



JSW STEEL LTD.
JSW Centre, Bandra Kurla Complex, Bandra (East), Mumbai - 400051
Phone: 022 4286 1000 | Fax: 022 4286 3000 | Toll free: 1800-266-2661
Email: support.steel@jsw.in | Web: www.jsw.in

JSW Steel Ltd. - CIN: I27102mh1994plc152925 | JSW Steel Coated Products Ltd. - CIN: U27100mh1985plc037346

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WIRE ROD



JSW Steel helping india
move forward.

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JSW Group

An \$11 billion conglomerate, with presence across India, USA, South America & Africa, the JSW Group is a part of the O.P. Jindal Group with strong footprints across core economic sectors, namely, Steel, Energy, Infrastructure, Cement, also in Ventures and Sports.

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.

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 Cement creates the building blocks of India with its environment friendly products. 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 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 & The Bengaluru Yodhas wrestling team.

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.

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.



Steel

Energy

Port

Cement

Sports

Foundation



JSW Steel Ltd.

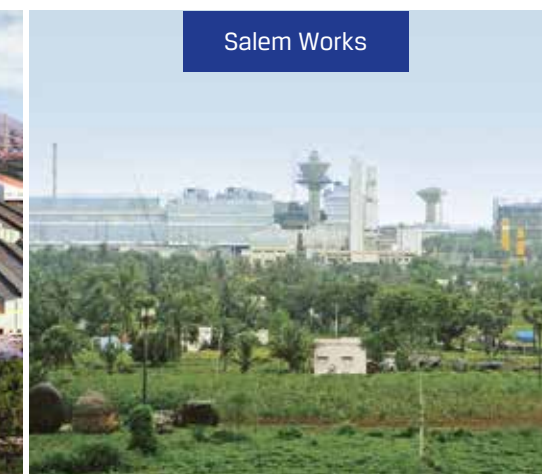
The flagship company of USD 11 billion JSW Group, JSW Steel is one of India's leading integrated steel manufacturers with a capacity of 18 MTPA. It is one of the fastest growing companies in India with a footprint in over 140 countries. With state-of-the-art manufacturing facilities located in Karnataka, Tamil Nadu and Maharashtra, 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 and Special Steel.

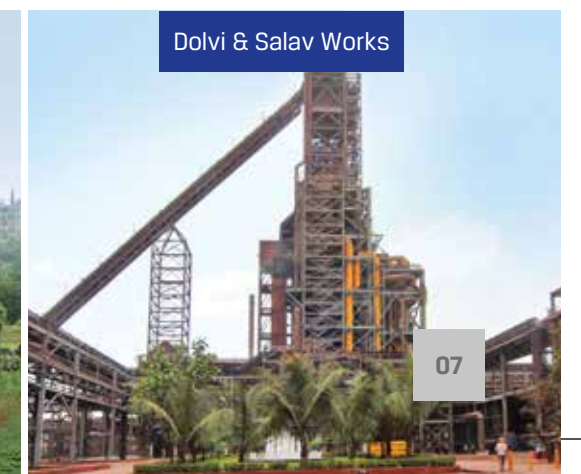
JSW Steel continues to enhance its capabilities to meet the rapidly changing global market needs. To stay on the leading edge of technical advancement, JSW has entered into technological collaboration with JFE Steel Corp, Japan to manufacture high strength and advanced high strength steel for the automobile sector. JSW Steel 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 also acquired a Pipe and Plate making steel mill in Baytown, Texas in USA. Going forward, JSW Steel aims to produce 40 million tons of steel annually.



Vijayanagar Works



Salem Works



Dolvi & Salav Works



JSW Steel Coated Products Ltd.

JSW Steel Coated Products Limited is 100% subsidiary company of JSW Steel, having state-of-the-art manufacturing facilities in the state of Maharashtra.

JSW Steel Coated Products Ltd. is India's largest manufacturer and exporter of Coated Steel as well as Colour Coated Steel. The production facilities, Tarapur and Vasind Works, are located in the vicinity of major ports. The company's Kalmeshwar Works is centrally located near Nagpur to serve across regions.

JSW is an ISO 9001: 2008 Certified Organization and the first licensee producer for Galvalume® in India. The Tarapur plant is specialized in manufacturing Ultra-Thin Coated Products. The company is also a manufacturer of appliance grade colour coated products. JSW's Kalmeshwar Works is the first producer of Galvanized and Colour Coated Steel in India. JSW also has established India's first Appliance Grade Line to manufacture Pre Coated and Vinyl Coated Metal.





