

QUALITY REDEFINED

**SLRM STEEL**  
SAFE | CLEAN | GREEN



### In a league extraordinaire

SLRM has entered into a joint-venture with Fomento Resources Private Limited. The association has been a shot in the arm for SLRM. It has triggered a stampede of opportunities and prospects. The alliance has made SLRM immune to the crisis of raw materials. Captive mines ensure that steel production remains uninterrupted.

#### Mineral Exploration:

SLRM conducts field survey of unchartered territories and leased land parcels using survey instruments (total station, GPS/DGPS) and software. Core drilling is implemented for mine planning, scheduling and forecasting to convert prospects into potential mineral spinners.

#### Mineral Extraction:

SLRM has roped in sectoral giants for furthering a safe and scientific mining process riding on the back of state-of-the-art technology. Nevertheless, the Company has cautiously treaded and restricted the growth of colossal ecological human footprints on the environment.



#### Mineral Dressing:

SLRM has employed avant-garde innovations for the beneficiation of low grade ores to produce high-grade Sinter Fines, Lumps and Pellet Fines to address market demands.

#### Logistics:

SLRM boasts of an effective logistical network.

## The Dream Run Continues...

We have graduated from the leading Pig Iron manufacturer to steel producers. Our 0.30 mtpa alloy steel plant spread over 300 acres comprises a captive power station (6 MW); a guest house and quarters for executives and work force.

Man, materials and mind-set converged and the result was a steel plant laced with state-of-the-art facilities to churn over

numerous alloy groups comprising various grades of steel.

The industrial landscape is punctuated with several names in the Alloy Steel domain. We aim to rule the roost in the Alloy Steel sector.

SLRM follows Sinter –PCI- BF-EOF- LRF-VD-CCM steel production route, followed by rolling mill.





# A New Star on the Horizon

We are SLR Metaliks; earmarked to emerge as the most bankable name in the list comprising Alloy Steel Manufacturers.



## Blessed with the Tool of Excellence

Excellence is a cultural imperative at SLR Metaliks. It's a truth industrially acknowledged that while some of our sectoral peers lost themselves in a fog of commerce and compromise; we swam against the current.

Since its inception in 2005 in Hospet; the steel city of Karnataka; SLR Metaliks has invested in

innovation and has emerged as a touchstone of quality. Currently; the Company produces 0.32 million tonnes of Alloy Steel annually.

In the year 2012; SLRM has entered into a joint-venture with M/S Fomento Group.

## Vision:

The Company strives to emerge as the leading producer of Alloy Steel in Asia Pacific by 2025 through investing in avant-garde innovations and capacity creation.

## Mission:

Consumer satisfaction figures supreme in SLRM's list of importance. Quality assurance; stripped costs and negotiating timeline crunches without creating

an environment payload are SLRM's gospels. The Company has consistently addressed complex and dynamic demands of consumers through robust engineering.

## Corporate Values:

SLRM vouchsafes transparency, innovation and excellence that trigger a sense of belongingness in its consumers and employees.

## At a stone's throw

The Tungabhadra Dam is in the vicinity and the plant has a logistical advantage since; it's conveniently situated near SH-25 (4.29 Km) and NH-50 (6.5 Km). On the one hand an arterial road connects the plant to SH-25 while; on the other hand the NH-50 ensures that Sholapur and Mangalore are in proximity.

