

# FLAT PRODUCTS

**HOT ROLLED FLAT STEEL  
MANUFACTURED TO TIGHT TOLERANCES**





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# STRENGTH IN STEEL

## TRUSTED WORLDWIDE FOR QUALITY, RELIABILITY AND SERVICE

Ezz Steel is one of the world's fastest growing and most technically advanced steel producers. At our purpose-built steelmaking plants across Egypt, we have a production capacity of 7 million tons of steel per year, comprising 4.7 million tons of long products and 2.3 million tons of hot rolled flat steel (HRC).

We produce more than 450 grades of steel to provide the properties required for a huge range of applications, from concrete reinforcement to high-tensile cables, from household goods to a host of automotive and shipbuilding components.

Our dedication to investing in the latest technology and in the skills of our people, coupled with a commitment to continuous improvement and unparalleled customer service, have established Ezz Steel as a major player in the global steel marketplace.

Led by a clear vision, Ezz Steel is a name synonymous with quality, reliability and service excellence.



**\$4BN TOTAL  
INVESTMENTS**



**TOTAL ANNUAL CAPACITY  
(LONG PRODUCTS & HRC)**



**8,000+ STEEL  
PROFESSIONALS**



**MORE THAN 450  
GRADES OF STEEL**

# FLAT PRODUCTS

## SETTING THE STANDARD FOR HRC INNOVATION

Ezz Steel's revolutionary plants have the capacity to produce 2.3 million tons of HRC per year. Our world-leading range of HRC products includes precision-produced ultra-thin coil.

### HRC PRODUCED TO TIGHT TOLERANCES

Ezz Steel uses advanced thin-slab continuous casting technology to produce HRC to thicknesses as low as 1.0 mm. Few mills worldwide can produce such thin steel. Our thickness tolerance for thin and ultra-thin gauges is +0.05/-0.15 mm, providing a greater flat area and length per ton of steel for our customers.

### TECHNICALLY ADVANCED HOT STRIP MILLS

Our hot strip mills at Alexandria and Suez are equipped with the latest HRC production facilities. These include Compact Strip Production (CSP) technology from SMS Demag and flexible Thin Slab Casting and Rolling (fTSCR) technology from Danieli.

### GRADES DESIGNED FOR SPECIFIC APPLICATIONS

Our HRC is produced in more than 300 steel grades, to meet the specific demands of many industrial, commercial and domestic applications. These include cookers, washing machines and other household goods, earthmoving equipment, infrastructure for nuclear projects, pipes, barrels and drums and a host of automotive and shipbuilding components.

### ONGOING INNOVATION IN STEEL COMPOSITION

The chemical composition of our steel grades complies with challenging international engineering standards and customer specifications. Ezz Steel metallurgists are constantly innovating with steel properties and developing new steel compositions to meet changing market demands.

HRC is used to manufacture; cylinders and canisters, cookers, washing machines, refrigerators and other household goods, wheels, exhausts, suspension parts and other automotive components, barrels and drums, shipbuilding components, transportation containers, pipes, and earthmoving equipment.



HRC ANNUAL  
CAPACITY

# WHY CHOOSE EZZ STEEL?

## EFFICIENT, ACCURATE, COST-EFFECTIVE STEELMAKING – FROM START TO FINISH

Ezz Steel produces HRC at fully integrated plants employing state-of-the-art technology. Intelligent plant design facilitates a continuous, automated process from raw material intake through to finished product dispatch – delivering exceptional steel quality, accuracy, process efficiency and productivity.

### QUALITY IN...

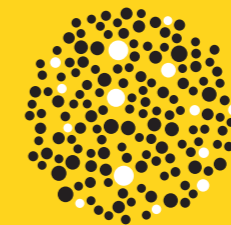
80% DIRECT REDUCED IRON (DRI)  
+ HIGH-GRADE STEEL SCRAP

Ezz Steel converts iron ore into high-purity iron in four advanced direct reduction plants (DRP). Using the Midrex technology and the HYL technology by Danieli, these plants have an output capacity of 5 million tons of DRI per year, which is fed directly into electric arc furnaces in a continuous process.