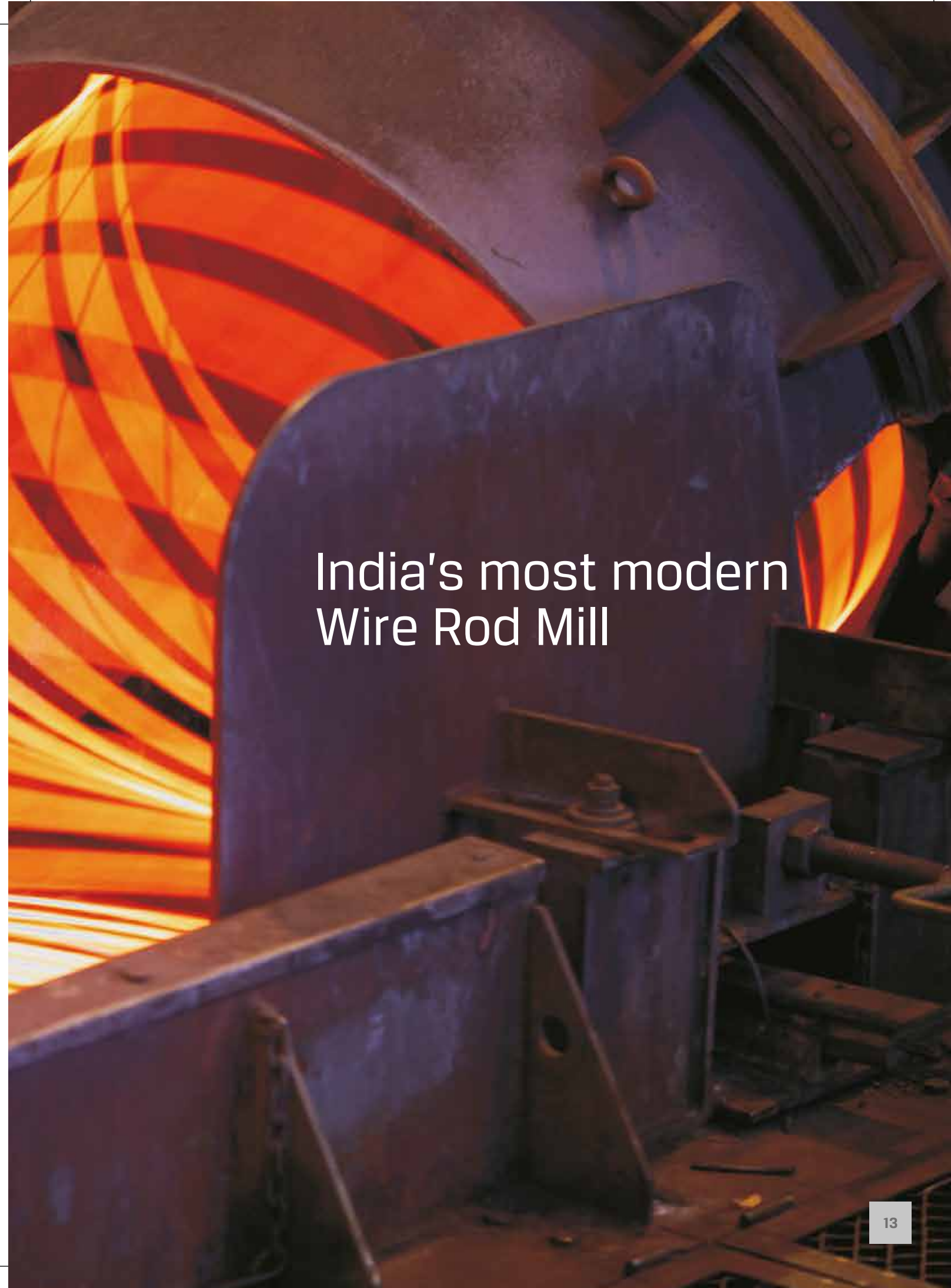
Steel Melting Shop

Setting Benchmarks

- First continuous annealing line in India
- Widest Cold Rolling Mill (upto 1870 mm width)
- India's largest Coated Steel producer
- First Licensee Galvalume® producer in India
- JSW Steel Salem works is the largest integrated Alloy and Special Steel plant in India
- Widest Hot Strip Mill in India
- India's most modern and largest Vertical Caster-300/260/220 x 2200 mm
- India's only Multi-Radii Bloom Caster operational at Salem works
- ZERO EFFLUENT discharge for greener & cleaner environment
- 1.6 million trees planted at Vijayanagar works, transforming the area into a green oasis
- India's largest Long Steel producer by installed capacity



