











# WORLD-CLASS PRODUCTS UNRIVALED TECHNOLOGY























#### JINDAL STEEL & POWER LIMITED

With an annual turnover of over US\$ 3.5 billion (₹18,208 crore), Jindal Steel & Power Limited (JSPL) forms a part of US\$ 17 billion (gross turnover) multinational and multi-product conglomerate, O. P. Jindal Group. JSPL is a leading player in steel, power, mining, oil & gas and infrastructure with expanding presence across Asia, Africa, Australia and Europe.

JSPL has consistently tapped new opportunities by increasing production capacity, diversifying investments and leveraging its core capabilities to venture into new businesses.

JSPL has planned investments exceeding US\$ 30 billion in the future and has several business initiatives running simultaneously across continents. The company is the largest private sector investor in the state of Chhattisgarh with planned investment of over US\$ 7 billion (₹ 35,000 crore).

JSPL produces economical and efficient steel and power through backward integration from its captive coal and iron-ore mines.

From the widest flat products to a whole range of long products, the company today sports a product portfolio that caters to varied needs in the steel market. The company also has the distinction of producing the world's longest 121 metre rails and large size parallel flange beams, high strength angle for transmission towers, widest 5 meter width plate and high strength earthquake resistant construction rebars.





#### **Expansion Projects**

#### Chhattisgarh

JSPL is planning to raise its production of steel from 3 million tonne per annum to 10 million tonne per annum in the state. The expansion plan includes:

- A 7 million tonne per annum Integrated Steel Plant, a 2 million tonnes per annum Cement Plant and a 1,600 MW Captive Power Plant with a total investment of over US\$ 7 billion (₹ 35,000 crore).
- Jindal Power Limited, a company promoted by JSPL, is adding 2,400 MW to the existing capacity of 1,000 MW Thermal Power Plant at Tamnar in Raigarh district of Chhattisgarh with an investment of US\$ 2.60 billion (₹13,410 crore).

#### **Iharkhand**

Jindal Steel & Power's plans in Jharkhand include:

- A 12 MTPA Integrated Steel Plant and a 2,640 MW Captive Power Plant in phases, with a total investment of about US\$ 10 billion (₹ 50,000 crore). The company is setting up a 6 million tonnes per annum integrated steel plant and a 1,320 MW captive power plant (CPP) at Patratu, District Ramgarh and it also plans to set up a 6 million tonnes per annum integrated steel plant and a 1,320 MW CPP at dist. Godda and about 180 MW power plant at Patratu and Asanboni based on process fuel gases.
- The plant at Patratu is a greenfield project of 6 million tonne per annum Integrated Steel Plant. A Wire Rod Mill of 0.6 million tonne per annum and a Bar Mill of 1 million tonne per annum has already been commissioned. The 0.6 million tonne per annum wire Rod Mill is equipped with the latest state-of-the-art technology to offer superior quality wire rods. The first phase

comprising a 3 million tonne per annum steel plant is expected to be commissioned by 2016.

#### **Odisha**

JSPL's expansion plans in Odisha include:

- A 6 MTPA Integrated Steel Plant and a 810 MW Captive Power Plant is being setup involving a total investment of about US\$6 billion (₹30,000 crore).
- The project is on a fast-track mode, with the 1.5 MTPA capacity Plate mill and four units of Power Plant with aggregate capacity of 540 MW has already commissioned and other units are nearing its completion. The Platemill is capable of producing 5 m wide steel plates, the widest plates ever produced in the country. This wider Plate will cater to the requirement in the areas of Ship Building and large Diameter Pipes.

- JSPL is setting up a coal gasification unit for its upcoming Steel Plant at Angul using the 'Fixed Bed Dry Bottom (FBDB) Coal Gasification' technology. The Synthesis Gas produced at this plant will replace the blast furnace (coke) used in the process of steel manufacturing.
- The Coal Gasification route to manufacture Direct Reduced Iron (DRI) is being used for the first time in the world.
- The Pellet Plant at Barbil has a capacity of 4.5 MTPA production for different grades of pellets. The plant is of dry grinding, with recuperation type of straight grade hearth layer.
- In addition to the existing 4.5 MTPA pellet plant, JSPL is adding another 4.0 MTPA Iron Ore pelletisation plant, with wet grinding process for better environmental protection and superior quality of pellets for steel making.

#### Coal to Liquid Project

Jindal Steel & Power Limited has powered many ground-breaking initiatives, the latest being the Coal to Liquid Project in Odisha. The company has been allotted the Ramchandi Promotional Coal Block in Angul district of Odisha having coal reserves of 1,500 MT. JSPL is investing over ₹ 50,000 crore in CTL (including mining and setting up of a power plant) which will produce 80,000 barrels of liquid products like diesel, naptha etc. per day.

