

Product Catalogue for Rails

JSW Steel Italy
Piombino

LUCCHINI Rails

www.jswitaly.com
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JSW Steel helping world
move forward.



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JSW GROUP

A \$14 billion conglomerate, with presence across India, USA, Italy, South America & Africa, the JSW Group is a part of the O.P. Jindal Group with strong footprints across economic sectors, namely, Steel, Energy, Infrastructure, Cement, also in Ventures, Sports, Furniture and Paints.

Conglomerato da 14 miliardi di dollari, con presenza in India, Stati Uniti, Italia, Sud America e Africa, il gruppo JSW fa parte del gruppo OP Jindal con forti impronte in tutti i settori economici, vale a dire acciaio, energia, infrastrutture, cemento, Ventures, Sport, mobili e vernici.

JSW Group is proud to be charting a course to excellence that creates opportunities for every Indian and leads to the creation of a sustainable, dynamic and developed nation. The Group is paving the way for India's development as a global superpower. JSW Steel is India's leading steel producer and among the world's most illustrious steel company. The Group is also leading in every sector that it operates in.

Il Gruppo JSW è orgoglioso di tracciare un percorso verso l'eccellenza che crei opportunità per tutto il popolo indiano e porti alla creazione di una nazione sostenibile, dinamica e sviluppata. Il Gruppo sta supportando fortemente lo sviluppo dell'India come superpotenza globale. JSW Steel è il principale produttore di acciaio dell'India e tra le società siderurgiche più illustri del mondo. E', inoltre, leader in ogni settore in cui opera.

JSW Energy is one of the earliest private entrants into the power sector positioned strongly as a full-spectrum integrated power company with a presence across the power sector value chain. It is one of the most efficient Power Company in the country with one of the country's largest open cast mining operation by volume and one of the largest private sector Hydro Operator in India.

JSW Energy è uno dei primi operatori privati nel settore dell'energia, posizionato come azienda energetica integrata a spettro completo con una forte presenza lungo la catena del settore dell'energia.

È una delle società più efficienti del Paese con una delle più grandi attività minerarie a cielo aperto per volume e uno dei più grandi operatori idroelettrici del settore privato in India.

JSW Cement creates the building blocks of India with its environment friendly products.

JSW Cement crea i mattoni da costruzione in India con prodotti rispettosi dell'ambiente.

JSW Infrastructure is contributing to the nation's development by providing world class services to clients through state-of-the-art ports, terminals, shipyards and other facilities.

JSW Infrastructure sta contribuendo allo sviluppo del Paese fornendo servizi di classe mondiale attraverso porti, terminal, cantieri navali e altre strutture all'avanguardia.

JSW Sports runs the Sports Excellence Program (SEP) to identify, nurture and develop Indian athletes to ensure that they bring sporting glory to the nation on the global stage. JSW Sports also runs the Bengaluru Football Club, Delhi Capitals cricket team and the Haryana Steelers kabaddi team.

JSW Sports gestisce il programma di eccellenza SEP (Sports Excellence Program) per identificare e supportare gli atleti indiani al fine di garantire gloria sportiva al Paese. JSW Sports gestisce anche il Bengaluru Football Club, la squadra di cricket di Delhi e la squadra di kabaddi di Haryana Steelers.

JSW group has ventured into steel furniture business with the launch of its brand, Forma under the company JSW Living. The company will be present across the value chain of furniture, furnishing daily living objects that impact the Indian consumer's life.

Il gruppo JSW si è inserito anche nel settore dei mobili in acciaio con il lancio del suo marchio Forma sotto il controllo della società JSW Living. La società sarà presente nel settore mobili, fornendo arredi e oggetti che incidono sulla vita quotidiana del consumatore indiano.

JSW Paints is a greenfield venture of the JSW group backed by cutting-edge technology, automation and scale that's comparable to leading players in the Indian paints sector. The company will manufacture and market both industrial coatings as well as decorative paints. In the Decorative paints segment, the company will offer a complete range of only water-based paints for Interior & Exterior walls, wood & metal – various surfaces in Homes.

JSW Paints è l'impresa "greenfield" del Gruppo JSW supportata da tecnologia e automazione all'avanguardia paragonabili ai principali attori del settore delle vernici indiane. La società produrrà e commercializzerà sia vernici industriali che vernici decorative. Nel segmento delle pitture decorative, l'azienda offrirà una gamma completa di vernici all'acqua per pareti interne ed esterne, legno e metallo e superfici delle case.

