







JSW Steel Plant, Vijayanagar Works, Karnataka
India's leading integrated steel company



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Meet JSW

The US\$ 23 billion JSW Group is ranked among India's leading business houses. JSW's innovative and sustainable presence in various sectors including Steel, Energy, Infrastructure, Cement, Paints, Venture Capital and Sports is helping the Group play an important role in driving India's economic growth. The Group strives for excellence by leveraging its strengths & capabilities including a successful track-record of executing large capital-intensive & technically complex projects, differentiated product-mix, state-of-the-art manufacturing facilities and greater focus on pursuing sustainable growth.

It also has a strong social development focus aimed at empowering local communities residing around its Plant & Port locations. JSW Group is known to create value for all its stakeholders by combining its growth roadmap, superior execution capabilities and a relentless drive to be **#BetterEveryday**.

40000+

People

300+

Offices

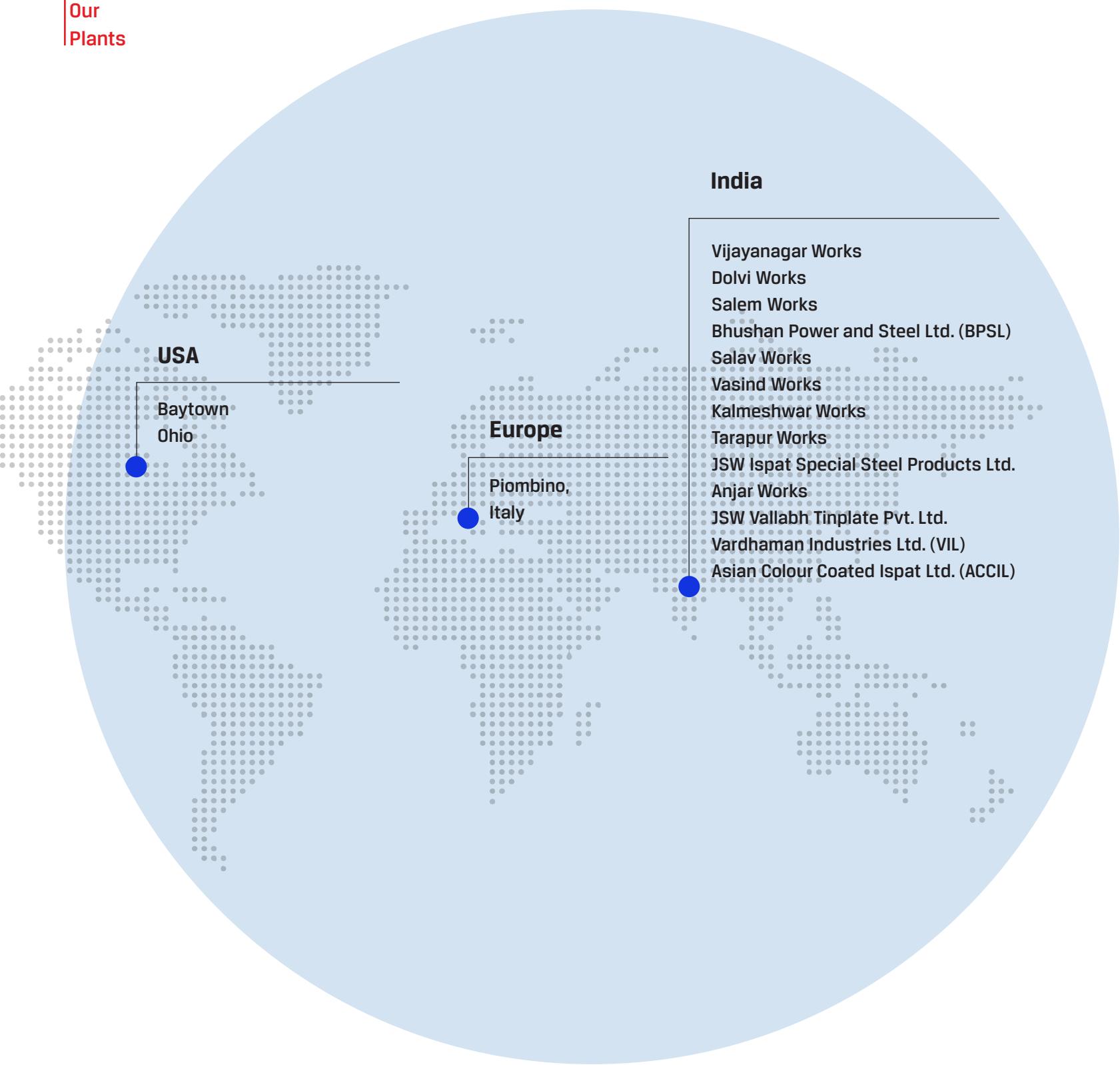
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Plants

4

Continents

Our Plants



Meet JSW Steel

JSW Steel is the flagship business of the diversified, US\$ 24 billion JSW Group. As one of India's leading business houses, JSW Group also has interests in energy, infrastructure, cement, paints, realty, e-platforms, mobility, defense, sports, and venture capital. Over the last three decades, JSW Steel has grown from a single manufacturing unit to become India's leading integrated steel company with a capacity of 35.7 MTPA in India and the USA (including 6 MTPA under commissioning in India). Its next phase of growth will take its total capacity to 43.5 MTPA by September 2027. The Company's plant in Vijayanagar, Karnataka is the largest single-location steel-producing facility in India with current capacity of 17.5 MTPA (including 5 MTPA under commissioning).

JSW Steel has always been at the forefront of research and innovation. It has a strategic collaboration with JFE Steel of Japan, enabling JSW to access new and state-of-the-art technologies to produce and offer high-value special steel products to its customers. These products are extensively used across industries and applications including construction, infrastructure, automobile, electrical applications, and appliances.

JSW Steel is widely recognized for its excellence in business and sustainability practices. Some of these recognitions include World Steel Association's Steel Sustainability Champion (consecutively from 2019 to 2024), Leadership Rating (A-) in CDP climate change disclosure and A in CDP Water Disclosure (2023), Deming Prize for TQM for its facilities at Vijayanagar (2018), and Salem (2019). It is part of the Dow Jones World and Emerging Markets Sustainability Indices (DJSI), and included in S&P Global's Sustainability Yearbook (consecutively from 2020 to 2023). JSW Steel is ranked 8th among the top 35 world-class steelmakers, according to the 'World-Class Steelmaker Rankings' by World Steel Dynamics (WSD), based on a variety of factors.

As a responsible corporate citizen, JSW Steel's CO₂ emission reduction goals are aligned with India's Climate Change commitments under the Paris Accord. JSW Steel aims to reduce its CO₂ emissions by 42% from its steel-making operations by 2030 and has committed to achieve net neutral in carbon emission for all operations under its direct control by 2050. Other sustainability targets include achieving no net-loss in biodiversity at the operating sites by 2030, substantially improving air quality, reducing water consumption in all operations and maintaining Zero Liquid Discharge.



JSW Steel Plant, Vijayanagar Works, Karnataka



JSW Wire Rods are manufactured using cutting-edge technology at the Vijaynagar and Salem Works. These facilities produce wire rods in high, medium, and low carbon grades, as well as electrode and CHQ grades. The Salem Works specializes in alloy and special grade wire rods. The wire rod mills operate at high speeds (up to 120 mtr/sec) and ensure excellent mechanical and consistent chemical properties, with low sulfur and phosphorus content (0.005%-0.035%) and low tramp elements. Dimensional accuracy is guaranteed by an automated thickness control system using advanced numerical models.