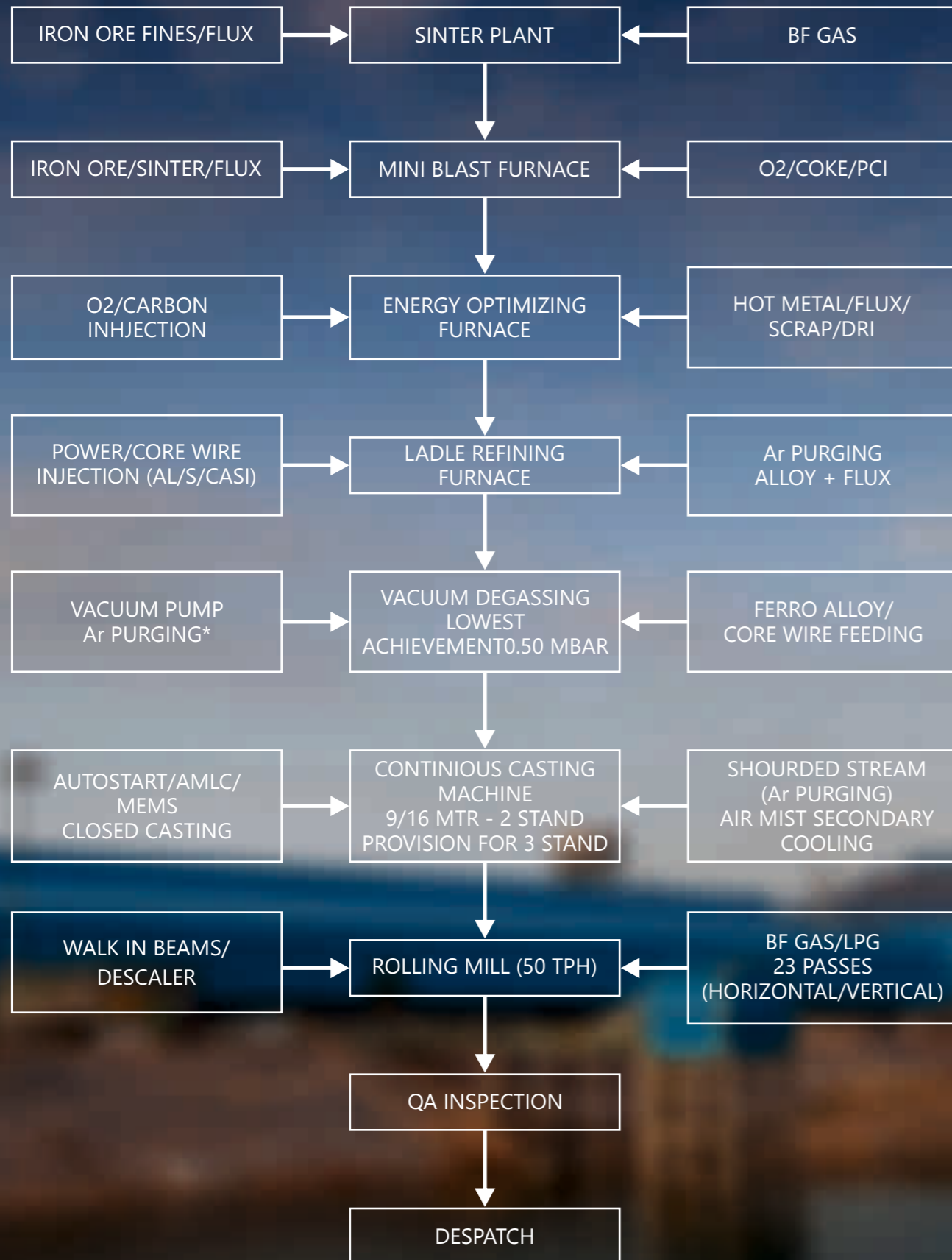
Railway siding facilities rest at a distance of 10 Km. The presence

of Mangalore Port (360 Km); Goa Port (355 Km) and Chennai Port (670 Km) ensures the logistical edge. Hubli Airport (180 Km) and Kempe Gowda International Airport (330 Km) have furthered the accessibility of the plant. The locational advantage of the plant remains unrivalled since; it's connected through road; rail; water and air.