JSW Ventures is an early-stage, tech-focused, venture capital fund of JSW Group. JSW Ventures extends its partnership not just through capital, but through a commitment to build exceptional companies by developing growth strategies, improving financial functions, and providing access to the investor community and support from JSW Group's extensive resources.

JSW Ventures è un fondo early-stage del gruppo JSW incentrato sulla tecnologia. Estende la sua collaborazione non solo attraverso il capitale, ma anche attraverso l'impegno nel creare società di successo sviluppando strategie di crescita, migliorando gli aspetti finanziari e fornendo accesso alla comunità di investitori con il supporto dalle ampie risorse del Gruppo JSW.

The JSW Group is committed to creating more smiles at every step of the journey. JSW Foundation, the Group's CSR and sustainability arm, is in constant pursuit of making life better for communities with its various initiatives in the fields of health, education, livelihood and sports, along with art and culture.

Il Gruppo JSW ad ogni passo avanti si impegna a creare più felicità. La JSW Foundation (Corporate Social Responsibility del Gruppo) è costantemente alla ricerca di una vita migliore per le comunità con le sue varie iniziative nei settori della salute, dell'istruzione, del sostentamento e dello sport, insieme all'arte e alla cultura.

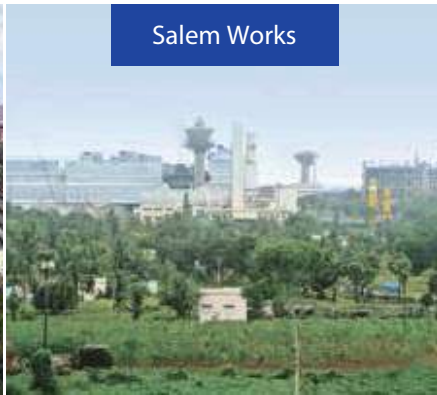
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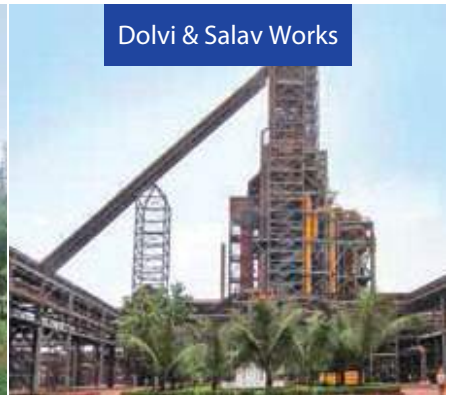




Vijayanagar Works



Salem Works



Dolvi & Salav Works



Vasind Works



Tarapur Works



Kalmeshwar Works

JSW STEEL

The flagship company of USD 14 billion JSW Group, JSW Steel is one of India's leading integrated steel manufacturers with a domestic capacity of 18 MTPA. It is one of the fastest growing companies in India with a footprint in over 100 countries. With state-of-the-art manufacturing facilities located in Karnataka, Tamil Nadu and Maharashtra in India, it is recognized for its innovation and quality. JSW offers a wide gamut of steel products that includes Hot Rolled, Cold Rolled, Bare & Pre-painted Galvanized & Galvalume®, TMT Rebars, Wire Rods, Special Steels, Electrical Steel and Tinplate.

Azienda di punta del gruppo JSW da 14 miliardi di dollari, JSW Steel è uno dei principali produttori indiani di acciaio a ciclo integrale con una capacità nazionale di 18 milioni di tonnellate l'anno.

È una delle aziende in più rapida crescita in India con attività in oltre 100 Paesi.

Ha impianti di produzione all'avanguardia situati in India a Karnataka, Tamil Nadu e Maharashtra ed è riconosciuta per la sua innovazione e qualità. JSW offre una vasta gamma di prodotti in acciaio che include laminati a caldo, laminati a freddo, zincati, preverniciati e Galvalume®, barre di rinforzo TMT, vergelle, acciai speciali, acciaio elettrico e lamiera stagnata.

JSW Steel continues to enhance its capabilities to meet the rapidly changing global market needs. To stay on the leading edge of technical advancement, JSW has entered into technological collaboration with JFE Steel Corp, Japan to manufacture high strength and advanced high strength steel for the automobile sector.

JSW Steel continua a migliorare le sue capacità per soddisfare le esigenze in rapida evoluzione del mercato globale.