The company's manufacturing facilities feature high-speed wire rod mills, India's largest blast furnace, and the widest hot strip mill. The plant utilizes paircross technology and a twin-stand reversible cold-rolling mill, achieving the highest productivity in India with 800-plus tonnes per person per annum. JSW is recognized for its 'zero-effluent discharge' status, reusing more than 95 percent of process waste, and maintains a low carbon footprint by recycling 96% of cokeoven gas for power generation. The plant also employs sophisticated ambient air control infrastructure to reduce gas flaring.

JSW Wire Rods are versatile and used in a variety of applications, including automobile manufacturing, infrastructure projects, railways, general engineering, spring applications, welding ropes, tools, heat treatment, machining, bearings, jewelry, cosmetics, and office and household equipment. The facilities are equipped with advanced reheating furnaces, descalers, Rod Tekisun mills, Stelmor conveyors, and compacting and strapping units, ensuring high-quality production.

The company's testing facilities include cold upset testing machines, universal testing machines, bend/rebend test machines, eddy current sorters, bench magnifiers, mobile spectro, micro ohm meters, stereo microscopes, Rockwell hardness testers, and metallurgical microscopes. JSW Steel Coated Products Ltd. is an ISO 9001:2008 Certified Organization, committed to producing high-quality steel products with a focus on sustainability. The company's zero-effluent discharge facilities, high recycling rates, and extensive tree planting initiatives contribute to a greener environment. JSW Wire Rods stand out for their superior quality, consistent properties, and wide range of applications, making them a preferred choice across various industries.

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: 25.4 x 2150 mm

India's Most Modern and Largest Vertical Caster - 300/260/220 x 2200 mm

India's Largest Blast Furnace - 3.2 MTPA at Vijayanagar

India's only Multi-Radii Bloom Caster (12/16/30 m) operational at Salem Works

ZERO EFFLUENT discharge for greener & cleaner environment

1.5 million trees planted at Vijayanagar Works, transforming the area into a green oasis

JSW Steel has established numerous benchmarks in the steel industry. It boasts the first continuous annealing line in India and operates the widest Cold Rolling Mill in the country, with a width of up to 1870 mm. As India's Largest Coated Steel producer and the first licensee of Galvalume® production in India, JSW Steel continues to lead in innovation and capacity.

The JSW Steel Salem Works is recognized as the largest integrated alloy and special steel plant in India. In addition, the company operates the widest Hot Strip Mill in the nation, measuring 25.4 x 2150 mm, and the country's most modern and largest Vertical Caster, sized at 300/260/220 x 2200 mm. Furthermore, the Vijayanagar plant is home to India's largest Blast Furnace, with a capacity of 3.2 MTPA.

JSW Steel is also notable for operating India's only Multi-Radii Bloom Caster (12/16/30 m) at Salem Works. Committed to sustainability, the company achieves zero effluent discharge, contributing to a greener and cleaner environment. The planting of 1.5 million trees at Vijayanagar Works has transformed the area into a verdant oasis, showcasing JSW Steel's dedication to environmental stewardship.

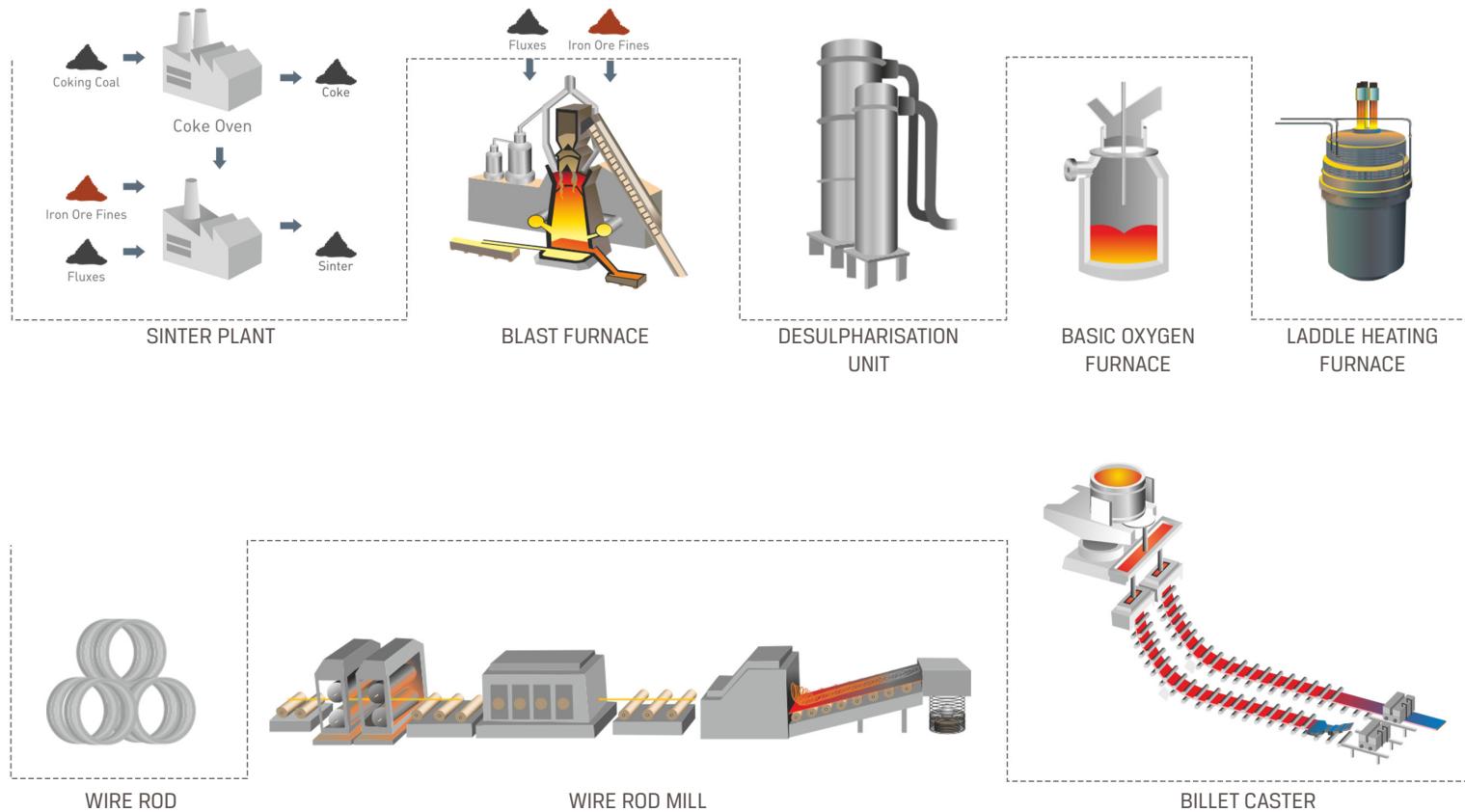


Manufacturing Facilities

JSW Steel's Vijayanagar plant stands as a testament to innovation and capacity in the Indian steel industry. It is the first integrated steel plant in India to achieve a 10 MTPA capacity at a single location. Pioneering in its approach, it was also the first plant in India to adopt Corex technology for hot metal production, showcasing a commitment to advanced and sustainable manufacturing practices. The first hot strip mill at Vijayanagar was commissioned in 1997. Over the years, the Vijayanagar facility has grown exponentially, reaching an installed capacity of 10 MTPA of steel. Located in the remote village of Toranagallu in North Karnataka, within the Bellary-Hospet iron ore belt, this fully integrated steel plant enjoys strategic connectivity to both Goa and Chennai ports, facilitating efficient transportation and logistics.



