JINDAL PANTHER® TMT REBARS

SAFER HOMES FOR A STRONGER NATION

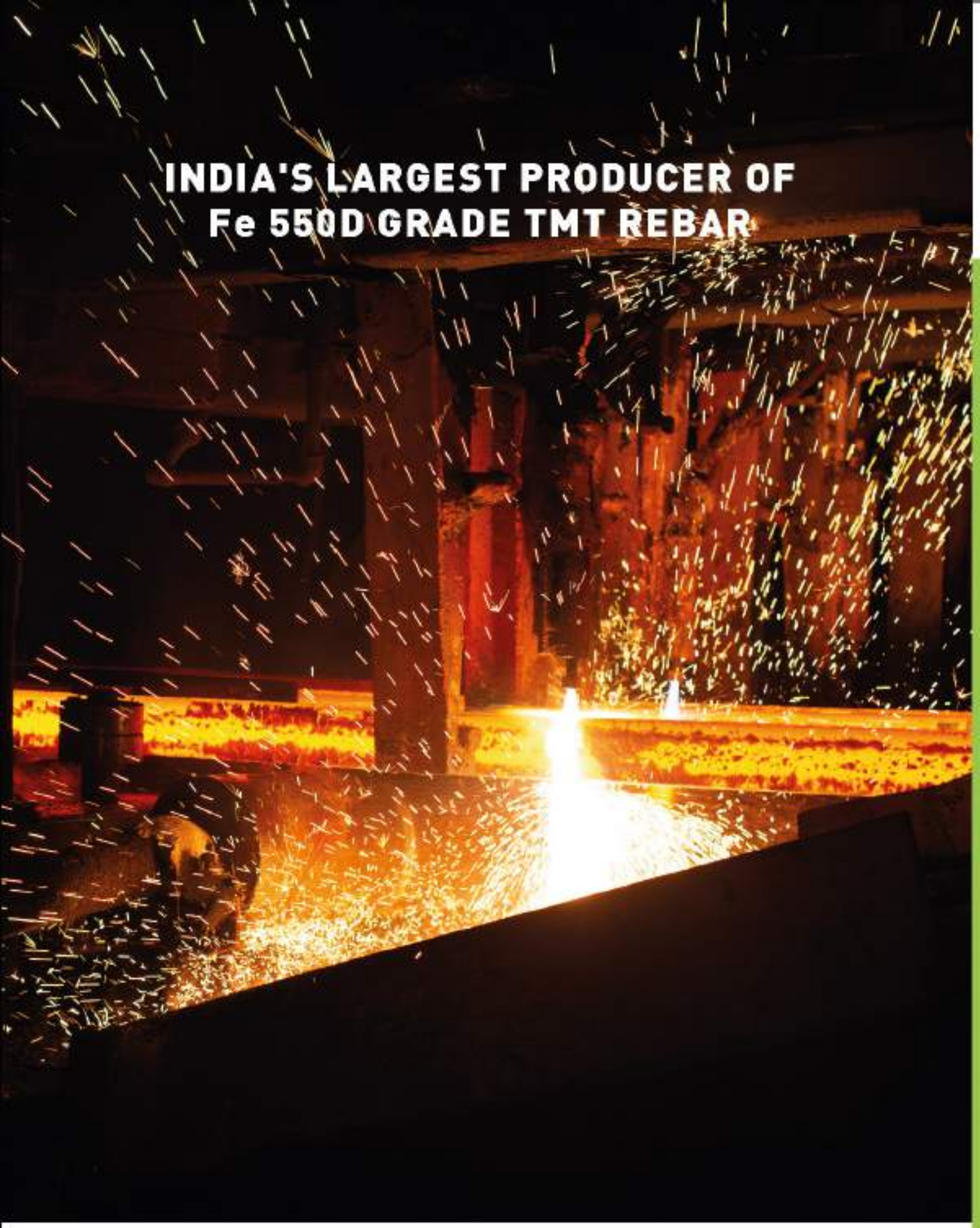
A PRODUCT OF JINDAL STEEL & POWER LIMITED
CORPORATE OFFICE: Jindal Centre, 12, Bhikaji Cama Place, New Delhi - 110 066, India
MARKETING OFFICE: Plot No 2, Sector 32, Near Exit-10, Gurgaon - 122 001, Haryana, India
E: sales@jindalpanther.com | www.jindalpanther.com

Fe 550D

JINDAL PANTHER® TMT REBARS

UNMATCHED STRENGTH WITH FLEXIBILITY

Fe 550D



WELCOME TO THE FUTURE OF BUILDING SAFETY AND LONGEVITY

As we look to the future, we have anticipated what will be required for our country to achieve lean steel structure that is yet the strongest and brings value for money.

Steel offers the widest range of strength compared to other metals giving it significant advantage in construction. There are more than 200 grades of steel globally, and we take pride in offering JINDAL PANTHER® Fe 550D - the strongest grade in TMT Rebars so far in practice.