Per rimanere all'avanguardia del progresso tecnico, JSW ha stretto una collaborazione tecnologica con JFE Steel Corp, in Giappone, per la produzione di acciaio ad alta resistenza e acciaio speciale ad alta resistenza per il settore automobilistico.

JSW Steel has also entered into a joint venture with Marubeni-Itochu Steel Inc. Tokyo, to set up a state-of-the-art steel processing centers.

To strengthen its global network, The company has acquired steel manufacturing facilities at Texas & Ohio in USA & in Piombino, Italy.

JSW Steel's Vision is to increase the capacity in India to 45 million tonnes and have a global footprint of 10 million tonnes by the year 2031.

JSW Steel ha anche stretto una joint venture con Marubeni-Itochu Steel Inc. Tokyo, per costituire un centro di lavorazione dell'acciaio all'avanguardia.

Per rafforzare la sua rete globale, la società ha acquisito stabilimenti di produzione in Texas e Ohio, negli Stati Uniti e in Italia (Piombino).

La vision di JSW Steel è di aumentare la capacità in India fino ad arrivare a 45 milioni di tonnellate e avere un'impronta globale nei Paesi esteri di 10 milioni di tonnellate entro il 2031.



JSW STEEL ITALY

JSW Steel Italy s.r.l. controls the companies JSW Steel Italy Piombino S.p.A., GSI Lucchini S.p.A., Piombino Logistics a JSW Enterprise S.p.A.. It is part of the JSW Group: Indian steel leader, also present in Europe and America.

JSW Steel Italy s.r.l. controlla le società JSW Steel Italy Piombino S.p.A., GSI Lucchini S.p.A. e Piombino Logistics a JSW Enterprise. Fa parte del Gruppo JSW: leader dell'acciaio in India, presente anche in Europa e in America.

JSW Steel Italy Piombino S.p.A. (part of JSW Steel Italy S.r.l./JSW Group) is an iron and steel company which bought Lucchini plant located in Piombino (Italy). Lucchini company has been for long time one of the most important manufacturers in Europe, leader in the production of long steel products for high quality and special steels.

JSW Steel Italy Piombino S.p.A. (parte del gruppo JSW Steel Italy S.r.l./Gruppo JSW) è una società siderurgica che ha acquisito lo stabilimento ex Lucchini di Piombino (Italia). La società Lucchini è da lungo tempo uno dei più importanti produttori in Europa, leader nella produzione di prodotti lunghi in acciaio, acciai speciali e di alta qualità.

GSI Lucchini S.p.A. based in Italy, is part of JSW Steel Group and is a European leader in the manufacturing of Steel Forged Grinding Media mainly for the mining industry. Thanks to over 45 years of manufacturing expertise and knowledge, GSI Lucchini S.p.A provides the best solutions for grinding applications.

GSI Lucchini S.p.A., con sede in Italia, fa parte del gruppo JSW Steel ed è leader europeo nella produzione di prodotti forgiati in acciaio da macinazione destinati principalmente all'industria mineraria. Grazie a oltre 45 anni di esperienza e know how nella produzione, GSI Lucchini S.p.A offre le migliori soluzioni per le applicazioni di macinazione.

Piombino Logistics a JSW Enterprise is the spin-off for logistics services and, Piombino Logistics a JSW Enterprise has a great experience in handling both stowed goods (such as solid bulk, project cargo, steel products) and packaged products transiting through Piombino Port. Thanks to 500 mt of quays, 35 km of tracks directly connected to the national rail network, 280,000 mq of storage areas, the company has a complete multimodal platform (road, rail, ship) able to provide its customers with a full range of services, such as ship loading and unloading activities, materials' storage, handling and transport.

Piombino Logistics a JSW Enterprise è lo spin-off per i servizi logistici con comprovata esperienza nella movimentazione sia di merci stivate (come rinfuse solide, project cargo, prodotti siderurgici) che in prodotti confezionati in transito al porto di Piombino. Grazie a 500 mt di banchine, 35 km di binari collegati direttamente alla rete ferroviaria nazionale e circa 280.000 mq di aree di stoccaggio, l'azienda è una piattaforma multimodale completa (strada, ferrovia, mare) in grado di fornire ai propri clienti una gamma completa di servizi come attività di carico e scarico delle navi, stoccaggio, movimentazione e trasporto merci.