Blast Furnace - IV



Manufacturing Facilities

Vijayanagar Works

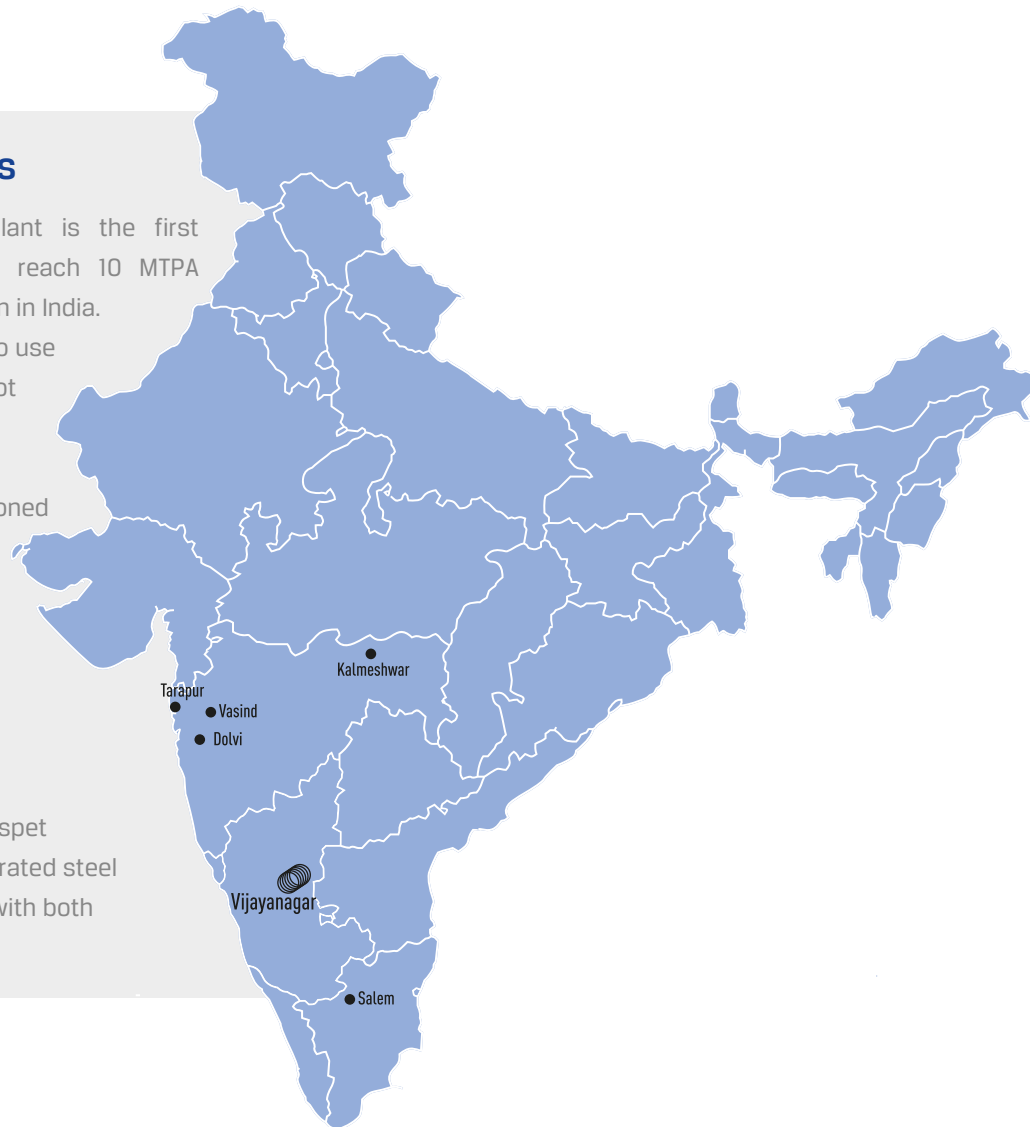
JSW Steel Vijayanagar plant is the first integrated steel plant to reach 10 MTPA capacity at a single location in India.

It is the first plant in India to use the Corex technology for hot metal production.

The first hot strip mill at Vijayanagar was commissioned in 1997.

Since then it has grown exponentially and now has an installed capacity to produce 10 MTPA of steel.

Located at a remote village Toranagallu, North Karnataka in the Bellary-Hospet iron ore belt, it is fully integrated steel plant and well-connected with both Goa and Chennai ports.



