

CABLE

Solutions For STEEL INDUSTRIES

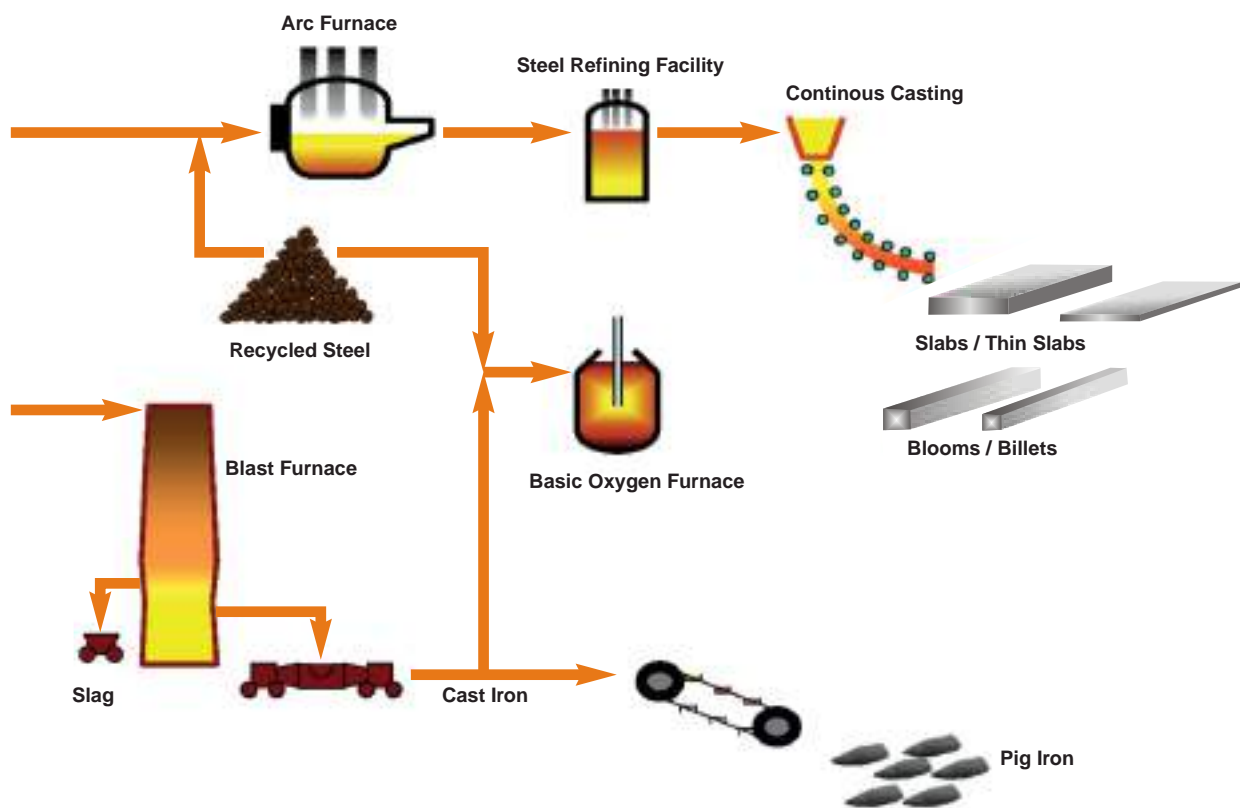
- ✓ Material Handling
- ✓ Oven & Furnaces
- ✓ Rolling Mills & Castors



Steel has become lifeline for modern Lifestyle. We cannot imagine our modern time without steel. Steel is used in skyscrapers, bridges or cars and it is responsible for the stability and flexibility of these steel made constructions.

The manufacturing processes of the steel production have to be controlled optimally. For the different production steps in smelting works and rolling mills, special cables for optimum energy supply and data transmission are used. Drag Chain Cables are used in conveyor belts for Iron Ore, Carbon or Waste Products. At the furnaces and between the different rollers, Special Temperature Resistant Cables have greatest importance. An exact and reliable temperature measurement during the complete production process is of equal importance. The thermocouples installed at the different points of the casting implements transmit the measuring data via Specially Harnessed Cables to a centre from which the complete production process is controlled.

We have special focus on Steel and have developed various Cabelling Solutions for it. Steel being a very highly demanding industry, which require Special Cables for Error Free and Non-stop working. We understand the criticality importance of the Cables design and quality. We have devised a range of Cables for various applications in Steel Industries.