Manufacturing Process



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Advantages & Key Features

- **Key Features:**

- High-speed wire rod mills (110 mtr/sec)
- Excellent mechanical and consistent chemical properties
- Low sulfur and phosphorus content (0.005%-0.035%)
- Low tramp elements
- Dimensional accuracy guaranteed by an automated thickness control system using advanced numerical models

- **Unique Advantages:**

- High-speed Wire Rod Mill (110 mtr/sec)
- Low Sulfur and Phosphorus content (0.005% - 0.035%)
- Low tramp elements
- Excellent mechanical and consistent chemical properties

- **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



Key Features

- Walking Beam Reheating Furnace
- High Pressure – High Speed Descaler
- 20-pass H-V roughing, intermediate & finishing stands
- Low Temperature Rolling process / Water Cooling / DSC Line
- 8-pass no-twist pre-finishing block & 4-pass Twin Module Block - for WR line
- Controlled Cooling Coil Conveyors
- Coil Finishing services

Technological Feature

BPSL Plant

Latest generation 8-stand high speed Block and 4-stand finishing Block – from Danieli Morgårdshammar, Italy – To ensure Finishing rolling of wire rods at high speed of up to 100 M/Sec. Stelmor Conveyor for Wire rods: Controlled cooling with uniform mechanical and metallurgical properties, standard cooling, retarded cooling, and forced cooling to process different grades.

Key Features :

- Auto Billet Grinding from Danieli Centro Maskin
- Reheating Furnace: (110 TPH)
- Walking Beam Type: Auto controlled, Fuel: pre-mixed BF Gas & Coke Oven Gas
- Descaler: High Pressure water jet with 220 Bar to ensure removal of scales deposited on the billet surface.
- Online Dimension Control system :From Zumbach, Switzerland provided in rolling line for online dimension monitoring and control.
- Rolling Mill: Continuous mill with 20 nos. alternate Horizontal & Vertical 2-roll roughing, intermediate & finishing stands from SMS Group

Key Features

- Regenerative Walking Beam Type Reheating Furnace with the throughput upto 100 MT/hr
- Fully Automated Sliding Stand 2-High Reversible Rough Rolling Mill capable of handling 160X160 to 220X220mm Blooms
- The 14-Stand Rigid Tandem Mill acts as an Intermediate mill
- Finishing No Twist Mill (5.5 to 15 mm) is equipped with Online Surface Defect Detection Technology and Advanced Size Measurement System. It is supported with the Stelmor Conveyor for the Controlled Cooling Purpose
- Finishing Reducing Sizing Block (>15 to 32 mm) facilitates Closer Dimensional Tolerance and Smooth Surface Finish
- Under Downstream Facilities, an Automatic Bell Annealing Furnace operates with the Installed Capacity of 42,000 Tons per annum
- Bell Annealing Furnace is supported with the Pickling and Phosphating Units

Facilities & Equipment

- Reheating Furnace: State-of-the-art walking beam furnace with auto control air-fuel ratio
- Capability of 220 Ton/Hr, minimal scale generation (0.60%)
- Descaler: High-pressure descaler (230 bar max) ensures removal of scale deposition on the billet surface
- 230/150 Rod Tekisun Mill: Four strands maintaining a narrow band of ovality and size tolerance
- Stelmor Conveyor: Optiflex control with 180 mts, controlled cooling with uniform mechanical and metallurgical properties
- Compacting & Strapping Unit: Compaction at a maximum capacity of 40 tons, producing
- Superior quality compact coils







Wire Rod Product Specification

Vijayanagar

Coil Particulars

Product Range	Minimum	Maximum
Inner Dia of the Coil (mm)	750	-
Outer Dia of the Coil (mm)	-	1250
Coil Height (m)	-	2
Coil Weight (MT)	-	2.6
Packaging (Wire Binding)	4 Steel Straps/4 Wire Binding (min)	

Supply Specifications

Surface Defects	1.0% of Diameter (max)
Decarburization	1.0% of Diameter (max) Partial
Supply Condition	HR Coils
Size Range (in mm)	5.5 /6.5/ 7.00/ 8.00/8.50/ 9.00/ 10.00/ 11.00/ 12.00/ 14.00/ 16.00/ 16.50/ 18.00/18.50/ 20.00/ 22.00/24.00/25.00

Dimensional Tolerance

Diameter (mm)	Tolerance (mm)	Ovality (mm)
5.50 to 8.50	+/- 0.25	0.30 max.
9.00 to 14.00	+/- 0.30	0.40 max.
14.50 to 22.00	+/- 0.35	0.50 max.

Wire Rod Product Specification

Vijayanagar

Low Carbon Steel Wire Rod (Rolling Size 5.50-25.00MM)

		Chemical Composition								Mechanical Properties			
GRADE	IS 7887: 1992	C% (max)	Mn% (max)	S % max	P % max	Si% max	Al% (max)	N ppm (max)	UTS N/mm ² (min)	EL% (min)	RA% (min)	End Applications	
SAE 1005	Grade-1 (CAQ)	0.06	0.35	0.05	0.05	-	-	-	400 Max	25	50	CAQ Wire	
SAE 1006	Grade2	0.08	0.25-0.40	0.05	0.05	-	-	-	410 Max	25	50	Wire applications & Fasteners	
SAE 1008	Grade3	0.10max	0.70max	0.05	0.05	-	-	-	420 Max	25	50	Wire applications & Fasteners	
SAE 1010	Grade4	0.08-0.13	0.30-0.60	0.05	0.05	-	-	-	430 Max	25	50	Wire applications & Fasteners	
SAE 1012	Grade5	0.10-0.15	0.30-0.60	0.05	0.05	-	-	-	440 Max	25	50	Wire applications & Fasteners	
SAE 1015	Grade6	0.13-0.18	0.30-0.60	0.05	0.05	-	-	-	450 Max	25	50	Wire applications & Fasteners	
SAE 1018	Grade7M	0.15-0.20	0.60-0.90	0.05	0.05	-	-	-	500 Max	25	50	Wire applications & Fasteners	
SAE 1020	Grade8	0.18-0.23	0.30-0.60	0.05	0.05	-	-	-	520 Max	25	50	Wire applications & Fasteners	
SAE 1022	Grade8M	0.18-0.23	0.60-0.90	0.05	0.05	-	-	-	540 Max	20	45	Wire applications & Fasteners	
SAE 1025	Grade 10	0.22-0.28	0.30-0.60	0.05	0.05	-	-	-	520 Max	20	45	Wire applications & Fasteners	

Medium Carbon Steel Wire Rod

		Chemical Composition								Mechanical Properties			
GRADE	SIZE (mm)	C% (max)	Mn% (max)	S % max	P % max	Si% max	Al% (max)	N ppm (max)	UTS N/mm ² (min)	EL% (min)	RA% (min)	End Applications	
EN8D	5.50-22.00	0.40-0.45	0.60-0.90	0.050	0.05	0.10-0.40	-	-	-	-	-	Fasteners Application	
EN9	5.50-22.00	0.50-0.60	0.50-0.90	0.050	0.04	0.10-0.40-	-	-	-	-	-	Fasteners Application	
SAE 1035	5.50-22.00	0.32-0.38	0.60-0.90	0.050	0.04	0.10-0.25	-	-	-	-	-	Fasteners Application	
SAE1040	5.50-22.00	0.37-0.44	0.60-0.90	0.050	0.04	0.10-0.25	-	-	-	-	-	Fasteners Application	