JSW STEEL ITALY PIOMBINO

With the acquisition of Piombino Plant, JSW Group inherited all the brands developed in over 100 years of steel history in Europe. JSW Steel Italy Piombino S.p.A.'s activity involves the production of a wide range of quality and special steels, with different shapes and sizes for Rails, Wire Rod and Bars.

They are destined to different sectors: Railway, Automotive, Earth Moving Vehicles, Energy, Fastening, Springs, Welding.

Con l'acquisizione dello stabilimento di Piombino, il Gruppo JSW ha ereditato tutti i marchi sviluppati in oltre 100 anni di storia dell'acciaio in Europa. L'attività di JSW Steel Italy Piombino S.p.A. prevede la produzione di una vasta gamma di acciai di qualità e speciali, con forme e dimensioni diverse per prodotti ferroviari, vergella e barre.

I prodotti sono destinati a diversi settori: ferroviario, automobilistico, movimento terra, energia, fissaggio, molle, saldatura.

Over 100 years History

In 1865 it was constructed the first metallurgical plant in Piombino "Officine Perseveranza", equipped with the first Bessemer converter in Italy.

- In 1908 the largest industrial complex already represented the first Italian plant at full cycle for steel making.
- Since the beginning, Piombino plant (formerly Lucchini) has remained committed to the steelmaking and has overcome many challenges in both processing and new market developments.
- In the Seventies and Eighties, Piombino plant had widened its product range, investing in R&D sector and developing its internationalization processes.
- In 2018 the JSW Group acquired Piombino Plant.

Oltre 100 anni di storia

- Nel 1865 fu costruito il primo impianto siderurgico di Piombino chiamato "Officine Perseveranza", dotato del primo convertitore Bessemer in Italia.
- Nel 1908 il complesso industriale rappresentava già il primo impianto italiano a ciclo integrale per la produzione di acciaio.
- Dall'inizio, lo stabilimento di Piombino (precedentemente Lucchini), si è dedicato alla produzione di acciaio superando molte sfide sia nella lavorazione sia in ambito sviluppo mercato.
- Negli anni Settanta e Ottanta, lo stabilimento di Piombino ha ampliato la sua gamma di prodotti, investendo nel settore R&D e sviluppando i suoi processi di internazionalizzazione.
- Nel 2018 il Gruppo JSW ha acquisito lo stabilimento di Piombino.

RAILS AND RAILWAY PRODUCTS

JSW Steel Italy has acquired the operations and brands of the ex Lucchini S.p.A., historic European leader in the production of long products from quality and special steel. In the railway sector JSW Steel Italy Piombino S.p.A is the only Italian producer of unwelded rails up to 108 meters.

The rails and railway equipment produced at Piombino have been used by the Italian State Railway for the construction of the whole Italian network since 1908. The continuous modernization of the Piombino production line of rails has allowed the company to reach a leadership position on an international level and to become one of the most important business player in rails and railway equipment market.

JSW Steel Italy ha acquisito lo stabilimento e i marchi ex Lucchini S.p.A., leader europeo storico nella produzione di prodotti lunghi di qualità e acciai speciali. Nel settore ferroviario JSW Steel Italy Piombino S.p.A è l'unico produttore italiano in grado di laminare rotaie senza saldatura fino a 108 metri.

Le rotaie e le attrezzature ferroviarie prodotte a Piombino sono utilizzate dalle Ferrovie dello Stato Italiano, per la realizzazione dell'intera rete ferroviaria italiana fin dal 1908. La continua modernizzazione della linea di produzione di rotaie a Piombino ha permesso all'azienda di raggiungere una posizione di leadership a livello internazionale e diventare così uno dei principali protagonisti nel mercato delle rotaie ed attrezzature ferroviarie.



Advanced Tecnology

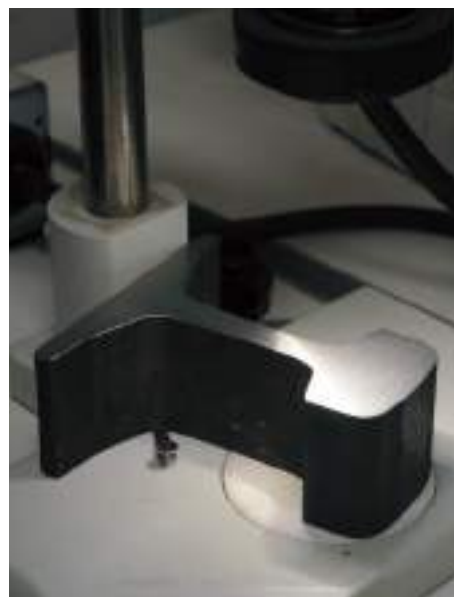
JSW Steel Italy Piombino works under a strict Quality Assurance FrameWork designed to monitor all stages in the production process in order to ensure full compliance of the finished rails with the stringent requirements demanded by the market. An Advanced System of non destructive testing is in operation to continuously detect surface imperfections, internal irregularities and dimensional accuracy. Eddy Current, Ultrasonic and Straightness tests are performed in line at the mill. In the event of possible deviations this integrated system processes the data in real time and applies an automatic mark with paint on the affected rail portion for a following check by the operator.

