



## PROLOGUE

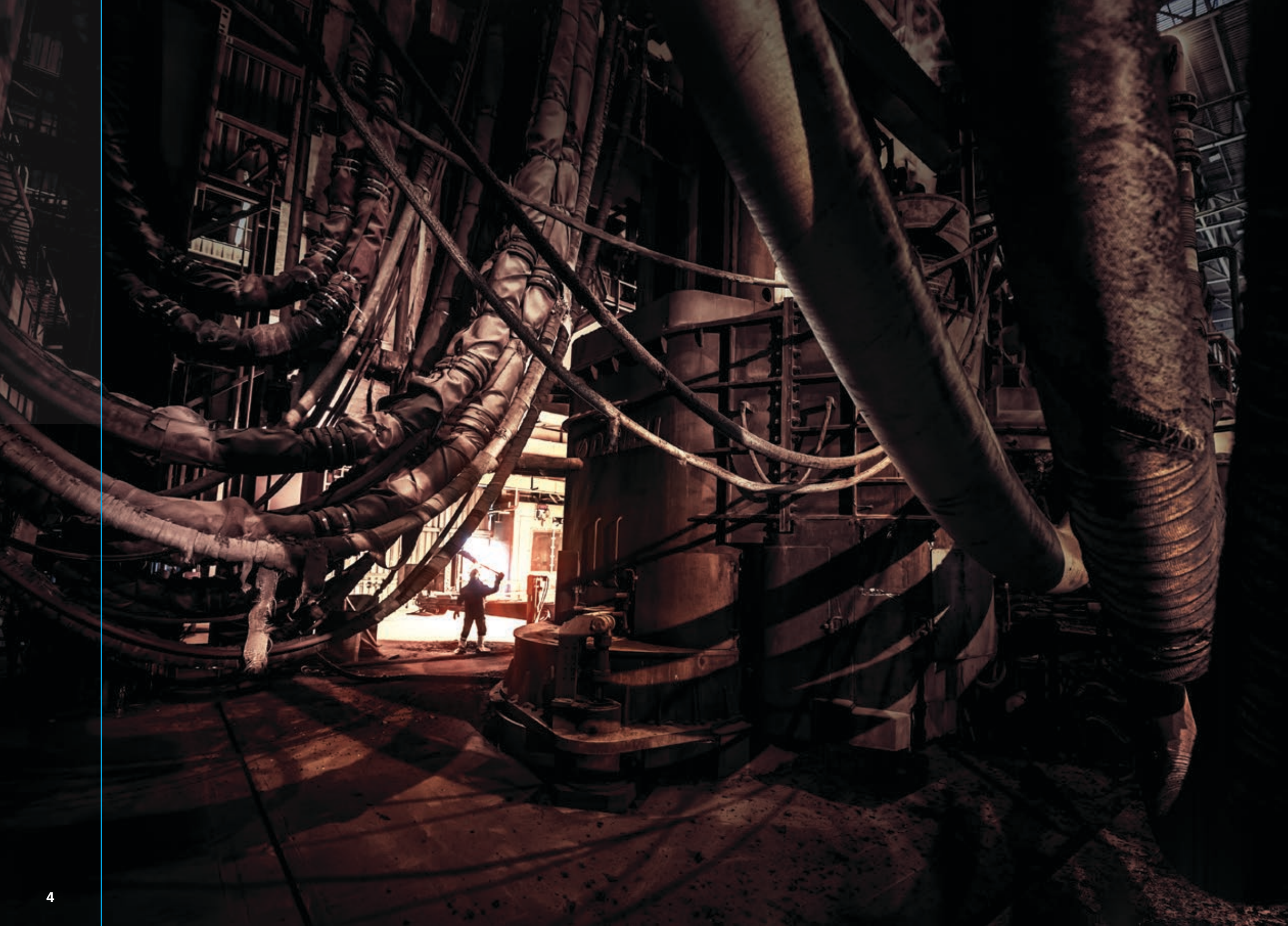
We are an Abu Dhabi-based steelmaker located in the Industrial City of Abu Dhabi, Musaffah. The company is the only integrated steel plant in the UAE, utilizing the latest technology to produce high quality structural steel sections.

Established in 1998, Emirates Steel has expanded and evolved to produce liquid steel from the Direct Reduced Iron process route using Iron Oxide Pellets for feedstock. Semi-finished products, beam blanks, are cast using liquid steel produced in the electric arc furnace.

We look forward to working with you.

**Emirates Steel**





## BUSINESS OVERVIEW

### OWNERSHIP

100% owned by Senaat,  
Government of Abu Dhabi

### TOTAL PRODUCTION CAPACITY

3.5 million tons of finished  
long products per year

### PLANT AREA

2 square kilometers from  
800,000 square meters  
in 2006

### ASSET VALUE

\$3 billion  
(11 billion UAE dirhams)

### YEAR OF ESTABLISHMENT

1998

### ANNUAL REVENUES

2013: AED 6.5 billion  
(c. US\$ 1.8 billion)

### DOMESTIC MARKET SHARE

2013: 65%

### DOMESTIC VS EXPORT SPLIT

Locally: 75%  
Export: 25%

### FEEDSTOCK OF RAW MATERIALS

5 million tons per year of  
iron oxide pellets

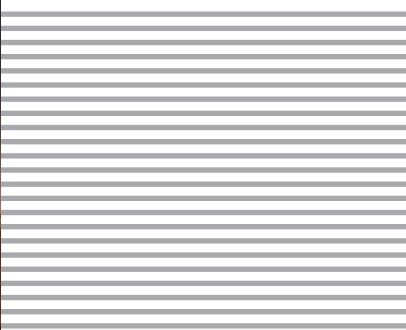
### STAFFING

**2006:** 250 employees. **2014:** 2,400  
employees. **2014:** Percentage of UAE  
nationals 20%. **2018 (f):** 30% UAE nationals

### ENVIRONMENT

Emirates Steel sequesters up to 730,000  
tons of CO<sub>2</sub> annually = Planting around  
100,000 trees.





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## THE MILL: QUICK FACTS

- > Capacity 90,000 tons per month
- > Fully integrated structural steel mill commissioned in 2011
- > Imports of Iron Oxide Pellets from Brazil, Canada and Sweden (68% FE content)
- > Direct Reduced Iron feedstock
- > Melt shop (Electric Arc Furnace)
- > Beam Blanks
- > Reheat Furnace
- > Hot Rolling Mill (Cold Saw)
- > Bundling and Strapping
- > Dispatch by road transport direct to GCC customers
- > Road transport to UAE ports for export destinations





## 01

### MESSAGE FROM THE CEO

Our heavy sections rolling mill started production in early 2012 signaling the establishment of Emirates Steel as the largest manufacturer and supplier of structural steel sections in the Middle East.

Our valued clients in the region and beyond are now enjoying the benefits of having a world class steel producer that understands and meets their requirements in terms of product consistency, dimensional accuracy, made to order products, short lead time, on time delivery and commercial competitiveness as their strategic business partner.

Our ability to produce a wide range of sizes in BS4, Euronorm and W standards that meet the need of customers and projects with special sizes and lengths up to 24 m as well as our quality manufacturing performance and delivery precision have further strengthened our market position as an integral part of our clients' supply chain structure.

We look forward to working with you and assure you of our best and prompt attention at all times.

**SAEED GHUMRAN AL ROMAITHI**  
CEO, EMIRATES STEEL







## 02

## CORPORATE PHILOSOPHY

### VISION

To be a world class steel manufacturer providing the highest quality products, services and solutions to our customers and maximizing returns to our shareholders.

### MISSION

- > To provide the construction, manufacturing and industrial sectors with their requirements of high quality steel products.
- > Maintain safe and environmentally friendly work practices across our operations.
- > Create employment opportunities and inspire our workforce to excel.
- > Contribute to the industrialization and diversification of the UAE economy in line with Abu Dhabi's Vision 2030.