# Process Flow Diagram



# Plant Facilities

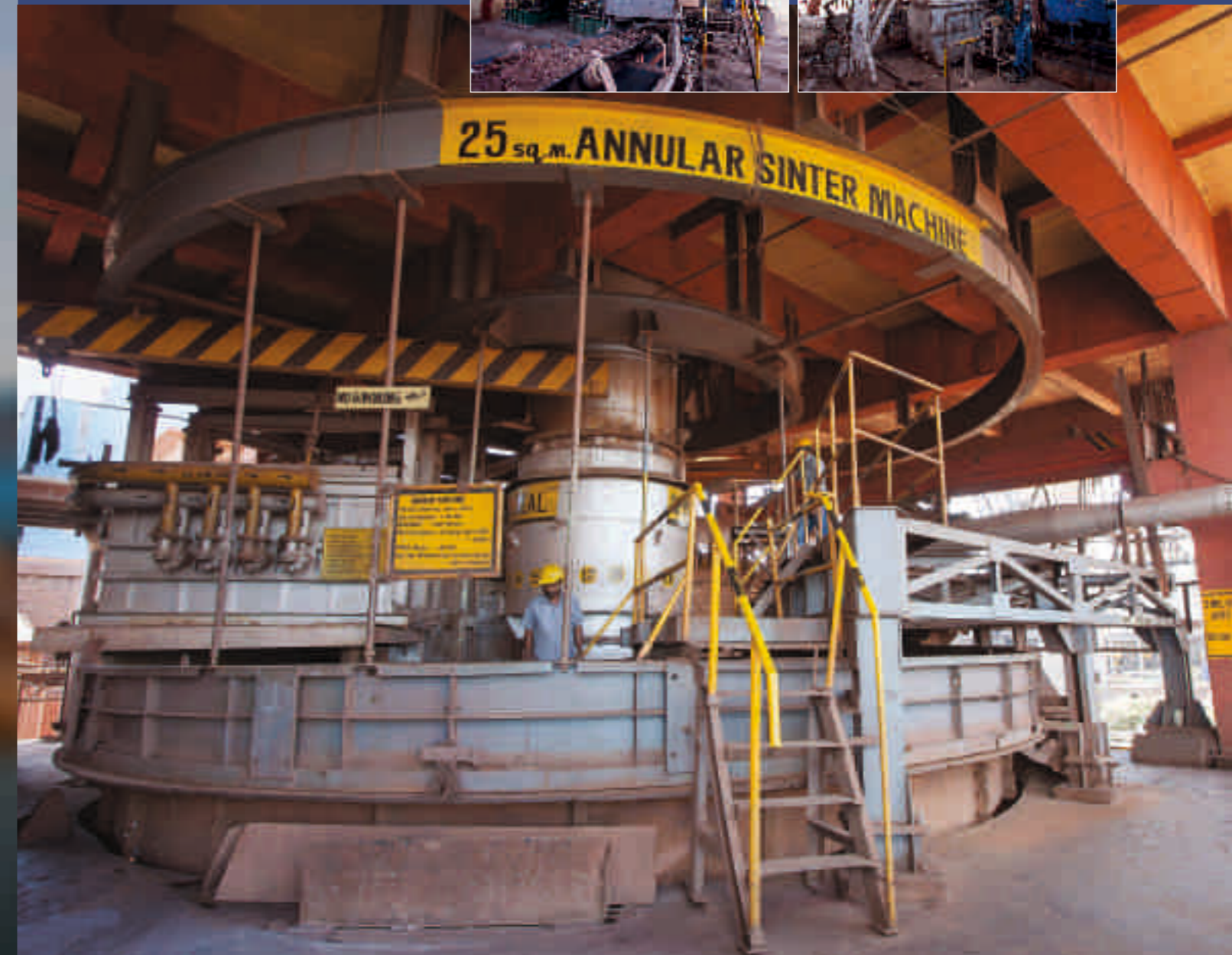
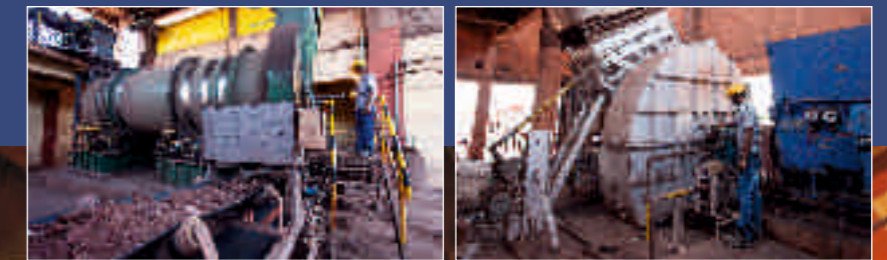
Edges past its peers

SLRM has the following facilities in the Iron and Steel Making Sections for Alloy Steel Production through Sinter - BF - EOF - LRF - VD - CCM - RHF -RM- Garret Coiler:

## Sinter Plant

SLRM is operating a 25 m<sup>2</sup> sinter plant since 2012. Iron ore Fines are processed through the sinter plant to form agglomerates before charging into the MBF. Annual Production capacity is about 3,56,000 tonnes.