#### **GOING GLOBAL**

After establishing itself as a major steel and power player in India, JSPL has gone on to create a significant footprint across the world by using its expertise through diversified investment strategies and gaining a foothold in high growth markets. Its global forays are as follows:

#### AFRICA

- JSPL has presence in South Africa, Mozambique, Madagascar and Botswana. While its commercial interests are predominantly in mining, it is also expanding projects in the field of steel, power and cement. The company is exploring opportunities for mining coking coal, iron ore and high value minerals, such as copper, platinum and chrome
- In South Africa, JSPL acquired a majority stake in Kiepersol Colliery located near the Piet Retief town in Mpumalanga province. The mine produces high quality anthracite and lean bituminous coal that is sold locally and internationally. The mine has total reserves of .50 MT

- In Mozambique, in the year 2011, Jindal Africa bagged a 25 year mining concession from the government of Mozambique for mining coal in Changara district in the central Mozambican province of Tete. JSPL is the third company after Riversdale and Vale to bag such type of contract. Since then, Mining has been started in Jan 2013 and expected to be scaled up gradually.
- In Madagascar, JSPL is involved in limestone mining and exploring opportunities for mining high value minerals and putting up a cement plant
- JSPL has recently acquired CIC Energy Ltd, a company incorporated in Botswana.CIC Energy is focused on development and operation of Mamabula Energy complex in South Eastern Botswana, with estimated reserves of 2.7 Billion Tonnes. Currently, JSPL is planning to set up a 300 MW Thermal power Plant, which will start its operations from 2015-16.

#### OMAN (Middle East)

Through its 100% subsidiary Jindal Steel & Power (Mauritius) Ltd., JSPL has acquired Shadeed Iron & Steel Co. LLC (Shadeed) in Oman in 2011. Shadeed has installed a 1.5 MTPA Gas-based Hot Briquetted Iron (HBI) plant at Sohar with an investment of US\$ 525 million. Currently, the company is adding a steelmaking facility of 2 MTPA in Oman. This will be the first integrated steel plant in the Sultanate of Oman.

#### AUSTRALIA

Through its 100% subsidiary, Jindal Steel & Power (Australia) Pty Ltd., JSPL has secured six Exploration Permits for Coal (EPC) in Queensland, Australia. These exploration tenements are spread over a large area of more than 1,300 sqkms with a potential of exploring coking/PCI and thermal coal. They are also strategically located in three major coal bearing areas of Queensland i.e. Bowen, Surat and Maryborough basins that are well connected through rail to strategic ports. JSPL has already started the initial exploration activities on the said coal projects.

The company has also signed an option agreement with Fitzroy Port terminal that has a capacity of handling 5 MT of coal. The port is close to the Blackwater rail line as well as Rockhampton town.

#### INDONESIA

JSPL has invested for the development of two Greenfield exploration assets in Indonesia having reserves of thermal coke /coking coal. Both the mines are located within Central Kalimantan Province of Indonesia.

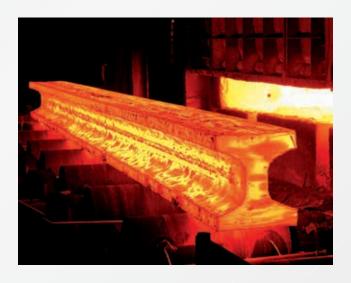


#### **SEMI-FINISHED PRODUCTS**

JSPL uses virgin Iron Ore from its captive mines which along with its world class steelmaking and refining technology ensure a highly controlled steel chemistry for its various steel products with very low levels of sulphur (0.002% - 0.035%), phosphorous (0.010% - 0.035%) and very negligible levels of inclusion and tramp elements.

Semi-finished products like Slabs, Billets, Blooms, Beam Blank and Rounds can be delivered in a very wide range of carbon steel and alloy steel grades with ultra low gas, controlled chemical composition, high internal soundness and dimensional uniformity.

Besides captive use, semi-finished products from Jindal Steel and Power Limited are being widely used by the forging industry, rolling units and seamless pipe manufacturers in India as well as International markets of Europe, South-East Asia, West Asia and the Middle East.





#### **Product Specifications**

#### SQUARE BILLETS AND BLOOMS

130 mm, 150 mm, 165 mm, 200 mm, 250 mm

#### **RECTANGULAR BLOOMS**

285 mm x 390 mm and 280 mm x 320 mm

#### **BEAM BLANKS**

480 x 420 x 120 mm, 355 x 280 x 90 mm

#### **ROUNDS**

162 mm, 180 mm, 200 mm, 220 mm, 255 mm, 280 mm, 305 mm, 320 mm, 355 mm diametre

#### SLABS

 Width
 :
 1350 mm to 2600 mm

 Thickness
 :
 215 mm, 250 mm & 280 mm

 Length
 :
 3.0 metre to 9 metre

 Max. Weight
 :
 34 MT per slab

#### **RAILS**

#### Manufacturing worlds longest 121 metre long track rails in the Indian sub-continent

JSPL manufactures the world's longest rails. These 'A' class rails ranging from 13 m to 121 m length will make introduction of high speed rails in India, a reality. The availability of 121 metre long rails ensures a drastic reduction of weld population in Indian rail tracks, resulting in better riding comfort, enhanced safety and substantial savings in costs.