Wire Rod Product Specification

Vijayanagar

High Carbon Steel Wire Rod (5.50-13.00MM)

GRADE	SIZE (mm)	Chemical Composition							Mechanical Properties				End Applications
		C%	Mn%	Si%	S % (max)	P % (max)	Cr% (max)	N ppm (max)	UTS N/ mm ² (min)	EL% (min)	RA% (min)		
HC38A	5.50-12.00	0.35-0.40	0.30-0.60	0.10-0.35	0.035	0.035	0.15	80	-	10	30	-	-
HC38B	5.50-12.00	0.35-0.40	0.60-0.90	0.10-0.35	0.035	0.035	0.15	80	-	10	30	-	-
HC42A	5.50-12.00	0.40-0.45	0.30-0.60	0.10-0.35	0.035	0.035	0.15	80	-	10	30	-	-
HC42B	5.50-12.00	0.40-0.45	0.60-0.90	0.10-0.35	0.035	0.035	0.15	80	-	10	30	-	-
HC52A	5.50-12.00	0.50-0.55	0.30-0.60	0.10-0.35	0.035	0.035	0.15	80	-	10	30	-	-
HC52B	5.50-12.00	0.50-0.55	0.60-0.90	0.10-0.35	0.035	0.035	0.15	80	-	10	30	-	-
HC62A	5.50-12.00	0.60-0.65	0.30-0.60	0.10-0.35	0.035	0.035	0.15	80	-	10	30	Tyre Bead	
HC62B	5.50-12.00	0.60-0.65	0.60-0.90	0.10-0.35	0.035	0.035	0.15	80	-	10	30	Grade II Springs, ACSR	
HC68A	5.50-12.00	0.65-0.70	0.30-0.60	0.10-0.35	0.035	0.035	0.15	80	-	10	30	-	-
HC68B	5.50-12.00	0.65-0.70	0.60-0.90	0.10-0.35	0.035	0.035	0.15	80	-	10	30	-	-
HC72A	5.50-12.00	0.70-0.75	0.30-0.60	0.10-0.35	0.035	0.035	0.15	80	-	10	30	Tyre Bead	
HC72B	5.50-12.00	0.70-0.75	0.60-0.90	0.10-0.35	0.035	0.035	0.15	80	-	10	30	-	-
HC78A	5.50-12.00	0.75-0.80	0.30-0.60	0.10-0.35	0.035	0.035	0.15	80	-	10	30	-	-
HC78B	5.50-12.00	0.75-0.80	0.60-0.90	0.10-0.35	0.035	0.035	0.15	80	-	10	30	Shutter Wire	
HC80A	5.50-12.00	0.78-0.83	0.30-0.60	0.10-0.35	0.035	0.035	0.15	80	-	10	30	-	-
HC80B	5.50-12.00	0.78-0.83	0.60-0.90	0.10-0.35	0.035	0.035	0.15	80	-	10	30	-	-
HC80ACr	5.50-12.00	0.78-0.83	0.30-0.60	0.10-0.35	0.035	0.035	0.15-0.30	80	-	10	30	-	-
HC80BCr	5.50-12.00	0.78-0.83	0.60-0.90	0.10-0.35	0.035	0.035	0.15-0.30	80	-	10	30	-	-
HC82A	5.50-12.00	0.80-0.85	0.30-0.60	0.10-0.35	0.035	0.035	0.15	80	-	10	30	Tyre Bead,Tyre Cored	
HC82B	5.50-12.00	0.80-0.85	0.60-0.90	0.10-0.35	0.035	0.035	0.15	80	-	10	30	Springs Wire, PC Wire, Shutter Wire	
HC82ACr	5.50-12.00	0.80-0.85	0.30-0.60	0.10-0.35	0.035	0.035	0.15-0.30	80	-	10	30	-	-
HC82BCr	5.50-13.00	0.80-0.85	0.60-0.90	0.10-0.35	0.035	0.035	0.15-0.30	80	-	10	30	LRPC	

Wire Rod Product Specification

Vijayanagar

Alloy Steel Grade Wire Rod

		Chemical Composition							Mechanical Properties			
GRADE	SIZE (mm)	C% (max)	Mn%	S % max	P % max	Si% max	N ppm (max)	Others (max)	UTS N/mm ² (min)	EL% (min)	RA% (min)	End Applications
SAE 1541	5.50-22.00	0.35-0.45	1.25-1.75	0.050	0.040	0.15-0.35	N-50,02-20,H2-2.0	-	900	15	30	Fasteners Application
SAE4140	5.50-22.00	0.38-0.43	0.75-1.00	0.040	0.035	0.15-0.35	N-50,02-20,H2-2.0	Cr 0.80-1.10, Mo 0.15-0.25	1080	15	30	Fasteners Application
SAE10B21	5.50-22.00	0.18-0.23	0.80-1.10	0.035	0.035	0.15-0.30	N-50,02-20,H2-2.0	Cr-0.30-0.40, B 0.0005-0.003	620	15	40	Fasteners Application
SAE15B25	5.50-22.00	0.23-0.29	0.90-1.20	0.035	0.035	0.15-0.30	N-50,02-20,H2-2.0	Cr-0.15-0.25, B 0.0005-0.003	640	15	40	Fasteners Application
SAE10B35	5.50-22.00	0.32-0.38	0.60-0.90	0.050	0.040	0.10-0.20	N-50,02-20,H2-2.0	Cr-0.30 max	700	15	30	Fasteners Application
16MnCr5	5.50-22.00	0.14-0.19	1.00-1.30	0.030	0.025	0.30	N-50,02-20,H2-2.0	Cr 0.80-1.10	705	15	40	Case Hardening Steel
20MnCr5	5.50-22.00	0.17-0.22	1.00-1.40	0.035	0.035	0.10-0.35	N-50,02-20,H2-2.0	Cr 1.00-1.30, Ni 0.15,Mo 0.05	705	15	40	Case Hardening Steel

Free Cutting Steel Wire Rod

		Chemical Composition							Mechanical Properties			
GRADE	SIZE (mm)	C% (max)	Mn% (max)	S % max	P % max	Si% max	Pb% (max)	N ppm (max)	UTS N/mm ² (min)	EL% (min)	RA% (min)	End Applications
EN1A	5.50-22.00	0.15	0.90-1.30	0.20-0.30	0.07	0.05	-	60	360	20	40	Fasteners Application
EN8M	5.50-22.00	0.35-0.45	1.10-1.30	0.15-0.20	0.03	0.10-0.20	-	60	360	20	40	Fasteners Application

Wire Rod Product Specification

Vijayanagar

Welding Electrode Grade Steel Wire Rod

GRADE	SIZE (mm)	Chemical Composition								Mechanical Properties			End Applications
		C% (max)	Mn% (max)	S % max	P % max	Si% max	Al% (max)	Others (max)	UTS N/mm ² (min)	EL% (min)	RA% (min)		
ER70S-6	5.50/6.50	0.06-0.15	1.40-1.85	0.035	0.025	0.80 - 1.15	-	Cu-0.50,Ni-0.15,Cr-0.15,-Mo-0.15,V-0.03	480	22	78	TIG & MIG Welding Electrode	
EM12K	5.50/6.50	0.05-0.15	0.80-1.25	0.030	0.030	0.10-0.35	-	Cu-0.35 max	500	25	55	SAW Electrode	
EWRN	5.50/6.50	0.10 Max	0.38-0.62	0.025	0.025	0.030	0.012	Cu-0.15,V-0.005,Ti-0.003	300	25	50	Arc Welding Electrode	







