



STEEL EXCHANGE INDIA LTD

Strengthening our Planet

STEEL IS OUR WAY OF LIFE



Simhadri TMT
WORLD CLASS STEEL BARS





ABOUT

STEEL EXCHANGE INDIA LTD

Strengthening our Planet

Our vision is to participate in the growth of per capita steel consumption by providing quality material and competitive advantage in the sector.

Our strength of the product under constant innovation through high end technologies led to our emergence as the best steel product manufacturer. This drives SEIL into the focus of customer with the stamp of a class of its own standing tall in the industry with a superior quality. The hallmark of forefront organization gearing up to meet the needs of future in the steel sector.

Forging a character of steel, with determination, devotion and dedication over the period of years, we at SEIL, blended years of experience, production excellence and trained technical manpower and the amalgam of brilliance resulted in our setting up a hard working and ambitious enterprise at the precincts of the city of destiny, poised to scale new heights year by year in India.



Vision is art of seeing what is invisible to others

STEEL EXCHANGE INDIA LTD



Strengthening our Planet

ORIGINS

STEEL EXCHANGE INDIA LIMITED was incorporated by Vizag Profiles group in Feb'1999 as Pyxis Technology Solutions Limited. The Company is promoted by First Generation Entrepreneurs. The promoters(Vizag Profiles Group) were originally into trading of steel & steel related products. After gaining substantial experience in steel trading, the promoters decided to gradually venture into steel manufacturing as a backward integration of their strong steel retail & trading business by acquiring Simhadri Steels, a company having a rolling mill at Vizag and setting up an ingot manufacturing unit at Kothapeta in 2004. Later to consolidate & expand its steel manufacturing business SEIL acquired a well-established steel specific B2B portal (www.steelexchangeindia.com).

Under a Scheme of Amalgamation approved by the Members of the Companies, M/s Steel Exchange India Limited (Subsidiary) and M/s Simhadri Steels Private Limited (a company acquired by the group) were merged with M/s Pyxis Technologies Solutions Limited and the name of the Company was changed to M/s Steel Exchange India Limited. The equity shares of the company are listed on the Bombay, Hyderabad and Calcutta stock Exchanges.

During FY 2006-07 the Promoters of SEIL decided to consolidate their entire steel business & with that objective the entire manufacturing & trading business of the Vizag Profiles Ltd., the erstwhile flagship Company of the group having a rolling mill and two wire drawing units was transferred to M/s Steel Exchange India Ltd. SEIL now owns the entire steel business of the group.

Leadership is Transformation of Dreams into Realities

SEIL INTEGRATED STEEL PLANT



Integrated Steel Plant

INFRASTRUCTURE :

Steel plant at Sreerampuram has several advantages - Proximity to Visakhapatnam City, sea ports, air port and Howrah- Chennai main rail line, adjacent to state highway (Araku) as well as rail line to Bailadila mines and availability of water from nearby reservoirs. It has good infrastructure- 400 acre land, private railway siding with 3 tracks, 132 KV substation, well developed roads and residential colony. Within the available land and infrastructure, it is possible to expand plant capacity above 1 MTPA.

3 Lane Railway Sidings



UNITS IN OPERATION



Sponge Iron 2x350 TPD Rotary kilns

SPONGE IRON PLANT 220,000 TPA

The unit had 2x350 TPD kilns and supported by facilities for raw material, water, power and other utilities. Stand alone DRI plant was not economically viable and became sick. The plant was acquired from Goldstar Steel & Alloy Ltd, revamped and successfully brought back to production.

Downstream units added to enable consumption of sponge iron in house. It took considerable time and effort for turning around the plant. Power system was revamped. 132/6.6 KV transformers and 6.6 KV switch gear abandoned. New 2x25 MVA, 132/ 11 KV transformers installed and HT distribution within plant changed over to 11 KV. Separate arrangement made for 6.6 KV power to sponge iron plant.

STEEL MELTING SHOP 3,00,000 TPA :

The unit was setup with 4x25 T, 11 MVA Induction Furnaces and a radial, 3 strand, 4/7 Met continuous caster producing 100 x 100 mm size billets. Belt conveyors & bins installed for transfer & storage of DRI to SMS. Purchased pig iron (10%) and steel end cuts (20%) along with in house produced sponge iron (70%) melted. Ferro alloys added to obtain desired steel composition suitable for rebars.

Other facilities include over head cranes, fume exhaust, oxygen storage, repairs (ladle, tundish and castor moulds), Water system (makeup plant, cooling tower, pumps and emergency tank), DG set for emergency power, electrics and instrumentation & automation systems.