This grade of steel is produced using a technology such that it has two desirable properties simultaneously, higher strength and higher ductility, thereby making it most suitable for earthquake resistant structures. Higher strength is achieved by the addition of certain alloying elements, keeping the percentage of carbon lower, thereby ensuring that the steel remains sufficiently ductile.

Ductility is the degree of plastic deformation before fracture or simply how much strain a material can hold before fracture.

JINDAL PANTHER® Fe 550D has enhanced physical, chemical and mechanical properties as compared to the bars in other strength grades. This is achieved by highly controlled and advanced manufacturing processes at JSPL's own manufacturing plants, which gives:

- Enhanced Strength
- Minimum 5% Saving on Steel*
- Rich Chemistry
- Superior Properties
- Cleaner Steel
- World Class Technology

* Subject to Design

WELCOME TO THE FUTURE OF TMT REBARS

UNMATCHED BENEFITS OF Fe 550D

JINDAL PANTHER® Fe 550D TMT Rebars offer 32% higher strength than conventional steel (415 MPa vs 550 MPa)

HERE'S HOW STRONGER STEEL AFFECTS YOUR CONSTRUCTION

REDUCTION OF STEEL CONSUMPTION
Designing structures with Fe 550D reduces the steel consumption by 12-15% with optimisation using consistent primary steel.

REDUCTION IN BAR CONGESTION
Using stronger grade steel means reduction in bar diameter that results in increased bar spacing as fewer rebars are needed.

REDUCTION IN LABOUR COST
Using lesser steel requires less labour which saves on labour cost.

FASTER CONSTRUCTION
Less time is wasted on placing/tying of bars. And less weight on cranes improves construction efficiency.

BIGGER SAVINGS
When the same structure is constructed with 3 different grades of steel, there will be remarkable saving in case of use of Fe550D.

Fe 550D
6mm - 40mm range

*can be reduced further on request

RIGHT TMT REBAR = HIGHER SAVING

DID YOU KNOW, BY USING BETTER QUALITY STEEL TMT REBARS YOU CAN ACTUALLY SAVE MONEY?

Steel TMT rebars are used in every RCC construction, be it for residential or commercial purpose, and account for roughly 25% of the total cost of construction.

With some smart thinking you can not only make your construction stronger and longer-lasting but also make a saving.

All thanks to the superior grade steel TMT rebars like JINDAL PANTHER® Fe 550D.
Read on to know how this happens.

HERE'S HOW HIGHER GRADE FE 550D TMT REBAR SAVES YOUR MONEY.

- Higher grade steel TMT rebars like JINDAL PANTHER® Fe 550D has higher load bearing capacity while maintaining the same ductility as per BIS 1786.
- Better load bearing capacity of Fe 550D means lesser number of rebars required in total.
- It also translates into using TMT rebars with lesser diameter so less congestion.

COLUMN A USES MORE Fe 415 TMT REBARS AND IS CONGESTED

COLUMN B USES LESSER NUMBER OF Fe 550D TMT REBARS GIVING LESS CONGESTION*

THUMB RULE

10% INCREASE IN STRENGTH = ½% REDUCTION IN CONSUMPTION

JINDAL PANTHER® Fe 500D & Fe 550D REBARS CONFORM TO BIS STANDARDS AND ARE EVEN BETTER ON MANY PARAMETERS

Parameters	BIS Fe 500D	Jindal Panther Fe 500D	BIS Fe 550D	Jindal Panther Fe 550D
% Carbon	0.25	0.20-0.25	0.25	0.22-0.25
% Silicon		0.15-0.25		0.15-0.25
% Manganese		0.90-1.00		0.95-1.05
% Sulphur (max)	0.040	0.030	0.040	0.030
% Phosphorus (max)	0.040	0.030	0.040	0.030
% Sulphur + Phosphorus (max)	0.075	0.055	0.075	0.055
% Carbon Equivalent (CE)	0.50	0.35-0.40	0.61	0.35-0.41
Yield Stress (N/mm2) min	500	525	550	575
% Elongation min	16.0	18	14.5	18
Tensile Strength (N/mm2) min	565	600	600	645
UTS/YS Ratio (min)	1.1	1.16	1.08	1.15

SHIFT FROM LOWER GRADE TMT TO HIGHER GRADE TMT = SAVE UP TO 22%

Size of TMT Bar (mm)	Per Mtr. Weight of bar
8	0.395
10	0.617
12	0.88
16	1.58
20	2.47
25	3.85
28	4.93
32	6.32
36	8

Comparative summary for Slabs, Columns and Beams using Fe 415, Fe 500 and Fe 550D

Average savings for Slabs: 13% - 19%
Average savings for Columns: 8% - 22%
Average savings for Beams: 12% - 22%

SLAB

Combinations	Designed in Fe 415	Designed in Fe 500	Designed in Fe 550	Saving from 415 to 550	Saving from 500 to 550
3mX3m slab (125mm thick)	58Kg	49Kg	45Kg	19%	8%
Reinforcement	8mm at spacing of 200mm	8mm at spacing of 225mm	8mm at spacing of 250mm		
4mX4m slab (125mm thick)	100Kg	92Kg	78Kg	22%	15%
Reinforcement	8mm at spacing of 150mm	8mm at spacing of 200mm	8mm at spacing of 250mm		
5mX5m slab (150mm thick)	181Kg	158Kg	130Kg	18%	18%
Reinforcement	8mm at spacing of 175mm	8mm at spacing of 195mm	8mm at spacing of 225mm		
			Average cost saving upto	19%	13%