JSW

Wire Rod Product Specification

Salem

Coil Particulars

Product Range	Minimum	Maximum
Inner Dia of the Coil (mm)	850	-
Outer Dia of the Coil (mm)	-	1450
Coil Height (mm)	-	1300
Coil Weight (MT)	-	1.8
Packaging (Wire Binding)	HR : 4 Steel Wire -SAPP : 3 Metallic Strap -HDPE packing (1 metallic strap) based on customer requirement	

Supply Specifications

Surface Defects	1.0% of Diameter (max)
Decarburization	1.0% of Diameter (max)
Supply Condition	Hot Rolled and Spheroidization Annealed Pickled & Phosphated coils
Size Range (in mm)	5.5 / 6.5 / 7 / 8 / 8.5 / 9 / 10 / 11 / 12 / 13 / 14 / 15 / 16/16.3/ 17.3 / 18 / 18.3 / 20 / 21 / 22 / 23 / 23.5 / 24 / 25 / 26 / 28 / 30 / 32

Dimensional Tolerance

Diameter (mm)	Tolerance (mm)	Ovality (mm)
5.50 to 8.00	+/- 0.13	0.20 max
8.00 to 11.00	+/- 0.15	0.24 max.
11.00 to 15.00	+/- 0.18	0.25 max.
15.00 to 22.00	+/- 0.20	0.30 max.
22.00 to 25.00	+/- 0.24	0.35 max.
25.00 to 28.00	+/- 0.25	0.40 max.
28.00 to 31.00	+/- 0.28	0.45 max.
31.00 to 32.00	+/- 0.30	0.50 max.

*Note: : Customized Sizes and Dimensional Tolerance are possible based on the Mutual Agreement

Salem Works

BIS Certifications

Salem Works BIS Certifications

Standard No.	Standard Description	BIS License No
IS 2062:2011	Hot Rolled Low, Medium and High Tensile Structural Steel	CM/L 6255972
IS 2879:1998	Mild Steel for Metal Arc Welding Electrode Core Wire	CM/L 6997313
IS 4398:1994	Carbon-chromium Steel for the Manufacture of Balls, Rollers and Bearing Races	CM/L 6500059508
IS 5517:1993	Steels for Hardening and Tempering	CM/L 6700082214
IS 7283:1992	Hot Rolled bars for production of bright bars and machined parts for engineering applications	CM/L 6700029614
IS 7887:1992	Mild steel wire rods for general engineering purposes	CM /L 3504144
IS 7904:2018	High Carbon Steel Wire rods	CM/L 6700065214
IS 11169 Part 1:2022	Steels for cold heading / cold extrusion application, Part 1: Wrought carbon and low alloy steels	CM/L - 6700070308





Wire Rod Product Specification

Salem

Cold Heading Quality-Chemical Composition %

Grade		C		Si		Mn		P		S		Cr		Mo		B	
	min	max		min	max	min	max	min	max	min	max	min	max	min	max	min	max
SAE 1006	-	0.08		-	-	0.25	0.40	-	0.30	-	0.50	-	-	-	-	-	-
SAE 1008	-	0.10		-	-	0.30	0.50	-	0.30	-	0.50	-	-	-	-	-	-
SAE 1010	0.08	0.13		-	-	0.30	0.60	-	0.30	-	0.50	-	-	-	-	-	-
SAE 1012	0.10	0.15		-	-	0.30	0.60	-	0.30	-	0.50	-	-	-	-	-	-
SAE 1015	0.13	0.18		-	-	0.30	0.60	-	0.30	-	0.50	-	-	-	-	-	-
SAE 1018	0.15	0.20		-	-	0.60	0.90	-	0.30	-	0.50	-	-	-	-	-	-
SAE 1020	0.18	0.23		-	-	0.30	0.60	-	0.30	-	0.50	-	-	-	-	-	-
SAE 1541	0.36	0.44		-	-	1.35	1.65	-	0.30	-	0.50	-	-	-	-	-	-
SAE 4140	0.38	0.43	0.15	0.35	0.75	1.00		0.30	-	0.40	0.80	1.10	0.15	0.25	-	-	-
SAE 10B21	0.18	0.23	-	0.30	0.80	1.10		0.30	-	0.30	0.10	0.20	-	-	0.0005	0.003	
SAE 15B25	0.23	0.28	-	0.30	0.90	1.30		0.30	-	0.30	0.10	0.20	-	-	0.0005	0.003	
SAE 15B35H	0.31	0.39	0.15	0.35	0.70	1.20		0.40	-	0.50	0.10	0.30	-	-	0.0005	0.003	
SAE 10B35	0.32	0.37	-	0.40	0.60	0.90		0.025	-	0.025	0.10	0.40	-	-	0.0008	max	
SAE 15B41	0.36	0.44	0.15	0.30	1.35	1.65		0.030	-	0.030	0.10	0.20	-	-	0.0005	0.003	
SAE 1540	0.38	0.43	0.15	0.30	0.70	0.90		0.025	-	0.025	0.70	0.90	-	-	-	-	
19MnB4M	0.20	0.25	0.15	0.30	0.80	1.10		0.030	-	0.030	0.30	0.40	-	-	0.0008	0.003	
30MnB4	0.27	0.32	-	0.30	0.80	1.10		0.025	-	0.025	-	0.30	-	-	0.0008	0.003	
36CrB4	0.34	0.38	-	0.30	0.70	1.00		0.025	-	0.025	0.90	1.20	-	-	0.0008	0.003	

*Note: : Customized Steel Grades can be produced as per Customer Specific Requirement Alloy Content of 6%

Wire Rod Product Specification

Salem

High Carbon Wire Rods-Chemical Composition%

Grade	C		Si		Mn		P		S	
	min	max	min	max	min	max	min	max	min	max
SWRH 27	0.24	0.31	0.15	0.35	0.30	0.60	-	0.030	-	0.030
SWRH 32	0.29	0.36	0.15	0.35	0.30	0.60	-	0.030	-	0.030
SWRH 37	0.34	0.41	0.15	0.35	0.30	0.60	-	0.030	-	0.030
SWRH 42A	0.39	0.46	0.15	0.35	0.30	0.60	-	0.030	-	0.030
SWRH 42B	0.39	0.46	0.15	max	0.60	0.90	-	0.030	-	0.030
SWRH 47A	0.44	0.51	0.15	0.35	0.30	0.60	-	0.030	-	0.030
SWRH 47B	0.44	0.51	0.15	0.35	0.60	0.90	-	0.030	-	0.030
SWRH 52A	0.49	0.56	0.15	0.35	0.30	0.60	-	0.030	-	0.030
SWRH 52B	0.49	0.56	0.15	0.35	0.60	0.90	-	0.030	-	0.030
SWRH 57A	0.54	0.61	0.15	0.35	0.30	0.60	-	0.030	-	0.030
SWRH 57B	0.54	0.61	0.15	0.35	0.60	0.90	-	0.030	-	0.030
SWRH 62A	0.59	0.66	0.15	0.35	0.30	0.60	-	0.030	-	0.030
SWRH 62B	0.59	0.66	0.15	0.35	0.60	0.90	-	0.030	-	0.030
SWRH 67A	0.64	0.71	0.15	0.35	0.30	0.60	-	0.030	-	0.030
SWRH 67B	0.64	0.71	0.15	0.35	0.60	0.90	-	0.030	-	0.030
SWRH 72A	0.69	0.76	0.15	0.35	0.30	0.60	-	0.030	-	0.030
SWRH 72B	0.69	0.76	0.15	0.35	0.60	0.90	-	0.030	-	0.030
SWRH 77A	0.74	0.81	0.15	0.35	0.30	0.60	-	0.030	-	0.030
SWRH 77B	0.74	0.81	0.15	0.35	0.60	0.90	-	0.030	-	0.030
SWRH 82A	0.79	0.86	0.15	0.35	0.30	0.60	-	0.030	-	0.030
SWRH 82B	0.79	0.86	0.15	0.35	0.60	0.90	-	0.030	-	0.030