Parameter	Description
Sinter Machine	Circular type
Sintering Area	25 m <sup>2</sup>
Size of Sinters	5 to 60 mm
Cooler Area	30 m <sup>2</sup>
Gas Cleaning	Gravity, ESP (52 m <sup>2</sup> X 3)
Capacity	356000 tonnes/annum





## Pulverised Coal Injection System (PCI)

On unit of PCI of 10MT / hr Coal grinding system . Usage of coal reduces total Coke requirement of hot metal production.

Parameter	Description
Input Size of Coal	8 - 20 mm
Output Size of Coal	< 75 micron



## Captive Power Plant

The Captive Power Plant under the consultancy of M/s. CET – SAILCON, installed at SLR utilizes blast furnace gas as basic fuel that doubles up as clean fuel technology. In a smart step for environmental protection, the technology applied is tailor-made to recover enthalpy of Blast Furnace Gases specifically designed to facilitate power generation of 6MW.

Parameter	Description
Fuel	BF Gas
Turbine	9 Triveni Engineers India Ltd
Capacity	6 MW
Technology	Thermax
Air cooled Condenser, Cooling Tower etc	Paharpur





## Mini Blast Furnace

SLRM is operating a 292 m<sup>3</sup> MBF since 2012. Sinter from sinter plant, calibrated lump ore, limestone, dolomite, quartzite, coke are charged into the MBF from top and hot air is passed from the bottom. Ascending oxygen in the air reacts with the carbon in the coke to form CO which reduces the descending iron oxide to iron. Hot metal at required temperature is collected in the hearth at the bottom of the furnace and is tapped periodically and transferred to Steel Melting Shop (EOF). The Annual production capacity is about 2,76,000 tonnes.

Parameter	Description
Total Volume	292 m <sup>3</sup>
Typical Productivity	2.85 MT/m <sup>3</sup> /d
Sinter Usage	70%, typical
Coal Injection	YES
Oxygen Enrichment	YES
Hot Blast Stoves	3 no
Gas Cleaning System	
Technology	MECON INDIA
Capacity	276000 MTPA

## Energy Optimization Furnace (EOF)

Slag free tapping.

Flexibility in metallic charge mix.

Virgin steel with low tramp elements, low phosphorus and low oxygen potential. Oxygen blowing through submerged tuyeres, supersonic lance and atmospheric injection.

Parameter	Description
Size of the furnace	30 / 35 MT
No of Bottom Shells	Two
Hot metal	80% to 85%
Tap to tap time	40 to 50 min
Capacity	343000 mtpa
Technology	Minitec, Brazil







### Vacuum De-Gassing

The objectives of steel de-gassing are:

- Reduction/Elimination of dissolved gases, especially hydrogen, oxygen and nitrogen.
- Better Inclusion control: After processing in LRF, molten steel treated under Vacuum de-gassing, where steel is de-gassed at lowest Mbar as per the process requirement.

Parameter	Description
Capacity	35/40 tonnes
Lowest Vacuum	0.50 mbar
Technology	Siemens/Edward

### Ladle Refining Furnace (LRF)-

In Ladle Refining Furnace ,refining of the primary steel with alloy additions is done. The objective of these process is to make clean steel as per the requirement of the grade .

Parameter	Description
No. of LRF	Two
Capacity	35/40 tonnes
Transformer	8MVA
Wire Injection	Four Strand
Technology	ABP Induction





## Continuous Casting Machine (CCM)

Continuous Casting is a process by which molten steel is solidified into a semi-finished billet or bloom, for subsequent rolling in the finishing mills.