BAR MILL 250,000 TPA :

Continuous and fully automated Bar Mill, producing TMT Rebars FE 500 & FE 500 D to BIS standards in sizes 8, 10, 12, 16, 25, 28, 32 mm and length up to 12 met. Mill is suitable for slit rolling of bars.

Other facilities include reheating furnace, billet charging and discharging equipment, 20 stand continuous mill, roller tables, water quenching, flying shears, cooling bed, cold shear, piling and bundling systems. Auxiliaries include fuel oil storage, coal gasifier, water system (makeup plant, cooling towers and pumps) over head cranes, Weigh Bridge, laboratory, electrics and instrumentation & automation.

Roller table installed for billet transfer from caster and direct rolling, saving fuel cost in billet reheating.





CAPTIVE POWER PLANT 60 MW

CAPTIVE POWER PLANT 60 MW :

Power plant was setup to meet present and future electricity needs of all production units. 2x30 MW turbo generators with air cooled condensers, 210 T/hr circulating fluidized bed combustion (CFBC) boiler and 2x36 T/hr waste heat recovery boilers (WHRB) in flue gas circuit of DRI kilns were installed. Auxiliaries include coal & char handling; bed ash & fly ash handling, DM & aux. cooling water; service & instrument air; 132/11 KV substation & electrics; instrumentation & automation systems.

ESPs of WHRBs revamped. Particulate emission in flue gas of boiler chimneys is less than 50 ppm/ NM³. Provision of air cooled condensers for turbines and dry ash collection minimized water consumption. Reject coal fines and char fully consumed in CFBC boiler as part fuel. Ash issued to brick manufacturers. Apart from meeting captive needs, it exports surplus power to grid, runs at good PLF and earns revenue.

FURTHER GROWTH :

- Plant to Setup with a Capital Outlay of Rs.60.00 Crores for enhancement of SMS. Capacity 1.5 lakhs TPA
- Re rolling capacity of 8mm & 10mm TMT Rebars
- Concast 6 x 11 – 3 Strand
- 30 Tons Induction Furnace

RAW MATERIALS :

The company sources iron ore from NMDC mines in Bailadila, Chhattisgarh state and Indigenous coal from Mahanadi Coal Fields in Odisha State. It imports non coking coal and steel scrap for captive consumption as well as trade. Group companies handle the logistics part.



MARKETING :

A Technically qualified marketing team is always ready to interact with customers and reassure them about the quality of products and handle their needs. Modern communication links help us to be in continuous contact with customers and respond to them instantly. SEIL is having several branch offices across South India with fully computerized marketing network. Steel Exchange India Ltd attains a high level synergy in meeting the everchanging needs of the customer.

HOUSING FOR STAFF :

SEIL has a well planned colony built within its premises for its staff and workers.

POWER & MELTING DIVISION :

The Plant is spread over 13.5 acres at Kothapeta, Ravulapalem near Rajahmundry in AP. The plant has got ISO 9001-2000 certification and also BIS Certification for its products. The plant generates 12 MW of power from natural gas powered by GAIL. The power plant is connected to the APSEB Grid and has agreement for power evacuation. The power is used captively for manufacture steel raw material in its 3 nos. of Induction furnaces.





STEEL EXCHANGE INDIA LTD

STEEL EXCHANGE INDIA LTD UNITS AT A GLANCE

This is located by the side of (Bailadela - Kirandul) KK railway line spread over 450 acres near Kothavalasa at Srirampuram Village. The capacity of the plant is 2.2 lakh tonnes of sponge iron, 3 lakh tonnes of melting steel, 2.5 lakh tonnes of Simhadri TMT Bars.

INTEGRATED STEEL PLANT

QUALITY ASSURANCE :

Simhadri TMT Quality at every step - from the input of raw material to the final product delivered on site. With a highly automated plant and continuous checks at every level, Simhadri TMT is able to produce the best quality rebars in the country. The quality team is equipped with modern testing facilities, which ensure that the products meet stringent norms and quality standards. Simhadri TMT is committed to providing complete satisfaction with respect to quality, delivery and services. Feedback from the customers acts as inputs for continuous improvement on products and services.



