size photographs

b) Copies of certificates in support of qualification/experience/date of birth

c) Relieving letter from last employer

d) Proof of last drawn salary, including Form 16 if required.

HR representative should also inform the candidate about the following:

a) Candidates stay arrangements at the time of joining, in case of outstation candidates.

b) Person to be reported, on the day of joining.

c) Mode of transport should he use for traveling to claim joining fare.

d) The appointment letter will be issued to the candidate on the day of joining.

4.5 PROMOTIONS

PROMOTION POLICY

Objectives:-

To identify & develop the best talents & potential leaders of the company.

Coverage;-

The policy will be applicable for all employees in levels M-05 & M-11 and non management (NM) ,on the rolls of Essar ltd for that Appraisal period. All employees on the rolls of company as on 30th September of that appraisal year & remains in service till 31st March of that appraisal year.

Process;-

All employees being considered for promotion to M-11 (in the case Of NM'S)/M-08 will be promoted by the following Process;-

On completion of residency period by the executive , subject to him fulfilling the promotion criteria & based on his performance throughout the residency period including the review period he may be recommended by his assessor by filling up the promotion form.

After the discussion between the receiver &assessor the executive may be promoted to the next level subject to availability of the position & level in the approved organization chart.

All employees being consider for promotion to M-07 & up to M-05 Will be promoted by the following process:-

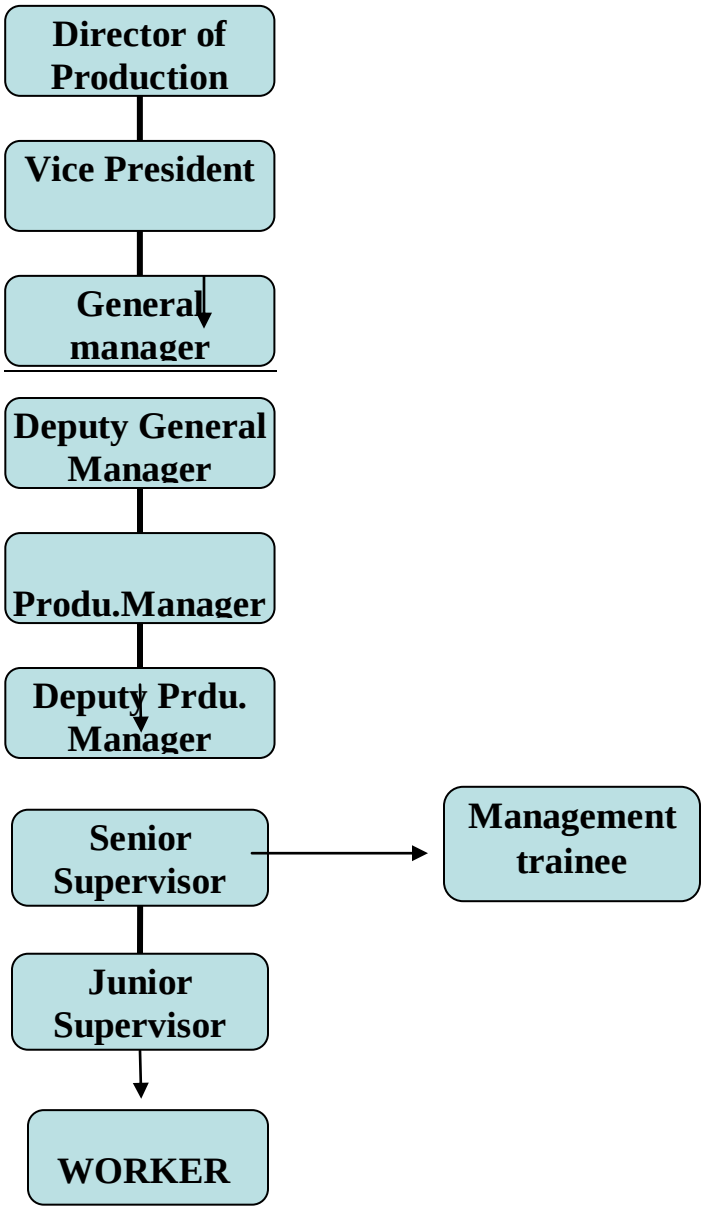
On completion of residency period by the excutive, subject to im fulfilling the promotion criteria & based on his performance throughtout the residency period including the period he may be recommended by his assessor by filling up the promotion justification from.

All the recommended executives will have to appear in MDG & only upto being recommended by the MDG panel & approved by the CEO/MD/PD the executive will be promoted to the next level subject to availability of the position & level in the approved organization chart.