COLUMN

Size	Designed in Fe 415	Designed in Fe 500	Designed in Fe 550	Saving from 415 to 550	Saving from 500 to 550
230X350 Reinforcement	45Kg 4-20mm+ 4-12mm	38Kg 8-16mm	36Kg 4-16mm + 4-12mm	22%	6%
230X450 Reinforcement	58Kg 4-20mm+ 8-16mm	48Kg 10-16mm	43Kg 8-16mm+ 2-12mm	26%	10%
230X600 Reinforcement	86Kg 12-20mm	72Kg 8-20mm+ 4-16mm	67Kg 4-20mm+ 8-16mm	23%	7%
300X350 Reinforcement	58Kg 4-20mm+ 8-16mm	48Kg 10-16mm	44Kg 8-16mm+ 2-12mm	24%	8%
300X450 Reinforcement	83Kg 10-20mm+ 2-16mm	72Kg 8-20mm+ 8-16mm	67Kg 4-20mm+ 8-16mm	19%	7%
300X600 Reinforcement	113Kg 8-25mm+ 8-20mm	103Kg 14-20mm	93Kg 10-20mm+ 4-16mm	17%	9%
			Average cost saving upto	22%	8%

BEAM				
Designed in Fe 415	Designed in Fe 500	Designed in Fe 550	Saving from 415 to 550	Saving from 500 to 550
28Kg 6-16 dia	26Kg 4-16 dia+ 2-12dia	22Kg 2-16 dia+4-12 dia	21%	15%
52Kg 4-20 dia+ 2-16dia	48Kg 4-16 dia+ 2-20 dia	40Kg 6-16 dia	23%	16%
60Kg 3-20 dia + 3-16 dia	53Kg 2-20dia+3-16dia+1-12dia	46Kg 6-16 dia	23%	13%
26Kg 4-16dia +2-12dia	22Kg 4-12dia+2-16dia	20Kg 5-12dia+1-16dia	23%	9%
38Kg 6-16dia	35Kg 4-16dia +2-12dia	29Kg 4-12dia+2-16dia	23%	
58Kg 4-16dia+2-20dia	50Kg 6-16dia	48Kg 5-16dia+1-12dia	17%	8%
7Kg 6-16dia	25Kg 4-16dia +2-12dia	22Kg 4-12dia+2-16dia	18%	12%
38Kg 6-16dia	34Kg 4-16dia +2-12dia	29Kg 4-12dia+2-16dia	23%	14%
57Kg 4-16dia+2-20dia	50Kg 6-16dia	43Kg 4-16dia +2-12dia	23%	14%
27Kg 6-16dia	25Kg 4-16dia +2-12dia	22Kg 4-12dia+2-16dia	18%	12%
40Kg 6-16dia	35Kg 4-16dia +2-12dia	30Kg 4-12dia+2-16dia	25%	14%
57Kg 4-16dia+2-20dia	48Kg 6-16dia	43Kg 4-16dia +2-12dia	24%	10%
		Average cost saving upto	22%	12%

REMEMBER Fe 550D IS HIGHER LOAD BEARING

- LOWER NUMBER OF REBARS
- LOWER DIAMETER
- LESSER CONGESTION
- REDUCED LABOUR/TIME

THUS BIGGER SAVINGS!!

DESCRIPTION	DIA-WISE STEEL CONSUMPTION							WEIGHT (in kg.)	STEEL CONSUMPTION (in sq.)	CONTRIBUTION Per SQ.FT (in kg.)	
	8	10	12	16	20	25	32			Fe 500D	Fe 550D
FOOTING	668.475	3168.080	548.145	932.332	361.830	0.000	0.000	4811.861	4907.896	0.300	0.259
2% extra for lap & chairs				98.233				98.233			
COLUMN											
Fe 500D	4072.563	3758.887	6841.8	3803.86	0	0	0	18374.83	18374.83	0.69	0.619
Fe 550D	4768.018	3943.338	9382.592	712.565	0	0	0	17406.493	17406.493		
BEAM											
Beam-500D	6443.864	0	6414.108	7267.568	1549.037	0	0	20674.376	20674.376	1.092	0.914
Beam-550D	5548.253	0	7798.414	3965.914	0	0	0	17310.521	17310.521		
SLAB											
Slab-500D	13256.32	0	0	0	0	0	0	13256.32	13256.32	0.7	0.7
Slab-550D	13256.32	0	0	0	0	0	0	13256.32	13256.32		
STAIRCASE	284.064	0	2651.984	0	0	0	0	2936.338	2936.338	0.155	0.155
Typical (G+3rd) Floor area (in sqs. Ft.)			440				4	19937.6			
Total Steel consumption	46391.648	10869.06	31934.133	15082.327	1960.867	0	0				
OVERALL STEEL CONSUMPTION AVERAGE PER SQ. FT.										3.33	2.947

5% - 6% average steel/cost saving in a building when using higher grade Fe 550D Jindal Panther TMT Rebars.