Welding electrode Quality- Chemical Composition%

	C		Si		Mn		P		S		Cr		Mo	
	min	max	min	max	min	max	min	max	min	max	min	max	min	max
EM 12K	0.05	0.15	0.10	0.35	0.80	1.25	-	0.030	-	0.030	-	-	-	-
ER 70S-6	0.07	0.10	0.80	1.00	1.40	1.60	-	0.020	-	0.020	-	-	-	-
ER 90S-D2	0.07	0.12	0.50	0.80	1.60	2.10	-	0.025	-	0.025	-	-	0.40	0.60
S2Mo	0.07	0.15	0.05	0.20	0.95	1.30	-	0.025	-	0.025	-	-	0.45	0.65
EWNR	0.10	-	0.03	0.38	0.62	-	0.025	-	0.025	-	-	-	-	-
RG Wire	0.05	0.09	-	0.04	0.45	0.60	-	0.010	-	0.010	-	-	-	0.02
EB 2	0.07	0.15	0.05	0.30	0.45	1.00	-	0.025	-	0.025	1.00	1.75	0.45	0.65

*Note: : Customized Steel Grades can be produced as per Customer Specific Requirement with the Maximum Alloy Content of 6%

Wire Rod Product Specification

Salem

Free Cutting Steel-Chemical Composition %

Grade	C		Si		Mn		P		S		Pb	
	min	max	min	max	min	max	min	max	min	max	min	max
EN 1A	-	0.15	-	-	0.9	1.3	-	0.07	0.20	0.30	-	-
EN 1A(Pb)	-	0.15	-	-	0.9	1.3	-	0.07	0.20	0.30	0.20	0.30
EN 8M	0.32	0.4	-	0.25	1	1.4	-	0.06	0.12	0.20	-	-
EN 15AM	0.32	0.4	-	0.25	1.3	1.7	-	0.06	0.12	0.20	-	-
EN 8DM/212A42	0.4	0.45	-	0.25	1	1.3	-	0.06	0.12	0.20	-	-
11SMn30	-	0.14	-	0.05	0.9	1.3	-	0.11	0.27	0.33	-	-
11SMnPb30	-	0.14	-	0.05	0.9	1.3	-	0.11	0.27	0.33	0.20	0.35
SAE 12L14	-	0.15	-	-	0.85	1.15	0.04	0.09	0.26	0.35	0.15	0.35
SAE 1117	0.14	0.2	-	-	1	1.3	-	0.04	0.08	0.13	-	-
SAE 1118	0.14	0.2	-	-	1.3	1.6	-	0.04	0.08	0.13	-	-
SAE 1141	0.37	0.45	-	-	1.35	1.65	-	0.04	0.08	0.13	-	-
SAE 1144	0.4	0.48	-	-	1.35	1.65	-	0.04	0.08	0.13	-	-
SAE 1146	0.42	0.49	-	-	0.7	1	-	0.04	0.08	0.13	-	-

Spring Steel- Chemical Composition%

Grade	C		Si		Mn		P		S		Cr		Mo		V		B	
	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max
EN 45A	0.55	0.60	1.80	2.10	0.80	1.00	-	0.040	-	0.035	0.15	0.30	-	-	-	-	-	-
SUP 9	0.52	0.60	1.15	0.35	0.65	1.00	-	0.040	-	0.035	0.65	0.95	-	-	-	-	-	-
SUP 9A	0.56	0.64	1.15	0.35	0.70	0.95	-	0.040	-	0.035	0.70	1.00	-	-	-	-	-	-
SUP 11A	0.56	0.64	1.15	0.35	0.70	1.00	-	0.040	-	0.035	0.70	1.00	-	-	-	-	0.0005	-
65Si7	0.60	0.68	1.50	1.80	0.70	1.00	-	0.050	-	0.050	-	-	-	-	-	-	-	-
SAE 9254	0.51	0.59	1.20	1.60	0.60	1.00	-	0.040	-	0.040	0.60	0.80	-	-	-	-	-	-
50CrV4	0.47	0.55	-	0.40	0.70	0.80	-	0.040	-	0.030	0.90	1.20	-	-	0.10	0.20	-	-
52Cr4Mo2V	0.48	0.56	0.15	0.40	0.70	1.10	-	0.03	-	0.03	0.90	1.20	0.15	0.25	0.07	0.12	-	-

*Note: : Customized Steel Grades can be produced as per Customer Specific Requirement Alloy Content of 6%

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Wire Rod Product Specification

BPSL

Coil Particulars

Product Range	Minimum	Maximum
Inner Dia of the Coil (5.5mm to 16mm)	900	-
Inner Dia of the Coil (16mm to 40mm)	1100	-
Outer Dia of the Coil (5.5mm to 16mm)	-	1250
Outer Dia of the Coil (16mm to 40mm)	-	1450
Coil Height (m)	-	2
Coil Weight (MT)	-	3
Packaging (Wire Binding)	4 Wire Binding (min)	

Supply Specifications

Surface Defects	1.0% of Diameter (max)
Decarburization	1.0% of Diameter (max) Partial
Supply Condition	Hot Rolled Coils
Size Range	5.5 mm - 40 mm

Dimensional Tolerance

Diameter (mm)	Tolerance (mm)	Ovality (mm)
5.50 to 8.00	+/- 0.13	0.20 max.
8.00 to 11.00	+/- 0.15	0.24 max.
11.00 to 15.00	+/- 0.18	0.25max.
15.00 to 22.00	+/- 0.20	0.30max.
22.00 to 25.00	+/- 0.24	0.35max.
25.00 to 28.00	+/- 0.25	0.40max.
28.00 to 31.00	+/- 0.28	0.4max.
31.00 to 34.00	+/- 0.30	0.50max.
34.00 to 38.00	+/- 0.36	0.60max.
38.00 to 40.00	+/- 0.40	0.60max.