Ezz Steel electric arc furnaces use 80% DRI in the steelmaking process, which is combined with high-grade steel scrap. This enables us to maintain precise control over the metallurgical properties of our steel and ensure a consistently high-quality end product.



DIRECT-REDUCED  
IRON ANNUAL  
CAPACITY



\$550M INVESTED IN NEWEST  
DIRECT-REDUCTION  
MEGA MODULE



LOW LEVELS OF  
RESIDUAL ELEMENTS –  
FOR HIGH-PURITY STEEL



## QUALITY OUT...

### UNBEATABLE DIMENSIONAL ACCURACY AND QUALITY CONTROL

Careful handling and monitoring maintains steel cleanness throughout the steelmaking process. The addition of alloying elements, gas stirring and heating in the ladle furnace produces the precise chemical composition required for each steel grade, ensuring low levels of inclusions.

Rolling processes use advanced automation controls to deliver consistent dimensional accuracy in width, length, thickness and flatness. Our laminar cooling system provides precise control over metallurgical characteristics, resulting in excellent mechanical properties.

Our HRC service centers use leading technology to prepare coil, slit coil or sheets to exact customer specifications.

A strict regime of quality inspections along the entire process route, from raw materials to finished product, guarantees the quality of our HRC. Only material that meets the required standards at each stage is passed for further processing.

### WELL LOCATED FOR EFFICIENT EXPORTS

Ezz Steel hot strip mills are located close to major ports. HRC can be sent to the docks for shipment with minimal inland transportation, providing cost reductions and efficiency benefits for customers worldwide. The development of Ain Sokhna port to accommodate ships up to 150,000 dwt has further increased our export capacity.

Customers within the region also benefit from efficient deliveries, with each Ezz Steel plant having direct access to major road, rail and water transport routes.

“FEW OTHER STEELMAKERS HAVE SUCH DIRECT ACCESS TO PORTS FOR EFFICIENTLY IMPORTING RAW MATERIALS AND EXPORTING FINISHED GOODS. THE ADVANTAGEOUS LOCATION OF EZZ STEEL PLANTS OFFERS CUSTOMERS COST-EFFECTIVE, RESPONSIVE DELIVERIES, WHEREVER THEY ARE.”

George Matta,  
CHIEF MARKETING  
OFFICER – EZZ STEEL



# INVESTING FOR GROWTH

## AMBITIOUS INVESTMENTS GIVE EZZ STEEL THE EDGE

To lead the way in world steel markets, Ezz Steel recognizes the need to invest in the most advanced technologies and the most talented and skilled people.

### INVESTMENT FUELS CAPACITY AND CAPABILITY GROWTH

Investment in improved plants and equipment is an ongoing process. Our investment strategy ensures continued growth, enabling Ezz Steel to increase capacity and capabilities in line with ambitious targets and growing demand for our highly regarded steel products.

### ADVANCED DRI PLANTS – INVESTING IN RAW MATERIAL PURITY

Our major investment in a new, state-of-the-art direct reduction plant at Suez means we now have in-house direct reduction capabilities at two of our four steelmaking facilities. Integrating these plants with our steelmaking facilities creates process and operational efficiencies, improves quality control and optimizes energy use.

With four direct reduction plants now operational, Ezz Steel has an output capacity of 5 million tons of DRI per year. That made Ezz Steel the second largest producer of DRI in the world (2017).

### INVESTING IN TALENTED PEOPLE

The high caliber of Ezz Steel's skilled and enthusiastic workforce is your guarantee of exceptional service and product quality. We invest heavily in training our people to the highest standards, as well as recruiting the most promising graduates to nurture the next generation of pioneering steel professionals.