COMPARE AND SEE HOW JINDAL PANTHER® TMT REBAR IS SUPERIOR TO SCRAP BASED REBAR PRODUCTION IN INDIA

YOU GET (JINDAL PANTHER)		JINDAL PANTHER® TMT REBARS	VERSUS OTHERS	YOU GET (SCRAP ROUTE)	
Surpasses minimum specified levels of Bureau of Indian Standards (BIS)	More value for money with upto 6% - 8% savings	SURPASSES STANDARDS	INCONSISTENT IN QUALITY	Less value for money and no savings	Barely qualifies the minimum requirements of BIS
Uses virgin iron ore and deploys state-of-the-art steel making and refining processes	Highly clean & homogenous steel quality	IRON ORE	SCRAP	Uncertain chemical and mechanical properties due to inclusion of tramp elements	Use scrap or ingots for steel melting without any secondary refining process
Steel is made using BF / DRI → EAF / BOF / NOF → LRF → Concast route	A highly controlled steel chemistry with very low levels of sulphur & phosphorus	BF / DRI → EAF / BOF / NOF → LRF → Concast Route	INGOT	Variations in chemical composition leading to structural instability	Follow the melting process of secondary steel through induction furnace route leading to no control over chemistry
Rebars are manufactured using High Yield Quenching and Self Tempering (HYQST) Technology perfected by Siemens of USA / QST from SMS Meer of Germany	High strength and ductility due to fine grain multiphased composite structure	Uniform Martensite Ring; Soft Inner Ferrite & Pearlite Core; UNIFORM MICROSTRUCTURE	Non-uniform Martensite Ring; NON-UNIFORM MICROSTRUCTURE	Non-uniform grain size and inconsistent steel quality	Use outdated rolling process & technology
Provides precise and uniform parallel rib pattern engraved through computer controlled notch making machines	Excellent bond strength with concrete	UNIFORM RIB PATTERN	NON-UNIFORM RIB PATTERN	"X" rib/non-uniform pattern which has low fatigue life and reduces bond strength with concrete	Use conventional machines for engraving ribs
Meets UTS/YS (Ultimate Tensile Strength to Yield Strength) ratio and high percentage elongation	Superior earthquake resistant qualities due to high capability of absorbing energy	EARTHQUAKE RESISTANT	NOT FOR SEISMIC ZONES	Much lower resistance to cyclic loading which is not recommended for seismic zones	Use old technology leading to high variation in elongation
Has predefined and transparent pricing	Fixed and uniform rates evidenced through a well-displayed price list at our dealers' shops	UNIFORM PRICES	FLUCTUATION IN PRICES	Daily fluctuations in rates	Costs are linked to raw material movement like scrap & ingot
Is a National Brand	World-class quality	TRUSTWORTHY	QUESTIONABLE	Average quality	Are local/regional brands

THE TECHNICAL DETAILS

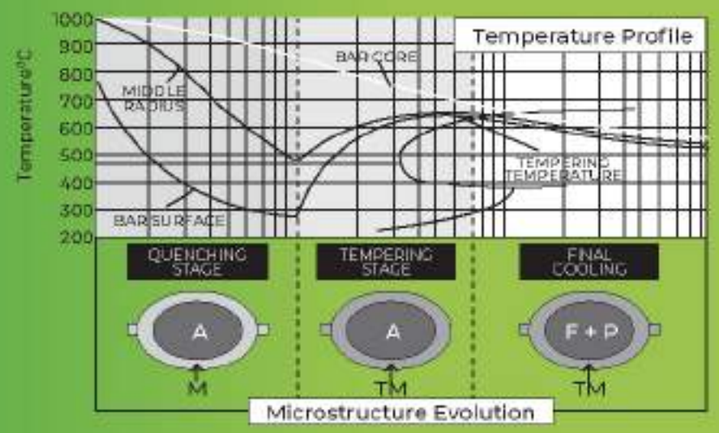
JINDAL PANTHER® Fe550D Rebars are Thermo Mechanically Treated (TMT) Steel Bars produced through advanced HYQST (High Yield Quenching and Self Tempering Process) /QST (Quenching and Self Tempering) process.

HYQST/QST process includes hot rolling of the billets in the most modern bar mill followed by water quenching, self tempering and atmospheric cooling. During quenching, the temperature of the rebar drops at a faster rate at the periphery leading to a harder surface, while the high temperature core gets cooled slowly. The thermal stresses generated during quenching are relieved by the heat released from the core during the next step called self tempering. Finally atmospheric cooling at the cooling bed leads to a strong casing and a soft core in the rebars giving it significant strength and ductility.

The reason behind such unique combination of strength and ductility is that at a higher cooling rate, the surface attains a hard phase of steel known as Martensite while the core will have soft phases like Ferrite and Pearlite.