At the final stage each rail is manually inspected by our professional Team with special gauges for a ultimate check of dimension and surface quality compliance.

Final material identification and traceability is relied to the application of a bar-code labeling carrying all material information that are filed in the IT system.

Moving the world to the future

In the next couple of years, JSW Steel Italy Piombino will be moving the world to the future with the best technology - **120 mt length & Head Hardening**



RAIL SERVICE CENTER



Efficient logistic for Clients

Rail Service Center

The choice of operating on international markets located in 5 continents, where competition is every day more and more selective, implies to have a company organization able to satisfy customer requirements on time, efficiently and as quickly as possible

The Piombino Plant has an internal Service Centre (CSE), created in 2010 for warehousing the long rails in dedicated equipped areas, where it is also possible to handle rails from 4 to 108 metres in length for extra finishing operations requested by our Customer such as:

- cutting rail into smaller sizes;
- drilling;
- packing.

The Rail Service Centre has a storage capacity of over 50.000 Tons for 108 meters rails and other 50.000 Tons for rails up to 36 meters.

Once rails are ready for shipment according to our customer requirements, they are loaded onto wagons or trucks by means of a "rail grip" system, ideal for lifting and loading rails quickly and safely.

Being the heart of the logistic rail system of the company, the Service Centre serves the maritime facilities for overseas shipment, meanwhile feeding wagons and trucks.

It is possible to load onto wagons rails up to 108 meters. The plant has a rail link that is connected with the National Railway network.

Our loading capacity is 6 trains/day.

By trucks it is possible to deliver rails and long products, with a loading capacity of about 200 trucks/day.



IN THE HEART OF MEDITERRANEAN

Maximum flexibility and punctual service worldwide

Shipment and Logistics

To be competitive in a global market requires to be structured in order to ensure organization, coordination and flexibility.

Our Piombino Plant through the years has been specializing in delivering rails across the world with integrated and customized logistic solutions thanks to its own Port facilities located in the heart of Mediterranean Sea and a rail link connected to the National Railway Network.

All our logistics activities are carried out by Piombino Logistics a JSW Enterprise. Our rail can be delivered by:

- Ship;
- Railway;
- Truck;
- Container (for special purpose).

Shipping rails directly from our pier, grants an optimization of the global logistic chain with elimination of non-value activities. High standard services are possible thanks to limited manipulation of the product and an accurate handling of every type of rails with the maximum flexibility in the supply.

We manage a fleet of special wagons duly equipped to deliver in Italy and across Europe rails up to 108 meters.

We also deliver rails up to 18 m in safe and reliable way by trucks (longer lengths can be evaluated on request).

We may serve our customers with tailor made service combining different modes of transport to ensure on time delivery to the final destination through a complete supply chain control.

Handling operations are executed with special tools to guarantee the product integrity combined with an high efficiency.

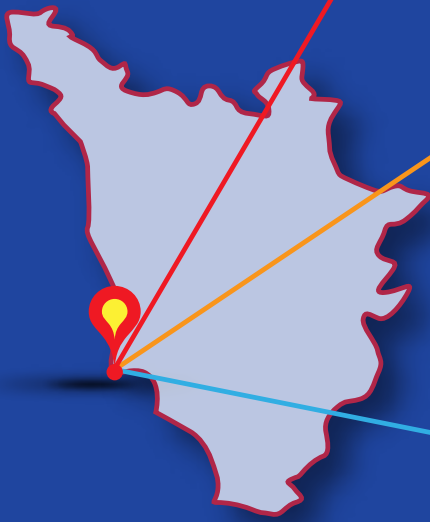
We are staffed with a professional team to provide full on-site advice/assistance on any technical and logistical aspect related to the handling of the rails at destination and to support completely our customers.

