

AL-JAZEERA AMBITIONS FACTORY CO.
FOR STEEL & METAL INDUSTRIES
(REBARS)



Reliable Products for a Stable Future



JAFCO

WHO WE ARE ?

The Globalization of virtually every major industry has dramatically altered the rules of competition. Having successfully carved a niche for itself on the GCC scene, we at **JAFCO** have entered a new era and gone global.

We are following characteristics, which experts agree, companies should have.... a global vision teamed with a strategy to turn it in to reality.

Most companies pay lip service to meet it's customer's quality need, but at **JAFCO** it is more than just a slogan... We have found that the only way to achieve a real quality and thus customer satisfaction is by forming a partnership that involves all employees, inspiring each to them to set new benchmarks in growth and excellence.

This approach has allowed us to link the entire work process of the supply chain (customer to customer) for R & D through marketing and service to deliver total unmatched quality to our customer. We are obsessed to fulfill all the client requirements. Increasing product demand is the reflection of the same.

An important result is that - this obsession has helped us to design, develop and implement the innovative ideas in the industry and create an enviable track record of satisfied customers. We think the reason for this is simple quality services, reliable solutions, long-term partnerships, and a price/value structure. We believe this operating philosophy serves as the foundation of our growth and that of our clients.

Our dream is to being on pinnacle by consistently focused on four C's- customer, creativity, consistency and cleanness & to be known as premium service provider in the industry.

Fired with the conviction that our customers are our greatest resources, we seek their creative involvement in all phases of our business.

QUALITY POLICY



Main objective of **Jafco** is to provide a “Zero defect quality” product to its consumers and to set standards for the steel industries in terms of quality.

Our quality checks begin right from the stage of procurement of Scrap and are followed till the final product is received. Our infrastructure is fully equipped to ensure quality checks at every stage and come of a well equipped laboratory for all kinds of quality testing including the latest Spectrometer for the most accurate chemical analysis to ensure that the chemical properties of the product rightly conform to the norms specified.

QUALITY POLICY



Even after the raw material is Sourced from Approved Sources, They are Subject to chemical testing before melting in the furnace for casting into Billets to further ensure that the material conform to the Chemical properties as per the specified norms.

After casting of billets through "Continue Casting Machine [CCM], Spectrometer testing of the Billets is done check the chemical composition standards.

CHEMICAL COMPOSITION

Specification	ASTM A 615:1996		BS4449:1997		SA 2:1992	
	40	60	250	4608	Ordinary	High Tensile Steel
Carbon			0.25%	0.25%	0.30%	0.33%
Sulfur			0.06%	0.05%	0.05%	0.05%
Phosphorous	P = 0.06% Max.		0.06%	0.05%	0.05%	0.05%
Nitrogen			0.012%	0.012%	-	-
Carbon Equivalent			0.42%	0.51%	-	-

Difference Between

Discoloration & Rust

Discoloration

Change in Color of thin surface oxide layer due to atmospheric exposure, without any negative effects on the material properties.

Discoloration involves the change of colour in a thin surface layer only without penetration into the material. The discoloration does not effect the main characteristics of the object.



Rust

Result of severe reaction between material and atmosphere leading to degradation of material properties.

Rust, on the other hand, results from the interaction of the rebar material with the corrosive environment. The effect penetrates into the material and thus degrades its properties. Expansion of corroded rebar causes spalling of the concrete. Structures exposed to a marine environment, or where salt is used for de-icing purposes, are especially susceptible to this type of damage.



Bar Quenching



Strength of the bars are carefully controlled by optimizing the water pressure for their pearlitic core and tough surface of tempered martensite, thereby providing an optimum strength, ductility and toughness. TMT bars are widely used in general purpose concrete reinforcement structures, bridges and flyovers, dams, thermal and hydel power plants, industrial structures, high-rise buildings, underground platforms in metro railway and rapid transport system. TMT Bars are thermo-mechanically-treated through leading world temp core based technology for high



yield strength. The process involves rapid quenching of the hot bars through a series of water jets after they roll out of the last mill stand. The bars are cooled, allowing the core and surface temperatures to equalize. The bar core cools down slowly to turn into a ferrlite-pearlite aggregate. **JAFCO** has been authorized by CRM, Belgium to manufacture Tempcore TMT under licence agreement.