Unique features

- Houses India's largest blast furnace and the widest hot strip mill
- The only plant in India with paircross technology and twin-stand reversible cold-rolling mill
- The highest productivity steel plant in India, producing 800-plus tonnes per person per annum
- Recognised for its 'zero-effluent discharge' status; it reuses more than 95 per cent of process waste
- Low carbon footprint as it recycles 96% of coke oven gas for power generation
- Uses sophisticated ambient air control infrastructure beyond and has reduced gas flaring to lower levels

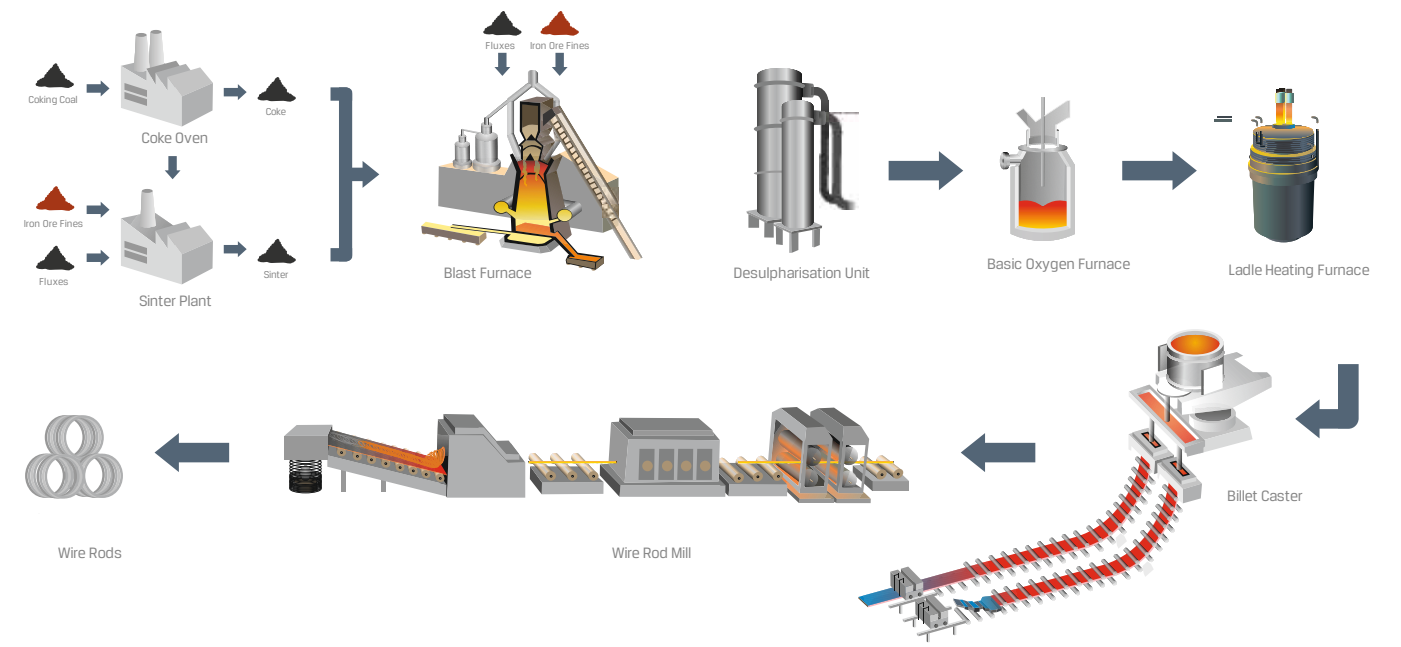


JSW Wire Rod

JSW's Wire Rods are produced through the cutting-edge Mill at Vijayanagar. JSW's Wire Rod is manufactured in High/Medium/Low carbon grades, Electrode grade, CHQ grades. Dimensional accuracy is guaranteed by an automatic thickness control system using advanced numerical models.