Parameter	Description
Radius	9/16 Meter
Metallurgical Length	26 Meter
No. of Strand	2 + 1
Type of Casting	Closed
AMLC/Auto Start	SMS Concast
EMS	Mould EMS
Sections	130x130;160x160;200x200 160 mmdia;180 mm dia, 200 mm dia
Secondary Water	Air mist
Billet Length	Upto 12 meter
Billet Shifting	TOCB
Technology	SMS CONCAST ZURICH



## Rolling Mill

Rolling mill is state of art technology supplied by M/s Primetals, Italy (Formerly Siemens) on 5 meter elevated platform with sufficient space for operation and maintenance. Mill is configured with vertical and horizontal stands combination of 20 stands. Finishing SBQ steel with 3 additional unique sizing stands to achieve precise dimensional tolerance of the rolled product followed by dimensional gauge for accurate control the rolling dimensional .

High pressure descaler is installed to remove the primary scale from the billets before it enters into roughing stands for better product surface finish. Before and after sizing mill cooling system is provided to control the rolling temperature of the bar to gain better mechanical properties .

Natural cooling is adopted on cooling bed. Cold shear and abrasive saws are installed to meet the requirement. Finally; product is bundled with binding machine before transporting the bars for inspection and conditioning facility.



Parameter	Description
Capacity	320000 tons/annum
Input Billet	160x160; 200x200
RHF	Walking Beam
Fuel	100% BFG & double regenerative
Mill Configuration	Vertical/Horizontal
Total no.of Stands	23
Cooling Bed	54 metre long & 8 meter Wide
Sizing Mill	3 Stands H/V
Cut to length	Cold Shear/Abrasive Saw
Garret Coiler	12 dia to 40 dia



# Quality is our nucleus

Quality figures supreme in our list of importance. We have traversed a path that endorses a qualitative approach. Since, SLRM harps on quality so, training and development to enhance the competence of our employees is a natural progression.

Our in-house team conducts several training and development programmes that add value to the skill-set of our human intellectual capital. We have also roped in agencies and experts for evaluating and enhancing quality. Laced with an in-house library that comprises books on technical and managerial expertise; we have spared no expense to motivate our employees so that they surpass expectations.

We have consistently challenged ourselves and pushed the limits. We believe that action speaks louder and SLRM-QAD is a testimony to it. Our

quality Assurance is well equipped with latest technical equipments which facilitate monitoring of the process at different stages in turn clean steel and desired quality is ensured.

We believe our quality-first approach is the category differentiator. We have catered to the mass with a class unrivalled.



## Inspection and Finishing Facility

Inline automatic inspection line facility gives confidence to our customers & assures of quality product consistency. This automated Technology eliminates human error.

## Testing Facility

- INSMART JAW CRUSHER
- INSMART CUP MILL
- INSMART HYDRAULIC PRESS
- BROACHING MACHINE
- ABRASIVE CUT OFF MACHINE
- LECO CS-744
- LECO ON-736
- LECO DH-603
- THERMO FISCHER 8860
- THERMO FISCHER XRF PERFORMX 300
- UNIVERSAL TESTING MACHINE
- IMPACT TESTING MACHINE
- JOMINY APPARATUS
- ROCKWELL HARDNESS TESTER
- METALLURGICAL STEREO MICROSCOPE
- IMAGE ANALYSER
- MOBILE SPECTROMETER/PMI
- MAGNETIC PARTICLE INSPECTION
- ULTRASONIC TESTING

1. Magnetic Flux Leakage	Pruf Technique,Germany
2. UT Machine	Olympus,Canada(Phased Array)
3. Mobile Spectral testing Station	Amtek ,Germany
4. Bar Straightening Station	Two roll straightener
5. Magnetic Particle Testing	Yes
6. Weighing, Bundling & Packing	Strapping: Bundle weight of 1.5 mt to 2.0 mt





## Product Profile

SLRM manufactures vast variety of alloy and special steels conforming to all international specification for vivid application in Auto sector, engineering railways and defence

### Type of steel

- Carbon Steel
- File Steel
- Alloy steels
- Forging Quality Steel
- Free and Semi Free cutting steel
- Boiler Quality Steel
- Boron Steel
- Cold Heading Steel
- Spring Steel
- Case Carburising Steel
- Bearing Steels
- Micro alloyed Steel