**PIOMBINO
LOGISTICS**
A **JSW** Enterprise



Countries where we deliver our rails

- Italy
- Algeria
- Argentina
- Austria
- Bangladesh
- Benin
- Bolivia
- Brazil
- Bulgaria
- Czech Republic
- Chile
- Croatia
- Djibuti
- Denmark
- Egypt
- Ethiopia
- Finland
- France
- Gabon
- Germany
- Great Britain
- Greece
- Holland
- India
- Ireland
- Iran
- Iraq
- Luxemburg
- Malaysia
- Montenegro
- Morocco
- Mozambique
- Namibia
- Niger
- Nigeria
- Norway
- Portugal
- Romania
- Saudi Arabia
- Serbia
- South Africa
- South Korea
- Spain
- Sri Lanka
- Switzerland
- Sudan
- Tanzania
- Tunisia
- Turkey
- United Arab Emirates
- Hungary
- USA
- Venezuela



HIGH SPEED



Technological solutions for an expanding market

The need to reduce rail journey time without compromising the comfort and safety of passengers, requires continuous investments in new technologies, research and development, the study of resistant materials and its performance and, not least, competent human resources. In the field of high speed JSW Steel Italy Piombino is the ideal partner for any kind of customer, capable to provide support starting from the study of the project, its implementation and after sales assistance.

Thanks to the presence in the "European Committee for Standardization" we are part of a group of companies operating in the field of Rail Technology, in order to improve rail performance and to meet the most demanding requirements of the market, particularly for High Speed Lines.

In this field, over the time, we have built an expertise and technical capabilities able to provide our customers with a high quality products and logistic services, well recognized worldwide.

In a context of growing request for High Speed Lines across the world JSW Steel Italy Piombino is one of the most reliable partner, thanks to a continuous attention to the rigorous geometrical precision as well as straightness and flatness of each rail delivered, which ensure comfort and safety of journey with speed over 300 km/h.

In this regard we are proud to have been supplying the Italian High Speed Network since its conception, first European country to inaugurate an HSL in 1977, and to become throughout the years one of main rail provider for European and International Railroad.



QUALITY DEVELOPMENT



Qualified staff for innovative products

The overcapacity of steel production on the world markets, has shifted the consumer attention towards higher quality standards.

JSW Steel Italy Piombino considers quality one of the key factors to be competitive on the market.

The constant search for quality excellence is imposed by the need to be ready to face the more stressing business and technology challenges, in a high specialized niche of the railway market.

The quality and integrity of our rails is constantly monitored and guaranteed by our own certified laboratories.

Our experienced and skilled staff performs constant checks on steel mechanical and chemical properties and its internal purity. Our qualified personnel is constantly trained to ensure upgrading and maintenance of the knowledge required to perform these activities.

Our rails are tested in accordance with the most important International standards.

On request it is possible to carry out additional tests for assessing the compatibility of the product with the specific use of the customer. Thanks to new investments in research and development JSW Steel Italy Piombino is able to improve the reliability, life, and safety of its products.

The quality of products and services offered to customers is guaranteed by a scrupulous Quality Assurance System, which starts from the project stage to the "after-sales" service.

Innovative products have been studied and tested such as rails with improved mechanical properties specifically studied to reduce rolling contact fatigue phenomena and wear (Phalesia 110). This attention to quality guides us in every step of our manufacturing operations.



SPECIFICATIONS

Production Range

Unlimited availability upon request

Quality grades	% in weight					S max	P max	0 max	H max	Rm min	A min	HB
	C	Mn	Si	Cr								
EN 13674 series												
R200	0,40/0,60	0,70/1,20	0,15/0,58	0,15 max	0,035	0,035	20	3	680	14	200/240	
R220	0,50/0,60	1,00/1,25	0,20/0,60	0,15 max	0,025	0,025	20	3	770	12	220/260	
R260	0,62/0,80	0,70/1,20	0,15/0,58	0,15 max	0,025	0,025	20	2,5	880	10	260/300	
R260Mn	0,55/0,75	1,30/1,70	0,15/0,60	0,15 max	0,025	0,025	20	2,5	880	10	260/300	
R320Cr	0,60/0,80	0,80/1,20	0,50/1,10	0,80/1,20	0,025	0,02	20	2,5	1080	9	320/360	
UIC 860.O												
700	0,40/0,60	0,80/1,25	0,05/0,35	/	0,05	0,05	/	/	680	14	/	
900A	0,60/0,80	0,80/1,30	0,10/0,50	/	0,04	0,04	/	/	880	10	/	
900B	0,55/0,75	1,30/1,70	0,10/0,50	/	0,04	0,04	/	/	880	10	/	
1100	0,60/0,82	0,80/1,30	0,30/0,90	0,80/1,30	0,03	0,03			1080	9	/	
AREMA												
Standard carbon	0,74/0,86	0,75/1,25	0,10/0,60	0,30 max	0,020	0,02	/	1,5	982	10	310 min	
IH	0,72/0,82	0,70/1,25	0,10/1,00	0,40/0,70	0,020	0,02	/	2,0	1013	8	325 min	
IRS-T-12-2009												
880	0,60/0,80	0,80/1,30	0,10/0,50	/	0,030	0,030	/	1,6	880	10	260 min	