Solution for

Material Handling

- Trailing Cables for Lifts and Cranes
- Flat Cables for Lifts and Cranes
- CRD Cables for Transfer Cars
- Cables for Bulk Handling Systems
- Special Anti Spill Cables
- Drag Chain Cables

Oven & Furnaces

- Silicon Cable
- Trailing Cable
- High Temperature Cables
- Compensating Cables
- Thermocouple Cables
- Drag Chain Cables

Rolling Mills & Castors

- Silicon Cable
- Trailing Cable
- Compensating Cables
- Thermocouple Cables
- Drag Chain Cables

Approvals

IS : 9968-1



CM/L-8651081

IS : 9968-2



CM/L-8835701

IS : 7098-1



CM/L-3113533

IS : 1554-1



CM/L-3113634

IS : 694



CM/L-3113432

IS : 2465



CM/L-8400127710

IS : 14494



CM/L-8660789

IS : 9857



CM/L-8631378



Cert. No. R60117697
EN 50618:2014



Cert No. EU4093



ISO 9001:2015
Cert.No. 62372-2009-AQ-IND-NABCB



Cert.No DQAN/REGN/15/19



Cert.No 20-2052803-PDA
Cert.No 20-2052807-PDA



F. No. TU/IV-RD/3128/2019



RDSO
Research Design & Standards Organisation
Letter No. QAE/8.1.25.1



Cert. No. 4824

Few Customers



SAIL - Bhilai | Bokaro | Rourkela | Durgapur | Salem | IISCO



SAIL - Vishveshwaraya Iron & Steel | Alloy Steel Plant | Chandrapur Ferro Alloy Plant



Jayaswal Neco India Limited



Jindal Steel & Power Ltd.



Corporate Ispat Alloys Ltd.



Jindal Saw Limited, Kutch



Real Ispat Limited



SKS Ispat & Power Ltd.



Rashtriya Ispat Nigam Ltd,
Vishakhapatnam



RR Ispat Limited

SALE to STEEL Plants in last Few Years



Steel Authority of India Limited

Durgapur Plant	₹ 292.00 Lakh
Bhilai Plant	₹ 405.00 Lakh
Bokaro Plant	₹ 751.00 Lakh
IISCO, Barnpur	₹ 90.00 Lakh
Rourkela Plant	₹ 397.00 Lakh



Rashtriya Isptal Nigam Limited

Vishakhapatnam	₹ 302.00 Lakh
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Ferro Scrap Nigam Limited

Bhilai Plant	₹ 13.00 Lakh
Durgapur Plant	₹ 11.00 Lakh
Vishakhapatnam	₹ 2.00 Lakh



Nalwa Steel & Power Limited

Raigarh Plant	₹ 32.00 Lakh
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Monnet Ispat & Energy Limited

Raigarh Plant	₹ 40.00 Lakh
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Simplex Engg. & Foundary Works

Bhilai	₹ 18.00 Lakh
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Steel Works & Power Engrs. Pvt. Ltd.

Gurugram	₹ 68.00 Lakh
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Valley Iron & Steel Co. Limited

	₹ 5.00 Lakh
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and many more

CRD Cables

Due to Material Handling Bulk in Steel Plants areas like Wagon Loaders and Tipplers are heavily loaded and require very robust performance. We have various designs of such cables available with us for better service Life. The following points are taken care of :-

- **Better Core Performance** - A big part of these cables is the performance and health of Cores, which contributes to the life of the cables and reduces the generation of faults. Following areas are concentrated in this regards:- Integrity of Cores- Core integrity has to be very good. Cores or conductors with weak areas i.e. Joints, damages, kinks, and other defects are liable to develop issues in the future.
 - **Less Inter Core Abrasion** - Inter core slip is been promoted in the design of these cables to the extent possible.
 - **Good Core Binding** - Cores are laid and binded (through tapes and reinforcing braids) properly to prevent the formation of kinks in the working life of the cable.
 - **Better Flex Life of Cores** - Cores are made to sustain better flex life.
- **Better Flexibility**
 - **Compounds** - Compounds and materials are designed to provide better flexibility to the cables for both insulation and sheath also including fillers.
 - **Conductor** - The conductor has to be very flexible with proper elongation and defect-free.
 - **Balancing of Cable** - Cables must be designed so that cables are mechanically balanced to ensure that there is no excessive pressure on any one area.
 - **Proper Layed Up Pitch** - The Pitch and formation of the cores have to be decided keeping in view the flex life of the cable.
- **Torsion Performance**

At the time of reeling and un-reeling, some amount of torsional forces also acts on the cables which contribute in a big way in disorganizing the cores. This has to be taken care of, cable should be able to sustain torsion forces on it.
- **Abrasion Properties of Cable**

These cables are continuously subjected to friction in their life hence the compounds that can sustain abrasion must be used for enhanced life.
- **Environment Proof**

As most of the applications are out door and subjected to various harsh environmental conditions, the outer sheath is recommended to be Oil, Fire, Chemical, UV and Water resistant. Further these cables are also required to sustain the temperature in high and low side. These cables are made with Robust Cores without Joints, flexible but strong enough to take inter-core abrasion for long durations. Further, these cables are so designed to prevent kinks in the cable and ensure a low bending diameter for maintaining flexibility.