### CORE VALUES

- > Honesty, Integrity, Creativity, Innovation and Quality.
- > Pursuit of continuous improvement across all aspects of our business.

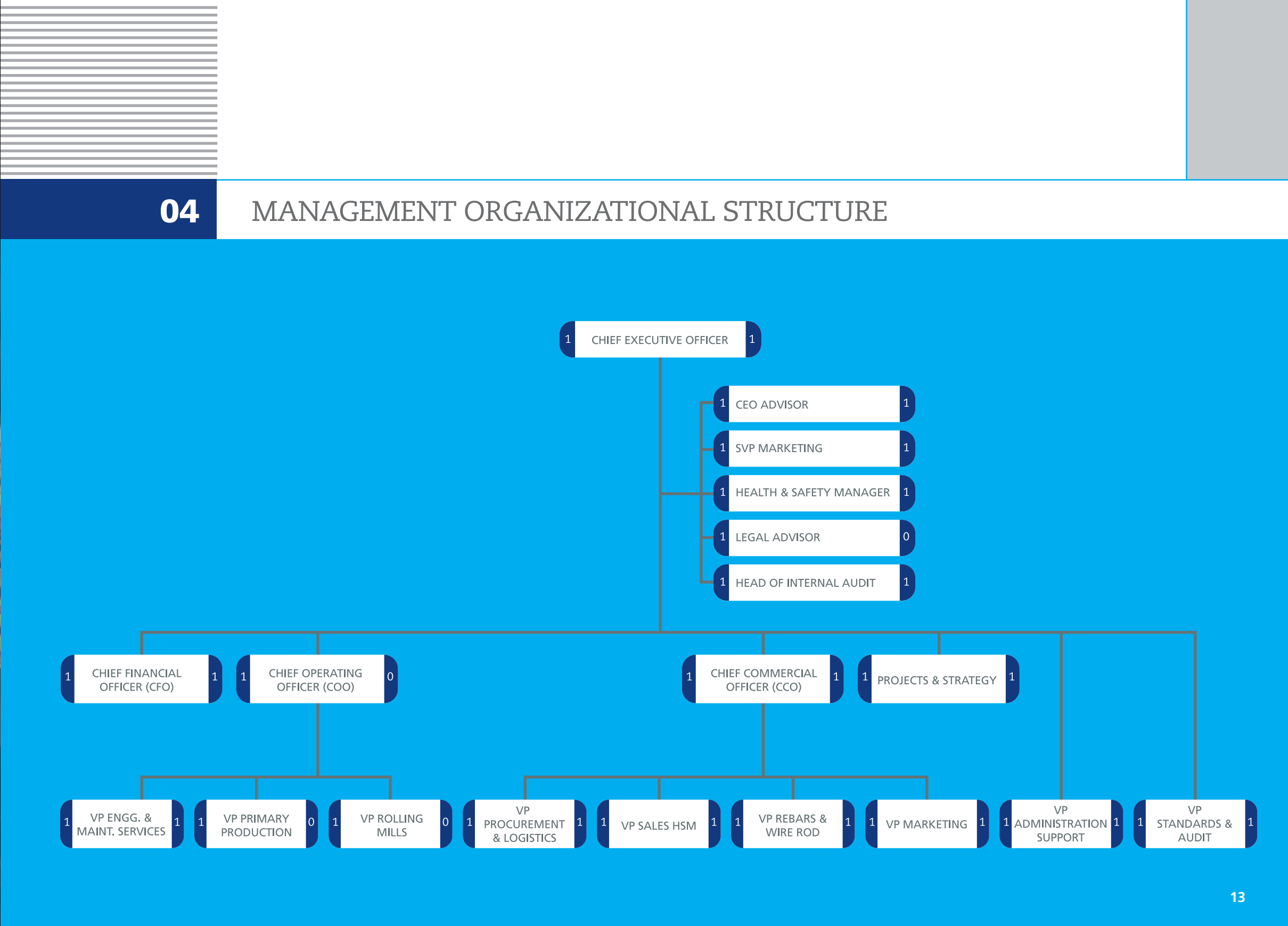
## 03

## MANAGEMENT STYLE

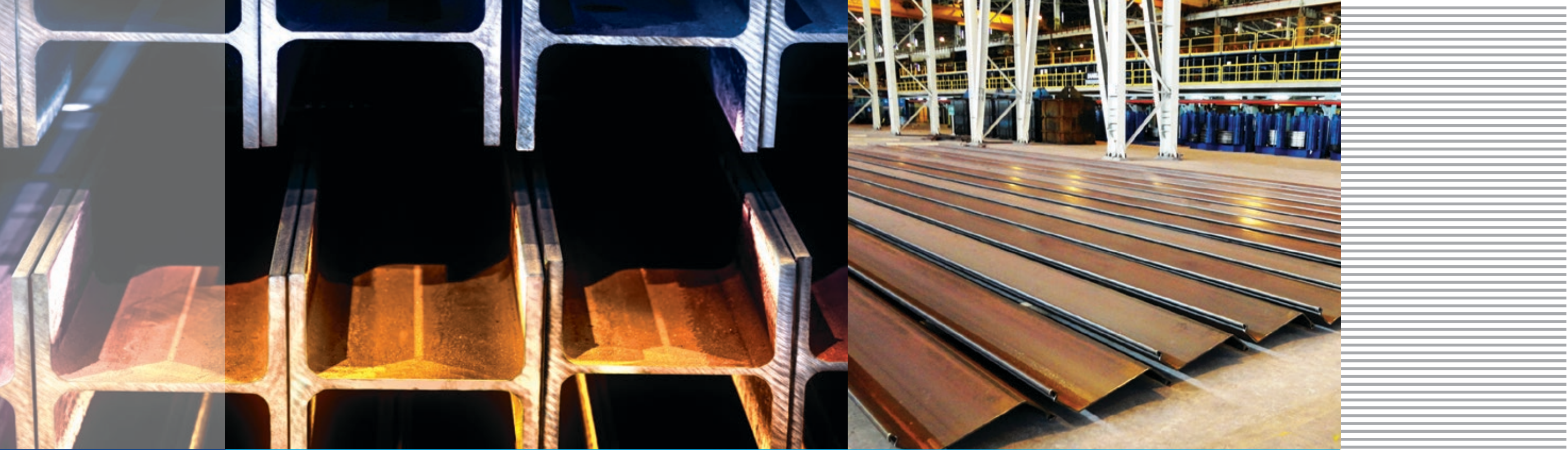
- > **PRINCIPLES:** Business is conducted in accordance with rigorously applied ethical, professional and legal standards.
- > **ACCOUNTABILITY:** At each level management is responsible and answerable for executing their specific responsibilities and functions and thereby, on a consolidated basis, the full team takes responsibility for delivering the results required by the stakeholders.
- > **FEEDBACK:** Open communications throughout the workplace enables all employees to receive feedback on their performance and on the performance of the Company as a whole.
- > **EMPOWERMENT:** Individuals perform best when they take responsibility for their areas of functionality – they manage their responsibilities, take ownership and responsibility, and delegate tasks effectively to their team members. Managers are responsible for building the skills and the development of their teams.
- > **PLANNING:** Having a vision of the future and a clear 'roadmap' as to how the Company will achieve its objectives. In addition, the Company encourages innovation and continuing improvement, and champions continuous learning.
- > **RESPONSIVENESS:** Responsiveness to our customers' needs keeps us ahead of our competitors.

**"We are known for having a vision of the future and a clear 'roadmap' as to how we will achieve our objectives."**









HSM PRODUCT RANGE

Emirates Steel is one of the largest producers of sections in the Middle East. UK CARES has approved the Company's structural steel products for the CE Mark / European Safety Certification together with the Factory Certificate for South East Asian Countries.