The Tempcore Process

The Tempcore Process imparts high strength to the bar using the latest technique of thermomechanical treatment (TMT) as against cold twisting, which is used to manufacture traditional reinforcing bars.

Steel billets are heated in a reheating furnace and rolled through a sequence of rolling stands which progressively reduce the billet to the final size and shape of the reinforcing bar. The Tempcore Process takes over and the bar is subjected to heat treatment in three successive stages. The first stage of 'Quenching' begins when the hot rolled bar leaves the final mill stand and is rapidly quenched by a special water spray system. This converts the surface layer of the bar to a hardened structure called 'Martensite' while the core remains austenitic. The second stage of 'Self Tempering' begins when the bar leaves the quenching box with a temperature gradient through its cross section, the temperature of the core being higher than that of the surface.

This allows heat to flow from the core to the surface, resulting in tempering of the surface, giving a structure called 'Tempered Martensite' which is strong and tough. The core is still austenitic at this stage.

The third stage of 'Atmospheric cooling' takes place on the cooling bed, where the austenitic core is transformed to a ductile ferrite-pearlite core. Thus, the final structure consists of a combination of strong outer layer of tempered martensite and a ductile core of ferrite-pearlite.

INFRASTRUCTURE



We possess the best facilities for melting of different grades of steel. The advanced manufacturing facilities enable us to execute bulk orders within the stipulated time frame.

Since, product quality is the core of the company, we have in-house laboratory equipped with comprehensive testing and inspection facilities. All the products like alloy steel rounds can be tested on different chemical as well physical parameters to ensure that they comply with International standards.

Our facilities include the following:

- Induction Furnace
- Continuous Casting Machine
- Bar Grinding
- Spectrometer
- Wet Test Lab