The Manufacturing Process



Advantage JSW

- High Speed Wire Rod Mill (120mtr/sec)
- Low Sulphur and Phosphorous Content (0.005% - 0.035%)
- Low Tramp Elements
- Excellent Mechanical and Consistent Chemical Properties



Facilities & Equipments

Reheating furnace

- State of art walking beam furnace with auto control air fuel ratio of capability 160Ton/Hr
- Minimum scale generation around 0.50% throughout the coil

Descaler

- High pressure Descaler of 230bar(max),ensuring removal of scale deposition on the billets surface

230/150 Rod Tekisun Mill

- 4 Strands with unique facilities which maintains narrow band of ovality and size tolerance

Stelmor Conveyor

- Optiflex control with 180 mts, controlled cooling with uniform mechanical & metallurgical properties. Standard cooling, Retarded cooling and Forced cooling to process different grades

Compacting & Strapping unit

- Compaction at a maximum capacity of 40 Tons, which produce compact coils of superior quality

Wire Rod

Product Specifications

Coil Particulars

Inner Diameter	-	750 mm min.
Outer Diameter	-	1250 mm max.
Coil Height	-	2 meter max.
Coil Weight	-	Coil Weight
Packaging	-	4 Steel Straps Binding (min)

Supply Specifications

Surface Defects	-	1.0% of Diameter (max)
De-Carburization	-	1.0% of Diameter (max)
Internal Soundness	-	Free from Pits, Seams, Blow holes, etc.
Supply Condition	-	As per TDC
Control in UTS	-	60 N/mm ² (6Kg/mm ² , within a ring) for High Carbon

Size Range (in mm)

5.2/ 5.5 /6.5/ 7/ 8/ 9/ 10/ 11/ 12/ 14/ 16/ 18/ 20/ 22

Dimensional Tolerance

Diameter (mm)	Tolerance (mm)	Ovality (mm)
5.20 to 8.50	+/- 0.20	0.30 max
9.00 to 14.00	+/- 0.25	0.40 max
14.50 to 22.00	+/- 0.30	0.40 max



Grades & Specifications

Low carbon Wire Rod grades

GRADE	SIZE (mm)	CHEMICAL COMPOSITION					
		%C (max.)	%Mn (max.)	%S (max.)	%P (max.)	%Si (max.)	Others
SAE 1005	5.20-22.0	0.06	0.35	0.03	0.025	-	--
SAE 1006	5.20-22.0	0.08	0.25-0.45	0.03	0.025	-	--
SAE 1008	5.20-22.0	0.10	0.30-0.50	0.03	0.025	-	--
SAE 1010	5.20-22.0	0.08-0.13	0.30-0.60	0.03	0.025	-	--
SAE 1012	5.20-22.0	0.10-0.15	0.30-0.60	0.03	0.025	-	--
SAE 1015	5.20-22.0	0.13-0.18	0.30-0.60	0.03	0.025	-	--
SAE 1018	5.20-22.0	0.15-0.20	0.60-0.90	0.03	0.025	-	--
SAE 1020	5.20-22.0	0.18-0.23	0.30-0.60	0.03	0.025	-	--
SAE 1022	5.20-22.0	0.18-0.23	0.70-1.00	0.03	0.025	-	--
SAE 1025	5.20-22.0	0.22-0.28	0.30-0.60	0.03	0.025	-	--
SAE 10B25	5.20-22.0	0.23-0.28	0.90-1.20	0.03	0.025	-	B-0.0005 - 0.003

Medium carbon Wire Rod grades

GRADE	SIZE (mm,)	CHEMICAL COMPOSITION						
		%C (max.)	%Mn (max.)	%S (max.)	%P (max.)	%Si (max.)	%Al	N ppm (max.)
SAE1042	5.20-22.00	0.40-0.47	0.60-0.90	0.025	0.025	--	--	--
SAE1055	5.20-22.00	0.50-0.60	0.60-0.90	0.025	0.025	--	--	--
SAE1035	5.20-22.00	0.32-0.38	0.60-0.90	0.025	0.025	--	--	--
SAE1030	5.20-22.00	0.28-0.34	0.60-0.90	0.025	0.025	--	--	--

	MECHANICAL PROPERTIES			End Applications
	UTS N/mm2	%EL (min.)	%RA (min.)	
	400 max	25	50	Wire Applications & Fasteners
	410 max	25	50	Wire Applications & Fasteners
	420 max	25	50	Wire Applications & Fasteners
	430 max	25	50	Wire Applications & Fasteners
	440 max	25	50	Wire Applications & Fasteners
	450 max	25	50	Wire Applications & Fasteners
	500 max	25	50	Wire Applications & Fasteners
	520 max	25	50	Wire Applications & Fasteners
	540 max	20	45	Wire Applications & Fasteners
	520 max	20	45	Wire Applications & Fasteners
	570 max	20	45	Wire Applications & Fasteners

	MECHANICAL PROPERTIES			End Applications
	UTS N/mm2	%EL (min.)	%RA (min.)	
	--	--		
	--	--		
	--	--	--	
	--	--	--	