HSM PRODUCTS TO INTERNATIONAL STANDARDS

UB	Universal Beams
UC	Universal Columns
PFC	Parallel Flange Channels
UBP	Universal Bearing Piles
HE	European Wide Flange Beams
IPE	European Narrow Flange Beams
W	American Wide Flange Beams
NPB	Indian Narrow Parallel Beams
WPB	Indian Wide Parallel Beams
MCP	Indian Medium Parallel Channel

HSM PRODUCT GRADES

EN 10025	S235JR, S235JO, S235J2
EN 10025	S275JR, S275JO, S275J2
EN 10025	S355JR, S355JO, S355J2
ASTM	A36, A572 Grade 50, A992
EN 10248	S355GP
IS 2062	E250A, E250BR, E250BO
IS 2062	E275A, E275BR, E275BO
IS 2062	E300A, E300BR, E300BO
IS 2062	E350A, E350BR, E350BO

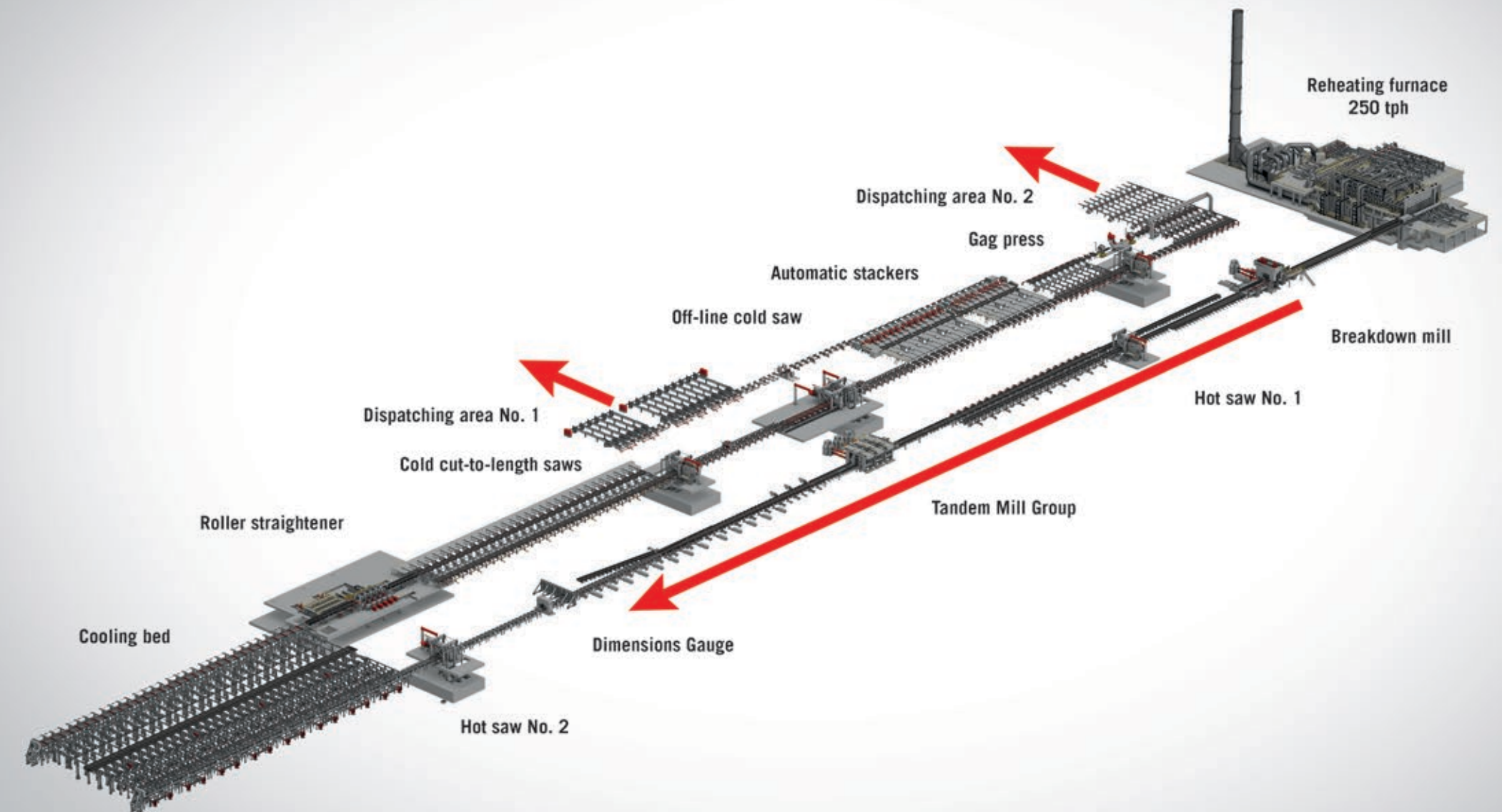
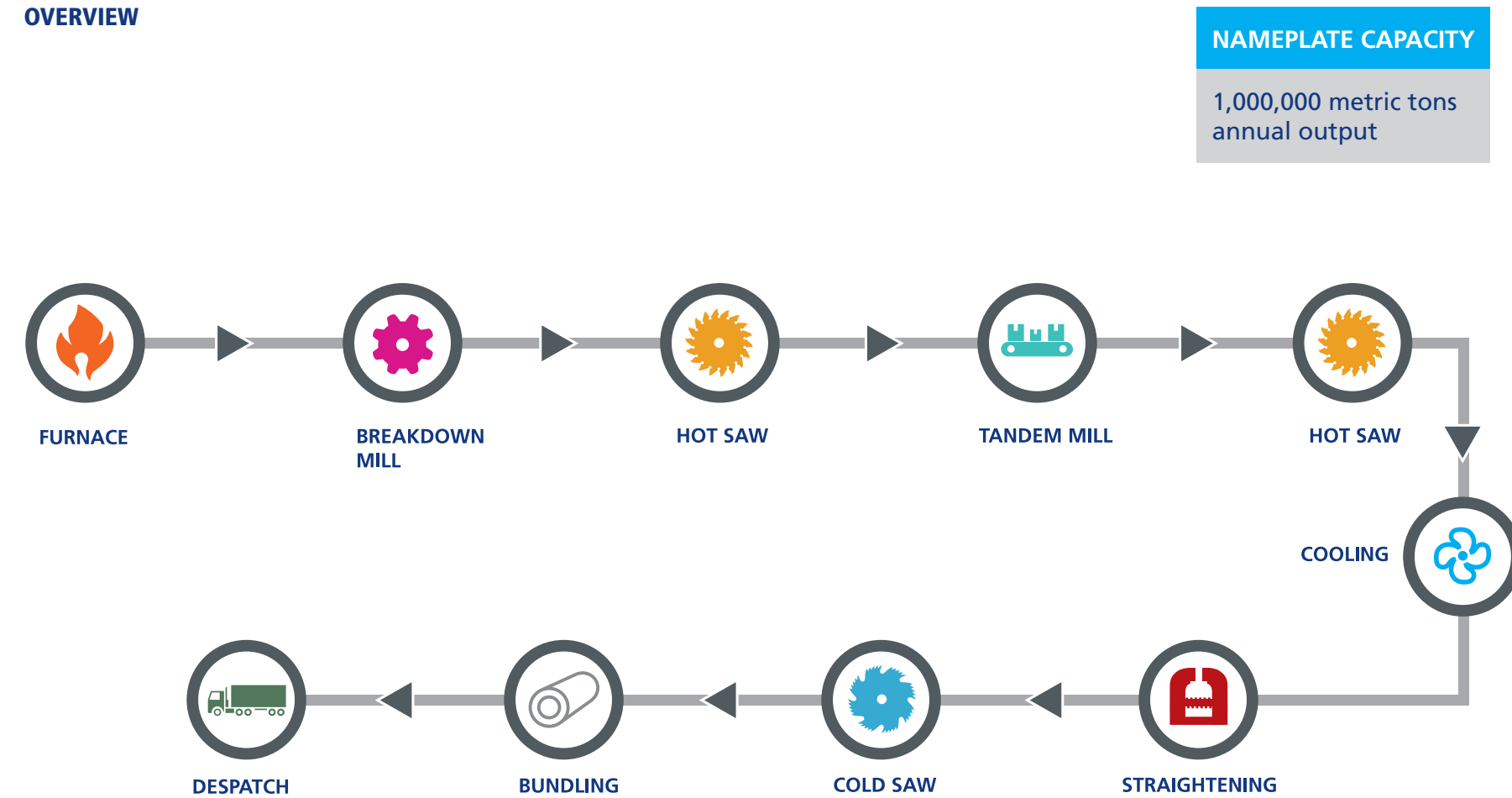
HSM PRODUCT FAMILIES