### Product Rang

- **Cast Product (in mm)**  
130x130 square 160 dia  
160x160 square 180 dia  
200x200 square 200 dia
- **Roll Product (in mm)**  
**Round Bars (Dia in mm)**  
16,17,18,20,22,23,24,25,26,28,30,  
32,34,36,38,40,42,44,45,46.5,47,  
48,50,52,53,55,56,58,60,63,65,66,  
68,70,75,80,85,90,
- ◻ **Round Corner Square (in mm)**  
55,63,70,75,80,85,90,
- ⬡ **Hexagon(A/F) in mm**  
20.6,22,23.6,25.5,27,28,30.3,31,  
33,34,36
- ◎ **Coils (Dia in mm)**  
12,13,14,15,16,17,18,20,22,24,26,28,  
30,32,36,40,
- ▬ **Flats(in mm)**  
Width 45 to 105  
Thickness 10 to 28

### Alloy Steel: End Applications

- Transmission Parts
- Engine Components
- Steering Components
- High Tensile Fasteners
- Fuel Injection Pumps
- Bearings
- Braking System
- Suspension Parts
- Wind Mill
- Lifting and Excavation
- Energy and Power
- Defence
- Railways
- Engineering

## Training and Development

An excellent in-house team conducts updated training programmes in consonance with the guidelines prescribed by the HRD. Outside agencies, experts, consultants and several government agencies have been roped in to conduct training initiatives conducive to efficiency and growth. SLRM has trained its focus on creativity and innovation.

The Management has effectively elicited feedbacks from its employees for enhancing productivity and excellence.

SENIOR MANAGEMENT TEAM





# Corporate Social Responsibility(CSR)

Corporate Social Responsibility has gained prominence in the international business community and has become a mainstream activity. It's one of the mainstays of a business organization and in the current business configuration Corporate Social Responsibility is no longer defined by how much an organisation contributes to charity. Currently; the Corporate Social Responsibility of a Company is gauged by its overall involvement in activities that enhances qualitatively people's lives.

There is mounting recognition of the momentous effect the activities of the private sector have on the workforce, clientele, the society, the environment, competitors, business associates, investors, shareholders, governments and others groups. It is also becoming progressively clear that organizations can contribute to their individual wealth and to overall community wealth by taking into account the effect they have on the entire globe when making decisions.

Diverse factors have induced an ever growing interest in Corporate Social Responsibility. Foremost; being the expectations of citizens, consumers, public authorities, globalisation and industrial dynamics. Secondly; an increasing influence of social take away on the investment decisions of individuals and institutions, as investors and consumers. The third factor is the growing concern about environmental degradation.

The wanton disregard of the environment by business conglomerates is a reason enough to scare the living daylights out of environmentalists. The multi-dollar money making enterprises have a moral responsibility towards the society and it is justified that they give back to the community. As aforementioned, corporate social responsibility involves activities that give back to the community, or ensure fairness in the running of activities.

The Organisation has also installed Computers and recruited teachers in the schools located in the vicinity. Free transport facility for students residing in the vicinity of the schools situated within the periphery speaks volumes about the Company's noble initiatives.