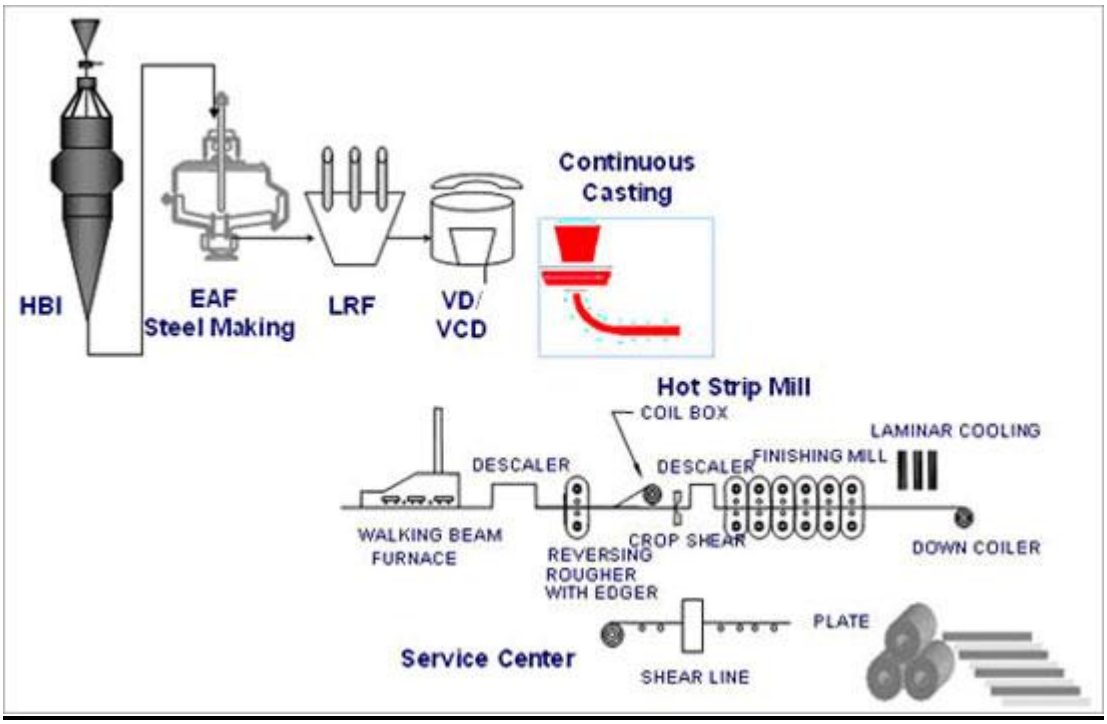
Minimum 3 year residency period in current grade incase of graduates, engineers/ professionals & incase of others such as B.Sc & B.com, minimum residency period will be 5-6 years. The execution should possess a minimum rating of 3 above during the assessment year & also during the residency period of assessment year & also during the residency period of assessment for being commended for promotion.

Chp-5:- PRODUCTION MANAGEMENT FUNCTION

Organizational chart:-



The Flow Chart of Steel Making Process in ESSAR:



=> Essar steel is a versatile manufacturer, capable of producing highly customized products. Catering to quality-conscious niches, they compete against top-of-the-league international steel producers. for example, they are one of the few manufacturers globally who can make API grade steel with low sulphur. they cater to a wide variety of product segments including roofing, automobiles, oil and gas, shipbuilding, fabrication and white goods. domestically, they have emerged as leaders in product development, quality and service. to maintain and enhance our leading position, our R&D team is constantly developing new grades and applications.

No wonder they are India's largest exporter of flat products, selling almost one-third of our production to the highly demanding US and European markets, and to the growing markets of south East Asia and the Middle East. A number of major client companies have approved our steel for their use, including caterpillar, hyundai, swaraj Mazda, the konkan railway and maruti suzuki.essar steel is among the 25 percentile of lowest cost producers world-wide and has acquired extensive quality accreditations. Their lean team gives them one of the highest productivities and lowest manpower costs among steel plants internationally.

Cold rolling complex

At the other end of the value chain, the company's downstream facilities include a 1.2 MTPA cold rolling complex, adds further muscle to our steel making facilities. the complex comprises two pickling lines of 1.4 MTPA capacity, a reversing mill and a 1.2 MTPA tandem mill, two galvanizing lines of 0.5 MTPA(Metric tone per Annum) ,batch annealing furnace of 0.5 MTPA a skin pass mill of 1.0 MTPA,cold rolling and tandem mills and a galvanizing plant. This enables essar steel to get into the genre of products that are tailor-made for automotive, white goods, shipbuilding, and agriculture and construction industries-segments that were the exclusive domain of a few international manufacturers.

P.T. ESSAR INDONESIA-OUR COLD ROLLING COMPLEX IN INDONESIA

PT essar is Indonesia's largest private sector flat products company, with a domestic market share of 35% and a history of process and product innovation. After a major expansion drive, its CR capacity has been enhanced to 400000 TPA and is newly set up galvanizing capacity is 150000 TPA.

Hazira-steel-complex

Essar steel complex at hazira, gijarat, houses a 5.0 MTPA(Metric tone per Annum) sponge iron plant the world's largest gas-based HBI producer. The plant provides raw materials for their state-of-the-art 3.0 MTPA hot rolled coil (HRC) plant, the first and largest of India's new generation steel mills. This plant fed with inputs from three electric arc furnaces and two casters, is Increasing its capacity to 4.6 MTPA .the complex's sophisticated infrastructure includes independent water supply and power oxygen and lime plants, a township and a captive port capable of handling up to 8MTPA of cargo with modern handling equipment like barges and floating cranes.

Bailadilla ore beneficiation plant

At bailadilla, where some of the world's richest and finest ore is available, essar has set up a beneficiation plant of 8million tones per annum (MTPA) capacity, which ensures the highest quality iron ore. The iron ore slurry is pumped through a 267 km.pipeline (the second longest in the world) to the pellet plant, yielding advantages of quality, cost and real time inventory management.