PRODUCT		STANDARDS	WEB WIDTH MM	LINEAR WEIGHT KG/M
British Parallel Flange Universal Beams	UB	BS4 – 1 BS EN 10025 BS EN 10225 EN 10034	254 – 1016	31.1 – 494.0
British Parallel Flange Universal Columns	UC	BS4 – 1 BS EN 10025 BS EN 10225 EN 10034	203 – 356	46.1 – 634
British Parallel Flange Channels	PFC	BS4 – 1 BS EN 10025 BS EN 10225 EN 10279	200 – 430	23.4 – 64.4
British Parallel Flange Universal Bearing Piles	UBP	BS4 – 1 BS EN 10025 BS EN 10225 EN 10034	203 – 356	44.9 – 174.0
European Wide Flange Beams	HE	EN 53-62 EN 10034	200 – 1000	34.6 – 348.7
European Parallel Flange Beams	IPE	EN 19 – 57 EN 10034	270 – 750	30.7 – 196.0
American Wide Flange Beams	W	ASTM A6 / A6M	203 – 1016	32.7 – 539.0
Indian Standard	NPB	IS 2062	254 – 1016	31.1 – 494
	MCP	IS 2062	200-430	23.4-64.4
	WPB	IS 2062	200-1000	34.6-634

Note: Other ranges and norms are available by request within the above maximum and minimum sizes.

PRODUCT		STANDARDS	PILE WIDTH	MODULUS
Emirates Steel Sheet Piles	ESZ18-630	BS-EN 10248	630mm	1800cm³/m

## OVERVIEW







### BUNDLES WEIGHTS & LENGTHS

	MINIMUM	STANDARD	MAXIMUM
Bar Length	6.0m	12.0m	24.0m
Bundle Weight	2.6 tons	5.0 tons	8.0 tons

### BAR LENGTHS

- > Lengths are available in 0.1m increments; commercial tolerance on length is -0 + 100mm.
- > Number of pieces at any given length is subject to minimum tonnages.

### BUNDLES

- > Standard bundles are configured around a 5 ton nominal.
- > The number of bars in a bundle varies from 1 to 36.
- > Bundles up to 8 tons can be produced by request.
- > Single bars heavier than 2.5 tons are dispatched as individual items.

### FEEDSTOCK

TYPE	SIZE MM	LINEAR WEIGHT KG/M	LENGTH M
Beam Blank	430x350x90	686	5 - 12
Beam Blank	480x250x90	570	5 - 12
Beam Blank	510x470x100	1084	5 - 12
Beam Blank	670x350x90	862	5 - 12
Beam Blank	1050x460x120	1692	5 - 12
Bloom	350x220	626	5 - 12

Heat Treatment	AR – As Rolled M – Thermo Mechanical Control Rolled
Maximum Flange Thickness	58.0MM







**MILL EQUIPMENT**

All mill line equipment was supplied by Danieli Morgardshammer, Italy.

**REHEAT FURNACE**

**Purpose:** To heat feedstock to the required rolling temperature.

Type	Walking Beam
Number	1
Fuel	Natural Gas
Number of Fixed Beams	4
Number of Walking Beams	4
Maximum Throughput	250 tph (cold charge)
Furnace Inside Length	34.1m
Effective Heating Length	33.5m
Inside Width	13m
Charging Temperature	20 – 500 deg C Hot charge available as direct feed from CCM
Maximum Operating Temperature	1350 deg C
Max Discharge Temperature	1280 deg C
Specific Productivity	620 kg/m²h
Feedstock Length Range	From 5m to 12m
Charging & Discharging	Side loading, lift in and lift out charging machines.

**DESCALER**

Purpose: Cleaning iron oxide or scale formation from the surface of the feedstock, prior to rolling, to ensure optimum surface quality.

Type	Water
Max Pressure	250 bar
Pumps	4
Descaling Speed	Up to 1.8m/s





### HOT SAW 1

**Purpose:** Cropping of bar ends as and when required.

Type	Metallic disc saw
Max Blade Diameter	2400mm
Blade Thickness	16mm
Max Peripheral Speed	120m/s approx.
Cutting Speed	350mm/s. (profile dependent)

### BREAKDOWN MILL

**Purpose:** Reducing the size of the feedstock into the correct shape for rolling in the Universal Tandem Mill.

Type	Closed Housing duo / 2-high stand
Roll Barrel Length	2800mm
Roll Neck dia	603.2mm
Max Roll dia	1350mm
Roll Materials	Cast or Forged Steel
Max Rolling Speed	5 m/s
Max Working Center Line Distance	2200mm
Main Drive Power	5.5MW + 250% peak overload
Gearbox Reduction Ratio	6:1





TANDEM MILL

**Purpose:** Final rolling of the finished product.

Type	3 stand, close coupled, Universal or duo configuration group.
Roll Barrel Length (uni / duo)	1000 / 2200mm
Roll Neck dia	501.6mm
Max Horizontal Roll dia	1440mm
Max Vertical Roll Diameter	980mm
Roll Materials	High-Chrome cast iron, forged steel, cast steel
Max Rolling Speed	8 m/s
Max Horizontal Working Center Line Distance	1500mm
Max Vertical Roll Working Center Distance	2180mm
Gap Adjustment & Load Measurement	Hydraulic capsules
Max Horizontal Rolling Force	16000kN
Main Drive Power, each stand.	5.5MW + 250% peak overload
Gearbox Reduction Ratio	6:1
Number of Runs	From 3 to 11

DIMENSIONAL PROFILE GAUGE

**Purpose:** On-line measurement of the hot profile along the full length with real-time feedback to operators.

Type	Danieli "Hi-Profile"
Number of Lasers	6
Number of Cameras	6
Measurement Frequency	200ms



HOT SAW 2

**Purpose:** Sub-dividing rolled lengths, tail cropping and taking sample pieces for measurement and metallurgical testing processes.

Type	Metallic disc saw
Max Blade Diameter	2400mm
Blade Thickness	16mm
Max Peripheral Speed	120m/s approx.
Cutting Speed	350mm/s. (profile dependent)
Maximum Back Crop Length	1.5m
Sample Length	50 - 700 mm





COOLING BANK

**Purpose:** Cooling of material to straightening temperature.

Type	Walking Beam
Length	96m
Width – Ingoing to Outgoing Roller Table Distance	40m
Tilting	2 x 90 Degrees Product Dependent
Max Walk Pitch	1200mm Product Dependent

ROLLER STRAIGHTENING MACHINE

**Purpose:** Straightening of cold material, to recover distortion caused by cooling

Type	Double supported RDM-L-1100-09-2000
Number of Shafts	9 “4 over 5”
Driven Rolls	5 x bottom rolls
Nominal Section Modulus (360MPa YS)	1750cm³
Max Speed	4.6m/s
Roll Pitch	2000mm
Max Roll Diameter	1300mm
Max Roll Barrel Length	1000mm
Straightening Temperature	< 80°C

COLD SAWS

**Purpose:** Final cutting to customer ordered length.

Type	Metallic Disc Saws
Number	4, 3 fixed and 1 moveable
Max Blade Diameter	2400mm
Blade Thickness	16mm
Max Peripheral Speed	120m/s approx.
Cutting Speed	350mm/s (profile dependent)
Cutting Length Range	From 6m to 24m