High carbon Wire Rod grades

GRADE	SIZE (mm)	CHEMICAL COMPOSITION					
		%C	%Mn	%S (max.)	%P (max.)	%Si	Others
HC 51/55	5.5	0.51-0.55	0.60-0.90	0.015	0.02	0.15-0.25	
	6.5						
HC 58/62	5.5	0.58-0.62	0.60-0.90	0.015	0.02	0.15-0.25	
	6.5						
HC 61/65	5.5	0.61-0.65	0.60-0.90	0.015	0.02	0.15-0.25	
HC 66/70	5.5	0.66-0.70	0.60-0.90	0.015	0.02	0.15-0.25	Cr-0.12 max
	6.5						
HC 68/72	5.5	0.68-0.72	0.60-0.90	0.015	0.02	0.15-0.25	
HC 71/75	5.5	0.71-0.75	0.60-0.90	0.015	0.02	0.15-0.25	
	6.5						
HC 76/80	5.5	.076-0.80	0.60-0.90	0.015	0.02	0.15-0.25	Cr-0.15-0.25
	6.5						
HC 78/82	5.5	.078-0.82	0.60-0.90	0.015	0.02	0.15-0.25	Cr-0.05-0.15
	6.5						
	8.5						
HC 81/85	5.5	0.81-0.85	0.60-0.90	0.015	0.02	0.15-0.25	Cr-0.05-0.1
	6.5						
	1						
	1						
JIS-SWRH 62A	5.5	0.61-0.65	0.30-0.60	0.015	0.02	0.15-0.25	-
	6.5						
JIS-SWRH 62B	5.5	0.61-0.65	0.60-0.90	0.015	0.02	0.15-0.25	-
	6.5						

	MECHANICAL PROPERTIES		
	UTS N/mm2 (min.)	%RA (min.)	End Applications
	820	40	Grade II Spring
	800	40	
	920	40	Wire Rope & Fine Wire
	900	40	
	940	40	Grade II Springs, ACSR
	920	40	
	900	40	
	1010	40	Grade II Springs, Tyre Bead
	1000	40	
	1010	40	Tyre Bead
	1040	40	Grade II Springs, Card Pins, Card Cloth Wire
	1040	40	
	1020	40	
	1020	40	
	1130	40	Shutter Wire
	1120	40	
	1110	40	
	1100	38	
	1160	38	Shutter Wire
	1140	38	
	1130	38	
	1120	35	
	1150	35	Grade III Springs PC, Strand, Shutter Wire
	1140	35	
	1130	35	
	1120	33	
	1100	33	
	1080	33	
	880	40	Grade II Springs for Machine Tools, Hydraulic Machines
	870	40	
	950	40	Spring Applications in Automobiles and Heavy Machines
	930	40	