SPECIFICATIONS	PROFILE	WEIGHT (kg/m)	H	WF	WT	WH
AREMA	141RE	69,83	188,91	152,40	17,46	77,79
	136RE	67,44	185,74	152,40	17,46	74,61
	115RE	56,73	168,27	139,70	15,87	69,12
UIC 860.O	60UIC	60,34	172,00	150,00	16,50	72,00
	54UIC	54,43	159,00	140,00	16,00	70,00
	54UIC E	53,81	161,00	125,00	16,00	67,00
UNI 3141	50UNI	49,85	148,00	135,00	14,00	66,88
	46UNI	46,79	145,00	135,00	14,00	65,00
	36UNI	36,19	130,00	100,00	14,00	60,00
	27UNI	27,35	120,00	95,00	11,00	50,00
BS 11:85	BS113A	56,39	158,75	139,70	20,00	72,01
	BS 100A	50,18	152,40	133,35	15,08	72,00
	BS 90A	45,02	142,88	127,00	13,89	66,68
	BS 80A	39,76	133,35	117,47	13,10	65,43
	BS 80R	39,67	133,35	127,00	13,49	63,50
	BS 70A	34,81	110,33	123,82	12,30	62,19
EN 13674-1	BS 60R	29,82	114,30	109,54	11,11	57,15
	60E1	60,21	172,00	150,00	16,50	72,00
	60E2	60,05	172,00	150,00	16,50	72,00
	56E1	56,30	158,75	140,00	20,00	69,85
	54E1	54,77	159,00	140,00	16,00	70,00
	54E2	53,82	161,00	125,00	16,00	67,01
	54E4	54,30	154,00	125,00	16,00	67,00
	50E5	49,90	148,00	135,00	14,00	67,00
	50E6	50,90	153,00	140,00	15,50	65,00
	49E1	49,39	149,00	125,00	14,00	67,00
	46E1	46,17	145,00	125,00	14,00	65,00
AFNOR NF 52-523	46E2	46,27	145,00	134,00	15,00	62,00
	46E4	46,90	145,00	135,00	14,00	65,00
	U50	50,63	153,00	140,00	15,50	65,00
DIN 5902	U33	46,30	145,00	134,00	15,00	62,01
	S49	49,43	149,00	125,00	14,00	67,00
	S49A	49,05	148,00	125,00	14,00	67,00
	S40	36,54	128,00	115,00	13,00	58,27
	S33	31,18	126,00	105,00	11,00	58,00
GOST R 51685 - 2000	P65	64,84	180,00	150,00	18,00	75,00
	ER52	51,68	155,00	141,00	15,00	66,00
	R48	48,00	150,00	127,00	14,00	68,00
	46 SBB1	46,16	145,00	125,00	14,00	65,00
	R45	45,40	150,80	127,00	13,80	67,47
	DAN 45	45,46	141,00	126,00	13,76	72,20
	81lb/yd	40,31	127,00	127,00	13,89	63,50
	R31	31,58	125,00	106,00	12,00	56,00

Referred to the last months

Tongue Bars

Tongue bars are turnout components which, after machining operations, are transformed into blades and used in switch.

SPECIFICATIONS	PROFILE	WEIGHT (kg/m)	H	WF	WT	WH
Italian Railway Specification	A 60UNI	69,09	134,00	140,00	40,00	72,00
	A 50UNI	61,04	148,00	135,00	28,00	66,88
EN 13674-2	60E1A2	69,04	134,00	140,00	40,00	72,00
	50E1T1	60,96	148,00	135,00	28,00	67,00

Unlimited availability upon request

Baseplates

Baseplates are used on track to secure the rail to the under neath sleepers.