Vishakapatnam pelletisation plant

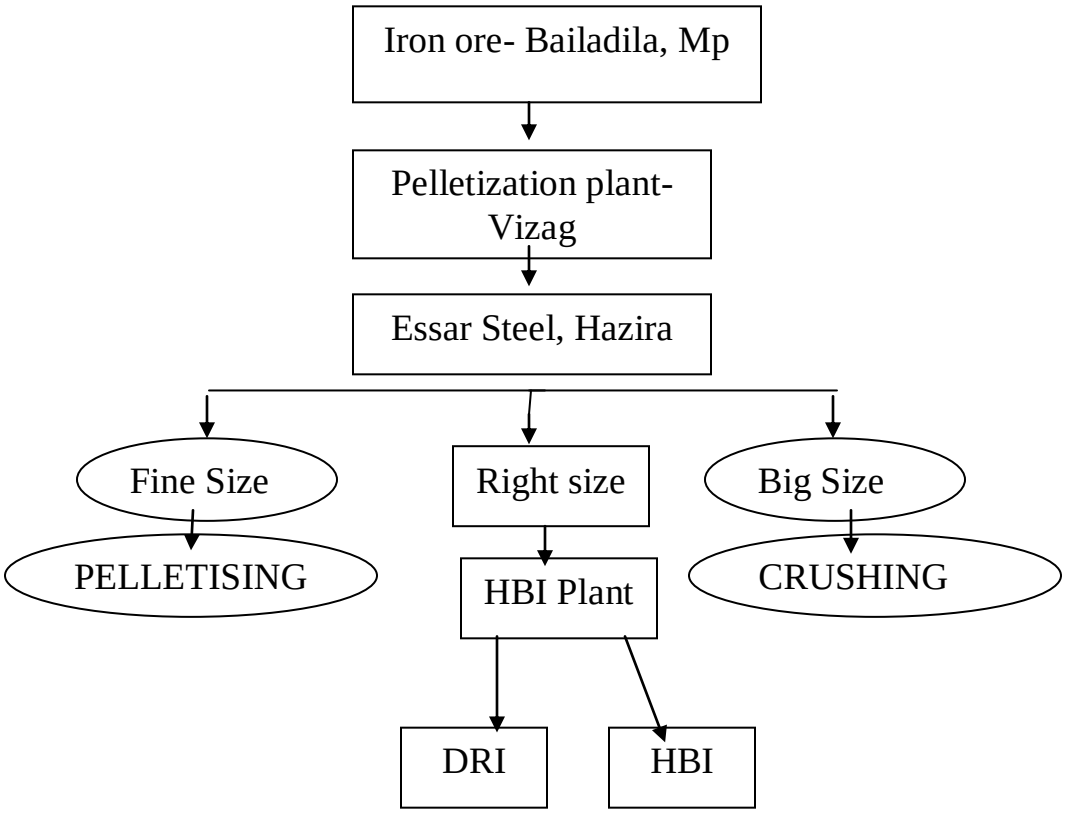
The slurry is received at our pellet plant at vishakapatnam, which has a capacity of 8MTPA, providing vital raw material for the steel plant at hazira.

PROCESSING ROUTE:

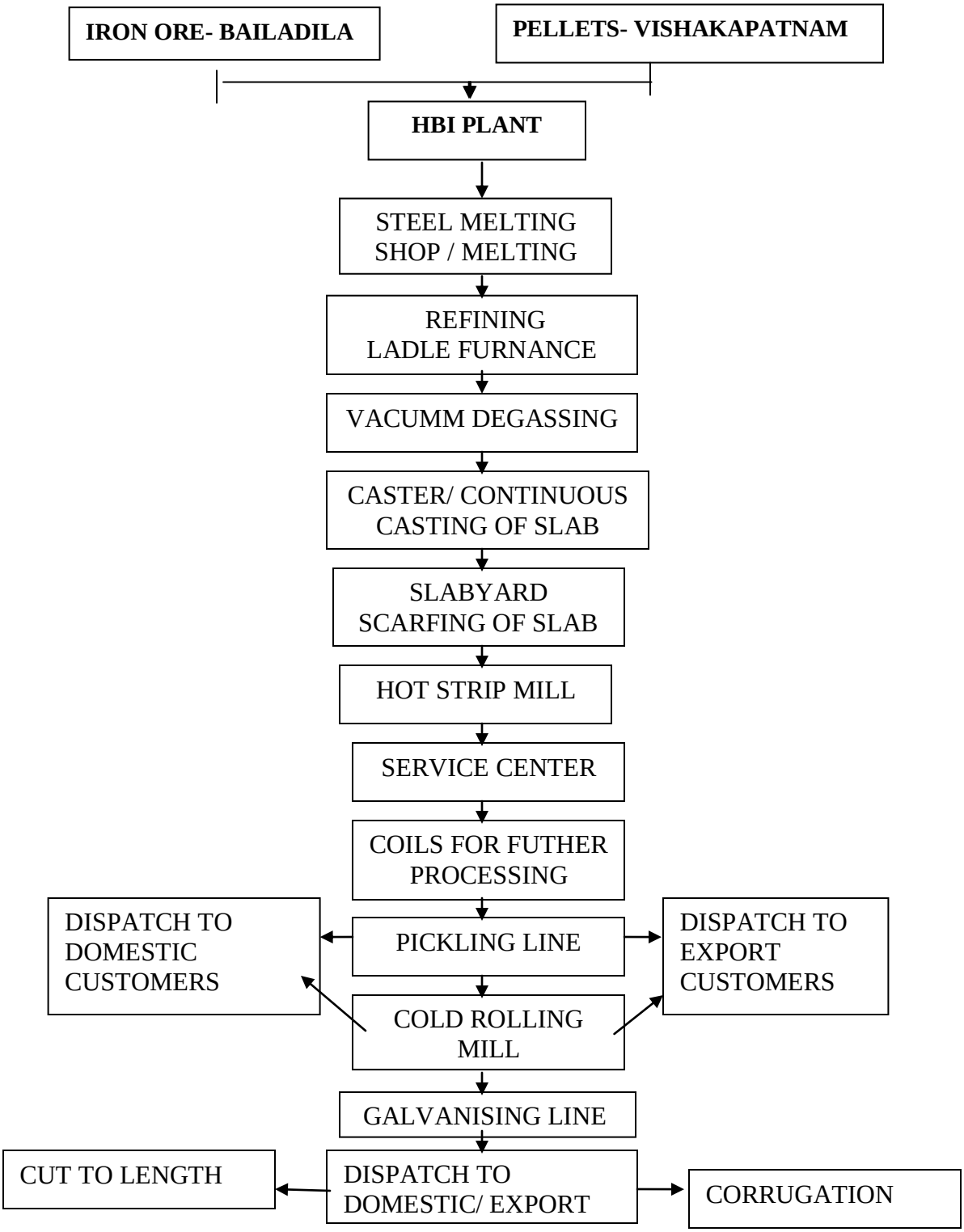
IRON ORE PROCESSING:-

- Iron ore is got from the mines of Baliadila in Madhya Pradesh.
- The raw materials are screened to remove the fines size of max 50 × 50 mm
- The fines of the iron ore are sent to high –grade palletizing plant at Vizag.
- Iron ore is crushed into fines & sintered into 5mm spherical porous pellets.
- Imported pellets are used in certain cases to improve the quality of the pellets.
- It is screened from the fines before charging for the production of HBI/DRI.

FLOW CHART



5.1 STEEL MAKING PROCESS



HBI PROCESS:-

ESSAR is the first midrex plant to implement HOT DRI transfer to an electric arc furnace. The system has been a great success. Depending upon the quality of the steel required a particular ratio of raw iron ore and the pellets approximately 60:40 or 70:30 are charged in to the hopper of the vertical shaft furnace. The production process is the midrex type by which the burden travels from top to bottom while the bustle gas i.e. the reducing atmosphere CO and N2 necessary for the reduction of the Iron oxide to pure Iron in the form of briquettes and DRI. One third of this directly reduced iron is taken in the form of HOT DRI at a temperature of around 700 C in to a 90 ton capacity vessel. This is charged into EAF which reduces the power requirement of the furnace. Remaining briquettes are quenched in cold water to around 50 to 60 C.

- At last we get HBI, DRI.
- In the process following reaction take place

  $Fe_2O_3 + CO \longrightarrow Fe_3O_4 + CO_2 \uparrow$

  $Fe_3O_4 + CO \longrightarrow FEO + CO_2 \uparrow$

  $FEO + CO \longrightarrow FE + CO \uparrow$ (95-96)
- The chemistry of the Directly reduced iron consists of
  - ✓ Metallic Fe ---- 84%
  - ✓ Total Fe ---- 92%
  - ✓ Feo --- 6 to 8%
  - ✓ C ---- 2-3% is available

- Advantages of HBI OVER DRI:-
  - ✓ Better protection against RE-Oxidation
  - ✓ Denser Material
  - ✓ Easier to transport by truck, ship etc.

- Advantages of Using HOT DRI:
  - ✓ Eliminate a cooling & heating cycle, hence saving energy & reduced coast in the steel melting shop.

SMP PROCESS:

The process done at Steel Melting Plant is

1) Melt the steel at D.C. electric arc furnace
2) Refining and alloy additions of the steel in the ladle furnace
3) Continuous casting of the hot metal as slabs at casters.

ELECTRIC ARC FURNANCE:

- There are three D.C. electric arc furnaces
- The metallic iron, HBI, Steel scrap and Hot DRI are fed in to the Electric arc furnace as raw material and melted at 1570-1600° C by the electric arc formed.
  - Input Material:-
    - ✓ HBI
    - ✓ DRI
    - ✓ Scrap
  - Electric Power-D.C.
    - ✓ Graphite Electrode
    - ✓ One electrode at the top and four at the bottom.
  - Gases:
    - ✓ Oxygen
    - ✓ Nitrogen
    - ✓ Argon

Melting Process:

- The capacity of EAF is maximum 150 ton.
- In the EAF, one big Graphite Electrode which is at the top of the Furnace that is vertically placed into the steel and four other electrodes acts as a anode, which are imbedded at the bottom of the Furnace
- The arc is struck between the graphite Cathode and the liquid steel.
- A very high temperature around the melting temperature of the steel is thus obtained which melts the entire burden in the furnace to produce molten steel.
- The molten liquid steel thus obtained is tapped in to the ladle and sent for further refining and alloy additions.