LICENCE CERTIFICATION AND APPROVALS :

- Trademark Certification
- BIS Certification
- ISO 9001 : 2008, ISO 14001 : 2004, OHSAS 18001 : 2007 Certification
- Chennai Port Trust Approval
- MES Approval
- DRDO Approval
- DAE Approval
- NPCIL Approval
- CPWD Approval
- Indian Railways Approval
- APSHC
- AP GENCO
- NHAI Approval

PACKAGING AND DELIVERY :

Simhadri TMT Rebars are bundled, strapped and labled in a fully automatic machine with details of size / heat number / bundle number / bundle weight / production date and bar coding, which ensure compact packing and excellent traceability. Bars are supplied from plant in 12 meters length in prime condition by rail or road, either through Simhadri TMT stockyards or directly to customers site depending on the order size, as per customer's convenience, which helps to reduce wastage.



Sectional Weights Weight per Mtr.

Size (mm)	Sectional Wt. (Range) Kg/m	
	Min	Max
8	0.368	0.423
10	0.574	0.660
12	0.844	0.932
16	1.500	1.660
20	2.390	2.540
25	3.748	3.969
32	6.126	6.505

Quality Tables

Passing through stringent quality checks at every stage from rib cutting to rolling and quenching, the TMT Bars display the features of economically competitive, and high endurance.

Thus Simhadri TMT bars strongly recommended for all domestic and high-tech construction needs.

Grade Specifications :

Standard	Grade	Remarks	Yield Strength (N/mm) min	UTS (N/mm) min	% Elongation min
IS : 1786-2008	Fe 415	—	415	485	14.5
IS : 1786-2008	Fe 500	—	500	545	12

Simhadri Ductile Properties

Size	Yield stress	Ultimate Tensile	% Elongation
8MM	530 - 580	620 - 650	20 - 26
10MM	540 - 580	615 - 680	20 - 24
12MM	530 - 580	610 - 670	20 - 24
16MM	530 - 570	610 - 660	19.5 - 21
20MM	530 - 560	615 - 660	19 - 23
25MM	520 - 550	600 - 630	18 - 21
32MM	510 - 530	590 - 620	18 - 20

Simhadri TMT HSCRM - Rebars

Physical Properties :

Standard	Grade	Yield Strength (N/mm ²)min	UTS (N/mm ²)	% Elongation Min
IS - 1786-2008	FE 500	500	565	12-18
IS - 1786-2008	FE 500D	500	565	16-20

Chemical Properties :

IS 1786-2008	C	S	P	S & P	CE
FE 500	0.30 max	0.055 max	0.050 max	0.105 max	0.42 max
FE 500D	0.25 max	0.040 max	0.040 max	0.075 max	0.42 max

Simhadri TMT THE ULTIMATE STRONG STEEL BAR

RESEARCH & QUALITY CONTROL



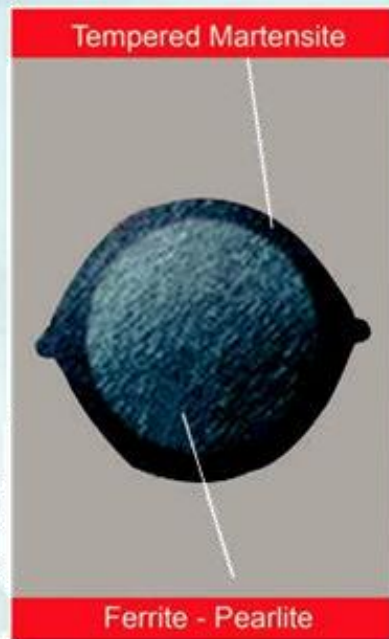
Inbuilt R&D for improvement of product and designing, SEIL is adequately equipped with the latest R&D and quality control facilities having modern lab equipment like spectrometer, UTM, etc. online lab tests are conducted for both chemical and physical properties, at various crucial stages of production with an eye for presence of appropriate percentage of elements e.g. C,S,P, mn, etc. in the finished product.

MANUFACTURING PROCESS



Prime quality billets made from fully killed steel produced by our own steel melting shop are rolled in 20 continuous stands with 3 lopers for tension free rolling of bars to give uniform dia during rolling. The ribs on finishing rolls are cut in a three axis CNC rib cutting machine to maintain uniformity and angle to give good pullout strength properties through out the length of the bars being rolled.

MANUFACTURING TECHNOLOGY



As soon as it leaves the final mill stand the Simhadri TMT is rapidly and energetically quenched through a short cooling installation, where it undergo surface hardening (martensite layer) as soon as this quenching operation is stopped. The surface layer is tempered by using the residual heat left in the CORE of the bar (self tempering of the martensite layer) hence the name TEMPCORE.

The third stage takes place while the product lies on the cooling bed where the bar is subjected to normal cooling down to ambient temperature (transformation of the residual austenite in the CORE).