Welding Electrode Wire Rod Grades

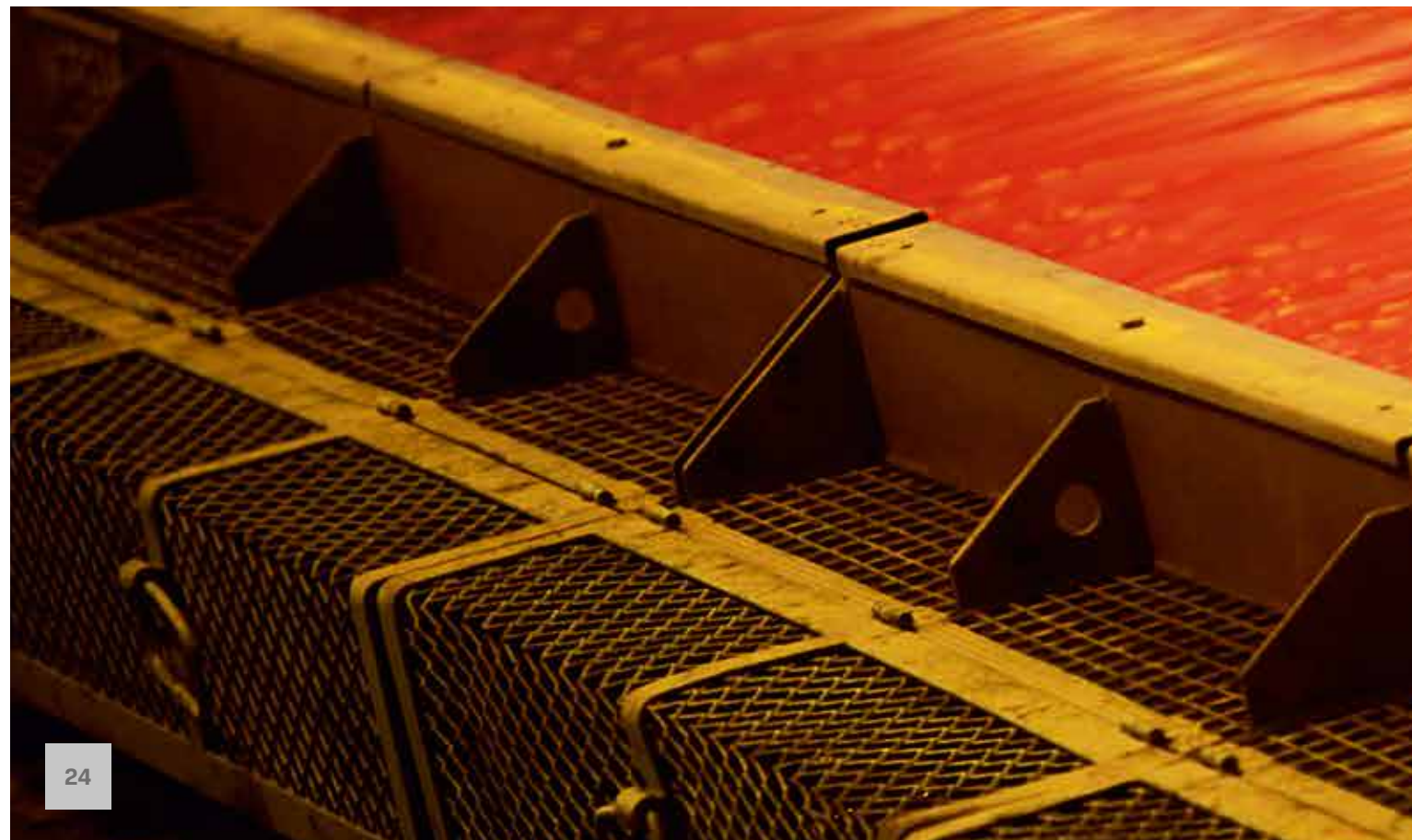
GRADE	SIZE (mm)	CHEMICAL COMPOSITION					
		%C (max.)	%Mn	%S (max)	%P (max.)	%Si (max.)	Others (max.)
AWSER70S-6	5.5	0.06-0.15	1.40-1.85	0.025	0.025	0.80 - 1.15	Cu-0.50,Ni-0.15,Cr-0.15, Mo-0.15,V-0.03
IS2879EWNR	5.5 6.5	0.10	0.38-0.62	0.025	0.025	0.03	Cu-0.15,V-0.005,Ti-0.003

JSW Neosteel TMT Wire Rod grades

JSW STANDARD	BIS SPECIFICATION	SIZE (mm)	CHEMICAL COMPOSITION		
			% C (max.)	% S (max.)	% P (max.)
JSW NEO Steel Fe 500 D	IS 1786 Fe 500 D	6.0 - 12.0	0.25	0.04	0.04
JSW NEO Steel Fe 500 S	IS 1786 Fe 500 S	6.0 - 12.0	0.25	0.04	0.04
JSW NEO Steel Fe 550 D	IS 1786 Fe 550 D	6.0 - 12.0	0.25	0.04	0.04
JSW NEO Steel Fe 600	IS 1786 Fe 600	6.0 - 12.0	0.30	0.04	0.04
JSW NEO Steel Fe 500 D CRS	IS 1786 Fe 500 D CRS	6.0 - 12.0	0.15	0.04	0.12
JSW NEO Steel Fe 550 D CRS	IS 1786 Fe 550 D CRS	6.0 - 12.0	0.15	0.04	0.12
JSW NEO Steel Fe 600 CRS	IS 1786 Fe 600 CRS	6.0 - 12.0	0.15	0.04	0.12

	MECHANICAL PROPERTIES			End Applications
	UTS N/mm2 (min.)	%EL (min.)	%RA (min.)	
	550	22	78	Electrode Wire applications
	400	25	50	Electrode Wire applications

CHEMICAL COMPOSITION			MECHANICAL PROPERTIES			
% Cu (max.)	% Cr (max.)	C.E (max.)	Y.S (min.)	T.S (min.)	T.S/Y.S (min.)	% El (min.)
...	....	0.42	500	565	1.1	16
...	....	0.42	500	625	1.25	18
...	....	0.42	550	600	1.08	14.5
...	....	0.42	600	660	1.06	10
0.30	0.50	0.53	500	565	1.1	16
0.30	0.50	0.53	550	600	1.08	14.5
0.30	0.50	0.53	600	660	1.06	10