JSPL rails are rolled in sections IRS 52, UIC 54 & UIC 60 conforming to Indian Railways specifications IRS T-12 as well as various other international railway specifications. Rails can be supplied in customized finished lengths upto 121 metre and Flash Butt welded rail panels up to a length of 484 metre.

JSPL is also a preferred supplier for Crane Rails which finds widespread usage in EOT Cranes as well as for Gantry Crane Operations. JSPL will start production of head hardened rails using state-of-the-art water quench technology by SMS-Meer by Oct-2013.





#### **Product Dimensions**

#### TRACK RAILS

UIC 54, UIC 60E1, UIC 60E2, IRS 52

#### **Steel Grades**

TRACK RAILS		
IRS T-12	:	Gr 880 Class A, Class B, IU, Gr 1080 HH
UIC 860 (0)	:	Gr 900A, 900 B, others as per prior agreement
EN 13674-1	:	R 200, R 220, R 260, R 350 HT

#### CRANE RAILS

CR 80, CR 100 sections

**Product Dimensions** 

CRANE RAILS

IS 3443 : 55 C11, 50 C12

#### Certifications

- BSI-London for Quality (BS: EN 9002:2000)
- RDSO (Indian Railways)

#### Credentials

- RDSO approved mill
- RITES inspected rails

#### **Applications**

<u>Rail Tracks:</u> • High Speed Trains • Sidings of Power Plants • Refineries • Cement Plants • Fertilizers Plants • Steel Plants, etc.

<u>Crane Rails:</u> • Ports & Harbors • Factories • Mines • Launch Pads • Shipyards etc.

## PRODUCTS CTS



#### PARALLEL FLANGE BEAMS, COLUMNS & CHANNELS

#### We have pioneered the production of Hot Rolled Parallel Flange Beams and Columns in India

Considered a revolutionary product, Parallel Flange Beams from JSPL are the most sought after by structural engineers, architects and construction companies globally. The beams have standard nominal depths with different flange and web thicknesses, thereby offering cost competitive options in terms of unit weights and sectional properties. Manufactured as per Indian and International standards, these are superior in terms of strength, efficiency, higher axial and bending load bearing capacity, workability and economy vis-à-vis the conventional tapered flange beams.

JSPL's Parallel Flange Beams & Columns enable complex fabrications in high volumes due to inherent functional advantages of these sections. When used under bending load, steel savings between 10-25% are achieved, as beams of lower sectional weight can be used.









With an endeavor to provide a complete product basket, JSPL produces an enhanced range of medium and light structural sections through its state-of-the-art Medium & Light Structural Mill. This continuous mill is the first of its kind in India, equipped with advanced rolling mill technology and equipments from DANIELI, ITALY. It has facility of rolling Parallel Flange Beams (100-300mm), Channels (75-300mm) and Angles (100-200mm).

#### **Applications**

- Refineries
- Shopping Malls
- Steel Plants
- Transmission Line Tower/Telecom Line Towers
- Industrial Sheds
- Airports

- Power Plants
- Industrial Sheds
- Fabrication
- Bus/Truck bodies
- FlyoversStadiums
- Infrastructure constructions
- Electrical Towers (SEB / Railways)
- Commercial & Industrial houses, etc.
- Metro Rail Projects
- Cement Plants

#### **Steel Grades**

S - E250, E275, E300, E350, E410, E450\*

EN - S275, S355, S450
ASTM - IS equivalent grades
JIS - IS equivalent grades
DIN - IS equivalent grades

#### **Product Range**

JSPL today rolls 47 different sections and over 160 different variants (unit-weights) of Structural steel including beams columns and channels conforming to Indian and International series BS/UB/UC/NPB/WPB/IPE/HE.

#### PARALLEL FLANGE BEAMS

UB 203 mm x 133 mm to 610 mm x 229 mm

NPB/IPE 180 mm x 90 mm to 600 mm x 220 mm

WPB/HE 600 mm x 300 mm to 900 mm x 300 mm

#### **COLUMNS**

UC 152 mm x 152 mm to UC 356 mm x 406 mm

#### CHANNELS

ISMC 75-400 mm

#### **ANGLES**

Equal Angles (ISA) 50-250 mm

#### Length

Upto 18 m

We can supply in specific lengths up to 18 m

#### Certifications

- ISO 9001 & ISO 14001
- BIS certification
- Certification for CE marking, mandatory for supply of sections to the construction industry in Europe and other export destinations.
- JSPL sections are also certified by ABS for supply to ship building industry.