Metallurgical Aspect:

Steel can attain a wide variety of properties by altering its microstructure, which depends on its chemical composition as well as the thermal treatment it is subjected to. Rebars have a combination of different microstructures which provides it both strength and ductility.

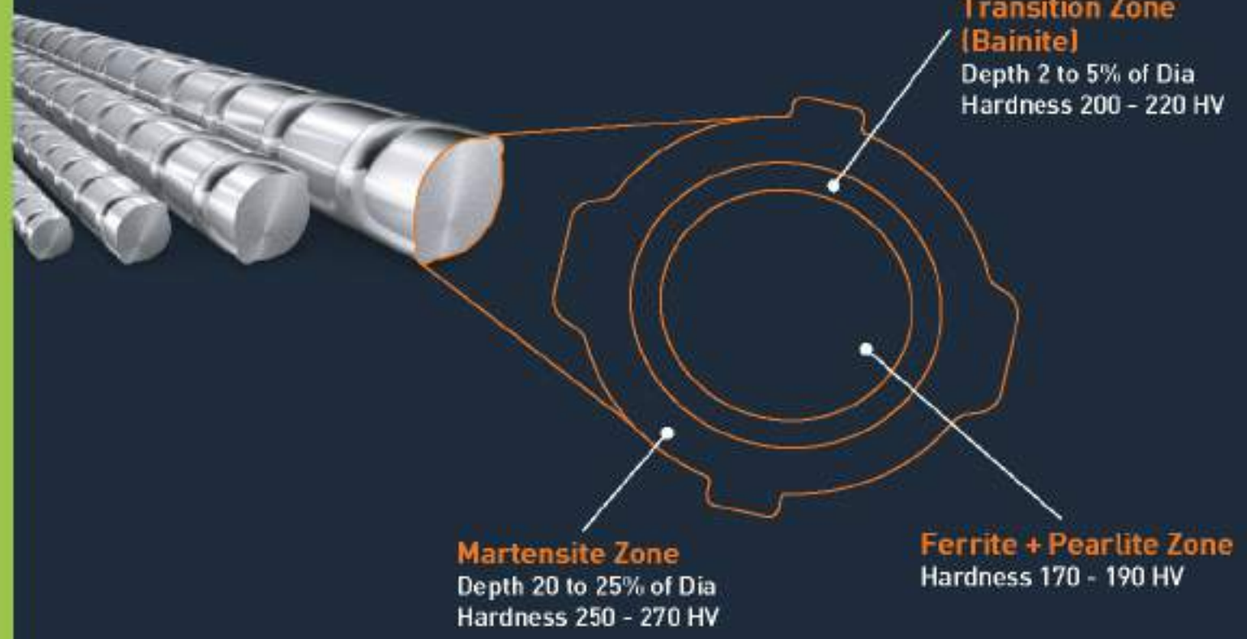


At the periphery, it has a hard phase called Martensite. Although the outer layer is quenched, the inner core of the cross section is still hot and it is in Austenitic Phase at higher temperature. As the bar cools, heat flows from the centre of the bar to its surface, leading to varying cooling rate across its cross section, the process known as self tempering. Thus it exhibits a variation in microstructure in the cross section, having strong and tough Martensite in the surface layer of the bar, an intermediate layer of Martensite and Bainite, and the core attains a soft Ferrite and Pearlite microstructure. Any thermal stress generated in Martensite during quenching is relieved in this process. Once this process is over, the TMT bars are subject to atmospheric cooling. This is done in order to equalise the temperature difference between the soft inner core and the tough exterior. The inner core remains soft giving the TMT bar superior ductility. This unique manufacturing technique and the absence of Cold stress make the rebar corrosion-resistant and boost its weldability.

Thus we can see high level of engineering and equipment with sophisticated controls are required to produce Thermo-Mechanically Treated (TMT) Bars to achieve the above properties.

This HYQST/QST process delivers greater tensile strength to the rebars as well as higher elongation. This improves the bend/re-bend properties of the rebars, thus making it safe from natural calamities such as an earthquake. The special ribbed design of the TMT bars form a stronger bond with the concrete or cement. We can achieve higher mechanical properties with low alloying. It helps to reduce the steel weight.

JSPL is having level 2 automation systems for achieving the above microstructure and the desired mechanical properties. The advanced control systems in mills also help in attaining dimensional accuracy and consistency of the desired level.