PILING AND BUNDLING

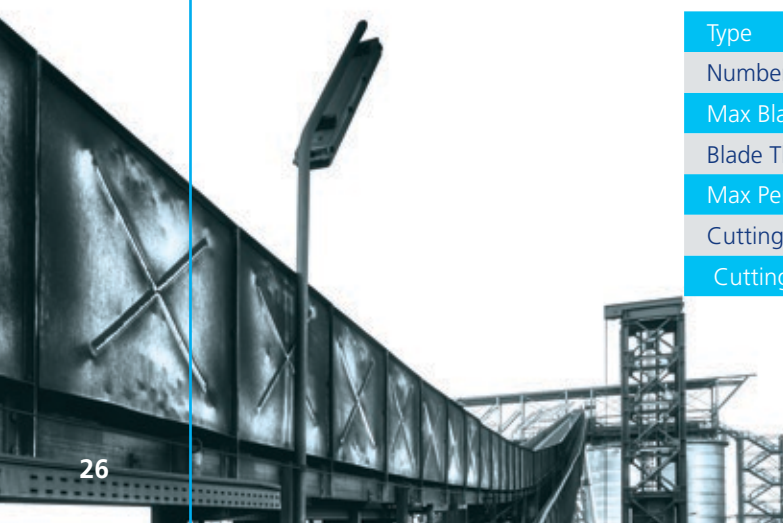
**Purpose:** Collecting of cut bars into bundles.

Type	Magnetic Rotating Head
Number in use	2
Length	30m and 18m
Max Layer Weight	1000kg/m

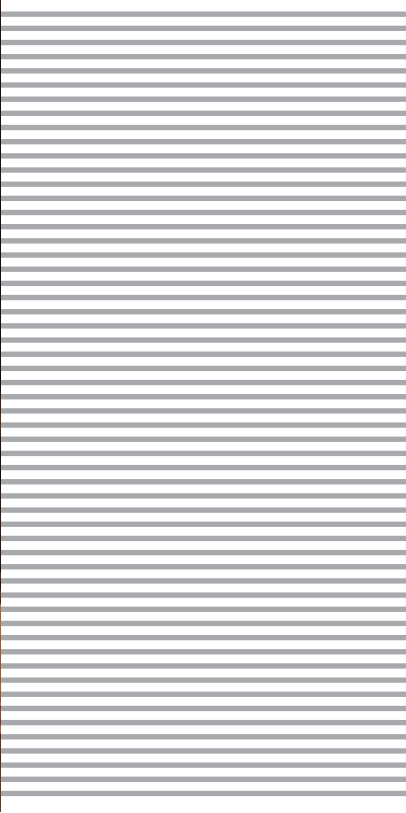
STRAPPING MACHINE

**Purpose:** Trapping together the bundle, along with bundle ID tag.

Type	Sundbirsta
Max Stack Dimensions	1200mm x 1200mm
Strap Width	23mm
Strap Thickness	0.8mm - 1mm
Number of Straps	Minimum 4 - bundle length dependent







ELECTRIC ARC FURNACES

EAF Types	AC full platform, split shell, EBT system, conductive arms, 1 wall supersonic oxygen carbon lance , 1 DANARC Modules System (4 Oxy-jet, 3 Carbon-jet, 1 wall fine lime jet), HIREG. Digital Electrodes Regulation System
Tapped Steel	150 t
Ladle Handling System	1 ladle tapping car
Charging Material	100% hot DRI continuous feeding through 5 <sup>th</sup> hole scrap bucket for hot heel generation at the beginning of campaign
Transformer size	130MVA +20%
Electrode Arm Type	Conductive
Max Power (approx.)	115.1MW
Tap to Tap Time	38 to 46 min pending on charge type
EAF Hourly Productivity	195.7 t/h to 236.7 t/h (90% hot DRI and 10% cold DRI charge)

THE CAPACITY CALCULATION HAS BEEN BASED ON THE FOLLOWING RAW MATERIAL

Component	DRI, Hot (%)	DRI, Cold (%)
Fetot	90.98	90.98
Femet	85.52	85.52
Metalisation	94	94
Feo	7.02	7.02
C	2.5	2.5
Si	-	-
Mn	-	-
SiO <sub>2</sub>	1.71	1.71
Cao	1.39	1.39
Al2O3	0.85	0.85
MgO	0.58	0.58
H <sub>2</sub> O		
Misc.	0.37	0.37
Total Gangue	4.95	4.95
Fines < 5 mm	2.5	2.5
Temperature, C	600	30

LADLE FURNACE

LF Typology	Fixed furnace support
Heat Size	150t
Ladle Handling System	1 ladle transfer car
Roof Typology	inert roof with lifting / lowering system
Transformer Size	24 MVA + 20% overload
Arms Typology	Conductive type



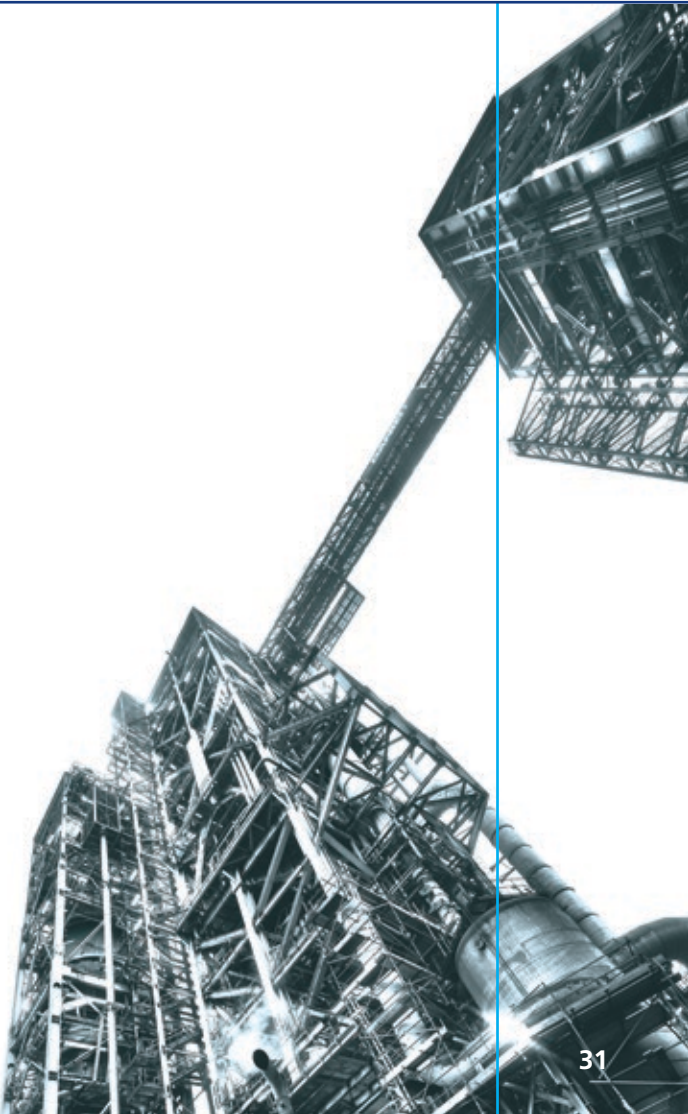
CONTINUOUS CASTING MACHINE

Machine Type	Curved
Number of Strands	5
Machine Radius	12m
Unbending	12/18 , 18/35 , 35/infinite m
Casting Billet Section	150 x 150 mm
Casting Bloom Section	220 x 350 mm
Casting Beam Blank Section	BB1 430 x 350 x 90
	BB2 480 x 250 x 90
	BB3 510 x 470 x 100
	BB4 670 x 350 x 90
	BB5 1050 x 460 x 120
Strand Distance	2200mm
Ladle Support	Ladle Liftable turret " H-type " with load cells
Ladle Capacity	150 ton
Tundish Capacity	40 ton
Tundish Steel Level	750 mm operating level
Tundish Level Control	Load cells on tundish car
Tundish Support	Liftable tundish car
Mold for Billet and Bloom	Curved Copper Tube 1000mm long
Mold for Beam Blank	BB1 , BB2 , BB3 : Curved Copper Tube 780mm long
	BB4 , BB5 : Plate - type 780mm long
Mold Lubrication	Oil and powder automatic feeding
Electromagnetic stirrer	Mold Internal EMS for 150 x 150 mm and 220 x 350 mm sections
Tundish to Mold Flow Control	CNC , in-mold nozzles for semi-submerged casting mode and C52 in close stream casting
Mold Level Control	Radioactive
Oscillating Unit	Hydraulically actuated
Dummy Bar	Rigid