#### ADVANTAGES OF STRUCTURAL SECTIONS FROM JSPL

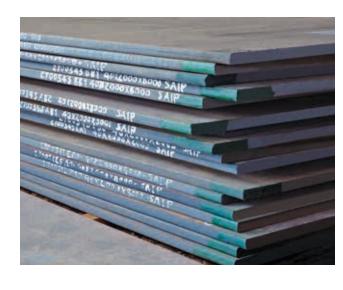
- **Economy** Steel savings with parallel flange sections under bending as well as axial load conditions are appreciable when compared with tapered flange sections.
- **Excellent Durability** Due to clean steel quality, which is free from any harmful impurities and inclusions on account of in-house virgin raw material and state-of-the-art steel refining facilities.
- Superior Weldability Due to its chemical composition of pure steel and lower carbon equivalent.
- **Economy** Steel savings with parallel flange sections under bending as well as axial load bearing conditions are appreciable when compared with taper flange section.
- **Product Range** Widest range available lending more flexibility to designers and a more cost-effective option to project owners.



#### **PLATES & COILS**

The newly commissioned plate mill from Siemens VAI, at **Angul** (Odisha) produces plates in wide range upto a width of 5 metre. The state-of-the-art plate mill is equipped with latest equipments and technology like TMCR, MULPIC cooling, On-line & Off-line normalizing, Quenching & Self Tempering, Shearing Units & On-line ultrasonic flaw detection system.

JSPL's Plate Mill at **Raigarh** (Chhattisgarh) produces plates up to 3.5 metres in width and coils in thickness of 5 to 25 mm and width upto 3 metres in various steel grades as per Indian and International standards such as BS, EN, ASTM, JIS, LRS, ABS, DNV, GL, NK. Manufactured in JSPL's Plate Mill using cutting-edge technology, these flat products are of premium quality owing to a sound steel refining technique using LRF, VD and RH-Degasser and very close rolling tolerances.





#### Product Dimensions Plate & Coil Mill, Raigarh

DISCRETE PLATES		
Thickness	:	5 mm – 120 mm
Width	:	1500 mm – 3500 mm
Max. weight	:	24 MT per plate

FURNACE NORMALIZED PLATES			
Thickness	:	40 to 80 mm	

HOT ROLLED COILS				
Thickness	:	5 mm – 25 mm		
Width	:	1500 mm – 2500 mm		
Coil ID/OD	:	700 mm min. 2000 mm max.		
Max. Weight	:	25 MT per coil		

CUT TO LENGTH PLATES			
Thickness	:	5 mm – 25 mm	
Width	:	1500 mm – 2500 mm	
Length	:	6000 mm – 12500 mm	

#### **Product Dimensions Plate Mill, Angul**

DISCRETE PL	_ATES	
Thickness	:	5 mm – 150 mm
Width	:	1500 mm – 5000 mm
Length	:	6000 mm to 24000 mm
Max. weight	:	30 MT per plate

NORMALIZED PLAT	ES	
Thickness	:	5 to 150 mm

FINISHED PLATE RANG	E	
Trim Shear		
Thickness	:	5-50
Width trimmed	:	1500-4800mm
Slitting Shear		
Thickness Range	:	5-30/40/50mm
Slitting width Range	:	900-2400 mm
Divide Shear		
Thickness Range	:	5-50mm
Plate Width	:	900- 4900 mm





#### Grades

ASTM	: A36, A572, A573, A633, A242 Type I, A588 M-93 Gr A, A283, Gr A/B/C/D
EN 10025	: S 235, S 275, S 355
DIN 17100	: St. 37, 44, 52
ASTM A 515	: Grades 60 (415), 65 (450), 70 (485)
ASTM A 516	: Grades 55 (380), 60 (410), 65 (450), 70 (485)
ASTM A 537	: Class I
ASTM A 387 M	: Gr 2 Cl.1, Cl.2, Gr 11 Cl.1, Cl.2, Gr 12 Cl.1, Cl.2, Gr 22 Cl.1, Cl.2
ASTM A 204 M	: A, B, C
LRS/ABS/DNV	: A, B, D, AH27, DH27, AH32, DH32, AH36, DH36 and equivalent
API5L	: Gr B, X-42, X-46, X-52, X-56, X-60, X-65, X-70
IS 2062	: E250, E275, E300, E350, E410, E450
IS 2041	: R220, R260, R275, R355, H235, H265, H295, H355
IS 2002	: Grade 1, Grade 2, Grade 3
IS 10748	: Grade1, Grade 2, Grade 3, Grade 4, Grade 5
IS 5986	: Grade 165, Grade 205, Grade 235, Grade 255, Grade 325, Grade 355,
	Grade 420, Grade 490, Grade 560