MECHANICAL PROPERTIES:

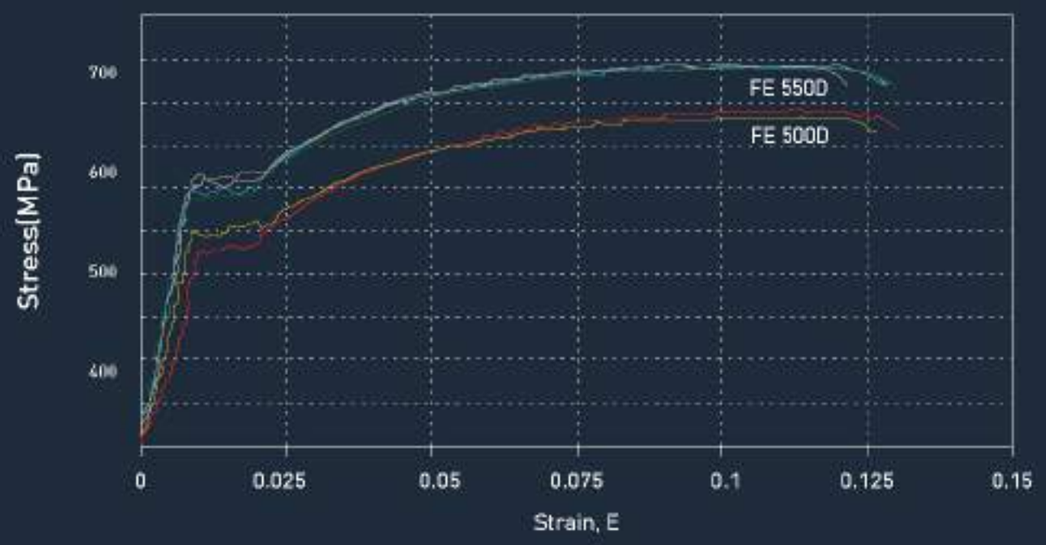
YS (YIELD STRENGTH): MIN. 550 MPA
UTS (ULTIMATE TENSILE STRENGTH): MIN 600 MPA
ELONGATION: MIN 16%
UTS/YS: MIN 1.10

JSPL is a primary and integrated steel producer. Thus it ensures clean steel with very low levels of detrimental Sulphur and Phosphorous, and low ppm of gaseous contents. Thus the TMT produced have negligible internal defects and impurities.

Our Jindal Panther TMT Rebars can be used in extreme environments like marine, coastal and saline conditions as well as in the high seismic zones.

Stress Strain Curve Comparison of **Fe 500D & Fe 550D**

STRESS STRAIN CURVE JSPL TMT REBARS FOR IS 1786 FE 550D AND FE 500D



Fe 550D, Yield Strength (N/mm2)	Min	- 550 MPa (BIS)	Actual - 575 MPa
% Elongation (Min)-	14.5	Guarantee - 18%	Actual - 21.75%
Fe 500D Yield Strength (N/mm2)	Min	- 500 MPa (BIS)	Actual - 530 MPa
% Elongation (Min)-	16.0	Guarantee - 18%	Actual - 21.60%

DUPLICATE SE SAVDHAAN

ASLI JINDAL PANTHER TMT REBAR KI PEHCHAAN
PANTHER KA NISHAN

JINDAL PANTHER TMT REBAR

ORIGINAL	DUPLICATE
Will have Panther face embossing	Will not have such embossing
Will have only Fe 550D grade	Come mostly in Fe 415 & Fe 500
Will have prominent & even rib pattern	Have uneven or missing pattern
Will always have ISI mark & license no.	May or may not have these
Available at authorised Jindal Panther dealers	Available at untrustworthy sources
Manufactured only at Angul, Patratu & Raigarh	Produced by smaller mills illegally at different locations

APPLICATIONS OF Fe 550D

Due to changing applications such as high rise buildings and long span structures, it has become imperative for innovative and conscientious steel makers to commercially produce grade Fe 550D - a grade vastly superior to the existing grade


Modern Tall Buildings

JINDAL PANTHER® Fe 550D TMT Rebar has been made to impart strength and superior ductility for construction of a stronger India.

This is achieved by using enhanced steel quality, superior chemical properties and better rolling techniques.

With an ever growing demand for stronger infrastructure, JINDAL PANTHER® Fe 550D TMT Rebar finds extensive use in a variety of modern construction