Wire Rod Product Specification

BPSL

Cold Heading Quality-Chemical Composition %

Grade	C	Si	Mn	P	S	Cr	Mo	B
	min	max	min	max	min	max	min	max
SAE 1006	-	0.08	-	-	0.25	0.40	-	0.30
SAE 1008	-	0.10	-	-	0.30	0.50	-	0.30
SAE 1010	0.08	0.13	-	-	0.30	0.60	-	0.30
SAE 1012	0.10	0.15	-	-	0.30	0.60	-	0.30
SAE 1015	0.13	0.18	-	-	0.30	0.60	-	0.30
SAE 1018	0.15	0.20	-	-	0.60	0.90	-	0.30
SAE 1020	0.18	0.23	-	-	0.30	0.60	-	0.30
SAE 1541	0.36	0.44	-	-	1.35	1.65	-	0.30
SAE 4140	0.38	0.43	0.15	0.35	0.75	1.00	-	0.30
SAE 10B21	0.18	0.23	-	0.30	0.80	1.10	-	0.30
SAE 15B25	0.23	0.28	-	0.30	0.90	1.30	-	0.30
SAE 10B35	0.32	0.37	-	0.40	0.60	0.90	-	0.025
SAE 15B41	0.36	0.44	0.15	0.30	1.35	1.65	-	0.030
19MnB4M	0.28	0.32	-	0.30	0.90	1.20	-	0.030

Wire Rod Product Specification

BPSL

High Carbon Wire Rods-Chemical Composition%

Grade	C		Si		Mn		P		S	
	min	max	min	max	min	max	min	max	min	max
SWRH 42B	0.39	0.46	0.15	max	0.60	0.90	-	0.030	-	0.030
SWRH 47B	0.44	0.51	0.15	0.35	0.60	0.90	-	0.030	-	0.030
SWRH 52A	0.49	0.56	0.15	0.35	0.30	0.60	-	0.030	-	0.030
SWRH 52B	0.49	0.56	0.15	0.35	0.60	0.90	-	0.030	-	0.030
SWRH 57A	0.54	0.61	0.15	0.35	0.30	0.60	-	0.030	-	0.030
SWRH 57B	0.54	0.61	0.15	0.35	0.60	0.90	-	0.030	-	0.030
SWRH 62A	0.59	0.66	0.15	0.35	0.30	0.60	-	0.030	-	0.030
SWRH 62B	0.59	0.66	0.15	0.35	0.60	0.90	-	0.030	-	0.030
SWRH 67A	0.64	0.71	0.15	0.35	0.30	0.60	-	0.030	-	0.030
SWRH 67B	0.64	0.71	0.15	0.35	0.60	0.90	-	0.030	-	0.030
SWRH 72A	0.69	0.76	0.15	0.35	0.30	0.60	-	0.030	-	0.030
SWRH 72B	0.69	0.76	0.15	0.35	0.60	0.90	-	0.030	-	0.030
SWRH 77A	0.74	0.81	0.15	0.35	0.30	0.60	-	0.030	-	0.030
SWRH 77B	0.74	0.81	0.15	0.35	0.60	0.90	-	0.030	-	0.030
SWRH 82A	0.79	0.86	0.15	0.35	0.30	0.60	-	0.030	-	0.030
SWRH 82B	0.79	0.86	0.15	0.35	0.60	0.90	-	0.030	-	0.030

Welding electrode Quality- Chemical Composition%

Grade	C		Si		Mn		P		S		Cr		Mo	
	min	max	min	max	min	max	min	max	min	max	min	max	min	max
ER 70S-6	0.07	0.10	0.80	1.00	1.40	1.60	-	0.020	-	0.020	-	-	-	-

Wire Rod Product Specification

BPSL

Free Cutting Steel-Chemical Composition %

Grade	C min	C max	Si min	Si max	Mn min	Mn max	P min	P max	S min	S max	Pb min	Pb max
EN 1A	-	0.15	-	-	0.9	1.3	-	0.07	0.20	0.30	-	-
EN 1A(Pb)	-	0.15	-	-	0.9	1.3	-	0.07	0.20	0.30	0.20	0.30
EN 8M	0.32	0.4	-	0.25	1	1.4	-	0.06	0.12	0.20	-	-
EN 15AM	0.32	0.4	-	0.25	1.3	1.7	-	0.06	0.12	0.20	-	-
EN 8DM/212A42	0.4	0.45	-	0.25	1	1.3	-	0.06	0.12	0.20	-	-
11SMn30	-	0.14	-	0.05	0.9	1.3	-	0.11	0.27	0.33	-	-
11SMnPb30	-	0.14	-	0.05	0.9	1.3	-	0.11	0.27	0.33	0.20	0.35
SAE 12L14	-	0.15	-	-	0.85	1.15	0.04	0.09	0.26	0.35	0.15	0.35
SAE 1117	0.14	0.2	-	-	1	1.3	-	0.04	0.08	0.13	-	-
SAE 1118	0.14	0.2	-	-	1.3	1.6	-	0.04	0.08	0.13	-	-
SAE 1141	0.37	0.45	-	-	1.35	1.65	-	0.04	0.08	0.13	-	-
SAE 1144	0.4	0.48	-	-	1.35	1.65	-	0.04	0.08	0.13	-	-

Spring Steel- Chemical Composition%

Grade	C min	C max	Si min	Si max	Mn min	Mn max	P min	P max	S min	S max	Cr min	Cr max	Mo min	Mo max	V min	V max	B min	B max
EN 45A	0.55	0.60	1.80	2.10	0.80	1.00	-	0.040	-	0.035	0.15	0.30	-	-	-	-	-	-
SUP 9	0.52	0.60	1.15	0.35	0.65	1.00	-	0.040	-	0.035	0.65	0.95	-	-	-	-	-	-
SUP 9A	0.56	0.64	1.15	0.35	0.70	0.95	-	0.040	-	0.035	0.70	1.00	-	-	-	-	-	-
SUP 11A	0.56	0.64	1.15	0.35	0.70	1.00	-	0.040	-	0.035	0.70	1.00	-	-	-	-	0.0005	-
65Si7	0.60	0.68	1.50	1.80	0.70	1.00	-	0.050	-	0.050	-	-	-	-	-	-	-	-
SAE 9254	0.51	0.59	1.20	1.60	0.60	1.00	-	0.040	-	0.040	0.60	0.80	-	-	-	-	-	-
50CrV4	0.47	0.55	-	0.40	0.70	0.80	-	0.040	-	0.030	0.90	1.20	-	-	0.10	0.20	-	-
52Cr4Mo2V	0.48	0.56	0.15	0.40	0.70	1.10	-	0.03	-	0.03	0.90	1.20	0.15	0.25	0.07	0.12	-	-

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



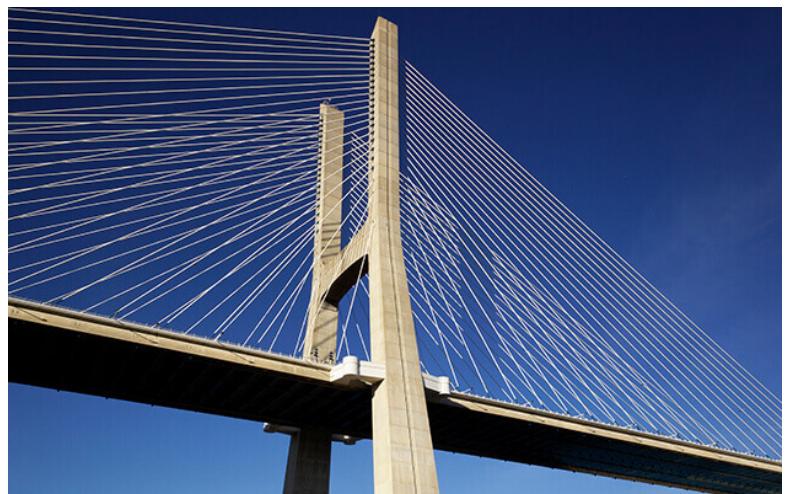
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Application