#### **Applications**

Production range includes entire spectrum of grades for various applications such as:

• General Engineering • Structural Fabrication

• Pen Stocks

- Railway Wagons
- Oil & Gas Pipelines

• Yellow Goods

- Bridges & FlyoversLine Pipe
- Ship Building
- Boilers & Pressure Vessels
- Automotive Boilers



#### JINDAL PANTHER TMT REBARS

JSPL operates a 1.0 MTPA capacity TMT Rebar mill at Patratu, Jharkhand. Supplied by the world leaders in rebar production technology M/s Morgan Construction Company (now Siemens) of USA. This mill produces high strength rebars confirming to IS 1786:2008 Fe 500D, Fe 550D & Fe 600 grade in normal, EQR & CRS quality. TMT production at JSPL Patratu uses the superior and clean steel billets produced at JSPL, Raigarh through the BF→DRI→EAF→LRF→CCM route with highly controlled steel chemistry with very low levels of sulphur and phosphorus (less than 0.035%), and very low levels of inclusion and tramp elements.

JSPL Rebar Mill uses superior HYQST (High Yield Quenching & Self Tempering) TMT technology for production of TMT rebars. HYQST technology produces rebars with high strength, high ductility & bendability and high weldability surpassing the requirement of Fe 500D, Fe 550D & Fe 600 rebars. Jindal Panther TMT Rebars are thus able to withstand shock loading and cyclic loading condition making them the choice of the designer for buildings in high seismic areas.

#### **Finished Products**

REBAR GRADE	BIS FE 500D	Jindal Panther 500D (Typical Values)	BIS FE 500D CRS (As Per clause 4.2, Note3)	Jindal Panther FE 500D CRS (Typical Values)	BIS FE 550D (Typical Values)	Jindal Panther 550D	BIS 600	Jindal Panther 600 (Typical Values)
% Carbon (max)	0.25	0.20-0.25	0.15	0.11-0.15	0.25	0.22-0.25	0.3	0.25-0.28
% Silicon (max)		0.15-0.25		0.15-0.25		0.15-0.25		0.15-0.25
% Manganese (max)		0.90-1.00		0.80-1.00		0.95-1.05		0.75-0.80
% Sulphur (max)	0.04	0.03		0.03	0.04	0.03	0.04	0.03
% Phosphorous (max)	0.04	0.03	0.12	0.10	0.04	0.03	0.04	0.03
% Sulphur Phosphorous (max)	0.075	0.055		0.125	0.075	0.055	0.075	0.055
% Carbon Equivalent, CE (max)	0.42	0.31-0.36		0.42	0.42	0.31-0.41	0.42	0.41
% Copper				0.35-0.40				
% Chromium				0.15-0.20				
Yield Stress (N/mm2)Min	500	525	500	525	550	575	600	610
% Elongation (minimum)	16	18	16	18	14.5	16	10	12
Tensile Strength (N/mm2)Min	565	600	565	600	600	645	645	675
UTS/YS Ratio	1.13	1.15	1.13	1.15	1.08	1.12	1.1	1.2

#### **Cut n Bend Bars:**

Recognizing the need for customized solutions, we have developed the concept of ready-to-use TMT bars through Cut n Bend bars. The JSPL Cut n Bend rebars enables high customization. Thus giving the customer a ready to use product at site. This fast and efficient service caters to every kind of reinforcement requirement, saves time and reduces material wastage.

#### **Sizes (in mm)** – 6, 8,10,12,16,20,25,28, 32,36,40

#### \* 6-12 mm are available in coil and straight form

#### Grades

Fe 500 / Fe 500D / Fe 500S / Fe 550D / Fe 600 in normal and corrosion resistant steel grade

Fe 500D for areas prone to seismic activity

#### **Standards**

Jindal Panther TMT rebars comply with IS 1786:2008

#### **Advantages of Jindal Panther TMT Rebars**

#### Excellent Bendabilit

Due to a controlled manufacturing process Jindal Panther TMT Rebars have excellent bendability. The rebars can be bent around mandrels specified in IS 1756

#### **Superior Weldability**

 $Jindal\ Panther\ TMT\ Rebars\ having\ a\ low\ carbon\ equivalent\ ensures\ superior\ Weldability\ for\ all\ types\ of\ welding\ without\ preheating\ probability\ probabilit$ 

#### **Higher Bond Strength**

 $\label{lem:lemmand} \textbf{Jindal Panther TMT Rebars have uniform and precise ribs which lead to uniform bond strength.}$ 

#### Economy

#### **Applications**

Jindal Panther TMT rebars have been specifically designed for high strength applications. They are ideal for a wide range of usages where high yield strength is required without compromising on the elongation properties, such as:
• Flyovers • Dams • Bridges • High Rises • Airports • Metro Projects • Power Plants • Industrial Structures • Individual Houses • Other Critical Structures

#### **WELDED WIRE MESH**

Welded Wire Mesh, another pioneering idea from JSPL, is a new and efficient product aimed to expedite construction. It is a processed steel product that consists of rebars welded together to from a grid pattern.