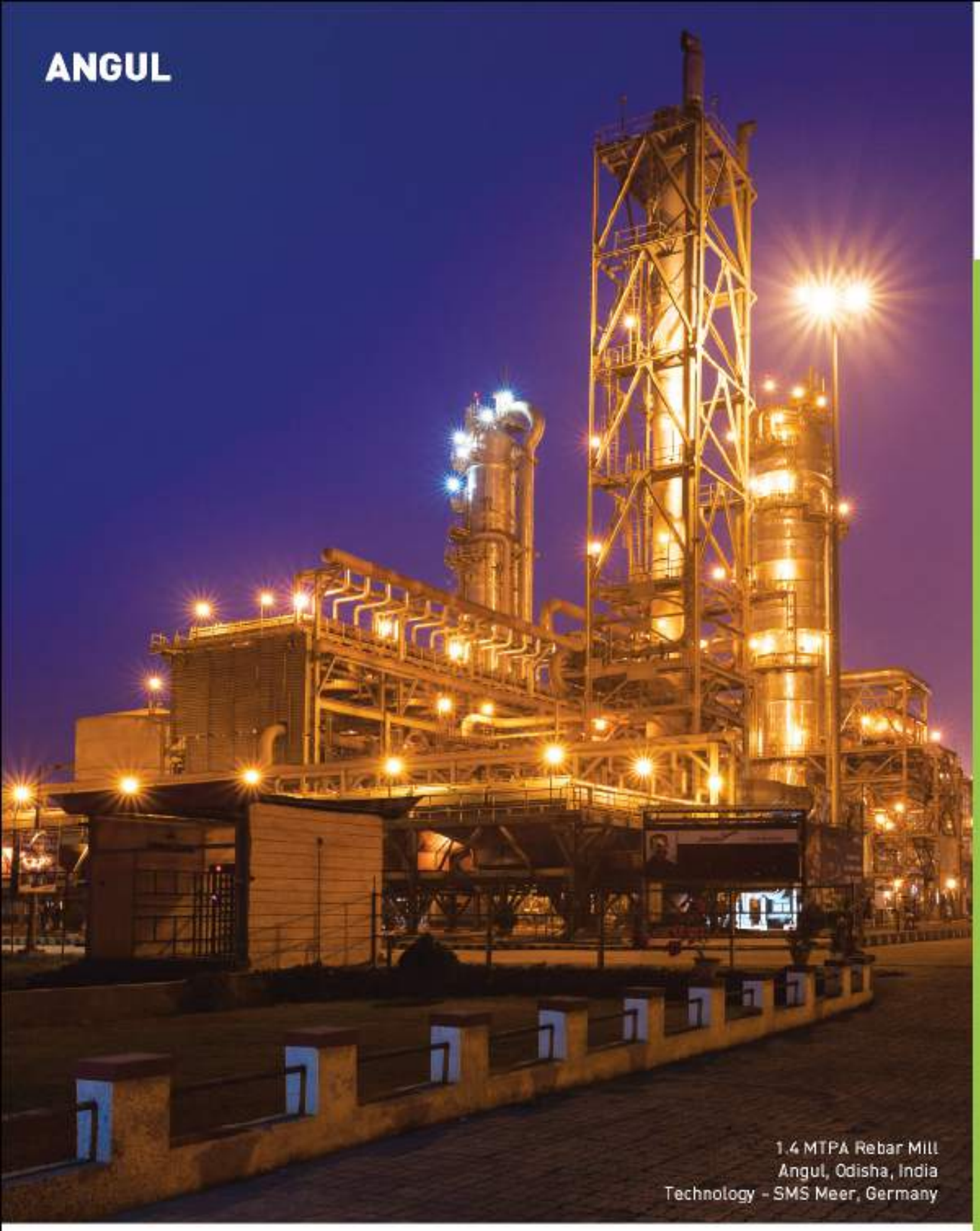

Ports


Airports


Rail & Metro networks


Bridges

OUR PLANTS



1.4 MTPA Rebar Mill
Angul, Odisha, India
Technology - SMS Meer, Germany

1.4 MTPA Rebar Mill
Sohar, Oman
Technology - Danieli, Italy

1.0 MTPA Rebar Mill
Patratu, Jharkhand, India
Technology - Morgan, USA

KEY HIGHLIGHTS OF OUR PLANTS AT PATRATU, ANGUL, OMAN

Our plants are amongst the most modern plants across the world. Equipped with the latest technologies and infrastructure, they produce the finest quality steel and TMT rebars.

Some of the key features of our plants are:

- Walking beam type reheating furnace
- High pressure water de-scaling facility
- High speed continuous rolling mill with Housing Less (HL) stands in combination of horizontal & vertical arrangement
- Interstands tension control rolling
- Online rapid water quenching unit
- Production of HYQST/QST TMT rebars in straight length
- Cooling beds with movable rack design
- Uniform air-cooling of TMT rebars
- Transporting in a phased manner from the entry of the cooling bed to the discharge side
- Automatic mill shears for head/ tail cropping dividing, sampling or scrapping, and cutting-to-length
- Automatic bundling & tying facilities for rolled product in straight length
- Level 2 mill automation and control

WE CREATE BEST-IN-CLASS PRODUCTS AND SERVICES WITH SUPERIOR SKILLED MANPOWER, LEVERAGING STATE-OF-THE-ART TECHNOLOGY.

OUR PROCESS

JINDAL PANTHER ® Fe 550D TMT Rebars are manufactured using the unique iron-making, steel-making and rolling process, which makes them stronger, safer and more ductile than any other TMT rebars, thus ensuring utmost quality.

A REBAR IS NOT A REBAR IF IT IS NOT TMT

Thermo-mechanical processing, also known as Thermo-Mechanical Treatment (TMT), is a metallurgical process that integrates work hardening and heat treatment into a single process, while the quenching process produces high strength bars from low carbon steel. The process presses the surface layer of the bar, which pressurises and deforms the crystal structure of the intermediate layers, and simultaneously begins to temper the quenched layers using the heat from the bar's core.

HIGH QUALITY OUTPUT FROM HYQST TECHNOLOGY FOR PATRATU AND QST FOR ANGUL

Our rebar mill in Patratu is from Morgan, USA having High Yield Quenching and Self Tempering (HYQST) technology which is an internationally renowned Thermo-Mechanical Treatment Technology. The rebar mill in Angul is from SMS MEER, Germany with the QST (Quenching and Self Tempering) technology. Both the mills are with state-of-the-art technology ensures a robust process.