CONTINUOUS CASTING MACHINE

Secondary Cooling System	Zone 1 water
	Zone 2 water
	Zone 3 water
	Zone 4 water
Straightening	4 modules per strand. A bottom idle roll between WS2 and WS3 for third unbending point
Cutting Start Position From Meniscus	29.63 m
Max Metallurgical Length	Approx. 26 m( 220 x 350mm @ 1.5 m/min )
Withdrawal Speed Range	0.25 ÷ 5m/min
Billet Cutting	Oxy-cutting torch (single torch - double torch for emergency)
Cutting Length	6 , 12 and 14m for billet section
	From 4 to 6 m (double row) and from 7.5 to 12m (single row) for bloom and BB
Discharge System	transfer roller table for blooms and beam blanks
	one lateral liftable transfer car
	cooling bed (28m for billets, 2 x 15m for blooms and BB)







#### HSM LABORATORY

The HSM Laboratory carries out the mechanical tests that are required to guarantee the mechanical integrity of the final product. Among the many tests that are performed in the laboratory:

- > Hardness test.
- > Tensile Testing, Stress – strain measurements.
- > Metallographic assessment of as-cast and rolled microstructure.
- > Mounting, Grinding and Polishing.
- > Sample Preparation Using Shadow Graph for Toughness Testing
- > Charpy impact testing for fracture toughness measurements.

Emirates Steel's 1 million ton heavy section mill, the largest of its kind in the Middle East, rivals the most advanced in the world, positioning the steelmaker at the center of excellence for the effective use of structural steel.

#### QUALITY CONTROL

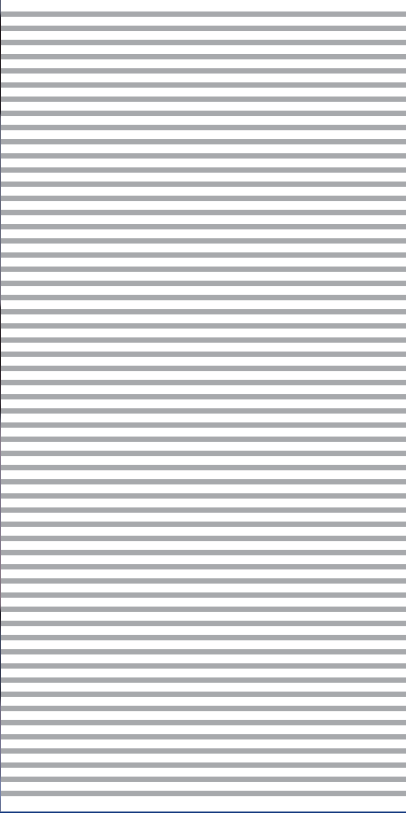
Emirates Steel maintains and operates the quality standards recognized throughout the world and our certificates are attached.

#### This QA system has the following objectives:

1. To guarantee the process conditions in all production stages, with regard to the physical, chemical and metallurgical characteristics.
2. To ensure thorough inspection of the finished product so as to guarantee full compliance with the specifications.
3. To collect, process and assess the obtained results in order to implement a system of continuous improvement.



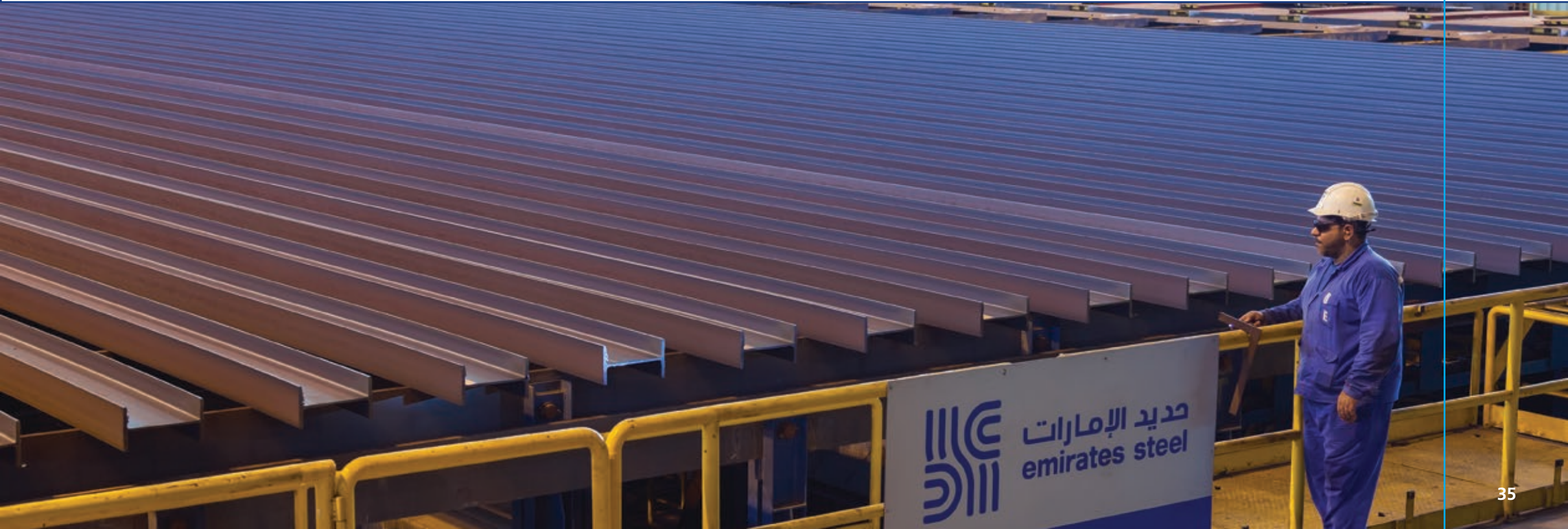




Customers EPC Contractors / Fabricators	Stock Holders / International Traders
Samsung Engineering	Dubai Building Materials , Atteih Steel
William Hare UAE LLc	Age Intrade, Danube Building Materials
Zamil Steel	Al Nimr Steel, Al Nafie Steel
Arabian International	MacSteel International, SteelInvest
Cleveland Bridge	Rainham Steel UK
Emirates Building Systems	Salzgitter International
Eversendai	ArcelorMittal
Al Reyami	
Gulf Steel Works	
AK Khalifa	
Al Bawardi	

End Users include GCC oil companies with major projects for ADNOC and Saudi ARAMCO.