LADLE REFINING FURNACE:-

- In ladle Refining Furnace steel is refined and the alloy additions are made.
- There are three Ladle furnaces'.
- Capacity of Each Furnace is 180 ton.

Input Material:

- ✓ Molten Steel
- ✓ Electric Power
- ✓ Fluxes:
  a) Lime
  b) Do lime
- ✓ De-Oxidizing agents:
- ✓ Aluminum in the form of the Wire.

REFINING PROCESS-

- The ladle with the molten steel is brought to the ladle furnace.
- Three graphite electrode are immersed in to the furnace to maintain the temperature and argon gas is purged from the bottom to prevent the re oxidation of the steel.
- Alloy additions are done in the form of Ferro alloys depending upon the final chemistry needed.
- All the above processes are performed until the required chemistry is got by verifying alloy pop shaped sample taken from the ladle and analyzed in the spectrometer.
- Addition of Lime is done to remove Sulphur and Oxygen.

VACUUM DE-GASSING:-

- Further refining after LRF, is required for certain special grades, which is performed at Vacuum de-gassing furnace.

CASTER:-

- There are two continuous casters.
- The liquid steel is transported in the ladle to the ladle turrent , which is just above the caster at required time for casting in to slab.
- Then the molten steel is filled into the turdish over which cast powder is added for the purpose of lubricating of steel during casting.
- From tundish the molten melt passes through the oscillating copper mould, which is coated with nickel.
- The dummy bar pulls the first form slab after processing through a series of water coolers.
- Finally the hot slab is cut to the required size with the help of the torches.

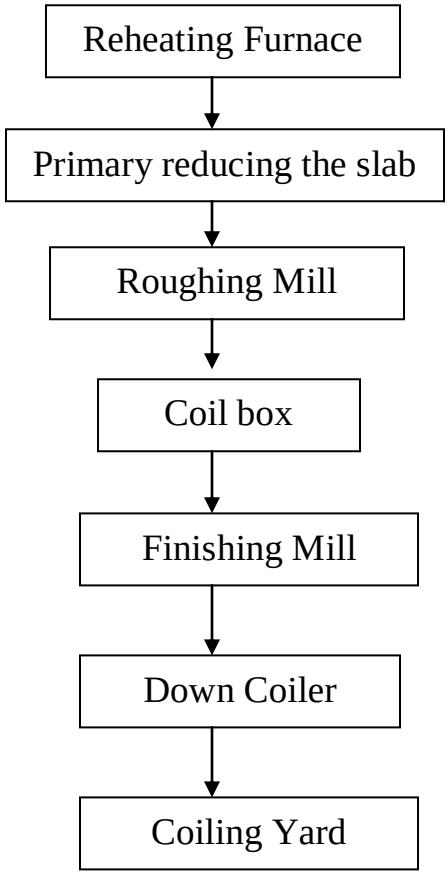
➢ This is how Slab is formed. After 3 days of Cooling it is ready to get processed in HSM.

5.2 HSM (Hot Strip Mill) OVERALL PROCESS

5.2.1 INTRODUCTION:-

- Essar is the largest exporter of Hot Rolled coils in India.
- The production of HSM is 3.6 MTPA. The HSM receives slabs from the slab yard and rolls them into Hot Rolled Coils. The slabs are of fixed thickness (220 mm). The output thickness of the strip can be varied from 1.6 mm to 20 mm.
- The width of the slab can varies from a minimum 750 mm to 2000 mm and length can be maximum of 10.3 mm.
- Around 400 grades of steel are rolled here.

- **The process can be divided into the following sections:**



5.2.2 REHEATING FURNACE

- There are two reheating furnaces of the same kind.
- It receives the slab at normal temperature and heat it around 1250° Celsius.
- The temperature depends on the grade of the slab and the thickness of the strip to be achieved.
- The furnace can be divided into four parts namely:-
    I. Recuperating zone
    II. Pre-heating zone
    III. Heating Zone
    IV. Soaking Zone
    - The temperature in every part of the furnace is measured using sensors and the fuel is injected accordingly.
    - The total length of the furnace is about 45 m
    - **The various parts before and after the reheating furnace are discussed below:**

ROLLER TABLE

- There are five groups driven Roller Tables before the furnace.
- These tables carry the slab from the crane to the furnace entry.
- This is sensed by sensors and the slab is transported to the furnace entry point. Once there is enough space in the furnace, the furnace entry door opens and the pusher rod pushes the slab into the furnace.
- The slab enters the Recuperating Zone.

RECUPERATING ZONE

- This zone is the first zone in the furnace and no fuel input and hence no burners.
- The hot fuel gas generated due to the burning of the fuel in the other zones passes through this zone.
- This hot gas transfers heat from it to the slabs and thus heating the slabs.

PRE-HEATING ZONE

- This is the first zone where the slab is heated using the fuel.
- The fuel is injected using top and bottom side of the furnace
- There are 16 burners 8 on the top and 8 on the bottom of the furnace.
- The temperature in this zone is around 1320° C.