WORK IN PROCESS





WORK IN PROCESS

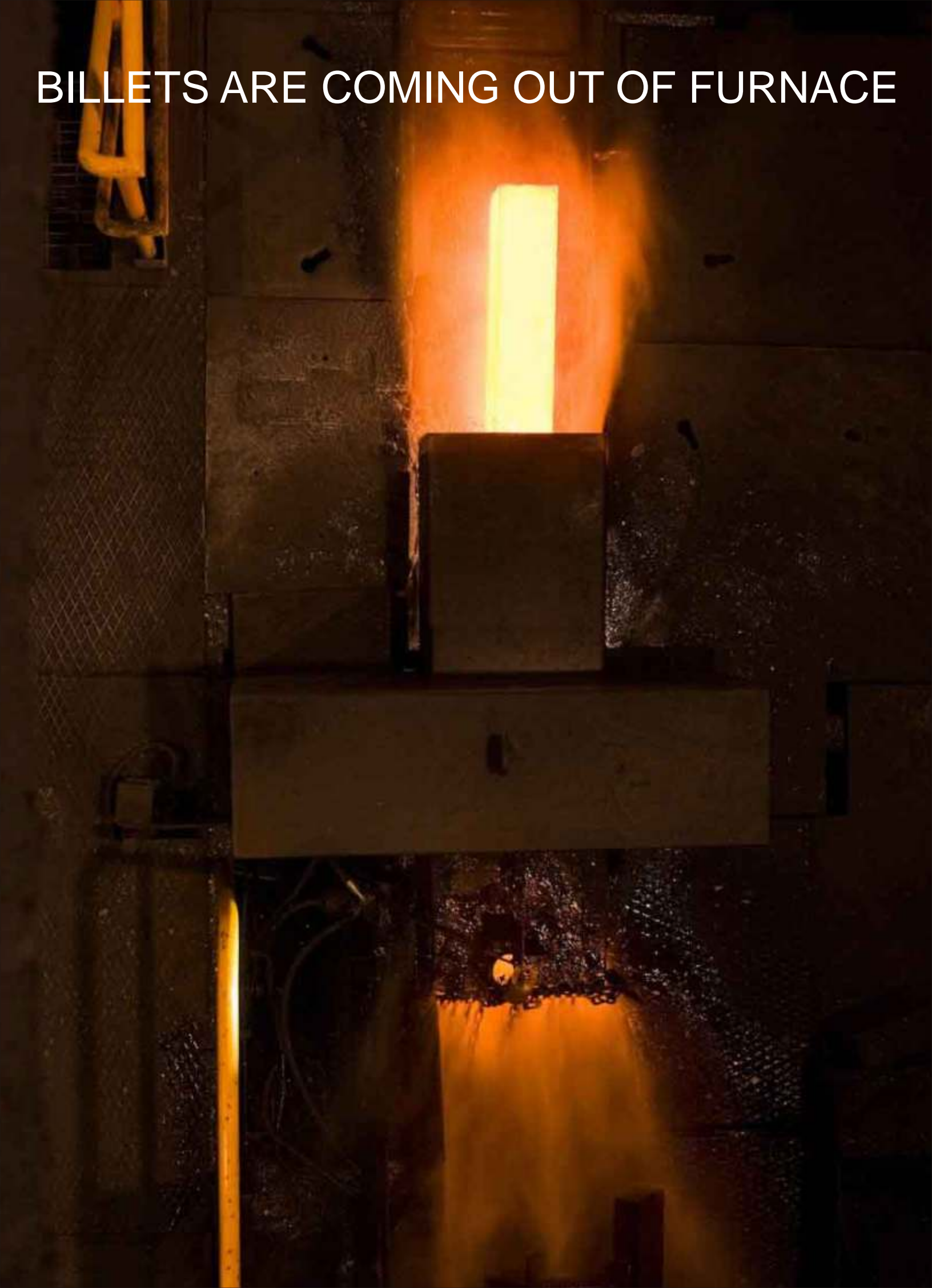




BILLETS & TMT BARS



BILLETS ARE COMING OUT OF FURNACE



TMT - BARS



Product Specifications-Deformed Bars

Designation	Nominal Dia. (d) mm	Nominal Cross Section Area (mm) ²	Unit Mass Section (Kg/m)	Maximum of Average Knot Space (mm)	Height of Knot		Ltgd/Ri Width (mm)	Nominal Mass Kg/piece			Number of 12 Meter bars in a bundle of nominal Weight of 2 ton
					Min(mm)	Max(mm)		6m	9m	12m	
D8	D8	50.27	0.395	5.6	0.3	0.6	3.14	2.37	3.56	4.74	422
D10	10	78.54	0.617	7.0	0.4	0.8	3.9	3.70	5.55	7.40	270
D12	12	113.1	0.888	8.4	0.5	1.0	4.7	5.33	7.99	10.66	188
D14	14	153.9	1.21	9.8	0.6	1.2	5.5	7.26	10.89	14.52	138
D16	16	201.1	1.58	11.2	0.7	1.4	6.3	9.48	14.22	18.90	106
D18	18	254.5	2.00	12.6	0.8	1.6	7.1	12.00	18.00	24.00	84
D20	20	314.2	2.47	14.0	1.0	2.0	7.9	14.82	22.23	29.64	68
D22	22	380.1	2.98	15.4	1.1	2.2	8.6	17.88	26.82	35.76	56
D25	25	490.9	3.85	17.5	1.3	2.6	9.8	23.10	34.65	46.20	44
D28	28	615.8	4.83	19.6	1.4	2.8	11.0	28.98	43.47	57.96	34
D30	30	706.9	5.55	21.0	1.5	3.0	11.8	33.30	49.95	66.60	30
D32	32	804.2	6.31	22.4	1.6	3.2	12.6	37.86	56.79	75.72	26



OUR MISSION

To take active and effective part in the great infrastructure boom, to give our country and its people high class quality steel made from indigenous ingredients in order to safeguard the nation from spurious or substandard products in its drive to be a developed nation, to partner our country in its voyage towards the highest level of development. To sustain and accelerate the growth rate in rolling mill industry by establishing the excellent reputation for ourselves among the customers, employees and people.