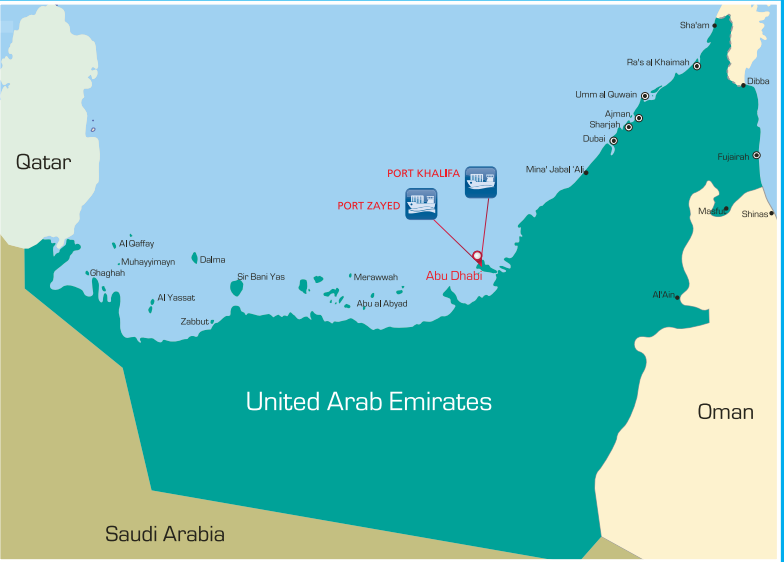
Project Name	Country	Structural Steel Sold (metric tons)
Yanbu III	Saudi Arabia	6,000
Kuwait National Bank	Kuwait	3,000
Qatar Foundation Refurb Development	Qatar	2,000
PetroRabigh	Saudi Arabia	20,000
Takreer Carbon Black Project	UAE	8,000
Kemya	Saudi Arabia	6,000
Abu Dhabi International Airport Expansion	UAE	12,000
Emirates Aluminum (Emal)	UAE	6,000
Sedara KSA	Saudi Arabia	10,000
Maaden Aluminium Smelter	Saudi Arabia	6,000







WHERE WE SELL OUR STRUCTURAL STEEL



The company is well positioned both geographically and strategically to become the region's major supplier to steel intensive construction, oil & gas, petrochemical and infrastructure projects. A significant proportion of our structural sections are being sold in the GCC market, while the remainder is exported outside the region to Arab countries, Europe, America, Australasia, the Indian subcontinent, and Asia.





### HEALTH AND SAFETY

Emirates Steel is fully committed to enhance safety practices in the workplace, thus making health and safety the Company's number one priority. To achieve this, Emirates Steel is pursuing continuous improvement through the implementation of a behavioral safety program designed to improve awareness. All employees and contractors are encouraged to act safely and report unsafe acts and conditions so that action can be taken to remove or control a potential hazard. Health and safety training is offered to all employees and is supplemented with focused campaigns to further improve the health and safety culture. An online reporting system using the latest technology is used to capture near and actual incidents to ensure that corrective action is taken in real-time.

This is all underpinned by a comprehensive health and safety management system that puts in place robust procedures to control or mitigate risk.

A strict system of inspections and audits at all levels of the company structure has been designed to provide a framework for self-regulation and continuous performance improvement.



Emirates Steel is committed to the health, safety and wellbeing of its employees and recognizes occupational health as an integral part of its business performance.

The Company is also committed to continued compliance to all environmental regulations, to protect present and future human wellbeing in our local environment.

Our employees are educated in the rules of environmental compliance required by our Company, and are trained to respond, if necessary, to any threat to the environment. All Emirates Steel facilities are being developed to reduce the Company's environmental footprint.

Over the years, the Company has improved its processes and controls, invested capital to increase efficiency and decrease energy use and has fostered a culture of resourcefulness and accountability.





### GREEN INITIATIVES

Emirates Steel strives to minimize the environmental impact of its industrial activities in different stages of its operations process. The Company is committed to adopting the latest innovations in energy efficiency and sustainable practices.

To achieve its environmental commitments, Emirates Steel addresses issues on sustainability at the early stages of any expansion project. During the design process, the Company develops a life cycle economic model that examines environmental and cost implications of process choice and the new technology to be adopted.

### ENERGY CONSERVATION

Emirates Steel's energy conservation initiative starts by selecting the low impurities raw materials and Ferro-alloys. The Company is committed to procure iron ore pellets with high iron and low impurities content (each 1 per cent increase in Fe saves 6-8 per cent of energy consumption).

The initiative also covers the steel production process by charging hot DRI at (600°C) to the Electric Arc Furnace, which reduces energy consumption by at least 20 per cent. Emirates Steel reduces carbon emissions through the promotion of energy efficiency practices and the recovery of waste heat measures wherever possible.

### POLLUTION PREVENTION

Fume treatment plants are present at Emirates Steel facilities to remove all dust and particles from emissions to promote a clean, healthy and safe working environment. The Company analyzes its air emissions and waste water generated from the plants and measures noise levels to comply with environmental federal law and international standards.





### BY-PRODUCTS AND WASTE REDUCTION

Emirates Steel has long term contracts with a group of certified service providers with whom the waste management activities are carried out inside and outside Emirates Steel round the clock.

Waste Management covers mainly the collection, transport, segregation, processing or disposal, managing and monitoring of waste and by-product materials. All waste materials, whether solid or liquid, hazardous or non-hazardous, fall within the scope of waste management according to agreed standards.

Additionally, Emirates Steel is considering proposals from suppliers that identify opportunities for 100% utilization and re-use of steel manufacturing by products. Although it is still early in the evaluation process, Emirates Steel is working pro-actively with potential suppliers to progress options that will eliminate by products and waste.

### CO<sub>2</sub> CAPTURE

One of the core objectives at the heart of Emirates Steel's success story today is its desire to meet market demand by producing steel in a safe and sustainable way. Included in these priorities is Emirates Steel's on-going effort to utilize the CO<sub>2</sub> it has generated during the iron reduction process at its DRP plants, and its work to promote environment and resource conservation.

In November 2013, the Abu Dhabi National Oil Company (ADNOC) and Masdar, the nation's renewable energy company, created a joint venture to develop commercial-scale projects for carbon capture, usage and storage (CCUS). It will build a \$123 million CO<sub>2</sub> compression facility and a 50 kilometer pipeline, along which CO<sub>2</sub> will be pumped to ADNOC's oilfields.

Emirates Steel is a key partner in this project – the CO<sub>2</sub> its plants generate will feed the project when it goes operational in 2016 and the compression plant will be located close to its premises. The project will sequester up to 730,000 tons of CO<sub>2</sub> annually, which is equivalent to planting around 100,000 trees – a massive contribution to Emirates Steel's carbon footprint, which at the same time will improve ADNOC's oil recovery. Emirates Steel is the first steelmaker in the world to capture its CO<sub>2</sub> emissions on this scale, with the possible exception of some North American projects.







### SUSTAINABILITY

The steel production industry can only show sustained development if the negative impact on the environment, society and economy is minimized; this is one of Emirates Steel's commitments. Being a leader in the UAE steel industry, the Company is aware of its important role and responsibility for sustainable development.

Emirates Steel strives to reduce the impact on the environment from production activities as well as aiming to provide a favorable living environment for the UAE community by conducting business in a socially and environmentally responsible manner, preventing environmental pollution and reducing the generation of wastes during production.

The long-term plans of Emirates Steel envisage an increase in environmental investments, which will enable the Company to rank among the best GCC companies in terms of environmental protection, thus strengthening its competitive advantage and contributing to the Company's sustainable development. All this will ensure that the Company adheres fully to the world's environmental standards.

### SLAG MANAGEMENT

Whenever iron and steel are being produced, slag will be generated as a by-product.

Slag is the solid material that results from the interaction of flux and impurities in the smelting and refining of metals. Generated slag in the Emirates Steel process is an environmentally safe and valuable by-product. Approximately 0.145 ton of slag is generated for every ton of steel produced.

Emirates Steel processes its slag into different sizes, after separating the metallic pieces for recharging them back into the Electric Arc Furnace.

The processed slag is used as aggregate for roads (coarse size as sub-base and fine size as top layer), railway ballast, waterway construction, reefs (big lumps of slag used for fixing of coral larvae to improve the marine life), while the rest of the processed slag is used for land filling.