HEATING ZONE

- This zone is similar to the pre-heating zone
- The temperature is more or less same as that in the pre heating zone.
- This zone has a total of 16 burners, 8 on the top and 8 on the bottom.
- The temperature here is around 1300° C. The temperature here is maintained so that the temperature here is uniformly distributed in the slab.

SOAKING ZONE

- This zone has 28 burners, 20 on the top and 8 on the bottom.
- This zone is separated from the rest of the zone of the furnace by allowing only a small gap from the other zone to this zone.
- The temperature of the tail end is maintained a little higher than the head end because the tail end losses more heat than the head end before being rolled.
- This is because the tail end is exposed to more heat than the heat end before being rolled.
- The slab is heated around 1250° Celsius. Depending on the grade of the slab. Once the slab reaches the desired temperature at the end of the furnace, the exit door opens and the slab extractor comes in and lifts the slab and takes it to the furnace exit Roller table.
- There are also sensors inside the furnace to measure the temperature at every part of the furnace.
- Based on this temperature feedback the amount of fuel entering the furnace is controlled.

DESCALER

- The descaler is used to remove the scales from the both the surface of the slab. When the slab passes through the descaler water is injected on the slab at high pressure from the top and bottom side of the slab.
- There are about 31 nozzles in the descaler.
- These nozzles are inclined at an angle of 22° to the vertical direction of the slab entry direction.
- This is done to impact with lesser flow of water.
- The average water injected is around 4100 liters per minute.

5.2.3 Roughing Mill

- The roughing mill and the finishing mill each have two work rolls and two backup rolls.
- The slab passes between the two work rolls.
- The backup rolls are driven by the frictional force from the work Rolls and is not driven by any motor.
- The backup rolls are used to prevent any deformation in the size of the work rolls. The slab when passes may change its width so in order to maintain the width there are two vertical edged rolls
- The slab is either passed 5 or 7 times depending on the grade of the steel. The roughing mill descaler is not used every time the slab passes through the roughing mill rolls.
- The thickness of the slab is reduced from around 217 mm to 30 to 35 mm.

COIL BOX AND CROP SHEAR:-

- The coil box is used to coil the slab temporarily.

- This is done to reduce the length of the mill and also to reduce the heat loses in the strip when exposed to the surrounding.

- The coil box then uncoils the coil to the finishing mill before which there is a crop shear to cut the head end and the tail end of the strip.

- In Essar they have facility for controlling width and thickness but length cannot be controlled. So while maintaining the width and thickness the head and tail becomes semi-circle shaped or curved so crop shear is used.

5.2.4 FINISHING MILL

- The finishing mill is a six stand high finishing mill.
- There is a descaler before the first stand of the finishing mill.
- This is to remove the scale formed when the transfer bar was stored in the coil box.
- There are six guide in the finishing mill to guide the transfer bar.
- There are tension loppers between each finishing mill stand.
- These loppers help in maintaining the tension of the strip when it passes from one stand to another.
- If tension is not maintained then it would form bends in the strip. The speed of the rotation of the rolls increase as the number of stand increases.
- The 6^{th} stand is the fastest rotating rolls.

COILER:

- There is a Coiler at the end of the Finishing Mill.
- It Coils the Coil as soon as it gets processed on Finishing Mill.

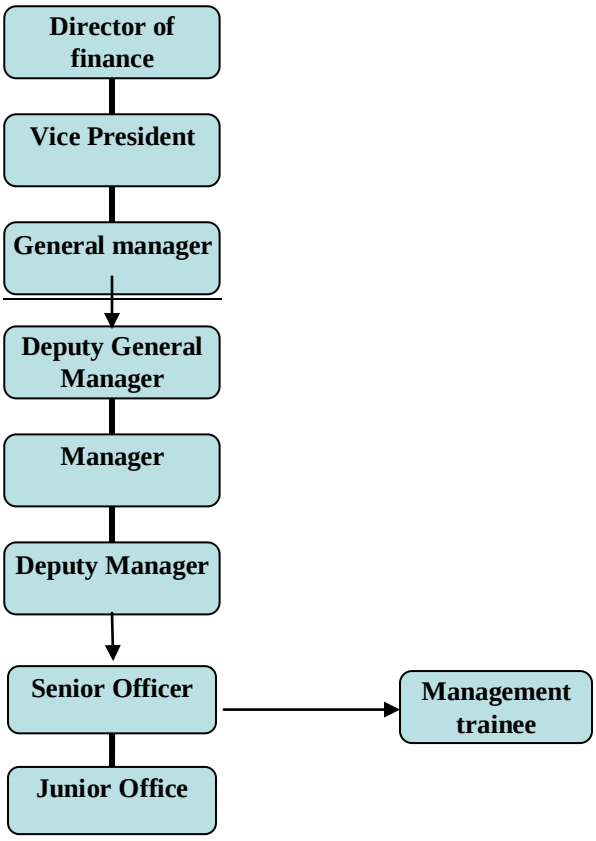
STRAPPING, WEIGHING AND MARKING MACHINE

- The strip after being coiled at the coiler is first transported to the strapping machine.
- The strapping machine uses a thin steel strip to strap the coil.
- The load cell can weigh a maximum weight of 30 tones. Then the coil moves to the marking machine.
- The marking machine can move both vertically and horizontally.
- The Coil is marked at a temperature of around 700° Celsius.
- Then the coil moves to the eye strapping machine where the coil is strapped around its length.
- Finally a crane carries the coil to the coil yard.