Testing facilities

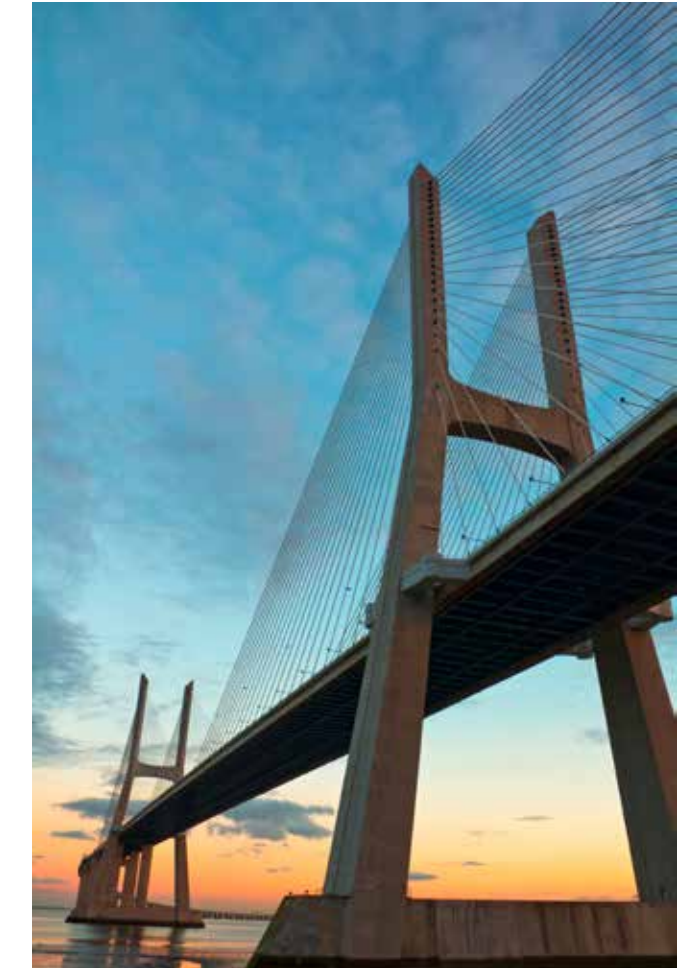
- Cold Upset Testing Machine
- Universal Testing Machine (UTM)
- Bend/Rebend Test Machine
- Eddy Current Sorter
- Bench Magnifier
- Mobile Spectro
- Micro Ohm Meter
- Stereo Microscope
- Rockwell Hardness Tester
- Metallurgical Microscope



The Ultimate Test

Wire Rods Coils are used in a variety of applications

- Automobile - Hot & Cold Forming
- Infrastructure viz Power, Roads
- Dams, Bridges, Ports, Refineries
- Railways
- General Engineering
- Machine & Equipment Building







Sales Offices

Corporate Head Office

JSW Steel Ltd.
 JSW Centre
 Bandra Kurla Complex, Bandra (East), Mumbai - 400 051
 Tel.: +91 22 - 42861000 | Fax: +91 22 - 42863000



Sales Offices

AHMEDABAD
 Office no. 501 & 502
 Mondeal Heights, B-wing Iscon Cross Road,
 Near Novotel Hotel, opp. Karnavati Club, S. G. Highway,
 Ahmedabad-380 054
 Mobile: 09427334449
 Tel: 079-49000270/271/272/273/274/275

BENGALURU
 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

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, Masjid Lane, Kamarpatty, Guwahati -
 781 001
 Tel: 0361-2730054

HYDERABAD
 7th Floor, Surya Towers, 105, Sardar Patel Road,
 Secunderabad - 500 003
 Tel: 040-27846669/79

INDORE
 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, Ponnurrunni
 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

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

RUDRAPUR
 Plot No. 264, By Pass Road, Village Kishanpur, Kichha, District Udham
 Singh Nagar, Uttrakand - 263 148
 Tel: 05944-263290

Middle East Office

JSW Steel Ltd. (DMCC Branch)
 Unit 309 | X - 3 Tower | Jumeirah Lakes Towers
 Dubai, UAE P.O. Box # 33650
 Tel.: +971 4 4385286 | Fax: +971 4 4385297
 Mobile: +971 55336097