These techniques employ a special split style nozzle cooling process for producing fine grain multiphase composite rebar with superior strength and ductility.

STEP 1: QUENCHING

The hot rolled bar from the finishing mill at 1050° Celsius is rapidly quenched by special split style nozzle cooling process. The quenching converts the bar surface layer to martensite, which causes it to shrink. The shrinkage pressurises the core helping it to form the correct crystal structures, while the core remains hot and austenite.

STEP 2: SELF TEMPERING

The bar leaves the quench box with a temperature gradient through its cross section and as the bar cools, heat flows from the bar's centre to its surface and the bar heat and pressure correctly tempers an intermediate ring of martensite and bainite.

STEP 3: ATMOSPHERIC COOLING

Finally, the slow cooling after quenching automatically tempers the austenite core to ferrite and pearlite on the cooling bed, that now has a strong and tough, tempered martensite on the surface layer of the bar, an intermediate layer of tough martensite and bainite and a refined, ferrite and pearlite core, giving it the ductile property.

A LOOK AT OUR LAB TESTING FACILITIES

JSPL has a state-of-the-art NABL accredited testing facility having latest testing equipment to ensure an almost zero-defect product. The facilities include:

- Optical Emission Spectrometers
- Metal Analysers
- X-Ray Fluorescence & X-Ray diffraction analysers
- Leco Analysers for Carbon, Sulphur, Oxygen, Nitrogen and Hydrogen
- Linder Test Apparatus for characteristics of Iron ore/Pellets
- Gas Chromatographs
- Universal Testing machines
- Hardness Testers
- Bend and Rebend Testing machines
- Impact Testing machines
- Wet Analysis Laboratory
- Optical microscopes

This helps in having a proper quality check as well as ensures continual Research and Development for product upgradation.

Besides the latest computerised machines, our employees are trained and skilled to monitor the quality 24 x 7 to produce the finest TMT bars.

JSPL mills are accredited with latest integrated management systems ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018. We are serving the premier quality Jindal Panther™ TMT rebars for Infrastructures – Airports, Roads, Bridges, Buildings, Refineries, Power Plants, Metros, Ports, Dams etc.

Sohar Plant is approved by UK CARES and DCL[Dubai Central Laboratory].

Angul Bar Mill is approved by BIS IS1786, UK CARES BS4449, Hongkong CS2, Singapore SS560, Australia AS/NZS 4671.

JINDAL STEEL AND POWER LIMITED, SALES & MARKETING

The presence of JINDAL PANTHER® is across the country through its network of stockyards, plants, distributors and dealers.

Additionally, our products are available online at http://shop.jindalpanther.com and can be accessed from the remotest areas of India.

Sales Team Contact Details

Regional Sales Office	Contact Person	Mobile Number	Email
Ahmedabad	Ramesh Vats	70088 07233	rameshvats@jindalsteel.com
Bangalore	Amit Tyagi	8527044073	amittyagi@jindalsteel.com
Bhopal	Pramod Mishra	9957458606	pramod.mishra@jindalsteel.com
Bhubaneswar	Debasis Das	9777442369	debasis.das@jindalsteel.com
Chandigarh	Navin Gupta	9888747470	navin.gupta@jindalsteel.com
Chennai	T. Kannan	9444819597	kannan@jspl.com
Cochin	K Giridharan	9717991494	k.giridharan@jindalsteel.com
Delhi	Prabhav Singh	9958509444	prabhav.singh@jindalsteel.com
Guwahati	Rajib Sharma	9771481868	rajib.sharma@pat.jspl.com
Haryana	Raghav Sachdev	99101 13330	raghav.sachdev@jindalsteel.com
Hyderabad	Om Prakash Behara	9777445377	omprekash.behera@bbsr.jspl.com
Jaipur	Nishant Singh	9599770282	nishant.singh@jindalsteel.com
Jammu	Adnan Mushtaq Wani	8527670999	am.wani@jindalsteel.com
Kanpur	Abhijit Singh	8264066637	abhijit.singh@jindalsteel.com
Kolkata	Ashish Minj	9771492008	ashish.minj@jindalsteel.com
Mumbai	Vivek Jagtap	81696 46954	vivek.jagtap@jindalsteel.com
Nagpur	Atul Kumar	9766127221	atul.kumar@jspl.com
Patna	Sushil Singh	7070090832	sushilk@bbsr.jspl.com
Raipur	Paras Sharma	9971777037	paras.sharma@jindalsteel.com
Ranchi	Lalit Dutta	7091093737	lalit.dutta@jindalsteel.com
Visakhapatnam	CV Pani	9777445240	cvpani@jindalsteel.com

JINDAL STEEL AND POWER LIMITED

OPERATIONAL YARDS
1. Chandigarh
2. Faridabad
3. Guwahati
4. Kolkata
5. Ludhiana

PLANTS
1. Raigarh
2. Angul
3. Patratu

DISTRIBUTORS

OUR PLANTS