“EZZ STEEL IS A LEAN, EFFICIENT ORGANIZATION, EMPLOYING SKILLED PEOPLE TO PRODUCE LARGE VOLUMES OF STEEL, AND INVESTING IN THE VERY BEST TECHNOLOGY TO MAINTAIN OUR IMPRESSIVE QUALITY STANDARDS AND PRODUCTIVITY LEVELS.”

Hassan Nough, MANAGING DIRECTOR – EZZ STEEL



A nighttime photograph of a large industrial steel plant, likely an Ezz Steel facility. The scene is illuminated by bright artificial lights, highlighting various structures including tall chimneys, complex piping, and a large, multi-story building with a prominent 'EZZSTEEL' sign at the top. The sky is a deep blue with some clouds. A vertical yellow bar is overlaid on the left side of the image, containing text.

“PRODUCING  
IRON BY DIRECT  
REDUCTION GIVES  
US A HIGH-PURITY  
INGREDIENT FOR  
STEELMAKING,  
WITH LOW LEVELS  
OF RESIDUAL  
ELEMENTS.”

Fouad Emam,  
CORPORATE CHIEF  
TECHNICAL OFFICER  
– EZZ STEEL



# COMMITMENT TO QUALITY

“FROM THE CEO TO MANAGERS, FROM THE CHAIRMAN TO STEEL PLANT WORKERS, A SPIRIT OF EXCELLENCE AND CONTINUOUS IMPROVEMENT PERVADES THE BUSINESS.”

Raed El-Bebrawy,  
MANAGING DIRECTOR – EZDK

## TESTING, MONITORING AND QUALITY CONTROL FOR PRODUCT EXCELLENCE

Ezz Steel is renowned for the consistent quality of its products. Such high standards are achieved through rigorous quality inspections, a policy of continuous improvement and a quality-management system developed in line with ISO 9001, combined with the skill and expertise of our people and significant investments in the latest iron and steelmaking technologies.

## HIGH-PURITY INGREDIENTS FOR STEELMAKING

Quality assurance begins with the selection of raw materials. Only high-grade iron ore is chosen for our advanced direct-reduction plants, which provide up to 80% of the feedstock for steelmaking. The remainder is high-grade steel scrap. This assures customers of very low levels of impurities in the finished product.

## CONTINUOUS TESTING AND QUALITY CONTROL

Steel is quality tested throughout the steelmaking, rolling and finishing processes. Samples are taken for testing in our ISO/IEC 17025-certified laboratories. Sophisticated analytical equipment and techniques are used to verify the precise chemical composition of the steel. Advanced computerized control systems make continuous adjustments to the steel as it passes through the mill, ensuring consistent dimensional and compositional accuracy.

## CARE FOR THE FINISHED PRODUCT

The finished coil, strip or sheets undergo demanding mechanical tests to confirm compliance with relevant standards. Final quality checks and careful handling in the dispatch yard ensure products are delivered to customers in the best possible condition.

# CUSTOMER SERVICE

## FROM RESPONSIVE DELIVERIES TO TECHNICAL SUPPORT

The steel professionals at Ezz Steel understand the needs of customers across the region and worldwide. Our dedicated people are united by a shared determination to maintain Ezz Steel at the forefront of the global steel industry by forging supportive relationships with our customers.

### UNDERSTANDING OUR CUSTOMERS – SHARING OUR EXPERTISE

We use our knowledge and experience to understand individual business requirements and provide technical advice to customers on the optimum steel products for their needs. Strong customer relationships are essential to the way we work. Customers know they can rely on the quality of our steel and the ability of our people to advise and support them.

### SHORT LEAD TIMES AND EXCELLENT AVAILABILITY

Our efficient production processes mean we can offer excellent stock availability and short lead times – to fulfil the most urgent requirements. We are able to respond quickly to changing demand, and to produce steel to order to meet the most challenging customer specifications and timings.

Such a responsive service and short lead times set Ezz Steel apart from many less agile steelmakers. By working alongside our customers we ensure that our products, service and delivery performance always live up to expectations.