Use of Welded Wire Mesh reduces construction time considerably as it eliminates activities like cutting, marking and spacing of bars and binding of wires to the bars.



Benefits of Welded Wire Mesh are:

- Ready to use
- Saves time and labor
- Greater accuracy
- Reduced requirement of storage area
- No scrap generation

## JSPL Welded Wire Mesh is available with following specifications:

Diameter of bar used:	6mm-12mm
Aperture :	50mm - 200mm
Width :	From 1200mm up to 3200mm
Length :	From 2000mm up to 6000 mm



<sup>\* 45 &</sup>amp; 50 mm are available with prior agreemer



#### **WIRE RODS**

JSPL has commenced production of Wire rods and Rounds at its 0.6 MTPA capacity Wire rod mill at Patratu, Jharkhand. This mill was supplied by Morgan Construction Company, USA (now known as SIEMENS), the world leader in long product rolling technology. Wire rod and Round production at JSPL Patratu uses the superior and clean steel billets produced at JSPL, Raigarh through the BF+DRI-EAF-LRF-CCM route.

JSPL is capable of producing a wide range of alloy steel grades with ultra low sulphur and phosphorus levels as per customer's requirements. Billets are cast in state-of-the-art Continuous casters which are equipped with Electromagnetic Stirring (EMS) and Auto Mould Level Control (AMLC) facilities which minimize centre line segregation and ensure uniform properties in Wire rods as well as Rolled Rounds. State-of-the art mills equipped with latest technologies including Morgan Enhanced Temperature Control System and large reduction ratios capabilty enables JSPL to offer special steel products with very close dimensional tolerances, uniform mechanical properties, homogeneity, superior grain structure and more uniform scale.

#### **Product Specifications**

Rolled Rounds		
Size Range	:	20mm - 63 mm
Grade	:	Forging Quality, Alloy Steel, Spring Steel, Low Carbon, Medium Carbon

#### **Product Specifications**

Wire Rod			
Size Range	:	5.2 mm, 5.5 – 22.0mm	
Coil Weight	:	2.0 - 2.5 MT (nominal)	
Coil Outside Diameter	:	1250 mm	
Coil Inside Diameter	:	850 mm	



#### Grades

Low Carbon Grades	: SAE 1006/1008/1010/1012/1015/1018/1020, CAQ
Medium Carbon Grades	: SAE1030/1035/1038/1040/1541/EN8D/EN8D(Cr)
High Carbon	: HC36/40, HC41/45, HC51/55, HC56/60, HC61/65,
	HC66/70, TB68, HC71/75, HC76/80, HC81/85, PSC116,
	SWR52A, SWR62A, SWR82A
Cold Heading Quality	: SAE1010/1015/1018/1020, SAE10B21, SAE15B25, SAE15B41, SAE10B35/AISI4135,
	19MnB4
Electrode Quality Grades	: EQ(IS2879), JSPL Weld(MIG), EM12K, ER90SG, EH14
Free Cutting Grades	: SAE 12L14,EN 1A,EN 8M,EN 15AM
Ball Bearing Grades	: EN31, SAE52100*
Alloy Grades	: 16MnCr5,20MnCr5,SCM 415H,SCM 420H,SAE8620,SAE4135, SAE4140, SCM435

#### **Applications**

Fasteners, bolts, rivets, screws, general purpose wires, electrode wires, industrial wires, agriculture wires, CAQ, bush wires, chain rivet wires, detonator wire, umbrella ribs, upholstery wires, cycle spokes, heald wires, staple pin wire, ACSR, tyre and hose reinforcement wires, prestressed concrete wire, springs and rope wires, needle wires, safety pin wires, card clothing wires, vineyard wires, earth wires, ball bearing, automobile parts like screw, fasteners, bush, spline, socket, connecting rod, shaft, gear, rivets, engine shaft, connecting rod, spindles, gears, etc.

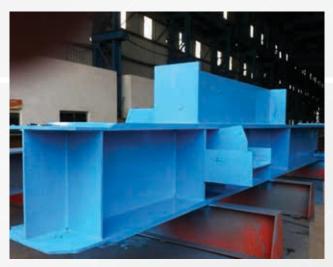
#### **FABRICATED SECTIONS**

Jindal Steel and Power Limited (JSPL) have successfully added Fabricated Sections to its growing basket of quality products by offering:

- H-type Beams
- I-type Beams
- Box Sections
- Star Columns

Manufacturing of these sections is completely as per user's specifications. Our fabricated sections meet the quality standards demanded by the industry. Plates for these sections come from our plate mill and are thoroughly inspected through various quality checks fully backed by mill certificates.