# SLRM Think Tank



Audhut Timblo



Rajkumar Goel



Ambar Timblo



Apporva Mishra



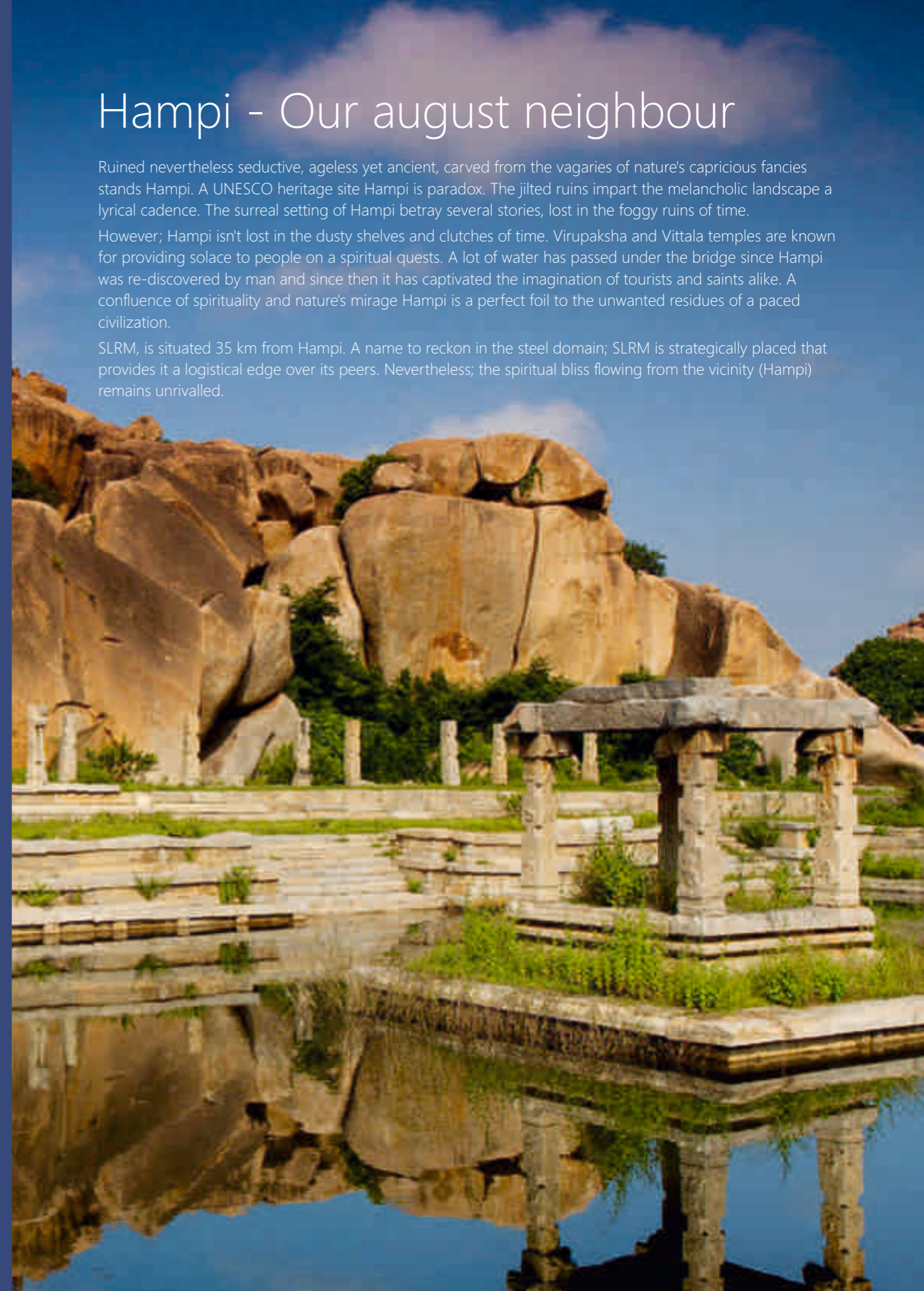
Naresh Goel

## Hampi - Our august neighbour

Ruined nevertheless seductive, ageless yet ancient, carved from the vagaries of nature's capricious fancies stands Hampi. A UNESCO heritage site Hampi is paradox. The jilted ruins impart the melancholic landscape a lyrical cadence. The surreal setting of Hampi betray several stories, lost in the foggy ruins of time.

However; Hampi isn't lost in the dusty shelves and clutches of time. Virupaksha and Vittala temples are known for providing solace to people on a spiritual quests. A lot of water has passed under the bridge since Hampi was re-discovered by man and since then it has captivated the imagination of tourists and saints alike. A confluence of spirituality and nature's mirage Hampi is a perfect foil to the unwanted residues of a paced civilization.

SLRM, is situated 35 km from Hampi. A name to reckon in the steel domain; SLRM is strategically placed that provides it a logistical edge over its peers. Nevertheless; the spiritual bliss flowing from the vicinity (Hampi) remains unrivalled.







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