“THE QUALITY OF PRODUCT, QUICK DELIVERY AND LOW LOGISTICS COSTS MAKE EZZ STEEL A NATURAL FIT WITH MARCEGAGLIA.”

Antonio Marcegaglia  
CEO – MARCEGAGLIA GROUP



# SUSTAINABLE

# GROWTH

“WE RESPECT AND VALUE THE COMMUNITIES AROUND US AND WE HAVE BEEN VERY CAREFUL TO MINIMIZE OUR IMPACT ON NEIGHBORS AND THE ENVIRONMENT. THE MEASURES WE TAKE RANGE FROM MAINTAINING GOOD HOUSEKEEPING STANDARDS TO INVESTING IN ADVANCED PURIFICATION AND RECYCLING TECHNOLOGY.”

Fouad Emam,  
CORPORATE CHIEF TECHNICAL OFFICER – EZZ STEEL

## TAKING RESPONSIBILITY FOR OUR ENVIRONMENTAL IMPACT

Protecting our environment and our people is a commitment that influences everything we do at Ezz Steel.

### PROTECTING OUR PLANET

Our investments in efficient steel production technology have been matched by investments in environmental protection systems. These range from water purification and recycling technologies to advanced filters to purify our emissions.

Ezz Steel is the first steel producer in Egypt to have its energy-management system certified in compliance with ISO 50001. Our trained energy specialists ensure that we reduce our energy consumption through operational, technical and behavioural improvements – and that we continuously maintain and enhance our environmental performance.

We maintain the strictest controls over dust, gas and other airborne emissions, as well as liquid effluents, noise levels and even electrical pollution, which could affect the national electricity grid and other consumers.

All of our plants comply with internationally recognized environmental and occupational health and safety standards, and we meet international guidelines for CO<sub>2</sub> emissions.

### PROTECTING OUR PEOPLE

Health and safety standards are never compromised at Ezz Steel. Our skilled and diligent people are our most valuable asset and we work hard to keep them safe and healthy. Strict, internationally verified safety procedures are in place and we are ever vigilant for opportunities to enhance our safety performance.

Every member of staff goes through rigorous safety training, which is regularly updated and refreshed. We give all our people the knowledge, tools and resources they need to work in the safest possible way and to keep the safety and wellbeing their colleagues and visitors at the heart of everything we do.

ISO 14001    ISO 45001    ISO 50001



**\$100M INVESTED  
IN CSR PROJECTS**

# EXPORT CAPABILITIES

## TAKING HRC PRODUCTS WORLDWIDE

Ezz Steel's HRC is distributed worldwide where the quality, accuracy and reliability of our steel are highly valued by customers in many industries.

### SERVING OUR INTERNATIONAL NEIGHBORS

One of the principal markets for Ezz Steel products is the wider Middle East and North Africa region. Rapid growth and development over recent decades has resulted in an escalation of demand from these countries for reliable supplies of high-quality HRC.

### MEETING DEMAND FROM EUROPE, ASIA AND THE USA

The remainder of our HRC exports are destined for Europe, Asia and the USA, where our product quality is seen as the equal of many local steel producers. As well as our product quality, overseas customers value our reliable deliveries, flexible production capabilities and competitive prices.

### RAPID DISPATCH AND DELIVERY – ANYWHERE IN THE WORLD

Efficient deliveries worldwide are supported by the strategic location of our steel plants close to major ports and other arterial transport routes.

As part of the continuous integrated steel production process, our extensive storage facilities are located at the end of the steel rolling and cooling line, enabling fast, efficient transfer with minimal handling. That not only helps to maintain product quality by minimizing the risk of mechanical damage, but also facilitates rapid loading onto transport for onward delivery by road, rail or ship.

“OUR FLEXIBLE BUSINESS MODEL ALLOWS EZZ STEEL TO FOLLOW DEMAND ANYWHERE IN THE WORLD, AIDED BY THE PROXIMITY OF OUR PLANTS TO THE PORTS.”

Hassan Nouh,  
MANAGING DIRECTOR – EZZ STEEL