#### **Product Specifications**

-		
Depth	:	350 to 3000 mm
Flange Width	;/	250 to 1000 mm
Length	:	3.0 to 18.0 metre
Web Thickness /	:	6 to 40 mm
Flange Thickness	: /	6 to 80 mm

#### FABRICATED BEAMS FROM JSPL (LARGE AND JUMBO)

- Beams are tailor made to customer's specifications.
- Beams can be fabricated to very precise dimensions on account of automatic/mechanized processing as compared to on-site fabrication.
- The welding is done using submerged arc welding machines which enhances the quality of weld far superior to on-site weld
- Hole drilling done using automatic CNC drilling machines.
- No manual handling of the beams in the process line and hence the possibilities of mechanical damage is eliminated
- Beams can be delivered factory finished, face milled, shot-blasted and/or primer coated condition.
- We can give beams with holes drilled and welded, stiffeners, base plates, splice plates etc. ready to be used at the site.

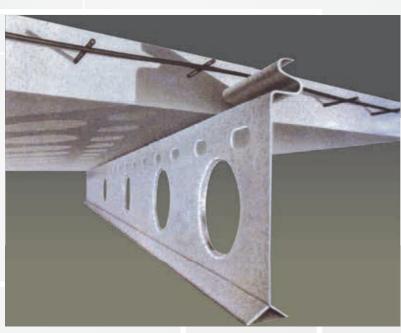
#### **Applications**

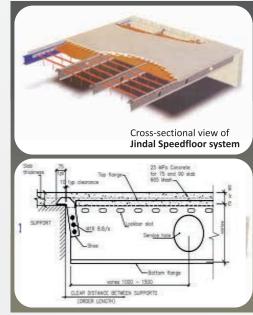
• Manufacturing & Process Plants • Airports • High Rise Buildings • Power Plants • Stadiums • Flyovers, etc.

#### **SPEEDFLOOR**

Jindal Steel and Power Limited have come up with revolutionary and innovative techniques to eliminate the outdated conventional flooring system with suspended concrete flooring system known as "Jindal Speedfloor".

SPEEDFLOOR, the unique suspended concrete flooring system, is an innovation in the building industry. So quick and easy to install, SPEEDFLOOR is a light weight, cost effective system that's perfect for multi-storey buildings and car parks. At the heart of the system is a specially rollformed, galvanized steel joist that offers all the benefits of open -webbed truss system, easy enough to be manually handled into place, reducing craneage costs.





#### **PRODUCT SPECIFICATIONS:**

- Steel used for making JOIST is of Grade 350 which has a minimum yield strength of 350 MPa and a minimum tensile stress of 380 MPa as well a minimum coating of Z 275 is maintained
- Generally Speed Floor uses a 75 mm or 90 mm topping in comparison to the other conventional RCC flooring system
- Joists are available in five different depths as follows:

200 mm, 250 mm, 300 mm, 350 mm, 400 mm

#### How does it work?

The joist is manufactured from pre-galvanized high tensile steel in a one pass roll former, where it is rollformed, punched, pressed and slotted to a high degree of accuracy at a fast production rate. The individually marked, lightweight joists are placed on the support medium where the Speedfloor shuttering system locks the joist into the exact position. The reinforcement is placed and the concrete floor is ready to pour. The Speedfloor composite floor system is suitable for use in all types of construction.

#### Advantages:

- Speedy Erection
- Cost Effective
- Less Labor Intensive
- No need of Propping and require less crane handling
- Safe for use in Seismic sensitive zone
- Easily accommodates services through pre punched holes

#### **Applications**

• Steel frame structures • RCC frame buildings • Poured insitu or precast concrete frames • Light gauge steel frame • Conventional structural brick wall constructions etc.

## CERTIFICATIONS APPROVALS /S / JINDAL FEW CUSTOMERS



































OH

















### CERTIFICATIONS / APPROVALS / 5 FEW CUSTOMERS











































## KEY LOCATIONS & SALES NETWORK



#### **Corporate Office**

#### Jindal Centre,

12, Bhikaiji Cama Place, New Delhi - 110 066, INDIA Tel: +91 11 26188340-50 Fax: +91 11 26161271

#### **Registered Office**

O.P. Jindal Marg Hisar - 125 005, Haryana, INDIA Tel: +91 1662 222471-84

### Fax: +91 1662 220476

#### Works

Jindal Steel & Power Ltd. Chhendipada Road, SH-63. At\Po: Jindal Nagar, Pin-759111 Dist : Angul (ODISHA) Tel: +91 6761 254191-95 Fax: +91 6761 254141-144 Email: jindalangul@angul.jspl.com