## CERTIFICATIONS

<b>Quality Management System Certification</b>	<ul style="list-style-type: none"> <li>• ISO 9001:2008</li> <li>• UK CARES (United Kingdom Certification Authority for Reinforcing Steel)</li> <li>• Certification Number: 1122</li> </ul>	 1122
<b>Sustainability Certification</b>	<ul style="list-style-type: none"> <li>• CARES SS A01 &amp; A05</li> <li>• UK CARES (United Kingdom Certification Authority for Reinforcing Steel)</li> <li>• Certification Number: 1338</li> </ul>	
<b>Environment Management System Certification</b>	<ul style="list-style-type: none"> <li>• ISO 14001:2009</li> <li>• TUV Nord</li> <li>• Certification Number: 44 104 100298</li> </ul>	
<b>Occupational Health and Safety Management System Certification</b>	<ul style="list-style-type: none"> <li>• BS OHSAS 18001:2007</li> <li>• TUV Nord</li> <li>• Certification Number: 44 116 100298</li> </ul>	
<b>Product Conformity Certification</b>	<ul style="list-style-type: none"> <li>• ISI Mark – IS 2062:2011</li> <li>• BIS (Bureau of Indian Standards)</li> <li>• Certification Number: CML/4044343</li> </ul>	
<b>Product Conformity Certification</b>	<ul style="list-style-type: none"> <li>• CE Mark - EN 10025-2:2011</li> <li>• UK CARES (United Kingdom Certification Authority for Reinforcing Steel)</li> <li>• Certification Number: 1244-CPR-1026</li> </ul>	
<b>Declaration of Performance</b>	<ul style="list-style-type: none"> <li>• No. ES-QAD-DOP-01-2014</li> </ul>	
<b>Product Conformity Certification</b>	<ul style="list-style-type: none"> <li>• MS EN 10025-2:2011</li> <li>• SIRIM (Standards and Industrial Research Organization Malaysia)</li> <li>• Certification Number: PC 000694</li> </ul>	

Note: Copies of original certificates can be provided upon request



AWARDS / WORLD RECORDS


Awards / Appreciation	<div><div>• Sheikh Khalifa Excellence Award for compliance with European Foundation for Quality Management - EFQM Excellence Model</div><div>• SIRIM (Malaysia) Appreciation for quality compliance to Malaysian Standards</div><div>• Dubai Central Laboratory (DCL) Appreciation for Sustained Quality Compliance</div></div>
World Records	<div><div>• Emirates Steel set new world record in steel making of 34 heats from the EAF producing 5197 tons of liquid steel converted into 4,993.8 tons of billets through the Continuous Casting Machine.</div></div>
Commercial License	<div><div>• Department of Economic Development</div><div>• License No.: CN-1005740</div></div>
Industrial License	<div><div>• Department of Economic Development</div><div>• License No.: 846</div></div>
Test Certificate	<div><div>• Exova Abu Dhabi Laboratory</div><div>• Report Number: A 302454-A 302455 – A 302456</div></div>

PREQUALIFICATION

COMPANY NAME	COUNTRY	REG. NUMBER		COMPANY NAME	COUNTRY	REG. NUMBER	
ADCO	UAE	26607		ZADCO	UAE	Manufacturer : M102013 Distributor : 102012	
NDC	UAE	3736		ADWEA	UAE	48624	
GASCO	UAE	909721		MA'ADEN	KSA	N/A	
ADMA	UAE	16948		ARAMCO	KSA	N/A	

MILL TEST CERTIFICATE

Emirates Steel Industries PJSC  
PO Box 9022,Industrial City of Abu Dhabi (ICAD)  
Musaffah, Abu Dhabi, UAE  
T + 971 2 5511187 F +971 2 5072650  
emiratessteel.com



مديد الإمارات  
emirates steel  
a SENAAT company إحدى شركات صناعات

شركة الإمارات لصناعات الحديد ش.م.ع.  
ص.ب. ٩٠٢٢، مدينة أبوظبي الصناعية (إيكاد)  
مصفح، أبوظبي، أ.ع.م.  
ت ٩٧١ ٢ ٥٥١١١٨٧ ف ٩٧١ ٢ ٥٠٧٢٦٥٠  
emiratessteel.com

MILL TEST CERTIFICATE

Customer Name/Address

اسم وعنوان العميل

Stamp

الختم:

Certificate No.

رقم شهادة المنتج

Date Of Issue

24/03/2014

تاريخ الإصدار

Dispatch No.

80119757

رقم أمر البيع

Sales Order No.

25001802

رقم أمر الشراء

PO. No.

ES/HS/EXP/14006

رقم طلب الشراء

Commodity: EUROPEAN BEAM

البضاعة

Specification: BS EN 10025-2:2004 S275 JR + AR


المواصفات

رقم الترخيص Item No	الأبعاد Dimensions Length mm x mm x (kgs/m) (m)	القطعة Pieces	الوزن Weight (MT)	رقم الصبة Cast No.	الخصائص الميكانيكية Mechanical				الخصائص الكيميائية (%) Chemical Composition (%)																	
					مقاومة الشد Yield Stress (N/mm²)	مقاومة الشد Tensile (N/mm²)	نسبة الاستطالة Total Elongation Gauge Len. 5.65/80 (%)	تأثير الصدمة/الحرارة Impact (J) Average of 3 Charpy Impact Temp (C)	الخصائص الكيميائية (%) Chemical Composition (%)																	
									C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Sn	Ti	N	Al	CEV		
					Requirements	Min	Max																			
	HE 360 B 142 8M	9	10.224	2020294	357	455	32.2		0.0850	0.2301	0.263	0.010	0.013	0.019	0.016	0.018	0.002	0.033	0.002	0.002	0.015	0.006	0.003	0.308		
	HE 360 B 142 8M	3	3.408	2020295	359	461	32.9		0.0890	0.2201	0.276	0.011	0.014	0.017	0.015	0.017	0.002	0.033	0.001	0.003	0.010	0.007	0.002	0.314		
	HE 360 B 142 8M	5	5.680	2020298	354	452	33.2		0.0870	0.2521	0.300	0.011	0.013	0.013	0.012	0.014	0.002	0.035	0.002	0.003	0.011	0.006	0.002	0.315		
	HE 360 B 142 8M	3	3.408	2020299	361	458	33.7		0.0960	0.2351	0.276	0.010	0.014	0.013	0.012	0.013	0.002	0.035	0.001	0.002	0.013	0.007	0.002	0.319		

Note: CEV = C +  $\frac{Mn}{6}$  +  $\frac{Cr + Mo + V}{5}$  +  $\frac{Ni + Cu}{15}$

Fully Silicon Killed Steel

EN 10204 Certificate on Material Test 3.1




1341  
14  
1340-CEN-029  
EN 10204-2:2004

تتعهد بأن المواد التي تم تصنيعها واختبارها حسب المواصفات الموضحة أعلاه

We hereby certify that the material has been made and tested in accordance with the above specification and also with the requirements called for the above order

This Certificate is generated electronically



Dr. Shahid Riaz  
For Emirates Steel





## STENCILING, TRACEABILITY AND LABELING

**EMIRATES STEEL**

JOB: 1040012107  
 BAR: 9400804271  
 SALE: 2  
 GRADE: ASTM A572Gr50-2/A992  
 HEAT: 2022178  
 LEN: 60  
 CUST:  
 SEC: W 16X40 lbs/ft

  
 حديد الإمارات  
 emirates steel  
 a SENAAT company

  
 9400804271  
 Made in UAE

BAR LABEL

  
 حديد الإمارات  
 emirates steel  
 a SENAAT company إندى شركات صناعات

ESI ORDER: 1040012107  
 GRADE: ASTM A572Gr50-2/A992  
 HEAT: 2022178  
 BUNDLE: 0400213266  
 WEIGHT: 4397  
 LENGTH: 60  
 SEC: W 16X40 lbs/ft  
 No. Bars: 4

  
 0400213266  
 MADE IN U.A.E

BUNDLE TAG