OUR VISION

To achieve success that will serve the need of the country, that will ensure the well being of the people of our country, that will usher in a new era in development. The core values are shaped around the belief that enterprises exist to serve society. To capitalize every opportunity for growing exceptionally faster and integrating every resources to fuel our growth with our commitments to the Customer Care, Value Creation for stakeholders and Environmental Responsibility.

MANAGEMENT TEAM



Our strong management team is constituted of highly skilled and intellectual professionals who are themselves as leaders in the world of Rolling Mill Industry. Managed by qualified and experienced management team, the rolling mill has grown steadily. Our mission is to be a globally respected rolling mill industry that provides customized & quality product. Our team takes all the strategic decisions, keeping in focus the all-inclusive development of the country by means of our engineering services in Rolling Mill's world.

OUR STRENGTHS

- Jafco Group attributes its success to its team of highly qualified and skilled professionals who are committed to provide best of service to clients.
- We are also proud of our partners and clients for their loyalty and trust in us. We feel that strong business support of our clients has helped us to grow faster and stronger. We are looking for more business partners from all over the world.
- Jafco Group believes in solidarity, precision, and creating a spirit of benevolence. We lay utmost emphasis on observing all technical standards and norms to provide best of products and service to our clients.
- Our Group policy is to constantly develop our strengths and strengthen our business.



CONTINUOUS CASTING PLANT

The steel making plant is one of the 5 production areas in **JAFCO BILLETS**. This plant is responsible for the production of steel billets needed by the hot-rolling mill with the quantity and quality agreed upon and then to produce Rebars of specified grades with state of art rolling mill.

It consists of the following units:

1. Material handling
2. Induction Furnace
3. Ladle furnace treatment (secondary metallurgy) and ladle service
4. Continuous Billet casting
5. Billet cooling and conditioning
6. Rolling Mill



ENVIRONMENT

People today are becoming more concern about the environment and go green environmental services than the last century. Over the century, our environment has gone from green to transparent. Transparent meaning chemical use more and more taking the natural product and turning it to transparent with so many chemicals a person reading the label would hardly find the natural product.

Today and for years we eat, sleep, breath, walk, drive, work, play, wear, and see with chemicals. As we know, most foods today made with chemicals or made up with chemicals to make the fastest way to prepare food. The cooking equipment we use, to the coffee pot for morning coffee is chemical made. We sleep on chemical pillows, sheets, blankets, comforters and yes, the pajamas are full of chemicals.

To find out more about good quality bedding for the sleeping and where to purchase the bedding, check out environmental green web directory, and go green environmental services.

Greenhouse emissions are created as a result of our electricity generation operations. To reduce emissions, we have implemented a number of greenhouse reduction strategies .

Energy efficiency

We believe it is important to help customers modify the way they use energy, to help you save money and to reduce our collective impact on the environment. We provides energy efficiency advice on our website and over the phone.

Energy Auditing

An in-home energy audit service for customers who are part of our hardship assistance program. Educating customers about low cost home energy efficiency measures, appliance running costs and helping them to make small behavioural changes can make a big difference to energy costs over time.

Our home energy auditing program is an important way of helping vulnerable customers manage their energy costs while reducing environmental impacts.

Water

Our generation facilities use large amounts of water to cool electricity generation equipment. Each of our power stations must abide by strict rules governing how we use, treat, recycle and discharge water back into the environment.

Recycling and waste

We try to minimise material use and what we do use, we try to recycle or reuse before disposal. We regularly audit and develop new initiatives to improve our waste management systems.





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