#### Patratu

Balkudra, Patratu, Distt. Ramgarh, Jharkhand - 829 143, INDIA Tel: +91 6553 275724/275726 Fax: +91 6553 275744

#### Barbil

Iron Ore Pellet Plant Commercial Office, Plot No. 507/365, Barbil-Joda Highway, Barbil - 758035, Odisha, INDIA Tel: +91 6767 248621/248625 Fax: +91 6767 248620

#### Raipur

13 K. M. Stone, G.E. Road, Mandir Hasaud, Raipur - 492 101, Chhattisgarh, INDIA Tel: +91 771 2471205-07 Fax: +91 771 2471214, 2471120 E-mail: jspl\_raipur@rpr.jspl.com

#### Dumka

Indra Palace, Nag Path, Shiv Pahar, Dumka - 814 101, Jharkhand, INDIA Tel: +91 6434 231045 Fax: +91 6434 231044

#### Raigarh

Kharsia Road, Raigarh - 496 001, Chhattisgarh, INDIA Tel: +91 7762 227001-05 Fax: +91 7762 227022-23 E-mail: raigarh@jspl.com

#### **Marketing Offices**

#### Marketing Head Office, North Regional Office

Jindal Steel & Power Limited Plot No-2, Sector-32, Near Exit-10, Gurgaon - 122 001, Harvana, INDIA Tel: +91 124 6612000 (Board) Fax: +91 124 6616202 E-mail: marketing@jindalsteel.com

#### Ahmedabad

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#### Bengaluru

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#### Bhonal

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#### Bhubaneshwar

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Jindal Steel & Power Limited A Block, 6B, 6th Floor, Meena-Kampala Arcade, Old No. 113 & 114, New No. 20 & 18, Sir Theyagaraya Road, T. Nagar, Chennai - 600 017 Tel: 044-43446956/ 24323530 Fax: +91 44 42132334 Mob: +91-9789092378 E-mail: ldpani@jspl.com

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#### Hyderabad

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#### Jamshedpur

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Jindal Steel & Power Limited Sai Square (3rd Floor) 45, Bhargava Estate, Civil Lines, Kanpur - 208 001 Mob: +91 9971667034 Email: rajiv.mishra@jindalsteel.com

#### Kochi

Jindal Steel & Power Limited 32/1577 - C2 (2nd Floor) Springs Cascade, Opp. Ernakulam Medical Centre, Bye Pass Road, Palarivattom, Kochi - 682 025 Tel: +91 484 4019808 Mob: +91 9567761233 E-mail: anurag.rai@jindalsteel.com

#### Kolkata

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#### Mumbai

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#### Raipur

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#### Visakhapatnam

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#### **International Sales Division** Jindal Steel & Power Ltd

Plot No. 2, Sector-32, Near Exit-10, Gurgaon-122 001 Tel: +91 8860093757 E-mail: shivkumar@iindalsteel.com

## KEY LOCATIONS & SALES NETWORK



#### **International Offices**

#### Oman

Shadeed Iron & Steel LLC P.O. Box: 312, A'Tareef, 321,Sohar, Sultanate of Oman Tel: +96826850459 Email: amit.gupta@jindalsteel.com

#### Indonesia

PT. Jindal Overseas

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Indonesia
Phone: +62 21 39831525-26
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yvonne@jindalindonesia.com

#### Dubai

Jindal Steel DMCC 3308-3309, Cluster- X Jumairah Bay Tower-2 (X2) Jumairah Lake Towers (JLT) Dubai, United Arab Emirates Ph: +971504558565, + 971556578192 Email: dhiren.patel@jindalsteel.com

#### **Stockyards**

#### Ahmedabad

M/s Raghav Steel 156/157, Mouje Eyava, Near Hipolin Ltd., Sanand Viramgam Highway Sanand, Ahmedabad - 382 110, INDIA Mob: +91 9909964648 E-mail: hardiks@jspl.com

#### Bhopal

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#### Chandigarh

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#### Chennai

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#### Cuttack

M/s Baba Lingaraj Enterprises At Govindpur Chak PO: Baichuna, Tangi, Cuttack - 754 022 Mob: +91 7894056034 E-mail: sk.barik@jspl.com

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M/s Chachan Metals Pvt. Limited Khasra No.387-389 & 39 -394 Reliance Road, Gram: Bhavapur, Jindal Nagar, Ghaziabad - 201 302

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#### Ludhiana

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#### Nagpur M/s Rita Steel

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#### Patna

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#### Rahui

M/s Continental Carriers of India Gate No 44, Near Rahuri Railway Station, Tandulwadi, Post-Rahuri, Ahmednagar, Maharashtra - 413 705, Mob: +91 9923001951 E-mail: dhiraj.jspl@gmail.com

#### Rudrapur

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#### Vishakapatnam

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