Spill Resistant Cables

These are Special Silicon-Based cables for Material movement which can take light splashes of Molten Steel. These cables have special construction which allows them to sustain molten steel showers and still be functional. Though if the weight of the splash is high it may still damage the cables.

Elastomeric Cables

We have a wide variety of Elastomeric Cables for Wiring, Control, and Power Applications. These cables have the following strengths:-

- Temperature up to 125 Degree based on grade
- Good Oil and Chemical Resistant
- Good Flexibility and Flex Life
- Very Good Electrical Properties

They are a good choice for putting and areas near to High-temperature machines including Casters, Rolling Mills, Furnaces, Ovens, etc. even for fixed applications. Even though they are rated for temperature lower than what Silicon cables have to offer, their physical strength is much higher comparatively. Further, they are used extensively in Cranes and Lifts due to their long flex life. We can also provide Flat Elastomeric Cables for Lift Systems.



Silicon Cables

Silicon Cables are high-temperature Cables (Upto 180 Degree) for Flexible Application. They can be used as Wires, Control Cables, and Power Cables in areas with high heat exposure like Various types of Furnaces like Blast Furnace, ARC Furnace, Refining Furnace, Basic Oxygen Furnace, etc. and Rolling Mills. Screened Silicon Cables are also available for Electrically Shielded application.

Further, our Silicon Cables are Excellent Oil, Chemical, and Lubricant resistance which makes them safe to use in various areas. These cables are available in following options:

- Silicon Wires
- Silicon Control Cables as per IS 9968
- Silicon Control Cables Screened
- Silicon Control Cables with Sheath
- Silicon Power Cables with Sheath



Thermocouple RTD Cables

Thermocouple Cables with both Extension and Compensating Grades are available in various designs. From Cables rating from 70°C to 600°C are available for various applications. Cables are also based on various classes of Thermography i.e. K Types, J Type, etc. Based on requirements cables are designed and manufactured. RTD cables can also be manufactured with different specifications and based on the requirements of the customer. Transportation Crane Systems / Conveyor Belt Systems

We are having a wide variety of solutions for Lift and Cranes in circular and flat shapes. Various cable designs are available with Elastomeric, TPE, TPR, and PVC polymers for applications like CRD, Trailing, Pendulum, etc. Cables with Power, control, Instrumentation, and data cores can be provided. Cables with compact design for Low Routing Hole Size to cables with high physical strengths are available.



High Temperature Cable



We are manufacturing high-temperature cables with a rating from 90°C to 600°C. Multiple solutions are available in flexible and rigid types and a special range is available for 90°C to 120°C domains with Cables for flexible and rigid types with Water, Oil resistance, Physical Strength, etc. For Cables with temperature rating from 150°C to 260°C the variety shrinks to mainly Silicon, Fluorinated Polymer, and Mineral Tapes. Cables above 260°C are specially designed with high-temperature tapes and textile yarns.

PTFE / FEP / PFA Cables

We are having a big variety of Fluorinated Polymers based Cables and Wires with insulation such as PTFE, FEP, PFA, ETFE, etc. These wires are rated for different Temperature ratings and can be made in various construction i.e. Screen and Screened Control Cables, Wires for Panels, Power Cables, and Instrumentation Cables. Various designs for temperatures ranging from 300°C – 600°C can also be offered.



Drag Chain Cables



These cables are highly flexible cables for high speed and relatively sudden and jerky movements meant for Drag chain Applications. These cables have controlled diameters for installation in Cables Chains and can sustain long movement cycles. These cables can be for Power, Control, and Instrumentation Systems. They are specially designed to take higher flexing life with the use of special high-performance engineering polymers coupled with design strength.

Automation & Instrumentation Cables

Plant Automation and Process Control are new buzz words and the process efficiency and product quality depend on them. We manufacture a wide range of products for fault-free working and high-performance levels for real-time control. We offer a wide range of instrumentation cables based on the latest national and international standards in various high-performance engineering polymers with voltage ranging from highly compact 90V to heavier 1100V range. Data Cables for Digital as well as Analogue applications are available with compact designs up to 90V also. These cables consume very little space and are available in flexible designs also. Even cables with flexible braid armor options are also available. Data Cables for moving applications are also available for various automation requirements.

□ Big range is available including :-

- Instrumentation Cables in PVC / XLPE / PE / EPR
- Data Cables
- Co Axial Cables
- Networking Cables (RS 485, Profibus, Foundation Fieldbus, Canbus etc.)
- Servo, Feedback Cables
- Low Capacitance Cables
- VFD Cables

□ Cables for Load Cell and Automation Weighing Systems

- VFD Cables
- Servo Cables
- **Wires** - Uninyvin, PTFE / FEP Wires
- Instrumentation & Data Cables
- Control Cables
- Drag Chain
- Load Cell Cables