SPECIFICATIONS	PROFILE	WEIGHT (kg/m)	a	b	c	d
Italian Railway Specification	60 P4U	58,384	370	152	15,5	29,5
	60 P5U	58,384	370	152	15,5	29,5
UNI 3551	50 UNI 1/2	59,648	355	137	14	33
	60 UNI 1/2	64,187	370	152	15	33
	50S UNI	55,153	390	137	14	33
	60S UNI	55,153	390	152	14	33
Other Specifications	PB 68	68,42	360	142	20	33

Unlimited availability upon request

Check Rails

Check rails are used to guide the flange of the wheel while the train runs through the switch.

SPECIFICATIONS	PROFILE	WEIGHT (kg/m)	H	WF	WT
Italian Railway Specification	Cr 1 - 60U	40,03	192,00	72,00	18,00
	Cr 4 - 60U	47,34	222,00	72,00	18,00
EN 13674-3	40C1	39,89	192,00	72,00	18,00
	47C1	47,07	222,00	72,00	18,00

Unlimited availability upon request



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Tel: 079-49000270/271/272/273/274/275

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The Estate,
3rd Floor, West Wing, 121,
Dickenson Road, Bengaluru - 560 042
Tel: 080-42448888

CHENNAI

5th Floor, KRM Plaza, No. 2,
Harrington Road, Chetpet, Chennai - 600 031
Tel: 044-28297420, 28297422

COIMBATORE

T. V. Swamy Road (West), Coimbatore - 641 002
Tel: 0422-2541870

HYDERABAD

JSW STEEL LTD.
Babukhan Millenium Centre, 63-1099 /1100, 7th Floor, Block - A
Somajiguda, Hyderabad - 500082
Tel: 040-27846669/79

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3rd Floor, Lakshya Badgara, 13/1,
New Palasia, Near Curewell Hospital, Indore - 452 001
Tel: 0731-2532156/57/58/59, 4043613

JAIPUR

Evershine Tower, F-1, 705, 7th floor,
Amarpali Circle, Vaishali Nagar, Jaipur - 302 021
Tel: 0141-4026760/62/63/64

KANPUR

Room No.105, Ratan Esquire, Chunniganj,
Kanpur - 208 001
Tel: 0512-3271907

KOCHI

Mitsun Enterprise, 30/1854 B4, 1st Floor, Ponnurunni
Road, Chalikkavattom Junction, Vytilla P.O.,
Kochi - 682 019
Tel: 0484-4026392/4063294

KOLKATA

Godrej Waterside, 10th floor, Tower - 1, Unit No. 1003,
Block - DP, Plot - 5, Sector V, Salt Lake City, Kolkata - 700 091,
Tel: 033-40002020 | Fax: 033-40002021

DELHI

NTH Complex (4th Floor),
A-2, Shaheed Jeet Singh Marg,
Qutub Institutional Area, New Delhi - 110016
Tel: 011-48178600 | Fax: 011-48178699

FARIDABAD

Piyush Global I Building
1st Floor, Plot No.5, Opposite Escorts Mujesar Metro Station
Main Mathura Road, NH-2, YMCA Chowk, NIT
Faridabad - 121006, Haryana
Tel: 0129-2239248, 2232387

NOIDA

14A, Industrial Area, Buland Shar Road,
Ghaziabad - 201 009
Tel: 0120-3262875, 2867142

GUWAHATI

106, 3rd Floor, Meer Market, Maszid Lane, Kamarpatty, Guwahati - 781
001
Tel: 0361-2730054

LUDHIANA

109, Modelgram, Near Kochar Market, Opp. Malwa
School, Ludhiana - 141 002
Tel: 0161-6578944, 6450816

MUMBAI

Grande Palladium, 6th Floor, 175,
CST Road, Kalina, Santacruz (East),
Mumbai - 400 098
Tel: 022-61871000

NAGPUR

Poonam Plaza, Palm Road, Civil Lines, Nagpur-440 001
Tel: 0712- 2520333

PATNA

1, Tilak Nagar East, Behind Patna Diesel, Kankarbagh, Patna - 800 020
Tel: 08002230517

PUNE

Epicentre
2nd Floor, CTS No. 4/6, Above Royal Enfield Showroom
Shivajinagar, Wakdewadi, Pune - 411005
Tel: 020-64104547, 27111427

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LUCCHINI Rails

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