Automobile



Cold Drawing



Cold Forming



General Engineering

Application



Jewellery



Machining



Bearings



Heat Treatment

Application



Spring Applications



Tools



Welding



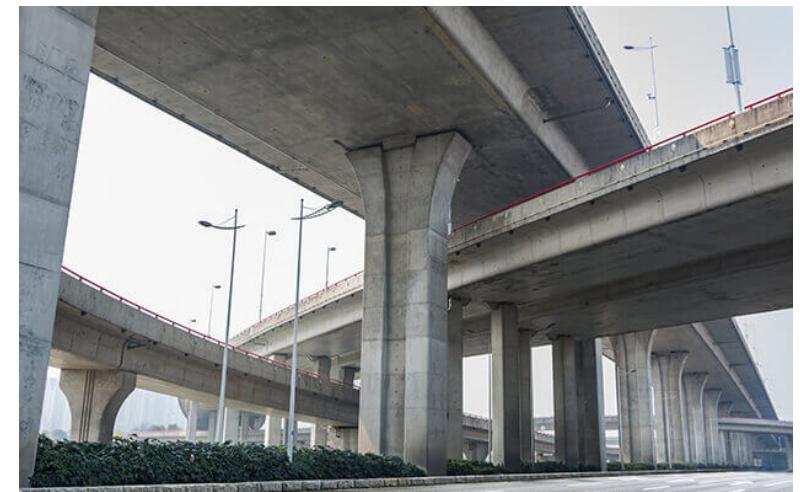
Wire Ropes

Application



Railways

Ports



Power

Bridges

**Sales
Office**

AHMEDABAD

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Chikaithana MIDC
Aurangabad

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Front Side,
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Super Market,
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Commercial, opp. Orbit,
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Behind Police HQ,
Lal kothi,
Tonk Phatak,
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NH By-pass
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JSW Steel Ltd.
3'd Floor, SCO 7-8,
Canal Colony,
Firoz Gandhi Market,
Pakhowal Road,
Ludhiana - 141008
Tel.: (0161) 6611700

MUMBAI

JSW Steel Ltd
JSW Centre ,Bandra Kurla Complex
Bandra East
Mumbai-400051
Mb: 022-42863000

NAGPUR

JSW Steel Ltd.
L&T Building,
3rd Floor (Back Side),
Plot No: 12,
Shivaji Nagar,
Nagpur: 440 010

NAVI MUMBAI

JSW Steel Ltd.
1101-1102 a 1704-1707,
17th Floor,
Plot No. 4 a 6,
Greenscape Cyber One,
Sector 30 A, Vasi,
Navi Mumbai - 400 705
Tel : 022 69337000

NOIDA

JSW Steel Ltd.
Trapezoid, C-27,
91st Floor,
Sector-62, Noida,
Uttar Pradesh

PATNA

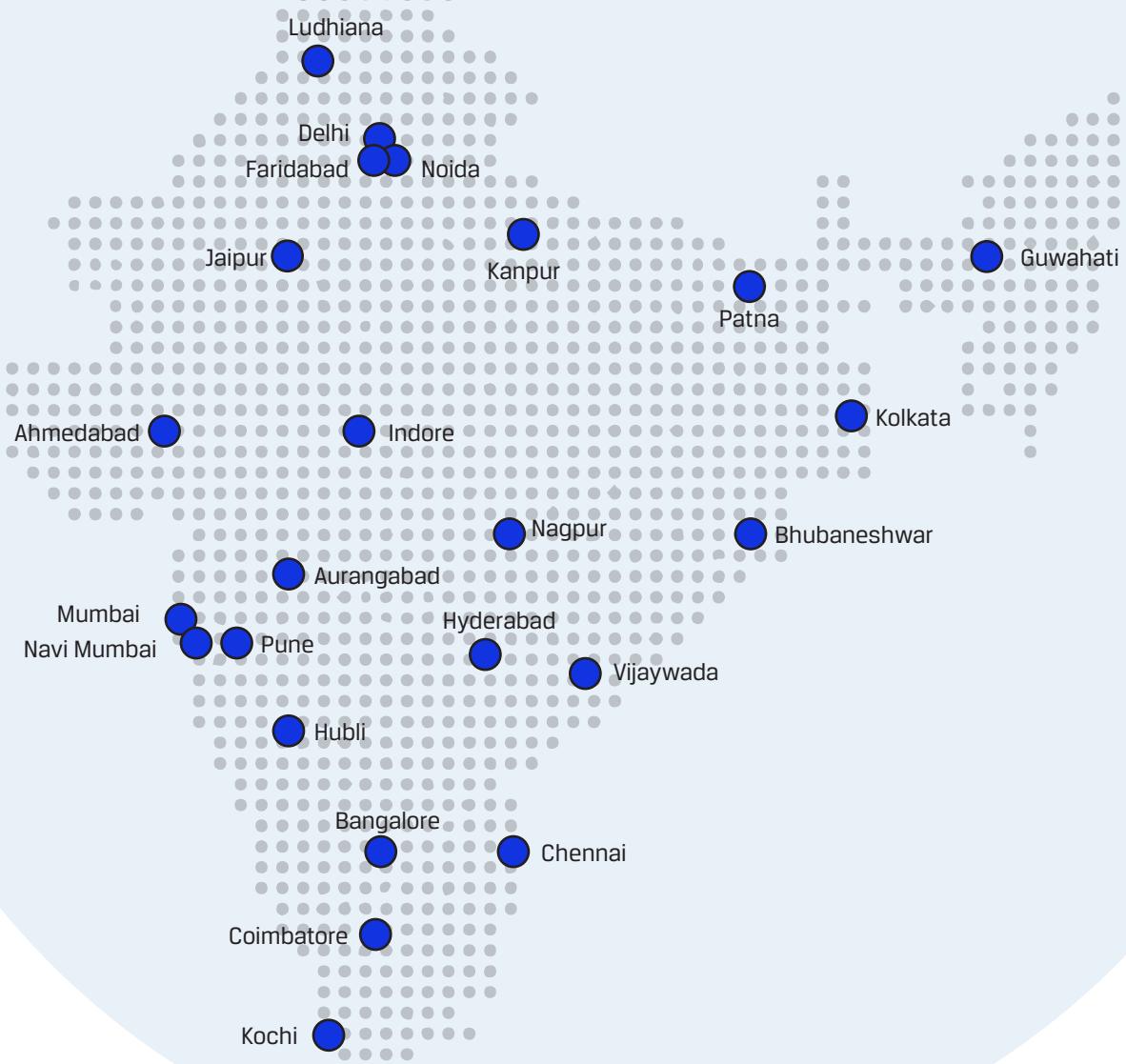
JSW Steel Ltd.
Sai Tower, 3'd Floor,
Rekha House,
New Oak Banglow Road,
Patna - 800 001
Tel.: 0612 - 6696205

PUNE

JSW Steel Ltd.
EPI Centre, 2nd Floor,
CST No 4/6,
Above Royal Enfield Showroom,
Shivajinagar,
Wakadewadi,
Pune - 411005
Tel: (020) 66662300

VIJAYWADA

JSW Steel Ltd
VRN House Corporate,
2nd Floor, 3
8-4-12, Opp All India Radio,
Beside MG Road,
Punnamma Thota,
Vijaywada - 520010









Head Office:

JSW Centre, Bandra Kurla Complex,
Bandra (E), Mumbai - 400 051, India

Tel.: +91 22 42861000

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[Scan here for website](http://www.jswsteel.in)