Thus in the above way the formation of the Coil takes place.

Chptr-6:-FINANCIAL FUNCTION

Organizational chart:-



6.1-- Accounting Policies

(a) **Basis of preparation**

The financial statements have been prepared to comply in all material aspect with the mandatory accounting standards issued by the institute of chartered accountants of India and the relevant provisions of the companies Act, 1956. the financial statements have been prepared under the historical cost convention on an accrual basis. The accounting policies have been consistently applied by the company and are consistent with those used in the previous year.

(b) **Use of Estimates**

The preparation of financial statements in conformity with generally accepted Accounting Principles requires management to make estimates & assumptions that effect the reported amounts of assets & liabilities and disclosure of contingent liabilities at the date of financial statements & result of operations during the reported year.

(c) **Fixed Assets**

Fixed assets are stated at cost (or revalued amounts, as the case may be), less accumulated depreciation and impairment losses if any. Cost comprises the purchase price and any attributable cost of bringing the asset to its working condition for its intended use. Borrowing costs relating to acquisition of fixed assets which taken substantial period of time to get ready for its intended use are also included to extent they related to the period till such assets are ready to be put to use.

(d)**Capital work-in-progress**

All expenditure, including advances given and interest cost during the project construction period, are accumulated and disclosed as capital work-in-progress until the assets are ready for commercial use. Assets under construction are not depreciated. Income earned from investments of surplus borrowed funds during the construction/trail run period is reduced from capital work-in-progress. Expenditure / income arising during trail run is added to / reduced from capital work-in-progress.

Financial Resources and Liquidity

Summary of Cash Flows

(in millions of dollars)	**Successor April 1 to June 30, 2008**	Combined three months April 1 to June 30, 2007
Operating activities:		
Cash flow from operations before changes in non-cash operating working capital	**$133.6**	$37.3
Changes in non-cash operating working capital	**(174.8)**	(19.0)
	$ (41.2)	$ 18.3
Investing activities:		
Acquisition of property, plant and equipment	**$ (57.3)**	$ (25.2)
Decrease in short-term investments	**-**	1.8
Proceeds on sale of capital assets	**0.3**	0.4
Business acquisition, net of cash acquired of $41.2 million	**-**	(1,666.4)
Restricted cash	**4.0**	(7.8)
	$ (53.0)	$(1,697.2)
Financing activities:		
Bank indebtedness	**$ 114.5**	$ 98.6
Proceeds of long term notes and bank term loan	**-**	939.1
Redemption of 9.875% notes payable	**(19.7)**	
Issuance of shares	**-**	531.8
Advance from related parties	**-**	8.8
Financing Costs, bank indebtedness	**-**	(5.2)
Other	**(0.1)**	-
Effect of exchange	**0.3**	-
	$ 95.0	$1,573.1
Change in cash during the period	**$ 0.8**	$ (105.8)

Cash Flow From Operating Activities

Cash flow from operations in the quarter ending June 30, 2008, before changes in non-cash operating working capital, was $133.6 million compared to $37.3 million for the combined three month period ended June 30, 2007.

6.2-- INCOME STATMENT

Income Statement

As on(Months)	31-Mar-08(12)		31-Mar-07(12)		31-Mar-06(12)	
Profit / Loss A/C	Rs mn	%OI	Rs mn	%OI	Rs mn	%OI
Net Sales	80874.8	99.6	61686.6	97.66	60983.9	99.93
Operating Income (OI)	81201.7	100	63165.9	100	61024.9	100
OPBDIT	19859.2	24.46	15534.5	24.59	18668.1	30.59
OPBDT	12664.2	15.6	10711.4	16.96	13824.7	22.65
OPBT	6353.8	7.82	5890.4	9.33	9881.8	16.19
Non-Operating Income	708.9	0.87	1953	3.09	35.5	0.06
Extraordinary/Prior Period	-2103.3	-2.59	-2407.1	-3.81	-3935	-6.45
Tax	594.5	0.73	134.5	0.21	80.8	0.13
Profit after tax(PAT)	4364.9	5.38	5301.8	8.39	5901.5	9.67
Cash Profit	10675.3	13.15	10122.8	16.03	9844.4	16.13
Dividend-Equity	0	0	0	0	0	0