TENSILE STRENGTH



Higher yield strength & ultimate tensile strength coupled with higher percentage of elongation. The reports for tensile strengths conducted by MATERIAL TESTING HOUSE (INDIA) LTD, (A GOVT OF INDIA ENTERPRISE), BHAGAVATHI ANA LABS LTD, Department of Mechanical Engineering A.U, and SGS International Confirmed high yield Strengths and product is safe and satisfactory.

EXCELLENT BENDABILITY



Bending of TMT bar plays a key role in reinforcement, it helps concrete to resist the stresses and increase the bond strength of concrete and bar. Simhadri TMT steel bar offers excellent bendability and several tests confirmed Simhadri TMT showing superior reverse bending properties.

CORROSION RESISTANT



Simhadri TMT high quality steel bar embedded in concrete shows a high amount of resistance to corrosion. The cement paste in the concrete provides an alkaline environment that protects the steel from corrosion by forming a protective layer (ferric oxide film), because of the TMT process, hardened outer casing forms one more protective layer which prevents further corrosion.

EXCELLENT WELDABILITY



The welding performance is an important indicator of TMT bar. After welding, the microstructure and properties of the weld and heat affected area will change and become weak point of the bar. Simhadri TMT steel bar has In-built ability to resist loss of strength at high temperature, can be butt we lap-welded.

SEISMIC RESISTANT



Simhadri TMT steel bar has high tensile and ductility properties and soft ferrite - pearlite core enables the bar to bear dynamic and seismic loading. Simhadri TMT can with stand to earthquakes and other natural calamities thus recommended for seismic zones.

STRONG & DURABLE



The rib design of Simhadri TMT is unique, external ribs having high surface area running across entire length of TMT bar give superior bonding strength between the bar and concrete. Simhadri TMT certified as per IS - 1786:2008, Simhadri TMT bar is having superior properties such as high tensile strength ductility, bendability and weldability meeting highest quality standards at the international level thus emerged as the strongest steel bar in the market.

QUALITY IS NOT A PRODUCT - QUALITY IS AN ATTITUDE

OTHER GROUP ACTIVITIES

Vizag Profiles Pvt. Ltd :

This company deals with logistics, material handling and storage. This division is well equipped with material handling equipment like JCBs, Tractor Trailers, Transport Vehicles, Heavy Capacity Trailers, Mobile Cranes and 60 tonnes Capacity Weigh Bridge. It has got a fleet of transport vehicles to take care of the logistics. This Division handles around 5 lakh TPA. Vizag profiles is IBA approved Transporter.

Stock Yard & Logistics



Steel Exchange India.com :

Steel Exchange India.com is an online portal for steel industry. It brings together various segments of steel industry like primary producers, secondary producers, re-rollers, fabricators, end-users, traders, raw material suppliers, equipment manufacturers, transporters & other logistic providers, wire drawing & bright bar units, iron & steel foundries, Government Agencies, Builders & Construction agencies, Consultants, Clearing, forwarding & stevedoring agents, New projects, etc onto a single platform. It provides Data bank services , Direct and Exclusive interaction, Global window for exports and imports, Consultancy Services, Bulletin Board Services and Online advertisement for member organizations, a personalized E-mail and chatting facility.

VPL Integral CFS :

VPL INTEGRAL CFS is a joint venture between M/s. Vizag Profile Group and M/s. Integral Trading & Logistics. A special purpose vehicle floated as M/s. VPL INTEGRAL CFS Pvt. Ltd., to operate and manage the Container Freight Station established in a area of 10 acres land, located near Gangavaram Port and adjacent to RINL, Visakhapatnam .

Covered warehouse facility has a capacity 25,000 square feet as well as a designated area for examination and verification of Containers stuffed with General,Bulk and Project cargoes.



Green City EM School :

As a forward-thinking and academically ambitious school, with a strong international dimension, GCES strives for an innovative and imaginative academic curriculum. Our academic life is complemented by attentive pastoral care and full and wide-ranging co-curricular and extra-curricular programmes.

Green City EM School





SRI VAIBHAVA VENKATESWARA SWAMY TEMPLE



CLUB HOUSE



GREEN CITY VILLAS



VPL PROJECTS PVT LTD.

Prestigious Green City project provides modern amenities like :

- Duplex Houses
- Club House
- Gymnasium
- Tennis court
- Children's play ground
- Jogging tracks
- Temple
- Solar water heating system
- Swimming Pool
- Connectivity to internet through broad band, DTH, Telephone, Cable TV, etc.

PARK



SWIMMING POOL



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Strengthening our Planet

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