6.3 -- BALANCE SHEET

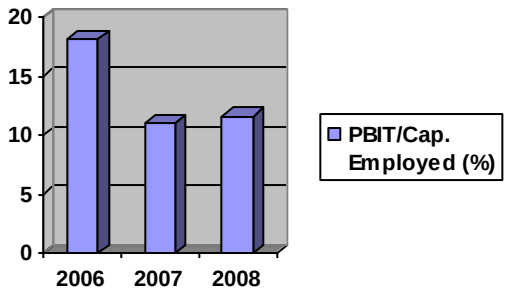
➔=> BALANCE SHEET

As on	31-Mar-08		31-Mar-07		31-Mar-06	
Assets	**Rs mn**	**%BT**	**Rs mn**	**%BT**	**Rs mn**	**%BT**
Gross Block	135541.9	84.59	104475.4	71.08	69401.7	83.65
Net Block	88895.9	55.48	63984.5	43.53	32488.3	39.16
Capital WIP	11077.8	6.91	28873.6	19.64	5896.4	7.11
Investments	4334.3	2.7	1829.7	1.24	7260.9	8.75
Inventory	23287.7	14.53	14853.4	10.11	9332.2	11.25
Receivables	5468.5	3.41	5401.6	3.67	4713	5.68
Other Current Assets	27170.4	16.96	32042.8	21.8	23275.7	28.05
Balance Sheet Total(BT)	160234.6	100	146985.6	100	82966.5	100
Liabilities	**Rs mn**	**%BT**	**Rs mn**	**%BT**	**Rs mn**	**%BT**
Equity Share Capital	11404.8	7.12	5811.7	3.95	5079.8	6.12
Reserves	30809.5	19.23	12461.8	8.48	6865.4	8.27
Total Debt	73561.8	45.91	103760.1	70.59	53586	64.59
Creditors and Acceptances	26097.7	16.29	11606.5	7.9	6794.7	8.19
Other current liab/prov.	18360.8	11.46	13345.5	9.08	10640.6	12.83
Balance Sheet Total(BT)	160234.6	100	146985.6	100	82966.5	100

➢ RATIO ANALYIS

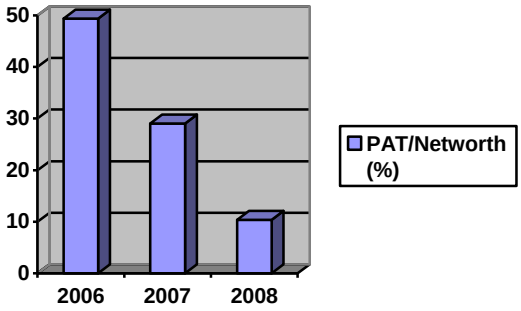
RATION ANALIS			
As on	31-Mar-08	31-Mar-07	31-Mar-06
PBIT/Cap. Employed (%)	11.61	11.01	18.15
PAT/Networth (%)	10.34	29.01	49.4
Tax/PBT (%)	11.99	2.47	1.35
Total Debt/Networth (x)	1.74	5.68	4.49
Long Term Debt/Networth (x)	1.36	3.41	3.21
PBDIT/Finance Charges (x)	2.57	3.13	3.05
Current Ratio (x)	1.26	2.1	2.14

(1) Profit before tax and Interest



IN 2006 the PBIT is 18.15% and in 2007 it's decrease and reached 11.01% and next year in 2007 it's increase and reached 11.61%.....

(2)Profit after tax

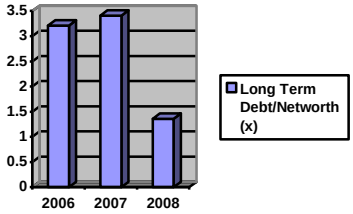


IN 2006 the PAT is 49.40% and in 2007 it's decrease and reached 29.01% and next year in 2007 it's reached 10.34%.....

(3)Profit Before Tax

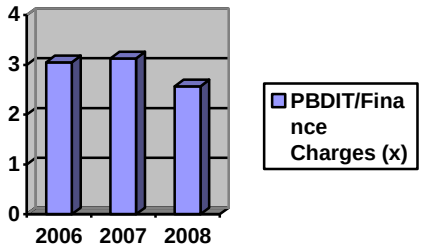
IN 2006 the OPBIT is 1.35% and in 2007 it's decrease and reached 2.47% and next year in 2007 it's reached 11.99%.....

(6) Long Term Debt.



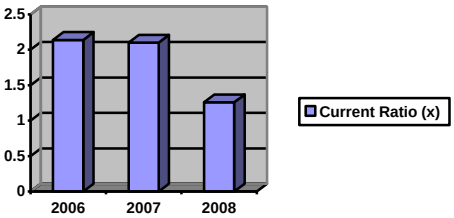
IN 2006 the OPBIT is 3.21% and in 2007 it's decrease and reached 3.41% and next year in 2007 it's reached 1.36%.....

(7)PBDIT(Profit Before dep. Interest. and test)



IN 2006 the OPBIT is 3.05% and in 2007 it's decrease and reached 3.13% and next year in 2007 it's reached 2.57%.....

(8)Current Ratio



IN 2006 the OPBIT is 2.14% and in 2007 it's decrease and reached 2.01% and next year in 2007 it's reached 1.26%.....

ESSAR
A positive a++itude

SWOT Analysis of ESSAR

STRENGTH

- India's Largest steel exporter
- Cost leadership
- Assured supply of input.
- Controlled infrastructure facilities.
- Highly experienced management.
- Educated work force.
- Excellent brand equity and quality

WEAKNESS

- Cost of raising fund is high.
- Cost of raw-material is high since Essar don't have it's own mines. So , getting Raw-Material market is costly affair.


OPPORTUNITY
Enormous scope for increasing consumption of steel in India.
Maximum utilization of cash flow through new business & avenues like online sales, steel retail outlets & service centers.
Trapping the retail segment for steel.
Unexplored rural market
Increasing steel consumption in other
THREAT
Technological changes.
Ever decreasing import duty on steel i.e high quality of product from developed countries available for import at very competitive prices.

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THANK YOU...